

## Recent archaeological work at St George's church, Borough High Street, Southwark

BRUCE WATSON

with contributions by

SALLY BADHAM, JEROME BERTRAM, IAN BETTS, CRAIG J HALSEY, NIGEL JEFFRIES,  
ADRIAN MILES, ALAN PIPE, NATASHA POWERS, BETH RICHARDSON, MARK SAMUEL,  
ROB SCAIFE and ANGELA WARDLE

*During 2005–6 the stabilisation of the foundations and the enlargement of the crypt of the church of St George the Martyr, Southwark included a programme of archaeological investigation carried out by Museum of London Archaeology (MOLA). Natural geology consisted of flood plain gravels, overlain by prehistoric wetland situated on the southern edge of a palaeochannel. Initial Roman activity (c AD 50–70) consisted of dumping to raise the ground level, which was then occupied by a succession of late 1st and early 2nd century clay-and-timber buildings fronting onto the western edge of the bridge approach road. To the rear of these buildings was a series of yard surfaces, containing hearths, ovens and an oval animal pen. Late Roman activity consisted of a rubbish pit (AD 250–400).*

*The earliest post-Roman activity consisted of external dumping and rubbish pits, dating from the 13th century. During the late 13th or early 14th centuries a cemetery was established to the east of the parish church of St George the Martyr, the existence of which is first documented in 1122. Fragments of two phases of masonry church foundations were identified. The earlier phase was of 12th–14th century date and the later of 15th century date. Latterly the church consisted of a nave and chancel with asymmetrical north and south transepts or chapels. The area to the south-east of the church was occupied by a cemetery.*

*During c 1515–34 the church was rebuilt; the new building possessed a west tower and twin aisles. The pier bases of the north aisle contained over 113 fragments of moulded Tudor architectural terracotta. The terracottas are believed to be waste material from the construction of Suffolk House (c 1518–22) on the opposite side of Borough High Street from St George's church. This mansion was the London residence of Charles Brandon, Duke of Suffolk, and is considered to be one of the key sites for the early use of terracotta during the English Renaissance.*

*The church was rebuilt again during 1734–6 in the Baroque style. In 1899 when the crypt of the present church was cleared of burials, many coffins were re-interred in pits dug under its floor. The present church has a long history of structural problems, which necessitated the 2005–6 restoration.*

### Introduction

The church of St George the Martyr is located in the London Borough of Southwark SE1 (hereafter referred to as the site). The church is situated on a trapezoidal plot (a former burial ground, discussed below) bounded by Borough High Street to the west, Tabard Street to the north, Long Lane to the south-east and Great Dover Street to the south-west (fig 1; centred at TQ 3248 7976).

In 1997 the excavation of four external and one internal engineering test pits and two boreholes was monitored by Archaeology South-East (Priestley-Bell 1997); a desk-based assessment of the site was also produced (Jones 1997). In 2003 Oxford Archaeology carried out an evaluation (Bashford 2003; site code GMY03). The results of this evaluation were not analysed as part of the current publication.

The present church has a long history of structural problems, which were originally attributed to vibrations caused by traffic and an underground railway: the adjoining section of the Northern Line opened in 1890. However, these problems were clearly exacerbated by both the design of the foundations and war damage sustained by the church (see below). In

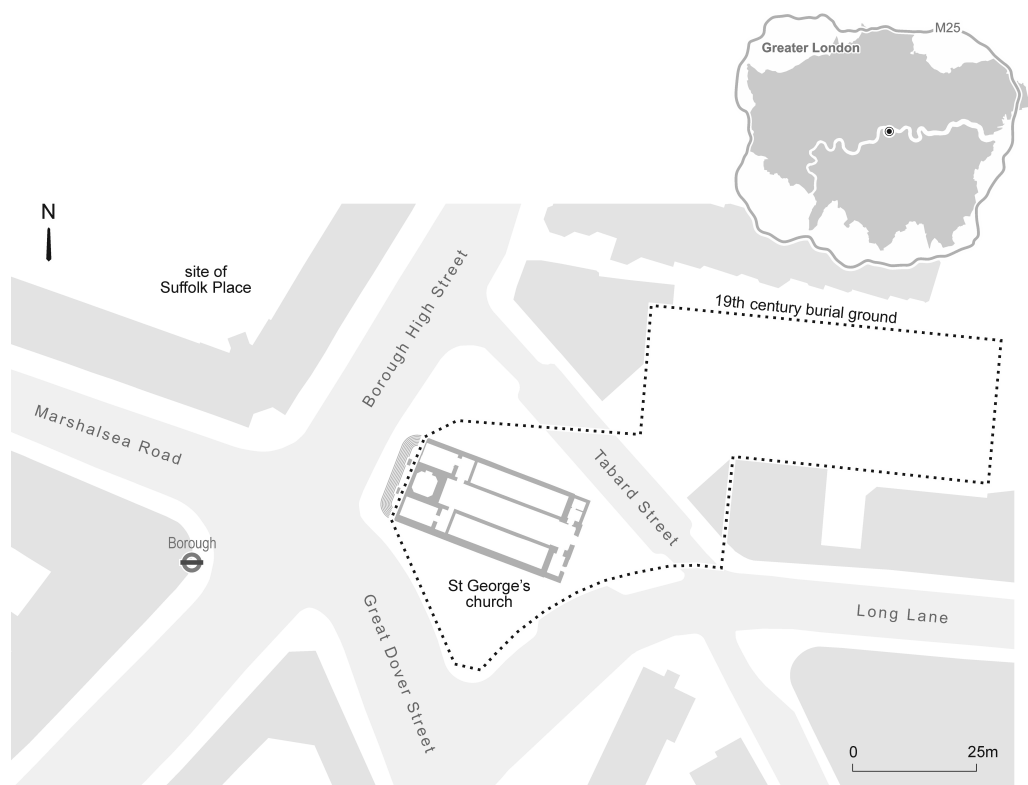


Fig 1 St George's church, Southwark. Site location showing extent of 19th century burial ground and location of Suffolk Place (scale 1: 1,500).

1930 some structural repairs were made to the crypt. In 1938 the south wall of the church, which had cracked and bulged, was repaired. During the Second World War the church sustained bomb damage and was restored during 1951–2 (Darlington 1955, 27). However, by 1997 the church was again suffering from serious structural problems. In 2006 work inside the crypt revealed that the walls were founded on a latticework of softwood beams (at similar level to the crypt floor), which had completely decayed creating linear voids. This design flaw was clearly a factor in the long history of the structural problems of the church. In 2003 it was decided to solve the subsidence permanently by stabilising the foundations, using a combination of internal mini piles and underpinning (Schofield & Gibson 2004). At the same time it was proposed to enlarge the crypt (previously only below the central portion of the church) under the entire interior of the church. This work involved internal ground reduction down to a formation level of 1.15m OD. This was accompanied by an archaeological investigation carried out by MOLA between October 2005 and June 2006 (fig 2). Because of time and practical constraints it was only possible to examine some of the Roman and prehistoric deposits. Therefore, the various plans of the Roman buildings and structures are frequently incomplete.

During post-excavation analysis the contexts [1] were arranged into related sets or subgroups (SG), such as the fills of a pit or a superimposed sequence of external dumps. Later the subgroups were arranged into larger, higher level entities known as groups (G). These groups consisted of related subgroups, such as all the contemporary adjoining or inter-cutting graves within a certain area of the site. These groups were then arranged into the highest level entities: Buildings (B); Open Areas (OA); Structures (S) are defined as features such as temporary buildings; and Roads (R). Illustrated pottery is referred to as

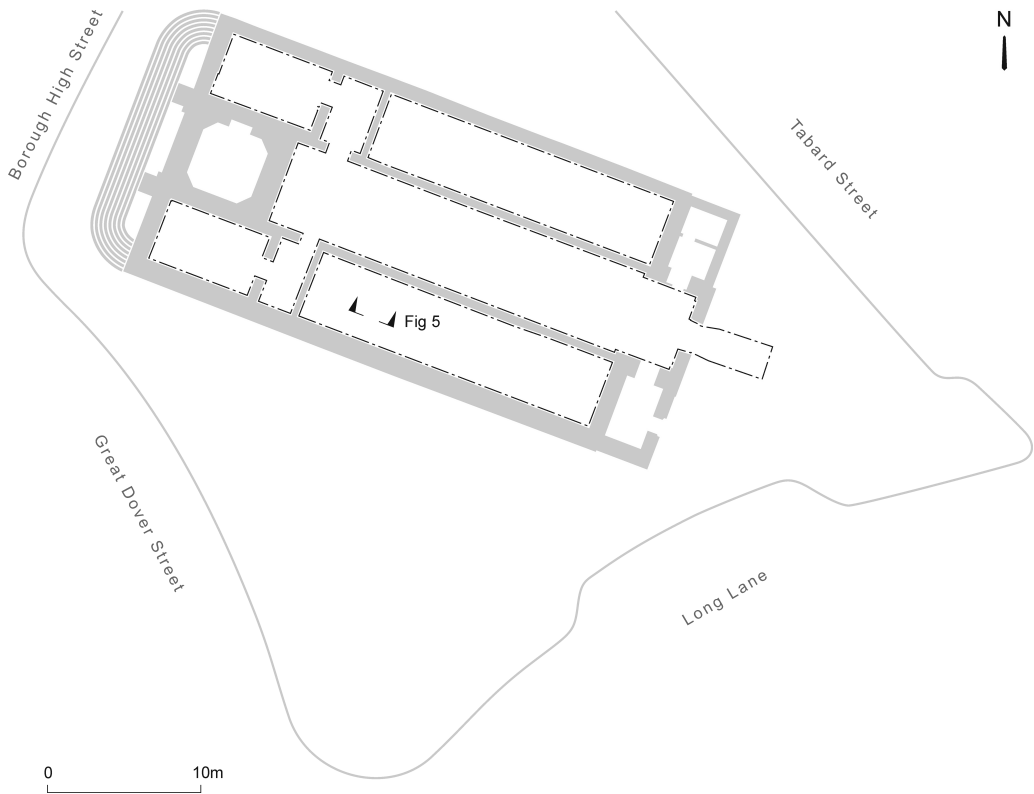


Fig 2 St George's church, Southwark. Areas of archaeological investigation within the church during 2005–6, including watching brief and controlled excavation, showing the location of figure 4 (scale 1:500).

<Pn>; illustrated finds as <Sn>; illustrated glass as <Gn> and non-illustrated accessioned finds are referred to by number, <1>.

The site archive is held by the Museum of London Archaeological Archive and Research Centre (LAARC) under the Museum of London site code SGY05. Full expansions of the various Roman and post-Roman ceramic fabric and form codes are available from the LAARC as part of the research archive and online at [www.museumoflondonarchaeology.org.uk](http://www.museumoflondonarchaeology.org.uk).

## **Landscape development and the palaeotopography,** by Craig Halsey

### INTRODUCTION

The site of St George the Martyr lies within one of the many palaeochannels that defined the primal landscape of Southwark. Over the years extensive archaeological and geoarchaeological investigations have revealed a series of raised islands or 'eyots' separated by a complex network of channels beneath the flood plain alluvium (Morley 2009; Nunn 1983; Ridgeway 2003; Sidell *et al* 2002; Halsey forthcoming; fig 3). According to previous investigations St George's church lies within the most southerly of these water courses, known as the Borough Channel, which flowed between the 'south' Southwark island to the north and the raised gravel terrace of the Kempton Park Gravel formation to the south (Cowan *et al* 2009, fig 2; Yule 1988, fig 3). All trace of this flood plain landscape has now been lost through Roman and later land reclamation and now lies deeply buried beneath thick deposits of anthropogenic material.

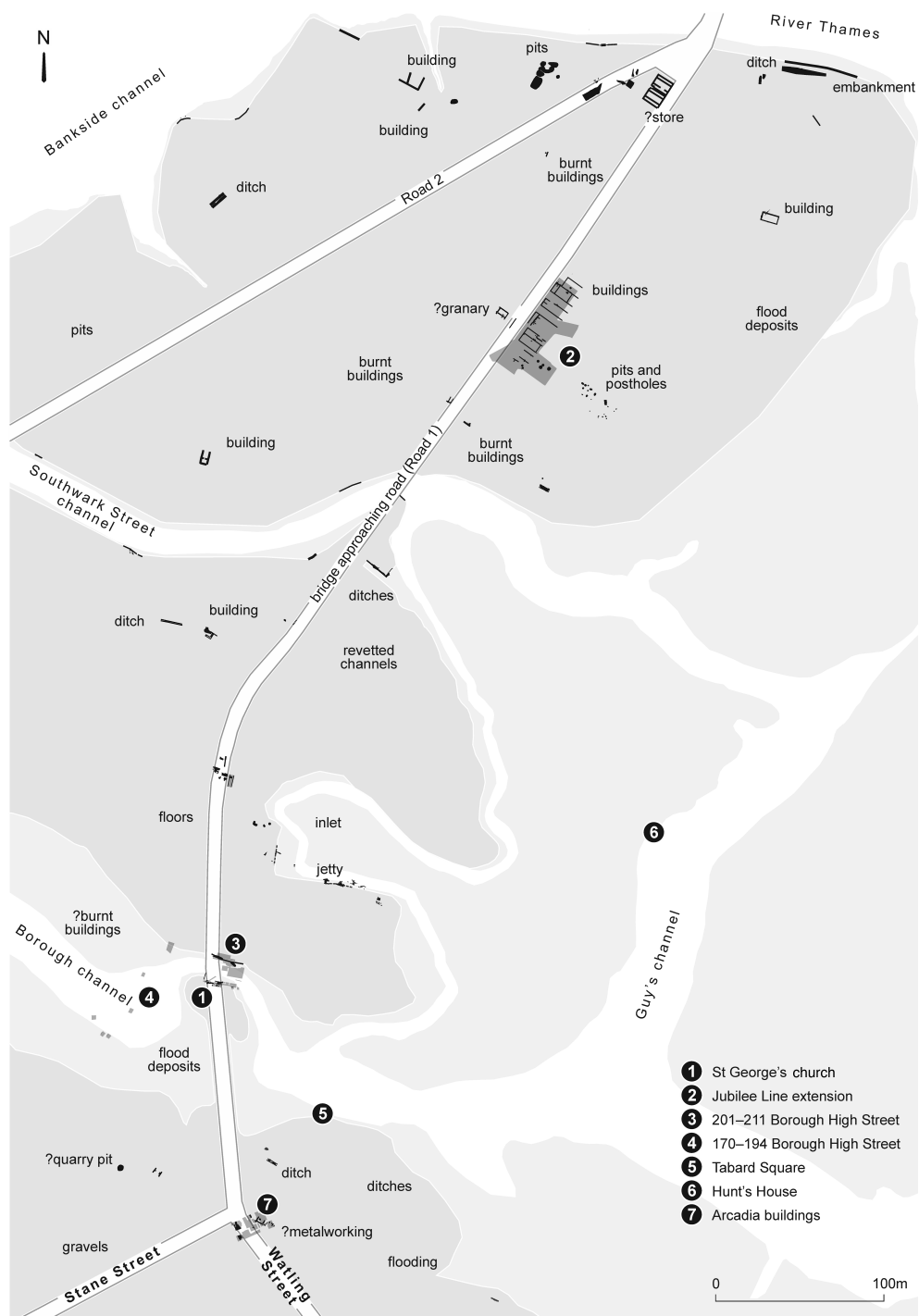


Fig 3 St George's church, Southwark. North Southwark in *c* AD 50–70, showing topography of the area, the extent of the palaeochannels and the road network during (after Cowan *et al* 2009, fig 5) showing the following sites: 1. St George's church; 2. Jubilee Line extension – Borough High Street; 3. 201–211 Borough High Street; 4. 170–194 Borough High Street; 5. Tabard Square; 6. Hunt's House, Guy's Hospital; 7. Arcadia Buildings, Silvester Street.



The evidence indicates that these eyots formed a focus of activity from at least the Early Mesolithic onwards (Ridgeway 2003). The diverse wetland landscape and its rich food resources were undoubtedly attractive to early hunter-gatherer populations. Evidence of this Mesolithic occupation is represented by flint tool assemblages (Ridgeway 1999; Rogers 1990), recovered from across the surface of the eyots and the overlying alluvial deposits.

Throughout the later prehistoric periods (Neolithic to Iron Age) the eyots continued to be settled and farmed (Bates & Minkin 1999; Ridgeway 2003; Sidell *et al* 2002, 35–6). Evidence of prehistoric activity consisted of three residual flints: one broken retouched blade and two burnt fragments (Grey 2006a).

The intervening channels have also proved to be a rich resource of palaeoenvironmental material invaluable for reconstructing the past landscapes and changing environment of the Thames flood plain. The anaerobic conditions within the palaeochannel fills and associated marginal wetlands can preserve a wide range of palaeoenvironmental proxy indicators useful for reconstructing the palaeoecology, hydrology and geomorphology of the flood plain landscape, and also preserve indirect evidence of past human activity.

During the archaeological investigations at the site an opportunity occurred to examine the channel deposit sequence exposed at the base of two excavation slots (the north and south aisle trenches). Hand augering was undertaken to examine and record the full sequence of Holocene deposits down to the level of the Pleistocene flood plain gravels. A sondage was also excavated at the base of the south aisle trench in order to take a column sample for pollen analysis from the upper flood plain deposits and retain material suitable for radiocarbon dating. The following sections present the findings of the geoarchaeological investigations, together with the results of pollen analysis and radiocarbon dating, to provide a description of the pre-Roman flood plain sequence.

#### THE FLOOD PLAIN GRAVELS (PERIOD 1, OPEN AREA 1)

Flood plain gravels (G1) were encountered in both hand augers undertaken in the north and south aisle trenches (fig 2). These gravels were all deposited within a braided periglacial river system of Late Pleistocene/Early Holocene date, *c* 15,000–10,000 years ago, and can be formally associated with the Shepperton Gravels (Gibbard 1994).

Within the north aisle the basal gravels were encountered at *c* –0.24m OD, and consisted of a mid-grey gravelly clay with small angular and sub-angular gravel clasts. In the south aisle, the gravels were encountered at a higher elevation of +0.15m OD, and consisted of a coarse light orange/brown sandy clay with moderate quantities of small angular, sub-angular and sub-rounded gravel.

The gravels on the southern part of the site are likely to have accumulated as point or channel bars on the periphery of a channel, where flow velocity was lower. The iron-stained, orange/brown hue to the matrix indicates that the bar surface was exposed and sub-aerially weathered during low stage flow events. Evidence of some vegetation forming on the bar surface was suggested by a thin band of pale grey organic sandy clay above the sandy gravels.

The gravels on the slightly deeper northern part of the site probably accumulated as a gravel lag deposit within the high-energy proximal part of an active channel bed. The fine-grained clay component is more likely to be associated with the overlying alluvial deposits (G2), which percolated down through the gravels settling within the interstices of the coarse clast supported matrix (fig 4).

Previous archaeological work at 201–211 Borough High Street (60m north of the site) revealed the top of the flood plain gravels at +0.45m OD along the north side of site, sloping down to *c* –0.4m OD along the southern side (Ferretti & Graham 1978, 56). At 170–194 Borough High Street gravel was found between +0.2m to –0.08m OD.

The surface elevation of the gravel deposits in conjunction with the data from previous archaeological interventions, indicates that the site does not lie within the central deeper part

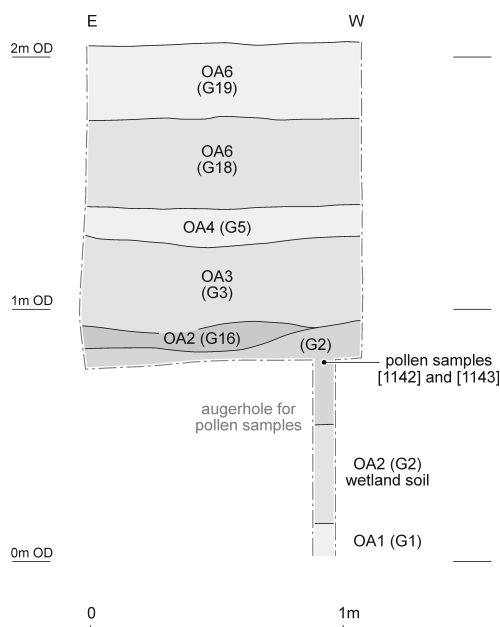


Fig 4 St George's church, Southwark. Section through the prehistoric and early Roman deposits, illustrating pollen sampling locations; for location of section (see fig 2) (scale 1:30).

of the Borough Channel, but rather on the southern margins close to the interface with the Kempton Park Terrace.

Although the gravels record Late Pleistocene river flow, by the Roman period the site no longer fell within the active part of the channel belt (see below). If the Borough Channel did still exist within the vicinity of the site, it was likely to have been greatly reduced in width from its Late Pleistocene/Early Holocene predecessor. This would explain the decision to build the Roman road here to link the southern high ground to the network of Southwark islands to the north.

#### PREHISTORIC CHANNEL DEPOSITS AND SOIL HORIZONS (PERIOD 2, OPEN AREA 2)

Within the north aisle the gravels were overlain by a stiff mid-bluish grey clay with mid-brown oxidised mottles throughout. The surface elevation of this unit occurred at  $-0.05\text{m OD}$ . This in turn was overlain by mid-light brown clay with occasional lenses of organic clay containing detrital plant remains (fig 4). The deposit displayed a gradual and diffuse interface with the underlying deposit, and had a surface elevation of  $+0.2\text{m OD}$ .

These fine-grained units (G2) define a marked change in depositional environment, indicating low-energy deposition within sluggishly flowing or still standing water conditions. These alluvial clays may have been deposited either through processes of overbank flooding or within intertidal mudflats. The oxidised appearance of the upper clays results from drier conditions allowing the clays to periodically dry out and weather, possibly during the drier summer months when water levels were lower and the flooding less frequent.

Eventually the deposition of the alluvial clays ceased suggesting channel abandonment, migration, or width reduction caused by sediment infilling and loss of channel competence. Consequently, the site became significantly drier allowing well-vegetated terrestrial soil horizons to take hold. These soil horizons consisted of a series of well humified, organic mid-brown silty clays, which contained abundant inclusions of wood fragments and detrital plant remains. Abundant heavily iron-stained root channels and rhizolith structures associated with pedogenic processes were observed throughout. The surface elevation of this soil horizon occurred between  $+0.6\text{m}$  and  $+0.8\text{m OD}$  in the north aisle and  $+1.01\text{m}$

OD in the south aisle. A bulk sample from the basal portion of this soil horizon [1143] (fig 4) contained a moderate quantity of waterlogged wood and roots. Also present were the seeds of blackberry/raspberry (*Rubus fruticosus/idaeus*), elder (*Sambucus nigra*) and crowfoot (*Ranunculus Batrachium*) (Roberts 2006).

The top of the soil horizon was exposed within the sondage of the south aisle allowing suitable samples to be taken for radiocarbon dating and pollen analysis (see fig 5). The radiocarbon results and contexts are shown in table 1 (see *Endnote*).

The top of the soil profile produced a calibrated date of 40 BC–AD 80 and the basal portion a date of 790 BC to 420 BC, confirming an Iron Age date for this soil horizon. Immediately above this possible pre-Roman land surface was evidence of *in-situ* burning indicated by a rubified (reddened) layer of reddish brown clay, sealed by a charcoal-rich horizon. The area of rubification was fairly discrete, suggesting a possible external hearth feature rather than widespread burning of the surface vegetation. There was no dating evidence for this deposit, but as inferred from the radiocarbon dates, it could potentially represent a final phase of Late Iron Age activity immediately prior to the Roman use of the land and accumulation of the deposits associated with period 3.

#### THE POLLEN ANALYSIS, by Rob Scaife

Nine pollen samples were examined from contexts [1142] and [1143] spanning a c 0.3m-thick upper part of the pre-Roman land surface (fig 4). Material was obtained in the field using monolith profiles taken directly from the excavated section. Sub-sampling for pollen analysis was carried out in the laboratory and standard extraction techniques were used on 1.5ml samples (Moore & Webb 1978; Moore *et al* 1991). The sub-fossil pollen and spores were identified and counted using an Olympus biological research microscope fitted with Leitz optics. A pollen sum of 500 grains per level was counted. Pollen taxonomy in general follows that of Moore & Webb (1978) modified according to Bennett *et al* (1994) for pollen types and Stace (1991) for plant descriptions.

Pollen in all the samples was reasonably abundant and moderately to well preserved. Overall, the pollen spectra were similar throughout the profile with no significant changes warranting delimitation of local pollen assemblage zones. The sequence is dominated by herb pollen assemblages with relatively small numbers of trees. The principal taxonomic characteristics are given in table 2 (see *Endnote*).

#### *The immediate pre-Roman environment*

The top of the sample column, context [1142], was dated to 40 cal BC to AD 80, while the basal, context [1143] was dated to between 790 cal BC and 420 BC (table 1). Thus, the pollen contained in this soil, and described here, relates to the Iron Age (c 800BC to mid-1st century AD) and the earliest part of the Roman period. Few organic soils and sediments of this period have previously been recorded in the Southwark area. The poor survival of Iron Age organic deposits is, in part, a result of later Roman truncations. However, by this period the formation of peats and organic deposits within the channels had also largely ceased. The channel environments were now fully estuarine, which resulted in a transition from peat formation to the accumulation of intertidal minerogenic muds with low levels of organic preservation. The pollen assemblages comprise components from the on-site (wetland), the very near site (adjacent flood plain) and the drier ground habitats of the nearby region.

#### *The on- and near-site habitat*

No real evidence of standing water/aquatic vegetation was found. Wetland, fen plants included sedges (Cyperaceae), bur reed and/or reedmace (*Typha/Sparganium* and *T. latifolia*). Grasses were probably also important but, unfortunately, it was not possible to separate the

pollen into fen/marsh and dry land/pasture. Overall, there is a consistency to this damp fen environment throughout the profile. This reflects the fen vegetation that would have been growing along the line of the sediment-filled palaeochannel.

Alder (*Alnus*) and willow (*Salix*) were also growing adjacent to the channel edge. The former, although having the highest pollen numbers, is over-represented in pollen spectra owing to its high pollen productivity and anemophily (seed dispersal by wind). Thus, it is probable that its growth was not extensive (ie probably not carr woodland), but was from localised growth along the former channel. Willow, in contrast, is poorly represented in pollen spectra and its diminutive presence probably belies its importance similarly growing along the line of the former channel. *Pediastrum* (freshwater algae) and the royal fern (*Osmunda regalis*) occur in the upper levels and this tentatively suggests that on-site/local conditions were becoming wetter.

### *The dry-land habitats*

Apart from the importance of alder and willow noted above as being from the on-site fen habitat, there are relatively few trees and shrubs. Oak (*Quercus*) is the most important with values that slowly decline upwards. Pollen numbers are such that there may have been some occasional, local growth or alternatively the pollen derives from more important areas of woodland at some distance from the site.

Birch (*Betula*), pine (*Pinus*), elm (*Ulmus*) and hazel (*Corylus avellana*) are also present in very small numbers. These are all wind pollinated (anemophilous) taxa, which may be transported over substantial distances. It is probable that these pollen taxa are from wider regional sources whereas there is little evidence for any substantial woodland on drier land close to the site. Ash (*Fraxinus*) and beech (*Fagus*) in contrast are poorly represented in the pollen spectra and even the sporadic occurrences here might derive from occasional trees growing locally.

The absence of trees locally and the dominance of herbs clearly show that the local area had been cleared and was a predominantly agricultural environment by the Iron Age. This would suggest that extensive woodland clearance followed by agriculture had taken place in Southwark long before the Roman conquest. From earlier studies of the London region (Greig 1992; Scaife 2000; Wilkinson *et al* 2000), it is probable that the woodland clearance began with the removal of lime woodland (*Tilia*) primarily during the Middle–Late Bronze Age (c 1500–800 BC).

Cereal pollen and a range of herbs of disturbed ground demonstrate that cereal cultivation was taking place. However, the possibility of pollen from other secondary sources (eg crop processing activities or dumped domestic waste) may have also influenced the pollen assemblage.

Grass pollen is the dominant herb taxon and undoubtedly comes from a range of different habitats both on and off site. This importance of grass coupled with the occurrence of other herb taxa, including ribwort plantain (*Plantago lanceolata*) and dandelion/daisy family plants (Asteraceae) indicate a strong grassland/pasture habitat. This would clearly be more suited to the damp soils of this site.

## **Roman c AD 50–100 (period 3)**

### EARLY ROMAN LAND RECLAMATION (OPEN AREA 3)

Initial Roman activity dating was connected with levelling dumps intended to raise the existing ground level to facilitate the reclamation of the existing wetland (period 2). The date range of this activity (OA3) and the subsequent Open Areas (4–5) and associated buildings is c AD 55–70/5. The earliest ceramics on the site are pre-Boudican, which implies that this Open Area probably dates from c AD 50–60.

The site is situated a short distance to the north of the convergence of Watling or Stane Streets, along the north–south aligned bridge approach road, which was the Roman precursor of Borough High Street. It is postulated from earlier discoveries that this road (Road 1),

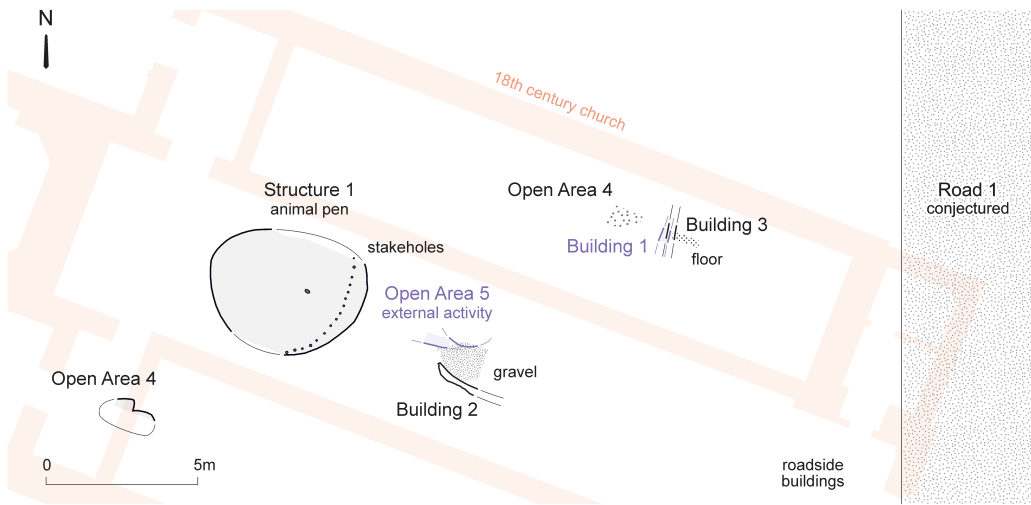


Fig 5 St George's church, Southwark. Earlier Roman buildings, structures plus the postulated alignment of Road 1 to the east of the site (period 3).

which was not located during the investigation, runs under the north-eastern portion of the present church. Its estimated width is 6–7m (Graham & Hinton 1989, fig 4; fig 3). The construction of Road 1 is not precisely dated, but it is assumed to have been built during *c* AD 50–60 (Cowan *et al* 2009, fig 40; Drummond-Murray *et al* 2002, 14–16).

*Selected finds and dating evidence (Open Area 3)*, by Ian Betts, Beth Richardson and Angela Wardle (table 3: see *Endnote*)

Only selective aspects of the Roman finds and environmental assemblage are discussed. Full detailed specialist reports and finds studies are available in the site archive (Betts 2010; Pipe 2006; Richardson 2009; Wardle 2010) (table 3). The study of the South Gaulish decorated samian was undertaken by Joanna Bird (Bird 2010) and study of the samian stamps by Brenda Dickinson (Dickinson 2010).

Various roofing tile and bricks were recovered from the levelling dumps together with a box-flue tile, a *tegula mammata* and what may be a wall tile.

The box-flue tile, which has a front breadth of 125mm (thickness 17–18mm), has rounded corners and knife scored keying on the three surviving sides. There are the remains of square or rectangular vents in the two sides. Identical flue tiles are discussed by Pringle (2006, 125–7, fig 4) who suggests a pre-Boudican (AD 50–60) date for their use in London (Pringle 2007, 205).

Midden deposits contained an encrusted copper-alloy applied hook brooch (<S1>; fig 10), a type that dates from the mid–late 1st century AD. Finds of this type of brooch are not common in south-east England, as its distribution is centred on the West Country, especially Dorset and Somerset (Bayley & Butcher 2004, 157).

#### EARLY ROMAN EXTERNAL SURFACES: BACKYARDS (OPEN AREA 4)

It is probable that soon after the construction of Road 1, the eastern part of the site was occupied by 'ribbon development' consisting of a series of clay-and-timber buildings fronting onto the western side of the road. The impression is that these buildings were fairly small and that to the west or rear of them was a series of gravelled yards. Periodically parts of this external area was encroached on by the roadside buildings, but it was predominantly

open-space, where hearths were situated, and a variety of structures including ovens and temporary buildings and one animal pen (S1) were constructed. Scattered post- and stakeholes may represent parts of these buildings, fence lines or lean-to structures. However, the areas excavated were generally too small to determine the overall plan of the features encountered. When these external gravel surfaces became worn they were repaired or replaced by new surfaces and levelling dumps. Occasionally, midden material was dumped here or pits were dug for the disposal of organic rubbish. There were two hearth bases and evidence of scorching possibly caused by braziers. The only accessioned find was an unusual fragment of a ceramic object, possibly part of a clay mask (<S6>; fig 9). This object, which was modelled by hand, appears to show stylised curling hair. Open Area 4 and its successors (OA5–7) all date to *c* AD 60–100 (table 4: see *Endnote*).

#### EARLY ROMAN BUILDINGS (B1–B6)

Although the remains of a number of clay-and-timber buildings were found, nothing can be said about their overall plan as only very small parts of them survived, although their walls generally followed a north–south alignment implying that they were laid out roughly parallel to Road 1 (fig 5). The possible alignment of this road (but not its position) can be clearly inferred from the orientation of a construction trench [598] (fig 7) SG176 for a brickearth sill.

The dating evidence for the succession of roadside buildings (B1 and B3–B6) is limited, but it is likely that all these buildings were fairly short lived and all were constructed between *c* AD 60 and AD 100 (table 3: see *Endnote*). There is little evidence for the function of these buildings, but it is assumed that they were houses, possibly shops. There was no evidence of craft activity or manufacture. However, the presence of various ovens and hearths could be interpreted as evidence of food preparation for sale as well as domestic consumption.

The walls of these buildings generally consisted of brickearth or clay lump sills often founded on timber beams. The floors were generally brickearth and internal features possibly partitions consisted of shallows beam slots, plus various post- or stakeholes. Some sills (eg Building 7) showed evidence of render/whitewash and Building 3 had a floor paved with *tegulae*. Buildings 2, 5 and 6 showed evidence of fire damage. These fires cannot have been one contemporary event as Building 5 was superseded by Building 6.

#### *Early Roman buildings (B1–3), backyards (OA5) and livestock pen (S1) (table 5: see Endnote)*

The evidence for Building 1 consisted of a north–south aligned brickearth sill and an internal posthole with a tile post-pad (fig 5). Building 2, which was destroyed by fire, was represented by a wattle-and-daub wall, plus a brickearth floor. Building 3 consisted of a north–south aligned brickearth sill and an associate area of paved floor made up of broken *tegulae* and brick fragments.

Associated with these late 1st century AD buildings was a series of backyard deposits (OA5; fig 5) including external dumps with fire debris perhaps derived from the destruction of Building 2 (table 5). There were also two temporary wooden structures. The external dumps contained a damaged penannular copper-alloy brooch (<S4>; fig 9) a long-lived form for which parallels are found in contexts of 1st–4th century date (Bayley & Butcher 2004, 185–6).

A shallow oval hollow measuring 3.80 x 5.20m, filled with gravel and edged with a single line of fifteen vertical stakeholes and one posthole (S1; fig 5), is interpreted as a pen for holding livestock, perhaps domestic fowls to supply eggs and meat for either home consumption or sale. Faunal analysis reveals that domestic fowls were not commonly consumed in early Roman Southwark, which would imply that relatively few people kept these creatures in their backyards (Liddle *et al* 2009, 245). The structure appears to have been fairly short-lived and was probably destroyed by fire.



*Intermediate phase of early Roman buildings (B4–B9), structures (S3) and backyards (OA6) (table 6: see Endnote)*

Subsequent backyard activity consisted of various brickearth and gravel surfaces, one unlined hearth base, two areas of scorching, various dumps of brickearth, sand, domestic rubbish and other waste materials (OA6; fig 6). Structural activity consisted of a possible temporary building with sand floors. A gully (SG198; fig 6) aligned south-west to north-east might have been part of a property boundary. The dating for this activity is post *c* AD 70 (table 6), while the end date for the almost all early Roman sequence is likely to be *c* AD 100, there is no reason for any early Roman activity to be later than AD 120.

Forty-seven fragments of wall plaster were recovered from a trampled surface (G23). These fragments appear to have formed part of a decorative scheme comprising plain white panels bordered by thin red and yellow bands. Below was a white dado with red and yellow splashes. Recovered from a gravel dump [507] was a weathered fragment of fine-grained white marble with a cut at the top and bottom face. This is probably Carrara marble from Italy, originally likely to have been part of a wall or floor veneer.

Further fragmentary evidence for early Roman buildings (B4–B6; fig 6) consisted of a north–south aligned brickearth sill with five post- or stakeholes (Building 4); a north–south aligned fragment of a charred and robbed-out sill beam (Building 5) and a scorched brickearth sill aligned north–south (Building 6). Ash and trample post-dating the destruction of Building 6 dated to AD 50–100.

Nearby, an external oven base consisted of an oval area of discoloration caused by intense heat contact (S2; fig 6). The base of the oven [806] contained most of a crushed grog-tempered vessel (GROG 9), possibly a cauldron, dated to *c* AD 50–100.

Building 7 was represented by a length of its eastern wall, a north–south aligned partly robbed-out brickearth sill with a rendered and whitewashed internal face. An external linear feature parallel with the wall may have been intended to collect roof water. Internal features consisted of a linear slot, one stakehole, one posthole, areas of worn brickearth floors and a build-up of trample. Associated ceramics dated to *c* AD 70–100 (fig 6).

A further fragmentary building consisted of an east–west length of brickearth sill with a brickearth floor (Building 8; fig 6). The makeup deposits and floor surfaces for Building 8 produced eight objects, the largest group of accessioned finds from any single Roman

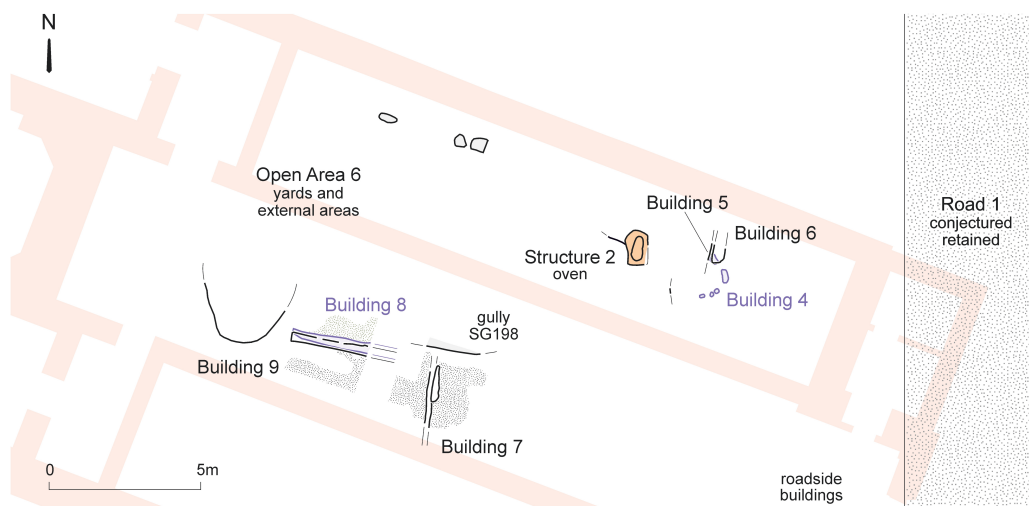


Fig 6 St George's church, Southwark. Intermediate phase of early Roman buildings, structures plus the postulated alignment of Road 1 to the east of the site (period 3) (scale 1:250).

feature. Two poorly preserved copper-alloy brooches from the make-up deposits are likely to be Colchester forms, in use until about AD 70. The first is a one-piece brooch (<S2>; fig 9) and the second a Polden Hill (<S3>; fig 9), both types commonly found in London (see catalogue of illustrated finds, below). The floor surface contained a base silver finger-ring with snakehead terminals (<S5>; fig 9, see catalogue of illustrated finds, below). Other finds from the floor and its make up included fragments of domestic vessel glass, one of which was a fine-quality colourless fragment (<G1>; fig 9). The glass fragments also included part of wheel-cut vessel <8> (not illustrated) probably from a cup and part of a square bottle <10> (not illustrated). The presence of the ring, the brooches and the fragment of luxurious and expensive glassware suggests the inhabitants of this building possessed some wealth. Ceramics from the floor make-up date to *c* AD 50–100.

Building 8 was replaced by Building 9 (fig 6), which survived as a probable fragment of brickearth flooring and an east–west aligned beam slot; unusually this timber beam had been allowed to decay *in situ* rather than being robbed out. On stratigraphic grounds the construction of this building is dated to the early 2nd century AD or earlier (see above). Associated finds included a la Graufesenque samian bowl with a stamp of Patricius i 3h (Drag18?) <33>, dating to *c* AD 65–85.

#### LATEST PHASE OF EARLY ROMAN OCCUPATION INCLUDING BACKYARDS (OA7 AND OA8) AND BUILDINGS (B10–B12) (tables 7–9: see *Endnote*)

After Building 7 went out of use and prior to the construction of Building 10, this part of the site was levelled and an east–west gully dug, perhaps representing a property boundary. Other features included postholes and stakeholes and a gravel surface (OA7; fig 7) (table 7).

The earlier of these two buildings (B11) in this part of the sequence consisted of a robbed-out beamslot and a fragment of brickearth sill with a replacement slot on the same alignment, which probably represents a later phase of construction (B11; fig 7), associated finds date to *c* AD 70–85 (table 8). The later building (B10) consisted of an east–west fragment of brickearth sill with two out robbed beamslots, four post- and stakeholes and several fragments of brickearth flooring (B10; fig 7). Building 10 dated to *c* AD 70–100 and was sealed by external deposits (OA8) (table 9).

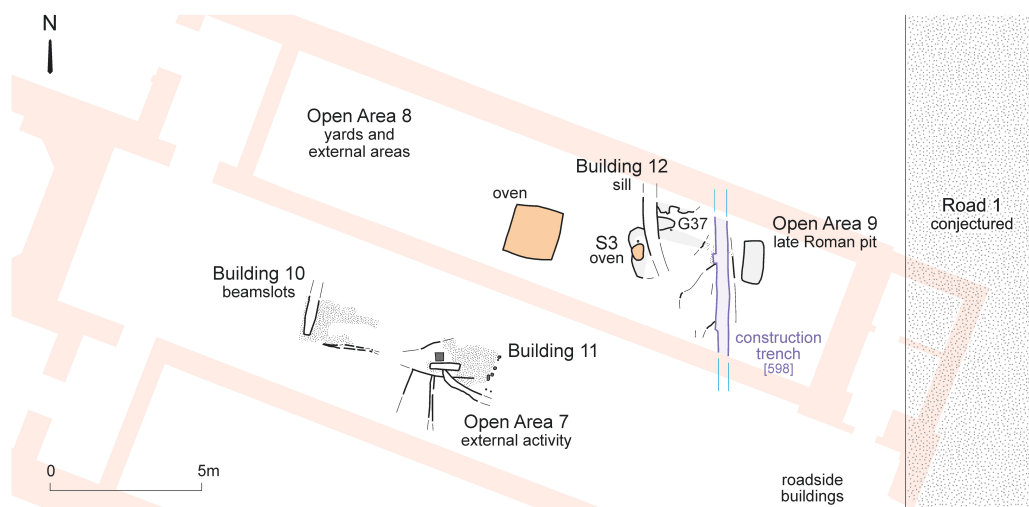


Fig 7 St George's church, Southwark. Later early Roman activity (late 1st and early 2nd century AD, period 3), and the single late Roman feature (period 4).



This final phase of early Roman backyard was represented by a number of trampled muddy brickearth and gravel surfaces, various post- and stakeholes, rubbish pits, a temporary wooden structure (G37), one external oval-shaped hearth base, a second probable hearth base and an external oven base (OA8; fig 7). The oven consisted of an intensely scorched area of brickearth: the interior was teardrop-shaped with an entrance on its south side.

This latest building from period 3 post-dates Open Area 8, so it is of early 2nd century AD date (B12; fig 7). It consisted of two parallel north-west/south-east aligned robbed-out beamslots and traces of brickearth sills. One of the beams (SG176) showed evidence of external charring perhaps to prevent decay. The associated wall construction trench was traced over a distance of 4.20m, providing good evidence for the general alignment of these buildings. There were traces of brickearth flooring and make-up dated to *c* AD 75–95 [648] by South Gaulish samian (SAMLG DRAG 37).

*The early Roman pottery*, by Beth Richardson

The Roman assemblage consists of 1898 sherds from an estimated 834 vessels, recorded by form and fabric and quantified by sherd count, weight and Estimated Vessel Equivalents (EVEs) (table 10; see *Endnote*). Most of the pottery was recovered from the period of 1st century activity on the site, the initial land reclamation and succession of buildings and yards fronting Road 1. The period 3 assemblage is essentially Neronian with a very few early Flavian sherds from the last buildings in the sequence (*c* AD 55–70/5) (table 10). The earliest activity on the site is pre-Boudican, with pre-Boudican forms and fabrics present in the initial land reclamation and earliest land uses as well as in the next phases of building. There are no pre-Roman- or 'Belgic'-influenced vessels of the type found in the very earliest Roman deposits in Southwark (eg Cowan *et al* 2009, 38–40; Drummond-Murray & Thompson 2002, 16–18; Tyers 1996, 143) and it is probable that the earliest pottery dates to *c* AD 55–60. The buildings and associated open areas seem to have followed each other in quick succession, with no discernible changes in their pottery. Because of this, and as there is no Boudican fire horizon, the period 3 pottery is considered as a single assemblage with comparisons to pottery from the ditches and earliest buildings along Southwark's Road 1 (Drummond-Murray & Thompson 2002, 18–39; Cowan *et al* 2009, 62–4), the pre-Flavian levels at the nearby Arcadia Buildings site (Cowan *et al* 2009, 48–50; fig 3, site 7; Rayner & Seeley 2009, 222–5) and the earliest Roman ceramic periods (RCPs 1A/B) in the City of London (Davies *et al* 1993, 167–92).

The assemblage contains a significant quantity of the fabrics and forms that characterise the pre-Boudican pottery assemblages of Southwark and the City of London: samian Dragendorff 24/25 and Ritterling 9 cups, Ritterling 12 bowls and Dragendorff 15/17 dishes, handmade bead-rimmed jars, butt beakers, North Kent Eccles ware, Hoo Island white-slipped ware and London Sugar Loaf Court ware (table 10). It also contains fabrics and forms that are particularly characteristic of pre-Flavian assemblages in Southwark, notably early Roman oxidised ware and North Kent or South Essex shell-tempered mortaria, larger proportions of wares from Surrey and Kent and correspondingly smaller proportions of wares such as Highgate Wood ware B and Verulamium region white ware from London and South Hertfordshire, which tend to be more common on pre-Flavian sites on the north side of the river. The assemblage as a whole has high proportions of reduced and grog- and shell-tempered fabrics, relatively high proportions of amphorae and samian ware and a virtual absence of non-samian imported fine wares. This is similar to many assemblages of the same date in Southwark, but notably different to the nearby Arcadia Buildings site, which has higher proportions of grog- and sand-tempered wares and much lower proportions of samian and amphorae (Cowan *et al* 2009, 48–50).

There is a wide range of food and wine amphorae from the site. Southern Spanish early Dressel 20 olive oil amphora sherds are by far the most common; many were used for levelling, with large quantities from the initial levelling dumps (OA3), the floor of Building 2 and

make-up for Building 8. There are pre- or early-Flavian rim sherds from at least two vessels (Peacock & Williams 1986, fig 66, mid-1st century forms 8 and 12), and an unstratified handle stamp, SATURNINUS, a common 1st century stamp found on several other Romano-British sites (Callendar 1965, 241, 1572; Funari 1998, 207–8, 449, types b.2 and j.10). Large quantities of Southern Spanish Dressel 28 (?) wine amphora sherds were also used in the make-up for Building 8, with other body and handle sherds from Open Area 3 and 8. Other types include Southern Italian and Southern Gaulish Dressel 2–4 wine amphora, Rhodian wine amphora, Southern Spanish Beltrán 2A fish sauce amphora, Southern Gaulish London 555 olive amphora and the possibly eastern Mediterranean Cam. 189 carrot amphora, thought to have been used as a container for dates. There are three rims, from an Italian Campanian ‘black sand’ fabric Dressel 2–4 wine amphora, a ‘Gauloise 3’ wine amphora and a Beltrán 2A fish sauce amphora. It is notable that most of the amphorae were recovered from the initial levelling dumps and land use. Only the Gaulish Dressel 2–4 shoulder and body sherds and Gauloise 3 rim (both Open Area 8) and the small quantity of Rhodian sherds from Buildings 11 and 12 were recovered from later land uses.

The only imported tablewares are South Gaulish samian cups, bowls and dishes. These are scattered throughout the buildings and open areas with no obvious concentrations in any land use. There are no Gaulish colour-coated wares (such as Lyon ware) and none of the other imports, such as Pompeian red ware, often found in City and Southwark Neronian assemblages. Apart from sherds from two early Flavian decorated bowls from the last buildings in the sequence (Buildings 11 and 12), all the decorated samian is Neronian. There are two Neronian samian stamps from OA3 and 4 (tables 3 and 4: see *Endnote*). All the samian forms are early, with common Flavian forms such as Drag. 33 cups, and Drag. 37 bowls appearing only at the end of the sequence.

Oxidised wares make up 12% of the assemblage, a typical percentage for Neronian Southwark. Half of these are Verulamium region white ware, with smaller quantities of North Kentish Eccles ware and Hoo island white-slipped ware, Colchester white ware and some unsourced fabrics. The Verulamium region white ware forms are unusual and clearly early (two butt beakers, a reed-rimmed bowl and a small everted rimmed jar or beaker (<P20>, <P23>, <P24>, <P27>; fig 8). There are single examples of Flavian ring-necked flagon (London type 1B2) and hooked flange mortarium rims from the end of the sequence in Open Area 7 and Building 10. The Eccles ware flagons are early ring-necked forms (<P1>, <P2>; fig 8). A single example of a Colchester white ware early wall-side mortarium is paralleled by a Neronian example from Borough High Street Ticket Office (Drummond-Murray & Thompson 2002, 21, Fig 20, 18). An unsourced (possibly north French/south-east English) flanged mortarium, from the beginning of the sequence in Structure 1 is early, also paralleled (in form) by a mortarium in the Neronian Borough High Street group (*ibid*, 21, Fig 20, 21) (<P38>; fig 8). A Sugar Loaf Court ware oxidised beaker from a mixed date deposit in a late Roman pit also dates from this period (<P26>; fig 8).

Most of the small quantity of Romano-British finewares is reduced, and either local fine micaceous reduced wares, North Kent finewares or unsourced. There is a significant absence of Flavian or later Highgate C sand-tempered ware, with just two sherds from land uses at the end of the sequence (Open Area 8 and Building 11). Where identifiable, most forms are beakers or small jars, many decorated with rouletted, combed and incised decoration, with one example (in fine micaceous reduced ware) of an imitation Drag. 29 bowl (<P33>; fig 8). Two beakers or jars from the initial land use in Open Area 3 have fabrics with the characteristic clay/chalk pellets and soapy surfaces of the North Kent workshops ([431] (<P18>, <P19>; fig 8). A small globular beaker or jar with burnished grey/brown surfaces and a very fine silty fabric may be an Alice Holt ‘Fabric C’ pedestal jar (Lyne & Jeffries 1979, fig 10, 2.1) (<P21>; fig 8). An unsourced butt-beaker has matt dark grey surfaces and a light grey core with abundant very fine quartz and a few larger argillaceous inclusions ([491] (<P22>; fig 8). A lightly burnished flanged bowl in a fine blue/grey silty fabric (<P32>; fig 8) and a dish with a slightly coarser micaceous light grey fabric (<P36>; fig 8) are also

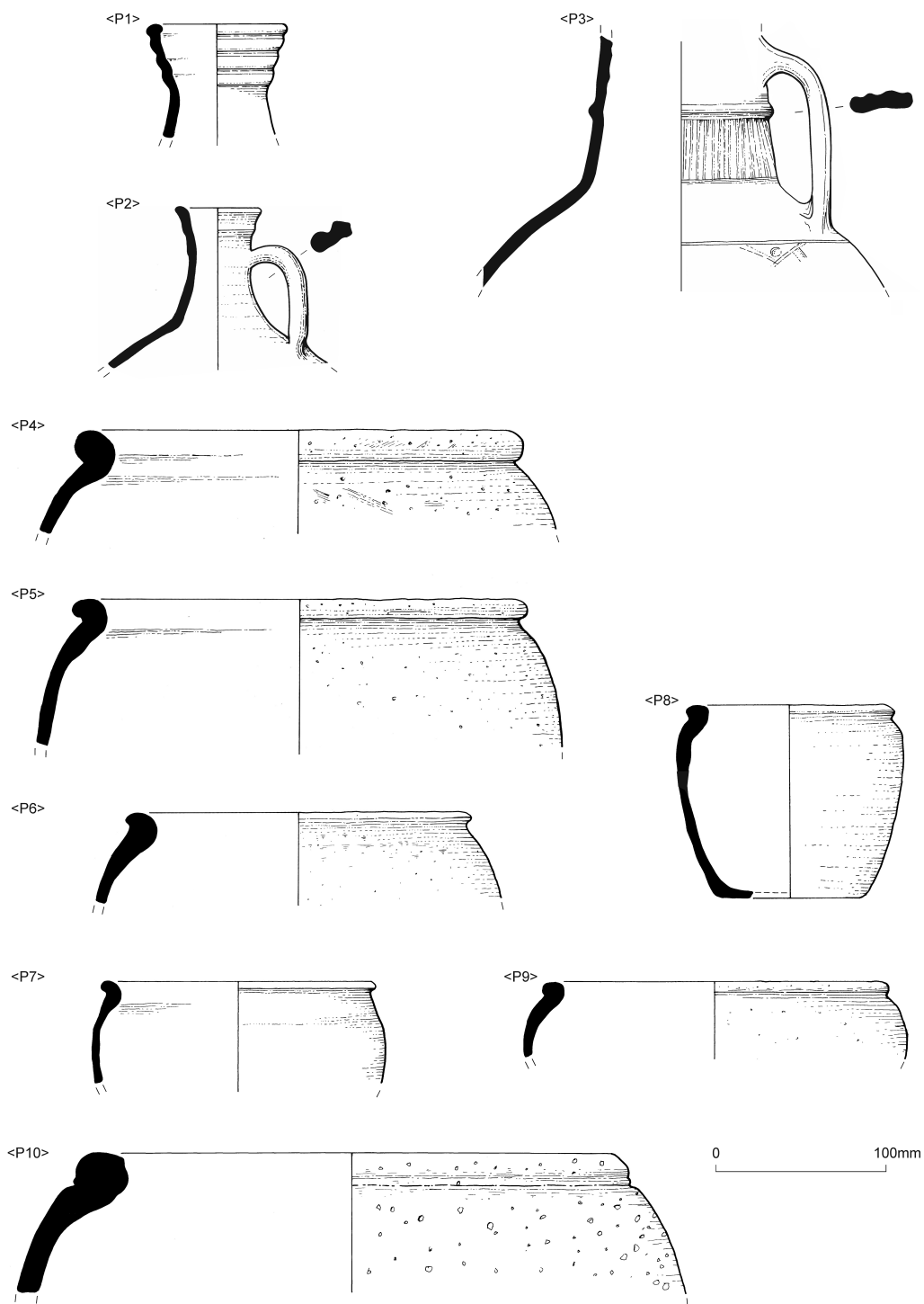


Fig 8 St George's church, Southwark. Early Roman pottery <P1>–<P39>. Details concerning vessel forms, fabrics and context can be found in Appendix 1 (see *Endnote*) (scale 1:4).

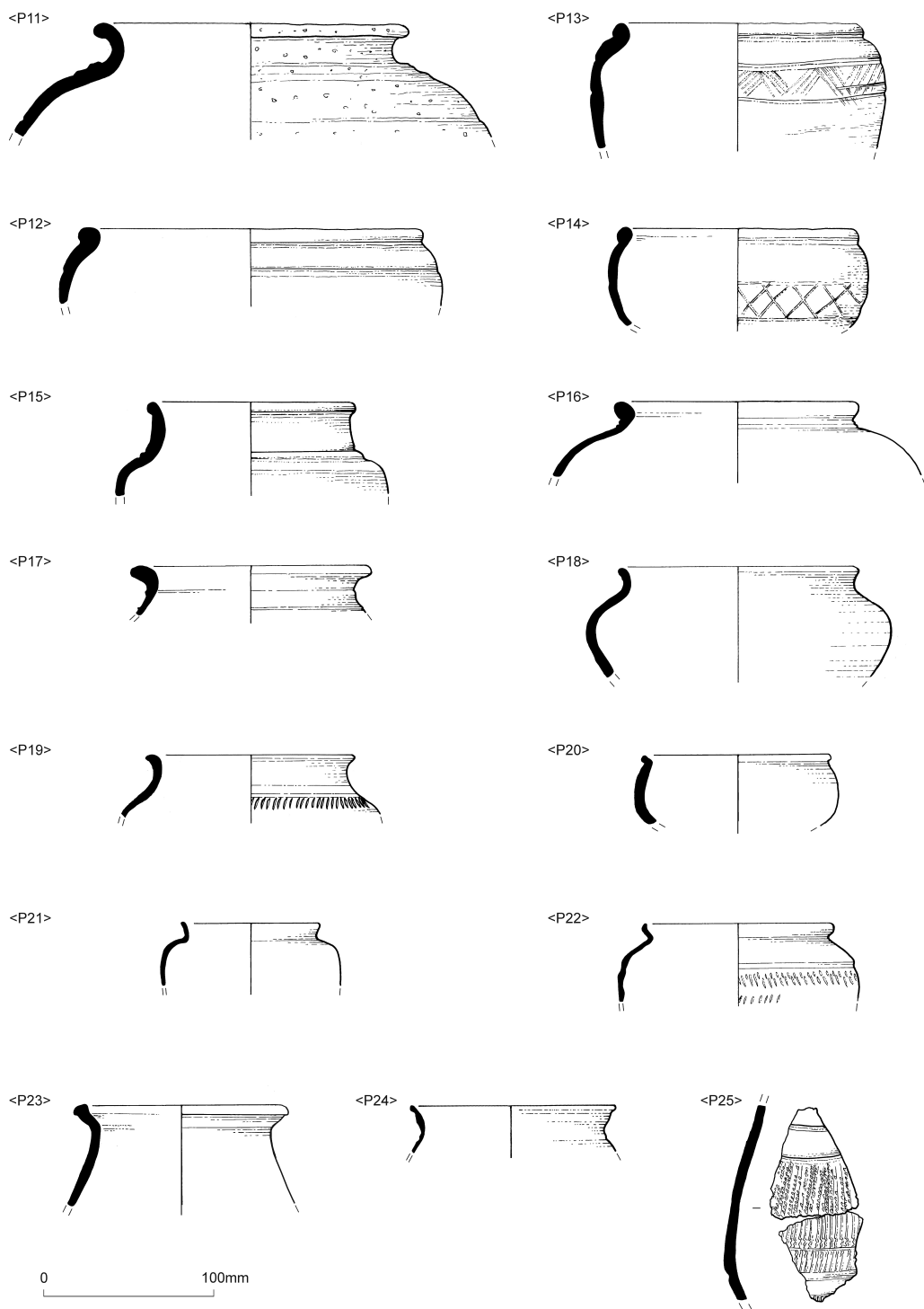


Fig 8 (continued)

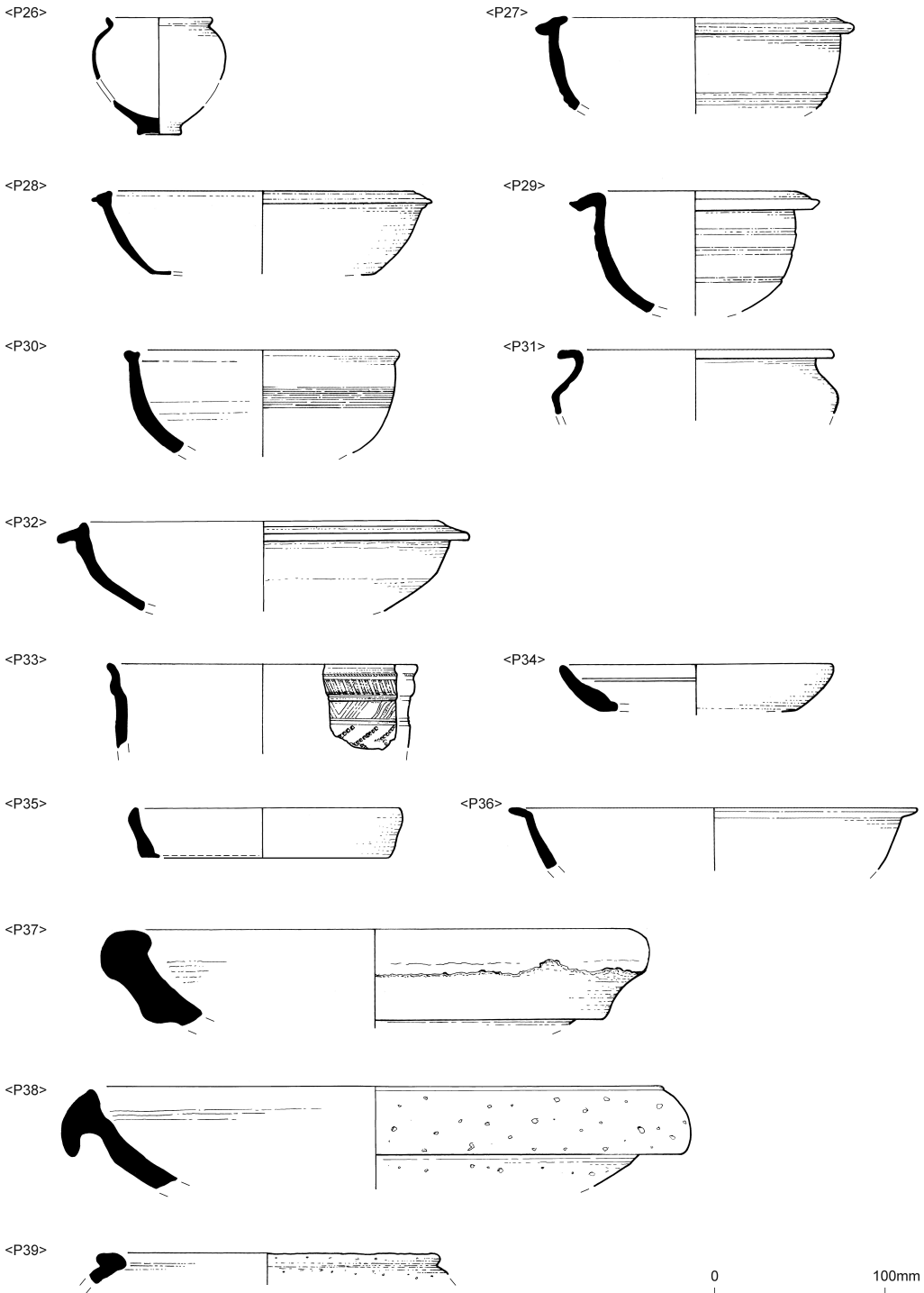


Fig 8 (continued)

unsourced; they may be imports. The only oxidised finewares are a single sherd from a ring-and-dot beaker (from the initial land use in Open Area 3) and four body sherds from early Roman oxidised ware butt beakers, some also from the initial land use (<P25>; fig 8). This distinctive red painted ware has now been recorded from many pre-Flavian contexts in Southwark, including the nearby Arcadia Buildings site (Rayner & Seeley 2009, 222–5).

Coarser reduced sand-tempered fabrics make up 18% of the assemblage. Half are unsourced; the remainder are Alice Holt/Surrey ware, London early Roman sandy wares, London Sugar Loaf Court reduced ware and Verulamium region grey ware. The relatively high proportion of Alice Holt/Surrey ware (5.2% of the total sherd count) is typical of early assemblages in Southwark (eg Cowan *et al* 2009, 48). It is present in the initial levelling dumps and throughout the sequence with several examples of necked jars with carinated shoulders (<P15>; fig 8), a bead-rimmed jar from Building 11 and a flagon from Building 8 (<P3>; fig 8). The small quantity of early Roman sandy wares consist of bead-rimmed jars with girth-grooves (<P13>, <P14>; fig 8) from Building 3 ([844]) and Buildings 8 or 9 (joining sherds from 8/9 361/398/403), and dishes imitating Cam. Forms 12–14 with interior mouldings (<P34>, <P35>; fig 8). The one sherd of early Roman sandy/iron-rich ware, a bead-rimmed jar with girth groove (<P12>; fig 8), is from the initial levelling (Open Area 3). The Verulamium region grey ware and Sugar Loaf Court ware are typical distinctive products of these workshops, with bowls and jars (<P16>, <P17>, <P28>, <P29>; fig 8) and a lid (not illustrated) from the initial activity in Open Area 3 and from Open Areas 6 and 7. The unsourced reduced sand-tempered wares include rims from bead-rimmed, necked and carinated jars (not illustrated), lids (not illustrated) and bowls that include a form of ‘Surrey bowl’ with grooved rim (<P30>; fig 8) and a bowl with faint burnished lines above a sharp carination and a hard granular fabric with ill-sorted quartz and sparse iron ore (<P31>; fig 8).

Tempered wares make up 21% of the assemblage, and consist of unsourced grog- and shell-tempered wares with smaller quantities of Highgate Wood ware B grog-tempered ware and North Kent and East Midlands shell-tempered wares (table 3, see *Endnote*). The quantity of Highgate Wood ware B is small, but higher than in many of the pre-Flavian assemblages in Southwark, with sherds from bead-rimmed jars (<P4>–<P7>; fig 8) and bead- and everted-rimmed storage jars present in the initial levelling dumps and throughout the sequence. There is only one Highgate Wood ware B grog-tempered ware bowl, from the end of the building sequence in Building 12. Most of the unsourced tempered wares are also early bead-rimmed jars with simple thickened rims (<P8>, <P9>; fig 8), but there are also some very large vessels: a shell-tempered seria from Open Area 3 (<P39>; fig 8), a shell-tempered jar with flattened bead rim from Structure 1, interpreted as a livestock pen (cf Cowan *et al* 2009, Site 63, fig 44; also pre-Flavian (<P10>; fig 8), body sherds from a very large shell-tempered vessel from Building 2, occupation debris and body sherds from a smashed and partially burnt large grog-tempered vessel (possibly a cauldron or bucket) in Structure 2 (an oven). There is also a small North Kent shell-tempered ware storage jar from a hearth and related features in Open Area 8, one of the few examples of North Kent shell-tempered ware from the site (<P11>; fig 8). A mortarium from Building 8 is one of only three mortaria from the site; with its small bead and undercut flange it is part of a group of distinctive shell-tempered mortaria found mainly in Neronian/Flavian contexts in Southwark and the City of London (Drummond-Murray & Thompson 2002, 33–4) (<P38>; fig 8).

Tables 11 and 12 (see *Endnote*) show the range and proportions of form types. These are typical of Neronian assemblages in Southwark, with high proportions of amphorae and jars. The jars are mostly ‘native’ bead-rimmed forms, used alongside romanised jar-forms from the Alice Holt/Surrey and Verulamium region workshops. Romanised vessel types with specific culinary purposes, such as mortaria, are present but far less common than in later 1st and 2nd century assemblages. Flagon are also less common, and nearly all the bowls, dishes and cups are imported samian tableware. There are hardly any coarser bowls and dishes, such as reeded- and flat-rimmed bowls and plain-rimmed dishes, common in later 1st and

2nd century deposits and used for cooking as well as serving food. A rim sherd from a seria (a huge jar used for the underground storage of goods such as wine and grain) is an uncommon find, and may help to interpret the function of these buildings since these vessels are usually associated with taverns, farmhouses and military sites.

*The early Roman finds*, by Angela Wardle

The Roman finds assemblage comes from a well-stratified sequence but it is limited, both in size and range, by the small area of excavation and the burial conditions, which were not favourable to metal artefacts. The four copper-alloy brooches, which help to date Building 8 and the dumps of period 3 (<S1>–<S4>; fig 9), are all poorly preserved. The silver finger-ring with snakehead terminals (<S5>; fig 9), is an item of jewellery of some quality bearing both beneficent and apotropaic symbolism (Henig & Watson 2012). The brooches are typical of those found in 1st century contexts in London and although the ring is unusual, other examples of distinctive, perhaps expensive, jewellery have been found in contemporary contexts. Notable among these is, for example, an intaglio from Borough High Street showing parrots drinking at a fountain (Henig 2008, 236, fig 4.7.2, no 58), in this case a clear reference to Bacchic symbolism.

Half of the Roman assemblage is composed of vessel glass, but most of these are small body fragments in naturally-coloured blue/green glass, which cannot be assigned to a specific form. The identified forms include two ribbed bowls, fragments of beakers, a flask, all blue/green, with one fragment of good-quality colourless glass described below. The small size and relatively utilitarian character of the vessel glass assemblage from this area is in marked contrast to the glass from some other sites in the area, notably 179 Borough High Street to the north, where reclamation dumps contained large numbers of good-quality tablewares, some substantially complete (Cowan *et al* 2009, 139), but it may be more typical of a normal pattern of glass disposal in Southwark. Comparison of vessel glass from sites throughout Southwark (*ibid*) suggests that little domestic glassware entered the archaeological record as it was normally recycled (Shepherd & Wardle 2009, 5) and this may also account for the small size of the fragments that are recovered. In fact the new group contains one vessel of 1st century date, which fits well with the fine quality of much of the early glass found in Southwark. Glass find <G1> (fig 9), from a context associated with Building 8, is part of a colourless bowl or cup with decoration in high relief, one of the more luxuriously expensive vessels of the period.

An enigmatic fragment of moulded ceramic (<S6>; fig 9), also from a period 3 context, might be from a rare clay mask or perhaps a figurine, while a ceramic lamp (<S7>; fig 9), although found in a later Roman context, dates from the early period. It belongs to the most common form of *firmalampen* imported to Britain from Gaul.

*Catalogue of illustrated finds*

<S1> Copper-alloy brooch (fig 9)

<50>, [907]; period 3, OA3

Incomplete; W of head 53mm. Three fragments of a large, highly encrusted Applied Hook brooch, a form of Colchester derivative (Hull type 113 or 114; Bayley & Butcher 2004, 157; Hull in prep), with a spring of at least sixteen turns, although it is probably hinged (Type 114). The 'fake' spring is held by the ends of the crossbar, bent back (details now unclear due to corrosion), and by a chord that passes under a thin metal plate attached to the crossbar. Although the brooch is in poor condition, the riveted plate, with a curvilinear outline, decorated with dot and circle motifs and a central button, can be seen clearly, covering the upper part of the bow. The lower bow, broken above

the foot, is decorated with two longitudinal grooves, each containing a zig-zag moulding. A small part of the pin remains.

The type is comparatively rare, its distribution centred on the West Country, especially Dorset and Somerset, where the riveted plate appears to be a local innovation (Bayley & Butcher 2004, 157). It was first discussed by Hull in the Camerton report (Wedlake 1958, 219–21), and examples were found at Hod Hill (Brailsford 1962, fig 10, C100, C101), showing that it was developed by the mid-1st century. The general dating is discussed by Mackreth (1991, 232) in examination of devolved examples from Exeter. There is at least one, broadly similar, example in London, from Fenchurch Street (Wheeler 1930, 94, fig 27, no 18). Mid-late 1st century.



## &lt;S2&gt; Copper-alloy brooch (fig 9)

&lt;26&gt;, [403]; period 3, B8

Incomplete. L (surviving) 60mm; W 30mm. Colchester one-piece brooch (Hull Type 90; Bayley & Butcher 2004, 148), heavily corroded; spring of ten or twelve turns, broken, and secured by an external chord held by a rearward-facing hook. The crossbar appears to be plain, but no details survive; central rib on bow; unperforated catchplate. Mid-1st century

## &lt;S3&gt; Copper-alloy brooch (fig 9)

&lt;27&gt;, [403]; period 3, B8

Incomplete; L 47mm. Polden Hill brooch (Hull Type 95–97; Bayley & Butcher 2004, 159), highly corroded, with little detail remaining. Spring of six turns held in a semi-cylindrical crossbar with closed ends that secure the axial rod; chord held by a crest on the head; tapering bow, triangular opening in catchplate, the edge of which is bent to secure the (missing) pin.

This Colchester derivative brooch, with its distinctive method of attaching the spring is usually found on contexts dated after AD 80 although the method of pin attachment appears in some Neronian contexts (*ibid.*, 160). Later 1st century, c AD 70–100

## &lt;S4&gt; Copper-alloy brooch (fig 9)

&lt;29&gt;, [515]; period 3, OA5

Incomplete. Diam 31.5mm. Penannular brooch, with one surviving terminal turned back and flattened (Hull type P4; Fowler 1960, Type D)

The long-lived form originated in the pre-Roman Iron Age and parallels for this type are found in contexts of 1st–4th century date (Bayley & Butcher 2004, 185–6) and could here date to the 1st century

## &lt;S5&gt; Silver finger-ring (fig 9)

&lt;25&gt;, [379]; period 3, B 8

The ring consists of a hoop of silver, rounded in section and some 3mm thick; this is expanded at each end into a terminal in the form of a serpent's head, somewhat flattened and measuring 9.7mm in length x 7.9 mm in breadth. There is a narrow slight flange around the lower part of each head, the result of hammering into a form or die, and which relates it to distinctive, provincial forms of the serpent-ring. Unfortunately, much of the detail of the head has been lost through surface corrosion, which suggests that the alloy was only

base silver. The external diameter of the ring is 23mm and the internal diameter 17mm (Henig & Watson 2012). The ring belongs to Johns type B (Johns 1997, 36, fig 9) and is likely to date from the later 1st century AD. The use of serpent-jewellery is very ancient and was widespread throughout the Hellenistic world, from whence it was adopted by the Romans. The snake is almost certainly intended for a serpent of the Linnaean genus *Colubridae*, most probably the Aesculapian snake connected with deities who possessed healing powers, notably Minerva, Apollo and of course Aesculapius (Johns 1997, 35).

## &lt;S6&gt; Clay facemask? (fig 9)

&lt;183&gt;, [912]; period 3, OA4

Incomplete. L 40.9mm; W 38mm; Th 7.9mm. Fragment of moulded ceramic, in a Central Gaulish fabric, the outer surface decorated with irregular concentric roundels, possibly stylised curls, and with a light orange/brown slip. The interior has shaping smears and a fingerprint.

It is possible that the fragment comes from a clay bust or facemask, as found elsewhere in London (Marsh 1979, 225) and at Baldock (Rigby 1986, 167), but if the fragment indeed represents stylised hair, it is far more naturalistic than these examples.

## &lt;S7&gt; Ceramic lamp (fig 9)

&lt;54&gt;, [613]; period 4, OA9

Incomplete; surviving L 68mm. Two joining fragments from a *firmalampe* of Loeschcke Type IXb with closed nozzle channel, the most common form of *firmalampen* found in Britain (Eckardt 2002, 190). Characteristically, this example has two unpierced side lugs and a moulded handle. A partial stamp survives on the base, but only one letter is legible, a final 'A'. Too little remains for secure identification but lamps of this form by the Gaulish potter ATTUSA, floruit c AD 75–125, are known from London (*ibid.*, 204). Central Gaulish fabric (CGOF).

## &lt;G1&gt; Vessel ?cup (fig 9)

&lt;9&gt;, [380]; period 3, B8

Colourless. Body fragment with thick oval in relief, cut from the body of the vessel, which was fashioned from a thick blown blank; grinding marks visible on exterior surface.

*The early Roman animal bones*, by Alan Pipe

The bulk of the identified hand-collected assemblage was recovered from the external dumps surfaces and floor make-up (Pipe 2006). The majority of the material was derived from adult ox (*Bos taurus*), sheep/goat (*Ovis aries/Capra hircus*), with smaller quantities of pig (*Sus scrofa*) and horse (*Equus caballus*). Wild 'game' species were represented only by occasional recovery of red deer (*Cervus elaphus*) lower limb and foot from [648] (B12), and roe deer (*Capreolus capreolus*) lower limb from [403] (B8). The major domesticates were represented by elements of all carcass areas with a bias towards the vertebra, rib, upper limb and lower limb – areas of moderate and good meat-bearing quality – with lesser recovery of the head, feet and toes. There was no recovery of ox or sheep/goat horn cores. Virtually all major domesticate bones derived from mature animals, with only a few subadult bones, juvenile red deer foot and juvenile pig lower limb from [648] (B12).



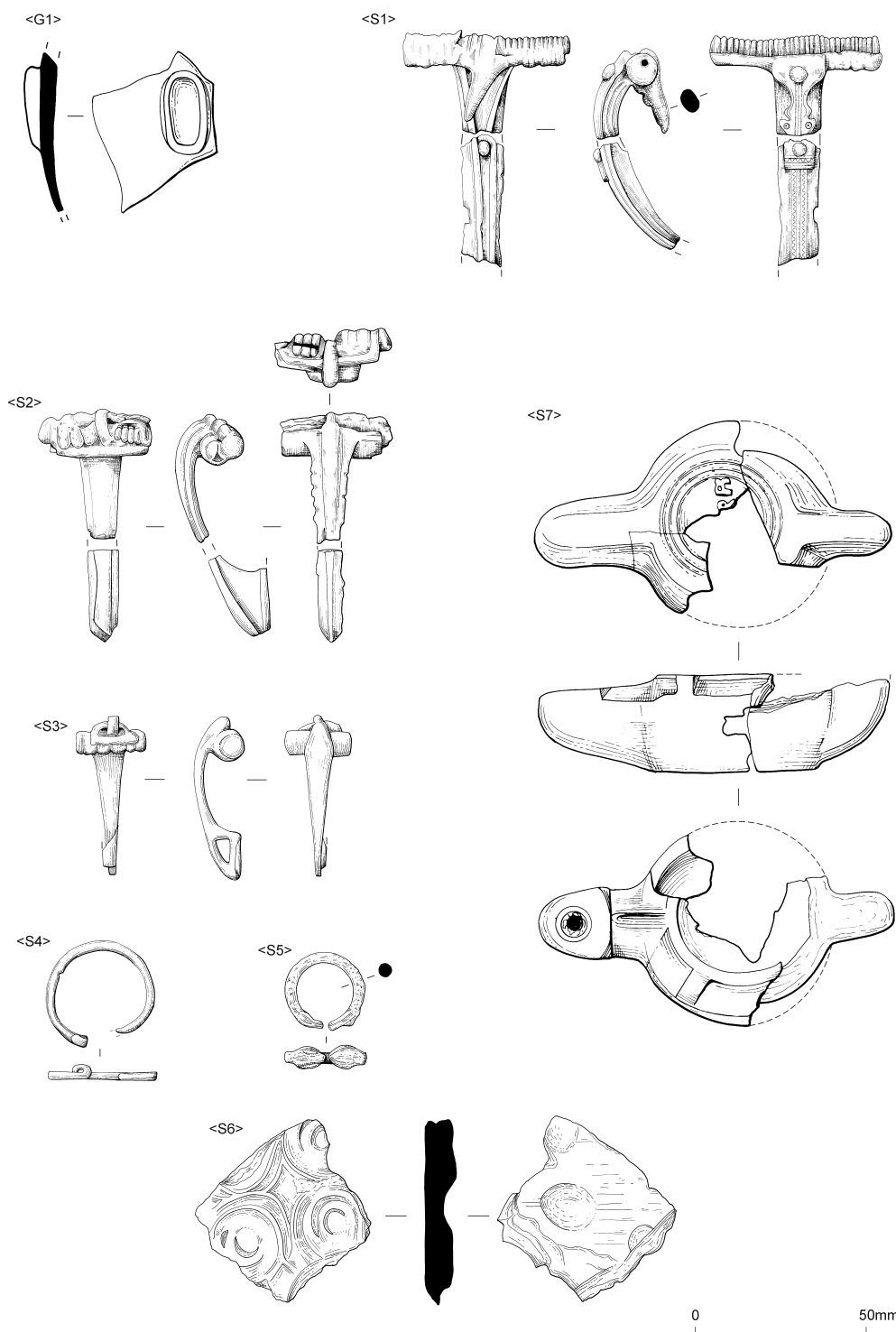


Fig 9 St George's church, Southwark. Fragment of glass vessel <G1> from Building 8; copper-alloy brooches <S1>–<S4>; silver finger ring <S5>; ceramic ?mask <S6> and lamp <S7> (scale 1:2).

## EARLY ROMAN DISCUSSION

Soon after the Roman conquest of south-east England in AD 43 a network of arterial roads was established and two of these roads – Stane Street and Watling Street – converged about 100m to the south of the site to form a single road that ran northwards to the bridging point over the Thames (Graham & Hinton 1989, fig 4; Westman with Pringle 2009, 53–60; fig 3). By *c* AD 50–60 the areas of higher ground flanking these roads was being lined with buildings of timber-framed or brickearth (cob/clay) construction (Cowan & Pringle 2009, 78–82). The earliest Roman activity on site consisted of reclamation dumps probably dating to *c* AD 50–60 (OA3). However, between *c* AD 60 and 80, there was much activity and many of the buildings and structures date to this period (figs 5 and 6). This chronology would imply that some of the buildings may have lasted less than 10 years before they were replaced. In fact OA4–7 and their associated buildings and structures all date to *c* AD 60–100.

The buildings formed part of the roadside development along the western side of the bridge approach road, and so they should be interpreted as part of urban Southwark. Certainly the quantity and range of the amphorae found here is typical of early Roman Southwark (Cowan & Wardle 2009, 91–92) rather than a series of rural roadside buildings situated on the outskirts of the settlement (cf Cool 2006, 18, table 3.1). The luxurious and expensive glassware, the quantity of samian ware, the presence of an imported oil lamp, a base silver finger-ring and part of a ceramic facemask (<S5>–<S7>; fig 9) are all indicative of a reasonably high-status lifestyle. The function of these buildings is uncertain but they were probably houses, or perhaps food shops and taverns serving travellers. The possible animal pen (S1; fig 5) implies that livestock such as poultry was probably being kept or even sold here. The ovens were probably used to bake bread, which might have been intended for sale rather than home consumption. The external hearths are interpreted as domestic rather than industrial.

Excavations to the north of the site at 201–211 Borough High Street in 1972–3 revealed part of a palaeochannel, which was naturally infilling with standing water sediments during the 1st century AD (fig 3, site 3). Across the western part of the site the foundations of Stane/Watling Street were located. Flanking the road were drainage ditches and further back were the remains of clay-and-timber buildings (Ferretti & Graham 1978, 57–70). At 170–194 Borough High Street, initial Roman activity consisted of a mass of driven stakes, presumably an attempt at ground consolidation, which were sealed by standing water sediments during AD 50–70. By AD 65–75 the area was being reclaimed by extensive dumping and this process continued until *c* AD 120, when one timber structure was erected (fig 3, site 4).

Recent excavations to the south-east of the site at Tabard Square revealed evidence of late 1st century AD clay-and-timber buildings with painted plaster walls and brickearth floors (fig 3, site 5). Several of these buildings may have been shops and there were a number of external hearths, which may have served an industrial function. During either the late 1st or early 2nd century AD two masonry Romano-Celtic temples, a villa-style house and three plinth bases were constructed as part of a religious complex (Killock 2004).

**Late Roman AD 200–400 (period 4)**

The only late Roman feature identified was a rubbish pit dating to AD 250–400 (OA9; fig 7). It is evident from the presence of residual late Roman pottery in medieval deposits (OA10) that there was originally more late Roman activity on the site.

## LATE ROMAN PERIOD DISCUSSION

Until the late 4th century Southwark was still extensively occupied, but by the end of the 4th or early 5th century it had apparently been abandoned and was not reoccupied until the 10th century (Watson *et al* 2001, 56; Watson 2009). At 170–194 Borough High Street there were a number of Roman pits and external dumps dating to *c* AD 160–300 (fig 3, site

4). At 201–211 Borough High Street there was evidence of an early 4th century masonry building, a timber-lined well and various pits (Ferretti & Graham 1978, 68) (fig 3, site 3). At Arcadia Buildings there was a phase of roadside buildings dated to AD 270–350, which was superseded by pitting (fig 3, site 7; Cowan *et al* 2009, fig 40, 161). Excavations under Borough High Street along the approach road to the Roman bridge revealed evidence of late 4th century occupation, but no sign of 5th century activity (Drummond-Murray *et al* 2002, 145; fig 3, site 2). However, excavations alongside the Guy's Channel at Hunt's House revealed that during either the late 4th or early 5th century a series of drainage ditches was dug alongside the channel, then at some uncertain date this area was abandoned until *c* 1300 (fig 3, site 6; Taylor-Wilson 2002, 34–8). The latest ceramics recovered from the ditches flanking Road 1 on other sites date to AD 350–400; there is also evidence that during this period the road was being sealed by a soil build-up known as 'dark earth', implying it was not in use (Cowan *et al* 2009, 166).

### St George's medieval church and burial ground 1240–1450 (period 5)

#### PRE-BURIAL GROUND EXTERNAL LEVELLING DUMPS (OA10)

The earliest recorded post-Roman activity consisted of external levelling dumps, a posthole and the digging of scattered rubbish pits (fig 10). All this activity is probably secular and took place to the east of the 12th century church (which was in existence by 1122 according to documentary evidence, see below), but this area was subsequently incorporated into the ground plan of the later phase of the medieval church (see B14). The earliest pit dated to 1080–1350, while the ceramics from the levelling dumps confirm that this part of the cemetery was not established until either the late 13th or the early 14th century.

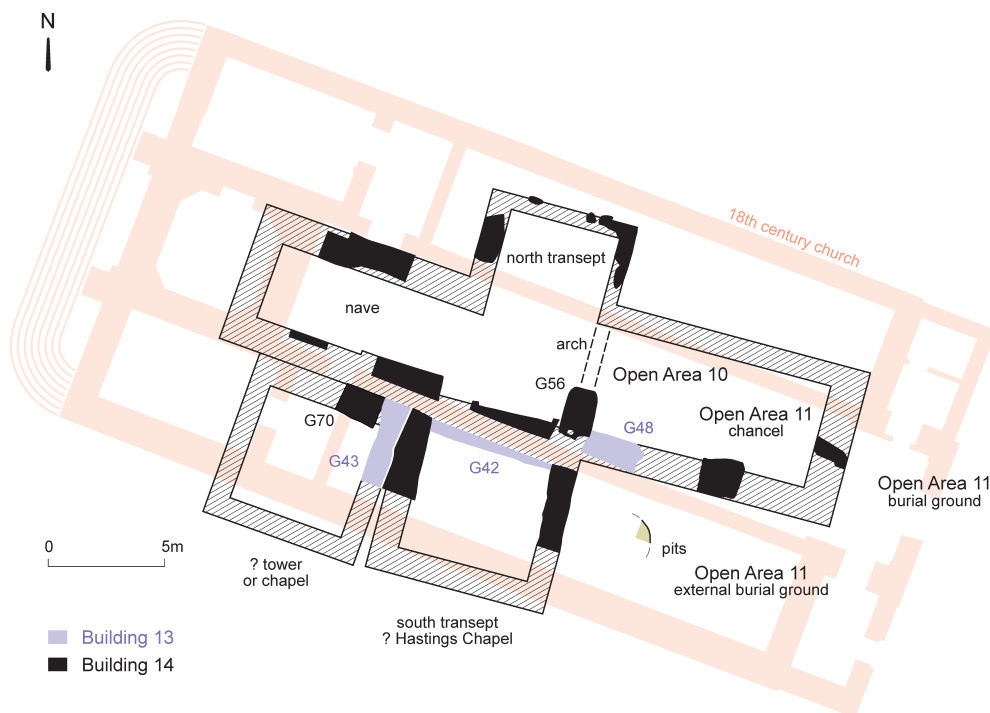


Fig 10 St George's church, Southwark. The various elements of the earlier (B13) and later phases of medieval church (B14) and the extent of the associated burial grounds (scale 1:325).

*Pottery from Open Area 10, by Nigel Jeffries*

The 27 pottery vessels (reconstructed from 33 sherds and weighing 1215g) retrieved from the backfill of late 13th century rubbish pit [414] represent the largest medieval finds group from the site (G45). The ceramics are characterised by a mixture of cooking vessels and drinking vessels, the products of the various regionally based pottery industries that supplied London throughout the medieval period. Featuring are the wheel-thrown coarsewares of the south Hertfordshire greyware industry (fabric code SHER; introduced into London *c* 1170) with the leg of a cauldron (a large tripod-based cooking pot) discarded with a few fragmented and sooted jars used for heating foods. The emphasis on cooking vessels in this pit is increased by the large-sized joining sherds from a Kingston-type ware (KING; Pearce & Vince 1988, 47) 'frying pan' (<P40>, fig 11). It is heavily sooted and burnt from being plunged into fires or heated over a metal griddle. London-type ware (LOND; Pearce *et al* 1985, 22) supplied the few jugs and drinking jugs in addition to another cauldron fragment. This industry, now known to have been located in Woolwich in north-west Kent, achieved a widespread circulation throughout London and its immediate environs, and until the development of the Surrey whiteware, and later, Mill Green industries was the mainstay of pottery supply into London. Nevertheless the similarities in the composition and sources of supply for the medieval pottery found here suggest that this sequence is at least contemporary with – if not later than – the burials associated with the church.

The most significant medieval pottery from this site is the Scarborough ware (SCAR) knight jug from an external dump [382] (<P41>, fig 11). Scarborough ware is an uncommon find in London, perhaps unsurprising given the distances that this material had to travel, but was nevertheless a pottery type that achieved a wide distribution throughout the British Isles (Farmer & Farmer 1982). The examples found in London undoubtedly travelled as a by-product of coastal trade, an interpretation borne out through analysis of the distribution of Scarborough ware along waterfront sites, in particular Billingsgate Lorry Park (Museum of London site codes BIG82 and BWB83). The most complete example was found during excavations of a nearby site at 223 Borough High Street (site code 223BHS81, context [41] <3>).

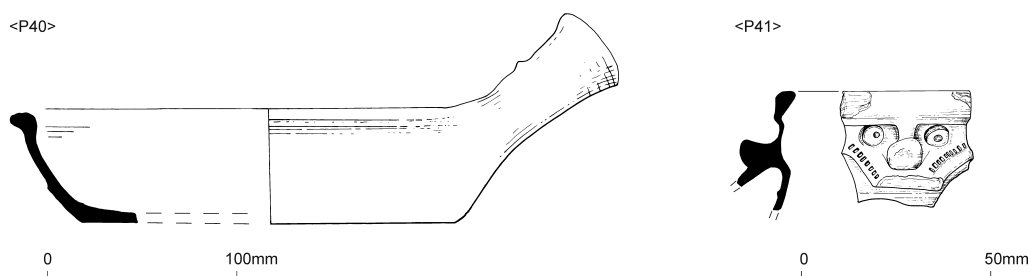


Fig 11 St George's church, Southwark. Medieval ceramics from Open Area 10; Kingston-type ware frying pan in pit fill <P40> [414] (scale 1:4); Scarborough ware knight jug from external dump [382] <P41> (scale 1:2).

#### MEDIEVAL CEMETERY (OA11)

##### *Burials (OA11)*

There were 43 supine east–west orientated inhumations situated within a homogeneous graveyard soil, often due to reworking it was impossible to detect individual grave cuts. These burials were apparently interred in an external cemetery situated to the east of the earlier phase of the medieval church (Building 13; fig 10). However, it is possible that some of these individuals were actually interred within the later phase of the medieval church (Building 14). The associated ceramics range in date from 1240–1400 to 1340–1400, confirming that

this portion of the burial ground was not established until the late 13th or 14th century (see below). Found associated with one burial [377] was a triangular 'Westminster' floor tile (fabric 3081) with a fleur-de-lis and flower petal design (Betts 2002, 58, fig 44, design W109). These floor tiles were first produced in c 1250 and were widely used in parish churches throughout the London area (Betts 2007, 482). The presence of this tile is a good indication that this particular grave was dug through a church floor.

*Pottery from the cemetery soil (O411), by Nigel Jeffries*

Spread among the graveyard soil [281] were 49 variably preserved medieval pottery vessels (reconstructed from 81 sherds and weighing 1942g) dating to the late 13th century (G46). This material is interpreted as domestic rubbish dumped here before the cemetery was established. Some larger fragments and joining sherds are present with both jars, bowls and variously shaped and decorated jug forms represented. With the pottery similar in date to the rest of the medieval sequence then the products of the three regional pottery industries in pit fill [414] also feature. In addition to the range of London-type ware (LOND TUL) tulip-necked balusters jugs and attractively made and glazed Mill Green ware (MG) conical jugs, Earlswood ware from Surrey (EARL: Turner 1974), pottery that is less commonly found in London, was also identified. A number of different jugs with white slip and copper green glaze in this last fabric are present here. Unlike Scarborough ware, finds of this pottery have a relatively even geographical spread throughout Southwark, the City of London and from extramural sites located just outside the city walls. However, it should be noted that the sherds of Earlswood ware from the site appear similar to glazed wares from the Ashford/Wealden area and so a Kentish source also remains possible.

ST GEORGE'S MEDIEVAL CHURCH (B13); 12TH–14TH CENTURIES

There were two phases of medieval church, both of which were on slightly different alignments to the later 18th century church (B16). Owing to post-medieval activity, survival generally consisted of small fragments of truncated, trench-built rubble masonry foundations. No trace of the medieval floors survived the degree of truncation caused by the construction of the 18th century church (B16).

The remains of the south wall of the nave of the earlier church consisted of two fragmentary masonry foundations, which post-date elements of Open Area 10 and so are later than 1240. This masonry consisted of a fragment of a rammed chalk foundation (G42; fig 10), and a short length of unmortared chalk and Reigate Stone masonry. It is possible that these two lengths of foundations (G42, G43; fig 10) represent fragments of the 12th century church. The foundations of the 12th century phase of the bishop of Winchester's palace in Southwark were constructed of unmortared coursed chalk rubble (Seeley *et al* 2006, 24). However, as the practice of using rammed and unmortared masonry foundations was used throughout the medieval period this suggestion cannot be confirmed (Salzman 1952, 83–4). The south wall of the choir consisted of one fragment of unmortared chalk and Reigate Stone masonry (G48; fig 10).

The earlier church appears to have originally consisted of a rectangular nave and chancel of unknown length to which a southern chapel or a transept was later added. The construction of this extension presumably involved the demolition of part of the nave wall to create an opening (G42).

There are no associated finds for this phase of church, but on stratigraphic grounds some elements are later than 1240 and other elements pre-date the later medieval church (B14). It is possible that the 12th century church was wooden with shallow foundations no trace of which would have survived later building works. However, it is also quite likely that the 12th century church was of masonry construction, as were a number of its contemporaries within the City of London (Schofield 1994, fig 16). In conclusion, it appears probable that small

elements of the fabric of a masonry church of 12th–14th century date were incorporated into the 15th century structure.

*Earlier medieval church: documentary evidence*

In 1122 Thomas Arden and his son Thomas gave St George's church to Bermondsey Abbey (Luard 1866, 433). This gift implies that the church was already successful, and dedicated to St George, a legendary Roman martyr, who was widely venerated in Palestine before the crusades (Attwater 1965, 148). A vision of St George and St Demetrius at the siege of Antioch (1097–8) during the First Crusade is said to have preceded the fall of the city. As the capture of this city proved to be a decisive point in the First Crusade, it is believed that this vision inspired the returning crusaders to popularise St George's cult in England. During the Third Crusade (1190–3) Richard I placed himself and his army under the protection of St George (Farmer 1992, 197). However, St George's cult pre-dated the crusades as he appears in Archbishop Ælfric's (died 1005) calendar of the saints for 23 April (Skeat 1881 i, 307). It has been suggested that as the account of 1122 donation is only recorded in a 15th century copy of the annals of Bermondsey Abbey, the contemporary dedication of the church was recorded (Lucas 2004, 15). Nevertheless, it appears probable that the 12th century church possessed the same dedication as the present one. This is suggested by the fact that in *c* 1144–9 one of the witnesses on a document agreeing to the transfer of land in Bankside to the bishop of Winchester was 'Robert the priest of St George's', which is assumed to refer to this particular church (Carlin 1996, 33; Lucas 2004, 15). In 1290, the 'rector of St George's next to the bar of Southwark' witnessed another document (Dawson 2011, 3). In September 1307 the bishop of Winchester was involved in settling a dispute about the presentation of the parish, which confirms that it was already known as St George's (Goodman 1940, 212–13). There is documentary evidence that the church was rebuilt or repaired during the late 14th century. Among the various items of weekly payment in the Bridge House accounts for Saturday 4 November 1391 was: 'also paid for rebuilding of St George's, Southwark, on behalf of lands belonging to London Bridge in the parish of the said church, and taxed for the aforesaid rebuilding' (LMA: CLA/007/FN/02).

Twelfth-century Southwark possessed three parish churches: St George's, St Olave's (in existence by *c* 1096) and St Margaret's (in existence by 1107–29) (Carlin 1996, 86). Current research and fieldwork suggests that St George's church would have been situated on the southern edge of the 12th century settlement and outside the circuit of the late 9th or early 10th century *burh* defences (Sharp & Watson 2011, 286; Watson 2009, fig 1; 2011, 264). However, it has been argued from a topographical study of the 'common' ditches recorded in various 13th century and later documents that St George's church was actually inside the late Saxon *burh* (Dawson 2011, fig 1, 3–5). However, this argument is based on the assumptions that these ditches served a defensive function and were in existence long before they were first documented. As none of these ditches appear to have been archaeologically investigated their antiquity cannot be confirmed. To date, as neither of these assumptions has been properly substantiated, Dawson's argument for the extent of *burh* defences cannot be accepted. Recently it has been suggested that Dawson has actually defined the extent of the early 13th century settlement and that the properties along the eastern side of the High Street, which were later part of the Great Liberty Manor, might possibly have been developed as a planned urban settlement by Harold Godwineson or his father between *c* 1020 and 1065, as they held land in Southwark as part of their earldom of Wessex (Phillpotts 2012). The Domesday survey recorded Earl Godwine's holdings in Southwark (Sharp & Watson 2011, 293). However, the extent of the 'common' ditches does provide a good indication of the spatial extent of 13th century Southwark (Phillpotts 2012).

By the medieval period the line of the bridge approach road had shifted from the east side of St George's church to the west of it (fig 1). Exactly when this stretch of the realigned bridge approach road was first developed during the medieval period is uncertain. Excavations at



201–211 Borough High Street revealed some residual 9th and 10th century pottery and evidence of continuous activity from the 13th century onwards (Ferretti & Graham 1978, 70). Study of the documentary evidence concerning the properties along the High Street revealed that by the early 16th century the entire street frontage was densely occupied and that some of these properties were already in existence by the late 14th century (Carlin 1983, 162–97).

*A lost medieval inscription from St George's church, by Sally Badham and Jerome Bertram*

During the demolition of the church tower in 1733 a fragment of a broken inscribed stone was recovered; it no longer survives but its wording is known from antiquarian records (Gough 1779, fig 3, 189; Lucas 2004, 11–13). The five lines of text reads: '...?A or R.CODAM /... STITIT. HANC /... NGELISTE. FESTO /... ESTO. HIQIPA /... AM ANN I[. QODEM'. It appears that the first line ends in Q(V)O(N)DAM, 'formerly', and the second line in something like [CON]STITIT HANC / [ecclesiam], 'founded this church' or chapel. While the third line reads [EVA]NGELISTE FESTO, 'on the feast of the Evangelist' (remembering that medieval Latin always used 'e' for the genitive singular ending 'ae') then more obscure, but something ending in –ESTO, which might represent a rhymed inscription. The fourth line is HI, Q(V)I PA–, 'these, who [do something]'. The last line starts with an –AM a word ending, Then NNI (nomini ?) and a Greek cross within a circle, and the last word looks like QVODEM, but quidem would perhaps be better. The inscription appears to be part of either a dedication or a founder's stone. The former recorded when a church was consecrated by a bishop (as part of this service the building was dedicated to God and often to the memory of one particular saint), while the latter type of inscription was erected in a finished church to commemorate the generosity of a benefactor (Holder 2010, 14). Of the four evangelists St John the Divine was probably the best known during the medieval period, and his feast day is 27 December. Certainly there is no evidence that the church was dedicated to any of the Evangelists, but undocumented chapels or altars might have been. It is recorded that by c 1144–9 the church was apparently dedicated to St George (see above). A printed parish confraternity letter (c 1518–20) offering indulgences to donors, stated that the church was 'hallowed' on the feast day of St John the Baptist (24 June) (Rendle 1878, 71).

This inscription is difficult to date on stylistic grounds. Unusually, the letters are in varying sizes and disparate script types and the embedded letters are found in a wider range of large letters, including H and L. In two places the letter S has two other letters embedded within it. It also deploys both Roman and Lombardic forms of the letters T and D. This, together with the Lombardic form of the letter H, implies that it might date from the early 13th century. This suggested date would imply that this inscription was probably not commemorating the dedication of the 12th century church (see above), but a later event perhaps the dedication referred to in the early 16th century confraternity letter, which may relate to the later phase of the medieval church (Building 14).

ST GEORGE'S MEDIEVAL CHURCH (B14); LATE 15TH CENTURY

The remains of this phase of the church consisted of a series of truncated trench-built, rubble masonry wall foundations, generally bonded by light sandy lime mortar containing frequent chalk flecks. The general absence of face edges on the surviving blocks of medieval masonry means that the precise position and alignment of wall lines cannot be determined. One of the reasons why elements of these walls only survived as isolated blocks of masonry might be because they were founded on a series of relieving arches (fig 10). The dating evidence for this phase of the church is limited to the presence of red bricks within the rubble masonry, which confirms it took place after c 1450 (based on the fabric and size of bricks). Therefore this phase of rebuilding is attributed to the late 15th century, but in the absence of other associated finds a more precise date range cannot be established. In 1473 Bishop

Waynflete issued an indulgence of 40 days' remission to those who contributed to the fabric of the chapel of St George at St George's Southwark (Groom 2001, 200). This late 15th century rebuilding apparently created a church with a cruciform ground plan of a similar size to the present one. It possessed a pair of opposed chapels or transepts. A will of 1486 mentions a porch, which may have been one of the transepts (Carlin 1996, 94). It is possible that a bell tower adjoined the south-west corner of the church, but this partly examined structure might have been another chapel (fig 10). Certainly there is no documentary or pictorial evidence for the existence of a bell tower before *c* 1544 (discussed later).

The Perpendicular style font attributed to this phase of church consisted of an octagonal pedestal and bowl, each face of the bowl possessing a rosette decoration (fig 12). It is assumed that this font was re-used in the Tudor church (B15), as it was apparently not removed from the church until the 1734–6 rebuilding and subsequently used in the parochial workhouse in the Mint for the purposes of 'beating oakum' (Anon 1840, 367).

The north transept consisted of various fragments of mortared brick, chalk and Reigate Stone rubble masonry, which permitted its full extent to be determined (fig 10). The extent of the southern transept is more conjectural as it extended beyond of the footprint of the present building. Its western wall consisted of a foundation of unmortared chalk and ragstone masonry, set on rammed gravel; small elements of the truncated superstructure of mortared chalk and Reigate Stone rubble masonry were present. Its eastern wall consisted of coursed and mortared chalk and ragstone rubble masonry (fig 10).

The southern transept might have been rebuilt by Sir Edward Hastings as a chantry chapel and his tomb. Hastings was involved for many years in a litigation with Lord Grey of Ruthin. As a result of this dispute, in 1417 he was arrested for non-payment of legal costs and confined to the nearby Marshelsea prison as a debtor, where he apparently died in 1438 (Lucas 2004, 51–3). Preserved in the masonry of the 18th century tower are two stones bearing Latin inscriptions one of which reads: 'Edward, Lord of Hastings, had me made in the year of our Lord 1438' (Darlington 1955, 26). The second reads: 'This is my repose to all eternity; here will I take up my habitation since I have chosen it'. This is an adapted quotation from Psalm 132 v.15 (Lucas 2004, 54). It is likely that these two stones originally formed part of his monument or tomb. Centrally placed within this portion of the church was one grave containing two superimposed adult male burials ([897] and [930]) (Appendix 2: burial catalogue, see *Endnote*), one of which might possibly be the remains of Hastings,

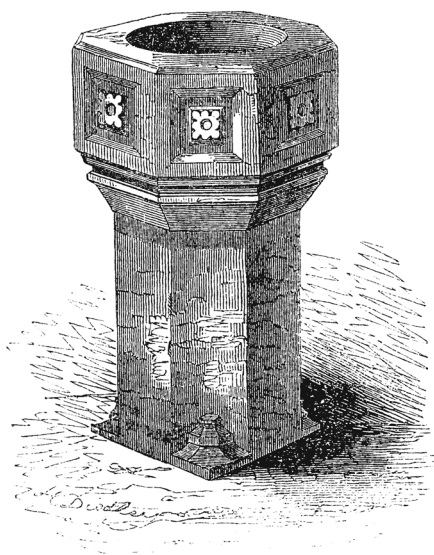


Fig 12 St George's church, Southwark. Perpendicular font from the church (not to scale, reproduced from engraving in the *Gentleman's Magazine*, April 1840, 110 part 1, 367).



perhaps accompanied by one of his sons. The lower burial was clearly of quite high status [897] as it was placed within a well-preserved coffin with an ash lining. Assuming this grave was originally 3ft (0.9m) deep, the contemporary floor level would have been at *c* 2.76m OD. Interestingly, this space contained few pre-18th century burials, giving the impression that it might have been occupied by some large tomb or monument. A second grave [901] within this transept had been largely destroyed by the foundations of the south wall of the 18th century church.

Elements of both the north and south walls of the nave were located. The north wall consisted of a single length of mortared chalk and ragstone masonry, while the south wall consisted of a block of an unmortared rammed chalk foundation. The impression is that the south wall followed the line of its predecessor (Building 13), so much of the earlier masonry was probably re-used. Across the entrance to the south transept was a length of mortared chalk and Reigate Stone masonry. This could imply that the entrance to the transept consisted of a small arched opening (fig 10).

To the south of the nave and to the west of the southern transept was a small fragment of ragstone and chalk rubble masonry, which is interpreted as part of the northern wall of another structure, most of which lay beyond the area investigated (G70) (fig 10). The eastern wall of this structure was apparently built directly over part of the earlier church. Both the plan and function of this structure are uncertain, but its interpretation as either a bell tower or another chapel seems plausible.

The south wall of the chancel consisted of several fragments of unmortared brick, chalk, and Reigate Stone rubble masonry. The line of the north wall of the chancel is conjectural. One element of the south wall was superimposed over part of Building 13, confirming that this wall line was in the same position as its predecessor. The evidence for the east wall of the chancel was extremely fragmentary owing to later activity. There was one small block of mortared chalk rubble and part of a robbed-out foundation trench (fig 10).

A shallow, block, mortared chalk foundation extended northwards from the south wall of the chancel (G56) (fig 11); it may have been be part of an internal feature such as the southern side of an arch or rood screen separating the nave from the chancel. There was another probable internal feature within the eastern portion of the chancel, which appears to have been a robbed-out, shallow linear foundation aligned south-west to north-east (SG433) (not illustrated).

#### *Architectural stonework from the later medieval church (B14), by Mark Samuel*

A number of early Perpendicular-style mouldings (*c* 1350–1400) were recovered from the internal foundations of the 18th century church. This material has been dated and interpreted using research by Harvey (1978). Most of these blocks show evidence of earlier re-use, probably as walling material in the Tudor church. Owing to project constraints only a selection of this material was examined (Samuel 2010). All but one of these stones are fragmentary and many have mortar coatings derived from their final re-use as rubble. From the selected material a number of significant elements can be identified.

First, there are three elements from several tracery windows (table 13 (see *Endnote*), <70>, <74> and <88>). Two of these mouldings <70> and <74> are derived from the same trefoil window. The external portion of both mouldings show extensive deterioration from erosion implying that this particular window may have been on the north side of the church. In contrast, the external portion of the third fragment of tracery <88>, which appears to have been derived from a cinquefoil window, shows little evidence of erosion, implying it occupied a more sheltered position than the other window.

Secondly, there are eight fragments of Reigate complex tracery including three cinquefoil archlets heads (table 13, <80>, <86>, <91>, <96>, <109>, <117>, <121> and <123>). It appears that several windows were constructed during a single phase as they all shared the same plan, but two slightly different tracery patterns. The chief distinction was the use

of a rectangular tracery scheme in one type and a conventional arched scheme in the other (based on a two-centred arch). The overall proportions were determined in round figures of feet, the window arch centre having a stereotyped relation to the plan dimensions. The two types of windows employed either a large framing supermullion with tracery-filled spandrels or a conventional arched window. In both windows the same 6ft arch centre was used. In this period, the drop arch (a two-centred arch wider than the span of its radii) was the most favoured form of pointed arch. Comparative evidence allows this arch to be reconstructed as large enough to house four cinquefoil archlets framing lights slightly wider than 2ft (0.616m as measured on the stones). The double-cusping on these stones is similar to examples in the Neville screen at Durham Cathedral (1372–80) (Harvey 1978, pl 40).

Thirdly, there were also three elements from the same window (table 13, <93>, <107>, <122>). This window contained a mixture of Caen and Reigate Stone implying that it had been either repaired or rebuilt with a different stone type. Originally it was unglazed, but was later glazed.

Lastly, there is a fragment from the base of a plinth possibly derived from some internal feature such as the 'bell base' of a column or the plinth of a monumental tomb (table 13, <73>).

#### *Pottery associated with the later medieval church burials, by Nigel Jeffries*

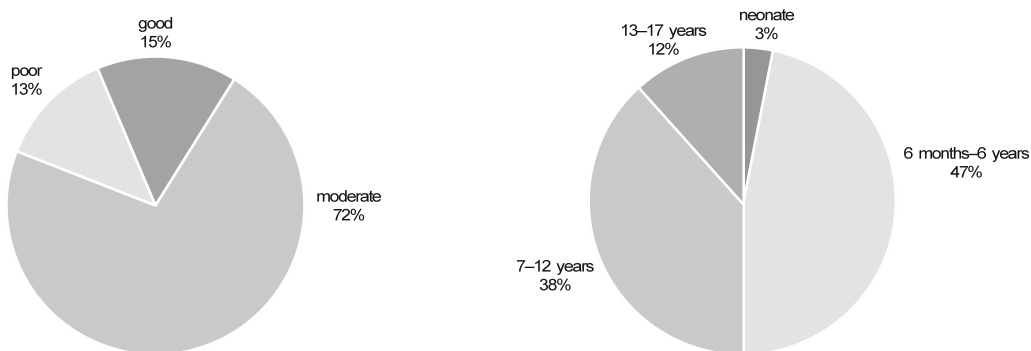
Medieval pottery (104 sherds/64 ENV and weighing 1592g) was retrieved in three deposits (contexts [631], [768] and [1072]) that formed part of the graveyard soil horizon (G47). Despite the reworked nature of this horizon and the occurrences of residual Roman pottery, each of the noted deposits contained chronologically coherent medieval pottery groups dating to no earlier than the third quarter of the 13th century. As might be expected from a reworked and disturbed context, this material was retrieved in poor condition, characterised largely by small and sometimes abraded pottery sherds.

Overall the pottery is dominated by the products of regional industries located in Surrey, Essex and north-west Kent. Pottery from Surrey includes Kingston-type ware (fabric code KING; see Pearce & Vince 1988) largely in bowl, dish and jar forms, with Earlswood (EARL) ware jugs again featuring. Similar to the pottery from the burial ground, Mill Green ware (MG) conical jugs and London-type ware (LOND) tulip-necked baluster jugs are common here, with the substantial remains of one such jug in [1072], suggesting it had not travelled far (if at all) after being broken.

#### **The human remains associated with medieval St George's church (periods 5 and 6), by Natasha Powers**

One-hundred-and-fifty burials were of either medieval or early post-medieval date (*c* 1240–1700) (98 adults, 65%; 52 subadults, 34%), a pattern consistent with that seen in parish cemeteries elsewhere (Gilchrist & Sloane 2005, 204). Of these burials 143 were dated to period 5 and another seven to period 6 (table 14: see *Endnote*).

These burials consisted of east–west aligned supine inhumations, some of which were certainly interred within two phases of the medieval church, but 43 of which appeared to have been buried in an external cemetery to the south-east of the medieval church (fig 10: OA11 external burial ground), which was subsequently built over by the Tudor church (B15). Many of these external burials were found within a homogenous graveyard horizon. The burials were densely packed and often inter-cutting. Associated ceramics ranged in date from 1270–1350 to 1550–1700, which suggests that some of these burials may be contemporary with use of the Tudor church (B15); therefore these burials are all considered as a single data set. There was evidence of wooden coffins, while copper-alloy staining on several skeletons indicates the use of shroud pins (several of which survived): burials [765], [949] had stains



Figs 13 and 14 St George's church, Southwark. (left) Fig 13 Preservation of the human remains; (right) Fig 14 Distribution of medieval subadults for whom age could be estimated.

resulting from contact with copper-alloy artefacts on the cranium or mandible, while burial [1084] had similar stains on the left tibia and fibula. One burial [917] was found within a grave lined with rubble masonry. All the burials were in single graves apart from two adult male burials found within a shared grave in the south transept ([897] and [930]).

Owing to project constraints, this report has been compiled from basic osteological data recorded during the post-excavation assessment, as none of the burials was analysed before being reinterred in the church crypt at the express wish of the parish in 2007. The resulting rapid scanning of the remains, broad demographic subdivisions and absence of detailed description of pathological changes mean that the results must be considered provisional. Age was estimated as adult or subadult, the latter subdivided, if possible, by observation of the stage of eruption of the permanent molars (<7 years, 7–12 years and 13–16 years), or by size where remains were obviously perinatal. Adult sex estimation was based on rapid visual assessment of general morphological characteristics of the cranium and pelvis (Buikstra & Ubelaker 1994). Gross pathological changes were recorded for each individual. Details can be found in the burial catalogue that accompanies this report (Appendix 2: burial catalogue, see *Endnote*).

The majority of the burials were moderately well preserved (fig 13). Just 38 graves contained intrusive human bone, an indication of the level of organisation of the burial areas. However, half the assemblage (79) was 50% complete or less and just 30% (49) more than 75% complete, owing to the truncation of graves by the various construction phases of the church.

In all, 109 adults (66.9%) and 54 subadults (33.1%) were examined. Fifty-one of the adults were male (51/109: 46.8%) and 26 female (26/109: 23.9%) – a male to female ratio of 2:1. Examination of parish church assemblages has shown lower proportions of males with ratios of between 0.72 and 1.58 males to every female. At St Nicholas Shambles in the City of London the ratio of males to females was 1.27:1 (White 1988, 30).

Of the 34 medieval subadults for whom a more refined age estimate could be given, one was neonatal (2.9%), sixteen aged between 6 months and 6 years, thirteen aged 7–12 years and four aged 13–17 years (fig 14).

#### HEALTH AND DISEASE

The incidence of dental disease in a population can provide indications of diet and hygiene. Forty-nine adults had observable teeth and 96.9% of the males (31/32) and 82.4% of the females (14/17) had suffered from dental disease. Female [820] (period 5) had gross carious destruction of the teeth that would have made eating extremely uncomfortable. Caries rates were higher among males (14/32: 43.8%) than females (5/17: 29.4%), as were calculus (calcified plaque) rates (males 28/32: 87.5%); females (11/17: 64.7%) possibly a reflection

of dietary variation between the sexes, although without adult age estimation the underlying influence of the time during which disease could be accumulated cannot be ruled out.

One possible sign of an older population is that 37/49 adults had lost one or more teeth during life (75.5%). Evidence of periodontal (gum) disease was present in 28.6% of the adults (14/49), and ten individuals had dental abscesses (10/49: 20.4%). Three 7–12 year old subadults had calculus deposits on their teeth (3/33 subadult dentitions: 9.1%).

A further indicator of the demography of the adult population is the number of individuals with degenerative joint disease of the spine, a condition found to have a strong correlation with age in medieval populations (Connell *et al*, forthcoming). This was seen in just under one-third of the adults (28/98): 23 males (including the two buried in the south transept) and four females. Four adults had extra-spinal osteoarthritic changes (4/98: 4.1%). In one case [915] this may have been secondary to a healed fracture of the left first metatarsal.

Gross expansion of the proximal shaft of the left femur of male [867], and to a lesser extent in the right femur, indicated that he had suffered from Paget's disease, a chronic condition with an unknown aetiology most commonly seen in older men.

Adult [901], of undetermined sex, may have suffered from gout, while three males and an adult of undetermined sex (4/98: 4.1%), had suffered from diffuse idiopathic skeletal hyperostosis (DISH). Both conditions have traditionally been associated with dietary excess with DISH having a clinical correlation with obesity, diabetes and metabolic disorders in the elderly, particularly men (Resnick 2002, 1497; Waldron 2006, 264). Those affected at St George's appear to fit with this clinical profile. The rate of DISH, although slightly higher than the 3.3% reported for the later medieval period (Roberts & Cox 2003, 246), provides no evidence that this group was consuming an unusually rich diet. Conversely, the limbs of a young male [863] were slightly bowed possibly consistent with a diagnosis of healed rickets, indicating that he suffered from vitamin D deficiency during childhood, either from a compromised diet or lack of exposure to the sunlight required for the synthesis of this vitamin.

A low prevalence of certain conditions that are considered to be indicators of stress may signify that the burials were drawn from a higher-status population: enamel hypoplastic defects were noted in the teeth of three adults (3/49: 6.1%) and two subadults (2/33: 6.1%). In adult male [678] (G47, period 5) the defects were severe.

Porotic hyperostosis of the cranial vault was noted in infant [727]. Cribra orbitalia (porosity in the roof of the orbits) affected twelve individuals (12/150: 8.0%), six adults and six subadults. In infant [707], the skeletal changes were particularly severe. This rate compares with a crude prevalence of 10.8% for the late medieval period (Roberts & Cox 2003, 235), and may again indicate a relatively high-status group with an adequate diet, good local environment and/or a low parasite load (Stuart-Macadam 1992).

Minor and largely asymptomatic congenital anomalies affected six adults: four females and two males (6/98: 6.1%) and included absence of the lateral maxillary incisors of female [1083], three adults with bilateral spondylolysis (separation of the neural arch due to an underlying congenital weakness) and symphalangism (fusion of the toe bones) in the feet of male [859].

Adult female [337] had a large osteoma on the left parietal. This benign tumour was the only evidence of neoplastic disease in the assemblage (1/150: 0.7%).

Evidence of non-specific infection was seen in nine adults (9/98: 9.2%), eight of whom had bony changes resulting from periostitis (inflammation of the membrane covering the bone), predominantly in the tibiae (shins). One subadult (1/52: 1.9%) was also affected. Male [785] had a diffuse periosteal reaction, which indicated that an infectious disease process had been active at the time of his death. Osteitis (infection of the cortex of the bone) was present in the distal right tibiae of males [826] and [948]. The infection that affected male [857] was the result of the spread of bacteria from a dental abscess. Subadult [669] had been suffering from a pulmonary infection at the time of death. Lesions were present on the endocranial (internal) surface of two subadult crania (2/52: 3.8%) and may have been caused by metabolic, traumatic or infectious conditions (Lewis 2004).



Only 6.7% of the population (10/150) had signs of infectious disease, compared with a rate of 14.1% cited for the medieval period as a whole (Roberts & Cox 2003, 235). This may demonstrate that the living conditions of the population were relatively good, presenting a reduced risk of contracting and spreading disease, or conversely that once infected, individuals succumbed too rapidly for a bony response to be generated (Wood *et al* 1992), the suggestions that the adult population contained a number of older individuals, perhaps supporting the former explanation.

Ten adults, six of whom were male, had skeletal evidence of trauma (10/98: 10.2%). An ossified haematoma on the shaft of the left femur of male [715] indicated that deep tissue bruising had occurred during life, while a spur of bone extending from the right proximal femur of male [232] (myositis ossificans) showed that he had suffered a muscle injury. Five adults had healed fractures – three males and one female (5/98: 5.1%). The left occipital of male [859] contained a smooth, healed oval lesion 18 x 15mm. A deep cavity lay on the endocranial surface of the right occipital; this lesion may represent surgery (trepanation).

The low crude prevalence of fractures (5/150: 3.3%) may also be suggestive of a higher status group, although two probable 'greenstick' fractures, suggest a raised risk of injury during childhood. In comparison, the crude prevalence of fractures in the population buried at the medieval priory and hospital of St Mary Spital (*c* 1120–1539) was 20.9% (1125/5387), with an increase over time (Connell *et al* forthcoming).

## Tudor St George's church (period 6)

### EARLY 16TH CENTURY CHURCH (B15)

Documentary evidence confirms that a major rebuilding of the church took place between 1515 and the mid-1530s (Groom 2001, 200–1; Martin 2014). The only recorded parish fraternity dedicated to Our Lady (the Virgin Mary) and St George in 1511 received a royal licence for its representatives to travel around the country to collect alms. Similar representations were made again in 1514 and *c* 1518–20, which shows a major fundraising effort was taking place (Carlin 1996, 94). Such a high level of fundraising activity is a good indication that rebuilding was either planned or ongoing. One of these printed confraternity letters mentions that the church had three chantry priests (Rendle 1878, 71).

The foreground of Wyngaerde's London panorama of *c* 1544 depicts the newly rebuilt St George's church in some detail (Colvin & Foister 1996, drawing vi) (fig 15). The drawing

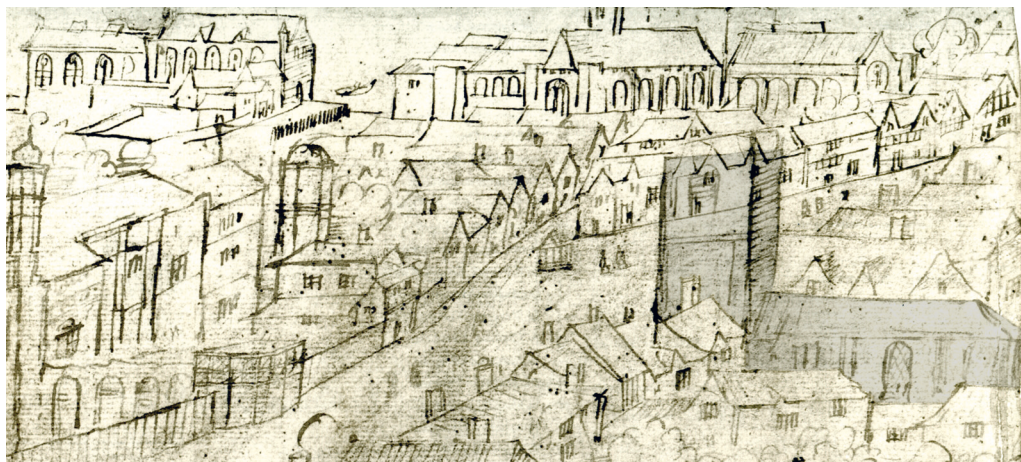


Fig 15 St George's church, Southwark. The church as depicted in the foreground of Wyngaerde's London panorama of *c* 1544 (drawing vi).

shows how the western end of the church fronted onto the east side of Borough High Street. Wyngaerde's church consisted of a square three-storey west tower plus a nave and chancel. In 1555 there was a reference to the 'bell tower' of St George's' (LMA: CLA/043/01/016). The south wall of the church was pierced by six tall oval-headed windows. Owing to the presence of a number of houses in front of the church the existence of an external cemetery on the south or eastern sides of the building at this date cannot be confirmed. There is also no sign of a south transept protruding beyond the line of the nave, so it is likely that this part of the earlier building had been included in the new south aisle.

The Tudor church differed from its predecessor in that it was on a slightly different alignment, and was considerably wider with asymmetrical north and south aisles. It seems probable that the existing south transept was retained within the new building. The spatial area of the church was also increased by creating a south aisle by building over the cemetery (OA11) to the south-east of the earlier church (B14). The creation of a new north aisle the full length of both the nave and chancel also considerably increased the floor area. The main aim of this rebuilding was undoubtedly to create more space for the congregation, as the population of Southwark increased during the 16th century (Sharp & Watson 2011, 302).

This rebuilding of the church clearly disturbed a number of burials since it involved building over the cemetery to the east of the earlier church. Some of these individuals were interred in an ossuary pit within the new building (G58; fig 18). Only seven burials can be attributed to this phase of the church (see above G64). Two of these graves (SGs 322, 404) contained worn ceramic floor tiles, which were probably imported from the Low Counties after *c* 1480. These two finds imply that the Tudor church was floored with similar tiles to those in many other London churches during this period (Betts 1994, 134).

The north aisle of the church was marked by a series of five regularly-spaced, trench-built, rectangular pier bases (fig 16). These were constructed of rammed coursed, chalk rubble mixed with a variety of waste building materials over which ash/sand mortar had been poured. The waste building materials present included red bricks (*c* 1450–1700), some of which were over-fired, fragments of Welsh roof slate, clay peg roof tiles, ceramic floor tiles (including one worn medieval 'Westminster' type) and many fragments of architectural terracottas. It is believed that these terracottas were derived from Suffolk Place, the nearby London residence of Charles Brandon, Duke of Suffolk, which he rebuilt during *c* 1518–22 (Watson 2011; fig 1, site of Suffolk Place). The over-fired and substandard nature of some of the terracottas implies that they represent material discarded during the construction of Suffolk Place, not its demolition during 1557–8 (Smith *et al* 2014). It is also possible that some of the over-fired bricks found on the site were also sold by Brandon to the parish as during 1521–2 he sold 30,000 locally manufactured bricks and either [cart] 'loads' of 'brickbats to the Bridgehouse estate' (LMA: CLA/007/FN/02/05).

No pottery or accessioned finds were recovered from these features. Only one pier base (SG77) possessed any superstructure (fig 17). This consisted of a rectangular block of mortared bricks and squared chalk and Reigate Stone rubble blocks, seventeen courses high (top 3.59m OD); the top two courses had a chamfered and stepped profile indicating that it stood slightly above floor level.

The eastern portion of the south aisle only possessed a single pier base, which was clearly built over the medieval burial ground as it had bisected a number of burials (OA11). This trapezoidal pier base was composed of rammed or crushed roughly coursed masonry composed of angular chalk rubble and re-used bricks, and occasional fragments of peg tile, bonded by light greyish-brown sandy mortar. This pier base contained no terracotta fragments.

The eastern part of the south aisle wall of the Tudor church probably occupied a very similar position to the south wall of the present church, judging by the presence of two truncated rectangular trench-built foundation bases that extended under the south wall of the standing building (G61; fig 16). The western base consisted of mortared and coursed chalk and ragstone masonry, while the eastern one had been robbed out. The impression is

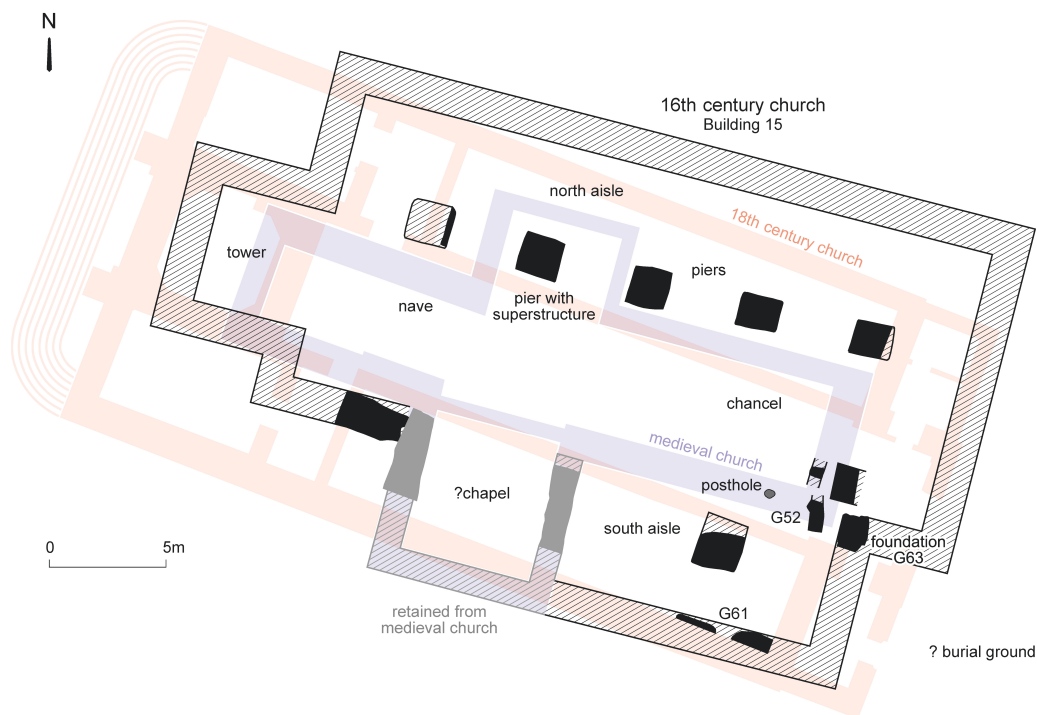


Fig 16 St George's church, Southwark. Early 16th century church (B15); as only small elements of this phase of the church were discovered much of its ground plan is conjectural (scale 1:325).

that these two truncated foundations served as bases for a series of relieving arches on which the south wall of the Tudor church was built.

The western portion of the new south wall of the nave was built close to its predecessor (fig 16). The new masonry consisted of a mixture of mortared bricks, chalk and Reigate Stone masonry. No evidence for the western tower was found as this portion of the site was not investigated.

The evidence for the eastern portion of the Tudor church is very fragmentary and therefore difficult to reconstruct (fig 16). Assuming that the spacing between the easternmost pier base of the north aisle and the eastern wall was the same as between the other bases, then the line of the eastern wall can be conjectured. However, this assumed position for the eastern wall is several metres east of the two surviving blocks of masonry (fig 16: G63) within the chancel, which implies that the eastern portion of the church was not delineated by a straight north-south wall. The first of these chancel foundations consisted of an irregular, trench-built rectangular foundation constructed of mortared brickwork mixed with Reigate Stone and chalk rubble, which is interpreted as part of the east wall of the south aisle. The second or northernmost foundation, which had been truncated to a greater depth, consisted of a mass of rammed, unmortared brick and mixed rubble set in a gravel matrix. This masonry appears to have protruded beyond the projected wall line and therefore may have supported the southern side of a protruding arched recess or some internal feature such as a pulpit base. The impression is that the Tudor south aisle was slightly shorter than the chancel (fig 16). The fragmentary nature of these two foundations may be because they are truncated bases for a series of relieving arches.

It seems probable that all the walls of this part of the Tudor church were sprung from relieving arches, which were subsequently truncated to below the level of solid or continuous masonry during the construction of the present church (Building 16) and the excavation of

various ossuary pits during the 19th century (G69). This high degree of internal disturbance means that there were only sixteen burials, which can possibly be attributed to this phase of church (G64) of which only six were assessed (see above). The only internal structural features present consisted of one robbed-out posthole (SG431), which may represent a corner-post for the communion rail (the dimensions match those cited in a pre-1734 description of the church) and a short length of robbed-out foundation (SG434) (fig 16: G52). The material used for the superstructure of this phase of church is uncertain, but it may have been largely built of brick. The tower of the Tudor church according to Wyngaerde's panorama possessed ashlar quoins, indicating that it was constructed of masonry. The various re-used ragstone ashlar blocks set in the internal faces of the walls of the present church at crypt level were presumably derived from the previous building.

From *ex-situ* architectural fragments the probable appearance of the arcading of the aisles and their possible colour scheme can be reconstructed (discussed later). This appears to have consisted of a whitewashed plastered background that may have possessed a network of fine red lines to mimic ashlar joints. The moulding of the arches was apparently highlighted in black against a white background, while the segments of another arch (location unknown) were entirely scarlet. Traces of red, blue or black paint were found on some of the *ex-situ* medieval architectural mouldings recovered from the site of the church of St Nicholas, Shambles, Newgate Street in the City of London (Lea 1997, 112). In pre-Reformation English churches the architectural stonework often formed the basis for a decorative scheme of bold patterns and diapers 'cognate in style with contemporary manuscripts [...] that might seem over-vigorous [...] to modern tastes accustomed to an interior scarped and pickled into familiar ecclesiastical half-tones' (Batsford & Fry 1940, 126). The floor of the Tudor church was probably paved with decorative tiles (see above) and the large oval-headed windows depicted on Wyngaerde's image of the church were probably glazed with painted glass. So the whole interior of the pre-Reformation church would have blazed with colour. After the Reformation the interior of the church would presumably have been whitewashed. No medieval painted glass is mentioned in any of the descriptions of the pre-1734 church. However, by the 1720s the east window of the chancel contained Queen Anne's arms and one window in the north wall contained the arms of the 21 City of London livery companies that had contributed to the repair of the church in 1629 (Peatling 1930, 86).

The church was described in c 1700, as 'an old building, the pillars, arches and windows being of Modern Gothic' (presumably Perpendicular). The church possessed an uneven floor, a western organ gallery, a Tuscan-style altarpiece with fluted pilasters and cherubs, plus various texts: the Commandments, the Lord's Prayer and the Creed. The length of the church (outside the communion rail) was apparently 69ft (21.0m). In the western part of the church was a school (Hatton 1708, 245–7). There were a number of monuments inside the church, the earliest of which belonged to John Savage (1588). This list implies that any monument to Hastings (see above) had either already been dismantled or was not prominent enough to warrant a mention by this date. On the south side of the church was a 'pretty large stone monument' commemorating William Evance, a member of the Merchant Taylors Company, who died on 29 July 1590, aged 67. In 1629, according to an inscription formerly in a north aisle window, new pews were installed, the steeple and gallery repaired and the south aisle lengthened (Hatton 1708, 245–7; Peatling 1930, 85–6).

*The architectural stonework from the Tudor church (B15), by Mark Samuel*

Elements of the Perpendicular style arcading can be reconstructed (table 15: see *Endnote*). There were several elements of a Reigate quadripartite pier moulding with opposed shafts (fig 17). The extrados and joints were usually finished with a coarsely-tined comb. This material can be paralleled with the four-centred arcading of the chapel of St Peter ad Vincula in the Tower of London, which was rebuilt during the early 16th century (RCHME 1930, 92). However, the soffit in the St George's material apparently respects an arch centre of



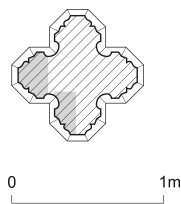


Fig 17 St George's church, Southwark. Reconstruction of the arcading of the Tudor phase of the church showing the restored arcade moulding at capital impost level; the major order of the moulding was determined from <105> (Mark Samuel) (scale 1:50).

c 2.5m, perhaps half a perch (8ft 3in), this unit (16 ½ft) was widely employed in late medieval architecture. The excavated pier foundations indicate a spacing along these lines.

A number of these stones possess traces of whitewash, while the moulding on the segments of the arches was apparently highlighted in black and the rest of contrasting white <84>. Another arch segment was painted scarlet (with a grey undercoat) <128>.

### *16th century church building in south-eastern England*

During the early 16th century until the Reformation (1533–53), St George's was one of a number of parish churches in the London area and its adjoining counties that were being either extended or rebuilt, the main motives being to cope with increasing congregations and the provision of belfries. Examples of Greater London churches rebuilt during this period include St Andrew's Undershaft and St Giles Cripplegate, in the City of London; both are stone-built twin-aisled buildings (RCHME 1929, 5, 97). In Hertfordshire, the north aisle and north chancel chapel (1532) of St Giles, South Mimms plus the north aisle and chantry chapel (c 1527) of St Giles, Wyddial were all rebuilt in brick during the early 16th century (Pevsner 2002, 338, 411). In Essex during the early 16th century brick-built west towers were added to the parish churches of Rayne, Rochford and Sandon, while St Mary's church, Great Baddow has an early 16th century brick clerestory added (Bettley & Pevsner 2007, 386, 639, 646, 677). In Surrey there is only one surviving Perpendicular church of any size, at Lingfield, but various other earlier churches in the county had aisles, porches or towers added during this period (Nairn & Pevsner 1971, 32–3). In Sussex during the early 16th century the interior of Westbourne church was reconstructed, its tower was rebuilt and a porch added (Nairn & Pevsner 1965, 365–6).

## **18th century church and burial ground (period 7)**

### POST-MEDIEVAL BURIAL GROUND (OA12)

Seven supine burials with no evidence of coffins were discovered when the ramp down to the eastern door of the crypt was lowered (G65; fig 18). These burials are undated, but are assumed to be of post-medieval date because of their high level within the external burial ground east of the church. These burials were not examined.

### BAROQUE CHURCH 1734–6 (B16)

By 1732, the structural condition of the church was so bad that it was apparently 'dangerous for the inhabitants of the parish to attend' services. The foundation stone of the new brick-built church was laid on St George's Day 1734. Most of the rebuilding was completed during 1735 and it was reopened in 1736 (Darlington 1955, 27). The new church was designed by John Price. It consists of a nave, with two symmetrical aisles and a tiny chancel (fig 18). Under the nave was a barrel-vaulted crypt. The church has an imposing square stone west tower, with two octagonal upper stages and a spire. The body of the church is red brick with two tiers of windows; its design is considered to be derived from Wren's St James, Piccadilly (Cherry & Pevsner 1983, 576). Under the central body of the new church was a rectangular

brick-built barrel vaulted crypt (fig 19). The present church is on a noticeably more north-west to south-east alignment than its predecessors.

In 1776 the parish of St George's disposed of all its unwanted records (Rendle 1878, 68), which means there is a complete absence of significant pre-1600 material and that the documentary history of the church during this period has to be pieced together from other sources. However, despite this, it is the case that a greater number of later records survive from this parish than from any other in Southwark, although both St Saviour's and St Mary Newington also possess substantial holdings. St George's has the longest surviving run of rate books, which is more or less continuous back to 1635; it has detailed volumes of churchwardens' accounts for the 17th century; a massive batch of Poor Law records that date from before and after 1776, and a long run of records of the parish's charities. It is true that the parish registers begin only in 1602 rather than 1558 or 1538, and that the series of vestry minutes is far from complete, but these do not detract unduly from the remarkable quantity and range of what does survive (Stephen Humphrey, pers comm).

During 2006 groundworks within the crypt revealed a series of brick ribs that spanned from the crypt to the north and south walls to help support the weight of the floor (fig 19). Fragments of brick paving found in the crypt represent a replacement floor probably laid after the 1899 clearance (discussed later) (G66). Under the floors of the new north and south aisles, the intervening space was infilled with soil and construction debris. This soil contained a vast quantity of disarticulated skeletal material (G67), which was described during the 1938 structural investigation as 'masses of skulls and bones thrown together at the time of the rebuilding' (Darlington 1955, 29). These deposits contained pottery dated to 1670–1700 and clay tobacco pipes dated to 1700–40 (Grey 2006b). A number of coffin burials had been inserted into these deposits during the 18th and 19th centuries (G68).

In 1816 by Act of Parliament the churchyard was extended northwards and in 1817 a new wall was built to separate the new cemetery from the Marshalsea Prison. In *c* 1853 the

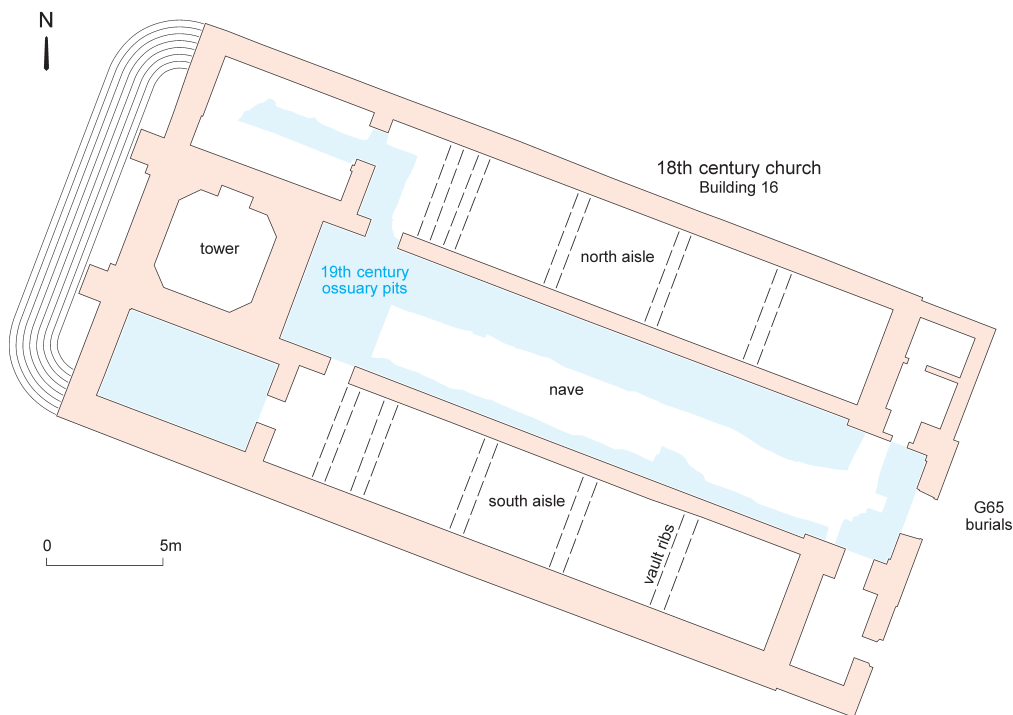


Fig 18 St George's church, Southwark. Period 7 plan of the 18th century church (B16) at crypt level, showing the extent of the 19th century ossuary pits (scale 1:325).



Fig 19 St George's church, Southwark. The interior of the crypt, looking east, at the start of the archaeological investigation.

churchyard was closed, and in 1882 the northern portion was laid out as a public garden. During 1902–4, most of the southern portion of the churchyard was destroyed when Long Lane was widened (Darlington 1955, 37–38) (fig 1). This development revealed a number of Tudor terracotta fragments, which were apparently all either lost or destroyed during the Second World War (Smith *et al* 2014). In 2007 a burial vault in the disused cemetery east of the church was recorded. It contained two burials: Mrs Hannah Green (died 1801) and Mr Richard Adam (died 1745) (Miles 2007).

### *Crypt clearance*

In 1899 the crypt was cleared and 1484 coffins were removed and reinterred at Brookwood cemetery (Darlington 1955, 29). It is probable that at the same time many other lead and wooden coffin burials were disposed of in a series of large pits dug under the crypt floor (G69). None of these burials or coffin fittings was assessed, but selected breast plates were retained for study. The latest date on these plates was 1823 or possibly 1828.

### *The coffin plates, by Adrian Miles*

Three types of coffin plates were recovered from St George's church: depositum plates, inner plates and end plates. All legible main plates have been photographed and the biographical data recorded (Miles 2009). The depositum plate was the main, decorative plate attached to the wooden outer coffin, and was intended to be seen at the funeral. These were produced with a variety of designs, examples of which have been recorded from other archaeological excavations. There is one unusual copper-alloy depositum plate for Elizabeth Elphinstone (consisting of a cherub's face surrounded by sunburst, which is the only example of its type found in London to date (fig 20).



Fig 20 St George's church, Southwark. The depositum plate for Elizabeth Elphinstone [15]. The six lines of the inscription read: M (upper case: s) Eliz (th) Elpinstone, died May 29th, 1752, in y(?)e 70th year, of her age. Dimensions: length 407mm, width 308mm.

The inner plates attached directly to a lead shell and are normally plain, often with an inscribed or punched border, and were used to identify the coffin. End plates tend to give only very basic information, and would have been attached to the end of the coffin, either at the head end, foot end or on the side. These would probably have been used to identify the coffins when they were placed in stacks in the crypt. It is possible that these were produced within the crypt itself, as they were generally of very crude construction, the information sometimes being at variance with that on the main plates.

### Endnote

Appendices 1 and 2 and the tables listed below are available on the Archaeology Data Service website – <http://archaeologydataservice.ac.uk>. Select 'archives'; accept the terms and conditions; select 'Journals and series'; select 'Surrey Archaeological Collections', then 'volume 98'. The files are stored as supplementary material under the title of the article. Copies are also available from the Society's library at Castle Arch, Guildford GU1 3SX.

Table 1 Radiocarbon dating results

Table 2 Principal pollen types recovered from contexts [1143] and [1142]

Table 3 Selective dating evidence for Open Area 3, period 3 (for details of ceramic fabric codes see section on scope of the project)

Table 4 Selective dating evidence from Open Area 4, period 3

Table 5 Selective dating evidence from Open Area 5

Table 6 Selective dating evidence from Open Area 6

Table 7 Selective dating evidence from Open Area 7

Table 8 Selective dating evidence from Building 11

Table 9 Selective dating evidence from Open Area 8



- Table 10 Period 3 pottery assemblage by sherd count, weight and fabric, EVEs (Estimated Vessel Equivalents)
- Table 11 Period 3 pottery assemblage by form
- Table 12 Period 3 pottery assemblage by form categories
- Table 13 Significant selected architectural stonework from the later medieval phase of St George's church (B14)
- Table 14 Demographic summary by period
- Table 15 Significant architectural stonework from the Tudor phase of St George's church
- Appendix 1 Illustrated Roman pottery catalogue
- Appendix 2 Burial catalogue for periods 5 and 6

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The finds illustrations were produced by Hannah Faux and Sandra Rowntree and the rest of the figures were produced by Carlos Lemos of MOLA. The finds photography was undertaken by Andy Chopping of MOLA. The fieldwork was project managed by Derek Seeley and the post-excavation work by David Bowsher of MOLA.

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