

Fig. 1: DUA excavations around the north end of London Bridge. 1) New Fresh Wharf 2) Billingsgate Buildings 3) Seal House 4) Miles Lane 5) Peninsular House 6) Pudding Lane 7) Billingsgate Lorry Park. Fish Street Hill excavation shown hatched. The outline of the 1st century warehouses, quay and bridge pier is shown in relation to the position of the FMO 85 building. Tone shows extent of the Thames in the 1st century.

Bridgehead revisited

Photography by Jan Scrivener

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IN THE SUMMER of 1985 the Museum of London's Department of Urban Archaeology completed negotiations to excavate under Nos. 37-40 Fish Street Hill, a site in the last completely unexcavated area¹ around the north end of London

Bridge (Figs. 1 and 2).

Between 1979 and 1982 the DUA had carried out a series of excavations in this area, the results of which have been extensively publicised². The most dramatic of these results were the extensive remains

1. Regis House, on the opposite side of the road to the Fish Street Hill excavation (see Fig. 1), was redeveloped and archaeologically investigated in 1923. See R. Merrifield *The Roman City of London* (1965) 284. It is likely that some

archaeological deposits survive between the foundation piles of the modern building.

2. Most recently and most extensively in G. Milne (ed) *The Port of Roman London* (1985).

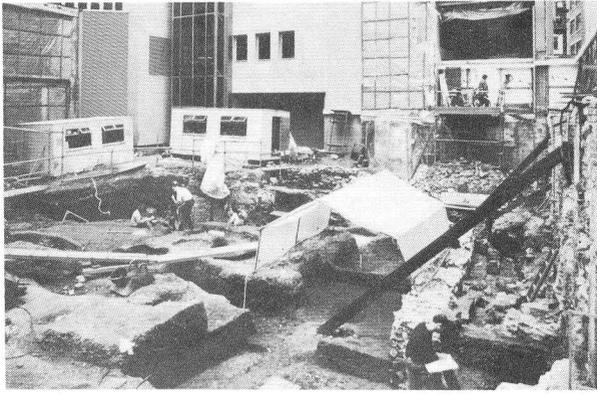


Fig. 2: Fish Street Hill site, looking south towards part of Centurian House, built over Roman bridge pier excavated on Pudding Lane site in 1981.

of the mid 1st century Roman waterfront, including a timber quay standing up to 2m (6½ft) high, parts of two large masonry warehouses, an impressive bath-house complex, and part of a timber pier base which may have been the footing of a Roman London Bridge (Fig. 1). Occupation in this area was shown to continue into the late 4th century³. Subsequently, Fish Street Hill had been the approach road to medieval London Bridge for the 650 or so years of its existence, until the bridge was rebuilt upstream in 1831.

In recognition of the site's potential, the excavation was generously sponsored by the developers, Speyhawk Development Ltd. Between July and October 1985, an area c 20m × 15m (66ft × 44ft) was opened up and a substantial proportion of it was excavated to natural⁴.

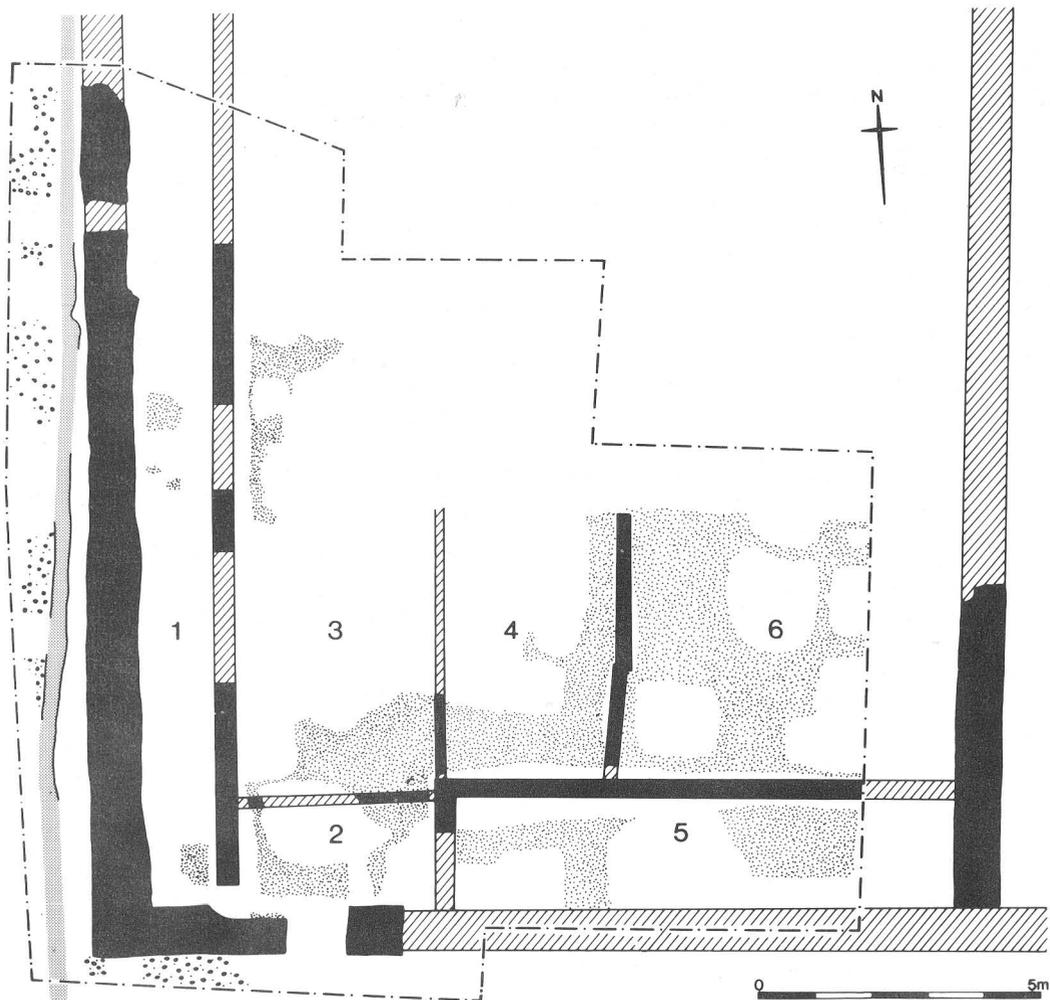


Fig. 3: plan of Building A, 1st century. Broken line shows limit of excavation. Walls found shown black, conjectured alignments hatched, internal surfaces stippled (Rooms numbered 1-6), external surfaces to south and west, tone shows course of drain.

Early 1st century – c 50-60 AD?

A shelving natural gravel terrace, c 4.80m (15ft 9in) OD at the north end and c 3.0m (9ft 10in) OD at the south end of the site, sloped down towards the River Thames. Evidence from the 1981 excavations suggested that the contemporary river bank lay c 5m (16ft) to the south, and that the contemporary normal high tide level was not expected to reach above c 1.5m (5ft) OD⁵. There was no evidence for any soil or turf horizon over this gravel, but the thick brown (possibly organic) layer which sealed it may have been waterlain rather than deliberately deposited⁶.

This layer was sealed over most of the site by a series of gravel dumps, deposited to create a level, flat terrace and to raise ground level above that of any possible flooding. Gravel surfaces, presumably external, were laid over the make-up layers, and a patchy brickearth surface was recorded on the east side of the site. It was probably internal, although no evidence for any walls was found, and appeared to be associated with a timber-lined water tank, a small part of which was exposed in the south-east corner of the site. This feature was constructed of horizontally laid timber planks set edge to edge, the ends of which slotted into grooves cut into the inner face of a large vertical squared timber. Since the structure was set within a wide clay-packed construction trench, it was probably designed to hold water rather than encourage its collection as in a well. It was almost identical to a timber tank found in the 1979-82 excavations, which has since been interpreted as part of an industrial process producing fish sauce⁷.

This early activity was associated with pottery which had been provisionally dated c AD 50-60⁸. The pottery included a significantly high proportion of Sugar Loaf Court Ware (SLOW), a type of London manufacture and only recently recognised, the limited distribution of which is still not understood. The various horizons identified suggest only limited structural activity, possibly industrial rather than domestic, and a wide external area close to the river bank.

Mid 1st century – AD 60-75?: Building A

Most of the site was sealed by a thick redeposited destruction layer which contained a high proportion of the pottery types associated with the earlier activity. Since no evidence for destruction was found *in situ* beneath it, the deposit has been interpreted as the result of clearance of nearby destruction. It was

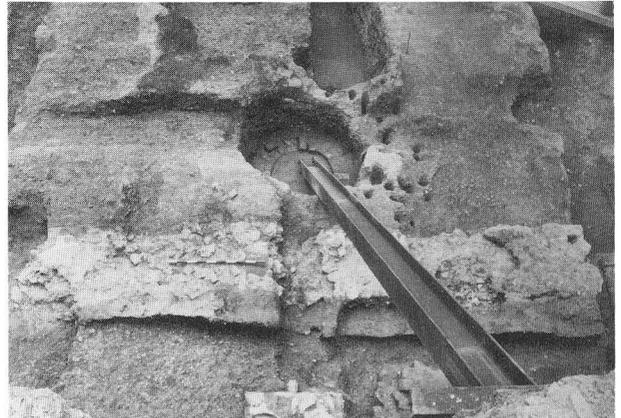


Fig. 4: Building A; looking east over the possible Roman road onto part of the west wall, corridor and burnt internal surface.

contained within the masonry and timber walls of a substantial building (Building A; Fig. 3) and probably formed the earliest of a series of make-up layers which were dumped within the building in order to raise the internal ground level.

The west wall of Building A was represented by a subsurface ragstone foundation and only a small part of the superstructure, two courses high, survived at the south end. The east wall was apparently similar in construction, but lay outside the area of controlled excavation and was only recorded in the watching brief. The south wall was more substantial and built of tiles, possibly because it functioned not only as a wall of the building, but also as a terrace retaining wall. The internal floor area to the north of the wall was c 1.0m (3ft 3in) higher than the external ground surface to the south. A narrow gap, c 1.2m (4ft) wide, separating the two parts of the wall, may represent a door/stairway leading from the inside to the outside. This structure was probably built of timber, since all evidence of it was removed when the gap was blocked up (see below).

In the east part of the site there was no evidence for the continuation of the tile wall; the higher internal area (Room 6) was however separated from a lower internal area to the south (Room 5) by a deeply cut trench packed with rammed gravel. In the centre of the packed trench was a row of post-holes, and, above the surface from which the trench was cut, the gravel packing was lined on both sides with traces of timber planking. The feature has been interpreted as the foundation for a timber sill, which was later robbed out, causing all the deposits to the north and west of the timber wall to slump onto the lower area.

3. *Ibid*, 22-33.

4. Archive report in Museum of London library; site code FMO 85.

5. *Op cit* fn 2, 81.

6. The layer awaits environmental analysis.

7. *Op cit* fn 2, 87 and especially Fig. 53.

8. Dates quoted in this report are based upon provisional examination by Drs. P. Tyers and A. Vince.

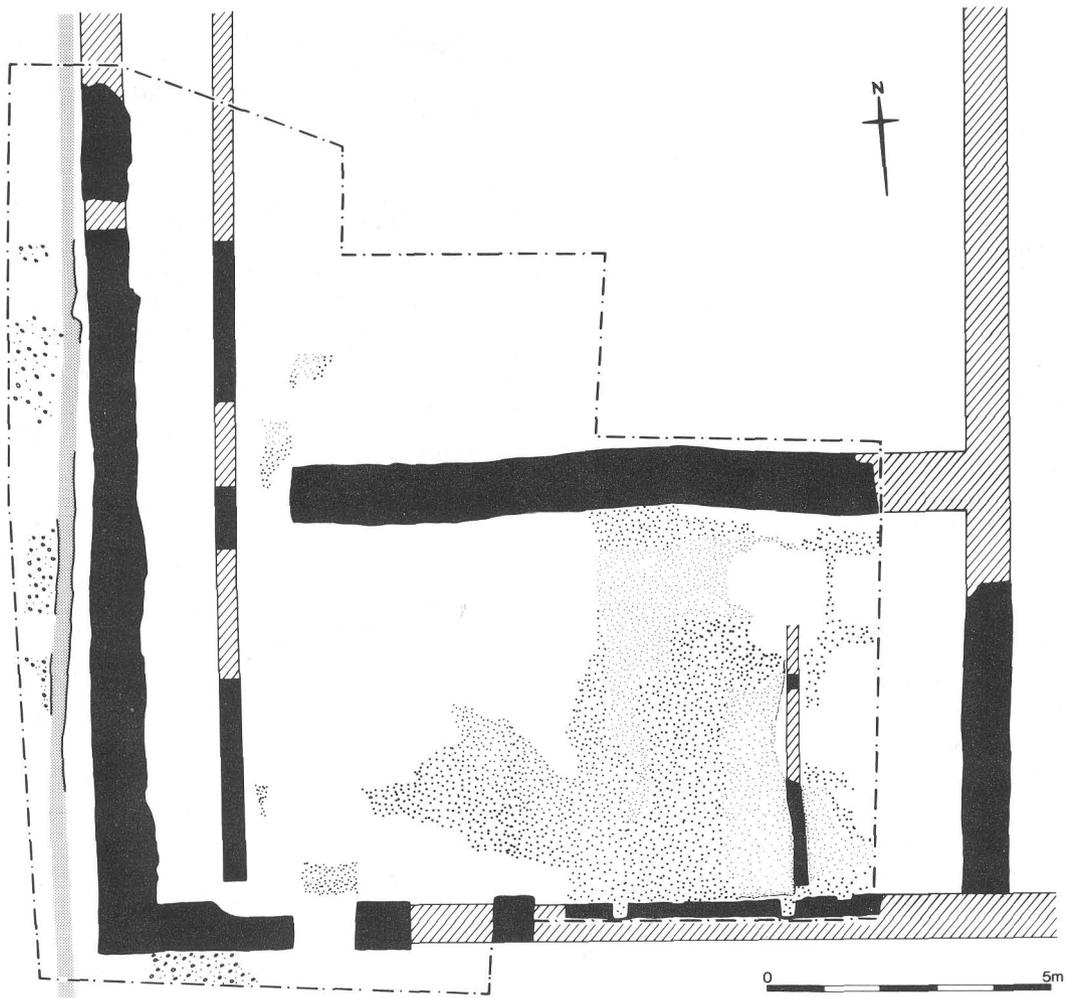


Fig. 5: plan of later development of Building A. Internal surfaces in light stipple overlying fire debris in heavy stipple.

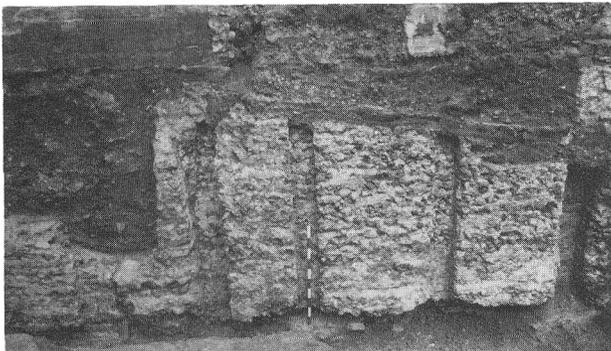


Fig. 6: Building A; looking south on new flint wall in south-east corner. One metre scale sits in one of five vertical slots rising from the horizontal slot at the base of the wall, possibly representing ghosts of timber shuttering.

Floor surfaces inside the building were made of brickearth, the internal area being divided into separate rooms by slots and trenches of differing dimensions. The size of Room 2, which lay immediately north of the entrance in the south wall and could be interpreted as a hall or lobby, suggests that the main entrance to Building A lay elsewhere. A north-south strip (Room 1), bounded by the west masonry footing and a narrow sill-beam trench parallel to it and c 1.2m (4ft) inside it, has been interpreted as a possible corridor (Fig. 4). Since very little of the superstructure of the west wall survived, it is possible that the foundations originally supported a series of arches or columns rather than a solid wall. If such were the case, Room 1 could be interpreted as a portico. Other rooms of uncertain function were also identified (Rooms 3-6).

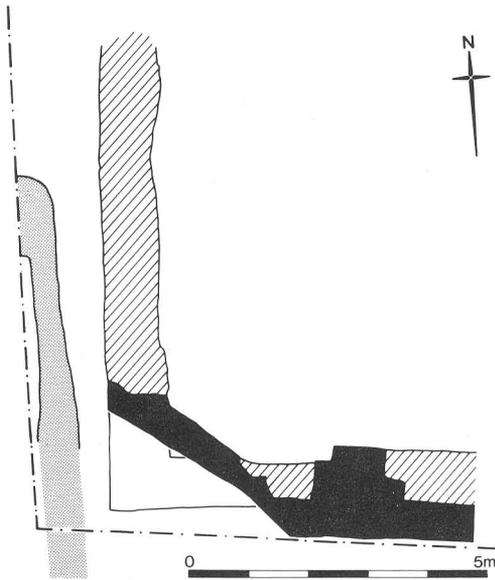


Fig. 7: detail plan of Building A, south-west corner, showing early 2nd century developments. Retained wall hatched, robbed corner in outline, new walls black.

External area – a road?

There was sufficient evidence to suggest that a compacted external surface had been laid down over the series of make-up deposits which lay to the west of Building A (Fig. 4). Given the narrow area available for excavation, the function of this surface remains uncertain, but it is possible that it represents an early Roman road from the forum at the top of the hill to the bridge pier discovered in the Pudding Lane excavations (see Fig. 1).

Function of Building A

Its size and its location close to the waterfront and immediately adjacent to the probable position of the road connecting the forum and the bridge, might suggest that it was a building of some importance. The absence of any hearths or obvious domestic material renders it unlikely, though not impossible, that the building was domestic. Pottery derived from the make-up dumps within the building has been provisionally dated *c* AD 60-75 and contains a significantly high proportion of amphorae types. As such, it is directly comparable with the pottery derived from the massive infilled quay recorded in the Pudding Lane excavations to the south (PDN 81)⁹. Since the pottery was clearly redeposited, it need not indicate the function of Building A itself, though it clearly points to commercial activity in the surrounding waterfront area. It is therefore possible

9. For discussion of the possibility of an all-embracing waterfront redevelopment scheme see N. Bateman and G. Milne 'Building on the waterfront' in *op cit* fn 2, 127-32.

that Building A was used as a warehouse, though the size of the rooms, the general layout, and the possible portico along the frontage may suggest a more likely use as offices.

Dating

The date of Building A is unresolved. The pottery was very similar to that from the PDN 81 infilled quay, neither assemblage containing types normally described as late Flavian, suggesting a date of *c* AD 60-75. Twelve legible coins associated with Building A were all Claudian copies (AD 41-64). However, dendrochronological analysis of the timbers from the PDN 81 quay suggests a much later date, after AD 86, for its construction. Nevertheless, both assemblages are so large that the likelihood of residuality is very small.

The conflict between the two sets of dating evidence cannot be resolved at the moment. However, the similarity between the assemblages from PDN 81 and FMO 85 is strong enough to suggest that, whatever the absolute date, the construction of Building A was possibly contemporary with that of the infilled quays and warehouses to the south, and that they may all have been part of the same large-scale waterfront redevelopment project. Fig. 1 shows the remarkably similar alignments of the walls of Building A and the warehouses, quay and bridge pier to the south.

Later 1st century

The highest brickearth floors in Rooms 2-6 (but not Room 1) were scorched by fire, and the timber elements in the building were either destroyed or so damaged that they were removed. After this, a series of structural modifications was made, including the extension of the south wall across the

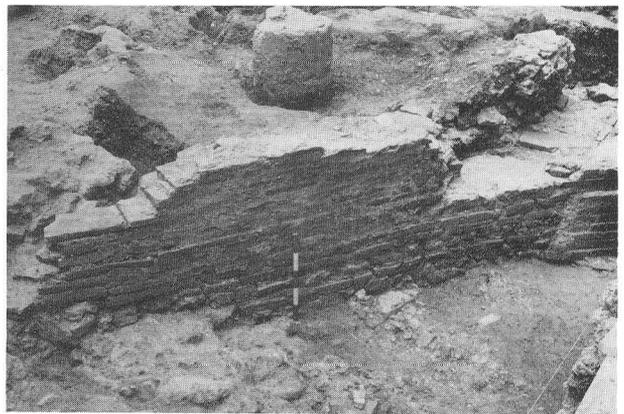


Fig. 8: Building A; looking north-east over early 2nd century rebuild of south-west corner; the west and south walls have been cut down to insert new tile wall.



Fig. 9: Building A; looking over south-west corner; early 2nd century dumps against outside of diagonal tile wall; half metre scale sits near extension to west wall of building.

whole width of the building (Figs. 5 and 6). This new wall was built of flint and ragstone rather than tile, and was apparently constructed within a timber frame or shuttering¹⁰. Since the wall lay exactly on the southern limit of excavation, it is not known whether there were internal surfaces to the south of it, but its thickness and depth suggest that, like the tile wall in the south-west corner, it was probably a terrace wall.

Behind the wall were piled thick make-up dumps, and cutting through them was a second flint-built east-west aligned wall. It was very deeply founded and extended from just inside the line of the corridor wall, which must have been retained or rebuilt at this stage, to the east wall of the building.

10. A similar method of construction was used for a wall discovered in 1906 near Knightrider Street. It "was solidly built of Kentish rag ... forming a flat face particularly on the south side ... At distances of 4 feet were the semicircular grooves formed by the half-poles ... these ran vertically up both sides of the wall and opposite each other. The mortar has

It is possible that the flint foundation replaced a timber wall in a similar position, but its construction removed all evidence for an earlier wall. It is probably significant that the distance between the south wall of the building and the new 'central' wall (7.3m, 24ft) was exactly half the distance between the east and west walls of the building (14.6m, 48ft). One suggestion is that the new wall lay under, and directly supported, the central roof-ridge line and, if this was so, that the building was probably square.

Early 2nd century

To overcome certain structural failures in the south-west corner, modifications were needed. They included the removal of the rectangular abutment of the south and west walls and its replacement by a tile wall built at an angle to the rest of the building. At the same time, the southern entrance was blocked and the south wall itself strengthened by the addition of a second tile wall built up against its external face (Figs. 7 and 8).

This rebuilding appeared to be contemporary with the cutting of a series of drains through the metallised surfaces to the west of the building. These drains ran to the southern limit of excavation, presumably to flow into the Thames, but at the north end turned sharply west away from Building A. If the metallised surfaces of the earlier phase represented a road running down to the bridge, the cutting of these drains suggests that such a road had been significantly modified or no longer existed.

The highest of the surviving drains was backfilled with redeposited fire debris piled up against the outer face of the building. Through this debris a southern extension of the west wall foundation was constructed (Fig. 9), presumably making the earlier diagonal rebuild of the corner redundant and effectively enlarging the building to the south.

The construction of the drains and the fire debris dumps which sealed them were associated with pottery provisionally dated *c* AD 120. It is therefore possible that either or both of the separate structural modifications to the south-west corner may be connected with the changes in the waterfront area which resulted from the reclaiming of more land and the building of another quay after *c* AD 100¹¹.

Because of the truncation of horizontal stratigraphy by the modern basement slab, the later development of Building A is not known. However, the bases of later cut features survived, including evidence of two cellared buildings.

been poured freely into the wooden framework, forming smooth and regular grooves and bearing on the face the impress of the planks and the divisions between them ..." P. Norman and F. Reader 'Recent discoveries in connexion with Roman London' *Archaeologia* 60 (1906) 219-20.

11. *Op cit* fn 2, 29.

Early medieval activity – c AD 950-1100: Buildings B and C

The earlier, Building B¹², was at least 3.5m (11ft 6in) north-south by at least 2.5m (8ft) east-west, and set c 0.40m (16in) into the underlying Roman stratigraphy, though the level from which it had been cut was truncated (Fig. 10). A series of earth-fast, ragstone-packed posts was spaced around the edge of the rectangular cut, of which part of the north and west sides survived. Along the north wall line was a flat ledge c 0.40m (16in) wide, standing 0.20m (8in) above the base of the sunken floor area. A hard compacted gravel layer was spread over the ledge, sealing the ragstone packing of the postholes but not the posts themselves. The ledge may have provided a free-draining bed for the wall cladding, and a narrow linear space between the gravel and the side of the cut may represent the position of planks laid horizontally on edge and attached to the posts. A series of thin silt tread layers and compacted sand, silt and gravel deposits represent the internal floors of the building.

Cutting through the south end of Building B were the remains of Building C, 8.0m (26ft) long east-west by at least 3.5m (11ft 6in) north-south, and cut at least 0.50m (20in) through the underlying stratigraphy. Around the west and most of the north sides of the internal floor area was a masonry wall built of irregular mortared courses of ragstone with occasional reused Roman tile fragments. Since it was neither very thick nor deeply founded, it is unlikely that it was solely responsible for supporting the superstructure of the building. It is possible that the wall represents only a masonry 'lining' to an internal subsurface area smaller than the building as a whole; alternatively, the superstructure may have been supported by a timber sill resting partly on this wall, partly on the contemporary ground level through which the 'cellar' was cut.

The north-east corner of the building was formed by a right-angled robber trench, c 0.50m (20in) wide and 50mm (2in) deep, perhaps dug to remove a further length of the stone 'lining' (see above), although the size and shape of the trench could imply the use of a timber baseplate. The trench did not extend to the southern limit of excavation, and a post-hole on the north side of the gap may be evidence for a doorway.

Inside, and parallel to, the walls at the north-east corner was a row of shallow post impressions and a linear slot, which may be evidence for added structural supports or internal fixtures placed against the walls.

12. For further details on Buildings B and C see Horsman and Milne, forthcoming.

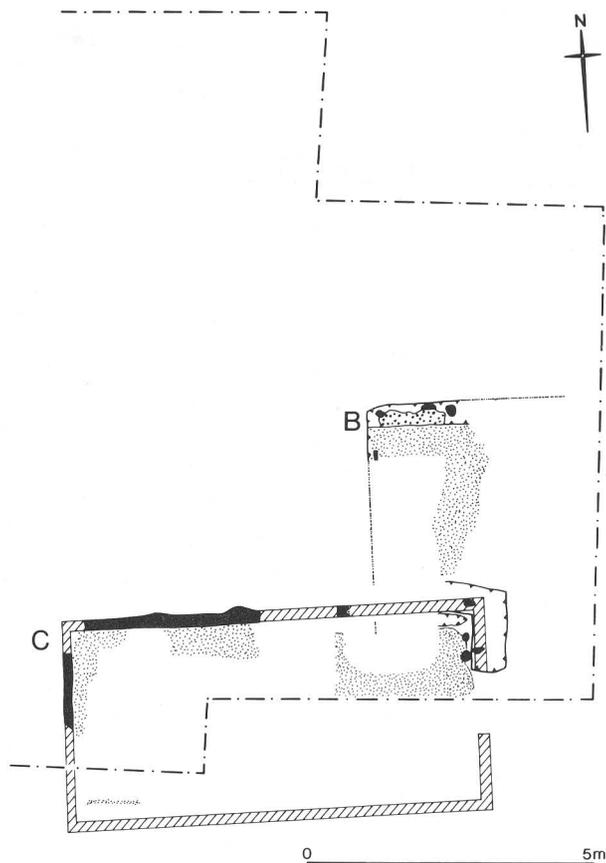


Fig. 10: plan of Buildings B and C. Conjectured walls shown as broken line (B) and hatched (C).

The sequence of brickearth and beaten earth floors within the building was sealed by a thick layer of mortar rubble which filled the robber trench in the north-east corner. The building was subsequently extended to the east by at least 1.0m (3ft 3in), and that part of the north wall which had been robbed was reconstructed at a higher level.

Pottery from Building B has been provisionally assigned to London Ceramic Phase 2, currently dated to the late 10th to early 11th centuries, while pottery from Building C has been assigned to Ceramic Phase 4, currently thought to begin c 1050¹³.

Pits and external areas (Fig. 11)

About 20 pits were identified, many of which were wattle-lined and/or contained organic fills, and have been interpreted as pits dug for the disposal of domestic rubbish. Except for one pit, they were all

13. See fn 7.

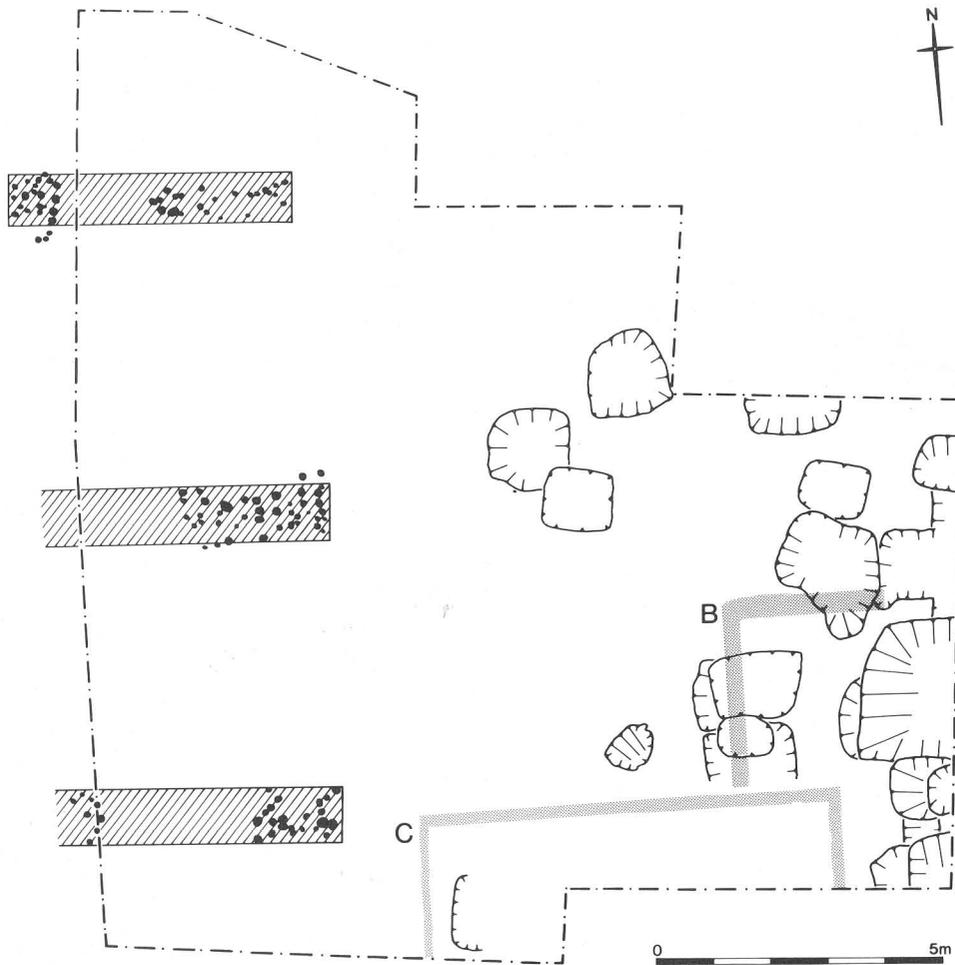


Fig. 11: plan of pits along east side of site and post-hole alignments on west side. Conjectured walls over post-holes shown hatched. Buildings B and C (see Fig. 10) toned.

situated along the east part of the site, but their absence from the west part appears to be 'real' – i.e. not just a result of later truncation. There was no readily apparent grouping of the pits which might suggest property divisions; however, pits at the south end were generally deeper than those at the north end, presumably a reflection of the slope of the hillside. Pottery from these pits has been assigned to Ceramic Phases 1, 3, 4, 5 and 6, currently dated late 9th to late 12th century, and the absence of certain types suggests that the pits were not being filled later than c 1200. It is clear therefore that many of these pits could have been contemporary with Buildings B and C, while others were certainly later. Because the surviving evidence for the two buildings was relatively shallow, and truncation was deeper elsewhere on the site, it is possible that there were other contemporary buildings to the west and north. Given that there was a real absence of pits

along the west part of the site, it is likely that during this period there were buildings all along what later became the Fish Street Hill frontage, and that the pits along the east side represent external areas (i.e. yards, etc.) at the rear of these properties. The absence of pitting later than c 1200 may suggest that these external areas were themselves built over in the early 13th century. This may reflect the redevelopment of the area after the construction of Peter of Colechurch's Bridge, begun in 1176.

Along the west of the site were three parallel rows of post-holes, c 5.6m (18ft) apart. They did not extend east into the 'external' area where the pits were recorded, nor did they extend west to the present frontage of Fish Street Hill. It is possible that they represent the foundations of early medieval buildings, perhaps contemporary with some of the pits in the east of the site, although no dating evidence was associated with them.

Post-medieval activity

Several partial and one whole 17/18th century cellars were exposed, as well as a number of 17th, 18th and 19th century wells, cess-pits and wall foundations. They reveal the gradual evolution and consolidation of the property boundaries which were extant until early 1985.

Conclusions

The site produced new evidence for a large 1st century Roman building, probably square, with a corridor or portico along the west side, fronting onto what may have been the main road leading down to Roman London Bridge. It may have been built at the same time as the infilled timber quay and warehouses to the south. Its function is not obvious, but it may have been official, perhaps directly linked to the workings of the port. Evidence for the development of this building during the 3rd and 4th centuries was unfortunately truncated.

The earliest medieval activity on the site – some of the pits – dates from the late 9th century, the period during which the city was resettled under Alfred. Most of the pits, and Buildings B and C, date from the late 10th to mid 11th century, and may therefore have been broadly contemporary with the waterfronts discovered at nearby Billingsgate Market (BIG 82) and New Fresh Wharf (NFW 74)¹⁴.

14. A. G. Vince 'Saxon and medieval pottery in London: a review' *Medieval Archaeol* 29 (1985) 88.

15. It is interesting to note that the initial establishment of

Moreover, they are generally of a date with the Billingsgate regulations of c 1000 which first mention the Bridge, the reconstruction of which must have been an integral part of the redevelopment of the area¹⁵. Subsequent development of buildings and their external areas in the 12th century and later seems to reveal an intensification of occupation, possibly linked to the building of Old London Bridge after 1176.

Acknowledgements

Acknowledgement is due first and foremost to Speyhawk Development Ltd., whose generous sponsorship made the project possible, and particularly to Geoff Brown and Steve Woodward whose cooperation made work a lot easier; also to the excavation team, including P. Bethell, T. Brigham, M. Burch, P. Cardiff, P. Chitwood, P. Durnford, G. Porter, T. Mckinder, M. Samuels, M. Shea and P. Wooton; and to the seven volunteers and COLAS members who provided much needed assistance, especially on Sundays. The finds were processed on site by J. Cowgill and J. Groves, and advice on the pottery was received from Drs. P. Tyers and A. Vince. The photography was provided by J. Scrivener. Particular thanks must go to J. Maloney and F. Hammer for help and advice during the excavation and writing of the report, and C. Milne who drew the figures for this paper.

Bishopsgate, a continuation of the same north-south axial road leading down to the bridge, has been dated as 11th century. See G. Milne, N. Bateman and C. Milne 'Bank deposits with interest' *London Archaeol* 4, no. 15 (1984) 400.

Excavations & Post-Excavation Work

City, by Museum of London, Department of Urban Archaeology. A series of long term excavations. Enquiries to DUA, Museum of London, London Wall, EC2Y 5HN (01-600 3699).

Croydon & District, processing and cataloguing of excavated and museum collections every Tuesday throughout the year. Archaeological reference collection of fabric types, domestic animal bones, clay tobacco pipes and glass ware also available for comparative work. Enquiries to Mrs Muriel Shaw, 28 Lismore Road, South Croydon, CR2 7QA, (01-688 2720).

Greater London (except north-east and south-east London), by Museum of London, Department of Greater London Archaeology. Excavations and processing in all areas. General enquiries to DGLA, Museum of London (01-600 3699 x241).

Local enquiries to:

North London: 3-7 Ray Street, London EC1R 3DJ (01-837 8363).
South-west London: St. Luke's House, Sandycroft Road, Kew, Surrey (01-940 5989).

Southwark and Lambeth: Port Medical Centre, English Grounds, Morgans Lane, London SE1 2HT (01-407 1989).

West London: 273A Brentford High Street, Brentford, Middlesex (01-560 3880).

Hammersmith & Fulham, by Fulham Archaeological Rescue Group. Processing of material from Sandford Manor and Fulham High Street. Tuesdays, 7.45 p.m.-10 p.m. at Fulham Palace,

Bishop's Avenue, Fulham Palace Road, SW6. Contact Keith Whitehouse, 86 Clancarty Road, SW6 (01-731 0338).

Kingston, by Kingston upon Thames Archaeological Society. Rescue sites in the town centre. Enquiries to Marion Shipley, Kingston Heritage Centre, Fairfield Road, Kingston (01-546 5386).

North-east London, by Passmore Edwards Museum. Enquiries to Pat Wilkinson, Passmore Edwards Museum, Romford Road, E15 4LW (01-534 4545).

Surrey, by Surrey Archaeological Unit. Enquiries to David Bird, County Archaeological Officer, Planning Department, County Hall, Kingston, Surrey (01-541 8911).

Vauxhall Pottery, by Southwark and Lambeth Archaeological Society. Processing of excavated material continues three nights a week. Enquiries to S.L.A.S., c/o Cuming Museum, 155 Walworth Road, SE17 (01-703 3324).

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