

Archaeology at Bloomberg

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Excavation in progress at the Bloomberg site in 2012, looking north, with 1 Poultry to the left and St Stephen Walbrook church to the right of the site

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Respecting the storied past

The two interconnected volumes that comprise the Bloomberg building are separated by a covered pedestrian arcade, a reinstated portion of the Roman and medieval and later road that once crossed the site - Watling Street and Budge Row

Our new European headquarters is right at the heart of the City of London. A symbol of Bloomberg's commitment to London and its future, it also preserves and celebrates the past. The building, by Foster + Partners, occupies one of the UK's most important archaeological sites, famous since the 1950s as the site of a temple to the Roman god Mithras.

The archaeological investigations that took place in 2010-14 as part of the building's construction have made the site nationally and internationally important for a second time. The astonishing quantity, range and preservation of the objects recovered from the site make this the most significant archaeological project undertaken in London in recent decades.

As steward of this ancient site and artefacts, Bloomberg has embraced the City of London's rich heritage. And as a company that is centred on communication - of data, information, news, and analysis - we are thrilled that Bloomberg has been at the core of a project that has provided so much, hugely important, new information about the character and development of Roman London during its first century of existence.

Foreword by Michael R Bloomberg



Timber fence c AD 85

The oak horizontal base boards and vertical planking survived remarkably well in the damp ground at the damp ground at the Bloomberg site

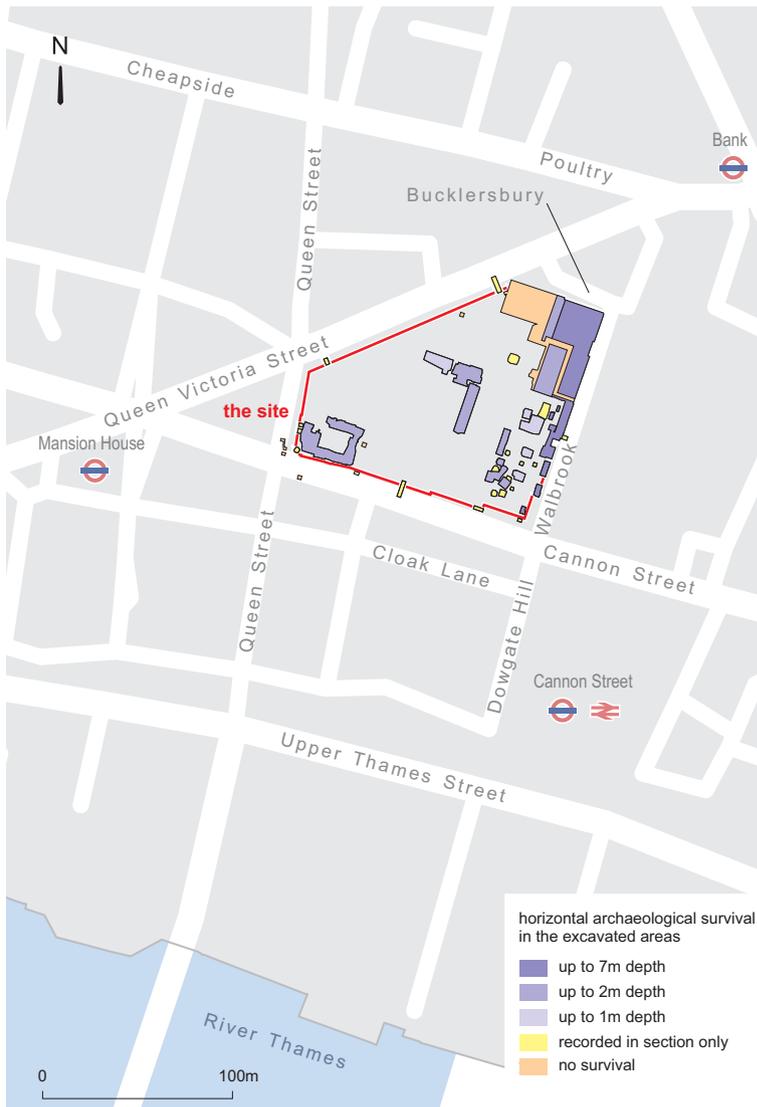
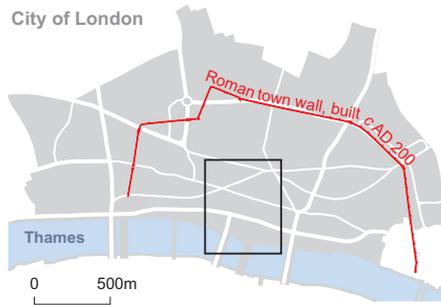
London has been an internationally important trading, industrial and financial centre since at least the 17th century, but its history stretches back nearly 2000 years to its foundation shortly after the Roman conquest of Britain in AD 43. It is located on the lower, tidal reaches of the largest river of south-east Britain, the Thames, which flows into the North Sea. The Bloomberg site lies on the north bank, in the Walbrook valley, in the centre of the Roman town and the medieval and later city.

The Bloomberg site was the most extensive and significant excavation of Roman levels in the modern City of London for 20 years. Why is this site so important?

This low-lying zone was rapidly filled in to raise the ground level and create usable land. In consequence, the site contained a great depth of Roman layers and many, successive, well-preserved timber buildings. The excavated finds assemblage is unrivalled in Roman London, in quantity and range, and includes objects of great intrinsic importance.

The Walbrook stream and natural drainage patterns have kept the ground damp from the Roman period onwards, resulting in exceptional survival of artefacts. The full range of Roman material culture is present, including wooden and leather items. The wooden writing tablets are one example of this: although commonplace in the Roman world, this type of object rarely survives; the 400+ from the Bloomberg site more than doubles the total previously found in London. Study of the Bloomberg artefacts has already contributed enormously to our understanding of both the site and the wider Roman town in its first 100 years, and they will continue to play an important role in future research.

The site contained one of the most evocative Roman remains ever found in Britain – the Walbrook temple to the god Mithras. Its identification in 1954 led to intense public interest in the cult of Mithras. The temple ruins were rebuilt in the 1960s, 100m from their original site. Now, the Bloomberg building has enabled the remains to be newly reconstructed, more accurately and close to the original location of the temple – the London Mithraeum.



Archaeology focuses on recording evidence that will be affected by redevelopment. Only those parts of the Bloomberg site where the new building's foundations exceeded the depth of the pre-existing ones were excavated. Consequently, most of the archaeological information recovered during the main excavation in 2012-14 relates to the north-east corner of the site.

Bloomberg

The site's location in the modern City of London, archaeological survival in the areas of excavation before work began (scale upper 1:50,000, lower 1:4000)



North-east corner

Looking south across the north-east corner of the site in 2012 as excavation takes place in advance of the construction of the Bloomberg building and an access to Bank underground station beneath it

Bloomberg through time

c AD 48 to c AD 410

The Romans arrive

Expanding their empire, the Romans invade Britain in AD 43 and within five years establish a settlement known as 'Londinium'; this rapidly becomes a busy port and crossing point on the Thames. The boundaries of Londinium, which was fortified c AD 200, correspond roughly with the limits of the City of London today.

The Roman conquest of AD 43 brought an island on the north-western fringe of the continent of Europe into direct contact with the far wealthier, cosmopolitan world of the Mediterranean. Before the Romans settled here, the modern City of London and north Southwark - which correspond fairly closely in extent to the area that became the Roman town - lay within a landscape dominated by the Thames and sparsely populated by a people who spoke a Celtic language ancestral to modern Welsh. The Bloomberg site was in a wooded valley, through which the Walbrook stream flowed south to the Thames.



The Walbrook valley before the Romans

Artist's reconstruction of the pre-Roman wooded landscape of the area now occupied by the City of London, looking north-west across the Thames from what today is Southwark; the mouth of the Walbrook stream is centre left, the Fleet river top left

Geoarchaeology (the study of borehole and other data to reconstruct past landscapes) allows us to reconstruct the topography of pre-Roman London in some detail. The River Thames was far broader than it is today (the narrowing is the result of centuries of reclamation) and the incoming tide spread out over a far greater area, meaning that high tide levels (and tidal range) were much lower. To the east, marshes fringed both

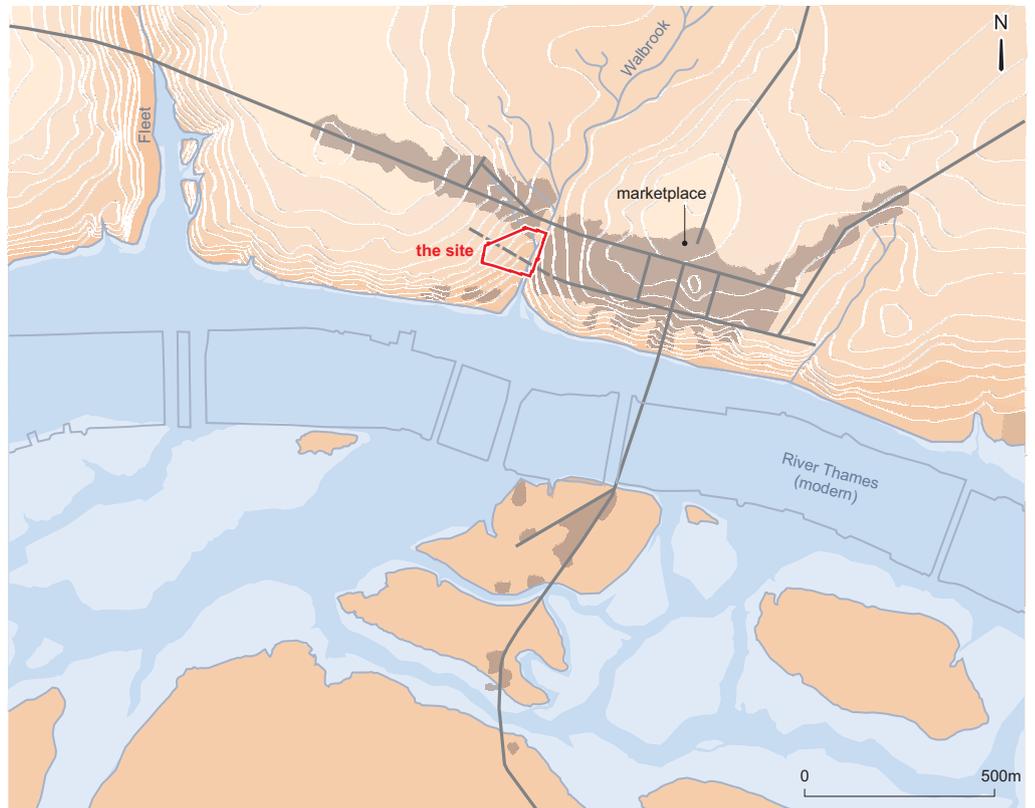
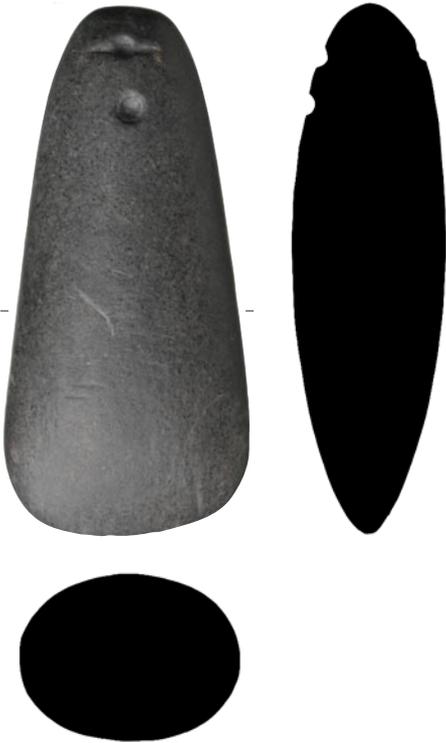
banks of the Thames and would have flooded at high tide. But, in the area of what was to become the Roman town, the marshes of the north bank gave way to two low gravel hills; these were divided by a small stream, the Walbrook (this joined the Thames under what is now Upper Thames Street). On the opposite bank (in what is now Southwark) lay some dry gravel islands.

Timeline

AD 43 Roman
invasion of Britain

Neolithic axe head

This prehistoric stone axe head, modified to be worn as a pendant, was found in Roman levels at the Bloomberg site (length 69mm)



London c AD 60
(scale 1:20,000)

- roads: known and conjectured
- conjectured built-up area
- high tide
- low tide

Julius Caesar had led brief military expeditions to Britain in 55 and 54 BC as part of his campaign to conquer Gaul (modern-day France): the first was disrupted by bad weather and barely advanced further than its beachhead; the second lasted over a month and involved military operations as far north as the Thames, before withdrawing. Caesar's description of his expedition (in *De Bello Gallico*) means that much more is known about Britain at that time than for earlier periods. The River Thames acted as a boundary between tribal groupings, particularly in the estuary. London was not a centre of power or population, although a scatter of farmsteads or small settlements would have lain within what is now the Greater London area. Very little pre-Roman material is encountered on archaeological excavations in central London and there is no evidence for a pre-Roman settlement of any size. The tribal capitals lay away from the river within their respective hinterlands.

Objects of great antiquity are occasionally found in London – stone tools and Neolithic, Bronze Age and Iron Age pottery. And it seems that Roman settlers came across these chance items as well. A Neolithic axe head, present in the Roman levels at the Bloomberg site, had been modified (the grooves and hole at the thin end are there to secure a metal mount) so that it could be worn as a pendant.

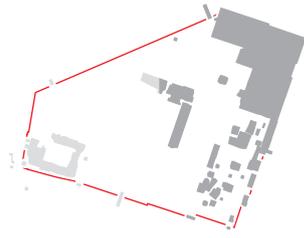
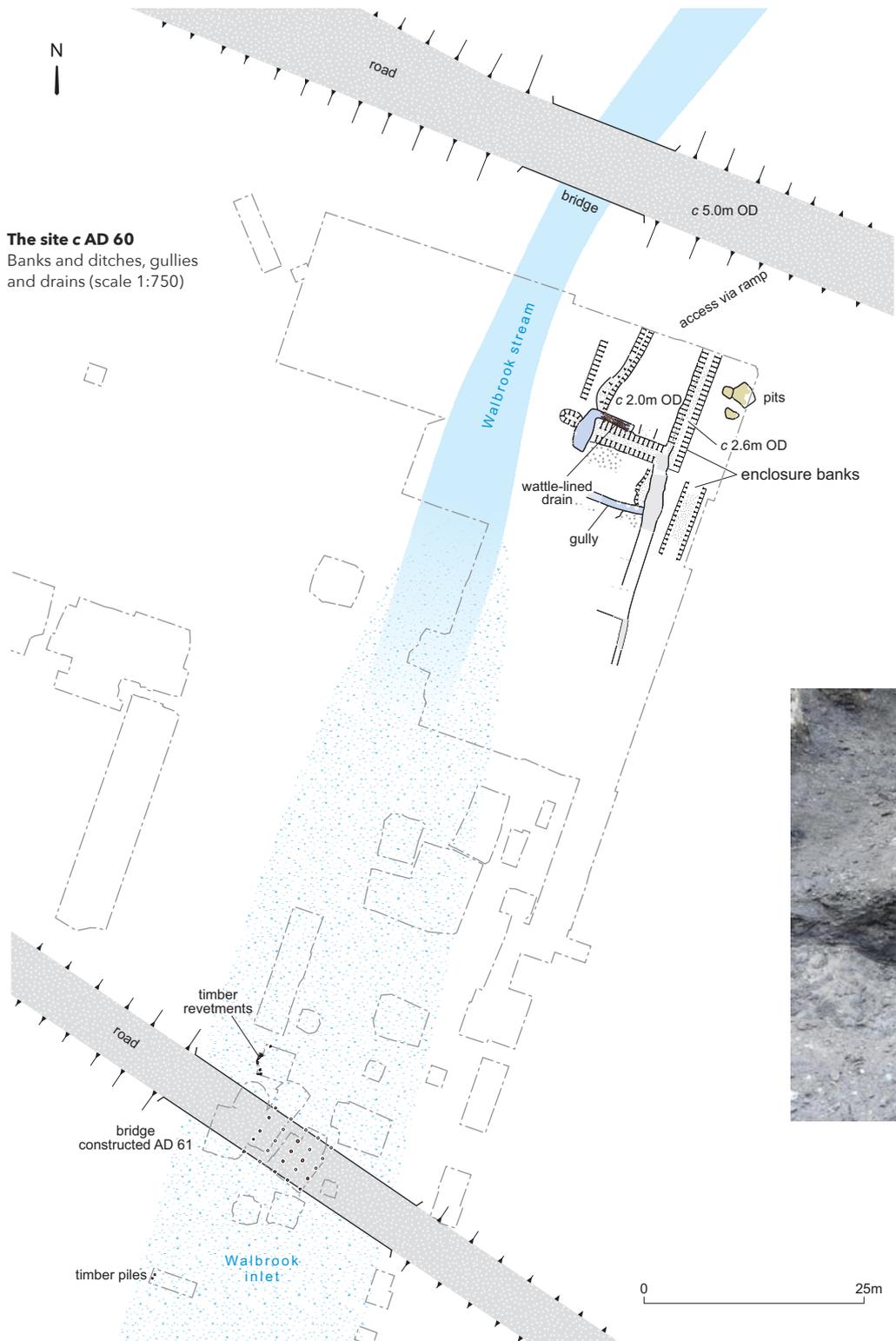
The invasion force that landed in Kent in AD 43 probably consisted of four legions, which with auxiliaries would represent nearly 40,000 men (joined later by 'camp followers', including women). The first objectives were the tribal capitals in south-east Britain and, once the Cantii in Kent (and their capital at Canterbury) were under Roman occupation, the army moved on to Colchester, the capital of the Trinovantes who controlled Essex and south Suffolk. Although Roman control was imposed primarily through military strength, some British tribes, such as the Iceni in Norfolk, seem to have come to terms with the new world order and retained a quasi-independent status as client kingdoms or *civitates*. The Roman expectation was that the

tribal aristocracy would over time conform to the model of the Roman official classes elsewhere in the empire, serving in the legions and acting as local administrators. Roman towns, usually founded at the sites of existing centres of tribal power, played an important role, acting as hubs of Roman influence.

London was a new creation and so an exception to this pattern. Tree-ring dating indicates London was very probably founded about AD 48. Within 13 years it had become the most important place in Roman Britain and its capital. A number of factors account for its success. Firstly, London was the most seaward point at which the Thames and its flanking marshland could be relatively easily bridged and this crossing offered the most direct route for a road connecting Richborough (Rutupiae), the original Roman 'Channel port' in Kent, to Colchester (Camulodunum). A permanent bridge over the Thames could have been in place by c AD 52 if not earlier. London bridge has remained important for almost all the succeeding two millennia and the modern bridge alignment deviates from that of the Roman one by less than 100m.

Colchester was the original choice for the Roman provincial capital, but as more of Britain came under Roman control, London's advantages became more evident. It was a port, close to the tidal head of the Thames, and could act as a distribution centre controlling the largest river valley in south-east Britain. The Roman invasion both created London and made it into a strategically important place. But, as a new foundation, London's development was probably driven as much by economic as political considerations.

What was the composition of London's population in its first decade? Archaeological evidence demonstrates that the settlement was expanding very quickly in the years immediately before the Boudican revolt of AD 60/1 and Tacitus described it as 'very full of businessmen and commerce' (*Londinium ... copia negotiatorum et commeatuum maxime celebre*) (Tacitus, *Annales* 14.33).



Enclosure bank
Section through one of the early earthen banks dating to the AD 50s (0.5m scale); finds from the material brought on to the site to construct the banks included the stylus writing tablet carrying the date AD 57 (facing page)



0 25m

There would also have been some military presence. And as with any town, there were shops and taverns to service the inhabitants.

The main east-west road through Roman London ran immediately north of the Bloomberg site and bridged the Walbrook stream at a point that would now be more or less directly outside the Bloomberg building's entrance on Bucklersbury (although the level of the Roman road was some 6-7m (19½-23 feet) below that of the modern pavement). By c AD 60, a suburb was developing alongside this road, west of the Walbrook stream. A second Roman road was extended westwards to bridge the Walbrook in the southern part of the site. Tree-ring dates from the bridge foundations confirm it was built between AD 48 and AD 61.

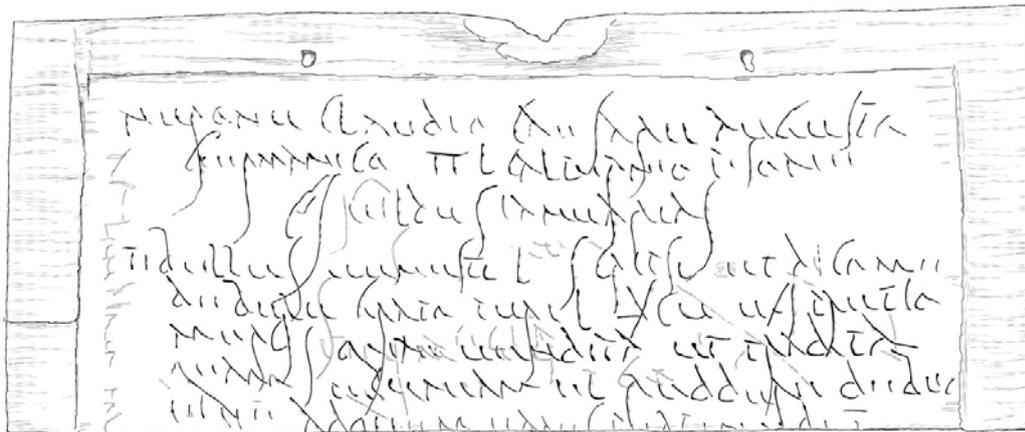
Despite being close to these roads, the Bloomberg site itself was not built upon before AD 60/1 because it was low-lying ground, next to the stream. It was not completely unused: banks and ditches seem to have subdivided it and some metalworking seems to have taken place here.

A total of 12 wooden writing tablets were recovered from these earliest levels of the site, dated c AD 48-60/1. They include a stylus tablet that carries a written date equivalent to 8 January AD 57. This, the earliest internally dated correspondence from Roman Britain, is an object of enormous significance in its own right.



AD 57 writing tablet

Stylus writing tablet dated 8 January AD 57, wherein Tibullus, the freedman of Venustus, writes that he owes Gratus, the freedman of Spurius, 105 denarii from the price of the merchandise which has been sold and delivered (width 137mm)



Roman Londoners

Londinium was a new town founded by incomers to Britain. The early artefacts seem to reflect an immigrant population, including probably some of the soldiers involved in the invasion, as well as an influx of traders and craftsmen eager to take advantage of new economic opportunities. Many are likely to have come from Gaul (modern-day France) and would have been keen to reproduce a way of living similar to that found in Roman urban centres across the Channel; their dress, diet and domestic arrangements were closer to those found in Gaul than those of the native population who lived in the surrounding British countryside. Within a few decades, however, it is likely that Londinium had developed a more mixed population with its own distinctive character, one reflected in the objects in local Romano-British styles that circulated alongside imports.



Above
Excellent organic preservation led to the recovery of leather footwear, such as this intricate one-piece carbatina shoe (length 235mm)



Top, left and centre

Ornate copper-alloy plate brooches illustrate some distinctive, regional, fashion traditions - compare these Continental (left) and Romano-British (right) styles (left, length 36.7mm; right, length 37.9mm)

Above

Iron signet ring set with chalcedony intaglio: the engraving shows an eagle devouring a hare; signet rings could be impressed in wax to seal documents (gemstone, max length 12mm)



Right

Copper-alloy toilet sets are found across the Roman world, but the inclusion of nail-cleaners (with bifurcated tip), alongside the tweezers and ear scoop, is a more distinctively Romano-British feature, suggesting regional differences in grooming (tweezers, length 53mm)

Far right

Glass unguent flask that may have contained cosmetics, perfumes or oils used in Roman styles of grooming and bathing (length 125mm)



The Boudican revolt, AD 60/1

The Romans brutally impose direct rule on the tribal aristocracy, who revolt; led by Boudica, queen of the Iceni, the rebels sack and burn London. Later Roman writers graphically describe the destruction, and the event is visible in archaeological levels across London.

In AD 60/1 the king of the Iceni, Prasutagus, died, leaving his East Anglian kingdom to his daughters with the emperor (Nero) as co-heir, hoping through this arrangement to maintain its semi-independent status. In fact, this was taken as a cue by the provincial government to impose direct Roman administration and treat the Iceni as a conquered people. The lands of the tribal aristocracy were confiscated and, according to Tacitus, Prasutagus' widow Boudica was whipped and her daughters raped. The Iceni rose in revolt, joined by the Trinovantes of Essex, where the creation of the *colonia* (town of army veterans) at Colchester had also led to land confiscations. The principal historical source for the Boudican revolt is Tacitus, who wrote about 50 years after the event and dated it to the year AD 61, although many modern historians believe it occurred the previous year (hence AD 60/1 in this book).

Because most of the Roman army had moved away from south-east Britain - considered pacified by AD 60 - the Boudican revolt initially met little resistance, and when it did the British annihilated a detachment of the *legio IX Hispana* (ninth Spanish legion) sent to intercept them. Boudica was finally defeated by a Roman force at a battle at an unknown location, probably somewhere in the English Midlands. Shortly after, according to the classical sources, she either committed suicide (Tacitus) or died of illness (Cassius Dio). Her age is unknown.

The consequences for London were catastrophic. As the Roman army was engaged in extending Roman control further north and west, the rebels were able to sack three important but poorly defended towns: Colchester, St Albans (Verulamium) and London itself.

London was effectively destroyed. The event survives in the archaeological record as a layer of red, burnt debris, the scorched remains of a town built almost entirely of wood and daub (clay). At the Bloomberg site, which was not yet occupied by buildings in AD 60/1, the characteristic fire debris was absent, but archaeological sites nearby show there were intense fires less than 40m away. Tacitus (*Annales* 14.33) records that 70,000 'Roman citizens and allies' (*civium et sociorum*) died in St Albans and London, although the accuracy or otherwise of this figure can only be guessed at. After a brief period of disarray, the Roman military regrouped and emphatically suppressed the revolt.



British coin

A 1st-century AD native British coin found at the Bloomberg site: this silver coin was minted in East Anglia, the region that rose up in the Boudican revolt of AD 60/1, and has subsequently been pierced through, perhaps to be worn as a pendant or similar; is this a Roman trophy celebrating the suppression of the revolt? (diameter 14mm)

Timeline

AD 60/1 Boudican revolt,
London burns



Boudica

Statue of Boudica
(Boudicea) by Thomas
Thornycroft standing near
Westminster Pier, London

**Destruction**

The walls of a shop about 50m from the Bloomberg site destroyed in AD 60/1; the keying for the wall plaster (which fell off in the blaze) has been fired orange-red by the heat (0.5m scale)

Very little is known about Boudica and it is difficult to disentangle a real person from the romantic myths that have accrued to her ever since her death. Roman writers were as prone to this as more modern authors. In the early 3rd century AD, for example, Cassius Dio wrote:

In stature she was very tall, in appearance most terrifying, in the glance of her eye most fierce, and her voice was harsh; a great mass of the tawniest hair fell to her hips; around her neck was a large golden necklace; and she wore a tunic of divers colours over which a thick mantle was fastened with a brooch. (*Dio's Roman History, VIII*, translated E Cary, 2001 edition, p 85)

The Roman army

The foundation of London may have been a military decision. Alternatively, it may have grown as traders and merchants - mostly from other provinces in the north-western Roman empire - decided to base themselves there. Probably both factors played a role. Finds from the Bloomberg site indicate that soldiers were present in the settlement from the very beginning - perhaps there was a small garrison to guard the Thames river crossing - but the majority of the military objects come from the period after the Boudican revolt in AD 60/1. The army played an important part in the rebuilding of Londinium and in its developing role as a centre for government. Soldiers, bearing arms and wearing distinctive military uniforms, would have been a highly visible component of the population. For those who had decided to settle in London for economic reasons, an influx of troops could have represented a return to security and stability; for any 'native' elements in the area, soldiers would have been a potent symbol of conquest and the Roman oppression that had sparked the revolt in the first place.



Right

Ceramic lamp with stag decoration: in Roman Britain lamps, burning imported olive oil, seem to be most commonly found on sites where the army was present and would have allowed the administrative duties of soldiers to continue into the evening, as well as illuminating other activities (length 81mm)



Top left

Serving in the army was inherently dangerous and bone amulets, such as this one, showing a phallus and a fist making the 'fig sign' representing female genitalia, are common finds on military sites; their symbolism was believed to ward off the evil eye (length 83.4mm)

Above

Some soldiers wore chain mail while others wore plate and scale armour; this hinged copper-alloy fitting comes from the shoulder of a *lorica segmentata* plate armour cuirass (length 60mm)

Bottom left

A diverse range of fighting styles are represented by the range of weapons from the site; these include (left to right) iron spearheads, an iron arrowhead with a slot for attaching a burning rag and a lead slingshot (left to right, length 171mm, 110.8mm, 91mm (bent tip), 36.2mm)

London expands, AD 62 to c AD 140 – ‘a town of merchants and traders’

Londinium recovers – more soldiers arrive in Britain, a temporary fort is built in London, merchants return and life goes on; the town is rebuilt and London, now the capital, booms as the emperor invests in the province.

Pretty much destroyed by Boudica's forces, it took maybe as much as a decade for Londinium to get back to where it had been. But life went on nonetheless. An important stylus writing tablet, recovered from a Roman drain on the Bloomberg site, carries a date equivalent to 21 October AD 62 when one Marcus Rennis Venustus writes that Gaius Valerius Proculus is to bring from St Albans to London, by 13 November, 20 loads of provisions – the town was clearly back in business. London was now too important to be allowed to fail and by c AD 63 a fort had been built north of the Thames bridge. This could mark the point that London was recognised as the capital of the province. The fort, in use for about a decade, would have protected the river crossing and would have provided the reassurance necessary to re-attract settlers. At the same time, new timber quays and warehouses were built immediately upstream from the Thames bridge.

One repercussion of the revolt was that the Roman garrison in Britain was reinforced from Germany by 2000 legionaries, eight auxiliary cohorts and 1000 cavalry. 'Classicus, prefect of the Sixth Cohort of Nervii' is recorded on one of the Bloomberg writing tablets. Classicus was not a common name and this man is almost certainly the historically attested Julius Classicus, who was probably a kinsman and protégé of the procurator Julius Classicianus, appointed to Britain to sort out affairs after the Boudican revolt. Classicus' cohort of Nervii was drawn from tribesmen living in what is now central Belgium; Classicus himself was descended from a tribal leader in Gaul. A decade later, Classicus was back on the Continent and in command of a cavalry wing, but in AD 70 was one of the leaders of a short-lived rebellion by tribes, in what is now the southern Netherlands, against Roman administration. His career is a good example of how imperial Rome worked by co-opting the elites of newly conquered provinces into the Roman aristocracy, but also of the fact that the strategy did not always succeed.

From c AD 70, London began to expand rapidly and for the next 60 years or so the pace of development was intense. The Bloomberg site demonstrates this vividly, with the entire complex of timber-built industrial/commercial buildings that occupied it being expanded or rebuilt every 10–15 years. Admittedly, timber buildings of the type constructed on the site during this period had a limited lifespan, but one usually estimated at c 30 years. All the indications are that Londinium was enjoying a period of considerable economic vitality. A population of some 7000–10,000 in c AD 60 probably more than doubled by the early 2nd century AD.

It is possible that this revival was linked to Vespasian, who became emperor in AD 69. Archaeology has demonstrated that it was during his reign that London first acquired the amenities of a Roman town, including a forum (formal marketplace), large bathhouse and amphitheatre. Some, if not all, of the necessary financial investment would have come from the Roman government. Vespasian had participated in the invasion of Britain as commander of *legio II Augusta* (second Augustan legion), and perhaps he took a strong interest in restoring the fortunes of the province where he had first made his military reputation.

Timeline

c AD 62-80 London is rebuilt; public buildings include a forum-basilica and amphitheatre



London in AD 62 to c AD 100

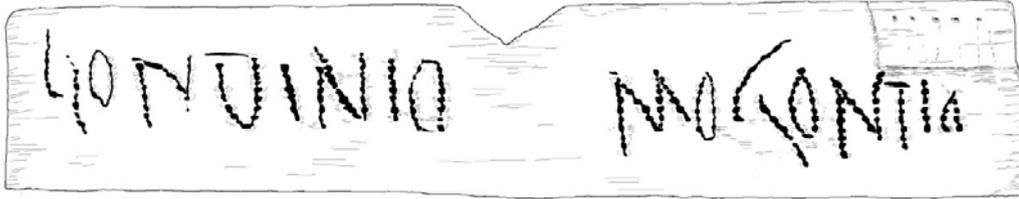
Map showing the Bloomberg site in relation to later 1st-century AD London: a central feature of a Roman town was its forum and basilica, which combined the functions of a central market and meeting place with those of a courthouse and town hall (scale 1:20,000)

- conjectured built-up area
- high tide
- low tide



Vespasian

A brass coin of the Emperor Vespasian (AD 69-79) found at the Bloomberg site: born in AD 9, the (second) son of an ambitious and wealthy Roman family, Vespasian entered public life and worked his way up a path of progressively more important offices and appointments; as commander of one of the legions that invaded Britain in AD 43, Vespasian had led his troops on campaigns in the south and south-west (diameter 28mm)



Londinio

A fragment of a stylus writing tablet, found in ground-raising dumps at the Bloomberg site, carries the address *Londinio Mogontio* ('in London, to Mogontius') scored into its outer face; this tablet, discarded c AD 70 or before, and another, dated AD 62 but less legible, are the earliest representations of the place name 'London' yet known (width 138.7mm)



Walbrook c AD 80

Viewed from south of the mouth of the Walbrook, this conjectural reconstruction shows the timber waterfronts along the Thames and boats beached on the foreshore, timber bridges

over the stream and the densely built-up town on both sides of the valley; east of the Walbrook is the temple and baths complex (far right foreground), with the forum and basilica in the distance (top right)





London in the early 2nd century AD

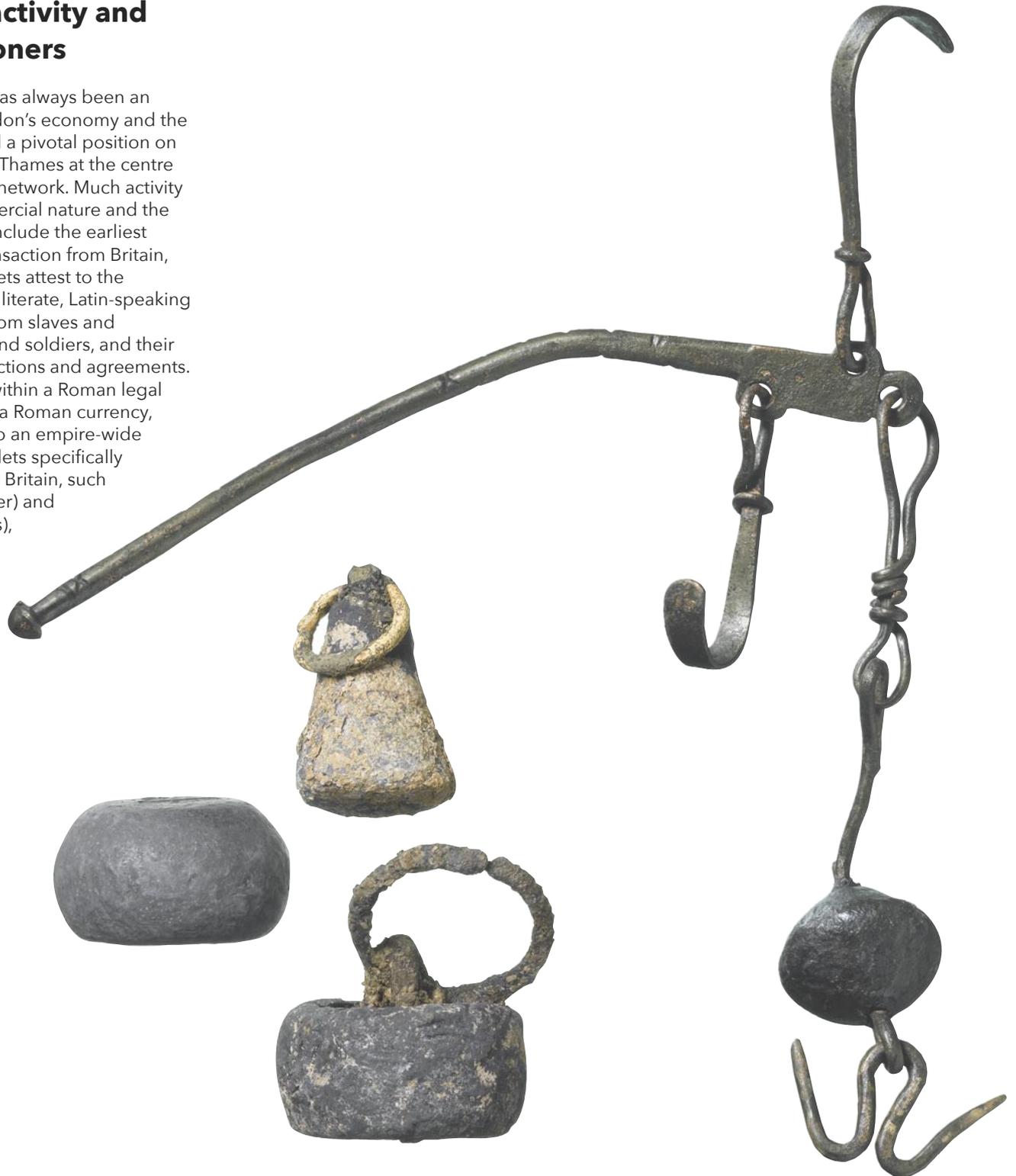
View east along the main west-east road through central Londinium, looking across the Walbrook towards the new and much-enlarged forum and basilica - one of the largest in the western empire - constructed in c AD 100; behind the viewpoint in this artist's reconstruction, and so not visible, is London's amphitheatre of the AD 70s also rebuilt at this time; in c AD 120, close to the amphitheatre, a masonry fort was built that would have housed the governor's bodyguard - a tangible demonstration of London's status as capital of the province of Britain

Commercial activity and literate Londoners

Trade and exchange has always been an important part of London's economy and the Roman town occupied a pivotal position on the banks of the River Thames at the centre of the provincial road network. Much activity was clearly of a commercial nature and the stylus writing tablets include the earliest recorded financial transaction from Britain, dated AD 57. The tablets attest to the presence of a diverse, literate, Latin-speaking population, ranging from slaves and freedmen to citizens and soldiers, and their varied business transactions and agreements. All of this took place within a Roman legal framework, and using a Roman currency, which tied London into an empire-wide economic system. Tablets specifically mention other cities in Britain, such as Viriconium (Wroxeter) and Verulamium (St Albans), but goods were being imported from all over the empire.

Right

Shopkeepers, merchants and craftsmen would have used copper-alloy 'steelyard' balances like this to weigh their goods accurately; many of the weights can be directly related to specific Roman units of measurement, such as the *uncia* (ounce) and *libra* (pound) (steelyard arm length 180mm)





Top left

Almost 700 silver and copper-alloy coins were found, part of currency that was empire-wide; whereas some of these coins were minted in Rome, many represent locally struck semi-official small change, produced with the intention of stimulating the local economy

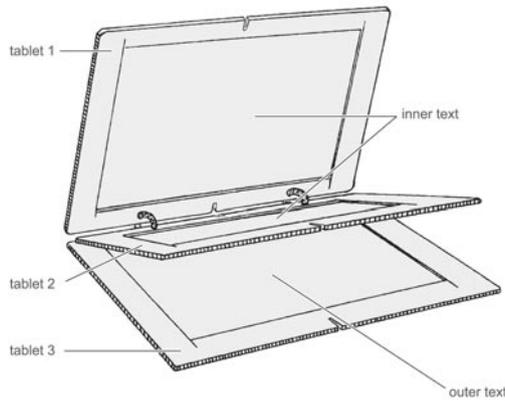


Top right

Cup made in distinctive red-slipped samian pottery imported from Gaul (rim diameter 79mm)

Far right

The most common types of writing equipment relate to wooden stylus tablets: these were strung together into small books, with recessed pages that were covered in wax; text could be scratched into the wax surface with an iron stylus and erased with an iron spatula; when scratches are left on the wood beneath, the text can be recovered (stylus length 133mm, spatula length 109mm)



Bottom

Transactions were facilitated by writing tablets: this complete leaf carries fragmentary text recording a loan; the recess for the wax on which the message was originally written is clearly visible (width 146.2mm)



Building development in the Walbrook valley, AD 62 to c AD 140

From the AD 60s, intensive land-reclamation in the Walbrook valley allows the construction of a succession of timber buildings, both domestic and commercial.

The east-west road running just north of the Bloomberg site was the most important in the town - Roman London's high street - and its Walbrook bridge would have been repaired immediately after the Boudican revolt.

Because it lay on the southern side of this road, the Bloomberg site was a desirable plot for development. Its disadvantage was that it lay in the bottom of the Walbrook valley, c 4m (13 feet) below the level of the road and bridge deck. So, to create usable building plots the ground had to be raised considerably. This first happened c AD 63, when about 0.8m (2½ feet) of landfill was brought in. This was the first example of a process that was repeated frequently over the next 60-70 years: phases of demolition were followed by renewed landfill and the construction of replacement buildings. Other central London archaeological sites have shown that timber buildings in the late 1st and early 2nd centuries AD were short-lived and frequently replaced; nowhere demonstrates this process

as emphatically as the Bloomberg site. Most of the imported landfill was domestic waste generated elsewhere in Londinium, which is why the Bloomberg site is so rich in artefacts.

The first buildings erected along the road were typical of those built in Roman London throughout this period. They were constructed in timber (almost always oak), with the base of a wall formed by a solid baseplate (frequently supported by driven oak piles) into which were jointed vertical uprights to support internal and external walls. These baseplates, often left in place when a building was demolished, survived exceptionally well in the waterlogged ground of the Bloomberg site and can tell us much about the style of timber-framing and carpentry techniques used. The size of the timbers suggests that most buildings were one or one and a half storeys high (with the roof space used for sleeping and storage), with some of two storeys.



Building foundations

Oak baseplate (with rectangular recesses into which uprights were jointed) of one of the timber buildings constructed in the AD 70s

Timeline

AD 122 Emperor Hadrian
visits Britain



A timber 'crib', c AD 70
One of the Roman techniques used to raise the ground level was to build large timber boxes (or 'cribs') along the roadside; the cribs were then infilled with dumped

material to create a stable ground surface at a higher level. Writing tablets found in these landfill deposits include the fragment carrying the address 'in London, to Mogontius' and the Julius Classicus tablet

The floors of the rooms were usually trampled earth or planked; sometimes sawn lengths of plank were laid down in doorways to reduce wear on the beaten earth floors at these thresholds.

The first buildings of c AD 63 were demolished within a decade and in the early AD 70s another episode of landfilling occurred, this time incorporating timber 'cribs' as reinforcement. The ground level was raised by another 0.8m and the Walbrook reduced to little more than a culvert. The four new buildings constructed on the plots included one that was likely to have been a bakery; its back rooms incorporated a bread oven and, nearby, was a circular wattle pen used for storing wood to fuel it. The front part of this building, facing on to the main road, would have been the baker's shop. A small hoard of coins was found buried beneath a threshold on the west side of the bakery; it was common Roman practice to incorporate objects in a building's foundation to bring good luck.

The bakery and the neighbouring buildings were demolished c AD 80, covered over by a new phase of ground-raising - bringing the ground level near the Roman road to c 3m (10 feet) above its pre-Roman level - and replaced by a new group of buildings ranged around an open courtyard. This was an industrial premises: there were hearths in the courtyard and a wattle-lined pit with a timber overflow drain in the eastern building range, one of the best-preserved buildings of all those excavated at the Bloomberg site, with its wattle-and-daub east wall surviving particularly well. One of the rooms at the rear of the courtyard may have been used as an office, since a large group of 19 stylus tablets was recovered from its trampled earth floors.

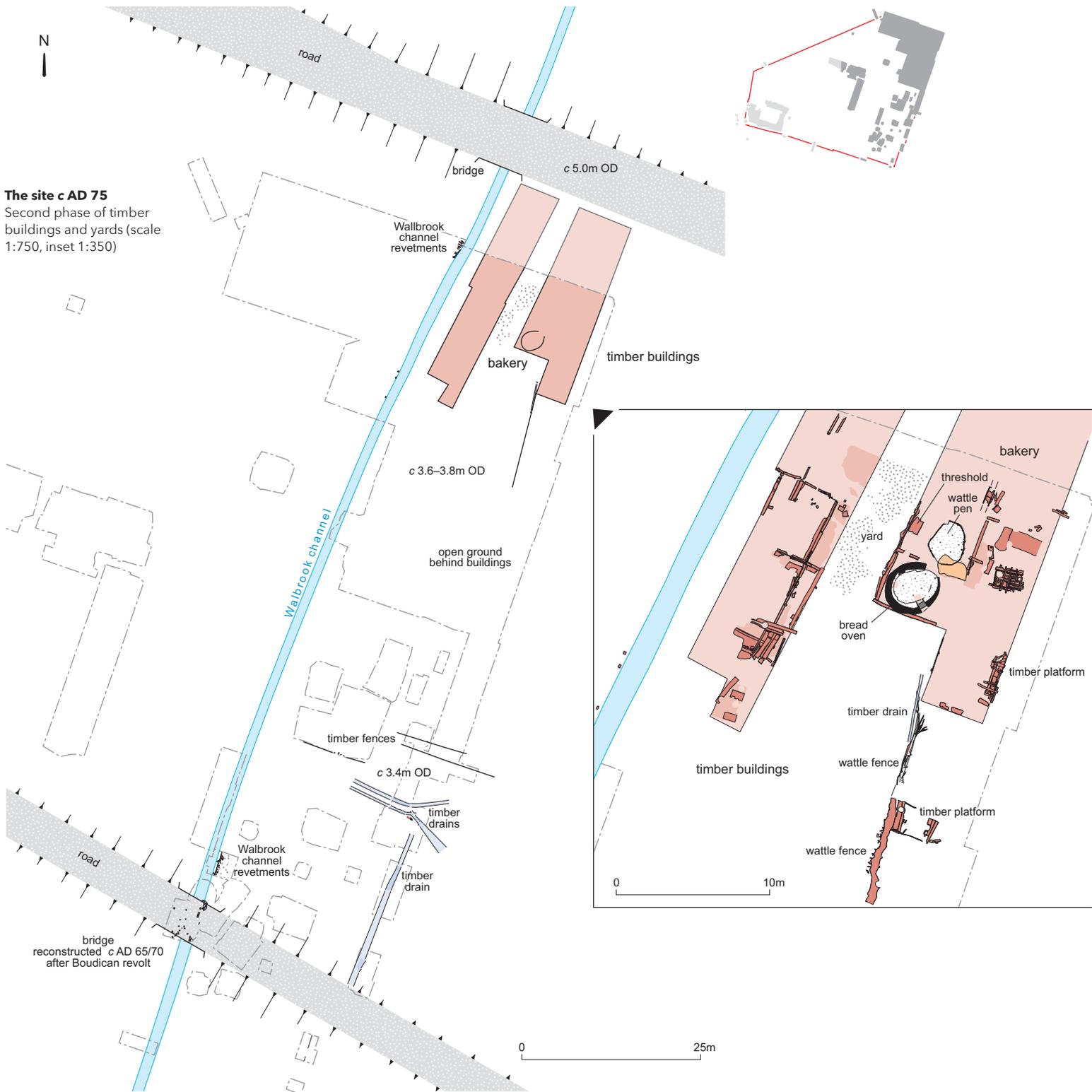
In c AD 90-5, the site was cleared of buildings once again, raised generally by another c 0.8m and the buildings reconstructed wholesale. Many of the wall baseplates were founded on clusters of oak piles, and the similarities in construction suggest that these buildings were erected



A domestic interior
Reconstructed interior of a domestic timber-framed building in 1st-century AD London, with 'whitewashed' wattle-and-daub walls and mullioned and shuttered window (from the 'High Street Londinium' exhibition, 2000-1, Museum of London)

together and again formed components of a substantial industrial building complex. By now, the front rooms would have been at the same level as the road, although the backyards continued to slope away southwards into the Walbrook valley. These buildings survived until they burnt down during the decade c AD 125-35. Evidence for a fire in Londinium at around this time is quite widespread. In a town built principally of wood, localised building fires would have been fairly common, but it is possible that London suffered a major, town-wide conflagration; this is often dubbed the 'Hadrianic fire', after the emperor within whose reign it occurred.

All this development fronted on to the main east-west Roman road under modern Bucklersbury. Buildings in the Walbrook valley along the second road, running across the south of the site, were slower to develop. Although the areas of excavation were smaller in this part of the site, it is clear that buildings were flanking the north side of this road by at least c AD 95.

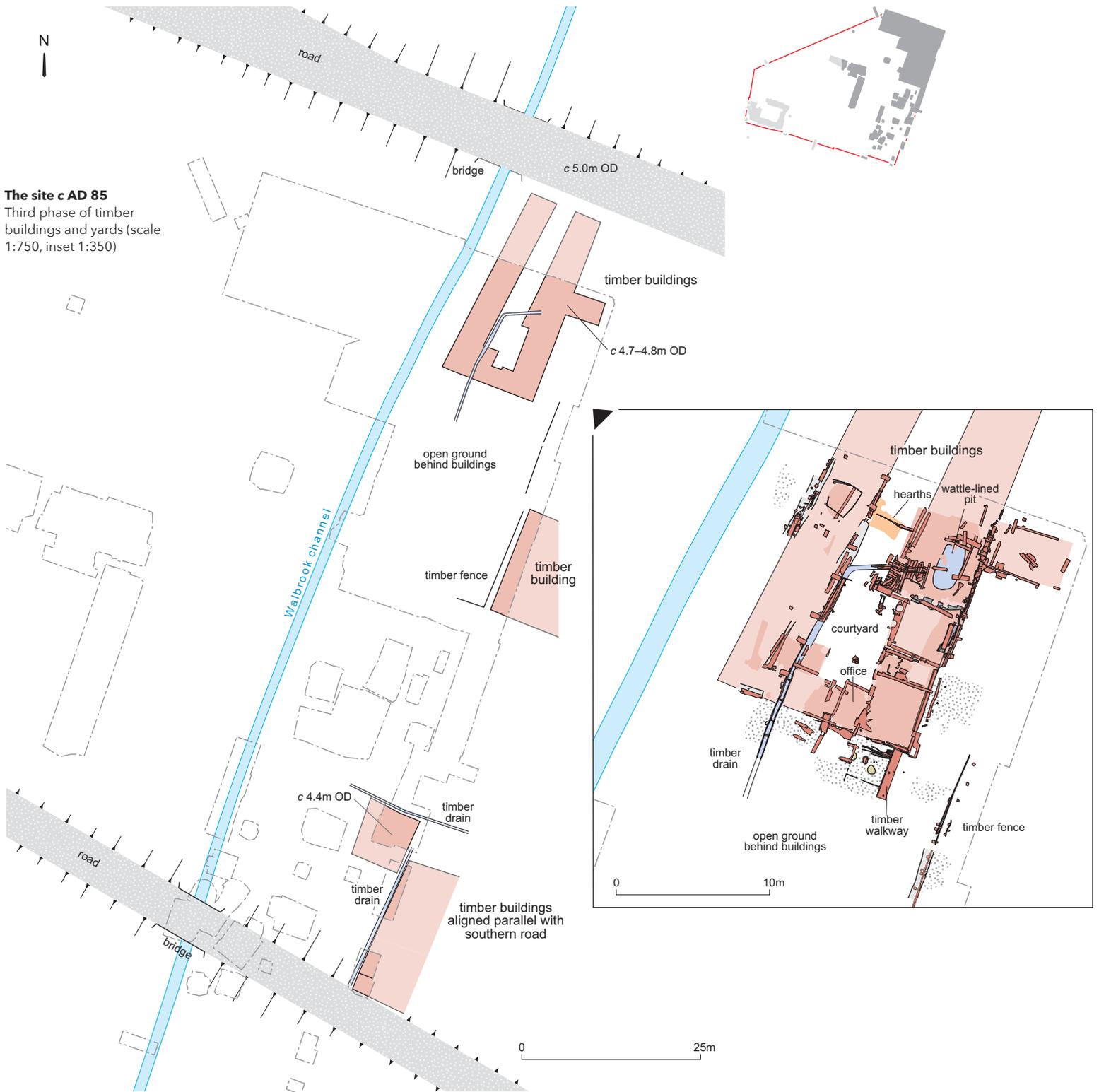




Foundation deposit

Coin hoard (below) and the threshold - a wickerwork 'mat' (left) - of the bakery building under which the hoard had been buried c AD 70: all eight copper-alloy coins are copies of Claudian coins; his successor, Nero, reformed the coinage and the 'donor' may have been disposing of coins that would soon be obsolete (diameters 21 to 28mm)







Wattle-and-daub
Remains of the east wall of the eastern building range, constructed c AD 85; panels of woven wattle were daubed with local clay (0.5m scale)



The 'office', c AD 85
The room at the rear of the courtyard from which most writing tablets associated with this building complex came; the timber baseplates of the walls and floor surfaces survived

Building and supplying the town

Londinium was a port receiving goods from all over the Roman world, but it also had its own businesses and craftsmen, involved in building the town and supplying its growing population. Woodworking tools are particularly common amongst the finds from the site, but many trades are represented by their specialist tools. Very high quantities of

waste from the working of leather and metal suggest that these industries were extremely important. Part-finished metal objects found during the excavation indicate a wide variety of goods being made locally. Other professions represented by the finds include hauliers, bakers, millers, brewers, poultry keepers and butchers.



Right
Fragment of mosaic floor made of stone tesserae arranged in a geometric pattern (width 575mm)



Top left

Roman iron woodworking tools, such as this bradawl (left), mortise chisel (centre) and gouge (right), would be instantly recognisable to a modern craftsman (left to right, length 165mm, 179mm, 144mm)

Top right

The excess metal present around the outer edge of this cast copper-alloy key and its unperforated loop indicate that it was never fully finished (length 41mm)

Bottom right

A ceramic crucible for melting copper alloy (height 49mm)



Later Roman London, c AD 140 to c AD 410

Londinium's character changes: increasingly built of stone, the town is more open, less overtly commercial and less well maintained; Roman administration of Britain ceases in the first decade of the 5th century AD.

The archaeological evidence for Londinium after c AD 140 diminishes in quantity. One reason for this is demonstrated at the Bloomberg site. Its development in the 1950s, despite the identification and preservation of the temple of Mithras, occurred at a time when archaeological work in London was in its infancy and most of the Roman material contemporary with the temple was removed with little or no record. And of course, in general, later Roman London lies closer to modern ground level and so has been more impacted upon by foundations, cellars and basements built across the City of London since the 17th century. Despite these drawbacks, evidence for Roman London after c AD 140 does survive, but on a reduced scale.

And this evidence indicates that Londinium began to change dramatically in character. Firstly, stone becomes a much more common building material. Secondly, later Roman buildings increased in size as individual building plots were amalgamated. The change in material and scale is clearly evident at the Bloomberg site. Evidence for buildings with masonry foundations constructed c AD 140 was found in the north-east and south-west of the site. The building in the north-east included at least one room or internal atrium with a floor of ceramic tesserae. Painted wall plaster recovered from demolition debris over the building indicates something of the internal decor, in which red, green and black were the dominant colours. Thirdly, there is evidence that in parts of Londinium buildings demolished in the later 2nd century AD were never rebuilt but covered over with soil and converted to gardens.

Building stone is not immediately available in the central London area, which lies on clay and gravel, and chalk and limestone had to be shipped up the Thames in barges from quarries in north Kent. But it is likely that large oak of the size useful for building work was becoming scarcer. The dimensions of the oak baulks used in the later 2nd-century AD quays – which were prestige civic projects

and able to command the best materials – are much smaller than those used c AD 75. Timber buildings did not disappear completely. At 1 Poultry, immediately to the north of the Bloomberg site, stone was used for high-amenity extensions, such as private bath suites or formal dining rooms, at the rear of timber buildings fronting on to the north side of the main east-west Roman road. The Bucklersbury mosaic, found in 1869 during the construction of Queen Victoria Street, comes from such a building. The masonry temple of Mithras, constructed during the AD 240s at the rear of a property fronting on to the Roman side road to the east, was not a public building; it was constructed on the initiative of the individual occupying the property.

The cumulative impression is that Londinium was increasingly a town whose principal residents lived in larger, better-appointed buildings, set in a more open townscape including formal gardens. The town was becoming less overtly commercial or mercantile in character and the fortunes of the enormous forum and basilica complex possibly reflect this. From the end of the 2nd century AD onwards, the buildings were poorly maintained and it was demolished c AD 250–300.

This does not mean London was in some form of decline. The construction of the masonry wall around London c AD 200 represented an enormous investment, particularly as the wall may have been as much to demonstrate London's status as to improve its defences. During the second half of the 3rd century AD, the circuit was completed by the construction of a matching wall along the Thames waterfront. This effectively closed off access to the port, once London's *raison d'être*.

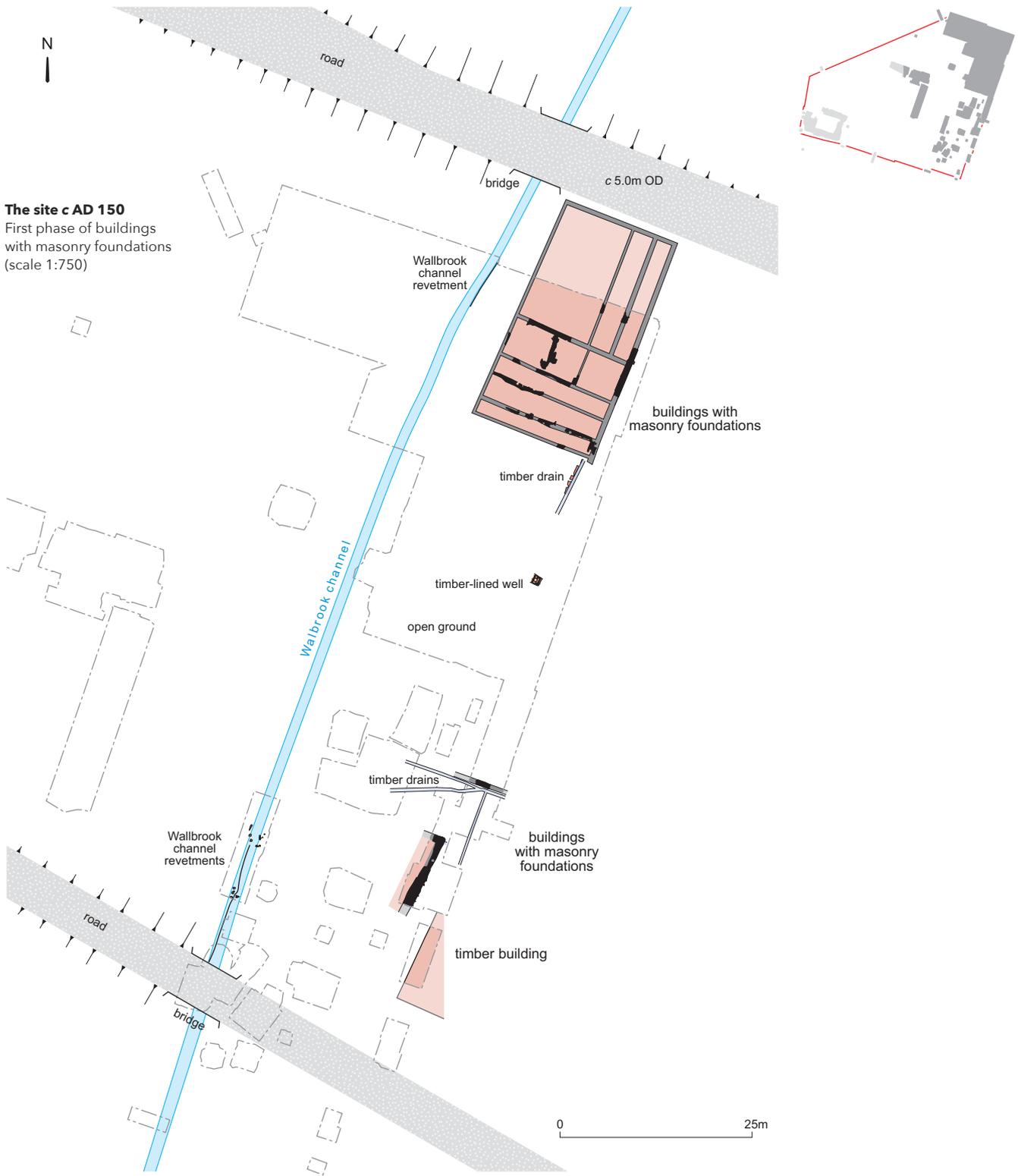
Timeline

c AD 200 London is walled



New building techniques

This building in the north-east of the site was constructed c AD 140 with masonry wall foundations (left) and a floor made of coloured tesserae cut from tile and pottery (right)





The Bucklersbury mosaic
Discovered in 1869 (above,
from *Illustrated London
News*) and (right) a graphic
reconstruction





London c AD 250

View south-east across the Roman town, from close to the stone amphitheatre towards the walled waterfront and London bridge, with the mithraeum and the Bloomberg site centre right in this conjectural reconstruction

London remained an administrative centre but Britain was the north-western extremity of an empire that found itself increasingly stretched, economically and administratively, during the 4th century AD. The last documentary mention of Roman London occurs in AD 367, in connection with the Emperor Theodosius arriving in Britain to restore order after a 'barbarian conspiracy' had left it in chaos. The defensive wall around London was supplemented with bastions at some time in AD 351-75. Most archaeological evidence for London at the close of the Roman period comes from the cemeteries outside the walls, which remained in use until the end of the 4th century AD. The Roman administration and last army units left Britain during the first decade of the 5th century AD.

Bloomberg through time

c AD 410 to the mid 17th century

A diverse medieval city

London is refounded within the old Roman walls in the late 9th century AD and develops trade, political and cultural contacts with northern Europe and the Baltic region. Invaded by Norman French in 1066, over the next 600 years London becomes a truly international and populous city.

After the Romans withdrew, London became virtually a ghost town of ruined buildings with trees and bushes growing in the old Roman streets. South-east Britain was settled by tribal groups coming from northern Europe, and by the early 7th century AD Anglo-Saxon England had started to develop into a number of regional kingdoms, for example Kent to the south of the Thames estuary and East Anglia to the north. After Christianity was reintroduced to Anglo-Saxon England in AD 597, London was one of the first bishoprics established. The episcopal church of St Paul was founded on the top of the western hill of the former Roman town in AD 604, perhaps to evoke a direct connection with the vanished Roman (and Christian) past.

London still had its geographical advantages as a trading place - a convenient port with a vestigial Roman road network radiating from it. However, from the mid 7th century AD to the AD 880s, the trading centre of London - Lundenwic - lay not within the derelict Roman walls but to the west (in the area of modern-day Covent Garden), focused along what is now the Strand (or 'river shore'). In the 9th century AD London was attacked by Vikings and Danes; only in the AD 880s did King Alfred of Wessex regain control of southern England. Alfred moved most of the people and houses back to the area of the old Roman town - Lundenburh.

The archaeological evidence from the City of London for the period c AD 400-880 is extremely sparse and the Bloomberg site reflects this. From the late 9th century AD onwards, however, the site once again becomes central to a developing town. The core of this new 'London within the walls' was the Thames waterfront, either side of the mouth of the Walbrook. Land grants around Æthelred's hithe (modern Queenhithe) dated to the late AD 880s refer to streets, plots of land, a market and tolls, as well as to the 'trading shore'. Until the late 10th century occupation only extended north as far as Cheapside, from which a gridded network of streets (of which Walbrook/Dowgate Hill is one component) ran south to the Thames. The road later called Bucklersbury, diverging south from Cheapside, was in existence by c AD 1000.



Alfredian London

Silver halfpennies of King Alfred, which carry a monogram of the letters LVNDONIA, from the trading shore at Bull Wharf, near Queenhithe, a focal point in 10th- to 11th-century London (max diameter 15mm)

Timeline

AD 604 St Paul's Cathedral is founded



London c 1200

Map showing the Bloomberg site and the position of St Paul's Cathedral, the 100+ parish churches, city walls and roads



The London Steelyard

The 'Stiliard' on the Thames waterfront in Hollar's panorama of c 1647 (left); now under Cannon Street Station but commemorated in 2005 by the British-German Association (above)

London was already a diverse city by the year 1000. Ethnicity was usually thought of in terms of language: there were English and Welsh speakers, some Scots and Irish, and a few French. The Norman conquest of 1066 brought more French speakers. The 'Doche' speakers - Germans and Flemish - increased as London merchants developed links with Antwerp, northern Germany and the Baltic. The 12th-century writer William Fitz Stephen described luxury goods brought to London by traders:

Fine gems from Nile, from China crimson silks;
French wines; and sable, vair and miniver
[types of fur]
From the far lands where Russ and
Norseman dwell.

By the 13th century, London had a trading base (later known as the Steelyard) for the merchants of the Hanseatic League, who brought timber and furs from north-east Europe and the Baltic, and sailed back eastwards with English wool and woollen cloth.

The Norman-French invasion also brought a new aristocracy to power. London became a royal capital in about the year 1100 and the population grew as the city flourished. While the trading town of the 11th century had a population of about 20,000, by 1300 there were some 80,000 inhabitants. Through famine and plague, the city's population had halved to about 40,000 by 1400 but recovered in the 16th century: immigrants from the English countryside, and from France and the Netherlands, swelled the numbers inside the old city walls and in new suburbs. There were 200,000 Londoners by 1600 and probably 400,000 by the time of the Great Fire in 1666.

In religious terms, London was less diverse. The city had an enclave of Jews in the 12th and 13th centuries (the last were expelled in 1290), referenced in street names such as Old Jewry (near the modern Bank of England). Followers of other religions visited: Orthodox Christians from eastern Europe and a few Muslims from Spain and north Africa - traders, sailors and diplomats. But throughout most of western Europe in the Middle Ages there was only one religion, Catholic Christianity. There were more than 100 medieval parish churches in the city and two of these lay on the Bloomberg site: St Antholin and the original St Stephen Walbrook, so-called to distinguish it from, for example, the church of St Stephen Coleman Street a little to the north.

Walbrook: stream, street and district

Walbrook street is named after and roughly follows the east bank of the ancient Walbrook stream – the stream also gives its name to the local civic administrative area or ward – while Bucklersbury is named after the Bukerel family of the 12th and 13th centuries. The medieval parish churches of St Stephen Walbrook and St Antholin lie on the Bloomberg site.

Walbrook is one of the earliest place names known from London. Anglo-Saxon Londoners called the stream the 'Wylrith' or 'Walebroc', probably meaning 'the stream of the Britons', although other interpretations of the name are possible, including 'stream by the [city] wall', 'stream of/from the pool' and 'stream of the slain'. The stream neatly divides the walled city of London in two and so early descriptions of London often distinguish the two areas as west of the Walbrook and east of the Walbrook. Archaeological and documentary evidence both suggest that in the medieval period the Walbrook resembled a ditch more than a river and was not a navigable thoroughfare for boats, unlike the River Fleet a little further west.

By the 13th and 14th centuries there were several small bridges to allow traffic to cross the stream, its banks had to be maintained and it frequently had to be dredged or cleaned. All of this cost the City of London money. So in 1288 the mayor and civic authorities issued an order (one of many) 'that the watercourse of Walbrook should be made free from dung and other nuisances, and that the *rastalli* should be put back again, upon every tenement extending from the Moor [Moorfields, just north of the city walls] to the Thames'. The Latin word *rastalli* probably means timber and basketwork revetment walls to prevent the banks of the stream collapsing. By 1383 Londoners had to pay the City a 2-shilling-a-year cleaning charge if they had a privy (an outdoor lavatory) that discharged into the Walbrook.

The street that ran beside the east bank of the Walbrook stream was itself called Walbrook by the late 13th century. The street on the north side of the Bloomberg site first appears in London's records as 'Bokerelesbury', also in the late 13th century. Bucklersbury took its name from the Bukerel family, in particular their large property ('Bokerelesbury') on the west bank of the Walbrook stream. The road of Bucklersbury crossed the Walbrook stream over a small bridge, and then met Walbrook street (as it does today). In 1291 a working party of men from Walbrook and the adjacent ward

(Cornhill) stated that four particular houses had always had the responsibility of maintaining the bridge. The four owners were named and special marker stones were set up outside their houses as a permanent reminder of their civic duty.

The stream gave its name to the local area, the ward. Since the 12th century and quite possibly much earlier, the City of London was divided into 24 (later 25 and 26) administrative wards. London wards do not correspond neatly with ecclesiastical parishes: Walbrook ward included four historic churches (one of which was St Stephen Walbrook), but their parishes also crossed over into neighbouring wards. This ward was originally known simply by reference to the serving alderman - it was the 'ward of John Adrien' in 1277 - but (like other wards) it gradually adopted a fixed name, Walbrook ward. (The Bloomberg site also includes parts of the historic wards of Cheap and Cordwainer; since the boundary changes of the early 21st century, the site now wholly lies within Cordwainer ward.)

Aldermen had a series of ward officers, ranging from a beadle (who was like a policeman) to a scavenger (who swept the streets). London's historic documents tend to record not the everyday running of the ward, but when things went wrong or crimes were committed. In 1388 John Walcot, alderman of Walbrook ward, sent his beadle to the house of a local man, Robert Stafferton, to summon him to a meeting. Stafferton sarcastically told the beadle that the alderman himself should have come so that Stafferton could have 'kissed his arse'! Stafferton was sentenced for these 'unbecoming words' to 40 days in prison, reduced to three days provided Stafferton joined the Palm Sunday religious procession from his ward to Guildhall.

Timeline

1066 the Norman conquest -
William the Conqueror is crowned
in London

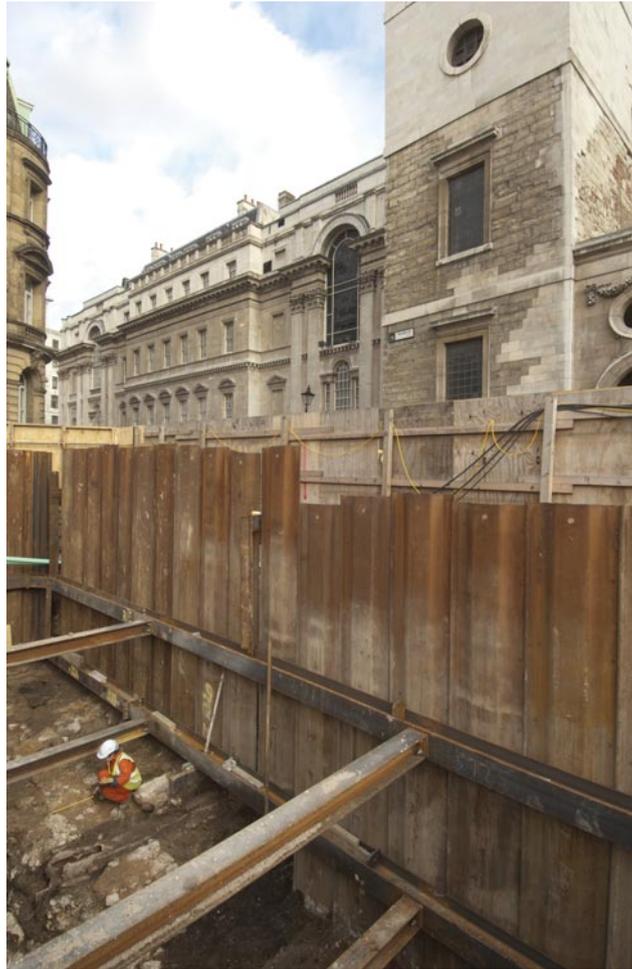


Walbrook

The medieval neighbourhood - wards, parishes, parish churches and their churchyards (with the Bloomberg site outline superimposed in red) (scale 1:10,000)

Two 11th- to 12th-century parish churches – St Stephen Walbrook and St Antholin – lie on the Bloomberg site. St Stephen Walbrook is later documented as forming part of the land donations at the end of the 11th century that paid for the foundation of a monastery of St John in Colchester. This monastery had the right to appoint the rector to the church; the first known rector was Hugh de Marney in 1315. Some of the foundations for this medieval church were discovered at the Bloomberg site. Located between the Walbrook stream (to the west) and Walbrook street (to the east), in 1300 the civic authorities decided that the church’s parishioners were responsible for repairing the Walbrook stream as it flowed through a culvert or drain beside the church. In 1674 – long after this first church had been demolished – the plot of land was surveyed as 77 feet by 30 feet (23.5m by 9.0m), which may indicate the dimensions of the medieval church.

In the south-west corner of the Bloomberg site lay the parish church of St Antholin (? reflecting the pronunciation of that saint’s name by Londoners), also sometimes known as St Anthony or Anthonin. The church is first mentioned in the early 12th century; appointed by the church’s patron, St Paul’s Cathedral, the first known rector was one William in 1181.



St Stephen Walbrook
The foundations of the first, 11th-century, church were discovered on the Bloomberg site; most of the original church was demolished in later centuries



Medieval Guildhall
The centre of the local government of the City of London since the 12th century: the Court of Aldermen, representing the wards, each year elected one of their number to be mayor and the wards also elected ‘good men’ to serve in what was originally the lower chamber, the Court of Common Council

Merchants and humanists: the Bukerels, Thomas More and the Barge

The Walbrook area is home to wealthy merchants, including the Bukerel family; two members of the Grocers' Company rebuild the church of St Stephen in the 1430s on the east side of Walbrook street; Thomas More, scholar and humanist, is living in the 1510s in the part of the old Bukerel property known as the Barge.

The Walbrook and Bucklersbury area attracted a number of wealthy merchants who specialised in importing spices and other luxury goods to London. A John Piper corn is mentioned here in the 12th century and many later inhabitants were members of the Pepperers' Company, who dealt in this and other spices. The properties of these merchants combined domestic houses and warehouses; many were large buildings with internal courtyards, like Pasmers Place or the house of St Paul's and the Bukerels' property on Bucklersbury - this last had three ways in, from Bucklersbury, from Budge Row and a postern to Walbrook. Several Italian merchants had houses and warehouses here, including the Riccardi family from Lucca who were the king's bankers in the 13th century.

The Bukerels were one such merchant family. Between the 12th and 13th centuries various family members served as city sheriff (six times), aldermen (four times) and mayor; two members of the family held national office as royal chamberlain. Andrew Bukerel (c 1170s-1237) was one of the most prominent and wealthy Londoners of the 13th century and almost certainly grew up in the family's Bucklersbury property. An alderman, then mayor of London in 1231, as a merchant and a royal administrator he supplied the royal court with luxury goods such as wine and pepper; he also traded in, for example, cloth and furs, and had business connections all over England and France. In 1220 he even paid some of the costs of the coronation of the young King Henry III.

By the later 14th century Bucklersbury, in particular, was dominated by grocers and their wealth benefited local churches. In the 1420s, two wealthy parishioners of St Stephen's and members of the Grocers' Company, Robert Chicheley and Sir William Standen, paid for a new church on a larger plot of land on the other (east) side of Walbrook street. In May 1429, Chicheley laid two foundation stones for the new church, one for himself and a second for Standen (who had died); the stones were 'wretyen' (written) - they bore the names of the two

sponsors. Completed ten years later, the new church was much larger, about 125 feet by 67 feet (38.0m by 20.5m). The wills of local parishioners provide some details about the interior: there were statues and paintings to saints, including the apostles Peter and Paul, and Mary and Anne, the mother and grandmother of Jesus; and the heraldic coats of arms of Henry VI and John Duke of Bedford, regent for the young king. The English composer and astronomer, John Dunstable (whose patron was the Duke of Bedford), was buried in the church in 1453.

Like St Stephen Walbrook, St Antholin was rebuilt in the early 15th century, but on the same site. The work was paid for by local alderman and London mayor, the merchant Sir Thomas Knowles (or Knollys); he died in 1435 and was buried in the church:

Here lieth graven [in a grave] under this stone
Thomas Knowles, both flesh and bone,
Grocer and Alderman yeares fortie,
Shiriffe, and twice Mayor truly. (Stow 1603, i, p 254)

In the 16th century, the old Bukerel property in Bucklersbury was known as the Barge and divided into several tenancies. The late 16th-century historian John Stow described the Barge as:

... the great stone building, yet in part remaining on the south side [of] the streete, which of late time hath beene called the olde Barge, of suche a signe hanged out, neare the gate thereof. (Stow 1603, i, p 262)

Timeline

1534 King Henry VIII is declared head of the Church of England

Walbrook and Bucklersbury

The area of the Bloomberg site as depicted on the copperplate map of the 1550s

property on Bucklersbury redeveloped in 1405 as a house, shop and warehouse by St Paul's Cathedral and known as the house of St Paul's

the former London townhouse of the abbot of Reading

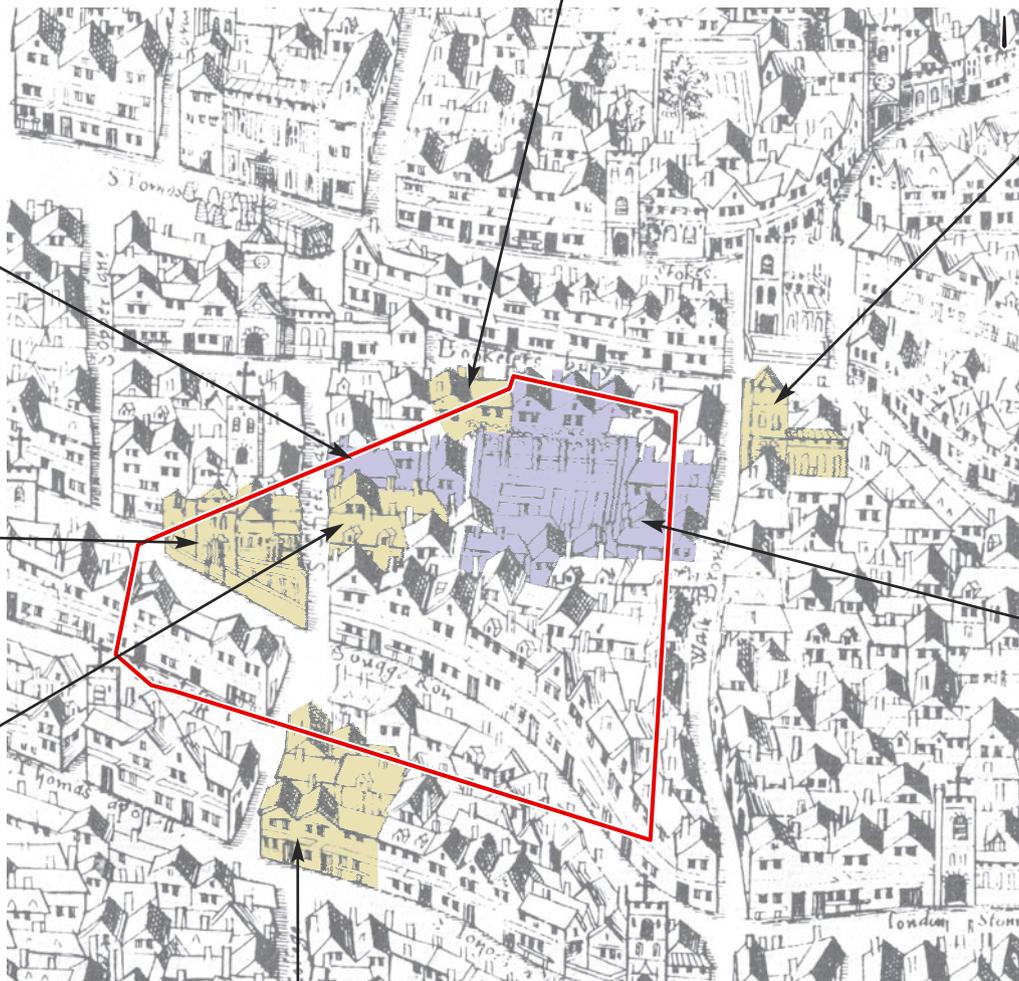
site of the second, 15th-century, church of St Stephen Walbrook

parish church of St Antholin, founded in the 11th or 12th century, rebuilt in the 15th century

the large Bukerel family property known as the Barge

a house owned by the Skinners' Company called Pasmers Place (probably after John Pasmers in the 15th century); later known as Skinners Place

Tower Royal (La Rirole), a large property named after wine merchants from La Réole in France



One of the tenants was Thomas More (1477-1535), a remarkable Tudor Londoner. Born just north of Cheapside, More lived at the Barge from 1505; in 1513, a tenement at the Barge known as 'le Whitehorse' was recorded as let to More. For several years from 1515, More was much on the Continent, acting as a royal servant in trade negotiations. Trained as a lawyer, he rose to political prominence during his time at the Barge, was knighted in 1523 and became the head of the judiciary as Lord Chancellor in 1529. In 1525 More and his large family moved to a manor house in Chelsea.

To his wives (his first wife died in 1511) and family, Thomas More was a kind, witty - and infuriating - man, who believed in educating his daughters in the same way as his son. To visiting scholars and writers, he was a generous host who allowed them to lodge at the Barge. More's circle of English and European, like-minded humanist friends included Desiderius Erasmus who wrote *The praise of folly* (which includes sharp criticism

of the Church) while staying with More at the Barge around 1510. More was himself a prolific writer, most famously his satire on European society, *Utopia* - a fictional island with social systems and practices radically different from his own world. Written mostly in the Low Countries, *Utopia* was published in 1516.

With criticism of the Church gathering pace, More and Erasmus condemned reformers such as Martin Luther in Germany as heretical. And More became a passionate defender of Church unity and Catholic orthodoxy, responsible for hunting, torturing and burning the early Protestants of London in the 1520s and '30s as dangerous heretics. When Henry VIII established the independent Catholic Church of England, allowing him to divorce Catherine of Aragon, More resigned his chancellorship. He continued to argue against the divorce and the split with the Roman Catholic Church; More was tried for treason and executed in 1535.



Thomas More and his family

A late 16th-century copy of the painting by Hans Holbein, with More second left, wearing his Chancellor's chain of office

Objects from the Barge

These artefacts were recovered from a well on the Barge property at the Bloomberg site. The iron ladle (length 313mm) is a good quality object, dating to c 1500-50, of a type that would have been used in the kitchen of a household such as the Mores or Clements; the iron cleaver (length 325mm) may also have been used in a domestic setting. This fine dagger with wooden handle and iron blade (length c 460mm), a 'rondel', is a type that first appeared in the 14th century. The iron rowel spur (length 154mm) would have been worn at the rider's heel - the dangling attachments for now-decayed straps secured it to the foot. The iron adze (length 173mm) is a woodworking tool used for the initial shaping and trimming of timber; the socket would have held a wooden handle at right-angles to the blade



John Clement, More's son-in-law, was imprisoned with him in the Tower of London in 1535, but released; Margaret, More's adopted daughter, attended her father's execution. Clement, More's former pupil-servant and tutor to the family, had moved into More's Barge tenement c 1525 and married Margaret in 1526; More assigned his interest in the tenancy to the couple. Clement kept his position as a royal physician after More's execution, but, as devout Catholics, the couple joined other religious exiles abroad from 1549 to 1554, and again from 1560. Returning in 1554, they found an intruded tenant had stolen goods and allowed the house - comprising some 15 rooms or parts and a formal garden - to fall into ruin and decay.

Among the stolen goods were numerous books in Latin or Greek, 'A great map of all the world', a table of More's, a pair of spurs and a rapier, and kitchen utensils ('A skomer [skimmer] A latten close panne A little pot of pewter' etc). Household and personal items feature among a large group of objects recovered from the backfill of a chalk-lined well excavated in this part of the site - items broadly contemporary with the tenancy of the More and Clement families - and range from a spur and dagger to kitchen wares.



Objects from the Barge

This 15th-century copper-alloy jetton (diameter 27mm) was minted at Tournai, in modern Belgium, and such reckoning counters were distributed all over Europe as alternatives to state coinage

Objects from the Barge

Cast pewter toys and trinkets were popular in the medieval and post-medieval periods. This fragment is part of a miniature house (height 72mm), with a highly ornamented gable-end wall; the undecorated back, clearly not designed to be seen, carries scratched graffiti



Bloomberg through time

1666 to c 1900

The Great Fire of London and reconstruction

The mid 17th century is a time of political turbulence and natural disasters, and in 1666 fire destroys much of the city. London's reconstruction is managed effectively by the authorities and the city recovers quickly; the parish churches of St Stephen Walbrook and St Antholin are rebuilt in the 1670s.

By 1660 London was overtaking Paris as the largest city in Europe and was the capital of a growing British empire, one that now included parts of North America. But the mid 17th century was a difficult time. In the 1650s London was the capital of Oliver Cromwell's republic, which followed the execution of Charles I in 1649. The decade was an austere time for Londoners: evangelical Protestantism was enforced, theatres were closed and sport was discouraged. When Charles II returned in 1660, crowds lined the streets to welcome him and a new golden age seemed possible. But first came war (a series of naval wars with economic rivals the Dutch), then the great plague of 1665 (the last serious outbreak of plague in London) and finally fire (the Great Fire of London).

On the night of Sunday 2 September 1666, fire broke out at the bakery of Thomas Farinor, close to London bridge. Over the next three days and nights the fire spread westwards and northwards, destroying much of the old walled city and continuing westwards beyond the walls along Fleet Street and Holborn. On the following Thursday the fire was put out: the wind calmed, and the king and City of London had organised teams to blow up houses with gunpowder in order to create fire-breaks to prevent it spreading further. On Friday the diarist Samuel Pepys went by boat along the Thames to St Paul's Cathedral and was shocked at the new London that he saw, and at the damage to its mother church: 'all the town burned, and a miserable sight of Paul's church, with all the roofs fallen'.

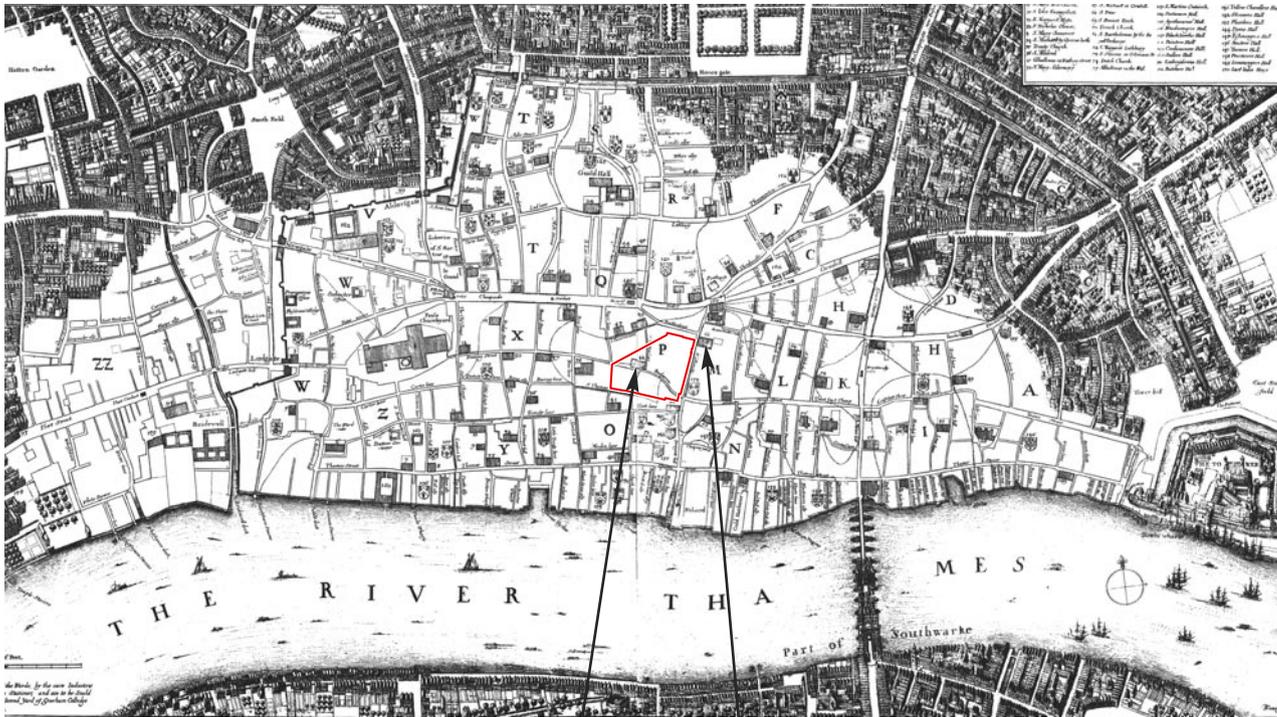
The Great Fire of London

Painted as seen from a boat near Tower Wharf: (left to right) London bridge, St Paul's being consumed by the flames and the Tower of London



Timeline

1666 the Great Fire of London



St Antholin

St Stephen Walbrook

London after the Great Fire

(upper) Leake and Hollar's 1667 map of the fire-damaged city; (lower) detail of Hollar's view of 1666 after the fire, across the Thames, from St Paul's (left) to London Bridge and the Tower (far right)

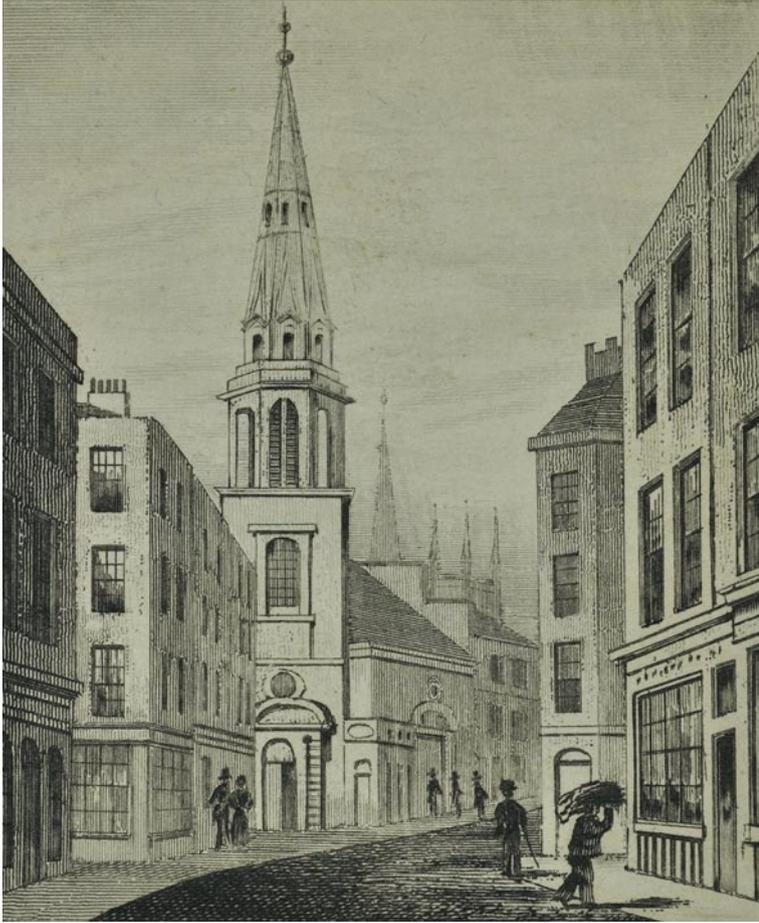


The king and civic authorities were remarkably effective in the process of rebuilding after the fire. Costly and overambitious schemes were discounted; instead, the city would be rebuilt house by house, on the same plots and the same streets. A special Fire Court was set up to establish who would pay in each case. The example of three houses on Walbrook shows what a complicated matter it could be.

In 1631 Isaac Rutton leased the three houses he owned on the corner of Walbrook and Budge Row (the south-east corner of the Bloomberg site) - The Greene Dragon, The Three Conies and The Three Sugar Loaves - to Alexander Jones for 41 years for £30 a year rent. Jones rebuilt The Three Sugar Loaves and lived there, passing the other two houses to his daughter Anne; she and husband John Robinson later rented out both houses to different tenants. All burned down in 1666. Agreement was reached in the Fire Court in October 1667: the two tenants would pay the rent they owed for the time up to the fire and hand their rental agreements back to the Robinsons; the Robinsons would then return their lease to Rutton.

This suggests Alexander Jones had died and the Robinsons could not afford to rebuild; Rutton would have to. So, in March 1668, Isaac Rutton paid the City Surveyor John Oliver to survey the fire-damaged houses. The surveyor had to keep things fair between neighbours, finding the original walls among the ash and rubble, and staking out the lines of the houses. Oliver's drawing, on which he noted all the measurements, survives in the city archives. While individual Londoners had to rebuild the houses, the City of London paid to reconstruct the public buildings and streets, with the help of a special tax on coal imports to London. Thus the City compulsorily purchased (for £54 5 shillings) a strip of Rutton's land along Budge Row in order to widen the street.





St Antholin

Rebuilt in the 1670s by Christopher Wren and demolished in the later 19th century, seen here in an exterior view of 1834



The interior of St Stephen Walbrook

Rebuilt in the 1670s to the design of Christopher Wren and Robert Hooke, seen here in an interior view of 1753

The City and the parishioners of individual churches shared the reconstruction costs of those churches. St Antholin and St Stephen Walbrook were rebuilt in the 1670s, to designs by the celebrated architect Christopher Wren, with help from his assistant Robert Hooke. At St Stephen Walbrook, Wren and the churchwardens laid the foundation stones in December 1672; seven years later they held a dinner at the Bull's Head Tavern on Walbrook to celebrate its completion. The churchwardens gave Wren a large barrel of French claret wine and his wife Jane £10; had she contributed to the new church or was there a family connection to the parish? Jane's mother's family were London merchants and her grandfather Hugh had been an alderman and sheriff. Overall, the church had cost the City and the parishioners £7692, one of the most expensive of the 52 churches Wren rebuilt after the fire.

The 17th-century church of St Stephen Walbrook stands today, opposite the Bloomberg building. This is one of the most remarkable of Wren's churches, thanks to his ingenious architectural effect of disorientation: on entering, the interior seems to be a hall-like rectangle with the altar at the far (east) end; further in, it becomes squarer, with a large central open space; but looking up, the church transforms into a circle, the dome. This was Wren's trial run for the great dome of St Paul's, which he finished three decades later. As well as Wren and Hooke, we should thank the craftsmen involved, like the carpenter John Longland, paid £308 10 shillings for his work on the dome, and the plasterers John Grove and Henry Dogwood who received over £150 for finishing it with designs featuring roses, palms and other foliage.



The City of London from the 17th to early 20th century

London becomes a global metropolis of empire and trade. In the 19th century, financiers and businessmen, office workers, City of London employees and many others journey into the Square Mile to work each day; the commercial district's streetscape is increasingly dominated by monumental buildings, notably the Bank of England and Mansion House.

By the 17th century the medieval notion of a true London within the walls and suburbs outside was largely irrelevant: London was spreading outwards, west and east. London was the capital of a global economic and political empire in the 17th and 18th centuries – through its colonial settlements in the Americas and elsewhere, and, through the private East India Company of London, India. The ‘triangular trade’ of the Atlantic played a very important role – British goods traded along the west coast of Africa for slaves, who were transported west to the colonies of the Caribbean and the American east coast to labour in the cotton and tobacco fields, products which were then brought back to this country. As part of this explosion of commerce, manufacturing and consumption, London grew from a population of about 400,000 in 1660 to 600,000 in 1700, nearly 1 million in 1800 and 6.6 million in 1900. London provided the finance and many consumers, as well as manufacturing some of the goods (including furniture, cloth and pottery) and making the ships.

By the 19th century manufacturing was shifting away from London to the Midlands and the north, and trade to the ports of Bristol and Liverpool. But London remained the financial, political and cultural capital of the British empire. The old walled city of London had become the financial district of banks and insurance; warehouses were increasingly replaced by offices.

Two monumental 18th-century buildings close to the Bloomberg site, in particular, symbolise London’s pre-eminence in this period. In the 1690s, a group of London merchants and influential aristocrats set up the Bank of England to create a stable private institution that could finance government spending (including the expansion of the English navy, following England’s defeat by the French). The early bank operated in rented space in the Grocers’ Company hall in Poultry, but moved to a new building in Threadneedle Street in 1734. This building has evolved over time and includes work by the great 18th-century architect John Soane;

most was rebuilt by Herbert Baker in the first half of the 20th century, but both looked to classical models.

Situated between Bloomberg and the Bank of England is Mansion House, completed in 1758. The Lord Mayor, elected by the City’s aldermen, is the ceremonial and administrative head of the Square Mile of the City, using Mansion House both as a residence and as a venue for civic functions. The office began in the days of Henry fitz Ailwin in 1189; in contrast, the office of the Mayor of London (the head of the London-wide local government) was created in the 20th century.

Although there were fewer people living within the City’s Square Mile, increasing numbers of clerks, managers and others worked in the offices and warehouses, all needing food and drink in the day. In 1815 Ralph Rylance published *The epicure’s almanack*, the first ‘good food guide’ to London. He noted ‘Mr Lister’s City Coffee House’ on the corner of Pancras Lane and Bucklersbury: ‘A good assortment of viands ready for the dressing invites the passenger, and his thirst is also excited by the announcement of choice wines, spirits and malt liquors’. The establishment survived until 1994 as ‘The Old City of London Shades’.

Just around the corner at 3 Wallbrook was ‘Deacon’s Coffee House’. Here the enterprising Samuel Deacon sold coffee and ran a private newspaper library and information service. Paying customers could consult a 60-year run of *The Times*, as well as several French, British colonial and American newspapers. Deacon also ran an ingenious ‘heir finding’ service: he claimed to have collated the names of 60,000 heirs and next-of-kin from scouring the columns and adverts of his newspapers. For a fee of 5 shillings, he would look up your name on his list, to see if you were due an unclaimed inheritance!

Timeline

1694 the Bank of England is founded



The City of London at the end of the 18th century
Detail of Horwood's map of London compiled in 1799

Mansion House

church of St Stephen
Walbrook

site of Deacon's
Coffee House

church of
St Antholin



The Bank of England

The institution of the Bank of England symbolises the financial muscle of the City of London since the 18th century; a blend of 18th- and 20th-century neoclassical architecture, the building has influenced the look of London

During the 19th century architects followed the inspiration of the Bank of England and Mansion House as businesses and landowners demanded large monumental buildings, knocking down the older houses and warehouses that had been built in the 17th and 18th centuries. When streets were widened or improved, or new streets laid out, this was the perfect opportunity for rebuilding.

Cannon Street was reorganised in the 1840s and '50s: the original street was widened and extended westwards - thus defining the south side of the future Bloomberg site - to connect London bridge to St Paul's Cathedral. Two decades later, in the 1860s and '70s, a new street, Queen Victoria Street,

was cut through the narrow medieval lanes of Bucklersbury and Sise Lane, and the 17th-century church of St Antholin was demolished. This street connected the Bank of England to the south-west of London via the Thames Embankment and the new Blackfriars bridge.

The new street required buildings along its frontage: Albert Buildings, built by Frederic J Ward in 1871 at 39-53 Queen Victoria Street, survives immediately west of the Bloomberg building. Here Ward turned to the Italian Gothic style of the early Renaissance for his inspiration. His symmetrical building has a ground floor with a run of shops, with the three upper floors containing dozens of offices.

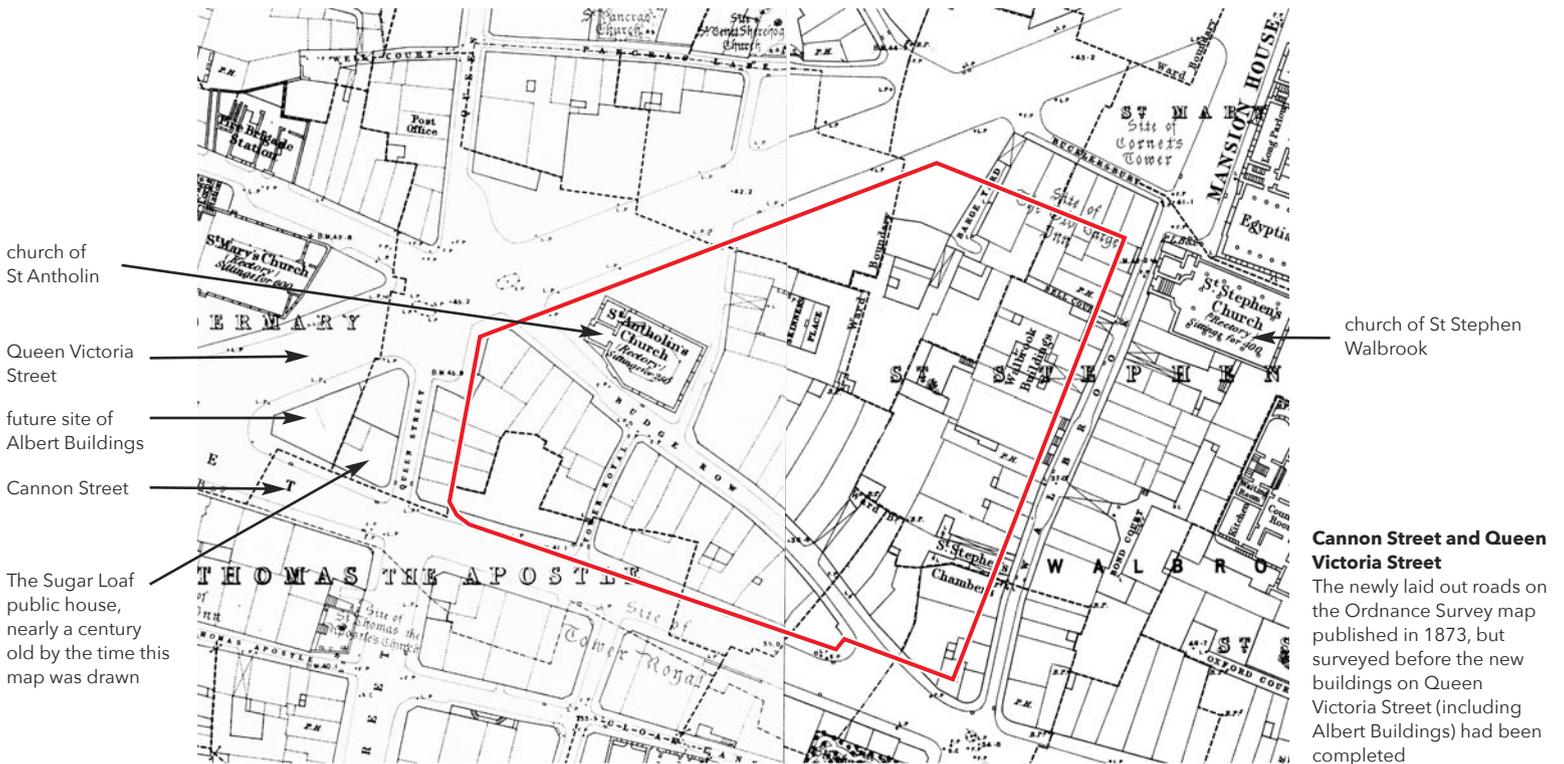


Mansion House

Built in the 18th century as the official residence of the Lord Mayor of London, the building borrows designs from classical Greece and Rome for its large portico of six Corinthian columns and a grand banqueting hall on the inside

The Sugar Loaf

An early 19th-century public house at 65 Queen Street, typical of the smaller buildings of the 18th and early 19th centuries





Albert Buildings

39-53 Queen Victoria Street photographed in 1899, an example of a monumental late 19th-century building; in Italian Gothic style, the repeating motifs of the facade wrap around the corners of this triangular site into Cannon Street and Queen Street

The Bloomberg site in c 1900

Some older buildings and streets remain after the laying out of Cannon Street and Queen Victoria Street, but in the rebuilding that follows this 19th-century reorganisation purpose-built office blocks predominate.

In 1900 the future site of Bloomberg was a mix of the old and the new. The oldest buildings in this block of land were the public houses: until the 20th century pubs often resisted the tides of modernisation that regularly swept through London. Deacon's Coffee House (above) had changed name to the medieval sounding Ye Olde Deacons Tavern, by now selling rather more beer than coffee. It probably still had 18th- and perhaps 17th-century parts at the rear in Bell Court, an old court or passage off Walbrook. The tiny Coopers Arms pub on the corner of Budge Row and Walbrook was at least a century old in 1900. The block still had 18th- and 19th-century warehouses, for example the sack merchants Hoare and Marr at 26 Budge Row, who later moved out to bigger premises by the Thames in Deptford.



The area of the future Bloomberg site in 1886
Detail of the Goad insurance plan (with the Bloomberg site outline superimposed in red)

Ye Olde Deacons Tavern public house

Mansion House Chambers

Brook House

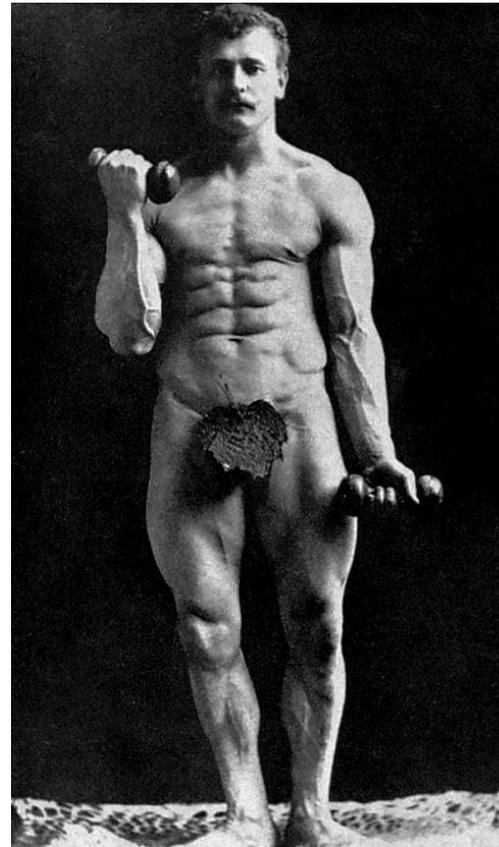
Coopers Arms public house

Timeline

1901 death of Queen Victoria, crowned in 1838



Tenants of Brook House, 10-12 Walbrook
(from top left) The New Guadalcazar Quicksilver Mines in Mexico (*Illustrated London News*, 14 February 1891); The Jewish Colonial Trust and Juedische Colonialbank share certificate; Eugen Sandow, the 'father of modern bodybuilding', who had a gym here in 1902



Above all, the area was dominated by offices, most of which were blocks of the 19th century, purpose-built over several plots of land. The developers of the new Mansion House Chambers on Queen Victoria Street saved money by having a small frontage on the newly built street (rather less grand than Albert Buildings to the west), with most of the actual offices to the rear. Their promotional literature of 1882 promised all the features of a modern 19th-century office, including a 'continuous passenger lift to all the floors' and 'hot and cold water supply on all the landings'. The *Post Office directory* of 1899 lists nearly 500 separate businesses in the future Bloomberg block, nearly half of which were in Mansion House Chambers, with its separate entrances on Queen Victoria Street, Barge Yard off Bucklersbury and Budge Row.

There were also smaller office blocks such as Brook House, which replaced three earlier buildings at 10-12 Walbrook, five doors down the road from Ye Olde Deacons Tavern. Brook House tenants included small London businesses, such as the solicitors Batchelor and Cousins, and the accountants Warner, Westall and Co. But this little office block had fascinating links to the wider world, housing the London headquarters of the New Guadalcazar Quicksilver Mines, who were extracting mercury in Mexico, and the Jewish Colonial Trust and Juedische Colonialbank, set up at the Second Zionist Congress in 1899 to raise capital for Jewish settlement in Palestine. The mining proprietors or the Zionist pioneers on the ground floor may well have listened to the energetic cries coming from the Sandow School of Physical Culture on the floor above, where Eugen Sandow, the founder of the modern bodybuilding movement, had set up one of his gyms to encourage London's office workers to emulate his muscular physique.

In 1939 on the eve of World War II, London, particularly the City of London, was still the hub of a worldwide financial and mercantile empire; there were over 8.6 million Londoners.

OFFICES, SHOPS AND WINE VAULTS TO BE LET
IN
MANSION HOUSE CHAMBERS,
11, QUEEN VICTORIA STREET; 13, SISE LANE; 25, BUDGE ROW, & 20, BUCKLERSBURY,
LONDON, E.C.
And in "THE BOURSE BUILDINGS," 20, Bucklersbury, corner of Queen Victoria Street,
AN ENTIRELY SEPARATE BUILDING.

About 1 1/2 yards from the Bank of England.
20 " " Mansion House.
18 1/2 " " Mansion House Station, M. D. Ry.
7 " " Cannon Street Station, South East. Ry.
7 " " Safe Deposit Company's Premises.
20 " " Bank of New Zealand.
and adjoining the City Liberal Club.

CONTINUOUS PASSENGER LIFT TO ALL THE FLOORS.
TOBIN'S VENTILATORS.
HOT AND COLD WATER SUPPLY ON ALL THE LANDINGS.

RESTAURANTS AND LAVATORIES (Ladies and Gentlemen) for use of the Tenants and their Friends. FIRE PROOF ROOMS.
ABUNDANCE OF LIGHT AND HEAT THROUGHOUT THE BUILDINGS.

For particulars apply to the Housekeeper on the Premises, or to
SUBSCRIBERS TO THE TELEPHONE EXCHANGE. **STUART BROS. & CO.**
11, Queen Victoria Street, E.C.

Mansion House Chambers

Advertising flyer of 1882 for the newly built office block on Queen Victoria Street





'The heart of the empire'
Looking west from the roof
of the Royal Exchange
towards St Paul's, with
Mansion House, Queen
Victoria Street and
Cheapside in the
foreground (left and centre)
(painted by Niels Moeller
Lund, 1904)

Mithras refound

20th to 21st century

The discovery of the mithraeum

Most of the buildings on the site are destroyed in 1941. But the identification on the bomb site in 1954 of the remains of a Roman temple dedicated to the god Mithras is one of the most amazing archaeological discoveries in Britain of the 20th century; it generates huge press and public interest.

The campaign of bombing of British cities, the Blitz, that took place between September 1940 and May 1941, totally destroyed or damaged beyond repair buildings across a third of the City of London. The area around St Paul's Cathedral was hit several times; a particularly severe raid on the night of 10 May 1941 destroyed almost all the buildings on the Bloomberg site.

The Blitz was devastating for the people of London and many historic buildings were lost. However, it was recognised that the cleared bomb sites could provide an opportunity to record some of the buried archaeological remains on which the modern city is built. A team of archaeologists was assembled in 1946, called the Roman and Mediaeval London Excavation Council, led by William F Grimes, Director of the London Museum (one of the forerunners of the Museum of London), and another eminent archaeologist, Audrey Williams. Between 1946 and 1961 they examined sites across central London, retrieving valuable information on London's origins.

The archaeologists knew the Bloomberg site lay over the Walbrook stream and that well-preserved organic remains had been seen before in the black, wet soils filling the Walbrook valley. In 1952 they opened several trenches across the Walbrook. The locations chosen were influenced by where bomb rubble had been cleared. In most trenches they found what they expected to see - evidence of the reclamation and management of the banks of the Walbrook during the first centuries of Roman London - but, in one trench, they uncovered the substantial remains of a Roman stone building with an intriguing curved wall. It was not possible to explore further until more of the bomb rubble had been cleared.

The team returned in 1954 and worked through that summer, just before major construction work started for Bucklersbury House, one of the largest post-war developments in the City of London. The fragment of curved wall was shown to extend, and what was revealed was almost the complete floor plan of a large rectangular Roman building, aligned east-west, with a semicircular space or apse at the west end. The archaeologists speculated as to what it could be - a temple possibly or perhaps even an early church. By the last day of planned excavation, Saturday 18 September 1954, there was no clear indication of who this possible temple could be dedicated to. But that day, allegedly, one of the workmen in the archaeological team made the incredible discovery of a sculpted head. The archaeologists recognised it as the Roman god Mithras, identifiable from his characteristic cap and upwards gaze. At almost the last moment of the excavation, the key piece of information was there: the building could be a temple to Mithras.

The story of the discovery was covered in a small article in the *Sunday Times* the following day with a picture of the Mithras head. Some who had read the story came to the site; this was a time before site security, when London was covered by bomb sites, the playgrounds for a generation of children. Another article came out in *The Times* on Monday morning, this time much more critical, condemning the imminent destruction of the temple: 'There is something grievously wrong with our planning if an important antiquity of this sort can be destroyed almost before it has been seen. What other civilised nations may think of the matter is a point upon which one can only speculate apprehensively.'

Timeline

1941 the Blitz
destroys buildings
on the site



The London Blitz
The facade of 23 Queen
Victoria Street crashes to
the street in flames in 1941

The Prime Minister, Winston Churchill, asked his Minister of Works, Sir David Eccles, to investigate. Eccles and the excavation director Grimes met on site with representatives of the developers, Legenland, to discuss options. An extension to the excavation was agreed and the archaeologists moved back in. In these extra weeks, the full ground plan of the building was revealed and more fabulous Roman sculptures and artefacts were found, revealing important clues about the worship of the god Mithras and the members of the London cult.

The initial press and public interest prompted the archaeologists to arrange for the site to be open for visitors in the evenings. The response was overwhelming: thousands came over the next few days and, as the national press reported on the discovery and newsreels appeared in cinemas, even more came. Lengthy queues – 30,000 long – grew on the surrounding streets and members of the public waited hours to see the archaeologists at work.



Bomb site

Looking south-east from Queen Victoria Street across the bomb-damaged site c 1944, with a temporary ARP (air raid precautions) water tank in the foreground and, beyond, St Stephen Walbrook (circled)



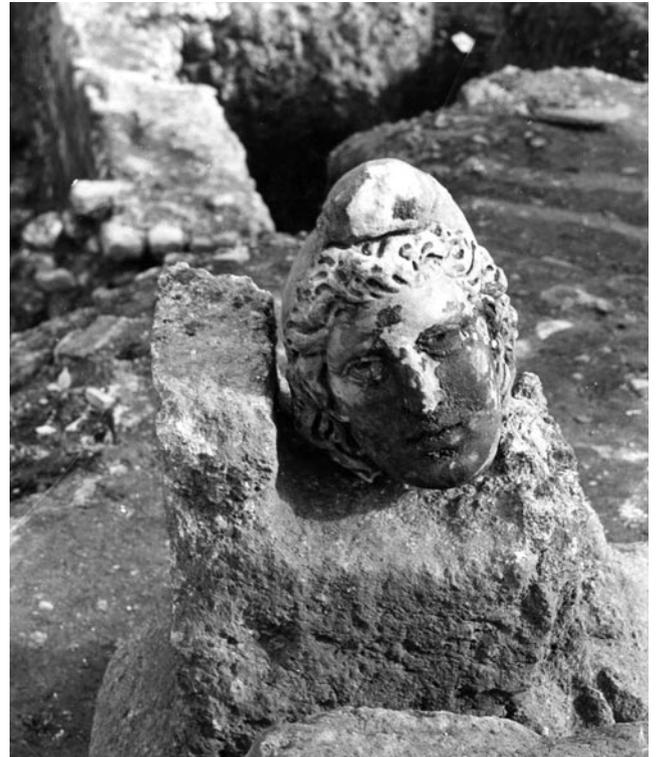
First sighting

Looking west into the basements of 7–8 Walbrook with, left, the curving apse wall revealed in 1952 at the end of the trench



The 1954 excavation

William [W F] Grimes on a ladder photographing and Audrey Williams below left, standing in the apse of the temple



Mithras

The sculpted head of the young god, from around AD 200, found on what was intended to be the last day of the 1954 excavation



Queuing

Aerial view of visitors to the site, from *Illustrated London News*, 2 October 1954

Remembering 1954

In late September 2014, on the 60th anniversary of the discovery, Bloomberg and MOLA launched an oral history project to find people who had queued to see the original excavation. Hundreds got in touch and spoke of the powerful impact seeing the temple had made on their lives. At a time when London was still recovering from the war, and rationing had only just ended, the temple seemed to capture a sense of hope and pride in London's endurance and continuity.

It was quite grim going up to London in those days ... so much was broken and still not being cleared away and then out of the bombing of that building had come really the miracle of discovering this temple ...

Diana Van Rooyen, born 1939, former research psychologist and lecturer



All day they queued

30,000 SEE ROMAN TEMPLE



ALL day they rolled up for a glimpse of history. Patiently they waited as the queue moved slowly on. Then came the reward—a look at the crumbling walls of London's Roman temple near the Mansion House. More than 35,000 people were there yesterday. Nearly 5,000 had to be turned away. A few saw a new treasure—the head of a god.

It was the first time anything like that had been found in the City of London, it was something unique, nobody had seen anything like it before, not in London. To find a temple almost intact under the streets of London was quite extraordinary.

Martin Baker, born 1939, union worker

In 1954 I was a 14-year-old schoolboy ... I knew nothing about archaeology ... I joined the queue of thousands of people ... and I thought this was amazing, the discoveries were incredible ... then I got the thrilling opportunity of digging on the site so I went back ... and it was an hour and half before I found the corner of a Roman well ... this was my first day of what was to be a career in archaeology.

Peter Marsden, born 1940, archaeologist



After dismantling
Construction of
Bucklersbury House
begins, 1955, looking
towards St Stephen
Walbrook

The 1960s reconstruction

In the following days there were many discussions between the government, the site owners and archaeologists about what should happen to the temple. The costs and delays associated with redesigning the building to accommodate the temple would be significant and the precedent that this would set was alarming to those responsible for reconstruction. The site owners, Legenland, ended the debate by offering to dismantle the temple and re-erect the building somewhere else on the site, all at their own expense. The immediate Mithras crisis was over.

In late 1961 work started on the reconstruction and in 1962, eight years after the original discovery, the 'new' temple reconstruction was unveiled on Queen Victoria Street. It was a compromise, built over a car park, nearly 100m from its original location, with many of the architectural features misrepresented and modern building materials used. The original archaeological team and the Ministry of Works were not consulted; Grimes was critical of the reconstruction:

The decision of the owners to reconstruct the temple at their own charges was the last of a series of generous acts which ... was accepted as the answer to the problems of preservation. Unfortunately, it has to be recorded that the final result, now visible on the Queen Victoria Street frontage of Bucklersbury House, falls short of what it ought to have been.

Despite its failings, the 1962 reconstruction served as a reminder of the original discovery, found its way into many guidebooks for London and until 2010 even had a bus stop named after it. In 2007 the government's organisation responsible for the historic environment, English Heritage (now Historic England), gave the temple reconstruction statutory protection, as a Grade II listed monument, mainly on account of the original Roman building materials within it, but also recognising it as an early example of heritage conservation.



The 1962 reconstruction
The temple of Mithras (bottom left) reconstructed on Queen Victoria Street, looking south-west; it was removed in 2011

The discovery of the temple of Mithras is an example of the power of archaeology to inspire and inform. However, the whole experience of the queues and the prospect of having to redesign a building had a major impact on how archaeology was perceived within the construction industry throughout the post-war years. The fact that the temple was reconstructed, but off site, arguably put off the difficult decisions about how to treat archaeology on development sites; it was not until the 1990s that a robust system of protection was put in place.

Roman belief and ritual

In Roman London belief in the gods and in magic was widespread, and religious ritual and symbolism were a part of daily life.

Some of the best evidence comes from the Walbrook valley where, in addition to the temple of Mithras itself, many objects of religious significance have been found, from figurines to pottery decorated with cult symbols. These provide evidence for belief in many gods, including Venus, goddess of love and beauty, Mercury, god of traders and money, and Bacchus, the god of wine.

There were probably several shrines in the valley and the Bloomberg excavations discovered several specialist votives, including figurines and miniature objects left as offerings to the gods. It is possible that even some of the day-to-day objects found at the Bloomberg site were votively deposited at shrines or into the Walbrook stream. Offerings would have aimed to appease the gods and to ensure a long and prosperous existence. Other artefacts can be linked to very personal types of religious and superstitious beliefs, including fragments of domestic shrines and amuletic jewellery worn to ward off bad luck.



Right

Fragments from a small ceramic shrine or *lararium*: this example may have contained the household gods, represented by figurines, or been the focus for offerings; cheap mould-made ceramic shrines and figurines were imported to Roman Britain from Gaul (top, reconstructed width c 160mm; bottom, height 108.7mm)



Above

A copper-alloy steelyard weight depicting Mercury, god of trade and commerce, with wings in his hair and a traveller's cloak fastened at the shoulder; the owner may have hoped this imagery would encourage the god to look favourably on their dealings (height 28mm)

Above right

Miniature iron tool set and silver axe head made for use as votive offerings: the choice of object may reflect the identity of the devotee or the character of their request; some of the many full-size iron tools found might also be offerings (knife, length 36mm; axe head, length 16.9mm)



Right

Amber amulet, perhaps worn by a child, in the shape of a gladiator's helmet; this valuable material was thought to have magical protective and healing properties by the Romans and its shape may also be symbolic of protection (height 13.5mm)



The mystery of Mithras

The Roman god Mithras was worshipped in the 1st–4th centuries AD. A new deity, Mithras was popular with soldiers and merchants. The beliefs and rituals, including initiation, associated with the cult are largely known from archaeological evidence, with much speculation about the meaning of the central icon of Mithras killing a bull – the ‘tauroctony’.

Part of the public fascination with the discovery of the temple was the nature of the cult of Mithras and the religious imagery being uncovered. There were occasional lurid stories in the press, as well as articles from journalists and Roman scholars and archaeologists debating the practices of the cult and asking the question, 'Who was Mithras?'

Mithras was a Roman god, often equated with Sol, the sun god. He first appeared in the Roman empire in the 1st century AD. In the past, scholars believed that Mithras was a direct descendant of the Persian god Mitra, dating from at least 1400 BC, and that Mithraism had spread from the east. We now believe that Mithras was a new Roman invention, adopting some imagery and iconography from Mitra. The cult becomes popular at the same time as other 'eastern' deities that arrived in Rome, including Christianity and the worship of the Egyptian god Isis.

Mithras is normally shown as a young man, wearing a characteristic Persian (sometimes referred to as Phrygian) cap. This cap has been associated with liberty in modern times, being worn by republicans in the French Revolution and later (*bonnet-rouge*), and by the republican personification of the USA, Columbia. In the bull-slaying scene or 'tauroctony', Mithras typically looks upwards over his right shoulder towards the sun and away from the dying bull, his right hand plunging a dagger into the bull's neck. Sculptures found across the Roman world show other images from Mithras's life, including his birth from a rock, firing an arrow at a rock and bringing forth water, and feasting off the bull. As well as an association with Sol, Mithras is thought to be a god of trust and contracts. However, much is speculation.

There are no surviving 'holy' texts for the cult that explain what a worshipper believed or what rituals took place. Most of what we know comes from inscriptions, graffiti and sculptures, and archaeological evidence. There are a few contemporary accounts of

the cult from Christian authors, who would have been hostile, but their descriptions of rituals may have elements of truth. The image common to all temples to Mithras is the tauroctony, a scene thought to represent creation or transformation and the bringing of life to the world, and there are almost certainly astrological connections. The iconography suggests familiar religious themes: creation, the human place within the universe, worship of the sun and moon; there is nothing to suggest that a Mithraist believed in an afterlife.

Many mithraea, including the Walbrook building, were at least partly subterranean, requiring members to descend into the nave via steps. These recurring features of the design are thought to be an evocation of the cave in which Mithras killed the bull. Mithraea often had vaulted roofs, or at least provided the effect of a vault using wattle and daub covered in plaster, to aid in creating a cave-like scene. This design may also have had another meaning, with the painted vaulted ceiling representing the universe.

The evidence from excavated temples indicates that membership of the cult was compatible with worship of the established Roman gods. In the Walbrook temple, sculptures of Minerva, Mars and Mercury would have been visible, as well as cult statues of Mithras. Evidence of initiations and the content of inscriptions suggests that membership of the cult gave privileged access to important knowledge and that Mithras could help you in some way. Archaeological evidence suggests almost theatrical rituals and dramatic initiation ceremonies. Light effects, with torches and lamps behind sculptures, and incense were used. Initiations may have been quite terrifying. One wall painting from Capua (Italy) shows a naked initiate kneeling down, with a man standing behind him with a sword raised; in another scene a man appears to fire an arrow at the initiate. A mithraeum excavated at Guglingen (modern Switzerland) revealed a 'fake' cult sword and a rayed crown that could have been used in rituals.

Timeline



Tauroctony scene

Relief in red sandstone from the mithraeum at Neuenheim near Heidelberg (Germany), with framing panels depicting the life of Mithras

Inside a mithraeum

The interior of the mithraeum below the church of San Clemente, Rome; on the front face of the small votive-altar (centre) is Mithras killing a bull



1952-4 archaeologist W F Grimes discovers the temple of Mithras

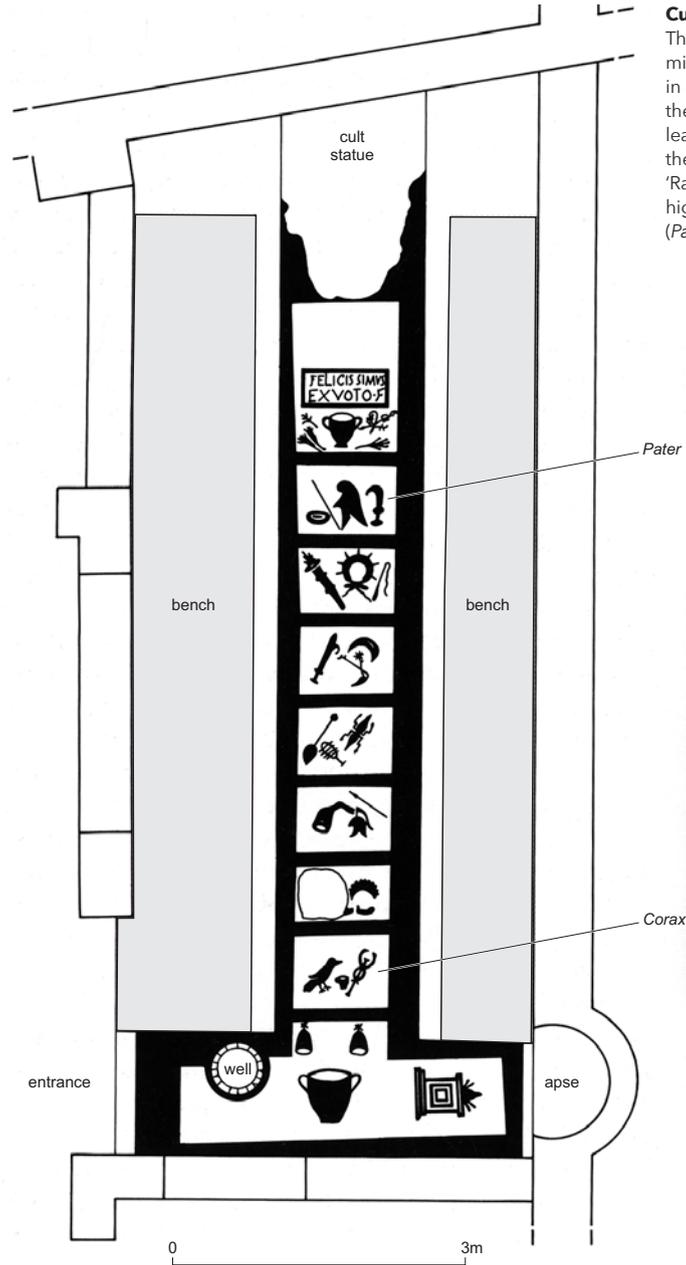


Ceremonial sword

Bent in a semi-circle at the centre so that it could be placed around the neck to make it appear the person had been stabbed; from the mithraeum at Riegel (Germany)

Many mithraea have produced evidence of feasts, with remains of chicken bones, wine vessels and plates. Graffiti in the mithraeum beneath Santa Prisca, in Rome, provide evidence of what might have been said in a mithraeum – a series of chants or ‘hails’ (*nama*) to the different grades within the cult. A mithraeum excavated at Ostia (Italy) illustrates this hierarchy within the cult: a mosaic pavement in the central nave is divided into seven grades, each with its own symbols and associated gods and planets. It is unlikely that every member progressed through to the highest level and the existing social strata were probably maintained.

Who was a Mithraist? The evidence points to the cult being for men only. Inscriptions appear to show that it was popular with the army, merchants and civil servants; it did not attract the top levels of society, although there was a brief period when it was popular with the imperial elites. It appears to have operated as a belief system that relied on trust and built strong bonds with other men. The evidence for the worship of Mithras fades out in the 4th century AD. Many mithraea show evidence of later iconoclasm – the smashing of religious imagery.



Cult hierarchy
The central mosaic in the mithraeum of Felicissimus in Ostia, with the grades in the form of a ladder leading to the cult relief; the lowest grade is the ‘Raven’ (*Corax*) and the highest is the ‘Father’ (*Pater*)

KEY

Grade	Symbols	Planet/god
<i>Corax</i> (raven)	small beaker and the caduceus	Mercury
<i>Nymphus</i> (bridegroom/ the one who is shrouded)	oil lamp and diadem	Venus
<i>Miles</i> (soldier)	sling-bag, lance and helmet	Mars
<i>Leo</i> (lion)	fire-shovel, a rattle and thunderbolt	Jupiter
<i>Perses</i> (Persian)	sickle, akinakes (Persian dagger) and a crescent moon	Venus
<i>Heliodromus</i> (runner of the Sun)	torch, seven-rayed crown and a whip	the Sun
<i>Pater</i> (father)	Phrygian cap, libation bowl, staff and sickle	Saturn

Mithras and Mithraism

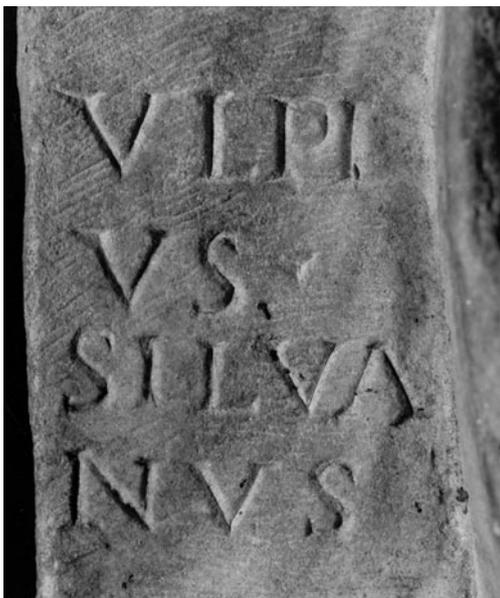
Due to a lack of contemporary written sources, scholars studying Mithras are heavily reliant on what can be extrapolated from iconography and from archaeological sites; much of what is known about the cosmology of the cult is derived from its central image, the tauroctony. This depicts Mithras slaying a bull, often surrounded by an array of other symbols, such as the 12 signs of the zodiac; a leaping bull plaque from the Bloomberg excavations may depict Taurus and an earlier find from the site is of Pisces. These finds pre-date the excavated mithraeum and might suggest that there was an earlier temple to the god nearby.

Relatively few other finds from the recent excavation can be suggested as coming from within the Walbrook mithraeum, but a contemporary lead candlestick found just to the north may be an exception; the manipulation of light played a prominent role in Mithraic ritual and a marked concentration of lighting equipment has been found in and around the mithraeum. A group of finds that may be related to the end of the temple's life were found votively deposited down a well shaft to the north (below).



Right

The marble head of the young god Mithras, in style c AD 200, found on the site in 1954 (height 369mm)



Above

Detail showing the name of Ulpius Silvanus, veteran of the *legio II Augusta* and perhaps the founder of the temple, inscribed on the left-hand side of the tauroctony marble bas-relief (right)

Right

Lead-alloy plaque showing a leaping bull, thought to be the zodiac symbol Taurus, from the Bloomberg site (length 72mm)



Above right

Tauroctony marble bas-relief, said to have been found on the site in 1889: (centre) Mithras killing a sacred bull in a cave, with a dog, scorpion and snake feasting off the bull, and to either side the two torch-bearers, Cautus holding a flaming torch aloft (left) and Cautopates (right) holding the flame down (light and dark, life and death); the encircling band has the 12 signs of the zodiac; inscribed on the left-hand side is the name of Ulpius Silvanus (detail, left) (height 432mm)

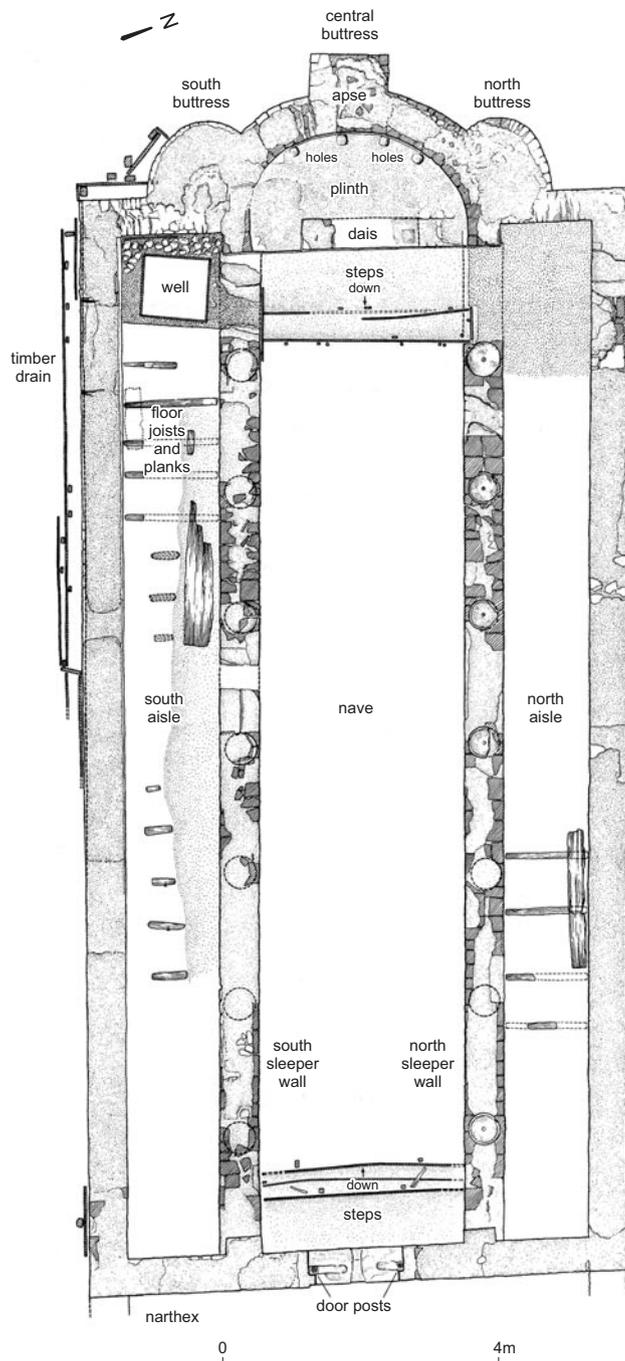


The Walbrook mithraeum

The Walbrook mithraeum is one of the best-preserved temples to Mithras found so far in northern Europe. Built *c* AD 240 on the banks of the Walbrook stream, apparently in the grounds of a large Roman house, the building undergoes many modifications and may have become a temple to Bacchus before being abandoned in the late 4th century AD.

About 100 mithraea are known throughout the Roman world. Most were relatively small and simple buildings, typically rectangular, around 10–12m (33–39 feet) long and 4–6m (13–20 feet) wide, and partly underground. The Walbrook mithraeum was also rectangular, with an anteroom or narthex at the east end, which would have prevented non-members from seeing the rituals. This may also have been a space for preparing food, washing and getting changed. In the main body of the building there was a central nave, where it is thought the rituals took place, with two side aisles for seating, separated from the nave by sleeper walls, with plaster settings on either side for seven columns, perhaps representing the seven grades within the cult. It was larger than a typical mithraeum, measuring c 18m by 8m (59 by 26 feet) for the main cult space, and could have accommodated a congregation of about 30 sitting. Also unusually, it had a rounded apse at the west end in which was a raised platform where the cult statue of Mithras would have stood. The stone head of Mithras found in 1954 is likely to have been used in this statue, with the rest of the body and the bull made of plaster. Mithraea appear to have had no windows and would have been lit by lamps, torches and braziers. Four small holes behind the statue plinth may have carried torches, creating lighting effects. A timber tank or simulated well held water used in rituals.

The mithraeum was built on the east side of the Walbrook stream, on made-up ground adjacent to the watercourse. Excavations on the east side of modern Walbrook street have revealed evidence of a large Roman building and it is possible that the temple sat in the back garden of a private house. An inscription on the tauroctony relief found in 1889 close to the site of the temple may even give us the name of the original founder: Ulpus Silvanus.



The Walbrook mithraeum, c AD 240
Plan of the temple as excavated and recorded in 1954

Timeline

1962 temple is
reconstructed 100m away,
on Queen Victoria Street

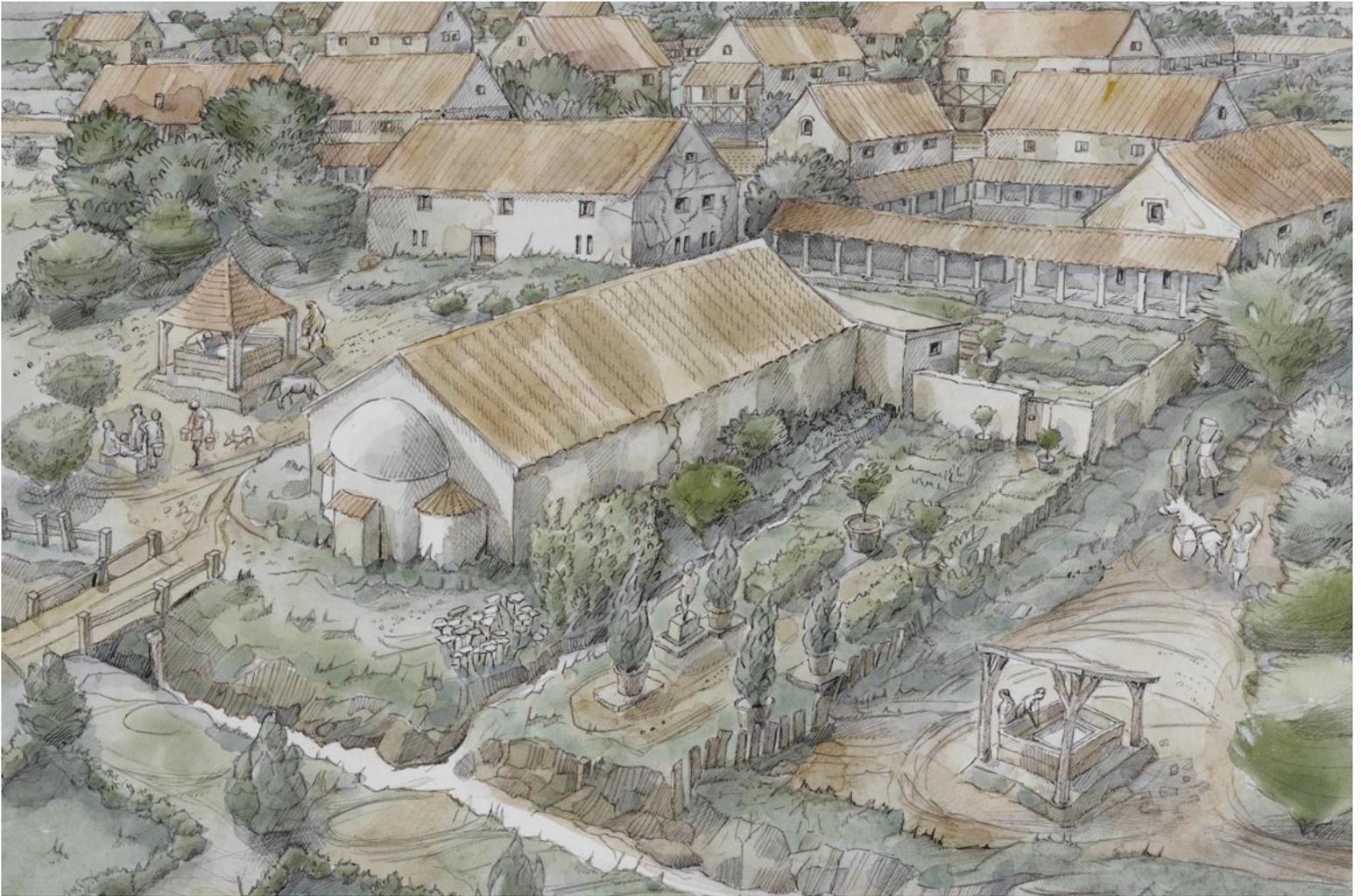


Ritual feasting and initiation

Cult followers and their activities feature in this conjectural reconstruction of the interior of the Walbrook mithraeum, looking (west) towards the apse with its tauroctony scene

The archaeological evidence for the temple, c AD 240
(scale 1:350)





**The mithraeum east of
the Walbrook stream**

A conjectural
reconstruction, c AD 240,
looking north-east

The Walbrook mithraeum was constructed mainly in ragstone, with some Roman brick and tile, and would have been rendered with a smooth plaster and probably painted. The original floor in the nave would have been made of wooden planks and the side benches and steps were of wood. The building was altered, probably in response to the inevitable damp. A succession of floors of beaten earth and gravel were laid to raise the internal level and various repairs were made as the building moved and cracked on the unstable ground. The building appears to have been in use as a mithraeum until the early 4th century AD when it suffered a serious collapse.

Following the collapse, the building was remodelled. The columns went (perhaps sold, as no fragments have been found) but, significantly, the marble sculptures of Mithras and other deities were carefully buried in pits dug into the floor (where they were discovered in 1954). The people who altered and rebuilt the temple appear to have worshipped another cult, probably that of Bacchus, but they chose to treat the earlier religious objects with respect. This other phase of worship continued until the late 4th century AD when the temple fell into disuse. The upper levels of masonry were robbed by generations of later Londoners, and what was left was buried beneath centuries of soil and later development. By the 20th century modern ground level was nearly 7m (23 feet) above the 3rd-century AD Roman streets.

The archaeological investigations associated with the Bloomberg site gave further intriguing insights into the temple. More of the anteroom or narthex was excavated and this appears to have been divided into several rooms; a drain suggests there could have been a space for washing. Column bases from the later phase of the building were found and a well (below) to the north of the temple contained a collection of pewter vessels, a lead tank

and cow skulls, which may have been deposited at the very end of the building's life, in the AD 380s. Limestone voussoirs and tufa recovered from this well are evidence of vaulting (for example, in an alcove or even roof) and probably came from the temple when it was disused. Amazingly, the excavation also showed that some of the original temple still survived, although mainly at foundation level. These sections were too fragile for redisplay and have been carefully recorded and buried beneath the Bloomberg building (below).



Bacchic group marble sculpture

One of the sculptures of deities recovered from the Walbrook mithraeum in 1954: Bacchus is centre, supported (right) by a Satyr, with a Maenad to his side; Silenus is lower left (height 343mm)

Objects from the well

A late Roman well was excavated just to the north of the temple. Towards its base a remarkable collection of objects were discovered that were probably deliberate votive deposits. They date to around the time the temple went out of use and it is possible that they came from within it. These include a hoard of pewter vessels and a fragment of a decorated lead tank; such objects have been found in votive deposits elsewhere.

Also present were some late Roman military-style dress accessories, perhaps reflecting the presence of high-status men. Such individuals are obvious candidates for members of the male-only cult of Mithras with its strong military links. However, it is not certain that the temple was still dedicated to the god at this late date and the same well also produced a 4th-century AD copper-alloy bracelet more probably worn by a woman.



Left

Fragment of a copper-alloy strap end: the tip is flanked by crouching dogs with stylised incised faces, incised fur on the torsos and undecorated rear legs and haunches (length 47.5mm)



Above and left

Four decorated pewter vessels that once formed part of a ritual deposit, being placed together at the bottom of the well (left to right, height 40mm, c 44mm, 63mm, 47mm)

The new reconstruction

The redevelopment of the site by Bloomberg offers an opportunity to improve on the 1960s reconstruction and create a more faithful and meaningful evocation of the temple to Mithras found in the Walbrook valley – London Mithraeum.

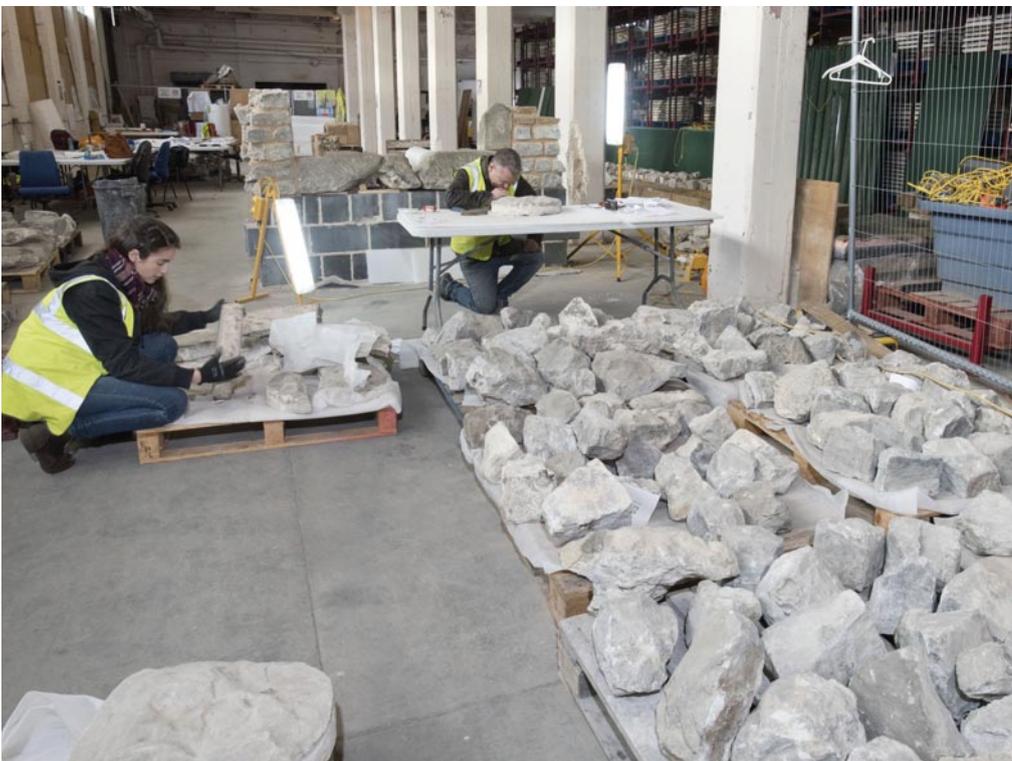
In 2010 Bloomberg acquired the site of Bucklersbury House for their European headquarters. Redevelopment gave the opportunity to improve on the temple of Mithras display. The local authority, the City of London, provided an initial brief: the temple should be reconstructed again, as close as possible to the location of the original Roman structure; the new reconstruction should reflect the original form of the ruin and incorporate as much of the original fabric as possible, using appropriate and sympathetic new materials where necessary.

There were many debates about the correct conservation approach to take. It was recognised that the 'unreal' nature of the surviving structure provided a great opportunity to be creative with the new reconstruction - more so than would be possible with *in situ* Roman remains.



Dismantling

The 1960s reconstruction on Queen Victoria Street is dismantled in 2011 using diamond-tipped chain saws, enabling almost all of the original material to be recovered intact



Sorting the original materials

It was clear at this stage that there was not enough original stone and brick left to build a full reconstruction and new materials would have to be sourced; as the original mithraeum was partially rendered, the new stone would be used in areas of render, allowing visitors to see only original stone and mostly original brick

Timeline

2010 Bloomberg
acquires the site and
plans improved display
of temple of Mithras



Testing the design concept

The design for the display of the mithraeum was mocked-up and tested at a warehouse in Battersea, complete with light and sound effects

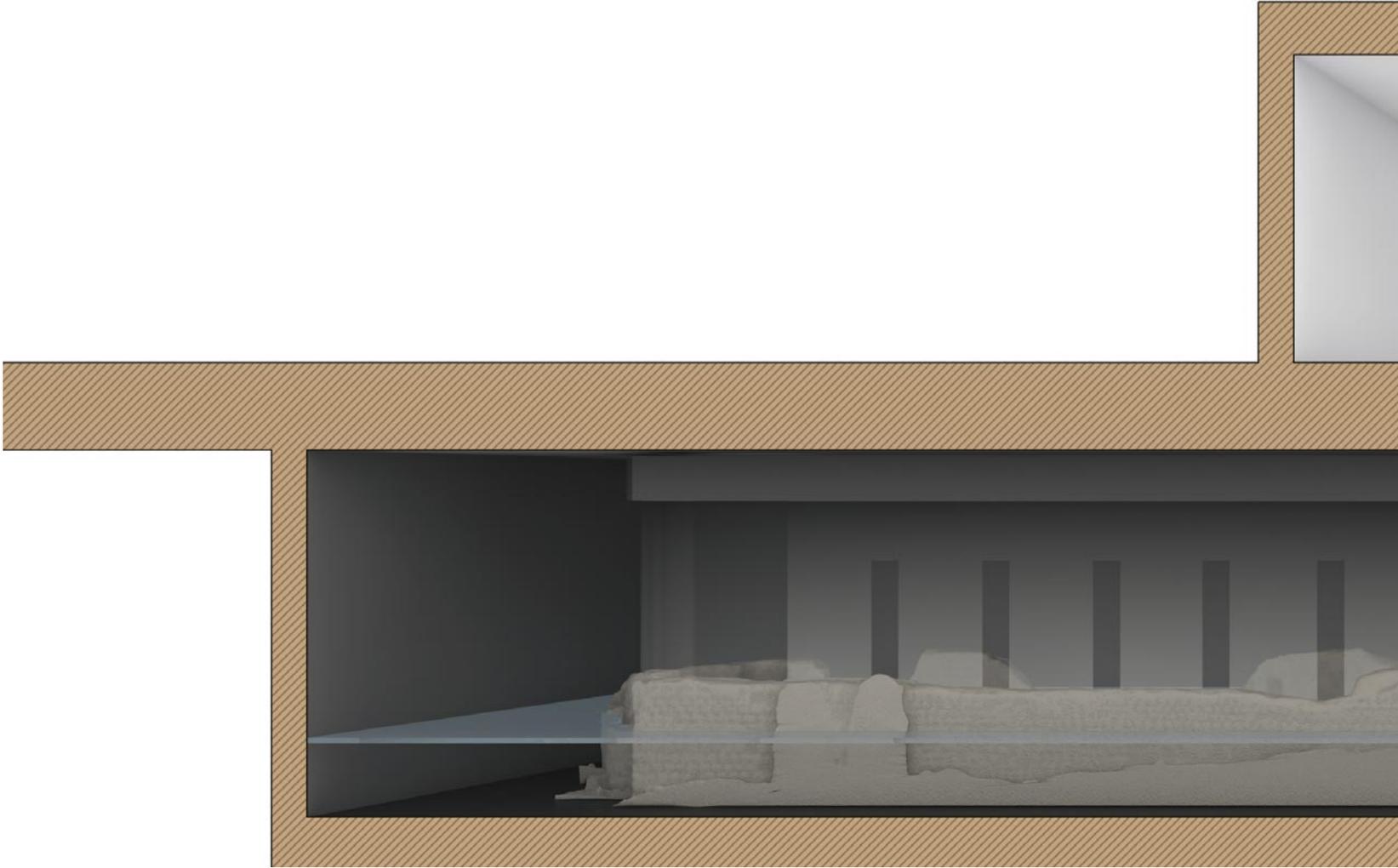
A key part of the design process was working out how to make the display atmospheric and evoke the feeling of being in a mithraeum. Design company Local Projects won the commission for the exhibition. Working with light artist Matthew Schreiber, they have created walls and columns of light that appear and disappear. Light was thought to be the best medium for creating an impression of the superstructure of the original building as it is less intrusive than projection. And, importantly, scholars think that mithraic rituals played with light: Mithras is often equated with Sol, the sun god, and lighting props have been found on other temple sites, used to create moments of mystery and also probably dramatic effect.

The new 'London Mithraeum' exhibition provides visitors with information about the discovery of the temple, its place in Roman London and explores some of the mysteries of the cult. The centrepiece is the new mithraeum reconstruction. The subject of much debate and thought, it is a new Roman artefact, and a space in which to use the imagination and to connect with London's past.

London Mithraeum

The new reconstruction nearing completion in the Bloomberg building





The design

Sectional view of the design for the London Mithraeum Bloomberg SPACE (with thanks to Foster + Partners); archaeological investigation for Bloomberg revealed the eastern foundations of the temple still *in situ* so the new reconstruction was located about 12m to the west of the original position to allow these remains to be preserved



Mithras refound: 20th to 21st century

London Mithraeum Bloomberg SPACE

The Roman temple of Mithras is returned to where it was discovered in the heart of the City of London.

Situated on the site of Bloomberg's European headquarters, this new cultural space will showcase the reconstructed temple, a selection of the remarkable Roman artefacts found during the recent excavations, and a series of contemporary art commissions responding to one of the UK's most significant archaeological sites.

The temple of Mithras, originally constructed c AD 240, was first discovered in 1952-4 during archaeological investigation of a World War II bomb site. It captured the imagination of the public, with an estimated 400,000 people visiting the excavated remains. Today, 7m below modern street level, the new reconstruction will change the way we encounter archaeology, offering visitors an immersive experience and bringing the bustling world of Roman Londinium to life by unlocking the stories behind the city's first Londoners.

London Mithraeum

The temple of Mithras, reconstructed below the Bloomberg building as close as possible to the location of the original Roman structure

London Mithraeum Bloomberg SPACE, 12
Walbrook, London, EC4N 8AA

Visit <http://www.londonmithraeum.com>





'Forgotten streams'

One of the artists commissioned to respond to the Bloomberg site and its architecture is Christina Iglesias and, like the ancient Walbrook stream, her 'Forgotten streams' stretches across the Bloomberg site; it takes the form of three bronze bas-reliefs - sculpted and layered from casts of branches and leaves, and incorporating water



London Mithraeum

Discover Mithras: the exhibition on the mezzanine level explores the rituals and beliefs of the cult



London Mithraeum

The central icon of the cult is an image of Mithras killing a bull; clues to what form the cult took are explored in light and sound in the mezzanine space

Bloomberg archaeological publication

MOLA is publishing a series of monographs describing the Roman occupation of the Bloomberg site and the finds from it. The first of these, *Roman London's first voices*, focusing on the writing tablets, was published in 2016; it will be followed by volumes detailing the Roman buildings and the thousands of artefacts recovered from the site.

Visit <http://www.mola.org.uk/research-community/publications>

Further reading

B Barber, C Thomas, and B Watson, 2013 *Religion in medieval London: archaeology and belief*, London

N Bateman, 2011 *Roman London's amphitheatre*, London

R Beck, 2006 *The religion of the Mithras cult in the Roman empire*, Oxford

M Clauss, 2000 *The Roman cult of Mithras*, translated by Richard Gordon, Edinburgh

W F Grimes, 1968 *The excavation of Roman and medieval London*, London

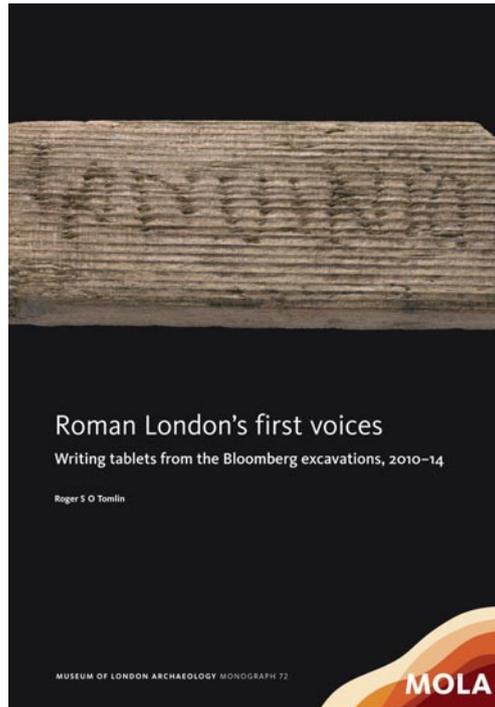
M Henig, 1984 *Religion in Roman Britain*, London

J Hill and P Rowsome, 2011 *Roman London and the Walbrook stream crossing: excavations at 1 Poultry and vicinity*, City of London, MOLA Monograph Series 37, London

P Rowsome, 2000 *Heart of the City: Roman, medieval and modern London revealed by archaeology at 1 Poultry*, London

J Shepherd, 1998 *The temple of Mithras, London: excavations by W F Grimes and A Williams at the Walbrook*, English Heritage Archaeology Report 12, London

R S O Tomlin, 2016 *Roman London's first voices: writing tablets from the Bloomberg excavations, 2010-14*, MOLA Monograph Series 72, London



Places to visit

Guildhall Art Gallery and Roman London's amphitheatre, London EC2V 5AE, for the impressively preserved remains of the eastern end of the amphitheatre in the basement below the art gallery

Museum of London, currently at London Wall, London EC2Y 5HN, for extensive displays of finds of all periods from London and interpretation of important themes, plus tours of Billingsgate Roman house and baths on Lower Thames Street

The British Museum, London WC1B 3DG, for Roman and other finds from London and the Thames

The archaeological project

Projects such as Bloomberg are, by their very nature, collaborative at every stage. The MOLA team have greatly benefited from assistance, advice and support from many quarters, for which we are grateful. The evaluation, excavation and analysis were funded by Bloomberg LP. MOLA would also like to thank the teams from AKT II, DP9, Foster + Partners, McGee, Sir Robert McAlpine and Stanhope PLC, together with the City of London and Historic England.

The new reconstruction

The reconstruction design team comprised archaeologists from MOLA, Catherine Woolfitt Associates (conservation, mortars and stone), Taylor Pearce (initial mock-ups), Tony Taylor Consultancy (structural engineering), with a team of conservators, sculptors and masons from PAYE Stonework and Restoration for the final reconstruction, together with specialists Eastwood Cook (creating the simulated earth floors). Nancy Rosen Inc provided curatorial guidance, with input from Kathryn Stubbs at the City of London and the Bloomberg project team. The overall exhibition design is by Local Projects with architects from Studio Joseph and from Foster + Partners, artist Matthew Schreiber and engineers AKT II. John Shepherd (expert on the London temple and interpreter of W F Grimes's archive) provided invaluable advice on the reconstruction and exhibition content, with additional information from David Walsh (University of Kent).

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