

GRANGE FARM

GILLINGHAM

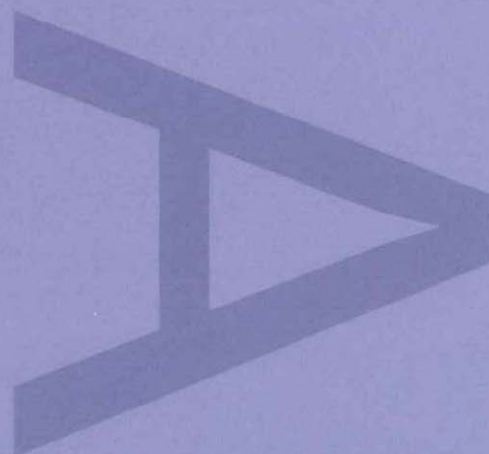
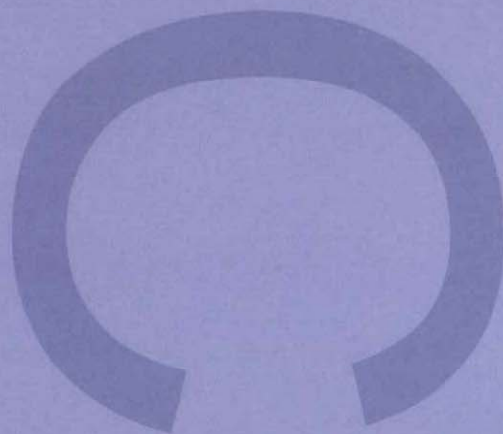
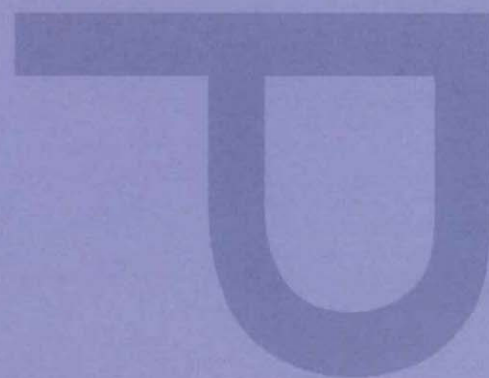
KENT

ASSESSMENT OF AN

ARCHAEOLOGICAL EXCAVATION

KKGF 03

JULY 2008



PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

GRANGE FARM
GILLINGHAM
KENT

EXCAVATION

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**An Assessment of an Archaeological Excavation on Land at Grange Farm,
Gillingham, Kent**

Site Code: KKGf 03

Central National Grid Reference: TQ 7930 6850

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1 ABSTRACT

- 1.1 Following an earlier archaeological evaluation, an archaeological excavation was undertaken by Pre-Construct Archaeology Ltd on land at Grange Farm, Gillingham, Kent. The site was commissioned by CgMs Consulting Ltd on behalf of Taylor Woodrow and Persimmon Homes who funded the archaeological investigations. The site is situated on the eastern side of Gillingham, on a hill overlooking the southern bank of the Medway River.
- 1.2 The open area excavation was undertaken in four separate areas around Grench Manor, which although being outside the area of excavation lay at the heart of the study site. Area A was the largest and was situated to the north of the manor on low-lying land, which gradually descended northwards towards the river and covered approximately 15200m². Area B was positioned directly to the west of the manor house, gently sloping downwards to the north and west, covering approximately 7800m². Area C was immediately to the south of the manor, on high land, sloping down to the north and west covering approximately 973m², and Area D was southeast of the manor on comparatively flat land upon the ridge of the hill, covering approximately 1360m². Two small slot trenches, Areas E and F, were also excavated on the high ground to the east of the manor house.
- 1.3 Geologically the site was primarily positioned upon brickearth deposits, with river gravels recorded at the northern most part of the site. These deposits were observed at a lowest point of 5.83m OD in the northwestern corner of Area A and at a highest point of 18.27m OD in the southeastern corner of Area D.
- 1.4 The archaeology encountered was multi-phase, the features dating from the prehistoric through to the post-medieval period. Struck flints dating from the Mesolithic or Early Neolithic together with an assemblage of burnt flint were recovered from a small number of features on site. Two other features contained pottery of Bronze Age and Middle Iron Age date respectively.
- 1.5 The site appears to have been sparsely used during the Late Iron Age period. Field ditches from this period were recorded on the high ground, in Area D and probably represent an agrarian landscape.
- 1.6 In the early Roman period (AD 43-120), a road was constructed across the site on a north-south alignment. This was recorded from the southern limits of Area B to the northern limits of Area A, a distance of over 280m. It is probable that this linked nearby Watling Street with the Medway River. Within a hollowed way in the centre of Area A, the metalled surface remained intact, whilst over the majority of the site only the bases of the ditches remained. Towards the north of the site, the road seemed to lined with quarry pits, presumably for easy transportation of the local brickearth. To the west of the road were a series of rectilinear enclosures, demarcated by large boundary ditches, indicating division and occupation of the site at this time
- 1.7 In the period AD 120-250 a large wooden structure, probably a raised granary, was constructed to the east of the roadway in Area A. The boundary ditches were also backfilled and replaced by masonry enclosure walls running along the same alignments. Pits full of domestic rubbish from this period were also evident across the site. This type of activity makes it possible that a villa was constructed on the site around this period, possibly on the site of the modern day Grench Manor. This, however, could not be ascertained for certain as the area lay outside the excavation boundaries of the study site.
- 1.8 During the period AD 250-300 a major phase of rebuilding took place. An aisled barn with masonry, dwarf walls and stone post pads replaced the raised granary, the site of

which was reused for rubbish pits. The roadway was also diverted, as its old course had to be revetted due to landslides into the hollowed way. The road swung east around the revetment, through a possible building complex and back west onto its original course. The revetments took the form of substantial masonry walls on north-south and east-west alignments. To the west of the roadway a mausoleum was constructed. This was square in plan measuring about 6.5m across. On each corner was a large, square footing, suggesting that the structure was at least 2 stories high. Half way along the southern wall was the remnants of a post pad, possibly indicating the entrance and on the northern wall was a shallow robber cut, perhaps for an altar. Buried in the centre of the tomb, on an east-west alignment was a middle-old age female in a lead coffin around which traces of a wooden box and iron nails were recorded. Upon excavation of the coffin, no grave goods were found. A tessellated floor had collapsed into the top of the grave, on top of which two gold necklaces were discovered. The remains of at least two other humans were recovered from the fills of the robbed out walls, suggesting that the building may have contained more than just the one burial. Two pits were recorded in Area C, which contained large quantities of domestic refuse dating to this period.

- 1.9 The utilisation of the aisled barn seems to have changed during the 4th century into metalworking of some sort. A series of hearths were recorded cut into the floor, as well as large dumps of iron slag against a revetment wall just to the west of the structure. A sequence of floor layers suggest that a series of lean-to structures were constructed along side the roadside revetments in the late Romano-British period.
- 1.10 During the late 4th-5th century the revetments were deliberately demolished into the hollow way, through which the road ran at the centre of the site. This hollow way then seems to have been systematically backfilled with midden heaps and a very humic soil, creating something like a dark earth deposit, sealing the demolition layer. This deposit also contained a large amount of lead slag, with impurities of copper and silver. This has been tentatively identified as a waste product created from the melting of coins to extract the pure metal, (cupellation).
- 1.11 Very little direct evidence of Anglo-Saxon activity was recorded on the site. A brooch of high quality, probably dating to the late 5th-early 6th centuries was recovered. The quality and relatively complete state of the brooch suggest it originally came from a burial.
- 1.12 The earliest records of Grench Manor date to the 11th century with extensive rebuilding in the late 1370's. A large moat like ditch, which ran on a north-south alignment, was discovered on the eastern edge of Area B. It was also recorded on the northern limits of Area C, on an east-west alignment and on a north-south alignment within the slot trenches E and F. This probably relates to the medieval manor house. At the northwestern end of Area A, a well was discovered containing large quantities of medieval pottery. The mausoleum also appears to have been robbed out in this phase. A large number of regularly spaced, shallow, circular features with irregular bases were uncovered in Area B. These have been interpreted as tree planters. Medieval horse pendants were recovered from two of these. Two large medieval rubbish pits, full of domestic waste, were also recorded in Area C.
- 1.13 During the post-medieval period, the moat seems to have been deliberately back-filled. The upper fills contained pot dating to the 17th and 18th centuries, which may be associated with a known phase of re-building on the manor site. A group of post-medieval field ditches were recorded in Area C, running on north-south and east-west alignments. Whilst in the southwest corner of Area A the remnants of a small, insubstantial structure constructed from 18th century and Roman building materials and interpreted as an outhouse, were recorded.

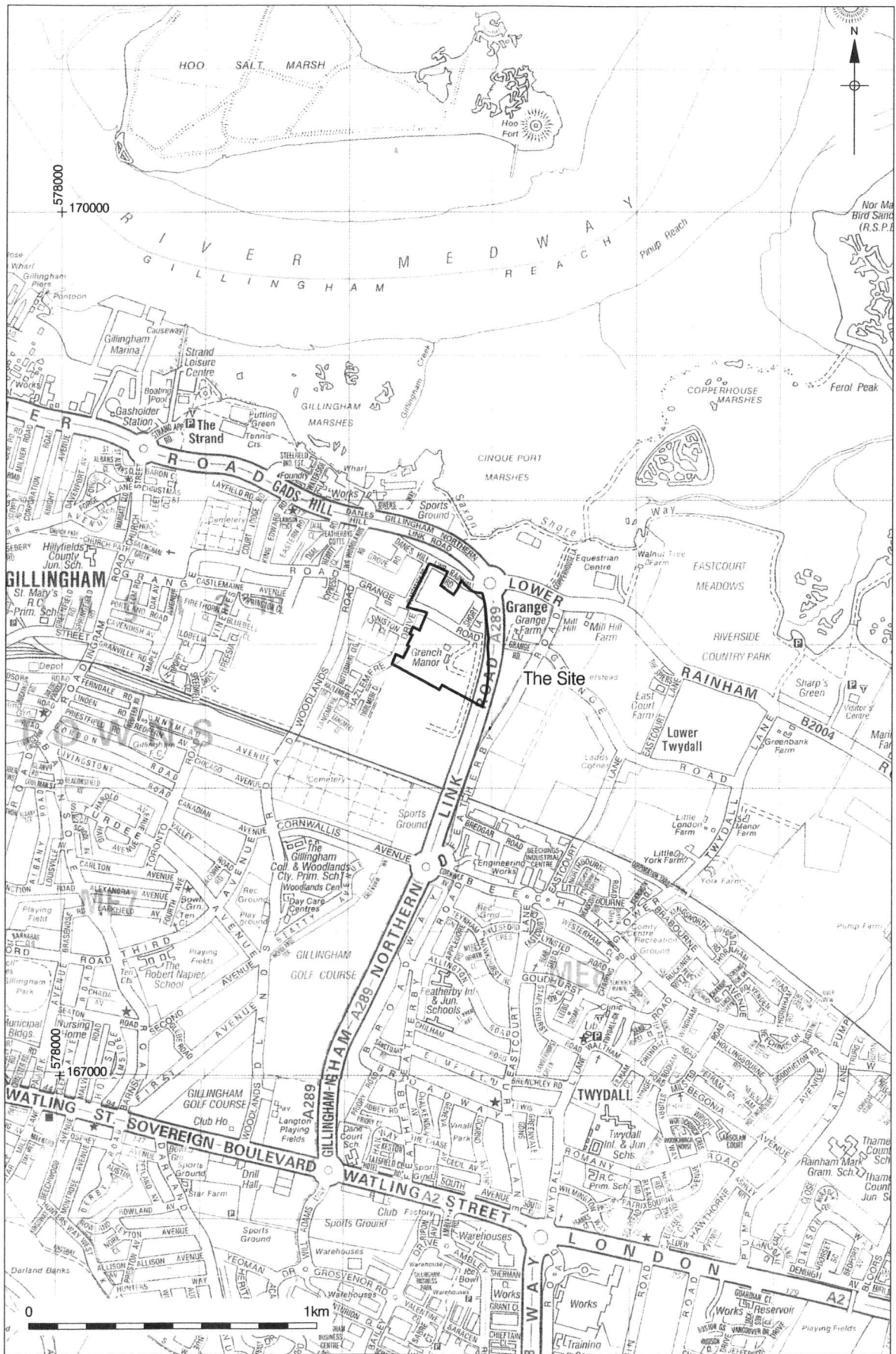
2 INTRODUCTION

- 2.1 This report details the results and working methods of an archaeological field excavation undertaken by Pre-Construct Archaeology Ltd on land at Grange Farm, Gillingham, Kent, in advance of a proposed redevelopment of the site for residential purposes. The site central National Grid Reference is TQ 7930 6850. The field excavation was conducted between 26th September 2005 and 2nd May 2006. A further watching brief took place between the 15th and the 17th of August 2006.
- 2.2 The site was located on land at Grange Farm, Gillingham, Kent, within the Medway Towns Conurbation. It is situated east of Gillingham, bordered to the east by the A289, to the north by Lower Rainham Road, to the west by both Plantation Road and Hazelmere Drive, and to the south by a sports complex (Fig. 1). The site was divided through the centre by the east-west running Grange Road.
- 2.3 The site had previously been the subject of an Archaeological Desk Based Assessment¹. In accordance with PPG 16 and local policies, an archaeological evaluation and close contour survey were undertaken between 2nd February and 28th March 2003, and was reported in Haslam (2003).
- 2.4 The project was commissioned and monitored by the archaeological consultant Duncan Hawkins, of CgMs Consulting, on behalf of Taylor Woodrow Ltd and Persimmon Homes. The field excavation was undertaken by Pre-Construct Archaeology Ltd. under the supervision of Guy Seddon and the Project Management of Peter Moore. The work was additionally monitored for the local planning authority by Simon Mason and David Britchfield, Kent County Council Archaeological Officer for the area.
- 2.5 A Method Statement for an Archaeological Excavation was prepared by Peter Moore², prior to the fieldwork commencing.
- 2.6 The completed archive comprising written, drawn and photographic records and artefacts will be deposited with a suitable repository in the local region. The site was allocated the site code 'KKGf 03'.
- 2.7 An Archaeological Watching Brief on the laying of a sewer in the northeast part of the site was conducted between August and September 2006 and was reported separately³.
- 2.8 In this report:
- Group context numbers have been used for many of the larger features, specifically the structures. These are collective numbers for all the individual contexts, and have been used to tie the structures together coherently. Individual context numbers were allocated to fills within slots and have been numbered within the context index (Appendix 16).
 - The pit groups have been numbered as PG1 to PG17.

¹ Hawkins, D., 2002

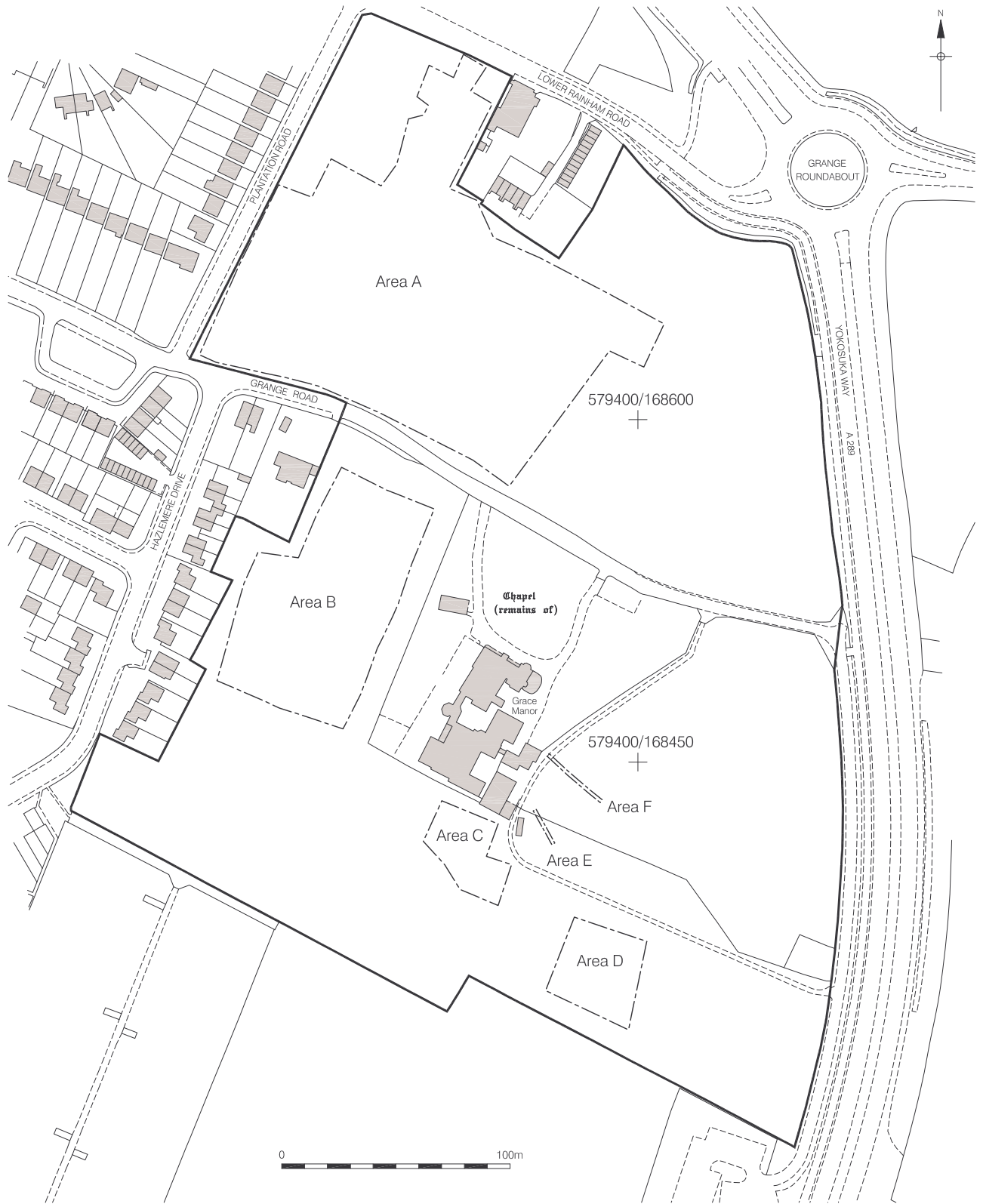
² Moore, P., 2005

³ Pooley, A., 2007



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Figure 1
 Site Location
 1:20,000 at A4



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Figure 2
 Locations of the Archaeological
 Trenches
 1:2500

3 PLANNING BACKGROUND

- 3.1 In November 1990 the Department of the Environment issued Planning Policy Guidance Note 16 (PPG16) "Archaeology and Planning", providing guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
- 3.2 In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance PPG16, by current Structure and Local Plan policy and by other material considerations.
- 3.3 The relevant Development Plan framework is provided by the Kent Structure Plan, 1996 and the Medway Towns Local Plan adopted in 1992 and the Medway Local Plan 1999, details of which can be seen in the Desk Based Assessment⁴.

⁴ Hawkins, D., 2002

4 GEOLOGICAL BACKGROUND

- 4.1 The Grange Farm site is located on the south bank of the River Medway on rising ground. Ground level goes up across the site from c. 5.83m OD (northwest) to c. 18.27m OD (southeast).
- 4.2 The geology of the site is interrelated with the site's topography. The dominant topographical feature of the site is a north-south dry valley draining from the dip slope on the north, southerly towards the coastal margin. The valley sides area formed of Thanet beds over the upper chalk. Within the valley extensive head deposits are present.
- 4.3 The natural head deposits were variable across the site. The sandy clay brickearth was firm in compaction and ranged from light yellowish orange in colour to mid brownish orange, and the natural gravels were a firm, mid greyish brown. Solifluction of the natural was also observed.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 5.1 The archaeological and historical background is discussed in full in the Desk Based Assessment⁵. A summary is provided below.
- 5.2 The Desk Based Assessment stated that the site had low archaeological potential for the Palaeolithic and Mesolithic periods, moderate potential for the Neolithic, Bronze Age and Iron Age periods to the north of the site, good potential for the Roman period and variable potential for the Anglo-Saxon, medieval and post-medieval periods with a higher potential for all three of these periods within the immediate proximity of Grench Manor.
- 5.3 An assemblage of Neolithic or early Bronze Age flint implements, including arrowheads, flint scrapers and saws were recorded from the margins of the Medway Estuary some 400m to the north of the study site (SMR Ref: TQ 76 NE 2294; TQ 7940 6890).
- 5.4 No finds of Iron Age material had been recorded within a 1.5km radius of the study site.
- 5.5 A coin hoard of 722 copper alloy Roman minimi dating from the 3rd to the close of the 4th century was found within a Roman vase during groundworks to the north of the modern Grange Farm in Grange Road (SMR Ref: TQ 76 NE44, TQ 7960 6860). Roman roof tile fragments had also been recovered during archaeological investigations round Grench Manor (Keller and Chenery, 1992 and Greaterix, 1995). A small number of Roman burials were recorded 50m to the north east of the site at the junction of Featherby Road and Lower Rainham Road (SMR Ref: TQ 76 NE18, TQ 7960 6860).
- 5.6 An early Anglo-Saxon burial of 5th or 6th century date is recorded some 450m west of the study site on broadly the same alignment as Grange Road (SMR Ref: TQ 76 NE 306; TQ 7900 6870). It is also likely that Grench Manor (originally Grench, then Grange, now Grace), was established in the late Saxon period. The estate was a detached part of the Cinque port of Hastings, the Cinque Ports being a powerful maritime confederation providing the Kings of England from the 11th to the 14th with the nucleus of a 'Royal' navy and comprising of Dover, Hastings, Hythe, Romney and Sandwich. The Grench Manor estate in the late medieval period (mid fourteenth century) was bound to find:
- 'One ship and two able and well armed men to make up the (Hastings) quota of twenty one ships in each of which there were to be twenty one able men, well armed to continue in the Kings service for forty days.'**
- 5.7 During the medieval and post-medieval periods and up to the present day the bulk of the study site comprised of agricultural land. The only historic settlement appears to have been Grench Manor, and the now demolished Grange Cottage. The earliest documentary reference to the Manor is in the reign of King Henry III when it was valued at over 100 shillings. The Manor had become detached from the port of Hastings by the later fourteenth century and was extensively rebuilt by John Philpott Esq. in the late 1370's. The existing ruined medieval Chapel and ruined building by the main gate are believed to have been constructed by him in 1378. The Manor House was rebuilt again in the late eighteenth and late nineteenth centuries.
- 5.8 An Ordnance Survey map of 1867 also reveals a substantial brickfield, the 'Cinque

⁵ *ibid*

port brickfield', which occupied a considerable portion of the north east quarter of the site. The bulk of the site at this time was clearly agricultural land, with orchards of fruit trees predominating. By 1897 the brickfield had disappeared and had been over planted with a fruit orchard. In the late 1990's the Medway Towns northern link road was constructed, forming the eastern boundary of the site.

6 ARCHAEOLOGICAL METHODOLOGY

- 6.1 Prior to any excavation taking place a close contour survey was undertaken on the western field, (Area B), to examine differential surface contours. The results were inconclusive and subsequent excavations failed to show any relationship between any surface anomaly and any archaeological feature or artefact.
- 6.2 An archaeological evaluation followed⁶. This identified the presence of remains dating from the Late Iron Age, through to the post-medieval period. These were concentrated to the north (Area A), west (Area B) and southeast (Area D) of Grench Manor.
- 6.3 During the evaluation it had been impossible to excavate any trenches in the western half of Area A, due to the presence of horses. It was decided to carry this out during the period of open area excavation across the rest of the site, with if necessary, immediate mitigation, rolling into full excavation.
- 6.4 A method statement detailed the methodology for the excavation⁷, and was accompanied by a plan showing the areas to be excavated. Area A originally consisted of an open space of approximately 5700m², with immediate mitigation if significant archaeology was uncovered, Area B consisted of an open area of approximately 7800m², Area C 973m² and Area D 1366m² (Fig. 2).
- 6.5 Removal of the topsoil and subsoil overlying the archaeology and natural was done with two 20 tonne 360 degree machines, which were each supervised by an archaeologist and a metal detectorist at all times. The spoil (separated into subsoil and topsoil) was dumped away from the trenches using up to four dumpers.
- 6.6 During the machining of Area A, it became apparent that significant Roman structures were being revealed. To ascertain the size, function and date of these structures further stripping commenced, with Area A needed to be expanding to around 8800m².
- 6.7 The evaluation that took place immediately to the west of Area A, revealed walls, ditches and a road of Roman date. This brought into effect the mitigation strategy and Area A was expanded again to a total of 15200m².
- 6.8 Two slot trenches measuring c. 20m by 1.75m were excavated on an east-west alignment, to the east of the manor house, using a JCB. These were designated as Areas E and F. This was carried out in order to clarify the nature of the moat like feature seen in Areas B and C. Features within these trenches were surveyed in and were left unexcavated.
- 6.9 All features were marked during the machining. A Total Station was used to plot the limits of excavation and to establish a grid in Area A.
- 6.10 The method statement specified the proportion of the different feature types to hand excavate.
- Non-structural linear features (ditches, field boundaries, drainage gullies, etc) were sampled at a ratio of at least 10% by length.
 - All pits and postholes were excavated to at least 50% by volume.
- 6.11 The recording system used was the single context recording system with individual descriptions of all archaeological strata and features excavated, exposed and entered

⁶ Haslam, A., 2003

⁷ Moore, P., 2005

onto pro-forma recording sheets. All plans and sections of archaeological deposits were recorded on polyester based drawing film, the plans being drawn at a scale of 1:20 and 1:100 and the sections at 1:10. The OD height of all principal strata were calculated and indicated on the appropriate plans and sections. Features that were evidently modern, apart from one instance, were not given context numbers, and were recorded as modern intrusions in plan.

- 6.12 A level was traversed in from a Bench Mark on Woodlands Road to the west of the study site, with a value of 12.91m OD. Two Temporary Bench Marks (TBMs) were established in Area A, with another for the other areas. TBM A in the west of Area A, had a value of 10.04m OD. TBM B, to the east of Area A, had a value of 10.75m OD and was shared with Area B. Bench Mark C was shared by Areas C and D, and had a value of 18.63m OD.
- 6.13 Photographs, on colour slide and black and white print film, were taken of the archaeological features where relevant. A professional archaeological photographer took large format shots of areas or specific features, and a photographic tower was erected to get the area overview shots. Site staff used 35mm cameras on a day-to-day basis, and the professional archaeological photographer used 35mm, medium format (120mm) and digital cameras.
- 6.14 A total of 281 bulk samples were taken of the fills of the archaeological features, in order to recover environmental information. After processing, these were transferred to ArchaeoScape, Royal Holloway College, Egham, University of London, for sub-sampling and assessment.
- 6.15 In this report, contexts are shown by square brackets, e.g. [100] and are divided into the following ranges:
- [1] - [94] are from the evaluation
 - [200] - [1402] are from the excavation
 - [461], [833], [871] and [1412], are group context numbers, created during the excavation, representing structures on the site. [1403] – [1409] and [1414] – [1415], are group context numbers taken out in post excavation representing the cut or one of the fills of a complete feature such as a ditch. These were created where there was more than one slot excavated into the feature, generating separate cut and fill numbers.
 - [1500] - [1506], are from the watching brief.
- 6.16 Extreme care had to be taken whilst machining the Areas B, C and D, as the remains of around 30 German incendiary bombs (10 complete) from WW2 were uncovered randomly spread across the area. After discovery of the first bomb metal detecting whilst machining was intensified. As the soil was being stripped in spits the ground surface was metal detected, in order to assure that the machine did not accidentally 'clip' a bomb. Upon location a high-vis vest was placed next to the bomb, so as not to lose its position, or require staff to return to find it. The police were then called. The areas of threat were evacuated until proclaimed safe by the bomb squad.
- 6.17 Towards the end of the archaeological machining the client engaged the services of Babtec, bomb clearance experts. They carried out magnetometry tests in order to find anomalies. These anomalies were then investigated with the use of a JCB under Babtec and archaeological supervision.

7 PHASED ARCHAEOLOGICAL SEQUENCE

Phase 1 – Natural

7.1 Natural Deposits

- 7.1.1 The natural deposits primarily consisted of brickearth, [202], [447], [1215] and [1349]. The brickearth was compact and varied in colour across the site, from light yellowish orange to mid brownish orange and was recorded at a highest level of 18.27m OD in the southeast of the site, and a lowest level of 5.83m OD in the northwest. Natural gravel deposits were also revealed in the northwestern extremities of the site.
- 7.1.2 The site sloped downwards from the southeast to the northwest corner. The level of the archaeological surface is likely to have been distorted by centuries of ploughing, particularly towards the southeast corner where linear archaeological features began to become shallower and the soil became much thinner. Ploughing activity can cause a great amount of damage to archaeology and often results in the deposition of hillwash deposits in a downslope direction. This act of colluviation is the most probable explanation for the depth of the soil in the southwest corner of Area B.

7.2 Phase 2 – Prehistoric (Fig. 3)

- 7.2.1 An assemblage of lithics was recovered from a number of features and deposits across the site (see Bishop, Appendix 3). Whilst the majority of the assemblage was residual and recovered from later features, it did reveal evidence of activity on site from the Mesolithic/Neolithic. Although much of the flintwork was undiagnostic two features, [380] and [389], contained flints suggestive of a Neolithic date. Whilst it is possible that the flints were residual, it is likely that both features were Neolithic in date as no later artefacts were found within their fills.

Gully [380]

- 7.2.2 Gully, cut [380], located to the northern limit of excavation in Area A, was a curvilinear feature, extending out of the northern baulk. It was slightly irregular in shape due to animal burrowing and measured 2.60m in length, with a width of 0.40m and was up to 0.30m deep at 9.55m OD. It contained a single fill, [379] which was a friable, mid brownish grey, clayey, sandy silt containing frequent flint fragments.

Posthole [389]

- 7.2.3 Posthole [389] was circular in plan and contained a single fill, [388]. This was a friable, mid brownish grey, clayey, silty sand.
- 7.2.4 The majority of the residual lithics were most likely of Late Bronze Age/Iron Age date the flints from features [428] and [638] is possibly of this age. Two further features, [708] and [558], respectively contained Late Bronze Age-Middle Iron Age and Middle Age pottery.

Pits [428] and [638]

- 7.2.5 [428] was a small, sub-circular pit containing a single fill, [427]. This was a loose-firm mid brownish grey, sandy silt and contained a single undiagnostic flint flake.
- 7.2.6 Pit [638] was oval in plan. The fill, [637], was a firm, mid yellow brown, silty clay. A flint core was retrieved from this feature along with 203 pieces of thoroughly and uniformly burnt flint, characteristic of potboilers.

Pit [708]

- 7.2.7 Pit [708] was sub-oval in plan. The fill, [707], was a mid, greyish brown, sandy silt in which 23 sherds of pottery, tentatively dated to the Late Bronze Age - Middle Iron Age, was found.

Posthole [558]

- 7.2.8 Posthole [558] was oval in plan. Its single fill, [557] was a friable, mid greyish brown, sandy silt and contained pottery dating to the Middle Iron Age.

Discussion of Phase 2

- 7.2.9 The assemblage of flints recovered from the site suggested activity from the Mesolithic/Early Neolithic, Neolithic and Late Bronze Age/Iron Age periods. Four features allocated to Phase 2 produced evidence, in the nature of knapped flints, solely relating to either the Neolithic or to the Late Bronze Age/Iron Age; these were gully [380], posthole [389] and pits [428] and [638]. All these features were located towards the north of Area A. Many of the flints were chipped and abraded, indicating that they had been redeposited, raising the possibility that they were residual. It is also possible that they were deliberately redeposited from a larger accumulation, such as a midden.
- 7.2.10 Unfortunately only a small percentage of gully [380] was revealed as it extended under the northern LoE, making it difficult to determine exactly what its function was.
- 7.2.11 Pit [638], containing 203 pieces of burnt flint, characteristic of potboilers was characteristic of 'burnt mound' sites and is usually interpreted as representing industrial activities or large-scale cooking, possibly settlement in the near vicinity.
- 7.2.12 There is thus very tentative evidence of possible limited Neolithic and Bronze Age - Middle Iron Age occupation on the site, which together with the residual flints dated to the latter period are suggestive of activity of that date most likely focused just beyond the northern boundaries of the site.

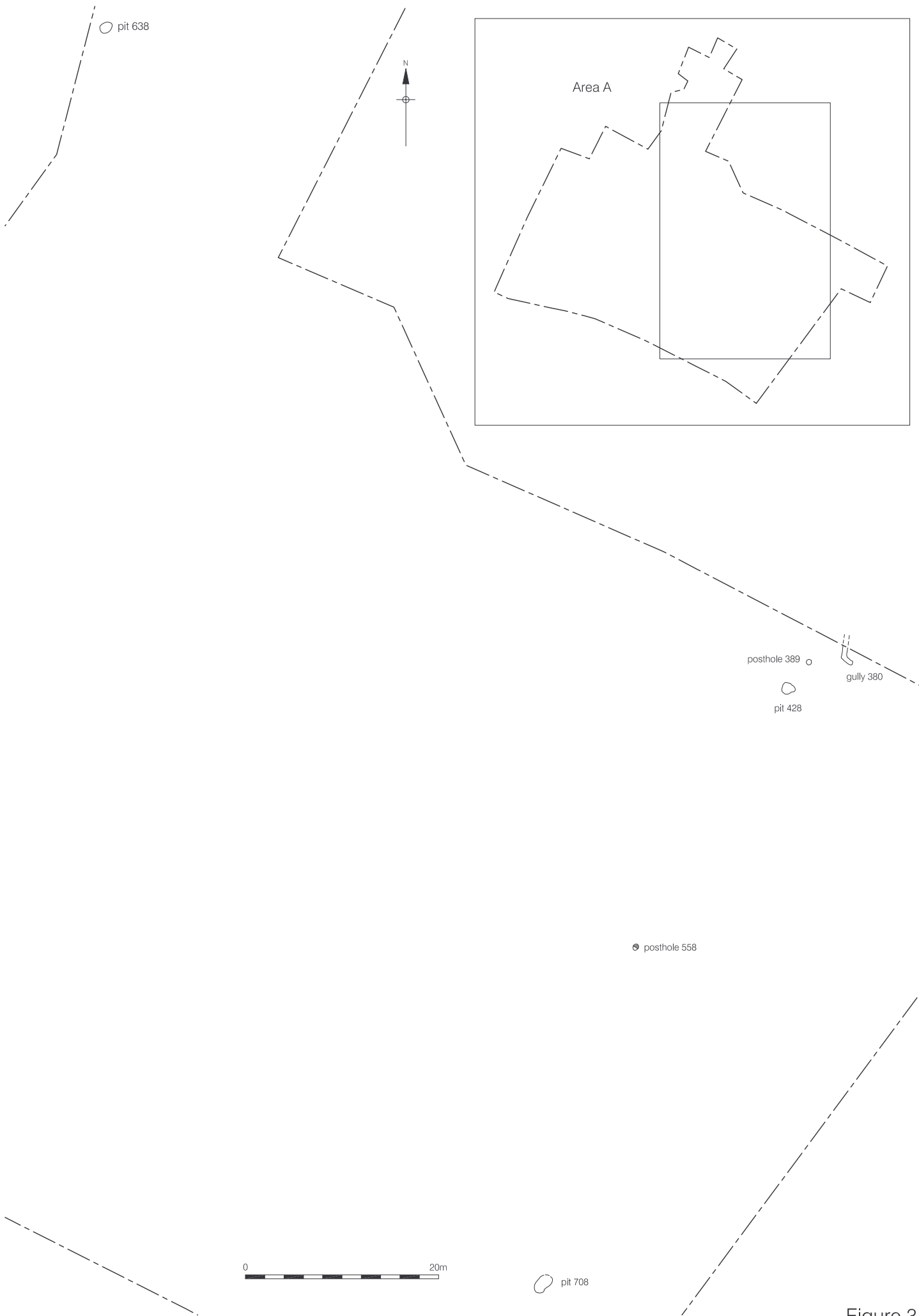


Figure 3
Phase 2 Features
scale 1:500

7.3 Phase 3 – Late Iron Age – 43 AD

Late Iron Age Field System

- 7.3.1 In Area D, a field system started to develop during the Late Iron Age period, (Fig. 5). The ditches marking the boundaries were long and straight and contained a fair amount of cultural material including pottery, daub, animal bone and flint, the pottery being dated from the Late Iron Age up to 43 AD. The original system appears to have consisted of one east-west aligned ditch, [1121], running into the LoE to the west and an associated north-south ditch, [1012].
- 7.3.2 Ditch [1121] was up to 48m in length as seen and up to 0.48m at its widest. The ditch varied in depth from 0.21m at its deepest to a shallowest depth of 0.11m at the very eastern limit and butt end of the ditch. This is most likely to be due to the slight slope present in Area D, with the highest level of the ditch being at 18.27m OD to the west and the lowest level being 17.94m OD to the east. This slope could be the result of extensive ploughing. For the most part, the ditch was almost 'U'-shaped in profile, with concaved sides and base. In all, three slots were excavated along the length of the ditch, totalling approximately ten per cent in volume of the entire feature, with a different context number being assigned to the fill of the ditch in each case, [1119], [1120] and [1147].
- 7.3.3 Ditch [1012] had a length of 38m a maximum width of 0.90m and a depth of 0.42m. It ran the entire length of the site, extending under both the northern and southern LoE, with its height dropping from 18.08m to 17.39m OD as it ran northwards. Two slots were excavated along its length. The fills were numbered [1011] and [1040].
- 7.3.4 Ditches [1245] and [1247] were sited in Area A, aligned northwest-southeast. It is possible that they also represented field boundaries. Both ditches were heavily truncated to the east by later features.
- 7.3.5 Ditch [526] extended northeastwards from the southern limit of excavation, curving 90° to the northwest to a butt end. In profile the ditch was 'U'-shaped, with steeply sloping sides and a concaved base.
- 7.3.6 Directly to the east of and running parallel to [526] was gully [510]. It had a 'U'-shaped profile and ran on a northeast-southwest alignment for 12.75m, with a width of 0.74m and had a depth of 0.28m. It contained two fills, [508] = [654] and [509] = [655], which contained pottery and residual struck flint. The depth of this feature indicates that it was probably horizontally truncated through years of ploughing.

Stakeholes [1251], [1253] and [1255]

- 7.3.7 Stakeholes [1251], [1253] and [1255] all appeared to be clustered around the western terminal of ditch [1247] and were possibly the remnants of a fence line associated with it.

Pit [1352]

- 7.3.8 Shallow pit [1352], located in Area D, was oval in plan with steep, slightly concaved sides and a flattish base, stepping down at the eastern end. The fill, [1351] was light brownish grey, clayey silt containing pottery and daub. The pottery has been dated to between the Late Iron Age and AD43.

Pits [416], [554] and [708]

- 7.3.9 Pits [416], [554] and [708] were located to the east of Area A (Fig. 4). Pit [416] contained a large quantity of burnt material, including pottery, possibly from a hearth. Pits [554] and [708] contained fragments of pottery and animal bone.

Discussion of Phase 3

Late Iron Age Field System

- 7.3.10 The two ditches in Area D, [1012] and [1121] are evidently representative of an Late Iron Age field system, most probably used for the purpose of either the corralling of livestock or grain production.
- 7.3.11 Ditch [1040] truncated the fill of ditch [1121], suggesting a change of alignment towards the end of the phase, as early Roman features copied this later.
- 7.3.12 It is possible that the four ditches in Area A ascribed to this phase, [526], [510], [1245] and [1247] were also part of a field system or small enclosure.

Phase 3 Additional Features

- 7.3.13 Not a great deal can be stated about the pits attributed to this phase. They all contained a small amount of pottery and animal bone. Due to their small nature it is most probable that they were rubbish pits, although no evidence of settlement was found on site. The fill of pit [416] however contained large quantities of burnt material, including pottery, indicative of hearth 'rake out', and could suggest settlement in very close proximity.

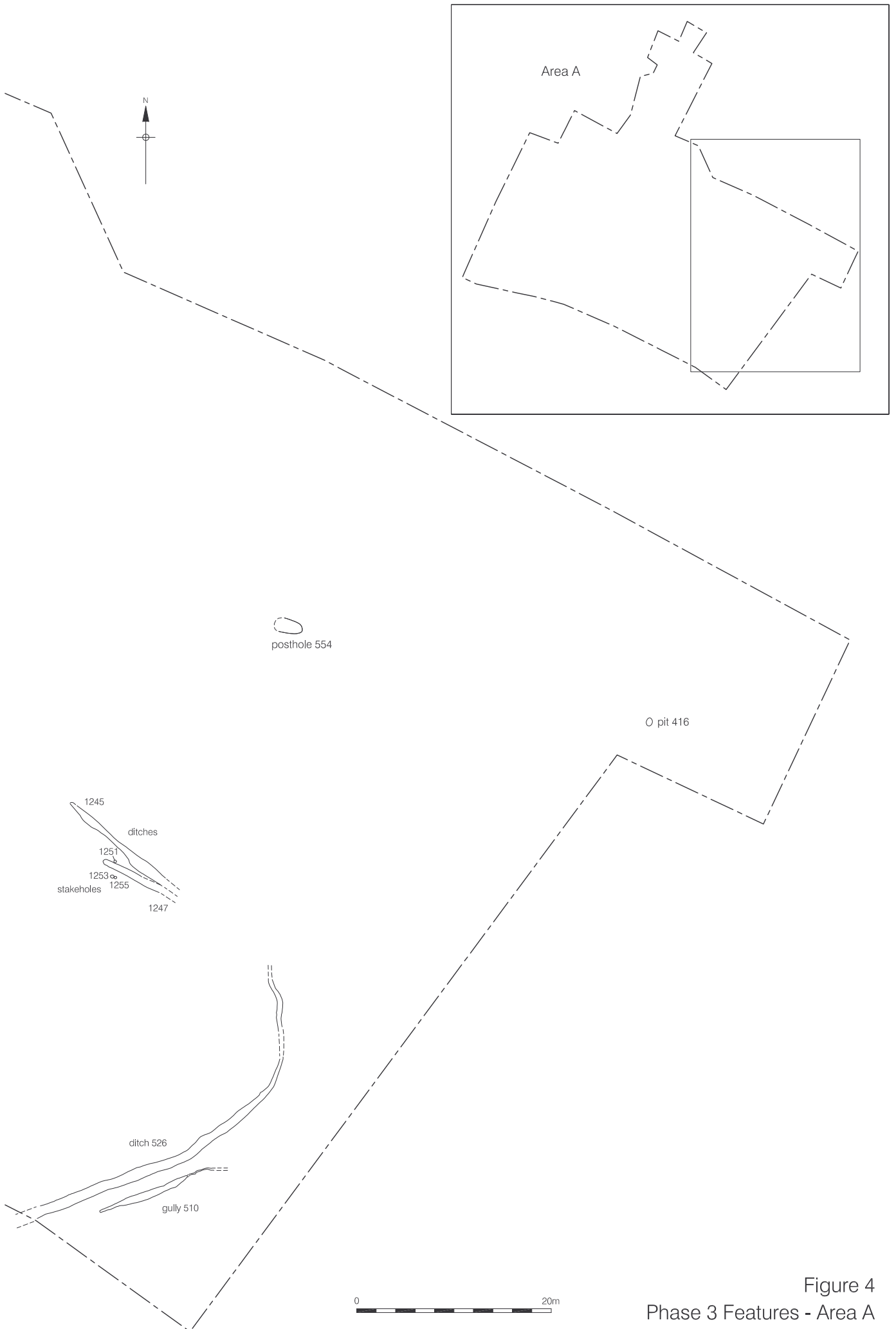
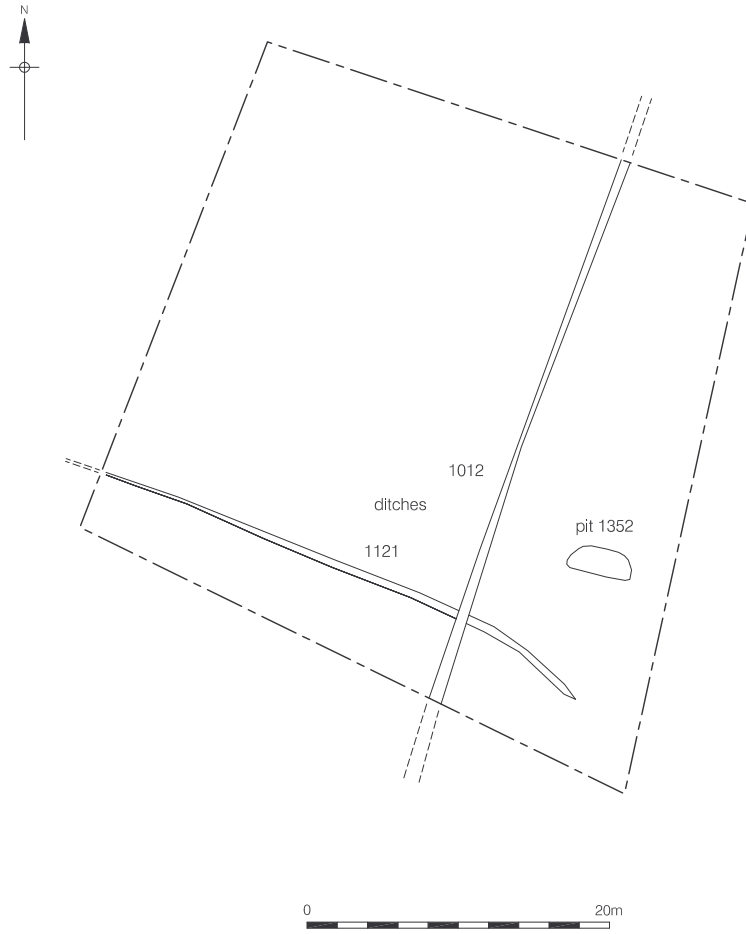


Figure 4
Phase 3 Features - Area A
scale 1:500



7.4 Phase 4 - 43-120 AD (Figs 6 & 7)

Early Roman Boundary Ditches

- 7.4.1 During this phase three large boundary ditches were excavated across the western half of Area A. They were given overall cut numbers [1403], [1404] and [1405]. They were all similar in form, almost 'V'-shaped in profile, with sharp, steep sloping sides and a flattish base. All the ditches ran parallel on an east-west alignment, [1405] the southernmost terminated close to the western site boundary, where both [1403] and [1404] took a 90° turn to the south, forming two large rectilinear enclosures. Ditch [1403] terminated 4m to the north of [1404], which in turn continued under the southern limit of excavation.
- 7.4.2 The northernmost ditch, [1403], was up to 85m in length as seen, and up to 2.15m at its widest. The ditch was uniform in depth at around 1.26m. In all, three slots were excavated along the length of the ditch, with different context numbers being assigned to the cut of the ditch in each case. In this way, context numbers [1096], [1201] and [1285] all equate to the overall cut number [1403].
- 7.4.3 The central ditch, [1404], was up to 117m in length, 2.40m at its widest and varied in depth from 1.25m at its deepest to a shallowest depth of 0.60m at the southernmost point where it was seen on site. This is probably due to the slope present in area A, with the highest level of the ditch being at 10.68m OD to the east and the lowest level being 8.71m OD, to the southwest. Eight slots were excavated along the length of the ditch in all, with context numbers [223], [718], [758], [1111] and [1280] being assigned during excavation. These equate to overall number [1404].
- 7.4.4 The southernmost ditch, [1405], measured 86m in length, where seen on site, and up to 1.70m wide. In all the depth was pretty uniform, at around 0.80m. Four slots were excavated along the length of the ditch and it was assigned the context numbers, [294] and [856]. These both equate to overall number [1405]. It appears that this ditch did not remain in use for very long as by the end of this phase rubbish pits were being dug into the backfill.

The Roadway

- 7.4.5 Towards the centre of Area A were the severely truncated remnants of what was probably the first in a sequence of Roman roads across the site. Running on a north-south alignment was [299], a wide, shallow, linear feature, with ditch [287] to the west and the remnants of ditch [1002] to the east.
- 7.4.6 Feature [299] measured 10m in length, had a width of 2.70m and a depth of 0.36m. Its fill, [298] was devoid of finds, but did contain moderate amounts of small-medium sized rough flints and gravels, indicative of a robbed out roadway.
- 7.4.7 Ditch [287] was the precursor of [299], running directly to the west of and being truncated by it, where observed. It was 10m in length, 1.30m across and 0.42m deep. Its fill, [286], a clayey, sandy silt, (est. 10%/30%/60%), contained broken nodules of flint as well as animal bone, building materials, iron nails and pottery dated to the second half of the 1st century.
- 7.4.8 To the east of [299] were the remnants of a heavily truncated ditch, [1002]. It was 5.30m in length, with a width of 2.80m and a depth of 0.75m. Its upper fills, [1013] and [1003], contained broken nodules of flint, concentrated along the western edge, possibly indicative of the road slipping outwards. The primary fill, [1004] was a firmly compact, mid reddish brown, clayey silt, (est. 30%/ 70%), the result of the ditch starting to silt up. All the fills contained pottery dating to the second half of the 1st century.

Early Roman Field Systems

- 7.4.9 In Area D it appears that the Late Iron Age field systems continued in use, with the addition of another ditch, [1042] in the early Roman period. This ran parallel to [1012] and perpendicular to [1121], both of which were in use in the Late Iron Age. The fills, [1041] and [1043] were a firmly compact, light brownish grey, clayey silt, (est. 30%/70%), containing burnt flint, daub fragments and sherds of pottery.
- 7.4.10 During this period it is also possible that field systems were also being developed in Area A, with the continued use of ditch [526] early Romano-British period, as shown by pottery dated to the middle of the 1st century AD, recovered from its fill.
- 7.4.11 Heavily plough damaged ditch [684] ran in a northwesterly direction from the eastern limit of excavation for a distance of 5.40m, towards [526]. It had a width of 1.10m and due to horizontal truncation by ploughing, had a depth of only 0.23m. The single fill, [683] was a firmly compacted, mid orangey brown, clayey silt, (est. 20%/80%), containing occasional sherds of pottery.
- 7.4.12 Located right in the southeastern corner of Area A was heavily plough damaged gully [507]. This appeared to run parallel to [684], on a northwest-southeast alignment and was truncated by later ditch [259]. It had a length of over 1.60m, a width of 0.48m and a depth of 0.21m. It contained a single fill, [506], which did not contain any finds.

Pit Groups

- 7.4.13 Five pit groups, dated to Phase 4, the early Roman period, were recorded at Grange Farm. They have been divided into these groups on the basis of location rather than any other specific reasons. However, pits [276] and [432] have been separated for independent analysis.

Pit Group 1 (PG1)

- 7.4.14 PG1 was located to the southwest of Area A. Four dispersed pits, [805], [860], [1036] and [1275], were recorded within this area and were dateable to between 43-120 AD.

Pit [805]

- 7.4.15 Pit [805] was the southernmost pit in PG1 and was cut into the natural brickearth. The pit had been severely truncated by later features, but enough was left to determine that it was sub-circular in plan, with steep, slightly concaved sides and a flat base. The remaining section measured 2m in length from east to west, 1m in width from north to south and had a depth of 0.40m. Filling the cut was [901], a firm reddish brown, silty clay, containing occasional medium sized broken flint nodules and charcoal flecks.

Pit [860]

- 7.4.16 Pit [860], (also numbered [936]), was cut into the western butt end of ditch [1405]. It was sub-rectangular in plan with rounded ends, steep, slightly concaved sides and a concaved base. It measured 7m in length, from east to west, 1.5m in width and had a depth of 0.7m. The fill, [861], (also numbered [936]), was a firmly compacted, light grey silty clay containing occasional medium sized broken flint nodules, burnt stone and chalk and charcoal flecks.

Pit [1036]

- 7.4.17 Pit [1036] was situated just to the north of ditch [1404] and cut into the natural brickearth. Its western side had been truncated by a later wall footing, [1034] and its depth suggests

possible horizontal truncation as well. It was oval in plan with concaved sides falling at c.70° from horizontal to a flattish base and measured 1.2m in length, from north to south, 0.65m across and had a depth of only 0.20m. Its fill, [1035], was a loose-firmly compacted, dark grey silty clay containing occasional small pieces of charcoal.

Pit [1275]

- 7.4.18 Pit [1275] was only seen in a sondage and not excavated fully. It was located just to the north of ditch [1404] and cut into the natural brickearth. It appeared sub-circular in plan, though only half the pit was exposed, had steep, near vertical sides and measured 2.02m from north-south, > 0.56m east-west and a depth of over 0.37m. The fill, [1274] was a compact, light orangey grey clayey silt with occasional small sub-angular flints and chalk and charcoal flecks containing small amounts of oyster shell, burnt daub and cbm.

Pit Group 2 (PG2)

- 7.4.19 PG2 was situated towards the north of Area A, to the southwest of The Hasting Arms public house. It comprised of three pits, [1092], [1158] and [1387].

Pit [1092]

- 7.4.20 Pit [1092] was sub-circular in plan, with moderately sloping, concaved sides and a flat base, cut into the natural brickearth. It measured 2.50m in length, from north to south, 2.11m in width, from east-west and had a depth of 0.54m. It had four fills, [1025], [1026], [1122] and [1174] which contained large amounts of burnt clay, burnt flint and charcoal and smaller amounts of pottery and cbm.

Pit [1158]

- 7.4.21 Pit [1158] was sub-oval in plan with steep sides and a flat base sloping down to the west, cut into the natural brickearth. It measured 2.96m in length, from northwest-southeast, had a width of 1.82m and a depth of 0.41m. It contained two fills, [1157] and [1164] which both held large amounts of burnt clay, burnt flint and charcoal. Fill [1164] also contained a fragment of quernstone (SF 1236).

Pit [1387]

- 7.4.22 Pit [1387] was sub-square in plan with vertical sides and an uneven base. It measured 1.5m in length, northeast-southwest, 1.3m in width and had a depth of 0.35m. It contained a single fill, [1386], which was a moderately compact, mottled orange/brownish grey, sandy silt, with occasional small sub-rounded stones, very similar to the natural, containing pottery and cbm.

Pit Group 3 (PG3)

- 7.4.23 PG3 was located to the north of Area A, to the west of The Hastings Arms public house. It comprised of three pits, [657], [749] and [751].

Pit [657]

- 7.4.24 Pit [657] was sub-circular in plan with steep sides and an irregular base, cutting the natural brickearth. It measured 1.75m in length, north-south, 1.66m in width and had a depth of 0.83m. The pit held a single fill, [646], a loose-firmly compacted, mid yellowish grey sandy clay containing occasional small-medium sized sub-angular flints and pea grit, from which pottery and cbm were recovered.

Pit [749]

- 7.4.25 Pit [749] was sub-ovoid in plan with steep sides that concaved in towards a flattish base that cut into the top of pit [751]. It had a length of 1.7m, north-south, a width of 0.62m and a depth of 0.15m. The pit contained a single fill, [748], a firmly compacted mid brown sandy silt, with occasional small sub-rounded and sub-angular stones, pottery and cbm.

Pit [751]

- 7.4.26 Pit [751] projected from the eastern limit of excavation. It appeared sub-circular in plan with gradually sloping sides and a flattish base. It measured 1.10m north-south, 0.80m east-west and had a depth of 0.15m. The single fill, [750], was a soft-firmly compacted mid brown sandy silt containing small sub-rounded, rounded and sub-angular stones with occasional flecks of cbm.

Pit Group 4 (PG4)

- 7.4.27 PG4 was located in the southwest of Area A. It comprised of three pits, [712], [735] and [1393].

Pit [712]

- 7.4.28 Pit [712] was sub-oval in plan with steep, concaved sides leading to a concaved base that cut into the top of pit [708]. It measured 0.70m in length, east-west, had a width of 0.34m and a depth of 0.16m. The pit contained a single fill, [711], which was a loosely compacted sandy silt with occasional sub-rounded stones and fragments of pottery.

Pit [735]

- 7.4.29 Pit [735] had a sub-oval plan, with steep sides and a flat base cut into the natural brickearth. It had a length of 1.82m, north-south, a width of 1.02m and was 0.32m deep. It contained two fills, [733] and [734] which contained sherds of pottery and burnt daub. Fill [734] also contained an unidentified Cu alloy object (SF 911).

Pit [1393]

- 7.4.30 Pit [1393] was oval in plan, with steep sides and a slightly concaved base cut into the natural brickearth. It had a length of 1.90m, north-south, a width of 1.50m and a depth of 0.18m. The single fill, [1392], was a moderately compact, dark greenish brown clayey silt that contained occasional small sub-angular flints, cbm, animal bone and pottery sherds.

Pit Group 5 (PG5)

- 7.4.31 PG5 was located to the east of Area A. It consisted of four pits, [990], [1056], [1090] and [1102].

Pit [990]

- 7.4.32 Pit [990] had a sub-rectangular plan with a gradually sloping northern side and steeply sloping east, west and southern sides and cut into the top of pit [1056]. It contained a single fill, [959], a moderately compact, dark grey, sandy silt with frequent chalk fragments and charcoal flecks, moderate amounts of cbm fragments sherds and pottery sherds.

Pit [1056]

- 7.4.33 Pit [1056] was sub-oval in plan, with steep sides, concaving in towards a flat base, cut

into the natural deposits. It was truncated by later pits, [1005] to the north and [990] to the south. The remaining measurements were a length of 2.30m, north-south, a width of 2.20m and a depth of 0.39m. It held a single fill, [1055], a moderately compact, mid greyish brown, sandy silt containing frequent charcoal flecks and occasional small-medium angular and sub-angular flints.

Pit [1090]

- 7.4.34 Pit [1090] had been truncated by later features, ditch [881] and pit [917]. It had a sub-circular plan and gradually sloping sides leading to a flat base cut into the natural brickearth. It had a 2.12m east-west, a width of 0.90m and a depth of 0.20m. The single fill, [1089] was a moderately compact, dark grey sandy silt with occasional medium sized angular stones and frequent charcoal flecks throughout. Pottery sherds were also recovered.

Pit [1102]

- 7.4.35 Pit [1102] was heavily truncated by ditch [881] and pit [917]. It appeared to be sub-circular in plan with gradually sloping sides. The base had been truncated away by [881]. The remaining portion of the feature had a length of 1.16m east-west, a width of 0.42m and a depth of 0.22m. It contained a single fill, [1101], a moderately compact, mid grey sandy silt with occasional small sub-angular flints. No finds were present in the fill.

Pits [276] and [432]

- 7.4.36 Pits [276] and [432] have been separated from the pit groups for independent discussion as they not only lay outside the pit group areas, but also appeared to have more than a domestic function.

Pit [276]

- 7.4.37 Pit [276] was located just to the south of the southeastern corner of the later tomb in Area A. It was square in plan with steep sides concaving in to a slightly concaved base, and was cut into the top of ditch [287]. It measured 1.90m north-south by 1.90m east-west and had a depth of 0.55m. The single fill, [275] was a moderately compacted, mid greyish brown, clayey, sandy silt with occasional charcoal flecks, small sub-rounded and sub-angular stones and flecks of cbm. In the centre was a single, crushed, North Kent Fine Ware necked bowl, dated to 70-150 AD. No other finds were associated with this feature.

Pit [432] (Fig. 8)

- 7.4.38 Pit [432] was located to the northeast of Area A. It was square in plan with steep, almost vertical sides, concaving slightly towards a flat base, which sloped slightly to the northeast and was cut into the natural brickearth. It measured 2.00m in length north-south, 1.80m in width and had a depth of 0.82m. It contained four fills, [431], [433], [434] and [448].

Dispersed Pits

- 7.4.39 Pits [629] and [633] were located just to the northeast of structure [871].

Pit [629]

- 7.4.40 Pit [629] was heavily truncated by ditch [588] and pit [540]. It appeared to have been oval in plan, with steep sides, the base had been truncated out. The remnant of the pit measured 0.35m north-south, 0.55m east-west and had a depth of 0.22m. It contained a

single fill, [628], which contained frequent charcoal flecks and severely burnt, ashy material.

Pit [633]

- 7.4.41 Pit [633] was rectangular in plan with vertical sides and a flat base, cutting the natural brickearth. Its length was 0.75m east-west, with a width of 0.51m and a depth of 0.52m. It held a single fill, [632], a loose-firmly compacted mid greyish brown silty sand, which contained frequent small-medium sub-angular flints, charcoal flecks and fragments of pottery.

Structure [871]

- 7.4.42 Structure [871] was formed by 15 postholes, [659], [661], [726], [730], [737], [741], [743], [745], [851], [873], [879], [883], [885], [887], [889]. It was rectangular in form, aligned on a north-south orientation and measured 16.80m in length and 8.80m wide.
- 7.4.43 The postholes, which formed the structure, were all circular in plan and of similar form, with diameters ranging from 1.05m-1.50m and depths ranging from 0.44m-0.65m. They had steep, almost vertical sides and flat bases and were cut into the natural brickearth, apart from [873], which truncated an earlier posthole, [826]. All the postholes, except [661] and [741] had similar, single fills, which were loose-moderately compacted mid greyish brown clayey, sandy silt, with moderate amounts of sub-angular and sub-rounded flint nodules, charcoal flecks and occasional sherds of pottery. The flints appeared to be concentrated in the centre, near the surface of the postholes, as if the remnant of post packing.
- 7.4.44 Postholes [661] and [741] had two fills each, with fill [763] of [740] being a post-pipe.

Postholes [673], [[678] and [680]

- 7.4.45 Postholes [673], [[678] and [680] were located in the south-east of Area A in close proximity to each other and were possibly aligned along the eastern edge of ditch [526]. They all sub-circular in plan with steep sides and flat bases. They contained single fills, had diameters measuring between 0.32m-0.42m and depths of between 0.09m-0.22m.

Posthole [531]/[570]

- 7.4.46 Feature [531] was a large solitary posthole located to the southeast of Area A. Its surface plan and diameter were destroyed when feature [570] was dug directly over the top of it. It appeared sub-circular, with near vertical sides and had a flat, narrow base, with a depth of 1.08m. It had three fills, [567], [568] and [569], and was truncated by feature [570].
- 7.4.47 Feature [570] directly truncated [531]. It was sub-oval in plan, with steep sides and a concaved base. It had a length of 1.50m north-south, a width of 0.93m and a depth of 0.58m. It had two fills, [530] and [566], which contained pottery, cbm, glass and animal bone. It is possible that this was dug to remove the post from [531].

Posthole [826]

- 7.4.48 Posthole [826] was located in the area of Structure [871], though does not seem to be related to it, and is in fact truncated by posthole [873], which is associated with the structure and by pit [828]. It was circular in plan with concaved sides and base, measuring 0.56m north-south, 0.42m east-west and had a depth of 0.10m. It contained a single fill, [825].

Hearths [418], [533], [1027], [1091] & [1125]

7.4.49 Five hearths were dated to this phase. [1027], [1091] and [1125] were clustered to the northwest of Area A, [418] to the northeast and [533] to the southeast.

Hearth [418]

7.4.50 Hearth [418] was oval in plan, measuring 1.20m in length east-west, 1.02m in width and had a depth of 0.26m. It had steep sides that concaved inwards to a concaved base. The fill, [417] was a compact, orangey red clay with occasional burnt flints, charcoal flecks and burnt pottery fragments.

Hearth [533]

7.4.51 Hearth [533] had been truncated by later posthole [531]. It was sub-square in plan, with rounded corners and moderately sloping sides leading to a flat base. It contained two fills, [532] & [564], and measured 0.8m north-south and east-west with a depth of 0.18m.

7.4.52 The primary fill, [532], was a firm, almost black, silty clay containing frequent small pieces of charcoal and pottery. Sealing this was the secondary fill, [564], a firm, reddish brown, burnt clay.

Hearths [1027], [1091] & [1125]

7.4.53 These hearths were all clustered together, with [1027] & [1091] truncating [1125] and possibly signify the re-use of an area for a particular function. They were all either circular or sub-circular in plan and ranged in size from 0.65m/0.47m to 1.00m/0.81m. The depths also varied from 0.05m-0.22m.

7.4.54 [1027] and [1091] each had a layer of flints directly on top of the cuts, possibly the remnants of hearth structures. Layers of scorched soil containing large quantities of burnt material that sealed the flints.

Context No	Type	Comments	Interpretation
1009	Fill	Loosely compacted mid brown clayey silt. Contained charcoal, pot, cbm and burnt clay	Fill of [1027]
1010	Fill	Firmly compacted reddish brown silty clay. Contained burnt stones and charcoal flecks	Fill of [1027]
1021	Fill	Closely set flint nodules	Fill of [1027]
1022	Fill	Loosely compacted dark reddish brown silty clay. Contained burnt flint, stones, clay and daub and charcoal flecks	Fill of [1091]
1023	Fill	Firmly compacted reddish brown silty clay. Contained burnt clay and stones and charcoal flecks	Fill of [1091]
1024	Fill	Closely set flint nodules	Fill of [1091]
1027	Cut	Filled by [1009], [1010] & [1021]	Hearth/Furnace
1091	Cut	Filled by [1022], [1023] & [1024]	Hearth/Furnace
1123	Fill	Loosely compacted dark greyish brown silty clay. Contained burnt stones and charcoal flecks	Fill of [1125]

1124	Fill	Loosely compacted mid reddish brown silty clay. Contained burnt clay, charcoal flecks and animal bone	Fill of [1125]
1125	Cut	Filled by [1123] & [1124]	Hearth/Furnace

Discussion of Phase 4

Early Roman Boundary Ditches

- 7.4.55 The three ditches, [1403], [1404] and [1405] were evidentially representative of early Roman boundaries. Due to their large size and 'V' shaped profiles it is possible that they were defensive in nature.
- 7.4.56 It seems probable that ditch [1404] was a re-cut of [1405], as not only did they merge to the east, but by the end of this phase [1405] had been backfilled and pits were being dug into its western end.

Early Roman Road

- 7.4.57 Although there was no road surface remaining from the earliest phase of the Roman road, the bases of the three ditches that ran along side it, [287], its re-cut [299] and [1002] remained intact for a short distance.
- 7.4.58 The fact that western roadside ditch, [287], [299], had to be re-cut is evidence of the landslides in this area of the site, and a precursor to the terracing that was to come.
- 7.4.59 Walting Street, the major London to Canterbury road in Roman times, lay approximately a mile to the south of the site, with the site itself lying just to the south of the Medway River. The construction of a road to link these two important arterial routes of movement and trade would have been of strategic and commercial interest to the occupants of the area in the early Roman period.
- 7.4.60 The presence of the road makes it probable that a port of some type developed on the banks of the Medway, just to the north of the site.
- 7.4.61 The construction of the road and the port would probably have been in unison with each other, and would have required planning and development on a large scale.

Early Roman Field Systems

- 7.4.62 It seems probable that the late Iron Age field systems continued in use and were developed in the early Roman period. Ditch [1042], in Area D was constructed to run parallel to the late Iron Age ditch [1012], possibly turning a field boundary into a driveway.
- 7.4.63 In Area A, ditch [526] continued in use, and ditch [684] was added to it extending the system eastwards.

Pits

- 7.4.64 Whilst it is probably safe to say that some of the pits attributed to this phase were rubbish pits, due to the evidence of occupation on the site and the nature of the material removed from them, it is also probable that others functioned as grain storage pits, emphasised by the presence of cereal grains in most of the environmental samples

taken.

- 7.4.65 It has been suggested that such pits were probably dug specifically to store grain between harvest and sowing, and would have required sealing prevent air getting in⁸. Cunliffe also states that storing grain in this way would render it completely unsuitable for consumption purposes, as access would have been required on a regular basis if it were so. In this way, if grain were being stored in these pits it was being used for the specific function of sowing next season's harvest rather than for consumption. With grain for consumption possibly being stored in granary [871].
- 7.4.66 Perhaps the most interesting aspect of some of these pits is what was found within them, and the possibility of a ritualistic nature to these deposits, especially with pits [276] and [432]. It has been suggested that digging a grain storage pit and placing the seed corn in it is likely to have been an act with deep religious meaning⁹. This practice, what Cunliffe refers to as the 'pit belief system' appears to have begun in the Early Iron Age, and was centred in the central southern zone of Britain frequently involving the placing of such goods as pottery, quernstones, small finds and animal remains. Until recently this practice has only been evidenced on Iron Age sites, such as Gussage All Saints, Winnall Down and Winklebury¹⁰. However, recent excavations at Stone Castle near Dartford in Kent has produced startlingly similar evidence from late Roman features¹¹.
- 7.4.67 More work certainly needs to be done to clarify whether or not the deposits within these pits can firmly be quantified as religious or ritual placements, but the complete, possibly 'killed', pots recovered from pits [276] and [432] seem to strengthen this connection with the 'pit belief system' theory as it seems unlikely that they were merely domestic refuse, or accidental losses.

Raised Granary Structure [871]

- 7.4.68 The construction of granary [871] is definite evidence of agricultural exploitation of the immediate area during the early Roman period. A statistical investigation¹² has suggested that enough grain could be fitted into 5 sq. feet to supply a single person's yearly intake. At a size of 16.80m in length by 8.80m wide the granary could hold enough for approximately 266 people.
- 7.4.69 The possible presence of a port in the immediate vicinity leads to the speculation over whether the local population was consuming this amount of grain, or whether it was being traded.

Hearths

- 7.4.70 What remained of the large flint foundations for the hearths [1027], [1091] or [1125] was very tantalising, but unfortunately not much remained intact. Being discovered just under the present day ground surface they had suffered from plough damage for many years.
- 7.4.71 Although the hearths were in close proximity to each other, environmental samples produced different results from each of them. Hearth [1027] produced hammerscale, suggesting metalworking. Hearth [1091] produced traces of a ferrous metal, which

⁸ Cunliffe, B., 2004

⁹ Cunliffe, B., 2004

¹⁰ Hill, J.D., 1995

¹¹ Haslam, A., 2005

¹² Richardson, A., 2004

indicates metalworking and occasional wheat glume bases indicative of the processing of cereal crops. Hearth [1125] held grains of wheat, again suggesting cereal processing.

- 7.4.72 Despite the differing environmental results, the close proximity of the hearths to each other suggests a common use. Cross contamination between the three would probably have occurred during their lifespan, particularly with the hammerscale, though no evidence of this was picked up. It is probable that the severe horizontal truncation, through ploughing has affected the results obtained, and they should be used to represent the group of hearths rather than the individual features. It is possible, therefore, that these hearths were multi purpose, being used for different activities at different times, both metal working and processing cereals when needed.

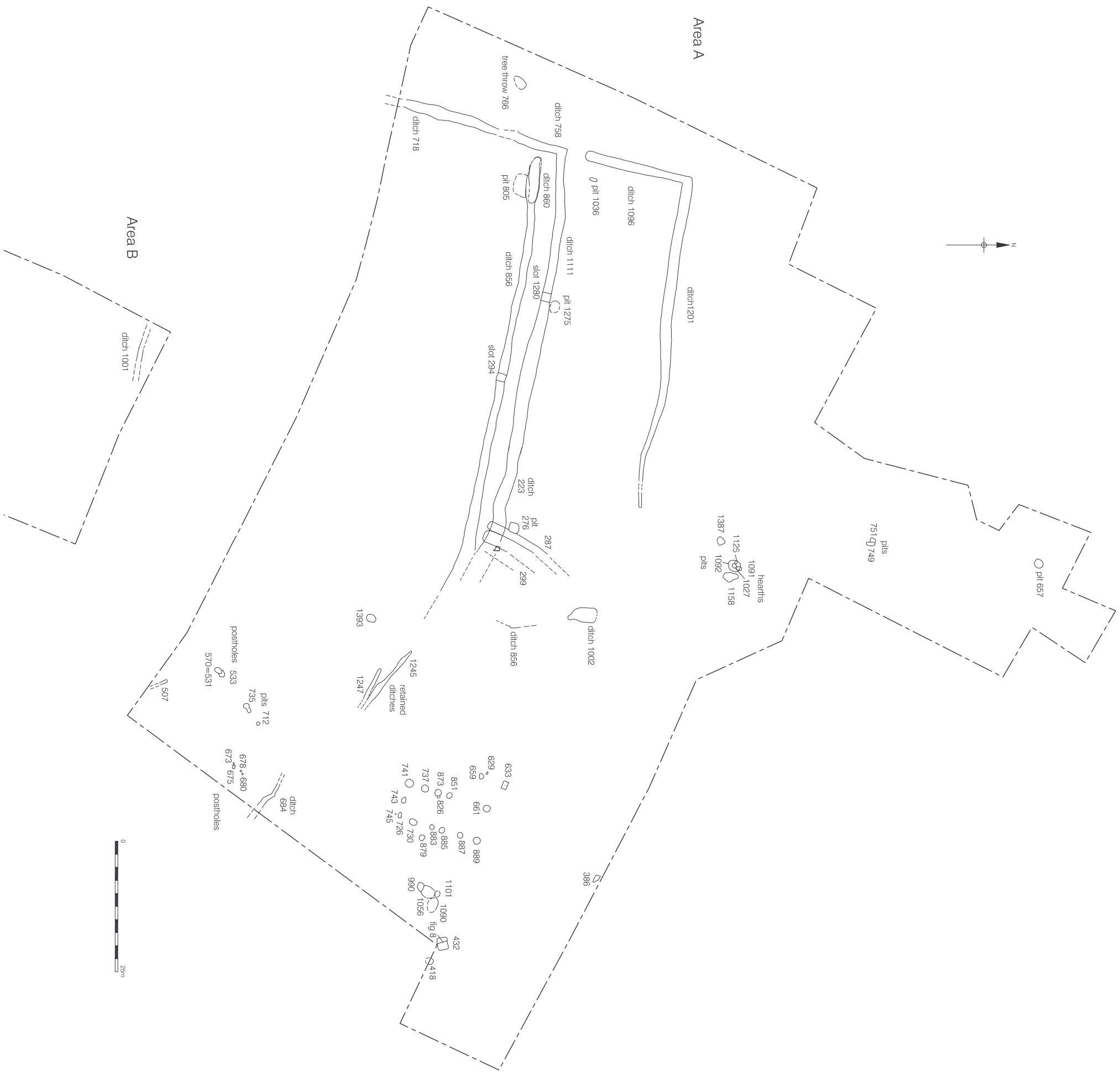
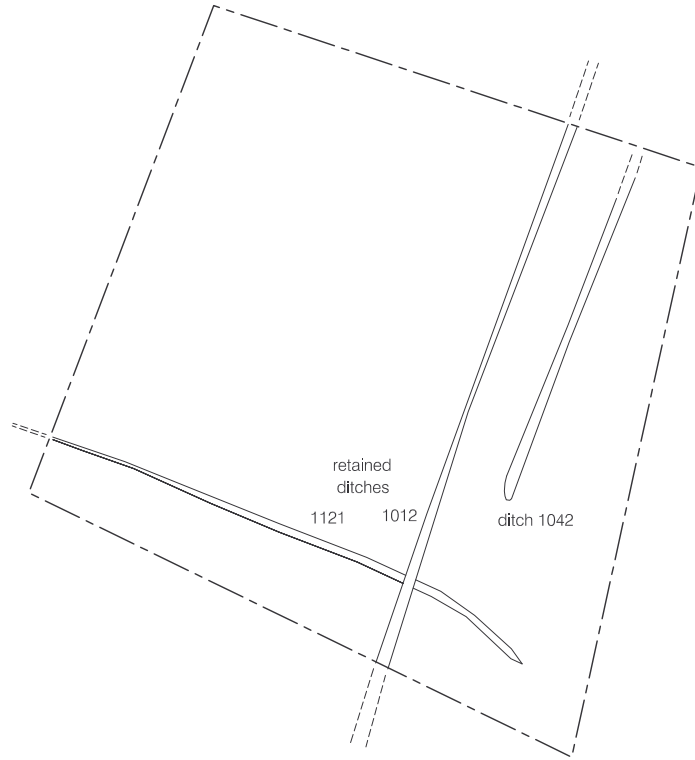
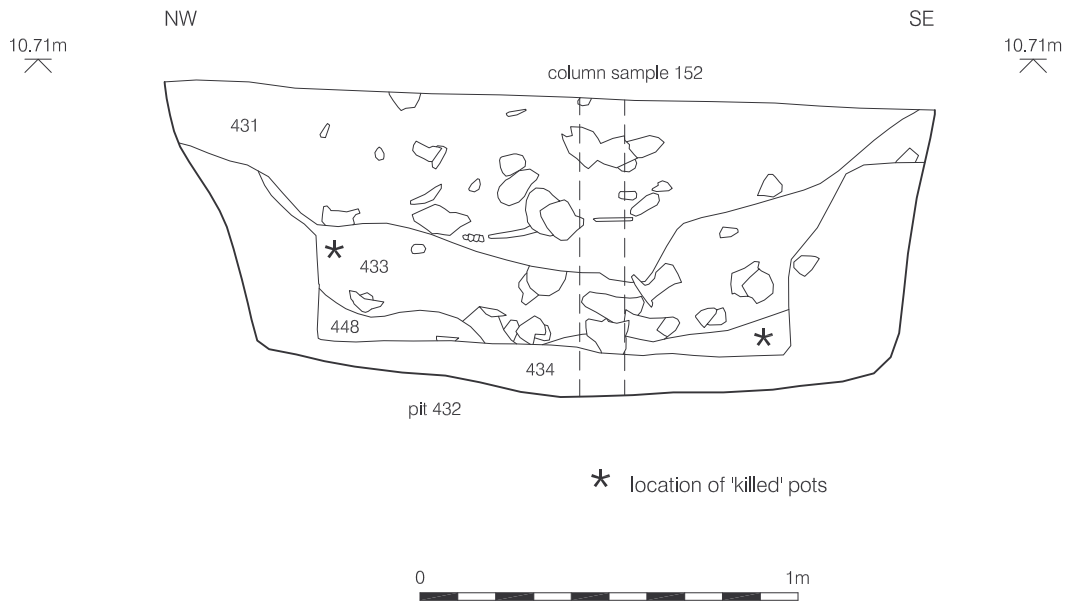


Figure 6
Phase 4 Features - Areas A and B
scale 1:800





7.5 Phase 5 – 120-250AD (Figs. 9 & 10)

Boundary Ditches

7.5.1 During the second century it appears that the large boundary ditches that were in use in the first century started to fall out of use. However, others were dug, predominantly to the northeast of Area A. During excavation some of the ditches were given multiple numbers for their cuts. These have been given overall cut numbers in post-ex, [1406], [1407], [1408] and [1409]. All the ditches were similar in form, almost 'V' shaped in profile, with sharp, steep sloping sides and a flattish base.

Ditches [1099] & [1406]

7.5.2 Ditch [1099], ran on an east-west alignment for almost 27m. It had a width of 1.8m and a depth of 0.72m. During excavation the fill was given three separate numbers, [1100], [1143] & [1162], which contained pottery, daub and animal bone.

7.5.3 To the east of [1099], after a gap of 1.20m ditch [1406] continued on exactly the same alignment for a further 36m, eventually continuing under the north-eastern limit of excavation. [1406] equates to [219], [257], [436] & [645]. The majority of the fills contained only pottery and animal bone, however fill [643] produced three small finds, SF 895, an unidentified copper-alloy object, SF 896, a finely cast copper-alloy bulls head with phallic horns and SF 897, a stone grinder. Unfortunately a WWII bomb truncated the central section of this ditch.

Ditch [1407]

7.5.4 Located just to the south of [1406] was ditch [1407]. This comprised of [505], [588], [881] and [1184]. It was aligned WNW-ESE and had a length of more than 64.70m, continuing beyond the eastern limit of excavation. It measured 1.3m in width and had a maximum depth of 0.65m. The fills contained a mixture of pottery and cbm. Three small finds were recovered during the excavation, SF 264, a broken copper-alloy cylinder with knob terminal, SF 1272, an iron ring and SF 1274, an iron fitting.

Ditches [259], [700] & [702]

7.5.5 Ditches [259], [700] and [702] were all located in the southeastern corner of Area A. Both ditches [700] and [702] had been badly damaged through ploughing and only a small section of each was left, extending from the eastern limit of excavation. Ditch [259] was probably also damaged in the same way, though its much greater depth meant that its preservation was significantly better.

7.5.6 Ditch [259] was aligned on a NNE-SSW alignment, extending onto the site, from the eastern limit of excavation for a distance of 28m. It had a maximum width of 2.50m and a depth of 1.31m, and truncated the earlier gully [507]. The nature of its fills suggest that it silted up over a long period of time, with occasional domestic dumping taking place.

7.5.7 Ditches [700] & [702] were both aligned on an ENE-WSW alignment, with [700] truncating the southern edge of [702]. They extended onto the site by 5.30m, before plough damage destroyed them. [700] had a width of 1.60m and a maximum depth of 0.34m. [702] had a width of 1.70m and a maximum depth of 0.28m. Their fills contained pottery dated to this phase of activity.

Ditches [1408] & [1409]

7.5.8 Ditches [1408] and [1409] were located in the south-west of Area A, running parallel on a north-south alignment. Ditch [1408] comprised of [747] and [761], ditch [1409]

comprised of [782] and [864]. Later features, to the north, heavily truncated both ditches.

- 7.5.9 Ditch [1408] had a length of 12.5m, terminating to the south. It had a maximum width of 1.87m and a depth of 0.25m. Its fills contained pottery and cbm.
- 7.5.10 Ditch [1409] was located directly to the east of [1408]. It extended northward, from the southern limit of excavation, for a distance of almost 31m, had a width of 2.5m and a depth of 1m. Its fills contained sherds of pottery, cbm and animal bone.

Roadside Ditches [1063] and [1077]

- 7.5.11 Ditches [1063] and [1077] were located towards the centre of Area A, in the region of the roadway, running on a north-south alignment. They were only seen in a sondage and not fully exposed, being sealed by many later layers. The excavated section of [1063] had a width of 1.05m and a depth of 0.54m. [1077] had a width of 1.50m and a depth of 0.98m. They both had steep sides and a concaved bases, giving the ditches V shaped profiles. The fills contained moderate amounts of angular and sub-angular stones and flints, suggestive of roadway material. The tertiary fill, [1073], also contained pottery sherds, cbm, animal bone and horn cores which had been hacked off.

Pits

- 7.5.12 Four pit groups, dated to Phase 5, the early 2nd – mid 3rd centuries, were recorded at Grange Farm. As with the pit groups in Phase 4, they have been divided into these groups on the basis of location rather than for any other specific reasons.

Pit Group 6 (PG6)

- 7.5.13 PG6 was a group of six dispersed pits located towards the southwest of Area A. It comprised pits [801], [840], [842], [1197], [1273] and [1378].

Pit [801]

- 7.5.14 Pit [801] was oval in plan, with moderately sloping, concaved sides and a flat base. It had a length of 6.5m east-west, a width of 2.2m and a depth of 0.5m. It contained three fills, [799], [800] and [802]. All the fills contained sherds of pottery, cbm and animal bone. The central fill, [800] also contained 5 bone hairpins, fragments of lava quern, an iron latch lifter and an unidentified lead object. An iron ring was retrieved from the primary fill, [802], along with the ulna of a raven.
- 7.5.15 All the other pits in the group were sub-circular in plan with diameters ranging from 0.8m-1.12m, and depths varying from 0.3m-0.6m. The majority of the fills were loose-firmly compacted, dark greyish brown silty clays that contained pottery, building material and animal bone with occasional charcoal flecks. Fill [1198] of pit [1197] contained iron nails, SF 1239, a long iron spike with eye and SF 1297, an iron fitting. Fill [1272] of pit [1273] contained iron nails, opus signinum and mortar and fill [1377] had a greenish hue to it and was more cess like in nature.

Pit Group 7 (PG7)

- 7.5.16 PG7 was located to the north of Area A. It consisted of seven, closely spaced pits, [838], [847], [849], [1167], [1196], [1239] and [1315]. The majority of the pits were sub-circular in plan, with diameters measuring between 1.8m and 2.5m, and depths between 0.39m and 0.84m. The fills were uniform in the main, firmly compacted, mid brownish yellow sandy silts containing general domestic waste, fragments of pottery, cbm and animal bones.

- 7.5.17 Pit [1239] was considerably larger than the other pits in the group, it was sub-circular in plan and had steep, vertical sides and a flat base. Its diameter was 4.25m and it had a depth of 1.55m. The pit contained three fills, [1235], [1237] and [1238], which were all cut by later pit [1236]. All the fills contained large quantities of butchered animal bone.
- 7.5.18 Pit [1196] had a rectangular shape in plan, with a length of 2.29m southwest-northeast, a width of 0.66m and a depth of 0.17m. The fill, [1195], was a loosely compacted, very dark greyer brown silty clay containing large amounts of burnt clay and charcoal. No sign of *in situ* burning was evident, signifying that the deposit could have been “rake out” from a nearby hearth or furnace.

Pit Group 8 (PG8)

- 7.5.19 PG8 was comprised of five dispersed pits, [1065], [1127], [1131], [1300] and [1302], located near the centre of Area A, directly to the east of the roadway. All the fills were similar in type, loose-firmly compacted, mid greyish brown clayey, sandy silts containing pottery sherds, cbm and animal bone.
- 7.5.20 Pits [1065], [1300] and [1302] were all sub-circular in plan, with moderately steep sides and slightly concaved bases. The diameters were between 0.88m and 1.80m and their depths ranged from 0.45m-0.94m.
- 7.5.21 Pits [1127] and [1131] were sub-square in plan with gently sloping sides and slightly concaved bases. Pit [1127] truncated the northern edge of pit [1131]. Fill [1130], of pit [1131], also contained SF 1233, an iron strap hinge.

Pit Group 9 (PG9)

- 7.5.22 PG9 was a group of five inter-cutting pits, [600], [811], [917], [931] and [1005], situated on the eastern side of Area A.
- 7.5.23 Pits [600], [811] and [931] were all sub-rectangular in plan. [600] had steep sides and a flat base, whereas both [811] and [931] had more gradually sloping sides and slightly concaved bases. Their lengths ranged from 1.08m to 1.82m, with widths of between 0.70m and 1.30m, and depths varying from 0.11m to 0.20m.
- 7.5.24 Pits [917] and [1005] were both sub-oval in plan with steep sides and flat bases. Pit [917] measured 1.55m by 1.50m and had a depth of 0.20m. [1005] measured 1.75m by 1m, with a depth of 0.50m.
- 7.5.23 The fills of the pits all contained high quantities of charcoal, but lacked any industrial waste, suggesting, “rake out” from a domestic hearth. Fill [813] of pit [811] also contained SF 1041, a short length of copper alloy wire.

Pit Group 10 (PG10)

- 7.5.24 PG10 was comprised of three pits, [504], [789] and [791] located in the area previously occupied by structure [871].
- 7.5.25 Pit [540] was oval in plan with steep sides and a slightly concaved base. It had a length of 2.30m east-west, a width of 1.80m and a depth of 0.55m. Its fill, [539], contained moderate amounts of pottery sherds and animal bone.
- 7.5.26 Truncated to the west by pit [791], pit [789] was circular in plan, with steep sides and a flat base. It measured 2.70m north-south, 2.60m east-west and had a depth of 0.68m and contained two fills, which had frequent sherds of pottery, animal bone, cbm, charcoal flecks and the occasional iron nail. The primary fill [809] contained a cattle skull, showing

evidence of skinning.

- 7.5.27 Pit [791] was oval in plan, with steep sides, concaving slightly towards a flat base. It had a length of 2.3m east-west, a width of 1.8m and a depth of 0.43m. It had three fills, which contained large amounts of domestic rubbish.

Dispersed Pits

- 7.5.28 As well as the pit groups, there were several dispersed pits in this phase to which individual descriptions need to be given.

Pit [344]

- 7.5.29 Pit [344] was located in the northeastern corner of Area A. It was sub-circular in plan, with steep sides to the north, east and south, a gently sloping side to the west and a flat base. It measured 11.40m east-west, 7.90m north-south and had a depth of 0.74m. It had three fills, [309], [310] and [342] which contained pottery and cbm. Fill [310] also contained an unidentified iron object and lead waste. The size and form of [344] is indicative of it having been a quarry pit for the extraction of brickearth.
- 7.5.30 Pit [363] was a small, oval pit located to the north of the western terminus of ditch [1406]. It had moderately sloping sides, which led to a slightly concaved base and measured 1.60m by 1.10m and had a depth of 0.18m. The single fill, [362] contained pottery, daub and burnt flint.

Pit [542]

- 7.5.31 Pit [542] was located to the north of Area A. It was sub-circular in plan, with moderately falling sides and a flattish base. It measured 1.65m by 1.16m and had a depth of 0.22m. It held a single fill, [541], which contained pottery, struck flint, charcoal flecks and burnt flint.

Pit [623]

- 7.5.32 Located in the southeast of Area A, pit [623] was sub-oval in plan, with moderately sloping sides and a slightly concaved base. It measured 1.8m north-south, 0.86m east-west and had a depth of 0.48m. It held two fills, [622] and [624], neither of which contained any finds.

Pits [1169] and [1364]

- 7.5.33 Pits [1169] and [1364] were both located in Area C. Pit [1169] was heavily truncated to the north, by later medieval rubbish pit [1171], as was pit [1364] by ditch [1374].
- 7.5.34 Due to the massive truncation, the shape of pit [1169] was unclear. It had steep, slightly concaved sides, which rolled into a concaved base without any perceptible break of slope. The surviving portion of the pit measured 4.74m north-south and had a depth of 1.16m. The fill, [1170], contained moderate amounts of charcoal and daub, and occasional sherds of pottery and animal bone, including the skull of a sheep with its horns hacked off.
- 7.5.35 Pit [1364] appeared rectangular in plan, with steep, straight sides and a slightly concaved base. It measured 1.25m east-west, 0.82m north-south and had a depth of 0.26m. The fill of the pit, [1363], contained extremely frequent daub fragments, frequent small fragments and flecks of charcoal and occasional sherds of pottery.

Terracing [822]

7.5.36 Located to the north-west of Area A were what appeared to be the remnants of an early attempt at terracing the western slope of the site. The slope, falling from east-west, had been cut into, [822], providing a flat area running on a linear NNW-SSE alignment. The cut then had roughly hewn flints laid along its length, which were held together by a mid yellowish brown silty sand, [820] & [821], from which occasional pottery and cbm fragments were recovered.

Revetment Walls [535], [536] & [1410]

7.5.37 In the centre of Area A, around the roadway, a series of short walls were constructed, [535], [536] and [1410]. They were all constructed out of roughly hewn flint nodules laid carefully in regular courses, bonded with a light yellowish-white sandy mortar. This was possibly undertaken to prevent landslides into the hollowed area through which it ran.

7.5.38 Wall [535] appears to have been the first to be constructed, running on an east-west alignment for a distance of 14.50m, with a width of 0.80m and a remaining height of 0.60m.

7.5.39 Wall [536] lay to the south of [535], abutting its eastern end, possibly tying it into the slope that rose to the south. It lay on a north-south alignment, and had a length of 4.60m north-south, a width of 0.75m and a height of 0.35m. The southern tip was constructed from un-bonded flints, the purpose of which was unfortunately not ascertained. It appears that some attempts were made to bond it in at a later date, possibly indicating renovation of the structure.

7.5.40 Running northwards from the eastern end of wall [535] was wall [1410]. It abutted [535] to the south became much more substantial at the northern terminus. [1410] was comprised of context numbers, [852], [1322], [1323], [1324], [1325], [1326], [1327] and [1368]. It had a length of 14m, a width of 1m (2m at the northern terminus) and a height of 0.35m, (1.25m at the northern end). The northern terminus was observed in section and was constructed from alternate layers of weakly cemented flint nodules and silty sand, with thicknesses varying from 0.15m-0.35m.

Floor Layers

7.5.41 West of the juncture of walls [535] and [1410] were the remnants of several overlying layers which have been interpreted as floors.

Context No	Type	Comments	Interpretation	Same as
1203	Layer	Compacted light brown layer of lime and fine sand. 0.08m thick.	Floor	1248
1224	Layer	Roughly hewn flint nodules in a firmly compacted silty sand matrix. Occasional opus signinum and lime mortar flecks. 0.10m thick. Contained SF 1251, lava quern	Floor Repair	*
1248	Layer	Compacted light brown layer of lime and fine sand. 0.08m thick.	Floor	1203
1259	Layer	Circular patch of very firm opus signinum 0.25m thick.	Floor	*
1260	Layer	Very compact lime and coarse sand layer. 0.22m thick	Floor	*
1320	Layer	Roughly hewn flint nodules in weakly cemented mortar matrix. 0.02m thick.	Floor	*

1350	Layer	Firmly compacted silty sand. 0.07m thick	Bedding for [1224]	*
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7.5.42 Situated to the east of wall [1410] was layer [1258]. This was a compacted, light yellowish orange silty clay 0.12m thick, containing small amounts of pottery and cbm. It possibly represented the remnants of a floor/working surface and may have been associated with structure [1412] located just to the south.

Structure [833]

7.5.43 Structure [833] was located on top of the floor layers to the west of wall [1410]. It was circular in plan, with a diameter of 1.80m, and represented a series of burning episodes, possibly within an oven. Three layers of burning were recorded, [819], [853] and [854], interspersed with and sealed by layers of sand, [843] and [844], with remnants of a flint structure, [855], situated upon surface, [845]. Several small finds were recovered from the structure, including an iron strap fitting, an iron figure of 8 hasp, a bronze ligula and a copper alloy military belt mount.

Structure [1412]

7.5.44 Structure [1412] was situated towards the southeast of Area A. It was rectangular in plan, lying on a WNW-ESE alignment. It measured 15m in length and had a width of 2m. It comprised of three beam-slots on a NNE-SSW alignment, [942] at the eastern end and [955] and [957] at the western end, four stakeholes, [952], [970], [1149] and [1202] and sixteen postholes, [895], [897], [921], [923], [925], [927], [929], [944], [961], [1289], [1293], [1295], [1304], [1337], [1341] and [1343].

7.5.45 Several of the postholes intercut and are stratigraphically divided by occupation layer [902]. This combined with the presence of two beamslots at the western end suggest that the structure was in use for some time, being repaired at least once in its lifetime.

7.5.46 The postholes were all sub-circular in plan, with steep sides and either flat or slightly concaved bases. The fills were uniform, firmly compacted, mid greyish brown clayey silts, containing abundant small-large flints, (probably post packing), and the occasional sherd of pottery or cbm. Their diameters varied from 0.24m-0.71m with depth ranging from 0.12m-0.49m.

7.5.47 The beamslots were linear in plan. [942] had a length of 1.60m, a width of 0.60m and a depth of 0.14m. It appeared to be separated from the majority of the features making up structure [1412] by metalled surface [963], possibly representing an external, roofed space to the east of the structure.

7.5.48 Beamslot [955] truncated beamslot [957]. [955] measured 2m by 0.26m with a depth of 0.38m. It appeared to be contemporary with stakehole [1202], which was located at the southern end of the beamslot. Beamslot [957] had a length of 2.00m, a width of 0.23m and a depth of 0.12m. Their fills were very similar, firmly compacted, light greenish yellow silt containing flecks of charcoal, cbm and burnt daub.

7.5.49 The structure produced several small finds from occupation layer [902], three iron fittings, an iron ferrule and an incomplete iron knife.

Postholes [1187], [1189], [1194], [1208], [1210] & [1212]

7.5.50 These postholes form a group sited in the southwest of Area A, just to the east of ditch [1409]. Postholes [1187], [1189], [1208], [1210] and [1212] were of a similar shape and

size, sub-circular in plan with concaved sides and flat bases, with diameters ranging between 0.25m-0.60m and depth varying from 0.15m-0.30m. They surrounded the much larger posthole [1194] in a semi-circular pattern at a distance of c. 0.70m. These postholes all had single fills, which were very similar to each other, loose-firmly compacted, dark greyish brown, silty clay, containing occasional large flint nodules charcoal flecks and sherds of pottery.

7.5.51 Posthole [1194] was also sub-circular in plan, having a diameter of 2.00m and a depth of 1.00m. It contained four fills, [1190], [1191], [1193] and [1206] with [1190] and [1191] filling a post-pipe with a diameter of 0.60m. [1190], the upper fill of the post-pipe, contained a large amounts of burnt daub, [1191] contained no daub, but a lot of ash. The backfills of the posthole were virtually sterile silty clay, [1193], which contained one iron nail, whilst [1206], the primary backfill of the posthole, had occasional charcoal flecks.

Postholes [556], [560] and [722]

7.5.52 The three postholes, [556], [560] and [722], situated to the east of Area A were all of a similar size and shape, and positioned at equal spaces from each other, (c. 3m), on a WNW-ESE alignment. They were sub-circular in plan, with steep sides and slightly concaved bases. Their diameters ranged from 0.70m-1.10m, and the depths varied between 0.30m and 0.42m. The fills of the postholes were also similar to each other, firmly compacted, mid greyish brown sandy silt, containing a small amount of pottery.

Postholes [612] and [614]

7.5.53 Positioned just to the north of, but not seemingly related to postholes [556], [560] and [722] were postholes [612] and [614]. They were both sub-circular in plan with steep, slightly concaved sides and concaved bases. Posthole [612] had a diameter of 0.40m and a depth of 0.28m. [614] had a diameter of 0.28m and a depth of 0.06m. Despite their close proximity there is no evidence that they were in any way related to each other.

Postholes [793], [798] and [815]

7.5.54 These postholes have been put together because of their close proximity to each other. There is no evidence that they were in any way related. They were located to the east of Area A, in the vicinity of pits [789] and [791].

7.5.55 They were all sub-circular in plan with steep sides, concaving in towards a concaved base. [793] had a diameter of 1.30m and a depth of 0.45m. It was truncated to the east by pit [791] and truncated posthole [815] to the west.

7.5.56 Posthole [798] had a diameter of 0.85m and a depth of 0.40m, whilst [815] measured 0.55m across and was 0.28m deep.

Context No	Type	Comments	Interpretation
792	Fill	Loosely compacted, medium greyish brown sandy silt. Contained frequent sub-angular flints and charcoal flecks and occasional sherds of pottery and cbm	Secondary fill of Posthole [793]
796	Fill	Loosely compacted, dark greyish brown silty sand. Contained frequent sub-angular flints and sherds of pottery and occasional sherds of cbm	Secondary fill of Posthole [798]

797	Fill	Moderately compacted, mid yellowish brown silty, sandy clay. Contained frequent sub-angular flints and occasional sherds of cbm	Primary fill of Posthole [798]
814	Fill	Loosely compacted, mid yellowish brown clayey sand. Contained frequent sub-angular flints, moderate amounts of charcoal flecking and occasional sherds of pottery	Fill of Posthole [815]
816	Fill	Firmly compacted, mid yellowish brown clayey silt. Contained moderate amounts of sub-angular flints and charcoal flecks	Primary fill of Posthole [793]

Dispersed Postholes

Posthole [529]

7.5.57 Posthole [529] was located to the east of Area A, in the vicinity of PG9. It was circular in plan with very steep sides and a concaved base. It had a diameter of 0.20m and a depth of 0.17m. The fill [528], was a firmly compacted sandy silt containing occasional sub-angular flints.

Posthole [704]

7.5.58 Situated in the southeast of Area A, posthole [704] was truncated by ditch [700]. It was circular in plan with steep sides and a concaved base, measuring 0.28m in diameter and had a depth of 0.19m. The single fill, [703], was a loosely compacted, mid grey silty sand with very frequent charcoal flecks.

Posthole [1052]

7.5.59 Posthole [1052] was located to the far west of Area A. It was oval in plan with moderately falling, concaved sides and a flat base. It had a diameter of 0.40m and a depth of 0.08m. Its fill, [1051], was a dark grey, silty clay containing occasional small cbm fragments and flecks of charcoal.

Posthole [1129]

7.5.60 Posthole [1129] was located towards the centre of Area A, at the western terminus of ditch [1407] and was truncated by pits [979] and [1127]. Its diameter measured 0.70m and it had a remaining depth of 0.30m. The fill, [1128], was loosely compacted mid greyish brown, clayey, sandy silt, mottled with dense ashy patches.

Posthole [1217]

7.5.61 Located to the west of Area A, posthole [1217] was situated just to the east of ditch [1408]. It was sub-circular in plan with steeply sloping sides, concaving in towards a tapered base. It had a diameter of 0.25m and a depth of 0.17m. The fill [1216], was a loosely compacted dark brown, silty clay, containing occasional sub-angular flints and charcoal flecks.

Posthole [1385]

7.5.62 Posthole [1385] was situated just to the north of probable floor layer [1258], and was possibly associated with it. It was sub-circular in plan with a diameter of 0.38m. The fill [1384] was a firmly compacted, light greenish brown, with orange and dark greenish

brown mottles, clayey silt.

Hearths

- 7.5.63 In addition to Structure [833], another four hearths were dated to this phase of the site. [596] and [621] were located to the east of Area A, projecting from the eastern limit of excavation, in the same region as PG9. [1306] and [1310] were sited to the north, in the same area as PG7.

Hearths [596] and [621]

- 7.5.64 Hearth [596] appeared sub-oval in plan, with gradually falling sides and a concaved base. It had a length of 1.26m north-south, projected from the eastern limit of excavation by 0.55m and had a depth of 0.20m. Its fill, [577], was a firmly compacted orangey, burnt clay containing frequent large flint nodules.
- 7.5.65 Hearth [621] appeared rectangular in plan, with steeply falling sides and an uneven base, getting deeper towards the north. It had a length of 1.50m north-south, projected from the eastern limit of excavation by 0.90m and had a maximum depth of 0.20m. The fill of the hearth [620] was completely composed of compacted ashes, with frequent flecks and small fragments of charcoal. It contained sherds of pottery and SF 1278, an incomplete iron knife, with a straight back and a curved blade.

Hearths [1306] and [1310]

- 7.5.66 Hearth [1306] was circular in plan, with gently sloping sides and a flat base. It had a diameter of 1.90m and a depth of 0.18m, and contained two fills, [1286] and [1305]. The primary fill, [1305] was a compacted layer of crushed chalk and sandy clay, around 0.08m thick. On top of this was layer [1286], formed from whole, or partially broken flint nodules of regular size, (between 40mm/20mm/40mm and 80mm/50mm/170mm), set in a clayey sand matrix, up to 0.08m thick. They were obviously structural and may have formed the core of a kiln or furnace, although the absence of any evidence of burning suggests that this was the very bottom of the feature.
- 7.5.67 Hearth [1310] shows a possible re-working of hearth [1306], from Phase 6. It appears that shallow trough [1310] was dug around the edges of [1306], backfilled with [1309] a mottled orange/grey/brown clayey, sandy silt in an effort to stabilize the hearth. It contained occasional small fragments of cbm, charcoal and sherds of pottery.

Metalled Surfaces

- 7.5.68 During this phase the first evidence of metalled surfaces was revealed. They were comprised of compacted flint cobbles of varying size, and appeared to be concentrated towards the southeast of Area A, though this may well be due to preservation rather than the true extent of the original surfaces. Metalled surfaces [499], [598] and [648] were all probably part of the same surface in the southeastern corner. Slightly further to the northeast were surfaces [963], [1338] and [1339], which were also probably related to each other, and probably also to the aforementioned surfaces.

Surfaces [499], [598] and [648]

- 7.5.69 These remnants of metalled surface were preserved primarily due to the fact that they had slumped into the tops of earlier ditches. Between them they cover an area of 246.70m². In places smaller compacted flints appeared to form a lower, or base layer for the larger flints above, although the latter may just represent later episodes of repair.

Surfaces [963], [1338] and [1339].

7.5.70 This area of metalled surface was located just to the north west of the afore mentioned surfaces. Again it had been protected from damage due to being within a hollow in the natural. Between them these surfaces cover an area of 295.53m². A sondage that was excavated through the western edge of the surfaces showed that there were underlying layers to the metalling, these were layers [1383], [1388], [1389], [1390], [1395], [1396], [1397], [1398] and [1399]. These have been interpreted as bedding layers to the metalled surfaces, though some may have been earlier surfaces in their own right.

Context No	Type	Comments	Interpretation
1383	Layer	Compact, dark grey silty clay	Bedding layer for [1338]
1388	Layer	Compact, dark brown clayey, silty sand	Bedding layer for [1339]
1389	Layer	Compact, dark grey silty clay	Bedding layer for [1338]
1390	Layer	Compact mid brownish yellow silty clay	Bedding layer for [1338]
1395	Layer	Moderately compacted, mid greyey brown silty sand	Bedding layer for [1339]
1396	Layer	Compact mid greyey brown silty sand, with frequent crushed chalk	Bedding layer for [1339]
1397	Layer	Compact mid orangey brown silty sand	Bedding layer for [1339]
1398	Layer	Moderately compacted, mid brownish yellow clayey silt	Bedding for layer [1338]
1399	Layer	Compact mid brownish yellow silty sand	Bedding layer for [1338]

Surface [1068] (Fig. 11)

7.5.71 Metalled surface [1068] was a section of roadway constructed from medium-large flint nodules. It was located towards the centre of Area A, running on a north-south alignment with a camber on both sides and ditch [1077], on its eastern side and ditch [1063] to the west.

Discussion of Phase 5

Boundary Ditches

7.5.72 As the large boundary ditches to the west of Area A started to fall out of use, smaller ones were being dug to the east of the site.

The Road

7.5.73 The road continued in use, probably being diverted slightly to the west in Area A, due to the construction of terraces and revetments intended to retain the soil. The presence of the hacked off horn cores within the ditch fills is indicative of horn-working activities taking place on the site during this period.

The Pits

7.5.74 The pitting of the site got heavier during this phase, possibly indicating higher levels of

occupation. As with the pits in Phase 4 further work should be done to ascertain whether they were for domestic waste or served a ritualistic purpose.

Terracing and Revetments

- 7.5.75 It appears that during Phase 5 the problem of landslides was becoming more and more evident. To counter this a programme of terracing and the construction of revetments was begun.
- 7.5.76 This was evidenced to the west of Area A, where the land fell sharply with terrace [822], and in the centre, with revetment [535], [536], [1410], where in Phase 4 the road had apparently suffered from landslides. It was this revetment that the road had to be diverted around.

Oven Structure [833]

- 7.5.77 Sited in the lee of the revetments in the centre of Area A, Oven structure [833] was built on top of roughly constructed floor layers. The fact that it comprised of layers of sand and burning respectively indicates that it was used many times. Unfortunately the environmental samples did not provide any information as to what it was used for, the most likely explanations being either baking or processing of cereal crops.

Structure [1412]

- 7.5.78 Unfortunately little can be said about rectangular, posthole structure [1412]. It was constructed in the middle of a metalled surface, and measured 15m by 2m. It probably served as an ancillary building to the possible villa which may have been situated in the area of the manor house, although its function could not be ascertained.

Hearths

- 7.5.79 More hearths were constructed during Phase 5, tending to be towards the east of Area A. Regrettably their functions remain obscure.



Figure 9
Phase 5 Features - Area A
scale 1:800

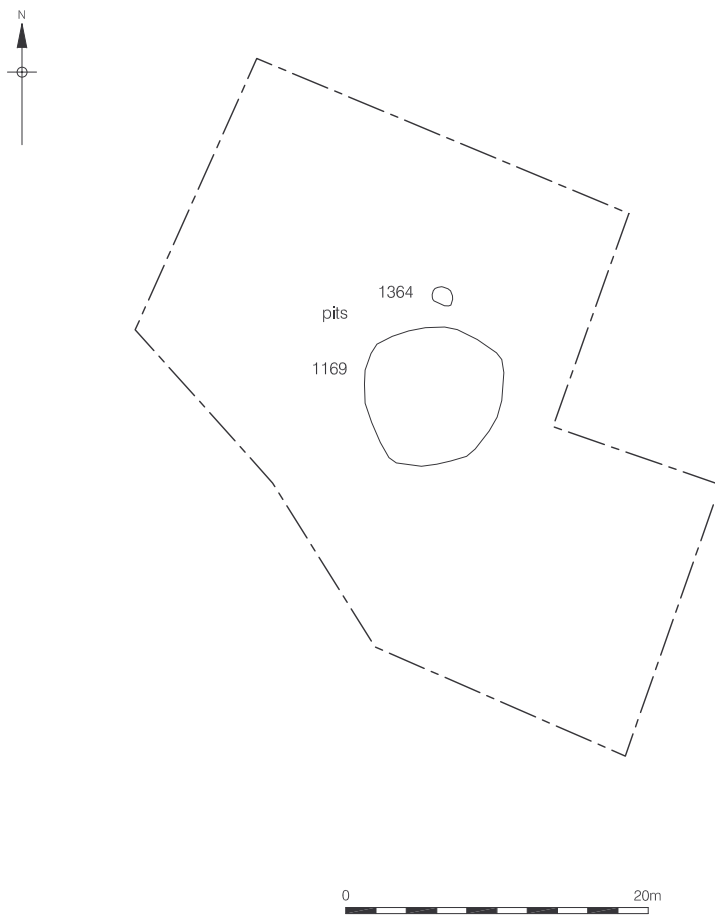


Figure 10
Phase 5 Features - Area C
scale 1:500

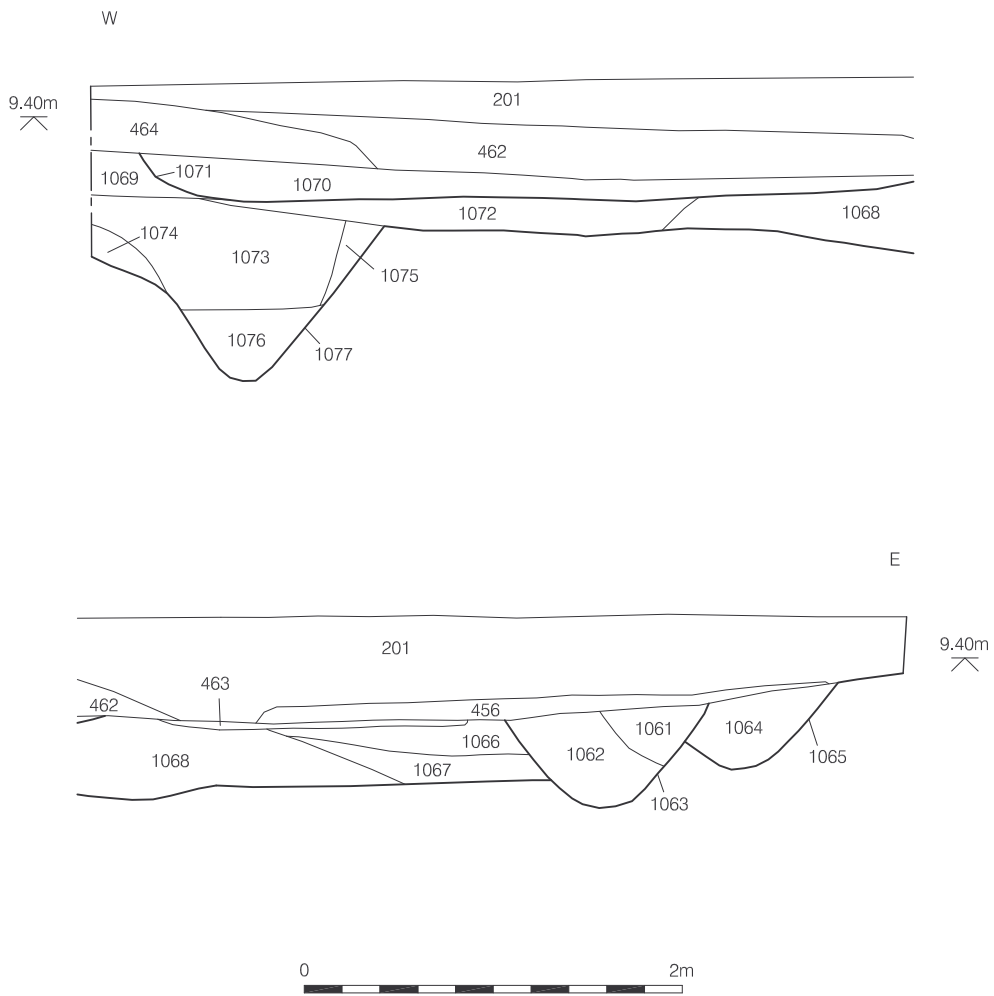


Figure 11
 Section 118 - Road [1068] and associated features
 scale 1:40

7.6 Phase 6 – 250-300AD (Fig. 12)

Boundary Ditches

- 7.6.1 Boundary ditches [1142], [1413] and [1414] were all located towards the northeast of Area A. Ditch [1413] comprised cut numbers, [213], [264], [282] and [409]. Ditch [1414] consisted of cut numbers [495] and [516]. They both ran on a northwest-southeast alignment, with [1142] on a perpendicular alignment, between the two.
- 7.6.2 Ditch [1413] was 1.30m wide, with steep, slightly concaved sides and a slightly concaved base 0.99m deep. It ran east-west for a distance of 74m, returning to the south, at its eastern end, and continuing for another 16m, until it reached the limit of excavation. The fills, firmly compacted, mid greyish brown clayey silt, contained pottery, cbm, above average quantities of iron nails and SF 244, an iron fitting/hook. Fill [278] yielded the skeletons of two young otters, one of which exhibited knife marks on its tibia, possibly evidence of skinning. The ditch had been severely truncated, towards its western end by a WWII bomb crater.
- 7.6.3 Ditch [1414] was located to the south of [1413]. It had steep sides and a concaved base, a width of 0.70m, depth of 0.40m and ran east-west for 15m, before heading beyond the eastern limit of excavation. Its fills were very similar in composition to those of [1413] and contained pottery, cbm, animal bone and SF 1271, a possible iron ferrule.
- 7.6.4 Ditch [1142] was situated towards the west of [1413] and [1414], running perpendicular to them on a NNE-SSW alignment. Its slightly concaved sides had a moderate break from the surface, leading to a concaved base. It had a length of 21.50m, a width of 0.75m and a depth of 0.30m. Its fill was a loose-firmly compacted greyish brown silty, clayey sand that contained sherds of pottery and SF 1237, a copper alloy object.

Roadside Ditches [594], [1008] and [1085]

- 7.6.5 Ditches [594], [1008] and [1085] were all surviving remnants of the roadside ditches from this phase. [594] and [1008] were both located towards the north of Area A, whilst [1085] was located towards the north of Area B. They all ran on a NNW-SSE alignment with widths varying from 0.50m-1.60m and depths between 0.20m and 0.60m, and were very similar in profile, with steeply sloping, slightly concaved sides, leading to a flattish base. The fills were very similar too, consisting of firmly compacted dark brown sandy silt containing frequent flint gravel and the occasional charcoal fleck.

Boundary Walls

- 7.6.6 During this phase the large boundary ditches, [1403] and [1404], to the west of Area A were backfilled and replaced with flint and lime mortar walls, that ran on exactly the same east-west alignments, returning to the south close to the western limit of excavation.

Walls [1047], [1049], [1151] & [1281]

- 7.6.7 These walls probably represented a single wall that suffered from plough damage over the years, breaking it into four constituent parts. This said however, there may have been intentional breaks in the wall from the time of construction allowing access/egress from the bounded area. The walls followed the course of ditch [1403] with a thickness of around 1.10m.

Walls [690], [1037], [1152] & [1160]

- 7.6.8 Like the previous set of walls, these probably represented a single wall that had been

damaged by ploughing. They followed the course of backfilled ditch [1404] with a thickness of between 1m-1.5m.

Context No	Type	Length (m)	Alignment	Same As
690	Wall	5.2	N-S	1037, 1152, 1160
1037	Wall	8	N-S & E-W	690, 1152, 1160
1047	Wall	1.8	E-W	1049, 1151, 1281
1049	Wall	20	N-S	1047, 1151, 1281
1151	Wall	25	E-W	1047, 1049, 1281
1152	Wall	16	E-W	690, 1037, 1160
1160	Wall	25	E-W	690, 1037, 1152
1281	Wall	>5	E-W	1047, 1049, 1151

Wall [681]

7.6.9 The eastern terminus of wall [681] projected from the western limit of excavation, to the north of Area A. It was constructed in the same manner as the other boundary walls, from roughly hewn flint nodules bonded with lime mortar. It ran on an east-west alignment, parallel with the other boundary walls for a distance of 7.90m, before running into the limit of excavation. Its western end had been slightly truncated by a modern sewer pipe.

Walls [1033], [1150] & [1153]

7.6.10 These walls appeared to be similar in nature. They were constructed in the same manner as the main boundary walls, short in length and offset from, yet running parallel to the main boundary walls and may be indicative of some type of lean-to structures.

7.6.11 Wall [1033] was located just to the west of the southern terminus of wall [1049] and ran on a north-south alignment for a distance of 2.60m.

7.6.12 Wall [1150] was offset to the north of wall [1160]. It had an east-west alignment and ran for a distance of 2m.

7.6.13 Offset to the south of wall [1151] was wall [1153]. This had an east-west alignment and had a length of 2.70m.

Tomb Structure [261]

7.6.14 Tomb structure [261] was located towards the centre of Area A, just to the west of the roadway. The structure itself was almost non-existent after having been severely robbed out, probably in the medieval period, with only the bases of the flint and mortar footings, [230], [311], [312], [313] and [314], left intact within the construction cut [226]. It was square in plan, with large, square stanchion bases on each corner, faced north-south and east-west, and measured 6.27m north-south by 6.42m east-west.

- 7.6.15 In the centre of the tomb, on an east-west alignment, was grave cut [206], measuring 2.34m in length with a width of 0.62m and a maximum depth of 0.48m. In the cut there were the remnants of a wooden coffin, [327], apparent only through limited soil staining and the presence of iron nails. From this it was estimated that [327] measured 1.97m in length had a width of between 0.30m and 0.40m and a depth of around 0.35m.
- 7.6.16 The wooden coffin held an undecorated lead coffin, [221]. No lid was present for the coffin, and the archaeological sequence above it demonstrated that there probably never was. Coffin [221] was still in relatively good condition, with some plough damage to the top edge. It had been constructed out of a single piece of lead, which had been cut and hammered to create a rectangular box, measuring 1.87m in length, with a width of 0.30m and a depth of 0.35m.
- 7.6.17 Within the lead coffin was an inhumation, [231], of a middle-old aged female extended in a supine position. No grave goods were present. Environmental samples showed that there was a concentration of cereal crops in the stomach area, possible evidence for the consumption of bread. They also revealed the presence of pine pollen from near the feet, perhaps to keep the air fresh whilst the body laid in state.
- 7.6.18 Filling the coffin was context [237], a light brown, clayey silt, with a concentration of decayed wood towards the top of the layer, possibly the lid to [327]. This was sealed by layer [220]=[320]. This layer was a firmly compacted, light-mid yellowish brown brickearth and seemed to be a formation layer for the floor of the tomb as it was directly overlain by [211], a layer of lime mortar, abundant with tesserae. These layers had collapsed into the coffin, affirming the belief that the lead coffin had no lid.
- 7.6.19 Overlying the floor layer was [205], a loose-moderately compacted, mid-dark brown silty clay that contained frequent fragments of *opus signinum* and lime mortar. It probably represents part of the demolition/robbing of the tomb, but is mentioned here due to the two small finds recovered. SF 233 and SF 234 were both gold chains, indicative of the 3rd century. SF 233 was 132mm in length, and composed of a series of gold filigree double-loop links, the bars of which were threaded with beads of the green stone variscite. SF 234 was constructed in the same manner as SF 233, surviving up to 266mm in length. The stones present on this necklace however were garnets and emeralds. It has been suggested that the chains originated on the continent, travelling with their owners to Britain, possibly from Germany as that is where variscite is known to be found (see Hobbs Appendix 14).
- 7.6.20 Positioned exactly half way along the inside of the tombs southern construction cut was post-pad [241]. It had been truncated by later robbing-out activities, but its size and shape could still be ascertained to a good degree. It appeared square in plan, measuring 0.60m across, with a depth of 0.05m. The single fill, [240], was formed from *opus signinum* and almost definitely represents a post/column pad.
- 7.6.21 Although cut [208] was a robber cut that belonging to Phase 9, it is relevant to touch on it briefly, whilst discussing the tomb structure. The cut was sub-rectangular in plan, measuring 2.02m east-west by 0.82m north-south, with a depth of 0.15m. It was positioned centrally against the inside of the tomb's northern wall and probably represented the site of a robbed out altar.

Structure [461]

- 7.6.22 Structure [461] was sited near the centre of Area A, just to the east of the roadway. Its form was suggestive of an aisled barn, though truncation of the structure, through plough activity, made it impossible to ascertain the full dimensions. The remaining components measured 18m north-south by 15m east-west.

- 7.6.23 The foundation of the outer wall of the structure, [947], [949], was still intact on the southeastern corner. It was constructed from un-worked and roughly hewn flints in a clayey, sandy silt matrix. [947] had an east-west alignment and ran for a distance of 9.50m. It returned northwards at its eastern end as [949], (to which it was bonded), for a distance of 8.50m. It is possible that the masonry component of the wall did not rise to any great height, being little more than a sill or dwarf wall on which a timber framed structure could be placed¹³.
- 7.6.24 Following the external edge of the outer wall was drip gully [912]. It had concaved, gently sloping sides and a concaved base. It had a length of 4.95m east-west, 6m north-south, a width between 0.7m and 0.8m, and a maximum depth of 0.40m. It contained two fills, the primary fill, [911]=[914]=[916]=[919], was a loosely compacted mid yellow brown clayey, silty sand that contained sherds of pottery and cbm, animal bone and iron nails. The secondary fill, [910]=[913]=[915]=[918] was a loosely compacted, mid-dark brown clayey, silty sand, containing the same sort of material as the primary fill.
- 7.6.25 Within the structure were two rows of substantial, equi-distantly spaced post-pads, [968], [973], [975], [997], [999], 1007] and [1015]. The cuts were all either sub-circular or sub-oval in plan with gradually sloping sides and flat bases, measuring between 1.10m and 2.20m in length, with depths from 0.15m-0.55m. The fills were formed from closely packed flint nodules in a loosely compacted dark brown, silty sand matrix.
- 7.6.26 Two postholes were present within the structure, [985] and [1222]. Their dimensions were a lot smaller than those of the post-pads, both with a diameter of only 0.40m. [985] had a depth of 0.32m, whilst [1222] measured 0.28m. The fills of the postholes were loosely compacted, dark brown, clayey, silty sand, containing frequent roughly broken flint nodules as packing. The postholes are probably the remnants of internal divisions within structure [461].
- 7.6.27 To the north of the structure was post-pit [978]. It was sub-circular in plan with steep sides and a flat base. It had a diameter of 1.10m and a depth of 0.32m. The post-pit contained two fills [976], the post-pipe and [977], a clay and flint lining. The post-pipe had a diameter of 0.60m and contained sherds of pottery. The clay and flint lining was probably packing for the post and contained sherds of pottery and cbm.
- 7.6.28 Within the southeast corner of the structure were three remnants of roughly tiled floor, [1029], [1030] and [1031]. Formed from roughly broken bricks and tiles, the floor surfaces had been protected from ploughing by the close proximity of the external wall [947]=[948]. In all they covered an area of 3.8m by 2.4m.
- 7.6.29 Just to the northwest of the floor surfaces was layer [1032]. This took the form of tightly packed flint nodules in a silt matrix, 0.24m thick. It measured 3m east-west by 1.90m north-south and probably represents a consolidation layer within a dip in the natural, laid prior to the laying of the floor.

Revetment Walls

- 7.6.30 During this phase, the revetment walls located in the centre of Area A were consolidated and enlarged. Pre-existing east-west aligned wall, [535] was buttressed on its southern side with wall [1316]. Wall [1316] was aligned north-south and constructed from roughly shaped flint nodules and rounded stones in a yellow, sandy lime mortar. It had a length of 2.85m, a width of 0.60m and was preserved to a thickness of 0.20m.

¹³ Brown, J., Pers Comm

- 7.6.31 Wall [467] had a north-south alignment and ran northwards, from the western end of wall [535], along the western edge of the roadway, for a distance of 32m, passing to the east of the tomb. It was constructed from the same materials as wall [1316], had a width of 0.70m-0.90m and a surviving height of 0.65m. This wall may well have had a two-fold purpose, to serve as a revetting of the roadway against landslides and to cordon the tomb off from the road.
- 7.6.32 Bonded with, and heading westwards from the northernmost point of wall [467] was wall [939]. It had a length of 7m east-west, a width of between 0.55m and 0.65m and a surviving height of up to 0.50m.

Walls [1240], [1241] & [1242]

- 7.6.33 Walls [1240], [1241] and [1242] were located towards the southwest of Area A. They were discovered just below the present day ground surface and had therefore been subject to heavy truncation through ploughing. They were all constructed from closely packed flint nodules and the occasional piece of cbm.
- 7.6.34 Wall [1240] was the westernmost of the walls and lay on a north-south orientation. It had a length of 2.70m and a width of between 0.60m and 1m. Walls [1241] and [1242] ran parallel to each other on an east-west alignment. Wall [1241], to the north had a length of 2.90m and a width of 0.70m, wall [1242] had a length of 4m and a width of 0.60m.

Wall [341]

- 7.6.35 Located in the northeastern corner of Area A were the remnants of wall [341]. It was formed of roughly broken flint nodules irregularly coursed. It seemed semi-circular in plan covering an area c. 2.30m by 2.94m. It is possible that wall [341] was the remnant of an animal pound or similar structure.

Postholes

- 7.6.36 There were several dispersed postholes allocated to this phase, [405], [586], [626], [728] and [1087]. They were all sub-circular in plan, with steep sides and flat bases, though some had suffered from horizontal truncation, which was apparent from their depths. Their diameters varied between 0.40m and 0.70m and the depths ranged from 0.10m to 0.55m.
- 7.6.37 Posthole [785] was located to the west of Area A, between the northern end of the short wall [1033] and the large boundary wall [1049]. It is possible that this posthole was linked in a structural way to these two walls.

Post-Pad [253]

- 7.6.38 Possible post-pad [253], was located to the southeast of tomb [261]. It was rectangular in plan, with gently sloping, concaved sides leading to a shallow, concaved base. It had a length of 0.85m north-south, a width of 0.50m and a depth of 0.05m. It had a single fill, [252], which composed of a firmly compacted, silty lime mortar.

Pit Group 11 (PG11)

- 7.6.39 PG11 was located to the east of Area A, in the same location as PG9, from Phase 5, and probably represents a continuity of pitting in the same area. It comprised of three inter-cutting pits [517]=[671], [818] and [835].
- 7.6.40 Pit [517]=[671] was truncated through the middle by an north-south aligned post-

medieval French drain [455], thus it was given two cut numbers. It was rectangular in plan with gradually sloping sides that got steeper to the east and a flat base. It had a length of 8.15m east-west, a width of 6.20m and a depth of 0.55m. The fill, [452]=[670], was a firmly compacted dark grey, sandy silt that contained sherds of pottery and cbm, animal bone iron nails and an assortment of small finds.

Context No	SF No	Description
452	664	Lead Waste
452	665	Iron tool with pointed end; L 135mm
452	871	Iron ring; diam. 45mm
452	879	Copper-alloy bow brooch
452	1268	Iron hook; L 50mm
670	450	Iron structural fittings
670	902	Copper alloy hairpin with sphere terminal
670	903	Copper alloy stud; diam. 30mm

7.6.41 Pit [818] was heavily truncated to the south by ditch [495]. It appeared sub-circular in plan, with steep, almost vertical sides that lead to a gently concaved base. It had a single fill, [817], which was a finds sterile, firmly compacted, mid brown silty sand.

7.6.42 Pit [835] was only seen in section as it was heavily truncated by pit [671], and therefore its shape in plan could not be ascertained. It measured 4.05m across, with a depth of 0.30m, and the sides fell gradually to a flat base. It contained two fills, [810] and [834]. The primary fill, [834], was a firmly compacted, mid greyish brown, sandy silt containing no finds. [810], the secondary fill, was a firmly compacted, mid grey clayey silt that contained sherds of pottery and cbm.

Dispersed Pits

Pit [828]

7.6.43 Located to the west of PG10 was pit [828]. It was oval in plan, with steep sides that fell to a flat base. It had a length of 2.10m north-south, a width of 1.60m and a depth of 0.22m. It contained two fills, [738], the primary and [827], the secondary. Fill [738] was a mid yellowish brown clayey silt with a loose-firm compaction containing sherds of pottery and cbm. The secondary fill, [827] was a loosely compacted dark greyish brown, clayey silty sand that contained sherds of pottery and cbm, animal bone, slag and SF 1045, an 'L'-shaped iron fitting.

Pit [522]

7.6.44 Pit [522] was located towards the southeastern corner of Area A. It was sub-oval in plan with steep, near vertical sides and a flat base. It had a length of 1.55m east-west, a width of 0.93m and a depth of 0.59m and contained four fills, [518], [519], [520] and [521] which contained sherds of pottery, cbm and animal bone.

Pit [1236]

7.6.45 Located towards the northwest of Area A, pit [1236] appeared to be a re-cut of pit [1239] from phase 5, cut directly into the top of it, and was itself truncated by a later pit, [1231]. Pit [1236] was sub-circular in plan with steep sides falling at about 80° from horizontal. It contained three fills, [1232] = [1233] and [1234]. Like pit [1239] all the fills contained large quantities of butchered animal bone.

Pit [1273]

- 7.6.46 Pit [1273] was located to the west of Area A. It was observed in a sondage excavated towards the end of the dig. It appeared sub-circular in plan, with steeply sloping sides, though the base was unseen. It had a diameter of 1.40m and a depth of over 0.60m. It contained a single fill, [1272], a firmly compacted, light brownish grey, clayey silt, that contained a large quantity of broken cbm and *opus signinum* chunks. It is possible that [1273] represents a rubbish pit dug to hold some of the builders waste generated during the massive construction works that took place during this phase.

Hearth [669]

- 7.6.47 Hearth [669] was located towards the southeast of Area A. It was oval in plan, with steep sides that concaved in towards a flat base. It had a length of 1.30m north-south, a width of 0.46m and a depth of 0.21m. The fill, [668], was a charcoal rich, loosely compacted dark brownish grey sandy silt that contained sherds of pottery, cbm and fragments of glass.

Metalled Surfaces

- 7.6.48 Surface [754] was located towards the east of Area A. It probably represents the remnants of a consolidation layer for a metalled surface. It was formed from large, roughly split flint nodules and covered an area of 2.53m NNE-SSW by 1.28m.
- 7.6.49 Surface [1070] was only seen in the section of a sondage that was laid east-west, to the east of the northern end of wall [467]. It was a very compact layer of sand and gravel 0.25m thick, that was laid against, and to the west of the road surface [1068], abutting wall [467], probably forming a yard or outdoor surface.

Road Surfaces

- 7.6.50 Road surface [965] was located against the northern limit of excavation of Area B. It was only seen in the section of a sondage, which was placed across hollowed way [966]. At this point the ground level dropped severely to the north along the course of the roadway.
- 7.6.51 Surface [463] = [1400] was a well-preserved section of roadway located in the centre of Area A. It had been protected from plough damage due to being within the hollow way at the centre of the area. It had a length of 18.30m and a width of 6.25m east-west, curving around the east of revetment wall [535], then following the course of wall [467], northwards towards the River Medway. It was constructed of closely set, small, roughly broken flints and sub-rounded stones. It is possible that there had been a better quality surface layer that had been robbed out though no evidence for this survived.

Occupation Layers [694] and [770]

- 7.6.52 Occupation layer [694] and [770] were located in the centre of Area A, with [694] to the west of the road and [770] to the east. They were very similar in nature, containing high concentrations of finds including high status pottery, glass, cbm and a multitude of small finds, including quernstones, hairpins, knives, cleavers, horse tack and hippo sandals, iron hooks and Cu alloy brooches. Layer [770] also contained two polled sheep crania, a goat horn core chopped at the base and a sawn red deer antler. They also contained smithing hearth bottoms and iron bars and rods, (probably smith's blanks).

Discussion of Phase 6

Boundary Ditches and Walls

7.6.52 To the east of Area A the boundary ditches were re-aligned and walls were constructed on the site of the Phase 4 boundary ditches to the west.

Tomb Structure [261]

7.6.53 The square tomb structure was very similar in plan to those found at Lullingstone Villa and Wood Lane End, Hemel Hempstead¹⁴. The thickness of the walls and the size of the corner stanchions suggests that the structure was probably at least two stories in height.

7.6.54 That the coffin was buried on an east-west alignment, together with the absence of any grave goods implies that the burial was Christian in nature, although the gold chains found upon the floor surface may indicate the placing of offerings within the structure.

7.6.55 That the lead coffin [221], had no lid is of interest, as this is unique to any as yet found. Initially thought to be removed by robbing this theory was discounted when it was realised that the coffin was still sealed by the floor layers of the tomb. This meant that the lead coffin had no lid upon deposition within the grave. This has led to the speculation that when the lead coffin was sealed within the wooden one, [327], the lead lid was deliberately omitted perhaps in order to cut costs.

Barn Structure [461]

7.6.56 The timber granary, [871] was superseded by aisled barn [461]. The remnants of dwarf walls and pillars on which the floor would have rested would have allowed air to circulate freely.

7.6.57 Unfortunately the complete size of the structure could not be ascertained due to later robbing and truncation. It is therefore impossible to calculate its storage capacity.

7.6.58 The proximity of the barn again raises the question as to whether the grain was being consumed locally or being exported.

Revetment Walls and Road

7.6.59 The revetment walls constructed in Phase 5 seem to have proven inadequate. North-south wall [1410] was demolished, with another larger north-south wall, [467], being constructed on the western side of [535], cutting back into the slope, with east-west wall [939] bonded to its northern end.

7.6.60 The road was re-routed again, this time to the east of the revetments, over the demolished [1410] and between the tomb and the barn.

Pits

7.6.61 PG11 showed continuity of pitting in the same area as PG9, from Phase 5. It comprised of three inter-cutting pits. As with the pits in Phases 4 and 5 further work should be done to ascertain whether they were for domestic waste or served a ritualistic purpose as suggested by the high amount of small finds retrieved from pit [517]=[671].

Occupation Layers

¹⁴ de la Bédoyère 1991,

- 7.6.62 Occupation layers [694] and [770] contained a wealth of small finds, including domestic and work related items. The knives, cleaver and animal horns and antlers are indicative of horn and antler working on the site, possibly in the immediate vicinity. Whilst the domestic finds give an insight into the status and intramural activities on the site.
- 7.6.63 The presence of the hearth bottoms and smith's blanks within these layers indicates a major increase in smithing activities on site, as up until this phase only the occasional piece of slag had been recovered.



Figure 12
Phase 6 Features
scale 1:800

7.7 Phase 7 - 300-420AD (Fig. 13)

Pit Group 12 (PG12)

- 7.7.1 PG 12 was located to the west of Area A. It comprised of two large sub-circular pits filled with demolition rubble, [1264] and [1291]. They were both located in a sondage and therefore not fully excavated. The pits had steep, almost vertical sides, a diameter of c. 4.0m and a depth of over 1.5m. The tertiary fill of [1264] contained two well preserved coins dated to AD 324-330 and AD 318-324.

Pit Group 13 (PG13)

- 7.7.2 PG 13 consisted of three sub-circular pits, [778], [994] and [1231], located towards the north of Area A. They were grouped for their proximity to each other.
- 7.7.3 Pit [778] had moderately sloping sides and a flat base, a diameter of 1.20m and a depth of 0.10m, suggesting possible horizontal truncation. It contained a single fill, [777], a firmly compacted, dark grey clayey silt with occasional small sub-angular flints and moderate amounts of charcoal flecking.
- 7.7.4 Pit [994] had steep, almost vertical sides and a flat base. Its diameter was 2.85m and its depth was 0.87m. It had three fills [991], [992] and [993] which all contained large quantities of pottery and cbm sherds and butchered animal bone.
- 7.7.5 Pit [1231] was a re-cut of pit [1236], from Phase 6, which was in turn a re-cut of pit [1239]. It had moderately sloping sides, a concaved base, a diameter of 2.80m and a depth of 1.30m. The pit contained four fills, [1227], [1228], [1229] and [1230]. They all contained sherds of pottery and cbm and animal bone. Fill [1228] also contained SF 1246, an iron ferrule.

Pit Group 14 (PG14)

- 7.7.6 PG14 was located towards the centre of Area A, west of the course of the roadway. It consisted of three small pits, [210], [215] and [217]. Pit [210] was sub-square in plan measuring 1.10m north-south by 0.90m east-west and had a depth of 0.12m. Both [215] and [217] were sub-circular in plan. [215] had a diameter of 0.95m and a depth of 0.10m, whilst [217] had a diameter of 1.15m and a depth of 0.10m. All of the pits had vertical sides and slightly concaved bases.
- 7.7.7 The fills of all the pits contained moderate-high amounts of charcoal flecks; fill [209] of pit [210] also contained burnt brickearth, possibly *in situ*, suggesting that it may have been the remnants of a hearth type feature.

Pit Group 15 (PG15)

- 7.7.8 PG15 was a group of six inter-cutting pits, three of which were sub-rectangular [909], [979] and [1020], which had lengths between 1.55m and 2.38m, widths ranging from 1.14m-1.80m and depths of 0.40m-1.44m. The other three pits, [1060], [1081] and [1205], were all sub-circular, with diameters between 0.88m and 2.18m and depths between 0.60m and 1.01m. The group was located towards the centre of Area A, directly to the east of the course of the roadway.
- 7.7.9 Pit [909] contained five fills, [908], [945], [946], [962] and [1016] which contained moderate-frequent amounts of pottery sherds, animal bone, occasional fragments of slag and a large quantity of small finds.

Context No	SF No	Description
908	1072	Iron knife
908	1073	Copper-alloy square sectioned ring; diam. 18mm
908	1074	Copper-alloy bar 130mm x 4mm x 2mm; ? Balance arm
908	1075	Fragment of belt plate
908	1076	Stone hone
908	1077	Iron pin/fitting; L 60mm
908	1078	Lead waste
908	1082	Green glass 'melon' bead
945	1208	Copper-alloy square sectioned bracelet
1016	1217	Copper-alloy bracelet

- 7.7.10 Pit [1020] had a single fill, which contained occasional sherds of pottery and cbm, animal bone, slag and small finds, SF 1218, a copper-alloy pin/wire and SF 1235 a sawn antler.
- 7.7.11 Pit [1060] contained three fills, [1057], [1058] and [1059], which all contained occasional animal bones, sherds of pottery and cbm. Fill [1058] also contained three small finds, SF 1221, a copper-alloy ring, SF 1223, an iron knife with a curved back and blade and SF 1224, an iron fitting.
- 7.7.12 Pit [1081] contained a single fill, [1080]. It contained occasional animal bone, sherds of pottery and cbm and small finds, SF 1219, an iron knife blade and SF 1220, a coin dated to AD 335-AD 341.

Pit Group 16 (PG16)

- 7.7.13 PG16 was a group of five inter-cutting pits, [371], [384], [403], [411] and [420], located towards the northeast of Area A. Pits [371], [384] and [403] were all sub-circular in plan with diameters ranging from 0.90m to 1.40m and depths of between 0.23m and 0.45m. Pits [411] and [420] were both sub-oval in plan, with lengths of between 1.46m and 2.26m, widths of 1.46m-1.53m and depths of 0.68m-0.73m. All the pits had steep, almost vertical sides and flattish bases. The fills all contained general domestic rubbish, with the occasional piece of slag. Fill [410], of pit [411] also contained SF 449, an iron socketed arrowhead.

Pit Group 17 (PG17)

- 7.7.14 PG17 comprised of two pits, [693] and [698], located in the southeastern corner of Area A. They were both sub-oval in plan, with steep sides and flattish bases. Their lengths ranged between 0.78-m and 1.84m, their widths from 0.44m to 0.48m and their depths from 0.13m to 0.18m. The fills of the pits contained occasional small fragments of pottery and cbm.

Dispersed Pits

- 7.7.15 Pit [783] was located in the southwest of Area A. It had an oval shape in plan with steep, concaved sides that led to a flat base. It had a length of 1.40m north-south, a width of 1.2m and a depth of 0.30m. It contained two fills, [768] and [769], both loose-firmly compacted, dark greyish brown silty clays, containing occasional sherds of pottery and cbm, and animal bone. The primary fill, [769], also contained four small finds.

Context No	SF No	Description
769	936	Iron architectural fitting; 105mm x 65mm
769	952	Iron nails
769	953	Iron knife with curved blade and straight back; L 90mm
769	954	Iron knife with curved blade and straight back; L 60mm

7.7.16 Pit [1140] was located towards the northeast of Area A. It had a sub-rectangular shape in plan, with steep, almost vertical sides and a flat base. It measured 1.90m north-south, 1.10m east-west and had a depth of 0.54m. It contained three fills, [1137], [1138] and [1139], which were loose-moderately compacted, dark brownish grey silty, clayey sands, containing occasional sherds of pottery and cbm.

Roadside Ditches

7.7.17 The Phase 7 roadside ditches, [591], [606], [608] and [618] were preserved to the very north of Area A, all aligned north-south, cutting across the northernmost corner of the site. Ditch [591] marked the eastern side of the roadway and [606]=[618] marked the western side, with [608] as a re-cut of the ditch. All of the ditches had steep sides, which led to slightly concaved bases.

7.7.18 Ditch [591] was only visible on the site for a distance of 12.56m, a width of 1.30m and a maximum depth of 0.70m. Ditch [606]=[618] had a length of 38m, terminating at the northern end, a maximum width of 1.50m and a depth of 0.30m. Re-cut [608] was located just to the west of [606]. It had a length of 15m a width of 1.2m and was 0.2m deep. The depth of the ditched is indicative of horizontal truncation having taken place. The fills of the ditches contained small quantities of pottery and cbm.

Hearths [715] and [776]

7.7.19 Hearths [715] and [776] were located to the north of Area A, to the west of the roadway. Hearth [715] was sub-circular in plan, with a diameter of 0.80m and a depth of 0.08m. Hearth [776] had an oval shape in plan, with a length of 0.75m north-south, a width of 0.50m and a depth of 0.08m.

7.7.20 The surviving depths of the features suggest horizontal truncation and that these features are 'shadows' of the hearths as opposed to the real structures. The fills were moderately compacted red brickearth, indicating that they were the interface between the natural and the heat affected brickearth rather than true fills.

Hearths [982], [988], [1046], [1105], [1107], [1109], [1136] and [1155]

7.7.21 Hearths [982], [988], [1046], [1105], [1107], [1109], [1136] and [1155] were all located within the aisled barn structure [461] from Phase 6. Environmental samples revealed that all of the hearths within this structure contained hammerscale and ferrous material.

7.7.22 The majority of the hearths, [988], [1046], [1107], [1136] and [1155], were sub-circular in plan with steep, concaved sides and slightly concaved bases. Their diameters ranged between 0.74m and 1.10m and the depths were between 0.11m and 0.20m.

7.7.23 Hearths [1105] and [1109] were oval in plan. [1105] had steep, concaved sides and a flattish base that sloped downwards to the south. It had a length of 0.90m north-south, a

width of 0.56m and a depth of 0.28m. Hearth [1109] had concaved sides and a flat base, a length of 1.65m east-west, a width of 1.35m and a depth of 0.16m.

- 7.7.24 Hearth [982] was rectangular in plan. It had concaved sides and a flat base. It had a length of 1.04m north-south, a width of 0.48m and a depth of 0.10m.

Postholes

[269] and [285]

- 7.7.25 Postholes [269] and [285] were located to the northeast of Area A, with [269] truncating [285]. They were both sub-circular in plan with steep sides and slightly concaved bases. [269] had a diameter of 0.90m and a depth of 0.31m; [285] had a diameter of 0.90m and a depth of 0.39m. The single fill of [269], [268], contained moderate-frequent amounts of ragstone and flint fragments, possibly post-packing, or possibly suggesting that [269] was a post-pad that replaced [285].

[544], [546], [706] and [710]

- 7.7.26 Postholes [544], [546], [706] and [710] were sited in the southeastern corner of Area A on a possible northeast-southwest alignment. They were all sub-circular in plan, with steep sides and slightly concaved bases. Their diameters varied between 0.38m and 1.20m, and their depths ranged from 0.12m-0.83m. Set out in a square plan they could have represented a granary like structure.

[572], [574], [576] and Beam-slot [583]

- 7.7.27 Postholes [572], [574] and [576] were positioned on a northwest-southeast alignment, spaced about 0.75m apart, within beam-slot [583], towards the east of Area A. The postholes were all sub-square in plan, with vertical sides and flat bases. Their widths varied between 0.32m and 0.40m, and depths between 0.07m and 0.40m. Beamslot [583] petered out towards the northwestern end, and probably continued before truncation through ploughing. It had steep, almost vertical sides and a flat base, with a length of 5.00m east-west and a depth of 0.10m.

[724]

- 7.7.28 Located near the eastern limit of excavation in Area A, posthole [724] did not appear to be related to any other feature. It was circular in plan, with vertical sides and a flat base, a diameter of 0.30m and a depth of 0.29m.

[772] and [774]

- 7.7.29 Postholes [772] and [774] were located close to the western limit of excavation in Area A. They were both sub-oval in plan, [772] had steeply falling sides, whereas [774] had more gently sloping sides; they both had slightly concaved bases. Posthole [772] had a length of 0.75m north-south, a width of 0.50m and a depth of 0.10m. [774] had a length of 0.65m, a width of 0.45m and a depth of 0.13m.

[870], [877] and [892]

- 7.7.30 These three postholes were located towards the north of Area A. They were all sub-circular in plan in plan with steep sides and concaved bases. Their diameters varied from 0.43m-0.86m and their depths ranged between 0.24m and 0.52m.

Occupation Layers

- 7.7.31 Sited in Area A, around the central section of the road were several layers of dumping which produced large quantities of iron slag and litharge. Layer [537] was the most productive, containing 18 smithing hearth bottoms. Layers [201], [456], [719], [867] and [937] all contained litharge. It is probable that these layers were dumps from the metalworking hearths in structure [461]. Layer [456] contained two fragments of human, right parietal bone, probably residual. Layer [537] also contained residual human bone, a proximal foot flange, a right 2nd metatarsal and a right 5th metatarsal.
- 7.7.32 Layer [201] backfilled the hollow way in the centre of Area A. It was very humic in nature and contained a diverse range of finds from all the earlier phases of the site, suggesting that it represented a systematic act of backfilling from midden heaps. It effectively sealed the Roman archaeology in the centre of Area A.

Demolition Layers

- 7.7.33 Towards the end of Phase 7 the revetment walls in the centre of Area A were demolished into the hollow way and probably robbed for any decent building material. The boundary walls to the west of Area A also seem to have been robbed out during this period, leaving little more than rubble piles, shadowing their course.

Discussion of Phase 7

Pits

- 7.7.31 Pitting activities continued into Phase 7, with large pits being dug along the eastern side of the road, possibly quarrying the brickearth. As with the pits in the earlier phases further work should be done to ascertain whether some of the pits were for domestic waste or served a ritualistic purpose.

The Road

- 7.7.32 The road carried on in use until late in Phase 7, as evidenced by the pottery recovered from the tertiary fills of the ditches. The road/hollow way was backfilled apparently deliberately backfilled with a mixture of material after the walls were demolished and toppled into it. The finds dated to both the early and late Roman period and contained the odd sherd of Early Saxon. Whether this activity took place right at the end of the Roman period or during the Early Saxon period is a matter of debate at the moment.

Hearths

- 7.7.33 With the construction of the hearths in barn structure [461], its purpose changed from agricultural to smithing and metalworking, as indicated not only by the hammerscale from the hearths themselves, but by the large mounds of iron slag and litharge recovered from outside the barn, next to the road. The diagnostic slags recovered were suggestive of secondary smithing, hot working by a smith with a hammer, either to create an object or repair it.
- 7.7.34 The presence of substantial amounts of litharge across Area A indicates that the process of refining base metals was taking place on some scale. That it was also found in sealed contexts with waste material from these hearths suggests that the process was probably being conducted within the structure [461] along with the smithing.
- 7.7.35 The conversion of the barn structure from agricultural functions to metalworking could reflect a change of production for the site in general.

Postholes

7.7.36 Not a lot can be ascertained from most of the postholes from Phase 7, as they tended to be irregularly scattered. Postholes [544], [546], [706] and [710], in the southeast corner of Area A, did however appear to form a square shape in plan and could have been the remnants of a four-post granary.

7.8 Phase 8-Early Saxon (Fig. 14)

Pit [732]

- 7.8.1 Pit [732] was located in the far north of Area A. It had suffered from truncation and contamination through ploughing activities. In plan it was sub-square, with moderately sloping, concaved sides and an uneven, concaved base. It had a length of 2.00m north-south, a width of 1.70m and a depth of 0.32m. The fill, [731], was a loosely compacted, mid yellowish brown silty clay. Although it contained some small quantities of glass and clay tobacco pipe, these can be discounted as contamination, due the fact that the pit was truncated by medieval well [563]. The pit also contained a quantity of Early-Saxon pottery.

Platform [1134]

- 7.8.2 Context [1134] levelled a dip in the natural that was located to the north of collapsed wall [939]. It was formed from flint nodules and sub-rounded stones in a moderately compacted, mid yellowish brown, clayey silt matrix, and could well have been the base/raft of a platform constructed from reused Roman material. A near complete gilded-silver Early Anglo-Saxon bow brooch, (SF 917), was recovered from this context. The decoration of the brooch suggests a date in the final quarter of the 5th century.

Discussion of Phase 8

- 7.8.3 Although only two features dated to Phase 8, they do show that there was activity in the area during the Early Anglo-Saxon period. Due to its proximity to the surface the possible platform, [1134] had unfortunately suffered from severe plough damage making it impossible to determine its true form or function.
- 7.8.4 The presence of SF 917, the Early Anglo-Saxon brooch demonstrates the presence of high status people in the immediate area. Its quality and state of preservation suggests that it could originally have come from a grave, though no grave cut or other significant finds of this date were found. The origin of the brooch remains a debated subject at the moment, though a brooch from the same workshop was found, (without provenance), in Canterbury in the 19th century. They are both of very high quality, are the only two known examples from this workshop and indicate either high status Scandinavian imports or Scandinavian style manufacture in east Kent in the Early Anglo-Saxon period.

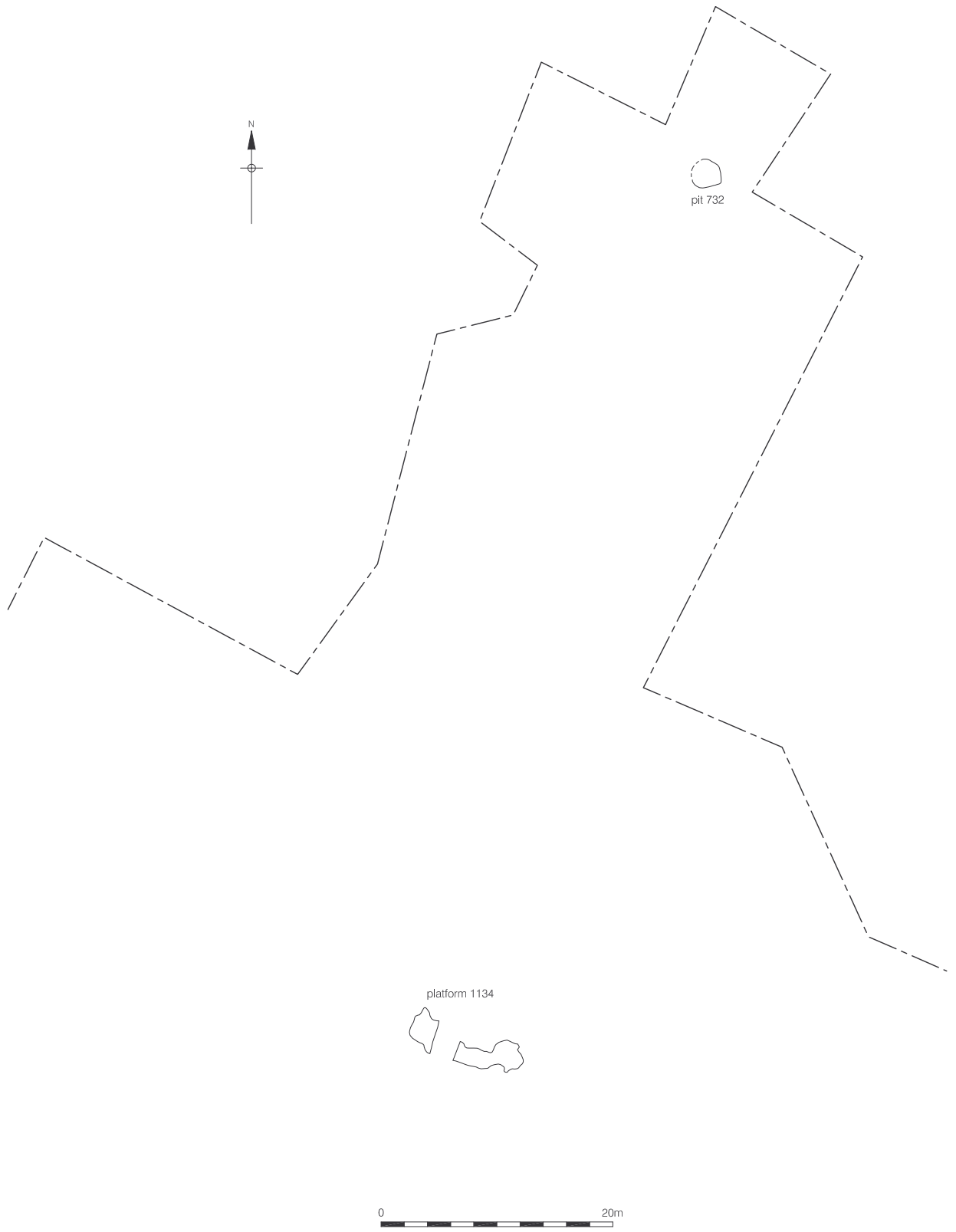


Figure 14
Phase 8 Features
scale 1:500

7.9 Phase 9-Medieval (Figs. 15 & 16)

Pits

- 7.9.1 Pit [233] was located in the centre of Area A, on the eastern side of the remains of the tomb structure, [261]. It was sub-circular in plan, with gently sloping sides and an irregular base, with a length of 1.96m north-south, a width of 1.70m and a depth of 0.76m. The erratic nature of the pit was suggestive of an animal burrow, possibly a badger's sett.
- 7.9.2 Pit [475] was located to the east of Area B, truncated by the large ditch/moat feature [473]. It was sub-rectangular in plan with near vertical sides and flat base, measuring 0.45m east-west by 0.82m north-south, with a depth of 1.15m.
- 7.9.3 Pits [1171], [1173] and [1346] were located in Area C, with [1173] truncating the northern end of [1171]. Pits [1171] and [1173] were sub-circular in plan with steep, almost vertical sides, concaving in towards flattish bases. Pit [1171] had a diameter of 4.47m and a depth of 1.16m. Pit [1173] measured 3.38m across and was 1.45m deep. Their fills contained large quantities of butchered animal bone, sherds of pottery dated to between AD1100 and AD1225, with occasional flecks of burnt daub also being retrieved. Pit [1347] was a shallow, sub-oval feature located, with its fill, [1346], containing pottery dating to AD1000-1250.
- 7.9.4 Pit [1345] was sited in Area C, just to the west of [1171] and [1172]. Much smaller in size it was circular in plan, with moderately sloping sides and a concaved base. It had a diameter of 0.46m and a depth of 0.13m. The fill, [1344] was a moderately compact, light brownish grey clayey silt with occasional charcoal flecking and daub.

Robber Cuts [208], [229], [235], [266] & [1268]

- 7.9.5 Robber Cuts [208], [229], [235] & [266] represent the almost complete demolition of the tomb structure [261].
- 7.9.6 Robber cuts [229], [235] and [266] all followed the outline of the tombs foundation, probably to remove and re-use the good quality building stone from which it was constructed. Many pieces of disarticulated human bone were recovered from [236], a fill of robber cut [229]. These included fragments of skull, mandible and long bones. They were almost definitely residual Roman finds from the tomb itself, rather than medieval in date.
- 7.9.7 Already touched on in the tomb description in Phase 6, robber cut [208] was internal to the tomb. It was a rectangular cut, aligned east-west, that was positioned half way along the northern wall of the tomb and probably represented a robbed out altar.
- 7.9.8 Possible robber cut [1268] was rectangular in plan with steep, vertical sides and a flat base on an ENE-WSW alignment. It measured 2.60m in length, had a width of 0.64m and a depth of 1.33m. The tertiary fill, (1265) was the only one to contain any dating evidence, two small abraded pieces of cbm. The position and alignment of the feature was suggestive of a robber cut for one of the small Roman walls to the west of Area A, however if this was so the wall was completely robbed out, leaving no trace.

Ditch [473], [1366] (Fig. 17)

- 7.9.9 Ditch [473] was located to the east of Area B, running on a north-south alignment, turning to the east just before the southern limit of excavation. It had a maximum width of 4.60m, a depth of 2.42m and a length of 69m.

- 7.9.10 This ditch was revealed again on an east-west alignment, to the north of Area C, where it was numbered [1366], and in the slot trenches, Areas E and F, where it was numbered [1417] and [1419] respectively.
- 7.9.11 The lower fills of the ditch were all formed from accumulated layers of slumping natural whilst the upper fills contained post-medieval building material indicating deliberate back filling.

Well [563]

- 7.9.12 Located in the very north of Area A was well [563]. It was circular in plan, with steep, vertical sides that showed evidence of slumping at the top. The slumping made it have a diameter of 2.94m, though the shaft itself measured 1.52m across. The well was excavated to a depth of 1.79m, though not bottomed due to health and safety reasons. The fills, [562] and [713], contained pottery dating to between AD1250 and 1350. The tertiary fill [562] also contained SF 904, an iron knife, dated to between AD1290 and 1320.

Ridge and Furrow

- 7.9.13 To the north of Area A were the possible remnants of ridge and furrow, [634], extending on an east-west alignment. It was only discernable as a band of slightly darker natural about 7m in width, which contained occasional small sherds of pottery dated to the 12th/13th century and cbm.

Discussion of Phase 9

The Manor House

- 7.9.14 At the centre of the site, though outside the limit of excavation, Grench Manor was constructed during this period. The earliest records for the house date to the 11th century, with extensive rebuilding in the late 1370's. Although outside the area of excavation the presence of the manor house bears direct relevance on the rest of the site from this period onwards.

Robber Cuts

- 7.9.15 The Tomb structure was robbed out at this time. Pottery was also recovered from the robber cuts of the walls of the tomb dating to between AD1100 and 1250.

Ridge and Furrow

- 7.9.16 There was limited survival of medieval farming in the form of ridge and furrow to the north of the site.



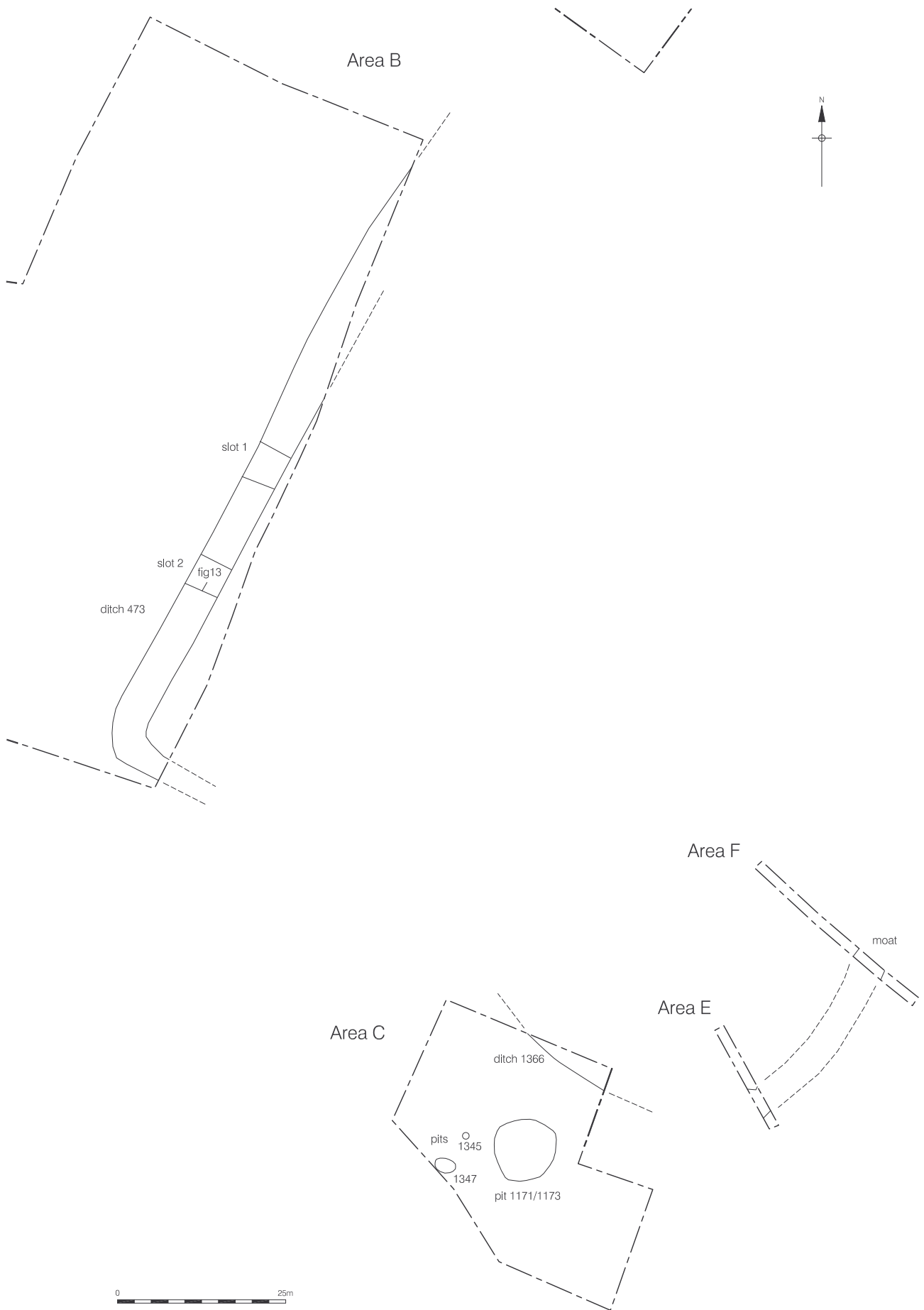


Figure 16
 Phase 9 Features - Areas B, C, E and F
 scale 1:800

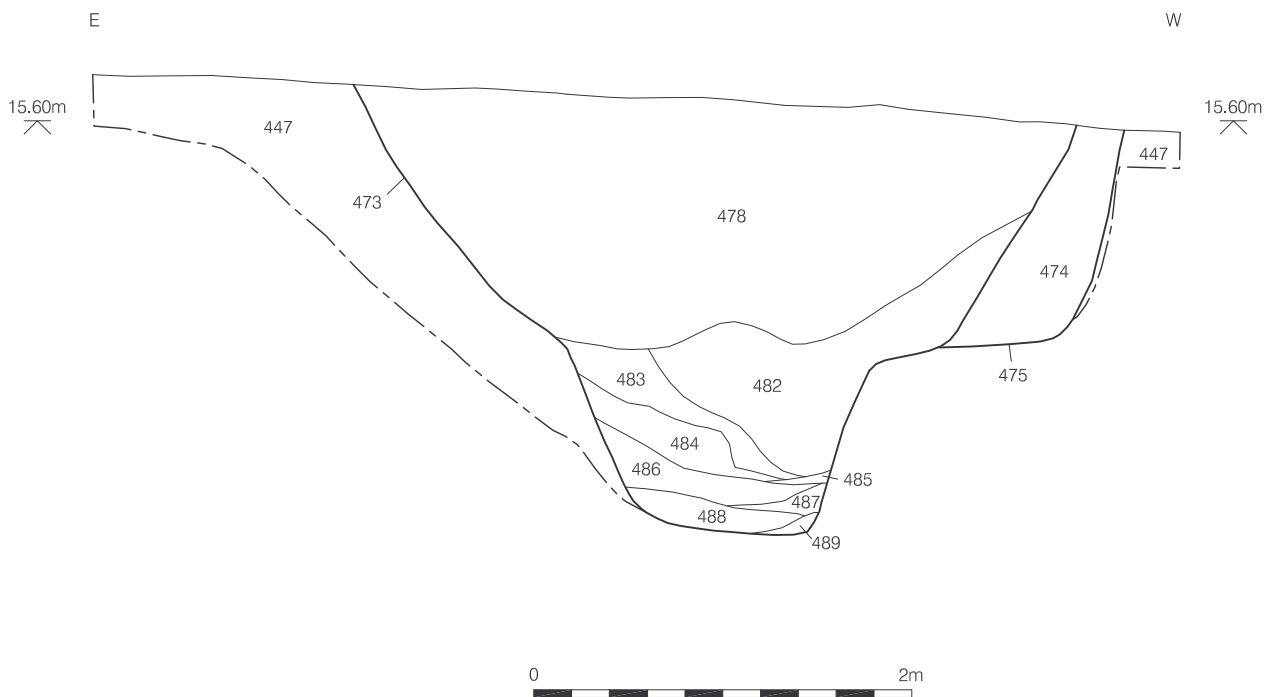


Figure 17
 Section 33 - Medieval ditch/moat [473]
 scale 1:40

7.10 Phase 10-Post-Medieval (Figs. 18-20)

Structure [653]

- 7.10.1 In the southwest corner of Area A, the remains of a small, sub-square structure were located. It measured 2.97m north-south by 3.35m east-west and had a thickness of 0.3m, with an entrance to the north of the western wall. The walls were primarily constructed from roughly hewn flint nodules and re-used Roman building material, however bricks dating to the 18th-19th centuries were also present.

Robber Cut [642]

- 7.10.2 Robber cut [642] was located along the line of the southern wall of structure [653], totally truncating it. No finds were recovered from the fill.

Pits

- 7.10.3 Ten pits, dating to this phase were revealed, eight in Area A, one each in Areas B and D.
- 7.10.4 Pits [640] and [651] truncated structure [653] and were filled with general rubbish and fragments of pottery, glass and clay tobacco pipe. Pit [640] did however also contain SF 894, an iron hook, possibly originally a fitting from structure [653].
- 7.10.5 Pit [458] lay just to the north of structure [653]. It was rectangular in plan, on an east-west alignment, with vertical sides and a flat base. It measured 2.30m in length with a width of 0.80m and had a depth of 0.50m. The fill, [457], contained iron nails, fragments of cbm and pottery dating to between AD1460 and 1800. The shape and orientation of pit [458] raises the possibility that it was a robbed out grave.
- 7.10.6 Pits [604], [686], [688], [1113] and [1270] were all rubbish pits sited in Area A. Their fills contained fragments of pottery, glass and cbm.
- 7.10.7 Pit [481] was located to the east of Area B, truncating the moat. It was sub-oval in plan, measuring 1.45m east-west and 0.99m north-south with a depth of 0.48m. Its fill [480] contained disarticulated cow bones.
- 7.10.8 Pit [1220] was situated against the northern limit of excavation of Area D. It was a large sub-oval feature, measuring 5.65m across from east to west and had a depth of 1.00m. The sides fell at a moderate angle to a slightly concaved base and the fill contained no finds. It has been tentatively interpreted as a quarry pit as it cut straight into the natural brickearth.

Drains and Ditches

- 7.10.9 Two French Drains were recorded in Area A, [455] and [832]. Drain [455] entered onto the site from beneath the eastern limit of excavation and ran northeastwards for a distance of 63m before being truncated by a bomb crater. Drain [832] ran on a southeast-northwest alignment across the north of the area for a distance of 45m. They were both filled with roughly hewn flint nodules and contained pottery dating to AD1550-1700.
- 7.10.10 Ditch [304] was also sited in Area A. It extended south-westwards onto the site from the northern limit of excavation for a distance of 29.05m. Pottery was recovered from its fill dated to between AD1775 and 1830. The boundary that the ditch defined was still in use at the time of the excavation, depicted by a hedge line, bounding Victorian cottages to the north of the site.

7.10.11 Four post-medieval ditches were excavated in Area C, [1362], [1371], [1374] and [1376]. Ditch [1362] extended from the northern limit of excavation on a southerly alignment and was truncated by ditches [1371] and [1374]. Ditches [1371], [1374] and [1376] all had east-west alignments, with [1374] probably being a re-cut of [1376]. Ditches [1374] and [1376] ran parallel at a distance of c. 4m and are possibly evidence of a track-way to the south of the manorial complex. The fills of the ditches contained pottery dating to between AD1825 and 1900.

Postholes and Stakeholes

7.10.12 Stakeholes [245], [247], [249] and [251] were all sited in the centre of Area A. The fact that they were irregular in shape, with organic fills and formed no discernable structure leads to the conjecture that they were in fact rotted out horseradish roots, (the crop being farmed on the site prior to the excavation).

7.10.13 Postholes [324], [329], [331], [357] and [359] were in a small group to the northeast of Area A. They were all circular in plan, with diameters between 0.27m and 0.44m and were possibly arranged on a northwest-southeast alignment. Their fills contained small, subangular flints, flecks of charcoal and fragments of mortar. Posthole [331] did contain pottery dating to between AD1775 and 1900.

7.10.14 Postholes [333], [335], [350], [367], [369], [407] and stakehole [424] were arranged on a northwest-southeast alignment in the northeast of Area A. They ran to the south of and parallel with postholes [337], [353], [355], [361], [365], [368] and stakehole [426] and are probably evidence of a fenced trackway across the north of the site.

7.10.15 Stakeholes [382], [393], [395], [397] and [399] were clustered together in a group to the northeast of Area A. As they contained organic fills and formed no cohesive shape in plan it is most probable that they were the rotted out roots of horseradish. The same is probably also true of stakehole [422], sited by itself, not far to the south of these.

7.10.16 Postholes [664] and [1334] were dispersed down the eastern side of Area A. With no dating evidence retrieved from their fills or associated features in the immediate area they have both been tentatively dated to the post-medieval period.

7.10.17 Posthole [579], [581] and [590] were located to the very north of Area A. With no dating evidence retrieved from their fills or associated features in the immediate area they have both been tentatively dated to the post-medieval period.

7.10.18 Postholes [1116] and [1118] were sited along the eastern side of Area D. With no dating evidence retrieved from their fills or associated features in the immediate area they have both been tentatively dated to the post-medieval period.

Tree Planters [442], [444], [446] & [1083].

7.10.19 Area B contained 39 sub-circular features measuring c.1.53m in diameter. They were set out in a regular grid at 8m intervals. Four of the features, [442], [444], [446] & [1083], were excavated to provide a representative sample. All the features were very similar to each other with steep sides, a depth of c.0.20m and uneven, irregular bases. The features have been interpreted as tree planters, and represent a planned orchard. Planters [440] and [1083] both produced medieval horse pendants, SF 243 and 271.

Discussion of Phase 10

The Tree Planters

7.10.20 The tree planters indicate the presence of an orchard in Area B. The finds retrieved from

the excavated features were medieval, however these are likely to be residual as it known that orchards covered the site in the 19th century.



Figure 18
Phase 10 Features - Area A
scale 1:800

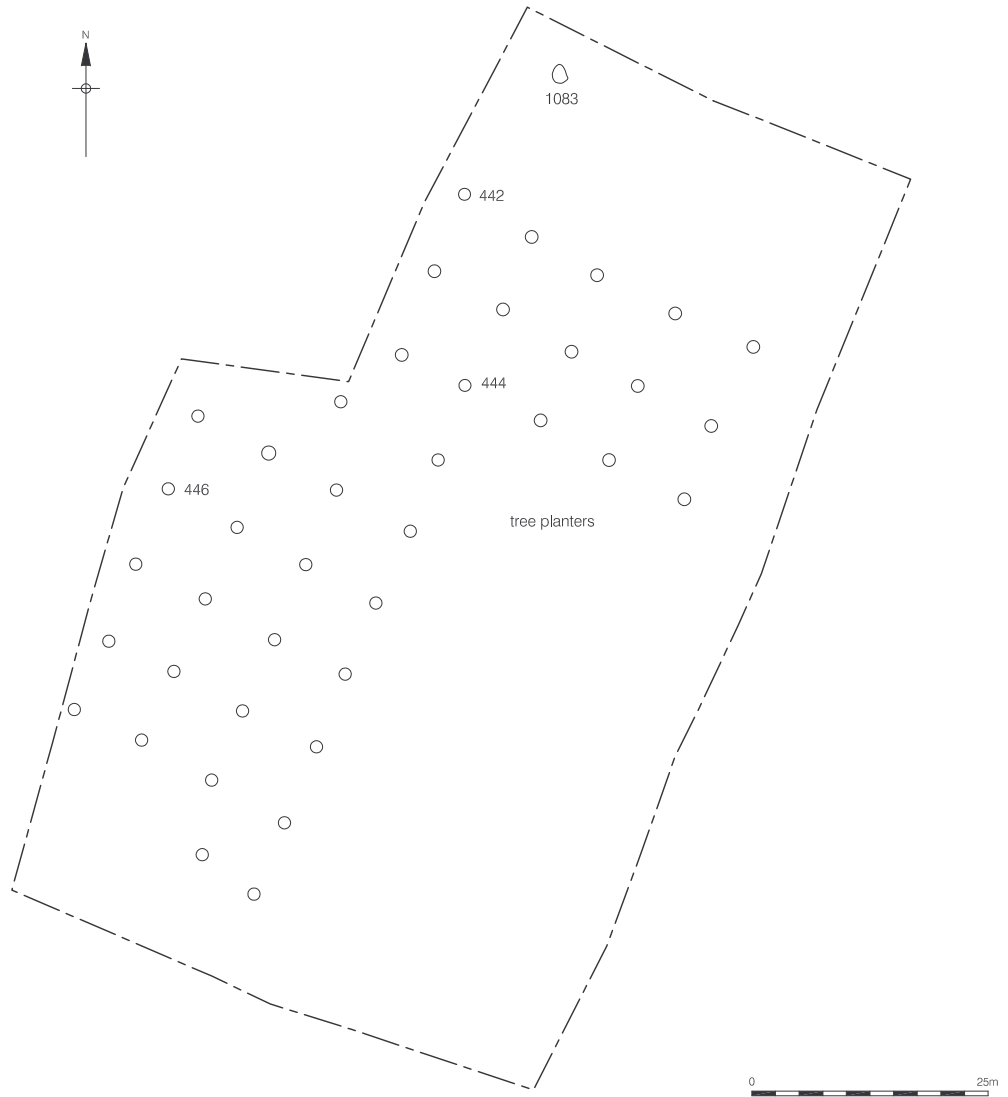


Figure 19
Phase 10 Features - Area B
scale 1:800

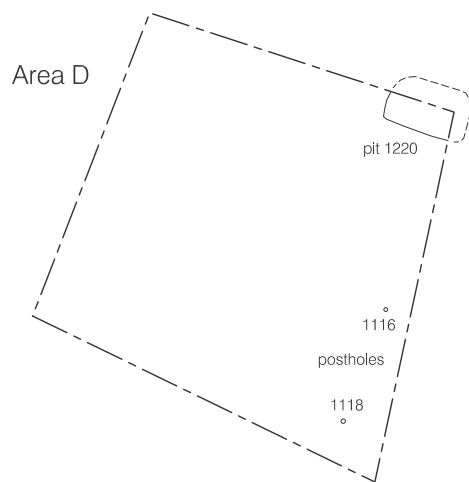
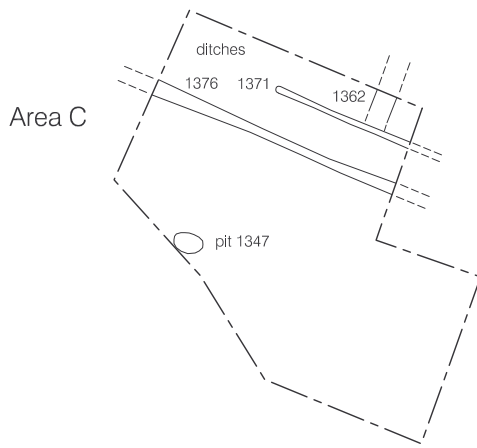


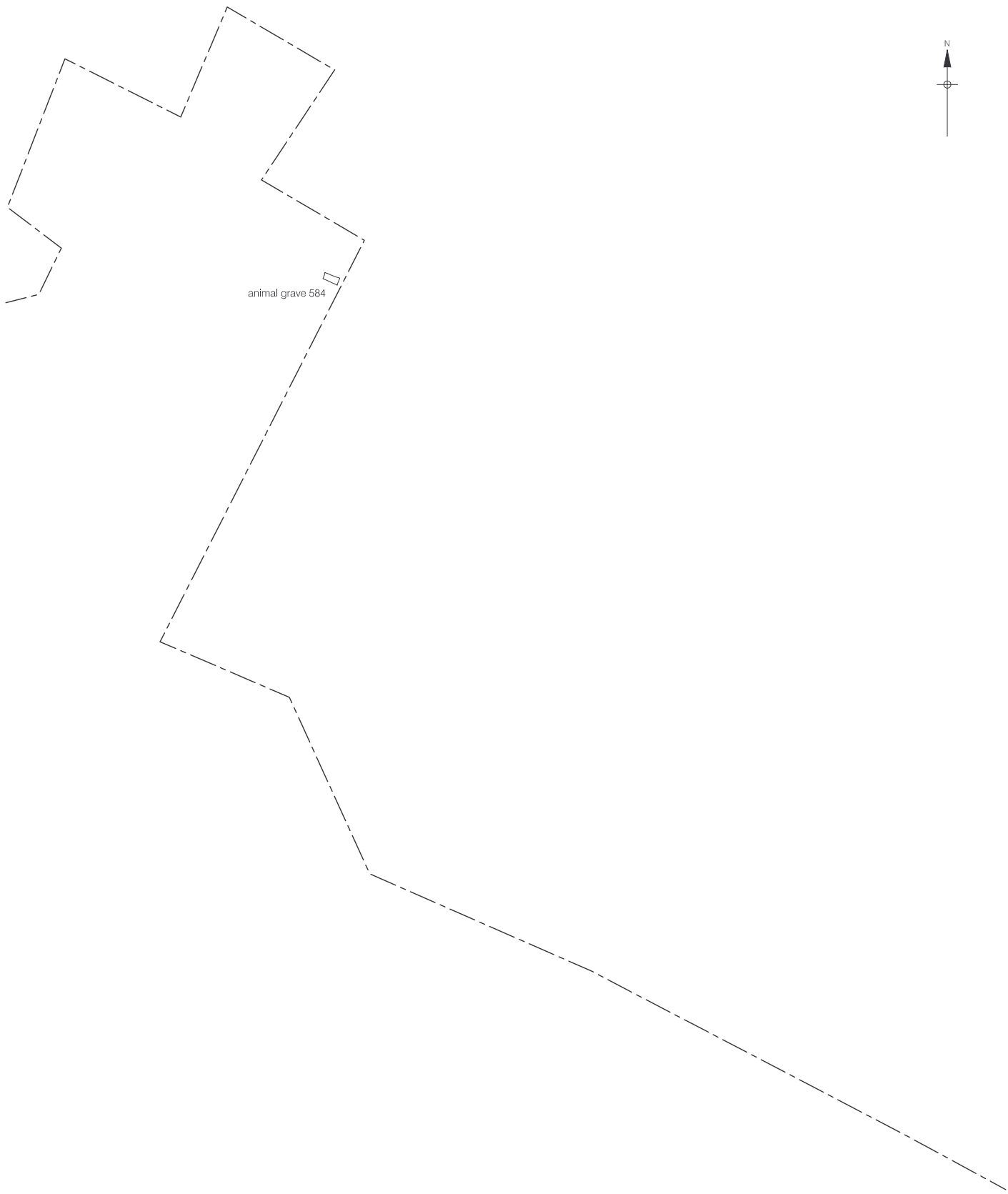
Figure 20
Phase 10 Features - Areas C and D
scale 1:800

7.11 Phase 11- Modern (Fig. 21)

- 7.11.1 Sited in the north of Area A was a modern animal grave, [584], containing the articulated remains of a pig.
- 7.11.2 To the east of Area A was plough mark [414].
- 7.11.3 The whole site was sealed by topsoil [200], [225], [1214] and [1348].

Discussion of Phase 11

- 7.11.4 During the 20th century, the site was given over to agriculture. Evidence for this was seen in the heavy plough damage that had occurred to the archaeological features as well as the horseradish root, which was still growing well in Area A at the time of the investigation.
- 7.11.5 One point of interest associated with this phase is the large bomb crater in Area A and the unusually large amount of WWII ordnance recovered from Areas B and C. It was suggested by Babtec, the ordnance removal company that as the site is situated near the important Medway dockyards there could well have been decoy drop sites either on or near the site confusing the German bombers into dropping their payload over the study site instead of the docks.



animal grave 584



plough mark 414

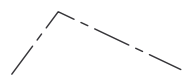


Figure 21
Phase 11 Features
scale 1:500

8 RESEARCH QUESTIONS

ORIGINAL RESEARCH QUESTIONS

The excavation's aims and objectives, as defined in the excavation method statement¹⁵, were as follows

8.1 What is the nature of archaeological features on the site and what can these tell us about previous land use, specifically during the Late Iron Age and Roman periods.

8.1.1 The archaeological features consisted of isolated pits possibly from the Neolithic, Bronze Age and Middle Iron Age periods with field boundaries in the Late Iron Age period. During the Roman period similar ditched enclosures were revealed which were superseded by masonry walls. A road crossed the site between the enclosures with evidence of ancillary buildings, such as an aisled barn and a tomb structure, both of which may have been associated with a villa that was not identified on the site. Later evidence of metal working was revealed in the area of the barn. During the medieval and post-medieval periods agricultural features were observed on the site.

8.2 Do the structural features (e.g. postholes) represent settlement activity, and what is the nature of that settlement?

8.2.1 The majority of the structural features on the site were of Roman date and probably represent ancillary buildings associated with a main villa complex. These buildings most likely consisted of barns, workshops and other farm buildings clustered around a road. A tomb structure containing a body lying within a lead coffin was also most likely associated with the postulated villa.

8.3 Do the linear features represent agricultural field systems? And how do these relate to settlement?

8.3.1 The Iron Age linear features represented agricultural field systems. In the Roman period further field ditches were revealed. However, the ditches to the northwest of the site delineated very regular rectangular enclosures which were apparently superseded by masonry walls. These may have been marked field boundaries, however it is more likely that they may have enclosed areas of special significance such as the tomb or even have formed subdivisions of a formal garden or landscaped area associated with a villa. In the medieval and post-medieval periods once again the ditches represent agricultural features.

8.4 What activities were conducted on the site?

8.4.1 In the Late Iron Age the site was being utilized for farming practices. This continued around the peripheries of the site in the Roman period, with the central areas initially being used for the storage of grain. Towards the end of the Roman period, horn-working and metal-working developed on the site, and there also appears to have been small scale quarrying of the brickearth. In the medieval and post-medieval periods there were farming and latterly orchards.

8.5 How do the results of these excavations relate to other known archaeological activity in the immediate area and the region generally?

8.5.1 There has been limited archaeological investigations in the immediate area of

¹⁵ Moore, P., 2005

Gillingham and the excavation represents a significant contribution to the present archaeological knowledge of the area, especially in regard to pottery trade in the Roman and medieval periods. It is probable that the activity on site is associated with a previously undiscovered villa site. There are a number of Roman villa sites along the North Kent coast and along the river valleys such as the Darent. The results of the present excavation will help to determine Roman landuse along the coast and river valleys.

REVISED RESEARCH QUESTIONS

Questions arising out of the excavation are as follows which will be addressed during the analysis and publication phase of post-excavation process.

- 8.6 What is the nature of the prehistoric activity on the site which predates the Late Iron Age?**
- 8.7 What purpose does the Roman road/hollow way serve?**
- 8.8 What are the function of the rectangular enclosures formed by the Roman ditches?**
- 8.9 What are the function of the masonry walls on the site?**
- 8.10 Where is the main focus of Roman activity in the vicinity of the site? Does it lie beneath the medieval moated site of Grench Manor or is it located elsewhere in the immediate area?**
- 8.11 Is the Roman activity associated with a villa complex or some other settlement?**
- 8.12 How does the site, if proved to be part of a villa complex, fit into the pattern of Roman land management in this part of north Kent?**
- 8.13 Can further analysis of the pottery and small finds help to determine the nature and the status of the Roman occupation on the site, including the trade links and patterns?**
- 8.14 Can further analysis of the environmental samples and animal bone help to determine the nature of the agrarian activities and diet of the inhabitants occurring on site, especially during the Roman period?**
- 8.15 What is the status and significance of the Roman tomb and the lead coffin? How can it be compared to other masonry tombs and lead coffins in Roman Britain?**
- 8.16 What is the nature of the metalworking taking place on the site? The litharge would suggest that silver was being extracted from base metals. What was the source of the base metal and what was the silver being used for?**
- 8.17 When did the Roman road/hollow way go out of use and what does the dark earth deposits filling the road represent?**
- 8.18 Late Roman activity is recorded on the site from the late 4th century possibly into the early 5th century. Is it possible to determine when Roman activity ceased on the site and what was the nature of the abandonment?**
- 8.19 Does the Saxon brooch represent just a stray find or is it part of a possible disturbed burial or evidence of other Saxon settlement on the site?**

- 8.20 What features on site can be associated with the medieval Grench Manor?**
- 8.21 The excavations recovered a large assemblage of significant medieval and post-medieval small finds from topsoil deposits. What can this assemblage inform us regarding disposals of such items in a largely agricultural landscape? Are any of the items associated with high status inhabitants from Grench Manor?**

9 IMPORTANCE OF THE RESULTS AND PUBLICATION PROPOSAL

9.1 IMPORTANCE OF THE RESULTS

- 9.1.1 The site has provided evidence of activity from the prehistoric to the post-medieval. Tentative evidence of Neolithic, Bronze Age and Middle Iron Age features were found which together with the largely residual lithic assemblage of from Mesolithic to Late Bronze Age/Iron Age date contribute to existing knowledge of prehistoric settlement in North Kent. Late Iron Age activity was present in the form of agricultural field systems.
- 9.1.2 The main importance of the site was the presence of significant Roman remains of all periods but perhaps most interestingly continuing on into the early 5th century AD. During the second half of the first century AD rectangular enclosures/field boundaries together with post structure were revealed. Over time the occupation of the site developed clustered on either side of a north-south aligned road/hollow way. The structures including a possible aisled barn and evidence of industrial activity in the form of a series of hearths and evidence of metalworking may have suggested that the activity was associated with and part of a villa, the main buildings of which located just outside the site boundaries. The ditches which were later formalised as masonry walls may have formed either agricultural rectangular enclosures or have been associated with formal gardens or landscaping surrounding the villa buildings. The presence of the tomb and the apparently high status burial within a lead coffin may even suggest a ceremonial dimension to the landscape.
- 9.1.3 Perhaps the most significant aspect of the site is the activities which are being carried out on the apparent villa site. Together with the evidence of agricultural activity which might have been expected, the metalworking and especially the evidence of silver extraction from base metals as witnessed by the presence of litharge is of major regional and even national importance and is part of a growing realisation that many of the villas were playing a crucial role in the industry and trade of Roman Britain.
- 9.1.4 The apparent demolition of the masonry walls and filling in of the hollow way/road would perhaps suggest an almost ordered closing of the site at the end of the Roman period and not a rapid abandonment.
- 9.1.5 The Saxon brooch although recovered residually is a major find and together with the limited Early Saxon features would suggest that the site was utilised in some way during that period after the Romans.
- 9.1.6 Medieval and post-medieval activity was largely represented by agricultural activity and the ditch forming the moat of Grench Manor. However, an interesting and important assemblage of small finds was recovered from the topsoil, many of which suggested high status presumably associated with the moated manor house.
- 9.1.7 Little previous archaeological work has been recorded from the immediate Gillingham area, so the site as a whole provides a useful contribution to our archaeological knowledge of this area. The pottery assemblages of both Roman and post-Roman date will provide a useful contribution to pottery trade patterns in this part of North Kent.

9.2 PUBLICATION PROPOSAL

- 9.2.1 It is proposed that the site should be published either as a medium to long article in the Kent regional journal, *Cantiana Archaeologia*, or as part of one of PCA's proposed forthcoming Kent Papers which will aim to publish a series of sites from across Kent.
- 9.2.2 The format the publication will follow is that of a typical publication report:

- Abstract
- Introduction
- Geological and topographical background
- Archaeological background
- Archaeological evidence, by phase
- Relevant specialists reports to include Roman pottery, post-Roman pottery, small finds, animal bone, environmental analysis, slag and metalworking.
- Discussion

The illustrations will include

- Location plans
- Phase plans
- Plans of features and groups of features
- Sections
- Photographs
- Finds illustrations

10 CONTENTS OF THE ARCHIVE

10.1 The contents of the archive are:

The paper archive:

	Evaluation		Excavation	
	Drawings	Sheets	Drawings	Sheets
Context Sheets	*	129	*	1202
Other Notes	*	*	*	*
Plans 1:20	17	85		
Plans 1:10	*	*		
Plans 1:50	37	51		
Sections 1:10	63	73	151	177
Sections 1:20	*	*	5	9

The photographic archive:

Black and White print film - 35mm	540 frames
Colour Slide film -35mm	540 frames
Black and White -medium format	15 frames
Colour -medium format	15 frames

The finds archive:

Material	Boxes
Pottery	69
Lithics	4
Animal Bone	c.94
Human Bone	2
Glass	less than 1
Building Material	c.150
Worked Stone	6
Clay Tobacco Pipe	less than 1
Daub	less than 1
Slag	c.2
Coal	less than 1
Shell	less than 1
Small Finds:	1326 objects
Iron	10
Copper	c.6
Bronze	1
Silver	c.1
Gold	1
Lead	4
Pewter	less than 1
Worked Antler	less than 1
Jet	less than 1

The environmental archive:

Bulk Samples	281
Column Samples	8

11 ACKNOWLEDGEMENTS

- 11.1 Pre-Construct Archaeology Limited would like to thank Duncan Hawkins of CgMs Consulting Ltd for commissioning the work on behalf of Taylor Woodrow and Persimmon Homes who funded the archaeological investigations. Thanks also to Simon Mason and David Britchfield, Kent County Council's Officers.
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APPENDIX 1: CONTEXT INDEX

Context number	Plan number	Section number	Sample number	Photo	Phase number	Type	Area	Fill of	Filled by	Co-ords
200	*	*	*	N	11	Topsoil	A	*	*	*
201	201	*	*	*	7	Layer	A	*	*	
202	*	*	*	*	1	Natural	A	*	*	*
203	*	*	*	*	*	Void	A	*	*	*
204	204	*	*	N	10	Layer	A	*	*	80/245 80/50 85/245 85/50
205	*	*	100	N	6	Layer	A	*	*	80/245 85/245
206	206	*	*	Y	6	Grave Cut	A	*	206 211 220 221 319	80/245 85/245
207	*	*	101	Y	9	Fill	A	208	320 327	80/245 80/250
208	208	*	*	Y	9	Pit Cut	A	*	207	80/245 80/250
209	*	*	102	N	7	Fill	A	210	*	75/240 75/245
210	210	*	*	N	7	Pit Cut	A	*	209	75/240 75/245
211	*	*	*	N	6	Layer	A	*	*	80/245 85/245
212	213	6	105	N	6	Fill	A	213	*	175/260
213	213	6	*	Y	6	Ditch Cut	A	*	212 243 283	175/260
214	*	*	*	N	7	Fill	A	215	*	75/245
215	215	*	*	N	7	Pit Cut	A	*	215	75/245
216	*	*	*	N	7	Fill	A	217	*	75/245
217	217	*	*	N	7	Pit Cut	A	*	216	75/245
218	*	*	*		5	Fill	A	219	*	
219	219				5	Ditch Cut	A	*	218	
220	*	*	126	Y	6	Fill	A	206	*	80/245 85/245
221	221	*	*	Y	6	Coffin	A	206	237 242 320	80/245 85/245
222	*	1	119 (column)	N	4	Fill	A	223	*	70/235 75/235 80/235 85/235 90/235 80/240 85/240 90/240
223	223	15 16	*	N	4	Ditch Cut	A	*	222 224 254 255 1213 1353	70/235 75/235 80/235 85/235 90/235 80/240

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								85/240 90/240					
								70/235 75/235 80/235					
								85/235 90/235 80/240					
								85/240 90/240					
								*					
								80/240 85/240 80/245					
								85/245 80/250 85/250					
224	*	1	103 & 119 (column)	N	4	Fill	A	223	*				
225	225		*	N	11	Topsoil	B	*	*				
226	226	*	*	Y	6	Construction Cut	A	*	230 311 312 313 314				
227	*	*	*	N	9	Fill	A	229	*				
228	*	*	*	N	9	Fill	A	229	*				
229	229	*	*	Y	9	Robber Cut	A	*	227 228 236 238				
230	230	*	*	Y	5	Masonry	A	226	*				
231	231	*	?	Y	5	Inhumation	A	206	*				
232	*	*	*	N	9	Fill	A	233	*				
233	233	*	*	N	9	Pit Cut	A	*	232				
234	*	*	*	N	9	Fill	A	235	*				
235	235	*	*	N	9	Robber Cut	A	*	234				
236	*	*	*	N	9	Fill	A	229	*				
237	237	*	?	Y	5	Fill	A	221	*				
238	*	*	*	N	9	Fill	A	229	*				
239	*	*	*	N	9	Fill	A	229	*				
240	*	*	125	Y	6	Fill	A	241	*				
241	241	*	*	Y	6	Construction Cut	A	*	240				
242	?	?	?	?	6	Fill	A	221	*				
243	*	6	106	Y	6	Fill	A	213	*				
244	*	*	*	N	10	Fill	A	245	*				
245	247	*	*	N	10	Posthole Cut	A	*	244				
246	*	*	*	N	10	Fill	A	247	*				
247	247	*	*	N	10	Posthole Cut	A	*	246				
248	*	*	*	N	10	Fill	A	249	*				
249	247	*	*	N	10	Posthole Cut	A	*	248				
250	*	*	*	N	10	Fill	A	251	*				
251	247	*	*	N	10	Posthole Cut	A	*	250				

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252	*	*	*	N	6	Post Pad	A	253	*	90/245
253	253	*	*	N	6	Post Pad Cut	A	*	252	90/245
254	*	2	104	Y	4	Fill	A	223	*	80/235 80/240
255	*	2	289	Y	4	Fill	A	223	*	80/235 80/240
256	*	7	115	N	5	Fill	A	257	*	180/275
257	257	7 13 14 23	*	Y	5	Ditch Cut	A	*	256 262 316 345 338	180/245
258	258	3	107 118 (column)	Y	5	Layer	A	*	*	145/205 150/205
259	259	3 37 40	118 (column) 108 118 (column)	Y	5	Ditch Cut	A	*	260 267 272 274 501 502 503 511 513 512 514	140/195 145/195 140/200 145/200 145/205 150/205 150/210 155/210 155/215
260	*	3	(column)	Y	5	Fill	A	259	*	145/205 150/205 80/240 85/240 80/245
261	261	*	*	Y	6	Tomb Structure	A	*	*	85/245 80/250 85/250
262	*	7	114	Y	5	Fill	A	257	*	180/275
263	264	9	*	Y	6	Fill	A	264	*	110/275 110/280
264	264	5 8 9 10 12	*	Y	6	Ditch Cut	A	*	263 271 277 278 279 301	95/275 95/280
265	*	*	*	N	9	Fill	A	266	*	80/240 85/240 80/245
266	266	*	*	N	9	Robber Cut	A	*	265	80/240 85/240 80/245
267	*	3	118 (column)121	Y	5	Fill	A	259	*	145/205 150/205
268	*	5	*	N	7	Fill	A	269	*	175/270
269	269	5	*	N	7	Posthole Cut	A	*	268	175/270
270	*	5	110	N	6	Fill	A	213	*	175/270
271	*	9	109	Y	6	Fill	A	264	*	110/275 110/280
272	*	3	118 (column) 122	Y	5	Fill	A	259	*	145/205 150/205
273	282	4 8 20 23	113	Y	6	Fill	A	282	*	170/270
274	*	3	118 (column) 123	Y	5	Fill	A	259	*	145/205 150/205
275	*	*	111	N	4	Fill	A	276	*	85/240

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276	276	*	*	Y	4	Pit Cut	A	*	275	85/240
277	264	10	*	Y	6	Fill	A	264	*	120/275 120/280
278	*	10	*	Y	6	Fill	A	264	*	120/275 120/280
279	264	8	*	Y	6	Fill	A	264	*	95/275 100/275
280	282	4 20 23	141	Y	6	Fill	A	282	*	170/270
281	*	4 20 23	142	Y	6	Fill	A	282	*	170/270
282	282	4 20 23	*	Y	6	Ditch Cut	A	*	280 281	170/270 170/275
283	*	5	112	N	6	Fill	A	213	*	175/270
284	*	*	116	N	7	Fill	A	285	*	175/270
285	285	*	*	N	7	Posthole Cut	A	*	284	175/270
286	*	15	*	N	4	Fill	A	287	*	85/235 90/235 95/235
287	287	15	*	N	4	Ditch Cut	A	*	286	85/235 90/235 95/235
288	289	12	*	Y	6	Fill	A	289	*	115/275 120/275 125/275
289	289	12	*	Y	6	Ditch Cut	A	*	288	130/275
290	*	*				Fill	TR55	291	*	
291	291	*				Animal Grave	TR55	*	290 292	
292	*	*				Animal Skeleton	TR55	291	*	
293	*	11	*	Y	4	Fill	A	294	*	75/230
294	856	11 87	*	Y	4	Ditch Cut	A	*	293 296	75/230
295	*	11	*	Y	4	Fill	A	294	*	75/230
296	*	16 150	*	Y	4	Fill	A	223	*	85/235 90/235 85/240
297	*	15 16	*	Y	4	Fill	A	223	*	90/240
298	*	15	117	Y	4	Fill	A	299	*	90/240
299	299	15	*	Y	4	Ditch Cut	A	*	298	90/240
300	264	12	*	Y	6	Fill	A	264	*	95/275 95/280
301	*	12	*	Y	6	Fill	A	264	*	95/275 95/280
302	289	12	*	Y	6	Fill	A	289	*	115/275 120/275 125/275
303	304	12	*	Y	10	Fill	A	304	*	130/275
										125/265 125/270 125/275

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329	324	*	*	N	10	Posthole Cut	A	*	328	105/275
330	*	*	*	N	10	Fill	A	331	*	105/270 105/275
331	331	*	*	N	10	Posthole Cut	A	*	330	105/270 105/275
332	*	*	*	N	10	Fill	A	333	*	110/280
333	333	*	*	N	10	Posthole Cut	A	*	332	110/280
334	*	*	*	N	10	Fill	A	335	*	110/285
335	335	*	*	N	10	Posthole Cut	A	*	334	110/285
336	*	*	*	N	10	Fill	A	337	*	125/285
337	337	*	*	N	10	Posthole Cut	A	*	336	125/285
338	*	13	*	Y	5	Fill	A	257	*	175/275
339	*	*	*	*	*	VOID	*	*	*	*
340	*	*	*	*	*	VOID	*	*	*	*
341	341	*	*	Y	6	Masonry	A	*	*	180/275 175/280 180/280 165/275 170/275 175/275 180/275 165/280 170/280
342	*	18 21	137	Y	5	Fill	A	344	*	175/280 180/280
343	*	16	*	Y	4	Fill	A	223	*	90/240 165/275 170/275 175/275 180/275 165/280 170/280
344	344	14 18 21 25	*	Y	5	Pit Cut	A	*	309 310 342	175/280 180/280
345	*	14 23	*	Y	5	Fill	A	257	*	175/275
346	304	*	*	N	10	Fill	A	304	*	125/255
347	*	*	*	*	*	VOID	*	*	*	*
348	*	*	*	*	*	VOID	*	*	*	*
349	*	*	*	N	5	Fill	A	350	*	120/280
350	350	*	*	N	5	Posthole Cut	A	*	349	120/280
351	*	*	*	N	10	Fill	A	353	*	120/285
352	*	*	*	N	10	Fill	A	353	*	120/285
353	353	*	*	N	10	Posthole Cut	A	*	351 352	120/285
354	*	*	*	N	10	Fill	A	355	*	120/285
355	355	*	*	N	10	Posthole Cut	A	*	354	120/285
356	*	*	*	N	4	Fill	A	357	*	110/275

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357	357	*	*	N	4	Posthole Cut	A	*	356	110/275
358	*	*	*	N	4	Fill	A	359	*	110/275
359	357	*	*	N	4	Posthole Cut	A	*	358	110/275
360	*	*	*	N	4	Fill	A	361	*	120/285
361	361	*	*	N	4	Posthole Cut	A	*	260	120/285
362	*	*	*	N	5	Fill	A	363	*	130/270
363	363	*	*	N	5	Pit Cut	A	*	362	130/270
364	*	*	*	N	10	Fill	A	365	*	130/280
365	365	*	*	N	10	Posthole Cut	A	*	364	130/280
366	*	*	*	N	10	Fill	A	367	*	130/280
367	367	*	*	N	10	Posthole Cut	A	*	366	130/280
368	*	*	*	N	10	Fill	A	369	*	135/275
369	369	*	*	N	10	Posthole Cut	A	*	368	135/275
370	*	*	129	N	7	Fill	A	371	*	145/275
371	371	*	*	N	7	Pit Cut	A	*	370 372	145/275
372	*	*	*	N	7	Fill	A	371	*	145/275
373	*	*	*	N	10	Fill	A	374	*	120/285
374	374	*	*	N	10	Posthole Cut	A	*	373	120/285
375	*	*	*	N	10	Fill	A	376	*	125/285
376	376	*	*	N	10	Posthole Cut	A	*	375	125/285
377	*	*	*	N	10	Fill	A	378	*	125/285
378	378	*	*	N	10	Posthole Cut	A	*	377	125/285
379	*	*	131	N	2	Fill	A	380	*	140/285
380	380	*	*	N	2	Gully Cut	A	*	379	140/285
381	*	*	*	N	10	Fill	A	382	*	145/285
382	382	*	*	N	10	Stakehole	A	*	381	145/285
383	*	*	132	N	7	Fill	A	384	*	145/270 145/275
384	384	*	*	N	7	Pit Cut	A	*	383 387	145/270 145/275
385	*	*	*	N	4	Fill	A	386	*	140/285
386	386	*	*	N	4	Tree Threw	A	*	385	140/285
387	*	*	133	N	7	Fill	A	384	*	145/270 145/275
388	*	*	134	N	2	Fill	A	389	*	140/280

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389	389	*	*	N	2	Posthole Cut	A	*	388	140/280
390	*	*	*	N	10	Fill	A	391	*	140/285
391	391	*	*	N	10	Stakehole	A	*	390	140/285
392	*	*	*	N	10	Fill	A	393	*	140/285
393	393	*	*	N	10	Stakehole	A	*	392	140/285
394	*	*	*	N	10	Fill	A	395	*	140/285
395	395	*	*	N	10	Stakehole	A	*	394	140/285
396	*	*	*	N	10	Fill	A	397	*	145/285
397	397	*	*	N	10	Stakehole	A	*	396	145/285
398	*	*	*	N	10	Fill	A	399	*	145/285
399	399	*	*	N	10	Stakehole	A	*	398	145/285
400	*	*	*	*	*	Void	A	*	*	*
401	*	*	*	*	*	Void	A	*	*	*
402	*	*	*	N	7	Fill	A	403	*	145/270 145/275
403	403	*	*	Y	7	Pit Cut	A	*	402	145/270 145/275
404	*	*	*	N	6	Fill	A	405	*	135/280
405	405	*	*	Y	6	Gully Cut	A	*	404	135/280
406	*	*	*	N	9	Fill	A	407	*	145/275
407	407	*	*	Y	9	Posthole Cut	A	*	406	145/275
408	*	19	*	Y	6	Fill	A	409	*	145/275
409	409	19	*	Y	6	Ditch Cut	A	*	408	145/275
410	*	*	138	N	7	Fill	A	411	*	145/270 145/275
411	411	*	*	Y	7	Pit Cut	A	*	410 412	145/270 145/275
412	*	*	*	N	7	Fill	A	411	*	145/270 145/275
413	*	22	*	N	11	Fill	A	414	*	165/265
414	414	22	*	N	11	Plough mark	A	*	413	165/265
415	*	*	139	N	3	Fill	A	416	*	165/265
416	416	*	*	Y	3	Pit Cut	A	*	415	165/265
			140							
417	*	22	154(column)	N	4	Fill	A	418	*	170/260
418	418	22	*	Y	4	Pit Cut	A	*	417	170/260
419	*	*	*	N	7	Fill	A	420	*	145/270 145/275

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420	420	*	*	Y	7	Pit Cut	A	*	419	145/270 145/275
421	*	*	*	N	10	Fill	A	422	*	145/270
422	422	*	*	N	10	Stakehole	A	*	421	145/270
423	*	*	*	N	10	Fill	A	424	*	135/275
424	424	*	*	N	10	Stakehole	A	*	423	135/275
425	*	*	*	N	10	Fill	A	426	*	135/280
426	426	*	*	N	10	Stakehole	A	*	425	135/280
427	*	*	*	N	2	Fill	A	428	*	135/280 140/280
428	428	*	*	N	2	Pit Cut	A	*	427	135/280 140/280
429	*	*	*	*	*	Void	*	*	*	*
430	*	*	*	*	*	Void	*	*	*	*
			145							
431	*	29	152(column)	Y	4	Fill	A	432	*	165/260
432	432	29	*	Y	4	Pit Cut	A	*	431 433 434 448	165/260
			146 149 151							
433	*	29	152(column)	Y	4	Fill	A	432	*	165/260
			147							
434	*	29	152(column)	Y	4	Fill	A	432	*	165/260
435	436	24	148	Y	5	Fill	A	436	*	165/280
										165/280 170/280 165/285
436	436	24	*	Y	5	Ditch Cut	A	*	435	170/285
437	437	24 25	*	Y	6	Layer	A	*	*	165/285
438	*	*	*	*	*	Void	*	*	*	*
439	439	*	*	*	*	Void	*	*	*	*
440	*	26			10	Fill	B	422	*	
441	*	26			10	Fill	B	422	*	
442	442	26			10	Tree Planter	B	*	440 441	
443	*	27			10	Fill	B	444	*	
444	444	27			10	Tree Planter	B	*	443	
445	*	28			10	Fill	B	446	*	
446	446	28			10	Tree Planter	B	*	445	
447	*	*	*	*	1	Natural	B	*	*	
448	*	29	150	Y	4	Fill	A	434	*	165/260

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		152(column)			157					
449	449				7	Layer	A			
450	*	*	*	*	*	Void	A	*	*	*
451	*	*	*	*	*	Void	A	*	*	*
452	517	42	164	Y	6	Fill	A	517	*	160/250
453	*	*	*	*	*	Void	*	*	*	*
454	455	30 31 32	*	Y	10	Fill	A	455	*	160/250 160/255
455	455	30 31 32	*	Y	10	French Drain	A	*	455 667	155/200-160/255 90/255 90/260 95/255
456	456	118	172	Y	7	Demo Layer	A	*	*	95/260
457	457	*	*	Y	10	Fill	A	458	*	5/200
458	458	*	*	Y	10	Pit Cut	A	*	457	5/200
459	*	*	*	*	*	Void	*	*	*	*
460	*	*	*	*	*	Void	*	*	*	*
461	461	101-114	*	Y	6	Structure	A	*	*	100/255-115/225 100/260- 115/260 105/265 105/270 85/250-85/260 90/250- 90/260
462	462	118	*	Y	7	Layer	A	*	*	90/245-115/245 90/250- 110/250 85/255-95/255 85/260 90/260
463	463	118 146	*	Y	6	Layer	A	*	*	85/250 90/250 85/255 90/255 85/260
464	464	464	118	Y	7	Layer	A	*	*	
465	*					Fill	A	466	*	
466	*					Pit Cut	A	*	465	
467	467	118 150	*	Y	6	Masonry (Wall)	A	*	*	85/255-85/270 90/240- 90/255 95/240 95/245 95/250 100/250 95/255 100/255
468	468	*	*	Y	7	Demo Layer	A	*	*	90/235-105/235 90/240- 105/240 90/245-105/245
469	469	*	*	Y	7	Demo Layer	A	*	*	
470	470	*	*	Y	7	Masonry (Wall)	A	*	*	95/240 100/240

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471	*	34 35		Y	9	Fill	B	473	*		
472	*	34			9	Fill	B	473	*		
473	surveyed in	34 35			9	Ditch Cut	B	*	471 472 478 482 483		
474	*	33			9	Fill	B	475	484 485 486 487 488		
475	475	33			9	Pit Cut	B	*	489 490 491 492 493		
476	*	*	159	Y	5	Fill	A	477	*		160/255
477	477	*	*	Y	5	Tree Threw	A	*	476		160/255
478		33	*		10	Fill	B	473			
479	*	*	*	*	*	Void	*	*	*		*
480	*	35	*		10	Fill	B	481	*		
481	481	35	*		10	Pit Cut	B	*	480		
482	*	33	*		9	Fill	B	473	*		
483	*	33	*		9	Fill	B	473	*		
484	*	33	*		9	Fill	B	473	*		
485	*	33	*		9	Fill	B	473	*		
486	*	33	*		9	Fill	B	473	*		
487	*	33	*		9	Fill	B	473	*		
488	*	33	*		9	Fill	B	473	*		
489	*	33	*		9	Fill	B	473	*		
490	*	34	*		9	Fill	B	473	*		
491	*	34	*		9	Fill	B	473	*		
492	*	34	*		9	Fill	B	473	*		
493	*	34	*		9	Fill	B	473	*		
494	495	36 83	161	Y	6	Fill	A	495	*		155/250 160/250
495	495	36 83 92 93	*	Y	6	Ditch Cut	A	*	494 824 890		135/250-160/250
496	*	15 16	*	N	7	Fill	A	497	*		90/240 95/240
497	497	15 16	*	N	7	Cut	A	*	496		90/240 95/240
498	498	*	*	Y	7	Demo Layer	A	*	*		95/245
499	499	*	*	Y	5	Metalled Surface	A	*	*		135/200 140/200
500	*	37	160	Y	6	Layer	A	*	*		145/200

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501	*	37	*	Y	5	Fill	A	259	*	145/200
502	*	37	*	Y	5	Fill	A	259	*	145/200
503	*	37	*	Y	5	Fill	A	259	*	145/250
504	505	*	*	Y	5	Fill	A	505	*	160/255
505	505	*	*	Y	5	Ditch Cut	A	*	504	160/255
506	507	39	*	Y	4	Fill	A	507	*	140/190
507	507	39	*	Y	4	Gully Cut	A	*	506	140/190
508	*	38	*	Y	4	Fill	A	510	*	140/200
509	*	38	*	Y	4	Fill	A	510	*	140/200
510	510	38 64	*	Y	4	Gully Cut	A	*	508 509 654 655	135/195 135/200 140/200 140/205 145/205
511	*	40	*	Y	5	Fill	A	259	*	140/195
512	*	37	*	Y	5	Fill	A	259	*	145/200
513	*	37	*	Y	5	Fill	A	259	*	145/200
514	*	37	*	Y	5	Fill	A	259	*	145/200
515	516	41	158	Y	6	Fill	A	516	*	130/250
516	516	41 91	*	Y	6	Ditch Cut	A	*	515 866	130/250-140-250
517	517	36 42	*	Y	6	Pit Cut	A	*	452	160/250
518	522	43	*	Y	6	Fill	A	522	*	130/195
519	522	43	*	Y	6	Fill	A	522	*	130/195
520	522	43	*	Y	6	Fill	A	522	*	130/195
521	522	43	*	Y	6	Fill	A	522	*	130/195
522	522	43	*	Y	6	Pit Cut	A	*	518 519 520 521	130/195
523	526	43	*	Y	4	Fill	A	526	*	130/195
524	*	43	*	Y	4	Fill	A	526	*	130/195
525	*	43	*	Y	4	Fill	A	526	*	130/195
526	526	43 48 67 68	*	Y	4	Ditch Cut	A	*	523 524 525 547 548 665 666 676	130/195 130/200 135/195 135/200 140/200 140/205 140/210 140/225 145/205 145/210 145/215 145/220 145/225
527	527	*	*	Y	7	Demo Layer	A	*	*	105/235 105/240

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528	*	*	*	N	5	Fill	A	529	*	160/250
529	529	*	*	N	5	Posthole Cut	A	*	528	160/250
530	531	50 51	*	Y	4	Fill	A	570	*	135/200
531	531	50 51	*	Y	4	Posthole Cut	A	*	565 567 568 569	135/200
532	*	50	167	Y	4	Fill	A	533	*	135/200 135/205
533	533	50	*	Y	4	Hearth	A	*	533 564	135/200 135/205
										140/200-150/200 140/205- 150/205 140/210-150/210 140/215-150/215 140/220- 150/220
534	*	*	*	Y	6	Layer	A	*	*	95/235 100/235 100/240
535	535	148	*	Y	5	Masonry (Wall)	A	1357	*	105/240
536	536	*	*	Y	5	Masonry (Wall)	A	1355	*	105/235 105/240
537	537	*	162 191	N	7	Layer	A	*	*	90/245 90/250
538	*	*	*	*	*	Void	*	*	*	*
539	540	45	163	Y	7	Fill	A	540	*	130/255
540	540	45	*	Y	7	Pit Cut	A	*	539 552	130/255
541	*	*	*	N	5	Fill	A	542	*	45/335
542	542	*	*	Y	5	Pit Cut	A	*	541	45/335
543	544	46	*	Y	7	Fill	A	544	*	130/200
544	544	26	*	Y	7	Posthole Cut	A	*	543	130/200
545	546	47	*	Y	7	Fill	A	546	*	130/200
546	546	47	*	Y	7	Posthole Cut	A	*	545	130/200
547	526	48	*	Y	4	Fill	A	526	*	130/200-140/200
548	*	48	*	Y	4	Fill	A	526	*	130/200-140/200
549	*	52 53	*	*	*	Disturbed Natural	*	*	*	*
550	*	*	*	*	*	Void	*	*	*	*
551	*	*	*	*	*	Void	*	*	*	*
552	540	45	*	Y	7	Fill	A	540	*	130/225
553	*	49	165	Y	3	Fill	A	554	*	130/260
554	554	49	*	Y	3	Posthole Cut	A	*	553	130/260
555	556	*	*	N	5	Fill	A	556	*	135/240

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556	556	*	*	N	5	Posthole Cut	A	*	555	135/240
557	558	*	*	N	2	Fill	A	558	*	135/245
558	558	*	*	N	2	Posthole Cut	A	*	557	135/245
559	560	*	168	N	5	Fill	A	560	*	135/240
560	560	*	*	N	5	Posthole Cut	A	*	559	135/240
561	586	*	*	N	6	Fill	A	586	*	135/250
562	*	*	179 181	N	9	Fill	A	563	*	55/340
563	563	154	*	Y	9	Pit Cut	A	*	562 713	55/340
564	533	50	166	Y	3	Fill	A	532	*	135/200 135/205
565	*	*	*	*	*	Void	*	*	*	*
566	*	51	*	Y	4	Fill	A	570	*	135/200
567	*	51 59	*	Y	4	Fill	A	531	*	135/200
568	*	51 59	*	Y	4	Fill	A	531	*	135/200
569	*	51	*	Y	4	Fill	A	531	*	135/200
570	*	51	*	Y	4	Posthole Cut	A	*	530 566	135/200
571	*	*	*	N	7	Fill	A	572	*	130/255
572	576	*	*	Y	7	Posthole Cut	A	*	571	130/255
573	*	*	*	N	7	Fill	A	574	*	130/255
574	576	*	*	Y	7	Posthole Cut	A	*	573	130/255
575	*	*	170	N	7	Fill	A	576	*	130/255
576	576	*	*	Y	7	Posthole Cut	A	*	575	130/255
577	577	62	171	Y	5	Fill	A	596	*	160/250
578	*	*	*	N	10	Fill	A	579	*	50/335
579	579	*	*	N	10	Posthole Cut	A	*	578	50/335
580	*	*	*	N	10	Fill	A	581	*	50/335
581	581	*	*	N	10	Posthole Cut	A	*	580	50/335
582	*	*	169	Y	7	Fill	A	583	*	130/255
583	583	*	*	Y	7	Beam Slot	A	*	582	130/255
584	584	54	*	Y	11	Animal Grave	A	*	585	70/335
585	584	*	*	Y	11	Fill	A	584	*	70/335
586	586	*	*	N	6	Posthole Cut	A	*	561	135/250
587	588	59	*	Y	7	Fill	A	588	*	130/255

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588	588	59	*	Y	7	Ditch Cut	A	*	567 630	130/255
589	*	*	*	N	9	Fill	A	590	*	50/335
590	590	*	*	N	9	Posthole Cut	A	*	589	50/335
591	591	54 55	*	Y	7	Ditch Cut	A	*	592 593	70/325-70/335
592	591	54 55	*	Y	7	Fill	A	591	*	70/325-70/335
593	*	54 55	*	Y	7	Fill	A	591	*	70/325-70/335
594	594	55	*	Y	6	Ditch Cut	A	*	595	70/325 70/330
595	594	55	*	Y	6	Fill	A	594	*	70/325 70/330
596	596	62	*	Y	5	Hearth	A	*	577	160/250
597	597	*	*	Y	*	Void	*	*	*	*
598	598	*	*	Y	5	Metalled Surface	A	*	*	140/200-140/220 145/200-145/220 150/200-150/200
599	*	*	*	N	5	Fill	A	600	*	160/250
600	600	*	*	N	5	Pit Cut	A	*	599	160/250
601	*	*	*	N	10	Fill	A	602	*	55/325 60/325
602	602	*	*	N	10	Tree Threw	A	*	601	55/325 60/325
603	604	56	*	Y	10	Fill	A	604	*	70/325
604	604	56	*	Y	10	Pit Cut	A	*	605	70/325
605	606	56	*	Y	7	Fill	A	606	*	70/310-65/340
606	606	56	*	Y	7	Ditch Cut	A	*	605	70/310-65/340
607	608	56	*	Y	7	Fill	A	608	*	65/320-65/340
608	608	56	*	Y	7	Ditch Cut	A	*	607	65/320-65/340
609	*	*	*	N	10	Fill	A	610	*	60/325
610	610	*	*	N	10	Tree Threw	A	*	609	60/325
611	*	*	*	N	5	Fill	A	612	*	135/240
612	612	*	*	N	5	Posthole Cut	A	*	611	135/240
613	*	*	*	N	5	Fill	A	614	*	135/240
614	614	*	*	N	5	Posthole Cut	A	*	613	135/240
615	615	62	173	N	5	Fill	A	529	*	160/250
616	616	146	*	N	7	Layer	A	*	1329	90/245-100/245 90/250-100/250 85/255-100/255 85/260-95/260

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617	618	57	*	Y	7	Fill	A	618	*	60/340 60/345
618	618	57	*	Y	7	Ditch Cut	A	*	617	60/340 60/345
619	619	*	*	Y	7	Demo Layer	A	*	*	95/235-105/235 90/240-105/240 90/245
620	*	62	174	Y	5	Fill	A	621	*	160/250
621	621	62	*	Y	5	Hearth	A	*	620	160/250
622	623	58	*	Y	5	Fill	A	623	*	130/205
623	623	58	*	Y	5	Pit Cut	A	*	622 624	130/205
624	623	58	*	Y	5	Fill	A	623	*	130/205
625	626	*	*	Y	6	Fill	A	626	*	145/205
626	626	*	*	Y	6	Posthole Cut	A	*	625	145/205
627	627	*	177	Y	5	Layer	A	*	*	145/205 145/210
628	*	*	175	N	7	Fill	A	629	*	130/255
629	629	*	*	N	7	Pit Cut	A	*	628	130/255
630	*	59	176	Y	7	Fill	A	588	*	130/255
631	631	*	*	N	*	Void	*	*	*	*
632	633	60	178	Y	4	Fill	A	633	*	130/260
633	633	60	*	Y	4	Pit Cut	A	*	632	130/260
634	634	61	*	Y	9	Ridge and Furrow	A	*	635 636	?
635	*	61	*	Y	9	Fill	A	634	*	?
636	*	61	*	Y	9	Fill	A	634	*	?
637	*	*	180	Y	2	Fill	A	638	*	45/310
638	638	*	*	Y	2	Pit Cut	A	*	637	45/310
639	*	*	*	N	10	Fill	A	640	*	10/195
640	640	*	*	Y	10	Pit Cut	A	*	639	10/195
641	642	*	*	Y	10	Fill	A	642	*	5/195
642	642	*	*	Y	10	Robber Cut	A	*	641	5/195
643	645	66	182	Y	5	Fill	A	645	*	135/270
644	*	66	*	Y	5	Fill	A	645	*	135/270
645	645	66	*	Y	5	Ditch Cut	A	*	643 644	135/270
646	*	*	*	N	7	Fill	A	647	*	130/265
647	647	*	*	Y	7	Robber Cut	A	*	646	130/265

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648	648	*	*	N	5	Metalled Surface	A	*	*	130/205-130/215
649	*	*	*	*	*	Void	*	*	*	*
650	*	63	*	N	10	Fill	A	651	*	5/195 10/195
651	651	63	*	Y	10	Pit Cut	A	*	650	5/195 10/195
652	653	*	*	Y	10	Layer	A	653	*	5/195 10/195
653	653	*	*	Y	10	Masonry	A	*	652	5/195 10/195
654	510	64	*	Y	4	Fill	A	510	*	140/200
655	*	64	*	Y	4	Fill	A	510	*	140/200
656	*	*	*	N	4	Fill	A	657	*	50/335
657	657	*	*	Y	4	Pit Cut	A	*	656	50/335
658	*	*	*	N	4	Fill	A	659	*	130/255
659	659	*	*	Y	4	Posthole Cut	A	*	658	130/255
660	661	65	*	Y	4	Fill	A	661	*	135/260
661	661	65	*	Y	4	Posthole Cut	A	*	660 662	135/260
662	*	65	*	Y	2	Fill	A	661	*	135/260
663	*	*	*	Y	10	Fill	A	664	*	135/260
664	664	*	*	Y	10	Posthole Cut	A	*	663	135/260
665	526	67	*	Y	4	Fill	A	526	*	145/210
666	*	67	*	Y	4	Fill	A	526	*	145/210
667	455	*	*	N	10	Fill	A	455	*	155/210
668	*	*	183	N	6	Fill	A	669	*	130/210 130/215
669	669	*	*	N	6	Hearth	A	*	668	130/210 130/215
670	671	81 88	225	N	6	Fill	A	671	*	155/250
671	671	81 88	*	Y	6	Pit Cut	A	*	670	155/250
672	*	*	*	N	4	Fill	A	673	*	150/210
673	673	*	*	N	4	Posthole Cut	A	*	672	150/210
674	*	*	184	N	4	Fill	A	675	*	150/210
675	675	*	*	N	4	Tree Threw	A	*	674	150/210
676	526	68	*	N	4	Fill	A	526	*	145/225
677	*	*	*	N	4	Fill	A	677	*	150/215
678	678	*	*	N	4	Posthole Cut	A	*	676	150/215
679	*	*	*	N	4	Fill	A	680	*	150/215

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680	680	*	*	N	4	Posthole Cut	A	*	679	150/215
681	681	71 72	*	Y	6	Masonry	A	682	*	45/305 45/310 50/305 50/310
682	682	71 72	*	Y	6	Construction Cut	A	*	681	45/305 45/310 50/305 50/310
683	684	69	185	Y	4	Fill	A	684	*	155/200
684	684	*	*	Y	4	Ditch Cut	A	*	685	155/200
685	*	*	*	N	10	Fill	A	686	*	125/200
686	686	*	*	N	10	Pit Cut	A	*	685	125/200
687	688	*	*	N	10	Fill	A	688	*	125/200
688	688	*	*	N	10	Pit Cut	A	*	687	125/200
689	689	*	*	N	7	Layer	A	*	*	20/190
690	690 753	75 76	*	Y	6	Masonry	A	753	*	20/195-20/100
691	717	74 75	*	Y	5	Fill	A	717	*	20/195 20/200
692	693	*	*	N	7	Fill	A	693	*	125/200
693	693	*	*	N	7	Pit Cut	A	*	692	125/200
694	694	*	212	Y	6	Layer	A	*	*	95/235-105/235 90/240- 105/240
695	696	*	*	N	10	Fill	A	696	*	125/205
696	696	*	*	N	10	Natural Hollow	A	*	695	125/205
697	*	*	*	N	7	Fill	A	698	*	125/205
698	698	*	*	N	7	Pit Cut	A	*	697	125/205
699	700	*	*	N	5	Fill	A	700	*	150/215 155/215 150/220
700	700	*	*	N	5	Ditch Cut	A	*	699	150/215 155/215 150/220 150/215 155/215 150/220
701	*	*	*	N	5	Fill	A	702	*	150/215 155/215 150/220 155/220
702	702	*	*	N	5	Ditch Cut	A	*	701	155/220
703	*	*	*	N	5	Fill	A	704	*	150/215
704	704	*	*	N	5	Posthole Cut	A	*	703	150/215
705	*	*	*	N	7	Fill	A	706	*	140/215
706	706	*	*	N	7	Posthole Cut	A	*	705	140/215
707	708	70	*	N	3	Fill	A	708	*	140/210

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708	708	70	*	Y	3	Pit Cut	A	*	707	140/210
709	*	*	*	N	7	Fill	A	710	*	140/215
710	710	*	*	N	7	Posthole Cut	A	*	709	140/215
711	*	*	*	N	4	Fill	A	712	*	140/210
712	712	*	*	N	4	Pit Cut	A	*	711	140/210
713	*	154	*	N	9	Fill	A	563	*	55/340
714	715	*	186	N	7	Fill	A	715	*	60/295
715	715	*	*	N	7	Hearth	A	*	714	60/295
716	718	74 75 76	*	Y	4	Fill	A	718	*	20/195 20/100
717	717	74 75	*	Y	6	Robber Cut	A	*	691	20/195 20/200
718	718	74 75 76	*	Y	4	Ditch Cut	A	*	716	20/195 20/200
										120/220 125/220 115/225- 125/225 120/230 125/230 115/235-125/235 110/240- 125/240 115/240 120/240
719	719	*	190	N	7	Layer	A	*	*	
720	722	77	*	Y	5	Fill	A	722	*	135/240 140/240
721	*	77	*	Y	5	Fill	A	722	*	135/240 140/240
722	722	77	*	Y	5	Posthole Cut	A	*	720 721	135/240 140/240
723	*	*	*	N	7	Fill	A	724	*	140/240
724	724	*	*	Y	7	Posthole Cut	A	*	723	140/240
725	*	?			4	Fill	A	726	*	145/245
726	726	?			4	Posthole Cut	A	*	725	145/245
727	*	*		N	6	Fill	A	728	*	140/245
728	728	*	*	Y	6	Posthole Cut	A	*	727	140/240
729	730	*	*	Y	4	Fill	A	730	*	145/245
730	730	*	*	Y	4	Posthole Cut	A	*	729	145/245
731	*	*	*	N	8	Fill	A	732	*	55/340 60/340
732	732	*	*	N	8	Pit Cut	A	*	731	55/340 60/340
733	735	73	*	Y	4	Fill	A	735	*	140/210
734	*	73	189	Y	4	Fill	A	735	*	140/210
735	735	73	*	Y	4	Pit Cut	A	*	733 734	140/210
736	737	*	198	Y	4	Fill	A	737	*	140 245

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737	737	*	*	Y	4	Posthole Cut	A	*	736	140/245
738	*	92	*	Y	6	Fill	A	828	*	140/250
739	*	*	*	*	*	Void	*	*	*	*
740	740	79	195	Y	4	Fill	A	741	*	140/245
741	740	79	*	Y	4	Posthole Cut	A	*	740	140/245
742	?				4	Fill	A	743	*	
743	?				4	Posthole Cut	A	*	742	
744	?				4	Fill	A	745	*	
745	?				4	Posthole Cut	A	*	744	
746	*	*	*	Y	5	Fill	A	747	*	20/205
747	747	*	*	Y	5	Ditch Cut	A	*	746	20/205
748	*	*	*	N	4	Fill	A	749	*	60/305
749	749	*	*	N	4	Pit Cut	A	*	748	60/305
750	*	*	*	N	4	Fill	A	751	*	60/305
751	751	*	*	N	4	Pit Cut	A	*	750	60/305
752	*	78	*	Y	7	Layer	A	*	*	15/210
753	753	76	*	Y	6	Construction Cut	A	*	690	20/195 20/200
754	754	*	*	N	6	Metalled Surface	A	*	*	125/230 125/235
755	755	*	*	N	6	Layer	A	*	*	120/235
756	756	*	196	N	6	Layer	A	*	*	115/235 120/235
757	758	78 123	*	Y	4	Fill	A	758	*	20/210 20/215 20/220
758	758	78 123	*	Y	4	Ditch Cut	A	*	757	20/210 20/215 20/220
759	761	78	*	Y	5	Fill	A	761	*	20/210
760	*	78 98	*	Y	5	Fill	A	761	*	120/210
761	761	78 98	*	Y	5	Ditch Cut	A	*	759 760	20/210
										115/220 115/225 120/220
762	762	*	*	Y	6	Raft/Foundation	A	*	*	120/220
763	764	79	192	Y	4	Fill	A	741	*	140/245
764	*	*	*	*	*	Void	*	*	*	*
765	766	*	*	N	4	Fill	A	766	*	5/205 5/210
766	766	*	*	N	4	Tree Threw	A	*	765	5/205 5/210
767	*	*	*	*	*	Void	*	*	*	*

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768	*	80	199	Y	7	Fill	A	783	*	30/200
769	*	80	200	Y	7	Fill	A	783	*	30/200
										115/220-125/220 115/225-125/225 105/230-130/230 110/235-130/235 110/240-
770	770	*	201 202	N	6	Layer	A	*	*	125/240
771	*	*	*	N	7	Fill	A	772	*	20/230
772	772	*	*	N	7	Posthole Cut	A	*	771	20/230
773	774	*	*	N	7	Fill	A	774	*	20/230
774	774	*	*	N	7	Posthole Cut	A	*	773	20/230
775	776	*	193	N	7	Fill	A	776	*	65/280
776	776	*	*	N	7	Hearth	A	*	775	65/280
777	778	*	194	N	7	Fill	A	778	*	65/280
778	778	*	*	N	7	Pit Cut	A	*	777	65/280
779	782	80	*	Y	5	Fill	A	782	*	30/200
780	*	80	197	Y	5	Fill	A	782	*	30/200
781	*	80	*	Y	5	Fill	A	782	*	30/200
782	782	80	*	Y	5	Ditch Cut	A	*	779 780 781	30/200
783	783	80	*	Y	7	Pit Cut	A	*	768 769	30/200
784	785	*	*	N	6	Fill	A	785	*	15/230
785	785	*	*	N	6	Posthole Cut	A	*	784	15/230
786	*	87	217	Y	4	Fill	A	294	*	60/225 60/230
787	787	*	203	N	*	Void	*	*	*	*
788	*	85	207	N	5	Fill	A	789	*	140/250
789	789	85	*	N	5	Pit Cut	A	*	788 809	140/250
790	791	82	204	Y	5	Fill	A	791	*	140/250 140/255
791	791	82	*	Y	5	Pit Cut	A	*	790 794 795	140/250 140/255
792	793	86	*	Y	5	Fill	A	793	*	140/250 140/255
793	793	86	*	Y	5	Posthole Cut	A	*	792 816	140/250 140/255
794	*	82	205	Y	5	Fill	A	791	*	140/250 140/255
795	*	82	*	Y	5	Fill	A	791	*	140/250 140/255
796	798	*	206	Y	5	Fill	A	798	*	140/250

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797	*	*	*	Y	5	Fill	A	798	*	140/250
798	798	*	*	Y	5	Posthole Cut	A	*	796 797	140/250
799	799	84	*	Y	5	Layer	A	*	*	25/215
800	*	84	210	Y	5	Fill	A	801	*	25/215
801	801	84 95	*	Y	5	Pit Cut	A	*	800 801 802	25/215
802	*	84	*	Y	5	Fill	A	801	*	25/215
803	*	84	211	Y	5	Fill	A	801	*	25/215
804	*	84	*	Y	5	Fill	A	861	*	25/215
805	805	84 96	*	Y	4	Pit Cut	A	*	901	25/215
806	806	84	229	Y	5	Fill	A	807	*	25/215
807	*	*	*	*	*	Void	*	*	*	*
808	864	84 94 95 96	*	Y	5	Fill	A	864	*	25/215
809	*	85	208 209	N	5	Fill	A	789	*	140/250
810	*	88	*	N	6	Fill	A	835	*	155/250
811	811	88	*	N	5	Pit Cut	A	*	812 813	155/250
812	811	88	213	N	5	Fill	A	811	*	155/250
813	*	88	214	N	5	Fill	A	811	*	155/250
814	815	86	*	Y	5	Fill	A	815	*	135/250 135/255
815	815	86	*	Y	5	Posthole Cut	A	*	814	135/250 135/255
816	*	86	*	Y	5	Fill	A	793	*	140/250 140/255
817	*	*	*	Y	6	Fill	A	818	*	155/250
818	818	*	*	Y	6	Pit Cut	A	*	817	155/250
819	819	*	215	N	5	Layer	A	*	*	95/240 100/240 95/245 20/250-20/285 25/250-
820	822	*	*	N	5	Fill	A	822	*	25/285 20/250-20/285 25/250-
821	822	*	*	N	5	Fill	A	822	*	25/285 20/250-20/285 25/250-
822	822	*	*	N	5	Terracing	A	*	820 821	25/285
823	495	92	*	Y	6	Fill	A	495	*	140/250
824	495	92	*	Y	6	Fill	A	495	*	140/250
825	826	92	*	Y	4	Fill	A	826	*	140/250

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826	826	92	*	Y	4	Posthole Cut	A	*	825	140/250
827	828	92	227	Y	6	Fill	A	828	*	140/250
828	828	92	*	Y	6	Pit Cut	A	*	738 827	140/250
829	*	87	216	Y	4	Fill	A	294	*	60/225 60/230
830	*	87	*	Y	4	Fill	A	294	*	60/225 60/230
831	832	*	*	Y	10	Fill	A	832	*	40/275-80/275
832	832	*	*	Y	10	Gully Cut	A	*	831	40/275-80/275
833	833	*	*	Y	5	Structure	A	*	*	95/240 100/240
834	*	88	*	N	6	Fill	A	835	*	155/250
835	835	88	*	N	6	Pit Cut	A	*	834	155/250-165/250
836	*	90	218	Y	5	Fill	A	847	*	65/280
837	*	89	*	Y	5	Fill	A	838	*	70/280
838	838	89	*	Y	5	Pit Cut	A	*	837	70/280
839	*	96	*	Y	5	Fill	A	840	*	30/215
840	840	96	*	Y	5	Pit Cut	A	*	839	30/215
841	*	*	*	N	5	Fill	A	842	*	25/215
842	842	*	*	N	5	Pit Cut	A	*	841	25/215
843	843	*	*	Y	5	Layer	A	*	*	95/240
844	844	*	219	Y	5	Layer	A	*	*	95/240 100/240
845	845	*	*	N	5	Layer	A	*	*	95/245 100/245 95/240 100/240
846	846	89 90	*	N	8	Layer	A	*	*	65/265-75/265 65/270- 75/270
847	847	90	*	Y	5	Pit Cut	A	*	836	65/280
848	849	*	*	Y	5	Fill	A	849	*	65/280
849	849	*	*	Y	5	Pit Cut	A	*	848	65/280
850	851	*	*	Y	4	Fill	A	851	*	135/250 140/250
851	851	*	*	Y	4	Posthole Cut	A	*	850	135/250 140/250
852	852	*	*	Y	5	Masonry (Wall)	A	*	*	100/240 105/240
853	853	*	220	Y	5	Hearth	A	*	*	95/240
854	854	*	221	Y	5	Layer	A	*	*	95/240 95/245
855	855	*	*	N	5	Layer	A	*	*	100/240 100/245

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									857	858	859	932	933	
856	856	95 98	*	Y	4	Ditch Cut	A	*						20/215
857	*	95	*	Y	4	Fill	A	856						20/215
858	*	95	*	Y	4	Fill	A	856						20/215
859	856	95	*	Y	4	Fill	A	856						20/215
860	860	84 95	*	Y	4	Ditch Cut	A	*						20/215
861	860	95	*	Y	4	Fill	A	860						20/215
862	*	96	*	Y	5	Pit Cut	A	*						25/215
863	*	96	*	Y	5	Fill	A	862						25/215
864	864	94 95 96	*	Y	5	Ditch Cut	A	*						25/215
865	865	96	*	Y	5	Layer	A	*						25/215 30/215
866	516	91	*	Y	6	Fill	A	516						140/250
														60/270-80/270 60/275-
867	867	*	231	N	7	Layer	A	*						80/275
868	*	*	222	N	7	Fill	A	870						70/275
869	*	*	*	N	7	Fill	A	870						70/275
870	870	*	*	N	7	Posthole Cut	A	*						70/275
871	871	*	*	Y	4	Structure	A	*						140/245- 140/260
872	873	*	*	Y	4	Fill	A	873						145/250
873	873	*	*	Y	4	Posthole Cut	A	*						145/250
														115/220-125/220 115/225-
														125/225 115/230-125/230
														115/235-125/235 120/240
874	874	153	224	N	5	Layer	A	*						
875	*	*	223	N	7	Fill	A	877						70/275
876	*	*	*	N	7	Fill	A	877						70/275
877	877	*	*	N	7	Pit Cut	A	*						70/275
878	879	*	*	Y	4	Fill	A	879						145/250
879	879	*	*	Y	4	Posthole Cut	A	*						145/250
880	881	97	226	Y	5	Fill	A	881						155/255 160/255
881	881	97	*	Y	5	Ditch Cut	A	*						155/255 160/255
882	883	*	*	Y	4	Fill	A	883						145/250

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883	883	*	*	Y	4	Posthole Cut	A	*	882	145/250
884	885	*	*	Y	4	Fill	A	885	*	145/250
885	885	*	*	Y	4	Posthole Cut	A	*	884	145/250
886	887	*	*	Y	4	Fill	A	887	*	145/250
887	887	*	*	Y	4	Posthole Cut	A	*	886	145/250
888	889	*	*	Y	4	Fill	A	889	*	145/260
889	889	*	*	Y	4	Posthole Cut	A	*	888	145/260
890	*	93	*	Y	6	Fill	A	495	*	145/250
891	*	*	228	N	7	Fill	A	892	*	65/270
892	892	*	*	N	7	Posthole Cut	A	*	891	65/270
893	881	97	*	N	5	Fill	A	881	8	155/255 160/255
894	895	*	*	N	5	Fill	A	895	*	120/225
895	895	*	*	N	5	Posthole Cut	A	*	894	120/225
896	897	*	*	N	5	Fill	A	897	*	120/255
897	897	*	*	N	5	Posthole Cut	A	*	896	120/255
898	898	*	*	N	6	Layer	A	*	*	115/225
899	899	*	*	N	5	Layer	A	*	*	115/255
900	900	*	*	N	6	Layer	A	*	*	105/250 105/255 110/255
901	*	84 96	*	N	4	Fill	A	805	*	25/215
902	902	*	*	N	5	Layer	A	*	*	115/225-130/225
903	*	*	*	*	*	Void	*	*	*	*
904	*	*	*	*	*	Void	*	*	*	*
905	*	*	230	N	5	Fill	A	917	*	155/255 160/255
906	*	*	*	N	5	Fill	A	917	*	155/255 160/255
907	*	*	*	N	7	Fill	A	1205	*	95/265
908	*	*	232	N	7	Fill	A	909	*	95/265
909	909	*	*	N	7	Pit Cut	A	*	908 945 946 962 1016	95/265
910	*	111	*	Y	6	Fill	A	912	*	110/250
911	*	111	*	Y	6	Fill	A	912	*	110/250
912	461 912	111 112	*	Y	6	Ditch Cut	A	*	910 911 913 914 915	110/250 110/255 115/255
913	*	112	*	Y	6	Fill	A	912	*	115/255

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914	*	122	*	Y	6	Fill	A	912	*	115/255
915	*	*	*	Y	6	Fill	A	912	*	155/255
916	*	*	*	N	6	Fill	A	912	*	115/255
917	917	*	*	N	5	Pit Cut	A	*	905 906	155/255 160/255
918	*	*	*	Y	6	Fill	A	912	*	110/250 110/255
919	*	*	*	N	6	Fill	A	912	*	110/250 110/255
920	921	*	*	N	5	Fill	A	921	*	120/225
921	921	*	*	N	5	Posthole Cut	A	*	920	120/255
922	923	*	*	N	5	Fill	A	923	*	120/225
923	923	*	*	N	5	Posthole Cut	A	*	922	120/225
924	925	*	*	N	5	Fill	A	925	*	120/225
925	925	*	*	N	5	Posthole Cut	A	*	924	120/225
926	927	*	*	N	5	Fill	A	927	*	115/225
927	927	*	*	N	5	Posthole Cut	A	*	926	115/225
928	*	*	*	N	5	Fill	A	929	*	120/255
929	929	*	*	N	5	Posthole Cut	A	*	928	120/255
930	*	*	*	N	5	Fill	A	931	*	155/255 160/255
931	931	*	*	N	5	Pit Cut	A	*	930	155/255 160/255
932	*	98	*	Y	4	Fill	A	856	*	20/215
933	*	98	*	Y	4	Fill	A	856	*	20/215
934	*	98	*	Y	4	Fill	A	856	*	20/215
935	934	98	*	Y	4	Ditch Cut	A	*	936	20/215
936	*	98	*	Y	4	Fill	A	935	*	20/215
937	937	142	*	N	7	Layer	A	*	*	75/275-75/285 80/275-80/285
938	938	*	*	N	7	Demo Layer Masonry	A	*	*	80/260-85/260 75/265-90/265 75/270-90/270 75/265 80/265 80/270
939	939	*	*	Y	6	(Foundation)	A	*	*	85/270
940	940	*	236	N	7	Demo Layer	A	*	*	100/250 100/255
941	*	*	*	N	5	Fill	A	942	*	130/255
942	942	*	*	N	5	Gully Cut	A	*	941	130/255

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943	*	*	*	N	5	Fill	A	944	*	120/225
944	944	*	*	N	5	Posthole Cut	A	*	943	120/225
945	*	*	*	N	7	Fill	A	909	*	95/265
946	*	*	*	N	7	Fill	A	909	*	95/265
947	947	109	*	Y	6	Masonry (Wall)	A	948	*	105/250 110/250 105/255-115/225
948	947	109	*	Y	6	Construction Cut	A	*	947	105/250 110/250 105/255-115/225
949	947	110	*	Y	6	Masonry (Wall)	A	950	*	105/250 105/255-115/255
950	950	110	*	Y	6	Construction Cut	A	*	949	105/250 105/255-115/255
951	*	*	*	N	5	Fill	A	952	*	120/225
952	952	*	*	N	5	Stakehole	A	*	951	120/225
953	*	*	234	N	5	Fill	A	955	*	115/220 115/225
954	*	*	235	N	5	Fill	A	955	*	115/220 115/225
955	957	*	*	Y	5	Beam Slot	A	*	953 954	115/220 115/225
956	*	*	*	N	5	Fill	A	957	*	115/220 115/225
957	957	*	*	Y	5	Beam Slot	A	*	956	115/220 115/225
958	*	*	*	*	*	Void	*	*	*	*
959	990	*	233	N	4	Fill	A	990	*	155/255
960	*	*	*	N	5	Fill	A	961	*	125/255
961	961	*	*	N	5	Posthole Cut	A	*	960	125/255
962	*	*	*	N	7	Fill	A	909	*	95/265
963	963	*	*	N	5	Metalled Surface	A	*	*	120/225-130/225
964	*	*	*	N	6	Fill	B	966	*	
965	surveyed in	*	*	N	6	Metalled Surface	B	966	*	
966	surveyed in	*	*	N	6	Hollow Way	B	*	964 965	
967	968	106	*	Y	6	Postpad	A	968	*	100/255
968	968	106	*	Y	6	Postpad Cut	A	*	967	100/255
969	*	*	*	N	5	Fill	A	970	*	125/225
970	970	*	*	N	5	Stakehole	A	*	969	125/225
971	971	*	*	N	6	Fill	A	1008	*	75/275 75/280
972	972	102		Y	6	Postpad	A	973	*	105/260 110/260

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973	972	102	*	Y	6	Postpad Cut	A	*	972	105/260 110/260
974	974	103	*	Y	6	Postpad	A	975	*	105/265
975	974	103	*	Y	6	Postpad Cut	A	*	974	105/265
976	977 978	101	*	Y	6	Fill	A	978	*	100/270
977	977 978	101	*	Y	6	Fill	A	978	*	100/270
978	977 978	101	*	Y	6	Posthole Cut	A	*	976 977	100/270
979	979	*	*	N	7	Pit Cut	A	*	980 983 989	95/255 100/255
980	*	*	239	N	7	Fill	A	979	*	95/255 100/255
981	982	105	237	Y	7	Fill	A	982	*	100/260
982	982	105	*	Y	7	Hearth	A	*	981	100/260
983	*	*	*	N	7	Fill	A	979	*	95/255 100/255
984	461	*	*	Y	6	Postpad	A	985	*	110/260
985	985	*	*	Y	6	Posthole Cut	A	*	984	110/260
986	988	105	*	Y	7	Fill	A	988	*	100/260
987	988	105	238	Y	7	Fill	A	988	*	100/260
988	988	105	*	Y	7	Hearth	A	*	986 987	100/260
989	*	*	*	N	7	Fill	A	979	*	95/255 100/255
990	990	*	*	N	4	Pit Cut	A	*	959	155/255
										75/270 80/270 75/275
991	*	142	*	N	7	Fill	A	994	*	80/275
										75/270 80/270 75/275
992	*	142	*	N	7	Fill	A	994	*	80/275
										75/270 80/270 75/275
993	*	142	*	N	7	Fill	A	994	*	80/275
										75/270 80/270 75/275
994	994	142		N	7	Pit Cut	A	*	991 992 993	80/275
995	1005	*	*	N	5	Fill	A	1005	*	155/255
										100/255 105/255 100/260
996	996	104	*	Y	6	Postpad	A	997	*	105/260
										100/255 105/255 100/260
997	996	104	*	Y	6	Postpad Cut	A	*	996	105/260
998	999	113	*	Y	6	Postpad	A	999	*	100/260
999	999	113	*	Y	6	Postpad Cut	A	*	998	100/260

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1000	*	*	*	N	4	Fill	B	1001	*		
1001	1001	*	*	N	4	Ditch Cut	B	*	1000		
1002	1002	100	*	N	4	Ditch Cut	A	*	1003 1004 1005		95/260
1003	*	100	242 249	N	4	Fill	A	1002	*		95/260
1004	*	100	250	N	4	Fill	A	1002	*		95/260
1005	*	*	*	N	5	Pit Cut	A	*	995		155/255
1006	1007	108	*	Y	6	Postpad	A	1007	*		110/255
1007	1007	108	*	Y	6	Postpad Cut	A	*	1006		110/255
1008	1008	*	*	N	6	Ditch Cut	A	*	971		75/275 75/280
1009	1009	*	240	N	4	Fill	A	1027	*		75/280 75/285
1010	1010	*	241	N	4	Fill	A	1027	*		75/280 75/285
1011	*	*	*	*	3	Fill	D	1012	*		
1012	1011 1040	*	*	*	3	Ditch Cut	D	*	1011		
1013	*	100	251	N	4	Fill	A	1002	*		95/260
1014	1014	107	*	Y	6	Postpad	A	1015	*		95/255
1015	1014	107	*	Y	6	Postpad Cut	A	*	1014		95/255
1016	*	*	*	N	7	Fill	A	909	*		95/265
1017	*	121	243	N	7	Layer	A	*	*		70/270
1018	*	121	*	N	*	Void	*	*	*		*
1019	*	*	*	N	7	Fill	A	1020	*		95/260 95/265
1020	1020	*	*	N	7	Pit Cut	A	*	1019		95/260 95/265
1021	1021	*	*	N	4	Fill	A	1027	*		75/280 75/285
1022	1022	*	244	N	4	Fill	A	1091	*		75/285
1023	1023	*	245	N	4	Fill	A	1091	*		75/285
1024	1024	*	*	N	4	Fill	A	1091	*		75/285
1025	1025	*	246	N	4	Fill	A	1092	*		75/280 75/285
1026	1092	*	247	N	4	Fill	A	1092	*		75/285
1027	1027	*	*	N	4	Hearth	A	*	1009 1010 1021		75/280 75/285
1028	1028	*	*	Y	6	Layer	A	*	*		110/255
1029	1029	*	*	Y	6	Tile Floor	A	*	*		110/255
1030	1030	*	*	Y	6	Tile Floor	A	*	*		110/255
1031	1031	*	*	Y	6	Tile Floor	A	*	*		110/255

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1032	1032	*	*	Y	6	Layer	A	*	*	105/255 110/255
1033	1034	99	*	Y	6	Masonry (Wall)	A	1034	*	20/225 20/230
1034	1034	99	*	Y	6	Construction Cut	A	*	1033	20/225 20/230
1035	1036	99	*	N	4	Fill	A	1036	*	20/225 20/230
1036	1036	99	*	N	4	Pit Cut	A	*	1035	20/225 20/230
1037	1038	123	*	Y	7	Masonry (Wall)	A	1038	*	20/215 20/220
1038	1038	123	*	Y	7	Construction Cut	A	*	1037	20/215 20/220
1039	*	*	*	N	*	Void	*	*	*	*
1040	*	*	*	N	3	Fill	D	1012	*	*
1041	*	*	*	N	4	Fill	D	1042	*	*
1042	1041 1043	*	*	N	4	Ditch Cut	D	*	1041 1043	*
1043	*	*	*	N	4	Fill	D	1042	*	*
1044	*	114	248	N	7	Fill	A	1046	*	110/260
1045	*	114	*	N	7	Fill	A	1046	*	110/260
1046	1046	114	*	Y	7	Hearth	A	*	1044 1045	110/260
1047	1048	*	*	Y	6	Masonry (Wall)	A	1048	*	15/245
1048	1048	*	*	Y	6	Construction Cut	A	*	1047	15/245
1049	1050	119	*	Y	6	Masonry (Wall)	A	1050	*	15/225-15/245
1050	1050	119	*	Y	6	Construction Cut	A	*	1049	15/225-15/245
1051	1052	*	*	N	5	Fill	A	1052	*	15/225
1052	1052	*	*	N	5	Posthole Cut	A	*	1051	15/225
1053	*	*	*	*	*	Void	*	*	*	*
1054	*	*	*	*	*	Void	*	*	*	*
1055	*	*	*	N	4	Fill	A	1056	*	155/255
1056	1056	*	*	N	4	Pit Cut	A	*	1055	155/255
1057	*	*	*	N	7	Fill	A	1060	*	95/265
1058	*	*	*	N	7	Fill	A	1060	*	95/265
1059	*	*	*	N	7	Fill	A	1060	*	95/265
1060	1060	*	*	N	7	Pit Cut	A	*	1057 1058 1059	95/265
1061	*	118	*	N	7	Fill	A	1063	*	90/260 95/260 90/265
1062	*	118	*	N	7	Fill	A	1063	*	90/260 95/260 90/265
1063	1077	118	*	N	7	Ditch Cut	A	*	1061 1062	90/260 95/260 90/265

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1064	*	118	*	N	5	Fill	A	1065	*	90/260 95/260
1065	1077	118	*	N	5	Pit Cut	A	*	1064	90/260 95/260
1066	*	118	*	N	6	Layer	A	*	*	90/260 90/265
1067	*	118	*	N	6	Layer	A	*	*	90/260 90/265
1068	*	118 146	*	N	5	Metalled Surface	A	*	1329	85/260 90/260
1069	*	118	*	N	6	Layer	A	*	*	85/260
1070	*	118	*	N	6	Metalled Surface	A	*	*	85/260 90/260
1071	*	*	*	*	*	Void	*	*	*	*
1072	*	118	*	N	6	Layer	A	*	*	85/260 90/260
1073	*	118	*	N	5	Fill	A	1077	*	85/260
1074	*	118	*	N	5	Fill	A	1077	*	85/260
1075	*	118	*	N	5	Fill	A	1077	*	85/260
1076	*	118	*	N	5	Fill	A	1077	*	85/260
1077	1077	118 146	*	N	5	Ditch Cut	A	*	1073 1074 1075 1076 1296 1279 1298	85/260
1078	*	115	*	N	4	Fill	B	1001	*	*
1079	1001	115	*	N	4	Fill	B	1001	*	*
1080	*	*	*	N	7	Fill	A	1081	*	95/265
1081	1081	*	*	N	7	Pit Cut	A	*	1080	95/265
1082	1083	116	*	Y	10	Fill	B	1083	*	*
1083	1083	116	*	Y	10	Tree Planter	B	*	1082	*
1084	*	*	*	N	6	Fill	B	1085	*	*
1085	surveyed in	*	*	N	6	Ditch Cut	B	*	1084	*
1086	*	*	252	N	6	Fill	A	1087	*	95/255 95/260
1087	1087	*	*	N	6	Posthole Cut	A	*	1086	95/255 95/260
1088	1088	*	*	N	5	Layer	A	*	*	95/240 100/240 95/ 245 100/245
1089	1090	117	*	N	4	Fill	A	1090	*	155/255 160/255 155/260 160/260
1090	1090	117	*	N	4	Pit Cut	A	*	1089	155/255 160/255 155/260 160/260
1091	1091	*	*	Y	4	Hearth	A	*	1022 1023 1024	75/285
1092	1092	*	*	Y	4	Pit Cut	A	*	1025 1026 1122 1174	75/280 75/285

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1093	*	115	*	N	4	Fill	B	1001	*	*
1094	*	199	*	Y	4	Fill	A	1096	*	15/225
1095	*	119	*	Y	4	Fill	A	1096	*	15/225
1096	1096	119	*	Y	4	Ditch Cut	A	*	1094 1095	15/225
1097	*	121	254	N	7	Demo Layer	A	*	*	65/260
1098	*	121	255	N	7	Layer	A	*	*	65/265-70/265 65/270-75/270 65/275-70/275
1099	1099	124 126	*	Y	4	Ditch Cut	A	*	1100 1143 1162	95/255 100/255 100/260-115/260 115/265 120/265
1100	*	124	*	N	4	Fill	A	1099	*	95/255 95/260 100/260
1101	1102	*	*	N	4	Fill	A	1102	*	155/255
1102	1102	*	*	N	4	Pit Cut	A	*	1101	155/255
1103	*	120	*	N	7	Layer	A	*	*	105/260
1104	*	120	253	N	7	Fill	A	1105	*	105/260
1105	1105	120	*	N	7	Hearth	A	*	1104 1159	105/260
1106	1107	122	256	Y	7	Fill	A	1107	*	105/260
1107	1107	122	*	Y	7	Hearth	A	*	1106	105/260
1108	1109	122	257	Y	7	Fill	A	1109	*	105 260
1109	1109	122	*	Y	7	Hearth	A	*	1108	105/260
1110	*	123	*	Y	4	Fill	A	1111	*	20/220
1111	1111	123	*	Y	4	Ditch Cut	A	*	1110	20/220
1112	1113	123	*	Y	10	Fill	A	1113	*	20/220
1113	1113	123	*	Y	10	Pit Cut	A	*	1112 1114	20/220
1114	*	123	*	Y	10	Fill	A	1113	*	20/220
1115	*	*	*	N	10	Fill	D	1116	*	*
1116	1115	*	*	N	10	Posthole Cut	D	*	1115	*
1117	*	*	*	N	10	Fill	D	1119	*	*
1118	1117	*	*	N	10	Posthole Cut	D	*	1120	*
1119	*	*	*	N	3	Fill	D	1121	*	*
1120	*	*	*	N	3	Fill	D	1121	*	*
1121	1119 1120 1147	*	*	N	3	Ditch Cut	D	*	1119 1120 1147	*

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1122	*	*	267	N	4	Fill	A	1092	*	75/280 75/285
1123	*	*	258	N	4	Fill	A	1125	*	75/285
1124	*	*	259	N	4	Fill	A	1125	*	75/285
1125	1125	*	*	N	4	Pit Cut	A	*	1123 1124	75/285
1126	*	128	*	N	5	Fill	A	1127	*	100/250 100/255
1127	1127	128	*	N	5	Pit Cut	A	*	1126	100/250 100/255
1128	*	128	*	N	5	Fill	A	1129	*	100/255
1129	1129	128	*	N	5	Posthole Cut	A	*	1128	100/255
1130	*	127 128	*	N	5	Fill	A	1131	*	100/250 100/255
1131	1131	127 128	*	N	5	Pit Cut	A	*	1130	100/250 100/255
1132	*	127	*	N	5	Fill	A	1133	*	100/250
1133	1133	127	*	N	5	Robber Cut?	A	*	1132	100/250
1134	1134	121	265 266	N	8	Platform?	A	1167	*	65/260 70/260
1135	1136	125	260	Y	7	Fill	A	1135	*	110/260
1136	1136	125	*	Y	7	Hearth	A	*	1134	110/260
1137	1140	*	*	Y	7	Fill	A	1140	*	120/265
1138	*	*	*	Y	7	Fill	A	1140	*	120/265
1139	*	*	*	Y	7	Fill	A	1140	*	120/265
1140	1140	*	*	Y	7	Pit Cut	A	*	1137 1138 1139	120/265
1141	1142	*	*	Y	6	Fill	A	1142	*	120/265
										120/260-120275 125/255
1142	1142	*	*	Y	6	Gully Cut	A	*	1141 1144 1185	125/260
1143	1099	*	*	Y	4	Fill	A	1099	*	120/265
1144	1142	*	*	Y	6	Fill	A	1142	*	120/275
1145	1146	*	*	N	10	Fill	A	1146	*	125/265
1146	1146	*	*	N	10	Tree Threw	A	*	1145	125/265
1147	*	*	*	N	3	Fill	D	1121	*	*
1148	*	*	*	N	5	Fill	A	1149	*	120/220 120/225
1149	1149	*	*	N	5	Stakehole	A	*	1148	120/220 120/225
1150	1150	*	*	N	6	Masonry (Wall)	A	*	*	45/240
1151	1151	*	*	N	6	Masonry (Wall)	A	*	*	25/245 -45/255
1152	1152	*	*	N	6	Masonry (Wall)	A	*	*	25/225-35/230

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1153	1153	*	*	N	6	Masonry (Wall)	A	*	*	35/250 40/250
1154	1155	125	261	Y	7	Fill	A	1155	*	110/260
1155	1155	125	*	Y	7	Hearth	A	*	1154	110/260
1156	1155	*	*	Y	7	Stakehole	A	*	*	110/260
1157	*	*	262	N	4	Fill	A	1158	*	75/280 80/280 75/285 80/285
1158	1158	*	*	N	4	Pit Cut	A	*	1164 1157	75/280 80/280 75/285 80/285
1159	*	*	*	N	7	Hearth Lining	A	1105	*	105/260
1160	1160	*	*	N	5	Masonry Wall	A	*	*	30/230-55/235 95/235 100/240 95/240
1161	*	148	*	N	4	Fill	A	223	*	100/240
1162	1099	126	*	Y	4	Fill	A	1099	*	115/260 115/265
1163	1163	127	*	Y	5	Masonry (Foundation)	A	*	*	100/250 75/280 80/280 75/285
1164	*	*	263	N	4	Fill	A	1158	*	80/285
1165	*	*	*	*	*	Void	*	*	*	*
1166	*	121	264	N	5	Fill	A	1167	*	65/260 70/260
1167	*	121	*	N	5	Pit Cut	A	*	1166	65/269 70/260
1168	*	132	*	N	5	Fill	C	1169	*	*
1169	surveyed in	132	*	N	5	Pit Cut	C	*	1168	*
1170	*	132	*	N	9	Fill	C	1171	*	*
1171	surveyed in	132	*	N	9	Pit Cut	C	*	1170	*
1172	*	132	*	N	9	Fill	C	1173	*	*
1173	surveyed in	132	*	N	9	Pit Cut	C	*	1172	*
1174	*	*	268	N	4	Fill	A	1092	*	75/280 75/285
1175	1175	*	*	N	7	Layer	A	*	*	25/205
1176	1176	*	*	N	7	Layer	A	*	*	25/200 90/240 95/240 90/245
1177	1177	*	*	N	5	Layer (Floor)	A	*	*	95/245
1178	1178	*	*	N	7	Layer	A	*	*	25/200 30/200
1179	1184	129	*	Y	5	Fill	A	1184	*	105/255

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1180	*	*	*	*	*	Void	*	*	*	*
1181	1184	*	*	Y	5	Fill	A	1184	*	120/255
1182	1184	*	*	Y	5	Fill	A	1184	*	120/255 125/255
1183	1184	*	*	Y	5	Fill	A	1184	*	115/255-125/255
									1151 1179 1182 1183	
1184	1184	129 140 141	*	Y	5	Ditch Cut	A	*	1225 1243	100/225-130/225
1185	1142	*	*	Y	6	Fill	A	1142	*	125/255
1186	*	*	*	N	5	Fill	A	1187	*	35/205
1187	1187	*	*	N	5	Posthole Cut	A	*	1186	35/205
1188	*	*	*	N	5	Fill	A	1189	*	40/205
1189	1189	*	*	N	5	Posthole Cut	A	*	1188	40/205
1190	*	131	*	Y	5	Fill	A	1194	*	35/205
1191	*	131	271	Y	5	Fill	A	1194	*	35/205
1192	*	*	*	*	*	Void	*	*	*	*
1193	*	131	*	Y	5	Fill	A	1194	*	35/205
1194	1194	131	*	Y	5	Posthole Cut	A	*		
1195	*	*	269	N	5	Fill	A	1196	*	75/285
1196	1196	*	*	N	5	Pit Cut	A	*	1195	75/285
1197	1197	130	*	N	5	Pit Cut	A	*	1198 1199	40/220
1198	1197	130	*	N	5	Fill	A	1197	*	40/220
1199	*	130	270	N	5	Fill	A	1197	*	40/220
1200	*			N	4	Fill	A	1201	*	60/260
1201	*			N	4	Ditch Cut	A	*	1202	60/260
1202	1202	*	*	N	5	Stakehole	A	*	953 954	115/220
1203	1203	*	*	N	5	Layer (Floor)	A	*	*	95/240 95/245
1204	*	*	*	N	7	Fill	A	1205	*	95/265
1205	1205	*	*	N	7	Pit Cut	A	*	907 1204	95/265
1206	*	131	*	Y	5	Fill	A	1194	*	35/205
1207	*	*	*	N	5	Fill	A	1208	*	35/200
1208	1208	*	*	N	5	Posthole Cut	A	*	1207	35/200
1209	*	*	*	N	5	Fill	A	1210	*	35/200
1210	1210	*	*	N	5	Posthole Cut	A	*	1209	35/200

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1211	*	*	*	N	5	Fill	A	1212	*	40/205
1212	1212	*	*	N	5	Posthole Cut	A	*	1211	40/205
1213	*	148	*	N	4	Fill	A	223	*	95/235
1214	*	*	*	N	11	Topsoil	D	*	*	*
1215	*	*	*	N	1	Natural	D	*	*	*
1216	*	*	*	N	5	Fill	A	1217	*	35/210
1217	1217	*	*	N	5	Posthole Cut	A	*	1216	35/210
1218	1218	*	*	N	5	Layer	A	*	*	95/240 100/240
1219	*	147	*	N	10	Fill	D	1221	*	*
1220	surveyed in	147	*	N	10	Pit Cut	D	*	1220	*
1221	*	*	*	Y	6	Fill	A	1222	*	110/255
1222	1222	*	*	Y	6	Posthole Cut	A	*	1221	110/255
1223	?				5	Cut	A	*	1402	95/235 100/235
1224	1224	*	286	Y	5	Layer (Floor)	A	*	*	95/240 100/240 95/245
1225	1184	141	*	Y	5	Fill	A	1184	*	100/245
1226	1226	*	*	Y	6	Layer	A	*	*	110/255
1227	1239	142	272	N	7	Fill	A	1231	*	75/280
1228	*	142	273	N	7	Fill	A	1231	*	75/275
1229	*	142	274	N	7	Fill	A	1231	*	75/275
1230	*	142	275	N	7	Fill	A	1231	*	75/275
1231	?	142	*	N	7	Cut	A	*	1228 1229 1230	75/275
1232	*	142	276	N	6	Fill	A	1236	*	75/275
1233	*	142	277	N	6	Fill	A	1236	*	75/275
1234	*	142	278	N	6	Fill	A	1236	*	75/275
1235	*	*	*	*	*	Void	*	*	*	*
1236	*	142	*	N	6	Pit Cut	A	*	1232 1233 1234	75/275
1237	*	142	280	N	5	Fill	A	1239	*	75/275
1238	*	142	281	N	5	Fill	A	1239	*	75/275
1239	1239	142	*	N	5	Pit Cut	A	*	1237 1238	75/275
1240	1240	*	*	N	6	Masonry	A	*	*	55/200
1241	1241	*	*	N	6	Masonry (Wall)	A	*	*	60/205 65/205

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1242	1242	*	*	N	6	Masonry (Wall)	A	*	*	60/200 65/200
1243	1184	140	*	Y	5	Fill	A	1184	*	
1244	1245	139	*	N	3	Fill	A	1245	*	125/230
1245	1245	139	*	N	3	Ditch Cut	A	*	1244	115/230 120/230 125/230
1246	1247	139	*	N	3	Fill	A	1247	*	115/235
1247	1247	139	*	N	3	Ditch Cut	A	*	1246	120/230 125/230
1248	1248	*	*	Y	5	Layer (Floor)	A	*	*	95/240 100/240 95/245
1249	1247	*	*	N	3	Fill	A	1247	*	100/245
1250	*	*	*	N	3	Fill	A	1251	*	120/230
1251	1251	*	*	N	3	Stakehole	A	*	1250	120/230
1252	*	*	*	N	3	Fill	A	1253	*	120/230 125/230
1253	1253	*	*	N	3	Stakehole	A	*	1252	120/230 125/230
1254	*	*	*	N	3	Fill	A	1255	*	125/230
1255	1255	*	*	N	3	Stakehole	A	*	1254	125/230
1256	*	*	*	*	*	Void	*	*	*	*
1257	1257		282	N	6	Layer	A	*	*	?
1258	1258	*	*	N	5	Layer (Floor)	A	*	*	120/230 125/230 120/235
1259	1259	146	*	Y	5	Layer	A	*	*	125/235
1260	1260	146	*	Y	5	Layer (Floor)	A	*	*	95/245
1261	1264	145	*	N	7	Fill	A	1264	*	90/240-100/240 90/245-100/245
1262	1264	145	*	N	7	Fill	A	1264	*	100/245
1263	1264	145	*	N	7	Fill	A	1264	*	50/255 50/230
1264	1264	145	*	N	7	Pit Cut	A	*	1261 1262 1263	50/255 50/230
1265	1268	144	*	N	9	Fill	A	1268	*	50/255 50/230
1266	*	144	*	N	9	Fill	A	1268	*	40/235 40/240
1267	*	144	*	N	9	Fill	A	1268	*	40/235 40/240
1268	1268	144	*	N	9	Robber Cut	A	*	1265 1266 1267	40/235 40/240
1269	1270	144	*	N	10	Fill	A	1270	*	40/235
1270	1270	144	*	N	10	Pit Cut	A	*	1269	40/235

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1271	*	144	*	N	4	Layer	A	*	*	40/235
1272	1273	144	*	N	5	Fill	A	1273	*	40/235
1273	1273	144	*	N	5	Pit Cut	A	*	1272	40/235
1274	1275	144	*	N	4	Fill	A	1275	*	45/230
1275	1275	144	*	N	4	Pit Cut	A	*	1274	45/230
1276	1280	144	*	N	4	Fill	A	1280	*	40/230 45/230
1277	*	144	*	N	4	Fill	A	1280	*	40/230 45/230
1278	*	144	*	N	4	Fill	A	1280	*	40/230 45/230
1279	*	144	*	N	4	Fill	A	1280	*	40/230 45/230
1280	1280	144	*	N	4	Ditch Cut	A	*	1276 1277 1278 1279	40/230 45/230
1281	1281	143	*	N	6	Masonry (Wall)	A	1282	*	?
1282	1282	143	*	N	6	Construction Cut	A	*	1281	?
1283	1285	143	*	N	4	Fill	A	1285	*	?
1284	*	143	*	N	4	Fill	A	1285	*	?
1285	1285	143	*	N	4	Ditch Cut	A	*	1283 1284	?
1286	1286	151	*	Y	5	Layer	A	*	*	75/280
1287	1287	*	*	Y	6	Layer	A	*	*	75/280
1288	*	*	*	N	5	Fill	A	1289	*	120/225
1289	1289	*	*	N	5	Posthole Cut	A	*	1288	120/225
1290	1291	*	*	N	7	Fill	A	1291	*	40/235
1291	1291	*	*	N	7	Pit Cut	A	*	1290	40/235
1292	1293	*	*	N	5	Fill	A	1293	*	120/225
1293	1293	*	*	N	5	Posthole Cut	A	*	1292	120/225
1294	1295	*	*	N	5	Fill	A	1295	*	120/225
1295	1295	*	*	N	5	Posthole Cut	A	*	1294	120/225
1296	*	146	*	N	5	Fill	A	1077	*	90/245 95/245
1297	*	146	*	N	5	Fill	A	1077	*	90/245 95/245
1298	*	146	*	N	5	Fill	A	1077	*	90/245
1299	*	146	*	N	5	Fill	A	1300	*	95/250 100/250
1300	*	146	*	N	5	Pit Cut	A	*	1299	95/250 100/250
1301	*	146	*	N	5	Fill	A	1302	*	100/250
1302	*	146	*	N	5	Pit Cut	A	*	1301 1367	100/250

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1303	1304	*	*	N	5	Fill	A	1304	*	115/225
1304	1304	*		N	5	Posthole Cut	A	*	1303	115/225
1305	*	151	*	Y	5	Fill	A	1306	*	75/280
1306	1306	151	*	Y	5	Hearth	A	*	1305	75/280
1307	1307	151	*	Y	6	Layer	A	1310?	*	75/280
1308	1308	151	*	Y	5	Layer	A	1310?	*	75/280
1309	1309	151	*	Y	5	Fill	A	1310	*	75/280
1310	1310	151	*	Y	5	Hearth	A	*	1307? 1308? 1309	75/280
1311	*	*	*	Y	5	Fill	A	1312	*	75/280
1312	1312	*	*	Y	5	Tree Threw	A	*	1311	75/280
										70/275 75/275 70/280
1313	1315	*	*	Y	5	Fill	A	1315	*	75/280
										70/275 75/275 70/280
1314	*	*	*	Y	5	Fill	A	1315	*	75/280
										70/275 75/275 70/280
1315	1315	*	*	Y	5	Pit Cut	A	*	1313 1314	75/280
1316	1316	148	*	Y	6	Masonry (Wall)	A	1356	*	95/235
1317	1317	146	*	N	5	Layer	A	*	*	90/245
1318	*	146	*	N	5	Layer	A	*	*	90/245
1319	*	146	*	N	5	Layer	A	*	*	90/245
1320	*	146	*	N	5	Layer (Floor)	A	*	*	90/245 95/245
1321	*	146	*	N	5	Layer	A	*	*	90/245 95/245
1322	*	146	*	N	5	Fill (Wall)	A	1354	*	100/250 105/250
1323	*	146	*	N	5	Fill (Wall)	A	1354	*	100/250 105/250
1324	*	146	*	N	5	Fill (Wall)	A	1354	*	100/250 105/250
1325	*	146	*	N	5	Fill (Wall)	A	1354	*	100/250 105/250
1326	*	146	*	N	5	Fill (Wall)	A	1354	*	100/250 105/250
1327	*	146	*	N	5	Fill (Wall)	A	1354	*	100/250 105/250
										95/245 100/245 100/250
1328	*	146	*	N	5	Fill	A	1329	*	105/250
										95/245 100/245 100/250
1329	*	146	*	N	5	Road Cut?	A	*	616 1068 1328	105/250
1330	*	146	*	N	5	Layer	A	*	*	100/245 100/250

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1331	*	146	*	N	5	Layer	A	*	*	100/245 100/250
1332	*	146	*	N	5	Layer	A	*	*	100/245 100/250
1333	1333	*	*	N	10	Fill	A	1334	*	115/225
1334	1333	*	*	N	10	Posthole Cut	A	*	1333	115/225
										120/230 125/230 120/235
1335	1335	*	284	N	5	Layer	A	*	*	125/235
1336	1337	*	*	N	5	Fill	A	1337	*	115/225
1337	1337	*	*	N	5	Posthole Cut	A	*	1336	115/225
										105/230-125/230 105/235-
1338	1338	153	*	Y	5	Metalled Surface	A	*	*	125/235 105/240-120/240
										115/215-130/215 115/220-
1339	1339	149	*	Y	5	Metalled Surface	A	*	*	130/220 125/225
1340	*	*	*	N	5	Fill	A	1341	*	115/225
1341	1341	*	*	N	5	Posthole Cut	A	*	1340	115/225
1342	*	*	*	N	5	Fill	A	1343	*	115/225
1343	1343	*	*	N	5	Posthole Cut	A	*	1342	115/225
1344	*	*	*	N	9	Fill	C	1345	*	*
1345	1344	*	*	N	9	Pit Cut	C	*	1344	*
1346	*	*	*	N	10	Fill	C	1347	*	*
1347	1346	*	*	N	10	Pit Cut	C	*	1346	*
1348	*	*	*	N	11	Topsoil	C	*	*	*
1349	*	*	*	N	1	Natural	C	*	*	*
1350	1350	*	*	Y	5	Layer (Floor)	A	*	*	100/240 95/245 100/245
1351	*	*	*	N	3	Fill	D	1352	*	*
1352	1351	*	*	N	3	Pit Cut	D	*	1351	*
1353	*	148	*	N	4	Fill	A	223	*	95/235
										1322 1323 1324 1325
1354	*	146	*	N	5	Construction Cut	A	*	1326 1327	100/250 105/250
1355	*	*	*	N	5	Construction Cut	A	*	536	105/235 105/240
1356	*	*	*	N	6	Construction Cut	A	*	1316	95/235
										95/235 100/235 100/240
1357	*	*	*	N	5	Construction Cut	A	*	535	105/240
1358	*	*	*	N	5	Fill	A	1359	*	100/240 105/240

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1359	*	*	*	N	5	Construction Cut	A	*	852 1358	100/240 105/240
1360	*	*	*	N	6	Construction Cut	A	*	467	85/255-85/270 90/240-
1361	*	*	*	N	10	Fill	C	1362	*	90/255 95/240 95/245
1362	1361	*	*	N	10	Ditch Cut	C	*	1361	*
1363	*	*	285	N	5	Fill	C	1354	*	*
1364	1363	*	*	N	5	Pit Cut	C	*	1365	*
1365	*	*	*	N	9	Fill	C	1366	*	*
1366	surveyed in	*	*	N	9	Ditch Cut	C	*	1365	*
1367	*	146	*	N	5	Fill	A	1302	*	100/250
1368	1368	146	?		5	Masonry	A	1354	*	
1369	*	*	*	N	10	Fill	C	1371	*	*
1370	*	*	*	N	10	Fill	C	1371	*	*
1371	1369 1370	*	*	N	10	Ditch Cut	C	*	1369 1370	*
1372	*	*	*	N	10	Fill	C	1374	*	*
1373	*	*	*	N	10	Fill	C	1374	*	*
1374	1372 1373	*	*	N	10	Ditch Cut	C	*	1372 1373	*
1375	*	*	*	N	10	Fill	C	1376	*	*
1376	1375	*	*	N	10	Ditch Cut	C	*	1375	*
1377	*	146	*	N	5	Fill	A	1378	*	100/245
1378	*	146	*	N	5	Pit Cut	A	*	1377	100/245
1379	*	146	*	N	4	Layer	A	*	*	95/245
1380	*	146	*	N	4	Layer	A	*	*	90/245 95/245
1381	*	146	*	N	4	Layer	A	*	*	95/245
1382	1382	153	*	N	5	Layer	A	*	*	110/235 115/235
1383	*	153	*	N	5	Layer	A	*	*	110/235
1384	1385	*	*	N	5	Fill	A	1385	*	125/235
1385	1385	*	*	N	5	Posthole Cut	A	*	1384	125/235
1386	1387	*	*	Y	4	Fill	A	1387	*	70/280
1387	1387	*	*	Y	4	Pit Cut	A	*	1386	70/280
1388	*	149	288	N	5	Layer	A	*	*	120/220 125/220
1389	*	153	*	N	5	Metalled Surface	A	*	*	110/235

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1390	*	153	*	N	5	Metalled Surface	A	*	*	110/235 115/235
1391	*	153	*	N	5	Layer	A	*	*	115/235
1392	1393	*	*	N	4	Fill	A	1393	*	110/225 115/225
1393	1393	*	*	N	4	Pit Cut	A	*	1392	110/225 115/225
1394	*	*	*	*	*	Void	*	*	*	*
1395	*	149	*	N	5	Layer	A	*	*	120/220
1396	*	149	*	N	5	Layer	A	*	*	125/220
1397	*	149	*	N	5	Layer	A	*	*	120/220 125/220
1398	*	153	*	N	5	Layer	A	*	*	110/235
1399	*	153	*	N	5	Layer	A	*	*	110/235 115/235
1400	*				6	Road Surface	A	*		
1401	*	*	*	N	4	Fill	A	856	*	95/235
1402	1223	*	*	N	5	Fill	A	1223	*	95/235 100/235

APPENDIX 2

ASSESSMENT OF THE ROMANO-BRITISH POTTERY

JAMES GERRARD AND MALCOLM LYNE

INTRODUCTION

Excavations at Grange Farm, Gillingham, Kent (KKGf03) recovered 20,218 sherds of Romano-British and Late Iron Age pottery weighing 272.864kg from 365 contexts. This material survived in a variety of states from very abraded to fresh. Individual assemblages varied in size from small in size (1-30 sherds) through to very large (several boxes).

METHODOLOGY

The methodology used for recording this ceramic assemblage is based on the scheme proposed by Orton, Tyers and Vince (1993). The aim of this is to produce a report that is standardised and comparable between sites and specialists, enabling the easy dissemination and interrogation of the dataset.

Recording

The pottery has been recorded directly into an *Access 2000* database. The database design is that used by medieval and post-medieval pottery specialists within Pre-Construct Archaeology (with some variation) and is ultimately based on standards established by the Museum of London's Archaeology and Specialist Services (Symonds undated). Fabrics have been identified in the first instance using the Museum of London codes (Symonds undated). However, as Gillingham sits between two ceramic style zones the fabric codes utilised by the Canterbury Archaeological Trust have also been used in some instances, particularly for pottery dating to the Late Iron Age / Early Roman transition. Unsourced fabrics are given full fabric descriptions.

The pottery has been quantified using the three standard measures of sherd count, weight and Estimated Vessel Equivalents (EVEs). Pottery forms have been identified with reference to standard corpora and typologies. Monaghan's (1987) typology of the products of the local Thameside kilns (producing a variety of fine and coarse fabrics) and Pollard's (1988) study have been of importance in classifying the local products. Non-local wares have been identified using standard works such as Young's (1977) typology of Oxfordshire pottery and Howe, Perrin and Mackreth's (1980) work on the Nene Valley.

Fabrics

There are a variety of coarse fabrics, mainly dating to the Late Iron Age and first century that cannot be ascribed to a known source with confidence. Most are probably local products and exhibit a wide variety of inclusions, surface treatments, decorative schemes and firings. For ease of analysis they have been divided here into broad fabric groups. They could be split further into smaller groups but as the Late Iron Age and first-century groups are relatively small this has not been deemed necessary. Fabric codes are based on a sequential alphanumeric system. They are all prefixed with 'C.' to indicate that they are coarse fabrics and to distinguish them from the London and Canterbury codes. Following this prefix are a series of letters that indicate the dominant inclusion type (*i.e.* SF: Sand and Flint, MCQ: Multi-coloured quartz). A number after this code represents further subdivision. They are probably broadly analogous to Canterbury fabrics under the M.LIA code.

C.SF1 Handmade, rough-smooth, hard, black with an irregular fracture. Moderate to

- abundant multi-coloured quartz <1mm and occasional to moderate angular flint, usually but not always calcined <2mm. Common.
- C.SF2 Handmade, rough-harsh, hard, brownish-black with an irregular fracture. Abundant angular calcined flint <3mm and occasional quartz <1mm. Rare.
- C.SF3 Handmade, rough, hard, orange-black with abundant multi-coloured quartz, occasional angular flint <2mm and occasional angular ironstone <2mm. Rare.
- C.SF4 Handmade, rough orange brown with irregular fracture and abundant multi-coloured quartz <1mm also occasional rounded red iron ore <1mm, and angular flint <2mm. Rare.
- C.SF5 Handmade, rough, hard, black with irregular fracture and moderate rounded (alluvial?) flint <2mm and multi-coloured quartz <2mm. Rare.
- C.F1 Handmade, harsh, hard, black with a hackly fracture. Abundant, angular flint <3mm. The flint inclusions are usually, but not always, burnt. Common.
- C.F2 Handmade, hard, rough brownish-orange with irregular fracture and moderate rounded (alluvial?) flint <2mm. Frequent.
- C.F3 Handmade, hard, smooth pink orange (occasionally fired scummy white) with occasional angular calcined flint < 2mm. Rare.
- C.MCQ1 Handmade, smooth, hard, black with an irregular fracture. Abundant multi-coloured quartz <1mm. Common.
- C.MCQ2 Handmade, rough, hard, red-black with a fine fracture and abundant multi-coloured quartz <1mm. Common
- C.SILT Handmade, smooth, hard. A variety of colours from brownish pink through black with a fine fracture and abundant silt with other occasional inclusions. Rare.
- C.Q1 Handmade, rough orange to grey, with fine fracture and abundant quartz <1mm. Common.
- C.Q2 Handmade, smooth, orange, with irregular fracture and abundant quartz <1mm and occasional angular shell <2mm. Common.
- C.Q3 Handmade, smooth, grey-red to grey-brown with fine fracture and abundant iron stained quartz <1mm. Rare.
- C.Q5 Handmade orange brown, with smooth black surfaces and moderate white and colourless quartz <0.5mm. Rare.
- C.GL Handmade, smooth, hard greyish brown with a fine fracture abundant glauconite <0.5mm. Rare. More of this fabric might have been expected given the site's proximity to the Medway Valley (Pollard 1988, 31).

DISCUSSION OF POTTERY BY INTERIM PHASES

Eleven phases ranging from natural (Phase 1) to modern (Phase 11) were defined on stratigraphic grounds. Pottery from phases 3 (LIA - AD43) – 8 (Early Saxon) is discussed below. No extensive lists of material are provided in this document. However, the pottery database (held in the archive) can be searched and context specific lists generated if and when they are

required. What follows is a general discussion of the dating and ceramic supply to each of the phases followed, where necessary, by a more detailed discussion of the composition and significance of the largest groups.

Phase 3 (Late Iron Age – AD43)

Contexts: [415], [553], [1011], [1040], [1119], [1120], [1244], [1236], [1351]

Only small groups of pottery were recovered from Phase 3 (133 sherds, 1375g). Vessels in this phase are dominated by examples in hand-made grog, flint and sand tempered fabrics (C.F, C.S, C.FS). The Phase 3 material has little interpretive value beyond indicating some Late Iron Age activity in the pre-Conquest period.

Phase 4 (AD43-120)

Contexts: [224], [254], [275], [286], [293], [294], [296], [297], [305], [325], [326], [358], [360], [385], [431], [433], [448], [523], [525], [530], [532], [547], [566], [567], [632], [656], [660], [665], [716], [729], [734], [748], [757], [763], [765], [786], [850], [861], [936], [959], [1000], [1003], [1004], [1009], [1025], [1035], [1041], [1043], [1079], [1089], [1094], [1095], [1110], [1122], [1143], [1161], [1162], [1174], [1213], [1276], [1278], [1283], [1353], [1386], [1392]

Pottery recovered from Phase 3 amounted to 1563 sherds weighing 23.925kgs. Essentially the beginning of this phase is defined by the appearance of immediately post-conquest wares, such as Hoo ware (HOO), North Kent Fine Ware (NKFw) and South Gaulish Samian (SAMSG) alongside vessels in hand-made Late Iron Age traditions (mainly bead rim jars). In ceramic terms the end of the phase is heralded by the appearance of early second-century products such as BB2 and TSK.

The importance of this group lies in its chronological position, spanning the Late Iron Age and Early Roman periods. Given the site's location, close to the North Kent marshes, it offers an opportunity to study the origins of Roman pottery production in the region as well as explore the ceramic changes that occurred after the Roman conquest. Of particular importance are the presence of imports, particularly fine wares and amphora (including a stamped handle) that might betray connections with new economic or social spheres of activity.

One particularly noteworthy event was the presence of a complete, but smashed pot in an early, handmade Thameside fabric in the fill [448] of pit [432]. This pot may have been a deliberate, structured deposit. The pottery from these features should be studied in more detail prior to publication to clarify any ritual activities.

Phase 5 (AD120-250)

Contexts: [256], [258], [260], [262], [267], [272], [316], [338], [349], [362], [435], [476], [499], [502], [504], [535], [541], [598], [620], [621], [627], [643], [643], [645], [648], [691], [701], [721], [746], [759], [780], [781], [788], [790], [792], [794], [796], [799], [800], [801], [802], [803], [806], [808], [809], [812], [814], [819], [821], [836], [841], [844], [845], [853], [854], [874], [880], [894], [896], [899], [902], [905], [906], [920], [922], [924], [926], [928], [943], [953], [995], [1073], [1088], [1126], [1130], [1132], [1163], [1166], [1177], [1179], [1182], [1183], [1195], [1198], [1218], [1224], [1225], [1243], [1258], [1272], [1288], [1292], [1294], [1296], [1299], [1301], [1303], [1305], [1308], [1309], [1311], [1313], [1325], [1336], [1338], [1340], [1363], [1368], [1383], [1388], [1390], [1391]

Phase 5 produced 5587 sherds of pottery weighing 73.736kgs. It survived in a variety of conditions ranging from very abraded to fresh and included residual material.

This phase is marked in ceramic terms by the appearance of Central Gaulish Samian in

quantity, wheel-thrown Black Burnished ware (BB2) and the allied, unburnished Thameside Kent fabric (TSK). The majority of the remaining pottery present in this period represents a continuation of supply from the preceding phase. HOO and NKFW are present in quantity and there are some new fabrics particularly the high-fired 'Romanised' grog-tempered wares known as 'Native Coarse Ware' (R1). It also seems likely that the majority of the Patchgrove and Patchgrove type wares (PATCH) from West Kent entered the site during this phase.

Within the period AD120-250 some chronological distinction can be made, although it is based on relatively rare imports. These include SAMEG, NVCC and MOSL, all current in the early third century in small quantities. The end of this phase is indicated by a number of stylistic changes that occur during the mid-third century, particularly in the BB2 industry and the appearance of small quantities of pottery from the Late Roman super-producers like the Oxfordshire kilns.

Pit [801], Fills (799), (800), (803) and (802)

The most important group of pottery from Phase 5 was recovered from the fills of pit [801]. This feature contained a large fresh group of pottery amounting to 1442 sherds, weighing 25.992kgs (26.12 EVEs). This pottery forms a very coherent early second-century assemblage containing South and Central Gaulish Samian (including stamped examples). The appearance of early BB2 forms suggests that the group was deposited after AD120 and probably before AD150. This date is confirmed by the presence of NKFW beaker forms 2A3 (Monaghan 1987, 55) dated to AD100-150 and NKSH jars (dated to 50-150). However, there is a small quantity of earlier material, such as bead rim jars that are dated to the late first century. These may represent old vessels still in use or, alternatively, this group might require us to revise our dating of these forms slightly. The group as a whole is an important one for the study of the emergent BB2 / Thameside producers and would repay fuller analysis and illustration. It is also recommended that further work is carried out on identifying the unsourced 'Miscellaneous wares', some of which are probably chronologically sensitive imports. Also of note was the presence of a large HOO jar/amphorae, a form that is otherwise unattested in this industry's repertoire (Davies *et al.* 1994, 38-40).

	Sherd Count	Weight (g)	EVE
B2	2	127	0
B2/R1	1	30	0.16
BB2	386	6666	7.84
BER16	4	99	0.28
HOO	47	1121	0
HOO Amph	2	231	0
NKFW	301	3177	5.74
NKSH	128	3884	0.81
OTHER	89	2206	2.1
PATCH	2	30	0
R1	45	1400	0.09
SAMCG	11	166	0.44
SAMSG	2	40	0
TSK	422	6815	8.66
TOTAL	1442	25992	26.12

Table 1: Quantification of pottery from Pit [801]

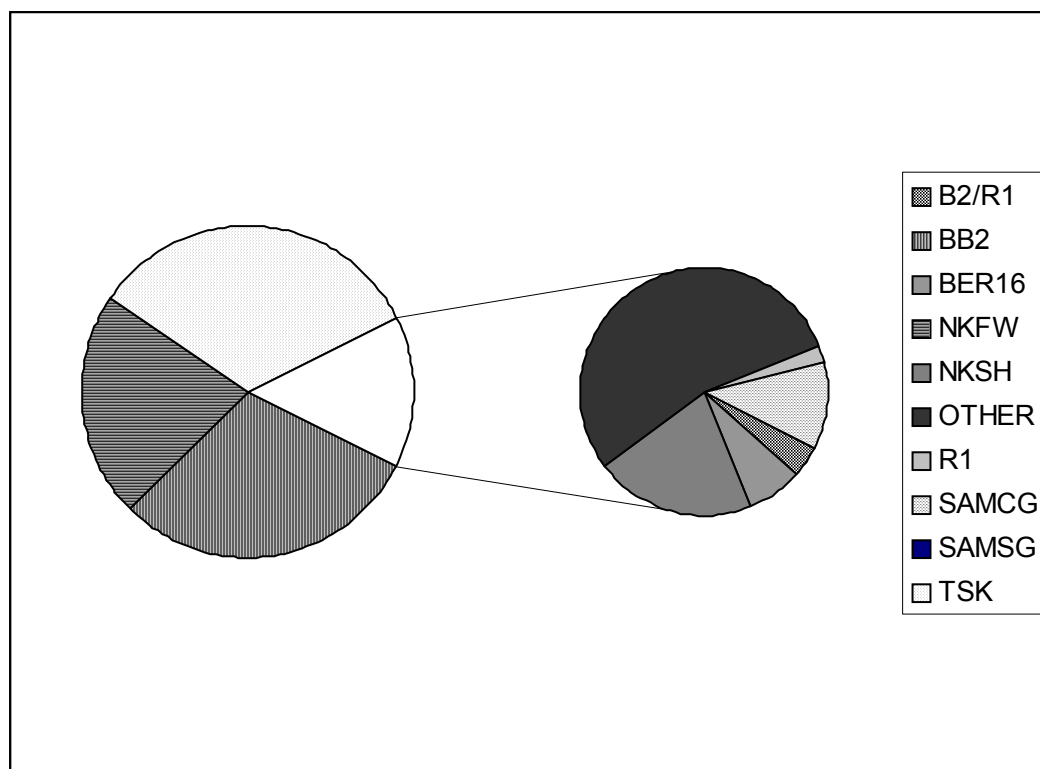


Fig 1 Quantification of pottery from Pit [801] by source and EVE

Phase 6 (AD250-300)

Contexts: [205], [212], [220], [243], [263], [270], [271], [273], [277], [278], [280], [288], [300], [301], [310], [314], [320], [341], [404], [408], [452], [494], [500], [515], [518], [534], [561], [625], [668], [670], [694], [727], [738], [754], [755], [756], [762], [770], [824], [827], [866], [890], [898], [900], [910], [913], [914], [915], [916], [918], [947], [949], [964], [971], [976], [977], [984], [1006], [1014], [1028], [1049], [1141], [1144], [1257], [1287]

Deposits phased to the second half of the third century contained 6468 sherds, weighing 75.582kgs. As might be expected, fabrics that entered production in the second century continue to dominate these assemblages. Notable among these fabrics are BB2 and TSK. The beaded and flanged bowl in the former fabric probably entered production in the middle third of the third century and is a useful chronological indicator (Monaghan 1987, type 5A5), as is the 'swan's neck' pendant rim jar in TSK. This form is probably a mid-third century and later phenomenon (Monaghan 1987, Type 3H5). The appearance of small quantities of pottery from the Late Roman regional producers, like the Oxfordshire and Alice Holt / Farnham kilns, is also a useful indicator of a late third century date. The products of both industries begin to be distributed over a wider region after c.AD250 but this trade seems to be fairly small-scale until c.AD300 when larger quantities appear in London and Kent.

Layer [770]

Layer [770] contained a large group of pottery (3318 sherds, 32.259kg, 29.67EVE) with a high proportion of BB2 and TSK. Potentially elements of this assemblage could be dated as early as AD150 (HOO, NKFW and some BB2 and TSK forms). However, the presence of NVCC and SAMEG suggests that a date after AD200 is more likely and the BB2 vessel forms, which include piedishes and dog dishes of Monaghan's (1987) types 5C1, 5D1, 5E1 and 5F (dateable to AD120-250 and AD120-300) do not contradict this. Also present are beaded and flanged bowls of Monaghan type 5A5 dateable to AD250-350. The small quantities of AHFA, OXRC and OXMO (assuming they are not intrusive) suggest that this group had probably

been deposited by AD270-AD300/310. Two coins from this layer were dated to the late third century.

	Sherd Count	Weight	EVE
AHFA	4	80	0.22
AMPH	26	1747	0.08
BB2	770	6119	15.64
HOO	131	1307	1.37
MOSL	1	1	0.07
R1	106	1550	0.24
NKFW	331	2122	3.93
NKSH	240	5902	0.31
NVCC	17	85	0.13
OXMO	3	241	0
OXRC	1	2	0
PATCH	14	176	0
SAMCG	74	777	1.27
SAMEG	15	312	0.49
TSK	1585	11838	5.92
TOTAL	3318	32259	29.67

Table 2: Quantification of pottery from Layer [770]

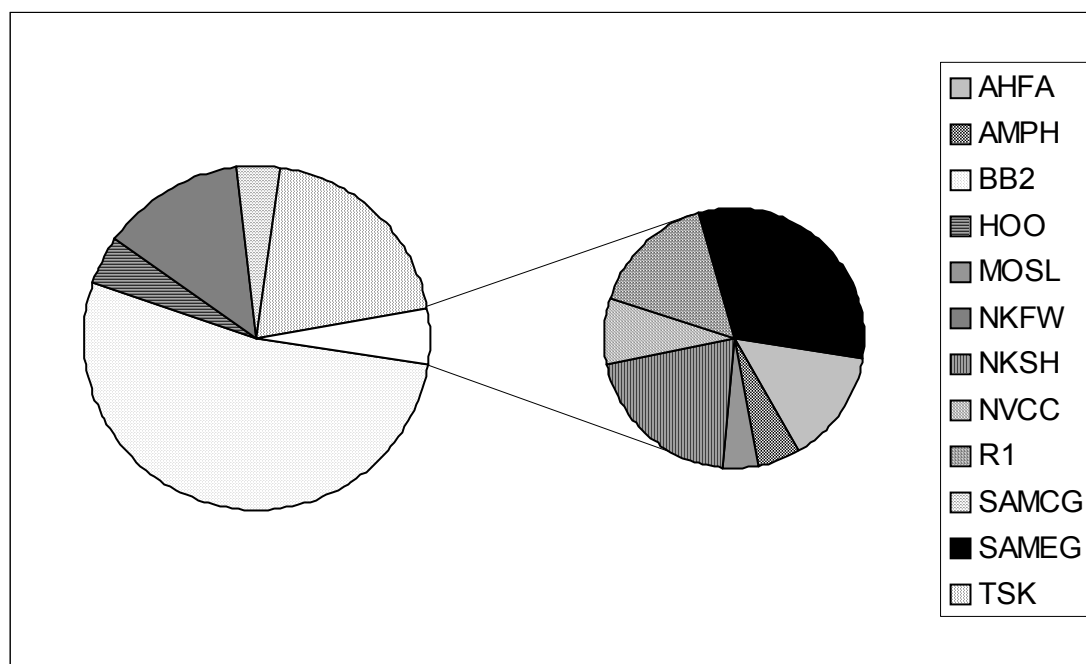


Fig 2 Quantification of pottery from Layer [770] by source and EVE

Phase 7 (AD300-420)

Contexts: [201], [209], [268], [284], [370], [383], [387], [402], [410], [412], [419], [449], [456], [462], [464], [468], [469], [470], [496], [498], [527], [537], [539], [552], [571], [573], [575], [582], [616], [619], [689], [719], [768], [769], [867], [868], [876], [907], [908], [937], [938], [940], [945], [946], [962], [983], [989], [991], [992], [1016], [1017], [1019], [1037], [1044], [1045], [1057], [1058], [1059], [1080], [1103], [1104], [1108], [1135], [1137], [1138], [1139], [1154], [1176],

[1227], [1228], [1229], [1261], [1262]

The beginning of the fourth century is marked by the appearance for the first time of large quantities of pottery from the so-called regional super producers. In Kent and the South East AD300 seems to mark a watershed with the Oxfordshire and Alice Holt kilns starting to supply pottery on a large scale (though small quantities may have been available from c.AD270) and the beginnings of the end for local producers of BB2 and Thameside Kent coarse wares. The appearance of Portchester D / Overwey ware c.AD330 marks another important dating horizon. One later horizon is also distinguishable: deposits containing grog tempered wares, AHFA, OXRC and small quantities of HARSH with virtually no Thameside products probably date to after AD350.

Deposit [694]

This deposit contained a large group of relatively fresh pottery amounting to 1060 sherds, weighing 12.648kg (12.66EVE). Thameside products dominated (BB2 and TSK) and included late forms such as beaded and flanged bowls of Monaghan (1987, 136) type 5A4 and 'swan's neck pendant rim' jars of Monaghan (1987, 96) class 3H5. Both forms should date from the middle of the third century to the mid-fourth century. However, the virtual absence of late Roman producers such as AHFA, GROG and OXRC suggests that this group ends somewhere in the period AD270-300 when these fabrics became common. Small quantities of East Gaulish Samian and Moselkeramik reinforce a third-century date. The presence of HOO, PATCH and NKSH indicate a residual second-century or earlier component, as does some of the NKFW. The amphora sherds included BAET and unsourced fabrics. The pottery suggests that this group should be dated to AD200/230-270/300. Unfortunately the deposit contains coins of AD170-217, AD335-337 and AD346-350. This either suggests that the last two coins are intrusive or that the pottery is redeposited, which, while not impossible, seems unlikely given the state and coherent nature of this group.

	Sherd Count	Weight	EVE
AHFA	1	7	0
AMPH	10	393	0
BB2	584	7196	7.17
GROG	2	36	0.08
HOO	21	138	0
MOSL	2	3	0
R1	3	42	0
NKFW	41	387	0.68
NKSH	10	359	0
OXPA	1	3	0
PATCH	7	97	0
SAMCG	11	144	0.02
SAMEG	2	46	0
LR14	1	15	0
TSK	364	3782	4.71
TOTAL	1060	12648	12.66

Table 3: Quantification of pottery from Deposit [694]

The latest phase of Romano-British pottery use begins c.AD350 with the disappearance of the Thameside producers. Deposits lacking TSK and BB2 but with large quantities of stamped and white painted OXRC, AHFA, PORD and also HARSH or MAYN are dated to this phase. The longevity of this phase is debateable. The absence of new coins after AD388 makes dating ceramic groups problematic and traditionally Romano-British pottery production has been seen as ending soon after AD400 (Fulford 1979). This need not be the case and

evidence is mounting that Romano-British pottery production continued for some years into the fifth century. Even if the inhabitants of early fifth-century Kent did find themselves unable to secure new supplies of pottery, the pots in use on those sites would continue to be used until they broke. Thus it seems reasonable to suggest that the end of this phase of pottery use should be dated to AD400-450.

Layer [201]

One of the latest 'Roman' deposits identified was a large and thick layer filling a hollow way. This deposit, reminiscent of so-called 'dark earth' layers in urban contexts, contained an extensive assemblage of pottery and other finds that included coins of the House of Theodosius (AD388-402). Some 3251 sherds (weighing 51.298kgs) were recovered from the hand-dug part of this deposit and these sherds comprise a group of almost 56 Estimated Vessel Equivalents.

Approximately 40 percent of the group by EVEs is comprised of local coarsewares (TSK and BB2). These industries are usually thought to have ceased production in the mid- to late fourth century and thus their presence in such quantities in a deposit that is assigned to the last decade of the fourth or the fifth century on stratigraphic and numismatic grounds is worthy of some comment. This phenomenon is thrown into even sharper relief by the contents of what appears to be a similarly late pit [1060], which contained virtually no Thameside products. While some of the BB2 and Thameside forms are of late third- and fourth-century date, notably beaded and flanged bowls and so-called 'swan's neck pendant rim' jars of Monaghan's (1987, 136 and 96) classes 5A4 and 3H5 (Pollard 1988, 136), much of the Thameside/BB2 assemblage is characterised by earlier forms, like the so-called pie-dish (classes 5C and 5D, Monaghan 1987, 140-147) of second- and earlier third-century date. This suggests that a considerable component of the Thameside/BB2 products represent redeposited material. Another hint that this material was redeposited is provided by the small quantity (2 percent) of Dorset Black Burnished ware (BB1). It is all of late third- or fourth-century date. However, Dorset BB1 appears to have had a brief *floruit* in London and the South East in the late third and early fourth centuries (Symonds and Tomber 1991, 71). The occurrence of residual material in this deposit is also indicated by presence of small quantities of early Roman fabrics such as so-called 'Native Coarse Ware' (R1), BAETL, HOO, MOSL, NKFW, NKSH, Central and Eastern Gaulish Samian (one sherd of the latter was riveted, perhaps suggesting curation).

Pottery appropriate to the deposit's stratigraphic and numismatic date forms the next most substantial group of material after the Thameside/BB2 products. Approximately 17 percent of the assemblage by EVE is Alice Holt / Farnham ware and the allied 'Portchester D / Overwey' fabric. However, only 10 percent of the assemblage is comprised of 'local' grog tempered wares, probably sourced from the Canterbury and Lympne regions. Given the geographical distance of the Alice Holt kilns from Grange Farm and the relative ease with which the Canterbury area could be accessed by sea this bias in ceramic supply seems surprising. It may reflect a preference for the better quality, wheel thrown, decorated Alice Holt products and hard Portchester D jars over the poorly manufactured, soft, handmade products of the grog tempered producers. The production of Alice Holt inspired hook rim jars and other forms in a hard blueish-grey fabric may have been undertaken near Canterbury at the poorly recorded Preston kilns during the fourth century (M. Lyne *pers. comm.*). These pots may also show that the inhabitants of Kent required slightly better quality pots than those on offer in grog-tempered ware. Potential products of the Preston kilns (Canterbury Fabric LR5.1) accounted for some 3 percent of this particular group.

Other pottery fabrics traded over relatively long distances included red-slipped tableware and mortaria from the Oxfordshire kilns (9 percent). Some examples had white painted decoration and rosette stamps, which are decorative schemes usually considered to post-date AD350 (Young 1977). Other fine wares were sourced from the Much Hadham kilns and the Nene Valley but in very small quantities (<2 percent) and shell tempered jars may have been

sourced from kilns at Harrold in Bedfordshire (Brown 1994). Long distance trading connections are hinted at by small quantities of German Marbled Ware, roller stamped Argonne ware and Mayen coarseware (<2 percent) that indicate links with the continent and the mouth of the Rhine during the late fourth century and very early fifth century. Finally, six percent of the assemblage (SAND and MISC) remains to be sourced.

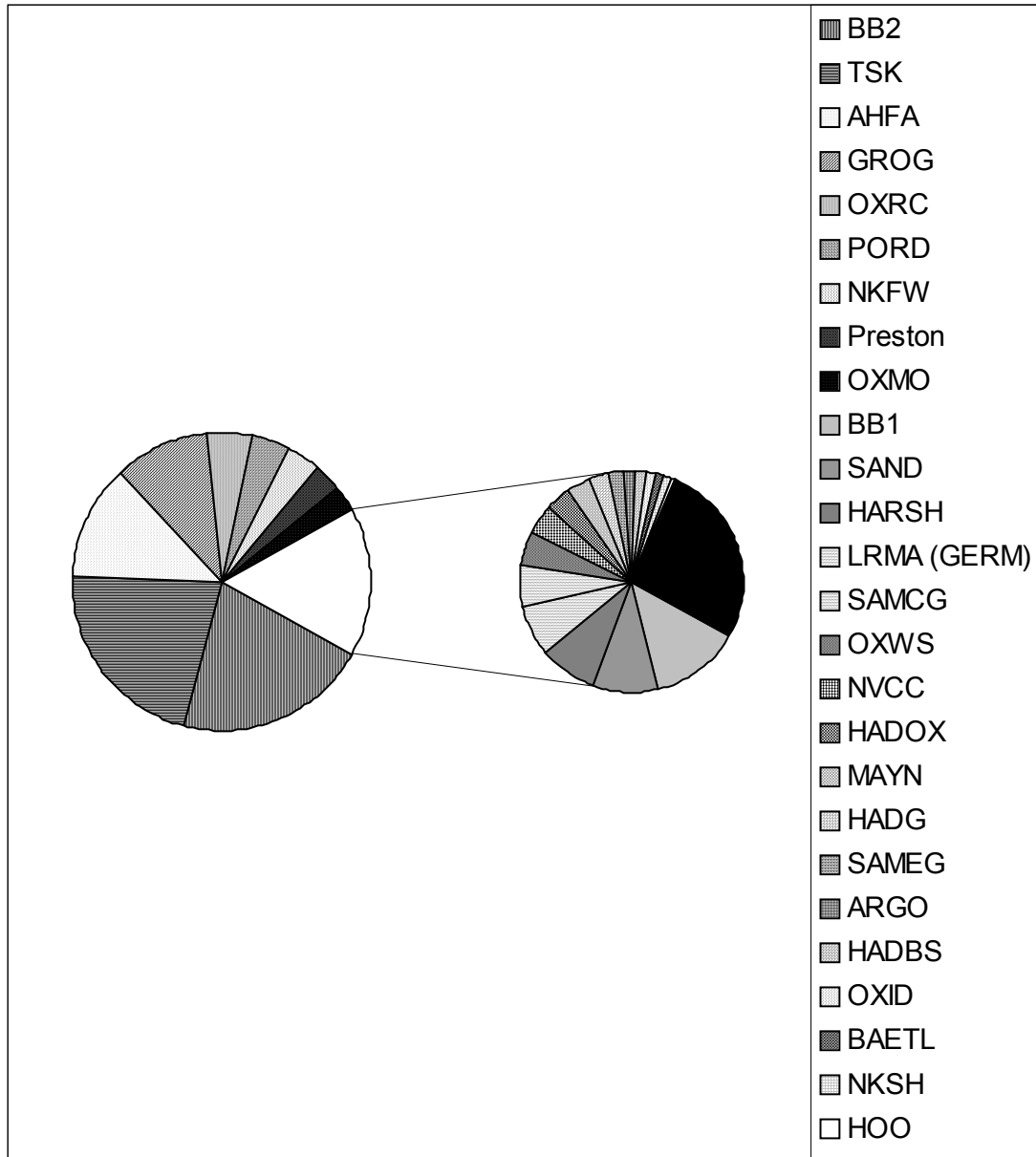


Fig 3 Quantification of pottery from Layer 201 by source and EVE

Fabric	Sherd Count	Weight (g)	EVE
AHFA	428	7454	7.06
ARGO	4	100	0.17
B2/R1	1	16	0
BAETL	8	1084	0.10
BB1	29	656	1.17
BB2	589	8023	11.77
CGBL	1	3	0
COLCC	2	10	0
GAUL	11	47	0
GROG	360	6842	5.65
GROG ESSEX	2	391	0
HADBS	2	53	0.14
HADG	3	26	0.24
HADOX	10	170	0.33
HARSH	21	495	0.75
HOO	23	273	0.05
Imit AHFA ('Kingston Ware')	1	28	0.05
LR5.1 (Preston)	48	881	1.71
LRMA (GERM)	4	103	0.67
MAYN	2	106	0.31
MISC	466	8852	8.02
MOSL	2	8	0
NKFW	105	977	1.94
NKSH	12	466	0.10
NVCC	15	208	0.41
OXID	22	342	0.13
OXMO	39	2227	1.54
OXRC	182	2470	2.81
OXWS	12	307	0.42
PORD	62	1012	2.37
R1	17	248	0
SAMCG	22	367	0.53
SAMEG	7	297	0.20
SAND	99	1427	0.84
SAXON	2	22	0
Thundersbarrow Ware?	1	147	0
TSK	996	11789	11.76
VCWS	1	213	0
TOTAL	3251	51298	55.59

Table 4: Quantification of pottery from Layer [201]

From a ceramic point of view the pottery assemblage can quite comfortably be compared with other very late fourth- and early fifth-century groups in London at Tower Hill, the Billingsgate bathhouse (Symonds and Tomber 1991, 77) and Old Ford (Gerrard & Lyne forthcoming) as well as late groups from Kent (Pollard 1988, 138-159). The Mayen ware and Argonne roller stamped products (produced up to AD420) strongly suggests that this group has an important early fifth-century component and two sherds of what could be early Saxon pottery may be significant in establishing how late into the fifth century this group went. A similar association between a large, very late Roman assemblage and a few sherds of Early Saxon pottery occurred at Burgess Hill in Sussex (Lyne in Sawyer 1999) and assemblages such as these may have the potential to shed some light on the transition from Roman Britain to early Anglo-Saxon England. In particular it is worth considering the process that led to the deposition of this material in the hollow way during the fifth century.

The layer is best considered akin to the controversial deposits named 'dark earth' in urban contexts. There has been and remains considerable debate over whether these layers represent dumped material, reworked by agricultural or biological processes or sediment accumulations during periods of abandonment (Yule 1990). Analysis of the pottery from this deposit goes some way to tackling this issue. Pottery that has been substantially re-worked from its place of primary deposition is likely to be abraded and smaller than pottery assemblages that are recovered from primary deposits (Bradley and Fulford 1980; Pollard 2000). Study of the abrasion exhibited by this group shows that some sherds are very abraded and others are fairly fresh. Less subjective measures, such as average sherd weight and 'brokenness', tell a more informative story (Orton *et al.* 1993, 178-181).

Fabric	Mean sherd weight (Weight/SC)	Brokenness (SC/EVE)
BB1	22.62	24.79
BB2	13.62	50.04
TSK	11.84	84.69
AHFA	17.42	60.62
PORD	16.32	26.16
GROG	19.01	63.72
ALL FABRICS	15.78	58.48

Table 4: The brokenness of pottery fabrics in Layer [201]

Essentially Table 4 demonstrates two significant aspects of this assemblage. Firstly, the average sherd weight for all fabrics in [201] is relatively high at 15.78g. Ploughsoil assemblages and deposits that accumulated through silting generally have a lower average sherd weights, usually around 4g. Recovery bias may account for some of this difference but is unlikely to be the cause of this high average sherd weight given the size of the assemblage. The figure for 'brokenness' is also low at 58.48 sherds per EVE. This suggests that Layer [201] was deposited through a process of deliberate dumping rather than gradual accumulation or sedimentation. Further support for this hypothesis comes from an analysis of broadly comparable 'coarseware' fabrics. The 'early' fabrics (BB2 and TSK) that are arguably residual have the lowest average sherd weights and TSK has the highest level of brokenness. However, BB2's level of brokenness is comparatively low and BB1, probably deposited in the very late third or early fourth century, bucks the trend by having a high average sherd weight and a low figure for brokenness. This latter phenomenon can be explained if it is suggested that some undiagnostic BB1 sherds were mistaken for BB2 (thus depressing the sherd count/weight figures), or if the BB1 was redeposited but from a different type of deposit than the majority of the TSK/BB2. The 'late' fabrics (AHFA, PORD and GROG) all have higher average sherd weights than the 'early' fabrics and lower levels of brokenness than TSK, reinforcing the impression that a different process led to their deposition (the very low figure for PORD is likely to be a products of this pottery's very hard fabric). It thus seems reasonable to suggest that [201] was deposited in the early fifth century by a process of dumping. The early pottery might suggest that some of the material that went to make up [201] was derived from second-, third- or early fourth-century midden dumps. The homogenous nature of the deposit would then be a product of subsequent biological reworking.

Deposit [537]

A small group of pottery was recovered from deposit [537] (114 sherds, 1.229kg). The date of this material is dependent on the presence of a convex sided dish in AHFA (Lyne and Jefferies 1979, 43: types 6A9, AD330-420) and fresh sherds of PORD and HARSH. At the earliest this material should date to after AD330, but the poor showing of the Thameside industries (TSK and BB2), which are represented by only three sherds (35g) suggests a date after AD350 if not AD370 would be more appropriate. A date after AD370 might be supported by the presence of a single sherd amongst the GROG tempered assemblage that appears to

be in a fabric local to West Sussex identified at Burgess Hill (Lyne in Sawyer 1999). The assemblage at Burgess Hill was very late Roman and dated to after AD370 if not the early fifth century. There is also a single Anglo-Saxon sherd from this deposit of fifth- to seventh century date (C. Jarrett *pers. comm.*), which, if it is not intrusive, may provide a post-Roman date for this context.

Pits [909], [1081], [1060] and [1209]

Pit [909], Fills [1016], [962], [946], [945], [908]

Pit [909] was one of the earliest pits and contained 298 sherds of mainly fresh and unabraded pottery (6.376kg, 6.39 EVEs). The pottery from this pit represented a relatively homogenous late Roman assemblage, with an apparent concentration of residual earlier Roman in fill [962]. The lowest fill [1016] contained OXRC forms C83 and C84 decorated with demi-rosettes and white-paint suggesting that this pit was backfilled after c.AD350. Further support for such a late date comes from the presence of a small quantity of HARSH and AHFA storage jars with combed curvilinear decoration. Fragments of a hard-fired grog and and tempered storage jar were also present in the lowest fill and this vessel was decorated, unusually, with a series of closely set notches or slashes on the rim. Subsequent fills continued the dominance of AHFA and GROG alongside small quantities of finewares and residual materials. The first appearance of PORD (a single sherd) and HADOX (a large rim fragment from a necked jar) occurs in the upper fill (908) alongside a fragment of HARSH and stamped OXRC sherds. Given the date of the pottery from this pit the pits that cut or recut it must all post-date AD350 at the earliest.

Fabric	Sherd count	Weight (g)	EVE
AHFA	122	3476	2.89
AHSU	4	15	0
B2/R1	4	104	0
BAETL	1	231	0
BB2	12	128	0.37
CGWH	1	2	0.09
COLCC?	1	12	0
FINE	1	6	0
GROG	53	912	0.96
HADOX	3	71	0.25
HARSH	9	238	0
LIA-ER Flint tempered	2	54	0
MISC	5	34	0
R1	3	18	0
NKFW	11	88	0.22
NKSH	4	153	0
NVCC	1	50	0.27
OXMO	2	104	0
OXRC	10	216	1.20
PATCH	2	10	0
PORD	1	4	0
SAND	21	130	0
LR14	2	10	0
TSK	23	310	0.14
TOTAL	298	6376	6.39

Table 5: Quantification of pottery from Pit [909]

Pit [1081], Fill [1080]

One of the stratigraphically earliest pits contained two sherds (145g) from an AHFA cooking pot / jar of Lyne and Jefferies (1979, 42) class 3B10, dated AD270-420. This fabric became more common in Kent after AD300 and it is unfortunate that this pit did not contain a larger group, which might have provided a firmer *terminus post quem* to the cutting of the subsequent pits.

Pit [1020], Fill [1019]

Pit [1020], stratigraphically later than Pit [1081], contained a small and mixed assemblage of pottery (62 sherds, 0.921kg). The latest material included HADG and HADBS sherds, GROG jar forms, AHFA sherds of Lyne and Jefferies (1979) class 5B10 and 6A10, dated to AD270-420 and a single piece of stamped OXRC, possibly from a C70 bowl dated AD325/340-400+ (Young 1977, 164). The presence of these fabrics and the virtual absence of BB2 (with the exception of a single rim of second- or third-century 'pie dish') suggests a date in the mid- to late fourth century for this pit fill. There were some fragments of earlier, residual material probably redeposited from the digging of the pit and also a small fragment of rilled, cream amphorae that might be a Late Roman import.

Pit [1060], Fills [1057], [1058], [1059]

This pit contained 134 fresh sherds of Late Roman pottery weighing 5.257kgs (4.38 EVEs). The fresh and internally consistent nature of the pottery assemblages from this feature's different fills, as well as sherd joins between contexts suggests that the three fills were deposited in quick succession to one another. It is thus reasonable to treat this material as a single group.

The group is dominated by pottery fabrics characteristic of the very latest Roman deposits in London and Kent (Symonds and Tomber 1991). First among these fabrics is Alice Holt / Farnham ware (AHFA), which accounts for over half of this small assemblage. Next in importance are local grog tempered coarsewares (GROG) followed by HARSH and small quantities of a fine grey ware that may originate at the Much Hadham kilns (HADGY?) and OXRC. It is noticeable that the local Thameside kilns are represented by only a handful of sherds and it seems that these fabrics are residual in this context. This strongly suggests that the group was deposited after the Thameside kilns ceased production in the period AD350-370 (Pollard 1988, 143-145). A late date is confirmed by the presence of a deep bowl in GROG dated to AD370-420 (M. Lyne *pers. comm.*) and hook rim jars in HARSH. The AHFA vessels are similarly late. Some could have been produced as early as AD250 but none need to have been manufactured earlier than c.AD330-350, the date at which the allied 'Portchester D/Overwey' (PORD) fabric achieved a wide distribution for the first time and the latest AHFA forms present in this group entered production (Lyne and Jefferies 1979: Types 6C1, I35). The scarcity of OXRC, which is common at Grange Farm in other late groups, is noteworthy and may have some chronological or functional significance.

Fabric	Sherd Count	Weight (g)	EVE
AHFA	51	2931	2.16
AMPH	1	32	0
BB2	7	150	0.05
GROG	21	974	1.25
HADGY?	3	82	0
HARSH	24	673	0.13
HOO	1	8	0
NKFW	1	1	0
NKSH	9	330	0.08

OXRC	10	43	0.34
PORD	1	4	0
LR14	3	23	0
TSK	2	6	0
TOTAL	134	5257	4.01

Table 6: Quantification of pottery from Pit [1060]

Pit [1205], Fills [1204] and [907]

Pit [1205] cut pit [1060] and its upper fill contained a small but not not-dissimilar pottery assemblage to that in its predecessor (45 sherds, 938g). No pottery was recovered from fill [1204]. Most of the pottery present in [907] was from the Alice Holt / Farnham kilns or local grog tempered wares. Fabrics present in very small quantities included HADOX, OXRC, NVCC, HARSH and 'Preston' wares. The presence of OXRC and NVCC and the absence of PORD is noticeable, but unlikely to be significant because of the very small number of sherds involved. A very late fourth- / early fifth-century date seems appropriate for this group.

Phase 8 (Anglo-Saxon)

Contexts: [1134], [731]

There were few features phased to the Anglo-Saxon period. One feature contained a few sherds of residual early Roman material.

Phases 9-11

Phases 9-11 produced residual Roman material of little interpretive value (280 sherds, 3.012kg).

THE GRAFFITI

Two sherds exhibit partial, post-firing graffiti. The first (SF1303, [770]) is a small TSK jar base incised externally with the letters AMR. The second (SF1302, [201]), a BB2 jar base, is incised with a number of letters and/or numerals. These appear to read IIIIRII or IIIIRVI.

A third sherd (SF1305, [844]) may be particularly significant. It is a small, simple rim in a first-century, handmade, grog- and flint-tempered fabric (Canterbury B3) that has been stamped repeatedly with the letters VICCF. The letters are thin, good quality and impressed pre-firing. They might have been impressed using a metal brand for marking leather and their occurrence on an early sherd is noteworthy and may betray something about the status/function of the site in the post-conquest period.

A number of other sherds have incised graffiti depicting a variety of subjects. Of these the most notable and intrinsically interesting is an example possibly depicting an anchor or ship (SF1304, [293]). This should be illustrated.

The three examples of graffiti are actually rather more than might be expected of a rural site (Evans 2001, Fig 12). Simple arithmetic shows that at Grange Farm almost seven thousand sherds of pottery were recovered for every piece of graffiti. This would ally the site more closely with Evans' rural/sub-urban and villa sites rather than his rural category. This might be significant, although it should be noted that if the early sherd (stamped VICCF) is discounted then the ratio would be closer to that expected of a 'rural' site.

DISCUSSION

Importance and significance

The pottery assemblage from Grange Farm is a large and important one. The presence of local kilns and a wide variety of imports suggests that this material has much to tell us about the dating, function and economic links of this site.

The origins and end of the Thameside producers are of particular importance both regionally and nationally and this assemblage and the site in general may be able to shed some light on these issues. The Thameside industry almost certainly grew out of local Iron Age production during the first century, with migrant potters perhaps introducing new technologies in the immediately post-conquest period. However, it was not until the early second century that the production of wheel thrown BB2 began, roughly contemporaneously with the supply of Dorset BB1 to the northern frontier. There were obviously stylistic connections between the Dorset and Thameside producers but whether these were the product of migration or other impulses remains to be seen. It would be interesting to see whether the shift in production towards BB2 in North Kent was associated with any large-scale changes in land use that might indicate new economic trajectories in the area.

The end of Thameside production is also something of an enigma. In London BB2 is almost absent in a group dated AD270-350/60 at Dowgate Hill and is similarly absent from a late fourth century group at the Billingsgate Bath House (Symonds and Tomber 1991, Fig 2). While the decline of Thameside production may not be as catastrophic or complete (especially closer to the areas of production) as these groups indicate, it is certain that production had ceased by the mid-fourth century (Pollard 1988, 142, 144-145). Quite why this occurred is debateable. Rising sea levels have been suggested but rightly discounted (Monaghan 1987, 229-230) and placing the blame on 'Saxons' seems equally improbable (Monaghan 1987, 229). What is remarkable is that the place of BB2 production was not taken by any small-scale local successors. Instead Grange Farm, like many sites, became reliant for their pottery supplies on kilns situated at great geographical distance (*ie* Alice Holt / Farnham). What this implies for the economic and social connections of the late phase of the site remains to be seen. However, it would be interesting to see if the decline of local pottery production has manifested itself in other ways in the local landscape.

There are also groups present at Grange Farm that have the potential to shed much light on the end of Romano-British pottery production. The importance of these late groups is heightened by their association with a wide variety of small finds and metalwork that might enable their chronology to be studied in more detail. Furthermore, some of this material might be of use in establishing a sub-Roman (*ie* post AD400 but pre-Saxon) phase of activity. Some hints of such a phase have been encountered during this assessment.

RECOMMENDATIONS

General

The pottery should be considered in a site wide context in order to establish the economic framework in which the local Thameside producers established their kilns, flourished and eventually collapsed. It is also highly desirable that the pottery be considered alongside other very late Roman finds from the site in an attempt to clarify the nature of an early fifth-century activity.

Phased ceramic supply

It would be useful to have a series of maps illustrating the sources of pottery to the site in the different phases and the relative quantities of pottery from each source (Orton *et al.* 1993, 15.4). This would highlight the substantial differences in the suppliers of pottery to North Kent

in the second and late fourth century for instance.

Functional / compositional analysis

It is recommended that some work is carried out prior to publication on the functional composition of the assemblages. In particular there are large second- and fourth-century pit groups that could be compared with one another in functional terms ([801], [909], [1081], [1060], [1209]). There are also large groups of pottery from third- and late fourth / fifth-century layers ([770] and [201]). The aims of this analysis would be to investigate the changing use of particular classes of vessel (beakers, bowls, jars, mortaria etc) over time. Preliminary indications would suggest that there are very few drinking vessels present in fourth-century deposits when compared with earlier groups. The significance of this is unclear. It may be part of a local or regional trend or may reflect a preference for drinking vessels in other materials (glass and metal). It is also possible that particular activities or site function might be detectable through this type of analysis.

Specialist wares

There is a small quantity of decorated Samian and sherds with maker's stamps. It is recommended that a Samian report is commissioned with an appropriate specialist (Joanna Bird?)

There are small quantities of mortaria that appear to be in the HOO fabric. These are otherwise unattested in the North Kent industry. Other unusual mortaria fabrics are present including potential Canterbury and Rochester products. Occasional pieces are stamped. It is suggested that a specialist (Kay Hartley?) examines this material.

The amphora assemblage in the main represents fairly well known fabrics (such as BAET). However, it would be useful to discuss the amphora with someone (sourced from MoLSS?) more familiar with the fabrics prior to publication.

Graffiti

The graffiti should be sent to Mark Hassall at the Institute of Archaeology for epigraphic analysis and publication in the 'Inscriptions' section of *Britannia*.

Illustrations

The majority of pottery can be described with reference to known typologies and corpora. This should minimise the need for pottery illustrations. Nevertheless it is considered that a number of unusual forms require illustration along with the graffiti. Depending on the nature of publication 20-30 pottery illustrations should be adequate.

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Appendix 1: Spot Dates

Spot dates are provided here for each context producing Romano-British pottery. Numbers of sherds and weights are also provided to indicate the reliability of each spot date. Dates given as 120+ are only to give a broad *terminus post quem*. They are based on few or abraded sherds and should be treated with caution. Further information is available from the database archive.

Context Number	Sherd Count	Weight (gm)	Earliest date	Latest date	Comments
20	2	9	100BC	100	
92	1	231	50	300	
129	24	479	330	400	
134	1	18	50	250	
201	2923	46823	370	420	Single Saxon sherd may extend to 450...?
204	12	245	300	420	
205	7	92	200	275	
207	150	1382	120	250	
209	2	9	300	420	
212	96	994	250	300	
220	2	5	100+	?	
224	88	1722	250	300	
227	7	63	300	420	1 ?Med sherd
232	8	75	300+		Includes 1 med sherd (badger sett)
234	1	4	100+		
236	15	176	350+		Includes 1 med sherd
238	5	71	120	300	
239	4	38	50	200	
243	59	533	120	250/300	300 date based on 2 v small sherds ? intrusive
254	247	1921	120	150	
256	8	69	40	70	
258	16	327	50	100	
260	17	89	10	70	
262	17	176	50	100	
263	9	199	300	400	
267	7	102	100	150	
268	8	110	240/300	400	
270	3	62	120	300	
271	8	297	150	300	
272	3	8	?	?	
273	21	367	250	300	
275	11	372	70	150	
277	1	8	120+		
278	5	19	200	300	
280	1	7	120+		
284	2	9	150	400	
286	9	112	50	100	
288	2	25	120	250	
293	133	1670	270	300	
294	54	1016	43	100	
296	25	631	120	200	
297	6	64	10	70	
300	6	28	150	250	

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301	9	303	120	300	
305	7	66	50	250	
310	21	151	43	100	
314	1	5	43+		
316	4	55	43	100/150	
320	1	3	120+		
325	6	59	0	60/70	
326	13	221	43	100	
338	4	51	50	150	
341	1	12	43	200	
346	8	120	270/300	400	
349	1	1	120+		
358	1	6	43+		
360	5	53	50	150	
362	1	3	120+		
370	1	26	300+		
383	10	157	300/330	400	
385	3	12	43+		
387	2	31	330	400	
402	2	13	120+		
404	1	4	43	250	
406	2	37			Med?
408	3	29	120+		
410	8	146	330	420	
412	1	20	120+		
415	1	2	0	70	
419	13	184	300	420	
431	126	1007	43	120	
433	5	53	43	120	
433	7	80	43	150	
435	2	26	120+		
448	132	2868	50	100	
448	85	1828	43	150	
449	136	1914	300	400	
452	533	9330	200	275	
454	32	565	240	300	
456	55	964	350	400	
457	4	43	300	400	
459	91	1407	250	300	
462	45	222	350	420	
464	37	849	350	420	
464	47	985	43+		
465	213	2363	350/70	420	
468	43	402	300	400	
469	42	649	300	400	
470	1	28	100+		
476	168	2576	50	200	
478	1	28	240+		
494	64	712	200	300	
496	2	38	350	420	
498	12	176	270	350	
499	5	20	0	70/100	
500	11	193	270	300	
502	58	781	120	170	

504	51	579	150	200	
515	15	422	200	300	
518	3	11	200	300	
523	2	95	10	50	
525	26	165	10	60	
527	6	109	350/70	420	
530	3	51	10	100	
532	7	231	0	100	
534	50	380	120	300	Inc piece of China
535	10	80	100	250	
537	114	1229	350/70	420	Single Saxon sherd
539	9	164	270+		Looks residual
541	1	7	100	300+	
547	10	299	50	80	
549	1	1	200+		
552	16	302	40	100	
553	2	13	LIA	50	
557	4	12	MIA	MIA	
561	1	7	50	200	
562	1	8	43+		
566	6	73	120	250	
567	4	40	40	140	
573	6	45	100	200	
575	1	13	270+		
582	1	6	43	270	
587					No pottery. Labelling error with earlier spot date
598	13	98	0	70	Early with a single pre-Flavian sherd
616	53	646	350/70	420	
619	64	1225	350/70	420	
620			?MED		
621	6	62	70	100	
625	1	22	100BC	50/70	
627	9	49	50	100	
632	31	397	43	70	
643	105	1913	43	80	
645	15	85	120	260	
648	8	272	130	200	
656	1	20	0	100	Residual?
660	2	6	43+		Residual?
665	2	29	30	60	
668	3	45	270	420	
670	60	1551	170	250	
689	6	98	300	420	
691	25	362	130	250	
694	1060	12648	170	270	Mainly earlier C3 with a small later component
701	3	12	30	60	
707	23	77	LBA-MIA?	LBA-MIA?	
716	4	17	LIA	60	
719	814	7158	270	420	Mainly C3 with small later component. Also single modern sherd
721	1	1			Undateable

727	1	6	100BC+		
729	11	56	50	70	
731			MED		
734	7	89	50	80	
736	2	9	LIA	50	
738	2	25	150	250	
746	3	7	120+		
748	2	17	43+		
754	7	98	250	300	
755	10	89	150	250	
756	364	4823	250	300	
757	1	4	?	?	
759	1	14	100	250	Dr38 copy, narrow date?
762	49	629	170	220	Dr38 copy
763	9	56	70	100	
765	1	3	70+		
768	118	2654	270	320	
769	35	782	250	300	
770	3449	33814	150/200	270/300	Group of long duration
780			40	70	
781			40	70	
786			240+		
787			270+	?	Very residual looking group
788	47	479	200	250	
790	23	659	130	250	
792	3	21	120	200	
794	8	89	120	250	
796	16	82	250	300	
799	35	713	120	150	
800	706	10978	120	150	
801	13	92	120	160	
802	669	13682	110	150	?terminates as early as 130
803	1	40	110	190	
804	79	700	120	170	
806	32	791	50	100	
808	8	86	30	60	
809	29	458	190	250	
812	6	84	70	150	
814	2	51	120	250	
819	39	637	150/70	250	
821	3	18	100+		
824	4	35	150	350	
827	7	155	100	150	
836	5	14	43	100	
841	10	223	MIA	LIA	
844	17	135	130	230	
845	116	1231	150	200	
850	9	114	70	120	
853	1	22	43+		
854	108	1166	150	250	
861	5	30	10	70	
866	4	37	170	200	
867	5	95	270	350	
868	2	22	220	300	

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874	1736	17739	170	250	
876	1	8	170+		
880	39	579	70	120	
890	4	27	180	300	
894	6	12	120	200	
896	29	180	100	170	
898	34		200	300	
899	4		120	250	
900	42		200	275	
902	512	233	150	250	
905			?IA	?IA	
906	5	292	0	50/70	
907	45	3834	350/70	420	
908	99		350/70	420	
910	58	80	170	250	
911	2	938	100+		
913	9	2100	100	250	
914	3	539	120	200	
915	5	3	200	350	
916	2	71	120	250	
918	62	25	240	300	Much earlier material
920	12	229	130	200	
922	5	14	100	200	
924	1	704	300+		
926	2	35	120+		
928	9	41	100	200	
936	9	6	50	100	
937	288	5	150	200	
938	4	52	370	420	
940	11	93	300	420	
943	2	4	120	300	
945	49	118	350/70	420	
946	12	113	300	400	
947	4	4	150	250	
949	7	690	120	150	
953	15	278	130	200	
959	69	1082	50	100	
962	133	2459	300	420	
964	56	673	150	300	Much earlier material
971	26	207	120	250	
976	18	253	300	400	
977	1	1	50+		
983	1	8	LIA	50	
984	1	3	120+		
989	1	8	300	420	
991	13	71	300	420	
992	2	6	100+		
995	14	266	100	200	
1000	14	550	120	250	
1003	5	204	80	130	Amphora stamp gives date
1004	1	10	100+		
1006	1	5	50+		
1009	21	323	50	120	
1011	34	284	LIA	70	

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1014	5	35	43	60	
1016	38	1242	350/70	420	
1017	1	15	300	400	
1019	62	921	330	420	
1025	32	520	50	100	
1028	64	759	130	200	
1029	1	125	50	200	
1032	5	40	70	170	
1035	1	4	270+		
1037	3	122	300	420	
1039	31	375	50	120	
1040	20	96	LIA	50	
1041	16	183	50	120	
1043	85	1083	EIA?		
1044	14	98	130	250	
1045	1	6	100+		
1049	3	3	100+		
1057	75	1711	350/70	420	
1058	45	1662	350/70	420	
1059	23	2031	350/70	420	
1073	8	113	100	200	
1079	12	258	70	130	
1080	4	290	300	420	
1082	1	2	43+		
1088	6	44	120	250	
1089	147	3422	50	100	
1094	9	85	50	100	
1095	54	374	50	250	
1103	43	288	50	100	
1104	27	161	120	150	
1108	17	256	LIA	70	
1110	8	114	100	140	
1119	2	12	LIA	50+	
1120	6	32	LIA	50	
1122	4	176	50	100	
1126	8	64	70	120	
1130	7	28	120	200	
1132	1	18	100+		
1134	3	16	50	200	
1135	4	12	100+		
1137	5	37	240+?		Looks residual
1138	1	4	300	420	
1139	1	9	50+		
1141	6	15	50+		
1143			?	?	
1144	1	169	?	?	
1154	3	30	300	420	
1161	12	214	50	120	
1162	22	406	40	70	
1163	4	4	50+		
1166	11	177	120	150	
1168	94	144	50	200	
1174	18	230	50	120	
1176	1	4	50+		

1177	2	30	MED?		
1179	2	10	50+		
1182	4	20	50	100	
1183	153	931	100	250	Includes ?Med sherd
1195	18	372	170	250	
1198	122	4281	150	300	
1213	74	2224	50	150	
1218	10	467	120	250	
1224	4	148	120+		
1225	116	1428	200	250	
1227	24	186	300	350/400	
1228	75	1027	350	420	
1229	86	1858	300	420	
1243	2	21	MED	MED	
1244	58	1212	LIA	70	
1246	2	12	LIA	50	
1257	13	187	150	350	All one pot
1258	6	24	270+		
1261	10	214	50	100	
1262	7	173	70	250	
1272	2	40	150	200	
1276	2	28	150	220	
1278	11	105	100	200	
1283	1	128	50	300	
1287	6	151	200	300	
1288	27	120	100	200	
1292	8	512	120	200	
1294	10	158	120	200	
1296	3	40	100	250	
1299	2	30	170+		
1301	1	65	100+		
1303	1	3	100+		
1305	2	28	70	250	
1308	11	233	120	250	
1309	7	52	70	250	
1311	1	7	120	300	
1313	3	29	120	200	
1325	5	39	120	200	
1334	1	4	CBM		
1336	5	45	200	275	
1338	10	38	120	200	
1340			?	?	
1346	4	12	MED	MED	
1351	18	244	LIA	50	
1353	7	46	100	200	
1363	6	42	50	200	
1368	4	76	100	250	
1383	7	80	150	200	
1386	3	5	43+		
1388	12	269	120	200	
1390	3	13	100	250	
1391	3	5	100+		
1392	5	74	50+		
905/906	19	189	50	100	



Fig 4 BB2 base SF 1302, [201]. Graffiti reading ?IIRVI



Fig 5 TSK base SF1303, [770]

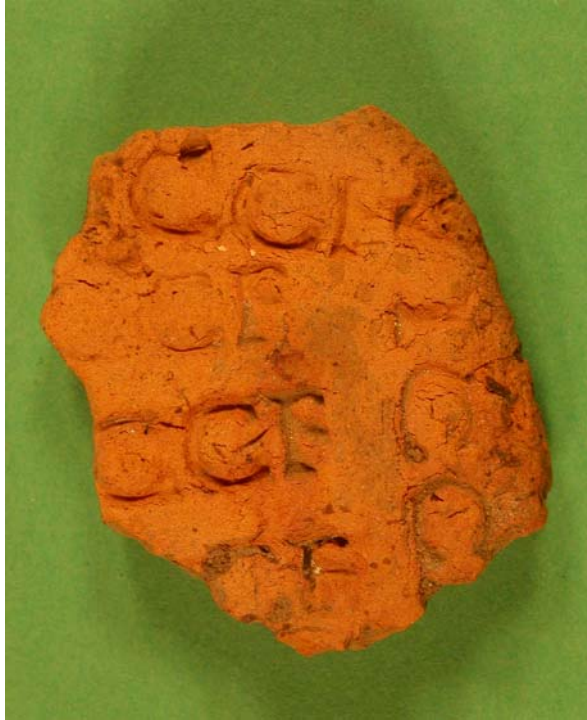


Fig 6 Early rim stamped repeatedly ?VICCF with a ?branding iron SF1305 [844]



Fig 7 Graffiti of a ?boat on a BB2 bowl sherd. SF1304, [293]

APPENDIX 3

POST-ROMAN POTTERY ASSESSMENT

Chris Jarrett

INTRODUCTION

A medium sized assemblage of Post-Roman pottery was recovered from the site (4 boxes). Most sherds show no or little evidence for abrasion indicating mostly rapid deposition after breakage. The Saxon pottery is mostly fragmentary as is the medieval ceramics, but a small number of vessels with complete profiles exist for that period. The post-medieval ceramics tend to be sherd material. The excavation recovered Post-Roman pottery from 33 contexts and individual contexts produced mostly small groups of pottery (under 30 sherds), but there is one context with a medium sized group (30-100 sherds): [549] and two deposits with large groups of sherds (101+ sherds): contexts [116] and [611].

Chronologically the ceramics can be summarised as 25 sherds of Saxon pottery, 834 sherds of medieval and 70 sherds of post-medieval pottery. The Saxon pottery dates to the period c.450-700 and the medieval pottery mostly dates to between c.1050-1350 whilst smaller amounts of pottery further date to the 15th and succeeding centuries, continuing to c.1900.

All the pottery (929 sherds and three are unstratified) was examined macroscopically and microscopically using a binocular microscope (x20), and recorded in an ACCESS database, by fabric, form, decoration, sherd count and estimated number of vessels, using standard Canterbury Archaeological Trust fabric codes and dating. The pottery is discussed by types and distribution.

THE POTTERY TYPES

Saxon

EMS1 – Coarse sandstone tempered, c.450-700, one sherd, form uncertain

EMS1A - Coarse sandy ware, c.450/475 – 650, nine sherds (three vessels), forms: closed shapes, one shoulder of a vessel decorated with an horizontal, faceted rib above evenly vertical rib decoration.

EMS1B – Sandy chalk filled, sand dominant, 450/475-675/700, eight sherds, form: jar.

EMS1D(O) - Fine sandy ware, but with sparse chaff and mica, c.450/475 - 675/700, form: uncertain.

EMS1F - Sandy ware with flint, but additionally with calcareous algae, c.450 – 650, form: uncertain.

EMS7C - Micaceous non - local coarse ware, c. 625/630 - 670/700, five sherds, form: jar/closed shape, decorated with rustication (finger pinched external surface).

Early Medieval

EM21: West Kent fine sandy ware with shell and sparse grits 1125/50 - 1200/50, one sherd, form: uncertain.

EM35: North or West Kent shell – filled 1050/1100 - 1200/25, 105 sherds, forms: bowl: rounded, jar; cylindrical, rounded and shouldered.

EM36: North or West Kent sandy and shell – tempered, 1100/50 - 1200/50, seventeen sherds, forms: jar.

EM44: Probable North or West Kent shell - filled fine sandy ware, c. 1100 – 1250, one sherd, form: uncertain.

EM45: ?Non - local coarse sandy ware, not dated, one sherd, form: uncertain.

EM48: Probably North or West Kent shell - filled fine sandy ware, c 1100 – 1250, one sherd,

form: uncertain.

EM100a – Miscellaneous unidentified ware, abundant fine, clear quartz sand, four sherds, form: jar

EM100b- Miscellaneous unidentified ware (?Tyler Hill), sandy fabric with sparse shell, one sherd, form: jar.

Medieval

Glazed wares

M1: Tyler Kill ware, 1225-1350, 57 sherds, forms: jug; rounded

M1A: Tyler Kill ware with sparse chalk, 1225-1350, 37 sherds, forms: jug; rounded.

M1B: Tyler Hill sandy: moderate sand in a smooth matrix; soft. (?under - fired), 1225-1350, two sherds, form: jug.

M5: London - type ware, 1080-1350, sixteen sherds, forms, jug. Includes a baluster-shaped drinking jug (ten sherds), dated 1270-1350. Also present is a base sherd of a bowl or dish used for cooking.

M6: Essex Mill Green ware, 1270-1350, four sherds, form: jug.

M7: Kingston-type ware, 1240-1400, ten sherds, form: jug, drinking jug.

Coarse wares

M37: ?Medway chalk - tempered sandy ware, undated, two sherds, form: uncertain.

M38A: North or West Kent sandy ware (M38A), 1150-1400, 460 sherds, forms: bowl; deep flared, carinated, jar; rounded, small, medium and tall, jug.

M38B: North or West Kent fine - moderate sandy, "Dartford Rilled ware" (M38B), 1225/50 – 1400, fifteen sherds, forms: jar; rounded, medium and small.

M38C: North or West Kent hard - fired fine sandy ware, 1325-1400, form: cauldron.

Imported pottery

M22: Saintonge (unglazed), 1250-1400+, four sherds, forms: jug.

M22G: Saintonge: green-glazed, 1250-1400+, 45 sherds, forms: jug, rounded.

M22P: Saintonge: Polychrome, 1290 – 1320, four sherds: form, jug.

Unidentified wares

M100a: very pale brown surfaces and core, reddish yellow margins, hard. Moderate, ill-sorted, various coloured quartz of a fine size, very occasionally up to 0.7mm. Sparse white calcareous flecks. Sparse, fine black iron ore particles, unglazed. Form: uncertain. Similar firing to M38 wares.

M100b: soft to hard, pink surfaces, grey core, moderate grey quartzite up to 1.5mm, abundant very fine matrix quartz, sparse fine black iron ore and red clay particles and angular flint up to 3.5mm. Unglazed.

M100c: hard, very pale brown surfaces and core, abundant, ill-sorted grey quartz, fine with larger quartz, some iron-stained up to 0.5mm. Sparse black iron ore flecks and larger clay pellets and noticeable very fine voids. Unglazed, wheel-thrown. Form: ?jug.

M100d: very hard, red external surface, light red margin/core, grey internal surface. Abundant, ill-sorted, multi-coloured, but mostly grey quartz, up to 0.6mm. Sparse, fine flint and red ?iron ore. Wheel-thrown and ext. white slip. Form: jug.

M100e: Hard, high-fired oxidised with grey core. Fine, ill-sorted sub-rounded quartz and ill-sorted, sparse clay pellets, very sparse angular ?ferruginous sandstone up to 0.5mm. Wheel-thrown. Form: jug, base with discrete thumbing and splash clear glaze.

M100f: Hard, reddish brown fired through out. Moderate to abundant, ill-sorted rose and grey quartz, up to 0.4mm, sparse shell flecks up to 1mm, moderate red clay pellets, up to 0.7mm. sparse burnt out organic inclusions. Unglazed.

M100/LM100 – fine, sandy micaceous fabric, some sherds with white-slip and glaze splashes, sixteen sherds. Form: uncertain
M100/LM100 + CALC: fine, sandy micaceous fabric with calcareous and red iron ore pellets, six sherds. Form: jar.

Late medieval

LM32: Wealden orange - buff sandy ware, ?1375 – 1550, two sherds, form: jar.
LM34A: Medway hard silty - sandy ware 1450 - 1525/50, two sherds, form: unidentified.
LM34B: Medway hard silty - sandy ware with chalk, 1450 - 1525/50, eleven sherds, forms: jar and jug..

Imported pottery

LM7: German Siegburg stoneware, 1300-1500, one sherd, form: uncertain.

Post-medieval

Early post-medieval

LM18C: Hareplain/Biddenden brown near – stoneware, 1475 - 1525/50+, one sherd, form: uncertain
LM19: London coarse red earthenware (e.g. Guy's Hospital), 1480-1600, two sherds, form: uncertain.

Later post-medieval

Red earthenwares

PM1: Post-medieval red earthenwares, generic type, 1550 – 1800, eight sherds, form: bowl or dish.
PM1.8: reduced sandy earthenware, 1550-1800, one sherd, form: uncertain.
PM2: Wealden buff fine sandy ware. 1550-1650(+), six sherds, form: bowl; rounded, jar and jug.
LPM1: Red earthenware with iron - streaked glaze (?High Halden), 1775+, two sherds, form: jar.

Surrey-Hampshire Border ware

PM10.1: whiteware, green-glazed, 1550-1700, eight sherds, forms: bowl or dish and jar.
PM10.2: whiteware, yellow-glazed, 1550-1700, five sherds, forms: bowl or dish and tripod pipkin, type 2, external lid-seated.
PM2.4: Wealden or Surrey/Hants fine pink - buff earthenware, 1550-1900, two sherds, form: bowl or dish.
PM2WG: ?Wealden/Guy's Hospital/London Area fine sandy redware with grey core. Slipped/unslipped, 1475-1750, one sherd, form: ?bowl.

Non-local wares

PM21.3: Staffordshire-type press-moulded slipware: combed decoration, three sherds, form: dish.
PM58: Midlands purple ware, 1480-1750, one sherd, form: ?butterpot.

Imported pottery

PM6CM: German grey Westerwald stoneware with cobalt and manganese decoration, 1665-1750, one sherd, form: uncertain.

Delftware/Tin-glazed earthenware

PM9: English tin - glazed earthenware, 1575-1770, two sherds, form: uncertain.
 PM9B: English tin - glazed earthenware: blue on white decoration, 1575-1770, one sherd, form: small rounded bowl.
 PM9TB: English tin - glazed earthenware: plain blue, 1675-1770, one sherd, form: plate; Britton's type J.
 PM9W: English tin - glazed earthenware: plain blue, 1575-1770, one sherd, form: uncertain.
 PM9P: English tin - glazed earthenware: polychrome. 1575-1770, one sherd, form: bowl; small rounded (mid 17th century).
 PM9TB: English tin - glazed earthenware: blue - tinted and painted, 1675-1770, two sherds, form: bowl; small rounded, plate: Britton's type J.

Stonewares

PM100: unidentified English stoneware, one sherd, form: uncertain.

Industrial finewares

LPM4: North East English (Tyneside) slip - decorated redware, one sherd, 1775-1925, form: baking dish.
 LPM5: Yellow ware 1825/50-1900, four sherds, form: uncertain.
 LPM11A: Later Creamware "Queensware", 1775 – 1825, six sherds, forms: and plate.
 LPM12D: Pearl Ware: blue feathered/shell edged rims, 1780 – 1825, one sherd, form: plate
 LPM14: Staffordshire "Ironstone" - type white earthenware, including transfer-printed ware and sponge printed ware, 1800-1900, nine sherds, forms: bowl and saucer.
 LPM18AA: "Wedgwood" - style Black Basalts: matt surfaces, 1770-1900, one sherd, form teapot.

DISTRIBUTION

The distribution of the pottery is discussed by phase and area. Table 1 shows the contexts containing pottery, the number of pottery sherds present in that context, the area it occurs in and a spot date for the deposition of the group.

Context	SC	Phase	Area	Spot date	Context	SC	Phase	Area	Spot date
[7]	2			1050-1225	[504]	1	4	A	1780-1825
[59]	3			1050-1225	[534]	1	5	A	1775-1825
[200]	7	11	A	1700-1800	[537]	1	6	A	450-750
[201]	5	7	A	1825-1840	[549]	41	*	*	1225-1350
[204]	2	10	A	1800-1825	[562]	61	9	A	1290-1320
[220]	1	5	A	1100-1250		1			
[225]	3	11	B	1775-1825	[601]	5	10	A	1650-1800
[227]	1	9	A	1100-1250	[607]	1	6	A	1250-1400
[232]	2	9	A	1150-1400	[609]	7	10	A	1825-1900
[254]	1	3	A	1580-1900	[615]	1	4	A	c. 1000-1150
[330]	3	10	A	1775-1900	[636]	2	9	A	1150-1400
[346]	1	10	A	1775-1830	[639]	12	10	A	1675-1700
[402]	1	6	A	1150-1400	[650]	16	10	A	1665-1700
[452]	3	5	A	1080-1350	[667]	4	10	A	1150-1400
[454]	1	10	A	1225-1350	[713]	13	9	A	1250-1350
[457]	2	10	A	1480-1600	[731]	21	8	A	450-550
[464]	2	7	A	1550-1800	[809]	1	4	A	1325-1400
[478]	5	10	B	?1525-1550					

Context	SC	Phase	Area	Spot date
[831]	4	10	A	1550-1700
[1053]	9	*	*	1550-1700
[1168]	11	5	C	1150-1225
	6			
[1172]	22	9	C	1150-1225
[1183]	1	4	A	112 -1250
[1346]	1	10	C	1000-1250
[1370]	1	10	C	1825-1900
[1372]	3	10	C	1825-1900

Table 1. KKGf 03. Distribution of the pottery showing the number of sherds in each context, its phase, the area of excavation and a spot date of deposition. * context voided. SC: sherd count.

Phase 4: AD 43-120

Area A

A single sherd of a Post-medieval redware (PM1), dated 1550-1800 is recorded in fill [254] of the ditch [223].

Phase 5: AD 120-250

Area A.

A number of Post-Roman pottery types occur in this phase and a small probably intrusive sherd of a Pearl wares shell-edged rim plate is recorded in fill [504] of the ditch [505].

The base sherd of an early medieval sand and flint ware (EM44), with stick end external decoration is recorded in fill [615] of post-hole [529].

A cauldron foot in High fired North or West Kent sandy ware (M38C), dated 1325-1400 was found in fill [809] of pit [789].

Ditch [1184] produced a single sherd of West Kent fine sandy ware with shell and sparse grits as part of a rim form an uncertain vessel shape.

Phase 6: AD 250-300

Area A

A small body sherd of sand and shell-tempered ware (EM36) was recovered from fill [220] of the grave cut [206] and is almost certainly intrusive. Layer [534] produced a single, small abraded sherd of Developed Creamware (LPM11A) and is intrusive.

Pit [517] has in its fill [452] two sherds of London-type ware as the base of a vessel (probably a bowl) used to cook in and a white slipped and green-glazed jug. The deposit is dated 1080-1350, but kitchen wares in the London-type ware industry are rare after c.1200.

Area C

Pit [1169] is spot dated by the pottery types in its fill [1169] to between 1150-1225. Of the 116 sherds present 95 sherds or 15 vessels are of the Early medieval shell-tempered ware (EM35), dated 1050-1225, as jars, mostly as rounded types, but with single incidences of cylindrical and shouldered types, besides a single bowl of a rounded shape. The only other pottery type present in the fill is as 21 sherds or 12 vessels of North or West Kent sandy ware (M38A), dated 1150-1400 as rounded jar shapes. Most of the vessels in the pottery group are sooted and therefore used for cooking or heating water, whilst two vessels have internal deposits, probably derived from food.

Phase 7: AD 300-420

Area A

Layer [537] has a single Post-Roman pottery sherd recorded as an Early Saxon fine sandy ware, but with sparse chaff and mica fabric EMS1D(O) and is dated c.450- 700. The sherd is either from a rounded base or shoulder.

Pit [403] produced in its fill [402] a single rim sherd from a North or West Kent sandy ware (M38A), and so dates the feature to between 1150-1400.

Ditch [608] has recorded in its fill [607] a very small body sherd of French Saintonge green-glazed pottery and is almost certainly intrusive.

Layer [201] produced five sherds of pottery, three of which are 19th-century industrial finewares, another is a Post-medieval redware and of particular interest is a sherd of Early Saxon coarse sand-tempered ware (EMS1A) decorated with an horizontal faceted rib and evenly spaced vertical ribs and is probably late 5th or early 6th century in date.

Layer [464] produced two sherds of pottery as single sherds of a Post-medieval redware (PM1) and a medieval jug sherd in an unidentified fabric (M100d).

Phase 8: Anglo-Saxon

Area A

The latest pottery types in fill [731] of pit [732] are four sherds of medieval pottery: shell - filled fine sandy ware (EM48), Tyler Hill sandy with sparse chalk (M1A) and North or west Kent Sandy ware (M38A). But these sherds are quite small and may well be intrusive. Larger sherds of Early Saxon pottery are present as three vessels and consist of six sherds from a closed vessel in coarse sandy (EMS1A), eight sherds from the base and wall of a probable jar in Sandy chalk filled ware (EMS1B) and two sherds in Micaceous non - local coarse ware (EMS7C) with rusticated (pinched) surfaces. These Saxon pottery types, if they are the contemporary pottery in the feature, date the backfilling of the pit to between c.450-700.

Phase 9: medieval

Area A

Fill [227] of the robber cut [229] can only be dated to between 1100-1250 by the presence of a single sherd of early medieval sand and shell ware (EM36).

Two sherds of North or West Kent sandy ware (M38A) date fill [232] of pit [233] to between 1150-1400.

The ridge and furrow [634] has in its fill [636] sherds of a North or West sandy ware (M38A) as a jug rim and an unidentified ware (M100e) jug base, indicating activity between 1150-1400.

The largest group of pottery of Post-Roman pottery on the site came from pit [563]. The earliest fill of this pit [713] contained a single Tyler Hill (M1A) jug fragment, but twelve sherds from a Saintonge green-glazed jug, with fragments of the same vessel in the later pit fill, [562] which has recorded 611 sherds of pottery. The majority of the pottery in this fill is medieval in date, but two sherds are post-medieval and six sherds are dated c.1450-1550 and these later sherds may be contamination. The medieval pottery in this group shows an interesting range of fabrics and forms, as both local, non-local and imported wares and are summarised in table 2. The main type of pottery present is North or West Kent Sandy ware (M38A) and is represented by kitchen wares, such as jars for storage and cooking, but there are also three pipkins and two jugs present. Such a large number of pipkins in a medieval pottery group is somewhat unusual and may infer a greater range of culinary skills than most assemblages. Glazed jugs are mostly present in Tyler Hill fabrics (M1 and M1A), but are also noted in London-type ware (M5), Mill Green ware (M6), which include French Rouen style decoration and Kingston type ware (M7). Drinking jugs are also represented in London-type ware, dated 1270-1350 and Kingston-type ware and show, rather than the usual norm of communal vessels, individual ceramic drinking items present, a social trend seen more frequently in the later medieval period. Unusual ceramic finds are imported Saintonge green-glazed and polychrome jugs, the latter with possibly a bird design on it and dates the group to between 1290-1320. The Saintonge jugs' presence may be a reflection of the site's coastal location, or the fact that the Port of Gillingham was linked to the Cinque Port of Hastings. It has also been suggested that these exotic wares were part of the Gascony wine trade and were the fashionable items to be used with drinking wine from that region. Additionally, of note are five sherds of Early Saxon pottery and includes a sandstone-tempered ware (EMS1) and coarse sandstone tempered ware (EMS1A), besides two more sherds from the rusticated jar in the micaceous non-local ware (EMS7C) recorded in contexts [549] and [731].

Area C

Pit [1173] produced in its fill [1172] a total of 22 sherds of pottery dated 1100-1225 by the presence of early medieval shell or shell and sand fabric (EM35 and EM36), besides six sherds from three unidentified fabrics. The absence of wheel-thrown sandy wares, e.g. EM38, may indicate more of an

early 12th century date to the deposit.

Pottery type	Date	Form	SC	ENV
Roman pottery			6	6
EMS1:	450-700		1	1
EMS1A: Coarse sandy	450-650		2	1
EMS7C: Micaceous non - local coarse ware	450-650	Jar	2	1
EM36: N. or West Kent sandy and shell - tempered.	1100-1250		3	1
M1: Tyler Hill ware	1225-1350	Jug, rounded	42	9
M1A: Tyler Hill ware with chalk	1225-1350	Jug, rounded	30	9
M5: London-type ware	1270-1350	Drinking jug, baluster	10	1
"	1080-1350	Jug	3	3
M6: Mill Green ware	1270-1350	Jug	4	3
M7: Kingston-type ware	1240-1400	Drinking jug	3	1
"	1240-1400	Jug	7	3
M22: Saintonge ware	1250-1400+	Jug	3	2
M22G: Saintonge green-glazed	1250-1400+	Jug	32	2
M22P: Saintonge polychrome ware	1290-1320	Jug	4	2
M37: ?Medway chalk - tempered sandy ware			1	1
M38A: North or West Kent sandy ware	1150-1400		10	3
"	1150-1400	?Jar	222	
"	1150-1400	?Jug	18	6
"	1150-1400	Bowl	20	4
"	1150-1400	Jar	133	13
"	1150-1400	Jug	6	2
"	1150-1400	Pipkin	3	3
M38B: N. or West Kent fine - moderate sandy (rilled surfaces)	1225-1400	Jar	15	2
LM34A: Medway hard silty - sandy ware	1450-1525/50		2	2
LM34B: Medway hard silty - sandy ware with chalk	1450-1525/50	Jug	4	1
M100/LM100: Unidentified medieval or late medieval			16	5
M100/LM100 + C: Unidentified medieval or late medieval with calcareous inclusions			5	3
"		Jar	1	1
PM2: Wealden buff fine sandy ware	1525-1650		2	2
"	1525-1650	Jug	1	1
Total			611	94

Table 2: Quantification of Pottery types and forms from fill [562] of pit [563]. SC: sherd count, ENV: estimated number of vessels.

Phase 10: Post-medieval

Area A

The French drain [455] produced probably residual medieval pottery in its fills [454]: as a sherd from a medieval Tyler Hill jug and fill [667]: North or West sandy ware (M38A) as jar and jug sherds.

Pits in this phase include pit [458] with a 16th-century redware jug base in fabric LM13. Later 17th-century pits are [640] and [651]. Fill [650] of pit [651] produced pottery dated 1665-1700 by the presence of Surrey-Hampshire Border ware (PM10.1, PM10.2 and PM2.4), delftware (PM9, PM9B, PM9W, PM9BT and PM9P) besides redwares (PM1, PM1.8) and a slipware dish (PM2WG). The latest pottery type is a Westerwald stoneware sherd with cobalt and purple decoration (PM6CM). Pit [640] had in its fill [639] similar pottery to that of pit [651]; Border ware and redwares but a delftware plate dates the deposition in this feature to between c.1675-1700. A later pit [331] is dated c.1775-1900 by the presence of a late red earthenware (LPM1) but an earlier late medieval Medway hard silty - sandy ware with chalk (LM34B) jar rim is also present.

Two tree throws also contained pottery, the first [602] produced a Staffordshire-type slipware (PM21.3) dish, c.1650-1870 as the latest pottery type and [610] contained mostly 19th-century industrial finewares: fabrics LPM4, LPM5 and LPM14, the latest ware dates deposition to between 1825-1900.

Drainage features include the gully [832] with a sherd of Post-medieval redware (PM2) as the latest fabric present and spot dating it to between 1550-1700. A later ditch [304] contained the base of a Creamware plate (LPM11A) in its fill [346] and so dates this infill to between c.1775-1830. Layer [204] also contained Creamware with a sherd of Transfer-printed ware (LPM14) and is therefore dated c.1800-25.

Area B

One feature produced Post-Roman pottery in this area and that was a ditch [473], which produced pottery in its fill [478] spot dated c.1525-1550 as two sherds of Wealden orange - buff sandy ware (LM32) and includes the rim of a jar, besides another jar rim in Post-medieval redware fabric PM2. Two imported pottery sherds are present as Saintonge green-glazed ware and salt-glazed German Siegburg stoneware (LM7).

Area C

One pit, [1347] produced a single sherd of ?Non - local coarse sandy ware (EM45) as a rim sherd from an uncertain form. No dating is given for this ware, but can be provisionally dated c.1000-1250. Two ditch fills occur in this phase with 19th-century type ceramics, firstly fill [1370] for ditch [1371] produced a sherd of transfer-printed ware, dated 1780-1900 and fill [1372] for ditch [1375] is dated c.1825-1900 by the presence of Yellow ware (LPM5) with sponge decorated 'Ironstone' type whiteware.

Significance of the Collection

The pottery is of significance at a local and regional level. As one of the larger pottery assemblages recovered from Gillingham and with a paucity of published information, then the pottery from this site more comprehensively demonstrates Saxon, medieval and post-medieval ceramic trends seen in the area.

Saxon

Although only a small group of Early Saxon pottery is present on the site, it has the characteristics more of a domestic assemblage, rather than funerary one and it is important for indicating activity of this period on the site. Its temporal relationship with the gold brooch recovered from context [1134] (see Gaimster, Appendix 5) is uncertain, but both classes of material could be contemporary.

Medieval

The medieval pottery from the site indicates activity dating mostly to the 11th or 12th century until the mid 13th-century with limited late medieval wares represented. The pottery from this period provides a good ceramic sequence indicating that Early medieval shell-tempered ware (EM35) is the main pottery type traded to the site from the late 11th to early 12th century and does not become displaced by the introduction of Early medieval sand and shell-tempered ware (EM36), as it does in other parts of Kent. This may be reflected by the fact that North Kent was the area for the production of this type of shell-tempered pottery. From c.1150 the North and West Kent sandy ware (M38A) became the main type of pottery, providing mostly jar or cooking pot forms, but from c.1225 until c.1350, Tyler Hill was supplying glazed jug.

The large group of ceramics from pit [563] is interesting for the wide range of medieval ceramic types (both local, non-local and imported wares) and the forms represented. Although it is dangerous to imply socio-economic status from ceramics during the medieval period, this group of pottery does infer that it may have been derived from the manor house: Grench Manor or perhaps another local establishment of high status.

Post-medieval

The pottery from this period is on the whole fragmentary, mundane and does not suggest any research questions. The fifteenth-century to sixteenth century pottery occurs in such small quantities that it is difficult to be certain of the ceramic profile for the site and environs. The seventeenth-century pottery

types, however do show a trend that would be expected locally and regionally by the occurrence of Surrey-Hampshire Border wares and post-medieval redwares, the latter from a number of sources, while from the mid 17th century, delftware probably from London and other non-local wares, probably Staffordshire start to become more common. The 18th-century is very poorly represented ceramically on the site. The 19th-century pottery is fragmentary and reflects on the whole, the same ceramic trends seen nationally.

Potential

A main potential of the pottery is as a dating tool to the contexts it was found in and this will allow for a ceramic sequence to be initiated for the site and the locality. A number of vessels merit illustration, but none of the ceramics justify exhibition in a museum. It is difficult to find local excavations to compare the pottery from this site to, the closest being for the medieval period: Rochester (Tester 1978) and post-medieval period: Chatham and Rochester (Williams 1982; Tester 1983).

Early Saxon

The pottery from this period has the potential to inform on the types of ceramics found in the area during this period. If the assemblage has 'Jutish characteristics' then this would be important and fit in with the material culture of the Jutes who are documented as settling in Kent in the Post-Roman period.

Medieval

The medieval pottery from the site has a high potential to define the pottery types found in the local area. The group of pottery from pit [563] can inform on the activities associated with the establishment it was derived from.

Post-medieval

The post-medieval pottery has little or no further potential for further study of the site.

Research aims

A number of research aims can be formulated for the pottery from the site and suggested as directions for further study.

- What is the significance of the Early Saxon Pottery?
- What is the ceramic sequence for the early medieval and medieval pottery?
- Can other datable finds, such as coins help refine the dating of the medieval pottery types?
- Can the functions of the medieval pottery inform on what activities are happening on the site?
- What does the pottery inform us about the marketing of ceramics to the Gillingham area and how does this compare to other local Kentish towns?

Recommendations for further work

A publication report should be compiled detailing the medieval wares on the site. Approximately twenty illustrations are required for publication.

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APPENDIX 4

LITHIC ASSESSMENT

Barry Bishop

Introduction

Excavations at the above recovered a total of 180 struck flints and just over 10kg of burnt stone fragments. This report quantifies and describes the material, offers some comments on its significance and recommends any further work required.

Quantification

Context	Phase/Feature	Decortification Flake	Rejuvenation Flake	Unclass. Flake Fragment	Chip	Flake	Blade	Blade-like flake	Core	Minimal Core	Retouched	Conchoidal Chunk	Context Total	Burnt Flint (no.)	Burnt Flint (wtg)
+	+					1						1	2		
+SF219	+						1						1		
+SF48	+						1						1		
165	?												0	2	145
1372	10 D1374												0	1	13
1375	10 D1376												0	1	155
1115	10 PH1116												0		195
427	2 P428					1							1		
541	2 P542							5				1	6		
637	2 P638									1			1	203	5625
388	2 PH389	6		3	1	5	2	2				1	20		
379	2 SH380	1	1		1	3		5			1		12		
1011	3 D1012												0	6	515
1040	3 D1012												0	4	190
1119	3 D1121												0	2	110
1147	3 D1121												0	1	70
254	3 D223					4							4		
286	3 D287						1						1		
654	3 G510						1						1		
415	3 P416				5								5		
711	3 P713					1							1		
1041	4 D1042												0	2	180
1183	4 D1184					1							1		
218 SF263	4 D219						1						1		
260	4 D259	2				3	1						6	1	14
504	4 D505												0	1	85
808	4 D864					1		1					2		
616	4 Layer	1											1		
845	4 Layer							1					1		
874	4 Layer	1											1		
362	4 P363				1								1	3	31
431	4 P432	1			1	2	1					1	6		
788	4 P789												0	1	8
800	4 P801					1							1		
802	4 P801	1				1							2		
1292	4 PH1293					1							1		
349	4 PH350	1											1		
476	4 TT477												0	6	200
212	5 D213												0	2	76
243	5 D213												0	3	96

Context	Phase/Feature	Decortification Flake	Rejuvenation Flake	Unclass. Flake Fragment	Chip	Flake	Blade	Blade-like flake	Core	Minimal Core	Retouched	Conchoidal Chunk	Context Total	Burnt Flint (no.)	Burnt Flint (wt:g)
264	5 D264												0	1	39
277	5 D264							1					1		
278	5 D264												0	1	38
258 SF405	5 Layer						1						1		
258	5 Layer	3				1						1	5	3	131
452	5 P517	1		1		2							4		
1228	6 Cut1231												0	4	105
1229	6 Cut1231							1					1		
449	6 Layer	1											1		
537	6 Layer	1											1		
694	6 Layer						1						1		
719	6 Layer	3											3	15	445
770	6 Layer	8			3	16						2	29	34	1135
937	6 Layer	4	1			5	2						12	12	380
1103	6 Layer					1							1		
991	6 P994	1			1	2			1				5	1	10
992	6 P994										1		1		
238	7 Cut229	1											1		
769	7 P783										1		1		
945	7 P909					1							1		
201	7 soil	13		1	2	4		1				1	22	1	85
204	7 soil	1											1		
731	8 P732						1						1		
478	9 D473					1							1		
443	9 P444					1							1		
562	9 P563					2	1						3		
549	Void	1											1		
Total		52	2	5	15	61	15	17	1	1	3	8	180	311	10076

Table 1: Quantification of Lithic material by Context

Burnt Flint

Just over 10kg of burnt stone, mostly flint but with occasional siliceous sandstone fragments present, were recovered. These had been humanly modified by being burnt but exhibited no other evidence of previous or subsequent modification.

Over half of the burnt stone was recovered from a single feature, Phase 2 pit [638]. This material was thoroughly and uniformly burnt, the flint having turned a consistent light grey in colour and it had severely shattered, although individual fragments weighed up to 150g. It would appear that large nodules had been collected and deliberately burnt, in a manner characteristic of 'potboilers'. The only other contexts to produced appreciable quantities of burnt stone were the Phase 6 layers, which also produced similarly uniformly burnt flint fragments, totalling nearly 2kg.

The material from the pit appeared to originate from the extensive and systematic production of burnt flint, such as identified at 'burnt mound' sites and usually interpreted as representing industrial activities or large-scale cooking, although many other activities that may produce such material have been proposed (eg Barfield and Hodder 1987; Barfield 1991). The material from the Phase 6 layers may have had a similar origin, although in this Phase it was noted that metalworking may have been an important activity, and it is possible that the burnt stone originated from this.

The remainder of the stone was burnt to varying degrees and it was mostly recovered in small quantities and from a variety of features. This would be more suggestive of general 'background' residual waste, most probably from activities involving hearth-use. A few contexts produced slightly

larger quantities, such as some of the Phase 3 ditches, which may suggest either the presence of close-by hearths or that the features were used to dump the refuse from such hearths.

Struck Flint

Raw Materials

The struck assemblage was all manufactured from flint but it varied quite considerably in texture and knapping quality. Many pieces, particularly those that may be 'earlier' in origin (see below), were manufactured from a translucent black or grey fine-grained flint that was relatively homogeneous in texture and of good knapping quality. The majority of the pieces, however, were manufactured from flint that varied quite considerable in texture but frequently contained high proportions of coarse-grained cherty and crystalline inclusions. These frequently had a thick, relatively unweathered cortex but were prone to sometimes extensive thermal faulting, and were probably obtained from superficial deposits of mass weathering as found close to the parent Chalk (Gibbard 1986) and present in the locality. There were also a few pieces made from "bullhead bed" flint, which can be found at the junction of the cretaceous Upper Chalk and overlying Tertiary deposits throughout Kent, Essex and East Anglia (Shepherd 1972).

Condition

Overall, the assemblage varied considerably in condition, from being sharp and relatively fresh to being heavily chipped and abraded. Such variations would be consistent with residually recovered assemblages.

Technology, Typology and Dating

Despite the reasonable size of the assemblage there were no truly typologically diagnostic pieces present, the assemblage consisting predominantly of rather unremarkable knapping waste. Only three possible retouched pieces were recovered: a cortical flake from Phase 6 pit [994] with blunting along one edge and traces of cutting type use-wear on the opposite margin, possible representing a blunted back knife; a cortical convex end-scraper from Phase 2 stakehole [380]; and a small angular fragment from Phase 7 pit [783] with what may be blunting along one edge, possibly forming a piercing type tool. The proportion of retouched pieces is rather low although a number of possibly edge retouched and notched pieces were present but the chipped and abraded condition of much of the assemblage precluded confident identification of these and they are not discussed further. Also rather under represented were cores, of which only two were recovered. The example from Phase 6 pit [994] consisted of a single platformed core with a series of short, narrow flakes and blades removed from one side. The other, from Phase 2 pit [638], consisted of an angular chunk with a simple flaked striking platform from which only a few small and short flakes had been removed but which also exhibited several incipient Hertzian cones from failed attempts at removing further flakes. A high proportion of the overall assemblage consisted of decortication flakes which probably reflects the short nature of knapping sequences as well as the possibility of decortication raw materials found at the site, prior to them being removed for further working elsewhere.

The technological attributes of the assemblage would suggest that it might have been manufactured over a long period of time. A number of blades and flakes with blade characteristics, such as parallel margins and dorsal scars (blade-like flakes), were present and these would be most characteristic of Mesolithic or Early Neolithic industries, the lack of small or truly systematically produced blades tentatively suggesting they may belong to the latter rather than former period. With these may be added the narrow flake core recovered from Phase 6 pit [994].

Much of the assemblage, however, consisted of more-crudely produced flakes, some to the extent that a degree of uncertainty must remain as to whether they were deliberately struck or not. Nevertheless, most can be seen to be deliberately, if not very carefully or skilfully, struck. These pieces varied considerably in size and shape, reflecting an ad hoc approach to their production, although they tended to be thick and

squat. Striking platforms were generally wide with acute core-face angles (cf Martingell 1990), and only exhibited very cursory attempts at core-face trimming with little other evidence for platform trimming. Many had very prominent points of percussion and some flakes exhibited incipient Hertzian cones from earlier, failed, attempts at detaching the flake. Bulbs of percussion tended to be pronounced and several flakes had ventral surfaces that consisted of a combination of concoidal and thermal plains, indicating deliberate attempts at flake production but where the fracture plain had been diverted by thermal flaws within the flint. Such reduction strategies and technological attributes are most commonly seen within later second and first millennium BC industries (Herne 1991; Young and Humphrey 1999; Humphrey 2003).

Contextual Considerations

Most of the struck flint was recovered residually from later features where it had been incidentally incorporated, most probably from surface scatters that the features truncated. The only contexts that may have contained *in situ* assemblages consisted of a number of Phase 2 features, notably posthole [389] and gully [380], which contained 20 and 12, struck pieces respectively, and smaller quantities of flintwork were recovered from pits [428], [542] and [638]. None of these assemblages was particularly diagnostic; those from posthole [389] and gully [380] were both dominated by knapping waste although a scraper (see above) was present in gully [380]. None of the pieces refitted and, despite the high quantities present in each of these features, many of the pieces were chipped and abraded, although probably to a much lesser degree than as seen in the overall assemblage from the site. It would appear likely that the material had been redeposited although if the features were contemporary with the flintwork this could be deliberate, perhaps from a larger accumulation such as a midden. The lack of diagnostic pieces means dating the assemblages is difficult although blade-like flakes, perhaps most characteristic of Neolithic industries, were present in both features and, if the struck flint were contemporary with the pits, would suggest a similar date for them. The deliberate redeposition of midden material within pits is also a noted feature of the Neolithic period (eg Thomas 1999; Garrow *et al.* 2005).

The only other contexts to contain appreciable quantities of struck flint were various dumps and layers from Phase 5, 6 and 7, where it presumably derived from earlier deposits that had been incorporated into these layers.

Recommendations

Due to the evident chronological mixing of the material and paucity of diagnostic implements, this report is all that is required of the material for the purposes of the archive and no further analytical work is proposed. The assemblage is of significance in that it does contribute to the body of evidence for prehistoric activity in the area not otherwise represented in the structural record. It is also possible that a few of the yet undated Phase 2 features were contemporary with their contained flintwork. It is therefore recommended that a reference should be made to it in the local Sites and Monuments Record/Historic Environment Record. In addition, a short description of the assemblage, preferably including illustrations of a selection of the more technologically diagnostic pieces, should be included in any published account of the fieldwork.

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APPENDIX 5

THE MAMMAL, BIRD, FISH & AMPHIBIAN BONES

Philip Armitage

INTRODUCTION

Over 7,962 animal bone elements/fragments were submitted for identification and preliminary analysis. Whilst the majority of the bone elements/fragments submitted for assessment had been hand-collected during the excavation, there were also specimens (mainly “scrappy” bone fragments) from the following sieved samples: 433<149>, 788<207>, 800<1010>, 1199<270>, 1044<248>, 1229<274>, and 1230<275>.

A summary of the results of the assessment is presented in this report.

Numbers of identified bone elements/fragments and species represented

4,226 (53.1%) of the total 7,962 bone elements/fragments are identified to taxa/species. The greatest proportion of the identified material comprises 4,174 mammal bones (98.8% of the total) representing 17 species (Table 1). There are 50 bird bone specimens, representing 8 species, together with a single fish bone and a single amphibian bone (Table 2).

Table 3 provides a summary of the indeterminate mammal and bird bone fragments, which constitute 46.9% of the total number of specimens submitted for assessment. The relatively high percentage frequency of indeterminate mammal bone from this site reflects the markedly high degree of fragmentation in the long bone shafts of the larger species (see notes on Preservation, below), which had to be recorded as “horse/cattle sized long bone shaft fragments” owing to the absence of diagnostic features.

Methodology

For the purposes of the assessment, records were made of the numbers of identifiable mammal, bird, fish and amphibian bone elements/fragments (NISP) from all of the excavated contexts that had yielded faunal remains. Detailed records of the anatomical distributions of these species were made for the major context groups representative of the different types of deposit (ditch fills, pit fills, occupational & demolition layers etc.). Measurements on the more complete adult mammal and bird bone specimens were recorded using dial callipers and a flexible tape measure following the system of von den Driesch 1976. Confirmation of the identifications of the otter and badger skeletal remains were made using the modern comparative osteological collections of the Royal Albert Memorial Museum, Exeter (Devon).

Preservation

Except for the concentrations of leached/eroded/weathered/abraded bones from the earliest phases (Phases 3 & 4), the preservation overall for the site is assessed as fair to good (for Phases 5 to 10) with only a scattering of weathered/eroded/biologically-degraded specimens. It is suggested therefore that the majority of the bones from Phases 5 to 10 had been rapidly buried/incorporated into the archaeological deposits and had not lain exposed for any length of time. However conditions in the soil following burial had resulted in very many of the bones becoming brittle and as a consequence highly susceptible to fragmentation - both *in situ* (in antiquity) and during excavation/post excavation handling. This high frequency of ancient/recent breakage/fragmentation is particularly noticeable in the skulls and in the shafts of the long bones of the cattle and the horses.

For all phases (Phases 3 to 10) the frequency of dog gnawing is remarkably low. It may be that the bones showing evidence of gnawing had been fed to dogs – rather than representing food waste scavenged from middens.

Likewise there is a low incidence of burnt bone and there does not appear to be any discernable spatial distribution of the burnt bone over the site. It is especially noted that **none** of the bone specimens from the dumped layer of burnt and occupational material (Phase 5 context 874) exhibits evidence of burning.

SUMMARY OF THE ANIMAL BONE ASSEMBLAGES BY PHASE

Phase 3 Late Iron Age – AD 43

Phase 3 contexts produced only a very small bone assemblage representing discarded food refuse and a few isolated horse and dog bone elements. Preservation of this material is generally poor with noticeable leaching, erosion, and weathering of the bones.

Phase 4 Roman AD 43 – 120

Phase 4 produced a marginally larger bone assemblage (c.f. Phase 3), again representing discarded food refuse and the buried disarticulated skeletal remains of non-food animals (horses, dogs & cat). Evidence of polled (naturally hornless) sheep in the flocks kept locally is provided by a cranium from [325] fill of ditch [223]. Overall preservation of the bone is slightly better than in the earlier phase (Phase 3) but there are several bones exhibiting the effects of leaching/sub-aerial weathering/abrasion.

Phase 5 Roman AD 120 – 250

Phase 5 produced a comparatively larger bone assemblage with good preservation. The bulk of the material is recognised as discarded domestic (food) debris intermixed with the buried remains of non-food animals (horse, dog & cat). There is also a single bone element of an avian scavenger – an ulna of raven from [802] the primary fill of pit [801]. Evidence of hunted game species is provided by pieces of a skull and metatarsus of roe deer from [874] a dumped layer of occupational material. From the same deposit [874] there was an owl tibiotarsus [species to be determined – possibly tawny owl?], as well as a skull of a young (yearling) horned sheep. Phase 5 also yielded the only fish bone from the entire site – a cod precaudal vertebra from [1168] the fill of rubbish pit [1169].

Other notable specimens include a horse skull from [788] the secondary fill of rubbish pit [789] and a cattle skull from [809] the primary fill of rubbish pit [789], with the latter specimen exhibiting evidence of knife cut (skinning) marks. Deposit [1183] yielded a partially complete dog skeleton and two dog crania. Parts of another dog skeleton came from [845] a surface layer associated with structure [833]. A skull and post-cranial skeletal remains of a sub adult female pig came from [1296] the tertiary fill of roadside ditch [1077] and parts of the skull and post-cranial skeleton of young lamb were recovered from layer [1338]. A sheep skull from [1168] fill of rubbish pit [1169] had the horn cores hacked off, indicating horn-working activity at the site. There was however no evidence for antler-working in this phase (in contrast to Phases 6 & 7, see below).

Phase 6 Roman AD 250 – 300

Phase 6 yielded a comparatively large well-preserved bone assemblage comprising discarded domestic (food) waste intermixed with buried skeletal elements of non-food animals (notably horse, dog & cat as in Phase 5). Evidence of more extensive hunting of wild game species is provided by the bones of red deer, roe deer and hare – which would be in keeping with the dietary profile associated with a Roman villa. The diet of the inhabitants also featured goose, domestic fowl and duck.

Noteworthy material from Phase 6 includes a group of small mammal & small avian bones and single bat humerus [species to be determined] from the bedding layer [237] for the floor of the tomb [associated with the human burial in the mausoleum], which together are identified as the remains of a regurgitated pellet produced by an owl roosting in the mausoleum ruins. The presence of bones of

wood mice and small wild bird species in the pellet remains strongly indicates the source was a tawny owl rather than a barn owl [pellets of barn owl generally contain bones of shrews & fewer birds]. Fill [278] of ditch cut [264] yielded the skeletons of two young otters, one of which exhibits knife cut (skinning?) marks on its tibia. The skeletons of at least two (or more?) adult badgers came from [271], [300] and [301] fills of ditch cut [264]. Although the badger bones have the every appearance of being contemporary with the associated Roman bone elements from these same contexts, the noted presence of a badger sett at the site presents the possibility that these remains are intrusive (?).

Working/industrial surface layer [770] produced two polled sheep crania, a goat horn core chopped at the base, and a sawn red deer antler – these last two specimens indicating horn- and antler-working at the site [although possibly on a small scale].

Phase 7 Roman AD 300 – 420

Phase 7 produced by far the largest bone assemblage from the site (over 55.4% of the total number of bones recovered). However over 48.9 % of this bone came from [201] the filling of the hollow way in the centre of the site, which represents re-deposited material from midden heaps of the earlier Roman phases [These bones from [201] do not merit detailed further study owing to their residual nature].

As with the earlier assemblages, the bulk of the Phase 7 bone material (omitting [201]) comprises discarded domestic (food) debris but also includes waste from antler working activity as evidenced by four sawn red deer antler tines/pieces of beam from demolition layers [462] and [464], occupation layer [719] and fill [908] of pit [909]. A goat horn core/portion of skull from demolition layer [468] exhibits knife cut marks, evidence of skinning.

Fills [1229] and [1230] of Pit [1231] produced the skeletal remains of at least two horses, three cattle, and one dog, whilst [1044] the secondary fill of hearth/furnace [1046] yielded the skeletal remains of two sheep (1 adult & 1 sub adult). All these animals are represented by what had been articulated bone elements, probably originally either comprising complete or partially complete skeletons.

Phase 8 Early Saxon

Phase 8 produced a very small group of bones (5 specimens).

Phase 9 Medieval

Phase 9 produced a moderate quantity of bone representing discarded domestic (food) refuse, indicating a diet predominated by beef, with mutton and pork of secondary importance, supplemented by the occasional rabbit and domestic fowl. Non-food bones comprise those of horse and dog. A worked tip of red deer antler tine came from [236]

Phase 10 Post-medieval

Phase 10 produced a small assemblage representing domestic (food) debris. Non-food bones comprise those of horse and dog.

POTENTIAL FOR FURTHER ANALYSIS AND REPORTING

For the purposes of final publication, the bone assemblages from the Roman Phases 4 to 7 should be further analysed as they hold the potential to better understand the farming economy of this site as well as providing insight into the diet and food procurement strategies of the inhabitants. Preliminary assessment reveals a preponderance of cattle with relatively high numbers of horses, perhaps indicative of ranching [?]. Further analysis of the prey species in the owl pellet [examining the known preferential habitats of the animals represented] will provide information on the surrounding environment/landscape. Also meriting further consideration is the question as to whether certain of the horse remains represent “ritualistic” deposits rather than the routine disposal/burial of deceased working animals. All the evidence from the site should also be compared with other similar

contemporary sites.

APPENDIX 6

THE METAL AND SMALL FINDS

Märit Gaimster and James Gerrard

Altogether, nearly 1300 metal or small finds were retrieved from the excavations. Of these, the 463 Roman coins form the most numerous group; these are discussed separately (J. Gerrard, this report). The remaining finds in this section comprise the following groups based on material:

Iron objects	351
Copper alloy objects	269
Lead or pewter objects	123
Stone artefacts	38
Bone/antler artefacts	25
Post-Roman coins and jetons	12
Glass beads	3
Gold objects	2
Silver objects (not coins)	1

The vast majority of these finds were either unstratified, from the topsoil context [200] or from the widespread layer [201]. Only relevant and datable finds from these three contexts will be included in the tables; a full list of finds will be accessible through the site archive.

PHASES 3-7: ROMAN FINDS

Many identifiable Roman finds were retrieved from the topsoil; however, the majority of this large group came from Roman archaeological contexts. They are listed in **Table 1** and, where applicable, discussed here by category.

Dress accessories and personal belongings

The bulk of the non-ferrous objects can be classed as dress accessories and personal belongings, including some of the 'military equipment' below. Fourteen fragments of copper-alloy bracelets were recovered. Twelve of these are typical Romano-British types, common in the 3rd and 4th centuries and decorated with a variety of incised linear and dot-and-ring designs (Crummy 1983; Swift 2003, 24-30). The remaining two bracelets include a two-strand wire example and a very simple single-wire piece, which might be of Early Roman or possibly Iron Age date. The virtual absence of wire bracelets and so-called 'cog-wheel' bracelets is noticeable. The group is an important one as it is derived from a settlement site (rather than a cemetery) and there is some evidence from elsewhere in Britain of regional bracelet styles. This would be a theme worth pursuing.

There is only a single example of a finger ring, of plain copper-alloy. This is unexpected as most settlement sites yield more examples of this class of object, especially from later Roman deposits when seal/signet rings were quite common even at quite lowly levels in society. Excavations of Late Roman roadside settlements at Shepton Mallett and Catsgore (Somerset) produced eleven and nine examples respectively (Leach and Evans 2001; Leech 1982).

Seventeen brooches or fragments of brooches were recovered. Rapid assessment of these objects reveals that all but one can be generally classed as early Roman 'bow brooches' of Colchester type (Crummy 1983). The remaining example may be the catch plate from a 4th-century crossbow brooch.

Three glass beads of different type were recovered. Two melon beads are probably of earlier Roman date (Swift 2003, 34) and as these were personal items the occurrence of one in the same deposit as the miniature votive mattock head, sf 1228 below, might be significant. The last bead is of green glass

and hexagonal in section. This is a well-known type, thought to be an attempt to imitate emeralds (Swift 2003, 34), and a sign that while some inhabitants of the site could go to the afterlife with the real thing – such as the gold and precious-stone necklaces recovered from context [205] (Hobbs, Appendix 14) - others had to make do with lesser alternatives.

The presence of fourteen bone and copper-alloy pins on the site is indicative of hairstyles and changing fashions. The bone hairpins can be seen as falling within well-known Romano-British classes of objects both in terms of size and decorative schemes. Early Roman pins tended to be shorter than later Roman examples and both types are present at Grange Farm (Swift 2003, 38-40). It is, however, noticeable that the pins are not evenly distributed through space and time. There appear to be more Early Roman examples than 4th-century ones and the pins appear to be clustered in particular contexts. This may have some bearing on the interpretation of these deposits.

A number of hobnails, including a group of almost sixty recovered together (context [867] sf 1287), are the only indicator of footwear. Other objects include a number of rings that might be associated with horse trappings, armour or belt sets, a spoon (sf 218), a ligula (sf 1067) and two 'drop handles' from helmets or metal vessels (sf 58; sf 643). There is also a fragment of fluted copper alloy (sf 946) that may be the foot of a bronze vessel.

Household Objects and Furnishings

A large number of domestic items occurred within the ferrous and non-ferrous small finds assemblages and for convenience's sake this category has been further sub-divided into tools and domestic and architectural fittings.

Tools

The tools represent a wide range of domestic and agricultural activities. Most common was the iron knife of which some twenty examples in varying states of preservation and completeness were identified. A variety of types were identified, including examples with straight and curved blades, suspension loops etc. and the knives need to be classified to take account of this variety. There was also a single, incomplete heavy cleaver (context [770], sf 990) that would have been an appropriate kitchen or butchery tool. All examples of knives and cleavers were of common Romano-British types (Leach and Evans 2001, 242-245).

The recovery of three axes is indicative of a variety of activities. Two of these objects were relatively small (sf 489; sf 869) and point to wood working rather than forestry, while the third (sf 480) can probably be classed as an axe-hammer. This would have been a useful multi-purpose tool, although it should also be noted that axes and axe-hammers were powerful symbols in the Roman world associated with Jupiter (Bagnall Smith 1999). Similarly, a large pick or mattock head (context [1338], sf 544) would also have had a multitude of uses on a rural site.

The presence of four pruning hooks is also a relatively common phenomenon on Romano-British sites, where these tools would probably have been used for variety of purposes, from pruning trees to hedging. Six ferrules or ferrule fragments could have tipped the bottom of handles/shafts, or might even have made impromptu ox goads.

Domestic and architectural fittings

The largest class of ferrous objects is formed of a variety of fittings, bindings and sheet fragments that could have performed a multitude of functions. Some of these objects are probably box fittings and can be compared with a number of copper-alloy studs, including an enamelled example (sf 432), which may also have decorated boxes or chests. Three of these studs came from context [694]. There is also one notable bone find: a decorated bone hinge that may have come from a chest or furniture (context [874], sf 1226). Others are probably architectural fittings. Five rings and split-pins fall under this category, alongside thirteen or more 'hooks' of varying types, a staple and a large number of nails. This wide category of ferrous metalwork would benefit from some further work.

A single key (context [770], sf 961) was found along with a latchlifter (context [800], sf 1007) and three objects that might be latchlifters. These suggest that some inhabitants of the site had access to controlled and private space.

Horse and cart equipment

Fragments of two possible hipposandals (sf 259; sf 1038) were identified among the ironwork. Some of the iron and copper-alloy rings and other objects could potentially be parts of harnesses but no obvious horse tack (such as snaffle bits, bridles etc.) was identified. A notable find, however, is the possible cart fitting in the form of a bull's head (context [643] sf 896).

The forward-facing bronze bull's head with phallic horns is an object arguably of regional and possibly even national importance. Megaw *et al.* (1992) published a description of a similar piece from Chepstow along with a catalogue of thirty-six examples of related bovine metalwork. Most of these pieces were dated to the Late Iron Age, although Roman-period examples are also known. The Gillingham example is from a late 1st-century context and it thus fits into a Late Iron Age/Early Roman cultural milieu. The bull was an obvious symbol of fertility (also indicated by the phallic horns) and power and these objects may have had special significance (a three-horned bronze bull was recovered from a Late Roman temple context in Somerset: Leech 1986). Martin Henig (pers. comm.) has suggested that this object might be part of a linch pin (probably a cart or chariot fitting). However, more research needs to be undertaken before its function can be confidently ascertained.

Textile production / repair

There were three bone (sf 214; sf 1013; sf 1019) and one copper-alloy (sf 592) needles recovered from the site. These are probably indicative of domestic sewing and needlework. Another item associated with textile production is a broken pottery spindle whorl from context [770].

Military and quasi-military equipment

A number of items of military or quasi-military equipment were recovered. The most notable clearly military finds were two iron spearheads (sf 212; sf 542), identified by Mike Bishop (pers. comm.) as cavalry thrusting spears of 1st- or 2nd-century date. Significantly, both were found in context [201], an early post-Roman 'dark earth', yet neither shows signs of damage or extreme age. They were either two hundred or more years old at deposition or redeposited from an early context.

The other pieces of 'military' equipment are all copper-alloy belt fittings of Late Roman date. The earliest example is sf 1047 from context [845], a double-crescent openwork belt mount or stud. There is an almost exact parallel for this find from Suffolk (UKDFD473) dated to the 3rd century. Objects such as this may have been military issue (Mills 2000, 74 and Fig. RB214).

Three other objects appear to be parts of Late Roman belts (*cingulum militare*). Sf 532 and sf 1075 are both fragments of openwork belt plates that would have been attached to dolphin buckles of Hawkes and Dunning (1961) Type IIA. Their occurrence at Grange Farm falls well within their normal distribution (Böhme 1986, Fig. 11) and Böhme (1986) dates them to the mid- to late 4th century. Hawkes and Dunning (1961, 26) suggest that their use may have continued into the 5th century. It is worth noting here that sf 1075 came from the upper fill of a pit containing very late Roman pottery (A.D.350+), which had in turn been recut by pits containing similarly late Roman material. The third and final belt fitting, sf 1094, is a very fine fragment of chip-carved belt plate. The decorative scheme is based on a circle with a central cross or rosette, with a double spiral at the end of each of the cross's arms. Parallels (though not exact) for this find and its decoration come from Alfriston in Sussex (Böhme 1986, Fig. 2) and from a chance find in Kent (Hawkes and Dunning 1961, Pl 1D). Böhme would date the object to the last 3rd of the 4th century. However, there seems no compelling reason for believing that it was lost prior to A.D.400. It was recovered from a deposit that also contained coins of the House of Valentinian and Theodosius and was related stratigraphically to a number of contexts containing very late Roman pottery. In spatial terms these deposits and the almost aceramic features cutting them were located close to the find spot of the Anglo-Saxon brooch discussed below.

Record keeping and Trade

A single potential iron stylus, sf 587, was found in context [201]. This would suggest an element of literacy on the site and perhaps the keeping of records. Styli are not common on Late Roman rural sites but do occur, as at Catsgore and Shepton Mallett in Somerset (Leech 1982, 123, Leach and Evans 2001, 239). Graffiti on a number of pottery sherds also point to a literate element in the site's Romano-British population (Gerrard, Roman pottery in this report).

There are a number of lead weights and a possible balance arm (context [908], sf 1074) that indicate the exchange of commodities. The weights occur in a variety of styles and it would be worth attempting to classify these objects further. There is also a possible lead seal (context [201], sf 114) that might, if it carries traces of an inscription, be very informative given the presence of seals from cities in the eastern empire at other sites in Kent.

Votive objects

One unusual find is what appears to be a small votive axe/mattock head (context [874], sf 1228). The latter object is of a class of find usually associated with temple sites (Bagnall Smith 1999) but the occasional examples – like a small votive anchor from Barton Court Farm, Oxfordshire (Miles 1984, 47) – have been recovered from settlement sites.

Residues of production

A large number of pieces of lead may represent off-cuts and waste from low-level metalworking. There are also some pieces of worked antler and a bronze ingot with a central groove that looks like material ready for metalworking. These items may point to small-scale industrial activities.

PHASE 8: ANGLO-SAXON FINDS

A near-complete gilded-silver Early Anglo-Saxon bow brooch (sf 917) was retrieved from context [1134]; it was reported as a Treasure Object, with the reference number 2006 T78. The brooch measures 84.7mm in length and weighs 31.97g; it has a semi-circular head-plate with three projecting knobs, a lozengiform footplate and a bow inlaid with niello in a “paragraph” pattern. The central decoration of the footplate consists of a rosette inside a lozengiform panel; the upper part of the footplate features two openwork birds, while the terminal is formed by a flat, circular projection. On the reverse the iron pin and spring mechanism, held by three evenly spaced lugs on the back of the headplate, is complete. The pin catchplate is missing, although traces on the back of the footplate clearly shows where it was attached; the pin is complete, although now in two pieces.

The Gillingham brooch has a close parallel in a late 19th-century find held in Canterbury Museum (Bakka 1958, 9, Fig. 2). The Canterbury brooch, also of gilt silver, is virtually identical in its overall form but shows differences in terms of decoration, notably on the footplate. Here the central rosette decoration is flanked along the edges by two downward-facing animals, and the terminal is decorated with a human face-mask.

The decoration of the two brooches consist of Nydam Style or early Style I, suggesting a date in the final quarter of the 5th century. In this, they are highly significant finds both for the understanding of the late Roman influences on the development of early Germanic art and the problematic 5th century in south-east Britain. The rosette decoration on the footplate is known from other English finds and support a local production rather than Scandinavian imports, even if there are some parallels also in south Scandinavian brooches. The Gillingham brooch may represent a seemingly isolated find relating to the use of the site at this time - although there are some Early Anglo-Saxon pottery sherds among the finds (Jarrett, this report) – however, it should be viewed also against the characteristically vague sub-Roman features of the site. These include the late or sub-Roman chip-carved belt mount, also featuring a centrally placed rosette, discussed above (sf 1094).

PHASE 9: MEDIEVAL FINDS

The assemblage (**Table 2**) includes a small group of around 30 finds that can be identified as medieval; most of these were unstratified or from the topsoil layers [200] and [225]. The finds are dominated by a range of late medieval buckles, strap-ends and other belt fittings and include three remarkably complete buckles with buckle plates (sf 54; sf 443; sf 642). Horse-harness pendants are also represented, with one complete and gilded example from context [440] and a pendant mount decorated with an enamelled cross from context [1082]. While the harness pendants are also likely to be of a later medieval date, sf 321, the openwork copper-alloy mount, represents a rare find from the early post-Conquest period. It belongs to a small group of similar mounts identified as probable cross-staff heads, dating from the 11th to 12th centuries (Bailey 1994). Another remarkable find is the unusual lead cross pendant, sf 335.

The few finds relating to buildings and activities on site include an iron pintle from context [667], two copper-alloy casket keys (sf 223; sf 361) and two probable fishing weights of rolled lead sheet (sf 49; sf 791). An iron knife (sf 904) from context [562] is unusual; it has a short, almost triangular blade with a curved back and straight edge. Finally, there were three coins – two long-cross pennies (sf 1; sf 618), a copper-alloy French jeton (sf 322) and a lead token featuring a heart (sf 146).

PHASE 10-11: POST-MEDIEVAL FINDS

Some 150 finds could be dated to the post-medieval period; almost all were unstratified or retrieved from topsoil layers [200] and [225]. The finds are listed in **Table 3**. Not all unstratified finds are included here; objects like buttons and lead shots are omitted. The majority of finds are likely to date from the late 17th and through to the 19th centuries; their date is also reflected in 18th-century pottery retrieved from topsoil [200]. However, a small group of finds represents the early modern period from the late 15th to 17th centuries.

15TH TO 17TH CENTURIES

Included in this group are five copper-alloy buckles (sf 277; sf 659; sf 709; sf 772; sf 876), a book mount (sf 723), a pair of decorated copper-alloy scissors (sf 707) and a lead bird-feeder (sf 267). A copper-alloy belt and strap hooked fitting (sf 115), with two iron rivets and inward-turning hook, is possibly associated with a sword belt and dating from the late 16th or early 17th centuries (Margeson 1993, 38, fig. 22: 257-58). An incomplete iron rowel spur, sf 403, may be as early as the 16th century (cf. Cunningham and Drury 1985, Fig. 35 no. 94). Of particular interest is also the substantial cast and decorated copper-alloy ?strap end, sf 269.

18TH TO 19TH CENTURIES

This large group of finds is particularly characterised by dress-accessories such as buttons and buckles, but also by numerous cast lead tokens. The material will be discussed under a range of categories.

Dress accessories and personal belongings

The assemblage included 25 copper-alloy or pewter buttons; 18 of these are unstratified. The majority of buttons of disc-and-loop type, with only one small, dome-shaped example, sf 284; this dates from the 18th century. A group of six copper-alloy buckles date from the late 17th to early 18th centuries, with a further group of eight dating from the 18th. A fragmentary bone comb was retrieved from context [639], pot-dated to 1675-1700. There is also a complete watch key, sf 652. The small moulded clog or shoe fastener, sf 1307, belongs to a category of finds not usually represented in archaeological publications. It is likely to date from the 18th century.

Household objects and furnishings

This category includes several simple copper-alloy curtain rings and a range of probable copper-alloy furniture mounts and fittings, including four door and/or drawer handles. Only one piece of lead window

came was retrieved (sf 601). Further, there is an incomplete T-shaped barrel tap, a copper-alloy barrel lock, sf 274, the feet of two copper-alloy cooking vessels and part of a lead spoon.

Playthings

The bowl of a minute copper-alloy spoon, sf 708, is likely to represent a toy.

Textile production

This is represented by ten copper-alloy thimbles, mostly unstratified, and a large pair of iron scissors, sf 777. However, there are also nine cloth seals, or probable such. One seal, sf 362, is inscribed "1822", but there may also be earlier examples.

Record-keeping, reading and numismatica

The most interesting group of finds in this category is the 24 lead tokens; the majority are likely to be post-medieval, but further identification may reveal also medieval issues (cf. sf 146, above). Further finds include the top part of a pair of dividers, sf 272 and a complete copper-alloy book corner mount, sf 723 is embossed with a petalled flower; the latter may date from the 16th/17th centuries (see above). A handful of copper-alloy coins are mostly too corroded to identify; however, there is a William and Mary halfpenny (sf 318). A Nuremberg jeton, sf 317, was also retrieved.

Militaria

Numerous lead shots were retrieved from site, but also a possible musket or pistol fitting (?trigger), sf 365. The piece is highly decorative, of tinned copper-alloy with moulded floral decoration, suggesting a date in the 17th or 18th centuries. Another interesting find is the central part of a gilded copper-alloy shako plate, sf 555, with the Order of the Garter encircling a "GR" cipher; this device was used on uniforms from the time of the Napoleonic wars at the very start of the 19th century.

RECOMMENDATIONS FOR FURTHER WORK:

The excavations at Gillingham have produced a large amount of metal and small finds, particularly relating to the Roman settlement on site. This is an important group of value for understanding not only the nature of the site but also how the site fits into a wider Romano-British context. The extensive assemblage of dress accessories and personal belongings are particularly important and warrant further research. This is true also for the spearheads, Late Roman belt fittings and the bull's head.

However, also the small element of post-Roman finds are important. In particular, the medieval finds, relating to the Manor of Grench/Grange, are relevant for any publication of the site. This is true also for some of the post-medieval assemblage, where the small group of possible Tudor and Stuart period finds stand out as significant. As a group, the medieval and post-medieval lead tokens represent a little-researched category of finds; both these and the lead cloth seals are worthy of further work and publication. For the same reason, the 18th-century shoe or clog fastener, sf 1307, deserves attention. The Early Anglo-Saxon relief brooch is of both national and international importance, and the same is true also for the Roman bull's head finial; these finds should also be published separately in relevant period journals. The openwork mount, sf 321, should be published as a note in the *Journal for Medieval Archaeology*; it belongs to a category of finds previously acknowledged in the *Journal*. Further research of the unusual lead cross pendant, sf 335, may warrant a separate note in the same journal.

For the purpose of further work on this assemblage, some of the iron objects from context [201] require further x-raying. Three copper-alloy objects require stabilisation by a conservator; these comprise the possible sword-belt fitting (sf 115) and two medieval copper-alloy buckles (sf 443 and 614). The bull's head finial (sf 896) also requires some conservation, as do the late Roman belt fittings. The Anglo-Saxon brooch (sf 917) should be cleaned from corrosion on the headplate, to enable complete study and illustration.

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Table 1: Roman finds

Phase 4: 43-120 AD			
context	sf	description	date
222		iron nails	
254		iron nails	
286		iron nails	
293		iron nails	
296		iron nails	
"	417	iron fitting; L 130mm	
431		iron nails	
431	804	iron ?strap fitting	
431	807	stone quern	
448		iron nail	
734	911	copper-alloy object	
1003		iron nail	
1094	129 3	iron nails	
1161		iron spike with eye; L 100mm	
1164	123 6	stone quern	
1174		iron nail	
1276		iron nails	
1353		iron nail	
Phase 5: 120-250 AD			
context	sf	description	date
504		iron nails	
"	127 2	iron ring; diam. 43mm	
"	127 3	iron fitting; L 60mm	
620	127 8	iron knife with straight back and curved blade; incomplete; L 60mm	
627	893	iron?ferrule; L 95mm	
643	895	copper-alloy	
"	896	very finely cast copper-alloy bull's head with phallic horns; there is a hole in the reverse of the head and iron corrosion around the base; possibly part of a linch pin?; Megaw <i>et al.</i> 1992	
"	897	stone ?grinder	
648		iron nail	
759		iron	
788		iron nails	
794		iron nail	
800		iron nails	
"		lava quern	
"	986	bone hairpin; incomplete; triangular head with two grooves below; very fine and slightly greenish in colour (Cu stained?); L 58mm	
"	100 2	bone hairpin; incomplete; L 66mm	
"	100 3	complete bone hairpin; L 71mm	
"	100	bone hairpin; incomplete; triangular head with two	

	4	grooves below; very fine and slightly greenish in colour (Cu stained?); L 80mm; similar to sf 986	
"	1005	bone hairpin; incomplete; L 40mm	
"	1006	bone hairpin; incomplete; triangular head green stained (Cu?)	
"	1007	iron latch lifter; L 210mm	
"	1009	lead ?object	

802		iron nails	
"	1043	iron ring; diam. 43mm	
813	1041	copper-alloy wire	
819		iron nails	
"	1048	iron strap fitting; L 130mm	
"	1049	lead waste	
844		iron nails	
"		lead waste	
845		iron nails	
"		stone ?shot	
"	1046	iron figure-of-eight ?hasp with two different sized loops and central plate that has been bent back	
"	1047	copper-alloy double-crescent openwork military belt mount; parallel from Suffolk dated to the 3rd c	3 rd century
"	1067	bronze ligula with flat terminal; L 72mm	
"	1068	iron	
"	1069	iron	
"	1286	iron object; L 35mm	
853	1050	iron	
854		iron nails	
"	1051	iron ?hinge	
874		iron nails	
"	1056	complete bone hairpin; very simple with flat head; L 106mm	
"	1057	iron knife; straight back and curved blade; L 100mm	
"	1058	iron split-pin	
"	1059	iron pruning hook; L 65mm	
"	1062	blue glass 'melon' bead	
"	1214	bone needle; incomplete; L 86mm	
"	1215	?grind stone	
"	1216	stone mortar	
"	1226	complete pierced-cylinder bone hinge with three pairs of incised lines; L 43mm	
"	1227	iron sheet	
"	1228	votive lead mattock?; cf. Bagnall Smith 1999, 34	
"	1229	iron strap fitting; L 150mm	
"	1231	iron architectural fitting; L 80mm	
"	1232	iron ?chisel; L 73mm	
"	1234	iron knife with looped handle; L 160mm	
"	1241	iron fitting; L 75mm	
"	1242	iron ?latchlifter; L 130mm	
"	1243	iron socketed knife; L 115mm	
896		iron nails	
902		iron nails	
"	1064	iron ?ferrule; L 100mm	

"	1066	iron ?fitting; L 60mm	
"	1070	iron fitting; L 85mm	
"	1071	iron fitting; L 30mm	
"	1072	iron knife; incomplete; L 75mm	
"	1245	iron nail	
928		iron nails	
953		iron nails	
963		iron nails	
1088	1292	iron nail	
1130	1233	iron strap hinge; L 140mm	
1163		iron nail	
1168	1295	iron objects	
1183	264	broken copper-alloy ?cylinder with 'knob' terminal 60mm	
"	1296	iron fittings	
1193		iron nail	
1198		iron nails	
"	1239	iron spike with eye; L 65mm	
"	1297	iron fitting; L 40mm	
1218		iron nail	
"	1244	iron ferrule; L 100mm	
1224	1251	lava quern	
1225		iron nails	
1258		iron nail	
1272		iron nail	
1288		iron nails	
1292		iron nails	
1294		iron nail	
1296	1250	iron fitting	
1313		iron nail	
1325		iron nail	
1338		iron nails	
"	544	iron socketed pick; 210 x 50 x 35mm	
"	1252	iron fitting	
"	1254	?grindstone	
"	1298	iron fitting; L 50mm	
1368		iron nail	
1383		iron nails	
1390		iron nail	
Phase 6: 250-300 AD			
context	sf	description	date
205		iron nail	
"		lead waste	
"	233	gold necklace	
"	234	gold necklace	
212		iron nails	
"	244	iron fitting/hook; L 70mm	
220		iron nail	
221		lead coffin fragment	
243		iron nails	
300		iron	
310		iron	
"		lead waste	
314		iron	
452		iron nails	
"		stone quern	

“	664	lead waste	
“	665	iron tool with pointed end; L 135mm	
“	871	iron ring; diam. 45mm	
“	879	copper-alloy bow brooch; incomplete;	1st to 2nd century
“	1268	iron hook; L 50mm	
494		iron nail	
“	1271	iron socket; incomplete; possibly a ferrule; L 65mm	
519		iron nail	
534		iron nails	
670		iron nail	
“	450	iron ?structural fittings	
“	902	copper-alloy hairpin with sphere terminal; incomplete	
“	903	copper-alloy stud; diam. 30mm	
694		iron nails	
“		lava quern	
	185	iron tanged knife and tang with straight back and convex blade; L 125mm	
“	905	copper-alloy stud with Fe corrosion	
“	945	complete copper-alloy stud; diam. 36mm	
“	946	copper-alloy object with three fluted ridges; reminiscent of late Roman silver ware; possibly a foot to a bronze bowl?	
“	972	iron tanged knife; incomplete; L 95mm	
“	973	iron fitting	
“	983	iron ?scales	
“	984	complete bone hairpin; straight shank and undecorated globular head; L 95mm	
“	985	iron knife	
“	101 8	copper-alloy wire	
“	102 8	stone quern	
“	103 3	copper-alloy	
“	103 4	copper-alloy stud; diam. 27mm copper-alloy	
“	103 5	bone hairpin; incomplete; L 60mm	
“	103 6	bone hairpin with trapezoidal head; L 45mm; tip from another bone pin; L 19mm	
“	103 7	bone hairpin with faceted head; L 72mm	
“	103 8	iron ?hippo sandal	
“	103 9	L-shaped iron ?box fitting with loop; L 125mm	
“	104 0	iron pin	
“	128 0	iron	
755	930	copper-alloy	
756		iron nails	
“	931	copper-alloy	
“	932	iron ?fittings	
“	934	copper-alloy	

"	935	copper-alloy	
"	940	copper-alloy	
"	941	copper-alloy	
"	949	iron bracket/L-shaped fitting; L 90mm	
762		iron nails	
"	975	iron anchor-shaped object; L 100mm; unknown function	
770		iron	
"		iron nails	
"		iron ?nails	
"		lava quern	
"		lead waste	
"	948	copper-alloy	
"	950	copper-alloy	
"	956	ron object	
"	957	copper-alloy	
"	958	bone hairpin; incomplete; L 48mm	
"	959	copper-alloy	
"	960	copper-alloy	
"	961	iron key with three teeth; L 135mm	
"	962	copper-alloy tack	
"	963	hexagonal green glass bead	
"	965	iron	
"	966	iron object	
"	967	iron sheet ?mount; 40 x 35mm	
"	968	copper-alloy pin	
"	969	lead waste	
770	970	copper-alloy strip	
"	976	iron sheet; 40 x 25mm	
"	978	iron hook; L 41mm	
"	979	iron object; 51 x 22mm	
"	980	lead ?object	
"	981	copper-alloy	
"	989	iron hinge strap fitting; L 105mm	
"	990	heavy iron cleaver with curved blade and straight back; L 90mm	
"	993	iron sheet ?mount; 55 x 50mm	
"	994	folded iron object; L 62mm	
"	995	globular terminal of bone hairpin; L 19mm	
"	996	iron sheet mount; 80 x 40mm	
"	997	iron fitting; L 35mm	
"	998	copper-alloy ?weight; weight 18g	
"	999	iron plate; 40 x 25mm	
"	100 0	stone hone	
"	100 1	iron hook; L 70mm	
"	101 1	copper-alloy pin	
"	101 2	iron ?pruning hook; L 70mm	
"	101 3	complete bone needle; L 80mm	
"	101 4	iron knife with straight back and curved blade; L 90mm	
"	101 5	copper-alloy	

“	101 6	copper-alloy ?brooch	
“	101 7	iron bar with upturned hooks at each end; unknown function; L 130mm	
“	101 9	bone needle/pin; incomplete; L 55mm	
“	102 0	stone gaming piece	
“	102 2	iron ?architectural fitting ; L 140mm	
“	102 3	L-shaped iron binding; L 70 mm	
“	102 4	copper-alloy bow brooch; incomplete	1st to 2nd century
“	102 5	copper-alloy bow brooch; incomplete	1st to 2nd century
“	103 1	iron sheet; 75 x 60mm	
“	103 2	L-shaped iron fitting; L 60mm	
“	105 3	iron knife with straight back and blade; L 105mm	
“	105 4	small iron tanged knife; L 70mm	
“	105 5	iron ?binding; L 55mm	
“	106 0	iron hook; L 60mm	
“	108 1	lead waste	
“	121 0	complete bone hairpin with globular head; L 78mm	
“	121 1	iron tanged knife with straight back and curved blade; L 150mm	
“	121 2	iron ?latch lifter; L 160mm	
“	128 3	iron tanged object; L 110mm; ?chisel or gouge	
“	128 4	iron rod; L 135mm	
“	128 5	iron fittings	
827	104 5	L-shaped iron fitting	
866	128 7	iron hobnails; 59 individual from one shoe	
898		iron nails	
900	128 8	iron nails	
910		iron nails	
918		iron nails	
“	128 9	iron hooks	
949		iron nail	
1141	123 7	copper-alloy	
1221		iron nail	

1400	126 3	copper-alloy bow brooch; incomplete	1st to 2nd century
Phase 7: 300-420 AD			
context	sf	description	date
201		copper-alloy ?toilet implement	
"		worked bone with hole drilled through and saw/knife marks; L 105mm; possibly a handle?	
"	100	copper-alloy bracelet with flat section; incomplete; panels of five small 'ring-and-dots' separated by vertical lines, and one large ring and dot. (Crummy 1983, 1728)	3rd-4th centuries
"	101	copper-alloy brooch fragment; possibly the catch plate from a crossbow-style brooch	?3rd-4th centuries
"	105	globular lead weight; weight 63g	
"	106	L-shaped iron box fitting; L 90mm	
"	111	iron split-pin	
"	114	lead seal; faint traces of lettering	
"	133	?stone setting	
"	136	iron knife with straight back and blade	
"	212	iron spearhead; complete; L 310mm	
"	220	copper-alloy bracelet with a square section and 'eye' clasp; incomplete	3rd-4th centuries
"	229	copper-alloy oval-section ring; diam. 20mm	
"	230	iron wall hook; L 80mm	
"	236	folded lead sheet; weight 118g; L 90mm; net weight?	
"	237	iron object with two protrusions at one end; L 160mm; unknown function	
"	259	iron ?hipposandal	
"	260	ball-shaped lead weight with iron suspension rod; weight 82g	
"	431	copper-alloy square-sectioned bracelet; incomplete; elaborately decorated with hatching, incised vertical lines and ring-and-dot within triangles	3rd-4th centuries
"	432	enamelled copper-alloy stud; seven-pointed star between the points of which are alternating triangular panels of yellow and blue enamel; diam. 23mm; Not easily paralleled but within Crummy's (1983, 118) genre.	
"	433	iron ?lamp fitting; figure-of-eight/keyhole shaped	
"	451	iron ?handle; 50 x 40mm	
"	480	iron socketed axe/axe-hammer; incomplete; L 145mm	
"	481	worked antler; L c.190mm	
"	487	iron knife with straight blade and tang; incomplete; L 55mm	
"	489	small iron ?axe; L 70mm	
"	531	copper-alloy pin with flattened and turned over terminal	
"	532	fragment of a Hawkes and Dunning (1961) Type II belt plate	4th-century+
"	533	iron hinge; L, 90mm	
"	534	iron ?nail/hook; L 60mm	
"	542	iron spearhead; complete; L 300mm	
"	545	copper-alloy cable bracelet made from two strands of wire	3rd-4th centuries
"	547	fragment of Colchester brooch; Crummy 1983, 38 and 40	late 1st century
"	558	L-shaped iron binding with hook; L 110mm	
"	567	iron hinge; L 180mm	
"	568	iron fitting; L 115mm	

“	569	iron knife with a straight back and convex cutting edge; L 215mm	
“	570	iron ?hinge fitting; L 90mm	
“	578	small iron knife; convex back and blade; L 60mm	
“	581	copper-alloy oval-sectioned ?pin; L 86mm	
201	585	large iron ?nail; L 90mm	
“	587	iron ?stylus (Leech 1982, Fig 84); L 95mm	
“	588	copper-alloy Nauheim derivative brooch; incomplete	1st century
“	589	copper-alloy ?fingerring	
“	591	iron split-pin and ring; complete	
“	592	copper-alloy needle; L c.70mm	
“	662	beaten piece of copper alloy 70 x 21 x 3mm with central groove cut by a chisel; the edges are bevelled as if strips had been broken off to each side; evidence of metalworking?	
“	725	iron hinge; L 190mm	
“	726	small iron pruning hook; complete; socket diam. 15mm (Leach and Evans 2001, Fig 71 No 9)	
“	738	copper-alloy bracelet with 'eye' terminal and decorated with vertical lines separated by plain zones; incomplete	3rd–4th centuries
“	740	iron ?pintle; L 52mm	
“	741	copper-alloy strip/edge binding; L 55mm	
“	745	copper-alloy stud	
“	796	iron ?link; L 90mm	
“	810	fragment of a brooch spring	
“	835	square-sectioned copper-alloy bracelet with eye fastener; incomplete; elaborately decorated with dot-and-ring, vertical lines etc	3rd–4th centuries
“	849	small iron knife with straight back and curved blade; L 80mm	
410	449	iron socketed arrow head; L 73mm	
419		iron staple; complete	
449		iron nails	
“	565	iron pruning hook; complete; L 70mm	
“	566	lead sheet; weight 241g	
“	126 7	iron fittings	
456		iron	
“		iron nails	
“		lava quern	
“		lead waste	
“	834	iron strap fitting; L 60mm	
“	891	iron bar tapering to points at either end; L 125mm; ?file	
462		iron nail	
“		stone ?object	
“		lead ?mount/washer	
“	811	copper-alloy mount	
“	864	iron fitting	
“	869	small iron axe head or woodworking tool; L 80mm	
“	127 0	iron ferrule; L 95mm	
464		iron nail	
468		iron object	
“		iron nail	
“	885	iron object	
“	886	iron ?latch lifter; L 160mm	

"	887	iron binding; L 50mm	
"	888	iron nails	
"	889	iron nails	
469		iron nail	
"	872	iron mount	
"	873	iron rove; L 40mm	
"	874	stone ?natural	
470	870	stone quern	
496	870	L-shaped iron fitting; L, 50mm	
527		lava quern	
537		iron object	
"	880	copper-alloy belt /leather fitting; L 21 mm	
"	882	iron ?buckle	
"	884	L-shaped iron fitting or binding	
"	922	lead waste	
571		iron object	
592		iron nails	
616		iron nails	
"	947	copper-alloy ?bracelet fragment; 3mm-wide thin strip of metal with a central line of small squares	3rd to 4th century
"	106 1	stone quern	
"	107 9	iron tanged object; L 95mm; ?file	
"	108 0	iron ?architectural fitting	
619		iron nails	
"		lava quern	
"		chalk ?ball	
"	901	stone hone	
719		iron nails	
"	909	copper-alloy disc	
"	910	iron sheet/vessel	
"	912	iron	
"	913	bone hairpin; incomplete; L 32mm	
"	915	complete bone hairpin with globular/onion-shaped head; L 102mm	
"	916	iron rivet	
"	919	iron ?vessel	
"	925	iron tapered bar, looks as if it's been struck at one end; L 143mm; ?punch	
"	926	iron object	
"	927	iron ?tanged tool; L 55mm	
"	928	iron ?fittings	
"	929	iron pintle	
"	956	iron strip; 40 x 12mm	
"	128 0	iron objects	
"	128 1	iron	
"	128 2	iron objects	
769	936	iron ?architectural fitting; 105 x 65mm	
"	952	iron nails	
"	953	iron knife with curved blade and straight back; L 90mm	
"	954	iron knife with straight back and curved blade; L 60mm	

867	108 6	copper-alloy bow brooch; incomplete	1st to 2nd century
"	108 7	copper-alloy ?pin	
"	108 8	three fragments of tinned copper-alloy	?Roman
"	109 3	copper-alloy ring; polygonal section; diam. 23mm	
"	109 4	fragment of chip-carved copper-alloy ?military belt plate; Bohme 1986, Fig 2.2	A.D. 350-400+
"	109 5	copper-alloy bracelet frag with 'eye' fastening; decorated with vertical lines	3rd to 4th century
"	109 8	iron staple	
"	120 6	lead waste	
908	107 2	iron ?knife	
"	107 3	copper-alloy square-sectioned ring; diam. 18mm	
"	107 4	copper-alloy bar 130mm x 4mm x 2mm; ? balance arm	
"	107 5	fragment of a Hawkes and Dunning (1961) Type II belt plate	4th century +
"	107 6	stone hone	
908	107 7	iron pin/fitting; L 60mm	
"	107 8	lead waste	
"	108 2	green glass 'melon' bead	
937		iron nails	
938		iron nails	
"	125 9	lead stylus	
"	129 0	iron fitting; L 40mm	
940		iron nails	
945		iron nails	
"	120 8	copper-alloy square-sectioned bracelet; incomplete	
962		iron nails	
991		iron nails	
"		stone ?object	
992		iron nail	
1016	121 7	copper-alloy ?bracelet	
1017	122 5	copper-alloy mount	
1019	121 8	copper-alloy pin/wire	
"	123 4	sawn antler; L c.170mm	
1039		iron nails	
1053	129	iron object	

	1		
1058	122 1	copper-alloy ?ring	
"	122 3	iron knife; curved back and blade; L 120mm	
"	122 4	iron fitting; L 65mm	
1080	121 9	iron knife blade	
1104		iron nails	
1135	123 8	iron knife; incomplete; L 50mm	
1135	129 4	iron nails	
1176		iron nail	
1228		iron nails	
"	124 6	iron ferrule; L 70mm	
1262		iron nail	
Phase 11: residual			
context	sf	description	date
200	235	pear-shaped lead weight with hole in top; weight 169g	
"	245	conical lead weight with central perforation; weight 22g	
"	247	copper-alloy object with three arms; finial-like 'knob' and decorative grooves	
"	373	copper-alloy disc with a 'knob'; ?brooch fragment	
"	376	flat copper-alloy ?harness fitting, curving to a broken point	
"	812	copper-alloy brooch catch plate; two triangular piercings	?1st–2nd centuries
225	402	fragment of a copper-alloy bow brooch	1st–2nd centuries
"	419	flat-cast copper-alloy ?dragon's head; part of mount or buckle; L c.35mm	
unstratified			
context	sf	description	date
0	27	Biconical lead weight with iron suspension ring and broken ring?; weight 132g	
"	53	Piece of lead with five 'studs' that have been cut. Possibly a casting residue...?	
"	55	very small copper-alloy bow brooch; incomplete	1st–2nd centuries
"	56	copper-alloy Hod Hill type brooch; incomplete	1st century
"	57	copper-alloy bow brooch fragment	1st–2nd centuries
"	58	copper-alloy ?drop handle with vertical lines	
"	59	circular copper-alloy mount with central perforation and three concentric rings of decoration; diam. 30mm	
"	217	small diameter Colchester type bow brooch	1st century
"	218	small white metal spoon	
"	615	small diameter bracelet; plain with pointed terminals	Roman or IA?
"	641	small diameter bow brooch	1st–2nd centuries
"	643	copper-alloy bracelet fragment or ?drop handle;	Roman

		decorated with incised vertical lines	
"	648	copper-alloy bar; traces of silvering?	
"	719	copper-alloy stud; diam. 23mm	
"	771	copper-alloy ?harness ring	
"	787	copper-alloy bracelet with elaborate decoration; incomplete; L 28mm	
"	788	copper-alloy belt mount	
"	794	copper-alloy ?strap end	
"	125 6	copper-alloy bracelet decorated with vertical lines; incomplete; L 38mm	
439	527	copper-alloy ?weight	
439	528	iron hinge fitting; L 130mm	
459		iron staple	
"		iron nails	
"	691	copper-alloy double-headed rivet; Crummy 1983, 4031	
460	747	'hourglass'-shaped lead object; weight 163g	
903	106 5	delicate copper-alloy decorated bracelet	3rd-4th centuries
958	109 6	plain copper-alloy fingering; square section; diam. 18mm	
"	109 7	copper-alloy buckle strap	

Table 2: medieval finds

Phase 7: intrusive			
context	sf	description	date
201	132	complete scallop-shaped copper-alloy belt mount; diam. 22mm	
"	223	copper-alloy casket key; incomplete	
Phase 9: medieval			
context	sf	description	date
207		iron nails	
"		lead waste	
227		lead waste	
234		iron nail	
236	126 5	iron objects	
238		iron nails	
440	243	complete gilded copper-alloy harness pendant with suspension mount; spatula-shaped pendant; L 50mm	
471		iron nail	
"	866	copper-alloy ring; diam. 20mm; polygonal section	
472	860	iron objects	
"	862	iron object	
"	864	iron object	
562	127 6	iron nails	
"	904	iron tanged knife; curved back and straight blade; L 110mm	
"	906	copper-alloy ?waste	
1082	271	small oval copper-alloy harness pendant mount; two rivet holes; decorated with enamel cross	
Phase 10: residual			
context	sf	description	date
642		lava quern	
667	127 9	iron pintle; round-section pivot L 35mm; flat spike	
Phase 11: residual			
context	sf	description	date
200	1	silver long-cross penny; incomplete	
"	268	oval-frame copper-alloy buckle with moulded frame; incomplete	
"	322	copper-alloy jeton; French; complete	
"	335	complete roughly cast <i>crux ansata</i> lead cross; L 55mm W 37mm; pierced for suspension	
"	361	copper-alloy casket key; circular bow; collared stem; complete; L 40mm	
"	130 6	complete copper-alloy strap loop; W 10mm	
225	321	copper-alloy openwork cross-staff head	11th/12th centuries
unstratified			
0	49	rolled lead-sheet ?fishing weight; L 30mm	
"	50	copper-alloy strap-end with forked spacers; circular form	

		with acorn knob; L 35mm; cf. Egan and Pritchard 1991, fig. 92	
"	51	incomplete openwork copper-alloy strap-end; trefoil terminal and hatched decoration; cf. Egan and Pritchard 1991, no. 608; possibly an unfinished piece	late medieval
"	52	copper-alloy forked-spacer buckle; buckle plate missing; L 33mm W 20mm	late medieval
"	54	complete oval-frame copper-alloy buckle with buckle plate; moulded frame; five rivets on plate, three extant; L (with plate) 40mm W (buckle) 22mm	late medieval
"	63	small copper-alloy single-loop buckle; L 14mm W 14mm	late medieval
"	65	small copper-alloy single-loop buckle; corrosion from iron ?pin; L 14mm W 14mm	late medieval
"	146	complete lead token; heart//blank; diam. 15mm	?medieval
"	443	complete rectangular-frame copper-alloy buckle with buckle plate; two rivets on plate; buckle with sharply pointed corners and lip; L (with plate) 35mm W (buckle) 18mm	?late medieval
"	614	small oval-frame copper-alloy buckle with offset bar and collared pin; complete; L 14mm W 19mm	
"	618	silver ?long-cross penny; now slightly dished and with two circular perforations	
"	621	cut silver farthing	
"	642	complete copper-alloy oval buckle with forked spacers and rigid plates; L (with plate) 47mm W (buckle) 22mm	late medieval
"	644	cast copper-alloy buckle plate; five rivets; slightly trapezoidal; L 25mm W 20mm	
"	789	narrow folded copper-alloy buckle plate; three rivets; L 53mm	
"	791	rolled lead-sheet ?fishing weight; L 45mm	

Table 3: post-medieval finds

context	sf	description	date
0	33	copper-alloy thimble	
"	34	copper-alloy thimble	
"	35	copper-alloy thimble	
"	62	copper-alloy thimble	
"	64	copper-alloy garter buckle; complete	18th century
"	115	copper-alloy ?sword-belt hook; two iron rivets and inward-turning hook; complete	late 16th/early 17th centuries
"	444	lead ?token	
"	448	copper-alloy trapezoidal two-piece shoe- or knee buckle; complete; L 35mm W 20mm	late 17th/early 18th centuries
"	613	lead token	
"	619	lead token	
"	631	lead token	
"	652	copper-alloy watch key; complete; L 28mm	
"	653	lead ?token	
"	654	copper-alloy trapezoidal two-piece shoe- or knee buckle; complete; L 23mm W 18mm	late 17th/early 18th centuries
"	655	copper-alloy rumbler bell; complete	
"	659	rectangular single-looped copper-alloy buckle; complete; L 18mm W 45mm	?late medieval /early modern
"	660	tinned copper-alloy shoe buckle	18th century
"	706	copper-alloy two-piece shoe buckle	18th century
"	707	copper-alloy scissors; top of one arm; highly decorated	?16th/17th centuries
"	708	copper-alloy toy spoon; bowl only	
"	709	copper-alloy double-loop trapezoidal buckle	late 16th/ 17th centuries
"	721	copper-alloy rumbler bell; complete	
"	723	copper-alloy book corner mount; central boss surrounded by stamped floral petals; complete; 35 x 40mm	?late 16th/ 17th centuries
"	770	lead cloth seal	
"	772	copper-alloy double-loop oval buckle; complete ;L 40mm W 20mm	late 16th/ early 17th centuries
"	773	copper-alloy garter buckle; complete	18th century
"	774	copper-alloy sub-rectangular two-piece knee buckle; complete; L 23mm W 38mm	18th century
"	775	copper-alloy rectangular two-piece buckle	17th/18th centuries
"	776	copper-alloy thimble	
"	789	copper-alloy buckle plate	
"	790	copper-alloy thimble	
"	793	complete oval two-piece copper-alloy buckle; L 20mm W 30mm	?17th/18th centuries
200	266	copper-alloy thimble	
"	270	copper-alloy button	
"	282	lead token	
"	283	lead ?cloth seal	
"	284	copper-alloy dome-shaped button; complete	18th century
"	292	lead ?cloth seal	
"	307	lead token; complete	
"	311	lead token; complete	
"	315	copper-alloy coin	

“	316	copper-alloy coin	
“	317	copper-alloy jeton; Nuremberg type	

"	318	copper-alloy coin; William and Mary halfpenny	
"	319	copper-alloy coin	
"	323	lead token	
"	324	lead token; complete	
"	325	lead cloth seal	
"	326	lead cloth seal	
"	327	lead token; WD//blank	
"	331	lead token; complete	
"	332	lead ?seal/token	
"	336	lead token; ?W//blank	
"	337	lead token; RK//blank	
"	338	lead token; complete	
"	339	lead token	
"	342	rectangular two-piece copper-alloy shoe buckle	18th century
"	345	lead ?cloth seal	
"	346	lead ?shot	
"	347	copper-alloy rectangular openwork shoe buckle	18th century
"	348	copper-alloy rectangular openwork shoe buckle	18th century
"	350	copper-alloy drawer knop handle; complete	
"	351	copper-alloy drawer knop handle; integral screw; complete	
"	353	copper-alloy thimble	
"	354	copper-alloy ?furniture mount	
"	355	copper-alloy ?furniture mount	
"	356	copper-alloy T-shaped barrel tap	
"	357	metal disc/token	
"	359	lead cloth seal	
"	362	lead cloth seal	1822
"	364	copper-alloy curtain ring; complete	
"	365	copper-alloy ?musket fitting; tinned and moulded decoration	18th century
"	366	copper-alloy coin	
"	367	copper-alloy button	
"	369	copper-alloy curtain ring; complete	
"	380	copper-alloy curtain ring; complete	
"	384	copper-alloy button	
"	387	angled copper-alloy drawer handle; complete	
"	388	lead petal-shaped drawer knop handle	18th century
"	392	lead shot	
"	395	copper-alloy coin; Victoria	1875
"	416	lead token; complete	
"	538	copper-alloy rectangular two-piece shoe or knee buckle; complete; L 20mm W 15mm	17th/18th centuries
"	540	copper-alloy button	
"	541	lead token; complete	
"	543	copper-alloy thimble	
"	555	copper-alloy shako badge	
"	601	lead window came	
"	813	lead shot	
"	814	lead shot	
"	815	lead shot	
"	823	lead token; cross//blank	
"	824	lead ?token; centre pierced	
"	825	lead ?token; complete	
"	826	lead token; complete	

"	828	lead token; cross//blank	
"	829	cast single-looped D-shaped ?harness buckle; complete; L 35mm W 45mm	
"	839	copper-alloy foot from vessel	
"	841	copper-alloy foot from vessel	
"	856	copper-alloy button	
"	860	copper-alloy thimble	
"	861	lead spoon; handle only	
"	876	copper-alloy double-loop oval buckle; complete; L 40mm W 20mm	late 16th/ early 17th century
"	130 7	copper-alloy clog or shoe fastener; oval decorated plate with folded hook; L 23mm W 13mm	?18th century
225	267	lead bird feeder; complete but squashed	15th to 17th centuries
"	269	cast copper-alloy ?strap end	15th to 16th centuries
"	272	copper-alloy dividers	
"	274	copper-alloy barrel lock; complete	
"	275	copper-alloy door or furniture knob handle; complete	
"	276	silver coin; Victoria sixpence	
"	277	copper-alloy ?spur buckle	late 16th/17th centuries
"	278	copper-alloy shoe buckle	late 17th/18th centuries
"	279	lead token; complete	
"	334	copper-alloy coin	
"	403	iron rowel spur; D-section sides and short downward-curved neck	16th century+
"	404	copper-alloy furniture stud; complete	
"	419	copper-alloy ?furniture mount	
330	126 6	iron	
454	126 9	iron ?rove	
459	777	iron scissors; near-complete; L 150mm+	
478		iron nail	
609	127 7	iron sheet/vessel; L 75mm	
639	894	iron hook; x13	
"	126 4	double-sided bone comb	
667	127 9	iron fitting	
1053	129 1	Iron object	
1369	129 9	iron sheet	

APPENDIX 7

ENVIRONMENTAL ARCHAEOLOGICAL ASSESSMENT

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INTRODUCTION

This report summarises the findings and recommendations arising out of the environmental archaeological assessment undertaken by *ArchaeoScape* in connection with the proposed development at Grange Farm, Gillingham, Kent (National Grid Reference: TQ 7930 6850; Site Code: KKGf03). Excavations by Pre-Construct Archaeology Ltd (PCA Ltd) have revealed a large number of features, ranging from prehistoric (Phase 2) to post-medieval (Phase 10) in age. Thirty-five bulk samples, all taken from Area A and assigned to Phases 4 (43-120 AD), 5 (120-250 AD), 6 (250-300 AD) and 7 (300-420 AD), form the basis of this environmental archaeological assessment. Samples from Phase 4 were taken from pits, ditches and hearths, including a possible raised granary structure, [871], in Area A. Samples from Phase 5 were recovered from pits and floor layers, during the period in which the possible Roman villa was constructed. Samples from Phase 6 were taken from pits, a grave cut and a tomb, and included an aisled barn, [461]. A mausoleum, feature [261], was also constructed during this Phase. Samples from Phase 7 were obtained from pits and hearths, and industrial activity areas (Seddon 2007). The aim of the environmental archaeological assessment, therefore, was to evaluate the potential of samples for reconstructing the economy and diet of the former inhabitants of the site.

METHODS

Samples were processed by flotation using 1mm and 300-micron mesh sieves by Pre-Construct Archaeology Ltd. The samples ranged from 5 to 40 litres in size. Most represented between 5% and 50% of the context sampled. Each flot was passed through a stack of geological sieves and scanned under a low powered stereomicroscope with a magnification range of x10 to x40 (Table 1), and the volume of each flot was measured and recorded in millilitres. The abundance, diversity and state of preservation of organic remains in each sample are displayed in Tables 2 to 4. In Table 2 the plants, where named, are given their English/common name. Ranges for abundance and diversity are as follows:-

<i>Abundance</i>	<i>Diversity</i>
1= "low/occasional" 1-10 individuals	1= "low" 1-4 species
2= "moderate" 11-100 individuals	2= "intermediate/moderate" 5-10 species
3= "abundant/high" >100 individuals	3= "high" >11 species

The abundance, diversity and state of preservation of the plant remains were assessed. In order to establish the potential of these samples some identification has been made. These do not form a full species list. For the purposes of assessment, most identification is made to genus. Seeds were identified using modern reference material and manuals (e.g. Beijerinck 1947; Cappers *et al.* 2006) and cereals identified from modern reference material (Hillman *et al.* 1996) and reference guides and manuals (e.g. Charles 1984; Hillman *et al.* 1996; Jacomet 2006).

RESULTS

Type of preservation

Preservation was dominated by charring and, very rarely, by silicification. Charring occurs when plant remains are burned in reducing conditions where oxygen has been excluded (Jones 2002) but when in oxidising conditions plant remains can burn to ash leaving silicified material (Robinson and Straker 1990). Plant remains have been observed ethnographically to become charred during parching, sterilisation of a weed infested or diseased grain store, used as tinder or kindling or simply through being added to a meal and accidentally falling into the fire whilst cooking (Hillman 1981).

Occasional uncharred (not mineralised or silicified) seeds were also observed but due to similarly uncharred root fragments observed in some of the flots, it is possible that they are intrusive. Only sample <260> contained no uncharred remains in the flot. Root/rhizome fragments were present in

most samples. The most frequent seeds recorded were those of dog's mercury (*Mercurialis perennis* L.) and fat hen (*Chenopodium album* L.). Dog's mercury frequents shady places such as woodland and hedgerows (Stace 1997) and fat hen prefers waste and cultivated ground (ibid, 140).

Many of the flots also contained fragments of uncharred, possibly modern root/rhizome fragments and the terrestrial snail *Ceciliodes acicula* (Müller 1774). This snail is a subterranean snail, living among plant roots and preferring calcareous soil (Kerney and Cameron 1996). Root activity indicates that stratigraphic movement may have taken place. This and the snail activity could mean that the uncharred seeds are intrusive and therefore unlikely to have been preserved by waterlogging because no samples were taken from contexts where waterlogged conditions were observed. Due to this, no further comment will be made on the uncharred remains.

Quality of preservation

Preservation was generally good although numbers of taxa were scarce and at best moderate in quantity. The sample sheets accompanying the flots did refer to possible contamination. Sample <126> was described as being heavily contaminated with lead salts. Samples <146>, <207>, <208>, <237> and <238> were observed to contain modern horseradish roots. Sample <270> was possibly mixed with context [1198]. Sample <283> was possibly mixed with underlying layers - context [1335] and [1338]. Sample <284> was also possibly mixed with underlying metallings from context [1338].

Plant remains by Phase and feature

Phase 4: 43-120 AD

Pit [276]

Very little was recovered from sample <111>, context [275] other than moderate quantities of identifiable charcoal and occasional grass seeds and a spelt (*Triticum spelta* L.) grain.

Pit [432]

Sample <146>, context [433] contained no charred or silicified plant remains. Samples <149>, context [433] contained occasional charcoal fragments and a wheat (*Triticum* sp.) glume base. Sample <150>, context [448], taken from the residue around a pot, contained a fragment of ?pea (cf. *Pisum sativum* L.).

Pit [1092]

Sample <247>, context [1026] produced very little other than occasional fragment of identifiable charcoal, a glume fragment, wheat grain and a poorly preserved seed, possibly plantain (cf. *Plantago* sp.) The remaining samples from pit [1092] produced the most promising archaeobotanical samples from those assessed. The primary fill of the pit, sample <268>, context [1174] contained wheat and oat chaff, and an interesting assemblage of seeds. Sample <267>, context [1122] (secondary fill) produced abundant quantities of seeds and moderate quantities of grains. The seeds included a possible exotic, lentil (cf. *Lens culinaris* Medik) and possible weeds of arable fields such as field penny-cress (*Thalspi arvense* L.). One seed appeared to be silicified. Grains included those of wheat (*Triticum* spp.) and barley (*Hordeum* sp.). Sample <246>, context [1025], the upper fill of the pit produced a similar assemblage to sample <268> as well as a possible lentil and a possible pea (cf. *Pisum sativum* L.).

Pit [1125]

Sample <258>, context [1123] and sample <259>, context [1124] taken from pit [1125] produced small assemblages consisting of seeds and chaff. Moderate to abundant quantities of identifiable charcoal were present.

Pit [1158]

Sample <263>, context [1164] produced a small assemblage consisting of poorly preserved legume fragments and cereal grains.

Ditch [1002]

Sample <250>, context (1004) produced a small assemblage consisting of spelt (*Triticum spelta* L.)

grains and shell fragment of sloe/plum (*Prunus spinosa/domestica*).

Hearth [1027]

Sample <240>, context [1009] produced a small assemblage consisting of seeds including those of common spikerush (*Eleocharis palustris*), legume fragments and a poorly preserved wheat grain.

Hearth [1091]

Sample <244>, context [1022] contained low quantities of wheat glume bases.

Phase 5: 120-250 AD

Pit [432]

Sample <151>, context [433] contained very little other than a spelt (*Triticum spelta* L.) grain and occasional fragments of identifiable charcoal.

Pit [789]

Sample <207>, context [788] produced a small but varied assemblage including a glume, wheat grains, charcoal and seeds such as dog's mercury (*Mercurialis perennis* L.) and eyebright/bartsia (*Euphrasia/Bartsia* sp.). Sample <208>, context [809] contained very little other than a glume base and occasional fragments of identifiable charcoal.

Pit [1196]

Sample <269>, context [1195] was dominated by identifiable charcoal and barley and wheat grains. Occasional seeds including those of spike rush (*Eleocharis* sp.) were observed. Also present were fragments of walnut (*Juglans regia* L.) shell.

Pit [1197]

Sample <270>, context [1199] contained very little other than legume fragments and occasional fragments of identifiable charcoal.

Floor layer

Sample <286>, context [1224] contained very little other than legume fragments and occasional fragments of identifiable charcoal.

Floor layer

Sample <283>, context [1258] contained very little other than a glume base and occasional fragments of identifiable charcoal.

Floor layer

Sample <284>, context [1335] contained no charred or silicified plant remains.

Phase 6: 250-300 AD

Grave cut [206]

Sample <126>, context [220] produced very little. Occasional seeds including those of grass and goosefoot were present along with one poorly preserved cereal grain and occasional identifiable charcoal fragments.

Tomb [261]

Sample <100>, context [205] produced very little, just one oat (*Avena* sp.) grain and 1 wheat glume base.

Pit [1236]

Sample <278>, context [1234] produced a low number of seeds and grains and identifiable charcoal fragments. The seeds included those of grass and knotgrass/dock and one poorly preserved barley/wheat grain was observed.

Layer

Sample <282>, context [1257] produced a low number of seeds and grains and identifiable charcoal fragments. The seeds included brome fragments and the grains resembled those of free-threshing wheat grains.

Phase 7: 300-420 AD

Pit [210]

All that was recovered from sample <102>, context [209] were abundant quantities of identifiable charcoal.

Hearth [982]

All that was recovered from sample <237>, context [981] were moderate quantities of identifiable charcoal.

Hearth [988]

Sample <238>, context [987] produced very little; just occasional seeds including those of dog's mercury and one wheat grain.

Hearth [1046]

Sample <248>, context [1044] produced very little; just occasional seeds including goosefoot (*Chenopodium* sp.) and ?small nettle (cf. *Urtica urens* L.), one oat (*Avena* sp.) grain and a ?barley (cf. *Hordeum* sp.) grain. Moderate quantities of identifiable charcoal were present.

Hearth [1105]

Sample <253>, context [1104] produced low quantities of seeds including ?pea (cf. *Pisum* sp.), scentless mayweed (*Tripleurospermum maritime* ssp. *Inodoratum* (L.)) and stinking chamomile (*Anthemis cotula* L.) and occasional identifiable charcoal.

Hearth [1107]

Sample <256>, context [1106] produced low quantities of seeds including grass seeds and a legume fragment. A wheat (*Triticum* sp.) grain fragment and ?barley (*Hordeum* sp.) grain were also present and a wheat (*Triticum* sp.) glume base.

Hearth [1155]

Sample <261>, context [1154] contained no charred or silicified plant remains.

Fill [1135]

Sample <260>, context [1135] was dominated by identifiable charcoal. It also included low numbers of seeds including ?pea (*Pisum* sp.) and one wheat (*Triticum* sp.) grain.

Cut [1231]

Low numbers of seeds including legume fragments and identifiable charcoal were observed in Sample <274>, context [1229] along with grains including those of barley (*Hordeum* sp.) and ?wheat (*Triticum* spp.).

Faunal remains

Eighteen of the thirty-five samples produced flots with faunal remains as shown in Table 3. Most of these were the terrestrial snail *Ceciliodes acicula* (Müller 1774) and is probably intrusive. Occasional pupae were observed in samples <146>, <207> and <283>. Sample <100> contained abundant small mammal bones.

Inorganic remains

Ferrous material and hammerstone were frequent and present in most samples as shown in Table 4.

CONCLUSIONS AND RECOMMENDATIONS

Very little archaeobotanical work has been published for Gillingham (Kent County Council 2004) and a search of the Archaeology Data Service collection of 'Grey Literature' revealed nothing relevant at this

time although more reports are being added to this resource. Archaeobotanical studies have been made of other Kentish Roman villa sites (Birkbeck 1995; Robinson 1999; Perkins 2004). This means that even relatively poor plant remains, if from contexts with stratigraphic integrity, will add significantly to the knowledge of human activities in this geographical area.

Many of these samples have the potential to add to our knowledge about Romano-British activities in Gillingham. The following research questions are suggested ways in which these samples have the potential to provide useful information. Samples which are recommended for further analysis are listed in Table 5.

Questions about specific samples from the sample sheets:

RQ1 – Is there any evidence of metal working in sample 102?

Yes, hammerscale was present.

RQ2 – Do the plant remains in sample <246> reveal the origins of the deposit?

Yes, the plant remains are abundant and well-preserved enough to answer this question.

RQ3 – Do the remains in sample <282> reveal any evidence of waste from an industrial process?

Occasional ferric material and hammerscale was observed in the flot and residue.

RQ4 – Is there any evidence of burning in sample <283>?

Low quantities of charred plant remains are present but this may not be evidence of *in situ* burning.

RQ5 – Can sample <284> reveal information about the type of activities taking place on this surface?

The plant remains do not suggest any particular activity-taking place here. However, hammerscale was observed in the residue and flot.

RQ6 – Is there any evidence of milling debris in sample <286>?

There is very little evidence of milling in the form of chaff debris. Fragments of legumes were observed and these may be evidence of the grinding of acceptable weed contaminants along with grain. Further analysis of this sample may reveal more.

Specialist research questions these samples have the potential to answer:

RQ7 - What can these samples tell us about feature function?

Some poorer samples have been recommended as well as richer ones. This is because scant evidence or negative evidence can be useful in feature interpretation. The same reasoning has been used in recommending samples for questions 8 and 9.

RQ8 - What can these samples tell us about activities across the site?

RQ9 - What can these samples tell us about variations across Phases?

RQ10 - What can these samples tell us about Romano-British arable farming in this area?

RQ12 - What can these samples tell us about Romano-British diet at this site?

RQ13 - How do these samples compare with other villa sites in the South East?

RQ14 - Do the samples provide any evidence for trade or imports?

RQ15 - Can the identification of the charcoal provide evidence of fuel?

Samples with fragments greater than 4mm³ were selected. Although many samples came from hearths not all of these features were very productive and the pits may contain hearth waste.

Table 1: Bulk sample details, Grange Farm, Gillingham, Kent (KKGf03)

Phase number	Context number	Sample number	Feature	Fill of	Volume sampled (l)	Volume processed (l)	Volume remaining (l)	Flot volume (l)	Context sampled (%)	Context type	Soil concentration	Contamination
4	275	111	pit	276	20	10	10	10	<5%	fill	moist	none
4	433	146	pit	432	40	10	30	5	5-25%	fill	moist	horseradish root
4	433	149	pit	432	10	10	0	10	<5%	fill	moist	none
4	448	150	pit	432	30	10	20	15	?	?		
4	1026	247	pit	109 2	10	10	0	5	?	fill	moist	
4	1174	268	pit	109 2	40	10	20	20	?	fill	moist	
4	1122	267	pit	109 2	30	10	20	10	?	fill	moist	
4	1025	246	pit	109 2	40	20	20	10	?	fill	moist	
4	1123	258	pit	112 5	20	10	10	10	>50%	fill	moist	modern roots
4	1124	259	pit	112 5	10	10	0	10	>50%	fill	moist	modern roots
4	1164	263	pit	115 8	30	10	10	5	25-50%	fill	moist	modern roots
4	1004	250	ditch	100 2	10			15	?	?	?	
4	1009	240	hearth	102 7	40	10	30	5	25-50%	fill	moist	modern roots
4	1022	244	hearth	109 1	10	10	0	20	100%	fill	dry	none
5	433	151	pit	432	5	10	10	5	5-25%	fill	moist	horseradish root
5	788	207	pit	789	40	10	30	20	5%	fill	moist	horseradish root
5	809	208	pit	789	40	10	30	10	5%	fill	moist	horseradish root
5	1195	269	pit	119 6	40	10	30	5	25-50%	fill	moist	modern roots
5	1199	270	pit	119 7	20	10	10	30	25-50%	fill	moist	some with 1198
5	1224	286	layer(floor)	NA	20	10	10	5	<5%	layer	dry	none

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5	1258	283	layer(floor)	NA	20	10	20	5	>50%	layer	moist	underlying layers 1335 and 1358 possible
5	1335	284	layer	NA	20	10	10	5	>50%	layer	moist	some underlying metallings
6	220	126	grave cut	206	40	10	30	5	5%		moist	heavy lead salts
6	205	100	tomb	261	10	10	0	80	?	fill	moist	
6	1234	278	pit	123 6	40	10	30	2	?	fill	moist	
6	1257	282	layer	NA	10	?	?	2	?	layer	moist	
7	209	102	pit	210	20	10	10	80	25-50%	fill	moist	none
7	981	237	hearth	982	20	10	10	10	>50%	hearth fill	moist	horseradish root
7	987	238	hearth	988	20	10	10	10	>50%	hearth fill	moist	horseradish root
7	1044	248	hearth	104 6	20	10	10	4	5-25%	fill	moist-dry	none
7	1104	253	hearth	110 5	40	10	30	5	25-50%	fill	moist	none
7	1106	256	hearth	110 7	20	10	10	10	>50%	fill	moist	none
7	1154	261	hearth	115 5	20	10	10	5	>50%	fill	moist	none
7	1135	260	fill	113 5	20	10	10	2	100%	fill	moist	none
7	1229	274	cut	123 1	30	10	20	10	not given	fill	moist	

Table 2: Bulk sample assessment, Grange Farm, Gillingham, Kent (KKGf03)

Phase number	Context number	Sample number	Feature number	charred remains									uncharred remains					main charred taxa	main uncharred taxa
				seeds	grains	chaff	wood flecks	identifiable charcoal	other	seeds	grains	other							

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				ab	div	ab	div	ab	div	ab	ab	ab	div	ab	div	ab	div	ab	div				
4	275	111	276	1	1	-	-	-	-	1	2	-	-	-	-	-	-	1	1	one possible bristle-grass seed, a spelt grain and identifiable charcoal	root/rhizome fragments, seeds including dog's mercury and fat hen		
4	433	146	432	-	-	-	-	-	-	1	-	-	-	1	1	-	-	3	1	no charred remains	root/rhizome and stem/leaf fragments, seeds including fat hen and sedge		
4	433	149	432	-	-	-	-	1	1	2	1	-	-	2	1	-	-	3	1	one glume base and identifiable charcoal	root/rhizome fragments, seeds including stinging nettle and dog's mercury		
4	448	150	432	1	1	-	-	-	-	2	1	-	-	2	1	-	-	3	1	fragment of legume ?pea	root/rhizome fragments, seeds including stinging nettle		

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4	1026	247	1092	1	1	1	1	2	-	2	1	-	-	2	1	-	-	3	1	seeds including ?plantain, 1 wheat grain and glume fragment, identifiable charcoal	root/rhizome fragments, seeds including fat hen and dog's mercury
4	1174	268	1092	1	1	1	1	1	1	1	2	-	-	2	1	-	-	3	1	seeds including curled dock, legume fragments, 4 wheat grains - 3 free-threshing type, chaff including a stem fragment, identifiable charcoal	root/rhizome fragments, seeds including stinging nettle, dog's mercury and fat hen
4	1122	267	1092	3	2	2	1	1	1	-	-	-	-	1	1	-	-	-	-	diverse and interesting assemblages including seeds, such as ?lentil, many peas, field penny-cress, grass, curled dock, wheat and barley grains, silicified dog's mercury	seeds including elderberry and dog's mercury
4	1025	246	1092	2	2	2	1	1	1	3	1	-	-	1	1	-	-	3	1	diverse and interesting assemblages of seeds including ?lentil, orache, fat hen, buttercups and ?pea, also	root/rhizome fragments, seeds including elderberry

																				grains including rye and wheat, chaff including an oat awn and wheat rachis fragment, identifiable charcoal	
4	1123	258	1125	1	1	-	-	1	1	2	1	-	-	2	2	-	-	3	1	seeds including spikerush , dead-nettle and a fragment of brome, a wheat glume, identifiable charcoal	root/rhizome fragments, seeds including fat hen orache and elderberry
4	1124	259	1125	1	1	1	1	-	-	3	2	-	-	-	-	-	-	-	-	seeds including ?stinging nettle, 2 ?wheat grains, identifiable charcoal	no uncharred remains
4	1164	263	1158	1	1	1	1	-	-	2	1	-	-	1	1	-	-	2	1	seeds including legume fragments, 1 possible wheat grain, identifiable charcoal	root/rhizome fragments, seeds including fat hen and dog's mercury
4	1004	250	1002	-	-	1	1	-	-	-	-	1	1	2	1	-	-	2	1	spelt grains and shell fragments of sloe/plum	root/rhizome fragments, seeds including fat hen, fumitory and elder
4	1009	240	1027	1	1	1	1	-	-	-	-	-	-	2	1	-	-	3	1	seeds including legume fragments and	root/rhizome fragments, seeds

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																				common spikerush, one poorly preserved wheat grain	including fat hen, dog's mercury and blackberry/raspberry
4	1022	244	1091	-	-	-	-	1	1	2	-	-	-	1	1	-	-	3	1	occasional wheat glume bases	root/rhizome fragments and seeds including elderberry and fat hen
5	433	151	432	-	-	1	1	-	-	-	1	-	-	1	1	-	-	3	1	1 spelt grain, identifiable charcoal	root/rhizome fragments and seeds including stinging nettle
5	788	207	789	1	1	1	1	1	1	-	2	-	-	2	2	-	-	1	1	seeds including dog's mercury and eyebright/bartsia, wheat (Triticum sp.) grains, one glume resembling spelt (Triticum spelta L.) and identifiable charcoal	root/rhizome fragments, seeds including fat hen thistles, dock/knotgrass
5	809	208	789	-	-	-	-	1	1	1	1	-	-	1	1	-	-	2	1	one possible glume base and occasional identifiable charcoal	root/rhizome fragments, seeds including fat hen, stinging nettle and oxtongue
5	1195	269	1196	1	1	2	1	-	-	3	2	1	1	-	-	-	-	3	1	seeds including spikerush, grains	root/rhizome fragments

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																				including ?barley and spelt, identifiable charcoal, 4 fragments of walnut shell	
5	1199	270	1197	1	1	-	-	-	-	2	1	-	-	-	-	-	-	3	1	seeds including a legume fragment, identifiable charcoal	root/rhizome fragments
5	1224	286	Floor	1	1	-	-	-	-	2	1	-	-	2	1	-	-	3	1	occasional seeds include fragments of legumes ?pea, occasional identifiable charcoal	root/rhizome fragments, seeds including stinging nettle
5	1258	283	Floor	1	1	1	1	-	-	2	2	-	-	1	1	-	-	3	1	seeds including ?grape, dog's mercury, one wheat grain and identifiable charcoal	root/rhizome fragments, seeds including fat hen and orache
5	1335	284	Floor	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	1	no charred remains	root/rhizome fragments, seeds including fat hen
6	220	126	206	1	1	1	1	-	-	1	1	-	-	1	1	-	-	1	1	occasional seeds including those of grass and goosefoot, one poorly preserved cereal grain and occasional identifiable charcoal	root/rhizome fragments and fat hen seeds

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6	205	100	261	-	-	1	1	1	1	2	-	-	-	2	2	-	-	3	1	1 oat grain and 1 wheat glume base	root/rhizome fragments, seeds including dog's mercury, spurge, fat hen and elderberry
6	1234	278	1236	1	1	1	1	-	-	1	1	-	-	1	1	-	-	3	1	occasional seeds including grass, knotgrass/dock, one barley/wheat grain and occasional identifiable charcoal	root/rhizome fragments, seeds including elderberry and fat hen
6	1257	282	Layer	1	1	1	1	-	-	2	-	-	-	1	1	-	-	3	1	occasional seeds including brome fragments, free-threshing wheat grains, occasional identifiable charcoal	root/rhizome fragments, seeds including fat hen
7	209	102	210	0	0	0	0	0	0	3	3	-	-	2	2	-	-	3	1	abundant identifiable charcoal	root/rhizome fragments, seeds including fat hen, knotweed and fumitory
7	981	237	982	-	-	-	-	-	-	3	2	-	-	2	2	-	-	3	1	moderate identifiable charcoal	root/rhizome fragments, diverse seed assemblage including

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																					dog's mercury, oxtongue, fat hen and elder
7	987	238	988	1	1	1	1	-	-	-	-	-	-	1	1	-	-	2	1	occasional seeds including dog's mercury and one wheat grain	root/rhizome fragments, seeds including fumitory and fat hen
7	1044	248	1046	1	1	1	1	-	-	1	2	-	-	2	2	-	-	2	1	occasional seeds including goosefoot and ?small nettle, 1 oat grain and a ?barley grain, moderate identifiable charcoal	root/rhizome fragments, seeds including fumitory and black nightshade
7	1104	253	1105	1	1	-	-	-	-	1	1	-	-	2	1	-	-	3	1	occasional seeds including ?pea, scentless mayweed and stinking chamomile, occasional identifiable charcoal	root/rhizome fragments, seeds including fat hen and dog's mercury
7	1106	256	1107	1	1	1	1	1	1	-	-	-	-	1	1	-	-	3	1	occasional seeds including grass, a legume fragment, 1 wheat grain fragment and ?barley grain and a wheat glume base	root/rhizome fragments, seeds including dog's mercury, fat hen and elderberry

7	1154	261	1155	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	1	no charred remains	root/rhizome fragments, seeds including fat hen
7	1135	260	1135	1	1	1	1	-	-	1	2	-	-	1	1	-	-	2	1	occasional seeds including ?pea and 1 wheat grain, moderate identifiable wood	root/rhizome fragments, seeds including stinging nettle, goosefoot and elderberry
7	1229	274	1231	1	1	-	-	-	-	2	1	-	-	1	1	-	-	3	1	occasional seeds including legume fragments, grains including those of barley and ?wheat occasional identifiable charcoal	root/rhizome fragments, seeds including elderberry

KEY

Abundance

1= "low/occasional" 1-10 individuals

2= "moderate" 11-100 individuals

3= "abundant/high" >100 individuals

Diversity

1= "low" 1-4 species

2= "intermediate/moderate" 5-10 species

3= "high" >11 species

Table 3: Faunal remains, Grange Farm, Gillingham, Kent (KKGf03)

Phase number	Context number	Sample number	Bones	Insects			Molluscs			Main taxa		
			small mammal	beetles	pupae	mites	other	terrestrial	div fresh		marine	
			ab	ab	ab	ab	ab	ab	div			
4	275	111	3	1	-	-	-	-	1	1	-	small mammal bones, beetle head, terrestrial molluscs including ceciliodes
4	433	146	-	-	-	-	-	-	-	-	-	no fauna
4	433	149	1	-	-	-	-	-	-	-	-	no fauna
4	448	150	1	-	-	-	-	-	2	1	-	ceciliodes,
4	1026	247	-	-	-	1	-	-	-	-	-	pupae
4	1174	268	-	-	-	-	-	-	-	-	-	no fauna
4	1122	267	-	-	-	-	-	-	-	-	-	no fauna
4	1025	246	-	-	-	-	-	-	-	-	-	no fauna
4	1123	258	-	-	-	-	-	-	1	1	-	ceciliodes,
4	1124	259	-	-	-	-	-	-	1	1	-	ceciliodes,
4	1164	263	-	-	-	-	-	-	-	-	-	no fauna
4	1004	250	-	-	1	-	-	-	1	1	-	pupae fragments and terrestrial molluscs
4	1009	240	-	-	-	-	-	-	-	-	-	no fauna
4	1022	244	-	-	-	-	-	-	-	-	-	no fauna
5	433	151	-	-	-	-	-	-	1	1	-	ceciliodes
5	788	207	-	-	-	-	-	-	1	1	-	ceciliodes
5	809	208	-	-	-	-	-	-	-	-	-	no fauna
5	1195	269	-	-	-	-	-	-	1	1	-	ceciliodes,
5	1199	270	-	-	-	-	-	-	-	-	-	no fauna
5	1224	286	-	-	-	-	-	-	-	-	-	no fauna
5	1258	283	-	-	-	-	-	-	1	1	-	terrestrial molluscs
5	1335	284	-	-	-	-	-	-	1	-	-	ceciliodes
6	220	126	-	-	-	-	-	-	-	-	-	no fauna
6	205	10	-	-	-	-	-	-	-	-	-	no fauna

		0									
6	123 4	27 8	-	-	1	-	-	1	-	-	terrestrial molluscs including ceciliodes
6	125 7	28 2	-	-	-	-	1	1	-	-	centi/millipedes, ceciliodes
7	209	10 2	-	-	-	-	-	1	-	-	ceciliodes
7	981	23 7				-	-	1	-	-	terrestrial molluscs including ceciliodes
7	987	23 8	-	-	-	-	-	-	-	-	no fauna
7	104 4	24 8	-	-	-	-	-	-	-	-	no fauna
7	110 4	25 3	-	-	-	-	-	-	-	-	no fauna
7	110 6	25 6	-	-	1	-	-	1	-	-	pupa, ceciliodes
7	115 4	26 1	-	-	1	-	-	-	1	-	pupae fragments, ?freshwater mollusc fragments,
7	113 5	26 0	-	-	-	-	-	1	-	-	ceciliodes fragments
7	122 9	27 4	-	-	-	-	-	-	-	-	no fauna

KEY

ab= Abundance

1= "low/occasional" 1-10 individuals

2= "moderate" 11-100 individuals

3= "abundant/high" >100 individuals

div= Diversity

1= "low" 1-4 species

2= "intermediate/moderate" 5-10 species

3= "high" >11 species

Table 4: Inorganic remains, Grange Farm, Gillingham, Kent (KKGf03)

Phase number	Context number	Sample number	Hammerscale	Ferrous material
4	275	111	1	2
4	433	146	1	-
4	433	149	-	-
4	448	150	1	2
4	1026	247	-	2
4	1174	268	-	-
4	1122	267	-	2
4	1025	246	-	2
4	1123	258	-	2
4	1124	259	-	2
4	1164	263	-	1
4	1004	250	1	2
4	1009	240	1	2
4	1022	244	-	2
5	433	151	-	-
5	788	207	-	1
5	809	208	-	1
5	1195	269	1	2
5	1199	270	1	2
5	1224	286	-	2
5	1258	283	-	1
5	1335	284	1	1

6	220	126	1	2
6	205	100	1	-
6	1234	278	1	2
6	1257	282	1	1
7	209	102	1	2
7	981	237	1	1
7	987	238	-	1
7	1044	248	1	1
7	1104	253	-	2
7	1106	256	1	1
7	1154	261	1	2
7	1135	260	1	2
7	1229	274	1	2

KEY

ab= Abundance

- 1= "low/occasional" 1-10 individuals
- 2= "moderate" 11-100 individuals
- 3= "abundant/high" >100 individuals

div= Diversity

- 1= "low" 1-4 species
- 2= "intermediate/moderate" 5-10 species
- 3= "high" >11 species

Table 5: Samples recommended for analysis

Phase number	Sample number	Research Questions														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	*246	-	✓	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	*267	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	111	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	149	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	150	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	240	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	-
4	244	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	-
4	247	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	258	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	259	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	263	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
4	268	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
5	151	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
5	207	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
5	283	-	-	-	*	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
5	284	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-
5	286	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
6	100	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	-
6	126	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
6	278	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
6	282	-	-	✓	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
7	102	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
7	237	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
7	238	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
7	248	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
7	253	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
7	256	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	-
7	260	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓
7	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	274	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	-	✓

* = samples are exceptionally good

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APPENDIX 8

POLLEN ASSESSMENT OF SAMPLES RECOVERED FROM THE LEAD COFFIN

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INTRODUCTION

This report summarises the findings arising out of the pollen assessment of sub-samples taken from the fill of a lead coffin, containing an adult female, discovered during the archaeological excavation of a Roman mausoleum (feature [261], assigned to 250-300 AD (Phase 6)), at Grange Farm, Gillingham, Kent (National Grid Reference: TQ 7930 6850; Site Code: KKGf03). The pollen assessment was conducted on samples obtained from the general fill of the coffin (samples <29> to <42>), and from the general area of the stomach, small and large intestine (samples <1> to <28>). The aim of the pollen assessment was to evaluate the potential of the samples for providing some information on: (1) Roman diet, in particular the last meal(s) of the individual, (2) the plants flowering in the general area, and (3) the possible presence of an 'exotic preparation' e.g. special drink, which may have given to the individual prior to death.

METHODS

Sampling strategy

The lead coffin was removed from the site, and excavated under controlled conditions in a laboratory at Chatham Dockyards. Because the recovery of bioarchaeological remains, other than human bone, from graves and coffins is relatively rare, it was decided from the outset to remove small samples for pollen analysis from the fill of the coffin in a grid pattern (Figure 1), with the aim of providing some information on diet, environment and ritual/religious practices (see Dickinson 1978; Whittington 1993; Clarke 1999). The grid (5cm intervals (x-axis) by 10cm intervals (y-axis)) was laid out over the stomach and intestinal area of the skeleton using matchsticks and each grid square numbered (Figures 1, 2 and 3). Squares 5 and 6 lay directly over the stomach, with squares 10, 11 and 12 directly over the small and large intestine.

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

Figure 1: Grid pattern used to sample the fill of the coffin

In addition samples were taken randomly from areas around the skeleton such as the feet (samples <29> to <31>), the pelvis (sample <32>), the skull (sample <33>), backfill (context [237]; samples <34> to <37>), from the position of a possible necklace? (sample <38>), around the top of the skull (samples <39> to <41>), and from 'demolition rubble' (context [402]; sample <42>) infilling the coffin (Table 1). These samples were not expected to yield interesting information, but instead provided 'control samples' for comparison with samples <1> to <28>.

Pollen assessment

All samples were assessed for their pollen content. The pollen was extracted from these as follows: (1) Sampling a standard volume of sediment (1ml); (2) Deflocculation of the sample in 1% Sodium pyrophosphate; (3) Sieving of the sample to remove coarse mineral and organic fractions (>125µ); (4) Acetolysis; (5) Removal of finer mineral fraction using Sodium polytungstate (specific gravity of 2.0g/cm³); (6) Mounting of the sample in glycerol jelly. Each stage of the procedure was preceded and followed by thorough sample cleaning in filtered distilled water. Quality control is maintained by periodic checking of residues, and assembling sample batches from various depths to test for systematic laboratory effects. Pollen grains and spores were identified using the Royal Holloway (University of London) pollen type collection and the following sources of keys and photographs:

Moore *et al* (1991); Reille (1992). Plant nomenclature follows the Flora Europaea as summarised in Stace (1997). The assessment procedure consisted of scanning the prepared slides at 2mm intervals along the whole length of the coverslip and recording the concentration and state of preservation of pollen grains and spores, and the principal pollen taxa (Table 1).



Figure 2: The lead coffin being excavated at Chatham Dockyards



Figure 3: The lead coffin interior, illustrating the grid used for sampling over the stomach and intestinal area

RESULTS

The results of the pollen assessment are presented in Table 1.

Samples <29> to <31>

Only sample <31> from the feet area contained a very small amount of pollen, which was identified as pine.

Samples <32> to <42>

The remaining samples (<32> to <42>) - from the pelvis, skull, context [237], area of the possible necklace, top of the skull and from context [402] - contained no pollen grains.

Samples <1> to <28>

The results clearly indicate that the samples removed from the stomach and intestinal areas contain a higher pollen concentration. However, the proportion of grains having high sporopollenin content and complex, thickened exine suggests that the assemblage is biased in favour of grains that are more resistant to decay. Nevertheless, despite the evidence for differential preservation, and based upon the assumption that these grains are representative of plants growing on or around the settlement during the Roman period, they indicate the presence of weeds belonging to the daisy (Lactuceae) and carrot (Apiaceae) families, as well as bindweed. These pollen grains would have been incorporated within the coffin either as a component of airborne pollen that settled on the surface of the body, or as a component of those pollen grains ingested, either as part of a meal or within swallowed mucus. The presence of cereal pollen is especially interesting because this may indicate that cereals were not

only being cultivated locally, but that the pollen was ingested as part of a meal e.g. bread.

CONCLUSIONS AND RECOMMENDATIONS

The results indicate that pollen found within the stomach and intestinal area of the body is clearly better preserved and in higher concentration than the 'control samples'. However, the results also indicate that the assemblage is biased in favour of grains that are more resistant to decay.

Nevertheless, the results provide some useful information on the former local vegetation cover and possibly the diet of the young adult female. There is no evidence for an 'exotic preparation' in the stomach or intestinal contents, which would have possibly been suggestive of special ritual/religious practices prior to death. Due to the low pollen concentration, no further analysis is recommended.

Table 1: Pollen assessment of samples from the lead coffin, Grange Farm, Gillingham (KKGf03)

Location/ context number	Sample number	Main taxa present	Common name	Fungal spores	Microscopic charred particles	Concentration 0 (none) to 5 (High)	Preservation 0 (none) to 5 (High)
Grid	1	-	-	Present	2/3	0	0
Grid	2	-	-	Present	2/3	0	0
Grid	3	Apiaceae Lactuceae	Carrot family e.g. Dandelion	Present	2/3	1	1
Grid	4	-	-	Present	2	0	0
Grid/Stomac h	5	<i>Chenopodium</i> type <i>Anthemis</i> type	e.g. Fat hen Chamomile	Present	2/3	1	3
Grid/Stomac h	6	-	-	Present	3	0	0
Grid	7	-	-	Present	2/3	0	0
Grid	8	cf Lactuceae <i>Sinapis</i> type	e.g. Dandelion e.g. Charlock	Present	3/4	1/2	1/2
Grid	9	<i>Pinus</i>	Pine	Present	2	1	1
Grid/Intestine	10	<i>Sinapis</i> type, Unknown trizonoporate grain, Lactuceae	e.g. Charlock e.g. Dandelion	Present	2/3	1/2	1/2
Grid/Intestine	11	Lactuceae <i>Convolvulus</i> type	e.g. Dandelion e.g. Bindweed	Present	3/4	1	1
Grid/Intestine	12	Lactuceae	e.g. Dandelion	Present	2	1	1
Grid	13	cf <i>Pinus</i>	Pine	Present	3/4	1	1
Grid	14	cf <i>Sinapis</i> type	e.g. Charlock	Present	2/3	1	1
Grid	15	cf <i>Sinapis</i> type	e.g. Charlock	Present	2	1	1
Grid	16	-	-	Present	3/4	0	0
Grid	17	-	-	Present	3	0	0
Grid	18	-	-	Present	3/4	0	0
Grid	19	-	-	Present	1/2	0	0
Grid	20	-	-	Present	3	0	0
Grid	21	-	-	Present	3/4	0	0
Grid	22	Poaceae/ <i>Cereale</i> type	Grass/Cereal	Present	3	1	1
Grid	23	cf <i>Sinapis</i> type	e.g. Charlock	Present	3/4	1	1/2

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Grid	24	cf <i>Sinapis</i> type	e.g. Charlock	Present	3/4	1	2
Grid	25	-	-	Present	3	0	0
Grid	26	-	-	Present	3	0	0
Grid	27	-	-	Present	3	0	0
Grid	28	-	-	Present	3/4	0	0
(237) organic patch by feet	29	-	-		1/2	0	0
(237) organic patch by feet	30	-	-		2	0	0
(237) feet	31	cf <i>Pinus</i>	Pine	Present	2	0	0
(237) pelvis	32	-	-		3	0	0
(320) skull	33	-	-	Present	3/4	0	0
(320) Backfill	34	-	-		2/3	0	0
(320) Backfill	35	-	-	Present	2/3	0	0
(320) Backfill	36B	-	-		3	0	0
(320) Backfill	36A	-	-		1/2	0	0
(320) Backfill	37	-	-		3	0	0
Necklace?	38	-	-		2	0	0
Around head	39	-	-		3	0	0
Around head	40	-	-		3	0	0
Around head	41	-	-		3	0	0
(205) Demo	42	-	-		3	0	0

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APPENDIX 9

ASSESSMENT OF THE HUMAN REMAINS

Kathelen Sayer

Introduction

The following report details the results of the assessment of skeleton [231] found buried within lead coffin [221] and disarticulated remains from 4 Roman demolition layers and one fill of a medieval robber cut.

Methodology

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 was 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 (Adol)	12 - 20 years
Young Adult (YA)	20 – 35 years
Middle Adult (MA)	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

Results

Skeleton [231]

Condition and Completeness

The remains are in poor condition with erosion of the bone surfaces, causing flaking and loss of articular surfaces. All areas of the skeleton are fragmented to some degree, including all of the long bones. The skeleton is c. 80% complete with most skeletal areas represented.

Age and Sex

The remains were of a female possibly of middle adult or old adult age. Due to the poor condition of the bones- areas within the pelvis used for ageing were partially eroded and most of her molars had been lost during her lifetime - the age range of the woman is very wide.

Stature

As all long bones were fragmented the woman's stature cannot be estimated. However, the overall size of those present show her to have been of a very slight build.

Pathology

The woman suffered from osteoarthritis within her right hand and the 7th and 8th thoracic vertebrae were fused. The vertebrae were too extensively eroded to see if any others had any pathological changes.

Eight of her mandibular teeth – left and right 2nd premolars and all molars – had been lost during her lifetime. At the time of her death the sockets were largely healed but some remodelling of the bone was still active.

Comments

A white deposit can be seen on the back of the skull, in which an imprint of textile has survived. This is located where the back of the skull rested on the coffin.

Disarticulated Remains

Disarticulated human remains were recovered from 5 contexts. The minimum number of individuals represented by these remains is 4 adults – at least 1 male and 1 female -and one

child.

Context	Type	Skeletal Element	Condition	Comments
201	Roman "Dark earth"	Fragment of parietal bone	Good	
236	Fill of medieval robber cut	Skull fragments – frontal, parietal and temporal	Poor	Male
		Skull fragments – frontal, parietal and occipital	Poor	Female
		Right mandible – no dentition	Good	Child aged around 6 years
		Proximal femoral shaft fragment	Moderate	
		Mid femoral shaft fragment	Poor	
		Left clavicle	Poor	
		Right 1 st Rib	Good	
		10 long bone shaft fragments – probably femur		
		Complete right femur – 3 fragments	Poor	
		Right femur – head and shaft – 2 fragments	Poor	
		Right femur – head and shaft – 3 fragments	Poor	
		Right femur – proximal shaft – 2 fragments	Poor	
		Left femur – head and proximal shaft	Poor	
456	Roman demolition layer	2 frags of right parietal bone	Moderate	
462	Roman demolition layer	Frontal bone	Good	Male?
		Left parietal bone fragment	Good	
537	Roman demolition layer	Proximal foot phalange	Good	
		Right 2 nd metatarsal	Good	
		Right 5 th metatarsal	Good	

Recommendations

The textile imprint on the back of the skull should be photographed. No further work is required on the human remains.

APPENDIX 10

ASSESSMENT OF THE BUILDING MATERIAL

Berni Sudds

Total number of contexts producing building material: 198.

Total count from key contexts: 472 fragments.

Total weight from key contexts: 201007g.

Methodology

The material was examined under magnification (x20) and quantified by number, weight and dimension. Form types and tile markings (accidental and intentional) were recorded using the London system of classification (Museum of London). A database cataloguing this information has been generated using Microsoft Access. Following quantification well paralleled and un-marked fragments were discarded with a sample of fabric being retained for future comparison to local north Kent assemblages.

Introduction and condition

With the exception of a small group of medieval and post-medieval material the assemblage dates to the Roman period. Sampled from *in situ* masonry and demolition layers much of the material is in good condition. Evidence for re-use has been identified in a number of the masonry features but fragments are large and fresh.

Fabric

In lieu of direct comparison to other local north Kent material no detailed fabric identification has been attempted. As during the evaluation, however, general fabric groups more common to London region have been identified in addition to as yet unparalleled types that may be of local or regional origin. Grange Farm is situated at an important point on the confluence of the Medway and Thames rivers. Much of the building stone and other commodities including grain, required in London travelled down the Medway and up the Thames by boat. It is likely that other goods, perhaps including ceramic building material, made the return journey, the latter by intent or as ballast. This may help to explain the presence of London-type fabrics on site and possibly some of the other unknown types.

None of the distinctive early Roman yellow tile, produced approximately six miles to the southwest of site at Eccles, has been recovered. This fabric was produced from c.AD 50 to 80 and represents a common find in London, probably transported by boat down the Medway and up the Thames in the same way as the building stone from the Maidstone area. As so common the absence of this fabric may be taken to suggest there was little or no masonry construction of this early date occurring on or in the vicinity of site. The apparent absence of distinctive silty fabrics found in London but thought to originate from north Kent/ Weald area, including Hartfield, is also of note. Like Eccles, Hartfield is in close proximity to the Medway but dating to the early 2nd century, the absence of these fabrics may provide further evidence that much of the building materials were not being sourced for the construction of buildings in the vicinity of site until after c.AD 120.

The stone assemblage is comprised predominantly of Kentish ragstone and a form of calcareous tufa/limestone. The former is local to the region and was exploited heavily as a building rubble or roughly hewn facing stone. The latter is not local and as yet no provenance has been identified, although as fairly lightweight may have been exploited for use in arched or vaulted structures.

Form

The Roman assemblage is comprised predominantly of roof tile, although significant quantities of brick were also recovered. The remainder of the group includes box-flue tile, building stone, *tesserae*, wall plaster and *opus signinum*. The latter is fragmented and may have been used as mortar, render/ plaster, in a floor surface or as all three. The roof tile includes both *tegula* and *imbrex* types. Approximately twice the quantity of *tegula* to *imbrex* was collected. This ratio is fairly common as *tegula* were not only used for roofing but also in walls and other masonry features.

The *tessera* recovered are largely ceramic, cut from tile (often *imbrex*) and less frequently brick. The box-flue tiles are all comb-keyed in linear, curvilinear and wavy patterns. The stone assemblage is comprised of building rubble, roughly hewn blocks, probably for facing, and larger faced blocks of calcareous tufa/limestone.

A number of pre-firing signature marks have been recorded on the brick and tile in addition to more accidental hobnail impressions from footwear and paw imprints from dogs. An unusual and un-paralleled deeply scored tile was also recovered from a collapsed quoin (context [470]; SF. 877). The tile has been re-used but was deeply incised with a regular grid pattern pre-firing. It is possible the fragment was part of a gaming board although tiles are usually re-used for this purpose, with the lines of the grid scratched into the surface after firing. Another suggestion is that the tile represents an attempt at a low-cost form of tessellated surface or that the tile was pre-scored for the production of *tessera*. No evidence or parallel can be found to support either idea and perhaps the most likely explanation is that the scoring simply represents a form of keying (I. Betts pers comm).

Distribution

A full distribution of the assemblage has not been undertaken as part of this assessment but it is possible to make some observations. The samples collected from the structural remains suggest that from the first phases of masonry construction (Phase 5) both brick and roof tile were used to build walls. This continued to be the case into the final phase of Roman occupation of the site in the 4th century, with increasing evidence for re-use.

The quantity of ceramic *tesserae* recovered would indicate a tessellated surface was originally located on site or in very close proximity whilst the box-flue tiles demonstrate evidence of sooting suggesting they were used in a heated structure. The relatively small quantity of box-flues would, however, suggest that this was probably located off site. It is possible that the re-used calcareous tufa/limestone blocks recovered originated from the same building.

Potential and recommendations

Much of the assemblage can be related directly to structural remains in the form of masonry samples, collapsed sections of building or as demolition material. As such the group can reveal information on the date and character of the buildings on site and inform on issues of supply and trade. In order to take the assemblage to publication it will be necessary to identify the fabrics groups represented and parallel them to known types. To this end half a days consultation with Ian Betts at the Museum of London Specialist Services will be required, who holds a type series local to the region. The non-local stone types will also require further research.

A more detailed study of distribution will help to inform on the character of the structural remains by phase. Any unparalleled signature marks and the unusual scored tile will require illustration for the publication.

APPENDIX 11

THE GLASS ASSESSMENT

John Shepherd

Introduction

A total of seventy-three fragments of glass were submitted for assessment. Of this total, fifty-six are Roman in date and the remaining seventeen are post-medieval. Three of the Roman fragments are beads (nos.54-56) and five are window glass (nos. 49-53).

Assessment

All of the glass is very fragmentary and the mix of some obvious Roman fragments in some contexts with obvious post-medieval fragments suggests that there is considerable residuality or contamination on this site.

In brief, however, only the Roman glass fragments are worthy of any further comment. These consist primarily of bottles, especially the ubiquitous square-sectioned, prismatic form (nos. 3-19). One notable vessel, however, is the colourless dish (no.1). This late first century vessel would have been a high-quality piece of tableware, probably imported from the western Mediterranean. The beads are standard types. A few fragments of window glass are also present.

The post-medieval assemblage being made up of the normal 'English' wine bottle fragments, with only a couple of notable items (nos.57-59) and a number of modern machine-made vessels (nos. 62-66).

Recommendations

It is suggested that the descriptions of the vessels in the provisional catalogue below should be used in any future publication – and that diagnostic Roman vessels only should have precedence. The remainder tell little about the supply of glass to the site. A very short discussion of the colourless vessel and the square bottles can be prepared to accompany the selected catalogue.

Only certain Roman fragments need to be illustrated, especially the beads (nos. 54-56), the colourless dish (no.1) and the two bottle bases (nos. 4 and 5). This makes a total of five items.

Provisional catalogue

Roman

1. [800] <992>

Fragment from the base of a large dish. Cast and polished; colourless glass. Flat base with a vertical, tall base ring. Late first century. Illustrated.

2. [874]

Fragment from the vertical rim of a bowl. Free-blown; natural green blue glass. Rim folded out and down to form a collar. Late first to third century. Illustrated.

3. [770]

Fragment from the rim of a bottle. Free-blown; natural green blue glass. Rim folded inwards and flattened down. Late first or second century.

4. [537] <881>

Fragment from the base of a square-sectioned prismatic bottle (Isings form 50). Mould-blown;

thick natural green blue glass. Base decorated with design, of which just part of one circle survives. Late first or second century. Illustrated.

5. [907] <716>

Fragment from the base of a square-sectioned prismatic bottle (Isings form 50). Mould-blown; thick natural green blue glass. Base decorated with design, of which parts of two circles survive. Late first or second century. Illustrated.

6. [874] <1240>

Numerous, shattered fragments from the handle and neck of a square-sectioned prismatic bottle (Isings form 50). Mould-blown; natural green blue glass. Reeded handle. Late first or second century.

7. [731]

Small fragment from the handle of a bottle. Applied; natural green blue glass. Late first or second century.

8-19. [549]; [694] x2; [770] x2; [874] x5; [902]; [937]

Twelve fragments from the bodies of a square-sectioned prismatic vessels. Natural green blue glass.

20. [800] <1008>

Part of the handle from a small jug or bottle. Applied; thick colourless glass with a green tint. Roman. Illustrated.

21. [769] <938>

Fragment from the neck of a handle jug or bottle. Free-blown; thick natural green glass. Part of upper sticking art of handle survives. Probably third or fourth century.

22-24. [201]; [530]; [949]

Three fragments of natural green glass from free-blown vessels of indeterminate form. Roman.

25-45. [201] x4; [205] x2; [443]; [452]; [476]; [504]; [537]; [668]; [769] x3; [770] x2; [800] x2; [1016] [902]

Twenty-one fragments of natural green-blue glass from free-blown vessels of indeterminate form. Roman.

46-48. [770]; [1369]; [1372]

Three fragments of free-blown colourless glass from free-blown vessels of indeterminate form. Roman

Window glass

49-51. [200] <1044>; [201]; [756]

Three fragments from the edges of a cast matt/glossy window panes. Natural green glass. Roman.

52. [537] <923>

Fragment of double glossy, cylinder blown window glass with a grozed edge. Natural green glass. Roman.

53. [619] <920>

Fragment of double glossy, cylinder blown window glass. Natural green glass with surface decomposition. Roman.

Beads

54. [770] <963>

Elongated, hexagonal sectioned, green glass bead. Length c.8mm.

55. [874] <1062>

Blue glass paste melon bead. Max diameter c.15mm.

56. [908] <1082>

Blue glass paste melon bead. Max diameter c.25mm.

Post medieval

57. [1053]

Five fragments from the body, shoulder and neck of an 'English' wine bottle. Free-blown; thick olive green glass with surface decomposition. Late seventeenth century.

58. [201] <67>

Fragment from the side of a mould-blown case bottle. Olive green glass. Seventeenth or eighteenth century.

59. [346]

Fragment from the body of a mould-blown, eight-sided bottle. Thick olive green glass. Two extended panels with six small side panels. Eighteenth or nineteenth century.

60-62. [449]; [534]; [650]

Three olive green bottle fragments. Late seventeenth to nineteenth century.

63. [639]

Part of base of a pharmaceutical phial. Free-blown; natural blue glass. Seventeenth to nineteenth century.

64. [440]

Fragment of machine-made mineral water bottle (eg Codd). Clear natural green glass. Late nineteenth or twentieth century.

65. [+]

Fragment from the side of a machine-made pharmaceutical bottle. Late nineteenth or early twentieth century.

66. [+]

Fragment of thick blue and white marbled glass from a mould-pressed vessel. Late nineteenth or twentieth century.

67. [201]

Fragment of thick, clear blue glass from a machine-made bottle. Late nineteenth or early twentieth century.

68. [1361]

Fragment of mould-pressed turquoise coloured glass. Late nineteenth or twentieth century.

69. [1372]

Fragment of opaque white vessel glass. Late nineteenth or twentieth century.

Window glass

70-71. [478]

Two fragments of window glass , Cylinder blown with grozed edge. Indeterminate colour.
Early post-med?

72. [200]

Fragment of cylinder blown, natural green window glass. Post-medieval.

73. [201]

Fragment of thick colourless window glass. Possibly drawn or floated. Late nineteenth or twentieth century.

APPENDIX 12

CLAY TOBACCO PIPES

Chris Jarrett

Introduction

A small sized assemblage of clay tobacco pipes was recovered from the site (1 box). Most fragments are in a fairly good condition, indicating they had not been subject to much redeposition or were deposited soon after breakage. However, the assemblage is very fragmentary and except for two unstratified bowls, the contexted material was very difficult to date closely. There are seven bowls and eighteen stems in the assemblage. Clay tobacco pipes occur as small numbers in contexts.

All the clay tobacco pipes (25 fragments, of which two are unstratified) were recorded in an ACCESS database and classified by Atkinson and Oswald's (1969) typology (AO) and 18th-century examples by Oswald's (1975) typology (OS). The pipes are further coded by decoration and quantified by fragment count. The tobacco pipes are discussed by their types and distribution.

THE CLAY TOBACCO PIPE TYPES

17th century

One stem has part of a heel of a 17th-century date.

1660-1680

AO13: one bowl, with poor overlapping rim milling. Unstratified.

AO18: one bowl, poor rim milling. Unstratified.

c.1680-1710

One spur marked ?H T, the first name being uncertain. The maker is unknown.

Two heels, one of which is a probable local variant bowl, being larger than the usual types for this period.

19th century

Two fragmentary bowls with damaged or missing spurs or heels are recorded from the evaluation. One bowl is decorated with ribs and there is evidence for initials on the spur remnant.

DISTRIBUTION

Context	Phase	Area	No. of fragments	Spot date
[99]			1	1580-1910
[201]	7	A	1	1580-1910
[225]	11	B	1	1800-1900
[410]	6	A	2	1580-1910
[443]	9	B	1	1580-1910
[549]	*	*	3	1800-1900
[609]	10	A	2	1580-1910
[639]	10	A	3	1600-1700
[650]	10	A	7	1680-1710

Context	Phase	Area	No. of fragments	Spot date
[731]	8	A	1	1580-1910

Table 1. KKGf03, contexts containing clay tobacco pipe fragments, the phase and area they come from, the number of fragments and a spot date for the group. A spot date of 1580-1910 indicates that only stems were recorded. * denotes context voided.

Phase 7

A single stem was recovered from layer [201], Area A.

Phase 6

In Area B, two stems are recorded for fill [410] of pit [411].

Phase 8

A single stem is recorded from context [731] of pit [732], Area A.

Phase 9

In Area B, fill [443] of tree planter [444] only produced a single stem.

Phase 10

Stems are only recorded in Area A for fill [609] of the tree throw [610]. A stem with a 17th-century heel was found in fill [639] of pit [640] with two other stems. Seven fragments of clay tobacco pipe were found in fill [650] of pit [651] and five of these were stems, but there are two bowls of a probable 1680-1710 date, one a spur marked ?H T and another a heel, probably of a local variant.

Phase 11

The topsoil [225] in Area B produced a fragmentary 19th-century bowl decorated with ribs.

Deposit [99] from the evaluation produced a single stem.

SIGNIFICANCE OF THE COLLECTION

The clay tobacco pipe assemblage from the site has no significance at a local, national or international level, largely because of its fragmentary nature.

POTENTIAL

The only potential of the assemblage is as a dating tool for the stratigraphy, but unfortunately the fragmentary nature only allows for broad date ranges to be given to the material.

RESEARCH QUESTIONS

No research questions on the clay tobacco pipes can be generated from the assemblage.

RECOMMENDATIONS FOR FURTHER WORK

No further work is recommended on the clay tobacco pipes from the site and any information for a publication should be taken from this report.

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APPENDIX 13

IRON SLAG, LITHARGE AND RELATED DEBRIS

Lynne Keys

Methodology

This report will discuss the iron slag and, very briefly, the litharge from Grange Farm, Gillingham, Kent and the activities that produced them. It will also attempt to determine what its presence in certain contexts may tell us about the site.

Almost 100kg (99.6kg) of iron slag and related debris were examined for this report. Most had been retrieved by hand during excavation with some large deposits of slag being excavated (and their slag bagged) by grid squares. The slag from soil samples still remains to be examined but for context numbers reference should be made to the relevant sample sheet(s). Contextual details and some dating were provided at the time of assessment but no plans were available to assess the spatial distribution of the slag. It is understood, however, that much of it was recovered from the vicinity of a late-Roman building (with internal hearths), which may have been used for iron working. Samples were taken from the hearths in these buildings but no slags (either bulk or micro) from these samples have been presented for examination.

All slag was washed inside an extremely fine mesh to remove dirt and clay. This method would catch and retain smaller fragments and hammerscale evidence that might otherwise be lost by washing using bowls etc. After each context or grid square of a large context was washed in the mesh it was laid out to dry with its small residues retained in the netting. For specialist purposes the results were excellent and all slag was then examined rapidly and accurately. The process was also safer for the specialist since very little dust was generated or produced during examination.

For assessment all iron slag presented was examined by eye and categorised on the basis of morphology alone. Each category of slag in each context was individually weighed but the smithing hearth bottoms were each weighed and measured to obtain their dimensions. In addition a magnet was run through the soil samples and residues from soil samples to detect micro-slags such as hammerscale. Table 1 gives details for all examined material; table 2 gives statistical details of the smithing hearth bottoms.

Table 1: Quantification table for the iron slag

cxt	<> slag identification	wt	len	br	dep	comment
0	hammerscale	1				flake and very occasional spheres
0	iron	91				four pieces
0	mixed modern?	9				coal, stone
0	tiny broken misc.	25				cinder, broken undiagnostic etc.
0	undiagnostic	628				
0	undiagnostic	291				one fragment
0	undiagnostic	89				
0	vitrified hearth lining	90				
200	394 undiagnostic	11				
200	burnt coal	20				
200	fuel ash slag	4				
201	burnt flint	10				
201	cess	31				

201	cinder	6			
201	cinder	15			
201	cinder	30			
201	cinder	39			
201	cinder	50			blue-green glassy
201	cinder	61			
201	cinder	106			
201	cinder	145			one iron-rich
201	coal	1			
201	fired clay	35			
201	fuel ash slag	14			
201	fuel ash slag	31			
201	grey hearth lining	36			
201	grey hearth lining	352			
201	hammerscale	0			flake
201	hammerscale	0			very little - flake
201	hammerscale	1			flake
201	hammerscale	1			broken flake and some tiny spheres
201	hammerscale	2			occasional broken flake
201	hammerscale	3			occasional broken flake & tiny spheres
201	iron	9			
201	iron object	70			two fragments
201	iron rich slag	46			
201	micro residues	95			
201	micro residues	172			
201	micro residues	182			
201	micro residues	283			
201	quern fragment	103			
201	smithing hearth bottom	74	70	60	25
201	smithing hearth bottom	119	80	60	25 incomplete
201	smithing hearth bottom	134	70	55	35
201	smithing hearth bottom	138	80	65	20
201	smithing hearth bottom	145	70	70	35
201	smithing hearth bottom	154	80	70	30
201	smithing hearth bottom	157		55	20 incomplete
201	smithing hearth bottom	174	75	70	35
201	smithing hearth bottom	187	80	70	35
201	smithing hearth bottom	192			50
201	smithing hearth bottom	206	95	65	25
201	smithing hearth bottom	212			30 incomplete
201	smithing hearth bottom	235	80	70	40
201	smithing hearth bottom	256	85	60	35
201	smithing hearth bottom	298			55 incomplete
201	smithing hearth bottom	324	110	65	40
201	smithing hearth bottom	335			40 incomplete
201	smithing hearth bottom	346			55 incomplete
201	smithing hearth bottom	367	75	70	40 traces of copper alloy on sides
201	smithing hearth bottom	373	90	90	35
201	smithing hearth bottom	609	130	100	55
201	stone	10			
201	undiagnostic	32			
201	undiagnostic	44			
201	undiagnostic	177			possibly broken smithing hearth bottoms

201	undiagnostic	202				two pieces
201	undiagnostic	260				
201	undiagnostic	261				one piece
201	undiagnostic	297				
201	undiagnostic	362				
201	undiagnostic	364				three pieces
201	undiagnostic	376				
201	undiagnostic	518				
201	undiagnostic	596				possibly smithing slag
201	undiagnostic	775				
201	undiagnostic	1380				broken smithing hearth bottoms? 13 examples
201	undiagnostic	1562				
201	undiagnostic	1568				
201	undiagnostic	1634				broken smithing hearth bottoms?
201	undiagnostic	2003				
201	undiagnostic	3079				
201	vitrified hearth lining	8				
201	vitrified hearth lining	8				heavily slagged and magnetic
201	vitrified hearth lining	20				
201	vitrified hearth lining	20				flint tempered
201	vitrified hearth lining	38				
201	vitrified hearth lining	51				
201	vitrified hearth lining	80				
201	vitrified hearth lining	164				
201	vitrified hearth lining	174				
214	undiagnostic	9				
224	hammerscale	0				three tiny spheres
224	smithing hearth bottom	35				tiny and incomplete
227	undiagnostic	3				
236	fuel ash slag	58				
236	undiagnostic	4				what date is this context? See comment in report
236	undiagnostic	66				
236	vitrified hearth lining	18				
254	undiagnostic	268				broken smithing hearth bottom?
273	cinder	30				
383	vitrified hearth lining	29				
419	undiagnostic	11				
452	undiagnostic	78				possibly smithing slag
456	cinder	7				blue-green colour
456	hammerscale	0				some flake
456	hammerscale	0				very occasional flake
456	hammerscale	0				very, very occasional flake - hardly any
456	hammerscale	0				very occasional flake
456	smithing hearth bottom	95	60	55	35	
456	smithing hearth bottom	213	90	70	35	
456	smithing hearth bottom	272	90	70	35	
456	smithing hearth bottom	389	90	70	50	
456	undiagnostic	367				
456	undiagnostic	391				
456	undiagnostic	405				
456	undiagnostic	1529				
456	vitrified hearth lining	3				
462	cinder	87				

462	hammerscale	0				one sphere and occasional very broken flake
462	hammerscale	1				some flake
462	hammerscale	2				some flake
462	iron	4				joins to piece in (694)
462	iron	29				
462	iron rich cinder	16				
462	micro residues	115				
462	smithing hearth bottom	124	65	50	35	
462	smithing hearth bottom	127	65	55	25	
462	smithing hearth bottom	133	70	60	35	
462	smithing hearth bottom	139	80	60	35	
462	smithing hearth bottom	181	80	70	40	
462	smithing hearth bottom	300	105	80	50	
462	smithing hearth bottom	353	90		40	
462	undiagnostic	44				
462	undiagnostic	126				25 possibly part of smithing hearth bottom
462	undiagnostic	205				one unusual piece
462	undiagnostic	246				
462	undiagnostic	263				
462	undiagnostic	802				
462	undiagnostic	1319				
462	undiagnostic	1560				
462	vitriified hearth lining	16				with part of tuyere hole?
462	vitriified hearth lining	19				
462	vitriified hearth lining	54				
464	hammerscale	0				tiny amount very broken flake
464	smithing hearth bottom	430	100	90	45	
464	undiagnostic	23				
464	undiagnostic	113				broken smithing hearth bottom?
464	undiagnostic	237				three broken smithing hearth bottoms
464	undiagnostic	253				
464	undiagnostic	317				broken smithing hearth bottoms
464	undiagnostic	578				
464	vitriified hearth lining	4				
468	micro residues	14				
468	undiagnostic	19				
468	undiagnostic	318				
468	undiagnostic	204				
468	vitriified hearth lining	17				
469	undiagnostic	158				
471	undiagnostic	319				incomplete smithing hearth bottom
496	quern frag	22				
527	smithing hearth bottom	94	60	60	30	
527	undiagnostic	211				
537	924 undiagnostic	19				glass black ball
537	charcoal	2				
537	cinder	7				
537	cinder	19				green glassy appearance
537	cinder	109				flint-tempered
537	cinder	253				
537	fuel ash slag	166				
537	fuel ash slag	380				
537	hammerscale	7				flake

537	hammerscale	13				broken flake and very tiny spheres
537	iron	63				three pieces
537	iron	80				
537	iron rich sandstone?	25				fired & highly magnetic
537	iron-rich slag	113				
537	micro residues	628				flake & some spherical hammerscale least 30g. Some spheres extremely tiny.
537	micro residues	839				tiny undiagnostic, cinder, burnt flint
537	microslag pieces	231				
537	mortar	23				
537	runs	101				cindery
537	smithing hearth bottom	64	60	50	20	
537	smithing hearth bottom	95	0	0	30	max w. 60mm
537	smithing hearth bottom	113	90	0	20	incomplete
537	smithing hearth bottom	142			30	max w. 90mm
537	smithing hearth bottom	148	0	0	20	incomplete
537	smithing hearth bottom	151	80	55	30	
537	smithing hearth bottom	161	70	0	25	
537	smithing hearth bottom	188	0	70	35	incomplete
537	smithing hearth bottom	192	0	0	35	
537	smithing hearth bottom	196	0	0	40	broken
537	smithing hearth bottom	197	70	35	0	incomplete
537	smithing hearth bottom	207	80	80	0	incomplete
537	smithing hearth bottom	214	75	60	30	
537	smithing hearth bottom	265	95	0	50	incomplete
537	smithing hearth bottom	276	90	70	40	
537	smithing hearth bottom	287	110	70	40	
537	smithing hearth bottom	369	110	80	40	
537	smithing hearth bottom	584	110	0	25	
537	stone	54				
537	undiagnostic	135				one elongated example
537	undiagnostic	182				part of smithing hearth bottom?
537	undiagnostic	826				
537	undiagnostic	2965				lots small fragments
537	undiagnostic	3838				lots small fragments
537	undiagnostic	10989				
537	vitrified hearth lining	35				flint-tempered
537	vitrified hearth lining	240				
537	vitrified hearth lining	429				
592	smithing hearth bottom	845	100	100	70	* analyse this piece
616	hammerscale	1				a little flake
616	hammerscale	2				broken flake
616	iron	78				large squared piece
616	smithing hearth bottom	224	80	65	45	
616	smithing hearth bottom	297	90	70	30	
616	undiagnostic	229				
616	undiagnostic	617				one piece
616	undiagnostic	1012				
616	vitrified hearth lining	5				
619	cinder	43				
619	hammerscale	0				one large flake
619	micro residues	2				
619	smithing hearth bottom	150	70	70	35	

619	undiagnostic	174				
694	cinder	13				
694	cinder	19				
694	cinder	23				tempered with flint
694	cinder	50				
694	hammerscale	0				some flake
694	iron	3				joins to (462)
694	iron	23				two pieces flat, thin sheet
694	lead waste	28				
694	smithing hearth bottom	142	80	65	20	
694	smithing hearth bottom	169				45 incomplete
694	smithing hearth bottom	381	90	70	45	
694	undiagnostic	112				
694	undiagnostic	206				
694	undiagnostic	347				
694	undiagnostic	732				
694	undiagnostic	795				
694	undiagnostic	1732				
694	vitified hearth lining	5				with part of tuyere hole - dia. 1.20mm
694	vitified hearth lining	20				
694	vitified hearth lining	77				tuyere hole 5mm dia
694	vitified hearth lining	175				
719	coal	5				trad. type but very glossy - source?
719	smithing hearth bottom	111				20 incomplete
719	smithing hearth bottom	282	90	90	30	
719	undiagnostic	285				one piece - fragment of smithing hearth bottom?
719	undiagnostic	1898				probably smithing slag
719	vitified hearth lining	351				
762 974	vitified hearth lining	23				green-blue colour inside
762	undiagnostic	262				one piece - fragment of smithing hearth bottom?
762	undiagnostic	59				
770	cinder	20				
770	cinder	37				
770	hammerscale	0				some flake
770	hammerscale	0				very little, broken
770	hammerscale	0				very, very occasional flake - hardly any
770	hammerscale	1				very little
770	hammerscale	2				mostly flake with very occasional tiny spheres
770	iron	34				three pieces
770	pot?	12				
770	runs	50				
770	smithing hearth bottom	67	45	55	25	
770	smithing hearth bottom	91	50	50	25	
770	smithing hearth bottom	92	65	50	15	
770	smithing hearth bottom	110	65	60	20	
770	smithing hearth bottom	154	80	65	25	
770	smithing hearth bottom	178	75	60	30	
770	smithing hearth bottom	230	80	80	30	
770	smithing hearth bottom	248	90	70	40	
770	smithing hearth bottom	250	90		40 half	
770	smithing hearth bottom	279	90	80	30	
770	smithing hearth bottom	311	90	80	35	
770	undiagnostic	23				

770	undiagnostic	31			
770	undiagnostic	78			possibly smithing slag
770	undiagnostic	131			
770	undiagnostic	204			pieces smithing hearth bottom?
770	undiagnostic	220			one piece
770	undiagnostic	281			incomplete smithing hearth bottom?
770	undiagnostic	811			
770	undiagnostic	1143			
770	undiagnostic	1475			
770	undiagnostic	1554			
770	undiagnostic	1686			
770	undiagnostic	4399			
770	undiagnostic	5758			
770	vitrified hearth lining	127			
770	vitrified hearth lining	146			
770	vitrified hearth lining	199			
770	vitrified hearth lining	225			many fragments
770	vitrified hearth lining	239			
770	vitrified hearth lining	265			
787	cinder	25			
787	smithing hearth bottom	334	130	90	45
787	smithing hearth bottom	197	70	65	45
787	undiagnostic	71			smithing slag?
819	hammerscale	1			large flakes and at least one sphere
819	undiagnostic	408			
845	undiagnostic	53			
854	undiagnostic	22			
874	undiagnostic	14			
884	undiagnostic	159			
896	undiagnostic	32			charcoal inclusions
918	719 vitrified hearth lining	41			with part of tuyere hole - dia. 2mm+
937	grey hearth lining	3			
937	undiagnostic	70			
946	undiagnostic	91			smithing slag?
1168	undiagnostic	51			
1278	undiagnostic	20			burnt charcoal inclusions
1372	charcoal/charred wood	32			

Explanation of terms

Activities involving iron can take two forms:

1) *Smelting*: The manufacture of iron from ore and fuel in a smelting furnace. The resulting products are a spongy mass called an unconsolidated bloom (iron with a considerable amount of slag still trapped inside) and slag (waste). The latter may take various forms depending on the technology used: tap slag, run slag, dense slag, or furnace slag. No smelting slag was present in the Grange Farm assemblage.

2a) *Primary smithing* (hot working by a smith using a hammer) of the bloom on a stringhearth (usually near the smelting furnace) to remove excess slag. The bloom becomes a rough lump of iron ready for use; the slags from this process include smithing hearth bottoms and micro-slugs, in particular tiny smithing spheres.

2b) *Secondary smithing* (hot working by a smith using a hammer) of one or more pieces of iron to create an object or repair it. As well as bulk slags, including the smithing hearth

bottom, this generates micro-slags: hammerscale flakes from ordinary hot working of a piece of iron or tiny spheres from high temperature welding to join two pieces of iron.

Both these activities produce slag, some diagnostic of the process, others not. Some slag may be described as undiagnostic because it has been broken up during deposition, re-deposition or excavation. Other types of debris in the slag assemblage may be the result of a variety of high temperature activities - including domestic fires - and cannot be taken on their own to indicate iron-working was taking place. These include fired clay, vitrified hearth lining, cinder (the lighter portion of vitrified hearth lining), and fuel ash slags. However if found in association with iron slag they may be products of the process.

The diagnostic slags (smithing hearth bottoms and hammerscale) from Grange Farm, Gillingham all point to secondary smithing activity, the ordinary hot working of a piece of iron or high temperature welding to join two pieces of iron. A smithing hearth bottom is plano-convex in shape and was formed as a result of high temperature reactions between the iron, iron-scale and silica from either a clay furnace lining or the silica flux used by the smith. Before it could grow large enough to block the tuyere hole (where the air from the bellows entered the hearth) it was removed and dumped in the nearest pit, ditch or unused area. The proximity of cut features or dumps with amounts of smithing hearth bottoms to a building is often a good indication the structure may have been used for smithing activity.

Statistical details of the smithing hearth bottoms are given in table 2. Many of the Gillingham smithing hearth bottoms had been damaged during movement from hearth to final deposition spot and so the original weights or dimensions of these could not be ascertained but any remaining detail was measured and recorded .

Table 2: Smithing hearth bottoms (75 examples): statistical data (g. & mm)

	<u>range</u>	<u>mean</u>	<u>standard deviation</u>
weight	35-845	226	132.4
Length	45-130	66	37
Breadth	35-100	51	32
Depth	15- 70	33	12

Discussion of the iron slag assemblage

Phases 4 and 5

A small amount of smithing slag in ditch [223] indicates smithing began in Phase 4. However smithing appears to increase by Phase 5. A layer [819] in Phase 5 contained some hammerscale, a micro-slag produced during smithing.

Phase 6 sees an upsurge in smithing activity that continues and increases in Phase 7. Layer [694] produced just over 5kg of iron working debris. This included three smithing hearth bottoms; fragments of vitrified hearth lining (some with parts of the tuyere hole remaining); and iron rods, bars and other fragments which are likely to represent either the prepared blanks used by smiths or unfinished or discarded objects they were making. These iron pieces was removed by this specialist from amongst the slag, bagged separately and passed to Marit Gaimster for x-radiography and specialist examination.

Layer [770] produced 21.16kg of debris. Eleven complete smithing hearth bottoms and fragments of more amongst the undiagnostic slag, a substantial quantity of vitrified hearth lining and several pieces of iron were present.

Phase 7

Context [537] had most iron slag, followed by [201], then [770]. The latter two also contained litharge, a waste produced during the refining of base metal to extract a precious metal, in this case possibly silver. This association of iron slag and litharge indicate the two activities were probably being carried out in the same building. Other layers (for example layers [522] and [468]) produced small amounts of material.

Layer [201] contained almost 23kg of iron working debris: this included twenty-one smithing hearth bottoms and both flake and tiny spherical hammerscale.

Layer [456] 3671g with just four smithing hearth bottoms

Layer [462] 6265g, with seven smithing hearth bottoms

Layer [464] 1955, with one smithing hearth bottom

Layer [537] 26.6kg, including eighteen smithing hearth bottoms

Layer [616] 2465g, with two smithing hearth bottoms

Layer [619] 3699g but only one smithing hearth bottom

Layer [719] 2932g, including two smithing hearth bottoms

Hearths

Ten hearths (assigned to Phase 7) were sampled on site but so far no slag (bulk or micro) has been presented for examination. The context numbers for the hearths and their sampled fills are:

[cxt]<sample> [fill of]

714	186	715
775	193	776
981	237	982
987	238	988
1044	248	1046
1104	253	1105
1106	256	1107
1108	257	1109
1134	265	1167
1134	266	1167
1154	261	1155

The hearths appear to have been ground-level hearths; some fragments of the vitrified hearth lining associated with the slag retain part of the edge of the tuyere holes. From the hearth fragments and flint inclusions in many pieces of slag it can be seen that either the hearth linings were tempered with flint or the clay used was high in flint. This is usually seen in Roman up to mid-Saxon hearths, even when not in flinty areas and may have served to stabilise the hearth by causing the clay to fuse and become less crumbly. The flint, at high temperature, may also have played some kind of role as a flux in the smithing process.

Iron

Many small fragments of iron were recovered from the large dumps of slag. Most pieces were straight, thin, flat bars. A second type consisted of thicker, less wide pieces, and a third roughly rounded rods. These iron pieces may be parts of blanks used by the smiths to make objects. They may equally be wasters from the smithing process and so be clues as to what was being produced or repaired so intensively.

Litharge and related debris (lead waste)

The litharge was examined by eye but not quantified. Contexts containing litharge were as follows:

Unstrat (Area A); [4]; [200] (several); [201] (a lot); [203]; [453]; [456]; [562]; [719]; [756]; [769]; [770]; [867] (several); [937].

Traces of copper alloy on many pieces indicate the base metal being used was a leaded copper-alloy. It is not known where the copper was obtained and whether it was from coinage or other objects.

Significance of the assemblages

Iron slag

The assemblage is of regional and perhaps of national importance. It fits into a now-emerging pattern of intensive iron working, situated in villas or in small, non-urban sites, taking place in Kent and elsewhere in the late Roman period. One example of this trend is at Thurnham, Kent, (CTRL publication, forthcoming) where the large central room of the villa was converted in the late Roman period to a forge where intensive iron working was taking place using a number of hearths. The bulk slags produced by the activity at Thurnham villa were not located during excavation. These may have been removed from the vicinity of the building or been stacked outside and removed by some civic authority during or after the life of the forge for recycling as hardcore on roads etc. The material at Gillingham was similarly not in the immediate vicinity of the forge but had been piled up further away, an orderly arrangement implying some kind of civic order or the material was wanted by a regional authority (recycling for a secondary use).

Litharge

The litharge assemblage is of regional and national importance. The process appears to have been taking place in a non-secure context (to judge by the place where it was situated) and yet on some scale. Being able to look at this type of workshop, to understand the source of the base metal used and what the silver might have been used for, would be a significant contribution towards understanding events in late Roman Britain.

Recommendations for further work

Before any analysis of the assemblage is undertaken for publication any bulk or micro slags recovered from samples unprocessed at assessment will have to be identified and quantified.

It might be useful to look at the large slag dumps to see whether it is top or lower layers which have most slag by weight and how many smithing hearth bottoms each has. The larger quantity and numbers are likely to be highest in layers deposited when the activity was most intensive. For example, if most is in bottom layers of dumping and the quantity gradually declines, we may say smithing was most intense early on in the phase and then decreased. If the reverse, the smithing gradually increased over time within the period.

Plans of both the building with hearths and its relationship to larger slag dumps will be required for analysis of the activity.

It is estimated that three days will be required to examine iron slag from samples, add it to spreadsheet, and to analyse and write up the assemblage for publication.

Pre-Construct Archaeology will have to find a specialist to examine, analyse and write up the litharge assemblage. Archaeometallurgists at English Heritage, Fort Cumberland, should be able to recommend a competent specialist.

The iron blanks and smiths' stock will require x-radiography, in the first instance, and a specialist to analyse the metallurgical make-up of the iron and compare it with smiths' material from elsewhere. A suitably qualified laboratory archaeometallurgist should be sought through English Heritage at Fort Cumberland.

APPENDIX 14

THE ROMAN COINS

James Gerrard

Introduction

Four hundred and fifty-six coins were recovered through excavation and intensive metal detecting at Grange Farm. The vast majority of these coins (434 coins) are of Roman date with the remainder comprising post-Roman coins and tokens. This report provides: a description of the methodology used identify these coins, a summary list of identifications, some preliminary conclusions regarding the importance and significance of the assemblage and recommendations for further work.

Methodology

The coins were cleaned and stabilised and then identified with reference to *Late Roman Bronze Coinage I and II* (hereafter *LRBCI* and *II*) for material post-dating AD324. Earlier coins (which comprise a small percentage of the total) have received preliminary identifications using Reece and James' (1986) *Identifying Roman Coins* but await full identification using the relevant volumes of *Roman Imperial Coinage* (hereafter *RIC*).

Coin identifications were recorded in a database created with English Heritage's recent guidelines in mind (Brickstock 2004). However, these guidelines have not received full acceptance by numismatists (for instance Guest 2005) and some modifications have been made for this study. Weight, die-axis and full transcriptions of obverse and reverse legends have not been recorded and Brickstock's (2004: Appx 1) new chronological scheme has been rejected in favour of the well-established scheme produced by Reece.

Summary List of Identifications

[200] and UIS

Identification	Number of coins	Date
Radiates and radiate copies	14	260-296
<i>Genio Pop Rom</i>	2	294-306
<i>Beata Tranquillitas</i>	4	318-324
<i>Casarum Nostrorum</i>	1	318-324
<i>Sarmatia Devicta</i>	1	318-324
Camp Gate	4	324-330
<i>Gloria Exercitus</i> and copies, 2+2	11	330-335
<i>Urbs Roma</i>	8	330-335
<i>Constantinopolis</i>	10	330-335
<i>Gloria Exercitus</i> , 2+1 and copies	24	335-341
<i>Pietas Romana</i>	2	337-341
<i>Virtus AVGGNN</i>	1	337-341
<i>Victoriae DDAVGGQNN</i>	7	341-346
<i>Fel Temp Reparatio</i> and	24	348-364

copies		
<i>Victoriae</i> <i>DDAVGETCAES</i>	1	351-353
<i>Gloria</i> <i>Romanorum</i>	5	364-375
<i>Securitas</i> <i>Reipublicae</i>	11	364-378
<i>Gloria Novi</i> <i>Saeculi</i>	4	367-375
<i>Vot XV Mult XX</i>	1	378-383
<i>Victoriae AVGGG</i>	1	383-387
<i>Victoriae AVGGG</i>	2	388-402
Illegible	76	C1-C4

[201]

Identification	Number of coins	Date
Radiates and copies	14	260-296
<i>Fel Temp</i> <i>Reparatio</i> and copies	39	348-364
<i>Gloria Exercitus</i> , 2+1 and copies	13	335-348
<i>Gloria Exercitus</i> , 2+2 and copies	2	330-335
<i>Genio Pop Rom</i>	1	307-318
<i>Urbs Roma</i>	3	330-335
<i>Constantinopolis</i>	3	330-335
<i>Gloria Romanorum</i>	6	364-375
<i>Securitas</i> <i>Reipublicae</i>	14	364-378
<i>Salus Reipublicae</i>	3	388-402
<i>Spes Romanorum</i>	1	387-388
<i>Gloria Novi Saeculi</i>	1	364-378
Two Victories, <i>Victoriae</i> <i>DDAVGGQNN</i>	9	341-346
Two victories, <i>Victoriae DD NN</i> <i>AVG ET CAES</i>	2	351-353
Illegible	50	C1-C4

Other deposits

Context Number	Date	Identification
203	335-337	<i>Gloria Exercitus</i> , 2 soldiers, 1 standard
203	330-335	Wolf and Twins
204	307-318	
225	335-337	<i>Gloria Exercitus</i> , 2 soldiers, 1 standard
225	1872	
225	?	
263	353-361	FTR copy
277	388-402	<i>Salus Reipublicae</i>

449	346-350	FTR, Soldier and hut
449	C4	copy
453	367-375	<i>Securitas Reipublicae</i>
459	364-378	<i>Securitas Reipublicae</i>
459	307-318	
459	C4	
459	C4	
463	335-341	<i>Gloria Exercitus</i> , 2 soldiers, 1 standard
463	C4	
464	364-378	<i>Gloria Romanorum</i>
464	268-296	<i>Virtus</i>
465	C3-C4	
468	C4	
619	C3-C4	
619	260-290	Radiate
694	C3?	<i>Concordia</i>
694	335-337	<i>Gloria Exercitus</i> , 2 soldiers, 1 standard
694	346-350	FTR, FH copy
719	C3-C4	
767	C4	
769	307-318	<i>Soli Invicto Comite</i>
770	C3-C4	
784	C3-C4	
831	C3-C4	
846	260-268	Radiate
867	C4	
867	C4	
867	367-375	<i>Securitas Reipublicae</i>
867	335-337	<i>Gloria Exercitus</i> , 2 soldiers, 1 standard
874	138-161	? <i>Antoninus Pius</i>
900	C1-C2	
1080	335-341	<i>Gloria exercitus</i> , 2 soldiers 1 standard copy?
1261	324-330	<i>Providentiae AVGG</i>
1261	318-324	<i>Beata Tranquilitas Votis XX</i>

Importance and Significance

Introduction

Coin finds can perform three major interpretive functions. Firstly, they provide dates in the form of a *terminus post quem* for stratified deposits and finds. Secondly, they may inform us about the spatial organisation of coin-using activities on a site and finally, they provide a history of the site's coin loss. This pattern can be compared with other sites and abnormalities from the normal trend of coin loss can be identified and interpreted. These three aspects are explored more fully below.

Stratified coins

Only 42 coins, less than ten percent of the total finds, were recovered from stratified deposits. A further 176 coins came from a 'dark earth' layer filling a hollow-way [201] and the remainder were recovered from the plough soil or during machining. The 42 stratified coins have the

potential to provide some dating for stratified sequences of deposits and it is unfortunate that so many of these coins are illegible.

Spatial distribution

Given the size of the assemblage it is unfortunate that circumstances did not permit the collection of data to enable the spatial distribution of these finds across the site to be assessed. However, the large group of coins from layer [201] may reflect coins redeposited from ploughed out occupation deposits around the hollow-way.

Interpretation of the pattern of loss

The Gillingham coins were converted into annual coin histogram using the methodology outlined by Reece and followed by others (eg Brickstock 2004, 12). This allows inter-site comparisons of site finds to be carried out and the results of this exercise are presented in Fig 1.

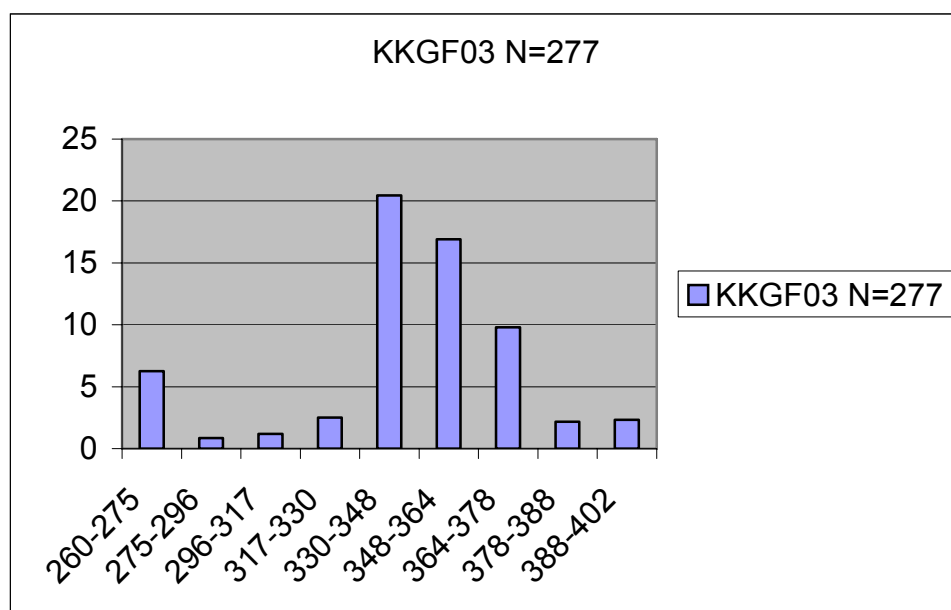


Fig 1. Histogram of annual loss per 1000 coins (the few coins which predate AD260 have been excluded from this analysis)

Examination of Fig 1 reveals a number of points that are potentially significant. The first is the very weak showing of the late third century. The low number of radiate coins is unusual as the period AD260-275 is expected to be comparable in terms of numbers of coins to the period AD330-348. This may suggest a far more intensive occupation or greater coin use at the site after AD300. The period AD330-348 is also well represented but this is within British norms. AD348-364 also has a large number of coins which is a little unusual but not unparalleled. It is possible that some of these coins might originate from a dispersed hoard containing Falling Horseman copies. Finally, the low number of coins for the period AD388-402 is noteworthy and suggestive of a drop in coin use on the site at the end of the fourth century. Interestingly, the preceding period (AD378-388) has a slightly elevated number of coins for that period. Further analysis of this data and inter-site comparison is recommended.

Evidence for non-monetary use

There was little evidence for the coins from Gillingham performing any function other than that for which they were intended. SF704 [200], a fairly uncommon *denarius* of Alexander Severus (r.AD222-235) was carefully pierced in such a way that the imperial portrait was not impinged

upon. This presumably converted the piece into a pendant or talisman. Such conversions are not unknown in the Roman period (Puttock 2002, 97-98) but also occur in post-Roman/early medieval cemetery contexts in both the west and east of Britain. The fact that the imperial portrait was not damaged is also noteworthy and reminiscent of the clipping of silver coins very late in the Roman period. It has been suggested that clipping avoided the imperial portrait through some respect for the imperial image and something similar may have been occurring here.

The treatment of the imperial portrait on SF704 is in contrast to the other pierced coin in this group. SF800, a *follis* of Licinius I (AD307-318) [200], has had a hole pierced through the centre of the coin. In the process the coin has broken and is missing a substantial portion of its circumference. This may have been piercing for suspension, as suggested for SF704, or alternatively this could be deliberate destruction of a coin issued to honour an emperor who became a rival of, and was eventually deposed by Constantine I.

There was no other evidence for non-monetary use. In view of the quantities of metal working slag from the site it is significant that there were no partially melted coins or coins fused together with slag.

Mintmarks

In general terms, and where mintmarks were visible and legible, the normal western mints were all represented. Trier, Lyons, Arles, Rome, Aquileia all contributed to the coin supply at the site, as did London in the late third and early fourth century. One coin originated in Siscia and another (almost certainly an 'irregular' *Gloria Exercitus*) purported to be from Thessalonica. The eastern mints are virtually unrepresented and this is normal for Britain.

Recommendations and Further Work

This is an important group of coins that has the potential to inform questions of site chronology. The coins may also offer one means of placing the site within a better local, regional and national context.

It is recommended that all illegible coins from stratified deposits are sent for further cleaning and X-Ray where appropriate. It is not thought necessary to clean or X-Ray any of the unstratified material or coins from layer [201]. Such an exercise would not be cost effective and would not materially add to our knowledge of the coins from this site. The only exceptions to this are the few early Roman (first- and second-century coins), which could enhance our knowledge of early Roman activity.

All coins pre-AD324 need to be fully identified with reference to the relevant volumes of *RIC*. Some further work identifying the radiate, *Gloria Exercitus* and Falling Horseman copies is necessary. Use of a specialist library collection will be necessary for this.

Further statistical analysis and inter-site comparison is desirable. In particular it would be useful to look for parallels for the unusual patterns detected above. Furthermore comparison of unstratified coins and those from layer [201] might reveal whether a dispersed hoard is present in the latter deposit.

Looking to the future, it would be useful on large sites with shallow stratigraphy if some form of spatial control was exercised over the collection of metal detected finds. This would greatly enhance the interpretive value of not only the coins but other categories of metal small find.

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APPENDIX 15

THE ROMAN CHAINS

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1. (KKGf 03 [205]. sf 233). Fragment of a bracelet or necklace. The surviving section is composed of a series of gold filigree double-loop links, the bars of which were threaded with polyhedral faceted beads of the green stone variscite. Seven beads survive. The terminals consist of a hook and eye attachment, each of which were soldered onto the last link chain by means of a triangular plate. Both terminals survive attached to each other; one part of the chain is missing, and it is unclear exactly how long the chain was originally, although it has been suggested that this item of jewellery was a necklace turned into a bracelet for a child, other examples of which are known.

2. (KKGf 03 [205]. sf 234). Incomplete necklace. The necklace is constructed in the same manner as no. 1, although the terminal, of which only the hook part survives, has a rectangular sheet metal cover plate wrapped around it. The chain is irregularly interspersed with a series of cut stones: there are 10 reddish-brown polyhedral faceted garnets, two disc-shaped garnets, and three cylindrical emeralds of different sizes. It is possible that some of the beads were added to substitute missing originals, with the ten faceted garnets perhaps representing the original stones and the other, cruder stones later replacements. There are a number of links which do not have a stone, and this would imply that the necklace had been in use for some time.

Discussion. These items of jewellery can be paralleled with an example in a child's grave from Bonn (Sas & Thoen 2002, no. 99e), and a more elaborate necklace, nevertheless employing the same construction technique, from Pouilly-sur-Saône (*ibid.*, no. 111). The triangular terminals on item 1 are paralleled in examples from Archar, Bulgaria and a find in a third century tomb from Lyon; these have been described as stylised palmette endings (Ruxer & Kubczak 1972, 212-3, fig 30j; their terminal Type E).

Date and origin. The dated parallels suggest a date of the early to mid third century AD. It seems likely that the items originated on the continent, probably travelling with their owner/s to Britain; variscite, a relatively unusual mineral in British archaeological contexts, is a mineral known to be found in Germany, for example in the vicinity of Lichtenberg bei Ronnenburg.

Dimensions. (Item 1): Surviving l.: c. 132 mm Wt.: 3.37g.
(Item 2): Surviving l.: c. 266 mm Wt.: 4.32g

Acknowledgements. I would like to thank Kathy Sas of the Provincial Archaeological Museum, Velzeke Buizerdlaan, Belgium, for her helpful comments and suggestions regarding these jewellery items, and Susan la Niece, Antony Simpson and Janet Ambers in the British Museum's Department of Conservation, Documentation & Science, for their analysis of the components.

References.

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Sas, K. & Thoen, H., 2002. *Schone Schijn/Brilliance et Prestige. Romeine juweelkunst in West Europa/La joellerie romain en Europe occidentale*. Leuven.

Note: the age of these items of jewellery, and the fact that they are made substantially of gold, means that they both qualify as treasure as stipulated in the Treasure Act 1996.

APPENDIX 16

ROMAN COFFIN CONSERVATION ASSESSMENT REPORT

Dana Goodburn-Brown

Recovery from Site, Excavation of Contents and Interim Storage

The lead coffin, and its undisturbed contents, was lifted from its burial site with conservation assistance. An area of soil surrounding the coffin was cleared by a digger, following recording of the archaeology. This provided ample working space for the undercutting and supporting work. Scaffold pipes and timbers were inserted at intervals undercut beneath the coffin. The scaffold pipes were then secured to longitudinal and vertical pipes placed to provide a framework for timber supports and strops for lifting by a digger. Foam and bubble wrap were secured around the coffin, between it and the timber box, ensuring no or minimal movement.

The coffin was then mechanically lifted and driven off site. It was driven to a workshop in Chatham and then excavated by a conservation/osteoarchaeologist joint effort. Deposits and the skeleton within the coffin were sampled, recorded, and removed for further analysis. Although the upper layers of the coffin content were somewhat disturbed, the skeleton itself was relatively undisturbed, beneath a dark layer, assumed to be a wooden lid.

Condition: Lidless (either the coffin never had a lead lid; or the lid was looted, perhaps used for the recovery of silver from debased copper alloys on the site). Most of the metal has been mineralised to white corrosion products, but some moulded decoration and most of the sheet metal sides and bottom survive. Some areas of loss are extensive: a side section, near the lower legs has completely corroded away – staining a defined area of the soil. It is tempting to assume that this might be related to something having been placed within the burial, but difficult to identify without further analysis. The bottom of the coffin has a large corrosion hole beneath the head, and appears to have moulded itself slightly echoing the shape of the body, due to compression from the weight of soil above. Similarly the sides are distorted and weak from corrosion losses and soil.

Conservation Treatment- Cleaning & Stabilisation for Archive Deposition

The coffin was dry brushed and vacuumed; then the inside was supported by polyurethane foam and an internal steel frame, separated from the lead surface by polyethylene sheet. The internal frame was bolted onto a fabricated steel base and inverted. The wood and scaffold pipe lifting support was removed during this process. The external surfaces were dry brushed, vacuumed and recorded for technical details. No further decoration was observed. Weak areas of metal were supported by polythene foam (Cellaire/Jiffy foam) and tied with strips of Tyvek cloth. An outer packaging of Jiffy foam and Correx was constructed to support the whole for travel and deposition to archive.

Protective masks, gloves and clothing were worn throughout the excavation and conservation processes. Lead dust vacuumed with a specialist vacuum and disposed of according to regulation.

Technical Report

The coffin is constructed from cast lead sheet, folded into shape. An internal 'egg and dart' type design was cast into the inside borders of the base and the sides folded up to frame the design. The inside vertical seams appear to have been smeared with molten lead or tin (analysis by XRF to follow).

Possible further Conservation Work

The storage mount could be converted to a display mount, if desired at a later stage. Further cleaning and coating of the mineralised surface to reduce threat of lead dust could also be considered for display purposes.

Photographs can be supplied for publication report.

APPENDIX 17

THE SHELLFISH

Rebecca Lythe

Introduction

The following report details the results of analysis undertaken on the marine Mollusc assemblage from Grange Farm (KKGf03). The main aims of this report are:

- To identify all recovered Mollusc remains to genus or, when possible, species level
- To consider their origins and potential modes of deposition
- To consider their usefulness as a resource to past populations

Methodology

In order to keep sampling representative and systematic, shellfish from all contexts on site were collected according to the following strategy:

For every context that contained marine Molluscs, one in five of each species was recovered. Where multiple fragments of material from the same species were found, only fragments with complete umboes were counted so as to avoid over-representation of heavily fragmented individuals. The material was then analysed in the following way:

The Molluscs were observed with a hand-held magnifying glass and, where possible, identified to genus or species level. Numbers of individuals per species per context were counted. As bivalves (such as cockles and mussels) have two shells and gastropods (such as whelks and limpets) have one, the two classes cannot be compared directly. Consequently, bivalve shells were assigned a value of 0.5, whilst all gastropods were assigned a value of 1. These "values" were recorded in table form in Figure 1.

The ecological niche occupied by each species was identified and hypothetical modes of deposition considered. Potential uses for the various species were then speculated upon.

Mollusc remains were probably not consistently discarded within the confines of the site in representative quantities throughout its occupation. As a consequence, changes in species frequency over time were not considered on account of the small size of the assemblage relative to the size of the site and long duration of occupation.

Results

The total number of shells collected per species per context and their “value” was recorded (Figure 1).

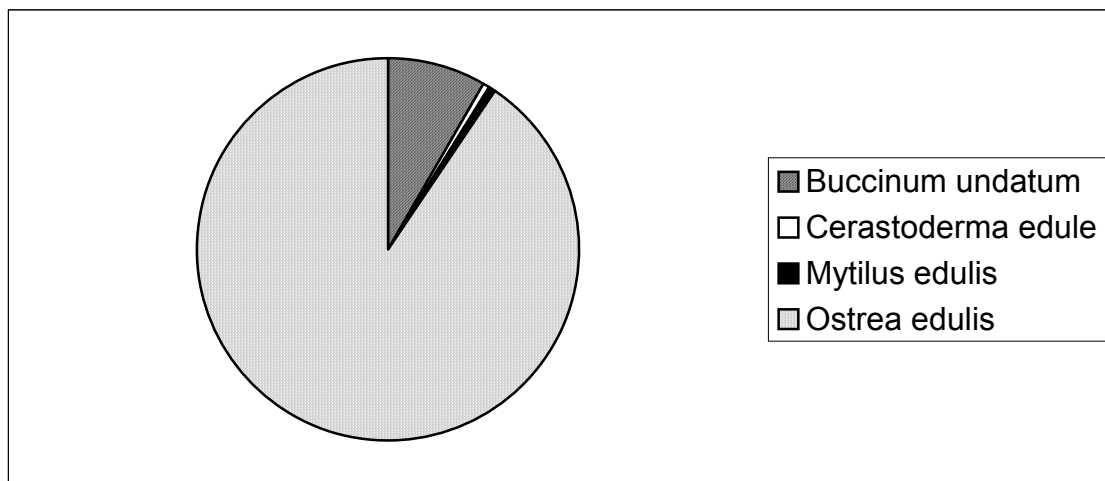
Figure 1: Table to show frequency of species of marine Mollusc per context

Context Number	Phase (see below for date ranges)	Species Present	Total Number of Shells Collected	Value	Number of Oysters over 80mm in width	Number of Oysters Over 100mm in width
860	4	<i>Buccinum undatum</i>	4	4	N/A	N/A
860	4	<i>Ostrea edulis</i>	166	83	22	0
1079	4	<i>Buccinum undatum</i>	1	1	N/A	N/A
1079	4	<i>Ostrea edulis</i>	36	18	2	0
780	5	<i>Ostrea edulis</i>	2	1	0	0
800	5	<i>Buccinum undatum</i>	10	10	N/A	N/A
800	5	<i>Cerastoderma edule</i>	4	2	N/A	N/A
800	5	<i>Mytilus edulis</i>	2	1	N/A	N/A
800	5	<i>Ostrea edulis</i>	348	174	55	1
802	5	<i>Buccinum undatum</i>	1	1	N/A	N/A
802	5	<i>Ostrea edulis</i>	57	28.5	7	0
844	5	<i>Ostrea edulis</i>	1	0.5	1	0
845	5	<i>Mytilus edulis</i>	4	2	N/A	N/A
845	5	<i>Ostrea edulis</i>	2	1	0	0
874	5	<i>Ostrea edulis</i>	16	7	1	9
205	6	<i>Mytilus edulis</i>	1	0.5	N/A	N/A
237	6	<i>Mytilus edulis</i>	2	1	N/A	N/A
320	6	<i>Mytilus edulis</i>	1	0.5	N/A	N/A
694	6	<i>Ostrea edulis</i>	27	13.5	5	0
756	6	<i>Ostrea edulis</i>	12	6	0	0
770	6	<i>Ostrea edulis</i>	42	21	2	0
201	7	<i>Ostrea edulis</i>	4	2	0	0
462	7	<i>Ostrea edulis</i>	1	0.5	0	0
716	7	<i>Ostrea edulis</i>	7	3.5	1	0
719	7	<i>Ostrea edulis</i>	5	2.5	0	0
769	7	<i>Ostrea edulis</i>	7	3.5	3	0
908	7	<i>Mytilus edulis</i>	2	1	0	0
908	7	<i>Ostrea edulis</i>	2	1	0	0
1016	7	<i>Ostrea edulis</i>	2	1	0	0
1019	7	<i>Ostrea edulis</i>	1	0.5	0	0
1039	7	<i>Buccinum undatum</i>	48	48	N/A	N/A
1039	7	<i>Ostrea edulis</i>	370	185	68	6
1059	7	<i>Ostrea edulis</i>	1	0.5	0	0
234	9	<i>Ostrea edulis</i>	1	0.5	0	0
562	9	<i>Buccinum undatum</i>	46	46	N/A	N/A
562	9	<i>Cerastoderma edule</i>	3	1.5	N/A	N/A
562	9	<i>Mytilus edulis</i>	6	3	N/A	N/A
562	9	<i>Ostrea edulis</i>	76	38	2	2
478	10	<i>Ostrea edulis</i>	4	2	0	0

Date Range of Phases listed in table 1:

Phase 4	43-120 AD
Phase 5	120-250 AD
Phase 6	250-300 AD
Phase 7	300-420 AD
Phase 9	Medieval
Phase 10	Post-Medieval

Figure 2: Chart to show percentage of each species found within the assemblage from Grange Farm



The natural habitats of the species found on site were as follows:

1. Common Cockle (***Cerastoderma edule***): found mainly in the intertidal zone, from the mid-tide level down, in sandy environments. It is common to all British coasts.
2. Common Mussel (***Mytilus edulis***): occurs on rocky coasts between the mid-tide level in the intertidal zone and the shallow sublittoral zone. It is commonly found on all British coasts.
3. Common Oyster (***Ostrea edulis***): occurs in coarse sediment between the spring tide extreme low water mark and a maximum of 50m into the sub-littoral zone. Whilst they are now relatively uncommon in British waters, they were once widespread.
4. Common Whelk (***Buccinum undatum***): occurs mainly between the sublittoral zone and the continental shelf, but can also be found in the intertidal zone up to the spring tide low water mark. It can live in muddy sand and gravel or on rocks and is common to British waters.
(Hayward 1996)

Inferences

When the natural habitats of the shellfish are considered, it becomes obvious that they were brought to this inland site by human action. As they were recovered from dumped deposits containing domestic waste and all species are edible, they were probably primarily imported as a food resource.

One oyster, recovered from medieval context [562], is of note on account of a roughly ovoid perforation, measuring 28mm by 16mm, found in the approximate centre of the shell. It appears to have been punctured rather than drilled, perhaps in order to retrieve mother of pearl, used as inlay in jewellery and furniture manufacturing. Alternatively, it could have been suspended as a pendant, perhaps functioning as a pilgrim badge. Pierced scallop shells were widely used as a pilgrim sign during the medieval period, being associated with St James and the shrine at

Santiago de Compostela and it is possible that oysters could have been used as a substitute (Gaimster & Yeomans, forthcoming). A more thorough discussion of the shell can be found within the assessment of the small finds from Grange Farm (Gaimster, this report).

The Molluscs were presumably harvested from marine habitats and transported to site, probably by boat along the Medway. The river would have provided a means of importing coastal resources quickly and easily, maintaining freshness.

In total, 14.20% of oyster shells recovered were over 80mm in diameter, whilst 1.51% were over 100mm in diameter, the largest being 115mm wide and 116mm long. Modern wild examples do not normally exceed 100mm in diameter (Hayward *et al* 1996). It is therefore hypothesised that some may have been farmed. Excavations at Pudding Lane in the City of London produced a first century assemblage of small, irregularly shaped oysters, whilst the bulk of second to third century examples were larger and more regular. The former group was interpreted as originating from natural beds, whilst the latter may have been farmed (Milne, 1995). This is paralleled at Grange Farm, the larger examples being retrieved from mid Roman contexts or later (Phase 5 onwards; see Table 1). It has been suggested that oyster farming occurred on the Essex and Kent coasts in the mid to late Roman period (Alcock, 2001, Milne, 1995, Applebaum 1958) and presumably continued into the medieval period. This presumably enabled the species to be collected quickly and in greater numbers than foraging would allow.

Evidence from other contemporary sites in Britain suggests the oyster was a popular foodstuff in the Roman period (Alcock, 2001). This may explain the large percentage of oysters relative to other species of marine Mollusc in the assemblage (Figure 2).

The total number of shells recovered from site was small relative to the number of contexts excavated, suggesting Mollusca did not form a major part of the diet. This contradicts evidence from many other excavations from the same periods, perhaps due to the bulk of Mollusc remains being discarded beyond the boundaries of the site. Taphonomic variables may also have affected the assemblage, including adverse preservational conditions. This appears to have been particularly acute for smaller, thinner shells like cockles and mussels, which were all highly fragmented and friable, often disintegrating upon touch. It therefore remains probable that the dietary importance of marine Molluscs to the Roman occupants of Grange Farm was greater than the results suggest.

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APPENDIX 18

OASIS FORM

OASIS ID: preconst1-19935

Project details

Project name	Land at Grange Farm, Gillingham, Kent
Short description of the project	An archaeological investigation took place at Grange Farm, Gillingham, Kent between 26th September 2005 and 2nd May 2006. The excavation was multi-phase with features dating from the Prehistoric through to the post-medieval period. Residual Mesolithic/Early Neolithic flints were found in later features. A few features tentatively dated to the Neolithic and Late Bronze Age-Middle Iron Age were revealed to the north of the site together with an assemblage of residual flints dating to the Late Bronze Age/Iron Age. Features from the Late Iron Age consisted of field ditches indicating an agrarian landscape. The Roman period provided a north-south aligned road, linking Watling Street with the River Medway. Also recorded were 2nd and 3rd century barns, a 3rd century tomb with lead coffin and large enclosures all of which are indicative of a villa site. A medieval moat was recorded surrounding the site of Grench Manor which lay at the centre of the site, but outside the area of excavation, and orchards to the west, post-medieval rubbish pits and field systems were also uncovered.
Project dates	Start: 26-09-2005 End: 02-05-2006
Previous/future work	Yes / Not known
Any associated project reference codes	KKGF 03 - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Cultivated Land 1 - Minimal cultivation
Monument type	AISLED BARNS Roman
Monument type	TOMB Roman

Monument type	ROAD Roman
Monument type	MOAT Medieval
Monument type	PITS Bronze Age
Monument type	FIELD BOUNDARIES Late Iron Age
Monument type	PITS Late Iron Age
Monument type	ROAD Roman
Monument type	PITS Roman
Monument type	BOUNDARY DITCHES Roman
Monument type	BOUNDARY WALLS Roman
Monument type	RETAINING WALLS Roman
Monument type	POST BUILT STRUCTURE Roman
Monument type	CIRCULAR PLATFORM Roman
Monument type	FIELD BOUNDARIES Roman
Monument type	HEARTHES Roman
Monument type	PLATROFM Early Medieval
Monument type	PIT Early Medieval
Monument type	BOUNDARY DITCH Medieval
Monument type	PITS Medieval
Significant Finds	BROOCHES Roman
Significant Finds	SPEARHEADS Roman

Significant Finds	KEY Roman
Significant Finds	QUERN Roman
Significant Finds	BRACELET Roman
Significant Finds	NECKLACE Roman
Significant Finds	COFFIN Roman
Significant Finds	BROOCH Early Medieval
Significant Finds	NECKLACE Roman
Significant Finds	AXE Roman
Significant Finds	HIPPOSANDAL Roman
Significant Finds	BARS IRON Roman
Significant Finds	BELT PLATE Roman
Significant Finds	CURRENCY Roman
Significant Finds	DOOR FURNITURE Roman
Significant Finds	FERRULES Roman
Significant Finds	FINGER RINGS Roman
Significant Finds	GAME COUNTER Roman
Significant Finds	HAIRPINS Roman
Significant Finds	CROSS PENDANT Medieval
Investigation type	'Full excavation'

Prompt Planning condition

Project location

Country	England
Site location	KENT MEDWAY GILLINGHAM Land at Grange Farm, Gillingham, Kent
Postcode	ME7 2XX
Study area	25339.00 Square metres
Site coordinates	TQ 7930 6850 51.3866289747 0.577154509286 51 23 11 N 000 34 37 E Point
Height OD	Min: 5.83m Max: 18.27m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	CgMs Consulting
Project design originator	Duncan Hawkins
Project director/manager	Peter Moore
Project supervisor	Guy Seddon
Type of sponsor/funding body	Development Corporation
Name of sponsor/funding body	Taylor Woodrow

Project archives

Physical Archive recipient	Local museum
Physical Contents	'Animal Bones', 'Ceramics', 'Environmental', 'Glass', 'Human Bones', 'Industrial', 'Metal', 'Worked bone', 'Worked stone/lithics'
Digital Archive recipient	Local museum
Digital Contents	'Animal Bones', 'Ceramics', 'Environmental', 'Glass', 'Human Bones', 'Industrial', 'Metal', 'Stratigraphic', 'Survey', 'Worked bone', 'Worked stone/lithics'
Digital Media available	'Database', 'Spreadsheets', 'Survey', 'Text'
Paper Archive recipient	Local Museum
Paper Media available	'Context sheet', 'Diary', 'Plan', 'Report', 'Section', 'Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Assessment of an Archaeological Excavation on Land at Grange Farm, Gillingham, Kent
Author(s)/Editor(s)	Seddon, G.
Date	2007
Issuer or publisher	Pre-Construct Archaeology Ltd
Place of issue or publication	London
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