



Fig. 1: site location map showing areas of investigation and the alignment of the adjacent City Wall

New evidence for the development of the Roman city wall: excavations at 38–40 Trinity Square, London EC3

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Introduction

Between September 2008 and January 2009, the Museum of London Archaeology (MOLA) undertook archaeological investigations north of the Tower of London at National Grid Reference 533580 180780 (Fig. 1) in the London Borough of Tower Hamlets. The work consisted of a survey of the Roman and medieval city wall (Scheduled Monument, County number 12), a controlled excavation in the east part of the site (adjacent to the wall) and a watching brief in the west. Scheduled status means that the city wall is a protected monument and a 2m-wide 'buffer zone', between the controlled excavation and the wall, was left unexcavated to ensure it was not damaged. A more detailed account of the condition of the wall can be found in the Standing Structure Report.¹

The site lies immediately south of two other excavations, on which a similar range of archaeological features were encountered. They were 8–10 Cooper's Row (CPW99;² Fig. 2) and 41–42 Trinity Square (TRT85;³ Fig. 2).

The site archive and specialist analysis reports will be deposited at the London Archaeological Archive Research Centre (LAARC) at 46 Eagle Wharf Road, London N1 7ED under the site code TRH08.

The site before the construction of the city boundary or wall

The natural topography consists of Thames river terrace gravels overlain by brickearth. At CPW99 the gravel was observed at 9.78m OD.⁴ At 38–40 Trinity Square, close to the line of the later city wall, the brickearth lay at 10.94m OD in the north of the site, and 10.56m OD in the south. In the western (watching brief) part of the site, it was seen at c. 9.60m OD where not truncated by later development.

The earliest feature was a ditch (Structure 1; Fig. 3), of which a 2.60m length was seen running northwest–southeast between modern footings to the west of the controlled excavation. It was over 2.00m wide and 0.85m deep and shared both the broad and shallow character and the alignment of three

poorly-dated parallel ditches seen at CPW99⁵ (though it did not seem to be a continuation of any particular one of them). None of these ditches is parallel to the line of the city wall and, on the basis of stratigraphic position and OD level, all can be presumed to pre-date it. It should, however, be noted that no

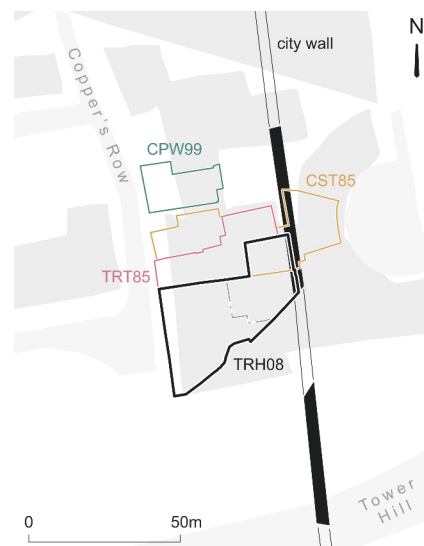


Fig. 2: the site in relation to neighbouring excavations: CPW99, TRT85 and CST85

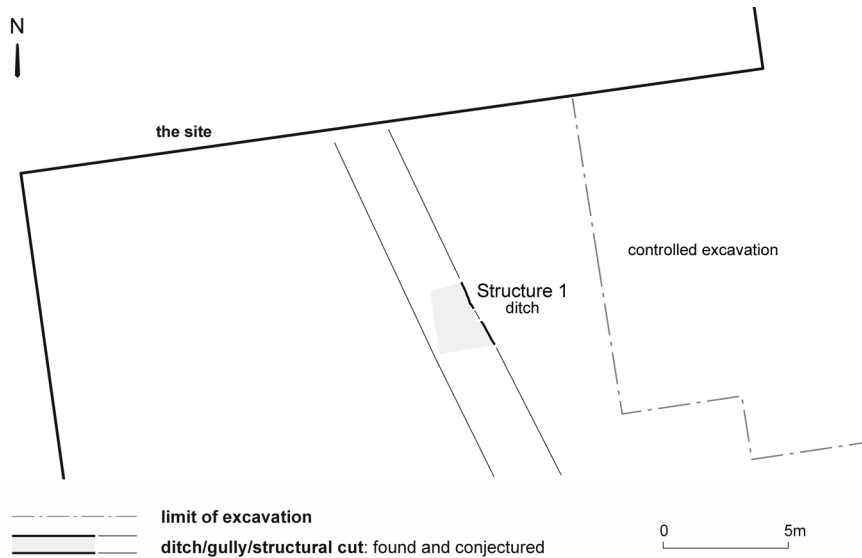


Fig. 3: alignment of Structure 1

features on this alignment were recorded at 41–42 Trinity Square (TRT85)⁶, the site that intervenes between TRH08 and CPW99, but they may have been removed by the late Roman quarrying recorded in this area. The earlier Roman finds found at the site were restricted both in number and range, comprising only personal and domestic material, very much like those found at CPW99.⁷

It has been suggested that the ditches at CPW99 represent an earlier version of the eastern boundary of Roman London.⁸ This site confirms that ditches on this alignment extend more widely.

The city wall

The buffer zone (Fig. 2; Fig. 6) prevented direct stratigraphic relationships between the wall and surrounding stratigraphy being made, and the phasing of the site depends in part on whether features share the alignment of the city wall or not. The existence or not of an earlier city boundary on an identical alignment to the later wall cannot be demonstrated at these sites. The construction of the masonry city wall is dated to c. AD 200.⁹

The Trinity Square development re-exposed the west (internal) face of a c. 19m length of the city wall, a continuation of the section of the wall recorded at the CPW99 excavation.¹⁰ The historic fabric of the wall was not visible over all this length. As it entered the site from the north, the historic fabric of the internal face of the wall

was obscured by a (probably 19th-century) brick vault built on to its north end. South of this, an 8.45m length of the original wall face was well preserved and visible before several metres of modern brick re-facing once again concealed it. The internal face of the Roman wall returned to view as a c. 3.25m length incorporated within the west wall of a London Underground Ltd (LUL) electricity substation. South of the substation, the wall was chopped through and destroyed when the underground railway was built in the early 1880s.

The external (east) face of the wall to the north of the substation was recorded at 6 The Crescent (CST85) in 1985 (Fig. 4) and the work at 38–40

Trinity Square provided the opportunity to record the part of this face in the basement of the LUL substation where a ‘window’ of original Roman fabric, just under 3.5m wide by 1.75m high, had been left exposed within the modern fabric (Fig. 5(i)). The chamfered plinth course of roughly dressed and squared Kentish ragstone blocks 450–750mm wide and 250mm high ran across the lower part of the visible segment. The base of the plinth should correspond to the ground level to which the wall was built and indicates a value of 10.9m OD. Below the plinth the top of the foundation was visible as a (levelling) course of small flat stones set over an irregular course of larger blocks. Above the plinth, four courses of coursed, irregularly bonded ragstone blocks were sealed by a string course three tiles deep. The top of this string course was at c. 11.85m OD or c. 0.95m above contemporary ground level. Two further courses of ragstone were visible above the string course. As noted above, the demolition at TRH08 meant that the internal face of this part of the city wall also became visible (Fig. 5(ii)).

It is important to note that the record reproduced at Fig. 5(iii) of the internal face north of the substation does not extend down to the bottom of the wall. The triple string course at the bottom of this elevation has an upper level of top of c. 11.94m OD and corresponds to that recorded at c. 11.85m OD in the LUL substation



Fig. 4: the external face of the city wall at 6 The Crescent

elevation. Consequently, the ground level from which this stretch of wall was built can be estimated to have been at 10.90m OD.

The city wall was constructed from roughly dressed and squared Kentish ragstone blocks set in regular courses in a hard, coarse, cream-coloured mortar with frequent pebble inclusions. The blocks measured up to 450mm wide by 150mm high but the majority were c. 300mm by 120mm. The bonding was irregular. There were three levels of tile string-course within the extant fabric. Over the recorded length, a slight slope down to the south was observed on the central double-tile string-course.

The string-course tiles, mostly red but with a few pale green/yellow examples, measured a maximum of 430mm in length and 35–40mm in thickness but many were not complete. The lower two of the three tile courses of the string course at the base of the recorded elevation were offset out by 70–80mm from the six courses of ragstone above it. These were, in turn, sealed by a second string course, two tiles thick, which formed another offset of 60mm. After a further five courses of ragstone, another string course, apparently also two tiles thick, represented the top of the extant wall: this topmost string course was too damaged to indicate whether it too had contained an offset.

The later Roman sequence

The earliest feature to share an alignment with the Roman city wall was Structure 2, three parallel north–south gullies, two on the west and one c. 7m to the east (Fig. 6), for which a date of AD 150–250 was obtained from seven sherds from two East Gaulish samian vessels, and no other pottery. The S2 gullies may be laying-out features preparatory to the deposition of two phases of dumped brickearth, successively Open Area 3 and Structure 3, each up to 0.5m thick and separated by a white mortar layer. The two phases of brickearth upcast have been interpreted as a bank/inner rampart constructed some time after AD 150. The mortar spread, which stretched for 10m from the wall, was also seen at site TRT85 immediately to the north.¹¹ Debris under the mortar layer indicated that a period of time elapsed between

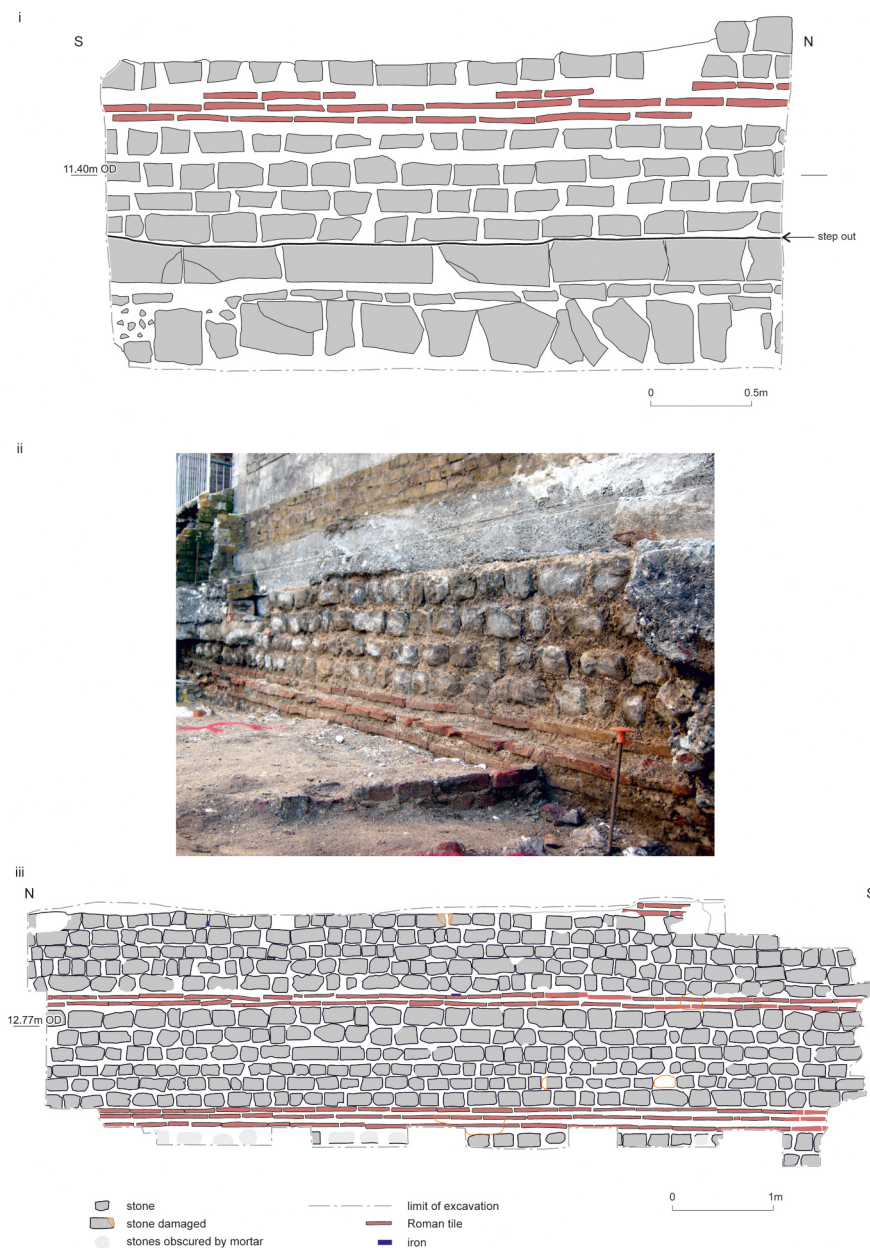


Fig. 5: elevations of city wall

(i) drawing of the external (east) face of the wall seen in the west wall of the LUL substation
 (ii) photograph of the lower part of the internal (west) face of the city wall as incorporated into the west wall of the LUL substation
 (iii) drawing of the internal (west) face of the wall north of the 'break'

the two phases of ground-raising.

However, the similarity of the finds from Open Area 3 and Structure 3 suggested the dumped material came from a common source. Present were sherds of black-burnished and Verulamium region ware vessels and a combed box-flue tile, all of early to mid-2nd-century AD date. Other building material included roof tile, brick, and pink and orange *tesserae* cut from pottery and tile, probably from a plain tessellated pavement, and a second box-flue tile, relief-patterned and keyed with die 5.¹² Other finds from the two phases of brickearth

upcast comprised a bone hairpin with a plain conical head (<24>; Fig. 7) and a round-bowled bone spoon (<18>; Fig. 7). A small quantity of vessel, bottle, and window glass was dated to the late 1st/2nd century, but a colourless cylindrical cup (<10>; Fig. 7) was dated to the late 2nd–mid-3rd century.

Immediately to the west of the possible inner rampart were two large north–south ditches, (Structures 5 and 6; Fig. 6). Structure 5 was 4m wide and 1.5m deep, with a convex profile with possible ankle-break gully (Structure 4) at its base (8.75m OD) whilst Structure 6 (S6) was 3.02m wide by 0.80–1.30m

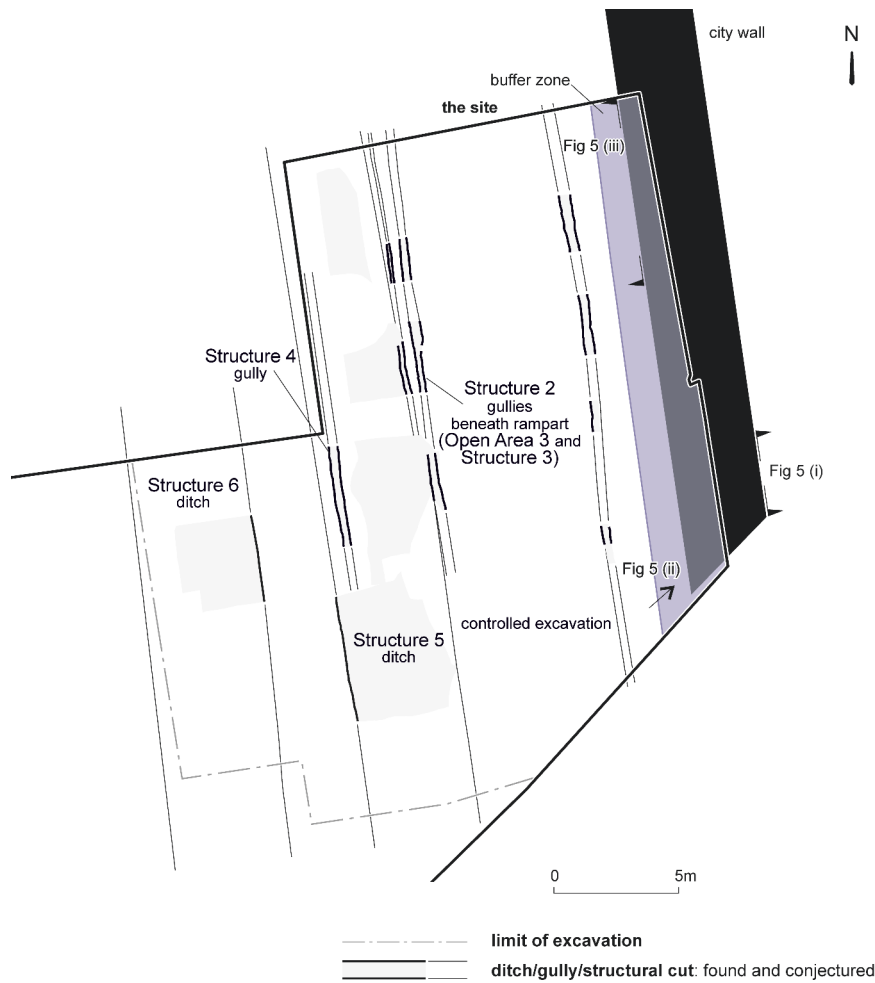


Fig. 6: selected Roman features on the same alignment as the city wall

deep (with a base at 8.17m OD). At TRH08 there was no evidence for the relative date of these ditches, though a small finds assemblage from the basal fill of S5 included a single sherd of north Kent white-slipped ware and dated to AD 150–200. Structures 5 and 6 appear to continue north and to be represented by D10 and D6 respectively at CPW99. Here, D6 is interpreted as being in use c. AD 180–230 and as being replaced by D10, dated to AD 230–410.

Against this, however, only a short length of S6 was recorded between modern intrusions and it may in fact be part of a large pit or quarry – it was not seen in the watching brief area immediately to the south but could have been removed by modern truncation. And at TRT85, the evidence was complicated by the existence of up to five cuts, probably including a number of re-cuts, but which could have included more than one ditch in use at the same time forming, in conjunction with the rampart, a c. 22m wide defensive zone inside the city wall itself.

The infilling of S5 post-dated AD 250/270 and included a large quantity of roofing tile, brick and wall plaster, along with combed box-flue tile, a possible voussoir tile and a few fragments of thin-laminated sandstone, probably stone roofing dating to the 4th century.

Most of the tile is likely to have been made at tileries situated in or near London, but imports from outside London are present. They include a rare type of roofing tile characterised by fine shelly moulding sand, also found on CPW99. The earliest examples from London are associated with pottery dated AD 140–200, and the appearance of these imports probably coincides with the closure of most tileries around London in the mid-2nd century, when a major reorganisation in the supply of ceramic building material to London seems to have occurred.¹³ The majority of later tile imports into London were roofing tiles or, in lesser quantities, combed box-flue tiles. The marked absence of imported bricks suggests these could be reused from the demolition or alteration of existing buildings: but *tegulae* and *imbrices* generally decreased in size and weight

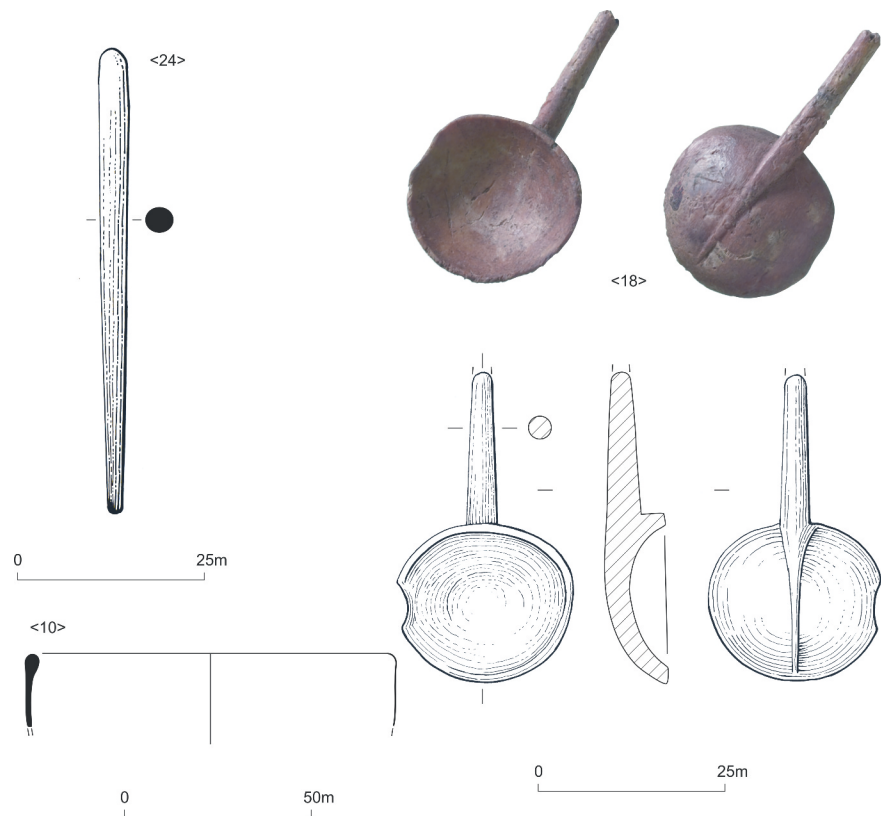


Fig. 7: Roman finds from the early construction phases of the city boundary; bone hairpin <24>, bone spoon <18> and glass cup <10>

from the mid-2nd century, so it would have been difficult to combine lighter later tile with reused heavier early tile on the same roof.¹⁴

The fills of S5 also contained small, poorly-preserved quantities of charred cereal grains, chaff and weed seeds – typical of the background flora and of other waste such as hearth sweepings that might have been blown in – and, numerous seeds of elder (*Sambucus nigra*) and black nightshade, with occasional remains from hemlock (*Conium maculatum*) and white horehound (*Marrubium vulgare*), which indicate high levels of soil nitrogen either in the ditch itself or the surrounding land, resulting from decaying organic matter.

The upper, mortar-rich infilling of Structure 6 was dated AD 250–400 from a small assemblage which includes sherds of several Alice Holt Farnham vessels. Although the precise equivalents to S5 and S6 were difficult to identify at TRT85 (see above), similar features and their fills were present. The finds from this site were very similar in character to those from both TRH08 and CPW99, though perhaps with a broader range of late Roman jewellery, shale or jet bracelets and hairpins. At TRT85, a correlate of a fill of S5 produced an unusual lead object (TRT85 <14>; Fig. 8), now recognised as part of a lead shrine, similar to one from Wallsend, which consisted of a small cupboard containing the image of a deity, with two rectangular doors.¹⁵ The element from TRT85 comprises a narrow strip with decoration in shallow relief, made by pressing a lead sheet into a mould. On one side are two standing female figures, perhaps goddesses or muses and on the other are opposing *peltae* surrounded by pellets, in two distinct zones. The fragment is broken at each end but one retains the stub of a loop. By analogy with the Wallsend example this is part of a looped hinge which secured the door to the cupboard.

As the ditches filled up, pits were dug in the area inside the wall (Open Area 4; not illustrated). Where secure dates exist, these features postdate c. AD 200/250; pottery fabrics found in the fills include Alice Holt Farnham ware, late black-burnished wares, Much Hadham and Oxfordshire wares. An

unusual probable jar or beaker (<53>; Fig. 9) in Much Hadham ware (MHAD) has rilling which appears to be similar to a Stanfield form 30 beaker.¹⁶ Other finds from OA4 included a well-preserved bone hairpin (<17>; Fig. 9), with globular head and swelling shaft, a very common form of the 3rd and 4th century AD seen also at CPW99.¹⁷

There is a small fragment of cylindrical colourless cup (<6>; Fig. 9), which dates from the late-2nd to the mid-3rd century. A fragment of cast colourless bowl (<5>; Fig. 9) dates from the 2nd century.

There is, however, evidence for the continued maintenance of rampart S3 as further layers, mostly gravel interleaving with deposits containing chalk and stone chippings were laid down (and similar made ground deposits were noted at TRT85). These deposits survived to 11.94m OD, about 1m above the ground level from which the wall was built, above which level they had suffered from modern truncation. Westwards the gravel layers sealed the western double gully line of S2, slumped into the fills of S5 and, as they included several small assemblages dating to AD 200/250–400 on the presence of sherds of Alice Holt Farnham ware and Camulodunum 306 bowls, appeared contemporary with OA4. A small quantity of disarticulated and damaged human bone was also present, representing a minimum of two adults and almost certainly derived

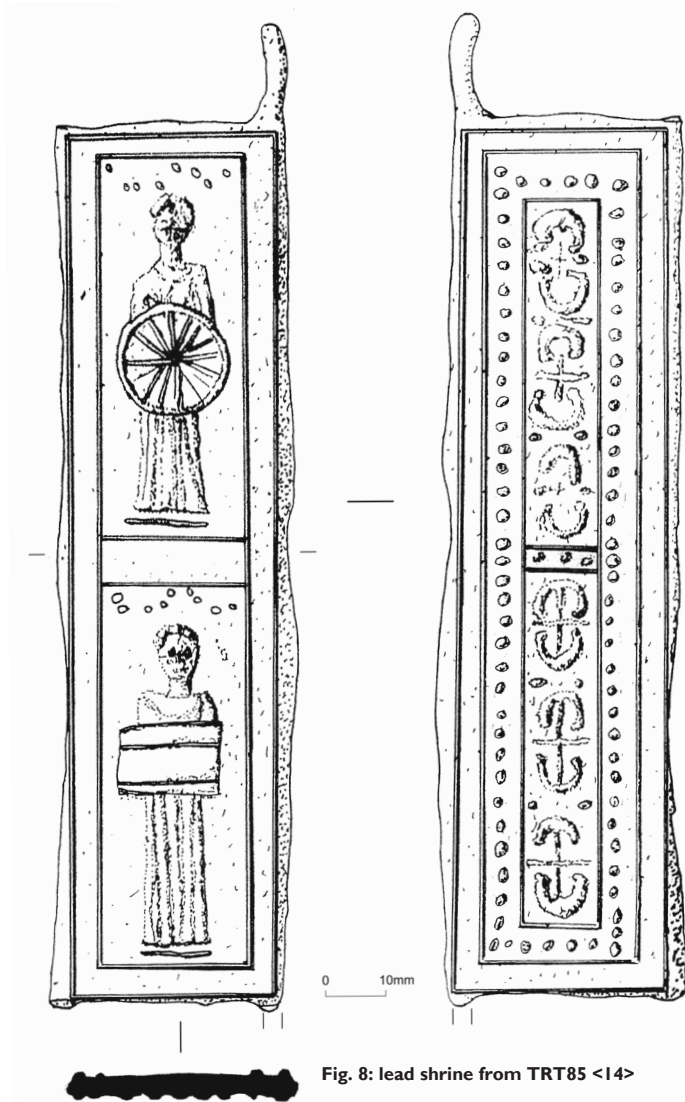


Fig. 8: lead shrine from TRT85 <14>

from disturbed, earlier graves.

These S3 make up layers contained a cast copper-alloy phallic mount (<44>; Fig. 9). This has a lunate upper terminal over a stylised rendering of pubic hair within a triangular element below which are rounded testicles and an erect penis, elements which can be seen also on a more elaborate but very similar mount from the Ospringe area of Kent.¹⁸ The remains of a fastener on the back suggest that it was used on leather, probably on horse harness. The symbol of the phallus was thought to ward off evil, and in combination with the crescent moon as here, was a powerful apotropaic charm.

These later Roman dumps contained most (78%) of the animal bone recovered from the site. The main domesticates were present, mostly cattle, with sheep/goat and pig but the age ranges of the cattle and sheep/goat showed that they were not just being bred solely for eat production, but also

TRINITY SQUARE

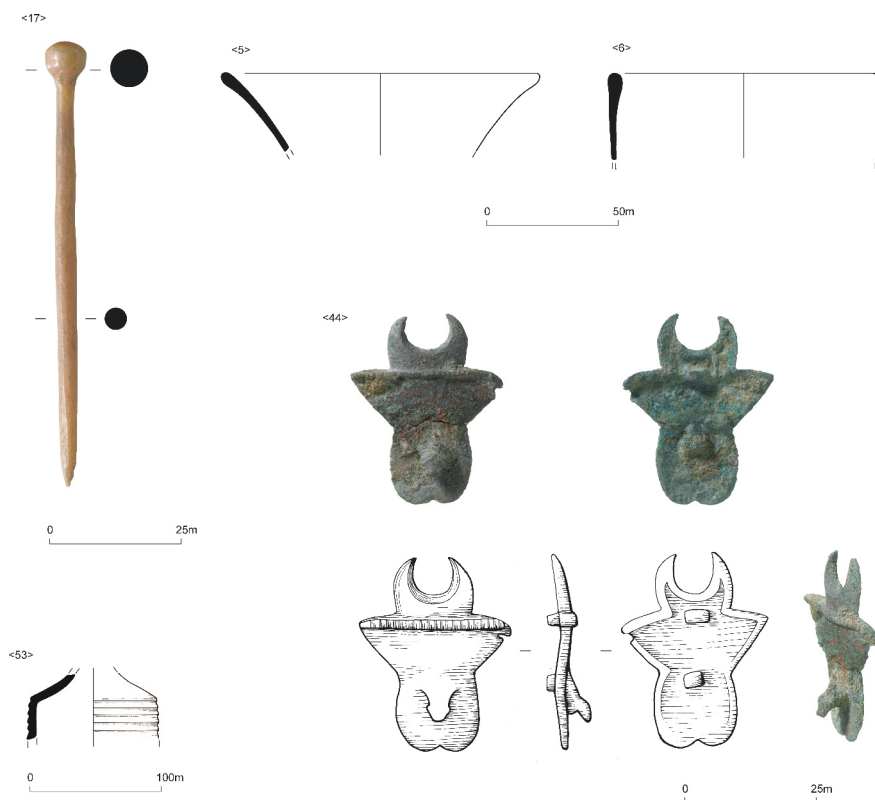


Fig. 9: Roman finds from the disuse of the City boundary features: bone pin <17>; glass cup <6>, glass bowl <5>; copper-alloy phallic mount <44> and Much Hadham ware (MHAD) jar or beaker <53>

used for products such as wool and dairy and, in the case of cattle, probably their traction as well. Cumulatively there was representation of a good range of poultry (chicken, goose and duck) and, to a lesser degree, game (deer, plover, lapwing and hare). There was little worked bone, but many had been gnawed; presumably post deposition. A handful of dog bones, and raven, give the impression of scavenging on a wasteland.

Camulodunum 306 bowls

An interesting aspect of the late Roman assemblage was the consistent presence of sherds from Camulodunum 306 bowls, almost all from late Roman deposits. This type of bowl is very often poorly manufactured, which complicates vessel links, but the total of 152 sherds is likely to represent a maximum of *c.* 109 vessels. The two neighbouring sites, TRT85 and CPW99, also had notable quantities of the bowls; TRT85 the highest at 215 sherds.

Despite the limited technical skill applied to the construction of the vessels a common purpose still appears probable. Ritual associations have previously been suggested partially as a result of the unusual distribution of the

type.¹⁹ Deliberate breakage of the bowls also appears to be a common factor in their deposition. However, there appear to be increasing examples of assemblages such as Trinity House with no obvious links to religious observance.

Each of these three sites shows no apparent pattern to the deposition of the bowls, scattered in individual deposits across the open areas and ditch fills. The Camulodunum form 306 bowls from Trinity House are not the dominant form in their respective assemblages. A range of further fabrics and forms accompany the bowls in almost all of the 22 groups where the type was recorded. In those assemblages with over 50 sherds the proportion of these represented by the bowls is typically around 10% or less; one exception is a dump deposit from the dark earth deposits in Period 5 (context [268]) where the bowl sherds are slightly higher at 22% of the group. The fabrics of the bowls are all unsourced reduced wares but frequent similarity between vessels suggests they originated from a limited number of industries. Reduced fabrics are much more common than their oxidised counterparts for this form overall;

indicating that the latter are possibly misfired examples and a further link with their variable manufacture.

A dual or multi-functional explanation may need to be considered for these vessels. Perhaps a partial answer lies in the apparently easily disposable nature of the bowls, manufactured for short-term use or even a single occasion. Their function could be linked with any large-scale need for cheap vessels and thereby not limited to ritual ceremonies. Quantification of additional assemblages with the bowls and analysis of their distribution over *Londinium* would be needed to further investigate this possibility.

The end of the Roman sequence

'Dark earth' deposits and other dumps sealing the Roman sequence were recorded as Open Area 5, which extended over S5 and S6 and contained a series of finds-rich deposits dated to AD 350–400 and containing a typical mix of later 4th-century AD pottery such as Alice Holt Farnham, Nene valley, Oxfordshire colour-coat, Portchester ware D and late Roman imported vessels.

Once again, a considerable quantity of roofing tile and brick was recovered, together with a small quantity of wall plaster and daub. There are also two combed box-flue tiles, one of which shows the complete width (160mm) of the keyed front face, with combing and the remains of a vent in the adjacent site. This is unusual as vented sides of most box-flues are unkeyed. There is further evidence of roofing tile imports from outside London in the form of a fine, fairly sandy orange tile with dark orange and red iron oxide inclusions. Tiles of this type, of which only six others are known from London, all have the same small narrow flange with a groove along the outer top edge. Although the earliest examples occur *c.* AD 140–160, most are recovered from late 3rd–4th century contexts. A *tegula*, made from distinctive shelly clay, manufactured in a tiliary located at Harrold, Bedfordshire²⁰ was present. Tiles from Harrold are usually roofing or box-flue tile, and were used from *c.* AD 270 to 350.

Other finds include a hairpin <16> (not illustrated), with an elongated globular head. A fragment of shaft from



Fig. 10: copper-alloy and iron key <43> from a late Roman pit

a jet hairpin <23>, from a medieval context, is likely to date from the 4th century and the presence of a small quantity of jet jewellery at CPW99²⁰ and of late 4th-century hairpins and shale armlets from TRT85 should be noted. A fragment of colourless glass cup <7> belongs to a tradition of facet-cut bowls of the 2nd to early 4th century and is likely to be residual. The only other find is an iron key with a cast copper-alloy handle, now badly distorted by the corrosion of the iron shank (<43>; Fig. 10).

There were five stratified coins from the site and all came from OA5. Four were 4th century in date (and there is a sixth, unstratified coin of Valens of AD 367–75). It is not likely that any of them were still in circulation at the end of the 4th century. Half of the 15 coins from

adjacent and similar deposits at TRT85 were ‘barbarous radiates’ of the third quarter of the 3rd century that may have circulated into the early 4th. The other half were from a slightly wider range of the 4th century. Apart from a coin of Constantine I, dated AD 310–11, the others were copies from the period AD 330 to 365, complementing the TRH08 material. Inspection of the 26 uncleaned coins from CWP99 suggested that all were barbarous radiates. The evidence from these sites suggests economic stagnation by at least the third quarter of the 4th century.

Conclusions

There is relatively sparse archaeological evidence for activity on the site throughout its history. This is almost certainly because of its proximity to the city wall, which constitutes the most important aspect of the site.

It is apparent that the site was marginal land before the wall was built c. AD 200. It was open ground crossed by a ditch (S1) and remained unbuilt upon. This ditch aligns with those at site CPW99 to the north, which it has been suggested mark the orientation of an early eastern boundary to Roman London.²¹

The site does not refine the dating of the city wall but confirms that the area immediately inside it was given over to related, ancillary structures. Broad ditches aligned parallel to the wall and the build-up of an apparent internal rampart S3 (post AD 200/250) dominate the later Roman use of the site, which was in many respects similar in character to open or waste ground. Whilst some of the late items found on

the site or nearby, such as the Camulodunum 306 bowls, the very rare fragment of lead shrine from TRT85 <14> and copper-alloy phallic mount <44>, could be associated with religious practice, the depositional processes involved tend to suggest casual loss, or disposal on waste ground, rather than ritual.

Acknowledgements

Museum of London Archaeology would like to thank Peter Mills of Mills Whipp Projects for commissioning this article on behalf of the client, citizenM Hotels. Thanks are also due to David Divers, formerly of the Greater London Archaeology Advisory Service and Jane Sidell, Inspector of Ancient Monuments, for their valuable advice. The site work was supervised by Gemma Stevenson, and the site staff included Howard Burkhill, Charlotte Faiers, Mark Ingram, Sam Pfizenmaier, Victoria Stansfield, Simon Stevens, Sadie Watson and Frank Zwettler. Survey support was by the staff from MOLA geomatics team. Specialist contributors were Ian Betts (building material), Anne Davis (plant remains), Alan Pipe (animal bone), and Angela Wardle (accessioned finds). Specialist comment was also sought from Jon Cotton on the prehistoric finds. The illustrations were prepared by Judit Peresztegi and the photographs by Andy Chopping. Jo Lyon managed the fieldwork project and David Bowsher managed the publication.

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