

# Saxon foreshore at Temple Place

Julian Bowsher

## Introduction

FOR MUCH OF 1996 an extensive watching brief was carried out by the Museum of London Archaeology Service on the site of Globe House<sup>1</sup>. It lies immediately north of Temple Place, between Arundel Street and Milford Lane, at TQ 3108 8085 (Fig. 1). The building was constructed in 1930-31 as Electra House and was deeply terraced into the natural slope of the Thames valley. Thus the basement floor level was at -0.30m OD with the concrete slab itself up to 0.60m thick. This truncation resulted in sharply differing survival levels between the northern and southern ends of the site. At the

rear (northern) end London Clay was present immediately below the basement slab, whilst in Section 2 at the southern end it was recorded at nearly 6m below the basement slab. Nevertheless an interesting sequence of fluvial deposits was recorded, which has provided important information on the topography of the area, as well as archaeological information on the Saxon period. This archaeological watching brief has been an important exercise in an historic waterfront area that is likely to be as archaeologically important as the similar zone in the City of London, but which has hitherto received little study.

From February to June 1996 test pits dug through the basement floor level were recorded (Sections 1-11). In the autumn of that year the building was demolished, leaving only the concrete foundations. However, areas of stratigraphy survived around these foundations and they were to be excavated out and replaced with concrete, thus

1. MoLAS is grateful to Hammerson Properties plc for funding this watching brief, site code TMP96. On site the author was assisted at times by Raoul Bull, Steve Chew, Stuart Gibson and Tony Mackinder. Metal detecting was undertaken by Alan Gammon. Much of the information in this paper is based on specialist reports compiled by Lyn Blackmore (Saxon pottery and finds), Geoff Egan (medieval finds), John Giorgi (botanical remains), Alan Pipe (faunal remains) and Jane Sidell (palaeotopography). I am grateful to all of the above and to Bob Cowie and George Dennis for general advice.

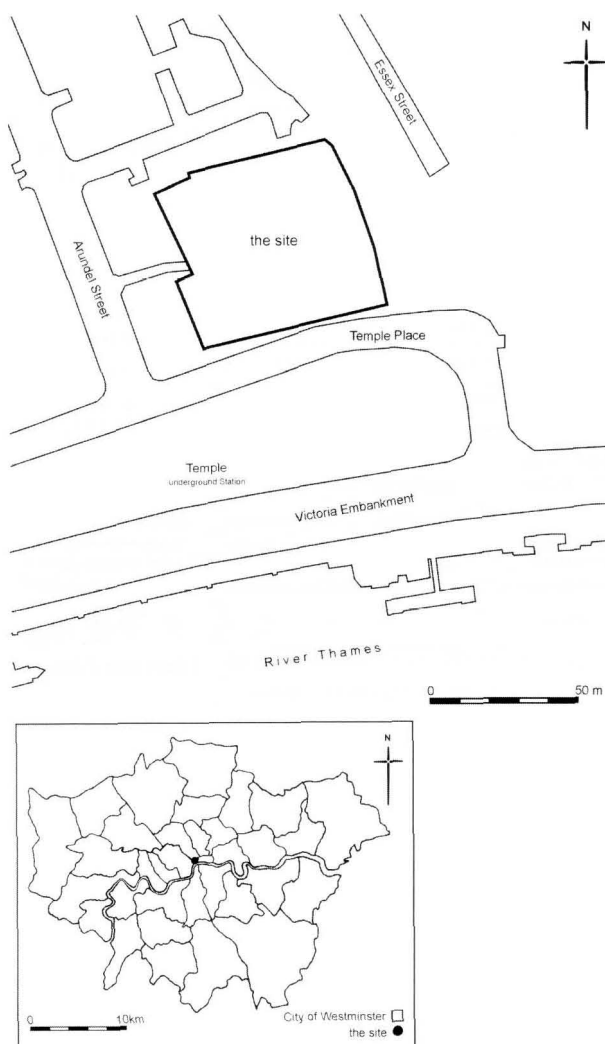


Fig. 1: location of the site

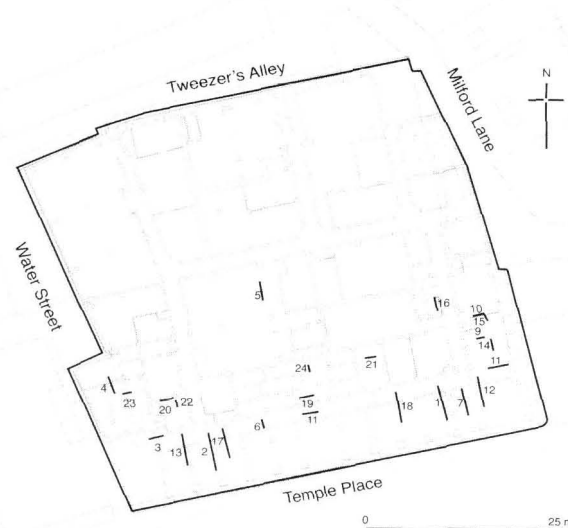


Fig. 2: site plan showing the location of the recorded sections. The section numbers are against the drawn face

providing a platform on which to build anew. These excavations were subject to a further watching brief between November 1996 and January 1997 (Sections 12-24) (Fig. 2).

### The site

Little is known of this area in the Roman or Saxon periods (see below) although the site would have fallen within the lands given by King Edgar to Westminster Abbey in AD 971<sup>2</sup>. By the medieval period, however, this riverfront location was notable for its palatial residences. These houses or complexes commonly had water gates or river stairs. In addition to the antiquity of the Strand to the north, Milford Lane, forming the eastern border of the site, is also thought to have been of medieval (if not Saxon) origin. The Temple to the east of the site was established in the 12th century, whilst Arundel House to the west was constructed by the early 13th century. Arundel House was first built as a town house for the Bishop of Bath and developed into a major site by the Tudor period. Maps of the 17th century suggest that the Globe House site lay within the gardens south of the main building range of Arundel House, immediately south of the kitchen courtyard<sup>3</sup>.

Arundel House was demolished in the later 17th century and the surrounding area was soon developed and covered in small streets. After the construction of the Victoria Embankment, larger commercial properties began to dominate this river frontage.

### The topography

The topography of the north bank of the Thames through the City and Westminster is characterised by evidence of major changes in the fluvial regime of the Thames in the post-glacial and interglacial periods. Massive changes in sea-level occurred between cold glacial (low water) and warm inter-glacial (high water) phases, and each left its mark on the sides of the Thames Valley as a chronological sequence of gravel terraces separated by deep erosional cuts. Examples of these terraces are the gravel plateaux of Covent Garden and the Strand respectively, and each has a southern erosion slope as river levels subsequently cut down through the river channel.

The erosion cut south of the Strand is still apparent in the modern street pattern. The base of the modern slope is represented by Savoy Place and Temple Place. Arundel Street to the west of the

2. M A Gelling 'The Boundaries of the Westminster Charters' *Trans London Middlesex Archaeol Soc* 11 (1953) 101-4.

3. see J Schofield *Medieval London Houses* (1995) 210-2 for a discussion of Arundel House; p. 183 for the Temple.

site has a gradient of 1:20 from its upper (northern) end at +14m OD down to +6m OD 170m farther south at its lower (southern) end. However, the results from Globe House show that the original palaeo-channel cuts much more steeply through the London Clay with a gradient of 1:7 measured over 20 metres between Sections 5 and 2.

The site lies on an outside bend in the river which is an area of faster flowing water and whose shore line would be more susceptible to erosion. Nevertheless, subsequent reclamation has pushed the present shore line farther south. Until the 19th century the site would have overlooked the river, but in 1864-70 the construction of the Victoria Embankment provided a further 80m of reclaimed land.

### The site stratigraphy

The lower stratigraphy of the site, albeit archaeologically sterile, provided much information on the local fluvial regime, discussed below by Jane Sidell. Only the uppermost deposits -- also of palaeotopographical interest -- provided any archaeological information.

### London Clay and Gravels

The London Clay outcropped on this site and was recorded in four sections; the second phase of watching brief did not allow for examination of the deeper deposits. In Section 5 (Fig. 3) it was encountered at -2.91m OD whilst farther south it was recorded at -4.81, -5.48 and -6.04m OD in Sections 4, 1 and 2 respectively. This is logical in respect of the slope of the river cut. Sections 5, 4, and 2 (Fig. 4) were roughly aligned north-south whilst Section 1, which was towards the eastern extremity of the site, may indicate a west-east drop as well. This buried channel is considered to have been cut during a period of extremely low sea-level during the late Devensian.

London Clay is usually capped by a gravel forming the fill of the buried channel. However, gravels

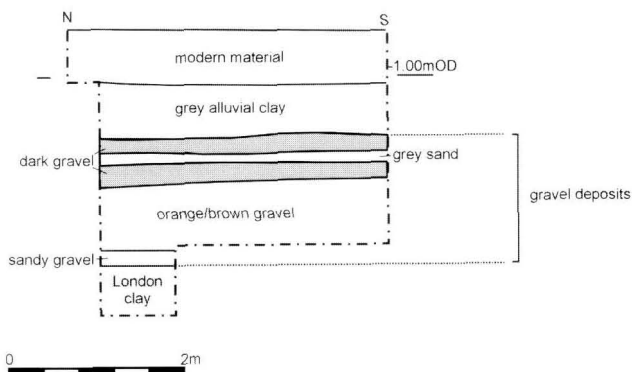


Fig. 3: section no. 5

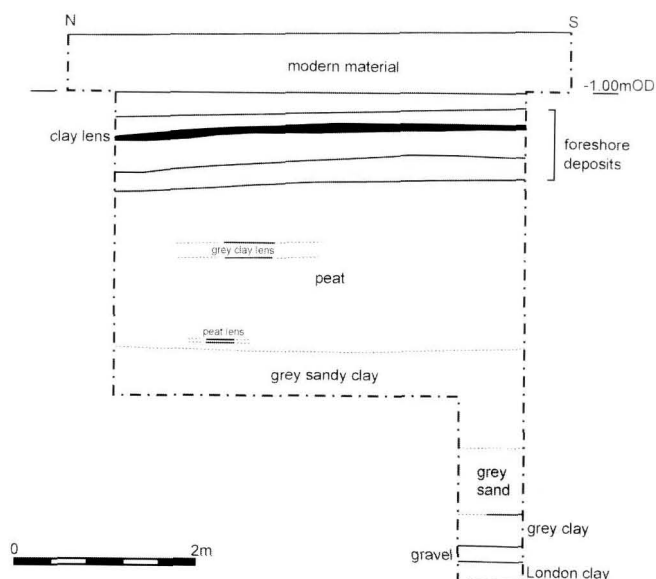


Fig. 4: section no. 2

were only recorded in two sections. A thick deposit was found in Section 5 and a thinner one deep in Section 2. This demonstrates the same pattern sloping down to the present river channel. Although the gravel was not definitely identified, it is likely to be the Shepperton formation.

### Clay-silts and sands

The clay-silt units overlying the basal units are almost certainly Late Devensian/Early Holocene, and derived from main channel sedimentation or overbanking. They were encountered in almost all recorded Sections.

The finer clay/silt layers either indicate a low energy water body, or that they are being transported some distance from the source. Where these units were found above London Clay, they were all sealed by sand. This suggests that the energy of flow had increased. This may be linked to the retreat of the ice sheets in the early Holocene which led to massive increase in global water volume and relative sea level rise. Laminae of clay-silts were recorded in the sand in Section 13, indicating fluctuation in sedimentation which may reflect swings in energy level, possibly seasonal. Light gravel was also encountered with sand in Sections 13, 14, 15, 17, 18 (Fig. 5). This would support the suggestion of the sands being deposited at times of higher water volume, potentially linked with the retreat of the ice sheets. Generally, all the sand units were sealed with a further clay-silt. This

4. Two samples of the peat were assayed: Beta-93693, 5320 BP  $\pm$  60 uncalibrated, 4340-4000 BC calibrated 95% conf. and Beta-93694, 5470 BP  $\pm$  80 uncalibrated, 4500-4220 BC calibrated 95% conf.

is likely to again reflect overbank flooding, possibly dating to post *c.* 6500 BP when the initial surge of sea-level rise had subsided.

### Peats

The buried Thames channel was succeeded by a period of terrestrial peat formation recorded across the site; in some sections, two discrete units were recorded. It is thought that these two peats are likely to have occurred in more locations, but the difficulties of excavation prevented them from being differentiated. The second, lower peat was noted at -2.58m OD in Section 12, and at -1.8m OD in Section 23, and therefore probably rising to the west. The units were separated by a thin band (*c.* 0.2m) of clay. The surface of the main upper peat unit recorded in almost all trenches ranges from between -1.37 and -2.72m OD and has been dated by <sup>14</sup>C to between 4,500 and 4,000 BC (within the Neolithic period)<sup>4</sup>. The presence of wild plants, beetle fragments and waterflea eggs within this layer provided evidence for an open marsh environment, with no indication of human intervention. The peat was missing in most of the northernmost Sections, and in Section 18, the actual edge of peat appears to have been found. Here, the peat is banked up upon the underlying units, but does not persist to the northern extremity of the Section. The discontinuity of peat in some sections may indicate that it was formed in undulations, or redundant channels on an unstable surface, as well as a more 'blanket' peat marginal to the river. The upper surface of the peat has been mapped, and indicates that where present, it respected the previous topography. However, the undulations in the surface suggest that there may have been some erosion, resulting in deeper areas similar to those found in the surface of the clay-silts.

Deposits such as this peat are characteristic of depositional sequences recovered elsewhere, although the dating and height of these peats can-

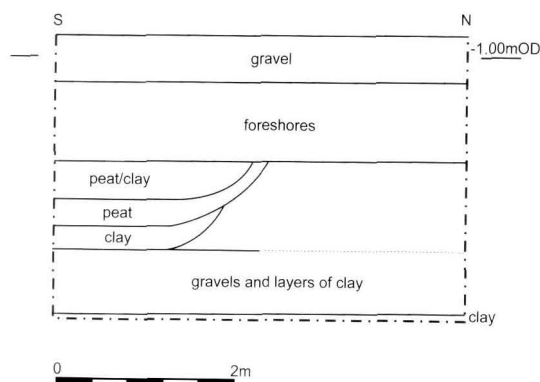


Fig. 5: section no. 18

not readily be related to the depositional sequence elsewhere in the Thames Valley. Nevertheless, the site lay just to the west of the "London Fen", the marshy area at the mouth of the River Fleet, and this may be related to localised regressions and stabilisation of the shore line. The river regime could well be more complex and possibly more anomalous where major tributaries such as the Tyburn or Fleet joined the main Thames channel.

### Clays

In only a few cases, the peats were overlain by 'clay'. This was from the middle and to the eastern extremity of the site. In view of the presence of this clay between the peat and the foreshore deposits, it is possible to suggest that the areas containing the clay unit are less eroded than those sealed directly by foreshore units. This is due to the relative energy levels required to deposit coarse grained clasts compared to fine grained material. This fine-grained waterlaid sediment may suggest areas of less erosion due to slower energy levels, although generally indicative of inundation as the marsh flooded when river levels rose.

### Foreshore

Up to three distinct horizons have been identified as 'foreshore' units. They are formed mainly of large river pebbles and gravel, but also contained substantial quantities of debris derived from human activities (see below). The presence of foreshore sediments would suggest that the river level rose and fell again following the cessation of peat formation, and the site was above the low tide mark (MLW) at this period. Thin lenses of clay within these deposits testified to occasional inundation. Saxon artefacts were recovered from the foreshore units; this would match well with the known recovery following falls in the river level in the Roman period.

### River levels

There is little available information on water levels along this particular stretch of the river in the Saxon period, and the nearest archaeological parallels come from farther astream. To the east, within

the City, collated data suggests a mean High Water tide in the 9th century at about +1.5m OD<sup>5</sup>. At Billingsgate, nearly 2000m downstream from Globe House, high tide is thought to have been at about +1.9m OD, and low tide at least -1.2m OD, in the 11th century<sup>6</sup>. At Bull Wharf, 1300m downstream from Globe House, late 9th century foreshore deposits between +0.4m and +0.9m OD were clearly within the tidal regime<sup>7</sup>. It is possible that, at Globe House, tidal levels were a fraction higher on account of the river gradient.

To the west, recent excavations at (the modern) Arundel House (immediately west of Globe House) revealed four wooden stakes in a foreshore deposit at about -1.30m OD. They are thought to be of Saxon date, but the foreshore deposit itself did not contain any finds other than bone. Higher up this sequence, at about +1.80m OD, was a truncated timber revetment thought to be of 13th/14th century date, indicating again a hiatus in riverside development<sup>8</sup>.

Local conditions at Somerset House, 300m to the west, where there has been recent archaeological work, could not produce reliable data for early tidal ranges. Nevertheless, foreshore deposits there were revealed at an average height of +0.98m OD, although truncated in certain areas to as deep as -0.81m, comparable therefore to the same deposits at Globe House<sup>9</sup>.

There is also some documentary evidence for a site some 150m to the north-east of Globe House, which suggests a line of the then river edge. A charter of Westminster Abbey land dated to the AD 1190s gives measurements including a length south from the Strand of 102 ells *versus Tamisiam*. The ell at this time was equivalent to a yard, so that the conversion to feet is 306 and to metres is 93m<sup>10</sup>. This would lie some 20m north of the Globe House site but the (present street) gradient of 1:20 means a rise of 3m. Thus there is a slight anomaly with the Globe House evidence, but the excavations at Bull Wharf (noted above) show that there was clearly a rise -- of about one metre -- in river levels in the 12th

5. G Milne *The Port of Roman London* (1985) 85, fig. 30; T Brigham 'The Late Roman Waterfront in London' *Britannia* 21 (1990) 133, fig. 12. See generally A J Long 'Sea-level and Crustal Movements in the Thames Estuary, Essex and East Kent' in D R Bridgland (ed) *The Quaternary of the Lower Thames* (1995) 101, tables.

6. K Steedman, T Dyson & J Schofield *Aspects of Saxo-Norman London: Vol. III, The Bridgehead and Billingsgate to 1200* London Middlesex Archaeol Soc Special Paper no. 14 (1992) 119-121.

7. J Ayre, R Wroe-Brown & R Malt (in prep) *Excavations at Bull Wharf*. Site code BUF90 MoLAS excavation archive; R Wroe-Brown *pers. comm.*

8. Arundel House, site code ADL97. I am grateful to Jenny Proctor and Gary Brown of Pre-Construct Archaeology for allowing me to publish this information, which is still preliminary.

9. Preliminary information for Somerset House is from I Grainger *Somerset House, Strand, WC2: An Archaeological Assessment*. Site code SST96 MoLAS unpublished report (1997) 55-6.

10. E Mason (ed) *Westminster Abbey Charters 1066-c. 1214* London Record Society, vol 25 (1988). I am grateful to Dr Derek Keene of the Centre for Metropolitan History, University of London, for discussing this information with me. The measurements are given in Charter 309, (p. 161); Dr Keene has fixed the site by reference to the related Charter 314 (p. 165).





Fig. 6: coin of the Emperor Carausius, found in the foreshore deposits.

century. Furthermore, it is uncertain whether this documented 93m measurement referred to the actual water's edge -- whether at high or low tide -- or to a quay or embankment, and it should also be noted that the incline of the valley was steeper to the west of the site as the river comes out of a bend.

Nonetheless, such a distance is consistent with archaeological evidence some 750m upstream. At York Buildings -- and two smaller sites to the west -- there was clear evidence of mid-Saxon waterfront some 80-90m south of The Strand. Here, revetments of stakes and planking were at about +1.00m OD with evidence for a probable embankment, at least 17m wide, made of brushwood. At this site also there was some evidence for subsequent fluvial inundation<sup>11</sup>.

The artefactual material within the Globe House foreshore deposits provides the first evidence for human exploitation and use within this riverine sequence between Kingsway and the Fleet. The material falls into two categories, that regarded as residual and that regarded as contemporary.

### Roman

At present there is scant knowledge of the riverside area from the City to Westminster (Thorney

Island) in the Roman period. However, the Strand is probably of Roman origin and as such may have been lined with burial grounds outside the city of *Londinium*<sup>12</sup>. The only known Roman structure immediately west of the (Roman) city was that uncovered below St Bride's Church at the eastern end of Fleet Street<sup>13</sup>.

Residual Roman material is not unusual in Saxon deposits, and has been found on many sites investigated recently. Apart from the obvious reuse of earlier material, many items were accumulated among the occupational debris associated with Saxon settlements. At the Globe House site there was a high proportion of Roman ceramic building material within these foreshore layers. It included bricks, *tegulae*, *imbrex* and one flue tile, mostly dating to the 2nd/3rd centuries AD. There were five sherds of Roman pottery: three locally made wares and two imports -- fragments of amphora and Samian. This material ranged from the 2nd to the 4th century and was, like the ceramic building material, quite abraded. Two Roman coins were also recovered. One was a coin of Carausius (AD 289-93) minted in London (Fig. 6)<sup>14</sup> but the second, probably an irregular late 3rd century piece, was illegible. The lower foreshores at Somerset House to the west contained Roman pottery and tile

11. R Cowie 'Archaeological Evidence for the Waterfront of Middle Saxon London' *Medieval Archaeol* 39 (1992) 164-8.

12. A Roman sarcophagus found in the Strand to the north of Arundel House in 1741 is, however, regarded as part of a collection of classical stonework rather than evidence for burial. *VCH London* 1 (1909) 16, 135; *RCHM West London* 2

(1925) 600; SMR 081156; see also Cook in Hammerson *op cit* fn 20.

13. W F Grimes *The Excavation of Roman and Medieval London* (1968) 182-3.

14. RIC V, 513, nos. 581-8.

15. Cowie *op cit* fn 11, 164-5.

fragments, datable to the 3rd and 4th centuries, but they have been regarded as residual, partly on the analogy of the Globe House work.

Near Section 20 cut ragstone blocks were found loose within the foreshore deposits. They were of a size (average 25 x 120 x 100mm) associated with Roman building blocks, and are unlikely to have been of Saxon origin. It is possible that they had formed part of a structure most likely to have been situated farther up the slope, from whence they tumbled down after destruction or disuse. At York Buildings, 750m upstream, ragstone fragments associated with the Saxon revetment there may also have come from looted earlier buildings, although they were not distinctly shaped<sup>15</sup>.

### Saxon

Following the decline of *Londinium* in the 5th century, an extramural Saxon settlement, *Lundenwic*, was established to the west around Aldwych and Covent Garden by the later 7th century<sup>16</sup>. In the Saxon and early medieval periods the Strand was known as *Akemannstraete* and would have overlooked the waterfront area. As we have seen, there was an intermediate zone between the river edge and the roadway<sup>17</sup>, and it is tempting to associate this area with the wharf, shipping and trading focus of *Lundenwic* which Bede referred to as "a mart of many people coming by land and sea"<sup>18</sup>. South of the Strand, in the vicinity of the Globe House site, middle Saxon material was found in a pit at King's College<sup>19</sup>, although Saxon material recovered from the 1970s Arundel House excavations was only found in residual deposits<sup>20</sup>. As noted above, there was a probable Saxon structure (as yet undefined) at (the modern) Arundel House

just to the west, and the revetment at York Buildings farther upstream has been dated to the late 7th century AD, and there also were traces of subsequent alluvial inundation<sup>21</sup>. There was no evidence for structural activity at Globe House in the Saxon period. It is probable that any such features situated at the site would have been on higher ground at the southern end of the site or at a higher point up the natural slope farther north.

The only (pseudo-structural) object that might have been nearly *in situ* was a large (0.4 x 0.7m) natural pear-shaped stone found within the foreshores near Section 2. It was possibly an anchor stone which might have been associated with riverine features such as mooring posts or fish nets<sup>22</sup>.

Saxon material from the foreshore was sparse but, mixed with the Roman finds, it does provide a *terminus post quem* for these deposits. The only pottery present were two fragments of Ipswich Ware (c. 725-850 AD), in the fine and coarse varieties. There was also part of an annular loom-weight, U-shaped in section, which can only be broadly dated to the middle Saxon period. Saxon pottery (including Ipswich ware) was found, residually, higher up the foreshore sequence at both Somerset House and (modern) Arundel House to the west.

The remaining Saxon object from Globe House, however, was an exceptional piece of high-quality workmanship and discussed here by Lynn Blackmore. A cast copper alloy strap-end with flat convex-sided shaft, round-eared animal-mask terminal, twin rivets at the split end and plain reverse (Fig. 7). The main decorative panel has a plain border; it contains a Trewhiddle-style beast with interlacing tail; the body faces away from the terminal, but the head is turned back toward it and bites the tail. Scientific analysis shows the design to have been reserved against a silver (niello) inlay.

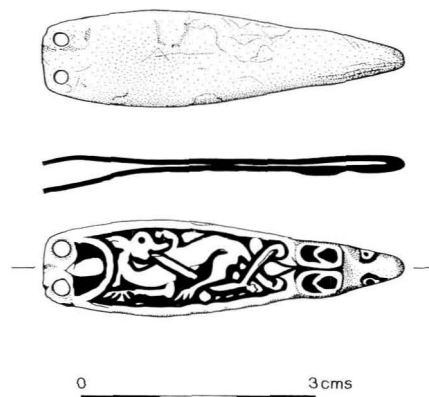


Fig. 7: Saxon strap end found in the foreshore deposits

16. Indeed, it may be remembered that the suffix *-wic* or *-wyh* implies a market or port. On recent work in *Lundenwic* see L. Blackmore 'From beach to burh: new clues to the identity in 7th- to 9th-century London' in G De Boe & F Verhaeghe (eds) *Urbanism in Medieval Europe – Papers of the 'Medieval Europe Brugge 1997' Conference* (1997) Vol. 1. 123-132. I. A. P. Rapporten i. Zellik. For the Strand area see p. 125.

17. Therefore probably not as marshy as suggested by D Sullivan *The Westminster Corridor* (1994) 82.

18. cf A Vince *Saxon London: An Archaeological Investigation* (1990) 13f.

19. G Malcolm *Watching Brief at King's College, site code KIL90* MoLAS archive report.

20. M Hammerson 'Excavations on the Site of Arundel House in the Strand, WC2' *Trans London Middlesex Archaeol Soc* 26 (1975) 209-10.

21. Cowie *op cit* fn 11, 164-5.

22. For similar pieces see C Salisbury 'Hemington Fields, a medieval landscape' *News Warp* (The Newsletter of the Wetland Archaeological Research Project) 19 (1996) 28. I am grateful to Damian Goodburn for this reference and a discussion of the piece.

Strap-ends of this elongated form (both single and double-riveted) are typical of the 9th century, although their use may have continued into the 10th century. They have a wide distribution from Scotland to south-west England, albeit with regional variations in style; the eponymous site of Trewhiddle is in Cornwall. This is dated to c. AD 868, while the Talnotrie hoard is placed at c. AD 875<sup>23</sup>. No strap-ends of this form have been found in the main settlement of *Lundenwic*; the only other stratified example known from London, from the Bull Wharf excavation, is of lesser quality, although it is interesting to note that it too was recovered from a Roman/Saxon foreshore deposit<sup>24</sup>.

The Saxon finds from Globe House seem to date from the mid 8th to the mid 9th centuries. There was no evidence for the earlier chaff tempered wares or later shell tempered wares that were both found, residually, at Somerset House. Similarly dated material has been found to the north and included higher status elements, such as a sword pommel from Fetter Lane and a coin hoard from the nearby site of Hare Court in the Middle Temple, deposited about AD 842<sup>25</sup>. A Saxon sword from a tomb in Temple Church was thought, on account of its condition, to have come from the Thames just to the south of Globe House<sup>26</sup>. Although there is some doubt as to its exact provenance, a foreshore origin would complement the material found at Globe House.

A large faunal assemblage from the foreshore deposits was clearly a dump of primary processing and post-consumption waste, mostly from domestic animals<sup>27</sup>. They included cattle, sheep/goat, pig, chicken and goose. Most of these bones provided evidence of butchering marks. However, there was also evidence of the exploitation of wild species such as (unidentified) fish skulls and oysters. There was also an offcut from a red deer antler, indicative of Saxon industry. A vertebra from a large (but

unidentified species of) whale was also found. Two similar vertebrae were recently found in Saxon dump deposits at the Royal Opera House site, it is suggested that they may have come from the exploitation of beached whales<sup>28</sup>.

The Globe House foreshores also provided botanical evidence of what may have been contemporary consumables. Carbonised grain cereals included those of bread wheat, barley and rye. There were also seeds from plum, blackthorn, apple/pear and blackberry/raspberry as well as hazel nut fragments.

This assemblage, therefore, may represent lost material amongst domestic refuse derived from the settlement at *Lundenwic* or a nearer settlement. Blackmore has speculated that this area, with its high status finds, may have been that known as *Ceolmundingchaga* in the mid 9th century<sup>29</sup>. Alternatively it may have been flood eroded material, and was clearly subjected to occasional inundation. However, it is entirely consistent with the range of finds normally made within the stratified occupation sequences of other middle Saxon sites and at the foreshore embankment at York Buildings.

### Medieval

As a postscript to the archaeological remains of the site, we should add material that was recovered in the basement just before its demolition. Three

23. Findspots include *Hamwic*, Lincoln, Whitby and the famous Talnotrie hoard, dated to c. AD 875. See L. Webster & J. Backhouse *The Making of England: Anglo-Saxon Art and Culture AD 600-900* (1991) 270-3.

24. Blackmore in *op cit* fn 7.

25. R. Cowie 'A Gazetteer of Middle Saxon sites and finds in the Strand/Westminster area' *Trans London Middlesex Archaeol Soc* 39 (1988) nos. 61, 58.

26. *Ibid* no. 59.

27. cf J. Rackham 'Economy and Environment in Saxon London' in J. Rackham (ed.) *Environment and Economy in Anglo-Saxon England* (1994) 126-35.

28. D. Bowsher & G. Malcolm *Excavations at the Royal Opera House, site code ROP95* MoLAS archive report.

29. *Op cit* fn 16, 128.



Fig. 8: the medieval dish, aquamanile spout and spur found at the site in 1930-1931

objects were found in a cardboard box that also contained a typed note headed "Objects excavated during work on site of Electra House, EC2. 1930-1931" (Fig. 8). The first is a near complete small dish of Cheam whiteware dating to between AD 1350 - 1500, which has a mottled green glaze inside the base<sup>30</sup>. Similar pieces, described as 14th-century Cheam ware, had also been found in the 1970s excavations at Arundel House<sup>31</sup>.

Second, there is a copper alloy spout with slightly conventionalised dog's head terminal. This spout would have been welded on to a ewer or aquamanile, vessel types which were mass produced, especially in the Low Countries, and were fairly common household items in the late medieval period. However, no precise parallel for this piece appears to have been recovered in London before although similar pieces found at Cardiff Castle, Cumbria and Oxford are attributed to the 15th century<sup>32</sup>.

Last, there is a complete iron spur with a six-pointed rowel. It has a slightly curved neck and a crested heel flange. The slightly curved, oval section sides have single loop terminals, one with a hooked attachment with a spade shaped plate, the other with a more robust, rectangular plate having moulded decoration. The attached trapezoidal buckle is of a style attributed to the early 15th century<sup>33</sup>.

The exact provenance of this material from within the site is unknown, but their contemporaneous 15th-century date suggests a particular stratum. There is no record of any features or other objects that might have been recorded during the building operations of 1930-31, but it is likely that the high quality and good condition of these pieces ensured their survival. The condition of the metal objects suggests that they may well have been buried in a waterlogged deposit and the watching brief testified to wet conditions at least within the lower strata. Excavations at nearby Arundel House in the 1970s uncovered similarly dated high status finds, in keeping with the known history of the site.

## Conclusions

The site has provided important information on natural and anthropogenic development within the edge of the Thames channel. The sections from this site have allowed an interpretation of the sequence to be made. It is almost all fluvially

derived, with the exception of the peat, some of which has been <sup>14</sup>C dated to the Neolithic period. This argues for a marginal dryland environment, presumably as a result of a lowering of the river level, which previously appears to have covered the site.

It is also apparent that each of these main depositional events (the palaeo-channel, the peat and the foreshore deposits) is separated by a significant time gap. This must be accounted for by river action; the river deposits that originally sealed the channel, perhaps Late Devensian, were truncated and removed by subsequent riverine erosion before the formation of a peaty marsh about 6,000 years ago. A similar discontinuity, or truncation horizon, occurs between the prehistoric peat and the Saxon foreshore, the latter being about 1100 years old. Clear evidence of the depositional history of the river in this area has thus been recovered and, moreover, complements existing evidence for the extent of the Saxon foreshore line.

The residual nature of the Roman finds from the site is characteristic of a late 3rd / early 4th century date. However, it is probable that this material comes either from higher up the natural slope or slightly upstream, rather than from *Londinium*. The same may be said for the Saxon material, although these findings extend the present corpus of Saxon finds, including the intrinsically interesting strap end. The site lies at the eastern edge of middle Saxon *Lundenwic*, and the date of the material suggests a near final phase of that settlement perhaps shifting eastwards. In AD 886 King Alfred ejected the Vikings from London and established the late Saxon city there as *Lundenwic* was abandoned.

The Saxon period deposits here mark the end of the intact stratigraphic sequence. Although the foreshores would have continued to accrue at higher and later levels, truncation has removed all traces of later deposition. At (modern) Arundel House and Somerset House to the west, the Saxon foreshores were overlain by further accumulations dating to the medieval and Tudor periods. They would complete a sequence of which only the earlier, basal, elements survive at Globe House. Only the chance recovery of medieval finds remains to attest later activity at the site.

30. J Pearce & A Vince *Surrey Whitewares* London Middlesex Archaeol Soc Special Paper no. 10 (1988) 77, fig. 125, nos. 580-2.

31. J Haslam 'The Saxon pottery and Tudor pottery from the cesspit' *op cit* fn 20, 221.

32. J M Lewis *Bronze Aquamaniles and Ewers* Datasheet 7, Finds Research Group 700-1700 (1987) 4-5, fig \*A.

33. B M A Ellis 'Spurs and Spur Fittings' in J Clark (ed) *The Medieval Horse and its Equipment* (1995) 101, no. 342.