Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire

A Post-Excavation Assessment Report

Planning Application Number: S/0706/06/F

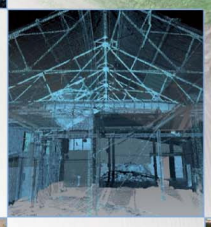
National Grid Reference Number: TL 3497 4413

AOC Project No's: 30595, 30848

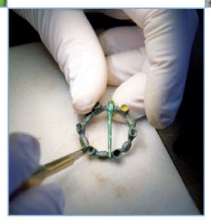
Site Code: ECB 3209

Date: February 2011





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Kneesworth House Hospital, Bassingbourn-Cum-Kneesworth, Cambridgeshire: A Post-Excavation Assessment Report

On Behalf of:	**Partnerships in Care Ltd** 2 Imperial Place Maxwell Road Borehamwood Hertfordshire WD6 1JN
National Grid Reference (NGR):	**TL 3497 4413**
AOC Project No:	**30848**
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Date of Excavation:	**1st July 2009 – 20th August 2010**
Date of Report:	**February 2011**

This document has been prepared in accordance with AOC standard operating procedures.

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NON-TECHNICAL SUMMARY

This report presents an assessment of the archaeological investigations undertaken at the Kneesworth House Hospital, summarising the stratigraphical sequence of archaeological remains, and describes the work undertaken on the archive. The principal objective of this report is to refine the research objectives of the project in light of the findings, and assess the potential of the archive to address these research objectives.

Between the 1st July 2009 and 20th August 2010, two phases of archaeological investigation were undertaken by AOC Archaeology Group at the site of Kneesworth House Hospital, Bassingbourn-Cum-Kneesworth, Cambridgeshire, National Grid Reference (NGR) TL 3497 4413. The first phase of work was an evaluation. This was followed by an excavation conducted across an area of 5442m². The works were conducted on behalf of Partnerships in Care Ltd. The work was carried out ahead of a proposed development for the construction of a new ward. The over all project managers were Melissa Melikian and Andy Leonard for AOC Archaeology.

The earliest phase of activity identified on site occurred during the prehistoric period, primarily consisting of residual worked flint collected from later features. A series of undated features including a ring of postholes and a line of large postholes have been assigned to the prehistoric period. The ring of postholes probably represents a roundhouse, while the line of posts may have been a palisade.

Roman activity was recorded across much of the site and represented the majority of the archaeological features present. Three periods of Roman activity were identified, AD 43-275, AD 276-350 and AD 350-400. The findings show agricultural activity in the form of arable and pastoral farming, chalk quarrying as well a small scale settlement in the form of a single possible roundhouse drip gully. The majority of the pottery was locally produced with five Roman coins also being found.

The only early medieval activity on site was a worked bone comb case of probably Saxon date, the only parallels with this artefact are from mainland Europe. Low level medieval activity was identified on site in the form of quarry pits and a possible rectilinear structure.

Post-medieval activity is dominated by a large sinuous lake, probably an ornamental garden feature of the 17th -19th century. Few modern features were identified.

Overall, a moderate density of archaeological features were identified during the course of the evaluation and excavation. As a whole, the site is thought to be of local significance due to the moderate density of archaeological remains and commonality of the finds assemblage. Further specialist finds analysis and publication work has been recommended.

1 INTRODUCTION

1.1 The Site

1.1.1 This document aims to summarise the results of the archaeological evaluation and excavation, conducted by AOC Archaeology, at the site of Kneesworth House Hospital, Bassingbourn-Cum-Kneesworth, Cambridgeshire, on behalf of Partnerships in Care.

1.1.2 The site was centred on National Grid Reference (NGR) TL 3497 4413, and was situated set back from the eastern side of the Old North Road (Figure 2). The site measured approximately 22,000m² (2.2 ha) in size.

1.1.3 Currently the site is occupied by Kneesworth House Hospital, with the area investigated currently occupied by open grassland (Figure 3).

1.1.4 The proposed development comprised the construction of new facilities, including car parking and soft landscaping (Figure 3).

1.2 Planning Background

1.2.1 The local planning authority is South Cambridgeshire District Council. Archaeological advice to the council was provided by Kasia Gdaniec of Cambridge Archaeology Planning & Countryside Advice (CAPCA).

1.2.2 Planning permission to undertake the development was granted under the Town & Country Planning Act (1990) (Ref No.: S/0706/06/F), for the erection of a new ward building to accommodate two secure wards, one rehabilitation unit, reception and visitor centre, with additional car parking and soft landscaping.

1.2.3 The Senior Archaeological Officer recommended that an archaeological condition was placed on any planning permission, to secure a programme of archaeological work. This was in accordance with Planning Policy Guidance: Archaeology and Planning (PPG 16) issued by the Department of the Environment in 1990 (DoE 1990), which was valid policy during the investigations. This has now been replaced by Planning Policy Statement 5 (PPS 5) (Department for Communities and Local Government 2010).

1.2.4 The first stage in the archaeological investigation was the requirement for an archaeological evaluation. Accordingly a WSI was prepared (AOC 2009a), and approved by CAPCA, and was subsequently reported on (AOC 2009b). The evaluation, which consisted of six trenches (Figure 3), identified archaeological remains dating to both the Roman period.

1.2.5 Following consideration of the results of the archaeological evaluation trenching, a further programme of open-area archaeological excavation was required by Cambridgeshire County Council to preserve by record any archaeological remains that would otherwise be destroyed by the proposed development. An Archaeological Brief for Archaeological Investigation was prepared by Cambridgeshire County Council's Senior Archaeologist (CAPCA 2009). A Written Scheme of Investigation (AOC 2010) was prepared to meet the requirements of the brief.

1.2.6 This post-excavation assessment report conforms to the requirements of PPS 5 (Department for Communities and Local Government 2010). It has been designed in accordance with the Written Scheme of Investigation (AOC 2010), current best archaeological practice and local and national standards and guidelines:

- English Heritage – Management of Archaeological Projects (EH 1991).

- Institute of Field Archaeologists – Standard and Guidance for Archaeological Field Excavations (IFA 2008).
- Institute of Field Archaeologists – Code of Conduct (IFA 2010).
- A Research Framework for London Archaeology (MoL 2002).

1.3 The Scope of the Report

1.3.1 The work was carried out under the site code relating to the first phase of evaluation (ECB 3209). The research aims outlined prior to excavation are discussed with reference to the results, and the further work to enable full interpretation and publication is outlined. Quantification of the resources needed to fulfil this work has been undertaken in light of the revised research objectives.

1.3.2 This assessment discusses the results of the open-area excavation which superseded the evaluation trenching. This earlier phase of archaeological investigation is summarised in the archaeological background section only (see Sections 3.7-3.9).

1.3.3 On completion of the excavation and prior to the project's final archival deposition, the archive produced by the earlier phases of work conducted by AOC, will be integrated into the overall project archive. As part of the programme of post-excavation analysis, the interpretations reached and the dates attributed to the features recorded during the evaluations will be re-appraised.

2 GEOLOGY AND TOPOGRAPHY

2.1 The site is located on underlying geology of West Melbury Chalk and lies at a height of approximately 30mOD (CAPCA 2009).

2.2 No known geotechnical investigations have been undertaken on site.

2.3 The evaluation phase of the investigation revealed underlying chalk across much of the site with yellow clayey chalk in the south of the site (AOC 2009b).

2.4 The site was generally flat with a slight slope towards a small stream which runs north – south, just to the east of Ermine Street. The site slopes from 31.50m OD in the northeast to 30.02m OD south.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Evidence for prehistoric activity within the vicinity of the site is limited, restricted to the discovery of a possible Palaeolithic flint flake, located during field walking approximately 750m to the west of the development (CHER 10319A).

Roman

3.2 Roman activity is more evident in the area, as the line of Ermine Street, the Roman road which runs between the settlements of Roman London and Lincoln, is thought to follow the present line of the Old North Road, 400m to the west (CAPCA 2009).

3.3 The presence of the small brook to the west of the excavation area would have made the site attractive for settlement and may have provided a secondary transport link.

Medieval

3.4 Features associated with the medieval period are more numerous in the area. The most significant feature is the remains of a moated structure near Grange Farm, approximately 750m to the north of the site (CHER 01240). In addition to this, a series of ridge and furrow field systems have been

identified c. 1km to the north and northeast of Kneesworth House Hospital (CHER 09538 & 09539). Several objects dating to this period have been discovered by metal detectorists in the vicinity of the site, consisting of a silver coin and button, plus a copper alloy pouring spout in the shape of a dogs head (CHER 10319 & MCB 17707). These were located in the fields to the west of the Old North Road.

Post-Medieval

3.5 Kneesworth House is a Grade II Listed Building, originally built between 1901 and 1906 in a neo-classical style, by Roland Plumbe for Lord Knutsford. The house is primarily constructed out of dark red brick with lighter brick dressings, with plain tiled flared mansard roofs. Internally, Kneesworth House possesses an irregular plan, comprising two storeys and attics. The house was built on the site of the original hall sold to Lord Knutsford in 1897. By 1948 it was opened as a boys' approved school which was transferred in 1967-8 to Cambridgeshire County Council (LBS 52470). Currently, the house is used as a location for the treatment of mentally ill patients. Surrounding the house there was once a series of formal gardens and park land (CHER 12276).

3.6 The Old North Road was clearly a focal point for development during the post-medieval period, as several Grade II Listed Buildings are recorded as being located adjacent to it, close to Kneesworth House. The earliest structures known along this part of the Old North Road are a group of timber framed Tudor cottages dating to the late 16th or early 17th century (LBS 52474). Close by is the timber framed Red Lion Inn, built in the 17th century, adjacent to which lies a barn constructed approximately 100 years earlier (LBS 52468 & 52469). A slightly later 17th or 18th century cottage and barn group has also been recorded (LBS 52473). The most substantial of the Grade II Listed Buildings is the group of structures associated with The Grange, which is centred around a former farmhouse constructed from red brick in the early to mid 18th century, associated with an earlier 17th century wing and an 18th century stable block (LBS 52466 & 52467).

Undated

3.7 Two groups of undated crop marks have been identified through the use of aerial photography, lying approximately 1km away from the site. The first group to the northeast is believed to consist of a large enclosure and linear features (CHER 09125), whereas the second group to the southeast has been identified as a ring ditch also associated with other linear features (CHER 08550).

Previous Archaeological Work

3.8 A single phase of archaeological evaluation was carried out on site, which involved the excavation of six trenches (AOC 2009b). Ditches of Roman date were recorded on site some of which may be varying Roman dates. There were two significantly deep ditches, in Trenches 4 and 5, which may have been either a defensive feature or possibly for water management or drainage. Shallower ditches were present in Trenches 4 and 7. The pottery recovered from the site were manufactured in Suffolk, Horningsea, Hadham and Oxfordshire. The only imports were two Samian sherds from Gaul. The pottery forms were bowls and jars, which indicate domestic, rather than industrial, use of the site.

3.9 The post-medieval period was represented by a ditch and a tree pit. The ditch in Trench 4 cut across one of the Roman ditches whilst the tree pit in Trench 3 cuts across another ditch. This may represent a boundary to the Kneesworth estate, or represents a boundary to a separate parcel of land such as a deer park or a field. A large feature in Trench 6 may have been a garden feature.

4. METHODOLOGY

4.1 Following the evaluation phase of the project, the central area of the site, in the area of impact, was identified for excavation (Figure 4).

4.2 The excavation area was reduced mechanically to the first archaeological significant deposit encountered. Once the area had been stripped a pre-excavation plan was created using an EDM. The features within the site were then excavated and recorded with a hand drawn plan being created.

4.3 In this report cuts and structural remains are shown in square brackets '[000]' and fills and layers are shown in rounded brackets '(000)'. Context numbers 1132, 1286, 1301, 1303, 1329, 1330 and 1338 were unused.

4.4 The excavation was supervised by the author and Chris Clarke, managed Melissa Melikian (Operations Director) for AOC Archaeology and was monitored by Kasia Gdaniec of CAPCA on behalf of South Cambridgeshire District Council.

5 ORIGINAL RESEARCH AIMS

5.1 In general terms the original aim of the excavation was to mitigate the impact of the proposed development and preserve by record the archaeological remains impacted by the development. This applies to remains of all periods, and includes evidence of past environments.

5.2 The aims of the archaeological excavation were defined as being:

- To preserve the archaeological evidence contained within the site by record and to attempt a reconstruction of the history and use of the site.
- To produce a post-excavation assessment outlining the results of the excavations and proposing any further recommendations for further analysis, publication and dissemination of the work to the public.

5.3 Specific aims, as set out in the WSI (AOC 2010), were:

- To determine the presence of any Neolithic, deposits or finds. If present, to determine their date and nature and what information this provides regarding the character of any earlier activity on the site.
- Clarify the nature and extent of the Roman archaeological deposits identified during the evaluation phases of work.
- Establish whether the Roman archaeological features and deposits contain domestic or industrial refuse? Can these materials be linked to specific processes taking place upon the site?
- Do the linear features recorded during the evaluation detail a field layout and what can this tell us about the Roman Landscape?
- Can the evidence recorded on site be linked to similar evidence within the local area? And what does this tell us about landscape during this period?
- Do the material culture remains indicate specific trades such as agricultural trends or industrial workings?
- How does this evidence tie into the known local Roman activity?
- Is this a multi phase or multi-use site?

- Establish the presence/absence of any Saxon or early medieval activity on the site.
- Establish whether there are any other post-medieval ditches on site and how do they interrelate?
- Do the post-medieval ditches relate to a specific period of activity and does this relate to the establishment of the parkland?

5.4 The final aim was to make public the results of the investigation, subject to any confidentiality restrictions.

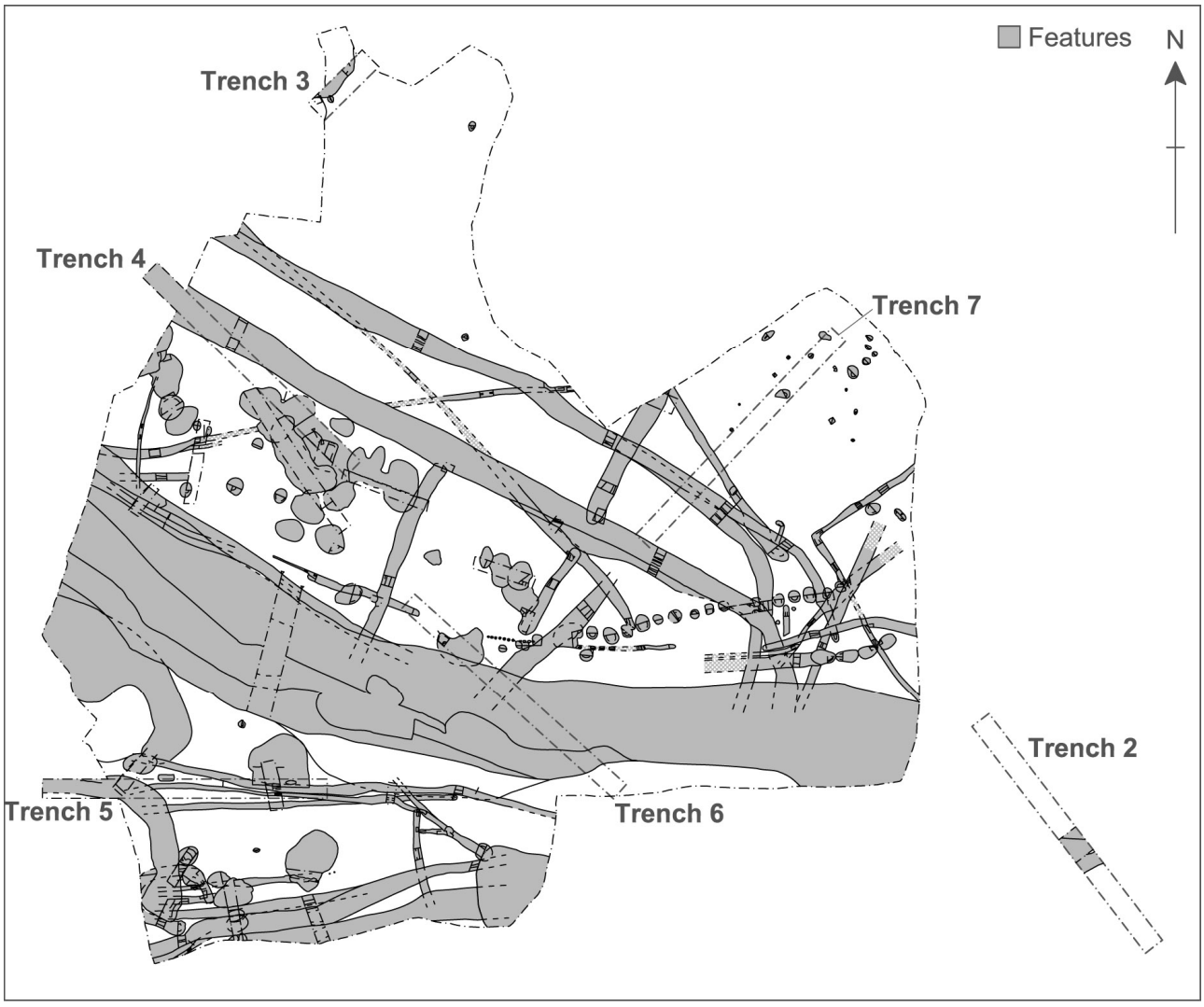


Figure 1: Overall Site Plan

6 SUMMARY OF RESULTS

During the course of the excavation at the Kneesworth House Hospital site, six different periods of activity were identified. Within the Roman period were three discernible phases of activity.

6.1 Period 1 – Natural

6.1.1 Throughout this document mention is made of natural deposits; this refers to the natural substrate of the site, in this case the chalk bedrock. The natural hard white West Melbury chalk deposit (207), (305), (413), (611), (709), and (1003) was observed across the majority of the site, ranging in height between 29.40m OD and 31.05m OD. In the southern corner of the site, white chalk was replaced by mid yellow chalky clay marl (507), (1268), (1122), this deposit occurred in the lowest lying, wettest areas of the site, at 29.26m OD.

6.2 Period 2 – Prehistoric (Figure 4)

6.2.1 The earliest activity recorded on site, designated as Period 2, was associated with the prehistoric period. Evidence for this period is sparse. Residual worked flints were recovered from a number of features dated to the Roman period; pit fills (407), (1102), (1210), (1262), (1264), (1357); and ditch fills (403), (703), (1044), (1053), (1082), (1123), (1222), (1353), (1357) and (1363).

6.2.2 Several features have been designated as prehistoric on stratigraphic grounds although they could feasibly be of an early Roman date; a line of 18 large post pits (group number [1218]) were aligned east-west and spaced approximately a metre apart; [1147], [1201], [1163], [1198], [1195], [1192], [1189], [1186], [1183], [1180], [1030], [1128], [1126], [1177], [1174], [1171], [1168] and [1119]. These features were all sub-circular with very steep sides and flat bases. They measured from 1.10m x 1.05m to 0.78m x 0.76m in plan, and from 0.61m to 0.30m deep. Despite the ground sloping from east to west approximately 0.30m, the bases of these features only vary from 29.92m OD to 30.02m OD; this was probably a deliberate effort to keep the bases of these features level so that the posts within them would be level.

6.2.3 All of the post pits contained a primary fill of compact pale brown chalky silt (1146), (1200), (1162), (1197), (1194), (1191), (1188), (1185), (1182), (1179), (1229), (1127), (1125), (1176), (1173), (1170), (1167), (1118) respectively; this fill varied between 0.25m and 0.35m thick. Fills (1162), (1200), (1197), (1194), (1191), (1188), (1185), (1182), (1179), (1229), (1176), (1173), (1170), (1167) and (1118) were all overlain by fills of dark brown, soft sandy silt; (1145), (1161), (1199), (1196), (1193), (1190), (1187), (1184), (1181), (1178), (1029), (1175), (1172), (1169), (1166), (1117) respectively. These fills varied in thickness from 0.05m to 0.23m.

Plate 1. Posthole line [1218] looking southwest.

6.2.4 Another possible post pit [1211] was located immediately to the south of [1063]; it was subcircular, with steep sides and a flat base and measured 1.18m x 1.18m x 0.15m deep at a height of 30.22mOD. It contained a firm greyish brown silt fill (1210) with no finds. While this feature is shallower than the post pits to the north, its alignment and shape make it possible it was part of the same structure and may indicated a return to the south.

6.2.5 No dating evidence was recovered from these features; the only finds recovered were worked flints from contexts (1161), (1166) and (1187); contexts (1167), (1176), (1179) and (1188) contained burnt flint. While many of these flints are likely to be residual, their presence, the lack of Roman pottery and their stratigraphic location make a prehistoric date likely for these features. The size of the post pits, along with their proximity to each other, indicates that they were likely to support a sizeable structure, possibly a stockade. No evidence of a return was found at either end of the line of post pits, this is probably do to truncation be later features to the north and east.

6.2.6 In the northern corner of the site a series of discrete features were recorded, these included a partial ring of postholes (group number [1079]) and a series of pits. Feature [1079] included eight postholes [1077], [1075], [1073], [1071], [1069], [1067], [1065], [1063]. All of these features were subcircular with steep sides and a concave base; they varied in size from 0.34m x 0.31m to 0.21m x 0.20m in plan and 0.03m to 0.14m in depth and were recorded between a height of 30.46mOD and 31.01mOD. The features were uniformly filled with firm mid greyish brown silt (1078), (1076), (1074), (1072), (1070), (1068), (1066), (1064) respectively.

Plate 2. Possible prehistoric features in the north of the site.

6.2.7 The only find from these features was a single flint flake from fill (1068). The shallowness of these features was probably due to horizontal truncation, possible through ploughing, this together with the north-south slope mean that the missing postholes in the southern half of the ring would not have been sufficiently deep to cut into the natural deposit and therefore have been lost.

6.2.8 The only possible internal feature to the ring of postholes was a single pit [1040], it was oval in shape with steep sides and a concave base; it measured 1.14m x 0.92m x 0.27m at a height of 30.95mOD. The pit fill (1039) consisted of brownish grey clayey silt; no finds were retrieved from this fill.

6.2.9 Two further small pits were excavated immediately to the north of the ring of postholes; pit [1057] was oval with moderately sloping sides and a flat base; it measured 0.90m x 0.66m x 0.19m, the pit was observed at a height of 31.08mkOD. The fill (1058) was a firm, dark brownish grey clayey silt which contained no finds. The second pit [708] was similar in size and shape, being 0.70m x 0.68m x 0.20m. The pit fill (707) was very similar to (1058); this feature was recorded at a height of 31.11mOD.

6.2.10 To the north-east were a series of small undated pits [1046], [1048], [1050], [1052]. The pits were all subcircular with steep sides and flat bases; they measured between 0.48m x 0.36m x 0.10m deep and 0.75m x 0.47m x 12m deep and between heights of 31.00mOD and 31.05mOD. The pits were all filled with dark brownish grey clayey silt with occasional burnt stone inclusions (1045), (1047), (1049), (1051) respectively. The pit fills only contained small fragments of animal bone; all of the identified bone was either of fish or amphibian origin suggesting a diet based on freshwater fauna or wet environment.

6.2.11 Three small undated pits were recorded in the northwest of the site [307], [1023], [1025]; they have been assigned to the prehistoric period because of their similarity to the pits in the northeast. Pit [307] was subcircular with steep sides and a concave base; it measured 0.62m x 0.58m x 0.13m deep at a height of 27.82mOD. The pit fill (306), a soft greyish brown silt contained no finds. Pit [1025] was similar in shape, 0.92m x 0.65m x 0.29m deep in size at a height of 31.30mOD. The pit fill (1024) was similar to (306) and again contained no finds. Pit [1023] was again subcircular with steep sides and a concave base, it measured 0.62m x 0.51m x 0.15m deep at a height of 30.83mOD. Fill (1022) was again similar to (306); no finds were retrieved from this context.

6.2.12 Two isolated pits in the south of the site [1005] and [1135] have been assigned to the prehistoric period of the site because of the size, shape and the fills were similar to other prehistoric features in the site. Pit [1135] was circular, gentle sided with a flat base; it measured 0.74m x 0.74m x 0.27m deep at a height of 30.52mOD. The pit fill (1136) consisted of firm mid grey silt containing no finds. Pit [1005] measured 0.84m x 0.84m x 0.39m deep at a height of 29.64mOD; it was subcircular with steep sides and an uneven base. The pit fill (1004) was of mid greyish brown silt, it contained fragments of cattle bone and other unidentified bone.

6.3 Period 3a – Roman (AD 43 – 275) (Figure 5)

6.3.1 The division of the Roman period into three phases is almost entirely based on the stratigraphy; almost all of the dating evidence is attributed to AD 250–400. The phases contain intercutting features and are broadly suggestive of different phases of use across the site.

6.3.2 The earliest Roman features on the site consist of a series of ditches seen across the site and cut by other later Roman features. Ditches [1165], [1221], and [1285], were located in the south of the site. Ditch [1285] ran east-west for 29.50m, it was linear with moderate sides and a concave base, it was 0.56m wide and 0.06m deep at a height of 29.51mOD, it contained fill (1284), a compact, mid greyish brown clayey silt containing three sherds of pottery dated to AD 250–400.

6.3.3 Ditch [1164] ran north-south and terminated 2.00m south of ditch [1285]; it measured 9.00m x 0.59m x 0.32m at a height of 29.78mOD and was linear with steep sides and a concave base. Its fill firm, mid grey clay fill (1165) contained three sherds of mid–late Roman pottery and a worked flint flake. Ditch [1221] ran parallel with [1285] and terminated immediately to the east of ditch [1164]; it measured 2.80m x 0.40m x 0.17m and was linear with gentle sides and a concave base. The ditch fill (1222) consisted of mid grey silty clay; it contained four sherds of pottery dated AD 250–400 and fragments of unidentified animal bone. These ditches [1165], [1221], [1285] were probably the remnants of a coaxial field system.

6.3.4 Ditch fill (1284) was cut by another small ditch [1308], it ran northwest-southeast for 2.30m, it was 0.33m wide and 0.09m in size at a height of 29.78mOD, and linear with gentle sides and a flat base. The ditch fill of pale grey silty clay (1307) contained a single sherd of mid–late Roman pottery.

6.3.5 Ditch fills (1165), (1222) and (1307) were cut by ditch [1225/509], this ditch ran northeast for 10.00m before turning west for a further 25.00m, the ditch was 0.70m wide and 0.32m deep, it had steep sides and a concave base, it was observed at heights between 29.78mOD at its eastern extent, and 29.54mOD in the west. The ditch fill (1226) (508) consisted of firm dark grey silty clay and contained sherds of pottery dated to AD 250–400 and a copper alloy coin reading ‘asian’, this is thought to be a coin of Vespasian AD 69-79. This ditch was cut by a pair of subcircular pits [1326] and [1223]. Pit [1326] cut ditch fill (1226/508) at its southeastern end before being truncated by modern tree disturbance. The pit measured 1.62m x 1.62m x 0.11m deep and was gentle sided with a concave base. The pit fill (1327) was a pale grey silty clay and contained two sherds of mid–late Roman

pottery and probable cattle bone. These features were all observed at between 29.76mOD and 29.79mOD.

6.3.6 Pit [1223] was steep-sided with a concave base and measured 0.90m x 0.90m x 0.34m deep. The pit fill consisted of dark grey silty clay and contained animal bone and three sherds of mid–late Roman pottery.

6.3.7 In east of the site boundary ditch [1017/704] ran north south for 14.00m before turning northwest for a further 15.00m; the ditch was then truncated by a later ditch [1106]. Ditch [1017] was steep-sided with a flat base; it was 1.60m wide and 0.51m deep at a height of 30.73mOD. The fill (1016/703) compact, greyish brown silt and contained pottery dated to AD 250–400, cattle, sheep and dog bone and a possible iron chisel or similar tool.

6.3.8 A second large ditch [1108/706] terminated 0.20m to the north of [1017], it ran northwest for 23.80m. The ditch was 2.00m wide and 0.30m deep, it was steep sided with a flat base. The ditch fill (1107/705) consisted of compact greyish brown clay; the only finds retrieved from this context were a fragment of probable sheep bone.

6.3.9 Just to the north of ditch [1108] a small, curvilinear ditch [1134] ran southeast before being cut by later ditch [1106]. It measured 2.10m x 0.40m x 0.04m deep at a height of 30.74mOD, and was steep sided with a flat base. The ditch fill (1133) consisted of mid greyish brown silt; no finds were recorded in this context.

6.3.10 Also in the east of the site, ditch [1121] ran southwest-northeast, it was linear with moderate sides and a concave base; the ditch measured 15.00m x 1.00m x 0.40m deep. Ditch fill (1120) was a mid brownish orange clay and contained only two cattle mandibles. This feature, along with ditches [1017] and [1108], may have formed a funnel-like entrance to an enclosure.

6.3.11 In the far west of the site, ditch [1319] ran northeast-southwest for 2.50m before being truncated by ditch [1062]. The ditch was linear, steep-sided with a concave base, it was 1.14m wide and 0.40m deep; the ditch was truncated at its northeastern limit by a series of quarry pits. The ditch fill (1318) consisted of pale greyish brown silt and contained no finds.

6.3.12 Ditch [1062] ran northeast for 15.50m before fading out being truncated by the quarry pits in this area. Ditch [1054] ran on the same alignment in the north of the site and is probably the same ditch. Ditch [1062] was linear, 0.97m wide and 0.53m deep, it had steep sides and was v-shaped and was recorded at a height of 30.41mOD. The ditch fill (1061) was a compact, greyish brown clay that contained no finds. Ditch [1054] was very similar to [1062], it was 18.00m long, with steep sides and a flat base; it was 0.95m wide and 0.35m deep. The ditch fill (1053) was virtually identical to (1061); again no finds were retrieved.

6.3.13 Ditch [408] was observed during the evaluation and may have been part of ditches [1062] and [1054]; however, it was heavily truncated by later pits making this uncertain and was only clearly visible in section. The ditch was at least 2.50m long, 0.80m wide and 0.60m deep; it had steep sides and a concave base. The mid greyish brown clayey silt fill (407), contained animal bone and worked flint flakes.

6.3.14 To the south of ditch [1062] ran a similar parallel ditch [1317]; it was 5.00m long, 1.20m wide and 0.55m deep with steep sides and a concave base. The ditch fill (1316) was very similar to (1061) and (1053) in consistency and contained a single sherd of undiagnostic Roman pottery. Ditches [1062], [1054] and [1317] may have formed part of a trackway across the site as they run parallel approximately 2m apart; ditch [1319] may have been part of an earlier trackway.

6.3.15 Ditch fill (1061) was cut by a very narrow ditch running north-south [1217], it measured 8.80m x 0.40m x 0.27m deep at a height of 30.51mOD; it had had vertical sides and a concave base. The ditch fill (1216) was a dark brown silty clay and contained pottery dated to AD 160–300. This ditch was truncated at its southern extent by modern intrusions, to the south of this ditch [1300] ran northwest-southeast for 9.80m before being truncated by later ditch [1060]. The ditch was steep-sided with a concave base and measured 0.73m in width and 0.51m in depth. The primary fill (1299) consisted of mid greyish brown silt 0.41m thick and contained no finds. The upper ditch fill (1015) was a dark greyish brown silt 0.10m thick and contained a single sherd of undiagnostic Roman pottery and an intrusive sherd of medieval pottery.

6.3.16 A boundary ditch, numbered [1041/1083], ran east-west in the south of the site, it may have been related to ditches [1285] and [1164] but it is rather larger than these features. The ditch was 19.50m long, 1.30m wide and 0.75m deep at a height of 29.31mOD; it was steep-sided and v-shaped. The primary ditch fill (1042/1084) consisted of 0.55m of mid grey silty clay and contained mid to late Roman pottery, cattle bone and sheep bone. The upper fill (1261) was a dark greyish brown silty clay 0.21m thick, it contained no finds.

6.3.17 Two ditches [1085] and [1100] ran parallel to [1041] to the north. Ditch [1085] was 3.50m long, 0.55m wide and 0.25m deep, it had steep sides and a flat base. The ditch fill (1086) consisted of mid greyish brown silty clay and contained a small assemblage of pottery dated to AD 250–400. Ditch [1100] was located 0.80m to the north of [1085], it measured 12.50m x 0.80m x 0.12m deep, it had moderately sloped sides and a flat base. The fill (1099) was a firm pale grey clay and contained no finds.

6.3.18 Immediately to the north of ditch [1100] was a heavily truncated pit [1112], this pit was subcircular, with gradually sloping sides and an irregular base, it measured 1.30 x 1.00m x 0.15m deep at a height of 29.31mOD. The pit fill (1113) consisted of mottled orangey grey silty clay; no finds were retrieved from this context.

6.3.19 To the south of ditch [1083] was a small ditch [1159] which ran northeast-southwest. The ditch measured 5.20m x 0.21m x 0.11m deep; it was linear, with gentle sides and a concave base. The ditch fill (1160) was a firm greyish brown silty clay and contained no finds.

6.3.20 Pits [1142] and [1144] were located in the centre of the site, originally thought to be part of the line of large postholes to the east; they were differently shaped and contained very different fills to the postholes. Pit [1142] was circular unevenly sided with a flat base and measured 0.90m x 0.80m x 0.26m deep at a height of 30.13mOD. The pit fill (1141) was a loose dark blackish brown sandy silt and contained probable sheep bone and mid to late Roman pottery. Pit [1144] was similarly shaped and measured 1.10m x 0.80m x 0.25m. The pit fill (1143) was similar to (1141) and also contained mid to late Roman pottery and animal bone.

6.3.21 Deposit (1341) was located in the west of the site, it consisted of firm greyish brown silt and measured 4.86m x 3.00m x 0.20m deep, it has been assigned to this phase on stratigraphic grounds and was cut by later Roman quarry pits.

6.4 Period 3b – Roman (AD 275 – 350) (Figures 6a and 6b)

6.4.1 This phase is the best represented across the site although the pottery assemblage is indistinguishable from that of the previous phase.

6.4.2 In the southern part of the site was ditch [1043], interpreted as a round house drip gully, although subsequent truncation by later Roman features makes this suggestion uncertain. The ditch was

subcircular, with steep sides and a concave base. It measured 19.50m in circumference, 8.50m in diameter, 1.01m wide in profile, and 0.32m deep at 29.30mOD. The terminals faced southeast.

6.4.3 Primary drip gully fill (1080) consisted of 0.05m of pale grey chalky clay; no finds were retrieved from this context. The upper gully fill (1044) was a firm dark grey clay 0.28m thick, it contained a moderate assemblage of cattle and sheep bone including a metatarsal showing signs of butchery, Roman floor and roof tile, a large assemblage of late Roman pottery, three miscellaneous iron objects and a copper alloy strip, this fill also contained a single large sherd of pottery thought to date to the late Anglo Saxon period, this pottery is intrusive. This assemblage is typical of a drip gully fill where significant amounts of domestic material are deposited close to areas of occupation. The roundhouse was located in the lowest lying area of the site cut into the clayey marl natural found only in this corner. It is likely this is merely coincidence and the structured was built here as the area was slightly more sheltered.

Plate 3. The southern portion of site including possible drip gully [1043].

6.4.4 A single posthole [1097] was the only feature likely to be associated with the possible drip gully; this feature cut ditch [1100]. It was subcircular with gentle sides and an irregular base; it measured 0.50m x 0.50m x 0.12m at a height of 29.35mOD. The posthole fill (1098) was a pale grey silt; it contained a single iron object, interpreted as a small rod of unknown function. This posthole may have formed part of the roundhouse structure within the drip gully.

6.4.5 Immediately to the south of the possible drip gully were two large parallel ditches [1220] and [1260] which ran east-west. The more northerly ditch [1220] cut ditch fills (1160), (1042) and (1165). It measured 36.00m x 2.28m x 0.76m and was linear in shape with steep sides and a flat base, it was observed at heights between 29.79mOD in the east and 29.31mOD in the west. The primary ditch fill (1306) was dark grey silty clay 0.20m thick; it contained a small assemblage of pottery dated to AD

250 – 400. This fill was overlain by secondary fill (1305) which consisted of 0.40m of mid grey silty clay and no finds. The upper fill (1219) was 0.20m thick, a dark grey silty clay which contained mid to late roman pottery and a medium sized assemblage of cattle and sheep bone.

6.4.6 Ditch [1260] ran immediately to the south of [1220], it was 30.10m long, 1.41m wide and 0.40m deep, it had steep sides and a flat base. It contained a single fill (1259); a dark grey silty clay. Pottery recovered from the assemblage was dated AD 250 – 400, a small assemblage of cattle bone, and a single amphibian bone were also retrieved from this context. These two ditches may form a boundary which enclosed the roundhouse, situated immediately to the north.

6.4.7 To the north of these features ditch [1283] was aligned east-west, it was linear, with moderately sloping sides and a concave base; the ditch measured 35.00m in length, 1.63m in width and 0.40m in depth, the ditch was observed at a height of 29.52mOD. The ditch fill (1282) consisted of firm, dark greyish brown silty clay; it contained three sherds of mid to late Roman pottery, two of which were from the Hadham area. This ditch may have enclosed the domestic area containing drip gully [1043], separating it from the agricultural and quarrying areas to the north.

6.4.8 In the north of site two more large parallel ditches [1019/404] and [1106/711] ran north 7.50m before turning northwest and running 68.00m. Ditch [1106/711] cut linear fills (1016) and (1107) and (1052) before terminating in the east of the site. It measured 1.40m in width and 0.50m in depth and had steep sides and a flat base. The ditch fill (1105/710) was a compact greyish brown clay and contained only fragments of cattle bone.

6.4.9 Ditch [1019/404] was 2.92m wide and 1.02m deep; it was steep sided with a flat base and observed between 30.56mOD and 30.46mOD. The primary ditch fill (1202) only observed in the most westerly section through the ditch, consisted of firm, pale grey chalky clay and contained no finds, it was up to 0.50m thick. The secondary fill (1018/403) was very similar to (1105), it was up to 0.96m thick and contained 65 sherds of domestic pottery dated to AD 250–400 as well as intrusive medieval sherds, a fairly large assemblage of mainly cattle and sheep bone, Roman roof tile and brick. It also contained a single worked bone object, this object is thought to be a decorated comb case similar to continental examples of early medieval date, its seems likely that this artefact is intrusive, however a late Roman date is possible.

6.4.10 Immediately to the south of ditch [1019/404] was a small parallel ditch [1021]. Ditch [1021] was linear with steep sides and a concave base; it measured 20.50m x 0.90m x 0.38m. The ditch fill (1020) was a brownish grey silt, very similar to (1018) and contained a single sherd of pottery dated AD 240–400, and two cattle mandibles.

6.4.11 These boundary ditches are thought to form part of an enclosure, their alignment and their size and shape make it probable that they were related to ditches [1260] and [1220] and may have formed part of the same enclosure. Within this enclosure, as well as the possible roundhouse in the south, were a series of probable quarry pits thought to be of the same date. It is likely that these ditches had an agricultural function as well as delineating the quarrying and domestic areas of the site.

Plate 4. Enclosure ditches [1106] and [1019] looking southwest.

6.4.12 Quarry pits [1370], [1296], [1373], [1323] and [1315] were located in the far west of the site. Pit [1370] was only partially visible, it was subcircular, with steep sides, the base was not observed; it measured 3.50m x 1.50m x 0.40m at a height of 30.52mOD. The pit fill (1369) consisted of mid grey silt and contained no finds. Abutting the eastern edge of this pit was pit [1296] this pit was similar in shape to [1370] and measured 4.00m x 2.50m x 0.30m. The primary pit fill (1295) consisted of 0.17m of pale grey chalky clay and contained no finds; this deposit was overlain by secondary fill (1294), a friable mid grey silty clay 0.13m thick, this fill also contained no finds.

6.4.13 To the south of pit [1296] was quarry pit [1373], this feature was subcircular and measured 3.80m x 2.00m at a height of 30.45mOD, this feature was not excavated. The pit fill (1372) was very similar to (1369) and did not contain any finds. To the south and east of this pit were two smaller feature interpreted as quarry pits [1323] and [1315]. Pit [1323] was subcircular with moderate sides and a flat base; it measured 1.06m x 0.80m x 0.25m. The pit fill (1322) was very similar to (1294) and again contained no finds. Pit [1315] was circular, gentle sided and concave base; it measured 1.70m x 1.58m x 0.60m. The pit fill (1314) was a mid orangey brown silt and contained pottery dated to AD 250–400.

6.4.14 Also to the east of pit [1373] were two small quarry pits [1323] and [1325]; both were subcircular with steep sides and concave bases, they both 1.00m x 0.70m x 0.40m and observed at a height of 30.13mOD. The pit fills (1322) and (1324) respectively were greyish white chalky clay and did not contain any finds.

6.4.15 Two further possible quarry pits [1265] and [1007] were located to the east of pit [1315]. Pit [1265] measured 3.60m x 3.00m x 0.62m; it had steep sides and a flat base. The single pit fill (1264) was very similar to fill (1294) and contained pottery dated AD 250–400 and cattle, sheep and pig bone.

Pit [1007] was subcircular with gently sloping sides and a flat base, it measured 1.55m x 1.30m x 0.27m. The pit fill (1006) was a mid greyish brown chalky silt. Three sherds of Hadham ware and South Midlands Sandy Ware dated to AD 250–400 were retrieved from the fill.

6.4.16 To the north of [1007] was pit [1342/406], this pit cut deposit (1341), it was subcircular with moderately sloping sides and an uneven base, the pit measured 5.10m x 4.00m x 0.80m at a height of 30.93mOD. The pit fill (1343/405) was a mid orangey grey silt and contained no finds.

6.4.17 To the east of pit [1342] were the features observed in evaluation, [408], [410] and [412], these were initially interpreted as ditches but are now thought to be quarry pits. Pit [412] was subrectangular with steep sides and a flat base; it measured 3.60mm x 2.00m x 0.25m. The pit fill (411) was a firm mid brown clayey silt and contained undiagnostic Roman and animal bone. This pit was cut by a second quarry pit [410], subcircular with moderate sides and a flat base; it measured 2.00m x 1.80m x 0.21m. The pit fill (409), a firm mid greyish brown silt, contained fragments of animal bone and undiagnostic Roman pottery. Pit [408] was heavily truncated by pit [406] making it only clearly visible in section. The pit was at least 2.50m long, at least 0.80m wide and 0.60m deep; it had steep sides and a concave base. The mid greyish brown clayey silt fill (407), contained animal bone and worked flint flakes.

6.4.18 Quarry pits [1375], [1339], [1213], [1344], [1302] and [1377] were all located to the east and south of pit [1342]. Pits [1375] and [1377] were not excavated; they were both subcircular in shape and measured 2.90m x 2.00m. The pit fills (1374) and (1376) both consisted of pale greyish brown, no finds were retrieved from either context.

6.4.19 Pit [1339] was again subcircular with moderate sides and a flat base, it measured 2.80m x 2.40m x 0.50m at a height of 29.90mOD. The mid greyish brown silt fill (1340) contained a single sherd of mid to late Roman pottery. Pit [1344] was similar in shape to pit [1339]; it measured 3.10m x 2.20m x 0.70m. The pit fill (1345) was very similar to (1340); it only contained a single residual flint scraper.

6.4.20 Pit [1213] was again subcircular with steep sides and a flat base, it measured 2.94m x 2.87m x 0.50m at 30.08mOD. The pit fill (1212) consisted of mid greyish brown silt; it contained sherds of mid to late Roman pottery as well as horse, cattle and sheep bone. Pit [1302] was irregular in shape with steep sides and an uneven base, it measured 7.30m x 4.00m x 0.51m. The pit fill (1304) was a greyish brown silty clay and contained no finds.

6.4.21 Pit [1277] was subcircular with steep sides and a concave base; it measured 3.80m x 2.12m x 0.86m. The pale grey silt pit fill (1278) contained sherds of pottery dated AD 250–400, an iron nail and horse, sheep and cattle bone. Pit [1378] was recorded but not excavated; it measured 1.90m x 1.40m and was subcircular; the fill (1379) was very similar to (1304). Pit [1381/608] was located to the south of [1378], it measured 5.20m x 4.00m and was irregular in shape. Primary pit fill (607) consisted of 0.20m of pale grey chalky silt and contained no finds; the secondary fill (1380/606) was a mid grey silt and contained pottery likely to be dated to AD 275–350, it also contained rodent and probable cattle bones.

6.4.22 A small hollow [504] was located to the south of the main area of quarry pits, it was oval in shape with gentle sides and a flat base; it measured 0.98m x 0.43m x 0.06m. The fill (503) was a greyish brown silt and contained no finds.

Plate 5. Roman quarry pits in the centre of the site.

6.4.23 To the east of the pits was a ditch [1129] which ran northeast-southwest; it was linear with steep sides and a flat base and measured 13.00m x 0.99m x 0.60m at 30.31mOD. The primary ditch fill (1130) consisted of firm pale grey silt 0.40m thick, it contained a single sherds of pottery thought to either be Roman or medieval, and fragments of horse and sheep bone. The secondary ditch fill (1131) consisted of 0.21m of dark greyish brown sandy silt and contained pottery dated AD 250-400, as well as a reasonably large assemblage of animal bone including sheep, cattle, horse and eel bones.

6.4.24 To the south of the quarry pits was a linear [1060] on the same alignment as ditch [1019/404]; it measured 36.00m x 2.00m x 0.60m and was steep sided with a concave base. The primary fill (1012) consisted of pale grey chalky clay 0.40m thick, this fill contained no finds. The secondary fill (1298) was a dark blackish brown clayey silt 0.26m thick; no finds were retrieved from this fill.

6.4.25 In the south of the site, ditch fill (1226) was cut by a probable pit [1288] observed only in section. Pit [1288] 90.40m wide and 0.24m deep with gentle sides and a concave base and was recorded at a height of 29.56mOD. The pit fill (1287) was a compact orangey brown silt and did not contain any finds.

6.4.26 In the east of the site an spread of mid grey silt (1297) overlay the natural deposit, it measured 21.00m x 8.00m x 0.12m, no finds were retrieved from this deposit and it has been assigned to this phase on stratigraphic grounds.

6.4.27 No features occurred to the north of ditch [1106] in this phase, this boundary seems to enclose a small area of quarrying activity which is then separated from the settlement activity in the south by ditch [1060].

6.5 Period 3c – Roman (AD 350 – 400) (Figure 7)

6.5.1 This period is identifiable by a series of ditches and pits cutting features of the previous phase; the pottery is once again of the same date range.

6.5.2 Ditch [1124/1267] cut earlier Period 3b ditches in the southern half of the site. The linear had gentle sides and a concave base; it measured 58.80m x 0.90m x 0.14m. The ditch fill (1123/1266) consisted of compact mid greyish brown silt and contained a small assemblage of pottery dated AD 250–400. This ditch was on a different alignment to others on the site and does not seem to relate to any other features.

6.5.3 East-west aligned ditch [1275/610] cut pit fill (1278), it measured 16.50m x 0.45m x 0.20m and at a height of 30.02mOD but narrowed dramatically at its western end; it had steep sides and a concave base. The ditch fill (1276/609) was a greyish brown sandy silt and contained pottery dated AD 250 – 400 and intrusive post-medieval pottery.

6.5.4 Ditches [1138] and [1156], parallel ditches aligned north-south, cut earlier Period 3c features in the centre of site. Ditch [1156] was linear with steep sides and a concave base, it measured 19.60m x 1.35m x 0.59m. The ditch fill (1157) consisted of firm, dark greyish brown clayey silt and contained mid to late Roman pottery.

6.5.5 Ditch [1138] 11.50m long, 0.12m wide and 1.05m deep at a height of 30.36mOD, it was linear, with vertical sides and a flat base. The primary ditch fill (1158) was a compact, greyish brown clay 0.39m thick and did not contained any finds. The secondary ditch fill (1137) was a greyish brown clay 0.70m thick and contained 16 sherds of pottery dated AD 250 – 400, mainly of sandy grey wares, as well as cattle, sheep and unidentified animal bone. This ditch appears to be part of a segmented boundary ditch along with ditch [1027].

6.5.6 Ditch [1027] was located to the north of ditch [1138] and ran on the same alignment. Its eastern side sloped steeply while the western side was undercut; it had a concave base and measured 16.00m x 2.00m x 1.05m at a height of 30.62mOD. The primary ditch fill (1028) was a compact mid grey silt with frequent chalk block inclusions 0.40m thick; no finds were retrieved from this context. The upper fill (1026) consisted of firm mid brownish grey silt and contained a single sherd of coarse sandy grey ware and animal bone.

6.5.7 In the south of the site Period 3b features were cut by large curvilinear ditch [1081] [506], it had steep sides and a concave base; it measured 23.00m x 3.00m x 0.70m at a height of 29.32mOD. The single ditch fill (1082) (505) consisted of dark grey silty clay and contained pottery dated AD 250 – 400, sheep cattle and goat bones, fragments of glass vessel and a single flint flake.

6.5.8 To the east of ditch [1081] were a series of subcircular pits [1102], [1263], [1091] and [1094]. Pit [1102] had gentle sides and a flat base; it measured 2.14m x 1.34m x 0.29m. The pit fill was a soft mid grey silty clay which contained sherds of mid to late Roman pottery. Pit [1263] had very steep sides and an uneven base; it measured 5.00m x 3.25m x 0.97m. The primary pit fill (1310) was a dark grey clayey silt 0.16m thick, it contained a single sherd of pottery dated AD 250- 400. The secondary pit fill (1309) was a mid grey clayey silt 0.25m thick; no finds were retrieved from this context. The upper pit fill (1262) consisted of 0.56m of soft, pale greyish brown silty clay; this fill contained pottery of mid to late Roman date, animal bone and three copper alloy coins, these are likely to be of Roman date but are too badly corroded to confirm.

6.5.9 Pit [1094] was 2.30m x 0.70m x 0.34m in size at a height of 29.31mOD; it had steep sides and a concave base. The pit fill (1093) was a pale grey silty clay and contained sherds of mid to late

Roman pottery including Hadham Wares and Nene Valley Colour Coated Ware, and a fragment of unidentified animal bone. This fill was cut by a second pit [1092], it was subcircular with vertical sides and a concave base; it measured 3.00m x 2.00m x 0.63m deep. The primary pit fill (1313) consisted of 0.21m of greyish brown silty clay and contained pottery date AD 250 – 400 and a small assemblage of cattle and horse bone. The secondary fill (1091) was a mid greyish brown silty clay 0.13m, it contained mid to late Roman pottery, mainly from the Hadham industry, sheep and cattle bone.

6.5.10 To the northeast of pit [1092] was an irregularly shaped pit [1203], it was gentle sided with an irregular base; it measured 3.35m x 1.30m x 0.16m. The pit fill (1204) consisted of firm, mid grey silty clay and contained a single sherds of pottery dated AD 250 – 400. A second pit [1114] was located to the west of [1203]. Pit [1114] was subcircular with gradual sides and a concave base; it measured 2.50m x 2.00m x 0.21m. The pit fill (1115) was a mid grey silty clay and contained no finds.

6.5.11 Pit [1290] was located in the south of the site and cut earlier Period 3b features. The pit measured 3.00m x 2.14m x 0.50m at 29.31mOD; it was subcircular with steep sides and a concave base. The pit fill (1289) a compact greyish brown silt, no finds were retrieved from this context.

6.5.12 Large shallow pit [1281] was located in the south of the site; it was subcircular with gentle sides and a flat base, it measured 6.00m x 3.20m x 0.15m. Pit fill (1280) was a dark orangey brown silt and contained pottery dated AD 250 – 400.

6.5.13 Ditch [1368] was situated in the east of the site and ran northeast-southwest. It was linear with steep sides and a concave base; it measured 18.00m x 0.90m x 0.45m at 30.58mOD. The ditch fill (1367) was a mid brownish grey silty clay that contained no finds.

6.5.14 Also in the east of the site a small ditch [1348] cut earlier Period 3b features; this ditch was 5.50m long and was truncated by a series of drains to the west. The ditch was 0.38m wide and 0.08m deep with vertical sides and a flat base. The ditch fill (1349) consisted of pale brownish yellow clay; no finds were retrieved from this context. To the north of this ditch was a second parallel ditch [1346], this feature was linear with moderate sides and a concave base; it measured 16.00m x 1.00m x 0.19m. The ditch fill (1347) was a pale brown clay no finds were retrieved from this context.

6.5.15 The remnants of small ditch [1270] were located to the north of ditch [1346] and ran north-south for 2.90m before terminating; the ditch was shallow flat based and measured 0.48m in width and 0.15m in depth. The ditch fill (1269), a compact greyish brown silt and contained no finds. This feature has been phased purely by its perpendicular alignment to the ditches to the south.

6.5.16 Ditch [1350] ran on the same alignment as [1346] and [1348]; it was linear with extremely undercut sides and a flat base, it measured 10.00m x 1.53m x 0.85m at a height of 30.58mOD. The primary ditch fill (1353) was a dark greenish brown silty clay 0.45m thick; it contained sherds of mid to late Roman pottery. The secondary fill (1352) was a pale brown silty clay 0.27m thick; sherds of pottery dated AD 250–400 and a fragment of sheep bone. The upper ditch fill (1351) was a mid brown silty clay 0.20m thick; it contained no finds.

6.5.17 The ditch was cut at its eastern terminus by subcircular pit [1354], this pit was steep sided with a flat base; it measured 1.40m x 0.90m x 0.96m. The primary pit fill (1357) was very similar to (1353); it was 0.35m thick and contained cattle and dog bones. The environmental evidence included charred cereal remains. The secondary fill (1356) was a mid reddish brown silty clay 0.35m thick; it contained no finds. The uppermost fill (1355) consisted of 0.25m of greyish brown silty clay; no finds were retrieved from this context. This pit was the westernmost of a line of abutting pits [1358], [1362] and [1366].

6.5.18 Pit [1358] measured 1.03m x 0.77m x 0.53m; it was subcircular with steep sides and a concave base. The primary pit fill (1360); a mid reddish brown silty clay, was 0.25m thick and contained no finds. Secondary fill (1359) consisted of 0.30m yellowish brown silty clay and again contained no finds.

6.5.19 Pits [1362] and [1366] both measured 1.80m x 1.20m x 0.30m and were observed at a height of 30.09mOD, they were both subcircular with moderate sides and a concave base. They contained fills (1361) and (1365) respectively; both greyish brown silty clay. Fill (1361) contained cattle and unidentified bones. Fill (1365) contained cattle sized bones but no dating evidence.

6.5.20 In the centre of the site was a line of 17 postholes [1231], [1233], [1235], [1237], [1239], [1241], [1243], [1155], [1153], [1151], [1149], [1245], [1247], [1249], [1251], [1253], [1255] and associated linear [1257] both on the same alignment as linears [1275] and [1346] and may have formed part of a boundary.

6.5.21 The postholes were all subcircular with a concave profile and measured approximately 0.20m x 0.20m x 0.12m and varied in height from 30.34mOD to 30.03mOD. While these postholes were not recorded cutting earlier ditch fill (1130), the size of the postholes and the similarity of the fills makes it likely they simply were not seen. The posthole fills (1230), (1232), (1234), (1236), (1238), (1240), (1242), (1154), (1152), (1150), (1148), (1244), (1246), (1248), (1250), (1253), (1254) all consisted of compact greyish brown chalky silt; no finds were retrieved from any of these features. The associated linear [1257] may have simply been more postholes which had merged into a single feature; it measured 3.80m x 0.20m x 0.12m, it has steep sides and a concave base. The fill (1256) was very similar to the postholes and again contained no finds. This series of features have been assigned to this phase on the basis of the possible association with ditches [1275] and [1346].

6.5.22 In the far northwest of a site pit [309], a subcircular steep sided feature with a concave base; it measured 3.20m x 1.35m x 0.52m. The pit fill (308) was a mid greyish brown clayey silt and contained animal bone and a single sherd of coarse sandy grey ware. This fill was cut by post-medieval pit [304].

6.6 Period 4 – Medieval (AD 1066 – 1500) (Figure 8)

6.6.1 Overlying the Roman features were a few features dated to the medieval period. The most significant of these features was a linear [1103/1364], this feature was L-shaped in plan, it ran east-west for 22.20m before turning north for a further 12.50m, it was 0.50m wide and up to 0.28m deep at a height of 30.84mOD and 30.09mOD. The feature generally had moderately sloping sides and a flat base, at its northern end its sides became steeper and the base flatter. The primary fill (1104/1363) consisted of firm dark greyish brown clayey silt, this fill contained four sherds of reduced sandy ware dated to AD 1150–1250, and a single residual Roman sherd, as well as amphibian and unidentified bones. The primary fill was overlain in the northern part of the feature by a firm redeposited chalk fill (1116) 0.22m thick, this upper fill may have originally been present across the entire feature by was probably truncated ploughing.

6.6.2 The form of feature [1103/1364] suggests a probable rectilinear shape originally, this seems too large for a building but may have been a beamslot for a large fence, the profile of the feature in its northern sections would suggest indicate the possibility of this. No associated structures were recorded around or within it.

Plate 6. Rectilinear medieval feature [1103/1364] looking west.

6.6.3 Five pits of medieval date were recorded across the site. Pit [1293] was located in the west of the site, it was circular with vertical sides and a flat base, it cut roman pit fills (1295) and (1372). The pit measured 2.52m x 2.40m x 0.55m at a height of 30.45mOD. The primary pit fill (1292) consisted of firm pale grey chalky clay 0.29m, no finds were retrieved from this context. Fill (1292) was sealed by secondary fill (1291) which consisted of soft, mid brown silty clay 0.30m thick. This fill contained reduced sandy ware dated AD 1100–1250, as well as other possible medieval shards and worked flint. This pit may have been a later quarry pit.

6.6.4 Pit [1228] was located in the centre of the site and cut late earlier Period 3c ditches the pit was subcircular with moderately sloping sides and a flat base, it measured 4.00m x 3.00m x 0.30m. The dark orangey brown, sandy silt pit fill (1227) contained sherds of probable 12th/13th century pottery as well as residual Roman sherds; it also contained fragments of animal bone, including, horse, cattle and amphibian remains.

6.6.5 Pit fill (1227) was cut by a second medieval pit [1330], this pit was circular in shape with moderately sloping sides and a concave base, it measured 3.40m x 2.80m x 0.82m at 30.36mOD. The pit fill (1331) consisted of dark greyish brown clayey silt; sherds of possible 12th/13th century pottery were retrieved.

6.6.6 To the west of pit [1330], was a second similar pit [1332], it was similar in shape and measured 3.50m x 1.50m x 0.50m. Its fill (1333) was very similar to (1331). The relationship between these two pits is unclear and the may have been contemporary. A third pit [1334] was located to the west of [1332], circular, 1.50m x 1.50m x 0.96m in size, with steep sides and a flat base, the pit fill (1335) was again very similar to (1331), it contained two small sherds of Roman pottery thought to be

residual. Again this pit's relationship to [1332] is unclear and they are likely to have been contemporary.

6.6.7 A small subrectangular pit [1215] was also located in the centre of the site, 1.20m x 1.18m x 0.34m at 30.91mOD; it was vertical sided with a flat base. The pit fill (1214) was a loose, dark greyish brown silty clay; it contained three sherds of possible Roman or medieval pottery and a single fragment of unidentified animal bone. Given the difference in this pit's shape and fill from those surrounding it, it has been assigned to the medieval period; however more research on the pottery sherds could prove useful.

6.6.8 The medieval activity on the site occurs in rather isolated pockets and indicates a low level of activity. The pits in the centre and west of the site indicate a continuation of use of the site for chalk extraction from the Roman period through into the 12th or 13th centuries. The rectilinear feature in the north of the site may be the remains of a fenced enclosure or a possible building, however no associated features were found to confirm this.

6.7 Period 5a – Post-medieval (1500 - 1900) (Figure 9)

6.7.1 The post-medieval activity on the site is dominated by the massive linear feature running southwest-northeast across the site [1011]. This feature truncates and obscures much of the earlier archaeology.

6.7.2 Feature [1011] was curvilinear in shape running east-west before turning slightly north. It measured 90.00m x 14.10m x 0.93m, it was observed at a height of 30.04mOD in the east of the site and 30.08mOD in the west of site. It had moderately sloping sides, especially the southern side, and a flat base. This feature has been interpreted as an ornamental estate lake.

6.7.3 The feature contained primary fill (1014), this consisted of up to 0.40m of greyish white chalk pebbles in a chalky clay matrix. This fill appears to have been deposited from the south and east of the feature as it is far more substantial on those sides. This fill is likely to represent a working platform for the excavation of [1011], given the damp nature of the ground in this area, it would reasonable to suggest the laying down of a stone platform to provide safer footing for the people, animals and probably wagons involved in this work. Deposits consistent with this function were also observed to the northeast. Fill (1336) consisted of similar material to (1014) and could be seen along the southern and eastern sides of the feature, it was not excavated. To the east of (1336), fill (1337) consisted of coarse flint pebbles in a grey silt matrix and probably also functioned as a working surface.

6.7.4 The primary fill was overlain by fills (1010) and (1013). Fill (1013) consisted of soft yellowish brown clayey chalk 0.40m thick; this fill was located in the south and east of the feature and was probably an upper working surface created by the breaking up of the chalk pebbles of (1014). This fill contained two horseshoes of unknown date; their preservation would suggest they were post-Roman. The horseshoes also indicate that horses and wagons were used to take away excavated material from the feature.

6.7.5 Fill (1010) consisted of compact pale grey clay consistent with an alluvial deposit; it was 0.32m thick and was deposited throughout the feature. It was overlain by a dark greyish brown clayey sand fill (1009) 0.61m thick. This deposit was sealed by fill (1008), a compact greyish white chalk layer 0.16m thick. This deposit may have been laid down in an attempt to 'firm up' the land once the lake had been filled in.

6.7.6 Along the southern edge of feature [1011] was a thick spread of disturbed natural (1371), it consisted of mid grey clayey chalk 0.70m thick, it was probably created because no working platform such as (1014) was laid over this area and the process of taking material away from the lake caused serious disturbance to the area. This deposit obscures Roman ditch [1283].

Plate 7. Lake feature [1011] looking east.

6.7.7 In the northwest of the site pit fill (308) was cut by subcircular pit [304] this measured 6.00m x 5.10m x 0.35m and had moderate sides and a flat base. The pit fill (303) was a mid orangey brown silt and contained animal bone and worked flint, as well as 18th/19th century pottery.

6.8 Period 5b – Post-medieval (1900 - Modern) (Figure 9)

6.8.1 Within Trench 2 fill (205) was truncated by an irregular cut [204] which measured 12.00m x 2.20m and was at least 1.40m in depth; this feature was not seen in plan. It was filled with (203) loose rubble in a dark brown silt matrix with occasional pieces of plastic present. Modern tile and brick was also observed in this context. This feature was probably related to the use of Kneesworth House by the military during World War II.

6.8.2 In the north of the site [1055] and [1087] probably firmed part of a 20th century fence line; they were both square with vertical sides and a flat base and measured 0.30m x 0.30m x 0.07m at 30.95mOD. The fills (1056) and (1087) were both loose dark brown silts and contained wood fragments.

6.8.3 To the south of these postholes were two more small postholes [1272] and [1274]; these postholes were both circular with vertical sides and flat bases; they both measured 0.30m x 0.30m x 0.11m at a height of 30.95mOD. The postholes fills, (1271) and (1273) respectively, consisted of loose dark brown silt. No finds were retrieved from these features.

6.8.4 Pit fill (1091) was cut by a modern pit [1311]; it was subcircular with steep sides and a concave base and measured 0.90m x 0.80m x 0.50m. The pit fill (1312) was a loose dark brown silt and contained a plank of wool and unrusted bolts.

6.9 Period 6 – Modern (Figure 9)

6.9.1 The site was relatively undisturbed by modern intrusions. Feature fill (203) was sealed by 0.30m of modern made ground consisting of compact brown gravelly clay with CBM fragments (202).

6.9.2 All of the archaeological features, except for the modern features, were sealed by a mid greyish brown silt deposit of subsoil between 0.40m and 0.10m thick (302), (402), (502), (602), (702), (1002).

6.9.3 The entire site was sealed by dark brown silt topsoil (201), (301), (401), (501), (601), (701), (1001). This deposit varied in thickness between0.10m and 0.50m.

7 SUMMARY OF SITE ARCHIVE AND WORK CARRIED OUT

7.1 Stratigraphic Site Archive (All phases)

Stratigraphic Site Archive	Quantity
Context Sheets	397
Context Register Sheets	12
Trench Record Sheets	7
Plans	7
Plan Register Sheets	1
Sections	166
Section Register Sheets	5
Levels Sheets	7
Small Finds Register	1
Photographic Register Sheets	21
Environmental Sample Register Sheets	2
Environmental Sampling Sheets	46
Photographs, Black & White	357
Digital Photos	372

7.2 Work Carried Out On the Stratigraphic Archive

The site records have been completed and checked. A context register has been completed (Appendix A). The stratigraphic matrix has been compiled for the site. Contexts have been placed into preliminary phases using stratigraphic information and dating provided by specialists. Several illustrations have been constructed to accompany the results showing the location of the features that have been phased. The photographic archive has been checked, marked and referenced. The receiving museum is to be the Cambridge County Council Archaeology Store.

8 SUMMARY OF FINDS AND ANALYSIS OF POTENTIAL

8.1 Quantification of Finds

All of the finds have been washed, catalogued and marked where appropriate. The archive boxes have been ordered ready for deposition with the Cambridge County Council Archaeology Store. The evaluation archive has also been assessed by specialists in accordance with the guidance laid down in MAP 2 (EH 1991).

Find Type	Quantity
Roman Pottery	7.8kg- 766 sherds
Post-Roman Pottery	116g- 18 sherds
Ceramic Building Material	5.80kg- 29 fragments
Clay Tobacco Pipe	4g- 1 fragment
Prehistoric Flintwork	840kg- 271 pieces
Worked bone and Ivory	1 piece
Glass	6g- 2 shards
Geological material	3.156kg – 10 pieces
Fired Clay	28g- 3 Pieces

Find Type	Quantity
Environmental residues	46
Column Samples	1 sample
Animal Bone	1104 fragments
The Marine shell	146g - 17 fragments

8.2 Finds (Appendix C)

8.2.1 Roman Pottery

A total of 766 sherds weighing 7.8kg from contexts across the site were examined. The vast majority of the assemblage dated to the period AD 250–400; with the remainder of the assemblage assigned to a broader date range. The pottery assemblage consisted mainly of local domestic wares of the fabric types; coarse sandy wares make up approximately a third of the total and are associated with jars, bowls and dishes. A third of the assemblage was also made up of redwares from the Hadham Industry, the majority of the vessel types from this site are of the coarser wares, with very few decorated sherds. The remaining third of the assemblage consists of South Midlands shelly wares, Nene Valley ware, both colour coated and shelly wares. A very small percentage of the assemblage was contributed by imported wares and Oxfordshire pottery.

The assemblage is of local and regional significance and has the potential to inform on the supply and distribution of local pottery types.

8.2.2 Post-Roman Pottery

A total of 18 sherds of post-Roman pottery weighing 116g were examined from across the site. Sixteen of these sherds were of medieval date; much of this material was intrusive in Roman contexts; six medieval fabric groups were identified. A single sherd of early post-medieval pottery was retrieved and one sherd of 17th/18th century pottery was found.

The post-Roman pottery assemblage is of limited potential and significance due to the small size of the assemblage and the intrusive nature of many of the sherds.

8.2.3 Ceramic Building Material

A total of 29 fragments of ceramic building material weighing 5.80kg were assessed. This assemblage included roof and floor tile, flue tile and brick. The Roman material comprised roof tile, flue tile from a hypocaust system and brick and was all of a coarse sandy fabric; approximately half of the assemblage showed signs of post firing heat. The post-Roman material consisted of late medieval/post-medieval peg tile and post-medieval brick of 15th-18th century date.

The ceramic building material assemblage is of limited potential and significance.

8.2.4 Clay Tobacco Pipe

A single clay tobacco pipe stem was retrieved from ditch fill (405); it was plain and dates to the mid 18th to 19th century. The assemblage is of very limited potential and significance; no further work is required.

8.2.5 Prehistoric Flintwork

A total of 78 worked flints weighing 514g and 193 burnt unworked flints weighing 326g were recovered from the site. Only two pieces of flint showed signs of retouching, both were undiagnostic scrapers, all other worked flint consisted of debitage variously dated to the Mesolithic to Bronze Age.

While much of this assemblage appears to be redposited, it does give a clear indication of prehistoric activity on the site. The assemblage is considered to be of limited significance with little potential for further analysis.

8.2.6 Worked bone

A single worked bone objected, interpreted as a comb case, was recovered from the excavations at Kneesworth House Hospital. It was found in ditch fill (1018), was decorated ring and dot motifs and held together by iron rivets. Comparable examples come from continental Europe and are dated to the early medieval period. This artefact may be intrusive as the ditch is of a Roman date.

The rarity of this object and the fact that it is of a type unusual to Britain could make it nationally important. Suggested further work includes research into comparable objects and distribution.

8.2.7 Glass

A very small assemblage of two glass fragments (wt c. 6g) was recovered from two individually numbered contexts. Both fragments are of Roman date, one being part of the handle of an undiagnostic bottle of early – mid Roman date. The second fragment is part of the neck of a bottle or flask and while of Roman date is difficult to be more precise.

The assemblage is of no significance or potential outside of dating.

8.2.8 Geological Material

Ten pieces of stone, weighing 3156g, were recovered from six different contexts. These included examples of weathered Kentish Ragstone, Welsh roofing slate and partially burnt coal/coal shale. The assemblage of stone from the site consists of very low numbers of common London types and has no potential for further work. Other than a single piece of Welsh slate all of the material is from Roman contexts. Six pieces of calcareous sandstone, likely to have been imported, were recovered, although a single tabular piece of this stone from ditch fill (1018) may have been used for roofing. The remaining stone consisted of Jurassic sandstone, porphyritic lava and tabular flint, of which only the flint is thought to be of local origin.

The assemblage is small and of limited potential for further work.

8.2.9 Environmental Samples

A total of 28 samples were taken during the site works. Samples from Kneesworth House Hospital produced charred macrobotanicals and charcoal from ditch fill (1130) and pit fill (1262). The samples from Roman features produced limited amounts of charred wood and crop remains including spelt and lesser amounts of barley, relatively small amounts of charred remains from weeds were present indicating a controlled agricultural environment. Very small amounts of possible coke may indicate small scale industry. The Roman assemblage has the potential to inform on the agricultural practices on site and possibly diet of the population. The samples from undated features, all interpreted as being prehistoric produced relatively small assemblages of charred crop and weed remains with some charred wood as well.

This assemblage has some limited potential to inform on agricultural practices.

8.2.10 Column Samples

One monolith sample was taken from deposits (1010) and (1009) for lithostratigrapic analysis. The contexts were both gritty chalky clays. The sample contained mollusc shells indicating a waterlogged state. The deposits seem to have been naturally accumulated and represents the gradual filling up of the lake feature.

The sample is of limited significance and potential.

8.2.11 Animal Bone

The animal bone assemblage contains 1104 fragments, 999 were Roman in date with the remainder being undated. The Roman assemblage is poorly preserved with only 448 fragments being identified to taxa. The animals identified include Cattle (Bos taurus), sheep/goat (Ovis/Capra), pig (Sus), horse (Equus), dog (Canis familiaris), deer (Cervus, hare (Lepus) and mouse (Mus). A number of fish, small mammal and amphibian bones have also been recovered though have not yet been identified to species. The dog bones retrieved appear to represent a single animal and may indicate some ritualistic activity. Very few fragments show signs of butchery; however two cattle bones do show signs of pathology.

The assemblage is fairly small of limited significance; it does have the potential to inform on Roman animal husbandry and mortality patterns.

8.2.12 The Marine Shell

The archaeological work produced a small assemblage of 17 shell fragments (wt 146g), recovered from 10 different contexts. Species included are Common Oyster (*Ostrea Edulis*), which is the most common, a single common mussel (*Mytilus Edulis*) shell was also retrieved, it is therefore not considered to be of potential for further analysis.

8.2.13 Metalwork

Thirty five metal objects were recovered (7 copper alloy; 28 iron and 1 lead). Identified objects included five copper alloy coins, a copper alloy strip, iron hobnails, nails and horseshoes. The coins are all of Roman date and while they need cleaning some lettering is visible on one coin possible representing Vespasian. The iron objects are limited interest, the horseshoes indicating the removal of material during the excavation of lake feature [1011] was done by horse and cart.

Most of the assemblage needs to be cleaned with only the coins providing any potential for further work.

8.2.14 Fired Clay

A small assemblage of three fragments (wt 28g) of fired clay was recovered from two contexts. Two pieces of fine sand tempered clay were retrieved from pit fill (303); while a similar fragment was retrieved from ditch fill (508).

The assemblage is undiagnostic, and of limited significance and potential.

8.2.15 Mollusca

The assemblage included 23 species from 43 different contexts. The majority of the assemblage is made up of species favouring dry calcareous grasslands. Some species such as the Planorbids favour a freshwater environment, with a significant amount also occupying waterlogged area. This would indicate that while much of the site was dry and well drained, a waterlogged area (the southern part of the site) provided a home for a number of water-loving species. A number of the features would have been deep enough to have standing water which would have provided a suitable environment as well.

The assemblage, due to its limited diversity, is of limited significance and potential.

9 SIGNIFICANCE OF THE DATA

9.1 Summary of Results

9.1.1 During the course of the excavation archaeological features were recorded across all but the northernmost area of the site with a concentration of features in the centre, south and east of the site. The vast majority of the archaeological features were dated to the mid to late Roman period, with a series of undated features being assigned to a prehistoric phase on stratigraphic grounds. Phases of medieval and post-medieval activity were also indentified.

9.1.2 The earliest phase of activity on site was probably prehistoric with structural remains in the form of a probable roundhouse and a line of large postholes possibly representing a palisade. While these and various other isolated features have been assigned to a prehistoric phase of activity, no dating evidence was retrieved from any of the features and only a small number of worked flints were present in some of these features, this distinct lack of finds is what separates these features from those assigned to the Roman period, the majority of which contained pottery and other finds. The line of postholes forming the possible palisade, were cut by features from all Roman phases of activity.

9.1.3 The first phase of Roman activity dated to the early to mid Roman period is relatively poorly represented on site with only a series of small ditches in the south of the site hinting at a possible field system. Much of the rest of the activity in this phase comprises ditches heavily truncated by later Roman features on similar alignments. The easternmost of these ditches appear to form a funnel shape, possibly an entrance to an enclosure to control livestock.

9.1.4 The second Roman phase of activity is certainly the best represented phase, two parallel ditches form the northern part of an enclosure also seen at the southern boundary of the site. A similarly aligned ditch and a perpendicular linear demarcate and area of chalk extraction pits in the east of the site. In the far south of the enclosure was a possible roundhouse drip gully. Many of the largest assemblages of pottery, which was mainly of local domestic types, came from this phase.

9.1.5 The latest Roman phase was represented by small pockets of activity in the east and south of the site with only a series of large parallel ditches across the remainder of the area, possibly indicating a field system. Two clusters of pits were recorded in the south and east of the site, these seem to be the latest features in this phase. A series of small postholes in the centre of the site and a linear on the same alignment in the east of site form a probable fence line.

9.1.6 The post-Roman activity was divided into a medieval phase and a post-medieval phase. The medieval activity on the site is limited to a series of quarry pits in the west and centre of site which cut earlier Roman features, and a probable rectilinear feature interpreted as structural in origin. The possible structure may be a large beamslot but only the northern and western parts could be seen. The probable intrusive comb bone case found in a Roman ditch is most likely to be of early medieval or medieval date. The post-medieval phase is dominated by the lake feature [1011] which cut obscures much of the earlier archaeology on the centre of the site. This feature is most likely to be a large ornamental lake. The only finds from this feature were two horseshoes.

9.1.7 A scattering of postholes and large pits represent the modern activity recorded on the site. While some of this may relate to the military activity at Kneesworth House during World War II this is not clear.

9.2 Discussion of Significance

9.2.1 Prehistoric

While no prehistoric dating evidence was found on the site a prehistoric phase of activity was assigned on stratigraphic grounds. The probable prehistoric activity was mainly focused on the northeast of the site, although this focus may be skewed by truncation of possible prehistoric features across the remainder of the site. The activity focused on the two groups of postholes forming probable structures. The ring of posts forming a probable roundhouse are probably associated with the pits surrounding them, this small area of activity,

This small scale settlement activity contrasts with the line of eighteen very large postholes forming a possible palisade, this feature would probably have been part of a large defensive structure, the postholes would have presumably formed the northern side of the enclosure as no similar postholes were further north and any postholes to the south would have been truncated by the post-medieval lake feature. Radiocarbon dating of the charred remains from these postholes was considered for these features, however the charcoal assemblages proved too small for dating. The scale of this feature would suggest reasonably significant associated settlement, no evidence of this settlement was found; further comparative analysis with other sites will inform on the function of this feature.

The prehistoric finds consisted entirely of worked flint, the vast majority of which was residual within later features. The majority of the assemblage consisted of debitage, with only two tool fragments. The results of the prehistoric activity are of local significance only.

Roman

It is clear from the excavation that the site was utilised during the Roman period although seemingly only during the 3rd and 4th centuries. The three phases of activity show changes of use with features being disused in a relatively short period time. The field system and cattle enclosure of the earliest phase were replaced within one hundred years by an ditches enclosing a possible roundhouse and a series of quarry pits, The finds from this phase seem to indicate that agriculture still formed part of the land use on the site. The chalk quarrying in the centre could have formed the basis for a number of industries such as the manufacture of lime, including agricultural lime. Chalk could also be used in the construction of buildings, Ermine Street would have made the transport of any chalk relatively easy.

The latest phase of Roman activity reverted back to a probable field system, with two clusters of possible quarry pits also present. While there does seem to be a continuation of the quarrying on a smaller scale in the centre of the site, some of the activity appears to have moved to the south of the site where the natural chalk changed to chalky marl; while this material could still be used to manufacture lime, it would not be used in any construction. The softer marl may simply have been easier to extract than the hard chalk.

The finds retrieved from this period were mainly domestic in nature with much of the pottery being relatively local in origin. The assemblage of animal bone suggests animal husbandry was relatively common along with arable farming activity seen in the charred wheat and barley remains found; the presence of molluscs from dry open land reinforces this view. The results from this period are considered to be of local and regional significance.

9.2.2 Medieval

The medieval remains on site were of a low density, with scattered quarry pits and a possible rectilinear structure or small enclosure. The quarry pits were very similar to the Roman counterparts while the possible structure did not contain any internal features, its northern portion being lost beneath the baulk. The size and shape of this possible structure suggest a possible barn or more likely a fenced rectangular enclosure.

Medieval pottery was intrusive in a number of the Roman features, with only a few sherds being recorded in secure contexts. The pottery was mainly dated to the 13th to 14th century; the only early medieval find was the comb case, intrusive in a Roman feature, this significant find requires more study. The medieval remains were of only local significance.

9.2.3 Post-Medieval and Modern

The post-medieval activity was focused on the lake feature running east-west across site. Excavation showed that a platform had been constructed to aid the excavations of this feature. The relative shallowness of this feature preclude its interpretation as a waterway and the speed in which it appears to have been backfilled point to its purpose as an ornamental lake which fell out of fashion and was backfilled. The only other post-medieval features were scattered postholes which would probably have formed fence lines.

The modern activity on the site was mainly focused on Trench 2 outside of the excavation area, and consisted of irregular features probably forming pits; these features were probably associated with activity on site during the Second World War. The post-medieval and modern activity on site is of only local significance with limited potential for further analysis.

9.2.4 General Significance

In summary, assessment of the evaluation and excavation results from the Kneesworth House Hospital site has shown that the results have potential for further work. The results of the excavation confirm the presence of prehistoric, Roman, medieval and post-medieval remains on site. Although the Roman remains are of a type common to rural sites in southern England and the remains from other periods are of a limited nature, the site still has the potential to inform on other sites in this area, specifically agricultural practices and possible local trade links.

10 Review of the Research Aims

10.1 Realisation of the Research Aims

10.1.1 This section examines the extent to which preliminary assessment of the results of the excavation indicates that the original research aims outlined in the Written Scheme of Investigation (AOC 2010) have been or can be answered.

10.1.2 *Determine the presence of any Neolithic, deposits or finds. If present, to determine their date and nature and what information this provides regarding the character of any earlier activity on the site.*

While a number of prehistoric features were identified across the site, none of these can be said to be of Neolithic date with any degree of certainty. Most of the fragments of probable Neolithic worked flint were residual within later feature. Only the worked flint fragments from prehistoric posthole fills (1161) and (1187) may not be residual. The pre-Roman activity on a wider scale is represented by possible structural remains as well as isolated pits.

10.1.3 *Clarify the nature and extent of the Roman archaeological deposits identified during the evaluation phases of work.*

The Roman phases represent the vast majority of the activity on site. Much of this activity was agricultural, with two possible field systems field systems, a possible funnel to a livestock enclosure. An area of quarrying was also recorded in the west of the site, with more possible quarrying seen in the later Roman period. Roman settlement activity seems to have been limited to the southern corner of the site where a possible roundhouse drip gully was excavated.

10.1.4 *Establish whether the Roman archaeological features and deposits contain domestic or industrial refuse? Can these materials be linked to specific processes taking place upon the site?*

Agricultural evidence was found in the form of charred cereal and crop remains including barley, tare and wheat, the relatively low amounts of weed remains indicate a controlled crop growing environment. The animal bone assemblage also seems to show the presence of animal husbandry on site, although relatively little of the bone showed signs of butchery. The environmental samples also yielded small fragments of industrial residue, while the presence of these finds shows some industry being present in the area. The chalk extraction pits were likely to be the basis for a number of industries although no direct evidence of the industries has been found..

10.1.5 *Do the linear features recorded during the evaluation detail a field layout and what can this tell us about the Roman Landscape?*

While most of the linears found during evaluation formed part of enclosures two phases of field systems were be identified in the excavation despite truncation. The initial field coaxial field system can be best seen in the south of the site whether ditches ran east-west and north-south. Ditches on a similar alignment were also found to the north. In the east ditches formed a funnel-like opening, possibly to a livestock enclosure. This phase seems to show multi use agriculture with pastoral and arable activity. The second possible field system is of late Roman date and consists of three parallel roughly equidistant linears one of which is segmented. A possible fence line indicates the possibility of pastoral activity as well.

The presence of lower-lying, damper land in the south of the site may have led to some of the ditches having a secondary use as drainage features; they may also have been used to divide the damp and dry land.

10.1.6 *Can the evidence recorded on site be linked to similar evidence within the local area? And what does this tell us about landscape during this period?*

The area surrounding the site is relatively rich in Roman agricultural activity, with a number of villas scattered to the north at Wimpole and to south of the site, most notably at Shepreth (ADS 2011) to the southeast of site where excavation revealed a coaxial field system as well as a series of Roman buildings. Crop marks at Steeple Morden to the south of site reveal a system of fields and enclosure with Roman pottery being collected from the surface.

Roman chalk quarrying activity was also relatively common in Cambridgeshire and Hertfordshire, especially where a nearby road made transportation easier, a significant quarrying site has been excavated at Fen Ditton in southeast Cambridge, a settlement was recorded on the site as well (ADS 2011).

The site existed within a Roman landscape of organised agriculture controlled by villas scattered throughout the landscape, it is likely the villas also controlled the chalk extraction which would have formed a major material in the villas' construction and an agricultural resource as well as valuable exportable material.

More specifically the site existed on a liminal zone, between the damp clayey land to the southwest, and the chalk higher land to the north and east; this may have led to occasional flooding, and waterlogging, as suggested by the presence of molluscs in some of the ditch fills. Some of the boundary ditches may have also been designed to segregate the damp land from the dry.

More research needs to be done on similar Roman sites in the area and on parallels to the prehistoric features found.

10.1.7 *Do the material culture remains indicate specific trades such as agricultural trends or industrial activity?*

A large proportion of the pottery from the site is locally made; with much of the rest of the assemblage coming from centres of manufacture close to Ermine Street, the Hadham industry based in Hertfordshire and to a lesser extent the Nene Valley industry to the north. South Midlands shelly wares would also have found their way to the site via Ermine Street.

The majority of the animal bone assemblage was indicative of animal husbandry with cattle and sheep bones predominating. Some small scale butchery may have taken place on site as marks indicative of this process were found an some bones.

The ceramic building material assemblage while small included floor, flue and roof tiles usually associated with relatively high status buildings such as a villa and suggesting the presence of such a building in the local area; the presence organised agriculture and quarrying may also reinforce this.

10.1.8 *How does this evidence tie into the known local Roman activity?*

The site is located 400m east of Ermine Street, one of the major Roman roads in Britain; it would have been the major mode of transport to and from the site. The quarrying seen across the site may have been related Ermine Street itself. To the south of the site a ditches trackway seen in cropmarks and of probable Roman date is on a similar northeast-southwest alignment to the northern enclosure ditches excavated in the second Roman phase of activity on site.

10.1.9 *Is this a multi phase or multi-use site?*

The activity on site appears to be fairly continual with the only hiatus being in the early medieval period. Within the Roman period three phase of activity have been identified on stratigraphic ground. The landuse seems to have changed during these phases with agriculture being replaced by quarrying; subsequently both agriculture and quarrying seem to have been present.

10.1.10 *Establish the presence/absence of any Saxon or early medieval activity on the site?*

No early medieval features were recorded on site; the only possible early medieval artefact was the worked bone comb case found within a Roman ditch fill. Later medieval activity was recorded however, in the form of pits and a possible beamslot or small enclosure.

10.1.11 *Establish whether there are any other post-medieval ditches on site and how do they interrelate?*
No post-medieval ditches were recorded on site.

10.1.12 *Do the post-medieval ditches relate to a specific period of activity and does this relate to the establishment of the parkland?*
While no dating evidence was found in the large lake feature spanning the site, it does certainly seem likely to be related to the post-medieval parkland on site, and may been an ornamental lake. The size of the feature allied to the gravel excavation surface and the presence of horseshoes seems to indicate that the excavation of this feature was a sizeable project undertaken in an organised manner and would have cost a significant amount of money. It does not appear to have been in use for long as no dating evidence was retrieved from the fills.

10.2 Revised Research Aims

10.2.1 Following the completion of the fieldwork and the initial post-excavation assessment of the site, it is apparent that some of the original research aims are no longer valid, whereas others require reviewing on the basis of the evidence collected. For those research aims that are valid it is possible to identify additional research questions which will be addressed as part of the work undertaken in preparation for the publication of the site. These are listed below.

10.2.2 *Can comparison with other sites in the area inform on the prehistoric features found on site?*

Additional questions that should be addressed are:

- Are there any local parallels to the palisade like line of postholes on site?
- Can further analysis of environmental samples yield any further information about the prehistoric activity on site?

10.2.3 *Compare the Roman activity on the site to that in the surrounding area.*

Additional questions that should be addressed are:

- What is the relationship between the Roman remains recorded on site to the remains recorded on neighbouring sites?
- Why is there so little early Roman activity? Can this lack of activity we linked in with known Roman history in the area?
- What relationship did the quarrying activity on site have with the local area, can comparisons be made with nearby sites?
- How does the evidence from Kneesworth House Hospital compare to current evidence regarding the changing patterns of land use during the Roman, medieval and post-medieval periods?
- Can comparison with local pottery examples further inform on the dating of the pottery assemblage from the site?
- Can further analysis of the environment remains tell us anything about the environmental conditions during the Roman activity on site?

10.2.4 *Can the finds assemblage inform on the nature of the site within the local area?*

Additional questions that should be addressed are:

- Can the pottery assemblage further our knowledge regarding the supply, consumption, status and function of the local Roman population and how does this compare to other sites with greater activity.
- What can the animal bone assemblage tell us about Roman animal husbandry?
- Can activity areas be identified through the animal bone assemblage?

- Can any changes in husbandry practices be detected throughout the Roman period?
- Can further research into the comb case inform on possible trade links and status on site.

10.2.5 *Determine the relationship of the post-Roman remains and structures on the site with the early development of the surrounding area. Can the post-Roman remains be linked to historically or cartographically known developments?*

Additional questions that should be addressed are:

- Can further documentary and cartographic evidence inform on the function of the lake feature on the site.

11 SUMMARY OF FURTHER WORK

Task	Description	Resource	Days
General			
1	Documentary research	IH	1
2	Checking and integration of digital drawn and contextual data.	IH	1
3	Checking and integrating the matrix and the checking and completion of site phasing and digital plans.	IH	1
Analysis			
4	Roman Pottery: Further analysis, research and final phasing	AD	3
5	Roman Pottery: Illustration	LC	2
6	Worked Bone: Reporting and analysis of one object	ER	2
7	Worked Bone: Illustration	LC	0.5
8	Worked Flint: Summary Text	KLH	0.5
9	Animal Bone: Further analysis, identification, comparisons and reporting	GA	2.5
10	Environmental Remains: Further analysis and reporting	KLH	6
11	Metalwork: Reporting	AH	1
12	Conservation	PG	9
Reporting, Publication and Archiving			
13	Integrating specialist reports	IH	1
14	Liaison with specialists	MM	0.5
15	Completion of drawings for publication	JM	2.5
16	Liaison with illustrator	IH	0.5
17	Preparation of publication text	IH	3
18	Editing and review of publication text	IH	0.5
19	Amendments resulting from external editor's comments to publication text and figures	IH	1
20	Proof reading	MM	1
21	Archive preparation	TF	3
22	Archive microfilming	TF	3
23	Liaison with publication editor	MM	0.5
24	Project management and editing: overall	MM	1.5

12 CATALOGUE OF FURTHER WORK

12.1 Documentary Analysis

Research of primary sources and documents concerning the site, including cartographic evidence. Research into possible comparison sites. Time has been set aside to integrate any digital or contextual information.

12.2 Specialist Reports

12.2.1 Roman Pottery

- Integration of stratigraphic data and final selection of key groups for analysis
- Analysis of key groups
- Background reading and comparisons with other sites
- Literature search and further reading for comparative purposes
- Extraction of pottery for illustration

12.2.2 Post-medieval Pottery

- Summary Text

12.2.3 Worked Bone

- Summary text and catalogue
- Research into parallels for the comb case in order to establish date and type.
- Research into type distribution
- Prepare publication text
- Illustration

12.2.4 Animal Bone

- Identification of fish and small mammal remains
- Further analysis
- Assemblage comparisons
- Rephasing
- Comparison with other sites

12.2.5 Environmental Samples

Macrobotanicals:

- Analysis and identification
- Data entry
- Report preparation

Charcoal:

- Analysis and identification
- Data entry
- Report preparation

12.2.6 Metalwork

- Further detailed cataloguing
- Further discussion

12.2.7 Conservation

- Conservation of copper
- Conservation of iron
- Images
- Reporting
- Packing and Archiving

12.3 Illustrations

12.3.2 Plans and Sections

The digitised plans produced for the publication will require checking and correcting to ensure it is linked correctly with the contextual database. In the course of the analysis extra drawings may be needed, so time has been given to allow for extra work to aid the structural analysis.

The digitised site plans will be used to produce publication illustrations. These will accompany the site narrative, being annotated to identify the features discussed in the text, at an appropriate scale.

12.4 Overall Publication, Archiving and Project Management

Following specialist analysis, the reports will be integrated into the publication report. Time has been allocated for consultation and amendments to be made during this phase of work, involving both the editor and specialists. Time has been allocated for proof reading and editing of the publication report prior to submission. Time has been allocated for liaison with the publication editor with regard to, submission of material and a summary of content.

The archive will be prepared in accordance with Guidelines for the preparation of excavation archives for long-term storage (UKIC 1990) and Archaeological Archives; A guide to best practice in creation, compilation, transfer and Curation (Brown & AAF 2007). On completion of the project, the Developer/Landowner will discuss arrangements for the archive to be deposited with the appropriate museum.

A digital copy of the report will be lodged in association with the online OASIS form (Appendix D).

The management of the project includes monitoring task budgets, programming tasks, editing drafts production of the final report and publication for submission, and liaison with all members of the project team.

12.4.1 Potential for Publication

It is anticipated that an article of five to ten pages will be produced, including site drawings, site location, plan of excavation area showing the main features with additional illustrations where needed. The publication will be submitted to a local periodical. Publication of the site data will also be made through the Archaeological Data Service OASIS form (Appendix D).

13 BIBLIOGRAPHY

AOC Archaeology Group (2009a). *Kneesworth House Hospital, Bassingbourne-cum-Kneesworth, Cambridgeshire A Written Scheme of Investigation for an Archaeological Evaluation.*

AOC Archaeology Group (2009b). *Kneesworth House Hospital, Bassingbourne-cum-Kneesworth, Cambridgeshire Archaeological Evaluation Report.*

AOC Archaeology (20010). Kneesworth House Hospital, Bassingbourne-cum-Kneesworth, Cambridgeshire *A Written Scheme of Investigation for an Archaeological Excavation.*

Cambridgeshire Archaeology Planning & Countryside Advice (2009). *Brief for Archaeological Investigation.*

Council for British Archaeology (1987). *First Aid for Finds* (Second Edition).

Department for Communities and Local Government (2010), *Planning Policy Statement 5: Planning for the Historic Environment.*

Department of the Environment (1990). *Planning Policy Guidance: Archaeology and Planning (PPG16).*

Duncan H Brown 2007. *Archaeological Archives; A guide to best practice in creation, compilation, transfer and curation.* Archaeological Archive Forum

English Heritage (1991). *Management of Archaeological Projects*.

English Heritage (1998a). *Archaeological Guidance Paper 3: Standards and Practices in Archaeological Fieldwork.* (English Heritage London Region).

English Heritage (1998b). *Archaeological Guidance Paper 4: Standards and Practices in Archaeological Reports.* (English Heritage London Region).

English Heritage (2002). *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*

Institute of Field Archaeologists (2008), *Standard and Guidance for Archaeological Field Excavations.*

Institute of Field Archaeologists (2010). *Code of Conduct*.

Institute of Field Archaeologists (1999). *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.*

Museum of London (1994). *Archaeological Site Manual* (3rd ed).

Museum of London (2002), *A Research Framework for London Archaeology*.

Museum of London (2009) *General Standards for the Preparation of Archaeological Archives Deposited with the Museum of London*

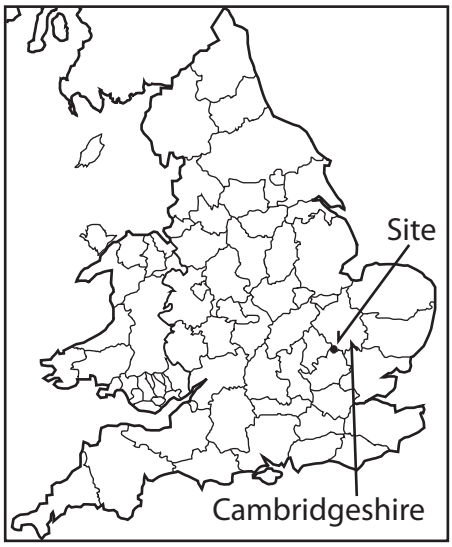
Southwark Council (2007): *Archaeological Brief: Excavation*

United Kingdom Institute for Conservation (1983). *Conservation Guidelines No 2.*

United Kingdom Institute for Conservation (1990). *Guidance for Archaeological Conservation Practice.*

Online Sources

Archaeological Data Service 2011. access on 12-01-2011.



Approximate Site Location
Within England & Wales

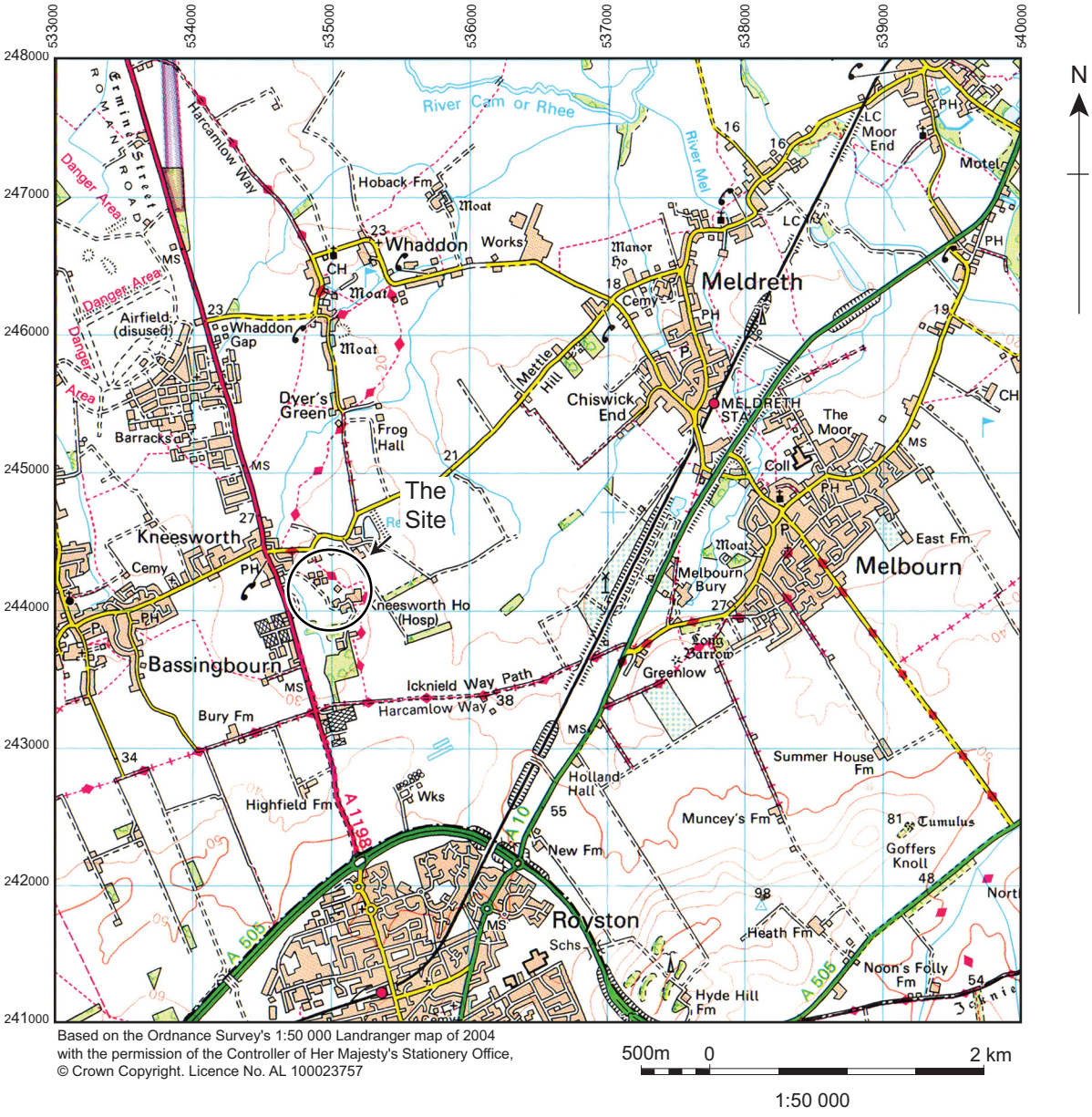


Figure 2: Site Location

Based on the Plan Provided by the Client

Not To Scale

Figure 3: Detailed Site Location

AOC Archaeology Group

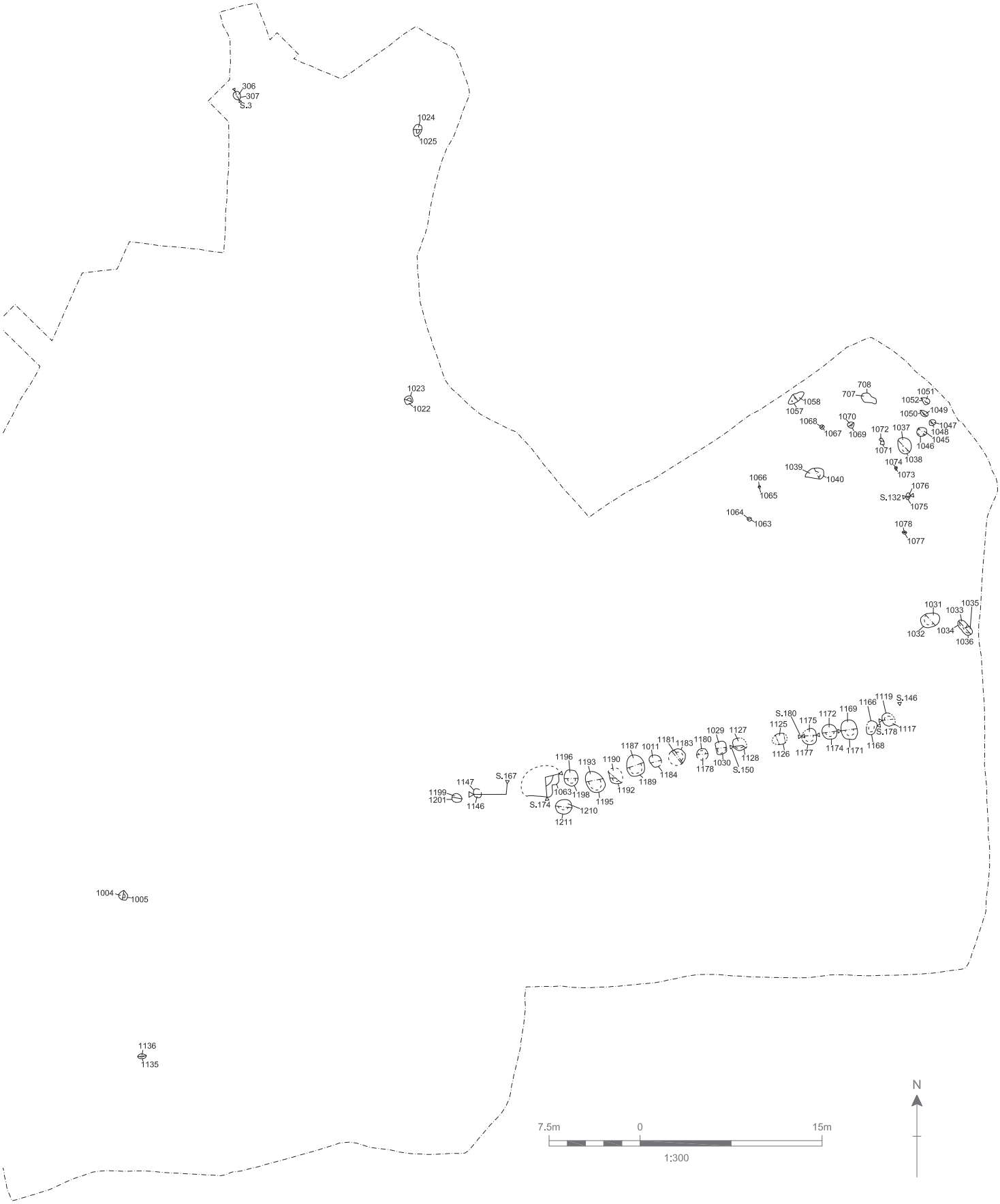


Figure 4: Period 2 – Prehistoric - Plan

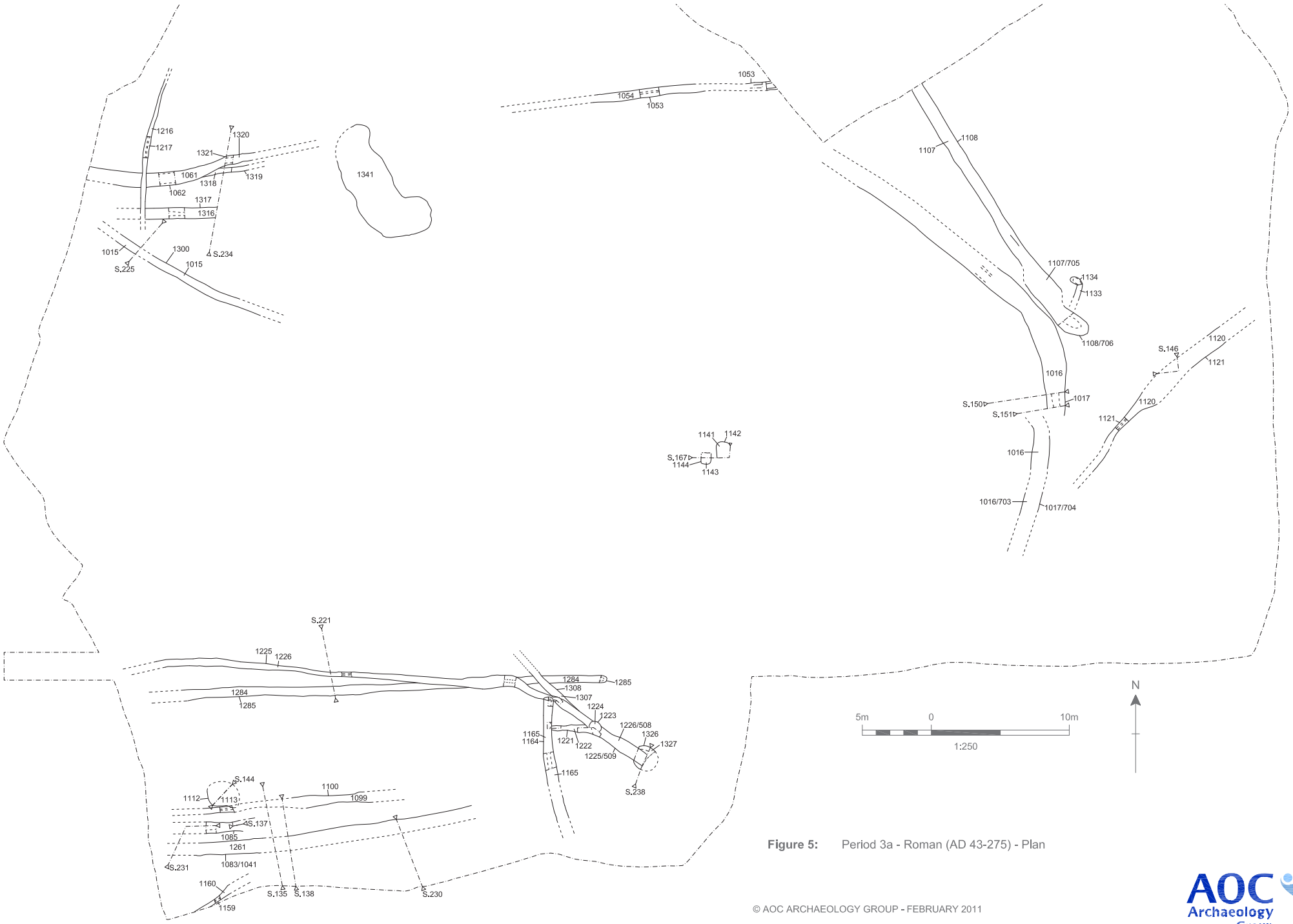


Figure 5: Period 3a - Roman (AD 43-275) - Plan

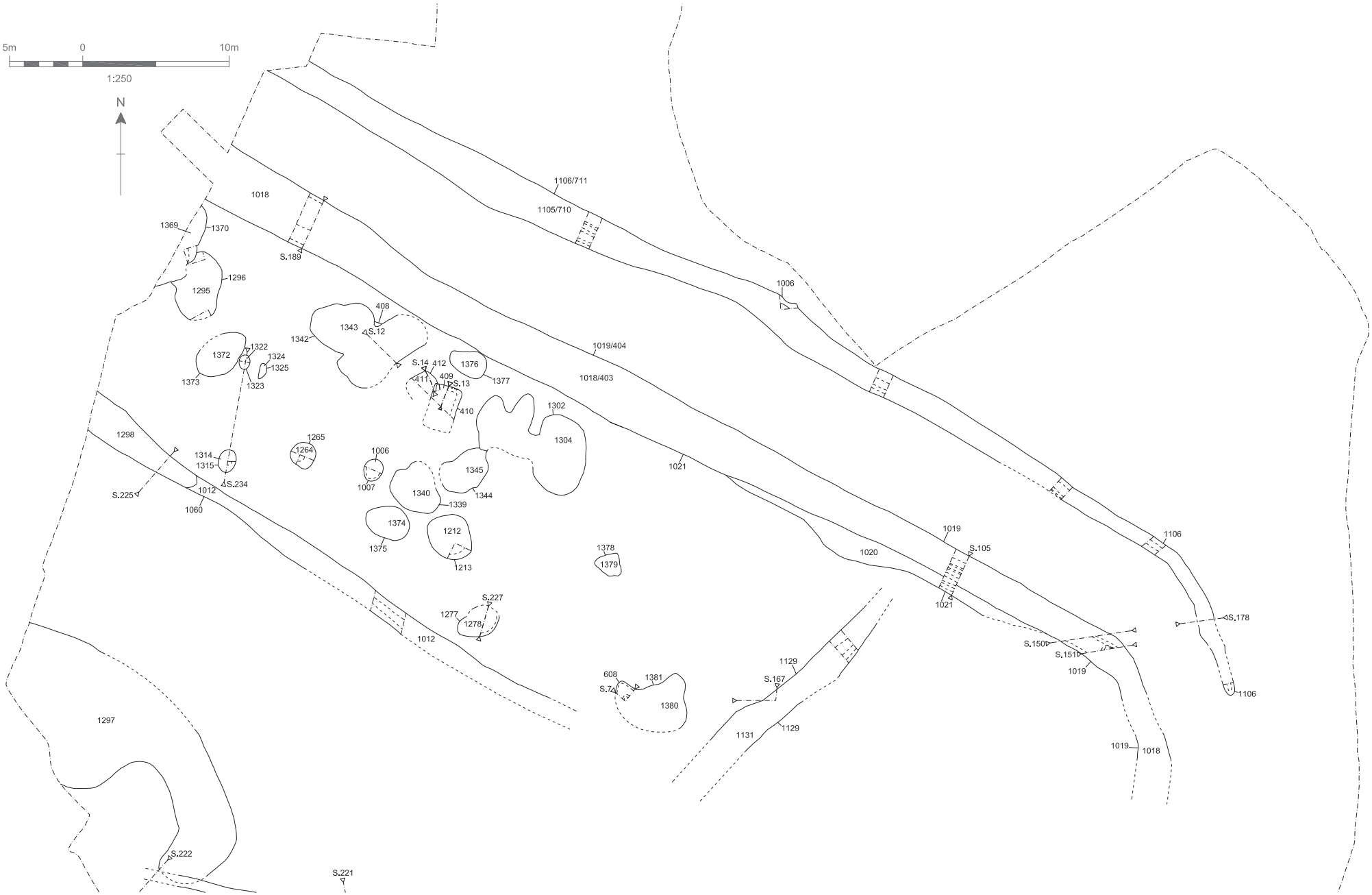


Figure 6a: Period 3b – Roman (AD 275-350) - Northern Plan

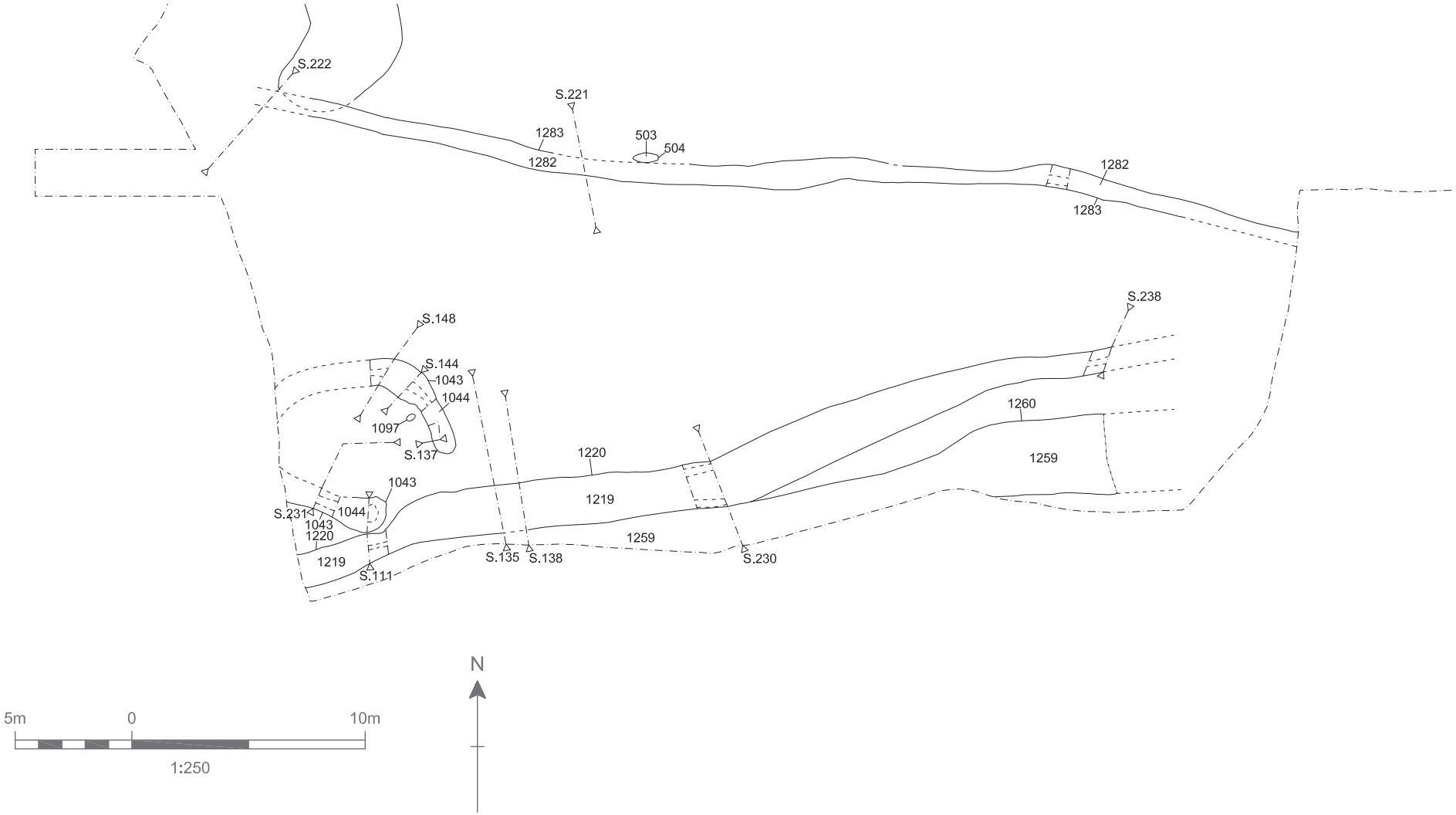


Figure 6b: Period 3b – Roman (AD 275-350) - Southern Plan

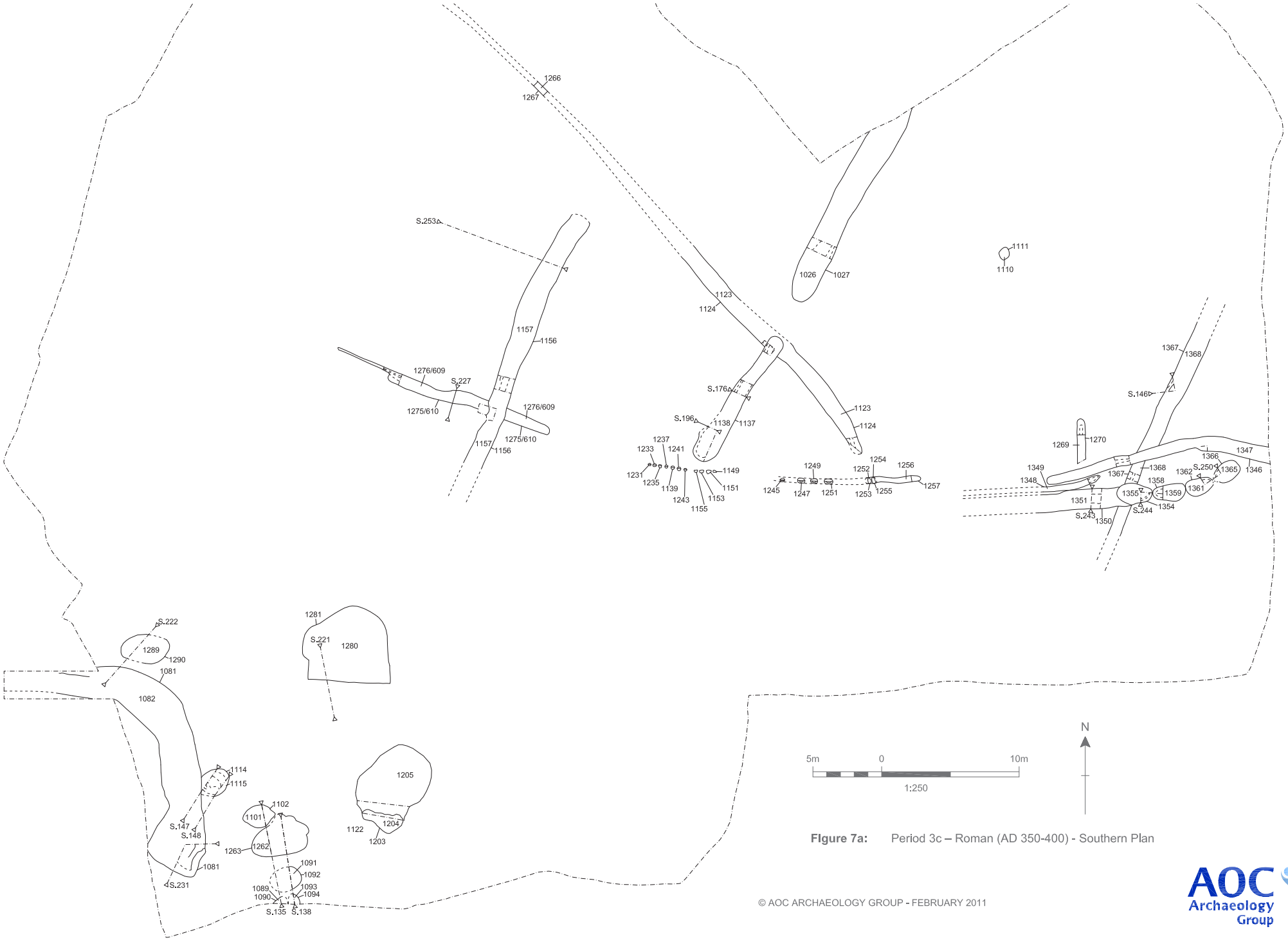


FIgure 7a: Period 3c – Roman (AD 350-400) - Southern Plan

AOC Archaeology Group

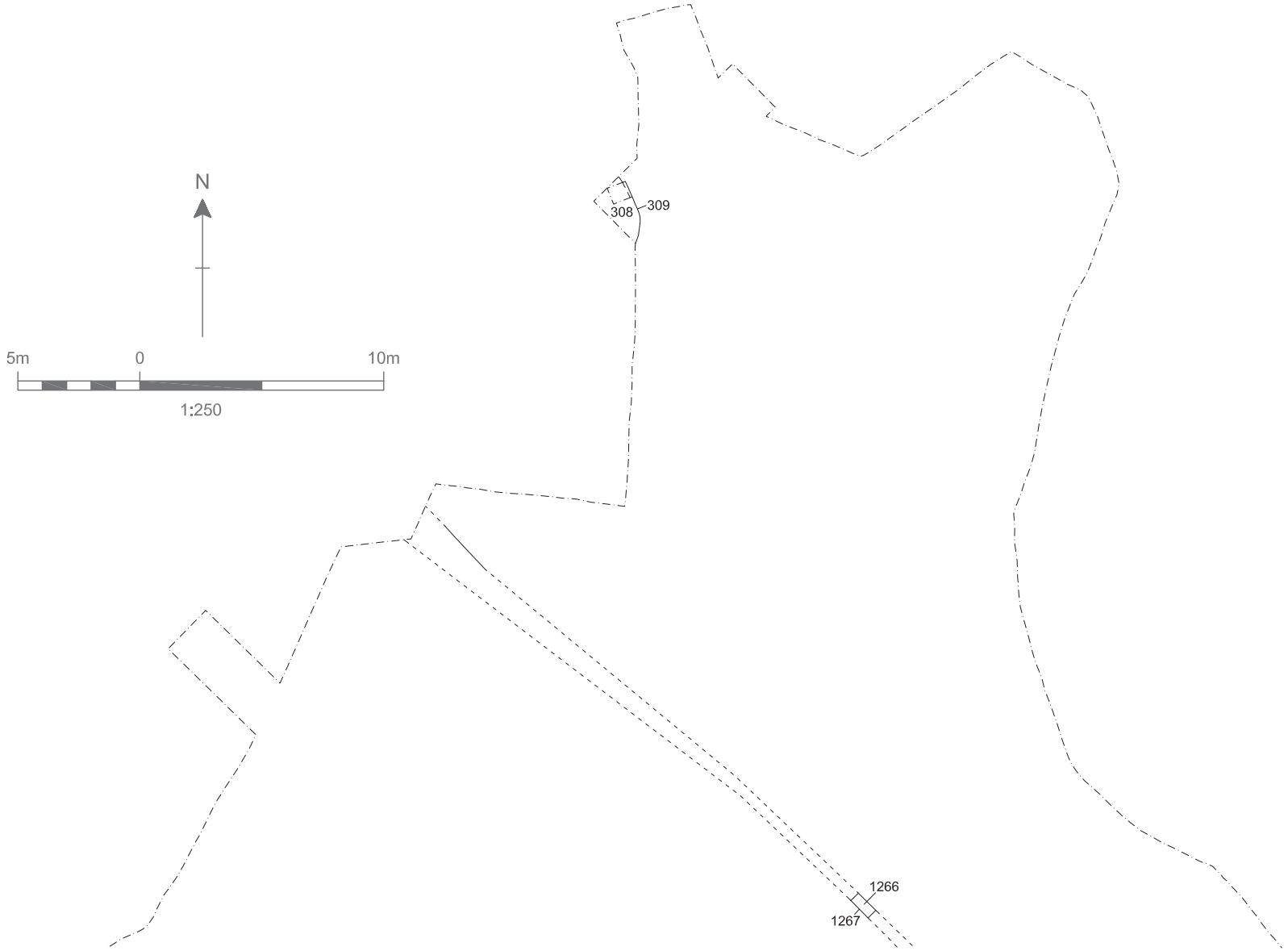


Figure 7b: Period 3c – Roman (AD 350-400) - Northern Plan

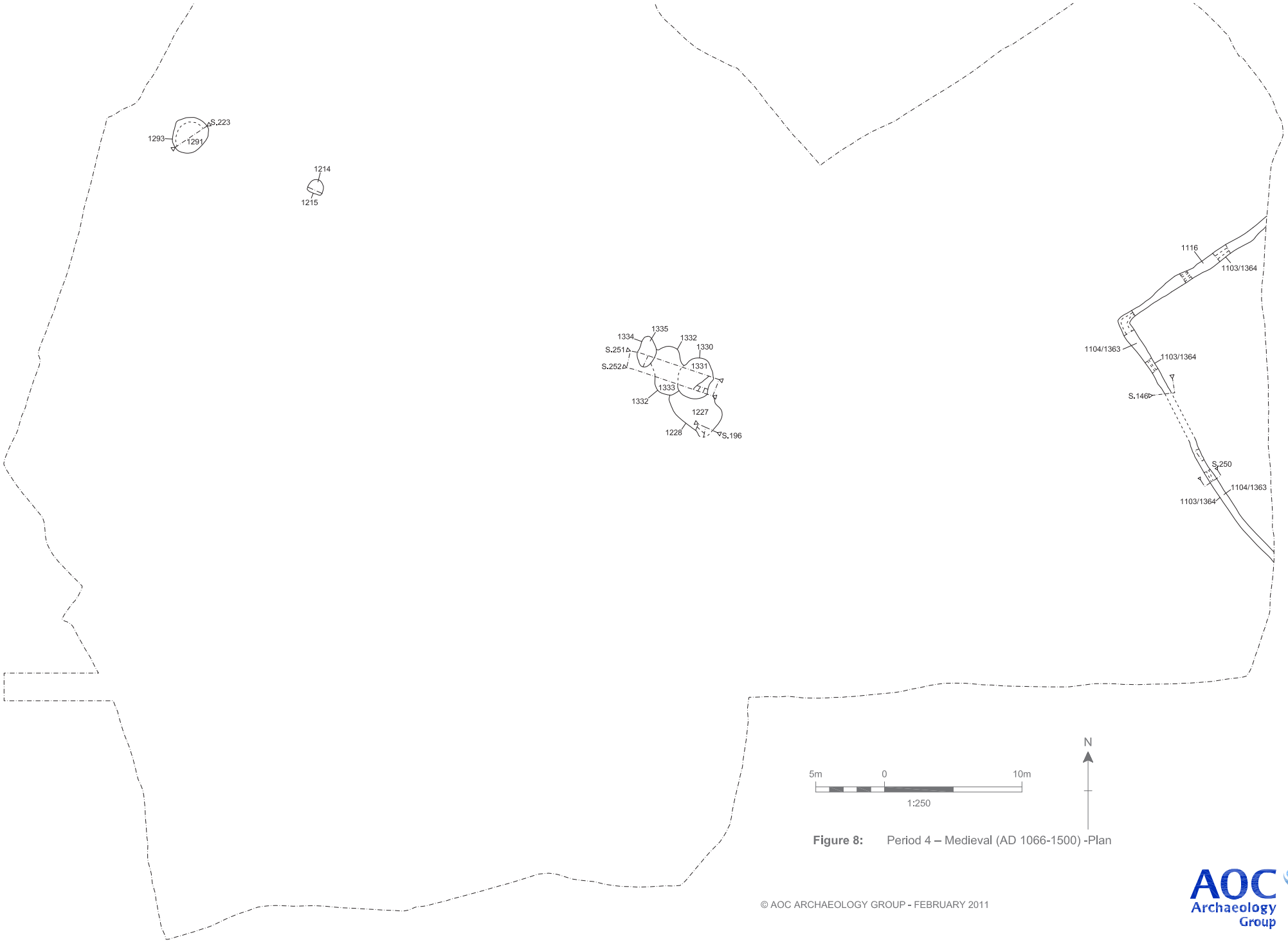


Figure 8: Period 4 – Medieval (AD 1066-1500) -Plan

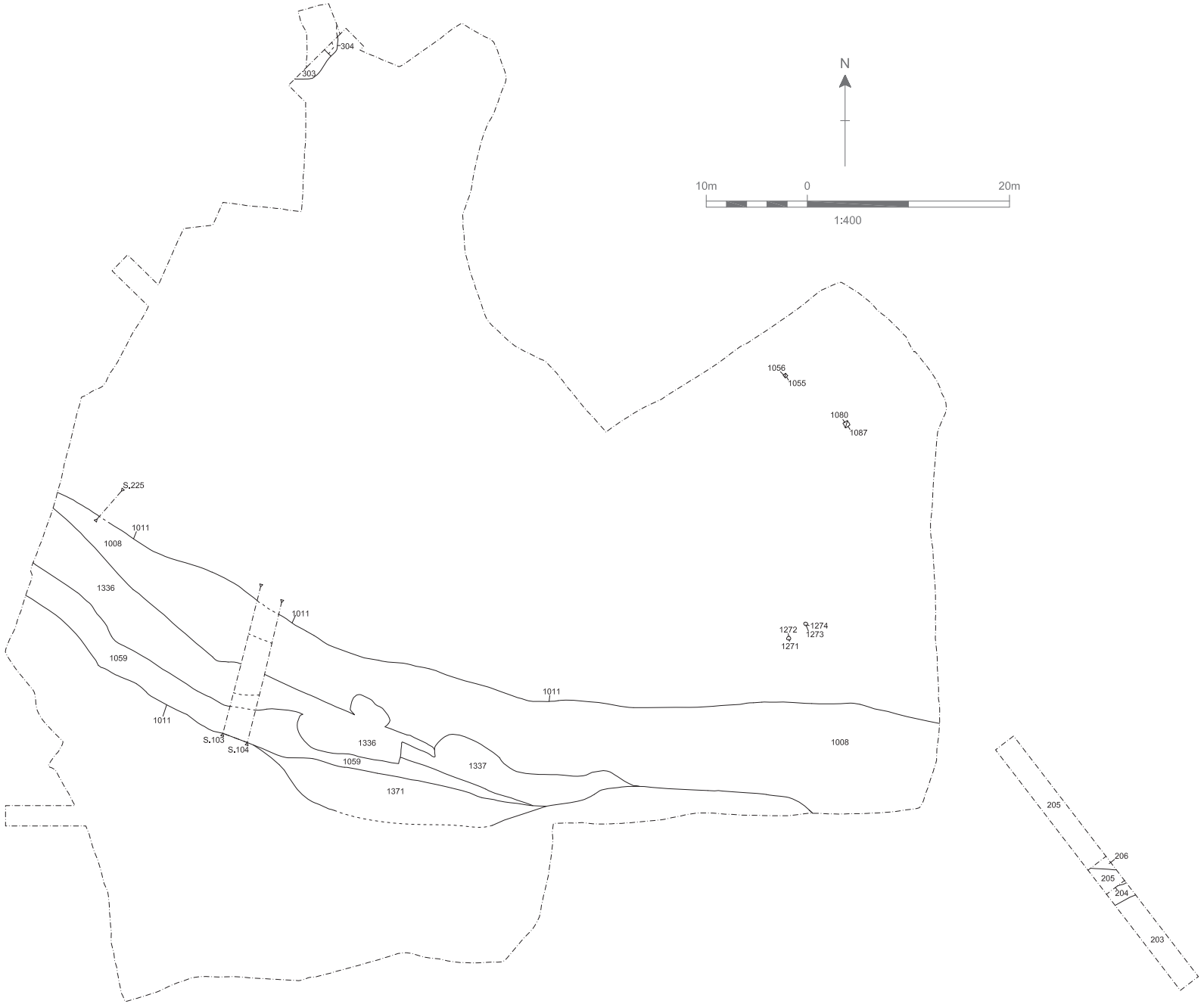


Figure 9: Period 5 and 6 – Post-medieval and Modern (AD 1500-Present)-Plan

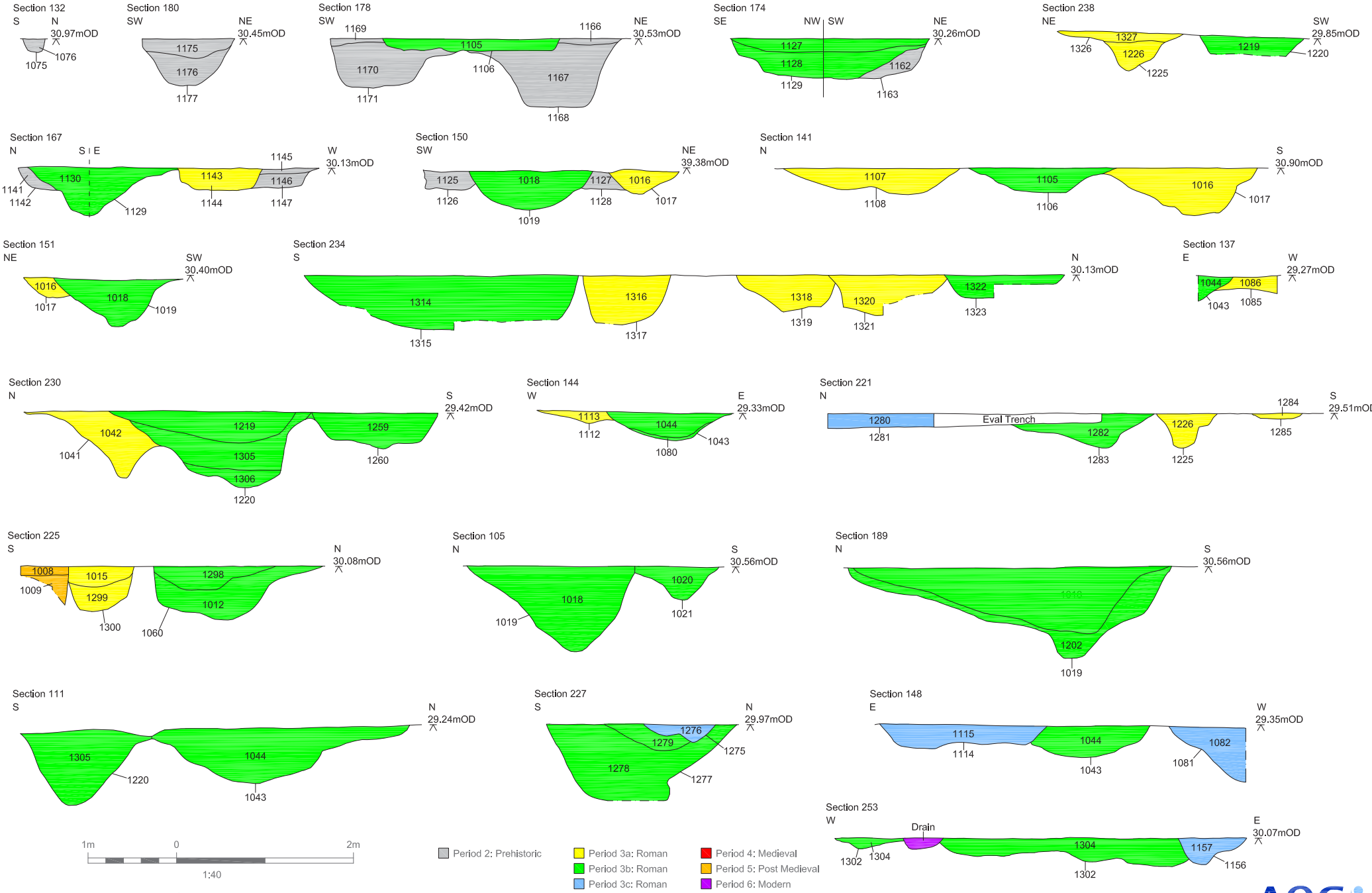


Figure 10a: Sections

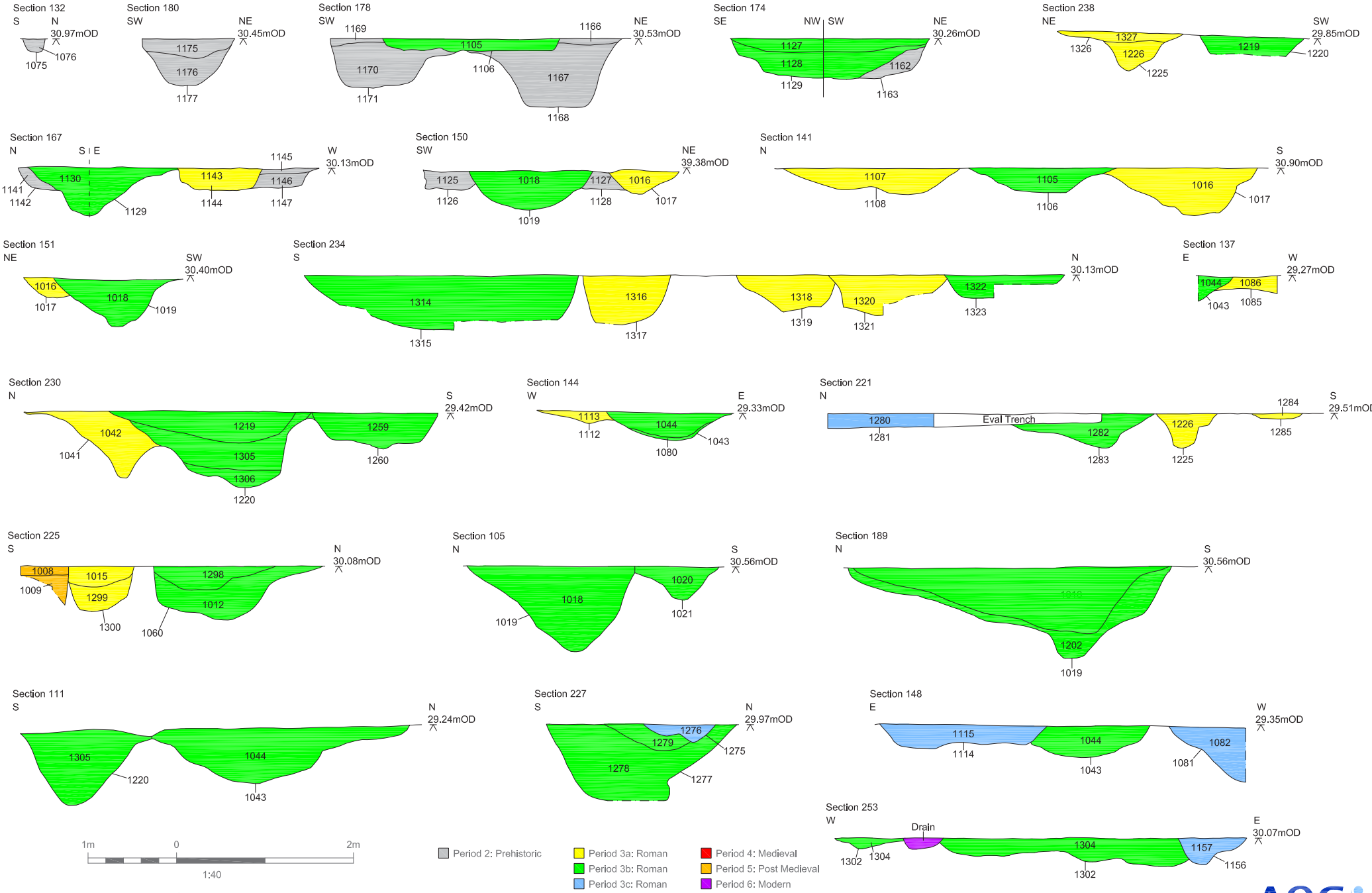


Figure 10a: Sections

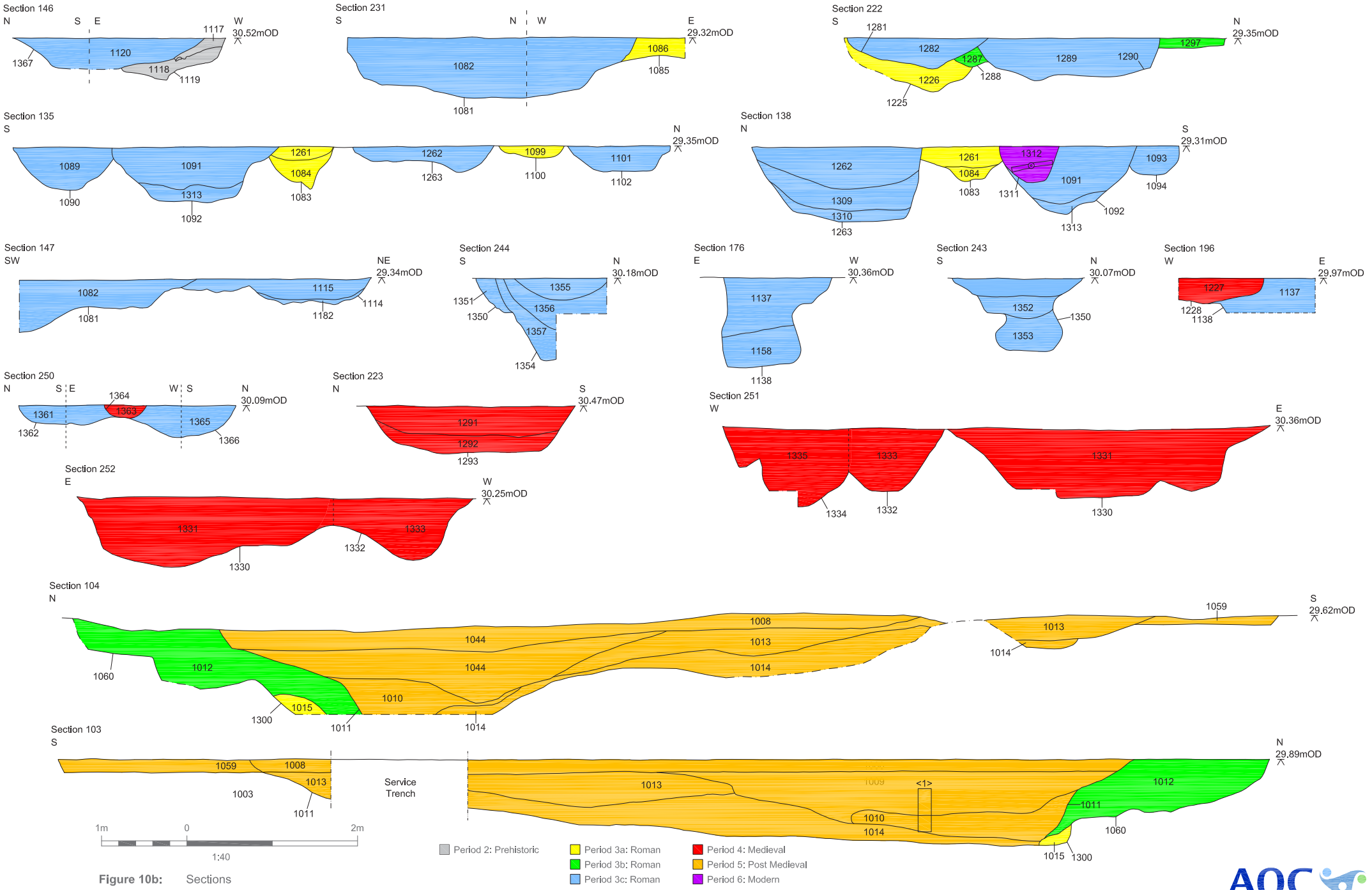


Figure 10b: Sections

AOC Archaeology Group

Appendices

Appendix A – Context Register

Context	Description	Length	Width	Thickness	Section	Plan
201	Topsoil	30.00m	2.20m	0.10m	2	2
202	Modern made ground	30.00m	2.20m	0.30m	2	2
203	Fill of 204	12.00m	2.2m	1.40m	2	2
204	C20th intrusion	12.00m	2.20m	1.40m	2	2
205	Buried soil, possibly includes ditch	18.00m	1.10m	Max 1.10m	2	2
206	Sondage into 205	2.00m	2.20m	1.10m	2	2
207	Natural chalk deposit	2.00m	2.20m	NFE		2
301	Topsoil	8.00m	2.50m	0.18m	1	3
302	Subsoil	8.00m	2.50m	0.38m	1	3
303	Fill of 304	5.00m	0.90m	0.35m	1	3
304	Tree-pit feature	5.00m	0.90m	0.35m	2	3
305	Natural chalk deposit	8.00m	2.50m	NFE		3
306	Fill of 307	0.62m	0.58m	0.13m	3	3
307	Shallow pit	0.62m	0.58m	0.13m	3	3
308	Fill of 309	2.00m	1.35m	0.52m	8	3
309	Probable ditch	2.00m	1.35m	0.52m	8	3
401	Topsoil	30.00m	2.20m	0.12m		4
402	Subsoil	30.00m	2.20m	0.20m		4
403	Fill of 404	12.60m	3.80m	0.85m	11	4
404	Roman Ditch	12.60m	3.80m	0.85m	11	4
405	Fill of 406	2.70m	2.20m	0.43m	12	4
406	PM ditch	2.70m	2.20m	0.43m	12	4
407	Fill of 408	9.00m	2.50m	0.60m	15	4
408	Roman Ditch	9.00m	2.50m	0.60m	15	4
409	Fill of 410	1.90m	1.80m	0.21m	13	4
410	Shallow pit	1.90m	1.80m	0.21m	13	4
411	Fill of 412	1.50m	1.10m	0.25m	14	4
412	Ditch terminus or pit	1.50m	1.10m	0.25m	14	4
413	Natural Chalk deposit	30.00m	2.20m	NFE		4
501	Topsoil	30.00m	2.20m	0.18m	9	5
502	Subsoil	30.00m	2.20m	0.30m	9	5
503	Fill of 504	0.98m	0.43m	0.06m		5
504	Small hollow	0.98m	0.43m	0.06m		5
505	Fill of 506	20.00m	2.20m	0.96m		5
506	Roman Ditch	20.00m	2.20m	0.96m		5
507	Natural chalk deposit	30.00m	2.20m	NFE	9	5
508	Sondage in 505	0.82m	0.62m	0.33m	10	5

509	Sondage in 506	0.82m	0.62m	0.33m	10	5
601	Topsoil	30.00m	2.20m	0.35m	7	6
602	Subsoil	30.00m	2.20m	0.18m	7	6
603	Top fill 605	22.50m	2.20m	0.52m		6
604	Lower fill of 605	20.50m	2.20m	0.48m		6
605	Pond feature	22.50m	2.20m	1.45m		6
606	Secondary fill of 608	3.00m	1.00m	0.45m	7	6
607	Primary fill of 608	3.00m	1.00m	0.20m	7	6
608	Ditch Terminus	3.00m	1.00m	0.55m	7	6
609	Fill of 610	3.20m	1.80m	0.20m	6	6
610	Roman Ditch	3.20m	1.80m	0.20m	6	6
611	Natural chalk deposit	30.00m	2.20m	NFE		6
612	Primary fill of 605	2.50m	2.20m	0.50m		6
613	Gravelly fill of 605	7.00m	2.20m	0.10m		6
701	Topsoil	30.00m	2.20m	0.30m	4	7
702	Subsoil	30.00m	2.20m	0.20m	4	7
703	Fill of 704	2.20m	2.80m	0.65m	4	7
704	Ditch	2.20m	2.80m	0.65m	4	7
705	Fill of 706	2.20m	2.20m	0.15m	5	7
706	Ditch	2.20m	2.20m	0.15m	5	7
707	Fill of 708	0.70m	0.68m	0.20m		7
708	Tree pit	0.70m	0.68m	0.20m		7
709	Natural Chalk deposit	30.00m	2.20m	NFE		7
1001	Topsoil	95.00m	85.00m	0.50m		10
1002	Subsoil	95.00m	85.00m	0.20m		10
1003	Natural Chalk	95.00m	85.00m	NFE		10
1004	Pit Fill	0.84m	0.84m	0.39m	100	10
1005	Pit Cut	0.84m	0.84m	0.39m	100	10
1006	Pit Fill	1.55m	1.30m	0.27m	101	10
1007	Pit Cut	1.55m	1.30m	0.27m	101	10
1008	Linear Watercourse Fill	90.00m	5.00m	0.16m	103, 104	10
1009	Linear Watercourse Fill	90.00m	5.08m	0.61m	103, 104	10
1010	Linear Watercourse Fill	90.00m	2.16m	0.32m	103, 104	10
1011	Linear Watercourse	90.00m	14.10m	0.93m	103, 104	10
1012	Ditch Fill	32.00m	2.00m	0.60m	225	10
1013	Ditch Cut	32.00m	1.50m	0.60m	225	10
1014	Watercourse fill	90.00m	6.80m	0.20m	103, 104	10
1015	Ditch Fill	15.00m	0.73m	0.25m	103, 104	10
1016	Ditch Fill	75.00m	1.00m	0.51m	102	10
1017	Ditch Cut	75.00m	1.00m	0.51m	102	10

1018	Ditch Fill	76.00m	2.92m	0.96m	105	10
1019	Ditch Cut	76.00m	2.92m	0.96m	105	10
1020	Ditch Fill	22.00m	0.90m	0.38m	105	10
1021	Ditch Cut	22.00m	0.90m	0.38m	105	10
1022	Pit Fill	0.52m	0.51m	0.15m	106	10
1023	Pit Cut	0.52m	0.51m	0.15m	106	10
1024	Pit Fill	0.92m	0.65m	0.29m	107	10
1025	Pit Cut	0.92m	0.65m	0.29m	107	10
1026	Ditch Fill	16.00m	2.00m	0.65m	108	10
1027	Ditch Cut	16.00m	2.00m	105m	108	10
1028	Ditch Fill	16.00m	1.60m	0.40m	108	10
1029	Posthole Fill	0.78m	0.78m	0.15m	109	10
1030	Posthole Cut	0.78m	0.78m	0.15m	109	10
1031	Pit Fill	1.62m	1.15m	0.69m	110	10
1032	Pit Cut	1.62m	1.15m	0.69m	110	10
1033	Pit Fill	0.60m	0.53m	0.08m	113	10
1034	Pit Cut	0.60m	0.53m	0.08m	113	10
1035	Pit Fill	0.63m	0.60m	0.12m	113	10
1036	Pit Cut	0.63m	0.60m	0.12m	113	10
1037	Pit Fill	1.18m	1.02m	0.17m	114	10
1038	Pit Cut	1.18m	1.02m	0.17m	114	10
1039	Pit Fill	1.14m	0.92m	0.27m	115	10
1040	Pit Cut	1.14m	0.92m	0.27m	115	10
1041	Ditch Cut	35.00m	0.75m	0.43m	111	10
1042	Ditch Fill	35.00m	0.75m	0.43m	111	10
1043	Drip Gully	14.00m	1.01m	0.32m	11, 134, 137, 144, 147, 148, 165	10
1044	Drip Gully Fill	14.00m	1.01m	0.32m	11, 134, 137, 144, 147, 148, 165	10
1045	Pit Fill	0.58m	0.53m	0.18m	116	10
1046	Pit Cut	0.58m	0.53m	0.18m	116	10
1047	Pit Fill	0.48m	0.36m	0.10m	117	10
1048	Pit Cut	0.48m	0.36m	0.10m	117	10
1049	Pit Fill	0.75m	0.47m	0.12m	118	10
1050	Pit Cut	0.75m	0.47m	0.12m	118	10
1051	Pit Fill	0.72m	0.40m	0.09m	119	10
1052	Pit Cut	0.72m	0.40m	0.09m	119	10
1053	Ditch Fill	14.00m	0.96m	0.35m	123, 124	10
1054	Ditch Cut	14.00m	0.96m	0.35m	123, 124	10
1055	Posthole Cut	0.30m	0.30m	0.07m	120	10
1056	Poshole Fill	0.30m	0.30m	0.07m	120	10
1057	Pit Cut	0.90m	0.66m	0.19m	121	10
1058	Pit Fill	0.90m	0.66m	0.19m	121	10
1059	Linear Watercourse Fill	50.00m	3.00m	0.15m	103	10
1060	Ditch Cut	0.32m	2.00m	0.60m	225	10
1061	Ditch Fill	12.00m	0.97m	0.53m	125	10
1062	Ditch Cut	12.00m	0.97m	0.53m	125	10
1063	Posthole Cut	0.27m	0.24m	0.03m	126	10
1064	Posthole Fill	0.27m	0.24m	0.03m	126	10
1065	Posthole Cut	0.21m	0.20m	0.40m	127	10
1066	Posthole Fill	0.21m	0.20m	0.40m	127	10

1067	Posthole Cut	0.31m	0.30m	0.14m	128	10
1068	Posthole Fill	0.31m	0.30m	0.14m	128	10
1069	Posthole Cut	0.34m	0.31m	0.06m	129	10
1070	Posthole Fill	0.34m	0.31m	0.06m	129	10
1071	Posthole Cut	0.33m	0.27m	0.30m	130	10
1072	Posthole Fill	0.33m	0.27m	0.30m	130	10
1073	Posthole Cut	0.24m	0.23m	0.05m	131	10
1074	Posthole Fill	0.24m	0.23m	0.05m	131	10
1075	Posthole Cut	0.34m	0.25m	0.14m	132	10
1076	Posthole Fill	0.34m	0.25m	0.14m	132	10
1077	Posthole Cut	0.24m	0.23m	0.04m	133	10
1078	Posthole Fill	0.24m	0.23m	0.04m	133	10
1079	Ring of Postholes					10
1080	Drip Gully Fill	14.00m	1.01m	0.05m	11, 134, 137, 144, 147, 148, 165	10
1081	Ditch Cut	15.00m	2.00m	0.70m		10
1082	Ditch Fill	15.00m	2.00m	0.70m		10
1083	Ditch Cut	4.00m	0.55m	0.30m	135, 138	10
1084	Ditch Fill	4.00m	0.55m	0.30m	135, 138	10
1085	Ditch fill	3.50m	0.55m	0.25m		10
1086	Ditch Cut	3.50m	0.55m	0.25m		10
1087	Posthole Cut	0.30m	0.30m	0.07m		10
1088	Poshole Fill	0.30m	0.30m	0.07m		10
1089	Pit Fill	1.20m	1.18m	0.51m	135	10
1090	Pit Cut	1.20m	1.18m	0.51m	135	10
1091	Pit Fill	3.00m	1.86m	0.50m	135, 138	10
1092	Pit Cut	3.00m	1.86m	0.63m	135, 138	10
1093	Pit Fill	1.00m	0.64m	34m	138	10
1094	Pit Cut	1.00m	0.64m	34m	138	10
1095	Drip Gully Cut	14.00m	0.35m	0.25m	137	10
1096	Drip Gully Fill	14.00m	0.35m	0.25m	137	10
1097	Posthole Cut	0.50m	0.50m	0.12m	143	10
1098	Posthole Fill	0.50m	0.50m	0.12m	143	10
1099	Ditch Fill	14.00m	0.46m	0.08m	145	10
1100	Ditch Cut	14.00m	0.46m	0.08m	145	10
1101	Pit Fill	2.14m	1.34m	0.29m	140	10
1102	Pit Cut	2.14m	1.34m	0.29m	140	10
1103	Ditch Cut	19.00m	0.70m	0.42m	157, 158, 159, 160, 161	10
1104	Ditch Fill	19.00m	0.70m	0.42m	157, 158, 159, 160, 161	10
1105	Ditch Fill	75.00m	1.40m	0.28m	141, 146	10
1106	Ditch Cut	75.00m	1.40m	0.28m	141, 146	10
1107	Ditch Fill	20.00m	2.00m	0.30m	141	10
1108	Ditch Cut	20.00m	2.00m	0.30m	141	10
1109	Pit Fill	1.80m	1.20m	0.20m	141	10
1110	Pit Fill	1.80m	1.20m	0.30m	141	10
1111	Pit Cut	1.80m	1.20m	0.50m	141	10
1112	Pit Cut	1.30m	1.00m	0.15m	144	10
1113	Pit Fill	1.30m	1.00m	0.15m	144	10
1114	Pit Cut	2.50m	2.00m	0.15m	147, 148	10
1115	Pit Fill	2.50m	2.00m	0.15m	147, 148	10
1116	Ditch Fill	10.00m	0.40m	0.22m	157, 158, 159, 160, 161	10
1117	Posthole Fill	1.10m	1.10m	0.20m	146	10

1118	Posthole Fill	1.10m	1.10m	0.30m	146	10
1119	Posthole Cut	1.10m	1.10m	0.50m	146	10
1120	Ditch Fill	15.00m	1.00m	0.40m	146, 152	10
1121	Ditch Cut	15.00m	1.00m	0.40m	146, 152	10
1122	Natural deposit	15.00m	10.00m	NFE		10
1123	Ditch Fill	62.00m	0.96m	0.14m	153	10
1124	Ditch Cut	62.00m	0.96m	0.14m	153	10
1125	Posthole Fill	0.50m	0.50m	0.80m		10
1126	Posthole Cut	0.50m	0.50m	0.80m		10
1127	Posthole Fill	0.90m	0.90m	0.70m		10
1128	Posthole Cut	0.90m	0.90m	0.70m		10
1129	Ditch Cut	7.00m	0.99m	0.40m	155	10
1130	Ditch Fill	7.00m	0.99m	0.30m	155	10
1131	Ditch Fill	7.00m	0.99m	0.20m	155	10
1133	Ditch Fill	2.10m	0.40m	0.04m	162	10
1134	Ditch Cut	2.10m	0.40m	0.04m	162	10
1135	Pit Cut	0.74m	0.74m	0.27m	164	10
1136	Pit Fill	0.74m	0.74m	0.27m	164	10
1137	Ditch Fill	10.00m	1.27m	0.70m		10
1138	Ditch Cut	10.00m	1.27m	1.05m		10
1139	Posthole Cut	0.62m	0.62m	0.15m	165	10
1140	Poshole Fill	0.62m	0.62m	0.15m	165	10
1141	Pit Fill	0.90m	0.80m	0.26m	167	10
1142	Pit Cut	0.90m	0.80m	0.26m	167	10
1143	Pit Fill	1.10m	0.46m	0.25m	167	10
1144	Pit Cut	1.10m	0.46m	0.25m	167	10
1145	Posthole Fill	0.90m	0.56m	0.06m	167	10
1146	Posthole Fill	0.90m	0.56m	0.17m	167	10
1147	Posthole Cut	0.90m	0.56m	0.23m	167	10
1148	Posthole Fill	0.20m	0.18m	0.16m	168	10
1149	Posthole Cut	0.20m	0.18m	0.16m	168	10
1150	Posthole Fill	0.30m	0.28m	0.20m	169	10
1151	Posthole Cut	0.30m	0.28m	0.20m	169	10
1152	Posthole Fill	0.25m	0.25m	0.18m	170	10
1153	Posthole Cut	0.25m	0.25m	0.18m	170	10
1154	Posthole Fill	0.25m	0.22m	0.16m	171	10
1155	Posthole Cut	0.25m	0.22m	0.16m	171	10
1156	Ditch Cut	18.00m	1.35m	0.59m	172, 220	10
1157	Ditch Fill	18.00m	1.35m	0.59m	172, 220	10
1158	Ditch Fill	11.00m	1.35m	0.98m		10
1159	Ditch Cut	2.50m	0.21m	0.11m	173	10
1160	Ditch Fill	2.50m	0.21m	0.11m	173	10
1161	Posthole Fill	0.85m	0.73m	0.80m	174	10
1162	Posthole Fill	0.85m	0.73m	0.80m	174	10
1163	Posthole Cut	0.85m	0.73m	0.80m	174	10
1164	Ditch Cut	9.00m	0.59m	0.32m	175	10
1165	Ditch Fill	9.00m	0.59m	0.32m	175	10
1166	Posthole Fill	1.05m	0.71m	0.70m	178	10
1167	Posthole Fill	1.05m	0.71m	0.70m	178	10
1168	Posthole Cut	1.05m	0.71m	0.70m	178	10
1169	Posthole Fill	1.01m	0.61m	0.08m	178	10
1170	Posthole Fill	1.01m	0.61m	0.51m	178	10

1171	Posthole Cut	1.01m	0.61m	0.55m	178	10
1172	Posthole Fill	1.00m	0.96m	0.20m	179	10
1173	Posthole Fill	1.00m	0.96m	0.48m	179	10
1174	Posthole Cut	1.00m	0.96m	0.56m	179	10
1175	Posthole Fill	1.15m	1.08m	0.23m	180	10
1176	Posthole Fill	1.15m	1.08m	0.38m	180	10
1177	Posthole Cut	1.15m	1.08m	0.61m	180	10
1178	Posthole Fill	0.85m	0.84m	0.11m	181	10
1179	Posthole Fill	0.85m	0.84m	0.36m	181	10
1180	Posthole Cut	0.85m	0.84m	0.47m	181	10
1181	Posthole Fill	0.70m	0.68m	0.10m	182	10
1182	Posthole Fill	0.70m	0.68m	0.26m	182	10
1183	Posthole Cut	0.70m	0.68m	0.36m	182	10
1184	Posthole Fill	0.78m	0.76m	0.05m	183	10
1185	Posthole Fill	0.78m	0.76m	0.39m	183	10
1186	Posthole Cut	0.78m	0.76m	0.39m	183	10
1187	Posthole Fill	1.10m	1.05m	0.14m	184	10
1188	Posthole Fill	1.10m	1.05m	0.30m	184	10
1189	Posthole Cut	1.10m	1.05m	0.40m	184	10
1190	Posthole Fill	0.70m	0.35m	0.08m	185	10
1191	Posthole Fill	0.70m	0.35m	0.25m	185	10
1192	Posthole Cut	0.70m	0.35m	0.35m	185	10
1193	Posthole Fill	0.98m	0.95m	0.12m	186	10
1194	Posthole Fill	0.98m	0.95m	0.27m	186	10
1195	Posthole Cut	0.98m	0.95m	0.36m	186	10
1196	Posthole Fill	0.78m	0.77m	0.10m	187	10
1197	Posthole Fill	0.78m	0.77m	0.21m	187	10
1198	Posthole Cut	0.78m	0.77m	0.31m	187	10
1199	Posthole Fill	0.68m	0.66m	0.10m	188	10
1200	Posthole Fill	0.68m	0.66m	0.18m	188	10
1201	Posthole Cut	0.68m	0.66m	0.20m	188	10
1202	Ditch Fill	30.00m	3.55m	0.50m	189	10
1203	Pit Cut	6.00m	3.35m	0.16m	190	10
1204	Pit Fill	6.00m	3.35m	0.16m	190	10
1205	Spread	5.00m	4.80m	0.15m		10
1206	Posthole Cut	0.10m	0.10m	0.20m	198	10
1207	Posthole Fill	0.10m	0.10m	0.20m	198	10
1208	Posthole Cut	0.10m	0.10m	0.21m	199	10
1209	Posthole Fill	0.10m	0.10m	0.21m	199	10
1210	Pit Fill	1.18m	1.18m	0.15m	197	10
1211	Pit Cut	1.18m	1.18m	0.15m	198	10
1212	Pit Fill	2.94m	2.87m	0.50m	192	10
1213	Pit Cut	2.94m	2.87m	0.50m	192	10
1214	Pit Fill	1.20m	1.18m	0.34m	193	10
1215	Pit Cut	1.20m	1.18m	0.34m	193	10
1216	Ditch Fill	1.00m	0.40m	0.27m	195	10
1217	Ditch Cut	1.00m	0.40m	0.27m	195	10
1218	Line of Postholes					10
1219	Ditch Fill	30.00m	2.00m	2.00m	230	10
1220	Ditch Cut	30.00m	2.28m	0.76m	230	10
1221	Ditch Cut	2.00m	0.40m	0.17m	200	10
1222	Ditch Fill	2.00m	0.40m	0.17m	200	10

1223	Pit Cut	0.90m	0.90m	0.34m	200	10
1224	Pit Fill	0.90m	0.90m	0.34m	200	10
1225	Ditch Cut	35.00m	0.70m	0.32m	200	10
1226	Ditch Fill	35.00m	0.70m	0.32m	200	10
1227	Pit Fill	4.00m	3.00m	0.30m	196	10
1228	Pit Cut	4.00m	3.00m	0.30m	196	10
1229	Posthole Fill	0.78m	0.78m	0.27m	109	10
1230	Posthole Fill	0.22m	0.19m	0.08m	201	10
1231	Posthole Cut	0.22m	0.19m	0.08m	201	10
1232	Posthole Fill	0.24m	0.24m	0.11m	202	10
1233	Posthole Cut	0.24m	0.24m	0.11m	202	10
1234	Posthole Fill	0.20m	0.17m	0.09m	203	10
1235	Posthole Cut	0.20m	0.17m	0.09m	203	10
1236	Posthole Fill	0.18m	0.18m	0.10m	204	10
1237	Posthole Cut	0.18m	0.18m	0.10m	204	10
1238	Posthole Fill	0.22m	0.19m	0.10m	205	10
1239	Posthole Cut	0.22m	0.19m	0.10m	205	10
1240	Posthole Fill	0.20m	0.17m	0.07m	206	10
1241	Posthole Cut	0.20m	0.17m	0.07m	206	10
1242	Posthole Fill	0.22m	0.22m	0.09m	207	10
1243	Posthole Cut	0.22m	0.22m	0.09m	207	10
1244	Posthole Fill	0.30m	0.20m	0.10m	208	10
1245	Posthole Cut	0.30m	0.20m	0.10m	208	10
1246	Posthole Fill	0.30m	0.24m	0.12m	209	10
1247	Posthole Cut	0.30m	0.24m	0.12m	209	10
1248	Posthole Fill	0.35m	0.20m	0.06m	210	10
1249	Posthole Cut	0.35m	0.20m	0.06m	210	10
1250	Posthole Fill	0.50m	0.30m	0.15m	211	10
1251	Posthole Cut	0.50m	0.30m	0.15m	211	10
1252	Posthole Fill	0.50m	0.32m	0.20m	212	10
1253	Posthole Cut	0.50m	0.32m	0.20m	212	10
1254	Posthole Fill	0.30m	0.22m	0.15m	213	10
1255	Posthole Cut	0.30m	0.22m	0.15m	213	10
1256	Posthole Fill	0.30m	0.15m	0.09m	214	10
1257	Posthole Cut	0.30m	0.15m	0.09m	214	10
1258	Line of Postholes					10
1259	Ditch Fill	26.00m	1.41m	0.40m	230	10
1260	Ditch Cut	26.00m	1.41m	0.40m	230	10
1261	Ditch Fill	5.00m	0.75m	0.21m	135, 138	10
1262	Pit Fill	2.00m	2.00m	0.97m	135, 138	10
1263	Pit Cut	2.00m	2.00m	0.97m	135, 138	10
1264	Pit Fill	3.00m	3.00m	0.62m	216	10
1265	Pit Cut	3.00m	3.00m	0.62m	216	10
1266	Ditch Fill	60.00m	0.43m	0.12m	217	10
1267	Ditch Cut	60.00m	0.43m	0.12m	217	10
1268	Natural	10.00m	10.00m	NFE	135	10
1269	Ditch Fill	3.00m	0.48m	0.15m	218	10
1270	Ditch Cut	3.00m	0.48m	0.15m	218	10
1271	Posthole Fill	0.30m	0.29m	0.11m	219	10
1272	Posthole Cut	0.30m	0.29m	0.11m	219	10
1273	Posthole Fill	0.30m	0.30m	0.11m	220	10
1274	Posthole Cut	0.30m	0.30m	0.11m	220	10

1275	Ditch Cut	15.00m	0.20m	0.20m	226, 227, 228	10
1276	Ditch Fill	15.00m	0.20m	0.20m	226, 227, 228	10
1277	Pit Cut	4.00m	2.14m	0.86m	227	10
1278	Pit Fill	4.00m	2.14m	0.56m	227	10
1279	Pit Fill	4.00m	2.14m	0.30m	227	10
1280	Pit Fill	1.20m	1.20m	0.15m	221	10
1281	Pit Cut	1.20m	1.20m	0.15m	221	10
1282	Ditch Fill	35.00m	1.63m	0.40m	221, 236, 237	10
1283	Ditch Cut	35.00m	1.63m	0.40m	221, 236, 237	10
1284	Ditch Fill	30.00m	0.56m	0.06m	221, 236, 237	10
1285	Ditch Cut	30.00m	0.56m	0.06m	221, 236, 237	10
1287	Pit Fill	4.00m	3.50m	0.24m	222	10
1288	Pit Cut	4.00m	3.50m	0.24m	222	10
1289	Pit Fill	3.00m	2.14m	0.50m	222	10
1290	Pit Cut	3.00m	2.14m	0.50m	222	10
1291	Pit Fill	2.52m	2.40m	0.30m	223, 224	10
1292	Pit Fill	2.52m	2.40m	0.29m	223, 224	10
1293	Pit Cut	2.52m	2.40m	0.55m	223, 224	10
1294	Pit Fill	1.05m	0.38m	0.13m	224	10
1295	Pit Fill	1.05m	0.38m	0.17m	224	10
1296	Pit Cut	1.05m	0.38m	0.30m	224	10
1297	Spread	20.00m	0.50m	0.12m	222	10
1298	Ditch Fill	2.00m	0.73m	0.10m	225	10
1299	Ditch Fill	2.00m	0.73m	0.41m	225	10
1300	Ditch Cut	2.00m	0.73m	0.51m	226	10
1302	Pit Cut	7.30m	4.00m	0.51m	226	10
1304	Pit Fill	12.00m	7.70m	0.62m	253	10
1305	Ditch Fill	35.00m	1.06m	0.20m	230	10
1306	Ditch Fill	35.00m	2.00m	1.06m	230	10
1307	Ditch Fill	20.00m	0.35m	0.19m	232, 233	10
1308	Ditch Cut	20.00m	0.35m	0.19m	232, 233	10
1309	Pit Fill	1.75m	0.97m	0.25m	138	10
1310	Pit Fill	1.35m	0.97m	0.16m	138	10
1311	Pit Cut	1.00m	0.73n	0.43m	138	10
1312	Pit Fill	0.70m	0.70m	0.20m	138, 135	10
1313	Pit Fill	1.00m	1.00m	0.21m	138, 135	10
1314	Pit Fill	1.75m	1.58m	0.60m	234	10
1315	Pit Cut	1.75m	1.58m	0.60m	234	10
1316	Ditch Fill	5.50m	1.20m	0.55m	234	10
1317	Ditch Cut	5.50m	1.20m	0.55m	234	10
1318	Ditch Fill	2.50m	1.14m	0.40m	234	10
1319	Ditch Cut	2.50m	1.14m	0.40m	234	10
1320	Ditch Fill	12.00m	0.97m	0.53m	234	10
1321	Ditch Cut	12.00m	0.97m	0.53m	234	10
1322	Pit Fill	1.06m	0.80m	0.25m	234	10
1323	Pit Cut	1.06m	0.80m	0.25m	234	10
1324	Pit Fill	1.00m	0.60m	0.44m	235	10
1325	Pit Cut	1.00m	0.60m	0.44m	235	10
1326	Pit Cut	1.62m	1.62m	0.11m	238	10
1327	Pit Fill	1.62m	1.62m	0.11m	238	10
1328	Pit Cut	2.30m	2.30m	0.62m	251, 252	10
1331	Pit Fill	2.30m	2.30m	0.62m	251, 252	10

1332	Pit Cut	1.42m	1.42m	0.80m	251, 252	10
1333	Pit Fill	1.42m	1.42m	0.80m	251, 252	10
1334	Pit Cut	1.50m	1.50m	0.96m	251	10
1335	Pit Fill	1.50m	1.50m	0.96m	251	10
1336	Spread	50,50m	8.00m	0.30m		10
1337	Spread	23.00m	5.00m	0.20m		10
1339	Pit Cut	1.62m	1.62m	0.50m	256	10
1340	Pit Fill	1.62m	1.62m	0.50m	256	10
1341	Spread	4.86m	3.50m	0.18m	255, 256	10
1342	Pit Cut	5.00m	5.00m	0.80m	255, 256	10
1343	Pit Fill	5.00m	5.00m	0.80m	255, 256	10
1344	Pit Cut	2.10m	2.10m	0.70m	255	10
1345	Pit Fill	2.10m	2.10m	0.70m	255	10
1346	Ditch Cut	15.00m	0.65m	0.19m	241	10
1347	Ditch Fill	15.00m	0.65m	0.19m	241	10
1348	Ditch Cut	5.00m	0.60m	0.38m	242	10
1349	Ditch Fill	5.00m	0.60m	0.38m	242	10
1350	Ditch Cut	8.00m	1.53m	0.85m	243, 254	10
1351	Ditch Fill	8.00m	1.53m	0.20m	243, 254	10
1352	Ditch Fill	8.00m	0.95m	0.27m	243, 254	10
1353	Ditch Fill	8.00m	0.77m	0.45m	243	10
1354	Pit Cut	1.40m	0.90m	0.96m	244, 246	10
1355	Pit Fill	1.10m	0.90m	0.25m	244, 246	10
1356	Pit Fill	1.25m	0.90m	0.35m	244, 246	10
1357	Pit Fill	1.20m	0.90m	0.35m	244, 246	10
1358	Pit Cut	1.03m	0.77m	0.53m	245, 246	10
1359	Pit Fill	1.03m	0.77m	0.30m	245, 246	10
1360	Pit Fill	0.77m	0.75m	0.25m	245, 246	10
1361	Pit Fill	1.20m	1.20m	0.37m	250	10
1362	Pit Cut	1.20m	1.20m	0.37m	250	10
1363	Ditch Fill	19.00m	0.50m	0.20m	250	10
1364	Ditch Cut	19.00m	0.50m	0.20m	250	10
1365	Pit Fill	1.06m	0.70m	0.20m	250	10
1366	Pit Cut	1.06m	0.70m	0.20m	250	10
1367	Ditch Fill	5.00m	0.90m	0.45m	247	10
1368	Ditch Cut	5.00m	0.90m	0.45m	247	10
1369	Pit Fill	3.50m	1.50m	0.40m		10
1370	Pit Cut	3.50m	1.50m	0.40m		10
1371	Fill of lake	26.00m	4.50m	0.40m		10
1372	Pit Fill	4.00m	2.10m	NFE		10
1373	Pit Cut	4.00m	2.10m	NFE		10
1374	Pit Fill	3.10m	2.00m	NFE		10
1375	Pit Cut	3.10m	2.00m	NFE		10
1376	Pit Fill	2.50m	1.50m	NFE		10
1377	Pit Cut	2.50m	1.50m	NFE		10
1378	Pit Fill	2.00m	1.80m	NFE		10
1379	Pit Cut	2.00m	1.80m	NFE		10
1380	Pit Fill	4.10m	3.20m	NFE		10
1381	Pit Cut	4.10m	3.20m	NFE		10

Appendix B - Matrix

Appendix C – Specialist Reports

Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire
AOC Project Number 30848
Specialist Post-Excavation Assessment Report prepared by Archaeology South-East
on behalf of AOC Archaeology Group
November 2010

The Roman Pottery by Anna Doherty

A moderate-sized assemblage of 766 sherds, weighing 7810 grams, and amounting to 7.02 EVEs was recovered from 73 different numbered contexts during the course of evaluation and excavation work. The average sherd weight of the assemblage is distorted by small sherds recovered from the environmental samples but, in general, the condition of the pottery is good, with quite a number of contexts containing substantial groups, including large and unabraded sherds.

In the interests of using a regionally-consistent methodology, fabrics and forms have been defined according to the unpublished type-series devised by Gavin Lucas at Cambridge University Field Archaeology Unit. The pottery was examined using a x20 binocular microscope and quantified by sherd count, weight and Estimated Vessel Equivalent (EVE).

Description of the pottery

The assemblage is dominated by just a few fabric types. Around a third is made up by unsourced coarse sandy wares, presumably mostly of local origin. As noted in the post-Roman pottery report (see below) some difficulty was encountered in distinguishing Roman and Medieval coarse sandy fabrics in cases where featureless bodysherds were found in isolation. Hopefully further research into these fabrics together with a consideration of their stratigraphic context, will clarify this at the analysis stage. Coarse sandy wares are associated primarily with necked jars and black-burnished style dish/bowl forms in this assemblage. These include examples of plain flanged and incipient bead-and-flange bowls, which were not produced beyond the end of the 3rd century, as well as mid 3rd to 4th century bead-and-flange ones. No certain examples of Dorset BB1 were identified but a coarse black-burnished style fabric does make up just under 5% of the total and is particularly associated with plain dishes and large plain flanged bowls. Similar wares found in central Cambridge were tentatively suggested to be of an East Anglian source (Hull and Pullinger 1999, 142)

Fabrics from the Hadham industry also constitute about a third of the total, and Hadham red-wares were found in almost every Roman context, which suggests that there was probably no significant activity before the second half of the 3rd century. There is quite a range of coarseness in the Hadham wares and, in terms of form; there are more examples of coarser necked jars or bowls than samian style bowl forms or flagons. In addition, only three sherds featured complex rouletted or impressed decoration.

A start date in the later 3rd century is also supported by the fairly large total of South-Midlands shelly wares, making up about 11% of the assemblage by sherd count. These are associated almost exclusively with rilled, necked jars, dated in the Lucas type-series to AD240-400. One sherd, in a fabric fairly indistinguishable from South-Midlands shelly-ware, which was found in one of the largest groups of Roman pottery, in context [1044], is from a socketed bowl, at present thought most likely to be of Late Saxon date (see below). However, the extremely large, non-fragmented state of the sherd makes it uncharacteristic of intrusive pottery, so it is suggested that further consultation with local specialists is carried out to completely rule out the possibility that it could be a highly unusual Roman form.

A small number of other shelly fabrics, mostly associated with thicker walled sherds from storage jars, are probably of a different origin, most likely the Nene Valley. Some sandy storage jars sherds featuring the characteristic combing of the Horningsea industry were also identified, and it is possible that other less diagnostic sherds from this source were recorded in the coarse sandy wares category. Although Horningsea kilns probably produced pottery throughout the Roman period, their products tend to come from 3rd century contexts when distributed further away from the production centre (Cameron 1996, 452).

More certain examples of Nene Valley fabrics, chiefly colour-coated wares, make another major fabric group, accounting for around 7% of sherds. Interestingly, Nene valley colour-coated fabrics are associated more often with necked jars and bead-and-flange bowls than with beakers or other fine ware forms. There was thought to be a shift in focus towards producing a greater number of coarse wares in Nene Valley colour-coated wares during the 4th century (Perrin 1999, 87).

Perhaps also of note from a dating point of view is the relatively small number of sherds contributed by the Oxfordshire industry; those sherds that are present are overwhelmingly from white ware mortaria. Although this may, in part reflect the dominance of red wares from Hadham in this area, in general, Oxfordshire red-slipped wares became much more dominant from the mid 4th century in Southern Britain.

It is also worth noting that imported wares make up a tiny proportion of the assemblage, probably reflecting a small number of samian vessels from Central and East Gaul still being curated in use at a time when Romano-British industries began to make fine and table wares in much greater quantities. One tiny sherd of residual 1st century South Gaulish samian provides the only possible evidence of activity pre-dating the main phase of occupation on site. The only other import from the site is from a bifid rim jar in North Gaulish grey ware.

Overall dating of the assemblage

The composition of pottery groups is very homogeneous across different features, probably suggesting that activity on site is largely contemporary and perhaps relatively short-lived. A fairly certain mid 3rd century *terminus post quem* for activity on site is provided by a number of elements, including the widespread presence of Hadham and South Midlands shelly wares. Estimating the end-date for the settlement is slightly more difficult because there were less dramatic shifts in supply and distribution of pottery over the late 3rd to 4th century. It is of note that there are a few sherds which do not post-date the end of the 3rd century and, whilst the date range of the assemblage may extend well into the 4th century, it seems unlikely that it dates to beyond c.AD 350 because of the low levels of

Oxfordshire red-slipped ware and the absence of any diagnostically very late Roman traits. More in depth comparison of the key groups to material from other local sites may help to refine dating at the analysis stage.

Significance and potential

Although not a very large assemblage, the pottery is of some regional importance because much of it derives from good stratified groups. At least five contexts [1018], [1044], [1219], [1262], [1264], contain medium to large groups, and many more contain small to medium ones which may also provide useful comparative data, if there is justification for amalgamating them together as part of larger feature assemblages. Further work should include comparison with other local assemblages, particularly Earith, currently undergoing analysis at Cambridge University Field Archaeology Unit (Monteil 2003; Anderson 2004); it may also be worth comparing the supply and distribution of pottery with sites in north Hertfordshire and east Bedfordshire at the analysis stage.

Further Work

Integration of stratigraphic data and final selection of key groups for analysis	0.5 days
Analysis of key groups	1 day
Literature search and further reading for comparative purposes	1 day
Extraction of pottery for illustration	0.5 days
Total	**3 days**

The number of illustrations required is dependent on the final selection of key groups but would probably not exceed 30 vessels.

The post-Roman pottery by Luke Barber

The archaeological work recovered a very small assemblage of post-Roman pottery. At least 16 (111g) sherds of definite medieval pottery are present along with single sherds of early post-medieval (4g) and late post-medieval (1g) wares. In addition there are a few chronologically ambiguous sherds that could be of medieval, or Roman date. These generally consist of small abraded sandy ware bodysherds sherds in deposits which are often of Roman date but include intrusive medieval pieces. The only exception to this is the coarse shelly ware bowl from Roman gully [1043] (fill [1044]). This large sherd (307g) is very similar in form to late Saxon socketed bowls, albeit with a slightly abnormally oval socket, close examples being known in Thetford sandy wares (McCarthy and Brooks 1988, Fig. 80, No. 168). Further consideration of this sherd will be needed at analysis stage. All of the definite post-Roman pottery consists of small, often abraded, sherds. Very few feature sherds are present in the assemblage and all context groups are small: the largest consisting of a mere four sherds (40g) from cut [1103], fill [1104]. The insignificant size of the context groups makes feature dating problematic as the material could easily be intrusive from general medieval activity across the site between the later 12th to mid 14th centuries. The assemblage has been listed for archive on an excel database.

Six medieval fabric groups are present. A 13th- to 14th- century fine/medium oxidized sandy ware (3/27g) with no discernable vessel types is present in the subsoil [1002] only. Pit [410], fill [409] of the evaluation produced a heavily abraded unglazed fine sand tempered greyware sherd of Grimston-type ware (1g) and another coarser reduced sandy ware is represented by seven sherds (57g), the most significant of which is a cooking pot with thickened club rim of later 12th- to mid 13th- century type (fill [1104]). All of the other sherds in this ware are from either this deposit, or from pit [1101], fill [1102]. Other coarseware fabrics are represented by a fine shelly ware (1/6g) later 12th- to mid 13th- century cooking pot with club rim (pit [1293], fill [1291]) and a fine oxidized sandy ware bodysherd (2g) with sparse flint inclusions to 2mm from ditch [610], fill [609]. The latter sherd is more ambiguous of date. It is thin walled and quite well fired and although in a Roman feature the sherd (2g) could represent 13th/early 14th century intrusion. A larger, more diagnostic sherd would be needed to be certain. The medieval finewares are represented by three bodysherds (18g) from fine oxidized sandy ware jugs. Two of these (pit [410], fill [409] and ditch fill [1015]) simply have a thin clear external glaze, however, the example from ditch [1328], fill [1329] has a good green glaze over an applied decorative curving strip. Although the fabric is not typical of Grimston wares, this form of decoration is (McCarthy and Brooks 1988, 267) and a mid 13th- to mid 14th- century date is probable.

Pit [304], fill [303] produced the only early post-medieval sherd (4g), this being notably fresher than the generally abraded medieval material. It consists of a black-glazed red earthenware, possibly from a mug with external cordon, likely to be of 17th- to early 18th- century date. A number of production centres were producing such wares such in the region, including Ely (Edwards and Hall 1997, 158). The only late post-medieval sherd consists of a tiny chip of green transfer-printed ware, intrusive in ditch [1054] (fill [1053]).

The post-Roman assemblage from the site is too small, abraded and lacking in diagnostic pieces to warrant any further detailed analysis. Context groups are always small and often the degree of intrusiveness is unclear. The material suggests a certain amount of later 12th- to mid 14th- century activity on the site, possibly associated with manuring, with even less activity in the post-medieval period. It is however proposed to undertake some further work on the shelly ware bowl in an attempt to establish whether this is an unusual Roman form or of post-Roman date. This work will be undertaken during the analysis of the Roman assemblage. No further work is proposed on the medieval/post-medieval assemblages.

The Ceramic Building Material by Sarah Porteus

A total of 29 fragments of ceramic building material (CBM) with a combined weight of 5800g were recovered from the evaluation and excavation phases. The assemblage contains material of Roman to post-medieval date.

The assemblage has been examined using a x10 binocular microscope and has been quantified by count, weight, form and fabric. Data has been recorded on pro forma sheets for archive. A provisional fabric series has been drawn up and the majority of the material has been retained.

Roman

Two principal fabric groups were identified, R1 and R2. All Roman fabrics were in a similar sandy fabric with some minor variations in inclusions (table 1).

Fabric	Description	Contexts
R1	fine orange sandy fabric with sparse fine to medium sized quartz inclusions with sparse dark red silt speckles	505, 1313, 1227, 1131, 1127, 1089, 1044, 1018
Sandy R1	medium sandy orange fabric with abundant fine black sand and red silt speckles	1219, 1127, 1157
NrR1	Version of R1 with marginally more quartz inclusions	1044
R2	fine sandy fabric with sparse fine calcareous inclusions similar to R1, also has occasional red silt inclusions	1159, 1089

Table 1: Roman fabrics.

Roman forms included brick, *imbrex* and flue tile, with one fragment of tile being possibly *tegula* or flue tile (table 2). The majority of the material was reduced and abraded with around half the Roman material by weight (6/1238g) showing signs of being heat affected post-firing. The flue tile fragment originates from a heated structure, suggesting the heat affected appearance is due to the fragments having been used in a hypocaust system. The flue tile (context [1044]) has combed keying made by a four toothed comb of 19mm width. The pattern appears to be of two parallel comb lines with a zig zag motif in between. The abraded nature of the material and the relatively small quantity suggest that the material has moved from the original location, making it unlikely that the structure from which the fragments originate was located in the immediate environs of the excavation site.

Form	Weight (g)	Count
brick	1672	7
flue tile	202	1
imbrex	116	2
tegula or flue	14	1
Unidentified tile	738	7
Total	**2742**	**18**

Table 2: Roman form by count and weight.

Post-Roman

Post-Roman material was recovered from a number of contexts during the evaluation phase. The earliest fragments were late medieval to early post-medieval in date and comprised fragments of abraded peg tile in a coarse sandy fabric from contexts [405] and [304]. Post-medieval brick fragments were also recovered from context [203] and include thin fine sanded red brick of 18^{th-} to 20^{th-} century date and an under fired unfrogged sandy orange brick of 15^{th-} to 18^{th-} century date. Probable post-medieval brick fragments were also recovered from context [505] and may be intrusive.

Discussion
The assemblage indicates the presence of a heated Roman structure in the area. The size of the assemblage however suggests that such a structure was not located immediately upon the excavation site. The similarity of the Roman fabric types indicates they are likely to have been made from similar base clay with only slight variations in additional inclusions.

Material for Illustration
None

Analysis of Potential
The ceramic building material provides broad dating evidence for the features in which it occurs.

Significance of the data
International and National

The assemblage is not of international or national significance.

Regional and local

The assemblage is not of regional significance.

Further Work required
None

Preparation for deposition of the archive
The remaining building materials should be re-boxed in stable cardboard boxes.

Conservation requirements
None.

The Glass by Elke Raemen

Overview of the Assemblage
Two fragments of glass (wt 6g) were found in two different features. Both pieces are of Roman date. Included is a blue/green handle fragment from a bottle of undiagnostic form. These storage bottles date to the mid 1st to late 2nd century and are common occurrences in any Roman glass assemblage. The second piece is a pale green, thick-walled neck fragment (di. ca. 20mm) from a flask or jug. Although again of Roman date, it is too small to determine either its exact form or a closer date.

Significance and Potential
Only two isolated fragments were found, one of which is a commonly found type whereas the other piece is undiagnostic. Given the size of the assemblage, the only potential for the group lies in its contribution to the dating.

Methodology for Further Work
The assemblage has been fully recorded for archive. No further work is required.

The Clay Tobacco Pipe by Elke Raemen

A single stem fragment (wt4g) was recovered from ditch [406] (fill [405]). The piece is plain and dates to the mid 18th to 19th century.

Significance and Potential

As only one fragment was found and stem fragments are easily found to be residual or intrusive in contexts, the piece provides an only limited contribution to the dating evidence.

Methodology for Further Work

The fragment has been recorded on pro forma sheets for archive. No further work is proposed.

The Worked Bone by Elke Raemen

A single worked bone object (RF <21>) was recovered from ditch [1019] (fill [1018]). The piece consists of partially surviving side plates as well as a spacer, held together by an in situ iron rivet. The side plates are decorate with a single and double ring-and-dot motif, as well as decorative carving along one edge. The fragments are likely to be from a comb case, comparable to early medieval examples from Lauracium and Kremsdorf (MacGregor 1985 Fig 54, nos. a and b, 97) both of which are Continental types.

Pottery from the same context is mixed, including both Roman and late medieval pottery. If the comb is of early medieval date, as its type suggests, it is likely to be residual. Roman comb cases have as yet not been recovered from Britain, but comb cases were manufactured up to the 14th century (MacGregor 1985: 97-98).

Significance and Potential

Comb cases are relatively uncommon and as such the find is important to further our knowledge of this category of object. Furthermore, the object could be of a type unusual to Britain. In addition, even given its presence in a mixed context, if an early medieval date can be established, it will shed more light on the material culture on this site during this period.

As such, the comb could be of not only local but also national significance. However, further work is required to establish this.

Further Work

Further research is necessary to confirm the date as well as to establish the type of the comb case. Parallels may be sought in order to put the object in its wider context, both by comparing it to British examples of the same type, and, if applicable, to Continental comb cases of the type. A publication report will be prepared and the object requires illustration.

- Research into parallels for the comb case in order to establish date and type.
- Research into type distribution
- Prepare publication text

Total: 2 pd excluding illustration.

The Fired Clay by Elke Raemen

Overview of the Assemblage

A small assemblage consisting of only three fragments of fired clay (wt 28g) was recovered from two different contexts.

Included are two pieces from pit [304] (fill [303]), both in a moderate fine sand-tempered fabric with occasional voids/organic temper and rare iron oxide inclusions to 1 mm (F1). A fragment from ditch [509] (fill [508]) is in a sparse fine sand-tempered fabric containing rare iron oxide inclusions to 1 mm (F2). None of the pieces retain any features. Pit fill [303] contained a 17th- to early 18th-century pottery sherd, whereas pottery dating to ca. AD 250-350 was recovered from ditch fill [508].

Significance and Potential

The assemblage is too small and undiagnostic to be of any significance for further analysis.

Methodology for Further Work

The assemblage has been recorded in full on pro forma sheets for archive. No further work is required.

The Geological Material by Luke Barber (incorporating comments by Dr Peter Hoare)

The evaluation and subsequent excavations recovered 10 pieces of stone, weighing 3156g, from six individually numbered contexts. The assemblage has been fully listed on pro forma and excel database for archive. With the exception of a possibly intrusive piece of 19th- century Welsh slate in evaluation context [505], all of the stone is likely to be from Roman features. All pieces are weathered and have a certain amount of calcium build-up due to their burial environment. No worked pieces of stone are present but a cobble from gully [1043], fill [1044] shows some signs of sooting/burning.

Six pieces of stone (2290g) consist of fine/medium slightly calcareous sandstones (five variants) typical of the Lower Triassic Bunter Sandstones of East Central England. Clasts of this formation are widely distributed within superficial deposits in the East Midlands and East Anglia through fluvial and glacial reworking. As such these rounded cobbles would have probably been local to the site. The only exception to this may be the tabular piece from ditch [1019], fill [1018] which appears fresher and may have arrived through different means, perhaps for roofing. Ditch [1364], fill [1363] produced a piece of coarse off-white calcareous sandstone of probable Jurassic origin and pit [1293], fill [1291] a piece of weathered porphyritic lava (60g), the latter from northern England. Both stone types are likely to have arrived on site through the same mechanisms that brought the Bunter sandstones and as such can be considered naturally available to the site. The only stone geologically derived from the site itself consists of a piece of weathered tabular flint from pit [1293] (68g).

The stone assemblage from the site is small and consists of unworked material that is likely to have been available locally. As such the assemblage has no potential for further analysis and no work is proposed.

The Marine Shell by Elke Raemen

Overview of the Assemblage

A small assemblage of 17 fragments of marine shell (wt146g) was recovered from 10 individually numbered contexts. Most of these are Roman-dated features, mainly ditches. Only two different species were identified: almost all pieces consist of valves from the Common Oyster (*Ostrea Edulis*), with only one fragment originating from a Common Mussel (*Mytilus Edulis*).

Most oyster fragments are from immature valves, with upper and lower valves represented in almost equal numbers. Almost all pieces retained some evidence of parasitic damage. No single context contained a significant assemblage e.g. no context contained more than two individual shells (Table 3).

Context	Sample	No	Wt (g)	Species	MNI	parasitic activity Y/N	I/M	LV/UV
1018		1	18	*Ostrea Edulis*	1		I	LV
1044		1	8	*Ostrea Edulis*	1	Y	I	LV
1084		1	14	*Ostrea Edulis*	1	Y	I	LV
1096		1	14	*Ostrea Edulis*	1	Y	I	UV
1123	6	1	<1	*Mytilus Edulis*	1			
1131		3	26	*Ostrea Edulis*	2	Y		UV
1157		1	24	*Ostrea Edulis*	1		M	LV
1157		2	8	*Ostrea Edulis*				UV
1291		1	8	*Ostrea Edulis*	1		I	UV
1306	8	4	4	*Ostrea Edulis*	1			
1313		1	22	*Ostrea Edulis*	1	Y	M	UV

Table 3: Overview of the shell (MNI = minimum number of individual shells; I/M = immature/mature; LV/UV = lower valve/upper valve).

Significance and Potential

The assemblage is small, lacking significant groups. As such it is of little potential for further analysis.

Further Work

The assemblage has been recorded in full on pro forma sheets for archive. Any information required for the site narrative can be extracted from these and the above report. The assemblage is not considered to warrant a stand-alone report and no further work is required.

The Animal Bone by Gemma Ayton

The animal bone assemblage contains 999 fragments recovered from 44 contexts provisionally dated to the Roman period. A further 105 fragments derive from undated context. The assemblage has been recovered through hand collection and the processing of soil samples from pits and ditches. The assemblage is in a moderate condition with a large number of specimens showing signs of root etchin.

Methodology

Wherever possible bone fragments have been identified to species and the skeletal element represented. The bone was identified using the in-house reference collection, held at Archaeology South-East, and Schmidt (1972). Elements that could not be confidently identified to species, such as long-bone and vertebrae fragments, have been recorded according to their size. The larger fragments are recorded as cattle-sized and the smaller fragments as sheep-sized. To assist with the MNE calculations and in an attempt to avoid the distortion caused by differing fragmentation rates, the elements have been recorded according to the part and proportion of the bone present with reference to Serjeantson's (1996) zoning system.

The state of fusion has been noted and tooth wear has been recorded according to Grant (1982). Attempts to differentiate between sheep and goat long-bones and teeth have been carried out with reference to Halstead and Collins 2002, Boessneck 1966 and Boessneck *et al* 1969. Measurements have been taken in accordance with Von Den Driesch (1976). Each fragment has then been studied for signs of butchery, burning, gnawing and pathology.

Assessment and Potential

The identification of the Roman assemblage has been hampered by the poor preservation of the bone. A total of 448 fragments have been identified to taxa with the remaining assemblage consisting of small, eroded fragments. The identified taxas includes cattle, sheep goat, pig, dog, horse and red deer as well as small quantities of fish, small mammal and amphibian bone.

Although the assemblage is relatively small and from a broad chronological age group, analysis of the bone has potential to provide information regarding Roman animal husbandry regimes in the area.

The assemblage contains both meat bearing and non-meat bearing bones and contextual analysis may reveal the presence of activity areas.

Epipyseal fusion and tooth wear data will provide evidence regarding the mortality profiles for cattle and sheep and measurements of horse teeth will provide age-at-death data with reference to Levine (1982).

Although no complete dog bones were recovered the comparison of the bones from context [1016] with a large reference collection may provide information regarding size and build. The dog bones appear to represent a single animal and articulated dog skeletons are often associated with ritualistic activities. Further analysis of the skeleton and any associated finds may highlight possible ritualistic activites.

Two fragments of cattle bone, including a phalanx and a metatarsal, displayed signs of pathology. Further investigation may provide evidence as to the function of these cattle as pathology in the extremities is often associated with stress.

Research Aims

What can the bone assemblage tell us about the husbandry regimes in the area?

Can activity areas be identified through the animal bone assemblage?

Can the type and age at death of the dog be determined from metrical and tooth wear and eruption analysis? Is the possible that the dog skeleton represents a ritualistic offering?

Methodology for Further Work

Analysis of the relative proportions of species, element distribution and age-at-death data = 1 day

Comparison of the dog skeleton with reference material = 0.5 days

Recording and analysis of pathological bone = 0.5 days

Comparison of data with local sites and sites of a similar function with particular reference to the articulated dog skeleton = 0.5 days

Total = 2.5 days

Environmental Samples by Karine Le Hégarat

Introduction

Bulk samples were taken by AOC Archaeology Group during excavation work at Kneesworth House Hospital, Bassingbourn-cum-Kneesworth to establish evidence for environmental remains within the archaeological deposits and to assess the potential of the assemblage to provide information regarding the past vegetation environment, fuel use and agriculture. Flots from twenty-eight bulk samples, charred macrobotanical remains from the residues from fourteen samples as well as hand collected charcoal from ditch fill context (1130) and pit fill context (1262) were submitted for post-excavation assessment. Environmental bulk samples were taken from an array of features including structural features (postholes), pits, ditches and linear features dating mainly to the Roman period although ditch fill (1329) yielded some material dated to the medieval period and seven features were undated.

Methodology

The remains from the residues were weighed and the contents recorded (Table 4). Flots were scanned under a stereozoom microscope at x7-45 magnification and an overview of their contents was recorded in Table 5 which is arranged in order of preliminary spot date information and context

types. Preliminary identifications of marobotancial remains have been made using modern comparative material and reference texts (Cappers *et al.* 2006, Jacomet 2006, NIAB 2004). Nomenclature used follows Stace (1997). Abundance and preservation of the macrobotanicals have been recorded to establish their potential for further analysis. The presence/ absence of wood charcoal fragments was recorded and where apparent the presence of roundwood was noted. Several fragments were fractured and viewed under a stereozoom microscope at x7-45 for preliminary grouping and under an incident light microscope at x50, 100, 200 & 400 for identification through reference to comparative material (Hather 2000, Schoch *et al.* 2004, Schweingruber 1990) to give an indication of the range of taxa present and the quality of preservation. Recommendations for further identification and analysis are made below where specimens are abundant and well-enough preserved.

Results

Overall sampling produced small flots ranging from <2ml to 68ml with the exception of sample <28> taken from pit [1354] which produced a larger flot measuring 147ml. All the flots contained varying quantities of charred macrobotanicals and with the exception of posthole contexts (1176) and (1197) all samples contained large proportions of non-marine mollusca.

Roman period

Linear features

Samples <4, 9 and 10> taken from linear features (1053, 1137 and 1158) produced a limited quantity of small charred wood fragments as well as a small amount of charred crop remains including wheat (Triticum sp.), some unidentified grains (Cerealia) as well as half a vetch/tare (Vicia/Lathyrus sp.). Rare charred weed seeds from the goosefoot (Chenopodiaceae) family were recorded in sample <9>. The charred plant remains were poorly preserved. Vesicular material which could represent coke and glassy material were present in these samples.

Ditches

The flots from thirteen samples, <26, 11, 3, 6, 12, 13, 18, 29, 32, 34, 37, 7 and 31> extracted from the fills of twelve ditches produced infrequent charcoal and variable amount of charred macrobotanicals. Charred cereal remains included grains of wheat (Triticum sp.), barley (Hordeum sp.), some unidentified caryopses (Cerealia) as well as some chaff elements. Although caryopses were recorded in all the flots, samples <6>, (1123) from ditch [1124] and <13>, (1259) from ditch [1260] were particularly rich. Chaff components consisted principally of indeterminate spikelet bases and glumes bases some of which were characteristic of spelt wheat (Triticum spelta). These were infrequent in four samples (<3, 7, 11 and 31>) but exceptionally abundant in sample <13>, although moderately to poorly preserved. Small quantities of charred wild/weed seeds were also recorded in several samples. Taxa so far indentified included knotweed/ dock (Polygonum/Rumex sp.), vetch/tare (Vicia/Lathyrus sp.), ribwort plantain (Plantago lanceolata), one possible black-bindweed (cf. Fallopia convolvulus), oat/brome (Avena/Bromus sp.) as well as other grasses (Poaceae). A possible tuber of onion couch grass (cf. Arrhenatherum elatius var. bulbosum) was present in sample <7>, (1044). Fly puparia were also noticed in this latter sample. The residue from sample <12>, (1219) ditch [1220] produced large fragments of charcoal including several pieces of oak (Quercus sp.) roundwood measuring approximately 2cm in diameter. Oak charcoal fragments were also collected from context [1130], the fill of ditch [1129] although this assemblage contained both mature wood specimens from larger timbers as well as some moderately sized roundwood.

Small bones and bone fragments including mammal bones and a possible fish bone were recorded in very small quantity in samples <11, 12, 13, 18 and 31>. Sample <26>, [1363] contained 15 grams of grey, vesicular industrial debris.

Pits

Botanical remains were also present in samples <8, 14, 17 and 28> taken from pit fill contexts (1141, 1314, 1262 and 1357). They included a moderate quantity of charred cereal remains including grains of wheat (Triticum sp.), barley (Hordeum sp.), some unidentified caryopses (Cerealia) as well as a single glume base distinctive of spelt wheat (Triticum spelta). Charred wild/weed seeds consisted of infrequent knotweed/ dock (Polygonum/Rumex sp.), vetch/tare (Vicia/Lathyrus), grasses (Poaceae) and several unidentified seeds. Monocotyledon stem fragments were recorded in sample <8> and sample <28> produced a small quantity of hazelnut shell fragments (Corylus avellana) as well as some unidentified charred plant remains (CPR). Samples <8, 14 and 17> produced small quantities of moderately to poorly preserved small wood charcoal fragments, which were mainly <4mm in size. However, small wood charcoal fragments were particularly abundant in the flot from sample <28> extracted from the primary fill (1357) of pit [1354]. This assemblage appears to contain a range of different taxa including possible whitebeam/hawthorn/apple/pear (Maloideae group taxa), cherry/blackthorn (Prunus sp.) and hazel/alder (Corylus/Alnus sp.). Sample <28> also contained some small mammal bones. Two fragments of hazel/alder (Corylus /Alnus sp.) roundwood charcoal were hand collected from context [1262] although charcoal was relatively infrequent in the sample from this feature.

Roman or Medieval period

Ditch

Charred plant remains were uncommon in sample <46> from the fill (1329) of ditch [1328] including infrequent grains of wheat (Triticum sp.) and indeterminate grains (Cerealia) as well as sparse small charred wood fragments. A single very small fragment of cremated bone was noticed in the residue.

Undated

Structural features

Charred plant remains were relatively uncommon in samples <19, 20 and 23> taken from undated structural features. They were limited to small wood fragments <2mm in size.

Pits and ditch

Similarly, samples <25 and 27> extracted from the fills (1361 and 1365) of undated pits [1362 and 1366] and sample <30> from ditch fill context (1368) contained a small quantity of charred plant remains including small fragments of charcoal and infrequent grains (wheat (Triticum sp.), possible barley (cf. Hordeum sp.) and some indeterminate grains). However, sample <2> from the fill (1045) of pit [1046] produced a larger quantity of charred plant remains including a small charcoal fragments and charred macrobotanicals. Charred cereal grains included wheat (Triticum sp.), barley (Hordeum sp.) and some unidentified caryopses. Wild/weed seeds such as knotweed/ dock (Polygonum/Rumex sp.), medick/clover (Medicago/Trifolium sp.) as well as seeds from the goosefoot (Chenopodiaceae) family were recorded. Small and infrequent wood charcoal fragments were also recovered in residues from samples <22, 24, 41 and 45>.

Significance and potential

This assessment has confirmed the presence of environmental remains including wood charcoal, charred macrobotanicals, mammal and possible fish unburnt bones as well as a single small cremated bone fragment, fly puparia and land snail shells (LSS). The latter were present in variable quantity in all the samples. With the exception of LSS, environmental evidence amongst the samples was variable. In fact, the majority of the samples produced a relatively low density of environmental remains. These were almost absent in samples <19, 20, 23, 26 and 30>. Nonetheless, five samples (<2, 6, 12, 13 and 28>) produced significantly higher concentrations of charred plant remains.

Preservation

The botanical remains were predominantly preserved by carbonisation, with some possible occasional seeds preserved by waterlogging and mineralisation (see below).

Uncharred materials were infrequent and included occasional fine roots, rare twigs and seeds of elder (*Sambucus nigra*), possible black mulberry (*Morus nigra*) as well as seeds from the goosefoot (Chenopodiaceae) family. A possible immature beech bract (cf. *Fagus sylvatica)* and some lime fruits (*Tilla platyphyllos)* were also noted in sample <12>. Sufficiently moist conditions at the time of burial combined with anoxic burial environment, such as sealed deposits or a high water table can ensure the survival of uncharred seeds. Nonetheless, this observation requires further investigation using site and context information such as evidence for waterlogging. In the absence of evidence for waterlogging these remains are most likely intrusive.

Preservation by mineralisation occurs under moist to wet conditions, when the plant tissues decay anaerobically in the presence of calcium-rich ground water, lime or high concentration of organic waste (faecal material) or bones. The possible presence of mineralised elder seeds in samples <3, 6 and 18> is interesting. It could indicate disposal of cess material or general waste within the features. Although fly puparia suggesting the presence of faecal matter were observed in the fill (1044) from ditch [1043] no mineralised macroplants were recorded in the sample. As noted above ground conditions at the site during excavation might assist in interpreting the presence of the fly puparia.

Diet

Several samples produced moderate to rich assemblages of charred cereal remains. Although these were dominated by moderate to poorly preserved unidentified cereal caryopses, wheat and barley were also recorded. Amongst the identifiable grains, wheat clearly outnumbered the barley. Although frequent in deposits recorded during excavations at Stansted (Carruthers 2008), barley was also uncommon on all the A120 sites (south of present site) during the Iron Age/early Romano British period (Carruthers 2007). At the time, barley was principally used as fodder and the small quantity of barley within the crop assemblage could either be linked to the type of soil or it could indicate small scale livestock. During the Romano British period, barley was then uncommon on the A120 sites as well as on the Stansted sites. Various excavations in and around Stansted have also shown that both spelt and emmer were cultivated in the area at least until the Late Iron Age/ early Romano British period when spelt progressively replaced emmer as the main wheat for human consumption (Carruthers 2008). Although bread wheat started to appear in these assemblages at the beginning of the Romano British period no free threshing variety of wheat was noticed in the assemblage from

Kneesworth House Hospital. Nonetheless, six samples from Kneesworth House Hospital produced some glume bases as well as spikelet bases. They were particularly abundant in sample <13>. These crop processing waste products are very interesting. They can help isolate species of hulled wheat and although their preservation was moderate, several glume bases were identified as spelt. Further analysis could help identify other species of hulled wheat (such as emmer). If the botanical evidence suggests that barley and wheat were cultivated locally, the presence of crop processing residues could suggest a nearby settlement. The high frequency of chaff remains in sample <13> with very few grains and almost no weeds is of interest. It could simply correspond to the waste of domestic activities linked to the last stages of crop processing. It has been suggested that grains, stored in their spikelet forms to increase protection, were detached from the glumes on a regular basis (Hillman 1981). However, with a low ratio of charred grains and almost no weeds, the rich assemblage of cereal processing waste (sample <13>) could correspond to a new processing technique taking place on a larger scale as observed by Carruthers (2007, 2008). This sample provides some potential to examine this further.

Non cereal crops include vetch/tare. These were recorded in very small quantities in several samples. Nonetheless, it is not easy to determine if the plants were wild or cultivated species for human consumption and although the plants could have been grown and used for human consumption, they could also have been introduced to the site as weeds alongside other crops. Although most of the assemblage consisted of poorly preserved remains, sample <2> could contain some identifiable seeds.

Food gathered in the wild is represented by some hazelnut shell fragments and elder seeds.

Local vegetation

A relatively small assemblage of wild/weed species was observed in the deposits. Grass seeds, knotweed/ dock and ribwort plantain seeds as well as seeds from the goosefoot (Chenopodiaceae) family represent plants which can grow in a variety of habitats including disturbed ground, hedgerows and cultivated places. Elder and hazel can originate from hedgerows or more open scrub. Evidence for hedgrerow and scrub taxa in echoed in the small charcoal assemblage by the presence of Maloideae group taxa, blackthorn and hazel and sample <28> in particular which is directly associated with a moderately rich assemblage of macrobotanical remains has potential to provide information about the range of taxa collected and used for fuel. Although the charcoal assemblage contains several fragments of roundwood and these might originate from coppiced woodland sources unfortunately the assemblage is very small and therefore holds limited potential for further analysis.

Further work

Charred macrobotanical remains from undated pit [1046] (sample <2>), Roman ditches [1124] and [1260] (samples <6> and <13>) and Roman pit [1354] (sample <28>) provide the best potential for further analytical work. They are interesting as they suggest the presence of a settlement nearby. They consist principally of charred crop remains, which are only moderately to poorly preserved. Charcoal fragments in sample <28> will also be examined to contribute to the interpretation of fuel use associated with the charring event leading to preservation of the macrobotanical remains.

Nonetheless, when detailed phasing is confirmed, these four samples have the potential to contribute to our interpretation of the site and our understanding of agricultural practices and development. The work will focus on the above four, crop remains rich, samples but will also integrate the other less productive samples from the site. This work will include quantification and identification through comparison with reference material. Further work should also compare the Roman assemblages from this site with other records from the area.

Time requirements

Macrobotanical remains

Sorting, quantification and identification	3.5 days
Data entry and manipulation/ report writing / literature consultation	1.5 days
Total	**5 days**

Charcoal

Analysis and identification	0.5 days
Data entry, report writing / literature consultation	0.5 day
Total	**1 day**

Table 4: Residue quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weights in grams

Period/spot dates	Context / deposit type	Sample Number	Context	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Crem Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
150-400	**Ditch fill**	26	1363									Vesicular material **/14g
250-400	**Pit fill**	8	1141			*	<2					
250-400	**Fill of linear feature**	9	1137			* very vitrified	<2					
250-400	**Ditch fill**	12	1219	*	12							
250-400	**Pit fill**	14	1314			*	<2					
250-400	**Ditch fill**	32	1157					*	<2			
250-400	**Fill of [1221]**	36	1222			*	<2					Industrial debris
250-400	**Pit fill**	17	1262			*	<2					
1200-1350	**Ditch fill**	46	1329			*	<2	*	<2	*	<2	
undated	**Fill of posthole**	22	1179			**	<2					
undated	**Primary fill of posthole**	24	1167			*	<2					
undated	**Pit fill**	25	1361			*	<2	*	<2			
undated	**Pit fill**	41	1051	*	<2	*	<2					
undated	**Pit fill**	45	1037	*	<2	*	<2					

Table 5: Flot and charcoal quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation (+ = poor, ++ = moderate, +++ = good)

Spot dates	Sample Number	Context	Context / deposit type	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	Identifications	Preservation	weed seeds charred	Identifications	Preservation	other botanical charred	Identifications	Preservation	Insects, Fly Pupae etc min	fish, amphibian, small mammal bone	LSS	Ind debris hammerscale
40-400	4	1053	**Fill of linear feature**	32	50	20	20	** Chenopodiaceae indet., *Sambucus nigra*	*	**	**	*	*Triticum* sp., Cerealia	+ to ++									*** 5 types 50%	** 10%
250-400	9	1137	**Fill of linear feature**	12	20	5	2	* Chenopodiaceae indet.	*	**	**	**	*Triticum* sp., Cerealia	+	*	Chenopodiaceae indet.	+						*** 5 types 75%	*
250-400	10	1158	**Lower fill of linear feature**	6	4	2	4	* Chenopodiaceae indet.	*	**	**	**	*Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+				*	unident. CPR	+ to ++			*** 6 types 80%	*
150-400	26	1363	**Ditch fill**	<2	<2	4	45			*	*	*											** 3 types 45%	
250-350	11	1018	**Ditch fill**	32	52	4	10	* Chenopodiaceae indet.	*	**	**	**	*Triticum* sp., Cerealia	+	*	Chenopodiaceae indet.	+	*	Indet. spikelet bases	+		* m	*** 6 types 80%	

Spot dates	Sample Number	Context	Context / deposit type	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	Identifications	Preservation	weed seeds charred	Identifications	Preservation	other botanical charred	Identifications	Preservation	Insects, Fly Pupae etc min	fish, amphibian, small mammal bone	LSS	Ind debris hammerscale
250-400	3	1016	**Ditch fill**	12	30	20	3	* Chenopodiaceae indet., cf. *Morus nigra, Sambucus nigra*	*	*	*	*	*Triticum* sp., Cerealia	+ to ++	*	indet. seed	++	*	Spikelet bases, glumes bases (*Triticum spelta*)	+ to + +			*** 4 types 70%	
250-400	6	1123	**Ditch fill**	18	48	20	5	* Chenopodiaceae indet., *Sambucus nigra*	*	**	***	** *	*Hordeum* sp., *Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++	* *	Chenopodiaceae, *Polygonum/Rumex* sp., *Fallopia convolvulus*, *Avena/Bromus* sp, Poaceae, *Plantago lanceolata*	+ to ++ +						*** 5 types 55%	*
250-400	12	1219	**Ditch fill**	28	48	15	10	cf. *Fagus sylvatica* (immature bract), *Tilia platyphyllos* (fruits)	**	***	***	**	*Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++	*	Unident. seed	++				*	* m/f	*** 5 types 60%	*
250-400	13	1259	**Ditch fill**	40	68	4	5		*	***	***	** *	*Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++	*	Poaceae	++	****	Spikelet bases, glumes bases (*Triticum spelta*)	+ to + +		*	*** 6 types 50%	

Spot dates	Sample Number	Context	Context / deposit type	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	Identifications	Preservation	weed seeds charred	Identifications	Preservation	other botanical charred	Identifications	Preservation	Insects, Fly Pupae etc min	fish, amphibian, small mammal bone	LSS	Ind debris hammerscale
250-400	18	1306	**Ditch fill**	6	11	60	5	* *Sambucus nigra*	*	**	**	*	*Triticum* sp., Cerealia	+								*	*** 4 types 20%	
250-400	29	1353	**Primary fill of ditch**	4	4	20	10		*	**	**	*	*Hordeum* sp., *Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++									** 2 types 25%	
250-400	32	1157	**Ditch fill**	2	4	10	1		*	*	*	*	Hordeum sp., Cerealia	+ to ++	*	Poaceae	++						*** 4 types 80 %	
250-400	34	1165	**Fill of shallow ditch**	2	2	20	38				*	*	*Vicia/Lathyrus* sp.	++	*	Poaceae, Chenopodiaceae indet.	++						** 4 types 40%	
250-400	37	1131	**Ditch fill**	6	2	15	25	* Chenopodiaceae indet.			*	*	*Vicia/Lathyrus* sp.	++									*** 4 types 60%	

Spot dates	Sample Number	Context	Context / deposit type	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	Identifications	Preservation	weed seeds charred	Identifications	Preservation	other botanical charred	Identifications	Preservation	Insects, Fly Pupae etc min	fish, amphibian, small mammal bone	LSS	Ind debris hammerscale
270-350	7	1044	**Ditch fill**	24	52	10	5	** Chenopodiaceae indet.	*	**	***	**	*Triticum* sp., Cerealia	+				*	Glumes bases (*Triticum spelta*), cf. *Arrhenatherum elatius* var. *bulbosum* (tuber)	+ +	** Fly puparia		*** 6 types 70%	
300-400	31	1082	**Ditch fill**	6	5	5	3		*	**	**	**	*Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++				*	indeterminate glume base	+		*	*** 4 types 72%	
250-400	8	1141	**Pit fill**	6	5	4	4	* Chenopodiaceae indet.	**	**	**	*	*Triticum* sp., Cerealia	+				*	Monocotyledon stem frag.	+ to + +			*** 3 types 50%	*
250-400	14	1314	**Pit fill**	6	5	2	6		**	**	***	*	*Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++				*	Glume base (*Triticum spelta*)	+ + +			*** 4 types 70%	
250-400	17	1262	**Pit fill**	2	4	10	15		*	*	**	*	*Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++	*	Unident. Seeds	++						*** 4 types 45%	

Spot dates	Sample Number	Context	Context / deposit type	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	Identifications	Preservation	weed seeds charred	Identifications	Preservation	other botanical charred	Identifications	Preservation	Insects, Fly Pupae etc min	fish, amphibian, small mammal bone	LSS	Ind debris hammerscale
250-400	28	1357	**Primary fill of pit**	54	147	2	5		***	***	***	***	Triticum sp., Hordeum sp., Cerealia	++	*	*Polygonum/Rumex* sp., unident. seeds		*	Nut shell frag. (*Corylus avellana*), unident. CPR	++		**	*** 5 types 8%	
1200-1350	46	1329	**Ditch fill**	<2	<2	16	23	* Chenopodiaceae		*		*	*Triticum* sp., Cerealia	+									*** 5 types 62%	
undated	2	1045	**Pit fill**	26	65	15	20	* Chenopodiaceae indet.	**	***	**	***	*Hordeum* sp., *Triticum* sp., Cerealia, *Vicia/Lathyrus* sp.	+ to ++	**	*Polygonum/Rumex* sp., Chenopodiaceae indet., *Medicado/Trifolium* sp.	+ to ++						*** 5 types 25%	
undated	19	1200	**Posthole primary fill**	2	<2	1	75				***												** 3 types 20%	
undated	20	1197	**Posthole primary fill**	8	5	1	90				***												** 2 types 5%	

Spot dates	Sample Number	Context	Context / deposit type	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	Identifications	Preservation	weed seeds charred	Identifications	Preservation	other botanical charred	Identifications	Preservation	Insects, Fly Pupae etc min	fish, amphibian, small mammal bone	LSS	Ind debris hammerscale
undated	23	1176	**Fill of posthole**	2	<2	2	87				***												** 2 types 5%	
undated	25	1361	**Pit fill**	6	4	2	60			*	**	*	cf. *Hordeum* sp., Cerealia	+ to ++									** 4 types 33%	
undated	27	1365	**Pit fill**	10	9	4	82		*	*	*	*	*Triticum* sp.	++									* 5 types 7%	
undated	30	1368	**Ditch fill**	4	3	4	2				*												*** 3 types 79%	

References

Anderson, K. 2004. 'Roman Pottery' in Regan, R. Evans, C. Webley, L. *The Camp Ground Excavations, Colne Fen, Earith.* (CAU report 654).
Published online http://www-cau.arch.cam.ac.uk/earithcampgroundmaintext.pdf Accessed 29/11/10

Boessneck, J, Muller, H.H and Teichart, M. 1964.'Osteologische Unterscheidungmerkmale zwischen Schaf (Ovis aries Linne) und Ziege (Capra hircus Linne). Kuhn-Archiv 78, 5-129.

Boessneck, J.1969.'Osteological differences between sheep (Ovis aries Linne) and goat (Capra hircus Linne), in Brothwell, D.R and Higgs, E.S (eds) Science in Archaeology: A Comprehensive Survey of Progress and Research. London: Thames and Hudson.331-358.

Cameron, F. 1996. 'Other Roman Pottery' in Jackson, R.P.J. and Potter, T.W. *Excavations at Stonea, Cambridgeshire 1980-85.* British Museum Press: London. 440-477

Cappers, R.T.J., Bekker R.M. & Jans J.E.A. 2006. *Digital Seed Atlas of the Netherlands.* Groningen Archaeological Series 4. Barkhuis, Netherlands.

Carruthers, W. 2007. Environmental overview. In J. Timby, R. Brown, E. Biddulph, A. Hardy and A. Powell (eds). *A slice of Rural Essex. Archaeological discoveries from the A210 between Stansted Airport and Braintree.* Oxford Wessex Archaeology Monograph 1. pp. 187-193.

Carruthers, W. 2008. Chapter 34: Charred, mineralized and waterlogged plant remains. In N. Cooke, F. Brown and C. Phillpotts (eds). *From hunter gatherers to huntsmen. A history of the Stansted Landscape.* Oxford, Framework Archaeology Monograph 2.

Edwards, D. and Hall, D. 1997. 'Medieval Pottery from Cambridge: Sites in the Bene's Street – Market area' *Proceedings of the Cambridge Antiquarian Society* **86**, 153-168.

Grant, A. (1982) The use of tooth wear as a guide to the age of domestic ungulates. In Wilson,B., Grigson,C., and Payne,S. (Eds) Ageing and Sexing Animals from Archaeological Sites. BAR Brit Series. 109, Oxford; 91-108

Halstead, P, Collins, P and Isaakidou, V. 2002. 'Sorting Sheep from Goats: Morphological distinctions between the mandibles and mandibular teeth of adult Ovis and Capra'. Journal of Archaeological Science 29, 545-553.

Hather, J. G. 2000. The Identification of the Northern European Woods: A Guide for archaeologists and conservators. Archetype Publications Ltd, London.

Hillman, G. 1981. Reconstructing crop husbandry practices from charred remains of crops. In R. Mercer (eds) *Farming practice in British prehistory*. Edinburgh University Press, Edinburgh

Hull, M.R. and Pullinger, J. 1999. 'The Roman Pottery' in Alexander, J and Pullinger, J. 'Roman Cambridge: Excavations on Castle Hill 1956-1988' *Proceedings of the Cambridge Antiquarian Society* LXXXVIII. 141-144

Jacomet, S. 2006. Identification of cereal remains from archaeological sites. 2nd ed. *Archaeobotany laboratory, IPAS, Basel University,* Unpublished manuscript.

Levine, (1982) The use of crown height measurements and eruption-wear sequences to age horse teeth. In Wilson,B., Grigson,C., and Payne,S. (Eds) *Ageing and Sexing Animals from Archaeological Sites.* BAR Brit Series. **109**, Oxford; 91-108

MacGregor A. 1985. *Bone, Antler, Ivory and Horn. The Technology of Skeletal Materials since the Roman Period*, Totowa, N.J. : Barnes & Noble .

McCarthy, M. and Brooks, C. 1988. *Medieval Pottery in Britain AD 900-1600.* Leicester University Press.

Monteil, G. 2003. 'Roman Pottery', in Regan, R. *An Archaeological Excavation at Colne Fen, Earith, Sites V and VI* (CAU Report 537). Unpublished Assessment

NIAB. 2004. *Seed Identification Handbook*: Agricultural, Horticulture and Weeds. 2nd ed. NIAB, Cambridge.

Perrin, J.R. 1999. 'Roman Pottery from Excavations at and Near to the Roman Small Town of *Durobrivae*, Water Newton, Cambridgeshire, 1956-58'. *Journal of Roman Pottery Studies.* Vol. 8. Oxbow books: Oxford.

Schmidt,E. 1972. 'Atlas of Animal Bones- for pre-historians, archaeologists and quaternary geologists.' Amsterdam: Elsevier Publishing Company.

Schoch, W., Heller, I., Schweingruber, F. H., & Kienast, F. 2004. Wood anatomy of central European Species. Online version: www.woodanatomy.ch

Schweingruber, F. H. 1990. Anatomy of European woods: an atlas for the identification of European trees, shrubs, and dwarf shrubs. Bern, Verlag P. Haupt.

Serjeantson, D. 1996. 'The Animal Bones, in Needham, S and Spence, T 'Runnymead Bridge Research Excavations, Volume 2: Refuse and Disposal at Area 16 East, Runnymead'. London: British Museum, 194-223.

Stace, C. 1997. *New Flora of the British Isles.* Cambridge University Press, Cambridge.

Von Den Driesch, A. 1976. 'A Guide to the Measurement of Animal Bones from Archaeological Sites', Peabody Museum Bulletin Harvard University.

KNEESWORTH HOUSE HOSPITAL, BASSINGBOURN-CUM-KNEESWORTH, CAMBRIDGESHIRE (NGR: TL 3497 4413): MOLLUSCA ASSESSMENT REPORT

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INTRODUCTION

This report summarises the findings arising out of the Mollusca assessment undertaken by Quaternary Scientific (QUEST), University of Reading in connection with the development of land north of the Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire (site code: ECB3209; National Grid Reference: TL 3497 4413). Archaeological excavations were carried out by AOC Archaeology Ltd. Samples were assessed from 43 different archaeological contexts, described as ditch fills (17), pit fills (16), cuts or linear cuts (4) post pits or post-holes (6). In only two cases were samples taken from stratigraphically superposed contexts – (1037) overlies (1158), and (1219) overlies (1306). All the other samples are stratigraphically isolated.

SITE CONTEXT

The site is in an area of low relief on the outcrop of the Upper Chalk and in the valley of the Bassingbourn Brook, a minor right-bank tributary of the River Cam. The floor of the valley adjacent to the brook is at a level of c.27.0m OD; the ground surface at the site is at c.28.0m OD rising eastward to 36.0m OD on the crest of the low spur separating the valley of the Bassingbourn Brook from the adjacent valley of another minor tributary.

METHODS

Mollusca assessment

Forty-four samples were assessed from 43 different archaeological contexts. The size of the original bulk samples varied, from <5 litres to 40 litres, with some samples described simply as 'bag'. The residues (>300µ) were retained and ranged in weight from c.1.2kg to less than 20g. Samples were sorted initially by eye, separating potentially identifiable individuals, but not scanning the samples exhaustively. In the case of the larger samples, a sub-sample was examined. Some of the samples contained large amounts of broken shell and where this included fragments that could be referred with reasonable confidence to taxa, they were noted. The shell material was then identified either to species or to species groups (Table 1) and numbers present are noted in Table 1 as follows:

1	1
2-5	2

6-10	3
10-20	4
>20	5
present	+

Identifications are based on comparison with reference material and on descriptions in Beedham (1972), Ellis (1969, 1978), Kerney (1999), Kerney & Cameron (1979) and Macan (1977).

RESULTS, INTERPRETATION AND DISCUSSION OF THE MOLLUSCA ASSESSMENT

The total number of Mollusca individuals recovered from the samples ranged from nearly 200 from a sub-sample of a 40 litre bulk sample from context (1018), to 11 individuals from a 10 litre bulk sample from context (1365). In most cases, less than 10 individuals of each taxa are present per sample.

Table 1 shows the 23 species or species groups which were used to characterise the Mollusca assemblages. Between 3 and 13 species or species groups were present in the individual samples. Only *Trichia* was present in all the samples, often as the most common taxa, and *Vallonia* was present in all but two samples and in a few cases was the most common taxa. Also common were *Helicella* (39 samples) and *Cochlicopa lubrica* (38 samples). *Trichia* and *C. lubrica* are catholic taxa that avoid extremely dry habitats whereas *Vallonia* and *Helicella* are taxa that normally inhabit dry calcareous grassland. Other species favouring calcareous habitats and present in many of the samples are *Pupilla muscorum* (27 samples), *Pomatias elegans* (23 samples) and *Cecilioides acicula* (22 samples). *P. muscorum* is another species that favours dry exposed sites but *P. elegans* is more usually associated with open woodland. *C. acicula* is a burrowing species widely encountered in calcareous soils in a variety of well drained environments.

In many of the samples, the taxa already mentioned form, in varying combinations, the bulk of the mollusc population. These assemblages indicate a local environment of dry calcareous grassland with some moister and shadier habitats. It is perhaps particularly significant that where only 3-5 taxa are present, they invariably include *Trichia*, *Helicella* and *Vallonia*, suggesting that dry grassland was the norm.

Other species recorded from the samples either provide confirmation of the environmental conditions already outlined or indicate specific localised environments of deposition. While *Cepaea* (12 sites) and *Helix aspersa* (5 sites) are catholic species, *Dicsus rotundatus* (14 samples), *Ena obscura* (5 samples), *Azeca goodalli*, *Clausilia bidentata* and *Lauria cylindrica* (1 sample each) all prefer moist conditions and are species normally associated with woodland. The Zonitidae (29 samples) are also found in a range of moist habitats.

All the remaining taxa identified from the samples are either freshwater as opposed to terrestrial Mollusca or are terrestrial taxa that are only found in permanently wet habitats. The former group is represented in the samples by *Gyraulus*, *Bithynia*, *Pisidium*, *Lymnaea* and the Planorbids; the latter group by the Succineids and *Vertigo antivertigo*. In a few samples, in contexts (1039), (1044), (1049), (1082), (1219), (1259) and (1329), several of these taxa are present together, albeit in small numbers in almost all cases. *Gyraulus*, *Lymnaea* and the Planorbids are generally tolerant of poor habitats such as ditches and small pools of water, and this is consistent with the archaeological contexts – pits and ditches - from which the samples were taken. In the seven samples where several freshwater taxa are found together, this is probably an indication that the ditch or pit was open long enough for the several species to congregate in it. There are a further 15 samples in which freshwater taxa or Succineids are present in very small numbers, perhaps indicating the presence of suitable habitats for relatively short periods of time. Even where Succineids and several freshwater taxa are present, terrestrial taxa still form the bulk of the mollusc population. In only one sample – context (1039) – are freshwater taxa more numerous than terrestrial.

The small numbers of individuals belonging to freshwater or marshland taxa and the small number of samples in which several of these taxa occur together suggests that the ditches and pits from which the samples were taken remained well drained while they were being infilled and that the mollusc assemblages found in these contexts were largely derived by inwash from surrounding terrestrial surfaces.

In the two cases where samples were taken from stratigraphically superposed contexts, the later context contains a more diverse fauna. In (1158)/(1037) the overlying context includes four 'woodland' taxa which are not present in the underlying context; and in (1219)/(1306) the overlying context includes three freshwater taxa in addition to the one present in the underlying context.

RECOMMENDATIONS

The assessment shows that throughout the period represented by the archaeological contexts from which the mollusc samples were taken, the influential habitat in the local environment remained dry calcareous grassland in which there were areas, probably including some woodland, in which moister conditions prevailed. A few of the ditches and pits from which the samples came evidently remained damp enough for long enough to allow small populations of freshwater molluscs to congregate. However, in general the mollusc assemblages, even including those with a freshwater component, consist predominantly of terrestrial taxa.

The two cases where samples were taken in stratigraphic sequence, can be interpreted as showing that environmental or ecological changes were taking place during the period represented by the samples. However, because all the other samples come from contexts that are not in any sort of stratigraphic sequence, the only way in which they might be used to detect environmental changes affecting the site would be by comparing faunas taken from features that can be securely dated using archaeological evidence.

Thus, given the lack of stratigraphic controls, the general similarity and limited diversity of the individual mollusc assemblages and the small number of individuals in many of the samples, it

seems unlikely that useful additional environmental information could be gained from a more detailed analysis of the Mollusca. Such analysis is not therefore recommended.

Table 1: Results of the Mollusca assessment, Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire (site code: ECB3209)

Sample number	Context number	*Pomatias elegans*	*Bithynia tentaculata*	*Lymnaea truncatula*	*Lymnaea palustris*	*Lymnaea peregra*	*Planorbid* spp.	*Succineid* spp.
27	1365							
24	1167							
28	1357							
40	1076							
10	1158							
33	1276							
16	1324							
6	1123	1						
19	1176						1	1
18	1306					1		
14	1314						2	
15	1322							
29	1353	1						
26	1363	1						1
4	1053	5					1	
19	1200	3					2	
2	1045	2		1				
43	1047						2	
37	1131							1
34	1165							1
30	1368	2		3		5		
41	1051	1						
19	1188	3		2				
20	1197	3					3	
12	1219			2			1	2
36	1222							2
35	1226			1				
13	1259				2		2	2
25	1361	1						2
3	1016	1						
7	1044			1			2	2
5	1061	2						1
8	1141	2					2	2
22	1179	2					1	
46	1329			2			3	2
45	1037	3						
44	1045	2			2		2	
42	1049	1		1			1	3
9	1137	1						
32	1157	2		2			1	

11	1018	2						1
31	1082			1			3	3
39	1039	2	1				5	
17	1262	1					2	2

Table 1: Results of the Mollusca assessment, Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire (site code: ECB3209)

Sample number	Context number	*Azeca goodalli*	*Cochlicopa lubrica*	*Vertigo antivertigo*	*Pupilla muscorum*	*Lauria cylindrica*	*Vallonia* spp	*Ena obscura*
27	1365						2	
24	1167				2		3	
28	1357						3	
40	1076				2		2	
10	1158		1				2	
33	1276		3				2	
16	1324				1		3	
6	1123		3		2		3	
19	1176		1				1	
18	1306		2				2	
14	1314		2				3	
15	1322		1		2		2	
29	1353		1				2	
26	1363		2					
4	1053		1		2		4	
19	1200		2				3	
2	1045				1		3	
43	1047		1		1		3	
37	1131		3				5	
34	1165		2		1		1	
30	1368		2				4	
41	1051		2	1	4		5	
19	1188		1		2		4	
20	1197		2		2		3	
12	1219		3				3	
36	1222		3		1		3	
35	1226		3		1		2	
13	1259		3		2		2	
25	1361		1		1		1	1
3	1016		3		1		5	1
7	1044		3		2		5	
5	1061		1		1		4	
8	1141		2		1		4	
22	1179		3		3		4	
46	1329		4					
45	1037	1	3		4		5	
44	1045		1	1	2		3	
42	1049		2	1			3	

9	1137		3		2		3	1
32	1157		3			1	5	1
11	1018		5				5	2
31	1082		2		1		4	
39	1039		2	2	2		2	
17	1262		2		1		4	

Table 1: Results of the Mollusca assessment, Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire (site code: ECB3209)

Sample number	Context number	*Discus rotundatus*	*Zonitidae* spp.	*Cecilioides acicula*	*Clausilia bidentata*	*Helicella itala*	*Trichia* spp.	*Cepaea nemoralis*
27	1365					2	2	
24	1167					3	2	
28	1357		1			2	2	
40	1076			+		2	3	
10	1158		1			5	5	
33	1276		1			2	5	
16	1324			+		4	3	
6	1123					3	3	
19	1176					3	3	
18	1306	1				2	4	
14	1314		3			3	5	
15	1322		2	+			4	
29	1353		1			2	2	
26	1363		2			2	3	
4	1053					5	4	
19	1200	1				4	5	
2	1045		2	+		3	2	
43	1047		1	+		3	2	
37	1131	3	2	+		3	5	
34	1165		2			2	5	
30	1368		2			3	5	
41	1051		2	+		5	5	
19	1188	1	2			3	4	
20	1197			+		4	4	+
12	1219		2				5	3
36	1222	1	3	+		2	4	
35	1226	2	2	+			5	
13	1259		3				5	3
25	1361		1			3	5	
3	1016		3	+		3	5	
7	1044	3	1				5	2
5	1061		1	+		5	4	2
8	1141		2	+		3	2	
22	1179		1	+		3	4	+
46	1329		2			1	5	1
45	1037	2	2	+	1	3	4	

44	1045	1		+		3	4	
42	1049		2	+		3	3	
9	1137		2	+		5	3	2
32	1157		3	+		4	5	
11	1018	3	5	+		5	5	3
31	1082	2	2			4	5	+
39	1039	1		+		2	2	2
17	1262	2	2	+		2	5	+

Table 1: Results of the Mollusca assessment, Kneesworth House Hospital, Bassingbourn-cum-Kneesworth, Cambridgeshire (site code: ECB3209)

Sample number	Context number	*Helix aspersa*	*Pisidium* spp.	Bulk weight (kg)
27	1365			10
24	1167			n/d
28	1357			40
40	1076			5
10	1158			40
33	1276			20
16	1324			bag
6	1123			40
19	1176			<5
18	1306			10
14	1314			20
15	1322			bag
29	1353			10
26	1363			10
4	1053			40
19	1200			<5
2	1045			5
43	1047			5
37	1131	1		20
34	1165			n/d
30	1368			10
41	1051			5
19	1188			<5
20	1197			<5
12	1219		2	40
36	1222			40
35	1226	1		20
13	1259			20
25	1361			40
3	1016	+		10
7	1044			40
5	1061			n/d
8	1141			40
22	1179			20

46	1329		2	<5
45	1037			20
44	1045			5
42	1049			10
9	1137	+		5
32	1157			40
11	1018	1		20
31	1082		1	40
39	1039		1	20
17	1262		1	20

The samples are arranged in order of increasing assemblage diversity from the top of the Table downward. See text for explanation of abundance values. The right hand column shows the weight of the original bulk sample from which the 300µ residue was recovered.

REFERENCES

Beedham, G.E. (1972) *Identification of the British Mollusca*. Hulton Group, Amersham.

Ellis, A.E. (1969) *British Snails: The Non-marine Gastropoda of Great Britain and Ireland*. Oxford University Press, Oxford.

Ellis, A.E. (1977) *British Freshwater Bivalve Mollusca*. Synopses of the British Fauna No.11. Academic Press, London for the Linnean Society of London.

Kerney, M.P. (1999) *Atlas of the Land and Freshwater Mollusca of Britain and Ireland*. Harley Books, Colchester.

Kerney, M.P. & Cameron, R.A.D. (1979) *A Field Guide to the Land Snails of Britain and North west Europe*. Collins, London.

Macan, T.T. (1977) *A Key to the British Fresh- and Brackish-water Gastropods*. Freshwater Biological Association.

Kneesworth Metal assessment (ECB3209)

Andy Heald

November 2010

Overview
Thirty-five objects (7 copper alloy and 28 iron) were recovered from the excavations at Kneesworth, undertaken by AOC Archaeology. As highlighted in the AOC Conservation Report almost all of the objects need to be cleaned before further discussion can take place. What follows is an assessment of the recognisable objects in their current condition. Identifications relied heavily on x-radiography. Initial descriptions are found in Appendix A (attached Excel spreadsheet).

Copper alloy

Coins
Five coins were recovered. All are corroded. In their current state no diagnostic features can be identified (e.g lettering; portraiture) with confidence. That said, two coins appear to have portraits of Emperors; one has part of a legend in Roman capitals (?including the letters 'PASIAN', possibly representing Vespasian). The complete diameters range from 14mm to 27mm.

Although impossible to be sure prior to cleaning many, if not all, of the coins, are likely to be Roman, which is broadly consistent with the pottery spot dates from the site.

Another copper alloy object may also be a coin although, again, further cleaning is required.

Strip
One rectangular strip with hammer-marks was found. Prior to cleaning, this has no diagnostic features which would aid identification or chronology.

Iron
Twenty-eight iron objects were recovered.

Horseshoes
Two horseshoe fragments were found. Both need to be cleaned to ascertain diagnostic features (e.g. calkins) which could help typology and chronology.

Over a quarter of a century ago Manning (1976, 31) highlighted that although certain types of horseshoe were used in Roman Britain, their evidence from stratified contexts was rare. Indeed, a decade later he argued that '…if a shoe cannot be assigned to the Roman period on stratigraphical grounds, it cannot be given such a date by typology alone' (Manning 1986, 63). Clark (1986) reiterated the point stressing that the evidence for the existence of horseshoes in the Roman period was still open to debate. Only when we enter the 9th and 10th centuries is their dating and use clear, the horseshoe, of course, continuing into later periods. Clark (1991, 78-81) has recently reiterated the difficulty in dealing with the evidence of horseshoes from supposed pre-Medieval contexts.

Both Kneesworth horseshoes were recovered from a ditch cut [1011].

Tacks or hobnails
Six small nails or tacks were recovered, all from a ditch fill spot dated to AD250-400. They need to be cleaned to ascertain head shape but some, if not all, may be hobnails from Roman shoes.

Nails or tools
Six objects have the appearance of nails, being square-sectioned objects. However, the x-rays suggest that some of the objects may either be tools and/or fittings. One object (from context 1016) may be a small gouge or chisel as it appears to have a splayed end.

Miscellaneous

The remaining iron objects all need to be cleaned in order to ascertain form and function. Some of the objects appear to be pieces of sheet, some with perforations.

SIGNIFICANCE OF DATA

Almost all of the finds need to be cleaned to aid identification. Until then no fuller discussion of typology or chronology can take place. That said many of the coins appear to be Roman, which is consistent with the spot dates and their contexts.

Although small, the iron assemblage is of interest. The small tacks may be hobnails and some of the other objects may be tools and/or fittings. The horseshoes relate to transport. Further cleaning and contextual analysis may allow a tighter chronology to be assigned; at present they cannot be assumed to be Roman.

RECOMMENDATIONS FOR FUTURE WORK

It is suggested that 32 of the 35 objects are cleaned. The current state of the assemblage, despite X-radiography, hinders further discussions. Cleaning should be done under the guidance of the metal specialist.

The assemblage should then be placed within its local context.

COST

Further discussion of objects after cleaning and placed into wider context: 1 day

BIBLIOGRAPHY

Clark, J 1986 *Medieval Horseshoes*. Finds Research Group 700-1700 Datasheet 4.

Clark, J 1991 *The Medieval Horse and its Equipment*. London.

Manning, W H 1976 *Catalogue of Romano-British Ironwork in the Museum of Antiquities*, *Newcastle Upon Tyne*. Newcastle.

Manning, W H 1986 *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*. London.

Assessment Report for the Conservation of metal finds from Kneesworth

Contents

Summary

The following assessment of conservation needs for the accessioned and bulk finds from the excavations at Kneesworth encompasses the requirements for finds analysis, illustration, analytical conservation and long term curation. Work outlined in this document is needed to produce a stable archive in accordance with MAP2 (English Heritage 1992) and the Museum of London's Standards for archive preparation (Museum of London 1999).

Conservation support was provided by conservators working for AOC Archaeology Group. Records of conservation carried out at the fieldwork stage are held in the conservation department of AOC Archaeology Group archives. Conservation of artefacts was carried out in the laboratory

Methodology

Treatment of objects at the fieldwork stage included the stabilisation of vulnerable materials and composites and investigative cleaning and conservation according to archaeological priorities. Treatments were carried out under the guiding principles of minimum intervention and reversibility. Where possible preventative, rather than interventive, conservation strategies were implemented. Procedures aim to obtain and retain the maximum archaeological potential of each object: conservators work closely with finds specialists and archaeologists.

Most conservation work on artefacts begins with visual examination under a binocular microscope followed by mechanical cleaning using scalpel and other hand tools. Mechanical cleaning reveals detail and a conservation surface beneath often voluminous corrosion products enabling the true shape and purpose of the artefact to be understood. Many metalwork objects from the Neston assemblage were in poor condition, with voluminous corrosion crusts obscuring what remained of the surface of the iron accessions. X-radiography has been used to aid identification.

All conserved objects are packed in archive quality materials and stored in suitable environmental conditions. Records of all conservation work are prepared on paper and on the Museum of London collections management system (Multi MIMSY) and stored at the Museum of London

Finds analysis/investigation

The accessioned finds were assessed by visual examination of both the objects and the X-radiographs, closer examination where necessary was carried out using a binocular microscope at high magnification. The accessioned finds were reviewed with reference to the finds assessments by Andy Heald (non-ceramic finds).

Description

The assemblage consists of 7 Copper alloy objects, 20 Iron objects.

Condition

Iron

The finds appear in stable condition although corrosion products and soils and a white substance from the burial environment cover the surface and obscure detail.

Copper alloy

On the coins soils from the burial environment and voluminous corrosion crusts obscure the surfaces, limiting identification. From the x-rays it appears that the objects have original metal in the core.

List of artefacts

	Material	Number	No. to be treated
Metals	Copper alloy	7	7
	Iron	28	25

X-ray catalogue:

X-Ray No	Volts(KeV)	Time (secs)	Objects
1	80	4.5	14, 2, 3, 9, 19, 12, 11, 4, 20, 1 C1262, C1091, C1016
2	70	3.5	C1262, 16, 8, 13, 15, C1291, 18, 5, 18, 37, 12

Recommended treatment

Copper alloy

It is recommended that the copper alloy artefacts undergo superficial cleaning using scalpels and wooden tools under the microscope. To ensure stability of the finds, chemical

stabilisation should be carried out using 3% BTA in IMS in immersion under vacuum, followed by rinsing in IMS. Finally the objects should be coated with a solution of 15% Incralac in acetone, applied by immersion and repeated up to three times. The last layer should contain a small amount of matting agent to minimise glare and shininess. The finds should be packed according to current standards at the Museum of London archive and stored in a sealed box with silica gel.

Iron

The cleaning of the selected iron finds should be carried out using an air-abrasive machine and 53µ aluminium oxide powder. If active corrosion is noted during cleaning, stabilisation should be carried using a 2% aqueous solution of sodium hydroxide, followed by rinsing in deionised water and drying. Objects that have been stabilized should then be lacquered with a 10% solution of Paraloid B72 in acetone with the addition of fumed silica as a matting agent.

Estimated time

LABOUR	No. hours
Conservation of copper	21
Conservation of iron	37
Images	3
Reporting	4
Total	**65**

Proposed completion date: within 2 months of approval
Conservator: Pieta Greaves
Date of report: 03 Nov 2010

Appendix D – OASIS Form

OASIS ID: aocarcha1-77852

Project details	
Project name	Kneesworth House Hospital, Bassingbourn-cum-Kneesworth
Short description of the project	Following on from an archaeological evaluation that took plave on site in 2009 an archaeological excavation was carried out. Natural chalk was revealed across the entire site. Probable prehistoric activity included an undated ring of postholes, a group of small pits and a large line of postholes, possibly forming a palisade like structure. Roman activity seems to begin in the early 3rd century with a possible field system and ani9mal hustbandy indicating agriculture was prevailent. This was replaced by the late 3rd century by chalk quarrying within a large encloure which also contained a roundhouse. During 4th century agriculture seems to have made a return before the site was generally disused during the Saxon period. Medieval features included a series of quarry pits and a possible rectilinear structure. The most notable post-medieval activity was the excavation of a large curvilinear feature interpreted as an ornamental lake.
Project dates	Start: 14-06-2010 End: 20-08-2010
Previous/future work	Yes / No
Any associated project reference codes	30595 - Contracting Unit No.
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Grassland Heathland 4 - Regularly improved

Monument type	DITCHES Roman
Monument type	QUARRY PITS Roman
Monument type	DRIP GULLY Roman
Monument type	POSTHOLES Post Medieval
Monument type	POSTHOLES Roman
Monument type	POSTHOLES Uncertain
Monument type	BEAMSLOT Medieval
Monument type	LAKE FEATURE Post Medieval
Monument type	PITS Modern
Significant Finds	POTTERY Roman
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	CBM Roman
Significant Finds	WORKED FLINT Mesolithic
Significant Finds	ANIMAL BONE Late Prehistoric
Significant Finds	ANIMAL BONE Roman
Significant Finds	HORSESHOES Post Medieval
Significant Finds	COMB CASE Early Medieval
Significant Finds	CU COINS Roman

Significant Finds	WORKED FLINT Late Prehistoric
Investigation type	'Open-area excavation'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE BASSINGBOURN CUM KNEESWORTH Kneesworth House Hospital, Bassingbourn-cum-Kneesworth
Postcode	SG8 5JP
Study area	19800.00 Square metres
Site coordinates	TL 3499 4413 52.0786159136 -0.02992673119880 52 04 43 N 000 01 47 W Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 29.26m Max: 31.05m

Project creators

Name of Organisation	AOC Archaeology
Project brief originator	CAPCA
Project design originator	AOC Archaeology
Project director/manager	Melissa Melikian

Project supervisor	Ian Hogg
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Partnerships in Care Ltd

Project archives

Physical Archive recipient	Cambridgeshire County Council Archaeology Store
Physical Contents	'Animal Bones','Ceramics','Environmental','Glass','Metal','Worked bone','Worked stone/lithics'
Digital Archive recipient	Cambridgeshire County Archaeological Store
Digital Contents	'Stratigraphic'
Digital Media available	'Images raster / digital photography','Images vector','Text'
Paper Archive recipient	Cambridgeshire County Council Archaeology Store
Paper Contents	'Stratigraphic'
Paper Media available	'Aerial Photograph','Context sheet','Matrices','Photograph','Plan','Report','Section'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)

Title	KNeesworth House Hospital, Bassingbourn-Cum-Kneesworth, Cambridgeshire
Author(s)/Editor(s)	Catherine Edwards
Other bibliographic details	30595
Date	2010
Issuer or publisher	AOC Archaeology
Place of issue or publication	London
Description	Written Scheme of INvestigation setting out a methodology for an archaeological excavation.
Entered by	Ian Hogg (ian.hogg@aocarchaeology.com)
Entered on	12 January 2011

OASIS:

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