

Fig. 1: remains of late Roman quay at Thames Exchange, passing between rows of piles from 1960s multi-storey car park. View is looking north-east, river to south. The 5 x 100mm scale rests on the lowest of the two surviving tiers of the front wall, while the 10 x 10mm scale rests on a severed horizontal tie-back on the landward side. (MOLAS)

The Roman Quay at Thames Exchange, London

James Parry

THE FIRST controlled excavation of a Roman timber quay in London was at the eastern end of the City waterfront (Fig. 2) at the Custom House site in 1973¹: work over the next decade saw further sections excavated immediately east and west of London Bridge, near Pudding Lane, Miles Lane², Swan Lane and Billingsgate³. From the late 1980s extensive redevelopment of the western end of the

City waterfront began in the Vintry/Queenhithe area. This report summarises the results of one of these more recent excavations, at the Thames Exchange site⁴, where a substantial length of a 3rd-century quay was recorded in 1989-90 (Fig. 1). The Roman sequence on this multi-period site is described, providing the first detailed publication of this important feature.

1. T Tatton-Brown 'Excavations at the Custom House site, London 1973' *Trans London Middlesex Archaeol Soc* 25 (1974) 117-219.

2. G Milne *The Port of Roman London* (1985; rev ed 1993).

3. T Brigham 'The Waterfront in Late Roman London' *Britannia* 21 (1990) 99-183; L Miller et al *The Roman Quay at St*

Magnus House London London Middlesex Archaeol Soc Special Paper no 8 (1986).

4. Site Code TEX88: records held by the Museum of London. The fieldwork was under the general direction of Gustav Milne, with Area C being supervised by Chrissie Milne. The excavations were funded by Kumagai Gumi UK Ltd.

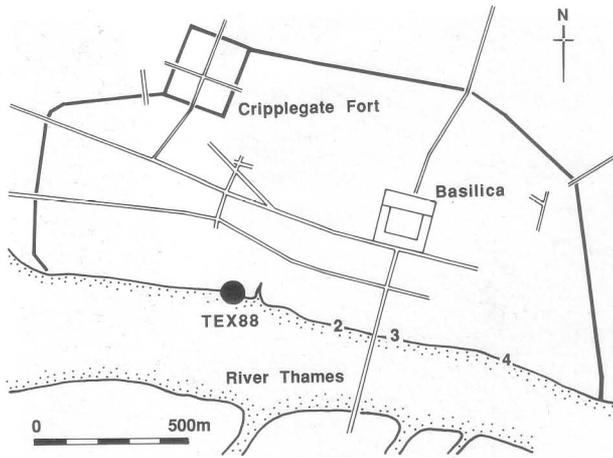


Fig. 2: schematic plan of Roman London showing location of Thames Exchange site (TEX88) in relation to other excavations of the later Roman quay at: 1 Vintry; 2 Seal House/Swan Lane; 3 Billingsgate/St Magnus House; 4 Customs House. (Sue Hurman)

The excavations (Fig. 3)

The Thames Exchange site lies on the north bank of the Thames on the eastern edge of Southwark Bridge, bordered by Thames Street to the north, Bell Wharf Lane to the east and the river to the south. Archaeological monitoring of earth-moving during this major redevelopment began in January 1988 (following the demolition of the multi-storey car park built in the 1960s) and continued intermittently until the end of 1989. During this period, a controlled excavation was mounted on Area C, an area 86m long by 11m wide on the eastern side of the site, between October 1988 and March 1989. The Roman quay was partially examined in the controlled excavation and partially during the watching brief. Although a preliminary archive report was prepared⁵, funding for the post-excavation work on this important site was withdrawn in 1991 before the full assessment of the site was finished. Although it proved

5. Unpublished TEX88 Archive Report compiled by M Colquhoun and J Stevenson in 1991.
6. G. Milne *Timber Building Techniques in London 900-1400* London Middlesex Archaeol Soc Special Paper no 15 (1992) 42-63.
7. H Clare 'Roman Panpipes Found in London' *London Archaeol* 7 no 4, 87-92; H Lindsay & P Webber 'Studying Finds from the London Waterfront' *London Archaeol* 7 no 5 (1993) 133-140; T Rutledge 'A 12th-century Building on the London Waterfront' *London Archaeol* 7 no 7 (1994) 178-183.
8. J Parry *The Roman Quay at Thames Exchange, London*: report prepared in partial fulfilment of the requirements for a BA degree in Archaeology by University College London (1994).
9. The phasing suggested in this report differs slightly from that in the Archive Report (*op cit* fn 5), although the descriptions were taken largely from that report.

possible to complete a study of several medieval revetment structures erected during the piecemeal reclamation of this waterfront site between the 10th and the 14th centuries⁶, no further work on the site archive was undertaken by Museum archaeologists. However, the records were made available to students at the Institute of Archaeology, University College London, and a number of dissertations were subsequently prepared and duly published⁷, this report forming one of that series⁸.

Roman developments (Fig. 4)

Twelve phases of activity have been identified in this report, relating to developments before, during and immediately after the construction and final use of the Roman timber quay and related features⁹: in the first phase, an orange sandy fore-

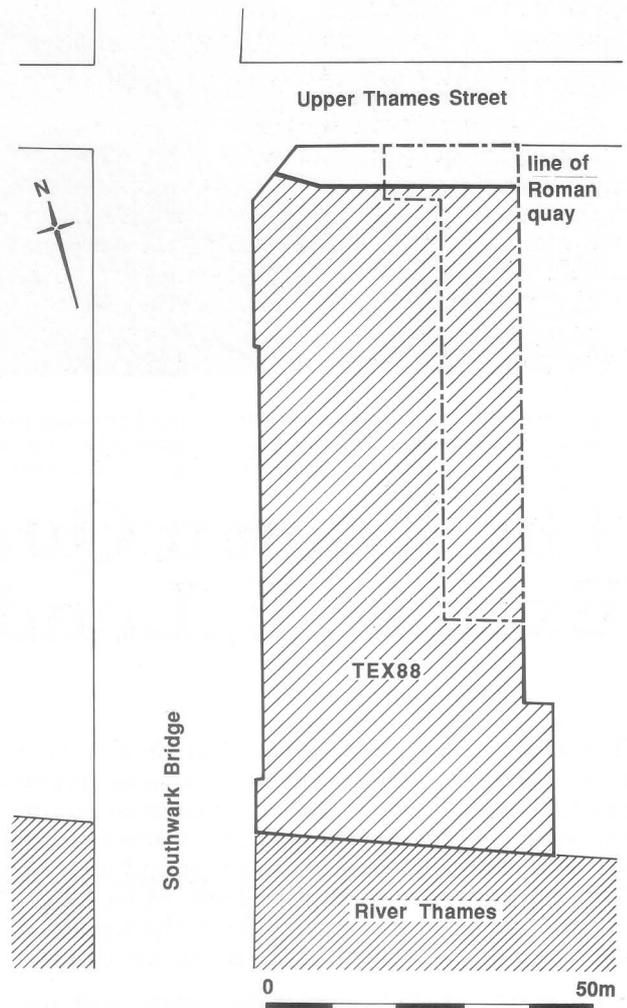


Fig. 3: plan showing location of Thames Exchange excavation (TEX88). Area of controlled excavation marked by dashed line; alignment of 3rd-century quay shown. (Sue Hurman)

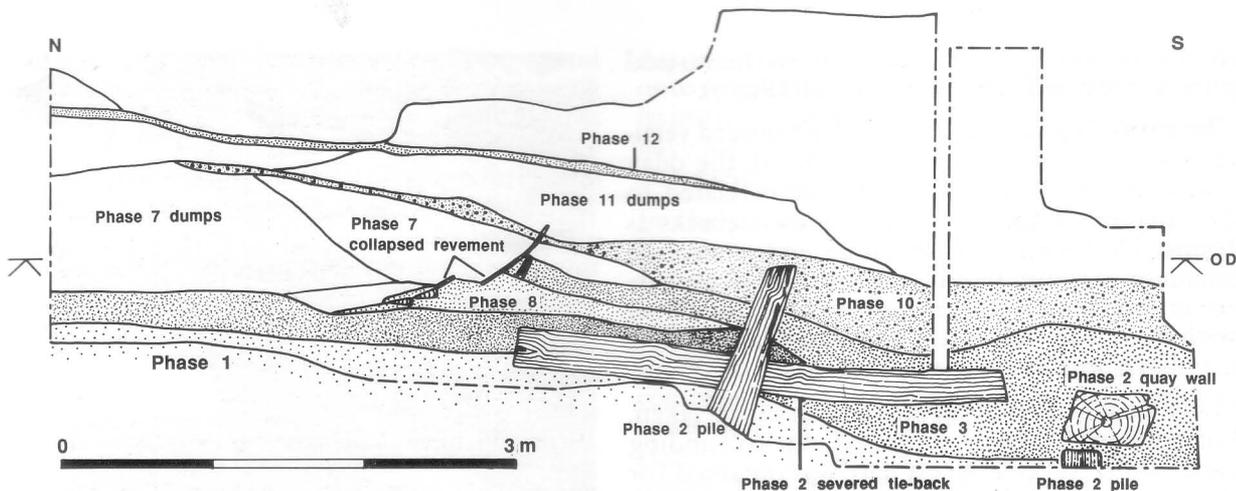


Fig. 4: schematic N-S section across the deposits associated with Roman quay on eastern side of the site.

shore had accumulated to a height of c -1.5m OD prior to the construction of the quay.

Quay construction and use: Phases 2 & 3 (Figs. 5, 6)

On to this surface the timber structure was laid, which was made entirely from oak. It ran across the northern edge of the site for at least 35m, extending beyond both the eastern and western limits of excavation. Although half of the structure lay within the area of controlled excavations, a section of the timber from the front wall within this area was 'mistakenly' removed by sub-contractors erecting support works early one morning before the DUA team arrived on site at 8 a.m. Nevertheless, it was possible to compile a composite plan of the structure as found during the course of the excavations, and suggest the sequence of construction.

The lowest tier of the front wall of the quay was laid over squared piles, secured to them through tenons on the heads of the piles slotted into mortises in the underside of the baulk. At least two tiers survived one on top of another, joined to-

gether by mortices cut in the upper and lower faces of the timbers into which fillets of wood known as free tenons were inserted. Mortises cut in the upper face of the second and highest surviving tier show that the front wall must have comprised at least three superimposed baulks (Fig. 6). These timbers were up to 7.9m long, and on average 430mm wide by 350mm deep.

The front wall had initially been supported from the north by a series of unevenly-spaced horizontal tiebacks: all save the westernmost examples had been severed in antiquity. They had been up to 4m long, and were on average 260mm wide by 215 mm deep. They had been supported by vertically-driven piles, with which they were joined by lap-joints. The tiebacks had presumably been joined at their southern ends to the front wall by means of half-dovetail lap joints, of which the housing survived in the upper face of the quay front members. However, the southern ends of the surviving tiebacks had been cut away and many had been

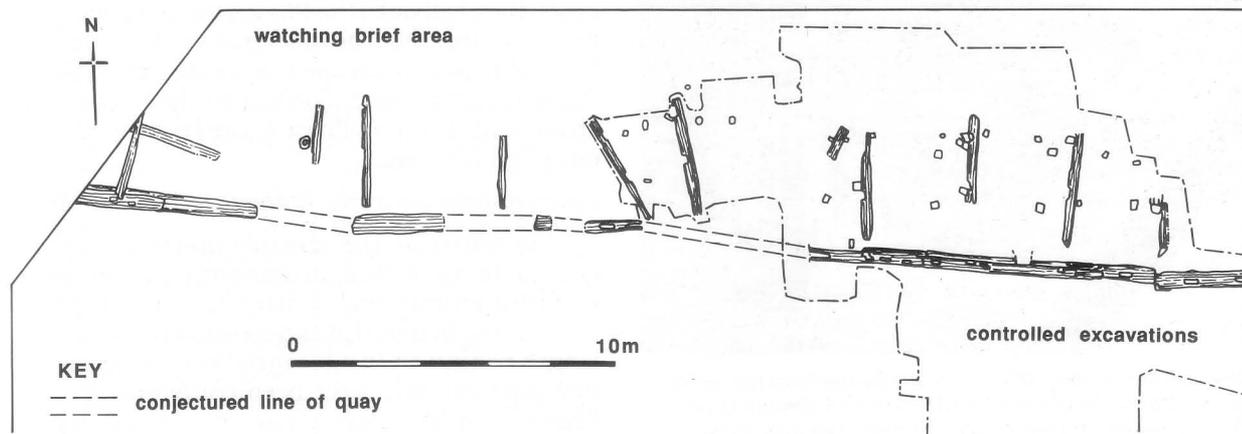


Fig. 5: plan of Roman quay remains as found on the Thames Exchange site. (Sue Hurman, after Colquhoun & Stevenson 1991)

displaced, no longer articulating with the vertical piles or the baulks of the front wall (Fig. 7).

There was also a group of irregularly-spaced vertically-set piles or posts to the north of the quay which did not serve a function directly related to the support of the front wall or the tiebacks as found. They were over 1.38m long, and on average 265mm by 260mm in cross-section. These timbers are interpreted as supports for decking associated with the primary use of the quay, which suggests it may have been an open-work structure.

Many dendrochronological samples were taken, but only one has been processed, due to funding constraints. Nevertheless, a date was obtained for the quay from timber baulk 922, one of the front wall members which showed no evidence of re-use¹⁰. Some sapwood rings were present, but not the full complement up to the bark, which would have facilitated the calculation of a very precise felling date. However, allowing for a full complement of fifty sapwood rings, it is possible to suggest that the timber was felled sometime between 201 and 237 AD.

In Phase 3, mixed sands and silts accumulated over the foreshore to the south of the quay and also inside it, to the north of the front wall members.

10. Dendrochronological study undertaken by Nigel Nayling for the DUA (MOL) in 1991: information kindly supplied by I Tyers (MOLAS).



Fig. 6: Roman quay at Thames Exchange, looking south, with north face of front wall next to 5 x 100mm scale. Note mortises in upper face of front wall members. (MOLAS)



Fig. 7: detail of Roman quay wall at Thames Exchange, with 2 x 100mm scale resting on north (landward) face of lowest front wall member. Note dove-tail housing on upper face of second tier (to left of scale) which once accommodated head of tie-back, the severed, displaced end of which can be seen on the right of the picture, where it has dropped onto the foreshore deposits which accumulated within the openwork structure. (MOLAS)

Quay dismantled: Phases 4 to 6 (Fig. 7)

When the tiebacks were severed at their southern ends and became displaced from their retaining posts, they fell onto the Phase 3 silt deposits, which demonstrates that the quay had not been infilled, but had remained an open-work structure. During Phase 5, further silts formed to the north of the front wall. Then, in Phase 6, the front wall of the quay fell forward.

Later Roman use of the Waterfront: Phases 7 to 10

To the north of the remains of the dismantled quay, a dump of Roman demolition debris which included mortar, wall plaster, tile and fragments of building material, was deposited for some of its length behind an insubstantial timber fence. This development may have been contemporary with Phase 6. In the next phase, foreshore deposits accumulated over the collapsed baulks of the Phase

2 quay, over the tiebacks severed in Phase 4, and against the southern face of the Phase 7 retaining fence. This slight revetment collapsed southwards in Phase 9, allowing the demolition debris to slump and spread riverwards, partially sealing the Phase 8 foreshore silts. The whole area was subsequently sealed by the Phase 10 foreshore which accumulated to a height of -0.6m OD over the robbed-out quay.

Latest Roman use of the Waterfront: Phase 11

A new "slab" of Roman demolition debris was then deposited onto the waterfront. This material seems carefully laid on a south-west to north-east axis, lying south of the line of the by then obscured quay in the west of the site, but north of the old quay in the east. The slab comprised grey sandy silts with frequent painted and unpainted wall plaster, mortar, tile and *opus signinum* fragments, but very little masonry, suggesting the material had been sorted. This deposit seems to represent demolition rubble from a relatively high-status building (or buildings) rather than material derived from the robbing of ancient foundations, for example. The presence of substantial amounts of relatively-fresh painted wall plaster suggests that the building(s) from which it was derived cannot have been abandoned for too long a period of time before demolition, and thus the slab seems more likely to be of late Roman rather than Saxon date. In their archive report, the excavators suggest that this phase represents an attempt at reclamation or to provide a secure landing stage, rather than simply an area of waste ground used for random dumping¹¹.

Abandonment of Roman Waterfront: Phase 12

The whole area was ultimately sealed by a coarse grey sandy foreshore over which structures which have been dated to the 10th century were erected.

Discussion

The full implications of this relatively long and complex late Roman waterfront development cannot be fully considered until the associated material has been carefully researched and dated. However, one point can be made at this stage, concerning the suggested form of the Thames Exchange timber quay. The height of the quay in its primary phase can be inferred from the fact that level of the highest surviving vertically driven pile to the north was at +0.43m OD: this suggests that the front wall could have comprised up to five tiers of horizontally-laid baulks. The structure seems not to have been infilled initially, since foreshore

deposits built up to the north of the front wall, onto which the severed tiebacks ultimately fell. In its initial phase, this openwork quay may therefore have been covered by a timber decking supported on a field of piles.

In the published dating of another 3rd-century Roman quay, the one excavated at St Magnus House near Billingsgate (Fig. 2, no 3), an incongruity was noted between two groups of pottery in what was interpreted as deposits of the same period¹². On this site, the timber quay is interpreted as comprising a tiered front wall braced with tiebacks, constructed of timbers from trees felled sometime after AD 209, based on the dendrochronological report. According to the excavators, it had been solidly infilled with debris from the outset, the infill incorporating large quantities of unused samian ware. However, the material from the lower levels could not be dated much later than AD 180, while pottery from the overlying deposits was dated to between AD 235-245. A partial resolution to this problem may be provided by the Thames Exchange evidence cited here, if the St Magnus quay could be interpreted as an openwork structure in its first phase, following the laying of the construction levels incorporating the first large group of pottery. Then, at a later date, the design of the quay was altered with the introduction of the higher dumps which either transformed the structure into an infilled quay or, like the Thames Exchange Phase 7 or 11 dumping, represented a later development of the site after the quay had been partially dismantled. Clearly more work is still required on the study of London's late Roman waterfront.

Acknowledgements

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11. *Op cit* fn 5, 25.

12. L. Miller *et al* (1986) 96-8: *op cit* fn 3.