

EXCAVATIONS ON THE SITE OF THE DIANA, PRINCESS OF WALES, MEMORIAL FOUNTAIN, HYDE PARK, WESTMINSTER

Timothy Bradley

With contributions by Malcolm Lyne, Carola Nooijen, Susan Pringle and Lisa Yeomans

SUMMARY

Excavations on the site of The Diana, Princess of Wales, Memorial Fountain, Hyde Park, Westminster, provided some evidence for later prehistoric activity which was superseded by multi-phase Roman occupation from the early to mid-2nd century to the 4th century AD. This included large quarry pits, as well as smaller pits, postholes and enclosure ditches. Whilst the majority of features produced high concentrations of cultural material, the finds recovered from the 4th-century enclosure ditch were particularly striking, and included large concentrations of unabraded building material, providing tantalising evidence of a building in the immediate vicinity. That this occupation was at least in part domestic was suggested by the nature and quantity of the associated pottery. As such, the site provides important new evidence of a Roman settlement in London's rural hinterland in an area where previous archaeological intervention has been minimal.

Also discussed here are the results of earlier evaluation and watching brief work to the west of the main excavation trench, which revealed evidence of an early 18th-century decorative bastion and associated ha-ha which formed part of a landscape garden feature separating the formal Kensington Gardens from Hyde Park.

INTRODUCTION

Archaeological fieldwork was undertaken intermittently by Pre-Construct Archaeology Limited between 23 September 2002 and 2 May 2003 in advance of the construction of The

Diana, Princess of Wales, Memorial Fountain, Hyde Park, City of Westminster (TQ 2701 8001). The work was commissioned by Andrew Boyle of Bucknall Austin, on behalf of the Royal Parks, and the archaeological consultant was Richard Hughes of Arup Geotechnics. An area measuring 130m north-south by 145m east-west was examined during the course of the fieldwork; this was situated on the south bank of the Serpentine, immediately to the east of West Carriage Drive (Fig 1). The site was predominantly grassed and sloped down gradually from west to east, from approximately 20m OD to 17m OD.

Prior to the fieldwork a cultural heritage desk-based study was prepared (Hughes 2002), and an initial evaluation was conducted which revealed extensive evidence of post-medieval landscape structures and some evidence for Roman occupation (Hulka 2002). The proposed location of the Memorial was subsequently moved further to the east, however, and a specification for a second phase of fieldwork was prepared (Hughes 2003). This phase of evaluation recorded a large 19th-century gravel extraction pit across the majority of the proposed footprint of the fountain, which had effectively removed most potential for archaeological survival (Fig 2). The eastern edge of the fountain was situated beyond the area of quarrying, however, and here ditches and pits were found cut into terrace gravel, some of which yielded pottery of Roman date. Accordingly an excavation of this area, which measured

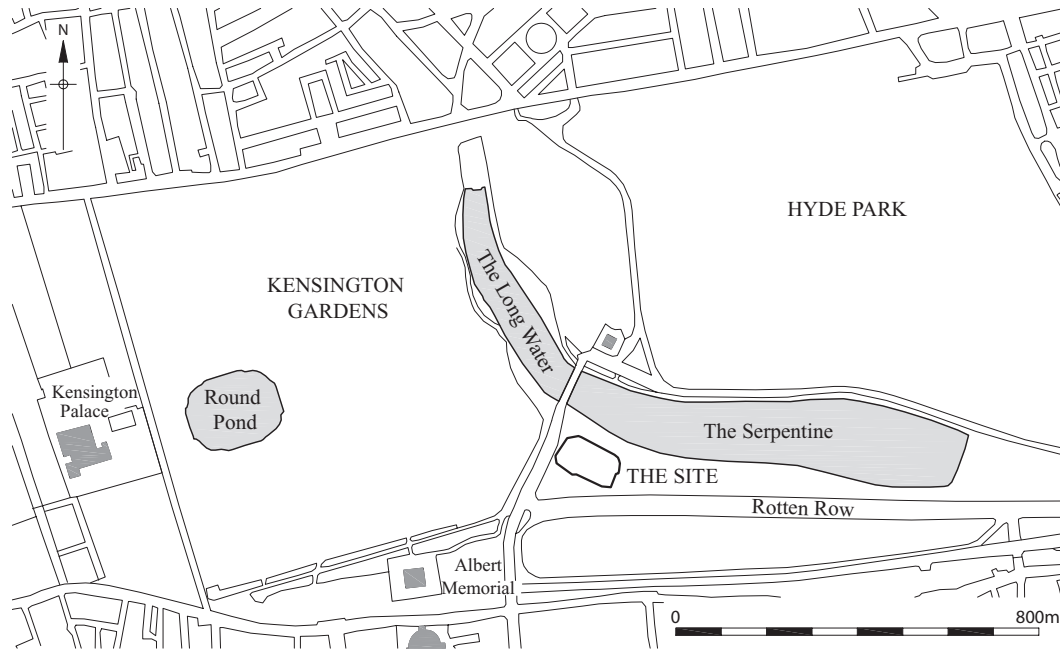


Fig 1. Site location

39m north–south by a maximum of 12m east–west, ensued. Subsequent to the identification of significant archaeological survival here, Catherine Cavanagh (English Heritage GLAAS) arranged for a geophysical survey over a larger area to establish whether the features could be traced any further. Unfortunately the results of these surveys were negative (Martin 2003).

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The area of investigation lies on the western slope of, and within a large oval depression in open ground east of the southern abutment of the bridge across the Serpentine. The underlying geology of the site is London Clay, which is overlain by the northern extreme of the Taplow Terrace Gravel. This natural was at levels between 15.71m and 17.63m OD. Towards the southern, up-slope area of the excavation, the gravel was capped by a thin mantle of brickearth which was approximately 0.10m thick.

There is a general paucity of known archaeological finds in the area of the Memorial site, although this is likely to reflect the absence of substantial development, and associated archaeological intervention, rather than a signif-

icant lack of potential. The Greater London Sites and Monuments Record contains only one entry from within a 300m radius, which relates to a flint arrowhead and two flakes found in 1959. Despite this, it is known that the Thames flood plain was widely exploited in the Mesolithic, Neolithic, Bronze Age, and Iron Age periods, with other sites being found in abundance along the Thames. Indeed, significant later prehistoric activity has recently been identified in Kensington to the west in similar topographic conditions (Moore *et al* 2004; Bradley 2003; Wragg 2004).

Again, few Roman artefacts have been recovered in the vicinity. However, the site lies 2.2km to the west of the Roman city of *Londinium*, close to two of the main arterial roads into the city along the approximate lines of Knightsbridge and Bayswater Road (Margary 1955). As such it would have provided a good location for a farmstead, villa or settlement, possibly given over to market gardening.

The history of the area around the site is also poorly understood for the Saxon period. The early Saxon city was based in the Covent Garden/Strand area of London, with a royal/religious establishment on Thorney Island, later central to the late Saxon city of Westminster. Given the location of the site along former Roman roads, it

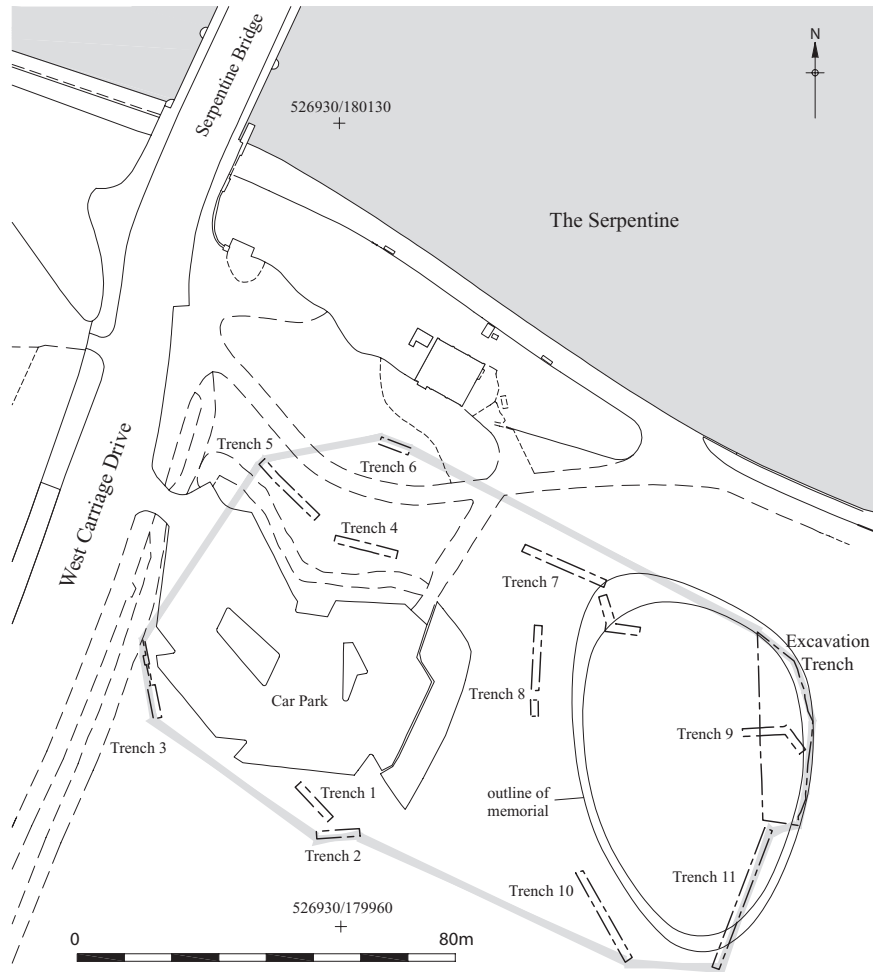


Fig 2. Trench location (including projected line of quarry pit); Excavation Trench = Trench 12

is probable that the area was farmed at this time. The Hyde Park area was acquired by Westminster Abbey in the late Saxon period, providing an income from agricultural activities, hunting, and fishing. Domesday makes no reference to the area being woodland, rather it is listed as being under plough and pasture at this time.

During the first half of the 16th century the monastic lands of London were being broken up by Henry VIII, and it was at this time that Hyde Park was enclosed to allow it to be stocked with deer. Following the enclosure, cultivation in the park ceased, natural vegetation was encouraged, and the right of sport was jealously guarded. By 1573 the park was producing income from both pasture rights and deer, and

it is also known that Elizabeth I used it for royal celebrations and military displays. In the second half of the 17th century it was enclosed by a brick wall and restocked with deer. The land comprising Kensington Gardens was enlarged by a succession of encroachments into Hyde Park, and by 1726 the eastern boundary of Kensington Gardens lay approximately on the line of West Carriage Drive.

In 1728 Charles Bridgeman was appointed Royal Gardener and he embarked on a massive redesign of Kensington Gardens. This included the damming of the Westbourne River below Long Water to create the Serpentine, and the construction of a ha-ha around the grounds to separate them from the deer park to the east.

The ha-ha consisted of a ditch with a retaining wall built against its steeper edge which prevented animals straying into the gardens, whilst providing an unobstructed view of the park.

Between 1825 and 1828 the Serpentine Bridge was built, and the water levels of Long Water to the west and the Serpentine were equalised. In 1833 the South Bastion was demolished and 34 years later it was completely infilled. In 1851 Joseph Paxton's Crystal Palace was built and the Great Exhibition opened. It is at roughly this time that the large gravel extraction pit recorded during the archaeological investigations was excavated. It is likely that the gravel was intended for use within the park, and may have been specifically used to create the extra paths associated with the Great Exhibition. In 1916 the Middle and North Bastions were also infilled following the murder of a woman in the ha-ha.

THE EXCAVATION

Prehistoric

Several residual flints, which appeared to have later Mesolithic affinities, were recovered from more recent contexts. A narrow blade scalene triangle microlith, a long-end scraper, and a trimming flake were identified, all of which were consistent with this date and suggest a short-term presence. A narrow flake was also recovered from a later Roman ditch, although assigning a date to this was more problematic. Its size, condition, and degree of recortication were noticeably different to the other three struck pieces, and may point towards an earlier date, possibly Palaeolithic. Although the presence of material of that age would not be particularly surprising in the location in which it was found, it had no diagnostic traits to confirm such an interpretation, and this date must therefore remain speculative.

Two pits were recorded in Trench 12 (the excavation area) which were also interpreted as being prehistoric. They were cut through the terrace gravel and were sub-ovoid in plan with steep sides and flat bases. They were both filled with mid-greyish brown sandy-gravelly silt which was paler and more leached out in appearance than the other features on site, and suggested that they may be of greater antiquity. Whilst no *in situ* dating evidence came from them, six sherds of residual calcined-flint-tempered pottery of possible early Iron Age date were found nearby which may point to an early Iron Age date.

Roman

Early to mid-2nd century AD

The earliest Roman features dated to the 2nd century AD, suggesting a possible hiatus in occupation of the area in the late Iron Age/early Roman period.

Three very large amorphous pits were recorded in Trench 12 (the excavation area) (Fig 3) which were excavated through the gravels to the top of the underlying London Clay (a depth of approximately 1.40m). These had been backfilled entirely with redeposited, structureless, weathered London Clay. The absence of any fill material underlying this clay suggested that the features had been 'rapidly' infilled. In addition, there was no sedimentological or geomorphological evidence to suggest the clay was colluvial. The pits were therefore interpreted as having been dug for gravel extraction, subsequently being deliberately backfilled with London Clay, itself possibly representing a surplus of material from works elsewhere. Seven sherds of pottery were recovered from the largest of the three quarry pits, including three fresh fragments from a Verulamium Region Whiteware mortarium, dated to AD 110–145.

Two amorphous features cut the largest of the quarry pits. Their very shallow nature suggested that they may have been horizontally truncated, and this precludes a precise interpretation of their functions, although the narrow linear form of the smaller of the two suggested that it might represent a truncated gully. Although stratigraphically post-dating the quarry pits, they yielded pottery in Highgate Wood C and Verulamium Region Whiteware fabrics of similar date.

Late 2nd century AD

A series of five postholes and an associated layer were present in the southern up-slope area of Trench 12 (Fig 3). The postholes were approximately 0.50m in diameter and generally less than 0.40m deep. Their alignment formed the southern and western sides of a timber-framed building constructed with 'earthfast' vertical posts. An associated thin deposit of dark brown clayey silt was interpreted as representing the remains of a floor or occupation surface within the building. Pottery from this surface dates from the mid-1st to mid-3rd centuries,



Fig 3. Plans of main features in Trench 12 by phase: (a) Early/ mid-2nd century; (b) Late 2nd century; (c) Late 2nd/ early 3rd century; (d) Late 3rd to mid/ late 4th century

although this date was stratigraphically refined to the late 2nd century. The eastern and northern elements of the structure were not seen, possibly having been truncated by later ground stripping, but the remaining features suggested that it would have had a ground plan measuring at least 8m by 6m.

Late 2nd to early 3rd century AD

The building had a relatively short life-span, as it was truncated by the western side of a probably early 3rd-century rectangular enclosure (Fig 3). This was defined by an internal enclosure ditch, with a north–south dimension of 22m. A relatively large pottery assemblage was recovered from the inner ditch which included fragments from a storage vessel in North Kent Shell-tempered ware (c.AD 50–150), a large number of fragments of BB2 cooking pots and ‘pie-dishes’ (c.AD 70–180), and jars and beakers in Highgate Wood C fabric (c.AD 70–180). However, a fragment from an Alice Holt/Farnham ware beaded flanged bowl indicated that rubbish was still being thrown into the ditch as late as AD 270. The quantities of pottery recovered strongly suggest that the enclosure was associated with settled domestic activity. The ditch also produced brick, roofing tile, and fragments of box-flue tile with comb keying. Several of the fragments were large, and suggested that the material had not travelled far. Evidence for stone building material was also present in the form of several flakes of Kentish ragstone and some fragments of sandstone, suggesting the presence of a structure of some status in the vicinity.

A single feature was recorded within the enclosure which was interpreted as forming part of the same phase of activity. This was an east–west orientated linear cut which measured 0.80m wide by 0.25m deep. Although it yielded no dating evidence, it was recut in the 4th century, and therefore the earlier form has been attributed to the previous phase of occupation. Its function was unclear, although its form was most suggestive of a ditch, possibly for drainage.

Late 3rd to 4th century AD

Following the backfilling of the rectilinear enclosure ditches, a further double enclosure ditch was cut further to the south (Fig 3). This was defined by two broadly parallel curving ditches at the extreme south of Trench 12 (the

excavation area). A large assemblage of un-abraded building material within the fill of the inner ditch suggested the presence of a substantial building(s) in the immediate vicinity from the 2nd to the late 3rd/early 4th century. Most notable amongst this assemblage were eleven almost complete *tegulae* in a red fabric with iron-rich inclusions, together with more fragmentary *imbrices*. These appeared to form a primary destruction deposit and are likely to have come from the roof of a nearby building. This fabric (fabric 3263) has not previously been recorded from London sites and its source is not known, but it is likely to be one of a range of fabrics brought into London during the later Roman period after the large tile works which had supplied London in the 1st and 2nd centuries had either ceased, or drastically reduced production (Betts 2003).

The outer ditch produced a large pottery assemblage, the majority of which was made up of Alice Holt/Farnham coarse kitchen wares, suggesting that the ditch was cut in the late 3rd century and had been fully backfilled by AD 350–370. The pottery is likely to have derived from the same source as the building material recovered from the inner ditch, and its presence suggests further domestic activity in the immediate vicinity in the 4th century.

Associated rubbish pits and a probable ditch terminus were also recorded which dated to this phase of occupation, and are also likely to be associated with the activity discussed above.

Mid- to late 4th century AD

A large east–west orientated linear ditch was present at the northern end of Trench 12 (Fig 3); this represented the only feature dating to the mid- to late 4th century. Its location on the margins of the lower ground, in an area that could have been susceptible to flooding, suggested that it would have been associated with drainage, and pottery recovered from its fill indicated continuity of occupation and land use in the area into, and possibly after, the late 4th century.

Discussion

The excavation of the eastern portion of the footprint of The Diana, Princess of Wales, Memorial Fountain produced evidence of utilisation of the area which may date as far back as the Palaeolithic. Probable later Mesolithic flintwork



Fig 4. View of excavation trench (Trench 12), looking south

was also found which contributes to the body of evidence for later Mesolithic activity in the Westminster area, including at Kingsway Hall (Hodder *et al* 2000), the National Gallery Extension (Merriman 1989), and Thorney Island (Sidell *et al* 2000). The probable Early Iron Age pottery suggests occupation of the area in the later prehistoric period; its location on a gravel terrace less than 40m above sea level is in keeping with the plurality of later prehistoric activity in the London area (Greenwood 1997).

A hiatus in occupation is suggested by the absence of finds or features predating the 2nd century AD. Given the location on what was a well

drained and fertile gravel terrace next to the Westbourne River, in what had been an attractive area prior to this, a complete cessation of activity here seems unlikely. The lack of archaeological evidence for the Late Iron Age/Early Roman period may be explained by the truncation of the gravel terrace and the associated activity across the majority of the site during the 19th century, and the restricted area of investigation. A common feature of the countryside was the gradual Romanisation of existing settlements and farmsteads (Bédoyère 1993), and it is possible that such development occurred here. There is, however, a considerable body of evidence starting

to emerge that settlement and public services developed external to the limits of the Roman city from the 2nd century onwards, as indicated at Bow (Taylor Wilson 1999), Shadwell (Douglas & Sudds 2004), and Fairlop Plain (F. Meddens, *pers comm*). The evidence for Roman activity at Hyde Park may adhere to this pattern.

By the mid-2nd century AD the site had been targeted for gravel extraction, with three large quarry pits being recorded in the area of excavation. It is unclear for what purpose the gravel was intended, although the presence of two major Roman roads nearby, along the line of Knightsbridge to the south and Bayswater Road to the north, suggests it may have been associated with the surfacing or resurfacing of these or associated routes. The quarrying of aggregates for road building and other construction work is certainly likely to have affected the rural landscape around London in the Roman period (Perring & Brigham 2000). The pits were backfilled with brought-in weathered London Clay soon after extraction in the mid-2nd century; the clay itself probably represented surplus material generated during development elsewhere. Two shallow features recorded cutting the largest backfilled quarry pit also dated to the mid-2nd century and suggested that occupation in the area commenced shortly after the quarry pits had been backfilled.

Evidence of a timber-framed structure was recorded in the centre of the excavation area, which was stratigraphically dated to the mid/late 2nd century. Neither the precise function nor the ground plan of the structure could be ascertained in the confines of the trench, although pottery from an associated occupation layer implied domestic use. Relatively intact roofing tile and bricks in fabric group 2815 recovered from later contexts, which may have derived in part from this structure, also attest to the presence of a building(s) in the immediate vicinity by the mid-2nd century. It may be that this building represented part of a farmstead or small villa complex. Certainly the location of the site appears to have been prime for such a settlement, being just 2.2km from the Roman city of *Londinium* with the opportunity to supply food to its market by either the river or road. The Westbourne joined the Thames roughly in the grounds of Chelsea Hospital (Barton 1992); it would probably have been navigable as it passed the site and would thus have provided an important communication link. The population of

Londinium would need to be supplied and this demand must have been met, at least in part, by its rural hinterland.

The timber building was comparatively short-lived, and was superseded in the late 2nd century by a rectangular enclosure, the western side of which was recorded during the excavation. Again, large quantities of pottery suggested associated domestic activity, and it may be that this enclosure represented an expansion of the earlier 2nd-century farmstead or villa. Rapid expansion in farmsteads and villas in other areas of the country was usually a product of their location, with the more successful sites being situated close to roads, rivers, and larger settlements (Bédoyère 1993). All three of these factors are met at The Diana Memorial site, and thus it is likely to have been well established. Rubbish was still being thrown into the enclosure ditches as late as AD 270, suggesting that this phase of activity was relatively long-lived.

Immediately following the final abandonment of the enclosure in the late 3rd century, a further double enclosure ditch was cut to the south at the up-slope end of the excavation area. Dating evidence suggested that occupation was contiguous, however, with the later enclosure, representing further alteration to the settlement rather than interrupted occupation. Again, the full spectrum of domestic refuse was recovered from both the enclosure ditches and associated pits which suggested domestic activity in the immediate vicinity. Although structural evidence for the extent of this phase of development was meagre, it may have represented further expansion of the settlement in the late 3rd and 4th centuries. Certainly it seems that at this time Roman Britain was at its most stable and productive, and a well situated farmstead would have been in a good position to exploit this stability and resultant economic productivity. Large deposits of roofing tile, both *tegulae* and *imbrices*, were dumped in the inner enclosure ditch along with pottery, which suggested that it had been entirely backfilled by AD 350/370. Whether this building material represented demolition or alteration to existing structures is unclear, but the presence of a large east-west ditch situated in marginal land towards the base of the slope close to the river suggested continued occupation and exploitation of the area until at least the later 4th century.

Other than a single, tentatively dated, medieval pit, no archaeological evidence was recovered

between the 4th century AD and the post-medieval period. The seeming abandonment of the area in the 5th century may have been linked to the demise of *Londinium* at this time. By the 5th century Roman London was being undermined by the failure of the Empire as a whole, which was marked among other things by the appearance of dark earth covering the streets by the late 4th/5th century (Perring 1991). This decline in the urban centre, and the associated reduction in the population dependent on food produced by others, meant that surplus agricultural production and associated wealth would have diminished. Such a pattern may have been responsible for the seeming disappearance of the settlement/farmstead recorded at the Diana, Princess of Wales, Memorial Fountain at this time.

The 18th-century ha-ha

As has been discussed, initial evaluation of the area immediately to the east of West Carriage Drive sought to accurately locate parts of the ha-ha built in 1731 by Royal Gardener Charles Bridgeman. It consisted of a ditch and retaining wall built against its steeper edge (facing into Hyde Park), to prevent animals straying into the gardens to its west, while providing an unobstructed view of the park from the gardens. The Hyde Park ha-ha consisted of three straight sections running north–south, north-west–south-east, and east–west. They were divided by large curving sections where the revetment protruded into the deer park. These were known as the South, Middle and North Bastions. Portions of the South Bastion were successfully located and recorded in Trenches 1, 2 and 3 (Fig 5) and the findings are summarised below.

The natural gravel in Trench 2 was cut by a large asymmetric ditch which was orientated north–south and had a moderate slope on its eastern side and near vertical western side. It measured 7.20m wide, and was excavated to a maximum depth of 1.55m, although due to the influx of loose sand and water it was not possible to expose the base of the feature. In Trenches 1, 2 and 3, the western (steep) edge of the cut was revetted by a brick wall (Fig 6a). The retaining wall was $4\frac{1}{2}$ bricks thick (0.96m) on its top three courses and was narrower towards the bottom. The construction of the wall suggested that the ditch edge was unstable, as the base of the wall was built away from it. The gap between the

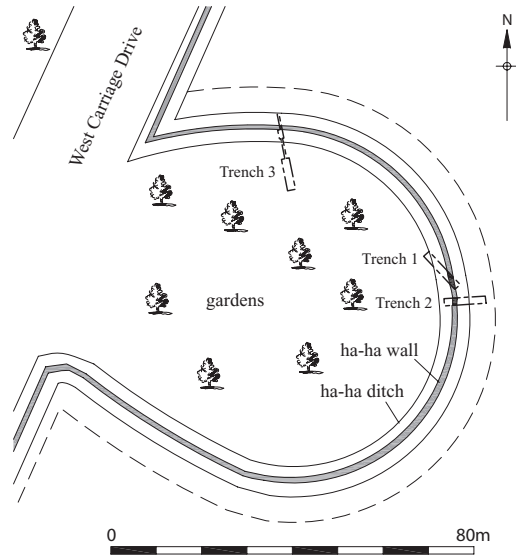


Fig 5. Trenches 1, 2 and 3 superimposed on Rhodes' 1762 map of the South Bastion

lower part of the wall and the ditch edge was filled with planking between rough courses of fragmented brick and mortar, which probably stabilised the edge during construction and provided a working platform. The top three courses were built over this fill material, and when the mortar set, the filling material would have become an integral part of the wall.

The wall's outer face (*ie* that facing into the ditch) was punctuated with apsidal arched niches (Fig 6b). The wall was built in header bond using bricks of fabric 3034. The bricks towards the wall's outer face were purple and well fired, while those closer to the ditch edge were less well fired. The use of better quality bricks on the outer skin of the wall was normal practice at the time. Considerable evidence suggested that the wall was originally clad. The surviving wall face was uneven, and the bricks in the spandrels between the niches extended far beyond the uneven wall face indicating that they had tied cladding onto the brickwork of the wall. The brick arches were also flush with the brickwork above in the two niches revealed in Trench 2, but extended beyond the surrounding brickwork in Trench 1, further indicating that the original wall facing had been removed. The extent to which some of the brickwork projected beyond the rest of the masonry (up to 14mm) suggested that the cladding was either a very thick render



Fig 6a. East view of ha-ha wall in Trench 2



Fig 6b. Detail of arched niche in ha-ha wall in Trench 2

or more probably stone. Indeed, fragments of Portland stone, which may have come from the cladding, were recovered from the ditch fill.

The ha-ha was backfilled with sandy silt and gravel. These were in turn sealed and the feature levelled by dark brown sandy silt which contained frequent fragments of brick and two slabs of Portland Limestone.

Discussion

At the time that the Hyde Park ha-ha was constructed, it was a relatively new device in English garden design. Horace Walpole suggested that Charles Bridgeman was one of the first to employ the ha-ha in his garden designs, and it may be that the earliest known ha-ha, at Blenheim (mentioned by the antiquary William Stukeley in 1712), influenced him while he worked there with Henry Wise (Thacker 1989). Bridgeman certainly created the extended series of ha-ha walls at Stowe, Bucks, where he worked from 1713 and where William Kent took over his work in 1730, and he also used the ha-ha in Claremont in Surrey, where he worked from c.1725. Kent's gardens were characterised by their irregular plans, small buildings, such as temples, and contrived natural appearance. The fact that Kent took over much of Bridgeman's work and subsequently removed much of it has led to him being credited as the main exponent of this style of garden. Bridgeman, however, worked with a combination of the by-then traditional formal garden and the new pseudo-natural style, and it is for this reason that he has been described as a pioneer in the change 'from the geometric layouts of the early 1700s to the freer designs of Capability Brown' (Willis 1977). The ha-ha can be seen as an important tool in establishing this new style of garden, in that it allowed unobstructed views of the park or farmland around a formal garden, thus integrating the garden into its natural landscape.

Whilst the North and Middle Bastions were shown on the 1762 Joshua Rhodes plan of the bastions as being circular, the South Bastion appeared to be horseshoe-shaped. Evaluation Trenches 1, 2 and 3 accurately located the position of the South Bastion wall and ditch, which correlated exactly with the Rhodes plan. However, they also revealed that it was more rounded than the distinctly horseshoe depiction by Rhodes, and as such, more in keeping with the other two bastions.

The example recorded in Hyde Park is among the earliest ha-has in England (Batey 1991). Being entirely the work of Bridgeman, the Hyde Park ha-ha is also of interest as it illustrates the transition to the new style of garden and Bridgeman's role in it. Thus, the retaining wall combines the formal classicism of the time (expressed in the niches and the probably stone or stone-effect cladding which was obviously meant to be seen) with the desire to create a 'natural' landscape where the retaining wall was hidden from the garden. The ha-ha recorded at Hyde Park was not built merely as a utilitarian device but would have presented a formal classical face when viewed from the deer park to the east, enhancing the formal classicism of the semi-formal gardens to its west.

Conclusion

The archaeological investigations prompted by the construction of the Memorial Fountain revealed that the area had previously been occupied by a Roman farmstead or settlement between at least the 2nd and 4th centuries AD. The site would have been ideal for farming in the Roman period, being situated on a well-drained gravel terrace on the south bank of the Westbourne River, close to two arterial roads into *Londinium*. Indeed, the Romans were not the first to recognise the potential of the area, as prehistoric flints, Late Iron Age pottery and possibly contemporary pits affirm. That previous evidence of early occupation in the area has been scarce is therefore likely to reflect the absence of recent development, rather than a lack of significant potential.

The most recent wholesale landscaping of the area was carried out in the 18th century, shortly after Charles Bridgeman was appointed Royal Gardener in 1728. He embarked on a massive redesign of Kensington Gardens which included the damming of the Westborne River to create the Serpentine. The construction of the ha-ha was also undertaken at this time, and the evaluation work successfully located elements of its South Bastion, providing details of its construction, location, and appearance. These details are of particular interest given that the Hyde Park ha-ha was amongst the earliest examples in England, and also that it was entirely the work of Bridgeman. The excavations have therefore contributed significantly to our understanding of the southern bank of the Serpentine in Hyde

Park, its development through the prehistoric and Roman periods, and its later post-medieval evolution into managed parkland and formal garden in the 18th century.

THE FINDS

Pottery

Malcolm Lyne

The site yielded 1,592 sherds (28,007g) of pottery from 40 contexts, of which the bulk ranges in date from the 2nd to the late 4th century AD. There were, however, a few sherds of Late Iron Age date, all of which were residual in later features. All of the assemblages were quantified by numbers of sherds and their weights per fabric. These fabrics were identified using a x8 magnification lens with built-in metric scale for determining the natures, forms, sizes, and frequencies of added inclusions. Finer fabrics were further examined using a x30 magnification pocket microscope with artificial light source. Only one of the assemblages (from Context [154]) was large enough for quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (Orton 1975). Fabric codings are those created by the Museum of London Specialist Services for use with assemblages from the City (Anon 2000). Codes used in Table 2 and elsewhere in this report are listed in Table 1.

Table 1

Fabric code	Fabric name
AHFA	Late Roman Alice Holt/Farnham ware
BAET	Baetican Dressel 20 amphora fabric
DORBB1	Dorset Black Burnished 1 fabric
GROG	Miscellaneous grog-tempered ware
HARSH	Harrold Shell-tempered ware
LNVC	Lower Nene Valley Colour-coat fabric
MHADBS	Much Hadham Black-surfaced ware
NKSH	North Kent Shell-tempered ware
OXID	Miscellaneous oxidised fabrics
OXMO	Oxfordshire Whiteware mortarium fabric
OXPA	Oxfordshire Parchment ware
OXRC	Oxfordshire Red Colour-coat fabric
OXWS	Oxfordshire White-slipped ware
SAMLZ	Central Gaulish Lezoux Samian
SAND	Miscellaneous sandy greywares
VRW	Verulamium Region Whiteware

The assemblages

Prehistoric

The various Roman contexts yielded six residual

sherds of calcined-flint-tempered ?Early Iron Age pottery: none of the putative prehistoric features, however, contained *in situ* sherds.

Early to mid-2nd century (AD 100–160)

Only one feature yielded any pottery:

Assemblage 1, from the fill of Quarry pit [232] (fill context [231]). The seven sherds (322g) of pottery from this feature include three fresh fragments each from two vessels: a Verulamium Region Whiteware mortarium of Frere type 2657 (Frere 1984), fired buff-yellow, exterior rim diameter 220mm, *c.*AD 110–145 (Fig 7.1), and a straight-sided dish in very-fine-sanded ?Thames Valley greyware, exterior rim diameter 200mm, *c.*AD 140/60–270 (Fig 7.2). These fragments suggest that the feature was backfilled during the early Antonine period.

One small pottery assemblage from Pit [186] was not closely datable, but the presence of closed form sherds in Highgate Wood C and Verulamium Region Whiteware fabrics suggests an early to mid-second-century date for the feature.

Late 2nd to early 3rd century (*c.*AD 160–220)

These assemblages are for the most part lacking in diagnostic sherds except for the following: *Assemblage 2*, from the lower fill of the rectilinear enclosure ditch. The fill (Context [205]) yielded 183 sherds (2,640g) of pottery dated *c.*AD 150–220, including fragments from a storage vessel in North Kent Shell-tempered ware (*c.*AD 50–170), five large fresh sherds from an East Gaulish Samian Dr.37 bowl, and an everted-rim cooking pot in Dorset BB1 fabric. This had widely-spaced obtuse-latticing and was lacking a horizontal groove separating the decorated girth band from the burnished shoulder; exterior rim diameter 160mm. This vessel was similar to an example from the Phase 3 pot gully at the Redcliff BB1 production site (Lyne 2003, fig 10-61) and is dated *c.*AD 200–240 (Fig 7.3). Also present were an everted-rim cooking pot of Monaghan class 3J3 (Monaghan 1987) in BB2 fabric, exterior rim diameter 140mm, *c.*AD 150–250 (Fig 7.4), and a deep roll-rimmed ‘pie-dish’ of Monaghan type 5D1.6 in North Kent BB2 fabric exterior rim diameter 260mm, *c.*AD 120–180 (Fig 7.5). A greater part of a Class 2E neck-cordoned jar with white slip over its upper half, in grey Highgate Wood C fabric, was identified; exterior rim diameter 140mm; *c.*AD 70–160 (Fig 8.6). Thirteen fresh sherds from a Class 1B flagon

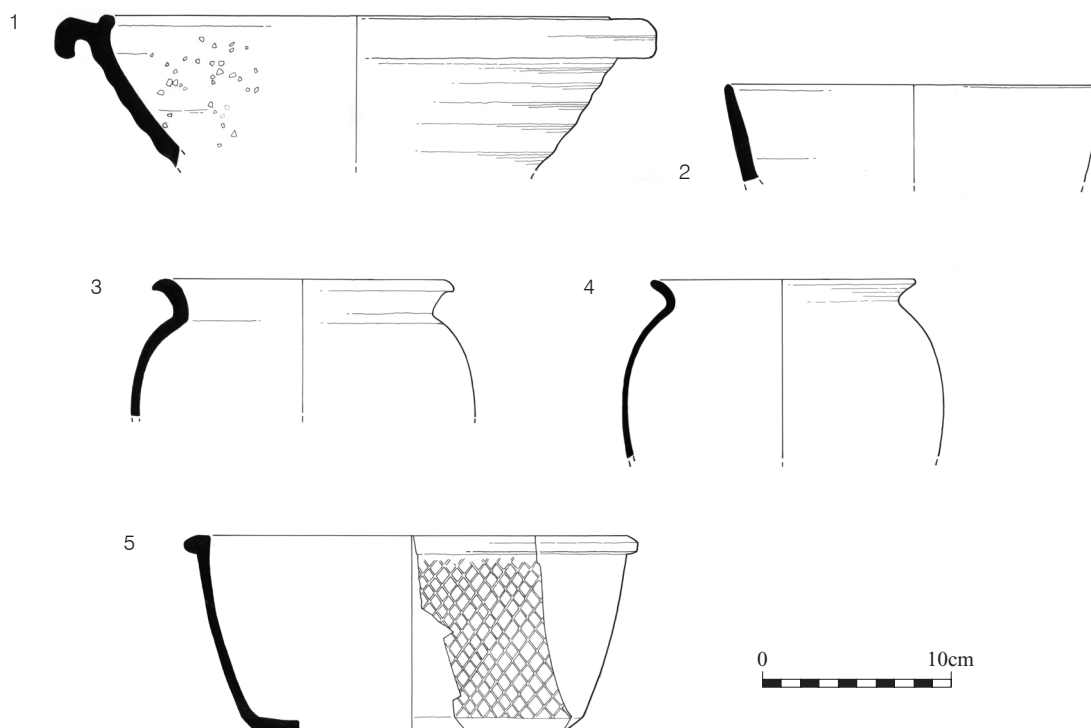


Fig 7. Roman pottery, Nos 1–5

of Frere type 805 (Frere 1972), in Verulamium Coarse White-slipped ware, were present; exterior rim diameter 60mm; *c.*AD 140–190 (Fig 8.7). This material indicates an assemblage which accumulated over the second half of the second century and on into the early third century.

Assemblage 3, from the upper fill of the north-south rectilinear enclosure ditch which yielded a further 92 sherds (1,186g) of pottery, including more sherds of late 2nd-century date and fragments of early to mid-3rd-century character. These latter include a BB2 dish of Monaghan Class 5F6 (Monaghan 1987), with burnished wavy line on its exterior; exterior rim diameter 120mm; *c.*AD 170–270 (Fig 8.8); a cooking pot with well-developed everted rim in Dorset BB1 fabric; exterior rim diameter 180mm; *c.*AD 200–280 (Fig 8.9); and a refired Alice Holt/Farnham ware beaded-and-flanged bowl of Lyne and Jefferies type 5B.4 (Lyne & Jefferies 1979) but with self-slip; *c.*AD 270–300 (Fig 8.10). This material indicates that rubbish continued to be thrown into the ditch until *c.*AD 270–300.

Assemblage 4, from the fills of the east-west continuation of the rectilinear enclosure ditch. The east-west ditch had a fragment from a Moselkeramik beaker (*c.*AD 200–276) in its primary silts. Its upper fill yielded 59 sherds (990g) of *c.*AD 200–270 dated pottery, including a burnt mortarium spout in Oxfordshire Whiteware (*c.*AD 240–400), a beaker sherd in Oxfordshire Red Colour-coat ware (*c.*AD 240–400), two large fresh sherds from a Central Gaulish Samian Dr.33 cup, and another fragment from a BB1 cooking pot (*c.*AD 200–280). There was also an S-profile bowl of Monaghan type 4A2.7 in very fine BB2 fabric with burnished zig-zag on the shoulder; exterior rim diameter 200mm; *c.*AD 170/190–230 (Fig 8.11), as well as a Class 1B flagon of Frere type 1938 (Frere 1984) in Verulamium Coarse White-slipped ware; exterior rim diameter 50mm; *c.*AD 180–210 (Fig 8.12). A complete absence of Alice Holt/Farnham greyware sherds suggests a *terminus ante quem* of AD 270 for the deposition of this assemblage.

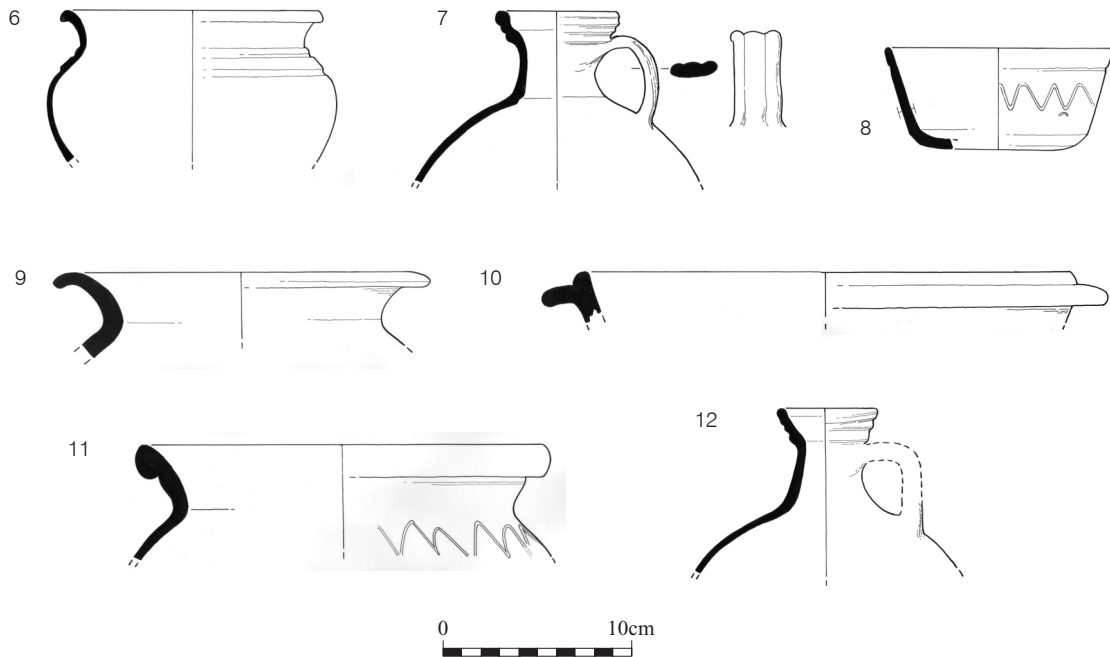


Fig 8. Roman pottery, Nos 6–12

Late 3rd to 4th century (c.AD 270–370)

The southern parallel enclosure ditches were probably cut shortly after AD 270 and remained open until c.AD 350.

Assemblage 5, from the fill of the external ditch, yielded the largest pottery assemblage from the site (637 sherds; 11,116g). This was quantified by Estimated Vessel Equivalents (EVEs) based on rim sherds (Table 2).

Alice Holt/Farnham wares make up nearly 70% of this assemblage and most of the coarse kitchen wares; Oxfordshire White, Parchment, Whiteslipped, and Red Colour-coated wares make up a further 10% of the pottery and nearly all of the mortaria and finewares. BB1 cooking pots, bowls, and dishes of late 3rd- to early 4th-century date constitute a significant minority of the sherds and there are fragments of a cooking pot and storage vessels in Harrold Shell-tempered ware from Bedfordshire. An absence of sherds from rilled jars and other forms in Overwey/Portchester D sandy buff ware and from convex-sided dishes in Alice Holt/Farnham ware suggests that the assemblage had ceased to accumulate by AD 350/370.

The form breakdown was compared with

those of broadly contemporary assemblages from Dowgate Hill (Symonds & Tomber 1994) and Bush Lane inside the City of London, and Brentford and Fulham Palace to the west of the City (Lyne 1994) (Table 3).

This comparison brings out the rural character of the assemblage from Hyde Park despite its proximity to the city. The three extramural sites, including Hyde Park, differ markedly from those inside the walls of Roman London in having much higher percentages of cooking pots and storage jars, other jars, and flagons, and correspondingly lower percentages of bowls and mortaria. It is probable that beaded-and-flanged bowls were used for casserole cooking and that their poor showing on the rural sites was due to simpler rural culinary practices: the high storage jar percentages may also reflect simpler methods of storage of dry goods than those employed by the inhabitants of the city.

The assemblage includes fragments of Alice Holt jar forms 3B.10 (Lyne & Jefferies 1979; c.AD 270–400), 3C.2 (c.AD 220–330), 4.38 (c.AD 200–300), bowl forms 5B.4 (c.AD 270–330), 5B.6 and 5B.8 (c.AD 270–400), dish forms 6A.4 (c.AD 270–370) and 6C.1 (c.AD 330–400), and storage vessel forms 1A.15 (c.AD 270–350), 4.44 (c.AD 270–350)

Table 2

Fabric	Jars EVE	Bowls EVE	Dishes EVE	Beakers EVE	Storage jars EVE	Others EVE	Total EVE	%
AHFA	5.19	0.65	0.52		1.28	0.50	8.14	68.5
BAET								
DORBB1	0.47	0.79	0.57				1.83	15.4
GROG	0.20		0.07				0.27	2.3
HARSH	0.06				0.09		0.15	1.3
LVCC								
MHADBS								
NKSH								
OXID								
OXMO						0.22	0.22	1.9
OXPA		0.02					0.02	0.2
OXRC		0.34	0.05	0.20		0.28	0.87	7.3
OXWS								
SAMLZ								
SAND	0.20			0.18			0.38	3.2
VRW								
MISC	6.12 (51.5%)	1.80 (15.2%)	1.21 (10.2%)	0.38 (3.2%)	1.37 (11.5%)	1.00 (8.4%)	11.88	

Table 3

Assemblage	Jars	Bowls	Dishes	Beakers	Storage jars	Flagons	Mortaria	Others
Dowgate Hill	26.3%	25.3%	10.7%	14.0%	0.7%		5.3%	17.7%
Bush Lane ER976	29.8%	34.2%	17.2%	7.4%	0.6%	0.5%	7.5%	2.8%
Hyde Park WTG02 159	51.5%	15.2%	10.2%	3.2%	11.5%	6.6%	1.9%	
Brentford Site 9 Z2	49.7%	11.3%	7.1%	11.1%	8.4%	9.5%	0.6%	2.7%
Fulham Palace Context 9	48.4%	18.8%	11.5%	1.6%	12.8%	5.6%	1.3%	

and 10.2 (c.AD 270–400). The BB1 includes developed beaded-and-flanged bowls of Lyne (1994) types 1.39 (c.AD 280–400) and 1.45 (c.AD 300–400) and dishes of types 1.55 (c.AD 220–370) and 1.59 (c.AD 325–370+). The finewares include Oxfordshire Red Colour-coat bowl and dish forms C51 (Young 1977; c.AD 240–400), C55 (c.AD 240–400), C59 (c.AD 310–360), and C75 (c.AD 325–400), as well as flagon form C13 (c.AD 350–400) and mortarium form C97 (c.AD 240–

400). Other Oxfordshire industry forms include a P24 bowl in OXPA fabric (c.AD 240–400) and whiteware mortaria forms M20 (c.AD 240–300) and M22 (c.AD 300–400). A straight-sided dish in handmade Late Roman grog-tempered ware fired black, probably a Hampshire product of Lyne (1994) type 6A.21 (c.AD 250–370) was present. An everted-rim jar in similar fabric but with white siltstone grog (exterior rim diameter 120mm; c.AD 250–400) was part of this group (Fig

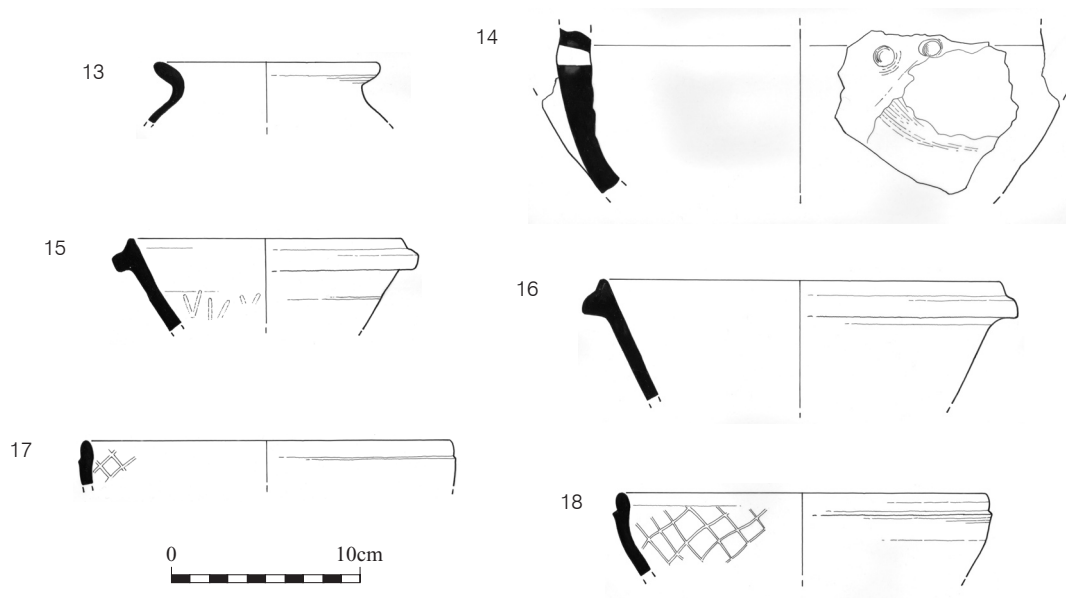


Fig 9. Roman pottery, Nos 13–18

9.13), as was a fragment of a large closed form in sandfree black fabric fired orange-brown, with circular section handle scar adjacent to two circular perforations (Fig 9.14).

Late 4th century

Assemblage 6, from the primary fill of the east–west ditch. The pottery from this context is slightly later in date than most of that in *Assemblage 5*. The 188 sherds (3,186g) constitute too small a group for quantification by EVEs but have a predominance of Alice Holt/Farnham wares by sherd count (60%), similar to that in *Assemblage 5*. Plain straight-sided dishes are, however, absent and are replaced by a variety of convex-sided and bead-rimmed straight-sided dishes (Lyne & Jefferies 1979, types 6A.10, 11 and 12). This, in itself, indicates a mid-4th-century or later assemblage; a continued absence of Overwey/Portchester D wares may be fortuitous. The presence of a developed beaded-and-flanged bowl of Lyne and Jefferies type 5B.10 in AHFA fabric with burnished internal latticing should also be noticed; exterior rim diameter 180mm; *c.*AD 350–400 (Fig 9.15). Another bowl, one of two examples of a type 5B.6, was in a similar fabric with applied internal white slip but had no decoration; exterior rim diameter 160mm; *c.*AD 270–400 (Fig 9.16). There was also

a convex-sided dish of type 6A.10 in a similar fabric with internal lattice decoration (*c.*AD 350–400; Fig 9.18), as well as another, undecorated, example in blackened AHFA fabric (exterior rim diameter 200mm, *c.*AD 330–400) and a girth fragment from an Alice Holt/Farnham jar of type 3B.14 with wavy combed band (*c.*AD 350–400; Fig 10.19). Other sherds include fragments from two jars in Harrold Shell-tempered ware, a type P24 bowl in Oxfordshire Parchment ware, a type C46 bowl in Oxfordshire Red Colour-coat ware, and finally a copy of a Dr.37 bowl in very-fine-sanded and polished red ware with wavy line combing on its exterior surface (exterior rim diameter 160mm; Fig 10.20). Similar vessels of unknown origin are widely but thinly distributed across Sussex, Surrey, and Kent; an example from the small town at Neatham in Hampshire was dated *c.*AD 250–350 (Millet 1986, 70, fig 49–11).

Building material

Susan Pringle

The excavations produced 97.32kg of ceramic building material, including 0.136kg of daub, and 8.238kg of stone building material. All was quantified by form and fabric, using a x10 hand lens. For the fabric type identifications the type

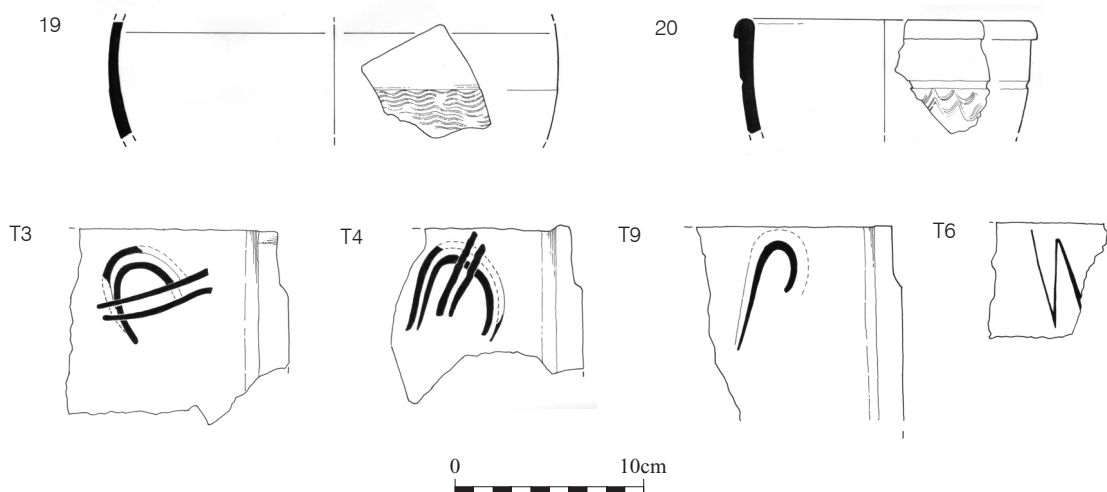


Fig 10. Roman pottery, Nos 19–20; tegulae in fabric 3263 with signature mark types 3, 4 and 6 and graffito on tegula in fabric 2459B

series collections held in the Museum of London and at Pre-Construct Archaeology were used.

The materials were almost all, 97% by weight, of Roman date. The remainder consisted of approximately equal quantities of medieval and post-medieval brick and tile.

The fabrics

The Roman tile fabrics present are predominantly the clean red fabrics of group 2815 (individual fabric types 2452, 2459A, and 3006), the most common types found in Roman London; these were produced at a number of kiln sites on Watling Street between London and St Albans, and probably also at the western limits of the city itself, as tile wasters in these fabrics have been found close to the site of pottery kilns lying to the west of St Paul's Cathedral (I Betts, *pers comm*). A later variant which has fine moulding sand, type 2459B, was perhaps made in north-east London or Essex. There is a single tile in fabric 2454, which has a colour range from pale pink to creamy yellow, and was probably made at kilns in the Maidstone area of north-west Kent. The tiles in fabric group 2815 are dated to AD 50–160, that in fabric 2454 to AD 50–80, and those in fabric 2459B to c.AD 120/140–250.

Of particular interest are a number of roofing tiles (both *tegulae* and *imbrices*) in a red fabric with prominent dark red and black iron-rich inclusions up to 3mm across. The clay matrix is

similar to fabric type 3006 in group 2815, but the large iron oxide inclusions are sufficiently distinctive to justify giving the fabric a separate identity: fabric 3263. The similarity of the clays suggests that the kiln producing these tiles was probably located close to London, but their occurrence in the later 3rd century indicates that it was in operation after the kilns at which the 2815 group tiles were made had ceased production.

Roofing tiles

The best-represented tile types on the site were *tegulae* and *imbrices*, which account for 86% and 4.5% respectively, by weight, of the identifiable tile assemblage. Much of the tile is abraded and is likely to represent either reused or residual material. Of particular interest, however, is the roof tile from the fills of the late 3rd- to 4th-century enclosure ditch, which consists mainly of large *tegula* fragments, some of which join to form complete tiles. These are in the unusual fabric, 3263, discussed above. Three complete and seven almost complete tiles have been identified. In length, they range from 393mm to 410mm (ten examples), in breadth from 315mm to 327mm at the top (five examples), and from 260mm to 305mm at the bottom end (seven examples). The body of the tiles is between 21mm and 31mm thick. The length of flange cut away at the top ends of the tiles ranges from

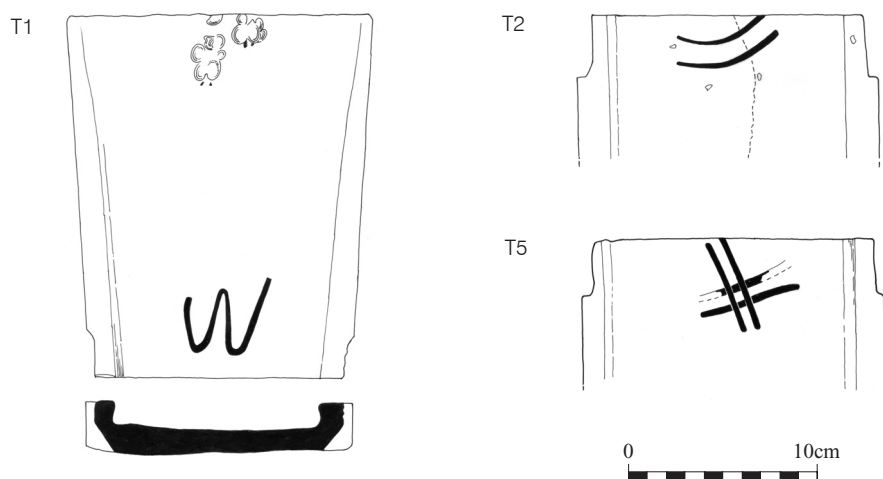


Fig 11. *Tegulae* in fabric 3263 with signature mark types 1, 2 and 5

57mm to 62mm and the lower end of the tile is cut back between 53mm and 60mm.

An unusual feature of the *tegulae* in fabric 3263 is the high proportion which have signature marks near the bottom of the tile. These marks, the purpose of which is not certain, were made with a blunt object or objects, probably fingers, while the clay was still wet. Six complete marks were identified, and several partial marks were also noted (Fig 10.T3, T4, T9; Fig 11.T1, T2, T5).

A fragmentary *tegula* in fabric 2459B from the ditch has part of a graffito inscription which is unfortunately not legible (Fig 10.T6).

Fragments of *imbrex* in fabric 3263 are also present, but not in the quantities which might be expected from a collapsed roof. However, they are most numerous in the context that produced the complete *tegulae*, so it is likely that they were used as roofing. There is no evidence to suggest that the *imbrices* were dispersed more widely across the site, so it is possible that they were retained for reuse, perhaps to repair another roof or for the construction of gutters or drains.

Bricks

Brick fragments account for approximately 9% of the ceramic tile assemblage by weight, although they are fewer in number than *tegulae* and *imbrices*. No complete bricks were recovered, but fragments range in thickness from 28mm to 47mm, with a median thickness of 38mm, which

suggests that the assemblage consisted of the smaller brick types such as the square *pedales* or *bessales* and the rectangular *lydion* (Brodrigg 1987, 34–40). The square bricks were primarily intended for use in the construction of *pilae* in hypocaust systems, while the *lydion* was used to construct bonding courses to strengthen rubble and mortar walls, but the bricks were so frequently reused for other purposes that their presence in small quantities is not a reliable indication of the presence of such structures. All the bricks are in fabrics of the 2815 group.

Flue tiles

Four fragments of box-flue tile were present, all in fabrics of group 2815. Three are similar in style, with straight bands of combed keying. That from the fill of the late 3rd- to 4th-century enclosure ditch was keyed with an eight-toothed comb, <T7>. The other pieces of combed flue came from the fills of the early enclosure ditches, <T8>. The fourth flue tile fragment, found in the Roman plough soil, has relief-patterned keying in a plain chevron design which is too abraded to permit identification of the die type. None of these tiles is likely to be earlier in date than the 2nd century.

Tesserae

Two coarse red *tesserae*, both in fabrics of the 2815 group, came from 19th- and 20th-century

features. Both are at the smaller end of the size range for this type of *tessera*; one has attached mortar and a worn surface.

Daub and clay

Small quantities of daub (31 fragments, weighing 276g) were recorded. All the daub is abraded and none has any distinctive features apart from some variation in the inclusions. From the fills of pit [181], linear ditch [182], and enclosure ditches [166] and [173] came fine sandy daub with fine organics, some of which have darker brown iron spots or streaks; from ditch [166] came a fragment with flint inclusions. Ditch [206] contained fragments of very fine-grained clay or daub which is exceptionally light in weight; its use is not known.

Stone building material

The building stone from the site is predominantly Kentish ragstone rubble, quarried from near Maidstone in Kent. It occurs in the fills of the late 2nd- to early 3rd-century enclosure ditches, and is very decayed, probably due to having been buried in conditions wet enough to have dissolved much of the calcite in the stone.

Discussion

The fabric assemblage from the site contains two main groups of material of different dates. The earlier group is made up predominantly of the red fabrics of the 2815 group, with a single fragment of fabric 2454 from north-west Kent. These fabrics are typical of those produced in the 1st to mid-2nd centuries, and used in London for much longer. The fact that fabric 2459B seems to be well represented in the assemblage suggests that the first phase of building in the vicinity is dated to the mid to late 2nd century, and that earlier tiles were reused in the structure or structures. The components of this building are probably represented in the fills of the late 2nd- to early 3rd-century rectilinear enclosure ditches. The occurrence of flue tile is interesting, but in such small quantities it may not be indicative of the presence of a domestic hypocaust system. Its presence could also be accounted for by agricultural activities such as drying cereals or malting barley.

The later group of material, from the fills of the late 3rd- to 4th-century enclosure ditch,

is of greater interest, both because as almost certain primary destruction material, it provides evidence of a tile-roofed building close by, and for the information it gives on a tile type previously unrecorded from the London area. The dating of the pottery from this ditch to about AD 270 and into the 4th century suggests that this tile is likely to have been made for a building which was roofed in the second half of the 3rd century. However, three fragments occur in earlier features which have pottery dates of AD 150–220 and AD 200–270 respectively, suggesting that its first appearance on site may be in the earlier 3rd century. By the later 3rd century, tile was no longer being made at the old kiln sites which had served London since the mid-1st century, so the assemblage from Hyde Park may thus be an early example of a phenomenon first identified by Betts and Foot, whereby roofing tiles were being brought into the London area from more distant kiln sites in order to supply the demand for roofing materials in the city (Betts & Foot 1994).

Small finds

Carola Nooijen

A small bangle was recovered from the late 2nd/early 3rd-century enclosure ditch. It was made by twisting two copper-alloy wires around each other and its size suggests it could have been used by a child. As it was bent out of shape, the diameter of the bangle could not be measured. It was incomplete, with only three fragments remaining; one of these had been stretched, apparently when somebody or something had pulled it with some force. This may have been the cause of the breaking and subsequent discarding of the bangle.

Animal bone

Lisa Yeomans

Small quantities of bone derived from the fills of the late 2nd to early 3rd-century enclosure ditch, with the remainder of the material recovered from the late 3rd to early 4th-century enclosure ditch, and a cattle tooth from a pit of the same date. A single adult horse mandibular tooth was also recovered from the slightly later drainage ditch.

The site yielded a small quantity of bone, all of which was in very poor condition with extensive

surface erosion and weathering. The high proportion of dentition within the assemblage reflects the ability of enamel to withstand destruction by various taphonomic agents acting on the bone after deposition. The condition of the bone and its very limited quantity makes any attempt at interpretation of the animal bone futile.

Environmental evidence

Due to the nature of the deposits, comprising predominantly coarse fraction sandy material, the environmental potential of the site was low. It was therefore recommended by Nick Branch of ArchaeoScape (Royal Holloway, University of London) that sampling was limited to cut features containing more promising material. Despite this, no organic remains were recovered from the samples taken.

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