

A Third Century well group, and the later Roman settlement in Southwark

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A ROMAN TIMBER-LINED WELL, recently excavated at 107-115 Borough High Street, Southwark has produced an interesting later 3rd-century pottery group. The bulk of the pottery was of a single vessel type which, to judge from waster sherds, was locally manufactured. This article provides an opportunity to review the evidence for the later Roman settlement in Southwark.

107-115 Borough High Street (TQ 3260 8005) was the first site in the major redevelopment of the north-west part of Guys Hospital. It lies within the Roman settlement, c.400m ($\frac{1}{4}$ mile) south of the Thames, and just east of the Roman London Bridge approach road (Fig.4.A). Although post-medieval cellars had severely truncated Roman deposits, excavation revealed a sequence from mid-1st to 2nd century. Over two filled-in drainage ditches there were scrappy remains of buildings dating from the later 1st and earlier 2nd centuries. The 3rd-century well was one of several truncated cut features.

The well was of a common Roman box construction (Fig. 1). A large pit had been dug to receive the wooden frame and would have been backfilled around the well immediately after its construction. The square well shaft had internal dimensions of c.0.9m (3 ft), and was built up of planks jointed at the base with half-laps and above that with dovetail joints. Short timbers set into the top of the third and fourth planks across the north and south corners of the shaft may have functioned as bracing pieces or ladder rungs. The inner and outer boxes were built at the base of the well shaft, presumably to give it extra stability.

The well had been dug down to the top of the natural gravels at -1.3m OD (-4.3 ft OD), c.0.7m (2.3 ft) below the modern water table. Clean sand at the base of the well had chalk blocks in it, probably to prevent the water from being muddied. A dirty, dark grey silt over the sand is likely to represent natural silting during the period that the well was in use. The silt contained 5.2kg (11.5lb) of finds, mostly burnt daub and pottery. All but three of the 141 sherds were of the bowl form found in quantity in the backfill deposits.

A dump of clean sand sealing the silt was the primary backfilling after the well went out of use, and was overlain by nearly 2m (6.5 ft) of dirty gravelly sand. More than 350kg (770 lb) of finds were recovered from these dumped deposits; apart from the pottery there was a large amount of building material, and slag and animal bone. Evidence provided by seeds and insects indicates additionally the disposal of decayed domestic waste.

Masonry building remains included 135kg (297 lb) of ragstone, as well as tufa, flint, chalk and Horsham Stone (used as roofing slate)¹. Burnt daub, weighing 23kg (51 lb), may have been from a clay and timber structure which had burnt down, though it could have derived from internal walls of a stone building. Over 100kg (220 lb) of roofing tile, brick and flue tiles had also been dumped down the well. Evidence of iron smithing was provided by 8kg (17.6 lb) of iron slag, and a single lump of non-ferrous slag was

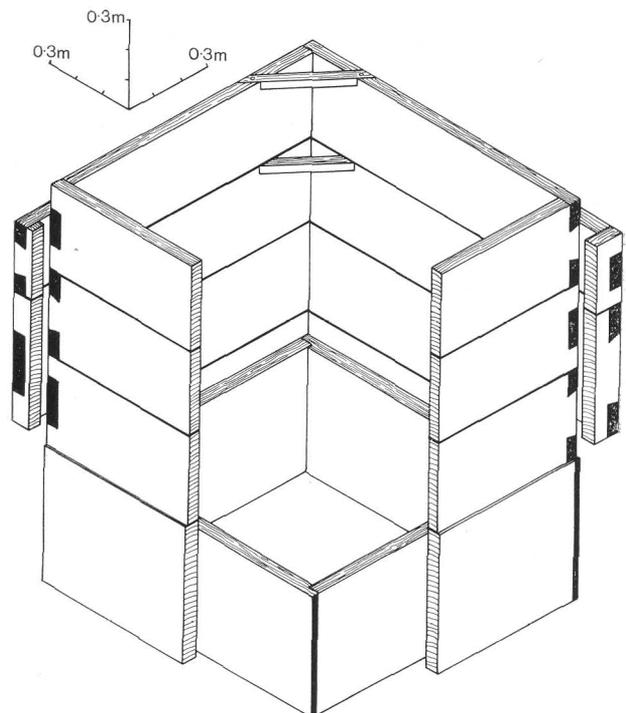


Fig. 1: Third-century, timber-lined well, showing details of construction.

1. Identification by Martyn Owen of the Institute of Geological Sciences.

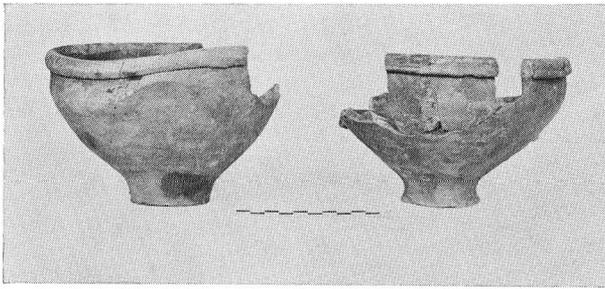


Fig. 2: Bowls from 3rd-century well.
(Photo: Paul Yule)

also recovered.² Animal bone included four dog skeletons, a quantity of cattle bones, and smaller numbers of horse, domestic fowl, sheep, pig, red deer and vole bones.

Greyware bowls of a single form (Figs. 2 and 3) constituted about 80% of the pottery recovered (wt. 25kg (55 lb)). Their high proportion and the presence of waster sherds, all belonging to this vessel type, makes it likely that they were products of a local kiln.

The bowls were wheel-thrown and had wire marks on the base. The rim varied a good deal but was basically a simple, turned-over form giving a D-shaped profile. The surfaces were smoothed roughly leaving a rather crudely finished vessel. A thin section of the fabric (by Alan Vince of the DUA) showed abundant quartz, and sparse iron ore, flint, glauconite and mica inclusions — a typical London area clay. The clay matrix was anisotropic, i.e. the pots were fired at a temperature below 850°C. The fabric was fairly hard with rough feel. Fabric colour was variable: surfaces were usually grey or dark grey, though often light red on the internal surface. Margins were grey or light red or brown, and the core most frequently grey. Wasters had evidence of over-firing: sherds were cracked and there was some warping of shape. No other vessel types were present either in this fabric or as wasters, and it must be assumed that the local kiln was producing a single form.

The function of this type of vessel is difficult to determine. Writers describing similar vessels from

other sites have called them bowls. The pot was rather roughly made (which would suggest that it was not used as tableware) and potentially unstable because of the small foot. The internal profile would rule out an eating or mixing bowl as food would have lodged in the depression at its base. The pot could have been used as a container but would seem to have required support to avoid spillage. It might be better to invert the vessel and regard it as a lid or cover. Where the bowl form was unstable the 'foot' becomes important functionally as a handle (there is in fact some similarity here with Roman lid tops). It has already been noted that the well fills contained only one vessel type that could be identified as waste from a kiln. As a kiln, manufacturing pottery for a general market, would be expected to produce a range of forms, it might be conjectured that a local industry required a lid or cover used as part of some industrial process. (It is interesting that another context in Southwark has produced a large number of these pots, but there none could be identified as wasters.³) An intriguing alternative is raised by the find (probably in the 19th century) of a buff bowl of similar form used as a cover for a cremation urn⁴. The cremation is difficult to date but would seem to be anachronistic in the 3rd century when inhumation is thought to have been the rule. Despite these suggestions the pots are referred to below as bowls.

Parallels for the bowl have been found on excavations in Southwark itself, the City of London, Bow and Colchester.⁵

In establishing a date for the group the presence of a BB2 jar (with everted rim and a narrow band of obtuse lattice decoration on the shoulder), BB1 flanged bowls and an Oxfordshire white ware mortarium would indicate a late 3rd-century date, and the absence of Oxfordshire red colour-coated ware and Alice Holt pottery (more common in the 4th century) supports this view. Three coins, one of Severus Alexander and two irregular copies of Tetricus, probably dating to the 270s or 280s, were also found in the well backfill.

It was hoped that dendrochronology might provide a construction date for the well. A master curve of

2. Identification by Justine Bayley of the DOE Ancient Monuments Laboratory.

3. District Heating Scheme pit. See Appendix, H.

4. Find spot Quadrant Arcade, Regent Street. (RCHM *Roman London*, 1928, fig. 68, no: 50.)

5. Parallels found in Southwark: District Heating Scheme (see Appendix, H); Swan Street (A. H. Graham in J. Bird *et al* (ed), *Southwark Excavations 1972-1974*, LAMAS and SAS Joint Publication, No. 1, 1978, fig. 216, nos. 1762-8 and fig. 219, nos. 1852-4);

175-7 Borough High Street (L. Schaaf, publication forthcoming).

City of London: Billingsgate Buildings (D. M. Jones *Excavations at Billingsgate Buildings, 1974*, London and Middlesex Archaeological Society, 1980, fig. 40, nos. 377-9); New Fresh Wharf (Paul Tyers *pers. comm.*); Swan Lane (Paul Tyers *pers. comm.*); Bow: Roman Road, Old Ford (Wendy McIsaac, *pers. comm.*).

Colchester: "Mithraeum" (M. R. Hull *Roman Colchester*, 1958, fig. 67, no. 87); Grave 495 (M. R. Hull *ibid*, 288).

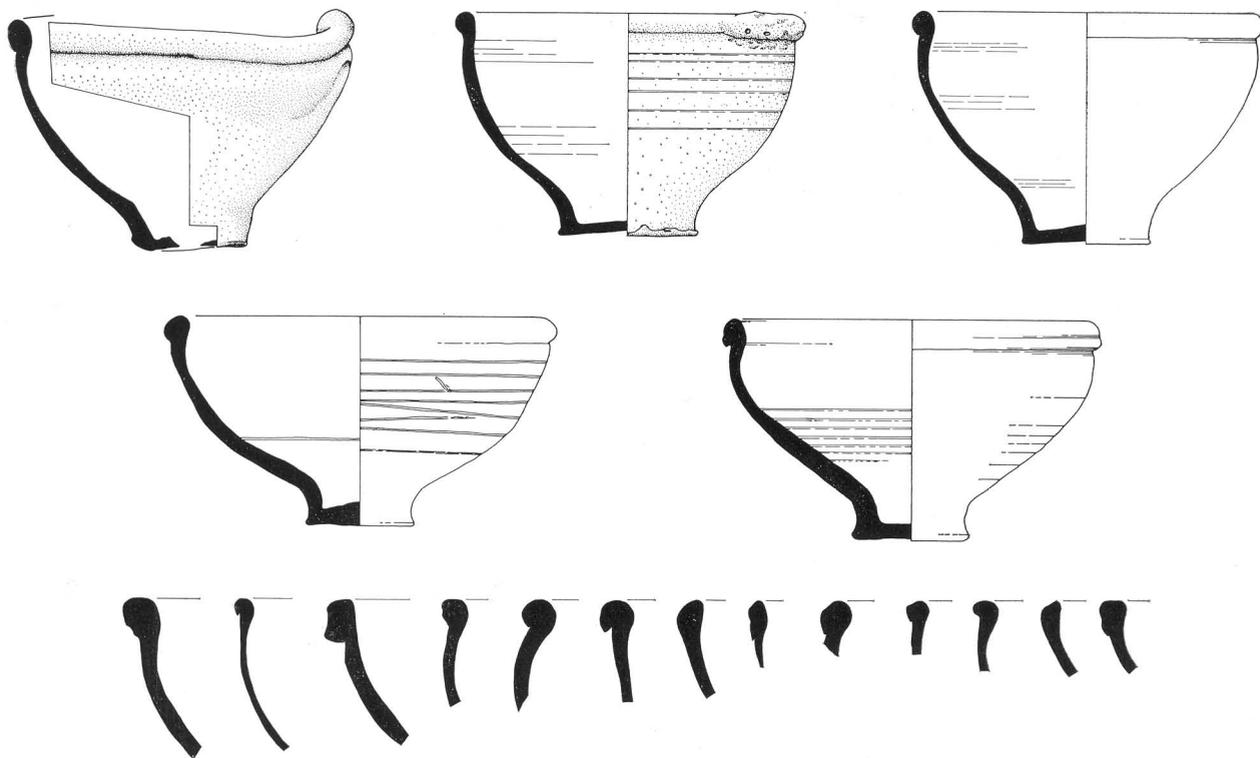


Fig. 3: Bowls from 3rd-century well (1/4).

119 years was constructed from six of the timbers, but it could not be matched to those from London or Germany. Pottery recovered from the construction pit suggest that the well was not in use for long. There were 14 sherds of the locally-produced bowls, and BB1 sherds with obtuse lattice decoration indicate a date in the second half of the 3rd century.

A broad AD 250-300 date range for the bowls found in the 107-115 Borough High Street well would agree with the dating of similar vessels from other sites in Southwark and Bow⁶. At New Fresh Wharf in the City, however, dendrochronology has suggested a date of c. AD 214 for the quay group containing these bowls.⁷

Later Roman period in Southwark

The evidence from the 107-115 Borough High Street well suggests the following: later 3rd-century occupation; the presence of a local pottery kiln; some small-scale metalworking; a masonry building presumably contemporaneous with the well and the kiln; disposal of rubble and other waste perhaps in

preparation for re-use of the site although actual evidence for a further building phase is absent.

To set this in its context, the rather limited evidence for 3rd- and 4th-century occupation in north Southwark has been collected. Fig. 4 shows the location of wells (A-G), other features (H and I), buildings (J-L), and undated stone walls and mosaic floors (M-R) and plain tessellated floors (T) which may also belong to the later Roman period. (A-R are listed in an Appendix.) To examine how the later Roman settlement differed from that of the 1st and 2nd centuries, the density and character of occupation in the two periods are considered.

In any comparison, it must be recognised that later Roman levels have survived much less well than those of the 1st and 2nd centuries. The truncation of these later deposits by post-medieval cellars on 107-115 Borough High Street is typical of many sites in north Southwark. There is also the unresolved problem of the 'dark earth' which seals Roman strata of late 2nd-century date on most sites, and up

6. Pottery groups from the Colchester "Mithraeum" (M. R. Hull *op.cit.* in footnote 5,132, 145) and Billingsgate Buildings (D. M. Jones *op.cit.* in footnote 5,72-7) containing bowls of Colchester type 306 similar to bowls from the Southwark well, appear to be from

mixed deposits; note the presence of late 3rd- to early 4th-century pottery in both groups.

7. J. Hillam and R. Morgan 'Dendro dates from Sheffield' *Current Archaeol* no. 80 (1981), 286-7.

to 4th-century on a few. This date range might suggest that some 3rd- and 4th-century deposits have been truncated by ploughing or digging over of the dark earth, (though it may equally well be argued that dark earth was first laid down at different times on different sites).

The area of settlement as shown on Fig. 4 is based on the extent of known Roman buildings of all dates. (Note that locations of 1st- and 2nd-century structural remains have been omitted as they would have swamped the later information). The built-up area may have extended further west than shown — excavation has so far been limited west of sites fronting on Borough High Street. On the east, it was physically restricted by marshy ground intersected by channels.⁸

Within the 'area of settlement', structural remains of the 1st and 2nd centuries have been found *in situ* on more than 20 excavations. When successive structural phases are taken into account, the actual buildings represented might be two or three times that number. Most date to between AD 70 and the mid-2nd century, and their distribution shows a fairly concentrated, urban development alongside the roads. 'Strip' and 'courtyard' buildings of clay and timber predominate. There is little information to indicate whether, or in what proportion, these buildings were shops, workshops, residences or inns. Probably all were present.

The relative paucity of evidence for 3rd- and 4th-century occupation is striking. Structural remains of this date have been discovered *in situ* on only three excavations (J-L). Additional information about occupation is provided by wells (A-G), as they are likely to have served local buildings, a suggestion supported by the presence of demolition rubble in most backfill deposits.

Examination of the relative densities of occupation in the early and later settlements is hampered by truncation which has biased survival in favour of the early levels. Wells, being deeply-cut features, can be used to provide a rather more objective evaluation. When Roman wells of all dates are considered (see Fig. 4), 25 of the 38 wells date from the period up to mid-2nd century, 6 were backfilled in the late 2nd to early 3rd century (at least 3 of these wells postdate AD 150), and 7 are of 3rd- or 4th-century date. Unless the later settlement had an alternative water supply not present in the 1st and 2nd centuries (which seems unlikely), the 'well count' appears to confirm a much diminished density of occupation. Fig. 4 shows that in the later period the 'area of settlement' need not have contracted; actual or inferred

structural evidence indicates far fewer buildings than earlier, but their extent is about the same.

All the evidence for the 3rd- and 4th-century buildings suggests that a high proportion had flint or ragstone walls. It is noteworthy that most of the later wells and a pit (H) contained considerable quantities of rubble from stone buildings. Roofing material was tile or stone slate. Internal fittings included tessellated and mosaic floors and hypocausts. This evidence from archaeological excavation may support the inclusion within the later period of the undated stone walls and mosaics (M-R) and tessellated floors (T), mostly the result of antiquarian observations in the 19th century. (It should be noted though that the first stone building phase at 15-23 Southwark Street (K) was of early 2nd-century date, and that tessellated floors were present in the same building and in probable 2nd-century structures at Kings Head Yard⁹ and 1-7 St Thomas Street¹⁰.)

The relative wealth of the later Roman buildings is in marked contrast with the clay and timber structures of the early period. As their fittings would suggest residential rather than commercial premises, they may represent well-appointed town houses. Perhaps attached to one of these houses in the Southwark Cathedral area was a "rich family mausoleum", an interpretation suggested by the impressive group of sculptures, including funerary pieces, recovered from the Cathedral Crypt well (C). Evidence of pottery production and some metalworking in the vicinity of the 107-115 Borough High Street site are reminders that, in the late 3rd century at least, the settlement had not become a purely residential suburb of London.

The size of properties in the later Roman period is unknown. As buildings seem to have been widely-spaced, the status of the large expanses of open land within the settlement is of some interest. Were they the grounds of adjacent buildings or vacant plots? If the dark earth sealing earlier strata was of the same date as the later Roman buildings, and is correctly identified as a cultivated soil, it might suggest that open ground represents gardens or agricultural land belonging to the buildings.

The arbitrary boundary date of AD 200 should not obscure the period of transition which produced the radically-altered urban landscape of the later settlement. The process of change can probably be traced back to the later 2nd century.

Continuity of occupation into the early 3rd century seems to have been the exception. Where the stratigraphy has survived, excavation within the Southwark settlement has frequently revealed 2nd-century

8. A. H. Graham 'The geology and topography of north Southwark' in J. Bird *op.cit.* in footnote 5,501-517.

9. K. M. Kenyon *Excavations in Southwark*, Research Papers of Surrey Arch. Soc. no. 5, (1959), 21.

10. G. Dennis in J. Bird *op.cit.* in footnote 5, 297.

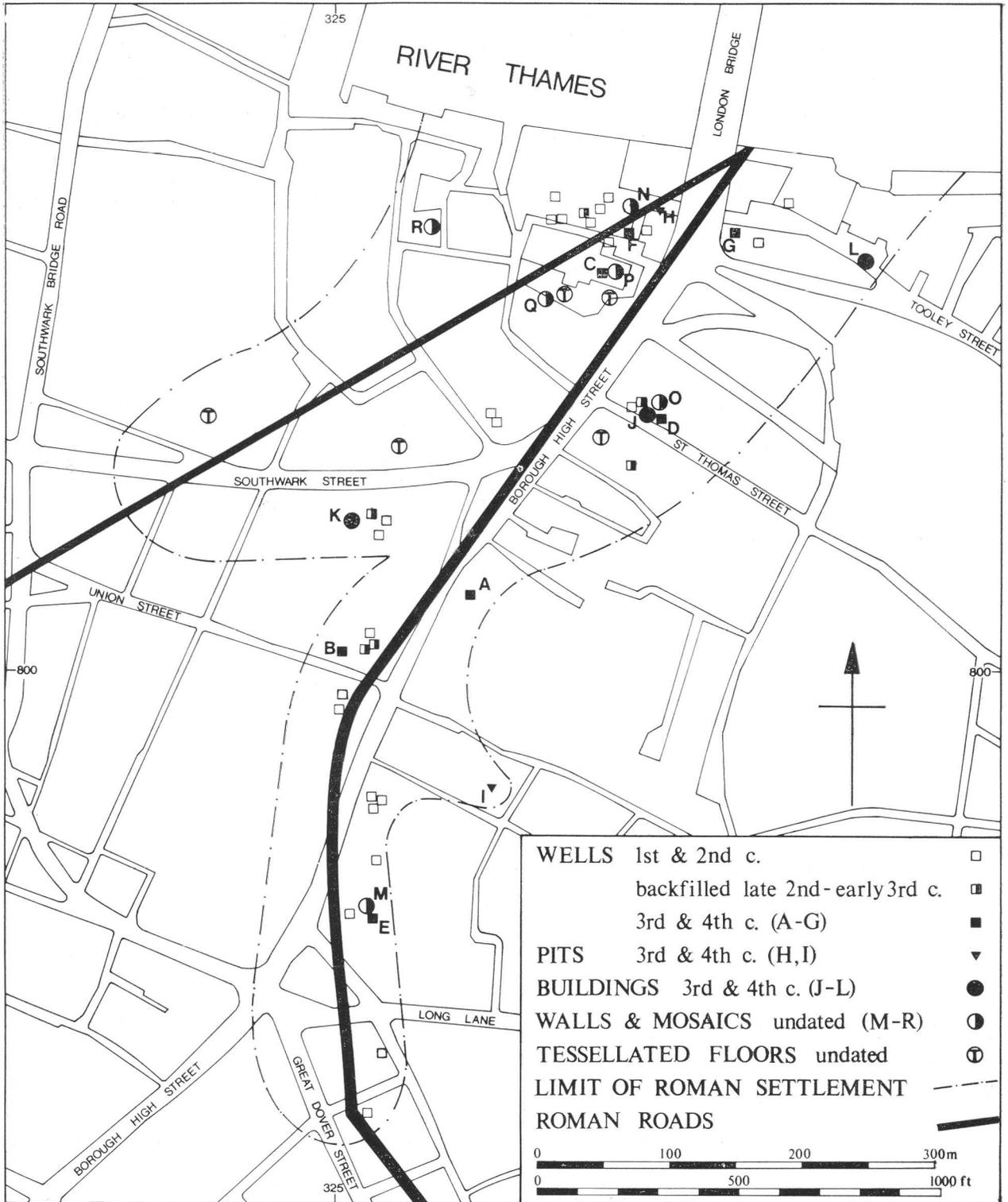


Fig. 4: Later Roman occupation in Southwark.

building levels sealed by dark earth deposits. Within the later 2nd century, the early settlement—a relatively crowded urban sprawl along the roads leading to London Bridge — seems to have effectively ended. The same sequence of dark earth sealing later 2nd-century buildings has been observed in recent excavations in the western half of the City, and suggested much sparser occupation of London in the later Roman period.¹¹ Harvey Sheldon has suggested that major reductions in density of population in London, Southwark and Staines were probably contemporaneous with a downward trend in settlement activity that can be traced throughout south-east Britain.¹²

Depopulation of the early Southwark settlement seems to have been on a large scale. There is, however, some evidence for continuity of occupation into the early 3rd century. Interpretation is, to some extent, based on the concept that the back-filling of cut features implies re-use of the ground. Pottery from the back-filling of a well, say, is probably more useful in suggesting a date for future activities on the site, e.g. the digging of a new well, building works in the area, or general clearance for some other purpose, than in providing a date at which the well went out of use. It should be pointed out that interpretation is complicated by the difficulty in accurately dating late 2nd- to mid-3rd-century pottery.

At 15-23 Southwark Street (K), preliminary analysis of the current excavations could indicate that stone walls of the large, early 2nd-century, courtyard building were robbed out and a well was backfilled by the end of the century. These may be works in advance of rebuilding, for a substantially - altered structure which continued possibly into the 4th century.

Excavations at 88 Borough High Street¹³ revealed what appeared to be deliberate demolition of a clay-walled structure c. AD 150-170. A spread of clay, probably derived from the walls and sealing the demolished building, was cut by two deep pits (perhaps wells) which were backfilled c. AD 190-220. This evidence might be linked with that from 8 Union Street, c. 20m (65ft) to the west, where a well (B), backfilled in the later 3rd century, may represent a later phase in a sequence of occupation of the same property. Brick and hypocaust *pilae* from the late 2nd- and 3rd-century wells, respectively, suggest that redevelopment, following demolition of the clay and timber structure, was of a more substantial nature.

These examples might indicate continuity, but on a much-reduced scale. Evidence is needed from the extensive areas where occupation did not appear to continue into the later Roman period. It is not clear whether abandoned 2nd-century buildings were allowed to fall into decay and collapse; demolition and clearance may have been general or piecemeal. When did clearance take place and how was the land used thereafter? A better understanding of this transition period, and indeed the later Roman period as a whole, probably depends on a more informed interpretation of the dark earth which seals the structural remains of the early settlement. Basic problems not yet resolved include: when the dumping, leading to the formation of the earth, started, and whether the process was directly related to land clearance; the relationship of the dark earth to buildings and streets of the same date, and what it represents — waste ground or cultivated land (the latter is usually assumed).

The Southwark evidence is inconclusive regarding the date of deposition of dark earth. 4th-century wells (E and F) sealed by dark earth need not imply that deposition started at that late date; unused land may have been cleared and dumped on much earlier if, say, it was required for cultivation. The best evidence for 'early' clearance, probably related to deposition of dark earth, comes from an excavation in the City. At Milk Street, Steve Roskams showed that an Antonine building was systematically dismantled and dark earth laid over the site.¹⁴ The good state of preservation of a mosaic floor suggests that demolition was followed by dumping of dark earth at the end of the 2nd century before the mosaic had weathered and broken up.

While acknowledging the lack of clear evidence, it might be suggested (in parallel with the City evidence) that there was at least partial clearance of land (? for cultivation) at the end of the 2nd-century or in the early years of the 3rd-century, perhaps contemporary with the construction of stone buildings. The transition to the 'later Roman settlement' may have begun in this period.

Acknowledgements

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11. S. Roskams and J. Schofield 'The Milk Street Excavations: Part 2' *London Archaeol* 3 no. 9 (1978), 227-230.

12. H. Sheldon 'London and South East Britain' in A. King and M. Henig (ed) *The Roman West in the*

Third Century, BAR International Series 109, (1981) 363-382.

13. B. Yule, publication forthcoming.

14. S. Roskams and J. Schofield *op.cit.* in footnote 11.

worked on the dendrochronological and environmental evidence from the well; John Warbis who researched the location of sites observed by 19th-

century antiquarians; and colleagues in SLAEC, especially Laura Schaaf and Harvey Sheldon who discussed the text with me.

Appendix

Later Roman Wells

A 107-115 Borough High Street (TQ 3260 8005) Later 3rd-century well. See this article.

B 8 Union Street (TQ 3251 8002) Square wood-lined well probably constructed in 3rd century. Backfilled in later 3rd century with quantities of roof and box tiles, *pilae* and lumps of *opus signinum*, and slag from iron smithing. Sealed by dark earth. (G. Marsh in J. Bird *op.cit.*, in footnote 5, 223.)

C Cathedral Crypt (TQ 3270 8030) Square wood-lined well constructed in the later 3rd century. Backfilled with large amount of burnt building debris — *pilae*, *tesserae*, ragstone — and group of sculptures including funerary pieces. Backfilling dated by six coins (very little pottery present) to late 3rd century. Upper fills truncated. (M. Hammerson 'Excavations under Southwark Cathedral' *London Archaeol.* 3, No.8 (1978), 206-212.)

D 1-7 St Thomas Street (TQ 3274 8019) Square wood-lined well (F37) possibly constructed in late 3rd century. Backfilled in early 4th century with large quantities of ragstone. Upper fills truncated. (G. Dennis in J. Bird *op.cit.* in footnote 5, 308.)

E 201-211 Borough High Street (TQ 3253 7982) Square wood-lined well constructed late 3rd or early 4th century. Backfilled c. AD 350 with much building debris — rough chalk blocks, flint, wall plaster, roof tile. Sealed by dark earth. (E. Ferretti and A. H. Graham in J. Bird *op.cit.* in footnote 5, 68-70.)

F Bonded Warehouse (TQ 3272 8033) Square wood-lined well constructed probably early 4th century. Lowest (? usage) well fill dated c. AD 340-360. Upper fills disturbed. Sealed by dark earth. (A. H. Graham in J. Bird *op.cit.* in footnote 5, 248-9.)

G London Bridge (TQ 3280 8033) Square wood-lined well "filled in with almost solid domestic rubbish, in the 4th century." (G. Dawson 'Roman London Bridge' *London Archaeol.* 1, No.5 (1969), 115.)

Other Later Roman features

H District Heating Scheme (TQ 3274 8035) Rectangular pit containing 97 bowl sherds (nearly 90% of pottery group) similar to locally-produced bowls found in well at 107-115 Borough High Street; also quantities of chalk and ragstone. Later 3rd century. Upper fills truncated. (A. H. Graham, publication forthcoming.)

I Newcomen Street (TQ 3262 7991) Large, rectangular, wood-lined tank. Black silt fill probably 3rd century. Filled and overlain by 4th-century dark earth. (K. M. Kenyon *Excavations in Southwark*, 1959, 31-2.)

Later Roman structural remains

J 1-7 St Thomas Street (TQ 3274 8019) Undated flint wall foundation ("Building 2"), possibly part of building

observed by Roach Smith in 1840 (see O). Ragstone wall foundations ("Building 3") probably late 3rd century. "Building 4" ragstone walls probably represent extensions, including addition of hypocaust, in early 4th century, after backfilling of well (D). Although proposed early 3rd-century 'wall' (F32) may in fact be part of the construction pit of well (F30), backfilling of the well and two wood-lined tanks (F28 and F29), possibly in the late 2nd or early 3rd century may have been in advance of building construction. Note though presence of late 3rd-century, BB1, flanged bowl sherd in backfill of F28 which could indicate that backfilling was related to construction works for "Building 3". (G. Dennis in J. Bird *op.cit.* in footnote 5, 297 and 307-310.)

K 15-23 Southwark Street (TQ 3252 8012) Current excavations have revealed a large building complex postdating the robbing of stone walls of a large, courtyard building in the late 2nd century. The later building, which had ragstone walls, plain tessellated and decorated mosaic floors, and a hypocaust, had been abandoned and demolished by the time inhumations were cut through the structural levels in the 4th century. (SLAEC excavations by D. Beard and G. Dennis.)

L District Heating Scheme (TQ 3290 8031) Two masonry walls and mortar floor with *pilae* for hypocaust. A single hunt cup sherd below the floor dates the hypocaust to at least late 2nd or 3rd century. (A. H. Graham, publication forthcoming.)

Undated structural remains

M 201-211 Borough High Street (TQ 3253 7982) Two or three stone walls mostly robbed out. The robber trenches contained red and white tesserae. (E. Ferretti and A. H. Graham in J. Bird *op.cit.* in footnote 5, 68.)

N Bonded Warehouse (TQ 3272 8034) Two, extensively-robbed stone walls. (A. H. Graham in J. Bird *op.cit.* in footnote 5, 245.)

O St Thomas Hospital (TQ 3274 8020) Flint and ragstone walls on wooden piles, and red tessellated floor (with 4th-century coins on surface). Observed 1840. (C. Roach Smith 'On Roman remains recently found in London' *Archaeologia* 29 (1840), 148-9)

P Cathedral Choir (c. TQ 3270 8030) Stone foundations running NE to SW. Observed 1831. (A. J. Kempe 'On Roman Antiquities found near London Bridge, *Archaeologia* 24 (1882), 198.)

Q Cathedral/St Saviours School (TQ 3266 8028) Mosaic with figured guilloche. Observed 1820. (George Gwilt map in Local History Library, Southwark.)

R Southwark Park ("in the fields at the back of Winchester House") Mosaic pavement, "wrought in various colours; and in the midst thereof, betwixt certain borders in the fashion of wreathed columns, the form of a serpent very lively expressed in that kind of mosaic work." Observed 1658. (J. Bird and A. Graham 'Gazetteer of Roman sites in Southwark' in J. Bird *op.cit.* in footnote 5, p.525, no.82.)