AN ASSESSMENT OF AN ARCHAEOLOGICAL EXCAVATION AT 52 - 56 LANT STREET, LONDON BOROUGH OF SOUTHWARK, LTU 03

Central National Grid Reference: TQ 3225 7970

Site Code: LTU 03

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1 ABSTRACT

1.1 This report details the results and working methods of an archaeological excavation undertaken by AOC Archaeology Group on land at 52 – 56 Lant Street, London Borough of Southwark, between November and December 2004. The site is centred at National Grid Reference TQ 3225 7970. The archaeological work was commissioned by Duncan Hawkins of CgMs Consulting Ltd on behalf Acorn Homes and Forge Architects.

1.2 The excavation comprised an area measuring 60m x 25m.

1.3 The excavation revealed the presence of Roman linear features and pits dating to the 1st century AD, comprising a quarry pit, ditches, a cremation burial and a pit filled with disarticulated human bone. This was followed by 2nd century ditches, burials and a ritual well, and a 4th century cemetery with 84 inhumation burials. These were mostly supine, some on their sides and a few in prone position. The 4th century cemetery included a formal headless dog burial with grave goods, and some of the inhumations were on a chalk or lime substance. Grave goods included pottery and glassware as well as an ivory handled folding knife with key on a chain and the remains of a bone inlaid casket. Some medieval pitting and post-medieval soakaways were also present.

1.4 The Fieldwork was carried out by AOC Archaeology under the direction of Melissa Melikian.

2 INTRODUCTION

2.1 An archaeological excavation was undertaken by AOC Archaeology Group at 52 – 56 Lant Street, London Borough of Southwark. The excavation took place between November and December 2004 and revealed a Roman cemetery, medieval pits and post-medieval soak aways. The work was commissioned by Duncan Hawkins of CgMs Consulting Ltd on behalf of Acorn Homes and Forge Architects in advance of the proposed redevelopment of the site.

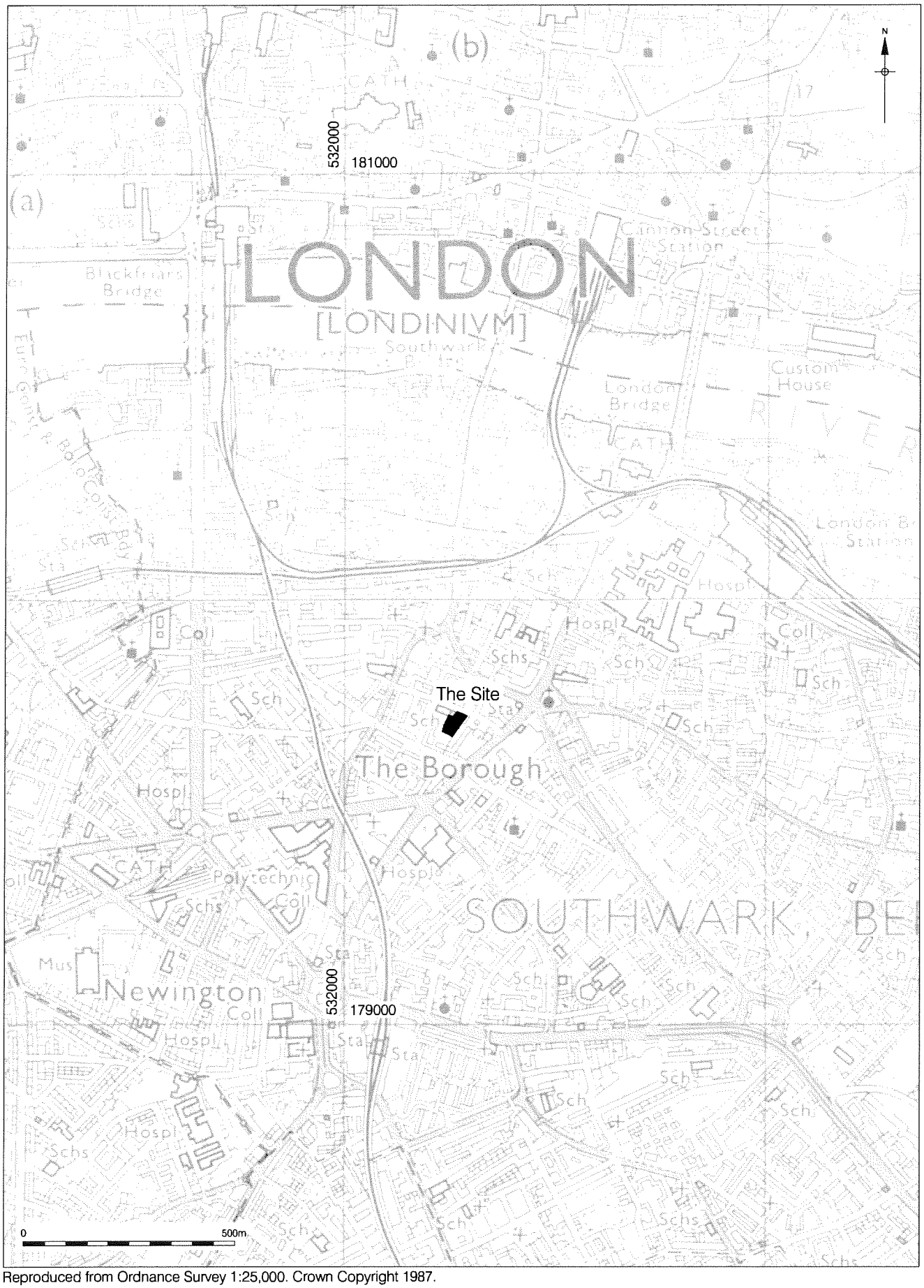
2.2 The site is situated at the eastern end of Lant Street (numbers 52, 54 and 56), which runs east – west from Borough High Street (Fig. 1). The site is bounded by Lant Street to the north, an electricity sub station to the east, a building described as "Works" to the south and Charles Dickens Primary School to the west. The National Grid Reference for the site is TQ 3225 7970 and ground level is at 4.83mOD.

2.3 The site lies in an Archaeological Priority Area as defined by the London Borough of Southwark.

2.4 The excavation comprised an open area trench measuring 60m x 25m (Fig. 2).

2.5 The site was inspected and monitored by Sarah Gibson (Southwark Council archaeological advisor for the London Borough of Southwark).

2.6 The completed archive comprising written, drawn and photographic records and artefactual material from the evaluation and excavation will be deposited with the Museum of London (LAARC) under the site code LTU 03.



Reproduced from Ordnance Survey 1:25,000. Crown Copyright 1987.

Figure 1
Site Location
1:12,500

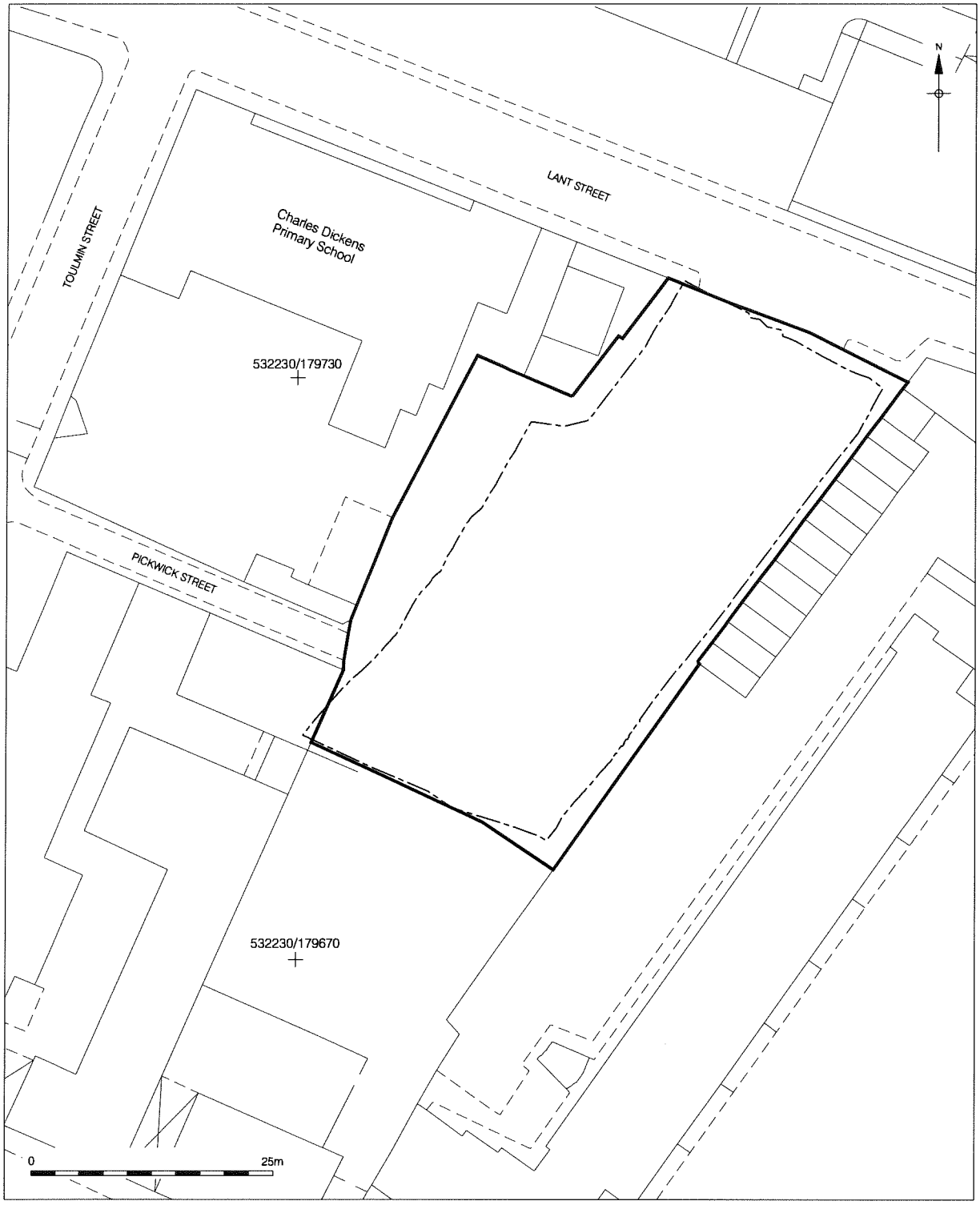


Figure 2
Trench Location
1:625

3 PLANNING BACKGROUND AND RESEARCH OBJECTIVES

3.1 Planning Policy Guidance Note 16

3.1.1 In November 1990 the Department of the Environment issued Planning Policy Guidance Note 16 (PPG16) 'Archaeology and Planning'. It provided guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.

3.1.2 The advice states 'the desirability of preserving an ancient monument and its setting is a material consideration in determining planning applications whether that monument is scheduled or unscheduled. Developers and local authorities should take into account archaeological considerations and deal with them from the beginning of the development control process' (paragraph 18).

3.1.3 It also states 'where nationally important archaeological remains, whether scheduled or not, are affected by proposed development there should be a presumption in favour of their physical preservation' (paragraph 8).

3.2 Archaeology in Southwark

3.2.1 The site is located within the Archaeological Priority Zone of Borough / Bermondsey / Riverside as defined in the London Borough of Southwark's Unitary Development Plan.

3.2.2 The Council's Archaeology Policy is as follows:

OBJECTIVE E.5: TO ENSURE THE PRESERVATION, PROTECTION, INVESTIGATION, RECORDING AND DISPLAY OF THE ARCHAEOLOGICAL HERITAGE

The archaeological heritage of the borough includes historic centres and ancient monuments, archaeological sites and areas of geology and topography especially attractive for early settlement and is of national and international significance. Many finds and sites in Southwark, particularly those from the Roman, Medieval and Elizabethan periods are very well known, and the Council will do all it can to assist in their preservation, protection and display for all to enjoy.

POLICY E.5.1: The Council will seek to conserve and protect the Borough's archaeological heritage and to enhance the knowledge of its historic development. The Policy will apply to sites of potential archaeological importance where ancient remains are threatened by development.

The Council will expect the applicant to provide information to enable an assessment of the impact of a proposed development on the potential archaeology of the site. This would usually be desk-based information and would be expected prior to the determination of a planning application

Where there is potential for important remains on a site, which may merit preservation *in situ*, then the results of an archaeological field evaluation will, if feasible, be required prior to the determination of a planning application

Where the evaluation reveals important remains their protection and preservation will be the primary objective. This can be achieved by re-designing the proposed development and by foundation modification.

Where important archaeological remains cannot be preserved, or where remains do not merit preservation, then the Council will use planning conditions to ensure excavation and recording of the remains prior to redevelopment i.e. preservation by record.

Archaeological investigations are to be undertaken by a recognised archaeological field unit to a written specification. These will need to be approved by the Council prior to the commencement of any work.

Reason: To protect Southwark's archaeological heritage, which includes remains of national importance. These remains are under constant threat from proposed developments and the Policy will ensure their protection through the planning process. The Council considers that the archaeology of the Borough is a community asset and that its preservation is a legitimate objective, against which the needs of development must be balanced and assessed.

Implementation: By application of the Council's statutory development control powers and by planning and other legal agreements. This policy applies to all sites within the defined Archaeological Priority Zones and, in addition, the Council will apply this policy as appropriate to sites of potential archaeological importance outside the zones. The Department of the Environment has also issued comprehensive guidance (Planning Policy Guidance 16, 'Archaeology and Planning' November 1990). See also POLICY B.3.3: Community Benefit.

The Proposals Map and Schedule identify Archaeological Priority Zones at:

Borough/Bermondsey/Rotherhithe (proposal 1)

Old Kent Road (Proposal 72)
Elephant and Castle/Kennington Park Road (Proposal 85)
Walworth (Proposal 90)
Camberwell (Proposal 144)
Peckham (Proposal 160)
Dulwich Village (Proposal 205)

3.3 A Planning application has been made for permission to develop the land for residential accommodation.

3.4 The development includes a basement car park occupying the majority of the site, with access ramps in the northeast and southwest corners. The car park will therefore impact upon the potential archaeological resource. In accordance with PPG 16 and conditions imposed by the planning authority, a program of archaeological works was implemented.

3.5 Sarah Gibson, Senior Archaeological Planning Officer for the London Borough of Southwark inspected and monitored the archaeological works.

3.6 There were no Scheduled Ancient Monuments within the footprint of the development.

4 GEOLOGY AND TOPOGRAPHY

4.1 The site lies in the Thames Basin, to the south of the southern edge of the Thames Valley floodplain. The underlying geology of the area comprises Palaeocene London Clay, which is overlain by Pleistocene sands and gravels. Holocene alluvial deposits cover the original landscape with sands, silts and clay, and include sand and gravel islands (eyots) interspersed with braided channels and areas of marshes and mudflats. The closest eyot, South Island, is situated approximately 250m to the north of the site.

4.2 Rises and falls in the water level resulted in long periods of innundation below the waters (marine transgressions), and shorter periods of emergence (marine regressions). Reed, saltmarsh and woodfen peats formed in the low-lying areas of the eyots. The detailed study of the marine transgressions and regressions during the last 10,000 years at Tilbury has identified five regression phases (Tilbury I-V)[1]. A number of sites in the Southwark area have revealed evidence of the Tilbury IV regression (suggesting that the peat formed around 1500-1000 BC), although this general model does not consider localised developments and is too simplistic to apply uncritically to the area[2].

4.3 The site is located approximately 250m to the south of South Island, the nearest eyot, and approximately 750m south of the River Thames. It lies on river terraces gravels, overlying Woolwich and Reading Beds.

4.4 The ground level of the site is 4.83mOD.

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[1] Devoy, 1979.

[2] Sidell, Cotton, Rayner and Wheeler 2002.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Prehistory

5.1.1 Artefactual evidence has shown that the gravel terraces and alluvial lowlands, with their proximity to reliable water sources, were an attractive prospect for a focus of activity during the prehistoric periods.

5.1.2 Finds recovered from sites in the Southwark area have included Palaeolithic artefacts but the majority date to the Mesolithic, Neolithic, and later prehistoric periods.

5.1.3 Within the study area of the site the earliest find encountered is a Neolithic arrowhead, recovered from Borough High Street.

5.1.4 A watching brief carried out at 6 - 8 Marshalsea Road recorded the presence of a late prehistoric channel and natural gravels, capped by sand sloping down to the northeast.

5.1.5 Residual Bronze Age lithics and pottery were recovered from Swan Street.

5.2 Roman

5.2.1 The early Roman period is represented largely by military activity in the area. Southwark provided the first suitable place to construct a harbour and bridge that could be reached from the major invasion points on the coast by road [3].

5.2.2 To the north-east of the site is the point at which two Roman roads converge. Stane Street ran into Southwark from Chichester to the south. The course that this road follows is that of the present Borough High Street. The site is currently situated just to the west of Borough High Street, however during the Roman period the distance would have been greater with the proposed route of Stane Street lying approximately 100m to the east. Evidence for the road has been found below buildings on Borough High Street and the buried road surface was found under Newington Causeway[4]. Watling Street provided the main route from Dover in the south-east and ran into Southwark along roughly the same

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[3] Sheldon & Schaaf 1984

[4] Weinreb & Hibbert 1983

route as that of Tabard Street. These two roads converged close to the present site of the church of St George the Martyr. Further to the north a third probable road joined, which may link the Southwark crossing point of the Thames to another further upstream between Lambeth and Westminster.

5.2.3 In order for the construction of these roads to be possible extensive drainage of marshes, bridging of eyots and embankment of river inlets and channels had to be undertaken.

5.2.4 A military supply base was established in the area c. AD 50 and by the end of the first century the settlement had become densely populated and covered an area of around 13 hectares.

5.2.5 The military origin of Southwark is illustrated by finds such as fittings from horses' and legionaries' armour found on domestic sites in Southwark Street and coins, the proportion of which of Claudian date, make them comparable with other early military sites such as Richborough and Hamworthy [5]. Stamped tiles of the Classis Britannica, a branch of the army responsible for collecting river tolls and suppressing piracy have also been found on a number of Southwark sites[6] and a marble inscription from Winchester Palace indicates the presence of legionary soldiers in the settlement in the early third century AD [7].

5.2.6 The southern boundary or boundaries of Roman Southwark are as yet undefined although the location of a number of cemeteries and a temple precinct in recent decades may delimit the settlement margin in this area.

5.2.7 Recent discoveries within the area include a 1st century road side ditch and building and a mid 2nd – late 3rd century cemetery on Watling Street [8], evidence of ritual activity and settlement at Swan Street[9], including a boundary ditch potentially associated with the southern boundary of the Roman settlement during AD 50/55-80, and a temple complex at Tabard Square.

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[5] MOL 1990

[6] Westman 1998

[7] Yule & Rankov 1998

[8] Mackinder 2000

[9] Beasley

5.2.8 Evidence of buildings has been found at Mint Street, where wall plaster, lamps, and two clay water pipes were found. A clay and timber building with a gravel yard was found at 218-224 Borough High Street and Roman foundations and buildings were found on sites along Borough High Street, and side streets running into it.

5.3 Saxon

5.3.1 There is no evidence for significant Saxon occupation in the vicinity of the site until the late 9th century. The Saxon centre of Lundenwic was established along the Strand away from the Roman settlement of Londinium.

5.3.2 The area appears to have been abandoned at the end of the Roman period and was known to the Saxons as WEALAWYRD and WALEORDE, 'the farm of the Britons'

5.3.3 The first religious building erected on the site of Southwark Cathedral is traditionally said to have been constructed in the 7th century.[10] Although the archival evidence to support this early date remains elusive, and the Cathedral's earliest surviving fabric dates from the early 12th century.

5.3.4 By the early 10th century the former Roman bridge had been replaced and the Burghal Hideage of c. AD 910 implied a defensive circuit around the bridgehead of 2225m. Southwark was also named for the first time as SUTHRINGA GEWEORCH, meaning 'the defensive works of the men of Surrey'.

5.3.5 By the end of the 10th century Southwark was known as SUDWERCA, 'the south works', in other words the southern outpost of London outside the cities own defences.

5.3.6 It is thought that Ethelred II had a mint in the Southwark area, indicated by numismatic evidence, although its location is unknown.

5.3.7 By 1086 Southwark was shown in the Domesday book to be a urban centre in its own right.

5.3.8 Discoveries relating to the Saxon period in the vicinity of the site have been restricted to stray finds around Union Street and Southwark Street further to the north.

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[10] Weinreb & Hibbert 1982

5.4 Medieval

5.4.1 Throughout the medieval period Southwark remained a small but thriving city suburb, bounded by the river to the north, Horselydown to the east, Bankside to the west and the church of St George the Martyr to the south.

5.4.2 The site at this time would have lain beyond the southern boundary of the suburb, but there is evidence that large houses and inns were established beyond the boundary in areas where dry land could be found within the marsh.

5.4.3 During this period the site would have probably been within the Diocese of Winchester, with Winchester Palace lying approximately 700m to the north.

5.4.4 Following the erection of the first St George's church in 1122 by the Abbot of Bermondsey elements of settlement were to be around this church, Kent Street and Blackman Street. Evidence of this comprises pits, ditches, and wells, some of which dating to the 13th – 14th centuries identified at 223 –237 Borough High Street, less than 200m to the east of the site. The only evidence of earlier medieval buildings was found in the form of a medieval post hole found at Swan Street and brick arches found during work at Suffolk Place 100m to the north.

5.5 Post-Medieval

5.5.1 By the Tudor period the older parts of Southwark had become built up

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5.5.2 It was during this period that Suffolk Palace was constructed by Charles Brandon, Duke of Suffolk, the brother-in-law of Henry VIII. Little is known about the palace but what is known is that it was built opposite to the church of St George, possibly situated very close to, if not on the site. The palace was converted into a mint by Henry VIII which was discontinued and demolished by 1557.[11]

5.5.3 Archaeological evidence of activity dating to this period has been found with pottery dating to the late 15th century and some later Tudor wares at 275-287 Borough High Street, and five late 17th century pits and a brick building at 240-246 Borough High Street.

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[11] Weinreb & Hibbert 1983

5.5.4 Rocque's map of 1746 shows that Lant Street was not in existence at this time and the site was occupied by gardens and an orchard.

5.5.5 Horwood's map of 1799 – 1819 illustrates that the site was undergoing development during this period. New Lant Street, the forerunner to Lant Street, and Old Lant Street having been laid out and the site is occupied by a number of buildings to the north, with an expanse of court yard to the rear.

5.5.6 By 1861 nearly 89,000 people lived in the Southwark parishes of St Saviour, Christ Church and St George the Martyr. Many of which were the urban poor in a time when poverty, overcrowding, inadequate sewerage and water supplies, caused widespread disease and were of high concern.

5.5.7 Major programmes of redevelopment were put into action during the 18th and 19th centuries and Southwark was the focus of much industrial development. The area was well suited to industry being close to both rail and shipping and the city. In addition the large numbers of poor within the population provided cheap labour.

5.5.8 Typical industries near the site included Iron Works, Pickfords Goods depot yard, Engineering Works and a lead works, all in operation by 1872. The site itself at this time would have been occupied by a number of buildings used for industrial purposes.

6 ARCHAEOLOGICAL METHODOLOGY

6.1 Due to the proposed development being basemented across the majority of the site the archaeological excavation covered the entire plot, measuring approximately 60m x 25m.

6.2 The excavation strategy was designed to establish the location, extent, date, character, condition, significance and quality of the surviving archaeological remains identified during the evaluation. This included Roman burials, a re-worked agricultural horizon, a Post-Roman ditch and planting trenches and foundations trenches for 18th and 19th century houses.

6.3 Following the Written Scheme of Investigation[12] the site was stripped of made ground down to the post-Roman horizon. The post-medieval plough soil was reduced by a mechanical excavator fitted with toothless bucket, under the direct supervision of an archaeologist, until the top of the alluvium was reached. The alluvium was then further reduced by machine until either burials or natural deposits were reached.

6.4 Excavation at this point was continued by hand, with 100% excavation of negative structural features, 50% excavation of all other contained features and a minimum of 10% of linear features. Finds rich deposits from contained features were 100% excavated to optimize finds recovery and bulk samples taken where appropriate.

6.5 The AOC osteoarchaeologist was present on site to advise on the recording and lifting of human remains

6.6 Samples of 30 litres were taken from datable primary fills of pits and ditches. Alluvial features were bulk and column sampled.

6.7 All features were recorded onto *pro-forma* context record sheets. Contexts were numbered sequentially and are shown in this report within square brackets. Plans and sections were drawn at a scale of 1:10 or 1:20 as appropriate. A general photographic survey of the site and working conditions was undertaken

6.8 A temporary benchmark was established on the site, with a value of 4.80m OD.

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[12] AOC Archaeology Group 2004

6.9 The excavation was carried out in accordance to the Written Scheme of Investigation prepared by AOC Archaeology Group[13] and followed guidelines issued by English Heritage and the IFA.

[13] AOC Archaeology Group 2004

7 THE ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural

7.1.1 The natural geology on the site varied from mid to light yellowish brown sand and silty sandy gravel, [445]/[492]/[266]. This was recorded at its highest level at 1.66m OD and at its lowest level at 1.36m OD. A complete collared flagon was recovered from the top of the natural within the NW corner of the site, [266]. The flagon is possibly Eccles ware, which along with Sugarloaf Court ware, is one of the earliest Romano-British wares to be supplied to the new settlement of Londinium and are indicative of a pre-Flavian and possibly a pre-Boudiccan fire date[14].

7.2 Phase 2: 1st Century Activity (Fig 3)

7.2.1 This phase represents the earliest human activity present, and includes ditches, one of which contained an important pottery assemblage, and an unusual burial feature.

7.2.2 The earliest feature within this phase was ditch or palaeochannel [458]; located in the centre of the site and orientated roughly NS. This ditch had been truncated by later features and, as seen, measured 9m long x 2.40m wide and was 0.50m deep:the top of the cut was at 1.68mOD. A 0.70m wide slot was excavated across the centre of the feature (S21), which revealed two fills. Soft, light greyish green silty clay formed the primary fill, [457], with occasional small sub-rounded and rounded pebbles and charcoal flecks. The deposition of this primary fill occurred in the mid – late 1st century, indicated by an assemblage of pottery with a date range of AD 50 to AD 70. Included with in the assemblage was a complete flagon top, a handled bowl and a late Iron Age to early Roman necked jar. The secondary fill, [456], consisted of loose, mid-orange yellow silty sand, moderate sub-rounded and sub-angular pebbles and very occasional charcoal fleck inclusions. A small assemblage of pottery was recovered from this fill which dated to AD 50 – 70.

7.2.3 This early ditch was truncated by two later linear features, [438]/[472] and [460], both also orientated roughly NS. The largest of these was ditch [438]/[472], which produced an important, large assemblage of 1st century pottery, including partial and reconstructable pots. None of the sherds are dated to later than AD 70. This ditch truncated the earlier

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[14] M. Lyne This report

ditch on its western limit and measured 13m NS x 2m EW x 0.70m in depth at 1.64mOD. Two slots, [438] and [472], were excavated across the ditch and exposed a series of sand, silty sand and silty sandy clay fills. A sample taken from the primary fill, [437], produced a small, waterlogged assemblage of predominantly elder seeds, with frequent small pieces of waterlogged wood, indicating that elder bushes lined the ditch. Some evidence for edge collapse suggests that this ditch was not backfilled immediately. Included within the pottery assemblage were Eccles ware mortarium, very early Verulamium Region Whiteware flagons, and a Sugar Loaf Court ware lid and necked bowl. 'Belgic' grog-tempered ware fragments are also present as were Alice Holt/Surrey ware fragments, sandy handmade vessels in ERSA fabric and an unusual tripod vessel and mortarium in North Kent Shell-tempered ware. Finewares include; pre-Farina South Aguish Samian and a Lyon ware beaker and cup fragments.

7.2.4 Ditch [460], truncating [458] to the east, was filled by a mid greyish brown silty sand, with orange mottling and moderate small sub-rounded and rounded pebbles, occasional charcoal flecks with a small dump of charcoal at the base of the fill. The ditch measured 5m NS x 1m EW x 0.27m in depth at 1.70mOD. Pottery from the fill is dated to AD 50 – 80 and included a complete Samian plate.

7.2.5 To the west of [438] a fragment of a linear feature, [391], was recorded running roughly NS, which measured 3.50 NS x 0.80m EW x 0.20m in depth. The top of the cut was identified at a highest level of 1.34mOD falling to 1.14mOD at its base. It was filled by a 0.10m of firm mid greyish brown, clayey silt and sand primary fill, [390], with occasional oyster shell inclusions. Overlying the primary fill was [389], a firm, light brownish grey, silty clay, 0.10m in thickness. Pottery and glass from this upper fill date to the late 1st to 2nd centuries.

7.2.6 A concreted light bluish green/greenish brown silty sand, [377], was found at 1.55mOD. This was overlain by a degraded green sand stone slab, [367], which measured 2.15m NW/SE x 0.65m NE/SW x 0.30m in thickness at 1.89mOD.

7.2.7 Towards the western limit of excavation a sub-rectangular cut, [324], contained the very badly degraded and disarticulated remains of at least two individuals. The cut was orientated NW/SE and measured 1.75m NW/SE x 1.05m NE/SW x 0.45m deep. The bones present included the skull of a young adult female, recorded at the western end of the cut at 1.72mOD, 2 adult right humeri, and 1 adult left humerus came from the eastern end of the cut at 1.64mOD. The cut was backfilled with two fills, the first was [326], a grey

and green clayey sand, 0.15m thick. This was overlain by [325], a mixed yellow and brownish grey clayey sand, 0.25m thick.

7.2.8 Recorded in section on the western side of the site was alluvial deposit [332], which measured approximately 10m long. This deposit, which probably accumulated in a natural depression, was greyish blue in colour and was composed of clayey sand with occasional oyster shell, pottery and disarticulated bone. Pottery retrieved from it gives a date range of AD 43 – 60+. A ring, in a form typical of earlier Roman box rings often found in burials, was also found within this context.

7.2.9 Linear feature [298] was recorded to the north of the above deposit and was orientated roughly NS. It had been truncated by a later feature and measured 3m NS x 2m EW. This feature was only excavated to a depth of 0.26m and therefore the full depth remains unknown. The fill, [297], was friable green and grey sandy clay with occasional bone, gravel, pot and cbm. Pottery from this context dates to AD 70- 120.

7.2.10 To the west of [298] was pit [300]. As a result of later truncations this was semi-circular in plan and measured 2.50m NS x 1.50m EW x 0.07m deep. The top of the cut was at 1.83mOD falling to 1.69mOD. The pit was filled with [299], friable dark greenish brown, sandy clay. Pot from this feature dates to AD 70 – 120.

7.3 Phase 3: Late 1st Century to 2nd Century AD

7.3.1 After the initial early Roman activity on the site there seems to have been a period of abandonment. Across the centre of the site, overlying the Phase 2 features was a 0.20m thick layer of light – mid greenish brown silty sand, [331], with occasional small stones and evidence for bioturbation. The layer was recorded at a 1.76mOD and covered an area measuring roughly 14.50m by 22m. The pottery from this layer dates to AD 50 – 120 and much of it is of similar character to that from the Phase 2 ditch [438]/[472].

7.3.2 To the north of the site, a soft, brown and orange sand, [53], with occasional gravels was found at 2.03mOD.

7.3.3 Across the south of the site a mottled orange and black silty sand, [32], was identified at 2.21mOD

7.4 Phase 4: Early 2nd Century Cremation (Fig 3)

7.4.1 Cutting the layer [331] on the very western extent of the site was a sub-circular cut, [296], with a deposit of cremated bone, [295], 0.30m in diameter and 0.12 m in depth, and with a highest level of 1.74mOD. The fill consisted of only a small quantity of well oxidised human bone, 22g. Unfortunately no ageing or sexing data could be obtained from the remains.

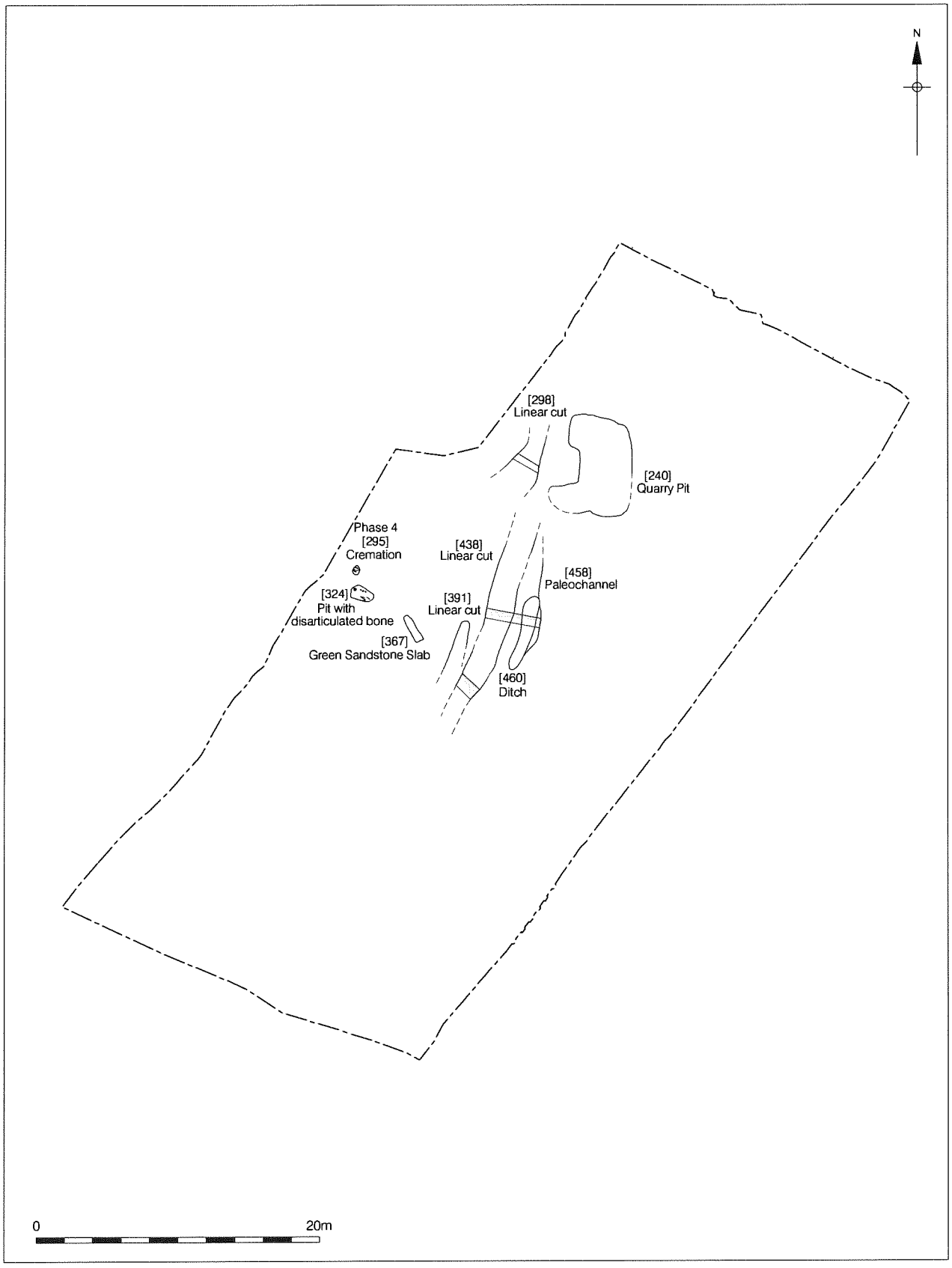

Figure 3
Phase 2
1st Century Features
1:400

7.5 Phase 5: 2nd Century Burials and Ditches (Figs 4 + 5)

7.5.1 Within the central area of the site a layer of soft dark yellowish brown sandy silt with black mottling, [280], sealed the Phase 4 cremation. The highest level this layer was recorded at was 2.50mOD. A number of small to large iron nails came from this layer, as was the heel of a Hipposandal with the stub of one side wing surviving. Pottery from this context dates to AD 50 –170+.

7.5.2 A number of ditches were cut during the 2nd century, subdividing the site into southern, central and northern areas.

7.5.3 At the northern end of the site ditch [77] was orientated roughly EW and formed the southern boundary of a group of burials to the north. The ditch measured between 1.15m and 0.83m NS, and 18.50m EW (continuing beyond both the east and west limits of excavation) and was 0.52m deep. Three slots, [64], [85] and [76], were excavated along the length of this ditch. Towards the eastern end, friable dark brownish grey silty sand, [65], 0.52m, in depth was recorded. The upper fill contained large quantities of disarticulated human bone, animal bone, pot and oyster shell. The disarticulated human remains included; a 12th thoracic vertebrae; the 3rd, 4th and 5th lumbar vertebrae and sacrum; 6 left ribs; 1 right rib; 15 rib fragments; a skull fragment and mandible of a young adult male? Individual; a right femur; a left tibia and a fibula shaft fragment. Pottery from this slot included sherds of a flagon, a latticed jar and a necked jar, the date range of which was AD 100-150.

7.5.4 Towards the centre of the ditch two fills were present. The primary one comprised greenish grey sandy silts, [84] and was 0.10m thick. The remains of an infant, [86], approximately 6 months old, were found within [84]. The secondary fill was dark brownish grey, silty sand, [83], and 0.42m thick. At the western end, the fills were orange and mid brown sands and gravels, [75], 0.40m in thickness. Pottery dating to AD 70 –140 was contained within this. The cut was recorded at a level of 2.03mOD falling to 1.52mOD at the base.

7.5.5 The remains of a small adult dog, [516], were also recovered from the top fill of this ditch.

7.5.6 To the north of the ditch 12 burials were revealed lying parallel to it (Fig 5). This group of burials included 4 females, 4 males, 1 undetermined and 3 juveniles. The details of these

burials are outlined in Table 1. Of note amongst this group were [104], [129], [230] and [254].

7.5.7 Burial [104] (Fig 5) was a multiple burial of a young adult male, [103], with a baby of around 9 months, [102] lying on his pelvic area and a juvenile aged around 4 – 5 years, [164], placed at the foot end of the cut. Three pottery vessels, dated to between AD 120 – 150, had been placed with the remains. One had been placed next to the right hand side of the adult's head and two on either side of the baby's head. The bodies were found within a rectangular cut, [104], with rounded corners, orientated EW and measuring 2.44mEW x 0.96m NS x 0.40m in depth. The top of cut was at 2.04mOD and the base at 1.55mOD.

7.5.8 Burials [129], a young adult male? and [154], a middle adult female, were both lying prone at 1.99mOD and 2.43mOD respectively. Neither of these had evidence for coffins.

7.5.9 Burial [230] was found lying in an unusually awkward position on her right hand side, with the body slightly flexed at the hips. The torso was lying diagonal to the line of the grave cut with the pelvis on the northern edge. The right arm was flexed under the torso and the left arm was also flexed. Both legs were extended, although the lower left leg had been displaced.

Table 1: Northern Burials

Burial	Skeleton	Fill	Sex	Age	Orientation	Head	Position	Grave goods	Coffin nails
52	51	50	?	YA	EW	W	Supine	N	N
59	58	57	F?	YA	EW	W	Supine	N	N
104	102	101		9 mths	EW	W	Supine	N	N
104	103	101	M	YA	EW	W	Supine	Y	N
104	164	101		4/5 yrs	EW	W	Supine	Y	N
126	125	124		7-12 yrs	EW	W	Supine	N	N
129	128	127	M?	YA	EW	W	Prone	N	N
230	187	229	F?	MA	EW	W	R side	N	N
254	253	252	F	MA	EW	W	Prone	N	N
260	259	258	M	YA	NE/SW	NE	Supine	N	N

265	264	263	M?	YA	EW	W	Supine	N	N
274	273	272	F	MA	EW	W	Supine	N	N

7.5.10 A ritual well/shaft was located to the south of ditch [77] in an area notable for the lack of burials. The cut, [503], was circular in plan and measured 2.60m NS x 1.50m EW x 0.90m in depth with the top of the cut at a level of 1.31mOD and the base at 0.58mOD. The well was lined with light grey sandstone blocks that had been roughly shaped, with some occasional tile and burnt sandstone included within the construction. The sandstone blocks ranged in size from 85mm x 60mm x 30mm to 160mm x 160mm x 50mm, and had been laid in irregular courses around the edge of the cut. With the stone lining the inside diameter of the well was 1.60m. The base was wood lined, [501], with staves measuring 220mm x 140mm x 15mm. This wood lining was preserved on some areas of the sides, up to a maximum of 250mm above the base. The primary fill, [500], was loose dark brown, silty sand with frequent bone, moderate charcoal flecks, organic lenses and occasional pot. The fill was 0.93m in diameter and approximately 0.20m in thickness. The pot recovered included sherds from a single jar dated to AD 160-200. The relatively complete skeleton of an adult male dog, with a possible healing fracture to the left hind leg, was present in this primary fill, which, apart from a cat ulna and tarsometatarsus of a domestic fowl were the only faunal remains recovered. The secondary fill, [499], was a loose, mid brownish green slightly silty sand with moderate charcoal flecks and pot and occasional bone and oyster shell inclusions, 0.97m in diameter and 0.50m in depth. Pot retrieved from this fill dated to AD 130 – 200.

7.5.10 To the west of the ritual shaft was a sub-rectangular cut, [262], measuring 1.30m NS x 1.10m x 0.30m in depth and of unknown function. The top of the cut was recorded at 1.85mOD and the base at 1.52mOD. It was filled with [261], a friable dark greyish brown clayey sand with gravel, pot, bone and daub inclusions. The pot recovered dates to AD 43 –110.

7.5.11 To the south of the northern ditch and burials further ditches were cut. The most northerly of these were an intercutting gully, [221]/[223], and ditch, [217]/[219]/[277]. The relationship between these two features was ambiguous, but it appeared that the larger one had truncated the shallow gully

7.5.12 The shallow gully, [221]/[223], ran NW/SE and measured 18.50m NW/SE x 0.50m NE/SW x 0.10m in depth. The cut was recorded at a highest level of 2.14mOD and the lowest level at the base was 1.53mOD. It was filled with a soft mid to dark greyish brown sandy silt, [222]/[224], which produced no finds.

7.5.13 Truncating the gully to the south was a 24.50m segment of ditch [214], running NW/SE. This was 2.50m in width and 0.62m deep. The highest level was at 2.32mOD and the lowest was at 1.42mOD. Three slots, [217], [219], [277], were excavated along its length. These revealed a varying fill of dark greenish brown firm sandy clayey silt and silty sand ([218], [220] and [276]) with moderate sub-angular flints and occasional shell and charcoal inclusions. The pottery dated to the late 1st and early 2nd centuries.

7.5.14 The eastern most slot excavated through this ditch revealed that it had been re-cut. The re-cut, [215], measured approximately 1.50m NW/SE x 0.60m in depth and was filled with firm dark greenish brown slightly sandy clayey silt, [216]. The fill was almost indistinguishable from fill [219], and produced no finds.

7.5.15 Towards the south of the site two intercutting ditches (which may have started out as a palaeochannels) [209], were found, both running NW/SE. Two slots (S1 & 2) were excavated which revealed the earliest ditch, [152] / [210], measuring 1.80m in width to the east and narrowing to 050m to the west. The ditch was filled with silty clay and silty sand. This ditch was then cut by a larger ditch, {209]/[151], measuring 9.10m to the west and narrowing to 5.10m to the east. Organic peaty clays, redeposited sands and silty clays filled the ditch, with small assemblages of cereal grains recovered from samples taken from the lower fills. One of these [198], contained a large quantity of waterlogged seeds plants from waste ground habitats, these included blackberry, elder and nettles, often found around ditches.

7.5.16 A single stake hole ([173]) was piled into the northern edge of ditch [209]. It measured 0.06m in diameter and 0.29m deep. The stake hole was filled by dark grey silty sand, [172].

7.5.17 Immediately to the north of the stake hole was a pit [175], which was recorded measuring 0.68m in diameter x 0.44m in depth, with the top of the cut at 2.31mOD. This pit was filled with soft dark greyish brown sandy silt, [174]. Abraded pot sherds dating to the late 1st to 2nd centuries were recovered. Further a pale brown stone intaglio, (SF 36), is assigned to this feature, however it was found whilst trowelling the top of the fill and therefore it is possible it did not originate from this fill. The intaglio shows a lion mauling a stag and is possibly of 2nd century date.

7.5.18 Lying to the north of ditch [209]/[152] was a linear cut, [365], containing fragments of two adult skulls, [363] female? and [364] male?. They were found at the base of the cut and

skull [363] was covered by an organic deposit. The cut was orientated NW/SE and measured approximately 4m by 0.40m and was 0.14m deep. A rounded terminus was recorded at the south-east end but its north-western limit could not be defined. The top of the cut was recorded at 1.58mOD and the base at 1.44mOD. The feature was filled with friable mid greenish brown sandy silt, [362], with frequent sub-angular pebbles and very occasional charcoal fleck inclusions. Included among the finds were sherds of a tripod dish in North Kent Shell-tempered ware, dating to the mid to late 1st century.

7.5.19 Also within this central area were two pits. One very large sub-circular one, [468], measuring 1.85m in diameter at the top, narrowing to 0.89m at the base, and was 1.59m deep. The top of the cut was recorded at 1.51mOD falling to 0.08mOD. The pit was filled by a series of sandy silts. A very small quantity of pot and bone was retrieved from these, the pottery dating to the late 1st and 2nd centuries. This cut is thought to represent a quarry pit. To the SW of [468] was a smaller cut, [474]/[388], measuring 1.07m in diameter and 0.30m in depth. This pit was filled with loose mid greyish brown sandy silts, [473]/[387], with frequent small flints and very occasional bone and pot inclusions. The small pot assemblage dates to the 2nd century.

7.5.20 To the NE of the central area were possible elements of a fragmentary structure, represented by an L-shaped linear feature, [236], with a posthole, [237], in the corner. The linear feature measured 2m NS x 1.5m EW x 0.20m in depth and was 0.40m in width. The top of the cut was identified at 2.23mOD falling to 1.95mOD. The posthole measured 0.50m in diameter x 0.48m in depth. The top of the cut was recorded at 2.23mOD and the base at 1.75mOD. The relationship between these two features was uncertain as they were both filled with a similar firm, dark brown sandy silt, [235]. Pot from this fill dates to AD 60 – 120.

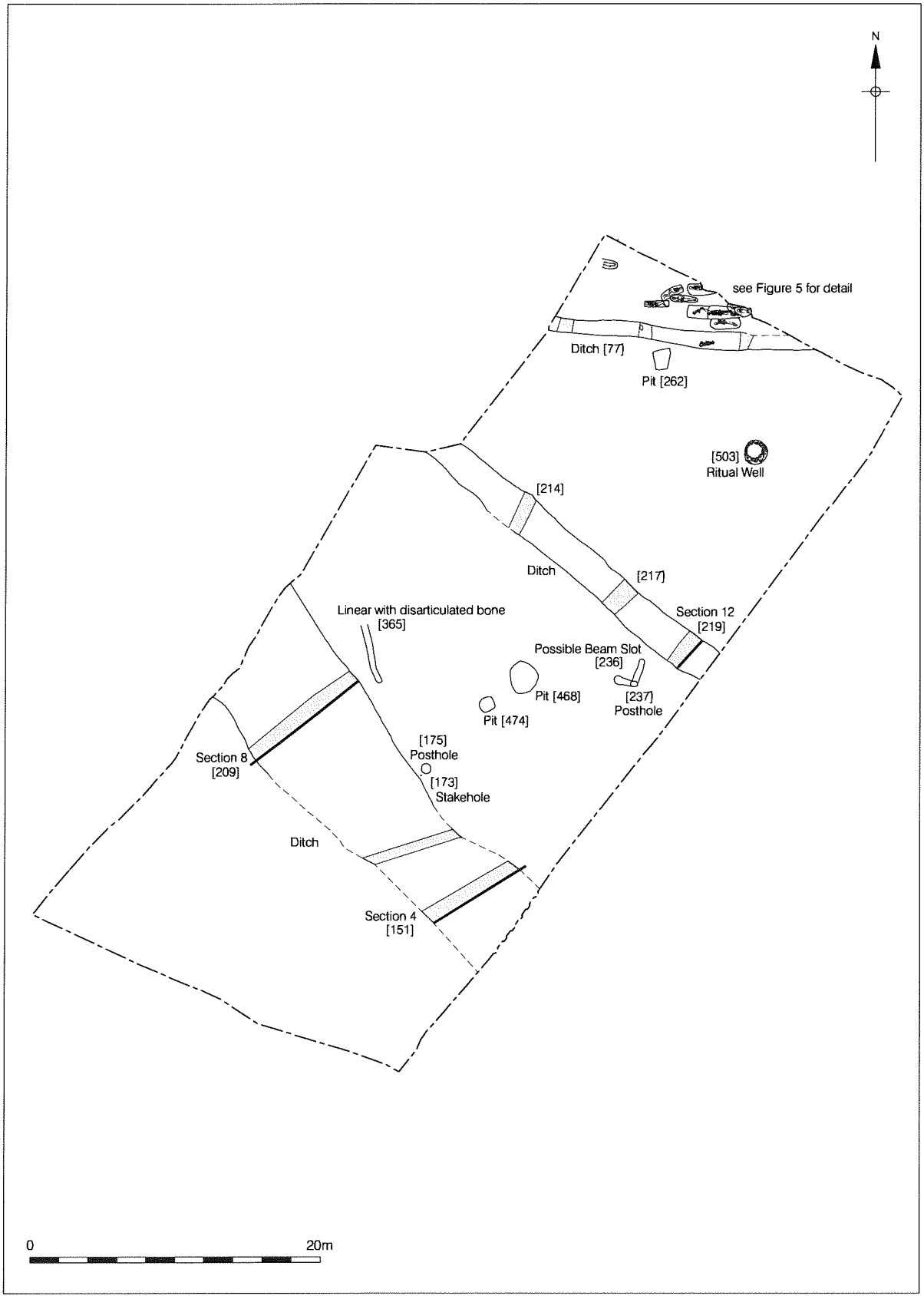

Figure 4
Phase 5
2nd Century Features
1:400

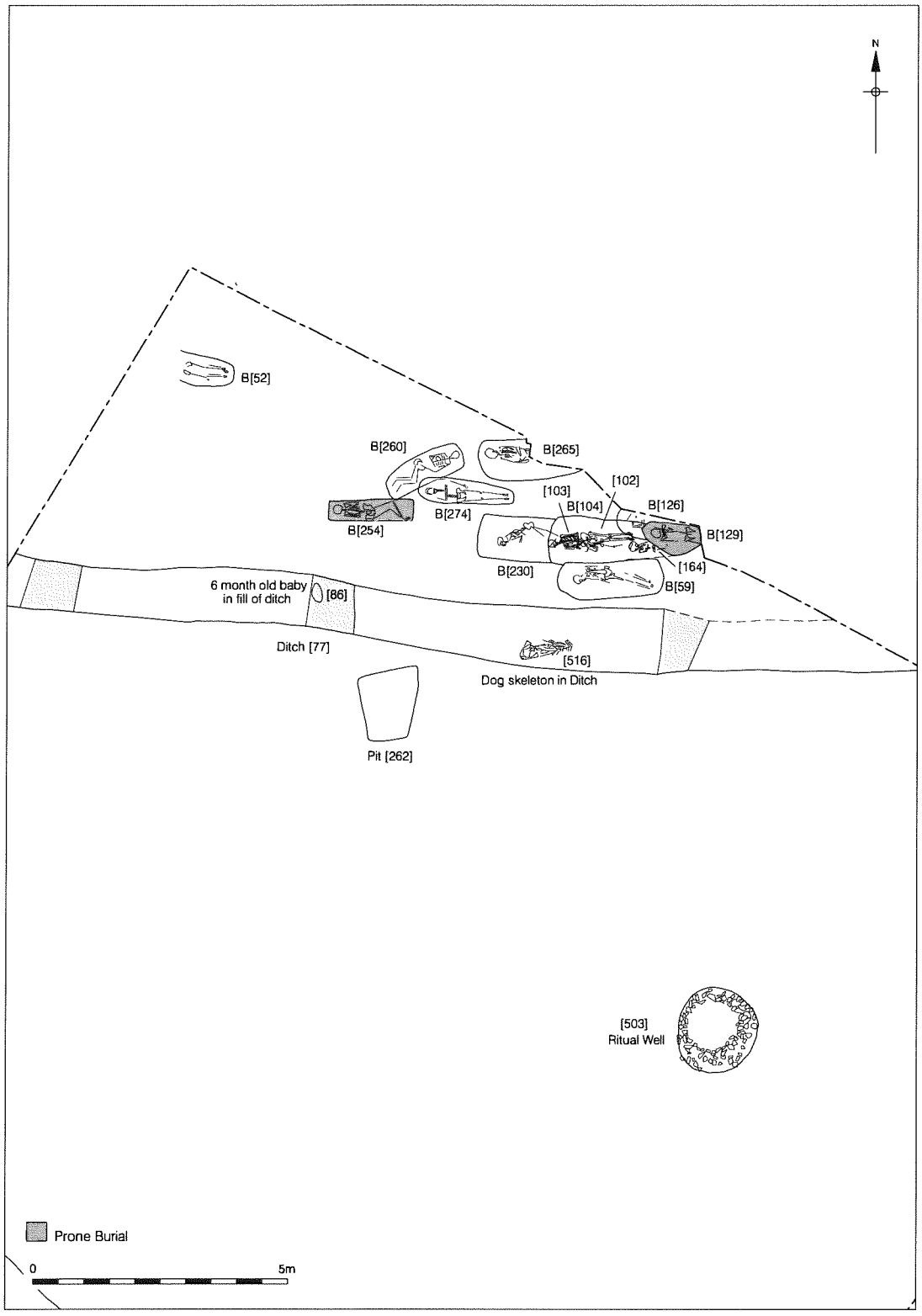

Figure 5
Phase 5
Detail of 2nd Century Burials
1:125

7.6 Phase 6: 4th Century Cemetery (Fig 6)

7.6.1 During the 4th century AD an inhumation cemetery was established. The majority of the burials were situated within the central area of the site (Fig 7), lying either parallel or perpendicular to the two 2nd century ditches, [209]/[152] and [214]. The relationship between the orientation of the burials and the two ditches suggests that the larger ditch/palaeochannel had been recut and was partially open at this time, as indicated by dating from the upper fills. Although no 4th century finds were found within the fills of [214] it is possible that an above ground feature existed that respected the alignment of the ditch. Three further ditches were present within the southern area of the site, bounding burials to the south (Fig 8) whilst an area to the north remained relatively devoid of burials with only a cremation, a neonate and a dog burial.

7.6.2 Within the area to the north a unurned cremation, [481], was found on the eastern margin of the site within an oval cut, [482], measuring 0.35m NS x 0.45m EW x 0.15 in thickness at 1.39mOD. The cremated bone weighed a total of 690g and was mostly greyish white in colour, indicating partial oxidisation of the bone. Surviving upper limb fragments indicated that this individual was an adult but no sexing data was retrieved. Sherds of a necked jar, possibly of continental origin, dating to AD 300 – 400 were found with the cremation.

7.6.3 Also buried within this area was a small adult female dog [122], lying on its' left side. She was found in a sub-oval cut, [123], measuring 0.60m NS x 0.40m EW x 0.18m in depth. The top of the cut lay at 2.02mOD and the base at 1.90mOD. A number of objects were revealed around the neck of the dog possibly representing a collar These included six copper alloy studs, seven plain copper alloy rings, fragments of a fine chain, a lunate pendant, and beads (SF's 27 – 34).

7.6.4 The only human inhumation within this area was of a neonate, [170] in a sub-circular grave cut, [171], measuring 0.41m NS x 0.47 EW x 0.10m in depth at1.83mOD. A complete jar was buried with this individual, dated to AD 40 – 80 but pot sherds from within the backfill date to AD 50 – 200. This burial had been truncated by pit [177], circular in plan and measuring 0.70m in diameter x 0.20m in depth. The cut was filled with friable dark greyish brown silty clayey sand [176], with pottery dating to AD 70 – 120 and grains of wheat / barley.

7.6.5 By this period the large Phase 5 NW/SE ditch [209] had silted up but was recut, [151]/[517], to the north. The ditch now measured 6.50m in width and 1m in depth.

7.6.6 The central area contained 50 inhumations (Fig 7) the details of which are outlined in Table 2. Within this group 16 were adult female/female?, 11 adult male/male?, 4 adolescents, 6 juveniles, 7 of indeterminate sex and 6 of unknown sex. 30 burials had evidence for coffins, 14 had grave goods and 8 contained a chalk like substance. The majority of the burials were orientated NW/SE, 38 were on this alignment, 10 were orientated NE/SW, 1 was orientated N/S and 1 was orientated EW. Although a number of the burials are intercutting, relatively organised rows can be identified for the burials orientated NW/SE and NE/SW.

Table 2: Central Burials

Burial	Skeleton	Fill	Sex	Age	Orientation	Head	Position	Grave goods	Coffin nails
158	157	156	F	YA	NW/SE	SE	Supine	N	N
183	182	181	?	?	NW/SE	SE	Supine	N	Y
184	186	185	?	?	NW/SE	NW	Supine	N	Y
213	212	211	?	?	NW/SE	NW	Supine	N	Y
243	242	241	I	YA	NW/SE	NW	Supine	N	N
244	246	245	F	YA	NE/SW	SW	Supine	Y	Y
257	256	255	?	?	NW/SE	NW	Supine?	N	Y
287	286	285			NW/SE	NW	Supine	N	Y
290	289	288	F	YA	NE/SW	SW	Supine	N	N
293	292	305-7 327 C 291	F	MA	NW/SE	NW	Supine	Y	Y
304	303	302	?	JUV	NS (possible EW)	N	Supine	Y	N
310	309	308	F	YA	E/W	E	?	N	Y
322	321	320	M	YA	NW/SE	NW	Supine	Y	Y
330	329	328	I	MA	NW/SE	NW	Supine	N	Y
335	334	366 C 333	F	YA	NW/SE	NW	Supine	Y	Y
338	337	336	?	JUV	NE/SW	SW	Supine	N	N
340	339	341	?	ADOL	NW/SE	NW	Supine	N	Y
344	343	342	F	MA	NE/SW	SW	Supine	N	Y

Burial	Skeleton	Fill	Sex	Age	Orientation	Head	Position	Grave goods	Coffin nails
347	346	345	F?	?	NE/SW	SW	Supine	N	Y
353	352	351	M	YA	NW/SE	NW	Supine	N	Y
356	355	354	F?	YA	NW/SE	NW	Supine	N	Y
370	369	368	?	ADOL	NW/SE	SE	Supine	Y	Y
373	372	371	F	A	NE/SW	SW	Supine	N	Y
376	375	374	?	JUV	NE/SW	SW	?	Y	Y
383	382	381	F?	YA	NW/SE	NW	Supine	N	Y
386	385	395 C 384	F	YA	NW/SE	NW	Supine	Y	Y
394	393	392	F	A	NW/SE	NW	Supine	N	Y
398	397	396	?	JUV	NW/SE	NW	Supine	N	N
401	400	399	?	JUV	NW/SE	NW	Supine	N	Y
404	403	402	I	YA	NE/SW	SW	Supine	N	Y
406	407	405	M	?	NW/SE	NW	Supine?	N	N
409	208	407 C 207	F	MA	NW/SE	NW	Supine	Y	Y
414	413	412	I	MA	NW/SE	NW	Supine	N	N
417	416	415	F	YA	NW/SE	NW	Supine	Y?	N
420	419	418	M	YA	NE/SW	SW	Supine	N	N
423	422	421	M	A	NW/SE	NW	Supine	N	N
429	428	427	M	YA	NW/SE	NW	Supine	N	N
432	431	430	?	ADOL	NW/SE	NW	Supine	N	N
436	434	435 C 433	F	YA	NW/SE	NW	Supine	Y	Y
441	440	C 439	M	YA	NW/SE	NW	Supine	N	N
449	448	446	I	MA	NE/SW	SW	Supine	Y	N
454	453	452 C	I	MA	NW/SE	NW	Supine	N	N
463	462	461	I	OA	NW/SE	NW	Supine	N	N
466	465	C 464	M?	MA	NW/SE	NW	Supine	N	N
480	479	478	?	?	NW/SE	NW	Supine	Y	Y
485	484	483	?	JUV	NW/SE	NW	Supine	N	N
488	487	486	?	ADOL	NW/SE	NW	Supine	N	Y

Burial	Skeleton	Fill	Sex	Age	Orientation	Head	Position	Grave goods	Coffin nails
491	490	489	M	YA	NW/SE	NW	Supine	N	Y
495	494	493	M	?	NW/SE	NW	Supine	Y	Y
498	497	496	M?	MA	NW/SE	NW	Supine	Y	N

7.6.6 The results of the human osteological, small find, glass and pottery analysis of the burials can be found in Appendices 2, 3, 4 and 5. A number of burials however require further comment.

7.6.7 Four burials appeared to be stacked. The earliest of these was Burial 409, a NW/SE orientated burial of a middle adult female. A chalk-like substance was recorded and was thought to show the extent of a coffin. Included within this burial was a complete Alice Holt/Farnham greyware bottle (SF 65), placed near the skull of the skeleton. This bottle was of a previously unknown type and had the same black slip decoration as the two vessels found in Burial 436. The bottle dates to AD 270 – 400 and possibly came from the same consignment as those found in Burial 436. Almost directly overlying Burial 409 was Burial 340, an adolescent also orientated NW/SE with evidence of a coffin. Truncating the above burials to the NE were two further burials, Burial 373 with Burial 290 overlying, both orientated NE/SW. Burial 373 contained an adult female and Burial 290 contained a young adult female. Both burials had evidence of coffins.

7.6.8 Burial 370, an adolescent aged between 14 and 17 years, was buried with a Alice Holt/Farnham flask, (SF 54), dated to AD 270 – 400, placed at the head end of the grave, and wearing a bead necklace, (SF 59), consisting of 84 hand made glass beads, the majority of which were blue, small globular beads or pale brown, small biconical beads. Coffin nails were also present.

7.6.9 Burial 436, a young adult female was lying on a bed of a soft white and greenish grey chalk-like substance, [435], with patches of silty sand and occasional oyster shell inclusions. This deposit was found to measure 1.22m NW/SE x 0.84m NE/SW and was approximately 0.03m in thickness. The buried woman had caries and ante-mortem tooth loss of all of her first and second molars, a possible fracture in her left elbow lead to a possible infection (osteomyelitis) and osteoarthritis in this joint. She also had degenerative joint disease within two of her thoracic vertebrae. Her estimated stature was 154.33m. The highest level of her skeleton was at 1.73mOD. A coin, (SF 72), was found to the left hand side of the body and seven large nails and a nail shaft were found forming the coffin outline. The burial also included 4 pottery vessels. Two Alice Holt/Farnham greyware

bottles, (SF 68 and 69), with black slip decoration of a previously unrecorded type, had been placed on either side of the woman's head, these have been dated to AD 270-400 and may have come from the same consignment as the vessel found in Burial 409. A dish dated to AD 270-370 and a bowl dated to AD 270-330, (SF 70 and 71) had been placed in the corners of the foot end of the grave.

7.6.10 Burial 449, a middle adult of indeterminate sex, was buried with a largely complete skeleton of a female domestic fowl (chicken) placed above the head. This grave was part of a group of intercutting burials, including 454, 449 and 322.

7.6.11 Burial 335, a young adult female was found lying on a chalk like substance with three ceramic vessels at her feet, (SF 50, 51& 52). These were a pentice beaker, dated to AD 250 – 350 and two white painted beakers dated to AD 250 – 370.

7.6.12 Burial 386, of a young adult female, was the richest within the cemetery. She was found lying supine and extended on a bed of a chalk like substance, [395], 0.10m in thickness and consisting of light whitish grey chalk and clay. Both her arms and hands were by her side and her head was to the NW. The skeleton exhibited a number of unusual pathologies. The left and right navicular and calcaneous have an unusual morphology. She also had a talon cusp (supernumery cusp) on the lingual aspect of her left central incisor, causing unusual wear patterns, possible hypoplasia and caries. The young woman had been buried with a number of grave goods. A glass vessel had been placed on either side of her head and a group of objects, including a box (SF 63) and folding knife with chain and key attached (SF 62), were found at her feet. The folding knife has an inlaid ivory handle in the form of a leopard. A similar knife is known from Wroxeter. The glass vessels consisted of a late 2nd or 3rd century *aryballos,* an oil flask, (SF 60), complete apart from the handles and an *amphorisk* (SF 61) of the same date, decorated with a self-coloured spiral trail. The latter may be part of a trick jug with parallels in the Rhineland. Located at the feet were the remains of a casket of which the copper alloy fittings and carved bone inlay survived. The inlay would almost certainly have been on the top and included a female bust, which would probably have been set under a gabled pediment, forming the centrepiece. Triangular and rectangular fragments and narrow strips, some decorated, would have probably formed a string course around the edge of the casket. This style of decoration is seen on many Roman tombstones in Britain. The casket would have been made as a funerary piece, but was unlikely to be custom made. A larger male bust carved on a bone plaque was found at Wroxeter and may be the only parallel for the figure from this burial. The folding knife mentioned above had an iron blade with an elaborate ivory handle carved into the form of a leopard, decorated with

dots over the body. The leopard has its paws outstretched, possibly gnawing on a piece of meat. A copper alloy chain made from figure of eight links has been threaded through the gap between the chin and forepaws. The knife is probably of continental origin. Also found with this group of objects was a copper alloy lever lock key. The key has a trilobate pierced handle with a moulded collar and a short stem.

7.6.13 Burial 417, a young adult female, was buried with a complete, though fragmentary 3rd century glass beaker (SF 66).

7.6.14 Underlying burials 184 and 244 was a rectangular feature [450], orientated NW/SE and measuring 1.10m NW/SE x 0.45m NE/SW x 0.19m in depth. The top of the cut was recorded at 2.09mOD and the base at 1.87mOD. The cut was filled by [451] friable mid yellowish brown sandy silts with frequent rounded and sub-angular stones. No finds were recovered. It is possible that this is an earlier burial that has been disturbed by later inhumations. The backfills of the graves overlying this feature contained a noticeable quantity of disarticulated juvenile bones

7.6.15 To the south of the large ditch [209] three additional ditches/gullies were cut. These were F 72, F 73 and F 74. The earliest of these was F 74 a NW/SE ditch measuring 25m NW/SE x 1.50m NE/SW x 0.49m in depth, cutting ditch [209] on the western extent of the site. The highest level the ditch was at 2.30mOD and the base at 1.81mOD. Four slots, [71], [100], [166] and [168], were excavated along its length. These revealed a mid greenish brown slightly clayey sandy silt and occasionally silty clay fill, [70], [99], [165] and [167]. Pot dated to the 2nd to 4th centuries was associated.

7.6.16 Cutting F 74 was F 73 a small NE/SW orientated ditch, measuring approximately 8.50m NE/SW x 0.46m NW/SE x 0.24m in depth. The top of the cut was recorded at 2.30mOD and the base at 1.97mOD. Two slots, [22] and [67], were excavated across it revealing a mid brown slightly clayey sand fill, [21] and [66]. Only three sherds of pot were recovered, dating to 1st to 3rd centuries.

7.6.17 The final ditch to be cut was F 72, orientated NW/SE and measuring 23m NW/SE x 2.35m NE/SW x 0.74m in depth. Three slots, [41], [69] and [98], were excavated along its length. Slots [69] and [98] revealed a single fill, [68]/[97], varying between silty clay and gravelly sandy silt. The third slot, [41], exposed three fills, [38], [39] and [40]. The primary fill, [40], comprised sandy gravels with secondary and tertiary fills becoming more sandy. Pot from tertiary fill, [38] and [97] dates to 4th century.

7.6.18 Three burials found within the area between the large ditch [209] and the later ditches to the south, comprised [17], [94] and [155] the details of which are included in Table 3. Burial [17] was found cutting into the top of ditch [209], suggesting that the dimensions of the original ditch had changed by this time. The hobnails from a pair of shoes were recovered from the fill, [15], of this burial. Burial 94, a infant aged 3 to 5 years, was buried with a piece of bead jewellery, (SF 20), placed by its right hip. Burial [155] was prone and was wearing an iron finger ring.

7.6.19 The remaining burials, all included in Table 3, were found to the south of the 4th century ditches. This group consisted of 3 adult females, 3 adult males, 1 adolescent, 4 juveniles, 3 indeterminate and 2 undetermined. The majority were orientated NW/SE (11), whilst 3 were orientated EW, 1 NE/SW and 1 NS. The burials within this area do not appear to adhere to rows as was found within the central area.

Table 3: Southern Burials

Burial	Skeleton	Fill	Sex	Age	Orientation	Head	Position	Grave goods	Coffin nails
5	4	3	?	ADOL	NW/SE	NW	Supine	Y	Y
8	7	6	?	?	NW/SE	NW	Supine	N	Y
11	10	9	I	YA	NW/SE	SE	Supine	N	N
14	13	12	F	YA	NW/SE	NW	Supine	Y	N
17	16	15	I	MA	NW/SE	NW	Supine	Y	Y
20	19	18	?	?	NE/SW	SW	Supine	N	N
23	25	24	?	MA	NW/SE	NW	Supine	N	Y
28	27	26	M?	YA	NS	N	Prone	Y	N
31	30	29	?	6 YRS	NW/SE	SE	Supine	N	N
44	43	42	?	?	EW	E	Supine	Y	Y
56	55	54	F	MA	EW	E	Prone	Y	N
62	60	31	?	JUV	NW/SE	NW	Supine	N	Y
82	81	80	F	YA	EW	W	Supine	Y	Y
89	91	90	?	4-5 YRS	NW/SE	NW	Supine	N	Y
94	93	92	?	3-5 YRS	NW/SE	NW	Supine	Y	N
134	133	132	I	YA	NW/SE	NW	Supine	N	Y
155	154	153	M?	YA	NW/SE	NW	Prone	Y	N
350	349	348	?	YA	NW/SE	NW	Supine	N	N
359	358	357	M	MA	NW/SE	NW	Supine	N	N

7.6.20 Burials 5 and 14 both contained a single gold earring, (SF's 1 & 8), which were almost identical with a plain hoop with tapering ends on the hoop. It is likely that both belong to Burial 14, a young adult female, as the earring found within this burial was found on the skull, whilst the one from Burial 5 was recovered from near the knee. Burial 14 also contained a pair of hobnail shoes (SF 5). One set of hobnails survived in a substantially complete state, an x-ray revealing a line of hobnails round the sole, with a broad rounded toe of a shoe approximating a modern size 4 or 5 (Major, this report); a further complete but broken beaker, (SF 6), dated to AD 300/350 – 400, had been placed near the pelvis . This vessel has a Chi Rho Labarum on its base.

7.6.21 To the south of these burials a very truncated feature, [79], was located. The cut appeared linear in plan and orientated NW/SE, measuring 1.43m NW/SE x 0.73m NE/SW x 0.18m in depth. The top of the cut was at 2.27mOD and the base at 2.05mOD. The cut was filled with loose light greyish brown silty sand. No finds came from its fill.

7.6.22 Environmental samples taken from the graves produced little archaeobotanical evidence. Most contained nettle seeds indicating that nettles prospered on the ground around the cemetery.

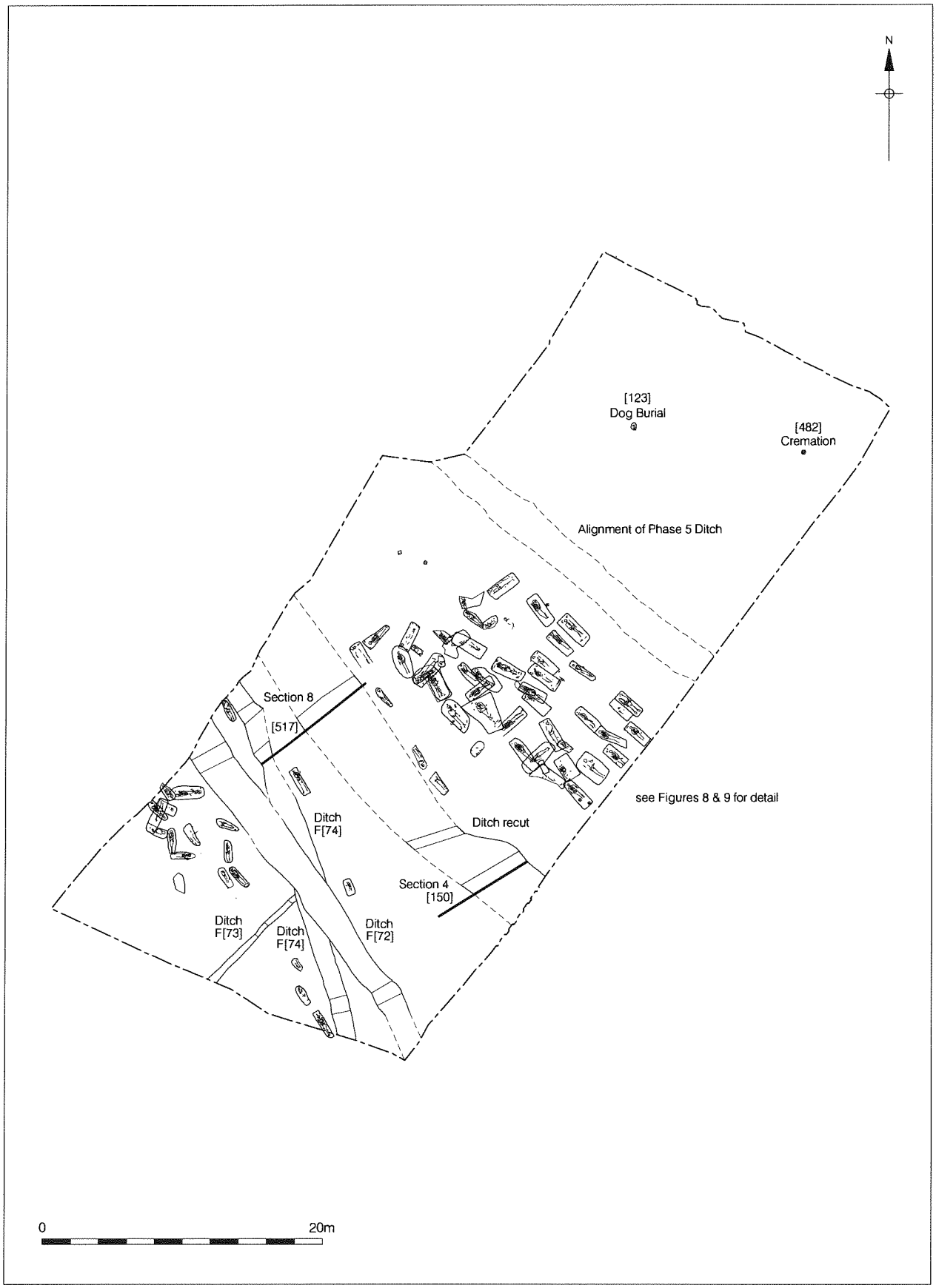

Figure 6
Phase 6
4th Century Features
1:400

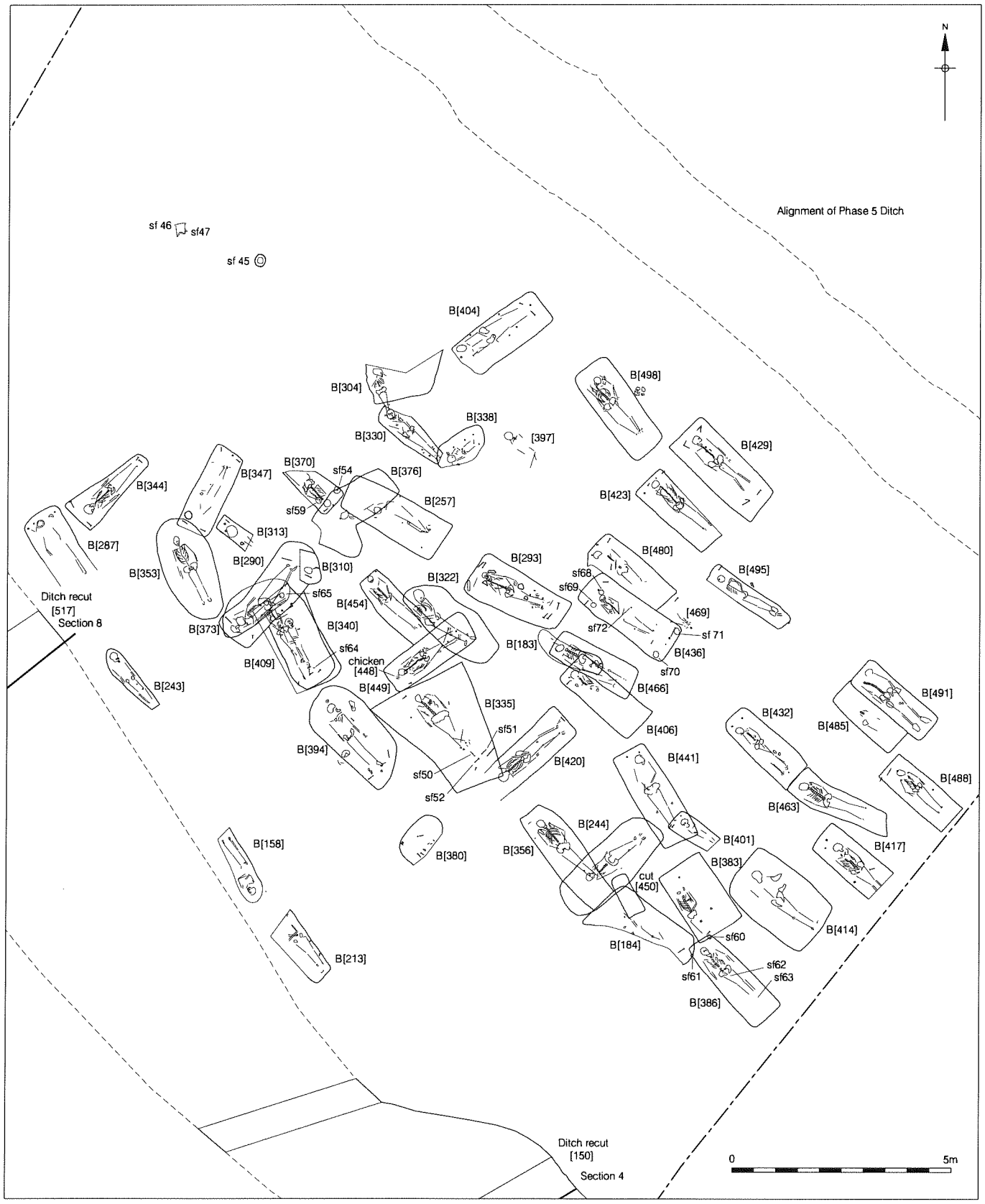

Figure 7
Phase 6
Detail of 4th Century Burials
1:125

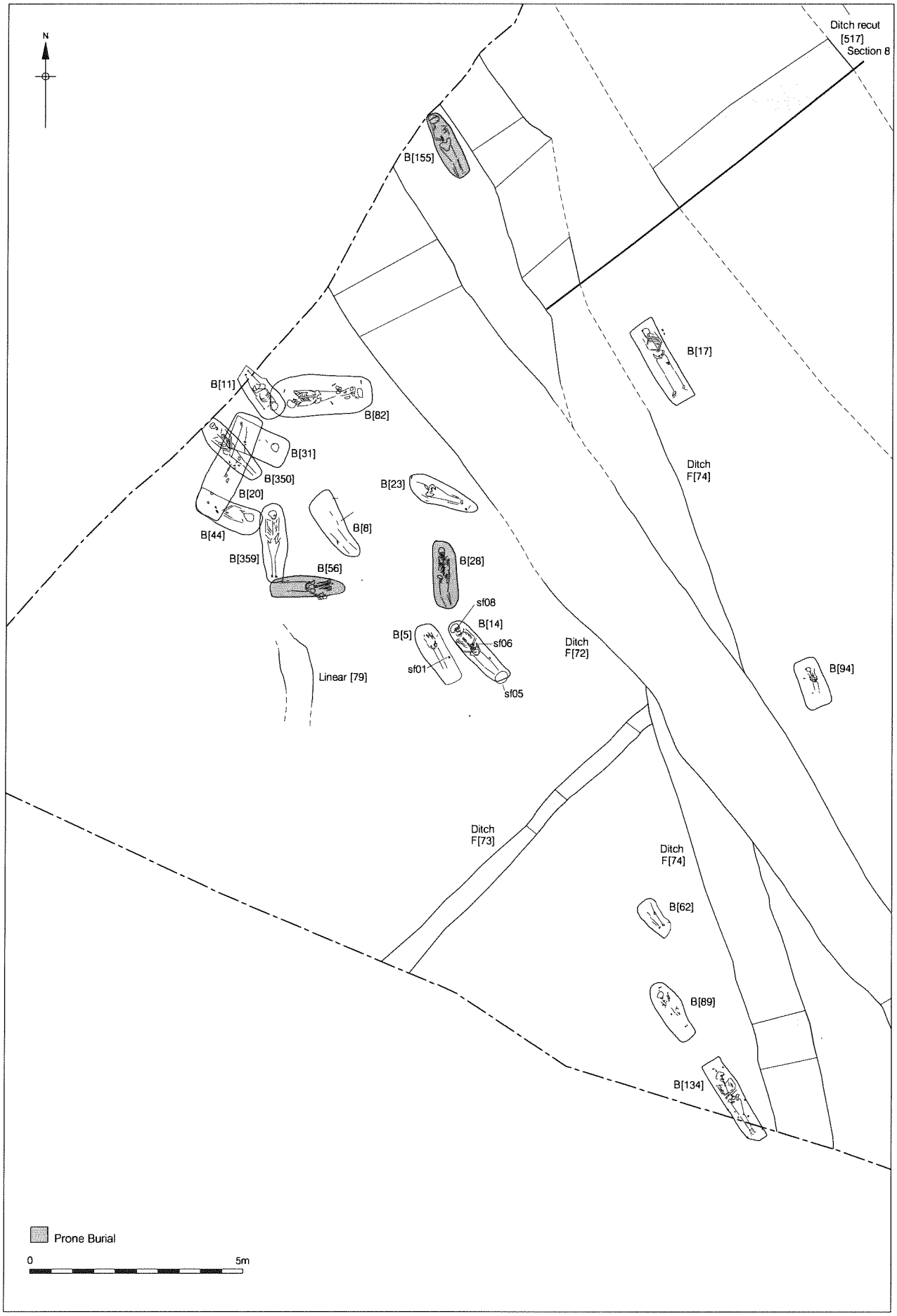

Figure 8
Phase 6
Detail of 4th Century Burials
1:125

7.7 Phase 7: Medieval (Fig 9)

7.7.1 A group of five intercutting pits, [106], [108], [110], [131] and [136], were identified truncating the 4th century ditch F 72 at the eastern end. A small assemblage of animal bone representing domestic refuse, with some horse and dog bones came from these features. The only pottery came from the fill of [131] and dated to AD 1250 – 1350. The largest of the pits, [106], measured 2m in diameter and it was 0.56m in depth.

7.7 Phase 8: Late Medieval / Early Post-Medieval (Fig 9)

7.8.1 To the north of the site a linear feature was present, orientated NW/SE and it measured 18.50m NW/SE x 0.50m NE/SW x 0.24m in depth. Three slots, [269], [270], [271], were excavated through the feature revealing a moderately compacted dark grey silty clay fill, [159]. The fill contained glass, brick and tile.

7.8.2 Three rubbish pits, [95], [116], and [315], were dug across the site. Pit [95] was found to the NE of the site and measured 0.90m in diameter x 0.18m in depth. The pit was filled with [96], a very compacted dark grey clay. Pit [116] was recorded to the SE of the site towards the centre. It was rectangular in plan with rounded ends and measured 1.77m NE/SW x 0.87m NW/SE x 0.10m in depth. The pit was filled by [115], dark brownish black sandy silt. Pit [315] was found on the western limit of the site, it was rectangular in plan and measured 1.42m EW x 1.74m NS x 0.26m in depth. The cut was filled with [314], a dark blackish brown sandy silt.

7.8.3 To the SW of the site a large posthole, [34], was identified measuring 0.55m in diameter x 0.41m in depth. The cut was filled with [37], the decayed remnants of the post and [33], compact greyish brown silty sand. Unfortunately no dating evidence came from the fill.

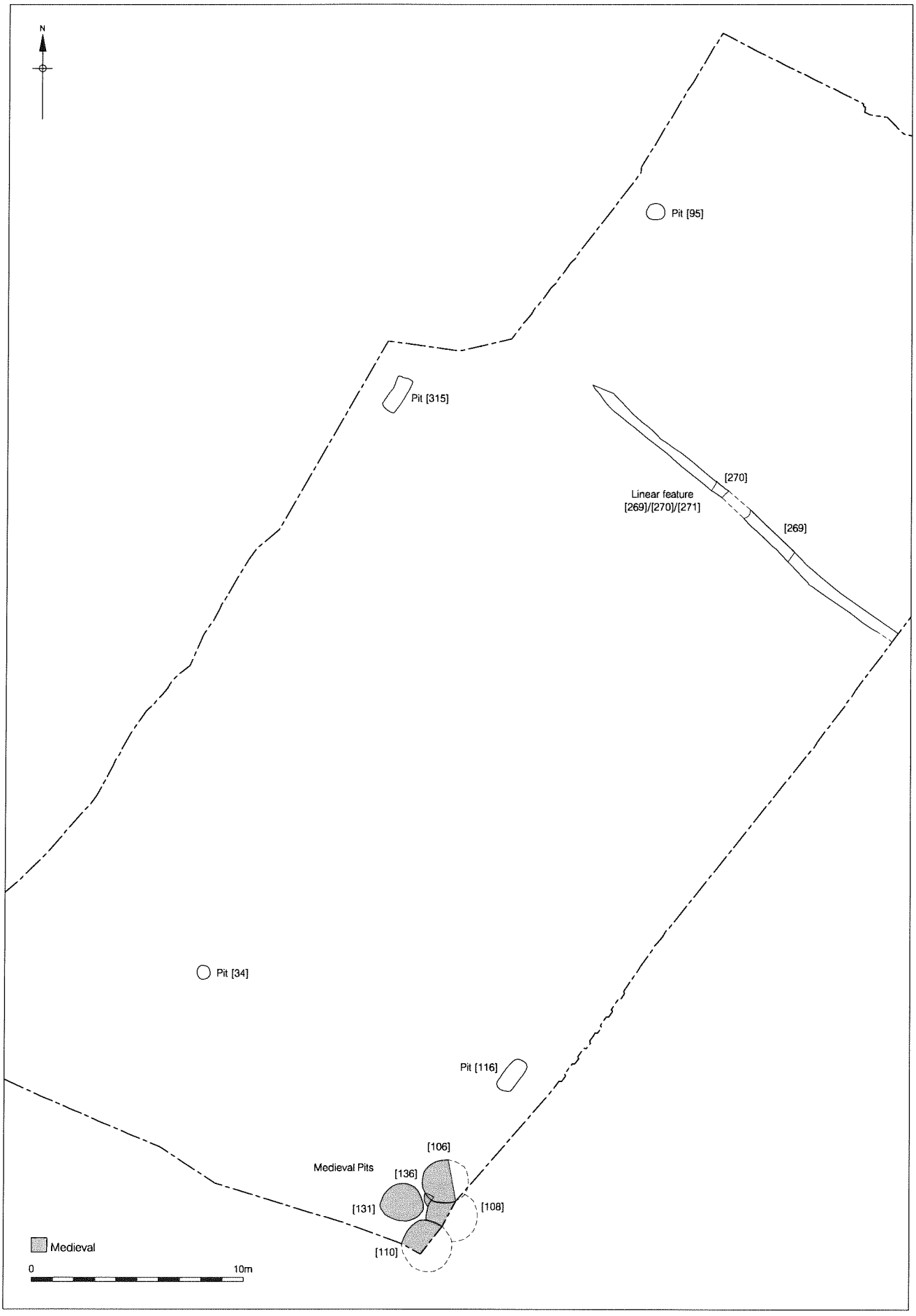

Figure 9
Phases 7 & 8
Medieval and Early Post-Medieval
1:250

7.9 Phase 9: Post-Medieval

7.9.1 Overlying the medieval features was a layer of mixed soil consisting of soft very dark brown clayey sand, [2]. The layer was present over the entire site and at its thickest at the northern end it measured 0.95m. The highest level the layer was at was 3.20mOD and at its lowest 2.96mOD. It contained residual Roman and early Saxon pot and two small finds, <24> a copper alloy rod with a blunted pointed end and a slot at the other, post-medieval in date, and <25>, a copper alloy lace tag, late medieval or post-medieval in date.

7.10 Phase 10 Late Post-Medieval (Fig 10)

7.10.1 Five brick lined soak-aways and a linear feature were cut through layer [2].

7.10.2 In the SW corner of the site a brick soakaway, [88], had an internal diameter of 1.32mn an external diameter of 1.55m and had 4 courses remaining (0.21m). The bricks used measured 220mm x 100mm x 80mm and were laid courses of stretchers bonded by yellow sandy mortar. The highest level was at 2.23mOD.

7.10.3 To the north of the site a brick lined soakaway [114] measured 1.50m in diameter.

7.10.4 Towards the middle of the site brick lined soakaways [163], [238] and [249] measured 1.40m, 2.18m and 1.39m in diameter respectively.

7.10.5 To the north linear feature [120] was found measuring 6.15m NE/SW x 0.83m NW/SE x 0.26m in depth, at 1.70mOD. The cut was filled with moderately compacted dark greyish brown silty clay [119].

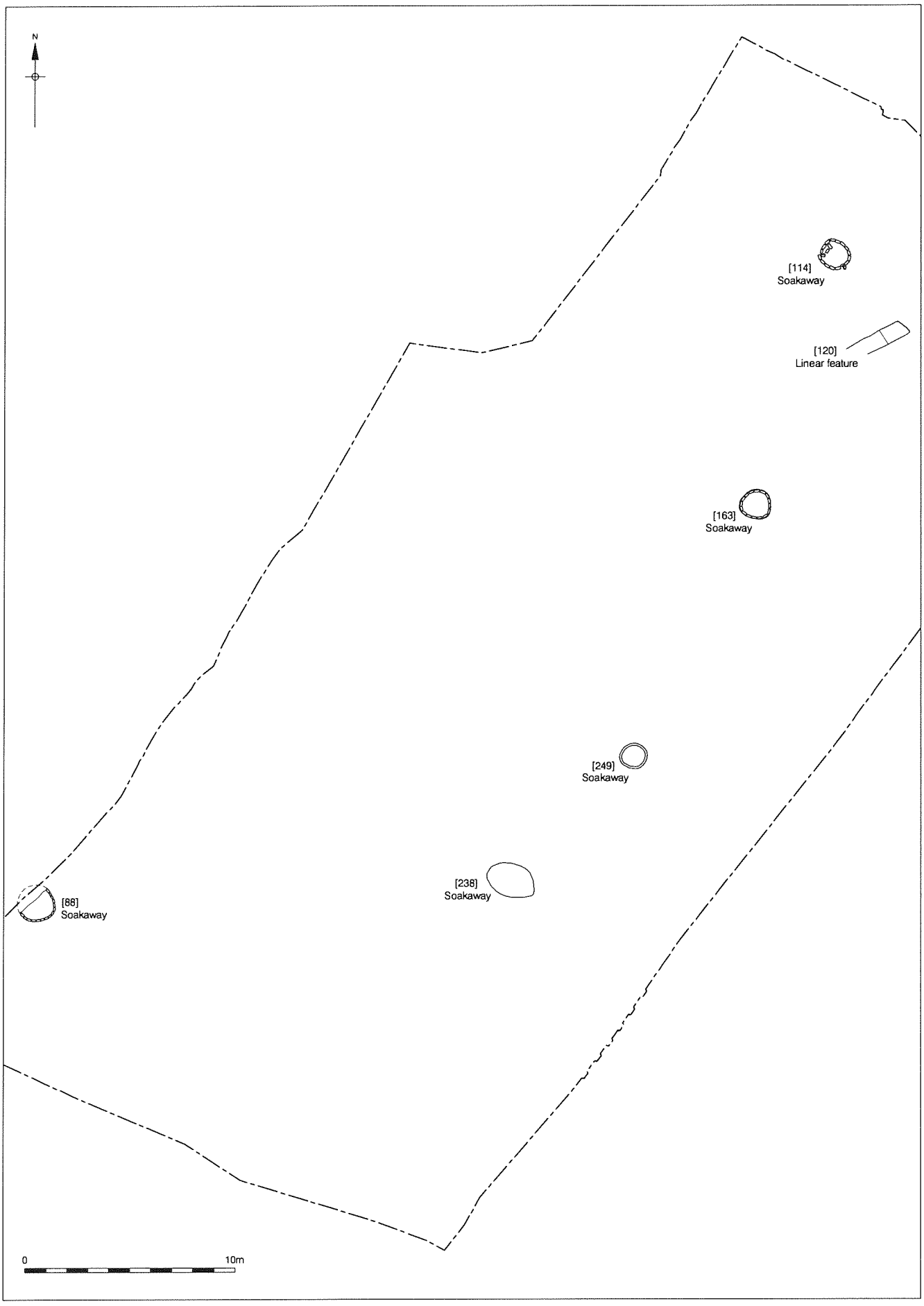

Figure 10
Phase 10
Late Post-Medieval
1:250

7.11 Phase 10: Modern

7.11.1 A large modern sub-rectangular intrusion, [282], was found towards the centre of the excavation, measuring 6.70m NE/SW x 2.30m NW/SE x 0.45m in depth. It was filled with [281].

7.11.2 A maximum of 1.20m of made ground [1] overlay the site. The highest level was at 4.14mOD and the lowest at 4.06mOD.

8 ORIGINAL AND ADDITIONAL RESEARCH OBJECTIVES.

8.1 The original objectives of the excavation, as set out in the method statement are listed below.

- **To determine the presence of any prehistoric artifacts or deposits that may reveal the prehistoric landscape of this part of Southwark.**

  A small number of residual late Iron Age pot sherds were recovered from the fills of 1st century AD linear features. No other prehistoric artifacts or deposits were found.

- **To determine the extent of the Roman inhumations on the site, the date of these burials and how the evidence adds to the knowledge of Roman burial practice in Southwark, in particular: spatial analysis**
  chronological development
  character and nature of burial rites

  The excavation revealed the presence of burials within three separate areas of the site, with each area bounded by ditches. The first ditches to be established were dug in the 2nd century AD with a group of burials to the north of the site possibly also dating from this period. The remaining burials date to the 4th century AD and respect the earlier ditch alignments; further ditches were dug during the 4th century. A number of burials were found to contain grave goods including pottery and glass vessels, a casket, personal items such as a folding knife, jewellery, hobnailed shoes and one included a chicken as a food offering. Evidence for coffins in form of nails and a chalk like substance were found in some of the burials. The majority of the burials were orientated NW/SE and were positioned supine and extended. In addition five had been buried prone and there was one example of a multiple burial. An area to the north, possibly specifically separated for ritual activities, was largely devoid of burials with the exception of a cremation, a neonate burial and a dog burial. A probable ritual shaft containing a dog skeleton was also found within this same area.

- **To determine the nature of other Roman activity on the site, if any.**

  A number of 1st century features were identified, including ditches and pits. The linear features were ephemeral and heavily truncated by later activity limiting their interpretation. These features all respect roughly the same orientation and one could be a

palaeochannel. A large quarry pit was identified, indicating the need for materials for roads and buildings. One of the pits contained disarticulated human bone possibly indicating a continuation of Iron Age practices for disposal of the dead.

- **To determine the topographic and environmental profile of the site, to further refine the predictive models for the area.**

The level of the natural sands and gravels was recorded at 1.66m OD falling to 1.36m OD. There is evidence for possible palaeochannels running across the site during both the 1st and 2nd centuries. Organic rich clay fills were identified within the base of some of the ditches and it is possible that these could have started off life as natural channels. The base of the 2nd century well (with a probable ritual function) was recorded at 0.58m OD possibly indicating the water level during this period.

- **To determine whether Roman archaeological deposits on the site include evidence for structures off Stane Street.**

An L-shaped feature with a posthole in the corner might represent the remains of a structure along with occasional isolated postholes, but the evidence is very tenuous.

- **To determine whether there is further evidence to locate the estate of the Duke of Suffolk, or post-medieval activity relating to land reclamation.**

No evidence was found to locate the Duke of Suffolk's estate.

8.2 ADDITIONAL & REVISED RESEARCH QUESTIONS

- **How does Lant Street relate to nearby sites such as Tabard Square, Swan Street and Great Dover Street**

A number of nearby sites have unearthed evidence for ritual activities; a temple complex at Tabard Square, ritual shafts at Swan Street and an inhumation cemetery at Great Dover Street. Further research into the chronological relationship between these sites and the ritual activities would assist in the creation of a more cohesive model of the area to be established. For example, do any of the linear features continuing beyond the eastern limit of the excavation relate directly to those found at Swan Street.

The features pertaining to the early Roman phase of the site should also be related to any early activity on the sites in the vicinity.

- **2 dog skeletons were recovered from the fills of a ditch and a well, a further one was found within its own grave buried with a decorated collar and chain an other registered finds. All 3 dogs were found within one sub-sector of the site. Is there a special significance to the spatial distribution of these dogs?**

  Dog burials are often found with human burials, however it is unusual to find grave goods, associated and comparable evidence of dogs being placed in ritual wells was recorded at Swan Street and is known from wells pits and ditches at numerous other sites. Further research, taking in results from other comparable formal Roman cemeteries, is required into these practices to investigate whether particular breeds of dogs are selected and whether the spatial distribution is likely to be linked to Roman, Romano-British or Celtic ritual practices.

- **The area to the north of the site is noticeable for its lack of burials and for the presence of the well, dog and neonate burials. Does the presence of these features indicate an area deliberately separated from the rest of the cemetery for distinct ritual purposes?**

  Comparison with other Roman formal cemeteries will be made to establish whether the distribution of these various features (wells, animal and infant burials) follows a common pattern.

- **Are any of the burials spatially grouped according to burial characteristics?**

  Analysis of the Lant Street data relating to grave goods, body position, orientation, evidence for coffins and chalk substance and osteological data relating to sex, age, health, and non-metric traits will demonstrate whether there is any spatial grouping.

- **How do the burial rites recorded at Lant Street compare with those found on other Roman cemeteries within London and from other formal Roman cemeteries in an urban Roman context elsewhere in England?**

  Comparison with other formal cemeteries will reveal whether the rites found at Lant Street follow similar patterns to those found elsewhere.

- **How does the demography of the cemetery compare with other Roman cemeteries within London?**

  Initial analysis of the population buried at Lant Street revealed a slightly higher proportion of women and children. Roman cemetery population statistics commonly appear at variance to expected population age and gender distributions.The Lant Street data will be compared with other London Roman cemeteries to see if there are difference otr similarities between these cemeteries and other similar ones identified in England.

- **The glass vessels found within Burial [386] show evidence of having been damaged prior to burial. Is there any evidence for vessels from other burials being deliberately damaged before burial?**

  Evidence for 'killed' pots was found within the ritual shafts at Swan Street (Beasley, forthcoming) and it is possible that the damage to the glass vessels from [386] might be also be deliberate. Further analysis of the vessels from Lant Street will reveal if there is further evidence for this.

- **Does the presence of the cemetery conform to the evidence for the line of Watling Street.**

  The location of the Lant Street cemetery appears to conform to a pattern observed for other Roman cemeteries on the margin of urbanised centres along the major routes leading into and out of the settlements. Close comparison with other Roman cemetery sites will be completed to establish whether the Lant St cemetery location conforms to the patterns observed elsewhere.

- **The multiple burial within the northern group contained the remains of an adult male and two children, one aged around 9 months and one aged 4 to 5 years. Does this burial represent a group of individuals that fell victim to the same disease or does this grouping have a ritual significance?**

  A burial of an adult individual with a young baby often represents a mother and child, however the absence of an adult female and the presence of the young male within this burial raises the question of why this group of individuals have been buried together. Comparison of this multiple burial with those from other Roman cemeteries will reveal

whether this is a practice recognized elsewhere, whether any of the individuals could represent sacrificial victims or whether it is an isolated example and the result of more localized factors, such as disease.

- **The grave goods from Burial [386] appear to be all of continental origin, does this indicate that the woman buried was of foreign origin?**

  Stable Isotope analysis of the skeletal remains would reveal whether the individual was brought up in Britain or abroad.

9 IMPORTANCE OF RESULTS AND PUBLICATION OUTLINE

9.1 The importance of the Lant St cemetery site on a local and regional level is demonstrated by the way it fits into regionally and nationally stated research objectives (note 9.2-9.5).

9.2 The Lant St cemetery will provide important comparative demographic information between Southwark and London's other cemeteries. Objectives include: 'Estimating population size, character and composition, changes over time, including evidence for settled and transient populations', 'Investigating the development of cemeteries around London over time, and their relationship between their location and major and minor roads', ', Identifying patterns of life expectancy, origins and belief, indicated by studying health, diet and disease, and preparing models for further research' (Nixon et al 2002, 37-38).

9.3 Burials and cemeteries are a rich source for identifying rituals and belief systems Objectives include: 'Giving consideration to the distribution and influence of religious sites in Greater London', Examining the role and diversity of religion in society and how it changed over time.

9.4 The information which can be gained on the development of the settlement boundary is of considerable importance and requires further investigation (Burnham, Collis, Dobinson, Haselgrove and Jones 2001, 73).

9.5 Research into the burial of parts of or whole animals in pits and ditches represents evidence for complex ritual and symbolic behaviour requiring significant further study (Dobney 2001, 42-43).

9.6 The archaeological investigations at 52 – 56 Lant Street, London Borough of Southwark, demonstrated the presence of Roman, medieval and post-medieval archaeological deposits. Roman activity was identified in the form of 1st century ditches and pits, 2nd century features and burials and a 4th century Roman cemetery. Previously the number of Roman burials within Southwark had numbered only 116 in comparison to the large cemeteries excavated to the north, east and west of the city. The Lant Street burials together with another excavation at America Street have brought this number up to 374. The discovery of the Lant Street cemetery will enable the picture of the population of this area, their beliefs and practices to be broadened and comparisons to be made between this site and other London and British formal Roman cemeteries within an urban context. Other excavations, such as Swan Street and Tabard Square, have identified evidence of ritual activities within the area, the presence of the cemetery at Lant Street and its related ritual features, such as a well and dog burials, provide further important comparative material and evidence for this area of Roman Southwark.

9.7 The human remains provide valuable information on the demography and health of the population. The osteological data will be analysed with reference to spatial distribution, alignment, burial rite and status, looking at the demographic profiles, pathologies and metric and non-metric data. This analysis will include comparisons between Lant Street and other London Roman cemeteries further afield.

9.8 The Roman pottery assemblage includes an important element of early Roman pot, three previously unrecorded types of Alice Holt/Farnham bottles, a number of complete vessels including a 4th century vessel with a Chi Rho on its base and uncommon tripod vessels in North Kent Shelly ware. The pottery from Phases 1 and 2 and from the Phase 4 and 6 burials will be included in the publication with illustrations. The pottery from the Phase 6 ditches pits will be described within the publication.

9.9 The pottery assemblage also includes a small number of Early Saxon sherds, which are of particular interest due to the lack of early Saxon activity within the area and will be published with illustrations.

9.10 The small finds assemblage provides important information on the burial rites of the population. Of particular interest are those from Burial [386], which include an ivory handled folding knife with chain and attached key, bone inlay from a casket. In addition there is the formal dog burial [122], which appears to have buried with a collar and chain and additional small finds. Also included within the assemblage is a large proportion of large nails which require comparison with other Roman cemeteries. The small finds will be discussed in the publication and will be included a catalogue of the finds.

9.11 The environmental samples provide evidence on the economy and diet of the population. Of particular interest are samples from a 1st century pit and a 2nd century ditch, both of which provided assemblages of charred and waterlogged seeds. The remaining samples from these features will be processed. The results of the environmental analysis will be included within the publication.

9.12 The animal bone assemblage provides information on both the domestic and ritual usage of animals. The evidence for ritual deposition of animals includes three dog skeletons and a chicken, all of which require comparison with other sites in terms of their ritual significance. In addition the pathologies of the dog skeleton from the well also requires full analysis.

9.13 The domestic refuse recovered indicates that the meat consumed in the nearby settlement did not vary over time, with beef forming most of the waste present. It would be interesting to consider the supply of meat to the inhabitants of the outskirts of Roman London further to investigate how the proximity to rural resources affected the consumption patterns of meat.

9.2 It is proposed that LTU 03 will be published as a PCA monograph. The publication will focus in detail on the evidence for the Roman activity and the significance of the formal cemetery within London. In addition the medieval and post-medieval activities on the site and their local significance will be described.

9.3 The publication report will include the following topics:

- The background to the archaeological investigations.
- The geology and topography of the area.
- The archaeological and historical background.
- A description of the archaeological sequence integrating the specialist reports which will include; the early use of the site; the cemetery, including; its layout, spatial distribution, and development, the demographic profile of the population, health and occupation of the population, burial practice, burial goods, family groups, local environment and status; medieval pits and post-medieval soakaways.
- Detailed comparisons will be made with other formal Roman cemetery sites from similar urban settlement locations.
- Aspects of the characteristics of the practices associated with the disposal of the dead will be looked at in the light of what is known of the ritual and concepts of treatment of the dead in Roman, Romano-British and Celtic belief systems.
- The specialist reports will include; the human remains, the pottery, the small finds, the glass, the faunal remains and the environmental analysis.

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Black and White (medium format)	

10.2 THE FINDS

Human bone	89 individuals
Pottery	32 boxes
Bone	19 boxes
Glass	4 boxes
Fe & Cu Alloy	12 boxes

11 ACKNOWLEDGMENTS

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APPENDIX 1: Context Index

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6	Grave fill of [8]	-	-	6
7	Skeleton in [8]	7	-	6
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13	Skeleton in [14]	13	-	6
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18	Grave fill of [20]	-	-	6
19	Skeleton in [20]	19	-	6
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107	Fill of Pit [108]	108	-	7
108	Cut of Pit	108	-	7
109	Fill of Pit [110]	110	-	7
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111	Fill of Pit [112]	112		6
112	Cut of Pit	112	-	6
113	Brick lined Medieval soakaway	113	-	10
114	Cut of brick lined Medieval soakaway [113]	113	-	10
115	Fill of possible rubbish pit [116]	-	-	8
116	Cut of possible rubbish pit	116	-	8
117	Fill of Ditch [209]	209	-	6
118	VOID	209	-	VOID
119	Fill of Post Medieval Ditch [120]	-	-	10
120	Cut of Post Medieval Ditch	Pre. Ex.	-	10
121	Grave fill of [123]	-	-	6
122	Animal Skeleton in [123]	122	-	6
123	Grave cut for [122]	123	-	6
124	Grave fill of [126]	-	-	5
125	Juvenile skeleton in [126]	125	-	5
126	Grave cut for [125]	125	-	5

127	Grave fill of [129]	-	-	5
128	Skeleton in [129]	128	-	5
129	Grave cut for [128]	129		5
130	Fill of possible Medieval pit [131]	-	-	7
131	Cut of possible Medieval pit	131	-	7
132	Grave fill of [134]	-	-	6
133	Skeleton in [134]	133	-	6
134	Grave cut for [133]	134	-	6
135	Fill of possible Medieval pit [136]	136		7
136	Cut of possible Medieval pit	136	-	7
137	Secondary fill of ditch [150]	-	4	6
138	Primary fill of ditch [150]	-	4	5
139	Tertiary ditch fill [151]	-	4	5
140	Fill of Ditch [151]	-	4	5
141	Fill of Ditch [151]	-	4	5
142	Fill of Ditch [151]	-	4	5
143	Fill of Ditch [151]	-	4	5
144	Mineralised lens within ditch [151]	-	4	5
145	Secondary fill of ditch [151]	-	4	5
146	Sandy gravel lens within ditch [151]	-	4	5
147	Silty sand lens within ditch [151]	-	4	5
148	Fill of Ditch [151]	-	4	5
149	Primary fill of ditch [151]	-	4	5
150	Cut of Ditch	-	4	5
151	Cut of Massive Ditch	-	4	6
152	Cut of Ditch	-	4	5
153	Grave fill of [155]	-	-	6
154	Skeleton in [155]	154	-	6

155	Grave cut for [154]	155	-	6
156	Grave fill of [158]	-	-	6
157	Skeleton in [158]	157		6
158	Grave cut for [157]	158	-	6
159	Fill of Gully [275]	-	16/17/18	8
160	VOID	VOID	VOID	
161	VOID	VOID	VOID	
162	Fill of Post Medieval Soakaway [162]	-	-	9
163	Brick lined Medieval soakaway	-	-	9
164	Juvenile skeleton in [104]	164	-	5
165	Fill of Ditch [166]	166	6	6
166	Ditch Cut	166	6	6
167	Fill of Ditch [168]	166	6	6
168	Ditch Cut	166	6	6
169	Grave fill of [171]	171	-	6
170	Skeleton in [171]	171	-	6
171	Grave cut for [170]	171	-	6
172	Fill of stakehole [173]	-	-	6
173	Cut of stakehole	-	-	6
174	Fill of Roman pit/posthole [175]	-	-	6
175	Cut of Roman pit/posthole	175	-	6
176	Fill of Pit [177]	177	-	6
177	Cut of Pit	177	-	6
178	Ditch Cut	-	7	6
179	Fill of Ditch [178]	-	7	6
180	Fill of Ditch [178]	-	7	6
181	Grave fill of [183]	-	-	6
182	Skeleton in [183]	182	-	6

183	Grave cut for [182]	183	-	6
184	Grave cut for [186]	184	-	6
185	Grave fill of [184]	184	-	6
186	Skeleton in [184]	186	-	6
187	Skeleton in [230]	187	-	5
188	Fill of Roman Ditch [517]	-	8	6
189	Fill of Roman Ditch [517]	-	8	5
190	Fill of Roman Ditch [517]	-	8	6
191	Fill of Roman Ditch [210]	-	8	5
192	Fill of Roman Ditch [210]	-	8	5
193	Fill of Roman Ditch [210]	-	8	5
194	Gravelly sand lens within ditch [209]	-	8	5
195	Fill of Roman Ditch [209]	-	8	5
196	Fill of Roman Ditch [209]	-	8	5
197	Redeposited natural sand fill [209]		8	5
198	Fill of Roman Ditch [209]	-	8	5
199	Redeposited natural sand fill [209]	-	8	5
200	Primary fill of ditch [209]	-	8	5
201	Fill of Roman Ditch [517]	-	8	5
202	Fill of Roman Ditch [517]	-	8	5
203	Fill of Roman Ditch [517]	-	8	5
204	Fill of Roman Ditch [517]	-	8	5
205	Fill of Roman Ditch [517]	-	8	5
206	Fill of Roman Ditch [517]	-	8	5
207	Grave fill of [408]	7	-	6
208	Skeleton in [408]	208	-	6
209	Cut of Massive Roman Ditch	-	8	5

210	Ditch Cut	-	8	5
211	Grave fill of [213]	-	-	6
212	Skeleton in [213]	212	-	6
213	Grave cut for [212]	213	-	6
214	Ditch Cut	214	-	5
215	Ditch Cut	214	-	5
216	Fill of Ditch [215]	214	-	5
217	Ditch Cut	214	12 & 13	5
218	Fill of Ditch [217]	214	12 & 13	5
219	Recut of Ditch	214	-	5
220	Fill of Ditch [219]	214	-	6
221	Cut of Gully	214	-	5
222	Fill of Gully [221]	214	-	5
223	Recut of Ditch	214	12 & 13	5
224	Fill of Ditch [223]	214	12 & 13	5
225	Ditch Cut	-	9 & 11	6
226	Ditch Cut	-	10 & 11	6
227	Fill of Ditch [225]	-	9, 10 & 11	6
228	Fill of Ditch [226]	-	9, 10 & 11	6
229	Grave fill of [230]	-	-	5
230	Grave cut	230	-	5
231	Shallow Rectangular cut	Pre. Ex.	-	9
232	Fill of shallow Rectangular cut [231]	-	-	9
233	Cut of Pit	214	-	9
234	Fill of Pit [234]	-	-	9
235	Fill of Ditch [236] and posthole [237]	-	-	5
236	Ditch Cut	236	-	5

237	Cut of Posthole	236	-	5
238	Brick lined Medieval soakaway	Pre. Ex.	-	10
239	Fill of Roman pit [240]	Pre. Ex.	-	2
240	Cut of Roman pit	Pre. Ex.	-	2
241	Grave fill of [243]	-	-	6
242	Skeleton in[243]	242	-	6
243	Grave cut for [242	243	-	6
244	Grave cut for [246]	244	-	6
245	Grave fill of [244]	244	-	6
246	Skeleton in [244]	246	-	6
247	Fill of pit [248]	Pre. Ex.	248	2
248	Cut of pit	Pre. Ex.	248	2
249	Brick lined Medieval soakaway	Pre. Ex.	-	10
250	Quarry pit cut	-	14	6
251	Quarry pit cut	-	15	6
252	Grave fill of [254]	-	-	5
253	Skeleton in [254]	253	-	5
254	Grave cut for [253]	254	-	5
255	Grave fill of [257]	-	-	6
256	Skeleton in [257]	256	-	6
257	Grave cut for [256]	257	-	6
258	Grave fill of [260]	-	-	5
259	Skeleton in [260]	259	-	5
260	Grave cut for [259]	260	-	5
261	Fill of pit [262]	262	-	5
262	Cut of pit	262	-	5
263	Grave fill of [265]	264	-	5
264	Skeleton in [265]	264	-	5
265	Grave cut for [264]	265	-	5

266	Natural			1
267	Fill of pit [248]	Pre. Ex.	248	2
268	Fill of pit [248]	Pre. Ex.	248	2
269	Cut of Gully	-	16	8
270	Cut of Gully	-	17	8
271	Cut of Gully	-	18	8
272	Grave fill of [274]	-	-	5
273	Skeleton in [274[	273	-	5
274	Grave cut for [273]	274	-	5
275	Cut of Gully (same as 269, 270, 271)	Pre. Ex.	-	8
276	Fill of Gully [277]	-	19	5
277	Cut of Gully	-	19	5
278	Fill of pit [279]	279	-	7
279	Cut of pit	279	-	7
280	Layer into which burials are cut	Pre. Ex.	-	5
281	Modern Pit	281	-	11
282	Modern Pit	282	-	11
283	Feature number for [141]	-	-	5
284	Modern wall	-	-	11
285	Grave fill of [287]	-	-	6
286	Skeleton in [287]	286	-	6
287	Grave cut for [285]	287	-	6
288	Grave fill of [290]	-	-	6
289	Skeleton in [290]	289	-	6
290	Grave cut for [289]	290	-	6
291	Grave fill of [293]	-	-	6
292	Skeleton in [293]	292	-	6
293	Grave cut for [292]	293	-	6

294	Sample of stomach from [292]	-	-	6
295	Fill of possible cremation	295	-	4
296	Cut of possible cremation [295]	296	-	4
297	Fill of Ditch [298]	300	5	2
298	Ditch Cut	300	5	2
299	Fill of pit [300]	300	5	2
300	Cut of pit	300	5	2
301	Fill of pit [300]	-	-	2
302	Grave fill of [304]	304	-	6
303	Juvenile skeleton in [304]	303	-	6
304	Grave cut for [303	125	-	6
305	Lime deposit in grave [293]	292	-	6
306	Lime deposit in grave [293]	292	-	6
307	Lime deposit in grave [293]	292	-	6
308	Grave fill of [310]	310	-	6
309	Skeleton in [310]	309	-	6
310	Grave cut for [309]	310	-	6
311	Grave fill of [313]	-	-	6
312	Juvenile skeleton in [313]	312	-	6
313	Grave cut for [312]	313	-	6
314	Fill of Post Medieval Pit [315]	315	-	8
315	Cut of Post Medieval Pit	315	-	8
316	Fill of possible Post hole [317]	317	-	5
317	Cut of possible Post hole	317	-	5
318	Fill of stakehole [319]	319	-	5
319	Cut of stakehole	319	-	5
320	Grave fill of [322]	322	-	6
321	Skeleton in [322]	322	-	6
322	Grave cut for [321]	322		6

323	Skeleton in [324]	323	-	2
324	Grave cut for[232]	323	-	2
325	Grave fill of [324]	-	-	2
326	Grave fill of [324]	323	-	2
327	Lime deposit in grave [293]	292	-	6
328	Grave fill of [330]	-	-	6
329	Skeleton in [330]	329		6
330	Grave cut for [329]	330	-	6
331	Layer, interface between natural sands and Roman deposits	-	-	3
332	Layer, alluvial deposit			2
333	Grave fill of [335]	334/5	-	6
334	Skeleton in [335]	334/5	-	6
335	Grave cut for [334]	334/5		6
336	Grave fill of [338]	-	-	6
337	Juvenile skeleton in [338]	337	-	6
338	Grave cut for [337]	338	-	6
339	Skeleton in [340]	339	-	6
340	Grave cut for [339]	340	-	6
341	Grave fill of [340]	339		6
342	Grave fill of [344]	-		6
343	Skeleton in [344]	343	-	6
344	Grave cut for [343]	344	-	6
345	Grave fill of [347]	-	-	6
346	Skeleton in [347]	346	-	6
347	Grave cut for [346]	347	-	6
348	Grave fill of [350]	-	-	6
349	Skeleton in [350]	350	-	6
350	Grave cut for [349]	350	-	6

351	Grave fill of [353]	-	-	6
352	Skeleton in [353]	352	-	6
353	Grave cut for [352]	353	-	6
354	Grave fill of [356]	356	-	6
355	Skeleton in [356]	355	-	6
356	Grave cut for [355]	356	-	6
357	Grave fill of [359]	359	-	6
358	Skeleton in [359]	359	-	6
359	Grave cut for [358]	358	-	6
360	Fill of Ditch [438]	-	21	2
361	Fill of Ditch [365]	365	-	6
362	Fill of Ditch [365]	365	-	6
363	Juvenile skeleton in [365]	365	-	6
364	Juvenile skeleton in [365]	365	-	6
365	Ditch Cut	365	-	6
366	Chalk 'bed' of skeleton [334]	303	-	6
367	De-graded green sandstone slab associated with [377]	367	-	2
368	Grave fill of [370]	-	-	6
369	Skeleton in [370]	369	-	6
370	Grave cut for [369]	370	-	6
371	Grave fill of [373]	-	-	6
372	Skeleton in [373]	372	-	6
373	Grave cut for [372]	373	-	6
374	Grave fill of [376]	376		6
375	Skeleton in [376]	376	-	6
376	Grave cut for [375]	376	-	6
377	Degraded green sandstone slab	377	-	2
378	Grave fill of [380]	-	-	6

379	Skeleton in [380]	379	-	6
380	Grave cut for [379]	379/80	-	6
381	Grave fill of [383]	-	-	6
382	Skeleton in [383]	382	-	6
383	Grave cut for [382]	383	-	6
384	Grave fill of [386]	-	-	6
385	Skeleton in [386]	385	-	6
386	Grave cut for [385]	386	-	6
387	?	?	-	6
388	?	?	-	6
389	Fill of Ditch [391]	-	-	2
390	Fill of Ditch [391]	-	-	2
391	Cut of Ditch	391	-	2
392	Grave fill of [394]	-	-	6
393	Skeleton in [394]	393	-	6
394	Grave cut for [393]	394		6
395	Lime deposit in grave fill [384]	386	-	6
396	Grave fill of [398]	-	-	6
397	Juvenile skeleton in [398]	397		6
398	Grave cut for [397]	-	-	6
399	Grave fill of [401]	-	-	6
400	Juvenile skeleton in [401]	400	5	6
401	Grave cut for [400]	401	-	6
402	Grave fill of [404]	-	-	6
403	Skeleton in [404]	403	-	6
404	Grave cut for [403]	403	-	6
405	Grave fill of [406]	-	-	6
406	Grave cut for [407]	406	-	6
407	Skeleton in [406]	407	-	6

408	Lime/chalk deposit in grave [409]	208	-	6
409	Grave cut for [208]	409	-	6
410	Cut of pit	410	-	6
411	Fill of pit [410]	410	-	6
412	Grave fill of [414]	-	-	6
413	Skeleton in [414]	414	-	6
414	Grave cut for [413]	414	-	6
415	Grave fill of [417]	-	-	6
416	Skeleton in [417]	416	-	6
417	Grave cut for [416]	417	-	6
418	Grave fill of [420]	-	-	6
419	Skeleton in [420]	419	-	6
420	Grave cut for [419]	420	-	6
421	Grave fill of [423]	-	-	6
422	Skeleton in [423]	422		6
423	Grave cut for [422]	423	-	6
424	Upper fill of Ditch [438]	-	21	2
425	Fill of Ditch [438]	-	21	2
426	Fill of Ditch [438]	-	21	2
427	Grave fill of [429]	-	-	6
428	Skeleton in [429]	428	-	6
429	Grave cut for [428]	429	-	6
430	Grave fill of [432]	-	-	6
431	Skeleton in [432]	432	-	6
432	Grave cut for [431]	432	-	6
433	Grave fill of [436]	434	-	6
434	Skeleton in [436]	434	-	6
435	Chalk 'bed' of skeleton [434]	434		6
436	Grave cut for [434]	434	-	6

437	Primary fill of ditch [438]	-	21	2
438	Cut of ditch	438	21 & 22	2
439	Grave fill of [441]	-	-	6
440	Skeleton in [441]	440	-	6
441	Grave cut for [440]	441	-	6
442	Fill of Ditch [438]	-	21	2
443	Fill of Ditch [438]	-	21	2
444	VOID	VOID	VOID	VOID
445	Natural deposit	-	-	1
446	Grave fill of [449]	-	-	6
447	Deposit in grave containing animal bone in [449]	448	-	6
448	Skeleton in [449]	448	-	6
449	Grave cut for [448]	356	-	6
450	Cut of pit	450	-	6
451	Fill of pit [450]	450	-	6
452	Grave fill of [454]	-	-	6
453	Skeleton in [454]	453	-	6
454	Grave cut for [453]	454	-	6
455	Fill of Ditch [437]	-	21	2
456	Fill of Ditch [458]	-	21	2
457	Fill of Ditch [458]	-	21	2
458	Cut of Ditch	455	21	2
459	Fill of Ditch [460]	460	21	2
460	Cut of Ditch	460	21	2
461	Grave fill of [463]	-	-	6
462	Skeleton in [463]	462	-	6
463	Grave cut for [462]	463	-	6
464	Grave fill of [466]	-	-	6

465	Skeleton in [466]	465	-	6
466	Grave cut for [465]	466	-	6
467	Uppermost fill of pit [468]	-	-	6
468	Cut of very large Roman Pit	468	-	5
469	Skeleton in [280] no cut identified	469	-	5
470	Sandy fill of ditch [472]	-	22	2
471	Primary fill of ditch [472]	-	22	2
472	Cut of Roman ditch	-	22	2
473	Fill of pit [474]	-	-	5
474	Cut of pit	492	-	5
475	Fill of ditch [472]	-	22	2
476	Fill of ditch [472]	-	22	2
477	Fill of ditch [472]	-	22	2
478	Grave fill of [480]	-	-	6
479	Skeleton in [480]	479	-	6
480	Grave cut for [479]	479	-	6
481	Fill of cremation burial	481	-	6
482	Cut of cremation burial [481]	382	-	6
483	Grave fill of [485]	-	-	6
484	Juvenile skeleton in [485]	484	-	6
485	Grave cut for [484]	485	-	6
486	Grave fill of [488]	-	-	6
487	Juvenile skeleton in [488]	487	-	6
488	Grave cut for [487]	488	-	6
489	Grave fill of [491]	-	-	6
490	Skeleton in [491]	490	-	6
491	Grave cut for [490]	491	-	6
492	Natural Sand	-	-	1
493	Grave fill of [495]	-	-	6

494	Skeleton in [495]	494		6
495	Grave cut for [494]	494	-	6
496	Grave fill of [498]	-	-	6
497	Skeleton in [498]	497		6
498	Grave cut for [497]	498	-	6
499	Fill of Roman well [501]	-	-	5
500	Primary fill of Roman well [501]	400	5	5
501	Timber lining of Roman well	-	-	5
502	Stone lining of Roman well	-	-	5
503	Cut of Roman well	-	-	5
504	Fill of Roman Quarry pit	-	-	5
505	Fill of Roman Quarry pit [468]	-	-	5
506	Fill of Roman Quarry pit [468]	-	-	5
507	Fill of Roman Quarry pit [468]	-	-	5
508	Fill of Roman Quarry pit [468]	-	-	5
509	Fill of Roman Quarry pit [468]	-	-	5
510	Fill of Roman Quarry pit [468]	-	-	6
511	Fill of Roman Quarry pit [468]	-	-	5
512	Fill of Roman Quarry pit [468]	-	-	5
513	Fill of Roman Quarry pit [468]	-	-	5
514	Fill of Roman Quarry pit [468]	-	-	5
515	Fill of Roman Quarry pit [468]	-	-	5
516	Fill of Roman Quarry pit [468]	-	-	5
517	Recut of ditch [209]		8	6

APPENDIX 2 The Human Remains

Kathelen Sayer

Introduction

The following report details the results of the analysis of 89 inhumation and 2 cremation burials recovered from Lant St. The burials were Roman in date and were concentrated within three areas of the site. The central area contained the majority of the graves and was bounded by ditches to the north and south. The ditches ran perpendicular to Borough High Street (Stane Street) and were orientated either parallel or perpendicular to this alignment.

On the north side of the site a ditch formed the southern boundary to another group of burials. Both the ditch and the burials were orientated EW, parallel to Watling Street located to the north. This suggests that these graves may represent a separate phase of burial or separate burial group. A dog skeleton was excavated from the fill of the ditch.

The south west corner of the excavation area revealed yet another group, again bounded by a ditch. The burials within this area do not respect the line of the ditch to the same extent as the groups to the north but could still represent either a further distinct element of the cemetery.

Many of the burials contained grave goods, including both pottery and glass vessels as well as jewellery. A number of the graves contained lime or chalk deposits.
In addition to the burials and ditches a number of pits were present across the site, whilst a stone lined well/ritual shaft was excavated in the NE corner of the site.

Methodology

Inhumations

The skeletal remains were analysed to assess the condition of the remains and where possible the age, sex and stature of the individual, any gross pathology present was recorded to site and morphological changes described.

The condition and completeness of a skeleton affects the amount of data that can be recorded. The condition of the bone was recorded according to the stages of surface preservation suggested by McKinley (2004) and the completeness of the skeleton is based on a complete skeleton consisting of:

Skull	20%
Torso	40%

Arms	20%
Legs	20%

Age was assessed using the stages of epiphyseal fusion, measurement of long bone length, dental eruption, dental attrition (Brothwell, 1981), changes within the pubic symphysis (Brooks and Suchey, 1990) and the auricular surface (Lovejoy, 1985). All individuals where ageing data could be collected were placed into one of the following age ranges:

Neonate	0-1 month
Infant	birth - one year
Juvenile	1 - 12 years
Adolescent	12 - 20 years
Young Adult	20 – 35 years
Middle Adult	35 – 50 years
Old Adult	50 + years
Adult	>20 years
Undetermined	

Sexually dimorphic traits in the pelvis and skull were used to ascertain the sex of the individual. Each individual was placed into one of the following categories; male, female (positive identification), male?, female? (compares favourably to a sex but not conclusive), "I" (indeterminate) and '?' (inconclusive).

The living stature of the skeletons was, where possible, calculated from the long bone lengths using the regression equations devised by Trotter and Gleser (1958). The choice of long bones used was based on the preservation of the skeleton and the order of preference suggested by Brothwell and Zakrzewski (2004) for the regression equations.

The dentition was recorded in the following way: -

	Right								Left							
Maxilla	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
Mandible	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8

/	lost post-mortem	X	lost ante-mortem
-	tooth present but jaw missing	U	present
NP	not present	PE	partially erupted
O	tooth erupting	B	broken

V	tooth unerupted	--	tooth and jaw not present
PU	pulp exposed	R	root only

Dental pathology was recorded to site and severity. Brothwell (1981) devised the scoring system used for calculus and the following grading system of severity was used for caries:

1	Pit/fissure
2	<half crown destroyed
3	>half crown destroyed
4	All crown destroyed

Cremations

Neither of the cremations was in a condition to be excavated. The material from both was sieved through a stack of 10, 5, and 2mm mesh sieves. The cremated bone was separated from the remaining organic material, pot and gravel in the ≥10mm and ≥4mm fraction and as far as was possible in the ≥2mm fraction. The bone from each fraction size was weighed giving the percentage of each fragment size within the total weight of the cremation. The total weight excludes the <2mm fragment size as it is not possible to separate the bone from extraneous material. The largest skull and long bone fragment sizes were recorded from each cremation. The colour of the bone was recorded in order to assess the level of oxidation and therefore the efficiency of the cremation techniques, as was any abnormal warping. Further analysis of ageing, sexing and pathological data followed the methodology for inhumations. Any pyre goods or pyre debris were removed and recorded.

The results were recorded on paper and Access format archives.

Results

INHUMATIONS

Condition of the bone

The completeness of the burials varied from <5% of the skeleton present to 95% present. Overall a slightly higher percentage of burials, 54.%, had > 50% of the skeleton surviving in comparison to 46% with < 50% of the skeleton surviving. The highest percentage of skeletal completeness within the group is ≥ 75%.

Completeness	*<25 %*	*<50 %*	*<75 %*	*≥ 75 %*
% of burials	20.7%	25.3%	21.8%	32.2%

DEMOGRAPHY

Age

Of the 89 inhumation burials analysed, 53 were identified as adults and 22 as immature individuals. The remaining 14 individuals (16.3% of total) could not be aged
The distribution across the age ranges is outlined in Tables 1 and 2.

Table 1: Immature Age Ranges

Age Range	*Number*	*% Juveniles*	*% of whole population*
Neonate	1	4.5	1.1
Infant	2	9.1	2.2
Juvenile	14	63.6	15.7
Adolescent	5	22.7	5.6

Table 2: Adult Age Ranges

Age Range	*Number*	*% of adults*	*% of whole population*
Adult	4	7.5	4.4
Young Adult	32	60.3	35.9
Middle Adult	16	30.1	17.9
Old Adult	1	1.8	1.1

Sex

The analysis of sexually dimorphic traits revealed 20 female/female? individuals and 22 male/male?. Of the remaining individuals 9 were recorded as indeterminate and 16 could not be analysed for sex due to the lack of relevant skeletal elements. The results are broken down in Table 3

Table 3: Adult Age and Sex Categories

	Female	*Female ?*	*Indeterminate*	*Male*	*Male?*	*Undetermined*	*Total*
Adult	2	1	0	2	0	0	5
Young Adult	8	2	5	8	5	3	31
Middle Adult	5	1	3	3	2	2	16

Old Adult	0	0	1	0	0	0	1
Undetermined	0	1	0	1	1	11	14
Total	14	5	9	14	8	15	
%	21.5	7.7	13.8	21.5	12.3	23	

Stature

Living stature could be estimated for 28 adults, of these 14 were male and 14 were female. Tables 4 and 5 give the details for each sex and each regression equation used in order of preference. The range of stature for females is between 147.96 – 177.24cm, with a mean of 162.28cm. The range of stature for males is between 160.79 – 176.10cm, with mean of 170.75cm.

Table 4: Female Stature

Bone used	*Context*	*Stature*
Humerus, Femur & Tibia	355	169.66
	303/334	163.45
Femur & Tibia	292	165.78
Tibia	157	152.59
	187	155.2
	289	177.24
	393	175.79
	434	154.33
Femur	13	147.96
	246	160.31
	416	170.68
Radius	58	164.42
Humerus	208	153.06
	323	161.46

Table 5: Male Stature

Bone used	*Context*	*Stature*
Femur & Tibia	22	162.09
	352	163.91
	385	160.79
Femur	133	168.98
	440	175.41
Tibia	358	171.61
	453	174.63
Humerus	103	174.25
	264	175.17
	419	177.33
	422	176.10
	428	172.39
	465	164.39
Radius	321	173.51

Non-metric Traits

A total of 43 non-metric traits were included within the criteria for analysis. Of these 21 were observed within the skeletal remains analysed. The results are shown in Table 6 below.
The highest prevalence of non-metric traits was found to be accessory transverse foramina in the cervical vertebrae, found in both left and right elements.

Table 6: Non-Metric Traits

Non-metric trait	*Observed No.*	*Total skeletal element*	*Prevalence %*

	present		
Metopism	3	40	7.5
Lambdoid bone	2	37	5.4
Epipteric bone right	1	31	3.2
Epipteric bone left	1	31	3.2
Lambdoid Wormians right	2	32	6.3
Lambdoid Wormians left	3	32	9.4
Supra-orbital foramen right	1	30	3.3
Supra-orbital foramen left	1	32	3.1
Supra-orbital groove right	1	32	3.1
Supra-orbital groove left	1	32	3.1
Accessory infra-orbital foramen right	1	25	4.0
Accessory infra-orbital foramen left	2	24	8.3
Parietal foramen right	1	42	2.4
Parietal foramen left	1	40	2.5
Mastoid foramen right	3	38	7.9
Mastoid foramen left	2	32	6.3
Double anterior condylar canal right	1	30	3.3
Double anterior condylar canal left	1	28	3.6
Posterior condylar canal right	1	30	3.3
Posterior condylar canal left	1	27	3.7
Zygomatico-facial foramen right	1	30	3.3
Zygomatico-facial foramen left	1	26	3.8
Parietal notch bone right	1	32	3.1
Torus mandibularis right	1	41	2.4
Torus mandibularis left	1	45	2.2
Mylihyoid groove right	6	40	15.0
Mylihyoid groove left	6	42	14.3
Femoral plaque left	1	45	2.2
Tibial squatting facet right	2	39	5.1
Tibial squatting facet left	3	41	7.3
Distal septal aperture right	6	40	15.0
Distal septal aperture left	3	43	6.9
Superior atlas facet right	1	34	2.9
Superior atlas facet left	1	34	2.9
Accessory transverse foramina in cervical vertebrae right	8	34	23.5
Accessory transverse foramina in cervical vertebrae left	7	33	21.2

PATHOLOGY

Osteoarthritis was observed in 6 individuals, of which 2 were females, 2 males, 1 indeterminate and 1 indeterminate.

Prevalence rate for OA in terms of total number of bones = 0.61

Context	*Age*	*Sex*	*Skeletal element*
51	YA	?	Left foot (Talus)
264	YA	M?	Right and left hips (femoral heads and acetabulum)
273	MA	F	Vertebral column (C1-3, C7, T1, T9 – 11), Left hand (scaphoid, trapezium, 2nd and 5th metacarpal), right foot (1st metatarsal) left foot (1st metatarsal).
422	A	M	Left hand (scaphoid), right foot (1st metatarsal, 1st proximal phalanx), left foot (1st metatarsal, 1st proximal phalanx).
434	YA	F	Left elbow (humerus, radius, ulna)
462	OA	I	Vertebral column (C1),

Table 7

Osteoarthritis

Skeletal element	*No. with OA*	*Total no. of bone present (adult only)*	*% (adult only)*	*Total present*	*% (total)*
Atlas	2	38	5.3		
Axis	1	38	2.6		
C3	1	39	2.6		
C4	1	37	2.7		
C7	1	35	2.9		
T1	1	38	2.6		
T8	1	41	2.4		
T9	1	42	2.4		
T10	1	42	2.4		
T11	1	40	2.5		
L Humeral DJS	1	45	2.2		
L Radial PJS	1	10	10		
L Ulna PJS	1	46	2.2		
L Scaphoid	2	16	12.5		
L Trapezium	1	18	5.6		
L 2nd MC	1	31	3.2		
Hand Prox. Ph.	2	242			
Hand Middle Ph.	1	124			
R Acetabulum	1				
R Femoral PJS	1	47	2.1		
L Acetabulum	1				
L Femoral PJS	1	47	2.2		

R Patella	1	26	3.8
L Talus	1	34	2.9
L 1st MT	2	27	7.4
R 1st MT	2	28	7.1
Foot Prox. Ph.	1	131	

Table 8

Vertebral Pathology

Schmorl's Nodes were recorded within 10 adult individuals and 1 adolescent individual, the details of which are shown in table 9 below. This gives prevalence rates of 12.8% for the entire population, 19.2% within the adult age ranges and 5% within the ≤ adolescent age ranges.

Context	*Sex*	*Age*	*No. of vertebrae affected*
10	I	Young Adult	3
13	F	Young Adult	2
16	I	Middle Adult	3
55	F	Middle Adult	1
154	M?	Young Adult	1
369		Adolescent	1
416	F	Young Adult	7
419	M	Young Adult	6
465	M?	Middle Adult	5
490	M	Young Adult	5
497	M?	Middle Adult	11

Table 9

Vertebra	*No. affected*	*Total present (adults)*	*Prevalence (adults)*
T4	1	42	2.4
T6	2	43	4.7
T7	3	41	7.3
T8	4	41	9.8
T9	5	42	11.9
T10	4	42	9.5
T11	6	40	15
T12	5	42	11.9

L1	4	43	9.3
L2	3	46	6.5
L3	3	44	6.8
L4	2	45	4.4
L5	1	44	2.3
Total	43		
% Of all surviving adult vertebrae			4.4
% Of all surviving vertebrae			3.9
% Of individuals			12.8

Table 10

Osteophytes

A total number of 17 individuals were recorded as having osteophytosis, a prevalence rate of 32.7% within the adults and 19.8% within the whole population. All 17 individuals were from within the adult age ranges.

Vertebra	*No. affected*	*Total present (adults)*	*Prevalence (adults)*
C3	1	39	2.6
C4	1	37	2.7
C5	3	37	8.1
C6	3	35	8.6
C7	2	35	5.7
T2	1	43	2.3
T3	2	42	4.8
T4	1	42	2.4
T5	2	43	4.7
T6	1	43	2.3
T7	2	41	4.9
T8	5	41	12.2
T9	4	42	9.5
T10	5	42	11.9
T11	3	40	7.5
T12	2	42	4.8
L1	3	43	7.0
L2	2	46	4.3
L3	4	44	9.1
L4	3	45	6.7

L5	5	44	11.4
% Of surviving adult vertebrae			5.6
% Of all surviving vertebrae			4.9

Table 11

Degenerative joint disease

Degenerative joint disease was recorded in 12 individuals (table 12).

Context	*Sex*	*Age*	*Joint affected*
16	I	Middle Adult	R Shoulder
51	?	Young Adult	R knee, hip, toes
133	I	Young Adult	L foot
186	?	Undetermined	R hip
264	M?	Young Adult	R wrist
273	F	Middle Adult	R & L hip, R and L ankle
355	F?	Adult	L knee
358	M	Middle Adult	R shoulder
434	F	Young Adult	Manubrium
440	M	Young Adult	R shoulder
448	I	Middle Adult	R hand
462	I	Old Adult	R ankle, R & L shoulder

Table 12

Fractures

10 individuals were recorded as having fractures, 11.6% of the total population. In total 26 bones exhibited fractures, 0.49% of the total number of surviving bones. Of the individuals with fractures 4 were female, 5 were male and 1 was of indeterminate sex, 4 were young adults, 4 middle adults, 1 adult and 1 old adult.

[246]

Age:	Young Adult
Sex:	Female
Skeletal element:	Distal shaft of right fibula, superior to talar articular facet.
Stage of healing:	Healing with new lamella bone growth laid down on the lateral and medial surfaces.
Comments:	Swelling of shaft could indicate an associated infection

[253]

Age:	Middle Adult
Sex:	Female
Skeletal element:	Right 5th metacarpal.
Stage of healing:	Healed

[273]

Age:	Middle Adult
Sex:	Female
Skeletal element:	Left 5th metacarpal
Stage of healing:	Healed
Comments:	Slight mal-union. Left hand also exhibits osteoarthritis.

[353]

Age:	Young Adult
Sex:	Male
Skeletal element:	Right clavicle, medial to lateral shaft.
Stage of healing:	Healing with remodelling occurring.
Comments:	Oblique fracture running from posterior medial 1/3 of shaft to the anterior lateral 1/3 of shaft. Mal-union of shaft resulting in shortening of clavicle (10mm shorter than left clavicle).

[422]

Age:	Adult
Sex:	Male
Skeletal element:	7 left ribs. Mid shaft.
Stage of healing:	Remodelling and realignment occurring with new bone growth.

[428]

Age:	Young Adult
Sex:	Male
Skeletal element:	Distal 1/3 of right tibia, proximal 1/3 of right fibula shaft, left clavicle lateral shaft.
Stage of healing:	Right tibia: extensive remodelling and realignment occurring to the posterior and medial aspects. An area of lamella bone measuring 130mm x 25mm x 10mm on the medial aspect is joined to the posterior distal tibial shaft by 3 bridges of lamella bone and continuously on the anterior aspect. There is some remodelling at the superior point of the distal section of the fractured tibia. On the anterior aspect of the of the tibia mature lamella bone was in the process of replacing immature woven bone.

	Right fibula: small projection of lamella bone, 18mm x 5mm, on the proximal medial aspect. Remainder of proximal fibula was not present. Left clavicle: healed but line of fracture still visible running obliquely antero-laterally to medio-posteriorally.
Comments:	The right tibia and fibula have suffered a contre-coup fracture. The tibia was mal-aligned with a 5% apposition and overlapping by 30mm. As a result the distal shaft and epiphysis had an angle of displacement of 152° laterally and medially and 154° anteriorally. This has resulted in a shortening of the limb by at least 3cm. An area of organised immature woven bone, measuring 21mm x 14mm, was recorded on the medial aspect of the distal fibula. This woven bone probably represents the point at which the tibia and fibula articulated after the contre-coup fracture and resulting displacement and shortening of the tibia.

[434]	
Age:	Young Adult
Sex:	Female
Skeletal element:	Left ulna proximal joint surface.
Stage of healing:	Healed
Comments:	Possible latero-medial fracture to the proximal joint surface. The olecranon process was angled slightly medially. Possible associated ostemyelitis within the ulna and osteoarthritis within the proximal radius and distal humerus.

[462]	
Age:	Old Adult
Sex:	Indeterminate
Skeletal element:	3 right and 3 left ribs, towards the posterior aspect.
Stage of healing:	Remodelling occurring in all fractured ribs with widened area of lamella bone growth, superior and inferior, around point of fracture.

[465]	
Age:	Middle Adult
Sex:	Male?
Skeletal element:	Left humeral distal shaft. Right femoral distal shaft.
Comments:	Possible fractures. Humerus: distal shaft and epiphysis very slightly twisted laterally. Femur: distal shaft and epiphysis were twisted medially resulting in the lateral condyle being orientated almost anterially.

[497]

Age:	Middle Adult
Sex:	Male?
Skeletal element:	Left rib anterior aspect. Medial 1/3 of left tibial shaft. Medial 1/3 of left fibula shaft.
Stage of healing:	Left rib: Remodelling occurring. Left tibia: Remodelling with slight swelling of lamella bone to the anterior aspect of the middle 1/3 of the shaft, sharp protrusion of lamella bone on the lateral aspect of the mid/13 of shaft and smooth lamella bone on the posterior and lateral aspect of the mid 1/3 shaft. Left fibula: Remodelling with smooth lamella bone on the medial mid 1/3 of the shaft projecting by 4mm.

Infections

Periostitis

2 individuals were recorded as exhibiting periostitis, with a total number of 7 bones affected giving a prevalence rate of 0.08.

Context	*Bone*	*Aspect*
48	Left tibia	Anterior and lateral shaft, posterior and medial aspect of distal shaft
	L fibula	Anterior and lateral shaft, posterior and medial aspect of distal shaft
	R fibula	Anterior and lateral aspect of mid 1/3 shaft
465	Left tibia	
	Left fibula	Mid 1/3 shaft
	Right tibia	Distal shaft
	R fibula	Medial mid 1/3 and distal shaft
		Medial mid 1/3 and distal shaft

Table 13

Osteitis

6 individuals were recorded with osteitis, with a total number of 6 bones affected, giving a prevalence rate of 0.11.

Context	*Bone*	*Aspect*
133	Left 4th metatarsal	Proximal shaft

246	R fibula	Lateral and medial aspects of distal shaft
253	Left ulna	Distal shaft
355	Right humerus	Proximal shaft and neck
403	Left humerus	Lateral distal shaft
465	Left fibula	Medial – lateral distal shaft

Table 14

Osteomyelitis

A single case of osteomyelitis was recorded in the left ulna of [434], of a young adult female. A cloaca was recorded in the posterior aspect of the olecranon and medial aspect of the semi-lunar notch. The infection was probably the result of a fracture within the olecranon process. In addition to the infection the olecranon process has healed displaced and was angled slightly medially resulting in joint disease in both the radius and humerus.

Circulatory Disease

Osteochondritis dissecans

Two cases of osteochondritis dissecans were recorded. A pit, measuring 1mm x 9mm, was recorded on the lateral condyle of the left femur of [19]. Due to the absence of the necessary skeletal elements the age and sex of this individual were undetermined. Within the pit itself a small area of lamella bone was recorded. This was probably the sequestrum healing back into the defect.

The second case observed was recorded within [27], a young adult male?. A depression, measuring 6mm x 4mm, was present on the left humerus, between the capitulum and trochlea. The depression has smooth edges with some woven bone on its concave surface. These results give prevalence rates of 2.3% for the left femur, 2.2% for the left humerus and a total prevalence of 0.04.

Metabolic Disease

Cribra orbitalia

Cribra orbitalia was found on the superior and lateral aspect of the right orbit of [487], an adolescent, as coalescing pin prick porosity. Taking only the right orbit into consideration this gives a prevalence rate of 3.3.

Enthesopathies

Enlarged enthesopathies were noted in 2 individuals. [448], a middle adult of indeterminate sex was identified with an enthesopathy on the lesser trochanter of the humeral head. This would have been associated with the rotator cuff muscles of the shoulder. The deltoid

tuberosity was also noted as enlarged as were the insertion sites for Pectaralis major on both left and right clavicles.

[462], an Old Adult of indeterminate sex was recorded with spicules of bone projecting superiorly on the anterior aspect of the right patella and a tubercle of new bone growth projecting inferiorly from the same aspect. This bone growth was probably associated with the Vastus lateralis, Vastus medialis, Vastus intermedius and Rectus femoris muscle insertion sites.

Dental Pathology

Abscess

Context	*Tooth*	*Aspect*	*Prevalence*
246	Right mandibular 2nd pre-molar	Buccal	2.5%
0???	Right maxillary 1st molar	Buccal	3.3%
358	Right maxillary 1st molar	Lingual	3.3%
465	Left mandibular 1st molar	Buccal	2.5%

Table 15

Tooth	*Total present*	*Calculus*	*Tooth %*	*Total %*	*Caries*	*Tooth %*	*Total %*
1	26	12	46.2	0.9	0	0	0
2	30	13	43.3	1.0	2	6.7	0.2
3	33	16	48.5	1.3	1	3.0	0.1
4	36	14	38.9	1.1	2	5.6	0.2
5	38	16	42.1	1.3	2	5.3	0.2
6	37	14	37.8	1.1	0	0	0
7	37	8	21.6	0.6	1	2.7	0.1
8	33	11	33.3	0.9	0	0	0
9	34	10	29.4	0.8	0	0	0
10	28	7	25.0	0.6	0	0	0
11	33	11	33.3	0.9	0	0	0
12	34	9	26.5	0.7	3	8.8	0.2
13	33	7	21.2	0.6	4	12.1	0.3
14	30	11	36.7	0.9	3	10.0	0.2
15	30	10	33.3	0.8	2	6.7	0.2
16	20	5	25.0	0.4	2	10.0	0.2
17	27	11	40.7	0.9	2	7.4	0.2
18	47	25	53.2	2.0	1	2.1	0.1
19	40	22	55.0	1.8	3	7.5	0.2

Tooth	*Total present*	*Calculus*	*Tooth %*	*Total %*	*Caries*	*Tooth %*	*Total %*
20	45	21	46.7	1.7	0	0	0
21	47	24	51.1	1.9	1	2.1	0.1
22	43	21	48.8	1.7	0	0	0
23	42	25	59.5	2.0	0	0	0
24	39	28	71.8	2.2	0	0	0
25	44	30	75.0	2.4	0	0	0
26	43	28	65.1	2.2	0	0	0
27	45	31	68.9	2.5	0	0	0
28	46	29	63.0	2.3	1	2.2	0.1
29	40	26	65.0	2.1	1	2.5	0.1
30	43	29	67.4	2.3	1	2.3	0.1
31	46	30	65.2	2.4	2	4.3	0.2
32	32	25	78.1	2.0	2	6.3	0.2

Table 16

Total percentage of teeth affected by calculus = 46.1%

Total percentage of teeth affected by caries = 2.9%

Percentage of individuals affected by calculus = 62.7%

Percentage of individuals affected by caries = 19.4%

Ante-mortem tooth loss (ATML)

Tooth	*Total present*	*ATML*	*Tooth %*	*Total %*
1	26	3	11.5	0.2
2	30	5	16.7	0.4
3	33	4	12.1	0.3
4	36	3	8.3	0.2
5	38	1	2.6	0.1
9	34	1	2.9	0.1
10	28	1	3.6	0.1
11	33	2	6.1	0.2
12	34	2	5.9	0.2
13	33	4	12.1	0.3
14	30	5	16.7	0.4
15	30	2	6.7	0.2
16	20	4	20.0	0.3
17	27	3	11.1	0.2
18	47	3	6.4	0.2
19	40	6	15.0	0.5

20	45	2	4.4	0.2
21	47	1	2.1	0.1
29	40	3	7.5	0.2
30	43	1	2.3	0.1

Table 17

% Of total teeth affected by ATML = 55.3%

Percentage of individuals affected by atml = 19.4%

13 indivs 3 females, 6 males, 3 indeterminate, 1 indeterminate

6 young adult, 5 middle adult, 1 old adult, 1 adult.

Congenital absence of teeth

Congenital absence of teeth was observed within [352], a young adult male and [358], a middle adult male. [352] had both left and right maxillary 1st molars absent. [358] was recorded with both left and right maxillary lateral incisors absent.

Peg Teeth

The maxillary left and right lateral incisors of [329], a middle adult of indeterminate sex were recorded as peg teeth.

Supernumery Cusps

A supernumery cusp was recorded on the lingual and distal aspect of the left mandibular 3rd molar of [208], a middle adult female and on the buccal aspect of the left maxillary 2nd molar of [490], a young adult male.

In addition to these individuals, a talon cusp was recorded on the lingual aspect of the left maxillary central incisor of [385], a young adult of indeterminate sex.

Supernumery teeth

A supernumery tooth was recorded in the maxilla of [379], an adult of indeterminate sex. The tooth was located to the lingual aspect of the right 1st molar. Only the root is present as the crown was broken ante mortem.

Diastema

Diastemata were observed in [128], a young adult male? and [379], mentioned above. Within [128] the diastema measured 5mm and within [379] it measured 4mm.

CREMATIONS

Cremation [295] had a total weight of 22g and was mostly white in colour, indicating that the bone was well oxidised. No ageing or sexing data was retrieved from the cremation.

Cremation [481] had a total weight of 690g and was mostly greyish white in colour, indicating partial oxidisation of the bone. Some fragments were poorly oxidised and were brownish white in colour. Surviving upper limb fragments indicated that this individual was an adult but no sexing data was retrieved.

Cremation weights

Context	*Fraction*	*Total (g)*	*Skull (g)*	*Axial (g)*	*Upper limb (g)*	*Long bone (g)*	*Articular Surface (g)*
295	>10	3	0	0	0	0	0
	>5	10	0	5	0	1	0
	>2	9	0	0	0	0	0
481	>10	97	5	14	56	0	22
	>5	581	5	0	0	0	0
	>2	12	0	0	0	0	0

Table 18

Identified elements

Context	*Skull*	*Cervical vertebrae*	*Vertebrae*	*Clavicle*	*Humerus*	*Radius*	*Ilium*	*Humerus or femur*
295	1						1	
Max (mm)	26 x 20						39 x 27	
481	3	2	5	1	6	2	1	2
Max (mm)	13 x 8	15 x 15	24 x 18	52 x 14	25 x 19	23 x 23	36 x 20	22 x 14

Table 19

Recommendations

The human remains from Lant Street have the potential to add to the knowledge of the population of the southern cemeteries about which relatively little is know in comparison to the north, west and east cemeteries of Roman London. The osteological data will therefore be analysed with reference to spatial distribution, alignment, burial rite and status, looking at the demographic profiles, pathologies and metric and non-metric data. This analysis will include comparisons between Lant Street and other London Roman cemeteries.

The possible fractures from contexts; [246] right distal fibula, [434] left proximal ulna and [465] left distal humerus and right distal femur, and the 6 cases of osteitis and 1 case of ostemyelitis should be x-rayed in order that more detailed and accurate recording of these pathologies can be carried out.

Further research into the unusual dental pathologies observed in skeleton [385] is required. A number of examples of pathologies require photographing these are: the dental pathology in [385]; the supernumerary cusps on the dentition of [208] and [490]; and the contre-coup fracture within the right tibia and fibula of skeleton [428].

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Index of skeletal remains

CONTEXT	AGE	SEX	DENTAL PATHOLOGY	VERTEBRAL PATHOLOGY	JOINT DISEASE	FRACTURE	INFECTION	OTHER
7	Undetermined	?	✔					
10	Young Adult	I	✔	✔				
13	Young Adult	F	✔	✔				
16	Middle Adult	I	✔	✔	✔			
19	Undetermined	?						
25	Middle Adult	?						
27	Young Adult	M?	✔					
43	Undetermined	?						
45	Middle Adult	M	✔					
48	Undetermined	?					✔	
51	Young Adult	?			✔		✔	
55	Middle Adult	F		✔				
58	Young Adult	F?	✔					
81	Young Adult	F	✔					
103	Young Adult	M	✔					
128	Young Adult	M?	✔	✔				
133	Young Adult	I	✔	✔	✔		✔	
154	Young Adult	M?	✔	✔				
157	Young Adult	F	✔					

182	Undetermined	?	✔					
186	Undetermined	?			✔			
187	Middle Adult	F?	✔					
208	Middle Adult	F	✔					
212	Undetermined	?						
242	Young Adult	?	✔					
246	Young Adult	F	✔			✔	✔	
253	Middle Adult	F	✔	✔		✔	✔	
256	Undetermined	?						
259	Young Adult	M	✔					
264	Young Adult	M?	✔	✔	✔			
273	Middle Adult	F	✔	✔	✔	✔	✔	
292	Middle Adult	M?						
289	Young Adult	F	✔	✔				
303/334	Young Adult	F?	✔					
309	Young Adult	F						
321	Young Adult	M	✔	✔				
323	Young Adult	F						
329	Middle Adult	?	✔					
339	Adolescent	?						
346	Undetermined	F?						
349	Young Adult	?	✔					

353	Young Adult	?	✔			✔		
352	Undetermined	M						
355	Adult	F?	✔		✔		✔	
358	Middle Adult	M	✔		✔			
372	Adult	F	✔					
382	Young Adult	F?	✔					
385	Young Adult	I	✔					
379	Adult	I	✔					
393	Adult	F	✔					
403	Young Adult	I	✔				✔	
407	Undetermined	M	✔					
413	Middle Adult	I		✔				
416	Young Adult	F	✔	✔				
419	Young Adult	M	✔	✔				
422	Adult	M	✔			✔		
428	Young Adult	M	✔	✔		✔		
434	Young Adult	F	✔	✔	✔	✔	✔	
440	Young Adult	M	✔		✔			
453	Middle Adult	M	✔					
448	Middle Adult	I	✔	✔	✔			
462	Old Adult	I	✔	✔	✔	✔		
465	Middle Adult	M?	✔	✔		✔	✔	

469	Undetermined	?						
479	Undetermined	?	✔					
490	Young Adult	M	✔	✔				
494	Undetermined	M?		✔				
497	Middle Adult	M?	✔	✔		✔		

Table 20

CONTEXT	AGE GROUP	AGE RANGE	DENTAL PATHOLOGY	VERTEBRAL PATHOLOGY
4	Adolescent			
30	Juvenile	6Years +/- 24 Months		
60	Juvenile			
86	Infant	6 Months +/- 3 Months		
86(2)	Juvenile			
91	Juvenile	4-5 Years		
93	Juvenile	3-5 Years		
102	Infant	9 Months +/- 3 Months		
125	Juvenile	>7 <12		
164	Juvenile	4-5 YRS		

CONTEXT	AGE GROUP	AGE RANGE	DENTAL PATHOLOGY	VERTEBRAL PATHOLOGY
170	Neonate	Birth +/- 2 Months		
303	Juvenile	9-10	✔	
312	Juvenile			
369	Adolescent	14-17		✔
376	Juvenile			
397	Juvenile	3-6		
400	Juvenile	6-8 Years		
431	Adolescent	12-15 Years	✔	
487	Adolescent	12-16 Years	✔	
484	Juvenile			

Table 21

APPENDIX 3: Pottery Assessment

Malcolm Lyne

1.Introduction

The site excavation yielded 1832 sherds (70kg) of pottery from 150 contexts: nearly all of this material is Roman in date and includes significant pre-Flavian ditch assemblages and 15 complete pots from Late Roman burials. The Middle Roman period is poorly represented.

A few Early Saxon sherds came from the post-Roman ploughsoil and the upper fill of one of the Late Roman ditches. Amounts of Medieval and Post-Medieval pottery are negligible.

A further 41 sherds (645gm) of pottery were recovered during the watching brief.

2.Methodology

All of the pottery assemblages were quantified by numbers of sherds and their weights per fabric. Fabrics were classified using a x8 magnification lens with inbuilt metric graticule in order to identify the natures, sizes, forms and frequencies of added inclusions: the fabric codings are those formulated by Museum of London Archaeological Services (Anon 2000). The only pottery assemblage large enough for quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (Orton 1975) is that from the various sections across the Phase 2 ditch.

3.The Assemblages

3.1. Phase1. c.AD.43-50

The surface of the natural subsoil yielded a complete collared flagon in what may be Eccles ware (Context 266, c.AD.50-65)[1]. Eccles and Sugarloaf Court ware are two of the earliest Romano-British wares supplied to the new settlement of Londinium and are indicative of a pre-Flavian and probably pre-Boudiccan fire date.

3.2.Phase 2. c.AD.50-70

The phase 2 ditch yielded a large 460 sherd (20,384gm) pottery assemblage including a number of fresh partial and reconstructable pots. These vessels include at least one Eccles ware

mortarium, several very early Verulamium Region Whiteware flagons and a Sugar Loaf Court ware lid and necked bowl. 'Belgic' grog-tempered ware fragments and some in the coarser Highgate Wood B fabric are also present as are Alice Holt/Surrey ware fragments, sandy handmade vessels in ERSA fabric and an unusual tripod vessel and mortarium in North Kent Shell-tempered ware. Finewares include pre-Flavian South Gaulish Samian and Lyon ware beaker and cup fragments. There is nothing in this important early assemblage which need be later than AD 70. A single sherd from a flask in Highgate Wood C fabric might be thought to be later than that date but the form is very odd and work on pre Boudiccan fire assemblages at Plantation House has unexpectedly indicated that tiny amounts of such pottery were starting to circulate ten years earlier than the accepted start date (Louise Rayner pers comm.).

3.3.Phase 3. c.AD.70

The sand layer deposited during phase 3 yielded 76 sherds (3990 gm) of pottery, most of which is of similar character to that of the Phase 2 ditch. The material does, however, also include a sherd from a Verulamium Region Whiteware flagon of early-2nd century type and 15 fresh fragments from a c.AD.270-400 dated Alice Holt/ Farnham greyware bottle. The former may have found its way into the layer during the following phase but the late Roman bottle is almost certainly from a pit or grave missed during the excavation.

3.4.Phase 4. c.AD.70-170

Of of the two interments belonging to phase 4, only Grave 498 yielded pottery. The 72 sherds (3455gm) of pottery include a large part of a Dr 2.4 amphora in Koan3786 fabric, part of a necked-jar of Frere type 464 in Verulamium Region Greyware (1972, c.AD.100-120) and a number of fresh sherds from a very strange flagon-like vessel in a LOMI type fabric variant with patchy white slip instead of mica-dusting. This vessel has at least one opening cut in its side before firing (c.AD.70/100-160). Fragments from a Highgate Wood C vessel and a Central Gaulish Samian Dr.18/31 platter (c.AD.120-150) reinforce the evidence for an early 2nd century date for this interment.

3.5.Phase 5. c.AD.170/230

The second sand deposit marking phase 5 (Context 280) yielded 99 sherds (2047 gm) of pottery, including everted-rim jar fragments in HWC fabric (c.AD.120-160), a 'pie-dish' with external latticing and a straight-sided dish of Monaghan type 5E1-8 (1987) in BB2 fabric (c.AD.110-180 and c.AD.170-230 respectively) and a flagon of Frere type 1942 in VCWS fabric (1984, c.AD.140-

170). The indications are that this sand was deposited after AD.170 and possibly as late as AD.230.

3.6.Phase 6. c.AD.177/230-400+

Most of the fills of the 85 graves belonging to phase 6 yielded little more than residual sherds. Of these burials, seven contained complete pots: Grave 102 yielded three pots (c.AD.130-190), Grave 208 had one (c.AD.270-400). Grave 255 had one (c.AD.300-400), Grave 304 had three (c.AD.300-370), Grave 370 had one (c.AD.270-400) and Grave 436 had four (c.AD.270-330): the late Cremation 482 yielded most of one greyware pot of late appearance and possible Continental origin.

Some of the burials yielded portions of ?contemporary vessels mixed up with residual sherds. Grave 82 yielded 51 fresh Verulamium Region Whiteware flagon sherds, most of which come from a c.AD.60-90 dated vessel ?deliberately deposited and considerably older than the associated inhumation. Grave 94 produced three fresh joining fragments from a stamped Oxfordshire Red Colour-coat bowl of Young type C73.2 (1977, c.AD.350-400) whereas Grave 183 had fresh fragments from a late Roman handmade grog-tempered jar (c.AD.270-400) and Oxfordshire Red Colour-coat vessels of types C82 (c.AD.325-400) and C93 (c.AD.350-400). Other Late Roman inhumations with contemporary fragmentary vessels include Graves 347 and 353.

One of the more unusual aspects of the complete pots from these late inhumations is that identical Alice Holt/Farnham greyware bottles with black slip decoration and of previously unrecorded type were present in Graves 208 and 436 (2) and broken up and intrusive in the Phase 3 Context 331. They were perhaps from one consignment and indicate that Graves 208 and 436 were contemporary.

The various Phase 6 ditches yielded very little, mostly residual, pottery but appear to range in date between the second and fourth centuries. Amongst these, otherwise insignificant, sherds are 17 fragments of a tripod dish in North Kent Shell-tempered ware from Ditch Section 365 (Context 362).

3.7.Phase 7A. Early Saxon

The pottery from the secondary fill of Ditch Section 151 (Context 137) is mainly 3rd and 4th century in date but also includes three fresh sherds from two sandy Early Saxon cooking-pots. A few

similar Early Saxon potsherds also come from the Medieval ploughsoil (Context 002), the fill of Pit 131 (Context 130) and Ditch fill Context 188.

3.8.Phase 7B. Medieval

The only medieval sherds from the site are ten intrusive cooking-pot fragments with splashes of glaze from Grave cut 376, another c.AD.1250-1500 dated fragment came from the evaluation Context 1003 and a cooking-pot rim in Early Medieval Shell-Tempered ware (c.AD.1025-1150) from Context 3018.

4. Recommendations

The Phase 2 ditch is particularly important because of its very early date and freshness. It should be published and illustrated and EVEs quantification of the assemblage completed. The single flagon from Phase 1 should also be drawn and commented on. All of the pots and partial contemporary pots from the Phases 4 and 6 burials should also be published and drawn with the exception of three duplicate Alice Holt/Farnham bottles. One drawing should suffice here, as part of a further 25 pot illustrations. The pottery assemblages from the various Phase 6 ditches and pits should be written up without recourse to illustration other than of the tripod dish referred to above.

The Early Saxon sherds from the site are particularly important and should also be published and drawings

5. Notes

1. This vessel was still full of soil and awaiting residue analysis at the time of this assessment and sections through the fabric were largely obscured by dirt. Nevertheless, the appearance of the fabric strongly suggests the attribution given above.

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Catalogue

Context	Fabric	Form	Date-range	No of sherds	Wt in gm	Comments
002	AHSU	Cl.1-12 jar	50-140	1	27	
	AMPH			1	30	
	DORBB1	Flanged dish	110-180	2	52	
	HOO	Jar	43-120	1	21	
	HWB	Lid	40-100			
		Jar	40-100	2	57	
	HWC	Closed	70-160	1	2	
	OXID			2	16	
	SAMLZ	Dr 38	140-200	3	49	
	SAND			2	45	
	TSK	Necked jar	150-250	2	52	
	VRW	Closed		4	38	
	E.Saxon	Jar	450-650	1	34	
			50-650	22	423gm	Ph 9
012	LNVCC	FN Beaker	230-300			
		Jug base	230-300	2	24	
	MISC			2	7	
	VCWS	1B flagon	140-250	1	8	
	VRW	closed		1	3	
			mid-3rd c.+	6	42gm	Ph 6
015	BAET	DR20		1	19	Abraded
	HOO			1	7	Abraded
	TSK	3J3 Jar	150-240	1	75	Abraded
	VRW	1B Flagon	140-200+	1	46	Abraded
			Early 3rd c or later	4	147gm	Ph 6
021	HWB		40-100	1	7	Abraded

	VRW	Closed		1	2	
				2	9gm	Ph 6
023	SAMLG	Dr 18	43-90	1	4gm	Abraded ph 6
026	OXID	Flagon base	43-150	3	154	Fresh buff polished Poss Colchester
	VRW			1	2	
				4	156gm	Ph 6
032	BB2	Open form	110-250	1	16	Abraded
	OXID	Flagon	43-150	1	44	Fresh as in 26
	HWC	Cl 4F bowl	70-160	1	10	Abraded
	NKSH	Jar	43-140	1	4	Abraded
	SAND			1	2	
	VRW	Closed		2	7	
				7	83gm	Ph 1 Unlikely
038	AHFA	Trimmed jar base	200-400	1	150	Abraded
	HWB	Jar	40-100	1	13	Abraded
			4th c or later	2	163gm	Ph 6
042	BB2	Open form	110-250	1	4gm	Ph 6
045	OXID	Closed		1	8gm	Abraded Ph 6
050	AHSU	Jar	50-140	1	14	Abraded
	MISC			1	2	Abraded
	SAMLZ		120-200	1	2	Abraded
			Residual in later feature	3	18gm	Phase 6
052	GAUL	Amphora		1	13	
	HOO	Closed	43-120	1	3	Abraded
				2	16gm	Phase 6
053	OXID	1B flagon	70-150	20	428gm	All one pot Phase 1
054	AHSU	Cl 1 jar	120-150	11	369	Fresh 1 pot
	HWB	Jar	40-100	1	20	Abraded
	LNVCC		160-300	1	3	
			Late 2nd c or later	13	392gm	Phase 6
063	AHFA	Jar	200-400	1	18	Fresh

	GAUL	Amphora		1	6	
	NKSH	Store-jar base	50-170	1	122	Fresh
				3	146gm	Phase 5
065	AHSU	Necked jar	100-140			Abraded
		Cl 5 bowl	120-150	2	60	Fresh
	DORBB1	Ac latticed jar	110-180	1	18	Fresh
	VCWS	Flagon		5	75	Fresh
	VRW	Closed		1	3	Fresh
			100-150	9	156gm	Phase 6
066	SAMLZ		120-200	1	12gm	Phase 6
072	ERSI	2A jar	43-70	1	36	
	NKSH	store-jar	50-170	3	42	
				4	78gm	Phase 6
073	BB2	Open form	110-180			
		2F jar	110-200	2	53	
	HWC	beaker	70-160	1	5	Fresh
			100-200	3	58gm	Phase 6
076	HWC	Jar basal	70-160	1	30	
	NKSH	Jar	50-140	1	22	Fresh
	VRG	Closed		1	22	Fresh
			70-140	3	74gm	Ph 6
077	GAUL	Amphora		5	717	Fresh
	HWC	2E jar	70-160	1	10	Fresh
	OXID	closed		1	66	Fresh
	SAND	closed		1	14	
	VRW	complete fl.neck	50-160	1	80	Rim knocked off
			70-160	9	887gm	Ph 6
080	DORBB1	Cooking-pot	110-180	1	17	
	VRW	1B Flagon	60-90			Frere 107.most of
		flagon		51	1293	
				52	1310gm	Ph 6
081	VRW	Flagon		4	31gm	Fresh Ph 6
086	OXID	Closed		8	28	Gritty buff-pink maroon paint discs

	VCWS	Closed		1	10	
				9	38gm	Ph 6
092	OXRC	C73.2 bowl	350-400	3	11gm	Fresh 1 pot. Ph 6
097	AHFA	Jar	200-400	1	33	Fresh
	AHSU	1-20 jar	50-140	1	10	Abraded
	NFCC	closed w.painted	300-350	1	1	Fresh
	SAND	closed		1	1	Fresh
			300-350	4	45gm	Ph 6
099	BB2	4G bowl	110-150	2	16	Fresh
	DORBB1	open form	110-300	1	9	
	HWC	closed	70-160	2	16	
	LONW	bowl	60-120	1	14	
			110-150+	6	55gm	Ph 6
102	**BB2**	**2F jar**	**120-190**	**1**		**Complete**
	SAND	**tettina**		**1**	**250**	**Complete**
	VRW	**1B FLAGON**	**130-140**	**1**		**Frere 565 complete**
			120-150	3		Ph 6
117	AHFA	Jar	200-400	1	12	Fresh
	BAET	DR20		2	190	
	BB2	Open form	170-250	1	45	Fresh
	HWB	Jar	40-100	1	82	Abraded
	OXID	Bowl	250-350	2	91	
	SAND	Closed	300-400	1	9	Fresh
			250-400	8	429gm	Ph 6
119	SAMLZ		120-200	1	7	Abraded
	Tile			1	4	
			Residual	2	11gm	Ph 8
121	BB2	Closed	110-250	1	2	Abraded
	HWB		40-100	1	10	Abraded
				2	12gm	Phase 6
130	AHFA		200-400	3	53	
	BAET	DR20		1	5	Abraded
	SAMLZ		120-200	1	1	
	MED	Jugs	1250-1350	2	6	Fresh

	E Saxon		450-650	1	25	
	Tile			1	12	Abraded
			1250-1350	9	102gm	Ph 7
132	BB2	4H1-4 bowl	120-180	1	7	Abraded
	LNVCC	barbotine beaker	160-270	1	2	
	LONW	beaker	60-120	1	1	
	MHADG	Jar base	250-400	1	28	Abraded
	MISC			4	35	
	MOSL	Beaker	200-276	1	1	
	OXRC	Beaker base	270-400	1	40	Fresh
	PORD	Rilled jar	330-420	1	9	Abraded
	SAMLZ		120-200	1	1	Abraded
	SAND			7	20	Abraded
	VRW	Jar		4	15	Abraded
			330+	23	159gm	Ph 6
137	DORBB1	Open form	110-300+	1	10	
	OXRC	Bowl	240-400	1	71	Fresh
	SAND			1	22	Fresh
	TSK	Jar	150-300	1	17	Abraded
	E.Saxon	2 jars	450-650	3	99	Fresh and abr
			250-450+	7	219gm	Ph 6
138	BB2	5E1-7 dish	130-300	1	9	Abraded
	OXID			1	10	
	SAMLZ		120-200	1	1	
			120-300	3	20gm	Ph 6
139	OXWS	Closed form	240-400	3	18gm	Fresh Ph 6
140	SAMLG	Dr 29	43-85	1	2	
	VRW	Flagon	50-150	1	31	Fresh
		Mortarium	50-150	1	36	Overfired
			50-150	3	69gm	Ph 6
141	OXID	Closed		3	26	
	OXWS	Closed form	240-400	2	14	Fresh
	Tile			1	6	
			240-400	6	45gm	Ph 6

156	AHFA		200-400	2	18	Abraded
	AMPH			1	9	Abraded
	CGWH	Roughcast beaker	60-120	1	1	Abraded
	LNVCC	Beaker	160-400	1	2	Fresh
	SAMLZ		120-200	1	2	
	SAND			2	8	Abraded
	VRW	Closed		4	21	Abraded
			Late Roman	12	61gm	Ph 6
159	SAMLG	Closed	43-110	1	1	Abraded
	Fired clay			1	7	
				2	8gm	Ph 6
165	BB2	Jar	110-250	1	14	Abraded
	SAMLG	Dr 18	43-90	1	5	
	OXWW	W47 Dish	240-400	1	47	Abraded
			240-400	3	66gm	Ph 6
167	AHSU	Cl 1 jar	100-140	3	96	
	NKSH	Store-jar base	50-170	1	340	
	VRW	Mortarium	50-150			
		Flagon	50-150	2	21	
			50-140	6	457gm	Ph 6
169	BB2	2F jar	110-200	7	20	Fresh
	ERSA	**necked jar**	**40-80**	**30**	**700**	**Complete jar**
	NKSH	necked jar	50-70	1	6	Abraded
			110-200	38	726gm	Ph 6
170	NKSH		50-170	1	1	Abraded lump
	SAND			4	4	Abraded
			Residual	5	5gm	Ph 6
174	ERSB	Jar	60-120	3	33	
	HOO		43-120	1	1	
	NKSH		50-170	2	29	Abraded
	SAMLG	Dr 27	43-110	1	2	Fresh
	SAND	Closed		2	8	
	Tile			1	5	Abraded
	Fired clay			2	53	

			60-120	12	131gm	Ph 6
176	BAET	DR20		1	96	Abraded
	ERSB	2x2A jars	60-120	8	58	
	HWC	closed	70-160	1	1	Abraded inc 1 leg
	NKSH	bead-rim tripod	50-70	5	249	
	SAMLG	vessel	55-75	2	13	Fresh
	VRW	Dr.27		6	187	
	Fired clay	Lagena		2	32	With perf ?Kiln floor
			70-120	25	636gm	Ph 6
178	BB2	2F jar	170-250	1	121	Fresh
	OXID			1	5	Abraded
	TSK	necked jar	170-230	1	18	
			170-250	3	144gm	Ph 6
181	GROG	Jar	270-400	1	20	Fresh
	OXRC	C93 bowl	350-400	1	15	Fresh
		C82 bowl	325-400	1	9	Fresh
	VRW	Closed		1	3	Fresh
			350-400	4	47gm	Ph 6
182	NKSH		50-170	1	5gm	Ph 6
186	HWB	Jar	40-100	1	9gm	Fresh Ph 6
188	BAET	DR20		1	36	Abraded
	DORBB1	Incip b+fl. Bowl	210-290	1	16	Abraded
	ERSA	Jar	40-80	2	49	
	ERSB	Jars	60-120	2	61	Fresh
	GAUL	Amphora base		1	185	
	MARB	Flagon	350-400	2	96	
	OXID	Bead-rim beaker	250-350	4	30	Fresh
	OXRC	Beaker base	270-400	1	18	Abraded
	SAMLZ	Dr 31	150-200	3	41	Abraded
	TSK	Jar	150-300	4	107	
	VCWS	Closed		2	21	Abraded
	Tile			1	14	
	E.Saxon		450-650	1	21	
			250-650	25	695gm	Ph 6

189	BAET	DR20		1	122	Abraded
	NKSH	Store-jar	50-170	1	65	Abraded
			Residual	2	187gm	Ph 6
191	ERSA	Jar	50-80	1	27gm	Refired Ph 6
199	BAET	DR20		1	355gm	Ph 6
202	AMPH			1	3	
	HOO	Flagon	43-120	2	6	
	NKSH	Jar	50-140	1	26	Abraded
	VCWS	Flagon		1	3	Fresh
			50-140	5	38gm	Ph 6
204	AMPH	Amphora neck		1	132gm	Ph 6
206	HWB	Bead-rim jar	40-100	1	81gm	Fresh Ph 6
207	**AHFA**	**Bottle**	**270-400**	**1**	**407gm**	**Complete PH 6**
211	AMPH			1	70	
	HWB	Jar	40-100	1	14	
	NKSH	Jar	50-140	1	15	
	SAMLZ		120-200	1	1	
	VCWS	Closed		1	2	
	VRW	Jar		2	9	Abraded
			120-200	7	111gm	Ph 6
218	HWB	Store-jar	40-100	2	45	
	OXID	Jar		1	21	
	RDBK	Closed	50-90	1	6	Fresh
	SAMLG	Dr 18	43-90	1	30	Fresh
	VRG	Necked jar	130-150	1	14	Fresh
	VRW	Bowl base		1	37	Fresh
			Late 1^{st}-2^{nd} c	7	153gm	Ph 6
220	SAMLZ	Dr 36	120-200	3	29	
	OXID	Closed		1	5	Fresh
				4	34gm	Ph 6
227	BB2	4H5-7 bowl	170-250	1	23	Abraded
	HWC	2E jar	70-160	1	15	
	LNVCC	beaker	160-400			Abraded

		box	160-400	2	7	Abraded
	SAMLG		43-110	1	2	abraded
	VCWS	closed		1	12	abraded
			Residual	6	59gm	Ph 6
234	BAET	DR20		1	30	
	VRW	Closed			18	Abraded
		Mortarium		2	32	Abraded
			Residual	3	80gm	Ph 8
235	ERSB	Necked jar	60-120	4	55	Fresh 1 jar
	OXID	Lid		1	7	
	SAMLG	Dr 27	70-95	1	1	Fresh
			60-120	6	63gm	Ph 6
239	AHSU	Closed	50-140	1	8	abraded
	AMPH	Amphorae		2	87	
	BAET	DR20		1	197	
	DORBB1	Bowl	200-300	1	16	fresh
	ERMS	GB platter copy	60-80	1	16	fresh
	ERSA	2A jars x3	40-80	17	309	
	ERSB	necked jar	60-120			
		lid	60-120	4	41	fresh
	FMIC	butt beaker	50-120	4	36	fresh
	GROG	2E jar	L.I.A.-80	1	77	fresh
	SH 2826	2A jar	50-100	8	169	
	LOXI2599	flagon	70/100-160	11	140	
	HWB	necked jar	40-100	1	83	
	HWB/C	necked jar	60-80	1	30	Fresh
	NKFW	Biconical	43-130	1	4	fresh
	NKSH	2A jars	50-80	4	370	fresh
	OXID	closed		2	32	
	SAMLG	Ritt 12	43-80			
		Dr 15/17	43-85			abraded
		Dr 24/25	43-80			
		Dr 27	60-80			
		Dr 37	70-110	9	198	

	SAND			6	19	
	SLOW	Lid	50-80	4	219	fresh
	VRG	4A bowl	70-100	1	42	
	VRW	IB flagon	140-180			fresh. Frere 326
		IC flagon		43	474	fresh
	Fired clay			1	17	
			Either 70-80 with intrusive later material or 3rd c with much material derived from earlier feature	124	2584gm	Ph 6
241	SHELSA	Closed	50-100	1	7	Abraded
	VRW			1	3	Abraded
			Residual	2	10gm	Ph 6
245	SAND	Closed		1	8gm	Ph 6
247	GROG	2A jar	L.I.A.-80	1	9	Abraded
	HWB	mortarium	40-100	1	88	Abraded
	OXID	closed		1	13	
	TN	open form	43-70	1	11	Abraded
			Residual	4	121gm	Ph 6
252	VRW	Flagon		2	41gm	Fresh Ph 6
255	AMPH	Amphora		1	44	
	HOO			1	3	
	HWC	Lid	70-160	1	13	Abraded
	NKSH	dish	50-80	1	20	Abraded
	LNVCC	**Bottle**	**300-400**	**1**	**468**	**Complete H.P.M 69**
	VRG	Closed		1	19	
			300-400	6	567gm	Ph 6
262	AMPH			1	198	
	GAUL			1	29	Fresh
	SAMLG		43-110	1	8	
				3	235gm	Ph 6

266	**?ECCW**	**1A Flagon**	**50-65**	**1**		**PH 1 complete**
272	HWC	4F bowl	70-140	1	12gm	
276	ERSA	Closed inc furrowed	40-80	6	88	
	SAND	Beaker etc	50-100	3	73	
	VRG	Closed		1	14	
	VRW	Closed		3	45	
			Residual	13	220gm	Ph 7
278	CCGW	Necked jar	70-120	1	25	
	ERSB	2A jar	60-120	3	60	
	HWC	2E jar	70-160	1	13	Abraded
	SAMLG	Dr 29	43-85	2	16	
	Tile			1	11	
			70-120	8	125gm	Ph 6
280	AHSU	2A jars x2	50-100	7	122	fresh
	AMPH	amphora		2	94	abraded
	BAET	DR20		3	144	abraded
	BB2	4H1-4 bowl	110-180			
		Mon. 5E1.8 Dish	170-230	3	62	
	C186-1176	CAM 186 amph	43-200	1	272	
	CCGW	4A bowl	70-120	1	27	fresh
	ECCW	closed	50-65	3	28	
	FMIC	jar base	50-120	15	96	Fresh 1 base
	HWB	closed	40-100	5	105	abraded
	HWC	3E beaker	70-160			fresh
		4A bowl	70-140			fresh
		2E jar	70-160			fresh
		2F jar	120-160			
		2R flask	140-160	11	134	
	MISC			2	34	
	NKFW			1	11	
	NKSH	storage jar	50-170			abraded
		closed	50-140	5	63	fresh
	OXID			3	171	
	RDBK	2x3B beakers	50-90	4	39	fresh

	SAMLG	Dr 27	43-110	5	32	
	SAND			10	76	
	VCWS	1B flagon	140-170	2	96	Frere 1942
	VRG			1	2	
	VRW	1B flagon	145-150			Frere 563 fresh
		2H jar	130-200			
		mortarium	100-150	15	439	
			50-170+	99	2047gm	Ph 5
286	OXID	Closed		1	1	Fresh
	SAND			2	6	Abraded
	VRW	Closed		1	6	Abraded
				4	13gm	Ph 6
289	AHSU	Closed	50-140	1	16	Abraded
	BB2	2F jar	130-200	2	18	Abraded
	HWB	store-jar	40-100	1	58	Abraded
	OXPA	closed	240-400	1	2	
			240-400	5	94gm	Ph 6
291	OXWS	Closed	240-400	1	17	V fresh
	SAND	Large flanged dish		1	26	
	VRW	Closed		1	45	
			240-400	3	88gm	Ph 6
297	AHSU	Jar	50-140	2	57	
	C186-1176	CAM 186	50-200	1	177	
	BAET	DR20		1	273	
	FINE	Closed	70-120	1	10	
	FMIC	Necked jar	50-120			
		3B beaker	50-120	6	80	fresh
	HWBR	Platter	70-100	1	42	fresh
	LOXI2599	Flagon base	70-160	1	47	
	NKSH	2x2A jars	50-140	6	254	fresh
	OXID			2	64	
	SAMLG	Dr 29	43-85	1	15	fresh
	SAND			2	30	
	VRW	1B flagon	60-100	20	634	Frere 238 most 1

						flagon
			70-120	44	1683gm	Ph 7
299	ERSB	Jar	60-120	4	27	Fresh
	LOXI2599	Closed	70-160	1	46	Fresh
	NKSH	Jar	50-80	1	15	
	SAMLG	Dr 24/25	43-80	1	13	
			70-120	7	101gm	Ph 6
302	AMPH			1	14	
	LNVCC	**Pentice beaker**	**250-350**	**1**		**Complete**
		w.painted beaker	**250-370**	**1**		**Complete**
		w.painted beaker	**250-370**	**1**		**Complete**
	LOMI	closed	60-160	1	4	Fresh
	VCWS	closed		1	2	Fresh
	Tile			1	13	
			300-370	7		Ph 6
305	ERSB	Closed	60-120	2	11	
	NKSH	2A jar	50-80	1	23	
	SAMLG		43-110	1	1	
	SAMMV		90-120	1	1	
				5	36gm	Ph 6
312	AHFA	Closed	270-400	1	3	Fresh w slip
	HWC		70-160	1	5	
			270-400	2	8gm	Ph 6
317	ERSA	Closed	40-80	1	12	
	SAMMV		90-120	1	19	
	VRW	Closed		1	1	
				3	32gm	Ph 6
320	AHFA	Jar	200-400	1	11	Fresh
	AMPH			1	34	
	BB2	4H1-4 bowl	110-180	1	3	
	HWB	closed	40-100	1	7	
	HWC	closed	70-160	1	7	
	VCWS	closed		1	10	
			200-400	6	72gm	Ph 6

323	AHSU	Cl.1-12 jar	50-140	2	13	
	ERSA	Jar	40-80	1	35	
	HWB	2A jar	40-100	2	33	fresh
	VRW	1B Flagon	60-90	4	247	Frere 107. fresh
						whole top
			60-80	9	328gm	Ph 2
328	HWC	2E jar	70-160	3	21	Fresh
	SAMLG		43-110	1	1	Abraded
	VRG	tazza	50-150	1	21	Abraded
	VRW	closed		3	25	
				8	68gm	Ph 6
329	VCWS	Flagon		1	4gm	Ph 6
331	AHFA	Flask	270-400	15	277	Fresh 1 pot
	AHSU	Cl 8.3 lagena	50-80			fresh
		Cl 6 dish	50-120	10	235	fresh
	AMPH			2	659	abraded
	BAET	DR20		6	893	abraded
	ERSA		40-80	2	28	
	ERSB	2A jar	60-120	9	428	fresh
	HWB	necked jar	40-100	1	62	
	HWC		70-160	1	3	
	NKFW	2G1 biconical	60-130			fresh
		5B2.5 dish	90-130	2	32	
	NKSH			1	3	abraded
	OXID			1	4	
	SAMLG	Dr 29	43-85			
		Dr 36	70-110			
		Dr 37	70-110	7	122	
	SAND			4	43	
	VRG	Jar		2	95	
	VRW	1B flagon	100-120			Frere 378 fresh
		1B flagon				fresh
		mortarium	50-80			Frere 354 fresh
		mortarium		13	1106	Fresh

			50-120 with ?AHFA pot from later burial	76	3990gm	Ph 3
332	AMPH C186-1176 GAUL HWB SAMLG VRW Tile	Amphora CAM186 amphora Gauloise 3 or 4 Jar base Dr 27 Mortarium	 43-200 43-100 40-100 55-75 60-100	4 14 1 1 1 21 2	1408 2615 376 55 43 3549 88	Int resin fresh fresh Much of small ex SOLLVSF fresh
			43-60+	44	8134gm	Ph 2
333	AHSU HOO OXID SAMLG SAND	Cl 1 jar Flagon Dr 18	50-140 43-120 70-110	1 1 2 1 1	8 10 2 20 18	 Abraded Fresh
				6	58gm	Ph 6
336	CGWH HWB SAMLG SAND VCWS	Roughcast beaker Jar Dr 37	60-120 40-100 70-110	1 1 1 1 1	4 22 7 6 18	 Fresh Abraded Abraded
				5	57gm	Ph 6
337	SAND			1	2gm	Ph 6
341	BB2 VRW	Open form	110-250	1 2	59 19	Abraded Abraded
			Residual	3	78gm	Ph 6
342	HOO HWC VRW	Flagon basal Beaker Closed	43-120 70-160	1 1 1	6 4 10	Fresh Fresh
			70-120	3	20gm	Ph 6
343	VRW	Closed		1	1gm	Ph 6
346	BB2 DORBB1	Open form 2F jar	110-250 110-200	2 1	34 7	

	HWC	2E jar	70-160			
		4F bowl	70-140	6	55	
	NGWW	Pentice beaker	150-270	5	28	Fresh 1 pot
	NKSH	Store-jar	50-170	1	33	Abraded
	SAMLG	Dr 18 or 18/31	43-110	2	5	
	SAND	Colander		1	5	
	VRW	Flagon		1	32	
			150-270	19	199gm	Ph 6
349	AMPH			1	46	
	HOO	Flagon	43-120	1	45	
				2	91gm	Ph 6
351	HWB		40-100	1	8	Fresh
	FMIC	Jar	50-120	1	11	
	OXID	Beaker base	250-350	8	96	Fresh one pot
	VRW	Flagon		4	45	
			250-350	14	160gm	Ph 6
353	BB2	2F jar	110-200	1	7gm	Ph 6
354	BAET	DR20		1	104	
	C186-1176	CAM 186	43-200	1	220	Abraded
	BB2	4H1-4 bowl	130-180	3	38	Abraded
	GROG	ev rim jar		2	43	
	HWC	2E jar	70-160	1	7	
	OXID	closed		1	18	Abraded
	SAMLG	Dr 18	43-90	1	1	Abraded
	SAMLZ		120-200	3	16	Abraded
	SAND	Closed		2	14	
	SHEL			1	4	
	VRW	1B flagon	140-170			Abraded
		mortarium	100-150	5	78	Abraded
			Residual	21		Ph 6

					543gm	
358	**VRW**	**Lower half of flagon**	**140-200**	**15**	**912gm**	**PH 6**
360	AHSU	CL 1-12 JAR	50-120	2	24	
	BAET	DR20		3	264	
	CAMP	Amphora	50-70	1	424	
	GAUL	Amphora		1	89	
	NKSH	Store jar base	50-170	1	199	
	OXID	Flagon	43-70	1	39	
	SAMLG	Dr 27	60-80	1	12	
	VRW	Mortarium	55-90			Frere 223
		Mortarium				
		1B flagon x2	60-90	13	2243	Frere 102
			50-70	23	3294gm	Ph 2
362	FMIC2559	RITT 12 COPY	60-100	2	105	Fresh
	NKSH	Tripod dish	50-80	17	632	One vessel
			60-80	19	737gm	Ph 6
368	**AHFA**	**FLASK**	**270-400**	**1**	**465**	**COMPLETE**
	HWB	Jar	40-100	2	21	Abraded
	HWC	Beaker	70-160	1	5	
	LOMI	Platter	60-160	1	7	
	NKSH	Jar	50-80	1	5	
	TSK	Necked jar	170-250	1	8	
	VRW	Closed		6	66	Fresh
			270-400	13	577gm	Ph 6
369	DORBB1	Beaker	110-250	2	9gm	Ph 6
372	SAND	Jar basal		1	12gm	Ph 6
376	BAET	DR20		1	36	
	BB2	Jar	110-200	1	2	
	HWB	Jar	40-100	3	51	
	HWC	Beaker	70-160	1	3	
	SAMLG		43-110	2	2	

	VRG	Jar		1	16	Abraded
	VRW	Flagon		2	26	
	Medieval	Cooking-pot	1200-1350	10	157	fresh
			?Medieval intrusive	21	293gm	Ph 6
387	AHSU	Jar	50-140	1	6	
	SAND	Closed		3	27	
	VRW	Jar	130-160	3	45	Fresh
				7	78gm	
389	ERSB	Jar	60-120	1	19	Fresh
	NKSH	Jar	50-80	1	24	
	VRW	Flagon		3	22	Fresh
			50-70	5	65gm	Ph 2
392	AHSU	Jar	50-140	1	7	abraded
	GAUL			1	41	abraded
	HWB	Jar	40-100	1	28	fresh
	HWC	Closed	70-160	1	4	
	NKSH	Store-jar	50-170	1	13	abraded
	SAMLG	Dr 29	43-85	2	6	
	SAND			3	49	abraded
	VRG	Lid		1	23	fresh
	VRW	1B flagon	60-90	3	100	Frere 102
			Residual	14	271gm	Ph 6
396	SAND	Large jar		2	73	
	SAMLG	Dr 15/17	43-85	2	5	
	VRW	Flagon		1	11	Fresh
				5	89gm	Ph 6
402	DORBB1	2F Jar	110-200	1	24	abraded
	ERSA	jar bases	40-80	2	84	fresh
	HWB		40-100	1	6	
	LOXI2599	flagon base	70-160	1	14	
	SAMLG	Dr 29	43-85	1	23	fresh
	SAMLZ	Dr 37	70-200	1	2	abraded
	SAND			1	2	abraded

	Tile			1	5	
				9	160gm	Ph 6
405	HWC	Jar	70-160	1	10	Fresh
	VRW	Mortarium	50-100	1	97	
				2	107gm	Ph 6
412	MISC	Closed		1	18	
	Tile			1	19	
				2	37gm	Ph 6
418	SAMLG		43-110	2	3gm	Ph 6
421	AMPH	Amphora		2	59	
	BB2	2F jar	120-250	1	9	
	ERSA	GB platter imit	40-70	1	45	
	LNVCC	Indented beaker	160-400	1	3	Abraded
	OXID			1	18	Abraded
	SAMLG	Dr 18	70-110			
		Dr 27	75-100	2	10	
	SAND			1	4	Abraded
	TSK	Necked jar	270-370	2	14	Fresh
	VRW	Flagon basal		2	38	Fresh
			270-370	13	200gm	Ph 6
422	HWB		40-100	1	5gm	Ph 6 v.abraded
424	AMPH	Amphora		1	27	
	BAET	DR20		2	174	
	ECCW	Closed	50-65	1	19	
	HWB		40-100	1	11	
	NKSH	Store-jar	50-170	1	27	Abraded
	SAMLG	Rivetted Dr 29	43-85	7	80	Fresh
	SAND	Closed		1	8	
	VRW	Closed		2	15	Fresh and abraded
			50-65	16	361gm	Ph 2
426	AHSU	Closed	50-140	1	8	Fresh
	C186-1176	Amphora	43-200	3	212	
	ECCW	Closed	50-65	1	21	
	ERSA	Closed	40-80	1	18	Fresh

	GAUL	Gauloise orange fab	43-100	1	153	Fresh
	GROG	Bead-rim jar	L.I.A.-50	1	22	
	HWB	Lid	40-100	4	104	Fresh
	NKFW	4J1 bowl	43-120	1	16	Fresh
	SAMLG	Dr 29	43-85	2	31	Fresh
	SAND			3	26	Fresh
	VRW	Closed		2	17	
			50-65	20	628gm	Ph 2
427	AHSU		50-140	1	10	Abraded
	BB2		110-250	3	14	Abraded
	HWB		40-100	1	8	Abraded
	HWC	Closed	70-160	1	5	
	SAMLG		43-110	3	2	Abraded
	SAND			3	8	
	tile			1	1	
			Residual	13	48gm	Ph 6
428	FMIC	Beaker	50-120	1	1	
	SAMLG	Dr 15/17	43-85	1	2	Fresh
	VCWS	Closed		1	6	
				3	9gm	Ph 6
430	OXRC	Mortarium	240-400	1	10	Abraded
	SAMLG	Dr 29	43-85	1	4	
	TSKSC	Jar	180-300	1	15	
	VRW			1	3	Abraded
			4th c	4	32gm	Ph 6
433	**AHFA**	**Bottle**	**270-400**	**1**		**Complete**
		Bottle	**270-400**	**1**		**Complete**
		6A-4 dish	**270-370**	**1**		**Complete**
		5B-4 bowl	**270-330**	**1**		**Complete**
	BAET	DR20	170-300	1	22	
	BB2	4H1-4 bowl	110-180	2	11	
	CGWH	roughcast beaker	60-140	1	6	

	LNVCC	Indented beaker	160-400	1	4	
	OXID	Closed basal etc		2	36	
	SAMLG	Dr 37	70-110	1	2	
	SAND			4	27	
	VRW	Flagon		3	3	
			270-330	19		Ph 6
437	AHSU	Cl.1-20 jar	50-120	1	49	Fresh
	AMPH			1	23	
	BAET	DR20 M-K12	40-60	5	889	fresh
	CGOF	Roughcast beaker	60-140	1	28	fresh
	ECCW	Mortarium	50-65			fresh
		Closed	50-65	2	404	
	ERMS	2A jar	50-80	2	28	
	ERSA	Necked jar	40-80			fresh
		Jug	40-80	49	786	fresh nearly all
	ERSB	2A jar	60-120			fresh
		2E jar	60-120	26	463	complete
	FMIC	3C beaker	50-100	7	42	fresh
	HOO	1B flagon	50-60	18	614	Davies etal 135
						complete top
		flagon				Complete neck
	HWC	?Flask	60/70+	2	20	fresh
	KOAN3786	DR2.4 Amphora	70-100	6	686	fresh
	LONW	Closed form	60-120	1	20	
	LYON	Cup	43-70	7	41	fresh
	NKFW	Closed	43+	1	1	
	NKSH	Tripod vessel	50-70			fresh. Most of
		Bowl				fresh
		Mortarium	55-80	23	1470	
	OXID			3	55	
	SAMLG	Dr 18	60-80			RVFIN fresh
		Dr 27	55-75			fresh
		Dr 29	43-85	4	200	fresh
	SLOW256	Necked bowl	50-60	1	35	fresh

	5	1B flagon	60-75			Frere 106 complete
	VRW	1B flagon	60-75	12	952+	top
						Frere 106 complete
			50-70	172		Ph 2
439	ERSA		40-80	1	23	Fresh
	SAND	Store jar		1	23	
				2		Ph 6
					46gm	
442	ECCW	Mortarium base	50-65	1	266	
	GAUL	Amphora		1	32	
	GROG	2E jar	L.I.A.-50	1	11	
	NKSH	2A jar	50-80	1	84	Fresh
	SAMLG	Dr 29	43-85	1	6	Fresh
	VRW	Closed		1	12	Fresh
			50-70	6	411gm	Ph 2
446	AHSU	Jar	50-140	1	6	
	DORBB1	Open form	200-300	1	25	
	FMIC	Closed	50-120	2	21	
	HOO	Flagon basal	43-120	1	14	
	HWB	2A jar	40-100	1	32	
	HWC	2E jar	70-160	2	10	
	LOMI	flagon etc	70-160	2	82	
	RDBK	3B beaker	50-90	1	4	
	VCWS	closed		1	4	
	VRW	flagon		6	44	
			200-300	18	242gm	Ph 6
452	HWC	Closed	70-160	1	3	
	VCWS	Closed		1	6	
	VRG	Closed		1	4	
	VRW	Flagon		2	42	
				5	55gm	Ph 6
456	ERSA	Necked jar	40-80	1	58	Fresh
		Lid	40-80	2	263	Fresh
	ERSI	Jar	40-70	1	32	Fresh

	NKSH	2A jar	50-80	1	48	Fresh
	SAMLG	Dr 18	43-70	1	28	Fresh
			50-70	6	429gm	Ph 2
457	GROG	Necked jar	L.I.A.-50	1	56	Fresh
	NKSH	2x2A jars	50-80			Fresh
		handled bowl	50-80			Fresh
		lid	50-80	21	424	Fresh
	OXID1861	base of jar	60-120	5	62	Fresh
	SAMLG		43-110	1	2	
	VRW	1A flagon	50-80	18	529	Complete flagon top
			50-80	46	1073gm	Ph 2
459	NKFW	Biconical	60-130	3	35	Fresh
	SAMLG	Ritt 12	43-80	22	577	Most of
		Dr 18R	50-65	2	844	OFNIGRI complete
			50-80	27	1456gm	Ph 2
464	SAMLZ	Dr 31	150-200	1	43gm	Ph 6
467	AHSU	Jar	50-140	2	35	Fresh
	RDBK	3B beaker	50-90	1	2	
	VRW	closed		4	96	
			50-90	7	133gm	Ph 6
470	AMPH	Amphora		2	69	
	ERSA	Jar	40-80	2	77	fresh
	ERSB	2E jar	60-120			
		2A jarx2	60-120			
		necked jar	60-120			
		3F beaker	60-80	11	111	
	GROG	jar	L.I.A.-50	2	97	Fresh
	HWB		40-100	2	14	
	LYON	beaker base	43-70	1	4	
	OXID	closed		1	6	Fresh
	SAMLZ1	Dr 27	50-80	1	22	Fresh as in 471
	VRW	Closed		4	128	
			50-80	26	528gm	Ph 2
471	AHSU	Cl.1-12 jar	50-120			Most of large pot

		Cl 1-20 jarx2	50-120	57	1951	Complete and ½ pot
	AMPH	Amphora		1	54	
	BAET	Haltern 70?		6	1033	
	ECCW	Flagon	50-65	3	140	fresh
	ERMS	Necked jar	50-80	1	43	fresh
	ERSA	Jar	40-80	1	31	fresh
	ERSI	Closed	50-70	1	7	
	FMIC	Closed	50-120	2	5	
	HOO	Flagon	43-120	3	52	fresh
	HWB	Jar	40-100			fresh
		Mortarium	40-100	4	270	Abraded
	KOAN	Dr 2.4 amphora		1	216	fresh
	NKSH	Necked jar	50-80			
		2A jar	50-80	4	161	fresh
	OXID			1	18	
	SAMLG	Dr 29	43-85			fresh
		Dr 18	43-90			
		Dr 24/25	43-80	6	68	
	SAMLZ1	Dr 27	50-80	3	114	fresh as in 470 stamp
	SHELSA	2A jar	50-80	4	165	fresh
	VRW	1D flagon	50-60	14	616	Frere 1971 comp top
	Fired clay			1	69	
			50-80	113	5013gm	Ph 2
473	HWC	Closed	70-160	1	7gm	Ph 6
478	NKSH	Jar	50-80	1	88	
	SAMLG	Dr 15/17	43-85	2	15	
	VRW	Flagon		5	109	
				8	212gm	Ph 6
479	HWB		40-100	1	4gm	Ph 6
481	SAND	Necked jar	300-400	15	141gm	Much of one pot Ph 6
487	C186	CAM 186	43-100	1	2058	Hollow spike
	GAUL	Gauloise 4		11	979	All one amph Ph 6
				12	3037gm	Ph 6
489	AHSU	Closed	50-140	1	8	

	FMIC	Closed	50-120	2	7	
	GROG	Ev rim jar	270-400	1	6	
	HWB	Lid	50-100	3	55	
	NKSH	Closed	50-80	1	7	
	OXID			1	6	
	OXRC	C51 bowl	240-400	1	3	Refired
	VRW	Closed		1	2	
			270-400	11	94gm	Ph 6
493	ERMS	Closed	50-80	1	5	Fresh
	GROGSA		50-80	1	11	Abraded
	SAND			1	10	Abraded
			50-80	3	26gm	Ph 4
496	AHSU	Closed	50-140	1	9	
	BAET	DR20		1	238	Abraded
	HWC		70-160	1	1	
	KOAN3786	DR2.4 amphora	43-200	27	2557	Fresh
	NKSH	Storage jar	50-170	1	11	Abraded
	LOMI	Perforated vessel	70/100-160	24	411	Fresh one pot.
	SAMLZ	w/s	120-150			unusual
		Dr 18/31	120-200	3	13	
	VRG	Dr 30	100-120	8	121	
		Necked jar		2	58	Fresh one pot.Frere
	VRW			4	36	464
		Closed				
			120-150	72	3455gm	Ph 4
499	AHSU	Closed	50-140	2	25	
	BAET	DR20		2	420	
	HWC	Closed	70-160	2	18	
	NKSH	Closed	50-80	1	4	
	OXID			2	29	
	SAND			4	58	
	VRW	Mortarium etc		3	153	
		4A bowl	130-200	1	18	fresh
			130-200	17	725gm	Ph 6

500	DORBB1	2F Jar	160-200	10	715gm	Ph 6. one pot
505	FMIC	Open form	50-120	1	72	
	SAMLG	Dr 18	43-90			
		Dr 27	43-110	3	26	
			50-120	4	98gm	Ph 6
506	ERSA	Lower part of jar	40-80	2	51	Fresh
	SAND			1	2	
				3	53gm	Ph 6
507	VRW	Closed		1	50gm	Ph 6

Evaluation

Context	Fabric	Form	Date-range	No of sherds	Weight in gm	Comments
1003	Prehist?	Thick-walled vessel	?LBA	1	12	Abraded
	FMIC		50-120	1	8	
	VRG	Small dia pot		1	9	Fresh
	medieval		1250-1500	1	7	
			1250-1500	4	36gm	
1011	AMPH	Amphora		2	53	Abraded
	SAMLG		43-110	1	1	
	SAND			1	6	Abraded
				4	60gm	
1012	TSK	4H5-7 bowl	170-250	1	97	Fresh
	BB2	4H1-4 bowl	130-180	1	6	Abraded
	DORBB1	2F jar	110-200	2	28	
	GAUL			1	56	
	OXID	closed		2	8	
	SAMLZ		120-200	2	7	
	SAMMV	Curle 11	90-120	1	3	
	SAND			5	50	
	VRW	Closed		1	20	
			170-250	16	75gm	
2004	AHFA		200-400	1	1gm	

2012	LNVCC	Closed	160-400	1	5gm	
2014	DORBB1 ERSA HWC OXID	2F jar closed closed	220-280 40-80 70-160	1 1 1 1	141 14 3 4	Fresh
			220-280	4	62gm	
3012	LOXI	Lid	90-160	1	23gm	
3018	EMSH	Cooking-pot	1025-1150	1	10gm	
4006	OXID	Closed		9	3gm	

APPENDIX 4: Animal Bone Assessment

Lisa Yeomans

Introduction

A moderate quantity of faunal remains was recovered during the excavations on Lant Street. Although bone preservation was average many of the remains were coated in a solid concretion affecting the identification of cutmarks and the species identification of sheep/goat bones. The animal bones reflect the extra-mural nature of the site during the Roman period with remains of animal carcasses that were dumped outside the main settlement. Minimal faunal remains were recovered from the medieval or post-medieval phases.

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

Results

Quantification of the animal bone by phase is given in Table 1. Most of the animal bone was recovered from Roman features (Phases 2-6). In the Roman period the site was used as a burial ground with most features representing graves or boundary ditches on the outskirts of Roman London. Geographically the site was within easy access from Watling Street and Stane Street but not intensively settled. Much of the animal bone reflects the secondary deposition of waste brought out from the settlement and the remains of larger, non-food animals that were utilised in the town that had to be discarded after death as well as some domestic refuse.

	Phase								
Taxon	1	2	3	4	5	6	7	8	9
Horse/donkey (*Equus* spp.)		24	11			35	5		1
Cattle (*Bos taurus*)		25	14	1	7	108	7	2	1
Red Deer (*Cervus elaphus*)		1	1			2			1
Pig (*Sus scrofa*)	1	7	1		3	50	1		4
Sheep/Goat (*Ovis aries/Capra hircus*)		10	1		3	49	3	3	2
Sheep (*Ovis aries*)		2		1	1	22	3		2
Goat (*Capra hircus*)		1				1			
Dog (*Canis familiaris*)		2		1	14	51	1		
Rabbit (*Oryctolagus cuniculus*)									1

Domestic Fowl (*Gallus gallus*)	2	1	19
Goose (*Anser anser*)			1
Duck (*Anas platyrhynchos*)			1
Cat (*Felis catus*)			1

Table 1: Number of identified specimens (NISP) by taxon and phase.

Phase 2: Early Roman activity

Almost the entire Phase 2 animal bone assemblage derived from the fills of a NE/SW ditch [472/438]. The bone accumulated in the ditch is probably a mixture of domestic refuse (indicated by the cattle, pig, sheep/goat and domestic fowl bones as well as the less commonly consumed red deer) and waste discarded outside the settlement (horse and dog bones).

Phase 3:

The only Phase 3 deposit was a sandy accumulation [331] possibly representing a period when the site was not used. The horse bone from this was a mixture of elements including the skull of a horse that died at the age of 7-9 years and the mandibles of another that lived to 12-13 years. The mixture of body parts, presence of more than one animals and the lack of articulating bones indicates that the bones redeposited. Perhaps they were originally discarded in earlier features that were later disturbed.

Phase 4: Earlier Roman burials

Two bones were recovered from the grave fill [496] representing material that was incidentally shovelled into the grave during backfilling. The metapodial fragment of a dog and the cattle mandible diastema were both small parts of original bones.

Phase 5:

The thin layer [280] contained few animal bones consistent with the interpretation that the area was not used for a short period between the burials in Phase 4 and those interred in Phase 6. Within layer [63] was part of small (estimated withers height of 26cm) adult dog skeleton. The sex of the animal could not be determined from the bones present. Tooth wear indicates that it was not an old adult and a lack of the third molar reflects a congenital anomaly. A severe bone infection had affected the distal radius and ulna of the left leg. This was must have been a long-term and painful condition because the right foreleg compensated by developing increased muscle mass (shown by massively increased bone size and muscle attachments).

Phase 6: Roman cemeteries

Dog skeletons

A substantial proportion of the animal bone from phase 6 was dog remains. Most of the dog bones derived from four contexts ([52], [122], [362], [500]) which had minimal quantities of other faunal remains. The articulated remains of a small adult dog [516] (withers height of 26-27cm) were recovered from the fill of ditch [77]. These remains were found in the upper fill and appear to have been dumped into the ditch as it was infilling with refuse.

The dog skeleton [122] was found within its own grave cut into the natural assigned to Phase 6. The remains indicate that it was a small adult female largely complete except for the skull and lower limbs. Measurements taken on a humerus and a tibia indicate that the shoulder height of the dog would have been between 23 and 26cm. The dog had been interred within its own grave cut and copper staining on the left scapula indicates the position of a copper chain which was placed into the grave with the dog.

Three bones of a puppy were recovered from the fill [362] of ditch [365]. These just appear to be dumped in the fill along with a small quantity of general domestic refuse.

The last dog skeleton was found in the fill [500] of the well [503] and, apart from a single cat ulna, a tarsometatarsus of a probable male (based on the presence of a spur) domestic fowl and a fragment of a sheep/goat metatarsal, the dog bones were the only faunal remains recovered from the fill of the well. The dog was an adult male (shoulder height of 33-35cm) whose skeleton was relatively complete apart from the smaller bones (probably because of size-selective recovery by hand). The left fibula had fused onto the side of the tibia possibly as a result of new bone growth after a fracture. Pre-mortem loss of the lower left M2 and the subsequent remodelling of the bone over the alveoli indicate tooth disease. The rest of the teeth were generally unworn suggesting that the dog was not in its advanced years at the time of death.

Pit fills

The fill [239] of a pit dated to this phase contained a small quantity of animal bone and, although only a small quantity of material was recovered, it appeared to be more typical of butchery waste compared to the rest of the faunal remains from the site. The large Roman quarry pit contained minimal bone and mostly in the uppermost fill [467]. One element was a horse distal tibia that had been sawn through probably from bone-working.

Ditch fills

Fill [218] contained a pinners' bone; these are common finds in the late medieval and post-medieval periods. This was recovered from close to the top of the stratigraphic sequence of ditches suggesting that some intrusive material was recovered from the upper fills.

Phase 7: Medieval activity

The five intercutting pits produced a small quantity of animal bone including domestic refuse, horse and dog bones. These provide minimal information on the use of the site and some of the bone may have been redeposited from the earlier phases of land use.

Phase 8: Early post-medieval activity

Minimal bone was recovered from the fills of two pits ([116], [314]).

Phase 9: Late post-medieval activity

Three of the animal bones were recovered from [88], the fill of a 19th century well or soakaway. These included a rabbit mandible and the sawn ilium of a sheep butchered by in a manner typical of late post-medieval period from the 18th century onwards. The rest of the faunal remains were from layer of medieval/post-medieval soil horizon.

Recommendations for further work

The interpretation of the dog skeletons needs further consideration with comparison to other sites. A dog buried in a grave cut with glass beads and parts of a copper chain is unusual and the find of a dog skeleton in the ritual shaft/well maybe further evidence for the practice of putting a dog into a well after its final use. Comparable findings were found at Swan Street where Beasley (forthcoming) also notes how "cockerel bones...as opposed to those from females domestic fowl only occur in wells...suggesting that cockerels were restricted to this use and are probably therefore purely ritual deposits." Additional analysis of the location and sex determination of the domestic fowl bones from Lant Street may also shed light on the possibility of ritual activity at the site. The pathologies of the dog should also be considered in more detail and published with full descriptions.

The domestic refuse recovered from Phases 2 and 6 probably derives from nearby residential areas. Samples sizes are limited but comparison of the frequency of bones from different species (Figure 1) indicates that the meat consumed in nearby houses did not vary chronologically with beef forming the most of the food especially when the quantity of meat that cattle carcass can produce compared to a pig or a sheep. It would be interesting to consider the supply of meat to the inhabitants of the outskirts of Roman London further to investigate how the proximity to rural resources affected the consumption patterns of meat.

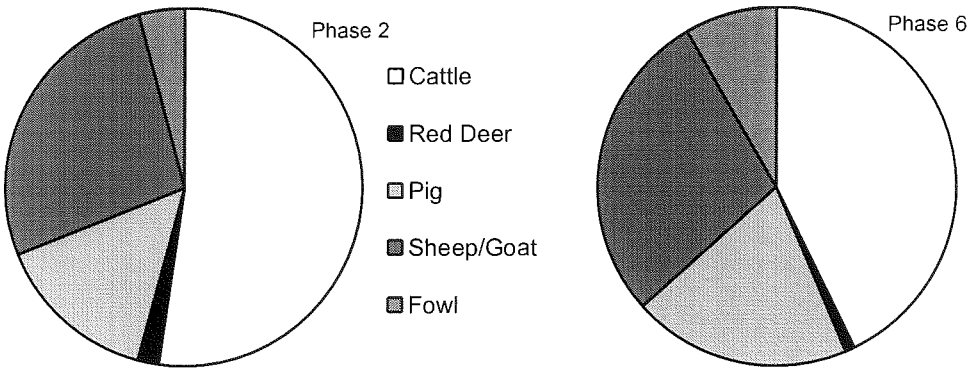

Figure 1: Proportional representation of bone fragments from food animals in Phase 2 and Phase 6.

APPENDIX 5: Small Finds Assessment

H. Major

A total of 625 small finds were examined, from both cemetery and non-cemetery contexts. 70 graves contained metal objects, though in some cases they were probably accidental inclusions in the grave. Nineteen graves contained small finds other than iron nails. A fairly detailed catalogue was produced at the assessment stage to minimise the need for double handling of the objects.

The most outstanding grave group (Grave 386) consisted of bone and copper alloy box fittings, a folding knife with an ivory handle in the form of a leopard, and a copper alloy key. The bone inlay was probably on the top of the box, with a female bust set under a gabled pediment probably forming the centrepiece. Such an arrangement can be seen on many tombstones from Britain. The other pieces of inlay included triangular and rectangular fragments, and narrow strips, some decorated, which probably formed a string course round the edge of the casket. The casket would have been specifically made as a funerary piece, although it is unlikely that it would have been made for a particular person. The only parallel for the figure that I am aware of at the moment is from Wroxeter, a somewhat larger male bust from the topsoil (Bushe-Fox 1916, pl, XXII). The folding knife is probably a continental piece, and will require further research. It was probably attached to the key by a chain passing through the mouth of the leopard, but the X-ray is not clear enough to be certain.

Gold earrings came from Grave 5 and 14. Each grave contained only one earring, almost identical to each other, and they could well be a pair. If so, then there may be a problem with the labelling, or one may be residual.

Animal burial 123 contained a number of objects, comprising six copper alloy studs, seven plain copper alloy rings, fragments of a fine chain, a lunate pendant, and beads. What this group of finds represents is uncertain. The studs were probably from leather rather than wood.

Copper alloy bracelets were the most common metal grave goods, with three definite and two possible examples. All are later Roman in date. The condition of some of the copper alloy was poor, making identification difficult. Other items of jewellery included an iron finger-ring, and a probable copper alloy hairpin.

Three graves (14, 17 and 158) contained hobnailed shoes. A number of others contained just one or two hobnails, possibly residual.

The majority of the graves with metalwork contained only nails. Where multiple nails were present, it can be assumed that they were coffin nails. There was an unusually large proportion of large nails from the cemetery. 20% of the nails from the graves were over 130mm long. The comparative figure for the cemetery at Lankhills, Winchester, is 3% (Clarke 1979, 333). I have no comparable figures for London cemeteries, but it is likely that the proportion of large nails is usually fairly small (pers. comm. Angela Wardle). At Lant Street, it is possible that the coffins with large nails were all made by the same coffin-maker.

The finds from non-cemetery contexts clearly include material from disturbed graves. Layer 280 contains twelve large nails that probably came from coffins, and a bracelet fragment from ditch fill 145 may have come from a grave originally. Several objects from non-cemetery contexts can be dated to the late 1st- early 2nd century; a box ring from layer 332, a knife from ditch fill 167, and an intaglio from pit/post-hole fill 174.

RECOMMENDATIONS FOR FURTHER WORK

- The finds from Grave 386, in particular, will require further research.
- There appears to be an unusually large proportion of large nails from the cemetery. If possible, this will need to be checked against data from other London cemeteries.
- The archive catalogue will need to be revised following further research
- A publication catalogue will need to be prepared.
- The small finds included one definite and one possible coin (<72> and <453>). <453> will need to be X-rayed to confirm whether it is a coin. If this is the case, they will need to go to a coin specialist.

Small Finds Catalogue

The 'iron' from context 30 was a piece of bone, and the 'lead' from 1003 was iron.
In most cases, the iron nails were too concreted to measure accurately. Some have therefore been simply categorised as small (length <*c* 80mm), medium (length *c* 80-130mm), or large (length >130mm).

Finds from Graves

All nails are iron.
Other finds are copper alloy unless otherwise specified.

Grave 5

Fill 3 <1> Gold earring; plain hoop with tapering ends wound round the hoop. Allason-Jones Type 3 (Allason-Jones 1989, 5). External diam. 15mm.

Skeleton 4 Nail shaft

Grave 14

Fill 12 <8> Gold earring; plain hoop with tapering ends wound round the hoop. Allason-Jones Type 3. (Allason-Jones 1989, 5). External diam. 14mm.

Fill 12 <5> (Described from the X-ray; object not seen) Group of hobnails *in situ* in a pair of shoes. Only one set of hobnails has survived in a substantially complete state. It has a line of hobnails round the sole, with a broad rounded toe. Ten hobnails within the shoe have probably been dislodged from the line round the edge, and others have been displaced at the heel end. A nail visible on the X-ray appears to be modern (holding the label in place?). The shoe is approximately a modern size 4 or 5. L. *c* 220mm, max. W. *c* 100mm.

Grave 17

Fill 15 Fifteen hobnails corroded *in situ* in mineral replaced leather.

Fill 15 Two nails and two shaft fragments. One complete, L. 30mm, the other L. .>80mm.

Skeleton 16 Two incomplete small/medium nails, and a shaft fragment.

Grave 28

Context 26 <10> Iron. Strip fragment, complete as buried. 28x11mm.

Grave 123

Context 122 (Animal skeleton)

Copper alloy

<27> Stud. As <28> but with most of edge missing. Diam. *c* 16mm.

<28> Stud. Flat, circular sheet head with a down-turned edge and a small central depression. Stubby shank. The shortness of the shank suggests that it was attached to something thin, such as leather. Diam. 16mm.

<29> Stud. Complete, as <28>. Diam. 15mm.

<31> Five plain rings, corroded together in a stack when found. Two are now detached. At one end of the pile is a stud, as <28>, and nested inside is a broken, small gadrooned glass (faience) bead. The bead is in poor condition and appears off-white. A second broken gadrooned bead is now loose. It is in poor condition, but was probably turquoise originally. Dimensions of the rings: three with external diam. 22mm, section diam. 3.5mm; external diam. 26mm, section diam. 4mm; external diam 22mm, oval section *c* 1.5x2mm.
Stud diam. 16mm
Beads L. 7mm, diam. *c* 10mm; L. 10mm, diam. 8mm.

<32> Two fragments of chain made from fine wire, woven loop-in-loop, giving an almost square section. L. 30mm; 31mm.

<33> Lunate pendant with an integral loop. The back is slightly hollow, and poorly finished. The tips of the crescent have poorly defined cross mouldings. There is a central hole for the suspension of a second element, now missing. The edge of the hole is very close to the edge of the pendant, possibly due to wear. This is a simple example of a common military type (cf Unz and Deschler-Erb 1997, tafel 48). L. 42mm, W. 35mm.

<34> Two plain rings, circular section. Diam. 25mm, section diam. 4mm; diam. 22mm, section diam. 4mm.
Stud, as <28>, and a fragment from a second stud. Diam. 16mm.
Stud. Low central dome with a damaged flange and a stubby shank. Diam. *c* 11mm.
Fragment of a chain as <32>. L. 32mm.

Grave 155

Skeleton 154 <89> Iron finger-ring, corroded onto a finger-bone. Only half the ring is present; the rest broke off in antiquity. It appears to be a plain hoop, possibly broken across the edge of the bezel. External diam. 19mm.

Grave 158

Skeleton 157 36 hobnails, 18 from each foot. Mineral-replaced leather is present. A further possible hobnail head came from elsewhere on the body.

Grave 244

Skeleton 246 Small fragment of thin copper alloy wire. L. 8mm, diam. *c* 0.5mm.

Fill 245 4 nails and a nail shaft. The nails comprise one complete large nail, L. 240mm, and a second probable large nail; complete medium nail, L. 130mm, and a second probable medium nail.

Grave 290

Fill 288 Five large nails, one complete. L. 195mm.

Skeleton 289 <90> Bone hairpin shaft, swollen. Broken in antiquity. L. 46mm.

Grave 293

Fill 291 <42> Strip bracelet in two joining pieces. The edge is crenellated, apparently without the ribbing in between which often occurs on this type of bracelet (e.g. Crummy 1983, 40, no. 1659). It is bent into an oval, with one end overlapping the other. This was probably done deliberately, to make the bracelet smaller. One end is complete as buried, the other has a recent break. Internal dimensions 29x36mm, section 3x2mm.

Fill 291 <42>? (The SF number on the labels is 42, but has been changed from another number, probably 41). Pointed rod, complete as buried. It is probably a hairpin shaft, and may have had a separately applied head. The size and shape would be consistent with later Roman types such as Crummy 1983, 29; type 4. L. 73mm, max. diam. 2mm.

Fill 291 Twelve large nails, mineral replaced wood present. The largest is L. 210mm.

Fill 291 Two small nails, L. *c* 50mm.

Grave 313

Fill 311 <43> Two-strand cable bracelet, complete but sprung at the fastening. One end is looped into an eye, the other possibly cut down in antiquity, and bent into a hook. Internal diam. 36mm, section diam. 3mm.
Small fragment from another cable bracelet in very poor condition.
Five pieces of curved wire. They are probably all from the same wire bracelet, although the condition is variable. Internal diam. *c* 35mm, section diam. 2mm.

Fill 311 <86> Four small fragments from a cable bracelet.
Eight blue glass beads. Short oblate, shape somewhat variable. L. *c* 4mm, diam. *c* 4mm.
Two beads, and fragments of two others in very decayed glass (faience?), now appearing off-white. Probably gadrooned. *c* 3x3mm.
Small fragment of smithing waste. A fortuitous inclusion in the grave fill.

Fill 311 Four nails. Three are *c* 95mm long, the fourth is larger, *c* 120mm, with a large head.

Grave 322

Fill 320 <48> and <49> Two joining fragments of a strip in very poor condition, probably part of a strip bracelet. Stamped ring-and-dots, possibly set off centre. 32x7x2mm.

Fill 320 Ten nails. L *c* 80-100mm. One is possibly smaller, but no detail was visible.

Grave 335

Fill 333 <53> Plate fragment. Roughly semi-circular. The curved edge is original, the straight edge was broken in antiquity. 32x18mm.

Fill 333 Two nails and a nail shaft from a medium/large nail. L. 208mm; 60mm.

Grave 370

Fill 368 Complete medium-sized nail. L. *c* 98mm.

Skeleton 369 Three glass beads. 1) Sub-globular, appears pale yellow. Diam. 4mm, L. 2mm. 2) Two cylindrical beads, whitish core, pale blue surface. Diam. 4-5mm, L. 2mm.

Grave 376

Fill 374 <58> Rod, in three pieces. One end is broken. The other end is bent at *c* 60°, and has a small biconical terminal. The shaft has a baluster moulding towards the bent end. The section of the rod flattens slightly at the broken end. This is probably a toilet implement. L. 80mm.

Cut 376 Six nails and two shafts. Three nails are complete, L. *c* 60mm and L. *c* 77-80mm. One is probably smaller.

Cut 376 Three very concreted lumps of iron, two of which join. The joining lumps probably contain a medium-sized nail, but there appears to be part of another nail in the block as well. The third lump is probably a nail shaft.

Grave 386

Grave fill 384: Group of box fittings in bone and copper alloy

Bone inlay

Female bust on a shaped plaque. The details are stylised, with a cloak over the head and upper body, and an arm holding the cloak over the breast. The folds of the cloak are indicated by sweeping lines, and the features are simplistic in style but rather effective. There is slight damage to the nose and arm. The surface has green staining. L. 40mm, W. 24mm, th. 6mm.

Two rectangular plaques with double ring-and-dots either end. The centre of each plaque has incised oblique lines within a frame. The surface has green staining. 40x10x6mm.

Triangular plaque. The shorter sides have oblique lines within a frame, and there is an incised triangle against the base of the plaque, infilled with short curved lines. The base of the triangle is bisected by a vertical line. The surface has green staining. L. 40mm, ht. 24mm, th. 6mm.

Small triangle with two central lines, and curved lines either side echoing those on the larger triangle. The surface has green staining. L. 19mm, ht. 13mm, th. 4mm.

Eight small triangles. Six are approximately the same size, with two slightly smaller ones. They are decorated with two oblique lines across two corners. Four have traces of green staining; the other two are eroded. Larger triangles *c* 16x12mm; smaller triangles 10x10mm.

Six squares with incised crosses. Two are *c* 12x12mm; one of these has green staining. Four are *c* 10x10mm. Three of these have green staining, and the fourth is very eroded.

Rectangle with a double ring-and-dot. Surface slightly eroded. 10x8mm.

Four narrow strip fragments with a triangular section; two of the pieces join, and they may originally have been all one piece. There are deep-cut oblique grooves across the top. The grooves change direction, presumably in the centre of the strip, giving an original length of at least 144mm. The surface has green staining. L. 22mm; 25mm; 26mm; 30mm. W. 2-3mm. Th. *c* 4mm.

Fourteen narrow strip fragments with a triangular section, undecorated. Two are slightly curved, possibly due to distortion during burial. Eight pieces have traces of green staining, including one of the curved strips. Some pieces join. L. of stained pieces: 58mm (two joining); 40mm (two joining); 42mm (two joining); 25mm; 23mm(curved). L. of unstained pieces: 14mm; 15mm; 17mm; 22mm; 25mm; 27mm (curved). W *c* 2mm, th. *c* 4mm.

Copper alloy

Twenty-two fragments of sheet. There are small repoussé dots along the edges. Some pieces have right-angled bends where they lapped over the edge of the box by 11-18mm. Six studs are still *in situ* in the sheet, and there are a further six detached studs, some fragmentary. The studs have hollow, domed heads, and their backs are infilled with a white material, presumed to be lead solder. The original size of the sheet is unknown, as it is now badly fragmented. Assuming that it was rectangular, and all one piece, with the studs regularly placed, it would have been at least 150x200mm (this assumes a 4x3 pattern of studs set along the edge; the distance between studs as measurable on the surviving fragments was at least 50mm). Stud diam. 10mm, L. 14mm.

Fill 384 Hobnail. This may be an accidental inclusion in the grave fill.

Skeleton 385 <91> Labelled 'R hand'. Small loop, broken off a larger object. Fresh break. W. 7mm, L. 9mm.

Grave cut 386 <62> Folding knife. Iron blade, with an ivory handle in the form of a leopard with its front paws outstretched, gnawing ?a piece of meat. There is damage to one back paw. The tail is curled against one side of the body, and the lower edges of the front legs are notched. The body is covered in dots. A copper alloy chain made from figure-of-eight links has been threaded through the gap between the chin and forepaws. One end has broken along the line of the handle. There are also two detached fragments of chain, giving a total of 18 links. The knife was found with a copper alloy lever lock key, which was presumably attached to the chain, although this is unclear from the X-ray. The key has a trilobate pierced handle with a moulded collar, and a short stem. The end of the stem is hollow. Knife L. 63mm: Chain links 14x7mm: Key L. 54mm.

Grave cut 386 Incomplete large nail.

Grave 436

Fill 433 <72> Coin.

Fill 433 Seven large nails and a nail shaft. L. 147mm; 168mm; 170mm; 186mm; 192mm.

Grave 454

Fill 452 Three nails and a shaft. The nails are probably incomplete. L > 118mm. Mineral replaced wood present, from a plank *c* 42mm thick.

Skeleton 453 Concreted object. Copper alloy? Could be a ring or coin. Needs to be X-rayed.

Grave 495

Fill 493 Three nails, one complete. L. *c* 135mm.

Skeleton 494 Plaster? Small convoluted object. I have no idea what this is!

Skeleton 494 Nail shaft

Cemetery contexts with just iron nails

Lengths are approximate for most of the nails, as they are heavily concreted.

Grave	Context	
8	6	Medium nail, incomplete.
20	19	3 hobnails.
23	25	Nail shaft, probably medium.
44	42	<12> Incomplete nail, probably medium.
44	42	<13> Nail. L. 76mm, head W. 18mm.
44	43	2 hobnails
44	43	Complete nail and shaft. L. 40mm.
46	45	Nail shaft.
56	55	Incomplete small nail.
59	58	Probable hobnail, from the head area.
62	60	Two nails. One is bent, and the other has the point curled into a loop, so these may not have been coffin nails. L. *c* 120mm; >54mm.
n/a	63	Complete nail. L. 70mm.
82	80	Six nails and one shaft. Two of the nails are complete, L. 104mm and 112mm.
82	81	Hobnail. From left foot.
89	91	5 small nails, one complete. L. 63mm, head W. 15mm. One medium nail, incomplete. 6 nail shafts.
94	92	Three incomplete nails and a shaft. Probably medium.
94	93	Incomplete medium nail.
122	123	Nail. L. 60mm.
134	132	Six nails and a shaft. Three are complete. L. 74mm, 82mm (bent); 92mm.
134	133	Hobnail
134	133	Six nails. L. 77-92mm.
183	181	<38> Nail. Small/medium. <39> Nail, probably complete. L. *c* 75mm. <40> Nail. L. 90mm.
184	186	Three incomplete medium nails. Mineral replaced wood present.
409	207	7 nails and 4 shafts. Two are complete, L. 145mm and 150mm. One is probably small, L. *c* 50mm. The others are probably in between.
213	211	Six nails and a shaft. Three are probably complete. L. *c* 76mm; 93mm; 100mm.
243	241	Nail. L. 36mm.
257	255	Three nails and 2 shaft fragments. Probably medium-sized.
287	286	Four medium nails, one probably complete. L. *c* 100mm.
304	302	2 large nails. L. 192mm, head W. 35mm; L. *c* 180mm (bent), head W. 35mm.

		5 medium nails, L. *c* 120mm. 3 nail shafts, two of them probably from large nails. There may be a further nail shaft corroded onto one of the medium nails.
304	302	3 complete nails, one bent, and a nail shaft. L. *c* 80mm; 90mm; 58mm.
310	308	Two nails. One bent, L. *c* 100mm. The other is a large nail, L > 150mm.
330	328	10 medium nails and a nail shaft. L. *c* 90-102mm. 1 small nail, L. 50mm, head W. 10mm.
330	329	Nail, probably complete. L. 60mm.
338	336	11 small to medium nails and nail shafts. L. 65mm; 80mm; 85mm; 90mm; 95mm; 105mm; 110mm.
340	341	Four medium nails, two complete. L. *c* 100mm.
344	343	Incomplete small nail.
347	346	Six complete nails, and a shaft fragment. L. 117mm; 140mm; 140mm; 142mm; 170mm; 175mm.
350	349	Hobnail
350	349	Three nails and a shaft. One nail is nearly complete: L. *c* 90mm.
353	351	3 incomplete nails and 3 shaft fragments. One nail is large; the other two are medium-sized, L. *c* 120mm.
353	352	Nail, medium or small.
356	354	13 large nails, four of them complete. L. 155mm, 163mm, 168mm, 207mm. Three small nails, L. *c* 65-70mm, probably all incomplete, and four shaft fragments.
373	371	<55> Probable nail shaft. <56> Small nail. <57> Incomplete nail, probably small.
380	378	Five medium-sized nails, one complete. L. *c* 108mm.
380	378	Nail, probably small, and two nail shafts.
383	381	Four nails. Two are complete large nails, one of them bent. L. *c* 185mm. The other two nails may be smaller.
394	392	Six nails and a shaft from a large nail. Four are probably complete. L. 142mm; 146mm; 185mm; 195mm (tip bent). Head W. 35mm
398	396	Six nails, five probably complete. L. 70mm; 71mm; 86mm; 92mm; 94mm.
401	399	Three nails and the shaft from a different nail. L. *c* 82mm; 91mm.
404	402	Eleven nails and shaft fragments. Most are too concreted to see any detail. Probably all medium sized nails, L. *c* 110mm; 112mm.
406	405	Four medium nails, two complete. L. 82mm; 85mm.
408	208	Nail shaft, small or medium.

417	415	Three large nails and a shaft. L. *c* 155mm.
420	418	Two nails and a shaft. Probably all L. *c* 135mm.
423	421	4 medium-sized nails, none complete, and a bent nail shaft. Irregular lump of iron, probably working waste, and two pieces of slag.
429	427	8 large nails. L. 145mm-150mm. 4 medium nails, L. *c* 75mm. 5 shaft fragments. One has a 'collar' of mineral replaced wood, occurring at the junction between two planks.
432	431	Seven medium nails, four complete. L. 102mm; 110mm; 118mm; 128mm. Head W. 21mm.
441	439	Six nails. One is *c* 150mm long, the others may be shorter, perhaps *c* 120mm. One may have a shorter nail corroded onto it.
449	446	Three nails, two probably complete. L. 82mm; 84mm.
466	464	Two nails, one complete. L. *c* 98mm.
480	478	Four nails, one complete. L. *c* 107mm.
488	486	Three nails and a nail shaft. One nail is complete, L. 180mm. The other two are probably from similar nails, but the shaft could be from a smaller nail.
491	489	Two nails, one complete. L. *c* 100mm.
No cut	469	Three medium nails, two complete. L. 98mm; 100mm.

Finds from non-grave contexts

COPPER ALLOY

SF	Context	Type	Phase	Description
24	2	Med/PM soil	9	Rod, with a blunt point at one end, other end slotted. L. 50mm. Post-medieval.
25	2	Med/PM soil	9	Lace tag. Late medieval/post-med.
9	32	Occupation layer?	1	Dressmaker's pin. Post-medieval.
11	32	Occupation layer?	1	Small ball, probably the head from a tack. Diam. 11mm.
4	74	Ditch cut	6	Roman coin
2	97	Ditch fill	6	Small fragment of sheet. *c* 12x10mm
3	145	Ditch fill	6	Four fragments, forming *c* 75% of a strip bracelet, with alternating notches on the narrow, outer face. The width of the bracelet is angled, at *c* 60° to the wrist. Internal diam. 36mm, section 2x1mm.
47	332	Layer	2	Ring, in poor condition. The section is D-shaped,

				with a ribbed outer face. The form is typical of earlier Roman box rings, often found in burials, e.g. from an early-mid 2nd century cremation at Stansted, Essex (Havis and Brooks 2004, 227). There is no trace of corrosion from an attachment strap, so this example may have been loose when buried. External diam. 28mm.
78	1003			Sheet metal mount, incomplete. Embossed disc, with an animal motif. The background appears to be machined, making this post-medieval.
79	1011			Dressmaker's pin. Late medieval/post-medieval.
80	3018			Five fragment from an incomplete sheet strip. Three perforations at present, set down the centre. 83x30mm.

IRON

SF	Context	Type	Phase	
	32	Occupation layer?	1	Nail, probably with a nail shaft corroded onto it. L. *c* 27mm.
	96	Fill of ?rubbish pit	6	Large bolt head, probably conical. The shaft is probably incomplete, and the section is uncertain. L. 65mm, W of shaft 16mm, head W. 30mm.
	96	Fill of ?rubbish pit	6	Lump, containing very mineralised iron. Probably a nail.
	117	Ditch fill	6	Wall-hook. U-shaped hook with a tang at right-angles. L. 73mm, W. 105mm.
	117	Ditch fill	6	Unidentified. It is unclear from the X-ray what this is. It appears to be a strip or bar with a rounded end. L. 138mm, W. 17mm.
	117	Ditch fill	6	Two nails, one an incomplete medium nail, the other complete, L. *c* 50mm.
	167	Ditch fill	6	Iron knife with shaped copper alloy handle plates held in place by two copper alloy rivets. The parallel-sided blade is incomplete. The rest of the handle would have been made from bone or wood, and is missing. This belongs to Manning type 1c; other

				examples from London include one from the Walbrook, with a 1st-2nd century date (Manning 1985, 110). L. 55mm, W. 14mm.
		174	Pit/post-hole fill	6	Stylus eraser, with part of the stem. Parallel-sided wedge. L. 42mm, W. of eraser 8mm.
		174	Pit/post-hole fill	6	Nail, probably small, and a hobnail.
		176	Pit fill	6	Bucket handle mount. Tapering strip with the upper end rounded, and two iron rivets set down the middle. L. 95mm, max. W. 24mm.
		176	Pit fill	6	Two joining fragments, probably from the rim of a sheet iron vessel. There is little or no curve to the sheet, so it could be a rectangular vessel. There appears to be an L-shaped reinforcement strip along the edge, fastened by one rivet, although it is possible that this is an unconnected piece that has corroded onto the sheet. W. 122mm, L. 87mm.
		218	Ditch fill	6	Nail shaft, probably medium.
		227	Ditch fill	6	Three nail shafts. Small/medium.
		234	Pit fill	8	Nail, probably complete. L. 57mm.
		278	Pit fill	6	Nail. Bent, probably incomplete. Probably medium-sized.
		280	Layer	5	Hipposandal heel, with the stub of one side wing present. L. 98mm, W. 85mm.
		280	Layer	5	10 large nails, and a shaft fragment. L. 150-220mm. Three smaller nails and a shaft fragment. L. *c* 90mm.
		280	Layer	5	Two large nails. L. 203mm, head W. 38mm; L. 196mm, head W. 35mm.
		280	Layer	5	Two medium nails, 2 nail shafts.
		299	Pit fill	6	Incomplete nail, small-medium.
		315	Pit	8	Horseshoe. *c* 40%. The toe is damaged or worn away, and the heel thickened. Two rectangular holes survive. W. of branch 27mm, surviving L. *c* 100mm.
		315	Pit	8	Two incomplete nails. One probably medium-sized, the other small.
		387	Unknown	6	Small nail and a nail shaft. L. *c* 74mm.
		470	Ditch fill	2	Nail shaft, small/medium.

	499	Well fill	6	Nail, probably small.
75	515	Quarry pit fill	6	Nail, in good condition. It has mineralised wood on the shaft, from a plank *c* 20mm thick. L. *c* 90mm.
	1003			Bar, in very good condition. Steel? Modern. (listed as lead).
	1012			Nail and shaft. L. 64mm.
	3010			Large nail. L. 176mm.

SHALE

SF	Context	Type	Phase	Description
92	239	Pit fill	6	Bracelet, *c* 40%. Plain, with a rounded outer face and angled inner face. Internal diam. 44mm, section 9x9mm.

BONE

SF	Context	Type	Phase	Description
	218	Ditch fill	6	Pinner's bone. Late medieval/post-medieval.
	467	Pit fill	6	Sawn piece of long bone.

STONE

SF	Context	Type	Phase	Description
93	117	Ditch fill	6	Rhenish lava. Quern fragment, upper or lower stone, surfaces eroded. Th. 82mm, wt. 466g.
36	174	Pit/post-hole fill	6	Intaglio, pale brown stone. Flat, oval stone with a bevelled edge. It shows a lion mauling a stag. There is a comparable intaglio from Gestingthorpe, Essex, possibly of 2nd century date (Henig 1974, 85, no. 636).
94	188	Ditch fill	6	Greensand. Lower stone fragment, with worn harp dressing. Edge pecked. Diam. 406mm, th. at edge 45mm, max. th. 50mm. Wt. 2430g.

SLAG

SF	Context	Type	Phase	Description
	96	Fill of ?rubbish pit	6	Ferruginous slag.
	315	Pit	8	Ferruginous slag.
	331	Layer	3	Ferruginous slag.

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Appendix 6 **GLASS ASSESSMENT**

By John Shepherd

Introduction

A total of one hundred and fifty-four fragments and objects of glass were discovered on this site. One hundred and forty-seven of these are Roman in date, the remaining seven fragments (catalogue numbers 148-154) are post-medieval vessel fragments, dating mainly to the late nineteenth or early twentieth century. These seven fragments are not significant, although the uranium oxide fragment is possibly of interest to those interested in the chemistry of late Victorian glass.

The Roman fragments include five complete or near complete vessels (catalogue numbers 3, 4, 11, 15 and 16), fifteen fragments from fragmentary vessels of which only four (catalogue numbers 17-20) cannot be assigned to any particular form. There is one small ring setting (catalogue number 147). The remaining one hundred and twenty six items are all beads coming from just five contexts.

The following assessment catalogues all one hundred and fifty four fragments. It also gives a very brief interpretation followed by recommendations for further work.

Catalogue

The following catalogue describes every fragment discovered on the site according to period, colour of glass and form.

Roman

POLYCHROME

Bowl or dish
1. [2]
Small fragment from the side of a bowl or dish. Millefiori; cast and sagged. Opaque green glass matrix with yellow rods. Early to mid first century AD.

MONOCHROME

Cup

2. [396]
Fragment of free-blown vessel. Translucent green glass. Interior shows faint horizontal wheel –cut line. Possibly part of a Hofheim type cup (Isings 1957, form 12). Mid first century AD.

COLOURLESS

Beakers
3. [415] <66>

A complete, though fragmentary, beaker. Free-blown; thin colourless glass with a very faint greenish tint and a dull patina. Rim thickened, fire-rounded and slightly outsplayed, body widens to a low carination. Base pushed in to form a hollow tubular pedestal. Body decorated with pinched swag consisting of three horizontal trails, one pair above one single trail. Third century. .
4. [311] <44>

Complete squat, ovoid-shaped beaker. Free-blown; colourless glass with a greenish tint. Rim thickened and fire-rounded and base slightly pushed in to form a hollow tubular base ring. Late second or third century. .

NATURALLY COLOURED GLASS

BOTTLES

5. [121]

Fragment from the lower part of a prismatic, square-sectioned bottle (Isings 1957, form 50). Mould-blown; natural green-blue glass. Base decorated with, at least, one circle with a large boss in corner and parts of letters – 'O' at end of one side and 'M'? at start of next. Late first or second century. .
6-10. [302]; [328]; [389] x3
Five fragments from the sides of natural greenish blue cylindrical bottles (Isings1957, form 51). Late first or early second century.

PHIAL

11. [493] <74>
Drop-shaped phial, near complete except for slight damage to rim. Free-blown; natural green blue glass. .

FLAGONS/JUGS

12. [207]

Fragment from the lower sticking part of the handle of a bulbous-bodied jug or flagon (eg Isings 1957, form 52 or 55). Handle applied to a free-blown form; natural green blue glass. Late first or second century. .
13. [332]

Fragment from the lower sticking part of the handle of a jug or flagon. Applied to a free-blown, probably conical bodied, vessel. Natural green blue glass (e.g. Isings 1957, form 52 or 55). The handle has a central, pointed rib and long claw extending down the body of the vessel. Distorted by fire. Late first or early second century. .
14. [346]

Fragment from the upper part of the handle of a flagon or jug (e.g. Isings 1957, form 52 or 55). Applied handle; natural green blue glass. Flat handle with low relief central rib. Late first or second century. .

ARYBALLOS

15. [386] <60>

An oil-flask (aryballos), complete except for lost handles. Free- blown; natural green blue glass. Rim folded inwards to make a slight funnel-shaped mouth. Squat, flattened bi-conical body. Two handles, with upper sticking part attached to rim and lower to junction of neck and body. Flattened spur from each, showing low relief tool marks (probably not intended as decorated). Late second or third century (?).

AMPHORISK

16. [386] <61>

A small amphorisk. Free-blown; natural green blue glass. Rim thickened, fire-rounded and outsplayed. Inverted conical body decorated with a self-coloured spiral trail. Pointed base. Late second or third century.

INDETERMINATE FORMS

17-18. [159]; [469]
Two fragments of natural blue glass from free-blown vessels of indeterminate form. Roman.

19-20. [328]; [336]
Two fragments of natural green blue glass from free-blown vessels of indeterminate form. Roman.

Beads

The beads are catalogued according to contexts.

Context 92
21-22. [92] sample 1
Two small biconical beads. Blue glass.

23-31. [92] <20>
Nine small biconical beads. Blue glass.

32-33. [92] sample 1
Two small annular beads. Blue glass.

34-41. [92] sample 1
Eight small globular beads. Black glass.

42-46. [92] <20>
Five small globular beads. Black glass.

47-48. [92] sample 1
Two small square-sectioned beads. Turquoise glass.

49. [92] <20>
One small globular bead. Green glass.

50-51. [92] <20>
Two small square-sectioned beads. Blue glass.

52. [92] <20>
One small cubic bead. Blue glass.

53. [92] <20>
One large annular bead. Blue glass.

Context 122
54-60. [122] <30> x3; <35> x4
Seven small melon beads. Opaque greenish blue glass.

Context 368

61-65. [368] <59>

Five small cylindrical beads. Opaque green glass.

66-68. [368] <59>

Three small globular beads. Green glass.

69. [368] <59>

One small long cylindrical bead. Turquoise glass.

70. [368] <59>

One small long cylindrical bead. Blue glass.

71-80. [368] <59>

Ten small cylindrical beads. Blue glass.

81-85. [368] <59>

Five small biconical beads. Blue glass.

86-110. [368] <59>

Twenty-five small globular beads. Blue glass.

111-114. [368] <59>

Four small cylindrical beads. Pale brown glass.

115-136. [368] <59>

Twenty-two small biconical beads. Pale brown glass.

137-144. [368] <59>

Eight small globular beads. Pale brown glass.

Context 384

145. [384] <25>

One small spherical bead. Blue glass.

Context 478

146. [478] <88>

One circular bead. Indeterminate colour.

OBJECT

147. [478] <87>

Small oval ring setting, undecorated, of blue glass.

LATE POST-MEDIEVAL

COLOURED GLASS

INDETERMINATE VESSEL

148. [1003]

Thick fragment of dull yellow/green glass. Probably uranium oxide glass (late nineteenth or early-twentieth century. NB – This is non-hazardous.

NATURALLY COLOURED GLASS

PHIAL

149. [88]

Lower part of a machine made phial or squat bottle. Natural blue glass. Late nineteenth or early twentieth century.

Bottles

150. [88]

Fragment from the side of a machine made beer bottle. Thick, deep green glass. Late nineteenth century.

151-154. [238]

Four bases from machine made beer bottles and two rims/necks. Thick, dark green glass. Late nineteenth or early twentieth century.

Ctext	Acc no	Phase	assess No.	Colour	Form	Technique	Date	catalogue entry	Requiring illustration
2		9	1	polychrome	bowl/dish	cast sagged	E-mid 1st C. AD	yes	yes - photo
88		9	149	natural blue	bottle	machine blown	L 19th or 20th C. AD	no	no
88		9	150	deep green	bottle	machine blown	L 19th or 20th C. AD	no	no
92	sample 1	6	21	blue	small biconical bead	hand made	Roman	yes	yes
92	sample 1	6	22	blue	small biconical bead	hand made	Roman	yes	yes
92	sample 1	6	32	blue	small annular bead	hand made	Roman	yes	yes
92	sample 1	6	33	blue	small annular bead	hand made	Roman	yes	yes
92	sample 1	6	34	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	35	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	36	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	37	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	38	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	39	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	40	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	41	black	small globular bead	hand made	Roman	yes	yes
92	sample 1	6	47	turquoise	small square-sectioned bead	hand made	Roman	yes	yes

92	sample 1	6	48	turquoise	small square-sectioned bead	hand made	Roman	yes	yes
92	20	6	42	black	small globular bead	hand made	Roman	yes	yes
92	20	6	43	black	small globular bead	hand made	Roman	yes	yes
92	20	6	44	black	small globular bead	hand made	Roman	yes	yes
92	20	6	45	black	small globular bead	hand made	Roman	yes	yes
92	20	6	46	black	small globular bead	hand made	Roman	yes	yes
92	20	6	49	green	small globular bead	hand made	Roman	yes	yes
92	20	6	50	blue	small square-sectioned bead	hand made	Roman	yes	yes
92	20	6	51	blue	small square-sectioned bead	hand made	Roman	yes	yes
92	20	6	52	blue	small cubic bead	hand made	Roman	yes	yes
92	20	6	53	blue	large annular	hand made	Roman	yes	yes
92	20	6	23	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	24	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	25	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	26	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	27	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	28	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	29	blue	small biconical	hand made	Roman	yes	yes

					bead				
92	20	6	30	blue	small biconical bead	hand made	Roman	yes	yes
92	20	6	31	blue	small biconical bead	hand made	Roman	yes	yes
121		6	5	natural green blue	bottle	mould-blown	L 1st or 2nd C. AD	yes	yes
122	30	6	54	opaque green-blue	melon bead	hand made	Roman	yes	yes
122	30	6	55	opaque green-blue	melon bead	hand made	Roman	yes	yes
122	30	6	56	opaque green-blue	melon bead	hand made	Roman	yes	yes
122	35	6	57	opaque green-blue	melon bead	hand made	Roman	yes	yes
122	35	6	58	opaque green-blue	melon bead	hand made	Roman	yes	yes
122	35	6	59	opaque green-blue	melon bead	hand made	Roman	yes	yes
122	35	6	60	opaque green-blue	melon bead	hand made	Roman	yes	yes
159		8	17	natural blue	indeterminate form	free-blown	Roman	no	no
207		6	12	natural green blue	jug/flagon	free-blown	L 1st or 2nd C. AD	yes	yes
238		9	151	deep green	bottle	machine blown	L 19th or 20th C. AD	no	no
238		9	152	deep green	bottle	machine blown	L 19th or 20th C. AD	no	no
238		9	153	deep green	bottle	machine blown	L 19th or 20th C. AD	no	no
238		9	154	deep green	bottle	machine blown	L 19th or 20th C. AD	no	no
302		6	6	natural green	bottle	free-blown	L 1st or 2nd C.	no	no

				blue			AD		
311	44	6	4	colourless, green tint	beaker	free-blown	L 2nd or 3rd C. AD	yes	yes
328		6	7	natural green blue	bottle	free-blown	L 1st or 2nd C. AD	no	no - photo
328		6	19	natural green blue	indeterminate form	free-blown	Roman	no	no
332		2	13	natural green blue	jug/flagon	free-blown	L 1st or E 2nd C. AD	yes	yes
336		6	20	natural green blue	indeterminate form	free-blown	Roman	no	no
346		6	14	natural green blue	jug/flagon	free-blown	L 1st or 2nd C. AD	yes	yes
368	59	6	61	opaque green-blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	62	opaque green-blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	63	opaque green-blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	64	opaque green-blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	65	opaque green-blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	66	green	small globular bead	hand made	Roman	yes	yes
368	59	6	67	green	small globular bead	hand made	Roman	yes	yes
368	59	6	68	green	small globular bead	hand made	Roman	yes	yes
368	59	6	69	turquoise	small, long cylindrical bead	hand made	Roman	yes	yes
368	59	6	70	blue	small, long cylindrical bead	hand made	Roman	yes	yes
368	59	6	71	blue	small	hand made	Roman	yes	yes

					cylindrical bead				
368	59	6	72	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	73	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	74	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	75	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	76	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	77	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	78	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	79	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	80	blue	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	81	blue	small biconical bead	hand made	Roman	yes	yes
368	59	6	82	blue	small biconical bead	hand made	Roman	yes	yes
368	59	6	83	blue	small biconical bead	hand made	Roman	yes	yes
368	59	6	84	blue	small biconical bead	hand made	Roman	yes	yes
368	59	6	85	blue	small biconical bead	hand made	Roman	yes	yes
368	59	6	86	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	87	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	88	blue	small globular	hand made	Roman	yes	yes

					bead				
368	59	6	89	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	90	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	91	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	92	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	93	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	94	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	95	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	96	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	97	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	98	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	99	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	100	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	101	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	102	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	103	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	104	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	105	blue	small globular	hand made	Roman	yes	yes

					bead				
368	59	6	106	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	107	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	108	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	109	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	110	blue	small globular bead	hand made	Roman	yes	yes
368	59	6	111	pale brown	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	112	pale brown	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	113	pale brown	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	114	pale brown	small cylindrical bead	hand made	Roman	yes	yes
368	59	6	115	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	116	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	117	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	118	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	119	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	120	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	121	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	122	pale brown	small biconical	hand made	Roman	yes	yes

					bead				
368	59	6	123	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	124	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	125	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	126	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	127	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	128	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	129	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	130	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	131	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	132	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	133	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	134	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	135	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	136	pale brown	small biconical bead	hand made	Roman	yes	yes
368	59	6	137	pale brown	small globular bead	hand made	Roman	yes	yes
368	59	6	138	pale brown	small globular bead	hand made	Roman	yes	yes
368	59	6	139	pale brown	small globular	hand made	Roman	yes	yes

					bead				
368	59	6	140	pale brown	small globular bead	hand made	Roman	yes	yes
368	59	6	141	pale brown	small globular bead	hand made	Roman	yes	yes
368	59	6	142	pale brown	small globular bead	hand made	Roman	yes	yes
368	59	6	143	pale brown	small globular bead	hand made	Roman	yes	yes
368	59	6	144	pale brown	small globular bead	hand made	Roman	yes	yes
384	25	6	145	blue	small spherical bead	hand made	Roman	yes	yes
386	60	6	15	natural green blue	oil-flask	free-blown	L 2nd or 3rd C. AD	yes	yes
386	61	6	16	natural green blue	amphorisk	free-blown	L 2nd or 3rd C. AD	yes	yes
389		2	8	natural green blue	bottle	free-blown	L 1st or 2nd C. AD	no	no
389		2	9	natural green blue	bottle	free-blown	L 1st or 2nd C. AD	no	no
389		2	10	natural green blue	bottle	free-blown	L 1st or 2nd C. AD	no	no
396		6	2	mono - green	cup	free-blown	mid 1st C. AD	yes	yes
415	66	6	3	colourless	beaker	free-blown	3rd C. AD	yes	yes - photo
469		6	18	natural blue	indeterminate form	free-blown	Roman	no	no
478	88	6	146	indeterminate col	circular bead	hand made	Roman	yes	yes
478	87	6	147	blue	ring inset	hand made	Roman	yes	yes
493	74	4	11	natural green blue	phial	free-blown	Roman	yes	yes - photo
1003		?	148	yellow/green	indeterminate form	free-blown	L 19th C.AD	no	no

PRELIMINARY DISCUSSION

Although there are less than twenty entries in the Roman vessel catalogue, the assemblage is distinguished by the presence of five complete or near complete vessels. The discovery of complete Roman glass vessels is not common and tends to be centred upon contexts where the vessel either could not be recovered (pits or drains) or should not be recovered (graves). The context of the Lant Street vessels, therefore, explains the survival of these vessels.

The five vessels (catalogue numbers 3, 4, 11, 15 and 16) add significantly to our overall knowledge of Roman glass and its use in funerary contexts. Londinium demonstrates an unusual phenomenon by which there does not appear to be a general pattern in the selection, and subsequent deposition, of glass for funerary ritual. Therefore there is always the possibility that each case might present an individual story about the deceased and those who buried them.

This is the case here at Lant Street, especially with context 386. This grave contained not only two of the vessels but also eighty-four of the glass beads. Furthermore, the glass vessels are not common types - although oil-flasks (aryballoi) and amphorisks are known – and direct parallels are not easy to cite at present. Circumstantial details about them (quality and colour of glass in particular) suggest a second or third century date.

The oil-flask (catalogue number 15) is rare because of its biconical body shape and exceptionally thin handles, both broken and discarded before deposition. Its base has a pronounced ring pontil that would have made it difficult to stand. A biconical oil flask with a similarly shaped body to this one comes from Vaison in France, but it is much thicker walled and has the handles and rim of a standard glass aryballos.

The amphorisk (catalogue number 16) looks like a standard Roman vessel –however, direct parallels for this are very difficult to locate. Simple amphorisks with mould blown bodies are well known – and this might be an attempt to copy such a shape – but even that would be unusual. The shape of the vessel, however, and the trailed decoration is very similar to the small vessels inserted into larger bottles (examples at Köln and Mainz)– thus making a trick jug. If this is the correct interpretation, and the amphorisk did come from a trick jug, then the oil flask and this amphorisk fall into a pattern – both vessels were not in their original state when they were put into the grave. This does not mean to say that they were broken at the time of burial – rather it suggests that they were collected, or retained, even though they had been broken. The absence of the oil flask's handles makes that vessel redundant as an aryballos – slung from a handle suspended between the two handles – but it still makes a good, though unstable, oil or cosmetic flask. Likewise the amphorisk – the larger jug has gone but the small flask was retained.

Is it possible that we see here the simple act of someone who had an eye for attractive, unusual glass – and these were then buried alongside the deceased. This 'eccentricity' or idiosyncrasy would fit well this general profile described here – of someone who cherished chosen and selected items, a trait or idiosyncrasy that the deceased's mourners respected and highlighted with their choice of objects.

Two of the three other Roman vessels, (catalogue numbers 4 and 11) - the ovoid beaker and phial, - are common vessel types. Numerous parallels can be cited from the London region and beyond. The colourless beaker, however (catalogue number 3), is another exceptional vessel. Dating from the third century it is a near complete example of a vessel type that has rarely survived in such a substantial size. They are rare depositions in graves and, because of their fragile conditions; only small fragments identifiable by the distinctive 'spectacle' decoration allow them to be distinguished from plain types.

The glass beads are all small and, sadly, not noteworthy. The number and association of a number of them with an animal burial obviously make them a significant find.

The remaining fragments come from well-known vessel types. The patterned mould-blown bottle base (catalogue number 5) cannot, unfortunately, be paralleled at present but it adds to the general catalogue of lettered base designs. Considering the very small size of these fragments, there is little likelihood that they came from disturbed or truncated graves in the vicinity.

Recommendations

It is recommended that the Roman vessel assemblage is published in full with a comprehensive discussion of the five complete vessels. The rarity of three of the vessels, the colourless beaker, the aryballos and the amphorisk, require more in depth study and searching for parallels. Further conservation cleaning of the complete vessels, and reconstruction of the colourless beaker with 'spectacle' decoration may be required.

It is also suggested that the beads receive a more detailed description and discussion – such items are normally overlooked but their presence here in association and, in one case, with an animal burial, warrants further work. All of the diagnostic vessels should be drawn, the complete vessels drawn and photographed. A selection of the beads should be drawn but all should be photographed, perhaps in a pattern similar to their position in the grave – if this is still possible.

APPENDIX 7: Environmental Assessment

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INTRODUCTION

This report summarises the findings arising out of the archaeobotanical assessment undertaken by *ArchaeoScape* at 52-56 Lant Street. Twenty bulk samples were taken from Early Roman pits (Phase 2), Early Roman burials (Phase 4) and later Roman burials (Phase 6). The aim of this report was to ascertain the concentration and preservation of sub-fossil plant material from the site, and to evaluate their potential for contributing to our understanding of ritual / religious practices (e.g. plant offerings) and domestic activities on the site.

METHODS

Ten litre sub-samples were taken from the bulk samples, and processed by flotation using a 300-micron mesh sieve. The dried residues were sorted 'by eye'. The flots were scanned using a low power zoom-stereo microscope. Identifications were made with reference to the modern seed collection at Royal Holloway University London, and Berggren (1981) and Anderberg (1994). Recommendations for further analysis were based on the diversity, concentration and standard of preservation of charred and waterlogged plant remains. Plant nomenclature follows Stace (1997). The results are summarised in Table 1.

RESULTS

Phase 2 – Early Roman

Ditch

The primary fill of context (437) was sampled and provided a small waterlogged assemblage of predominantly elder seeds (*Sambucus nigra*). Small pieces of waterlogged wood (dried) were frequent.

Pit fill (300) contained fragments of hazelnut (*Corylus avellana*), a grain bearing some resemblance to emmer wheat (*Triticum dicoccum*) with a high dorsal ridge and blunt nose, and a smaller grain bearing resemblance to spelt wheat (*Triticum spelta*) with parallel sides and no dorsal ridge. Pit fill (300) also contained frequent waterlogged seeds of knotgrasses (*Polygonum* sp.), elder and seeds from the goosefoot family (Chenopodiaceae sp.).

Phase 4 – Early Roman Burials

Cremation

Context (295) was from a possible cremation. A very small flot was recovered (1ml) and contained occasional charred grains of barley / wheat (*Hordeum / Triticum* sp.). Further identification was prevented due to poor preservation. Vitreous material was occasional, indicating the assemblage was subject to high temperatures.

Phase 5 – 2nd Century Features

Ditches

Ditch fills (195) and (361) provided small assemblages of cereal grain. Context (195) contained one grain of emmer / spelt (*Triticum dicoccum / spelta*), fragments of unidentifiable nutshell and waterlogged seeds of elder. Charcoal was frequent and moderately preserved. Context (361) contained no charcoal and occasional grains of wheat and possible barley. Context (198) contained abundant waterlogged seeds of plants from general waste ground habitats, such as those found around ditches including elder, blackberry (*Rubus fructicosus*), small nettle (*Urtica urens*), small balsam (*Impatiens parviflora*) and seeds from the carrot family (Apiaceae sp.) and daisy family (Asteraceae sp.). Occasional seeds of flax (*Linum* sp.) were also present. Context (141) contained occasional waterlogged seeds of elder.

Phase 6 – Roman Cemeteries

Pits

Pit fills (111) and (176) both contained grains of wheat / barley.

Graves and Cremations

Seeds of small nettle were a common presence in most of these samples along with a species from the genus buttercup (*Ranunculus* sp.). Context (366) was taken from the chalk 'bed' of a skeleton and in addition to the above produced seeds of sun spurge (*Euphorbia helioscopia*) and seeds from the carrot family (Apiaceae sp.). Context (92) was taken from the stomach area of a skeleton and occasional seeds of the carrot family were preserved. Cremation context (481) contained one poorly preserved charred grass seed.

Quarry

Seeds of elder were the only remains recovered from quarry deposit (505). Waterlogged wood was frequent.

INTERPRETATION AND DISCUSSION OF THE RESULTS

Phase 2 – Early Roman

Ditch fill (437) indicates that elder bushes lined the ditch, as is common around these features. Pit context (300) provided charred and waterlogged assemblages with the potential to provide information on the economic and dietary practices of the site, and the local environmental conditions. The charred grain from these samples indicates the presence of emmer and / or spelt wheat. The waterlogged assemblages were rich in seeds from the local habitats, and potentially from local arable fields e.g. flax.

Phase 4 – Early Roman Burials

Barley and wheat are both a common presence on Roman sites. The level of preservation did not permit the distinction between the genera in context (295), which may be the result of high temperatures or repeated charring. Supporting the former interpretation is the presence of vitreous material.

Phase 5 – 2nd Century Features

Ditch context (198) provided charred and waterlogged assemblages with the potential to provide information on the economic and dietary practices of the site, and the local environmental conditions. The charred grain from these samples indicates the presence of emmer and / or spelt wheat. The waterlogged assemblages were rich in seeds from the local habitats, and potentially from local arable fields e.g. flax.

Phase 6 – Roman Cemeteries

The archaeobotanical evidence was generally quite poor in the features sampled from this phase. The majority of the graves and cremations contained the seeds of nettle. Its absence from the other samples marks these out, and it is possible they represent modern contamination. However, the contexts sampled were not open for any great length of time. It may be that nettles prospered on the ground around the cemetery, and hence their seeds became mixed with soil in the graves. The charred grass seed preserved in the assemblage from context (481) was probably charred during the cremation process.

RECOMMENDATIONS

Phase 2 – Early Roman

It is recommended that remaining soil from the following bulk samples be floated for the recovery of further charred archaeobotanical material, and be fully analysed. These samples have a high potential to provide some evidence on the economy and diet of the former inhabitants, and the local environment.

- Pit context (300)

Phase 4 – Early Roman Burials

No further work is recommended due to the poor preservation and concentration of archaeobotanical remains.

Phase 5 – 2nd Century Features

It is recommended that remaining soil from the following bulk samples be floated for the recovery of further charred archaeobotanical material, and be fully analysed. These samples have a high potential to provide some evidence on the economy and diet of the former inhabitants, and the local environment:

- Ditch context (198)

Phase 6 – Roman Cemeteries

Although contexts (366), (384), (395), (408) and (435) from the graves and cremations did contain archaeobotanical remains they are unlikely to contribute to our understanding of ritual / religious practices on the site. No further analysis is recommended.

REFERENCES

Anderberg, A-L. 1994 *Atlas of Seeds: Part 4*, Swedish Museum of Natural History, Risbergs Trycheri AB, Uddevalla, Sweden

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Pre-Construct Archaeology Ltd. 2005 '15-16 Bedford Street (BDO 05): interim summary report', *PCA unpublished report*

Stace, C. 1997 *New Flora of the British Isles* (2nd ed.), Cambridge University Press, Cambridge

OASIS DATA COLLECTION FORM

Printable version

OASIS ID: preconst1-13279

Project details

Project name	52-53 Lant St London Borough of Southwark
Short description of the project	The excavation revealed the presence of Roman linear features and pits dating to the 1st century AD, comprising a quarry pit, ditches, a cremation burial and a pit filled with disarticulated human bone. This was followed by 2nd century ditches, burials and a ritual well, and a 4th century cemetery with 84 inhumation burials. These were mostly supine, some on their sides and a few in prone position. The 4th century cemetery included a formal headless dog burial with grave goods, and some of the inhumations were on a chalk or lime substance. Grave goods included pottery and glassware as well as an ivory handled folding knife with key on a chain and the remains of a bone inlaid casket. Some medieval pitting and post-medieval soakaways were also present.
Project dates	Start: 01-11-2004 End: 17-12-2004
Previous/future work	Yes / No

Any associated project reference codes	LTU 03 - Sitecode
Any associated project reference codes	LTU 03 - Sitecode
Type of project	Recording project
Site status	Area of Archaeological Importance (AAI)
Current Land use	Other 3 - Built over
Monument type	CEMETERY Roman
Monument type	PITS Post Medieval
Significant Finds	BURIALS Roman
Significant Finds	GRAVE GOODS Roman
Investigation type	'Open-area excavation'

Prompt	Planning condition

Project location

Country	England
Site location	GREATER LONDON SOUTHWARK SOUTHWARK 52-56 Lant Street
Postcode	SE1
Study area	1500.00 Square metres
National grid reference	TQ 3225 7970 Point
Height OD	Min: 4.83m Max: 4.83m

Project creators

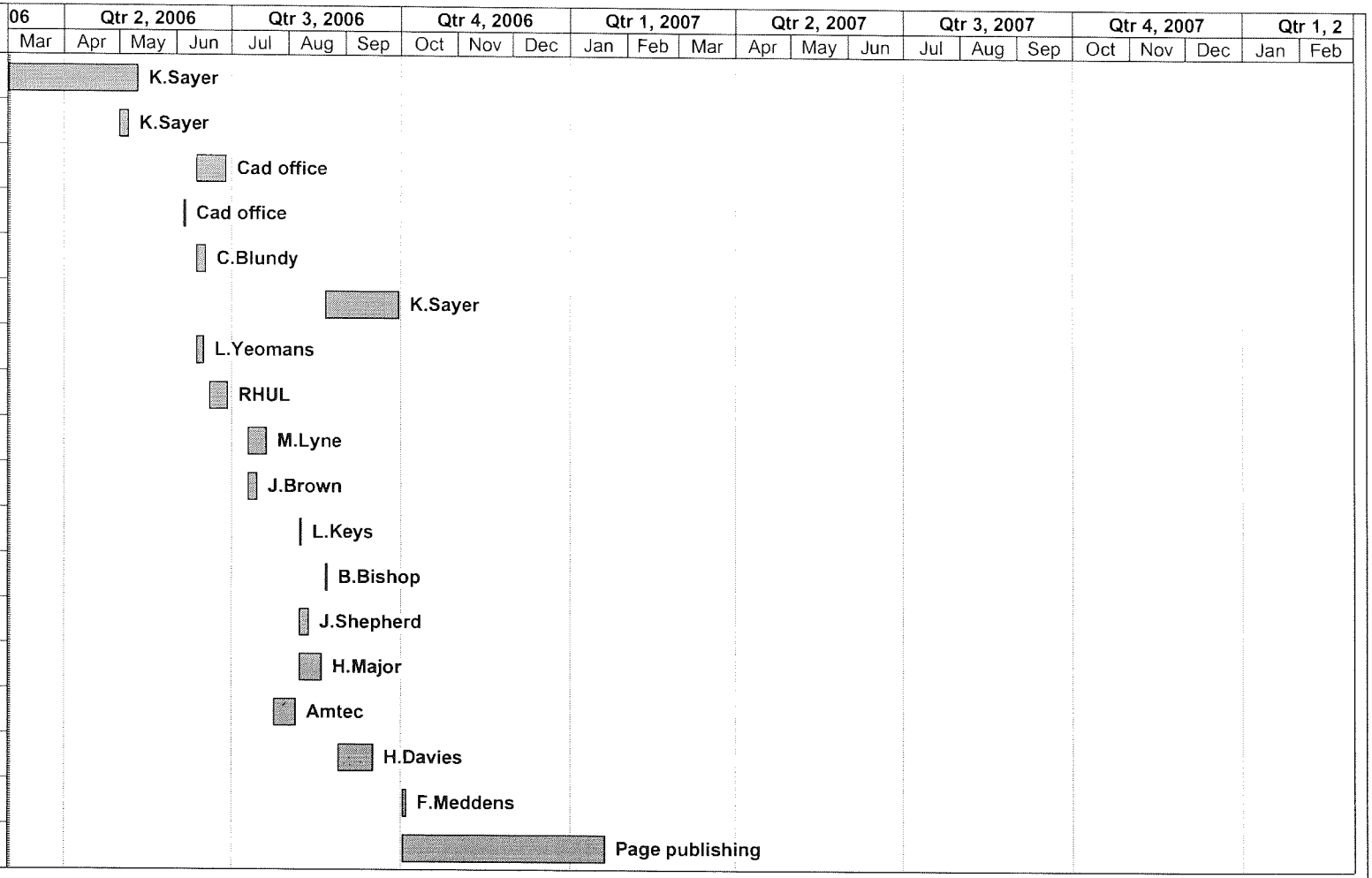
Name of Organisation	AOC Archaeology
Project brief originator	CgMs Consultants Ltd

Project design originator	AOC Archaeology
Project director/manager	AOC Archaeology
Project supervisor	Melissa Melikian
Sponsor or funding body	Acorn Homes

Project archives

Physical Archive recipient	LAARC
Physical Contents	'Animal Bones','Ceramics','Environmental','Glass','Human Bones','Metal','Worked bone'
Digital Archive recipient	LAARC
Digital Contents	'Animal Bones','Ceramics','Environmental','Glass','Human Bones','Metal','Stratigraphic','Survey','Worked bone'

ID	Task Name	Duration
1	Archaeological text	50d
2	Research & liaison	5d
3	plans CAD digtizing & illustrati	12d
4	sections	1d
5	Photography	5d
6	Human bone txt	30d
7	Animal bone txt	4d
8	Enviro txt	8d
9	Pottery	8d
10	CBM	5d
11	Slag/daub	1d
12	Lithics	1d
13	Glass	5d
14	SF	10d
15	Conservation	10d
16	Finds illustration	15d
17	Project management & editinç	2d
18	Page cost	80d



Project:
Date: Thu 02/03/06

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress