Excavation Report

Warth Park, Phase II
Raunds
Northamptonshire

Excavation Report

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Warth Park Phase II, Raunds, Northamptonshire

Archaeological Excavation

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Summary

Between October 2013 and January 2014 Oxford Archaeology East carried out open area excavations on farmland off Warth Park Way, Raunds, Northamptonshire (NGR 498330, 273171) ahead of the Phase II construction of an industrial estate with associated amenities. Further to this, a watching brief was undertaken on additional areas between September and October 2014.

The 4ha excavation and 3ha watching brief revealed evidence for intermittent settlement-related activity spanning the Late Neolithic to the Middle Saxon periods. From at least the early 18th century the site has been under cultivation and has consequently suffered from the effects of continual ploughing since then, resulting in features being extremely truncated.

Late Neolithic remains consisted of three small pits containing sherds of highly decorated pottery and burnt animal bone. The majority of the archaeology identified relates to Late Bronze Age/Early Iron Age settlement remains, including pit groups and posthole structures along with a cobbled trackway. Artefacts recovered from these features includes pottery, animal bone, baked clay loomweights and two glass beads. A number of solution hollows were also present, which contained low levels of highly abraded Early Iron Age pottery.

Romano-British activity is represented by a number of large postholes and a pit group containing notable amounts of 2nd- to 3rd-century pottery, including a complete samian flanged bowl.

Settlement during the Anglo-Saxon period was indicated by the presence of six sunken-featured buildings (SFBs) which contained large quantities of Early to Middle Saxon pottery, along with loomweights and animal bone. A significant number of small finds were also recovered from these features, including a set of copper alloy tweezers, multiple iron nails, fragments of (Roman) glass, bone combs and bone pins. By the post-medieval period the development site was under strip fields associated with the village of Raunds to the east; by this period the adjacent medieval village of Mallows Cotton located to the immediate west had been abandoned. Evidence of the former Cotton township boundary depicted on the 1739 Raunds Open Fields Survey was identified, along with field boundaries and traces of furrows.

The archaeology uncovered at Warth Park has further demonstrated that this area has been utilised and settled since the Neolithic period, and makes a significant contribution to the study of the development of this landscape. The results complement those from other known archaeological sites in the immediate environs that have been identified through the Raunds Area Project in particular.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 Oxford Archaeology East (OA East) was commissioned by CgMs Consulting on behalf of Roxhill Developments Ltd to undertake a series of watching briefs and open-area excavations on land off Warth Park Way, Raunds, Northamptonshire (NGR 498330, 273171; Fig. 1), ahead of the construction of two warehouses with car parking, a reservoir and associated underground services (Planning Application No. EN/11/00700/OUT).

1.1.2 The archaeological investigations began with a Desk-Based Assessment (DBA) carried out by CgMs Consulting (Pugh & Smalley 2010) which highlighted the potential for sub-surface remains of various dates within the proposed development area. A geophysical survey followed (Bartlett 2011) which built upon these results by identifying various sub-surface anomalies of probable archaeological origin. A trial trench evaluation consisting of 47 trenches was undertaken subsequently by Headland Archaeology, which identified archaeological features of prehistoric date (Marshall 2011).

1.1.3 Taking into account the results of these preliminary works, archaeological mitigation for the site required the investigation of three watching brief areas and three open area excavations. These were targeted upon the previously evaluated and characterised archaeological remains, following which a Post-Excavation Assessment and Updated Project Design was produced (Bush 2015a).

1.1.4 An area forming a significant focus of Romano-British settlement activity identified by previous investigations along the western limits of the site was subject to preservation *in situ* in accordance with a Management Plan (Weaver 2013) agreed with the local planning authority. Where enabling works for development were required within this area, the scope of works and appropriate mitigation response were subsequently agreed with the local planning authority's archaeological advisor.

1.1.5 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government 2012).

1.1.6 The site archive is currently held by OA East and will be deposited with the appropriate county store in due course under the site codes/HER event Numbers ENN 107957 and 107958.

1.2 Geology and topography

1.2.1 The development overlies a variety of geological deposits. The solid geology across most of the site consists of Blisworth Limestone Formation. This overlies Rutland Formation Mudstone, which is exposed toward the western side of the site. Oodial Ironstone of the Northampton Sand Formation is known to continue to the west, while Mudstones of the Whitby Formation are present in the south-western corner. Superficial Drift deposits of alluvium and Ecton Member sands and gravels overlie the most south-westerly limit of the development area (British Geological Survey (BGS); http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

1.2.2 Topographically the development area encompasses the crest, along with the west- and south-facing slopes of a large ridge. Approximately 1km west of the site is the course of the River Nene, and a tributary of this (Hog Dyke) flows to the south. The small market town of Raunds is situated to the east of the development; the historic village core lies

at a distance of *c.*1.5km. The site, comprising arable farmland which also extends to the south beyond Meadow Lane, is bounded to the west and north by the A45 and to the east by the present limits of the Warth Park Industrial Estate. A farmhouse and associated buildings (Scalley Farm) is located within the development area (Fig. 2). The highest point on the site (towards the south-east) sits at around 64.8m OD, dropping to approximately 35m OD in the south-western corner.

1.3 Archaeological and historical background

1.3.1 The development site lies within a rich archaeological landscape. Between 1985 and 1994 an ambitious and far reaching multi-period landscape survey was undertaken in this area, encompassing the current development site. The Raunds Area Project covered an area of 4,000ha (Parry 2006) and aimed to link systematic field survey over large areas with extensive excavations, documentary research and environmental studies. The results of this study form the basis for much of this background section, supplemented by information collated from the DBA (Pugh & Smalley 2010) and the Northamptonshire Historic Environment Record (NHER). Pertinent HER data is plotted on Figure 2.

Neolithic and Bronze Age

1.3.2 Located approximately 600m south-west of the development area, was the initial main focus of the Raunds Project: a 70ha 'island' at Irthlingborough where the River Nene divided into two channels (Tingle 2004, 11). Here, a group of cropmark ring-ditches and a series of upstanding round barrows were excavated (Windell *et al.* 1990). Alongside this, previously unknown monuments were identified during the excavation of the scheduled West Cotton deserted Anglo-Saxon and medieval hamlet (SAM NN199). These included a long mound and long enclosure, both 100m in length, as well as a turf mound, ditched enclosure, double ring-ditch and a round barrow (HER 5390; Harding & Healy 2008). In total, more than 20 Neolithic and Early Bronze Age monuments were excavated.

1.3.3 Also associated with this funerary complex is Cotton Henge (HER 1725/1, NMR 1024962), located approximately 500m east of West Cotton and 250m south of the development site. This double-ditched monument, measuring 75m in diameter, is unlike 'classic' henges in that the outer ditch is unbroken (Harding & Healy 2011, 146). Further to this, at least two possible barrows have been identified as cropmarks from aerial photographs (HER 1338, ENN 11634), while a linear feature (HER 6739) and associated flint scatter (HER 6740) have also been recorded to the south of the current site and west of Cotton Henge.

1.3.4 Recent fieldwork as part of Warth Park Phase III, on land to the immediate south of the current site (ENN 108136, Kidd 2016) confirmed the presence of Cotton Henge.

Iron Age and Roman-British

1.3.5 Evidence for Iron Age activity, in the form of a pit alignment (HER 1924/0/1), was recorded as part of the Warth Park Phase I fieldwork, adjacent to the current development area, directly east of Scalley Farm (McAree 2005). It was initially identified during a watching brief in 2000 (ENN 100717) and subsequently partially excavated in 2004 (ENN 103829) and then again in 2005 (ENN 103939). The alignment comprised at least 38 pits in successive groups of five or six pits in slightly off-set lines.

1.3.6 The trial trench evaluation to the immediate south of the site (Kidd 2016) unearthed Iron Age settlement remains which included pits, postholes and possible ovens. Some of

the remains correlated with a pottery scatter (HER 6743), initially identified during fieldwalking as part of the Raunds Area Project, to the south-east around Yale Poultry Farm (Parry 2006, 208).

1.3.7 Excavations undertaken in relation to the A45/A605 road scheme (ENN 13000), to the immediate west of the site, recorded the presence of Iron Age activity along with late 2nd and 3rd century AD Roman settlement remains (HER 1721). The latter included the remains of buildings, industrial activity and burials as well as a number of enclosures (Windell *et al.* 1990). The results of this work and of the fieldwalking across the site suggested that the settlement and associated field systems could have extended into the current development area (Pugh & Smalley 2010, 11). This settlement is also believed to have extended westward toward Mallows Cotton (see below), as attested by geophysical survey results during the Raunds Area Project (HER 1340 & 1747; Parry 2006, 178-180)

1.3.8 In the wider landscape, located 1.5km south-east of the development area is the Scheduled Monument of Thorpe End hillfort (SM 11508). This univallate hillfort consisted of a single ditched enclosure measuring 95m by 65m within which evidence for circular structures was found. The hillfort is located just 4km east of a similar enclosure at Crow Hill, Irthlingborough (3km to the south-west of the current development), which is also scheduled (SM 11506; not illustrated). Together they form a notable pair of monuments positioned on either side of the River Nene.

1.3.9 A further Iron Age pit alignment has been identified at Ringstead to the north of the current site (Jackson 1978). Gravel extraction at Kinewell Lake, on the western edge of Ringstead *c.*2km to the north of Warth Park revealed Iron Age hut circles and ditches. Part of a 3rd to 4th century AD Roman villa was also found (HER 347389; not illustrated) which consisted of several small rooms and corridors leading to a circular stone structure with a tessellated floor. An earlier timber-built structure was also uncovered beneath this. Further to this, ditches, pits, inhumations and the remnants of a road, all of Roman date, were identified.

1.3.10 Fieldwalking carried out across the site during the Raunds Area Project recovered a significant concentration of Roman pottery, extending over an area of around 1.2ha (Parry 2006, 180). The route of a Roman road (from Irchester to Durobrivae) runs approximately north-to-south to the immediate west of the development site.

Anglo-Saxon

1.3.11 There is a wealth of information relating to Anglo-Saxon activity all around the immediate landscape of the current site. Fieldwalking across the site itself during the Raunds Area Project identified a concentration of Anglo-Saxon pottery (HER 1720). Subsequent trial trenching also undertaken during the Raunds Area Project targeting this pottery scatter identified three pits of Anglo-Saxon date along with undated, but possibly contemporary, postholes and gullies (Parry 2006, 183).

1.3.12 The scheduled settlement site at West Cotton (SM NN199) located *c.*1km to the south-west of the development area, had its origins in the 10th century. Extensive excavations here uncovered a dense and complex Anglo-Saxon settlement (Chapman 2010).

1.3.13 Fieldwork carried out during the Raunds Area Project at Thorpe End Iron Age hillfort (see above) also identified Early Saxon, Late Saxon and early medieval settlement remains (SM 11508). At this time, the Thorpe End site formed one part of the larger Raunds village – a settlement which had two centres of occupation, with the other centre being located on the north side of the village. The scheduled Anglo-Saxon and medieval settlement of North Raunds (SM 11507) is the best understood example in

Britain of the development of a village from its origins in the Early Saxon period to its decline in the post-medieval period (Audouy & Chapman 2009).

Medieval

1.3.14 During the medieval period the landscape around the development area contained a number of settlements. To the north-east of the current site lies the deserted settlement of Mill Cotton (HER 347331; not illustrated), located on the western edge of Ringstead. Little is known about the population or period of desertion, but its existence can be traced back to the 12th century AD. The settlement is shown however on the 1840 Tithe Map (RCHM 1975).

1.3.15 The main focus of medieval activity would have been at Mallows Cotton (SM 13694), located immediately west of the development area and to the south-east of Mill Cotton. This settlement dates to the 12th century AD and survives as earthworks in the form of a distinct hollow-way (known as Cotton Way) which runs north to south along the eastern side of the site. Further trackways can be seen running east to west. A series of raised rectangular enclosures forming house platforms and garden plots are visible on the western side of Cotton Way. The remains of a manor house have also been identified on the north-western side of the village. The village was well established by AD 1274, but by 1798 when an Enclosure Map of the area was produced, the village had been completely abandoned.

1.3.16 Located *c.*1km south of Mallows Cotton was another settlement: the deserted medieval village or hamlet of West Cotton (SMNN 199). All three of these settlements were linked by Cotton Way. West Cotton comprised a series of stone-built structures set around a green which was accessed by a track that led off Cotton Way (Harding & Healy 2011). A manorial complex is also known to have been in located here. Documentary sources indicate that at least one cottage was still in use until the later 16th century, while at Mallows Cotton two cottages were in use in 1552-3 (Parry 2006, 177). Remnants of the deserted village of West Cotton still survive as earthworks on the eastern side of the A605.

Post-medieval

1.3.17 By the post-medieval period the area of the development was under cultivation, as depicted on the 1739 Raunds Open Fields Map (Pugh & Smalley 2010, fig. 2), which shows the site as stripped fields to the south-east of a watercourse (Oak Ditch). This map also shows that the Cotton township boundary once bisected the site from north-east to south-west. Scalley Farm is not shown on this map and first appears on the Ordnance Survey Map of 1885 (see Pugh & Smalley 2010, fig. 4).

1.4 Previous archaeological works

Raunds Area Project

1.4.1 The site and the immediate surrounding area have been subject to a number of previous archaeological investigations, most notably the Raunds Area Project (see Parry 2006, Harding & Healy 2008; 2011), which included the area of the current development.

1.4.2 The Raunds Area Project covered an area extending across the parishes of Raunds, Stanwick, Ringstead and Hargrave, along with parts of Irthlingborough, Denford and Shelton. The investigations specific to the current site (No.11 in the Raunds Area Project), comprised fieldwalking of the entire area (ENN 18531, 18534 and 12999), a

geophysical survey of part of the site (ENN 12997) and trial trenching on the western portion of the site (ENN 11837).

1.4.3 The fieldwalking identified a light concentration of prehistoric flintwork (HER 6672) along with Roman and Anglo-Saxon pottery (HER 1720) concentrations and a background scatter of Iron Age pottery. The Roman pottery scatter, which dated from between the mid 2nd and 4th centuries AD, was seen to extend from the medieval earthworks of Mallows Cotton south-eastwards across to the opposing valley side (Parry 2006, 180). The Anglo-Saxon pottery scatter consisted of a widespread yet low density distribution consisting of 21 Early to Middle Saxon sherds. The scatter extended down slope, beyond that of the Roman pottery scatter, and therefore was considered unlikely to have been caused by soil movement. The northern limit of the pottery scatter was distinct, potentially denoting a change of activity (Parry 2006, 183).

1.4.4 Subsequent trenching (carried out in 1990) was centred on the Anglo-Saxon pottery surface scatter, but was also targeted areas where no pottery was collected. In total 20 trenches were excavated (see Fig. 3). In an area outside of the pottery scatter, Iron Age features in one trench consisted of nine small pits and five gullies. Up-slope a series of scattered small pits and gullies was also identified, containing low levels of Iron Age pottery. Anglo-Saxon features were revealed in the form of three substantial pits (up to 1.8m long, 1.7m wide and 0.4m deep), each containing one or two sherds of Early to Middle Saxon pottery. A group of undated postholes and two gullies adjacent to two of the large pits were also recorded (Parry 2006, 183).

Warth Park Phase II Geophysical Survey

1.4.5 A comprehensive geophysical survey was undertaken of the whole development area (Bartlett 2011), which identified varying levels of archaeology within the site (Fig. 3). In the area of the Roman pottery scatter extensive geophysical anomalies were identified consisting of a roughly north-south aligned double ditched road and an associated settlement represented by dense levels of ditched enclosures and pit-like features. Geophysical anomalies were generally absent in the area of the Saxon pottery scatter. On the eastern side of the development, however, an irregular sequence of large pit-like features was identified.

1.4.6 An extensive pattern of cultivation furrows (on two alignments) were identified through the geophysical survey, many of which correspond with the 1739 Raunds Open Fields Map (see Pugh & Smalley 2010, fig. 2). The Cotton Boundary highlighted on the same 1739 map was also identified by the geophysical survey.

1.4.7 As a result of the Roman remains in the south-western potion of the development, this area, which was originally designed to be the location of a reservoir, was deemed necessary for mitigation by preservation *in situ.* As a result, the reservoir design was altered to make it upstanding rather than below ground.

Warth Park Phase II Evaluation

1.4.8 In 2011 a total of 47 trenches were excavated across the whole of the proposed development site (ENN 105958; Fig. 3). Low levels of evidence for late prehistoric settlement/agricultural activity, medieval field systems and undated remains were identified. A small assemblage of finds was recovered from features across the site, consisting of flint, pottery and animal bone (Marshall 2011).

1.5 Acknowledgements

1.5.1 The author would like to extend thanks to Steve Weaver of CgMs Consulting for commissioning the archaeological works and to Roxhill Developments Ltd for funding

them. Special thanks are also given to Ben Howard and Anthony Nelson of Winvic Construction Ltd for their continued on-site co-operation.

1.5.2 The excavation was coordinated by the author with the assistance of Kat Blackbourn, Matt Brooks, Nick Cox, Kat Hamilton, Toby Knight, Adele Lord, Robin Webb and Jemima Wolverton. Machine excavation was undertaken by Lattenbury Services. The watching brief was undertaken by Nick Cox with the assistance of Lukas Barnes, Kat Blackbourn, James Fairbairn and Paddy Lambert. Metal detecting was carried out by Steve Critchley.

1.5.3 Thanks also go to Liz Mordue from NCCAS for monitoring the work and to Jim Williams from Historic England for his advice on sampling strategies. The prehistoric and Anglo-Saxon pottery was drawn by Gillian Greer, the Roman-British pottery and figure were produced by Séverine Bézie. The various finds processors and specialists, along with the editor are also thanked for their contributions. The project was managed by James Drummond-Murray.

2 Aims and Methodology

2.1 Aims

2.1.1 The original aims of the project were set out in the Written Scheme of Investigation (WSI) (Drummond-Murray 2013) and further refined in the PXA (Bush 2015a).

2.1.2 The main aims of the fieldwork were:

- To mitigate the impact of the development on the surviving archaeological remains. The development would have severely impacted upon these remains and as a result a full excavation was required, targeting the areas of archaeological interest highlighted by the previous phases of evaluation.
- To preserve the archaeological evidence contained within the excavation area by record and to attempt a reconstruction of the history and use of the site.

2.1.3 The research aims and objectives for the project are partly based on those in *The Archaeology of the East Midlands: an archaeological resource assessment and research agenda* (Cooper 2006) and *East Midlands Heritage: an updated research agenda and strategy for the historic environment of the East Midlands* (Knight *et al.* 2012).

2.2 Original Research Objectives

2.2.1 The following original research aims were laid out in the WSI (Drummond-Murray 2013), prior to the commencement of the archaeological works:

- Iron Age activity and land boundaries were recorded to the west during the A45/A605 road construction, indicating that the site lies in the agricultural hinterland of that settlement.
- The excavation will attempt to define the limits of the Roman settlement (recorded to the west) and more accurately date the foundation and abandonment of it and any evidence for the Iron Age/Roman transition. In addition any activities in the agricultural hinterland will be investigated to further understand the landscape context of rural settlements and the agricultural economy.
- Previous fieldwalking on the site identified a concentration of Anglo-Saxon pottery towards the centre of the study site. Subsequent evaluation revealed three pits of Anglo-Saxon date as well as undated postholes and gullies possibly contemporary in date. The excavation will aim to establish a chronology for the remains and the limits of any settlement. The excavation will further attempt to elucidate the pattern of rural settlement and investigate the agricultural economy and rural landscape.

2.3 Updated Research Objectives

2.3.1 Further research aims were compiled for the PXA as a result of the initial findings:

- Characterise the Late Bronze Age/Early Iron Age settlement resource and investigate intra-regional variability.
- How does the trackway aid in understanding the site's association with other Iron Age settlements in the area. Is it part of a wider network of trackways across the local landscape.

2.4 Methodology

2.4.1 The methodology used followed that outlined in the Brief issued by Northamptonshire County Council Archaeology Service (NCCAS 2013) supplemented by a Written Scheme of Investigation prepared by OA East (Drummond-Murray 2013).

2.4.2 Machine excavation was carried out using a 20 tonne tracked 360º excavator using a 2m wide flat bladed ditching bucket and 20 tonne dumper truck. All machine excavation was carried out under the constant supervision of a suitably qualified and experienced archaeologist.

2.4.3 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.4.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Plans and sections were recorded at appropriate scales. Monochrome and digital photographs were taken of all relevant features and deposits.

A.1.1 A total of 123 bulk soil samples were taken from features in order to assess the quality of preservation of plant remains and their potential to provide useful micro- and macro-botanical data. During the archaeological works, Jim Williams (Historic England's Senior Science Advisor) visited the site in order to advise on and refine the sampling strategy (Fosberry 2013).

3 RESULTS

3.1 Introduction

3.1.1 The archaeological works at Warth Park uncovered evidence of Late Neolithic through to Middle Saxon occupation along with post-medieval agricultural activity (Fig. 4).

3.1.2 The development area (totalling approximately 45ha) was subject to three open-area excavations and three watching briefs, providing a total sample of 7.2ha. The excavation areas (referred to as Areas 1, 2 and 3) were located across the centre of the site, with watching brief areas (referred to as Areas A, B and C) to the north and south. Sizes of the excavation and watching brief areas are listed in Table 1 below, and their locations are shown on Figure 1. The following fieldwork descriptions are supplemented by a context list included as Appendix A and specialist reports included as Appendix B and C. Area and feature plans are provided (Figs 4-24), supplemented by a selection of sections and plates.

Excavation area	***Size (ha)***	***Watching brief area***	***Size (ha)***
1	0.2	A	0.8
2	3.3	B	0.4
3	0.7	C	1.8
Total	***4.2***		***3***

Table 1: Size of excavation and watching brief areas

3.1.3 Topsoil (672, 673, 674) across the site consisted of a dark brown-grey silty clay, *c.*0.3m in thickness, containing low levels of modern debris and occasional sherds of pottery dating from the Early Iron Age through to the Middle Saxon period. Subsoil (675) was only seen across a portion of Area 1 where it formed a headland. Here it consisted of a mid brown-orange silty clay, up to *c.*0.6m thick and contained very low levels of post-medieval and modern debris. The generally thin layer of overburden across the site means that all features have been subject to a high level of truncation.

3.1.4 The results of the archaeological works are presented below by period:

Period 1: Late Neolithic (*c.*3000-2200BC)

Period 2: Late Bronze Age/Early Iron Age (*c.*1200-350BC)

Period 3: Romano-British (AD43-410)

Period 4: Early to Middle Saxon (AD410-850)

Period 5: Post-medieval (*c.*1500-1800)

Period 6: Modern (*c.*1800+)

Undated

3.2 Period 1: Late Neolithic (*c.*3000-2500BC)

3.2.1 Neolithic features were represented by a single group of three pits (**34**, **36** and **38**; Fig. 5) located toward the north-eastern limits of Area 1. All three pits had a diameter of 0.5m and varied in depth from between 0.08m to 0.16m. Located just off the highest point of the valley ridge, these pits appear to have been severely truncated.

3.2.2 Sherds of highly decorated Late Neolithic Mortlake Ware pottery were recovered from all three pits. Burnt bone was also found within the pit fills and initially interpreted as cremated human remains, however upon more detailed analysis this bone was found to

be animal bone. Non-burnt animal bone was also collected from the fills, while occasional fragments of hazelnut shell were found within the samples (see Appendix C.3).

Pit **34** lay at the northern edge of the group and measured 0.5m long, 0.45m wide and 0.16m deep with steeply sloping sides and a concave base. It was filled with a mid grey silty clay (33) which contained 72g of burnt and unburnt animal bone, a single flint flake and 647g of Late Neolithic pottery.

Located 0.8m to the south-east, pit **36** had a diameter of 0.5m and was 0.08m deep with steeply sloping sides and a flat base. It was filled with a mid grey silty clay (35) which contained 6g of burnt and non-burnt animal bone and 7g of Late Neolithic pottery.

Pit **38** was located 2m to the west. The pit had a diameter of 0.5m and was 0.16m deep with steeply sloping sides and a flat base. It was filled with a mid grey silty clay (37) which contained 112g of cremated and non-cremated animal bone, two flint flakes and 156g of Late Neolithic pottery.

3.3 Period 2: Late Bronze Age/Early Iron Age (*c.*1200-350BC)

3.3.1 This period was characterised by settlement remains represented by posthole structures, dispersed pit groups, boundaries and a cobbled trackway, along with a series of solution or peri-glacial hollows (Figs 6 and 7).

Feature Group 1 (Area 1)

3.3.2 At the southernmost limit of Area 1 settlement activity appears to have been focused on a collection of ditches, gullies, pits and postholes located in the vicinity of a cobbled trackway (see below). Most of the pits and gullies (some of which may have been structural in origin but too little survived to be certain) were located to the south of the trackway, although the latter appears to have post-dated the majority of these features (Fig. 8).

One of the earliest features in this group was a ditch (**298**/**477**) that was cut by two features (pit **300** and gully **473**, see below). The ditch was aligned north-east to south-west and was also truncated by the later trackway (**290**). It was between 1.25m and 1.48m wide and 0.2m to 0.36m deep with steeply sloping sides and a concave base. A single mid red brown clay silt (297/476) was present which contained 17g of Late Bronze Age/Early Iron Age pottery, 11g of animal bone and 3g of struck flint.

Gully **473**/**475**, which ran adjacent to (and cut) ditch **298**/**477** for 5.6m on a north-northeast to south-southwest orientation, was slightly curvilinear in plan. It was 0.38m to 0.5m wide and 0.08m to 0.2m deep with a concave profile. A single mid red brown clay silt (472/474) filled the gully: this contained 7g of Late Bronze Age/Early Iron Age pottery and 7g of animal bone.

Approximately 4m to the east was a curving gully (**456**/**458**) that extended for approximately 4.5m from the edge of the trackway before terminating. It measured 0.42m wide and 0.1m deep with a concave profile and was filled with a dark red brown clay silt (457/457) which contained 10g of Late Bronze Age/Early Iron Age pottery. Located next to the terminal of gully **456** was a posthole (**462**) which had a diameter of 0.42m and was 0.1m deep with steeply sloping sides and a flat base. It was filled with a dark yellow brown clay silt (461) which contained 2g of Late Bronze Age/Early Iron Age pottery. A small pit or posthole (**454**) also lay close to the terminal of gully **456** and appears to have been cut by it. This pit measured 0.55m in diameter and was 0.09m deep with a rounded profile. It was filled with a dark red brown clay silt (453) which contained 4g of Late Bronze Age/Early Iron Age pottery.

Two similar, parallel gullies (**446**/**448** and **444**) separated by a gap of *c.*0.65m lay a few metres to the east of this gully, also extending southwards from the (later) trackway. The more westerly example (**446**/**448**) was revealed for a distance of *c.*5m and measured

0.54m wide and was 0.12m deep with steeply sloping sides and a concave base. It was filled with a dark red brown clay silt (445, 447) which contained 7g of Late Bronze Age/Early Iron Age pottery. To the east, gully **444** measured 0.51m wide and 0.1m deep with steeply sloping sides and a flat base. It was filled with a similar dark red brown clay silt (443) which produced no finds.

Other similar features in this area may be represented by a number of elongated pits that were truncated by a large post-medieval pit (**436**). Pit/gully **438** was revealed for a distance of 0.8m on the eastern side of the later pit. It measured 0.45m wide and was 0.12m deep with a shallow concave profile. The single dark yellow brown clay silt (437) fill produced no finds. To the north-west of this was another pit/gully **440** that was 0.65m long, 0.43m wide and 0.15m deep with a bowl-shaped profile. Pit **442** to the west may represent a continuation of this gully: its surviving length was 1.3m and it measured 0.44m wide and 0.12m deep with gently sloping sides and a concave base. Both features contained similar (undated) dark yellow brown clay silt fills (439 and 441). Immediately adjacent to gully/pit **442** was pit **452**. This feature was at least 1.25m long, 0.58m wide and 0.14m deep with gently sloping sides and a concave base. It was filled with a dark red clay silt (451).

Several sub-circular and oval pits were also located in this area. Pit **432** lay to the immediate east of gully **444** and measured 1m long, 0.45m wide and 0.07m deep with gently sloping sides and a concave base. It was filled with a mid red brown clay silty (431), which contained 69g of animal bone. Pit **434**, positioned close to the terminal of gully **444**, was slightly larger, measuring 1.1m long, 0.73m wide and 0.19m deep. It had a concave profile and was filled with a dark red brown clay silt (433).

Located to the immediate south of gully **458** was a small pit (**460**) that measured 0.96m long, 0.56m wide and 0.12m deep. It had steeply sloping sides and a concave base and was filled with a mid red brown clay silt (459) which contained 7g of Late Bronze Age/Early Iron Age pottery. Adjacent to this was pit **464**, which was 0.38m long, 0.4m wide and 0.1m deep with steeply sloping sides and a concave base. It was filled with a dark yellow brown clay slit (463). Approximately 1.5m to the west was a large elongated pit (**471**) that was 1.7m long, 0.7m wide and 0.14m deep with steeply sloping sides and a concave base. It was filled with a dark red brown clay silt (470) which contained 2g of Late Bronze Age/Early Iron Age pottery. To the immediate north-east of this, circular pit **467** was 1.25m long, 1.06m wide and 0.16m deep with steeply sloping sides and a flat base. It was filled with a dark grey brown clay silt (465) containing 19g of Late Bronze Age/Early Iron Age pottery and 2g of animal bone. Immediately north of this was a similar pit (**479**) that was cut by the later trackway. The pit measured 1.17m by 1.25m and was 0.16m deep with gently sloping sides and a concave base. It was filled with a mid grey brown clay silt (478) which contained 9g of Late Bronze Age/Early Iron Age pottery and 5g of animal bone. A steep-sided oval pit (**520**) positioned to the east was 0.66m long, 0.51m wide and 0.15m deep. This was filled with a dark red brown clay silt (519) containing 2g of Late Bronze Age/Early Iron Age pottery.

Cutting ditch **298**/**477** towards the southern edge of the feature group was a small pit (**300**), measuring 0.84m long, 0.74m wide and 0.19m deep with steeply sloping sides and a flat base. This was filled with a dark grey brown silty clay (299), which contained no finds.

Cobbled trackway

3.3.3 Trackway **290** (**294**, **312**, **339**, **348**, **482**, **488**, **567** and **569**) was orientated east-northeast to west-southwest along the north-western edge of Feature Group 1: it survived for a distance of *c.*95m (Figs 6 and 8). The trackway consisted of a hollow way lined with a cobbled surface (293, 296, 311, 338, 352), above which was a maximum of four disuse fills. The hollow varied in width and depth but at its northern extent – where it was well-defined – it measured 2m wide and 0.3m deep with sides that were moderately steep (Fig. 8, S.91).

The earliest fill (292, 310, 337, 351, 481 and 487) comprised a mid orange brown sandy clay measuring between 0.06m and 0.2m in thickness. Finds from this fill comprise 61g of Late Bronze Age/Early Iron Age pottery, 107g of animal bone and 4g of struck flint. Above this was a 0.1m-thick light yellow brown silty clay (350). This was followed by a mid grey brown clay silt (336, 486), 0.17m thick with frequent charcoal inclusions. A total of 508g of Late Bronze Age/Early Iron Age pottery, 2g of baked clay, 283g of animal bone and 11g of burnt flint were collected from this fill. The final fill (291, 295, 309, 349, 480, 485, 566 and 568) consisted of a dark grey brown clay silt, between 0.15m and 0.6m in thickness, which contained 162g of Late Bronze Age/Early Iron Age pottery, 369g of animal bone and 2g of struck flint.

Boundaries

Boundary 1 (Area 1)

3.3.4 A single segmented ditch was identified to the north-west of the trackway, on a different alignment (Fig. 6). Ditch **320** (**331**, **333**, **367**, **369** and **555**) crossed the site for *c.*16m on a north-northeast to south-southwest alignment before terminating. After a narrow gap of just 0.15m, the ditch became more angled and followed a south-east to south-west orientation, continuing for a further 43.5m before terminating.

The more southerly section of the ditch varied in width from 0.32m to 0.65m and was 0.07m to 0.24m deep with steeply sloping sides and a concave base. It was filled with a mid yellow brown silty clay (322, 334 and 368) which contained an intact cattle skull (815g). The northern portion of the ditch varied in width from 0.9m to 1.04m and was 0.12m to 0.22m deep with steeply sloping sides and a gently rounded base. It was filled with a mid orange brown silty clay (332, 370 and 556) which contained a small amount of animal bone (41g).

Boundary 2 (Area 2)

3.3.5 At the eastern edge of the development site, Boundary 2 extended across Area 2 for 59m on a north-northeast to south-southwest alignment (Fig. 7). It comprised a mixture of gullies and large solution hollows or quarries (see Discussion), not all of which were in use at the same time. This boundary followed the line of a change in geology (where the solution hollows had formed): to the west was a formation of loose tabular limestone while extending east was a silty clay.

At the southern end of the group, pit **599** measured 1.85m in diameter and was 0.45m deep with steeply sloping sides and a flat base. It was filled with a mid grey brown silty clay (600). Approximately 2m to the north-east was solution hollow **606** (**637**). The elongated hollow measured 7m long and 2.5m wide, with steeply sloping sides and a flat base. It was filled with a dark yellow brown silty clay (607 and 638) which contained 24g of Late Bronze Age/Early Iron Age pottery, 14g of baked clay and two flint flakes (8g).

Beyond this was gully **395**. Orientated north-northeast to south-southwest, it ran for 8m and was between 0.23m and 0.52m wide and 0.13m deep with a bowl shaped profile. It was filled with a mid brown grey silty clay (394). The uneven base of the gully indicates that either this feature was dug segmentally or that it originally had postholes in it. If it did contain posts, then the southernmost postholes attributed to Structure 4 (**514** and **516**, see below), could potentially have been a part of this structure instead.

Approximately 9.5m north-northeast of gully was solution hollow **596**. It measured 7.2m long, 4.2m wide and was 0.76m deep with irregularly stepped sides and a flat base. The initial primary fill was formed from a 0.35m thick light brown yellow clay silt (598) which was slumped in around the edges. This was followed by a further natural slump (655) of a light yellow brown clay silt, 0.15m in thickness. The first of the secondary fills (654) was made up of a 0.2m thick dark brown clay silt which resembled topsoil in composition. Above this was a 0.32m thick mid brown orange clay silt (653). The final fill (597)

consisted of a 0.28m thick mid red brown silty clay which contained 40g of highly abraded Late Bronze Age/Early Iron Age pottery and 5g of well abraded medieval pottery. The small size of the pottery fragments recovered suggests incidental inclusion of this material.

Beyond the solution hollow was gully **391**. Like gully **395**, it ran for 8m and was between 0.2m and 0.4m wide and 0.14m deep with a bowl shaped profile. It was filled with a mid yellow brown silty clay (390) which contained 7g of Late Bronze Age/Early Iron Age pottery.

Solution hollow **579** (**617** and **618**) was located 5.7m north-east of gully **391**. This feature measured 6.15m long, 5.2m wide and was 0.77m deep with irregularly stepped sides and a flat base. The primary fill (601, 626, 632) consisted of a 0.18m thick dark red brown silty clay which resembled topsoil in composition. This was followed by a 0.22m thick mid brown grey silty clay (608, 625, 631). A secondary fill of 0.12m thick a light grey yellow silty clay (602, 624, 630) seen slumping in down the northern edge of the feature was to follow. Fill 580 (623, 629) was a further topsoil-type fill consisting of a 0.19m thick dark red brown clay silt containing 10g of abraded Late Bronze Age/Early Iron Age pottery. Above this was a mid brown grey silty clay, 0.3m in thickness (581, 622, 628). The final fill (582, 603, 621, 627) was a 0.18m thick mid grey brown clay silt, containing 26g of heavily abraded Late Bronze Age/Early Iron Age pottery.

Structures

3.3.6 The scattered remains of at least five post-built structures representing fences/alignments and possible buildings, were identified across Areas 1, 2 and 3 (Figs 9 and 10.

Structure 1 (Area 3)

3.3.7 Located in Area 3, Structure 1 consisted of a slightly irregular linear group of six postholes orientated north-east to south-west, traversing the site for 21m. A single sherd of Iron Age pottery (weighing 1g) was recovered from the fill of the most south-westerly posthole (**20**).

At the north-eastern end, posthole **07** was 0.66m long, 0.56m wide and was 0.17m deep with gently sloping sides and a concave base. Its basal fill (09) consisted of a dark blue grey clay silt, 0.1m thick, which slumped in from the south side. Above this was a 0.14m thick mid orange brown silty clay (08).

Located 0.6m to the north-west, posthole **10** measured 0.46m long, 0.18m wide and was 0.1m deep with gently sloping sides and a concave base. Its primary fill (12) comprised a 0.07m thick dark blue grey clay silt, slumping in from the south side. Above this was a mid orange brown silty clay (11), 0.1m thick.

Posthole **15** was situated 4m to the west of posthole **10**. It measured 0.65m in length, was 0.43m wide and 0.1m deep with a bowl shaped profile. It was filled with a mid orange brown silty clay (16).

Situated 4.8m to the south-west, posthole **05** was 0.72m long, 0.66m wide and 0.21m deep with a bowl shaped profile. It was filled with a mid yellow brown clay silt (06).

Located 5.8m to the south-west was posthole **26**. This posthole measured 0.45m in length, 0.39m in width and 0.12m in depth with steeply sloping sides and a concave base. It was filled with a mid orange brown silty clay (27).

Posthole **20** was positioned 4m to the south-west and made up the last posthole in this structure. It had a diameter of 0.45m and was 0.09m deep with near vertical sides and a flat base. It was filled with a mid brown grey silty clay (19) which contained large sub-angular stones and a single sherd (1g) of Late Bronze Age/Early Iron Age pottery.

Structure 2 and artefact-rich pit (Area 1)

3.3.8 Four-post Structure 2 was revealed towards the south-easternmost corner of Area 1. It was slightly asymmetrical in plan, with the north-western posthole (**402**) being somewhat off-set from the others, providing overall dimensions of 1.8m long and 1.5m wide. All four of the circular postholes had vertical sides with concave bases (Fig. 9, S. 113).

The south-eastern posthole (**396**) had a diameter of 0.42m and was 0.35m deep. It was filled with a dark yellow brown sandy clay (397). Posthole **398** (south-western post) had a diameter of 0.45m and was 0.41m deep. It was filled with a mid yellow brown sandy clay (399) which contained 5g of Late Bronze Age/Early Iron Age pottery and 46g of animal bone. Posthole **400** (to the north-east) measured 0.36m in diameter and 0.4m in depth. The fill (401) comprised a mid yellow brown sandy clay, containing 12g of Late Bronze Age/Early Iron Age pottery and 2g of animal bone. The north-western posthole (**402**) was 0.29m in diameter and 0.2m deep. It was filled with a dark yellow brown sandy clay (403) containing 46g of Late Bronze Age/Early Iron Age pottery.

3.3.9 Positioned around 10m west of Structure 2 was a large circular pit (**382**) that was notable both for its size and its finds assemblage, which included the semi-articulated skeleton of a pig.

The pit measured 1.96m in diameter and was 1.14m deep with vertical sides and a flat base. The earlier of the three fills (383) was a dark orange brown silty clay containing frequent sub-angular and tabular stones. Finds from this fill consist of 4g of Late Bronze Age/Early Iron Age pottery, 1.146kg of animal bone and 9g of struck flint. A 0.7m thick mid yellow brown silty clay fill (384) followed, containing an abundant amount of large tabular stones (the largest of which measured 0.6m in length). Finds from this fill comprise 132g of Late Bronze Age/Early Iron Age pottery, 1.82kg of animal bone and 7g of struck flint (a blade and a flake) and part of a saddle quern (SF39, Fig. 30). The latest fill (385) was a mid brown sandy clay containing 164g of Late Bronze Age/Early Iron Age pottery, 942g of animal bone and a flint core (8g).

Structure 3 (Area 2)

3.3.10 At the centre of Area 2 lay Structure 3: a four-post structure measuring 1.9m by 2.3m. The postholes (**544**, **546**, **548** and **550**) all had diameters of 0.26m with U-shaped profiles. All four also contained a similar mid brown grey clay silt fills (543, 545, 547 and 549 respectively).

Posthole **544** (south-western posthole) was 0.15m deep. Sherds of Late Bronze Age/Early Iron Age pottery (12g) and animal bone (3g) was collected from its fill. Post **546** (north-west) was 0.1m deep and contained 8g of Late Bronze Age/Early Iron Age pottery. Posthole **548** (north-eastern post) was 0.07m deep. The south-eastern posthole (**550**) was 0.13m deep and contained 25g of animal bone.

Structure 4 (Area 2)

3.3.11 Structure 4 was situated at the northern end of Area 2 and may represent the remnants of a fence or post alignment. It comprised a shallow arc of seven irregularly-spaced sub-circular postholes in a roughly north-south alignment that traversed the site for 30m. One of these (518) produced a small quantity of Late Bronze Age/Early Iron Age pottery.

The most northerly posthole (**415**) measured 0.4m long, 0.35m wide and was 0.06m deep with vertical sides and a flat base. It was filled with a dark grey brown clay silt (414). Approximately 9m to the south of this, posthole **417** measured 0.4m long, 0.35m wide and was 0.04m deep with gently sloping sides and a flat base. It was filled with a mid brown silty cay (416). Further to the south, posthole **389** had a diameter of 0.3m and was 0.1m deep with vertical sides and a flat base. It was filled by a dark grey silty clay

(388) which contained frequent large sub-angular stones. A further 3m to the south, posthole **528** has a diameter of 0.45m and was 0.14m deep with steeply sloping sides and a concave base. It was filled y a mid brown clay silt (527) which contained a moderate level of tabular stone pieces.

Posthole **518** was 0.4m long, 0.33m wide and 0.22m deep with near vertical sides and a flat base. It was filled with a dark brown clay silt (517) which contained 6g of Late Bronze Age/Early Iron Age pottery and 3g of animal bone. The most southerly two postholes forming the structure lay adjacent to each other (**514** and **516**). Posthole **514** was 0.45m long, 0.34m wide and 0.26m deep with steeply sloping sides and a concave base. It was filled with a dark brown grey clay silt (513). To the west, posthole **516** had a diameter of 0.35m and was 0.2m deep with steeply sloping sides and a concave base. It was filled with a mid grey brown clay silt (515).

Structure 5: possible roundhouse (Area 2)

3.3.12 Structure 5 was situated 5m to the south of Structure 4 and consisted of thirteen postholes covering an area approximately 15m by 16.5m. The layout of these postholes indicate that this was a circular building with internal divisions. Small quantities of Late Bronze Age/Early Iron Age pottery were recovered a number of the internal and external posthole fills. A large pit (**574**) was located close to the northern edge of the structure and may have been associated.

3.3.13 Seven sub-circular postholes formed the outer ring: other postholes may have been removed by the evaluation trench that bisected the centre of this structure, however none were identified during the evaluation. The postholes are described from the north and then in a clockwise direction.

Posthole **541** which had a diameter of 0.32m and was 0.07m deep with steeply sloping sides and a flat base. It was filled with a dark orange brown sandy clay (542). Posthole **537** measured 0.26m in diameter and was 0.08m deep with steeply sloping sides and a flat base. It was filled with a dark grey brown sandy clay (538) which contained 2g of Late Bronze Age/Early Iron Age pottery and 1g of animal bone. Post **535** measured 0.35m in diameter and was 0.06m deep with steeply sloping sides and a flat base. It was filled with a dark brown sandy clay (536). Posthole **584** was 0.23m in diameter and 0.1m deep with steeply sloping sides and a flat base. It was filled with a mid brown grey clay silt (583). Posthole **586** measured 0.3m in diameter and was 0.15m deep with vertical sides and a flat base. It was filled with a dark grey clay silt (585). Posthole **588** was 0.35m in diameter and 0.14m deep with steeply sloping side and a flat base. It was filled with a mid brown grey clay silt (587). Posthole **612** measured 0.36m by 0.44m and was 0.17m deep. It was filled with a dark brown grey silty clay (611) with frequent charcoal inclusions. A total of 28g of Late Bronze Age/Early Iron Age pottery was collected from this fill.

3.3.14 Internally there appear to have been two rows of postholes orientated north-northeast to south-southwest, along with a large pit

The more central of the rows consisted of (from south to north) postholes **590**, **614** and **533**. The gap between each of these posts was *c.*5.25m. Post **590** measured 0.38m by 0.5m and was 0.17m deep with steeply sloping sides and a flat base. It was filled with a mid grey brown clay silt (589). Posthole **614** measured 0.3m in diameter and was 0.17m deep with vertical sides and a flat base (this posthole lay almost centrally within the structure). It was filled by a dark grey silty clay (613) which contained 1g of Late Bronze Age/Early Iron Age pottery. Pit/posthole **533** was 0.63m long, 0.53m wide and 0.13m deep with steeply sloping sides and a flat base. It was filled with a dark grey brown silty clay (534) containing 3g of Late Bronze Age/Early Iron Age pottery.

The second posthole row within Structure 5 lay approximately 1.5m to the west. It consisted of (from the south) postholes **592**, **595**, **531** and **539**. The average spacing

between these posts was 2.6m. Posthole **592** had a diameter of 0.35m and was 0.06m deep with steeply sloping sides and a flat base. It was filled with a mid brown clay silt (591). Pit or posthole **595** was 0.9m in diameter and 0.2m deep with gently sloping sides and a flat base. It was filled with a mid brown clay silt (594) followed by a dark grey brown clay silt (593) which contained 16g of animal bone. Posthole **531** had a diameter of 0.36m and was 0.08m deep with steeply sloping sides and a flat base. It was filled with a mid brown clay silt (532) which contained 2g of Late Bronze Age/Early Iron Age pottery and 1g of animal bone. Posthole **539** measured 0.35m in diameter and was 0.08m deep with steeply sloping sides and a flat base. It was filled with a dark brown grey clay silt (540) and contained a number of large rounded stones.

Located close to the northern edge of the structures was pit **574**.This was 2.6m long, 1.22m wide and 0.25m deep with near vertical sides and a gently concave base. It was filled with a mid orange brown sandy clay (575).

Pit Groups

3.3.15 Several loose clusters of often intercutting pits and postholes were present across the site, in proximity to Structures 2 to 5 within Areas 1 and 2. In addition to sherds of Late Bronze Age/Early Iron Age pottery, flint and small amounts of animal bone, notable finds include two unusual glass beads from pit **286** in Pit Group 1 (Area 1) and pit/posthole **578** in Pit Group 4, Area 2 (see below and App. B6). Despite its small size, the latter feature also contained four cylindrical loomweights.

Pit Group 1 (Area 1; Fig. 11)

3.3.16 Located in the centre of Area 1 was an intercutting but broadly contemporary group of features (Pit Group 1) comprising 22 pits and postholes of varying size and shape spread across an area measuring around 22m by 11m.

The most complex group within Pit Group 1 consisted of twelve intercutting pits (Figs 6 & 11, S.71). The earliest of these (**318**) was mostly truncated away by those above, with only the lowest 0.15m of the pit still being seen. It was filled with a mid red brown silty clay (319) which contained 5g of Late Bronze Age/Early Iron Age pottery, 1g of animal bone and a struck flint (1g). Directly over this, pit **284** was 1.2m long, 0.6m wide and 0.28m deep with steeply sloping side and a concave base. It was filled with a dark red brown silty clay (285). Truncating its north side was pit **248** which measured 1.2m long, 0.73m wide and 0.34m deep with steeply sloping sides and a concave base. It was filled with a light red brown sandy clay (249) which contained 38g of Late Bronze Age/Early Iron Age pottery and 2g of animal bone. Truncating pits **318**, **284** and **248** was pit **286**. This pit measured 1.08m long, 0.83m wide and 0.25m deep with a bowl shaped profile. Its basal fill (287) consisted of a 0.18m thick mid red brown silty clay containing 156g of Late Bronze Age/Early Iron Age pottery and 1g of animal bone. Above this was a 0.07m thick charcoal-rich dark grey brown silty clay (288) containing 98g of Late Bronze Age/Early Iron Age pottery, 3g of animal bone and a glass bead (SF24 and 73, Fig. 25).

On the easternmost side of this pit group and partially covering pits **248**, **284** and **286** was deposit 111. This spread was 2.4m long, 1m wide and 0.11m thick, consisting of a dark red grey silty clay. From this a total of 422g of Late Bronze Age/Early Iron Age pottery was recovered along with 26g of animal bone and a burnt flint (1g).

Pit **284** also truncated the eastern edge of pit **238**. This pit was at least 1.2m long and was 1.2m wide and 0.39m deep with slightly undercutting sides and a flat base. It was filled with a mid red brown sandy clay (239) which contained 626g of Late Bronze Age/Early Iron Age pottery and 116g of animal bone. On its western side, pit **238** was cut by pit **242**. This pit measured 1.65m long, 0.8m wide and 0.66m deep with steeply sloping sides and a slightly rounded base. Its basal fill (243) consisted of a 0.16m thick dark grey brown sandy clay. This was followed by a mid red brown sandy clay (244)

containing 94g of Late Bronze Age/Early Iron Age pottery, 88g of animal bone and a single flint blade (3g).

Pit **340** was cut into the northern edge of pit **242** and measured 0.8m long, 0.54m wide and 0.6m deep with vertical sides and a concave base. It was filled with a mid red brown silty clay (341) containing 161g of Late Bronze Age/Early Iron Age pottery and 6g of animal bone. Truncating this pit's eastern edge and the northern side of pit **238** was pit **240**. This pit was 1.78m long and 0.84m wide. The upper portion of this pit was truncated away by pit **107**, and consequently only the lowest 0.33m part of the pit survived. Pit **240** was filled with a dark red brown sandy clay (241) containing 234g of Late Bronze Age/Early Iron Age pottery and 29g of animal bone.

Located just to the north of pit **240** was pit **253**. It measured 0.66m long, 0.52m wide and was 0.29m deep with steeply sloping sides and a concave base and was filled with a mid red brown silty clay (254). Cutting through its north-eastern side was pit **255**. This 0.95m-long, 0.8m-wide and 0.2m-deep pit contained a single mid red brown silty clay fill (256) from which 15g of Late Bronze Age/Early Iron Age pottery and 4g of animal bone was recovered.

On the western side of the group and cutting into the top of pits **240**, **242** and **340** was pit **246**. This pit measured 0.9m long, 0.8m wide and 0.4m deep with near vertical sides and a flat base. It was filled with a dark red brown sandy clay (247) containing 5g of Late Bronze Age/Early Iron Age pottery and 3g of animal bone.

The latest pit in this group was pit **107** and was cut through pits **238**, **240**, **242**, **246**, **248**, **253** and **340**. Pit **107** was 1.74m long, 1.42m wide and 0.44m deep with steeply sloping sides and a flat base. The earliest fill (108 and 250) consisted of a 0.21m thick mid red brown silty clay. A total of 128g of Late Bronze Age/Early Iron Age pottery and 33g of animal bone was recovered. Above this was a 0.16m thick dark brown grey silty clay (109 and 251). A total of 451g of Late Bronze Age/Early Iron Age pottery, 135g of animal bone and a flint flake (3g) was collected from this fill. In the soil horizon between basal fill 108 and fill 109 was a layer of highly burnt stone, the soil around which was burnt a pinky red colour. The latest fill (110 and 252) consisted of a 0.17m thick mid grey silty clay and contained 936g of Late Bronze Age/Early Iron Age pottery, 245g of animal bone and 21g of flint (comprising two flakes, a burnt chunk and a blade).

Pit **146** was located 3m north-west of the intercutting pit group. This pit measured 1.78m long, 0.84m wide and was 0.18m deep with a bowl-shaped profile. It was filled with a mid grey brown silty clay. Approximately 2m north-west of this was pit **139**, which had a diameter of 1.7m and was 0.8m deep with vertical sides and a flat base. The basal fill (141) consisted of a 0.46m thick mid grey brown silty clay with frequent large tabular limestone pieces in it (Fig. 11, S.43). A total of 83g of Late Bronze Age/Early Iron Age pottery was recovered from this fill along with 1g of animal bone. The upper fill (140) was made up of a mid brown grey silty clay and contained 157g of Late Bronze Age/Early Iron Age pottery, 26g of animal bone, 27g of burnt flint and an intrusive copper alloy coil of wire (SF15).

Approximately 7.5m east of pit **139** was small pit **145**. This pit measured 0.64m in length, 0.4m in width and was 0.08m deep with a bowl shaped-profile. It was filled with a mid yellow brown silty clay (144) which contained 22g of Late Bronze Age/Early Iron Age pottery and 1g of animal bone.

Located immediately south of the main group of intercutting pits was pit **148**. This pit was 1.65m long, 1.59 and 0.1m deep with a shallow bowl shaped profile. It was filled with a dark grey brown silty clay (149) which contained 707g of Late Bronze Age/Early Iron Age pottery and 63g of animal bone. Positioned *c.*3m south-east of this was pit **151**. It was 2.17m long, 1.4m wide and 0.51m deep with steeply sloping sides and a flat base. The earlier of the two fills (153) consisted of a 0.32m-thick mid yellow brown silty clay containing 432g of Late Bronze Age/Early Iron Age pottery and 2g of animal bone. Above

this was a 0.19m thick silty chalk capping (152) containing 151g of Late Bronze Age/Early Iron Age pottery.

Approximately 3.5m to the north-east of this was pit **217**. The pit measured 0.78m long, 0.63m wide and was 0.1m deep with gently sloping sides and a flat base. It was filled with a mid grey brown silty sand (218).

Situated around 3.5m south of pit **217** was pit **206**. Pit **206** measured 1.24m in length, 0.78m in width and was 0.61m deep with a stepped profile. The earliest of the four fills (211) was made up of a 0.04m thick very dark grey silty sand which was slumped in from the north. This fill contained 58g of Late Bronze Age/Early Iron Age pottery. Overlying this was a 0.18m thick mid yellow brown clay silt (210) containing 35g of Late Bronze Age/Early Iron Age pottery and 10g of animal bone. This fill also slumped in from the northern side of the feature. Fill 209 was a 0.14m thick mid grey brown clay silt. Above this was a 0.18m thick yellow blue clay (208), from which 42g of Late Bronze Age/Early Iron Age pottery and 6g of animal bone was collected. The final fill (207) had the appearance of having been burnt. It was made up of a 0.13m thick light pink brown silty clay and contained 67g of Late Bronze Age/Early Iron Age pottery.

To the immediate north-west of this pit was posthole **266**. This posthole had a diameter of 0.35m and was 0.23m deep with a U-shaped profile, which was filled with a mid grey brown clay silt (267).

Positioned 3m to the south of pit **206** was pit **212**. This pit measured 1.92m in length, 0.94m in width and was 0.59m deep with a stepped profile and flat base (Fig. 11, S.69). The earliest of the four fills (216) was made up of a 0.32m-thick dark grey brown silty clay which contained 395g of Late Bronze Age/Early Iron Age pottery and 37g of animal bone. This was followed by 215, a 0.15m thick light yellow brown clay sand. Above this was a 0.04m thick layer of blue clay (214). The final fill (213) consisted of a 0.17m thick light grey brown silty clay.

Two small intercutting postholes were positioned close to the eastern edge of the group, both of which are undated. Posthole **271** had a diameter of 0.35m and was 0.18m deep with a rounded profile. It was filled with a 0.1m thick light yellow brown clay silt (273), followed by a light grey brown clay silt (272). Truncating its northern side, posthole **268** measured 0.57m long, 0.38m wide and was 0.22m deep with a rounded profile. It was filled by a 0.11m-thick light yellow brown clay silt (270) overlain by a 0.11m thick mid grey brown clay silt (269).

Pit Group 2 (Area 1; Fig. 12)

3.3.17 Positioned approximately 25m south of Pit Group 1, Pit Group 2 consisted of ten pits and three postholes covering an area approximately 32m by 15m in size. As with the previous group, a number of the pits were also intercutting. This group of features contained a total of 24 sherds (120g) of Late Bronze Age/Early Iron Age fine shell-tempered pottery, along with small amounts of animal bone and flint.

At the northernmost end of this group was pit **279** which was 1.4m long, 0.7m wide and 0.4m deep with gently sloping sides and a flat base. Primary fill 281 consisted of a 0.1m thick mid yellow brown clay silt. This was followed by a secondary fill of dark grey brown clay silt (280) which contained 3g of Late Bronze Age/Early Iron Age pottery and 49g of animal bone. This pit was truncated on its eastern side by similar pit **276**. This pit was 2.3m long, 1.16m wide and 0.4m deep with a bowl shaped profile. It was filled with a mid grey brown clay silt (277) containing 1g of Late Bronze Age/Early Iron Age pottery and 22g of animal bone.

Located approximately 9m to the south-west of this pair was posthole **159**. This posthole was sub-circular in plan measuring 0.24m long, 0.16m wide and was 0.12m deep with near vertical sides and a concave base. It was filled with a dark grey silty clay (158). A further 13m south-west were postholes **161** and **163**. Both were filled with a similar dark

grey silty clay (160 and 162 respectively) which contained a moderate number of large sub-angular packing stones. Posthole **161** measured 0.5m long, 0.42m wide and 0.13m deep with a U-shaped profile. Finds consisted of 1g of animal bone. Posthole **163** measured 0.42m long, 0.32m wide and was 0.22m deep with a U-shaped profile. Finds comprise 9g of Late Bronze Age/Early Iron Age pottery and 4g of animal bone.

Pit **353** was *c.*13m to the east. It measured 1.02m long, 0.88m wide and was 0.24m deep with gently sloping sides and a concave base. The basal fill (356) was made up of a 0.12m thick mid orange brown clay silt. This was overlain by a 0.08m-thick mid grey brown clay silt with charcoal inclusions (355). A total of 13g of Late Bronze Age/Early Iron Age pottery and 5g of animal bone was recovered from this fill. The uppermost fill was a 0.14m thick mid brown clay silt (354) containing a single flint flake (1g).

The most southerly two features in this group were intercutting pits **364** and **360**. Pit **264** measured 2.54m long, 1.94m wide and was 0.32m deep with steeply sloping sides and a broadly flat base. It was filled with a single mid grey brown silty clay (365) which contained 25g of Late Bronze Age/Early Iron Age pottery and 16g of animal bone. Truncating its eastern side was pit **360**, which measured 1.6m long, 1.4m wide and was 0.6m deep with steeply sloping sides and a concave base. The earliest of the three fills consisted of a 0.22m thick dark grey brown clay silt (363) containing 2g of Late Bronze Age/Early Iron Age pottery and 176g of animal bone. This was followed by a 0.4m thick mid grey brown silty clay (361) with a moderate number of tabular limestone pieces. Finds from this fill consisted of 44g of Late Bronze Age/Early Iron Age pottery and 12g of animal bone. The latest fill (358), slumping in from the east, was a 0.3m-thick dark grey brown silty clay (358).

Pit Group 3 (Area 1; Fig. 12)

3.3.18 Pit Group 3 was located to the east of the cobbled trackway (see above), close to the southern limit of Area 1. It comprised four dispersed features, one of which may represent the remains of an oven or cooking pit (**412**).

The most northerly (**412**) pit had a diameter of 1.1m and was 0.41m deep with near vertical sides and a flat base. The basal fill (529) was a 0.1m thick burnt red clay. This was overlain by a 0.12m-thick mid pinkish brown silty clay with charcoal inclusions (530). The main backfill consisted of a mid brown silty clay (413).

The other three features in this group were located 33.5m to the south of pit **412**. Circular pit **342** had a diameter of 0.3m and was 0.25m deep with gently sloping sides and a concave base. It was filled with a mid grey brown silty clay (343) which contained 13g of Late Bronze Age/Early Iron Age pottery.

Posthole **344** was sub-square in plan with near vertical sides and a flat base. It had a diameter of 0.43m and was 0.2m deep. The posthole was filled with a mid grey brown silty clay (345). containing a number of medium to large burnt rounded stones. Pit **346** had a diameter of 0.55m and was 0.26m deep with a U-shaped profile. It was filled with a mid grey brown silty clay (347) with charcoal and burnt stone inclusions. Finds consisted of Late Bronze Age/Early Iron Age pottery and 95g of animal bone.

It is notable that features **344** and **346** contained large quantities of burnt stone, but there was no evidence for *in situ* burning. However, pit **412** (which is undated) had a burnt clay lining indicative of an oven or cooking pit and it is therefore possible that the burnt stones in posthole/pit **344** and **346** originated from pit **412**.

Pit Group 4 (Area 2, Fig. 13)

3.3.19 Situated at the southern end of Area 2, Pit Group 4 comprised seven pits/postholes covering an area of approximately 25m by 10m.

The most north-westerly of the group (**560**) was sub-circular in plan, 0.66m long, 0.42m wide and 0.22m deep with near vertical sides and a concave base. It was filled with a

mid brown grey clay silt (559). To the east, pit **558** had a diameter of 0.56m and was 0.28m deep with slightly undercutting sides and a gently concave base (Fig. 13, S.157). It was filled with a mid grey brown clay silt (557) which contained 12g of Late Bronze Age/Early Iron Age pottery, 11g of animal bone and a single flint flake (9g). Pit **564** measured 0.5m long, 0.4m wide and was 0.09m deep with gently sloping sides and a concave base. It was filled with a mid red brown clay silt (563) with occasional lumps of burnt clay within the fill. Pit **562** measured 0.34m long, 0.28m wide and 0.13m deep with a bowl shaped profile. It was filled with a mid grey brown clay silt (561).

Approximately 12m east of these features was pit or posthole **573**. This pit had a diameter of 0.43m and was 0.1m deep with gently sloping sides and a concave base. It was filled with a mid grey brown clay silt (572) and contained a high proportion of medium-large burnt stones. Located 10m south-west of this was sub-circular pit or posthole **578**. It measured 0.46m long, 0.4m wide and was 0.3m deep with slightly undercutting sides and a flat base. It was filled with a dark red grey clay silt (577) which contained 8g of Late Bronze Age/Early Iron Age pottery, 4g of animal bone, a glass bead (SF81, Fig. 25) and six baked clay loomweights (totalling 2,581g).

The most southerly feature in this group (**571**) lay 8m to the south-east of pit **578**. This circular posthole had a diameter of 0.35m and was 0.12m deep with steeply sloping sides and a concave base. It was filled with a burnt red brown clay silt (570).

Pit Group 5 (Area 2, Fig. 13)

3.3.20 Pit Group 5 was located at the northernmost end of Area 2. This group consisted of a large number of shallow intercutting pits (**660**) along with a couple of more substantial 'satellite' pits. The group occupied an area measuring approximately 15m long and 8m wide.

The main group of intercutting pits (**660**; Fig. 8) comprised a collection of small shallow pits (**643**, **645**, **647**, **649**, **657**, **658**, **661**, **663**, **666**, **668**, **670**) that covered an area of at least 14.6m by 7.5m. The full extent of this cluster was not seen as it continued beyond the northern limit of excavation. All pits had gently sloping sides with concave bases and measured between 0.08m and 0.22m in depth. No clear relationships between the pits could be seen, indicating that they may have been broadly contemporary. They were all filled with a mid red brown silty clay (642, 644, 646, 648, 656, 659, 662, 664, 665, 667, 669, 671). Finds from this group consisted of 207g of Late Bronze Age/Early Iron Age pottery (184g of which came from context 646 in pit **647**), 7g of metalworking debris, 11g of animal bone and 2g of baked clay.

The 'satellite' pits were identified to the north-east, south-west and east of the main pit cluster. To the immediate north-east was pit **651**. This pit measured 1.9m in length, 1.3m in width and was 0.12m deep with steeply sloping sides and a flat base. It was filled with a mid red brown silty clay (650) which contained 2g of Late Bronze Age/Early Iron Age pottery, 1g of metalworking debris and 17g of animal bone. At the group's southern end was pit **616**. This had a diameter of 0.76m and was 0.18m deep with steeply-sloping sides and a flat base. It was filled with a mid yellow brown silty clay (615).

Miscellaneous pits and postholes

3.3.21 A series of scattered sub-circular pits and postholes were present across the site, which were not directly related to the pit groups and posthole structures, but appear to represent contemporary activity.

Area 1

A large, amorphous pit (**56**), located in the northern part of Area 1 was 4m long, 3.65m wide and 0.25m deep. It had gently sloping sides and a concave base and was filled with a mid brown silty clay (30, 57 and 60) which contained 77 sherds (513g) of Late Bronze Age/Early Iron Age pottery and 4g of animal bone.

A scatter of isolated postholes lay to the south of pit **56** and north of Pit Group 1. Posthole **46** at the eastern end was 0.55m long, 0.5m wide and 0.06m deep with a concave profile. It was filled with a mid brown grey silty clay (45) which contained 17g of Early Iron Age pottery and 1g of animal bone. Situated 4m to the north-west was similar posthole **48**, which had a diameter of 0.55m and was 0.06m deep with gently sloping sides and a concave base. It was filled with a mid grey brown silty clay (47) which contained 2g of Late Bronze Age/Early Iron Age pottery and 6g of animal bone.

Located *c.*25m west of posthole **46** was posthole **93**. This had a diameter of 0.45m and was 0.14m deep with steeply sloping sides and a concave base. It was filled with a mid brown grey clay silt (93) which contained a single sherd (2g) of Late Bronze Age/Early Iron Age pottery. A further 17.5m north-west of this was posthole **91**, which had a diameter of 0.4m and was 0.17m deep with a U-shaped profile. It was filled with a mid red brown clay silt (92) which contained 32g of Late Bronze Age/Early Iron Age pottery.

Pit **420 w**as positioned *c.*40m to the south-west of Pit Group 2. It measured 1.6m long, 1.26m wide and 0.54m deep with steeply sloping sides and a concave base. Its basal fill (423) was a 0.4m thick mid orange brown clay silt. Above this was a 0.26m thick mid red brown clay silt (421) which contained 3g of Late Bronze Age/Early Iron Age pottery and 31g of struck flint.

Further to the south-east, pit **424** was 0.98m long, 0.78m wide and 0.4m deep with near vertical sides and a flat base. Its basal fill consisted of a 0.26m-thick mid grey brown clay silt (427) which contained 1g of Late Bronze Age/Early Iron Age pottery. Above this was a 0.08m thick dark grey brown clay silt (426) with charcoal inclusions containing 6g of Late Bronze Age/Early Iron Age pottery. The uppermost fill (425) was a 0.2m thick dark grey brown clay silt which contained 52g of Late Bronze Age/Early Iron Age pottery and three flint flakes.

Area 2

Located 13m west of Structure 4 in Area 2 was posthole **610**. It had a diameter of 0.45m and was 0.07m deep with gently sloping sides and a flat base. It was filled with a mid grey brown silty clay (609) and contained 3g of Late Bronze Age/Early Iron Age pottery.

On the south-western side of Area 2, posthole **526** measured 0.46m long, 0.36m wide and was 0.06m deep with gently sloping sides and a flat base. It was filled with dark brown grey clay silt (525) which contained a large number of medium-large stones.

Situated *c.*3.5m to the south-west, pit **620** was 3.45m long, 1.75m wide and 0.47m deep with a stepped profile and flat base. It was filled with a dark grey brown silty clay (619) which contained 6g of Late Bronze Age/Early Iron Age pottery.

Pit **604** was located immediately adjacent to solution hollow **596**. It was 0.9m wide and 0.2m deep with steeply sloping sides and a flat base. It was filled with a dark grey brown sandy clay (605).

Pit **393** was 0.95m long, 0.3m wide and 0.09m deep with gently sloping sides and a concave base. It was filled with a mid brown yellow silty clay (392). The pit was truncated on its western side by gully **391**.

Undated pit **635** was located to the immediate south-west of solution hollow **617**. It measured 1.5m long, 1.2m wide and 0.27m deep with steeply sloping sides and a flat base. Primary fill 634 consisted of a 0.16m thick light yellow clay sand. Above this was a 0.11m thick dark red brown clay silt (633).

Area 3

Located on the northern edge of Area 3, pit **01** was 1.07m long, 0.5m wide and 0.15m deep with gently-sloping sides and a concave base. It was filled with a mid brown grey silty clay (02). Cut into the southern side of this pit was pit **03**. This pit measured 1.25m in length and 0.9m in width and was 0.13m deep with a rounded profile. The single fill

(04) consisted of a mid brown grey silty clay which contained 19g of Late Bronze Age/Early Iron Age pottery.

3.4 Period 3: Romano-British (AD43-410)

All the features identified, including a pit group and a structure, that date to the Romano-British period were confined to Area C (Fig. 14), although a number of Roman pottery sherds and metal finds were also recovered from features across the rest of the site.

Pit Group 6

3.4.1 Pit Group 6 was located at the southernmost end of Area C and comprised eleven intercutting pits, covering an area of approximately 7m by 10m.

The earliest of these (**740**) was mostly truncated by those above and its edges were no longer extant, its only visible fill (741) was a light yellowish brown silty clay. Truncating the south-eastern edge of pit **740** was pit **738** which was sub-circular in plan with steep sides surviving to a width of 2.26m and depth of at least 0.78m below that of the pits truncating it from above. Its sole surviving fill (739) of mid yellow grey silty clay contained 82g of Roman pottery, 186g of animal bone, 47g of metalworking debris and a piece of iron (SF1040). Truncating the western side of **740** was pit **725** which was circular with near vertical sides and a flat base. It was 2.75m in diameter and 1.04m deep but mostly truncated by those pits above. Its sole remaining fill (732) survived along the northern edge and was a dark grey brown clayey silt. Cutting pit **738** on the south-east corner of the group was pit **742**: a circular steep-sided cut with concave base, 2.2m in diameter and 1.05m deep. Its single fill (743) of mid brown clayey silt contained 687g of Roman pottery (including a partial stamp (SF1038)), 13g of animal bone, 11g of glass (SF1002) and 35g of metalworking debris.

On the western edge of the pit group was large irregular pit **717**. It was steeply sided with a concave base and contained three fills (718, 719, 720). The pit measured 3.5m by 3.05m and was 0.8m deep. The primary fill (720) of light orange brown silty clay was 0.22m thick and contained Roman pottery. A 0.11m thick layer of dark brown grey silty clay (719) containing ironwork (SF1009 and SF1014-1015) overlay this. The final secondary fill (718) was of mid grey brown silty clay, 0.6m thick and contained Roman pottery; the latter including decorated samian (SF1010)) and metalwork (Sfs 1011-1013).

A small pit (**723**) cut into the south-eastern edge of pit **717** also truncated the top western edge of pit **725**. It was sub-circular with a concave base, 1m in diameter and 0.4m deep. Its sole fill (724) of mid grey brown clay silt contained 28g of Roman pottery and 6g of animal bone.

On the south-eastern side of the pit group, pit **733** truncated away most of the top of pit **738** and the northern edge of pit **742**. The pit was sub-circular with steep sides and concave base. It measured 4.4m by 2.4m, was 0.82m deep and had two secondary fills (734 and 735). The lowest fill (734) consisted of dark yellowish brown clay silt, 0.37m thick which contained 425g of Roman pottery. The upper fill (735) of mid grey brown clay silt, 0.46m thick contained 111g of Roman pottery and 3g of animal bone.

The latest feature in the group, pit **727**, was an elongated oval in plan and aligned north-west to south-east. It measured 6.32m long, 3.77m wide and 1.04m deep. It was very steeply sided but shallowed out rapidly at the north-east end. Pit **727** contained three fills (726, 728 and 729). The lowest (726), a dark brown grey clay silt contained 1,777g of Roman pottery (including a partial samian stamp (SF1037)), 642g of animal bone, 99g of metalworking debris, ironwork (SF1024) and copper alloy fragments (SF1022-1023 and SF1025-1027)). The middle layer (728) was a 0.08m thick deposit of mid orange brown natural silty clay, possibly used to seal the basal layer. This fill contained a fragment of iron (SF1041). The uppermost fill (729) was a mid grey brown silty clay containing large amounts of Roman pottery (2,953g) which included stamped samian (SF1020), 371g of

animal bone and 163g of metalworking debris. Ironwork (SF1017-1019 and SF1031-1034) and copper alloy (SF1030 and SF1036) was also collected. Several of the metal finds are of post-Roman date and were presumably intrusive (see App. B.2 and B.3).

A small circular pit (**736**) 1.2m in diameter, 0.54m deep with a U-shaped profile was cut into the top of pit **727**. The fill (737) consisted of a mid grey brown clay silt which contained 384g of Roman pottery.

Located 1m south-west of the pit group was a further small pit (**694**). It was 0.74m in diameter and 0.08m deep. Its sole fill (695) a dark grey brown clay silt contained 8g of Roman pottery.

Structure 6

3.4.2 Located to the immediate west of Pit Group 6 was Structure 6. It consisted of five substantial pits/postholes in two east-west rows.

Posthole **698** formed the north-westernmost posthole and was circular, with stepped sides and a flat base. It was 1.06m in diameter and 0.52m deep. Its single fill (699) was a dark brown clay silt with large lumps of limestone (possibly the remnant of packing material). The fill also contained 50g of Roman pottery and 56g of animal bone fragments.

Posthole **677**, located 0.25m further east, was also circular with steep sides, a concave base and a U-shaped profile (Fig. 14, S.677). It was 1.1m wide and 0.48m deep. Its single dark brown clay silt fill (676) contained large lumps of limestone, possibly used as packing material. It also contained a complete but not intact samian bowl (SF1039, weighing 898g). Located a further 0.5m east, posthole **696** was circular with steep sides and a slightly tapering profile, it was 0.84m in diameter and 0.56m deep. Its single fill (697) was a dark brown clay silt, also with large lumps of limestone. It also contained 16g of Roman pottery, 8g of animal bone and 60g of metal working debris.

Located 1.3m immediately south of posthole **677** was shallow posthole **679**. This was circular in plan, 0.9m in diameter and 0.14m deep. Its single dark yellow brown clay silt fill (678) contained 814g of Roman pottery along with 4g of animal bone. Around 1.5m to the west was similar pit **681**. This had a diameter of 0.65m and was 0.1m deep, its single fill, a dark yellow brown clayey silt (680) contained no finds, however, is likely to have been contemporary with **681**.

Other postholes

3.4.3 Two further postholes were identified *c.*9m east of Pit Group 6. Although undated, they were located on the same alignment as the postholes in Structure 6, and thus may have been associated with it.

Postholes **682** and **684** were positioned about 3m apart from each other with **684** located to the north-west of **682**. Posthole **682** was 0.38m in diameter and 0.19m deep, while posthole **684** was 0.46m in diameter and 0.14m deep. Both contained single dark yellow brown clayey silt fills (683 and 685) but no finds.

3.5 Period 4: Early to Middle Saxon (AD410-850)

Sunken-featured buildings

3.5.1 Anglo-Saxon features across the site were predominantly in the form of sunken-featured buildings (SFBs). Most of the SFBs were located in Area 1 (Fig. 15), just off the crest of the valley side before the land began to drop (at a height of around 60m OD), although one was present in Area C near the base of the hill (Fig. 16). All six of the SFBs had suffered considerable truncation.

3.5.2 Each SFB was excavated in quadrants, with separate context numbers being assigned to each quadrant so that any discernible distributions of finds could be studied.

*SFB **55** (Area 1, Fig. 17)*

3.5.3 The best-preserved example (in terms of depth) was SFB **55**. This feature was only partially exposed against the north-western limit of excavation, which could not be extended due to the proximity of a high pressure gas main, which ran along the western edge of Area 1.

SFB **55** was 5.8m long and exposed to a width of 3m. The structure was sub-rectangular in plan, orientated northnorth-east to southsouth-west. It was filled with four deposits. An initial natural deposit (44) of mid yellow red silty clay, 0.36m thick, was evident slumping in from the north. This contained five sherds of Early to Middle Saxon pottery (weighing 8g), the pedestal of a Roman sandy grey ware beaker (65g) and 1g of animal bone. The main deposit (42, 43) within was a 0.2m thick mid brown grey clay silt which extended across the entire base of the feature. From this fill a total of 56 sherds of Early to Middle Saxon pottery weighing 673g was collected, comprising 27 sherds (372g) from the southern quadrant (fill 42) and 29 sherds (301g) from the northern quadrant (fill 43).

Further finds from fill 42 included 83g of animal bone, a curving piece of iron plate (SF2), a baked clay spindlewhorl (SF12, Fig. 31) and an antler point (SF74, Fig. 32). Fill 43 also produced 1,210g of animal bone, a bone point (SF6, Fig. 32) and an iron nail (SF7). Also recovered from fill 43 was 974g of small unfired lumps of clay, possibly the remnants of building material or loomweights.

Above this was a fill (41) which was only present at the southern end of the structure. Deposit 41 measured 0.18m in thickness and consisted of a dark brown grey clay silt which contained 354g of Early to Middle Saxon pottery along with 86g of animal bone and a bone point (SF68, Fig. 32).

The latest fill consisted of a 0.29m-thick mid red brown clay silt (31 and 32) which produced 88 sherds (948g) of Early to Middle Bronze Age pottery along with a single sherd (2g) of Roman sandy grey ware. A total of 1,269g of animal bone, a bone pin (SF5, Fig. 32), a sub-rectangular piece of flat iron sheet (SF8), a fragment from a Roman glass vessel (SF11) and an iron nail (SF16) were also recovered.

Seven postholes were encountered across the base of this SFB. Posthole **54** was located on the southern edge. It had a diameter of 0.55m and was 0.33m deep with steeply sloping sides and a flat base. It was filled with a mid red brown clay silt (54) which contained 19g of Early-Middle Saxon pottery and 18g of animal bone. Posthole **61**, located at the centre of the structure, had a diameter of 0.21m and was 0.15m deep with a U-shaped profile. It was filled with a dark yellow brown clay silt (62) which contained 1g of animal bone. Posthole **63** to the immediate east was 0.17m in diameter and 0.07m deep with a U-shaped profile. It was filled with a dark yellow brown clay silt (64). Located 0.3m to the north, posthole **65** had a diameter of 0.25m and was 0.16m deep with near vertical sides and a flat base. It was filled with a dark red brown clay silt (66).

Approximately 0.7m to the east, posthole **67** was sub-square in plan, 0.16m wide and 0.1m deep with vertical sides and a flat base. It was filled with a mid red brown sandy clay (68). Posthole **69**, positioned close to the northern edge of the SFB, had a diameter of 0.16m and was 0.08m deep with a U-shaped profile. It was filled with a dark yellow brown clay silt (71). Posthole **84** lay 0.3m to the south-east of posthole **61** and had a diameter of 0.26m and was 0.14m deep with near vertical sides and a flat base. It was filled with a dark yellow brown clay silt (85) which contained 1g of animal bone. The largest of the postholes (**86**), located immediate adjacent to posthole **53**, was 0.6m in diameter and 0.7m deep with vertical sides and a flat base. It was filled with a mid red brown clay silt and contained eight sherds (84g) of Early to Middle Saxon pottery and 0.042kg of animal bone. Environmental samples taken from SFB **55** produced occasional charred cereal grains with many of the grains occurring in the fills of the postholes.

*SFB **77** (Area 1, Fig. 18)*

3.5.4 Located around 4m north-east of SFB **55** was SFB **77**. It was sub-rectangular in plan, with a length of 4.3m, a width of 3.3m and a depth of 0.2m. The structure was orientated north-east to south-west.

Three fills survived within the structure. The basal fill (76, 82, 99 and 102) consisted of a 0.05m thick mid red brown silty sand. Above this, the main deposit within the SFB (75, 81, 98 and 101) was a 0.15m thick mid red brown clay sand and contained a total of 35 sherds of Early to Middle Saxon pottery (weighing 40g) along with 395g of animal bone. Other artefacts recovered include a fragment of copper alloy sheet (SF14), an iron nail (SF70) and a sub-triangular piece of iron sheet (SF72). The 0.12m thick latest fill (29, 80, 97 and 100) was formed from a mid grey brown silty sand and contained 46 sherds of Early to Middle Saxon pottery (weighing 819g), the majority of which came from the north-western quadrant. Alongside this, 2,672g of animal bone, a nail (SF71) and a fragment of antler comb (SF66, Fig. 32) were collected. Two sherds of residual Iron Age pottery (6g) were also recovered from fill 29.

The structure contained three postholes cut into the base. Posthole **79** was located on the eastern edge of the feature. It was 0.63m long, 0.47m wide and 0.42m deep with vertical sides and a flat base. It was filled with a mid yellow brown sandy silt (78) which contained 67g of animal bone and a fragment of bone comb (SF83). Posthole **104** was located in the north-western quadrant. It was 0.45m long, 0.38m wide and 0.15m deep with steeply sloping sides and a concave base. It was filled with a mid red brown clay sand (103) which contained 27g of Early-Middle Saxon pottery. Posthole **106** was situated 0.4m to the west. It had a diameter of 0.29m and was 0.16m deep with a bowl shaped profile. It was filled with a mid red brown clay sand (105). Environmental samples taken throughout SFB **77** did not produce any preserved plant remains, however a fragment of eggshell was recovered from fill 75.

*SFB **259** (Area 1, Fig. 19)*

3.5.5 SFB **259**, 10m immediately south of SFB **223**, was sub-rectangular in plan, 3.55m long and 2.1m wide, orientated east to west. It was 0.15m deep and contained two fills, from which no pottery was recovered.

The earliest of the fills (261 and 263) was 0.15m in thickness and did not contain any finds. Above this, secondary fill (260 and 262) contained 0.2kg of animal bone.

A single posthole (**264**) was present at the western end of the SFB. It had a diameter of 0.67m and was 0.43m deep. From the single fill (265), one sherd of Anglo-Saxon pottery (0.004kg), animal bone (0.079kg) and a bone pin (SF22, Fig. 32) were recovered. The environmental samples taken from across the structure did not produce any charred plant remains other than charcoal.

*SFB **225** (Area 1, Fig. 20)*

3.5.6 SFB **225** was situated approximately 35m to the south-east of SFB **55**. It was sub-circular in plan with a length of 2.9m and a width of 2.7m. The structure was 0.2m deep and contained two fills.

The earlier fill (224, 229, 231 and 233) was 0.09m thick and contained 31 sherds of Early to Middle Saxon pottery (weighing 0.344kg) and two abraded sherds of samian (weighing 0.004kg). A total of 0.165kg of animal bone and a fragment from a loomweight (SF67) were also collected.

The later fill (223, 228, 230 and 232) was 0.11m thick and contained 31 sherds of Early to Middle Saxon pottery (weighing 0.184kg) along with 0.17kg of animal bone, a copper alloy rod/strip (SF17) and two fragments of loomweight (SF18 and 19).

Three postholes were cut into the base of the structure, the most substantial of which (**227**) had a diameter of 0.4m and a depth of 0.29m. Four sherds of Early to Middle

Saxon pottery (0.022kg) were recovered from the fill (226), alongside a fragment of iron rod (SF76). Environmental samples taken from across the SFB and the postholes produced low levels of charred cereal grains including barley and wheat.

*SFB **373** (Area 1, Fig. 21)*

3.5.7 Situated much further south and at some distance from any other contemporary features, SFB **373** was 3.7m long, 3.2m wide, sub-rectangular in plan and orientated east-west. The structure had a total depth of 0.35m and contained two fills. This SFB was by far the most productive in terms of small finds.

The earliest of the fills (375, 387, 508 and 512) was 0.15m thick and contained 131 sherds of 6th century pottery (weighing 1.345kg) along with six sherds of Roman pottery (weighing 0.129kg), 1.725kg of animal bone, 0.255kg of metalworking debris and a single piece (0.14kg) of Roman *imbrex* roof tile. A fragment of human skeletal material (weighing 0.002kg) was also recovered (see Appendix C.1). A total of 26 small finds were also recovered from this basal fill, including two Roman coins, a copper alloy bracelet and fragments of a bone comb (SF28, 29; Fig. 30, 30-35, 42; Fig. 32, 43-54, 65, 77, 80, 82 and 86).

The later fill (374, 386, 507 and 511) was 0.2m in thickness and contained 80 sherds of Early to Middle Saxon pottery (weighing 0.79kg), one sherd of Iron Age pottery (0.001kg), five sherds of Roman pottery (0.073kg), 1.219kg of animal bone and 0.024kg of metalworking debris. A total of six small finds were also collected from the fill, which included a pair of copper alloy tweezers (SF36-38, 40-41 and 55).

From the fills of this feature, a total of 39 pieces of baked clay (weighing 0.768kg) were recovered. These fragments consisted of lining, hearth lining and miscellaneous fragments, all of which had vitrified surfaces suggesting that they had been subjected to intense heat and may have been associated with the heating process for metalworking (see Appendix B.7).

Three postholes (**408**, **410** and **509**) were cut into the base of SFB **373**: they were 0.25m in diameter and varied in depth from 0.26m to 0.45m. Environmental samples taken from across the SFB contained occasional charred cereal grains and charcoal. A fragment of iron (SF78) was also recovered from the fill of posthole **509**.

*SFB **700** (Area C, Fig.22)*

3.5.8 Located around 18.5m north of Roman Pit Group 6 in the southern part of Area C was SFB **700**. This sub-rectangular structure was 3.86m long, 3.1m wide and orientated east to west.

The SFB had a total depth of 0.17m and contained a single fill (701, 702, 709, 710). A total of 30 sherds (0.251kg) of Early to Middle Saxon pottery and two sherds (0.01kg) of Iron Age pottery were recovered from these fills, along with 0.882kg of animal bone. A total of five baked clay loomweights (SF1004-1008, Fig. 31) were also recovered from the fill.

In all, five postholes (**703**, **705**, **707**, **711**, **713** and **715**) were identified within the SFB, with three of these running along the central east-west axis. These postholes measured between 0.26m and 0.4m in diameter and 0.36m to 0.48m in depth.

Pits and tree throws

3.5.9 Other contemporary features comprise several pits and probable tree-throws, some of which were located in proximity to the SFBs, while others appear to have been more isolated.

Pit **23**, located in Area 3 *c.*50m to the north-west of SFB 55, was circular in plan with a diameter of 0.85m, and was 0.18m deep. The basal fill (24) was a dark grey brown silty clay, 0.12m in thickness and produced a single iron nail (SF3). Environmental sampling

from this fill produced the largest assemblage of charred plant remains from the entire site. This comprised free-threshing bread wheat grains along with occasional grains of barley and oat (App. C.3). The later of the two fills (25) was a 0.06m in thick mid yellow brown. A radiocarbon date was collected from a charred cereal grain (*Triticum sp.*) from fill 24, which produced a date of 769-962 cal AD at 95.4% probability (SUERC-62327; 1177 ± 30 BP).

Another pit (**72**) was located *c.*18m south of SFB **259** in Area 1. This pit measured 0.6m long, 0.5m wide and was 0.12m deep with a bowl shaped profile. It was filled with a mid red brown silty clay (71) which contained a moderate number of medium-large burnt stones. Finds recovered from the feature consisted of 6g of Early-Middle Saxon pottery and 3g of animal bone.

Situated 1.2m north of SFB **77** in Area 1 was pit **89**. Its dimensions were 0.85m long, 0.71m wide and 0.2m deep with steeply sloping sides and a concave base. It was filled with a dark red brown clay silt (88).

Located in Area C was a probable tree throw or pit (**730**), which measured 1.85m by 1.4m and was 0.11m deep. It was filled with a mid grey brown clay silt (731) which contained five sherds (0.204kg) of Early to Middle Saxon pottery and fragments of two loomweights (SF1028-1029).

Situated to the immediate south-east of SFB **77** were the probable remains of a tree throw (deposit 28). This comprised an irregular spread of dark red brown clay silt that was 1.44m long, 0.61m wide, 0.14m thick and produced a total of 71g of Early-Middle Saxon pottery and 1g of animal bone.

3.6 Period 5: Post-medieval (*c.*1500-1800)

3.6.1 Post-medieval activity was represented by the remains of ridge and furrow, along with several field boundary ditches and a fenceline. Three of the parallel field boundaries (Boundaries 3 to 5) created rectangular field plots measuring between 135m and 160m wide that extended north-westwards from Field Boundary 6, to the south-east of which remnants of furrows were aligned on a north-to-south axis.

Field boundaries

Boundaries 3 to 5 (Fig. 23)

3.6.2 Across Areas 1, 3 and A were the remnants of four poorly-dated ditches aligned north-west to south-east. All of these boundaries terminated on the north-western side of perpendicular Field Boundary 6.

Boundary 3 (ditch **553**) formed the westernmost element of the exposed field system in Area 1 and was 0.81m wide and 0.16m deep with a concave profile. It was filled with a mid grey brown silty clay (554) which contained 7g of Early Roman pottery and a fragment of clay tobacco pipe (2g).

Boundary 4 (ditch **13** (**17**, **22**, **40**, **143** and **222**)), positioned 135m to the north-east of Boundary 3, extended across Areas 1 and 3. This ditch measured 0.33m to 0.5m wide and 0.08m to 0.12m deep with gently sloping sides and a concave base. It was filled with a mid grey brown silty clay (14, 18, 21, 142, 221) which contained a single sherd (1g) of post-medieval pottery.

Boundary 5 comprised two ditches that were located *c.*160m to the north-east of Boundary 4, in Area A. The more southerly of these was ditch **688**, which was revealed for a distance of *c.*25m before terminating. This ditch was 0.64m wide and 0.11m deep with a rounded profile. It was filled with a dark grey brown clay silt (689). Approximately 11m to the north-east was parallel ditch **686** which extended across Area A. This ditch was 0.72m wide and 0.09m deep with gently sloping sides and a concave base. It was filled with a mid orange brown silty clay (687).

Boundary 6 (Fig. 23)

3.6.3 Field Boundary 6 extended across Areas 1 and B on a north-east to south-west axis. It comprised a collection of ten ditches and 35 postholes, perhaps indicating more than one phase for its construction, along with an associated structure (Structure 7). This major boundary relates to the Cotton township boundary shown on the 1739 Raunds Open Fields Map (Pugh & Smalley 2010, fig. 2; and see Discussion below). A subsoil headland (675) was also identified in Area 1 which corresponded with the location of Boundary 6.

Ditch **690** was aligned north-east to south-west, being present in Areas 1 and B. At the north-eastern end (in Area B) this boundary was 0.76m wide and 0.22m deep with a concave profile; filled with a mid grey brown clay silt (691). At the point where the boundary was revealed at the eastern side of Area 1 it became an irregular line of postholes (**197**, **199**, **195**, **193**, **191**, **189**, **187**, **230**, **205**, **201** and **131**; not individually illustrated), varying in diameter from 0.3m to 0.5m and in depth from 0.11m to 0.25m; they were spaced between 1m and 2m apart. These may have been related to a structure (Structure 6, see below) that was also identified at this location.

After a *c.*5m-wide gap at the point where Structure 7 was located adjacent to Field Boundary 4, the boundary became a line of postholes again (**489**, **491**, **493**, **495**, **497**, **499**, **155**, **501**, **503**, **157** and **505**), traversing the site for 65m. This line of postholes was far more regular in plan and form than those to the north-east, with average diameters of 0.4m and depths of 0.2m; they were spaced approximately 2.5m apart. A few metres from (and parallel to) the south-western end of the posthole line the boundary reverted to a (somewhat fragmented) ditch that curved to the west (this was not excavated).

Structure 7

3.6.4 Situated where Boundaries 4 and 6 converged was a series of sixteen postholes in five lines on three differing alignments covering an area measuring roughly 8m by 9m (line 1: **120**, **127**; line 2: **116**, **118**, **169**, **129**, **134**, **136**, **138**; line 3: **173**, **185**; line 4: **125**, **183**, **131**; line 5: **177**, **179**, **181**). A further posthole (**175**) was located at the angle between beamslot **165** and Boundary 4. Two beamslot-type features (**165** and **167**) which ran parallel with Boundary 6 **w**ere also identified in this immediate area and probably represent the remains of a gate and/or corral located in the corner of the field. A single sherd of Iron Age pottery (weighing 0.002kg) and a sherd of 17th century AD pottery (weighing 0.012kg) were collected from the fill of beamslot **167**.

Postholes **120** and **127** measured 0.3m to 0.32m in diameter and were 0.16m to 0.21m deep with near vertical sides and a concave base. They were filled with a dark red brown clay silt (119 and 126).

Postholes **116**, **118**, **169**, **129**, **134**, **136** and **138** ranged in diameter from 0.3m to 0.54m and in depth from 0.13m to 0.36m. They all had near vertical sides and a flat base. They were filled with between one and two mid red brown and mid grey brown clay silts (115, 117, 168, 128, 132, 133, 135 and 137).

Postholes **173** and **185** varied in diameter from 0.3m to 0.35m and in depth from 0.11m to 0.15m with near vertical sides and a flat base. They were filled with a single mid grey brown sandy silt (172 and 1848).

Postholes **125**, **183** and **131** ranged in diameter from 0.35m to 0.44m and in depth from 0.07m to 0.16m with steeply sloping sides and a concave base. They were filled with a single dark red brown clay silt (124, 182 and 130).

Postholes **177**, **179** and **181** has a diameter of between 0.3m and 0.6m and were 0.1m to 0.15m deep with steeply sloping sides and a concave base. They were filled with a mid red brown silty sand (176, 178 and 180).

Posthole **175** had a diameter of 0.3m and was 0.1m deep with steeply sloping sides and a concave base. It was filled with a mid red brown clay silt (174).

Beamslots **165** and **167** measured 1.9m to 2.96m long, 0.25m to 0.35m wide and 0.1m to 0.15m deep with near vertical sides and a flat base. They were filled with a dark grey brown sandy silt (164 and 166).

Ridge and furrow

3.6.5 Across the southern portion of Area 1 and in Area 2, a number of furrows were revealed running on three separate alignments (Fig. 23). In Area 1, Boundary 6 marked the change in alignment of the furrows, with furrows on the north-west side of this running on a north-west to south-east alignment (spaced around 7m apart) and furrows to the south running north-northwest to south-southeast (and spaced around 10m apart). In Area 2, the furrows were aligned roughly north-south. All three of these alignments correspond with those of the strip fields and furlongs depicted on the 1739 Raunds Open Fields Map (Pugh & Smalley 2010, fig. 2) and to some extent on the geophysical survey (Fig. 3).

3.6.6 One sherd of Early to Middle Saxon pottery (weighing 0.031kg) and two sherds of 17th century pottery (weighing 0.008kg) were collected from furrows across Area 1, and a single sherd of 12th century pottery (weighing 0.002kg) was collected from a furrow in Area 2.

3.7 Period 6: Modern (*c.*1800+)

Pits

3.7.1 A number of modern pits were present in the south-west part of Area 1 and in Area 2, not all of which were investigated (Fig. 23).

Situated on the south-western side of Area 1, pit **328** measured 1.94m long, 1.7m wide and 0.88m deep with steeply sloping sides and a concave base. The earlier of the two fills (330) consisted of a 0.2m thick mid grey orange clay silt, coming in from the north-east. This was overlain by a light brown grey silty clay (329) which contained 17g of 19th century pottery and 526g of tile. An iron horse shoe (SF27) was also collected.

A single feature was cut into the backfill of Period 1 trackway **290** in Area 1. Pit **302** was 1.4m wide and 0.14m deep with very gently sloping sides and a concave base. It was filled with a mid yellow brown clay silt (301) containing 105g of post-medieval CBM.

Located 10m to the east of pit **302** was pit **436**. The feature was 2.4m wide and 0.09m deep with gently sloping sides and a flat base. It was filled with a light red brown silty clay (435) which contained a single sherd (20g) of 18th century pottery.

Sub-circular pit **524** was located on the western side of Area 2. It measured 1m long, 0.6m wide and was 0.05m deep. Within the mid brown grey clay silt fill (523) were the remains of a number of semi-articulated chickens.

On the south-eastern side of Area 2 was a further sub-rectangular pit. This was not excavated, although on the surface dense levels of glass and corroded iron objects were visible.

3.8 Undated

3.8.1 A scatter of small undated pits and postholes was revealed across all three excavation areas (Fig. 23). Where these were clearly associated with nearby dated features, they have been assigned to the same period, on grounds of probability. The remaining features, however, could not easily be related to nearby or similar features; all apart from one were revealed in Area 1.

Towards the northern end of Area 1 and situated around 12m to the east of an Anglo-Saxon structure (SFB **77**, see below) was posthole **113**. This posthole measured 0.35m long, 0.33m wide and 0.16m deep with steeply sloping sides and a concave base. It was filled with dark brown sandy silt (112).

Posthole **50** was located toward the eastern side of Area 1. It measured 0.27m in diameter and was 0.3m deep with vertical sides and a concave base. It was filled with a mid grey silty clay (49). Approximately 3m to the south-east, posthole **52** was 0.3m in diameter and 0.22m deep with vertical sides and a concave base. It was filled with a mid grey silty clay (51).

Also in Area 1, located around 7m to the north-east of posthole **50**, was a pit (**95**). The pit measured 0.8m long, 0.58m wide and was 0.2m deep with a bowl shaped profile. It was filled with dark brown clay silt (96).

Pit **274** was situated several metres to the south-west of posthole **50**. The pit measured 0.8m long, 0.61m wide and was 0.14m wide with steeply sloping sides and a concave base. It was filled with a mid brown grey clay silt (275).

Pit **551** was revealed on the very western edge of Area 1. It measured 0.92m long, 0.68m wide and 0.34m deep with gently sloping sides and a concave base. It was filled with a mid grey brown clay silt (552).

Posthole **371**, located towards the southern end of Area 1, measured 0.35m wide, 0.11m deep with a U-shaped profile. It was filled with a mid red brown clay silt (372).

The only undated feature in Area 2 was pit **419**, located toward the eastern edge and approximately 20m from any other archaeological features. This sub-square pit had a width of 0.5m and was 0.11m deep with vertical sides and a flat base. The single fill (418) was made up of dark brown grey silty clay which contained an abundant level of medium sized burnt round and sub-rounded stones. Natural exposed in the edges of the cut showed evidence for *in situ* burning.

3.9 Finds and Environmental Summaries

Coins (Appendix B.1)

3.9.1 A total of three coins and a possible partial fourth were recovered. They all date to the later Roman period (late 3rd-4th century AD) and are typical of those found in rural settlement areas.

Copper alloy (Appendix B.2)

3.9.2 In all, 23 copper alloy objects were collected, twelve of which came from the fills of SFBs. The majority of the copper alloy objects are unidentifiable to function or date, however the assemblage does include a Roman twisted bracelet, a pair of tweezers and part of an Anglo-Saxon girdle hanger.

Iron (Appendix B.3)

3.9.3 The iron assemblage consists of 45 objects, 23 of which are nails. Other objects include four partial blades, a spoon or ladle and part of a horseshoe. A further 15 items were unidentifiable to function or date. The ironwork was predominantly recovered from Roman and Anglo-Saxon contexts.

Metalworking debris (Appendix B.4)

3.9.4 A small assemblage of 21 fragments (700g) of metalworking debris was recovered during fieldwork. The majority of the assemblage comprises smithing slag collected from Roman and Anglo-Saxon contexts. A quantity of possible fuel ash slag was also recovered from Late Bronze Age/Early Iron Age pit **651**.

Struck flint (Appendix B.5)

3.9.5 A total of 43 flints (weighing 240g) were collected during the archaeological works. The majority were seen residually in later contexts. The majority of the assemblage was made up of flakes, with lesser numbers of blades and cores. The assemblage is a mix of Late Neolithic and Bronze Age flintworking.

Glass (Appendix B.6)

3.9.6 Three fragments of 1st to 2nd century AD vessel glass was collected, along with two glass beads. The beads came from Late Bronze Age/Early Iron Age contexts.

Prehistoric pottery (Appendix B.7)

3.9.7 Late Neolithic pottery was recovered from three truncated pits in Area 1. Eleven sherds totalling 817g were collected, all of which are Mortlake Ware. A large assemblage (8.026kg; 1,153 sherds) of Late Bronze Age/Early Iron Age pottery was also recovered from a variety of pits and postholes across the site. No sherds of Middle or Late Iron Age pottery were recovered, indicating a somewhat short-lived period of activity on the site.

Romano-British pottery (Appendix B.8)

3.9.8 An assemblage of 692 sherds (12,144kg) of 3rd to 4th century pottery was recovered from across the site, with the vast majority being collected from an intercutting pit group during the watching brief. The assemblage largely comprises locally produced utilitarian vessels and compares well with the pottery from Higham Ferrers (*c.*3km to the south-west). The assemblage also contains a high proportion of samian table wares, indicating the presence of an affluent settlement in the immediate environs.

Anglo-Saxon pottery (Appendix B.7)

3.9.9 A total of 6.968kg (602 sherds) of Early/Middle Saxon pottery was recovered from SFBs and pits across the site. The assemblage comprises predominantly undecorated sherds, indicating activity on the site in the 6th to late 7th century. It is comparable to and probably contemporary with the Furnells Manor site (located to the east, within Raunds).

Objects of stone (Appendices B.9 and B.10)

3.9.10 A total of eight stone objects were collected during the archaeological works, the most noteworthy of which is a partial saddle quern of Late Bronze Age/Early Iron Age date and an Anglo-Saxon chalk spindlewhorl. Petrographic analysis of the sandstone quern demonstrated that it was collected from a local source.

Baked clay (Appendices B.11 and B.12)

3.9.11 An assemblage consisting of 95 fragments (3.735kg) of baked clay objects and 201 pieces of baked and unbaked clay (2.959kg) were recovered from the site. The baked clay objects comprise four cylindrical loomweights of Late Bronze Age/Early Iron Age date recovered from a single pit; and number of Anglo-Saxon loomweights and a spindlewhorl. The remainder of the baked and unbaked clay assemblage came from Iron Age and Anglo-Saxon contexts, the majority of which is undiagnostic, however fragments of wattle-impressed structural pieces and hearth lining were identifiable.

Ceramic building material (Appendix B.13)

3.9.12 The CBM assemblage comprises 817g of Roman and post-medieval pieces; with the most notable fragment being a piece of *imprex* tile.

Worked bone (Appendix B.14)

3.9.13 An assemblage of ten objects of worked bone was collected from the site. The assemblage is a mixture of comb fragments, pins and points. All of the worked bone was recovered from the fills of SFBs.

Human skeletal remains (C.1)

3.9.14 A single fragment (2g) of adult occipital cranium was recovered from the basal fill of SFB **373**.

Faunal remains (Appendix C.2)

3.9.15 A total of 19.729kg of animal bone was recovered from features dating from the Late Neolithic through to the modern period. The most notable part of this assemblage is a pig skeleton recovered from Late Bronze Age/Early Iron Age pit **382**. The majority of the assemblage consists of domesticated animals (cattle sheep/goat, pit, fowl *etc*.) but remains of dog, deer and frog were also found.

Environmental samples (Appendix C.3)

3.9.16 In all, 123 bulk soil samples were taken during the fieldwork from a variety of features. Little in the way of environmental evidence were recovered, with the majority of the samples being devoid of plant remains. Anglo-Saxon pit **23** produced the most fruitful information with an assemblage of free-threshing wheat grains being recovered.

4 Discussion and Conclusions

4.1 Late Neolithic

4.1.1 Evidence for activity from this period is sparse within the site itself, restricted to three discrete pits situated on the crest of the hill which contained fragments of Mortlake pottery and animal bone. The highly truncated nature of these pits however, could mean that additional features of this date may have been present in the immediate vicinity which have since been destroyed by ploughing. As a result, the evidence gleaned from this pit group is limited. The pottery and animal bone remains (both cremated and uncremated) within the fills would indicate activity reminiscent of cooking and food waste, which is suggestive of low-level domestic settlement in the vicinity.

4.1.2 Neolithic activity appears to have been concentrated in the valley bottom around West Cotton (less than 1km to the south-west). Here, dense Early Neolithic ceremonial and funerary remains have been recorded (see Harding & Healy 2008; 2011). However, no clear evidence for Neolithic settlement has been uncovered in this area. Fieldwalking on the valley sides above these monuments produced a light concentration of Late Neolithic to Early Bronze Age struck flint (Parry 2006, 180), indicating activity from this period was probably focused higher up on the slope, which also reiterates the evidence from the recent excavations.

4.2 Late Bronze Age/Early Iron Age (Transitional)

Settlement chronology and location

4.2.1 Definitive evidence for Late Bronze Age/Early Iron Age occupation in Northamptonshire is less common than that for the Middle and Late Iron Age, particularly in terms of unenclosed domestic settlement (Kidd 2004, 49-50). This is probably due to the fact that this type of settlement is difficult to detect because they are typically quite small, often comprising just a handful of posthole structures and pits. Known sites in the region from this period include Gretton (Knight 1985), Crick (Hughes & Woodward 2015) and Wellingborough (Enright & Thomas 2003). However, it is worthy of note with these examples that the evidence of this date tends to represent the earliest phase of much longer-lived settlements. The current Warth Park site clearly differs from this model, as common Middle Iron Age wares are completely absent within the pottery assemblage (see App. B.7), indicating a short-lived period of activity; perhaps reflecting a more dispersed and mobile settlement pattern.

4.2.2 In terms of settlement location, sites are often interpreted as having been selected for defensive reasons or due to their proximity to a water source. Also of importance was their relationship to the local topography and land use, allowing access to a range of varied resources including seasonal grazing land and woodland, as well as communication networks such as rivers and trackways. In Northamptonshire, occupation sites of this period predominantly occur along the Nene Valley, concentrated on the permeable geologies (Willis 2006, 98). The position of the Warth Park site fits within this model, being on the valley side approximately 1km east of the River Nene; a tributary of which (Hog Dyke) also flows to the south.

4.2.3 The area covered by Late Bronze Age/Early Iron Age remains appears to have been extensive – at least 7ha, which it is why it is perhaps surprising that the settlement did not continue in use into the later Iron Age. No evidence was found to indicate a reason for abandonment, however during the evaluation Late Iron Age ditches in addition to Roman remains were identified (Marshall 2011). These were concentrated on the lower

slopes on the south-western side of the development area, suggesting that the settlement simply relocated to this area. This is reiterated by the results of more recent fieldwork to the immediate south of the current site, which also identified Iron Age agricultural and settlement remains (Kidd 2016) on the lower valley slopes.

4.2.4 A further two Iron Age sites are known of in the vicinity of the current site, having been identified during the Raunds Area Survey. Carter Hill (known as Site 21) is located *c.*0.5km to the south-east and was identified via the recovery of 34 sherds of Iron Age pottery during fieldwalking (Parry 2006, 208). Its close proximity suggests that it may have been associated with the current site. A larger site, located approximately 0.6km to the north on the other side of the valley, at Top Lodge (known as Site 23) was identified via fieldwalking, aerial photographs and geophysical survey. Trenching confirmed the presence of postholes, pits and gullies along with over 100 sherds of Iron Age pottery (Shaw 2006, 208-211). Combined, this suggests that the area around Warth Park was widely exploited during this period.

Settlement character

4.2.5 The unenclosed settlement, characterised by pit groups, a possible roundhouse, a number of four- and two-post structures, fencelines and internal boundaries more unusually also incorporated an extensive cobbled trackway.

4.2.6 Whilst four-post structures are generally interpreted as granaries or other raised stores, the function of two-post structures is less clear. Current interpretations include drying frames, upright looms or the remnants of the entrances to circular buildings (Willis 2006, 103). No ring gullies relating to roundhouses were identified at the current site, although this could be the result of the severe levels of truncation across the site rather than their actual absence. Structure 5 in Area 2 may have been the remains of a post-built roundhouse; if so, it would have had a diameter of 16m.

4.2.7 Of the four pit groups on the site, Pit Group 1 contained the more substantial features; within which two types of pit were noted: those with vertical sides and flat bases and those with stepped profiles. The vertical-sided features are characteristic of storage pits: environmental remains from these were poor, with only occasional charred cereal grains being recovered (see Appendix C.3). This type of storage pit may have been designed for single use, being filled with grain and sealed, then once the grain had been removed the pit was backfilled. The other, more prevalent, type of pit present was those with a stepped profile. These pits are distinguishable by being sub-circular in plan and generally shallower than the storage pits; they also had more fills, while a number were also capped by clay or chalk (see plate on Fig. 11 for an example). Whilst the exact function of these features is unclear, a possible interpretation might be that they were latrine pits. Their stepped profiles may be indicative of the need to allow access to the contents of the pit on a repeated basis – a single mineralised seed from one of the pits was the only possible corroborative evidence recovered (see Appendix C.3).

4.2.8 The only clear evidence for possible multi-phase activity during this period is provided by a collection of 12 intercutting pits within Pit Group 1 (see Fig. 11, S.71). A large assemblage of fairly fresh pottery was recovered from these pits, indicative of secondary deposition of material from a number of different sources. Comparably little animal bone was collected from these pits, perhaps indicating that they were specifically utilised for the disposal of discarded pottery. One of the pits also contained a dump of burnt stone, presumably derived from cooking. A similar Early Iron Age settlement, with large intercutting pit groups and two four-post structures, was

investigated at the Cromwell Community College, Chatteris (Atkins & Percival 2014). At this site the bulk of the pottery assemblage (617 sherds weighing 3,730g) was recovered from pits and postholes and may represent material selected for deposition, perhaps from a primary deposit such as a midden. Only low levels of butchered and/or burnt bone were found, indicating that other waste from the Chatteris settlement was disposed of in ways that have not survived in the archaeological record (Atkins & Percival 2014, 34). In the more immediate area of the current site, a small Iron Age pit group, attesting to limited occupation here, was uncovered at Langham Road, Raunds (Audouy & Chapman 2009, 22).

4.2.9 Located in the south-west part of the site was an extensive cobbled trackway, aligned east-northeast to west-southwest. It was recorded extending for *c.*95m before it was lost due to truncation. Extrapolation eastwards would result in the trackway continuing through the middle of Area 2, close to the area of posthole Structure 5 and nearby fencelines. Extrapolation westward would lead to the river. The presence of a surfaced trackway on the site is indicative of a well established routeway that would have taken considerable time and resources to construct and maintain. Whilst no material evidence was recovered to indicate a pre-Early Iron Age date, it is highly plausible that a hollow way was established here much earlier on. Although the settlement was not populated into the Middle and Later Iron Age, if occupation did move lower down the valley slope, this trackway could still have been used into the later period. Other examples of Late Bronze Age/Early Iron Age cobbled trackways have been found at sites within the wider region and south-east of England, including at Fordham Road, Soham in Cambridgeshire (Quinn & Peachey 2012), Bell Language School, Cambridge (Bush 2015b) and at the A2 Activity Park, Gravesend in Kent (Dawkes 2010). At some point the trackway at the current site was no longer maintained and clearly fell from use, although the later Cotton township boundary (see below) passed very close to its route.

4.2.10 The complex group of features (Boundary 2) located on the change in geology within Area 2 some distance to the east of the trackway included a number of periglacial or solution hollows. This type of feature is formed when water leaches through the limestone, dissolving it. The process becomes accelerated at weak points in the limestone, forming underground caverns which collapse, resulting in the formation of solution hollows. The hollows can then infill naturally, or occasionally may be utilised as receptacles in which to deposit material, or because they can collect water. The large examples within Boundary 2 probably represent natural formations, although it is possible that these were quarries perhaps for the extraction of the tabular limestone for use elsewhere.

Craftworking and trade

4.2.11 The presence of a metalled trackway on the site suggests that the settlement was well connected. The partial remains of a saddle quern along with a small amount of metalworking debris and a number of baked clay loomweights provides evidence for day-to-day activities including secondary crop processing, smithing and textile production within the settlement. The paucity of environmental remains along with the low number of specialist items recovered indicates that these activities were only being undertaken on a local scale, *i.e.* purely for use within the settlement. Willis (2006, 99) notes that comparatively few saddle querns have been uncovered across the East Midlands, and those that have been found indicate the improvised use of locally available stone. The saddle quern from pit **382** fits with this observation as it was sourced locally.

4.2.12 Other items of note are the two glass beads recovered from pit fills. The more unusual example came from Pit Group 1 and is difficult to date precisely as there are no direct parallels, however it association with a quantity of Late Bronze Age/Early Iron Age pottery suggests that it is likely to have been contemporary. Howard-Davis (App. B.6) notes that the closest parallels are from an Iron Age cemetery in East Yorkshire which were believed to have been transported from the Continent. If the examples from Warth Park have similar origins, this could provide evidence for far-reaching trade links.

Special deposits

4.2.13 Two pits may have contained 'special' or selected deposits. Small pit **578** in Area 2 contained four cylindrical loomweights along with a glass bead, indicative of being purposefully placed rather than simply disposed of. The second pit (**382**) was extremely large and at the base contained the articulated remains of a pig skeleton, above which the pit was backfilled with large rocks. Pigs are considered to have been a special commodity at this time, because they are bred solely for meat compared with sheep and cattle which are reared for secondary products such as milk, wool, skins; and for traction. This suggests that there must have been a specific reason to sacrifice and bury a complete pig, although disease may also have been a factor.

4.3 Romano-British

4.3.1 The fieldwork produced low levels of Roman remains, with features of this date only being identified during the watching brief at the southernmost limit of the development area (Area C). However, the geophysical survey (Bartlett 2011; Fig. 3) and previous investigations (Windell 1986) have shown that the western portion of the development area and across to Mallows Cotton contains dense levels of occupation remains from this period.

4.3.2 The collection of intercutting pits and postholes within Area C produced an assemblage of locally produced utilitarian wares; showing evidence for cooking and water boiling, and date from the late 2nd to early 4th centuries. Lyons (App. B.8) notes a disproportionately high amount of samian from the small number of features, indicating that these pottery dumps represent culinary waste from an affluent settlement in the immediate vicinity.

4.3.3 Fieldwork undertaken in advance of the construction of the A45/A605 (Windell 1986; Figs 2 and 3), which bounds the western side of the site, revealed a number of stone-built buildings, corn driers, burials, pits, postholes and ditches, along with a series of ironstone quarries. All these remains dated from the 2nd to early 5th century and the pottery assemblage is comparable to that recovered from the current site; it also included a large amount of samian (Mac Robert 1986, 52-64). It would seem plausible that the archaeological remains identified during the current fieldwork represent activity on the periphery of this settlement.

4.4 Anglo-Saxon

4.4.1 Evidence for Early to Middle Anglo-Saxon settlement at Warth Park is dominated by SFBs, with a total of six being identified, along with a scatter of contemporary pits and postholes. The site is situated on the periphery of Raunds, a settlement of known Anglo-Saxon origins with extensive fieldwork having been undertaken at Furnells Manor, Langham Road and Burystead (Audouy & Chapman 2009). It is worthy of note that the pottery assemblage from Warth Park is very similar in character to that from Furnells Manor, located some 500m to the east (see App. B.7). Analysis of the pottery, loomweights and other textile working objects from Warth Park combined indicate that

this settlement was active from the 6th to late 7th/early 8th century; SFB **373** may have been the earliest of these structures – dating from the 6th century. Charred cereal remains from one feature (pit **23**) returned a slightly later radiocarbon date of 769-962 cal AD (SUERC-62327; 1177 ± 30 BP). The latter might indicate that at some point after the late 8th century the main focus of settlement shifted elsewhere, perhaps to West Cotton (occupied from the 10th century) to the south-west or Raunds to the east.

Sunken-featured buildings (SFBs)

4.4.2 SFBs or *Grubenhaus* are synonymous with Early to Middle Saxon occupation and whilst they are the most-commonly encountered form of structure, they are still poorly understood. Tipper (2004, 1) defines an SFB as a sub-rectangular building where a flat-based pit forms the main component of the structure. He also states that they typically measure around 3m by 4m and are up to 0.5m deep. This type of structure is also typified by containing up to six postholes around their edges, which held posts to support the superstructure. The examples uncovered at Warth Park broadly conform to this description, however SFB **55** is noticeably larger (see Table 2).

4.4.3 These structures are considered to have been subsidiary buildings with a range of domestic and industrial uses, while the other main type of building from this period are rectangular post-built structures often interpreted as halls (Hills 1999, 187). No examples of the latter type were identified at Warth Park, although it is possible that they were located outside the excavation areas. At West Heslerton, Yorkshire, evidence for zonal separation was found, whereby industrial activities were undertaken in one location and living in another (Hills 1999, 1987). Alternatively the heavy truncation at Warth Park may have resulted in the removal of any shallow posthole structures.

Cut number	*Width (m)*	*Length (m)*	*Depth (m)*	*Postholes (No.)*
55	>3	5.8	0.5	7
77	3.3	4.3	0.2	3
225	2.7	2.9	0.2	3
259	2.1	3.55	0.15	1
373	3.2	3.7	0.35	3
700	3.1	3.9	0.17	5
SP100	4.1	4.7	0.3	2
LRSP22	2.5	4	0.4	1
ES36	2.5	>2.5	0.35	1

Table 2: Summary of Warth Park SFB dimensions in comparison to examples excavated at West Cotton, Furnells Manor and Langham Road

4.4.4 Finds assemblages from SFBs are often rich and the examples from this site are no exception, with large amounts of pottery being collected, along with animal bone, metal, worked bone, baked clay objects. These are indicative of the disposal of domestic refuse within the features once the structures had been abandoned. The range of finds also demonstrates the types of activities that were being undertaken within or close to the SFBs, most of which appear to have been related to textile working (including weaving) and possibly metalworking. The former may have been focused within SFB **55**, while the latter appears to have been iron smithing, indicated by the presence of hearth bases, associated with SFB **373** (see App. B.4).

4.4.5 The relatively low level of Early to Middle Saxon remains, combined with the apparent absence of domestic structures identified, may suggest that the site lay in a peripheral area on the edge of the main hamlet or village. Contemporary settlements, including other SFBs, have been recorded in the surrounding area, such as at West Cotton (feature ES36; Chapman 2010, 28), Furnells Manor (feature SP100; Audouy & Chapman 2009, 64) and Langham Road (feature LRSP22; Audouy & Chapman 2009, 108). The evidence from Warth Park further demonstrates that this was a well-settled and utilised landscape during the Early to Middle Saxon period, inhabited by a mixture of farms, hamlets and villages.

4.5 Medieval to post-medieval

4.5.1 By the medieval period, the area encompassed by the current Warth Park site appears to have lain under the open fields associated with the surrounding settlements at Raunds, Mallows Cotton and West Cotton. This situation continued until relatively recent times, with the layout and development of the fields shown on maps dating from the 18th century to the modern day; the only settlement appears to have been a small farm (Scalley Farm) that is first shown on the Ordnance Survey Map of 1885.

4.5.2 The earliest surviving map appears to be the 1739 Raunds Open Fields map which is also the first depiction of the Cotton township boundary, which once crossed the development site (Pugh & Smalley 2010, fig. 2). This is also present as a boundary on the 1798 Inclosure Map (see Pugh & Smalley 2010, fig. 3) and is shown as a footpath on the Ordnance Survey Maps between 1885 and 1952 (see Pugh & Smalley 2010, figs 4 to 7). The boundary was identified by the geophysical survey and subsequently during the excavation (Field Boundary 6) extending across Area 1 and Area B on a north-east to south-west axis. The excavated remains correlate well with the boundary shown on the 1739 map, being largely composed of a series of posts forming a fence or palisade, along with sections of ditch. The westernmost stretch of this boundary lies just to the south of the Late Bronze Age/Early Iron Age track identified in Area 1 and may therefore reiterate the line of a much earlier routeway or boundary.

4.5.3 Structure 7, identified at the junction of Boundary 6 (the Cotton township boundary) and Boundary 4 which extended to the north-west, is not depicted on any of the maps but was probably the remains of a small corral and gate associated with stock management; presumably sheep. A subsoil headland and remnants of ridge and furrow were also identified and these relate well to the map evidence which shows strip fields on more than one alignment. The ditched boundaries (Boundaries 3-5) represent the post-Enclosure landscape – a process which was under way here from *c.*1798 when the strip fields were enclosed and divided into three large fields.

4.6 Conclusion

4.6.1 The significance of the Warth Park site is clearly increased by its setting within the wider context of the Raunds Area Project and other nearby sites. Combined, these investigations have further enhanced the understanding of how this landscape has been utilised and developed since the Late Neolithic period until more recent times.

APPENDIX A. CONTEXT INVENTORY

Area	*Context*	*Cut*	*Category*	*Feature Type*	*Feature Group*	*Phase/ Period*
3	1	1	cut	pit	-	2
3	2	1	fill	pit	-	2
3	3	3	cut	pit	-	2
3	4	3	fill	pit	-	2
3	5	5	cut	pit	Structure 1	2
3	6	5	fill	pit	Structure 1	2
3	7	7	cut	pit	Structure 1	2
3	8	7	fill	pit	Structure 1	2
3	9	7	fill	pit	Structure 1	2
3	10	10	cut	pit	Structure 1	2
3	11	10	fill	pit	Structure 1	2
3	12	10	fill	pit	Structure 1	2
3	13	13	cut	ditch	Boundary 4	5
3	14	13	fill	ditch	Boundary 4	5
3	15	15	cut	pit	-	2
3	16	15	fill	pit	-	2
3	17	17	cut	ditch	Boundary 4	5
3	18	17	fill	ditch	Boundary 4	5
3	19	20	fill	pit	Structure 1	2
3	20	20	cut	pit	Structure 1	2
3	21	22	fill	ditch	Boundary 4	5
3	22	22	cut	ditch	Boundary 4	5
3	23	23	cut	pit	-	4
3	24	23	fill	pit	-	4
3	25	23	fill	pit	-	4
3	26	26	cut	posthole	Structure 1	2
3	27	26	fill	posthole	Structure 1	2
1	28	-	fill	tree throw	-	4
1	29	77	fill	SFB	SFB 77	4
1	30	56	fill	?pit	-	2
1	31	55	fill	SFB	SFB 55	4
1	32	55	fill	SFB	SFB 55	4
1	33	34	fill	pit	-	1
1	34	34	cut	pit	-	1

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	35	36	fill	pit	-	1
1	36	36	cut	pit	-	1
1	37	38	fill	pit	-	1
1	38	38	cut	pit	-	1
1	39	40	fill	ditch	Boundary 4	5
1	40	40	cut	ditch	Boundary 4	5
1	41	55	fill	SFB	SFB 55	4
1	42	55	fill	SFB	SFB 55	4
1	43	55	fill	SFB	SFB 55	4
1	44	55	fill	SFB	SFB 55	4
1	45	46	fill	pit	-	2
1	46	46	cut	pit	-	2
1	47	48	fill	pit	-	2
1	48	48	cut	pit	-	2
1	49	50	fill	posthole	-	0
1	50	50	cut	posthole	-	0
1	51	52	fill	posthole	-	0
1	52	52	cut	posthole	-	0
1	53	53	cut	posthole	SFB 55	4
1	54	53	fill	posthole	SFB 55	4
1	55	55	cut	SFB	SFB 55	4
1	56	56	cut	?pit	-	2
1	57	56	fill	?pit	-	2
1	58		VOID			-
1	59	56	fill	?pit	-	2
1	60	56	fill	?pit	-	2
1	61	61	cut	posthole	SFB 55	4
1	62	61	fill	posthole	SFB 55	4
1	63	63	cut	posthole	SFB 55	4
1	64	63	fill	posthole	SFB 55	4
1	65	65	cut	posthole	SFB 55	4
1	66	65	fill	posthole	SFB 55	4
1	67	67	cut	posthole	SFB 55	4
1	68	67	fill	posthole	SFB 55	4
1	69	69	cut	posthole	SFB 55	4
1	70	69	fill	posthole	SFB 55	4
1	71	72	fill	pit	-	4

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	72	72	cut	pit	-	4
	73		VOID			-
	74		VOID			-
1	75	77	fill	SFB	SFB 77	4
1	76	77	fill	SFB	SFB 77	4
1	77	77	cut	SFB	SFB 77	4
1	78	79	fill	posthole	SFB 77	4
1	79	79	cut	posthole	SFB 77	4
1	80	77	fill	SFB	SFB 77	4
1	81	77	fill	SFB	SFB 77	4
1	82	77	fill	SFB	SFB 77	4
1	83		VOID			-
1	84	84	cut	posthole	SFB 55	4
1	85	84	fill	posthole	SFB 55	4
1	86	86	cut	posthole	SFB 55	4
1	87	86	fill	posthole	SFB 55	4
1	88	89	fill	posthole	-	4
1	89	89	cut	posthole	-	4
1	90	-	surface find	-	-	4
1	91	91	cut	posthole	-	2
1	92	91	fill	posthole	-	2
1	93	93	cut	posthole	-	2
1	94	93	fill	posthole	-	2
1	95	95	cut	pit	-	0
1	96	95	fill	pit	-	0
1	97	77	fill	SFB	SFB 77	4
1	98	77	fill	SFB	SFB 77	4
1	99	77	fill	SFB	SFB 77	4
1	100	77	fill	SFB	SFB 77	4
1	101	77	fill	SFB	SFB 77	4
1	102	77	fill	SFB	SFB 77	4
1	103	104	fill	posthole	SFB 77	4
1	104	104	cut	posthole	SFB 77	4
1	105	106	fill	posthole	SFB 77	4
1	106	106	cut	posthole	SFB 77	4
1	107	107	cut	pit	Pit Group 1	2
1	108	107	fill	pit	Pit Group 1	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	109	107	fill	pit	Pit Group 1	2
1	110	107	fill	pit	Pit Group 1	2
1	111	-	layer	spread	Pit Group 1	2
1	112	113	fill	posthole	-	0
1	113	113	cut	posthole	-	0
1	114	116	fill	postpipe	Structure 7	5
1	115	116	fill	posthole	Structure 7	5
1	116	116	cut	posthole	Structure 7	5
1	117	118	fill	posthole	Structure 7	5
1	118	118	cut	posthole	Structure 7	5
1	119	120	fill	posthole	Structure 7	5
1	120	120	cut	posthole	Structure 7	5
1	121	123	fill	postpipe	-	5
1	122	123	fill	posthole	-	5
1	123	123	cut	posthole	-	5
1	124	125	fill	posthole	Structure 7	5
1	125	125	cut	posthole	Structure 7	5
1	126	127	fill	posthole	Structure 7	5
1	127	127	cut	posthole	Structure 7	5
1	128	129	fill	posthole	Structure 7	5
1	129	129	cut	posthole	Structure 7	5
1	130	131	fill	posthole	Structure 7	5
1	131	131	cut	posthole	Structure 7	5
1	132	134	fill	posthole	Structure 7	5
1	133	134	fill	posthole	Structure 7	5
1	134	134	cut	posthole	Structure 7	5
1	135	136	fill	posthole	Structure 7	5
1	136	136	cut	posthole	Structure 7	5
1	137	138	fill	posthole	Structure 7	5
1	138	138	cut	posthole	Structure 7	5
1	139	139	cut	pit	Pit Group 1	2
1	140	139	fill	pit	Pit Group 1	2
1	141	139	fill	pit	Pit Group 1	2
1	142	143	fill	ditch	Boundary 4	5
1	143	143	cut	ditch	Boundary 4	5
1	144	145	fill	pit	Pit Group 1	2
1	145	145	cut	pit	Pit Group 1	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	146	146	cut	pit	Pit Group 1	2
1	147	146	fill	pit	Pit Group 1	2
1	148	148	cut	pit	Pit Group 1	2
1	149	148	fill	pit	Pit Group 1	2
1	150	-	surface find	-	-	2
1	151	151	cut	pit	Pit Group 1	2
1	152	151	fill	pit	Pit Group 1	2
1	153	151	fill	pit	Pit Group 1	2
1	154	155	fill	posthole	Boundary 6	5
1	155	155	cut	posthole	Boundary 6	5
1	156	157	fill	posthole	Boundary 6	5
1	157	157	cut	posthole	Boundary 6	5
1	158	159	fill	posthole	Pit Group 2	2
1	159	159	cut	posthole	Pit Group 2	2
1	160	161	fill	pit	Pit Group 2	2
1	161	161	cut	pit	Pit Group 2	2
1	162	163	fill	pit	Pit Group 2	2
1	163	163	cut	pit	Pit Group 2	2
1	164	165	fill	?beam slot	-	5
1	165	165	cut	?beam slot	-	5
1	166	167	fill	?beam slot	-	5
1	167	167	cut	?beam slot	-	5
1	168	169	fill	posthole	-	5
1	169	169	cut	posthole	-	5
1	170	171	fill	posthole	Structure 7	5
1	171	171	cut	posthole	Structure 7	5
1	172	173	fill	posthole	Structure 7	5
1	173	173	cut	posthole	Structure 7	5
1	174	175	fill	posthole	Structure 7	5
1	175	175	cut	posthole	Structure 7	5
1	176	177	fill	posthole	Structure 7	5
1	177	177	cut	posthole	Structure 7	5
1	178	179	fill	posthole	Structure 7	5
1	179	179	cut	posthole	Structure 7	5
1	180	181	fill	posthole	Structure 7	5
1	181	181	cut	posthole	Structure 7	5
1	182	183	fill	posthole	Structure 7	5

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	183	183	cut	posthole	Structure 7	5
1	184	185	fill	posthole	Structure 7	5
1	185	185	cut	posthole	Structure 7	5
1	186	187	fill	posthole	Boundary 6	5
1	187	187	cut	posthole	Boundary 6	5
1	188	189	fill	posthole	Boundary 6	5
1	189	189	cut	posthole	Boundary 6	5
1	190	191	fill	posthole	Boundary 6	5
1	191	191	cut	posthole	Boundary 6	5
1	192	193	fill	posthole	Boundary 6	5
1	193	193	cut	posthole	Boundary 6	5
1	194	195	fill	posthole	Boundary 6	5
1	195	195	cut	posthole	Boundary 6	5
1	196	197	fill	posthole	Boundary 6	5
1	197	197	cut	posthole	Boundary 6	5
1	198	199	fill	posthole	Boundary 6	5
1	199	199	cut	posthole	Boundary 6	5
1	200	201	fill	stakehole	Boundary 6	5
1	201	201	cut	stakehole	Boundary 6	5
1	202	203	fill	stakehole	Boundary 6	5
1	203	203	cut	stakehole	Boundary 6	5
1	204	205	fill	stakehole	Boundary 6	5
1	205	205	cut	stakehole	Boundary 6	5
1	206	206	cut	pit	Pit Group 1	2
1	207	206	fill	pit	Pit Group 1	2
1	208	206	fill	pit	Pit Group 1	2
1	209	206	fill	pit	Pit Group 1	2
1	210	206	fill	pit	Pit Group 1	2
1	211	206	fill	pit	Pit Group 1	2
1	212	212	cut	pit	Pit Group 1	2
1	213	212	fill	pit	Pit Group 1	2
1	214	212	fill	pit	Pit Group 1	2
1	215	212	fill	pit	Pit Group 1	2
1	216	212	fill	pit	Pit Group 1	2
1	217	217	cut	pit	Pit Group 1	2
1	218	217	fill	pit	Pit Group 1	2
1	219	220	fill	?beam slot	-	5

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	220	220	cut	?beam slot	-	5
1	221	222	fill	ditch	Boundary 4	5
1	222	222	cut	ditch	Boundary 4	5
1	223	225	fill	SFB	SFB 225	4
1	224	225	fill	SFB	SFB 225	4
1	225	225	cut	SFB	SFB 225	4
1	226	227	fill	posthole	SFB 225	4
1	227	227	cut	posthole	SFB 225	4
1	228	225	fill	SFB	SFB 225	4
1	229	225	fill	SFB	SFB 225	4
1	230	225	fill	SFB	SFB 225	4
1	231	225	fill	SFB	SFB 225	4
1	232	225	fill	SFB	SFB 225	4
1	233	225	fill	SFB	SFB 225	4
1	234	235	fill	posthole	SFB 225	4
1	235	235	cut	posthole	SFB 225	4
1	236	237	fill	posthole	SFB 225	4
1	237	237	cut	posthole	SFB 225	4
1	238	238	cut	pit	Pit Group 1	2
1	239	238	fill	pit	Pit Group 1	2
1	240	240	cut	pit	Pit Group 1	2
1	241	240	fill	pit	Pit Group 1	2
1	242	242	cut	pit	Pit Group 1	2
1	243	242	fill	pit	Pit Group 1	2
1	244	242	fill	pit	Pit Group 1	2
1	245	242	fill	pit	Pit Group 1	2
1	246	246	cut	pit	Pit Group 1	2
1	247	246	fill	pit	Pit Group 1	2
1	248	248	cut	pit	Pit Group 1	2
1	249	248	fill	pit	Pit Group 1	2
1	250	107	fill	pit	Pit Group 1	2
1	251	107	fill	pit	Pit Group 1	2
1	252	107	fill	pit	Pit Group 1	2
1	253	253	cut	pit	Pit Group 1	2
1	254	253	fill	pit	Pit Group 1	2
1	255	255	cut	pit	Pit Group 1	2
1	256	255	fill	pit	Pit Group 1	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	257	258	fill	posthole	SFB 55	4
1	258	258	cut	posthole	SFB 55	4
1	259	259	cut	SFB	SFB 259	4
1	260	259	fill	SFB	SFB 259	4
1	261	259	fill	SFB	SFB 259	4
1	262	259	fill	SFB	SFB 259	4
1	263	259	fill	SFB	SFB 259	4
1	264	264	cut	posthole	SFB 259	4
1	265	264	fill	posthole	SFB 259	4
1	266	266	cut	posthole	Pit Group 1	2
1	267	266	fill	posthole	Pit Group 1	2
1	268	268	cut	posthole	Pit Group 1	2
1	269	268	fill	posthole	Pit Group 1	2
1	270	268	fill	posthole	Pit Group 1	2
1	271	271	cut	posthole	Pit Group 1	2
1	272	271	fill	posthole	Pit Group 1	2
1	273	271	fill	posthole	Pit Group 1	2
1	274	274	cut	pit	-	0
1	275	274	fill	pit	-	0
1	276	276	cut	pit	Pit Group 2	2
1	277	276	fill	pit	Pit Group 2	2
	278		VOID			-
1	279	279	cut	pit	Pit Group 2	2
1	280	279	fill	pit	Pit Group 2	2
1	281		VOID			-
1	282		VOID			-
	283		VOID			-
1	284	284	cut	pit	Pit Group 1	2
1	285	284	fill	pit	Pit Group 1	2
1	286	286	cut	pit	Pit Group 1	2
1	287	286	fill	pit	Pit Group 1	2
1	288	286	fill	pit	Pit Group 1	2
1	289	-	surface find	-	-	2
1	290	290	cut	ditch	Trackway 290	2
1	291	290	fill	ditch	Trackway 290	2
1	292	290	fill	ditch	Trackway 290	2
1	293	290	layer	surface	Trackway 290	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	294	294	cut	ditch	Trackway 290	2
1	295	294	fill	ditch	Trackway 290	2
1	295	294	layer	surface	Trackway 290	2
1	297	298	fill	ditch	Feature Group 1	2
1	298	298	cut	pit	Feature Group 1	2
1	299	300	fill	pit	Feature Group 1	2
1	300	300	cut	pit	Feature Group 1	2
1	301	302	fill	pit	-	6
1	302	302	cut	pit	-	6
1	303	304	fill	ditch	Feature Group 1	2
1	304	304	cut	ditch	Feature Group 1	2
1	305	307	fill	ditch	Feature Group 1	2
1	306	307	fill	ditch	Feature Group 1	2
1	307	307	cut	ditch	Feature Group 1	2
1	308	312	fill	ditch	Trackway 290	2
1	309	312	fill	ditch	Trackway 290	2
1	310	312	fill	ditch	Trackway 290	2
1	311	312	fill	trackway	Trackway 290	2
1	312	312	cut	ditch	Trackway 290	2
1	313	312	fill	ditch	Trackway 290	2
1	314	312	fill	ditch	Trackway 290	2
	315		VOID			-
	316		VOID			-
	317		VOID			-
1	318	318	cut	pit	Pit Group 1	2
1	319	318	fill	pit	Pit Group 1	2
1	320	320	cut	ditch	Boundary 1	2
1	321	320	fill	ditch	Boundary 1	2
1	322	320	fill	ditch	Boundary 1	2
1	323	324	fill	ditch	Feature Group 1	2
1	324	324	cut	ditch	Feature Group 1	2
1	325	327	fill	posthole	-	0
1	326	327	fill	posthole	-	0
1	327	327	cut	posthole	-	0
1	328	328	cut	pit	-	6
1	329	328	fill	pit	-	6
1	330	328	fill	pit	-	6

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	331	331	cut	ditch	Boundary 1	2
1	332	331	fill	ditch	Boundary 1	2
1	333	333	cut	ditch	Boundary 1	2
1	334	333	fill	ditch	Boundary 1	2
1	335	339	fill	ditch	Feature Group 1	2
1	336	339	fill	ditch	Feature Group 1	2
1	337	339	fill	ditch	Feature Group 1	2
1	338	339	fill	ditch	Feature Group 1	2
1	339	339	cut	ditch	Feature Group 1	2
1	340	340	cut	pit	Pit Group 1	2
1	341	340	fill	pit	Pit Group 1	2
1	342	342	cut	pit	Pit Group 3	2
1	343	342	fill	pit	Pit Group 3	2
1	344	344	cut	pit	Pit Group 3	2
1	345	344	fill	pit	Pit Group 3	2
1	346	346	cut	pit	Pit Group 3	2
1	347	346	fill	pit	Pit Group 3	2
1	348	348	cut	trackway	Feature Group 1	2
1	349	348	layer	trackway	Feature Group 1	2
1	350	348	layer	trackway	Feature Group 1	2
1	351	348	layer	trackway	Feature Group 1	2
1	352	348	layer	trackway	Feature Group 1	2
1	353	353	cut	pit	Pit Group 2	2
1	354	353	fill	pit	Pit Group 2	2
1	355	353	fill	pit	Pit Group 2	2
1	356	353	fill	pit	Pit Group 2	2
	357		VOID			-
	358		VOID			-
	359		VOID			-
1	360	360	cut	pit	Pit Group 2	2
1	361	360	fill	pit	Pit Group 2	2
1	362	360	fill	pit	Pit Group 2	2
1	363	360	fill	pit	Pit Group 2	2
1	364	364	cut	pit	Pit Group 2	2
1	365	364	fill	pit	Pit Group 2	2
	366		VOID			-
1	367	367	cut	ditch	Boundary 1	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	368	367	fill	ditch	Boundary 1	2
1	369	369	cut	ditch	Boundary 1	2
1	370	369	fill	ditch	Boundary 1	2
1	371	371	cut	posthole	-	0
1	372	371	fill	posthole	-	0
1	373	373	cut	SFB	SFB 373	4
1	374	373	fill	SFB	SFB 373	4
1	375	373	fill	SFB	SFB 373	4
1	376	-	surface find	-	-	2
1	377	-	surface find	-	-	2
1	378	-	surface find	-	-	5
1	379	-	surface find	-	-	5
1	380	-	surface find	-	-	4
1	381	-	surface find	-	-	3
1	382	382	cut	pit	-	2
1	383	382	fill	pit	-	2
1	384	382	fill	pit	-	2
1	385	382	fill	pit	-	2
1	386	373	fill	SFB	SFB 373	4
1	387	373	fill	SFB	SFB 373	4
2	388	389	fill	posthole	Structure 4	2
2	389	389	cut	posthole	Structure 4	2
2	390	391	fill	gully	Boundary 2	2
2	391	391	cut	gully	Boundary 2	2
2	392	393	fill	pit	-	2
2	393	393	cut	pit	-	2
2	394	395	fill	gully	Boundary 2	2
2	395	395	cut	gully	Boundary 2	2
1	396	396	cut	posthole	Structure 2	2
1	397	396	fill	posthole	Structure 2	2
1	398	398	cut	posthole	Structure 2	2
1	399	398	fill	posthole	Structure 2	2
1	400	400	cut	posthole	Structure 2	2
1	401	400	fill	posthole	Structure 2	2
1	402	402	cut	posthole	Structure 2	2
1	403	402	fill	posthole	Structure 2	2
2	404	405	fill	ditch	-	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
2	405	405	cut	ditch	-	5
2	406	407	fill	ditch	-	5
2	407	407	cut	ditch	-	5
1	408	408	cut	posthole	SFB 373	2
1	409	408	fill	posthole	SFB 373	2
1	410	410	cut	posthole	SFB 373	4
1	411	410	fill	posthole	SFB 373	4
1	412	412	cut	pit	Pit Group 3	2
1	413	412	fill	pit	Pit Group 3	2
1	414	415	fill	posthole	Structure 4	2
2	415	415	cut	posthole	Structure 4	2
2	416	417	fill	posthole	Structure 4	2
2	417	417	cut	posthole	Structure 4	2
2	418	419	fill	pit	-	0
2	419	419	cut	pit	-	0
1	420	420	cut	pit	-	2
1	421	420	fill	pit	-	2
1	422	420	fill	pit	-	2
1	423	420	fill	pit	-	2
1	424	424	cut	pit	-	2
1	425	424	fill	pit	-	2
1	426	424	fill	pit	-	2
1	427	424	fill	pit	-	2
	428		VOID			-
	429		VOID			-
	430		VOID			-
1	431	432	fill	pit/posthole	Feature Group 1	2
1	432	432	cut	pit/posthole	Feature Group 1	2
1	433	434	fill	pit	Feature Group 1	2
1	434	434	cut	pit	Feature Group 1	2
1	435	436	fill	pit	-	6
1	436	436	cut	pit	-	6
1	437	438	fill	ditch/gully	Feature Group 1	2
1	438	438	cut	ditch/gully	Feature Group 1	2
1	439	440	fill	ditch/gully	Trackway 290	2
1	440	440	cut	ditch/gully	Trackway 290	2
1	441	442	fill	ditch/gully	Feature Group 1	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	442	442	cut	ditch/gully	Feature Group 1	2
1	443	444	fill	ditch	Feature Group 1	2
1	444	444	cut	ditch	Feature Group 1	2
1	445	446	fill	ditch	Feature Group 1	2
1	446	446	cut	ditch	Feature Group 1	2
1	447	448	fill	ditch	Feature Group 1	2
1	448	448	cut	ditch	Feature Group 1	2
	449		VOID			-
	450		VOID			-
1	451	452	fill	ditch	Feature Group 1	2
1	452	452	cut	ditch	Feature Group 1	2
1	453	454	fill	pit	Feature Group 1	2
1	454	454	cut	pit	Feature Group 1	2
1	455	456	fill	ditch	Feature Group 1	2
1	456	456	cut	ditch	Feature Group 1	2
1	457	458	fill	ditch	Feature Group 1	2
1	458	458	cut	ditch	Feature Group 1	2
1	459	460	fill	?posthole/pit	Feature Group 1	2
1	460	460	cut	?posthole/pit	Feature Group 1	2
1	461	462	fill	posthole	Feature Group 1	2
1	462	462	cut	posthole	Feature Group 1	2
1	463	464	fill	posthole	Feature Group 1	2
1	464	464	cut	posthole	Feature Group 1	2
1	465	467	fill	pit/tree throw	Feature Group 1	2
1	466	467	fill	pit/tree throw	Feature Group 1	2
1	467	467	cut	pit/tree throw	Feature Group 1	2
	468		VOID			-
	469		VOID			-
1	470	471	fill	pit	Feature Group 1	2
1	471	471	cut	pit	Feature Group 1	2
1	472	473	fill	ditch	Feature Group 1	2
1	473	473	cut	ditch	Feature Group 1	2
1	474	475	fill	ditch	Feature Group 1	2
1	475	475	cut	ditch	Feature Group 1	2
1	476	477	fill	ditch	Feature Group 1	2
1	477	477	cut	ditch	Feature Group 1	2
1	478	479	fill	pit	Feature Group 1	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	479	479	cut	pit	Feature Group 1	2
1	480	482	fill	ditch	Trackway 290	2
1	481	482	fill	ditch	Trackway 290	2
1	482	482	cut	ditch	Trackway 290	2
1	483	484	fill	ditch	Feature Group 1	2
1	484	484	cut	ditch	Feature Group 1	2
1	485	488	fill	ditch	Trackway 290	2
1	486	488	fill	ditch	Trackway 290	2
1	487	488	fill	ditch	Trackway 290	2
1	488	488	cut	ditch	Trackway 290	2
1	489	489	cut	posthole	Boundary 6	5
1	490	489	fill	posthole	Boundary 6	5
1	491	491	cut	posthole	Boundary 6	5
1	492	491	fill	posthole	Boundary 6	5
1	493	493	cut	posthole	Boundary 6	5
1	494	493	fill	posthole	Boundary 6	5
1	495	495	cut	posthole	Boundary 6	5
1	496	495	fill	posthole	Boundary 6	5
1	497	497	cut	posthole	Boundary 6	5
1	498	497	fill	posthole	Boundary 6	5
1	499	499	cut	posthole	Boundary 6	5
1	500	499	fill	posthole	Boundary 6	5
1	501	501	cut	posthole	Boundary 6	5
1	502	501	fill	posthole	Boundary 6	5
1	503	503	cut	posthole	Boundary 6	5
1	504	503	fill	posthole	Boundary 6	5
1	505	505	cut	posthole	Boundary 6	5
1	506	505	fill	posthole	Boundary 6	5
1	507	373	fill	SFB	SFB 373	4
1	508	373	fill	SFB	SFB 373	4
1	509	509	cut	posthole	SFB 373	4
1	510	509	fill	posthole	SFB 373	4
1	511	373	fill	SFB	SFB 373	4
1	512	373	fill	SFB	SFB 373	4
2	513	514	fill	posthole	Structure 4	2
2	514	514	cut	posthole	Structure 4	2
2	515	516	fill	posthole	Structure 4	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
2	516	516	cut	posthole	Structure 4	2
2	517	518	fill	posthole	Structure 4	2
2	518	518	cut	posthole	Structure 4	2
1	519	520	fill	posthole	Feature Group 1	2
1	520	520	cut	posthole	Feature Group 1	2
	521		VOID			-
	522		VOID			-
2	523	524	fill	pit	-	6
2	524	524	cut	pit	-	6
2	525	526	fill	posthole	-	2
2	526	526	cut	posthole	-	2
2	527	528	fill	pit/posthole	Structure 4	2
2	528	528	cut	pit/posthole	Structure 4	2
1	529	412	fill/lining	pit	Pit Group 3	2
1	530	412	fill	pit	Pig Group 3	2
2	531	531	cut	posthole	Structure 5	2
2	532	531	fill	posthole	Structure 5	2
2	533	533	cut	posthole	Structure 5	2
2	534	533	fill	posthole	Structure 5	2
2	535	535	cut	posthole	Structure 5	2
2	536	535	fill	posthole	Structure 5	2
2	537	537	cut	posthole	Structure 5	2
2	538	537	fill	posthole	Structure 5	2
2	539	539	cut	posthole	Structure 5	2
2	540	539	fill	posthole	Structure 5	2
2	541	541	cut	posthole	Structure 5	2
2	542	541	fill	posthole	Structure 5	2
2	543	544	fill	posthole	Structure 3	2
2	544	544	cut	posthole	Structure 3	2
2	545	546	fill	posthole	Structure 3	2
2	546	546	cut	posthole	Structure 3	2
2	547	548	fill	posthole	Structure 3	2
2	548	548	cut	posthole	Structure 3	2
2	549	550	fill	posthole	Structure 3	2
2	550	550	cut	posthole	Structure 3	2
1	551	551	cut	pit	-	0
1	552	551	fill	pit	-	0

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
1	553	553	cut	ditch	Boundary 3	5
1	554	553	fill	ditch	Boundary 3	5
1	555	555	cut	ditch	Boundary 1	2
1	556	555	fill	ditch	Boundary 1	2
2	557	558	fill	pit	Pit Group 4	2
2	558	558	cut	pit	Pit Group 4	2
2	559	560	fill	pit/posthole	Pit Group 4	2
2	560	560	cut	pit/posthole	Pit Group 4	2
2	561	562	fill	posthole	Pit Group 4	2
2	562	562	cut	posthole	Pit Group 4	2
2	563	564	fill	pit	Pit Group 4	2
2	564	564	cut	pit	Pit Group 4	2
2	565	-	surface find	-	-	2
1	566	567	fill	ditch	Trackway 290	2
1	567	567	cut	ditch	Trackway 290	2
1	568	569	fill	ditch	Trackway 290	2
1	569	569	cut	ditch	Trackway 290	2
2	570	571	fill	posthole	Pit Group 4	2
2	571	571	cut	posthole	Pit Group 4	2
2	572	573	fill	pit/posthole	Pit Group 4	2
2	573	573	cut	pit/posthole	Pit Group 4	2
2	574	574	cut	pit	-	2
2	575	574	fill	pit	-	2
2	576	574	fill	pit	-	2
2	577	578	fill	pit	Pit Group 4	2
2	578	578	cut	pit	Pit Group 4	2
2	579	579	cut	solution hollow	Boundary 2	2
2	580	579	fill	solution hollow	Boundary 2	2
2	581	579	fill	solution hollow	Boundary 2	2
2	582	579	fill	solution hollow	Boundary 2	2
2	583	584	fill	posthole	Structure 5	2
2	584	584	cut	posthole	Structure 5	2
2	585	586	fill	posthole	Structure 5	2
2	586	586	cut	posthole	Structure 5	2
2	587	588	fill	posthole	Structure 5	2
2	588	588	cut	posthole	Structure 5	2
2	589	590	fill	posthole	Structure 5	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
2	590	590	cut	posthole	Structure 5	2
2	591	592	fill	posthole	Structure 5	2
2	592	592	cut	posthole	Structure 5	2
2	593	595	fill	pit/posthole	Structure 5	2
2	594	595	fill	pit/posthole	Structure 5	2
2	595	595	cut	pit/posthole	Structure 5	2
2	596	596	cut	solution hollow	Boundary 2	2
2	597	596	fill	solution hollow	Boundary 2	2
2	598	596	fill	solution hollow	Boundary 2	2
2	599	599	cut	solution hollow	Boundary 2	2
2	600	599	fill	solution hollow	Boundary 2	2
2	601	579	fill	solution hollow	Boundary 2	2
2	602	579	fill	solution hollow	Boundary 2	2
2	603	579	fill	solution hollow	Boundary 2	2
2	604	604	cut	pit	-	2
2	605	604	fill	pit	-	2
2	606	606	cut	solution hollow	Boundary 2	2
2	607	606	fill	solution hollow	Boundary 2	2
2	608	579	fill	solution hollow	Boundary 2	2
2	609	610	fill	posthole	-	2
2	610	610	cut	posthole	-	2
2	611	612	fill	posthole	Structure 5	2
2	612	612	cut	posthole	Structure 5	2
2	613	614	fill	posthole	Structure 5	2
2	614	614	cut	posthole	Structure 5	2
2	615	616	fill	pit	Boundary 2	2
2	616	616	cut	pit	Boundary 2	2
2	617	617	cut	solution hollow	Boundary 2	2
2	618	618	cut	solution hollow	Boundary 2	2
2	619	620	fill	pit	-	2
2	620	620	cut	pit	-	2
2	621	617	fill	solution hollow	Boundary 2	2
2	622	617	fill	solution hollow	Boundary 2	2
2	623	617	fill	solution hollow	Boundary 2	2
2	624	617	fill	solution hollow	Boundary 2	2
2	625	617	fill	solution hollow	Boundary 2	2
2	626	617	fill	solution hollow	Boundary 2	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
2	627	618	fill	solution hollow	Boundary 2	2
2	628	618	fill	solution hollow	Boundary 2	2
2	629	618	fill	solution hollow	Boundary 2	2
2	630	618	fill	solution hollow	Boundary 2	2
2	631	618	fill	solution hollow	Boundary 2	2
2	632	618	fill	solution hollow	Boundary 2	2
2	633	635	fill	pit	Boundary 2	2
2	634	635	fill	pit	Boundary 2	2
2	635	635	cut	pit	Boundary 2	2
2	636	606	fill	pit	Boundary 2	2
2	637	637	cut	solution hollow	Boundary 2	2
2	638	637	fill	solution hollow	Boundary 2	2
2	639	637	fill	solution hollow	Boundary 2	2
	640		VOID			2
	641		VOID			2
2	642	643	fill	intercutting pits	Pit Group 5	2
2	643	643	cut	intercutting pits	Pit Group 5	2
2	644	645	fill	intercutting pits	Pit Group 5	2
2	645	645	cut	intercutting pits	Pit Group 5	2
2	646	647	fill	intercutting pits	Pit Group 5	2
2	647	647	cut	intercutting pits	Pit Group 5	2
2	648	649	fill	intercutting pits	Pit Group 5	2
2	649	649	cut	intercutting pits	Pit Group 5	2
2	650	651	fill	intercutting pits	Pit Group 5	2
2	651	651	cut	intercutting pits	Pit Group 5	2
2	652	-	surface find	-	-	2
2	653	596	fill	solution hollow	Boundary 2	2
2	654	596	fill	solution hollow	Boundary 2	2
2	655	596	fill	solution hollow	Boundary 2	2
2	656	657	fill	intercutting pits	Pit Group 5	2
2	657	657	cut	intercutting pits	Pit Group 5	2
2	658	658	cut	intercutting pits	Pit Group 5	2
2	659	658	fill	intercutting pits	Pit Group 5	2
2	660	660	cut	intercutting pits	Pit Group 5	2
2	661	661	cut	intercutting pits	Pit Group 5	2
2	662	601	fill	intercutting pits	Pit Group 5	2
2	663	663	cut	intercutting pits	Pit Group 5	2

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
2	664	663	fill	intercutting pits	Pit Group 5	2
2	665	663	fill	intercutting pits	Pit Group 5	2
2	666	666	cut	intercutting pits	Pit Group 5	2
2	667	666	fill	intercutting pits	Pit Group 5	2
2	668	668	cut	intercutting pits	Pit Group 5	2
2	669	668	fill	intercutting pits	Pit Group 5	2
2	670	670	cut	intercutting pits	Pit Group 5	2
2	671	670	fill	intercutting pits	Pit Group 5	2
1	672	-	layer	topsoil	-	2
2	673	-	layer	topsoil	-	2
3	674	-	layer	topsoil	-	2
2	675	-	layer	subsoil	-	2
C	676	677	fill	pit	Structure 6	2
C	677	677	cut	pit	Structure 6	3
C	678	679	fill	pit	Structure 6	3
C	679	679	cut	pit	Structure 6	3
C	680	681	fill	pit	Structure 6	3
C	681	681	cut	pit	Structure 6	3
C	682	682	cut	posthole	-	3
C	683	682	fill	posthole	-	3
C	684	684	cut	posthole	-	3
A	685	684	fill	posthole	-	3
A	686	686	cut	ditch	Boundary 5	5
A	687	686	fill	ditch	Boundary 5	5
A	688	688	cut	ditch	Boundary 5	5
A	689	688	fill	ditch	Boundary 5	5
B	690	690	cut	ditch	Boundary 6	5
B	691	690	fill	ditch	Boundary 6	5
A	692	692	cut	posthole	-	5
A	693	692	fill	posthole	-	5
C	694	694	cut	pit	-	3
C	695	694	fill	pit	-	3
C	696	696	cut	pit	Structure 6	3
C	697	696	fill	pit	Structure 6	3
C	698	698	cut	pit	Structure 6	3
C	699	698	fill	pit	Structure 6	3
C	700	700	cut	SFB	SFB 700	4

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
C	701	700	fill	SFB	SFB 700	4
C	702	700	fill	SFB	SFB 700	4
C	703	703	cut	posthole	SFB 700	4
C	704	703	fill	posthole	SFB 700	4
C	705	705	cut	posthole	SFB 700	4
C	706	705	fill	posthole	SFB 700	4
C	707	707	cut	posthole	SFB 700	4
C	708	707	fill	posthole	SFB 700	4
C	709	700	fill	SFB	SFB 700	4
C	710	700	fill	SFB	SFB 700	4
C	711	711	cut	posthole	SFB 700	4
C	712	711	fill	posthole	SFB 700	4
C	713	713	cut	posthole	SFB 700	4
C	714	713	fill	posthole	SFB 700	4
C	715	715	cut	posthole	SFB 700	4
C	716	715	fill	posthole	SFB 700	4
C	717	717	cut	pit	Pit Group 6	3
C	718	717	fill	pit	Pit Group 6	3
C	719	717	fill	pit	Pit Group 6	3
C	720	717	fill	pit	Pit Group 6	3
C	721	721	cut	posthole	Pit Group 6	3
C	722	721	fill	posthole	Pit Group 6	3
C	723	723	cut	pit	Pit Group 6	3
C	724	723	fill	pit	Pit Group 6	3
C	725	725	cut	pit	Pit Group 6	3
C	726	727	fill	pit	Pit Group 6	3
C	727	727	cut	pit	Pit Group 6	3
C	728	727	fill	pit	Pit Group 6	3
C	729	727	fill	pit	Pit Group 6	3
C	730	730	cut	tree throw	-	4
C	731	730	fill	tree throw	-	4
C	732	725	fill	pit	Pit Group 6	3
C	733	733	cut	pit	Pit Group 6	3
C	734	733	fill	pit	Pit Group 6	3
C	735	733	fill	pit	Pit Group 6	3
C	736	736	cut	pit	Pit Group 6	3
C	737	736	fill	pit	Pit Group 6	3

Area	Context	Cut	Category	Feature Type	Feature Group	Phase/ Period
C	738	738	cut	pit	Pit Group 6	3
C	739	738	fill	pit	Pit Group 6	3
C	740	740	cut	pit	Pit Group 6	3
C	741	740	fill	pit	Pit Group 6	3
C	742	742	cut	pit	Pit Group 6	3
C	743	742	fill	pit	Pit Group 6	3

APPENDIX B. FINDS REPORTS

B.1 Coins

By Paul Booth

Introduction

B.1.1 Three Roman coins and a fragment possibly from a fourth coin were recovered (Table 3). The coins were scanned quite rapidly and identified as far as possible. These identifications are tabulated below. Two coins are in reasonable, though worn, condition, while the third and the fragment are very eroded.

B.1.2 Legends are either incomplete or lacking altogether, so none of the coins could be identified to the level of individual numbers in the standard catalogues (RIC and LRBC), although they could be assigned to issue periods as defined by Reece (*e.g.* 1991).

Results

B.1.3 The coins are all of later Roman date, typical of rural settlements, and comprise a late 3rd century barbarous radiate and two characteristic 4th century types. The FEL TEMP REPARATIO imitation is the most common coin of Reece's period 18, while on SF28 the eccentric position of the flan in relation to the dies, particularly of the reverse (wolf and twins) suggests that this is also an irregular piece. Irregular issues of this period were common, though not as dominant as in the subsequent period.

Conclusion

B.1.4 The coins are unremarkable examples of some of the most common types of coin encountered on Romano-British sites, but assist in consideration of the character and chronology of the site.

SF number	*Context*	*Est. date (AD)*	*Reece period*	*Denomination*	*Obverse*	*Reverse*	*Condition*	*Comments*
4	-	269-287	14	Antoninianus 15-16mm	Radiate heard r	?	EW/EW	Corroded, irregular
20	-	354-364	18	AE4 11mm	Head r	FEL TE[MP REPARATIO, falling horseman	VW/W	Irregular
28	375	330-335	17	AE3 15-17mm	URBS ROMA	Wolf and twins	W/W	Very irregularly centred on flan
34	375	3rd-4th C	-	fragment	-	-	Corroded	Not certainly a coin

Table 3: Coin summary

B.2 Copper Alloy Objects

By Helen Geake

Introduction

B.2.1 A total of 23 objects were found to be made of copper alloy. Roman objects consist of a single bracelet fragment (SF48). SF40, a pair of copper-alloy tweezers, may be Roman but equally may well be Anglo-Saxon or medieval. Finds of definite Anglo-Saxon date were surprisingly few, but include part of a diminutive girdle-hanger (SF25). The 'paper-clip' rivet (SF1036) is of medieval or early post-medieval date, and the undecorated mount SF1030 is likely to be early post-medieval. The only other datable find is of post-medieval or modern date; a piece of copper-alloy wire (SF15).

Results

B.2.2 Half of the copper alloy objects (12 in total) were recovered from Early-Middle Saxon SFBs. Although none of the items could definitively be dated to this period.

1 Sub-rectangular scrap of sheet, with solder underlying probable iron corrosion on one face. Date and function unknown.
Dimensions 6 x 4mm
XNNWAR13, 66, SF84, fill of posthole **65** in SFB **55**. Area 1. Period 4

2 Unidentifiable fragment of copper-alloy sheet, all edges broken. There are some curves and crumples in the sheet, but these are probably accidental damage rather than deliberate shaping. Date and function unknown.
Measures c. 9 x 11 mm, and is c. 0.4mm thick.
XNNWAR13, 98, SF14, fill of SFB **77**. Area 1. Period 4

3 Two tiny pieces of sheet. Date and function unknown.
XNNWAR13, 78, SF85, fill of posthole 79 in SFB **77**. Area 1. Period 4

4 Corroded fragment of rod or strip with sub-rectangular cross-section consisting of a flat reverse and slightly rounded front corners. The strip also curves very slightly down its length. The ends are square and may be original. No decoration survives on any face. Date and function unknown.
Dimensions 33.5mm long, 4.5mm wide, 1.5mm thick.
XNNWAR13, 230, SF17, fill of SFB **225**. Area 1. Period 4

5 Tiny fragment of corroded rectilinear copper-alloy strip with no decoration. One end may be original. Date and function unknown.
Dimensions 12mm long, 5.5mm wide, 1.3mm thick.
XNNWAR13, 386, SF37, fill of SFB **373**. Area 1. Period 4

6 Complete tweezers of diminutive proportions, cut from strip a maximum of 6.8mm wide. The ends are turned in to meet each other, and the arms taper slightly to the smoothly expanded loop. The loop is 5.6mm wide and the tweezers are 5mm thick here. There is no decoration, but the surface is well polished. Undecorated tweezers are very hard to date, being known from the Roman, Anglo-Saxon and medieval periods (Biddle 1990, 690).
XNNWAR13, 507, SF40, fill of SFB **373**. Area 1. Period 4

7 Tiny fragment of cast copper alloy, roughly triangular in shape. Perhaps part of the cleaning debris from a finished casting. Date and function unknown.
Measures c. 4mm in maximum thickness and c. 9 x 11mm across.
XNNWAR13, 508, SF46, fill of SFB **373**. Area 1. Period 4

8 Fragment of copper alloy sheet, roughly hexagonal. Date and function unknown. Measuring c. 5 x 6mm.
XNNWAR13, 508, SF47, fill of SFB **373**. Area 1. Period 4

9 Curved fragment of two-ply twisted copper-alloy wire which appears to have been further hammered or worn into a sub-rectangular cross-section. The curvature is right for a bracelet; about a quarter of the hoop survives, with corroded breaks. The wires are rounded in cross-section. Bracelets of similar form are known from Roman contexts in Colchester (Crummy 1983, 38-39) and appear to be particularly popular in the late Roman period (Johns 1996, 118-19).
XNNWAR13, 508, SF48, fill of SFB **373**. Area 1. Period 4

10 Three scraps of extremely thin and fragile copper-alloy sheet. Date and function unknown.
XNNWAR13, 512, SF49, fill of SFB **373**. Area 1. Period 4

11 Tiny curving fragment of copper-alloy wire of rectangular cross-section. It appears to have originally been twisted together with one or more other wires. Date and function unknown.
Dimensions c. 1.5 x 2mm.
XNNWAR13, 512, SF50, fill of SFB **373**. Area 1. Period 4

12 Three items: two tiny pieces of sheet, one loosely folded into three, plus a short length of rectangular-section rod. Tapering at one end. Date and function unknown.
15mm long
XNNWAR13, 375, SF86, fill of SFB **373**. Area 1. Period 4

13 Short coiled length of wire with polished dark grey surface. In places the patina is absent, revealing the shiny surface of the metal. The cross-section is approximately D-shaped for most of the object's length, 1.8mm thick by 1.1mm wide, but it expands to at either end it becomes more rectangular, suggesting that the ends are original. This object is not identifiable as to function, but it is of modern appearance.
XNNWAR13, 140, SF15, fill of pit **139**. Area 1. Period 2. Pit Group 1

14 Fragment of unidentified object. The central part is curved in cross-section and tapers from one rounded, closed end to the other, perhaps fragmentary, end. Short lengths of a hollow-backed, rectangular-section border survive at the wider rounded end, but not enough survives to suggest a function or date. Nearly every edge is broken, and the breaks are old and worn. Date and function unknown.
Maximum dimensions are 23mm long, 8.7mm wide, 6.8mm thick.
XNNWAR13, 638, SF64, fill of pit **637**. Area 2. Period 2. Boundary 2

15 Fragment of corroded rod. Circular in cross-section. Undatable.
2mm in maximum diameter. 25mm long.
XNNWAR13, 726, SF1022, fill of pit **727**. Area C. Period 4. Pit Group 6

16 Many tiny fragments of crushed copper-alloy sheet. Date and function unknown.
XNNWAR13, 726, SF1023, fill of pit **727**. Area C. Period 4. Pit Group 6

17 Fragment of copper alloy with rough corroded surface. It measures 15mm parallel to the longest edge, which may be complete. Maximum width perpendicular to this, 9mm; a maximum of 4mm thick. Date and function unknown.
XNNWAR13, 726, SF1025, fill of pit **727**. Area C. Period 4. Pit Group 6

18 Fragment of flat sheet. One edge is curved (with radius c. 40 mm) with a slight bevel; the other edges are broken. No decoration. The reverse is slightly rougher and more greyish, and the object may therefore originally have been attached by solder. Undatable.
XNNWAR13, 726, SF1026, fill of pit **727**. Area C. Period 4. Pit Group 6

19 Fragment of copper-alloy sheet, a little crumpled. Undatable.
XNNWAR13, 726, SF1027, fill of pit **727**. Area C. Period 4. Pit Group 6

20 Small flat mount, originally circular but now crumpled and with much of the edge fragmentary. No obvious decoration. On reverse, two rectangular-section attachment spikes, one incomplete, one bent inwards. Rough patina. The attachment spikes suggest a 16th-century date.
Approximately 17 mm in diameter.
XNNWAR13, 729, SF1030, fill of pit **727**. Area C. Period 4. Pit Group 6

21 Fragment of folded sheet from a small 'paper-clip' rivet. 10 x 12mm and 2.5mm thick in total, it has one plain sheet face; on the other face, the two ends are folded in to meet off centre, and then each folded back on itself. Folded sheet 'paper-clip' rivets are known in repairs of copper-alloy cooking vessels from the 12th to 17th centuries (Egan 1998, 176-7; Margeson 1993, no. 575).
XNNWAR13, 729, SF1036, fill of pit **727**. Area C. Period 4. Pit Group 6

22 Unidentified fragment of cast copper-alloy. The fragment curves and appears to be part of a cylinder, with one more rounded end; the other edges are very bubbly and granular breaks. The fragment of finished end has a thickened band c. 6mm wide, making the maximum thickness c. 4mm; a narrow ridge runs over the band at right angles in the centre of the fragment, and continues down to the broken end. The interior is roughly cast, and the more rounded end is not properly finished. The fragment cannot be identified and looks like an unfinished mis-casting, particularly in view of the bubbles visible in the broken areas. Date and function unknown.
XNNWAR13, unstratified, SF21. Area 1

23 Short length of rectangular-section rod with suspension loop at top, apparently part of a miniature girdle-hanger. The suspension loop is pierced from side to side. It is oval internally, sub-rectangular externally, and worn so that it is very thin at the top. The shaft is decorated on the front with two very faint pairs of transverse grooves, one pair close to the suspension loop and the second further down, close to a raised rectangular panel; a further transverse groove is just visible at either end of this panel. The sides and reverse are undecorated. The break is worn and neatly squared, so it is possible that the object was originally cut. The object is 48mm in surviving length, and measures 5.1 x 3.5mm in cross-section at the lower end, with the corners of the cross-section being rounded. The dimensions, decoration and loop wear are all within normal limits for early Anglo-Saxon girdle-hangers (Kathrin Felder, pers. comm.). They date to the late fifth to late sixth centuries AD.
XNNWAR13, unstratified, SF25. Area 1

B.3 Iron Objects

By Chris Howard-Davis and Helen Geake

Introduction

B.3.1 Although there is a relatively large assemblage of ironwork from the site, comprising 46 fragments, of which 50% were identifiable as nails (Geake 2015), little is of particular interest. In general it is in poor condition and rather fragmentary, and although identification was aided, where appropriate, by x-radiography, it revealed little additional information. As is usually the case, many of the ironwork items are effectively impossible to date, with simple forms enduring, largely unchanged, for many years.

Results

B.3.2 There are a few fragmentary blades and one (SF1001) which is ostensibly complete. There is a small whittle-tanged blade (1; SF79) from pit **206** (fill 211). It cannot be dated with any precision, although its stratigraphic position indicates an Iron Age date. Its relatively small size and slightly offset tang might, however, suggest a later date, perhaps Anglo-Saxon, but the same simple form also appears in Roman contexts (Manning 1985). Its presence in pit **206**, might thus suggest that it is intrusive. A second whittle-tanged blade (2; SF1009) has a triangular blade, and whilst, again, these simple knives are effectively impossible to date, it would not seem out of date in a Roman context.

B.3.3 A much larger, probably scale-tanged blade (3; SF1001) was found unstratified. The triangular blade suggests a medieval or later date, as does the likelihood that it has a scale tang, which would be very unusual in an Iron Age or Roman context where whittle tangs or sockets predominate (Manning 1985). A fourth object (4; SF2) has also been tentatively identified as a fragmentary blade. Object 5 (SF1017) is not easy to identify, although x-ray seems to show an oval bowl with a small projection, possibly the stump of a handle, to one side, leading to a tentative identification as a spoon or ladle.

1 Two joining fragments from a blade with a slightly offset whittle-tang (XRK15/217).
L: c 98mm; L tang: c 35mm; W: 16mm
XNNWAR13, 211, SF79, fill of pit **206**. Area 1. Period 2. Pit Group 1

2 Whittle-tang blade with straight back and straight cutting edge, tapering to a point, giving a triangular blade.
L: 115mm; L tang: 33mm;
XNNWAR13, 719, SF 1009, fill of pit **717**. Area C. Period 4. Pit Group 6

3 Large scale-tang blade (XRK15/217). Triangular blade with very short or broken tang aligned with the top of the blade, the blade tapers gently to a slightly rounded point.
L: 198mm; L tang: 21mm; W: 40mm
XNNWAR13, unstratified, SF1001. Area C

4 Curving fragment of plate, cut or broken at an angle.
L: c 75mm; W: 19mm
XNNWAR13, 42, SF2, fill of SFB **55**. Area 1. Period 4

5 Spoon? (XRK15/217). Appears on x-ray to be an oval object with a tapering projection, possibly the stump of a handle, to one side, but its identification is not otherwise clarified.
L:62mm; W: 35mm
XNNWAR13, 729, SF1017, fill of pit **727**. Area C. Period 4. Pit Group 6

B.3.4 The relatively large numbers of nails are most likely to have been associated with timber structures on the site, amongst them, perhaps, the wooden linings sometimes constructed within sunken-featured buildings. In all, 23 nails were identified (SFs 3, 7, 16, 26, 41, 44, 55, 65, 69, 70, 71, 75, 76, 1013-15, 1018, 1032-34, 1040 and 1041). The rectangular cross-section of the shafts suggests that all are hand-forged, and fragments range from 15.5mm to 92mm in length, the heads, where surviving, being flat and approximately round. Several are clenched, indicating that they are likely to have been deposited whilst still in timbers. Hand-made nails are effectively impossible to date, continuing more or less unchanged well into the nineteenth century.

B.3.5 In addition, SF1011 (from pit **717**, fill 718), a fragment of curving rod in excess of 145mm in length, appears to be part of a large staple, or perhaps a hinge pintle for the suspension of a door or shutter.

6 Chunky nail with flat oval head and rectangular-section shaft.
42mm long.
XNNWAR13, 24, SF3, fill of pit **23**. Area 3. Period 4

7 Large nail with flat lozengiform head and rectangular-section shaft.
82mm long.
XNNWAR13, 43, SF7, fill of SFB **55**. Area 1. Period 4

8 Long slender nail with rectangular cross-section and a blunt, perhaps incomplete, tip. Small rectangular head.
65mm long.
XNNWAR13, 31, SF16 fill of SFB **55**. Area 1. Period 4

9 Nail with rectangular-section shaft and small (possibly incomplete) head. The shaft is now smoothly bent.
Length in current bent form, 56mm.
XNNWAR13, 325, SF26, fill of posthole **327**. Area 1

10 Nail with rectangular-section shaft and very corroded head. 60mm long.
XNNWAR13, 507, SF41, fill of SFB **373**. Area 1. Period 4

11 Slightly bent fragment of rod.
46mm long.
XNNWAR13, 508, SF44, fill of SFB **373**. Area 1. Period 4

12 Iron fragment with square cross-section, thicker at one end. Possibly part of a nail.
XNNWAR13, 511, SF55, fill of SFB **373**. Area 1. Period 4

13 Fragment of rectangular-section rod 25mm long broken at both ends, probably a nail shaft.
XNNWAR13, unstratified, SF63. Area 1

14 Thin fragment of iron rod with flat oval or rectangular cross-section measuring 4 x 1mm at the break. The complete end is pointed. It has an irregular, hand-made look to it.
29mm in surviving length.
XNNWAR13, 508, SF65, fill of SFB **373**. Area 1. Period 4

15 Nail 58mm long with rectangular head and rectangular-section shaft
XNNWAR13, 114, SF69, fill of posthole **116**. Area 1. Period 5. Structure 7

16 Nail 24mm long with wide flat round head and square-section shaft.
XNNWAR13, 81, SF70, fill of SFB **77**. Area 1. Period 4

17 Nail with well-preserved flat round head 16mm in diameter and rectangular-section shaft.
54mm long.
XNNWAR13, 100, SF71, fill of SFB **77**. Area 1. Period 4

18 Nail with rectangular cross-section and pointed-oval head, with an angled bend in the shaft.
XNNWAR13, 166, SF75, fill of beamslot **167**. Area 1. Period 5. Structure 7

19 Fragment of iron rod with rectangular cross-section.
Length 15.5mm.
XNNWAR13, 226, SF76, fill of posthole **227** in SFB **225**. Area 1. Period 4

20 Incomplete nail with straight shaft, probably rectangular in cross-section, and flat rounded head c. 13mm in diameter. Tip of shaft missing.
Surviving length 35mm.
XNNWAR13, 718, SF1013, fill of pit **717**. Area C. Period 3. Pit Group 6

21 Incomplete nail in good condition with straight rectangular-section shaft and incomplete bent flat head, probably originally oval or circular. Tip of shaft missing.
Surviving length 47mm.
XNNWAR13, 719, SF1014, fill of pit **717**. Area C. Period 3. Pit Group 6

22 Probable nail with rectangular cross-section and flat rounded head measuring c. 15 x 18mm. Heavily corroded.
Length c. 48mm.
XNNWAR13, 719, SF1015, fill of pit **717**. Area C. Period 3. Pit Group 6

23 Incomplete nail in good condition with straight rectangular-section shaft and minimally thickened head. Tip of shaft missing.
Surviving length 52mm.
XNNWAR13, 729, SF1018, fill of pit **727**. Area C. Period 3. Pit Group 6

24 Nail with rectangular-section shaft and flat tapering head. Now slightly bent, but appears to be complete. Cross-section below head 8.5 x 6mm.
Length 50.5mm
XNNWAR13, 729, SF1032, fill of pit **727**. Area C. Period 3. Pit Group 6

25 Incomplete object, probably a large nail. One end flares to form what may be a wedge-shaped head. Below this the cross-section is rectangular, becoming circular by the break. Cross-section below head 10 x 9mm.
Surviving length 83mm
XNNWAR13, 729, SF1033, fill of pit **727**. Area C. Period 3. Pit Group 6

26 Tapering rectangular-section iron rod, perhaps the shaft from a large nail.
Maximum cross-section, 9 x 7mm.
Surviving length 92mm
XNNWAR13, 729, SF1034, fill of pit **727**. Area C. Period 3. Pit Group 6

27 Two bent nails. One is in good condition; its shaft is rectangular in cross-section, measuring 6.5 x 6mm just below the flat oval head. Its tip is blunt. The other is more corroded but appears to be complete, with a shaft again rectangular in cross-section, measuring 5 x 4.5mm just below the flat oval head.
Length 45mm.
XNNWAR13, 739, SF1040, fill of pit **738**. Area C. Period 3. Pit Group 6

28 Fragment of iron rod in poor condition. One broken end is rectangular in cross-section, 4.5 x 4mm. The other end is fragmentary. Perhaps the remains of a shaft from a

nail.
Surviving length as bent, 31mm.
XNNWAR13, 728, SF1041, fill of pit **727**. Area C. Period 3. Pit Group 6

29 Length of rod, curved at one end and probably incomplete. The cross-section is probably square for most of its length, tapering slightly to the straight end; the curved end appears more rounded in cross-section and 10mm in diameter at the break. The object may originally have been U-shaped and perhaps functioned as a large staple. Date and function unknown.
Surviving length as bent, 145mm.
XNNWAR13, 718, SF1011, fill of pit **717**. Area C. Period 3. Pit Group 6

B.3.6 Objects associated with transport are confined to a single horseshoe (30; SF27) from modern pit **328** (fill 329). Approximately half survives, and the presence of a fuller or groove close to the outer edge of the lower surface suggests a post-medieval date (Clark 1995, 82), probably not earlier than the seventeenth century (Sparkes 1976, 19; quoting Ward 1939). The width of the branch (max 31mm), and the lack of a toe clip makes a seventeenth or eighteenth-century date most likely.

30 Just over half of a large horseshoe. The surviving heel ends in a right-angled calkin, and there is a fuller (groove) close to the outer edge of the ground (lower) surface, which is very slightly convex. There is a single surviving nail, with its shaft clenched outwards, set within the groove; no holes are apparent otherwise, suggesting that they are still filled with nail heads. The survival of the clenched nail suggests an accidental loss. There is no clip at the toe, and the break here is very straight across. The horseshoe is large, being a maximum of 31mm wide. Fullers are a post-medieval innovation (Clark 1995, 82), probably not pre-dating the 17th century (Sparkes 1976, 19; quoting Ward 1939). The width of the shoe and the lack of a toe clip makes a date in the 17th or 18th century most likely.
XNNWAR13, 329, SF27, fill of pit **328**. Area 1. Period 6

B.3.1 As is always the case with ironwork, a considerable proportion of the assemblage remains unidentified (SFs 8, 23, 31, 32, 33, 36, 56, 72, 77, 78, 80, 1012, 1019, 1024, 1031), being essentially undiagnostic fragments of sheet metal, or featureless fragments of rod.

31 Sub-rectangular piece of flat sheet. The long edges are slightly incurved and the object tapers slightly towards one end.
Maximum dimensions 44 x 28mm, and 5mm thick.
XNNWAR13, 32, SF8, fill of SFB **55**. Area 1. Period 4

32 Piece of thick flat iron sheet, sub-triangular in shape with two curving edges and a short broken edge.
50 x 25mm and, where best-preserved, around 3mm thick.
XNNWAR13, unstratified, SF23. Area 1

33 Sub-triangular fragment of iron sheet, slightly curved in cross-section especially towards the apex. A low D-shape in cross-section.
34mm long, 18mm wide, 3mm thick.
XNNWAR13, 375, SF31, fill of SFB **373**. Area 1. Period 4

34 Rod fragment with D-shaped cross-section, slightly curved along its length.
37mm long.
XNNWAR13, 375, SF32, fill of SFB **373**. Area 1. Period 4

35 Fragment of curved strip, perhaps rectangular in cross-section. It tapers very slightly in width, from 9 to 7mm, as it flattens and curves to one short end.

Length as curved, 23mm.
XNNWAR13, 375, SF33, fill of SFB **373**. Area 1. Period 4

36 Thick flat piece of iron, sub-triangular in shape and with both long edges slightly curving from a broken end to a blunt point. The thickness tapers from 10mm at the broken end to 3mm at the tip, and it is slightly D-shaped in cross-section. Width at broken end, 10mm.
Total length, 43mm.
XNNWAR13, 386, SF36, fill of SFB **373**. Area 1. Period 4

37 Curving rod with both ends apparently broken (worn breaks). The cross-section varies, but tends towards a quarter-circle. The curvature is even and suggests that if the rod were once part of a circular object, it would be about 30mm in diameter.
XNNWAR13, unstratified, SF56. Area 1

38 Sub-triangular piece of flat iron sheet, slightly curved in side view. There is a neat sub-square or lozengiform perforation close to one edge; at the corner opposite this is a trefoil projection. 32mm wide across the perforated edge, and 32mm perpendicular to this. The sheet is c. 2-3mm thick. Date and function unknown.
XNNWAR13, 81, SF72, fill of SFB **77**. Area 1. Period 4

39 Two small pieces of iron; one long rounded lump, possibly metalworking waste, and one fragment of rectangular-section rod.
Length 26mm.
XNNWAR13, 375, SF77, fill of SFB **373**. Area 1. Period 4

40 Two small rounded lumps of iron.
XNNWAR13, 510, SF78, fill of SFB **373**. Area 1. Period 4

41 Four small fragments of iron strip, the largest 22mm long and 6mm wide.
XNNWAR13, 375, SF80, fill of SFB **373**. Area 1. Period 4

42 132mm length of rectangular-section straight rod, c. 5 x 3mm where best preserved. Date and function unknown.
XNNWAR13, 718, SF1012, fill of pit **717**. Area C. Period 3. Pit Group 6

43 Fragment of flat rectangular strip, 35mm wide and now bent, with a rivet or nail apparently passing through at one end. The nail has a rectangular cross-section and passes through the strip at its pointed tip; the head, at the other end, is flat and oval. The surviving length of the strip is c. 50mm and at one end, just beyond where the nail passes through, it thickens from c. 1.5 to c. 2.5mm thick with the appearance of a second rectangular strip on the face opposite the nail. The head of the nail measures c. 28 x 23mm; the shaft is obscured by corrosion and perhaps some mineral-preserved organics. Date and function unknown.
XNNWAR13, 729, SF1019, fill of pit **727**. Area C. Period 3. Pit Group 6

44 Thick, heavily corroded iron object, not further identifiable without X-ray. Sub-rectangular and flat, it is slightly wider at one end and both ends are rounded. The edges are blunt.
It has a length of 114mm, a maximum width of 48mm and a thickness of c. 13mm.
XNNWAR13, 726, SF1024, fill of pit **727**. Area C. Period 3. Pit Group 6

45 Piece of iron rod, rectangular in cross-section and tapering slightly from 10.5mm square to 9 x 6mm. It appears to be broken at the wider end, perhaps at the start of a bend. The narrower end may be complete. Date and function unknown.
Surviving length 66mm.
XNNWAR13, 729, SF1031, fill of pit **727**. Area C. Period 3. Pit Group 6

B.4 Metalworking Debris

By Sarah Percival

Introduction and methodology

B.4.1 A small assemblage of 21 pieces of metalwork debris (MWD) weighing 700g was recovered. The majority of the assemblage comprises small pieces of smithing slag found during the excavation in the fill of SFB **373**, and during the watching brief in pits **727** and **738** and postholes **696** and **742**. A quantity of possible fuel ash slag was recovered during the excavation phase from the fill of Late Bronze Age/Early Iron Age pit **651**.

B.4.2 The complete assemblage was recorded by type by context. The MWD was scanned with a magnet to establish the presence of iron and was counted and weighed to the nearest whole gram.

Results

Late Bronze Age/Earlier Iron Age

B.4.3 A lump of vesicular MWD, perhaps fuel ash slag, was recovered from the fill of pit **651** (Pit Group 5). The MWD is formless and lumpy with numerous vacuoles. It is nonmagnetic. Similar fuel ash has been found in Iron Age enclosure deposits at Mallards Close, Earls Barton (Chapman & Atkins 2005, 6).

Roman

B.4.1 Iron slag was recovered from posthole **696** (Structure 6) and from pits **727**, **738** and **742** (Pit Group 6). Again these comprise rusty lumps of vacuous slag plus two of flowing form. The Roman metalworking debris is probably from iron smithing but is largely undiagnostic.

Anglo-Saxon

B.4.2 A small assemblage of iron smithing slag was recovered from SFB **373**, the majority comprising undiagnostic, rusty lumps containing numerous vacuoles and debris such as stones. Several pieces have baked clay adhering and are of plano-convex form suggesting that they derived from hearth bases. Two small pieces have flowing form.

B.4.3 The smithing slag found in SFB **373** indicates secondary metalworking at the site. Vitrified baked clay was also found within the fills of the SFB and this along with the plano convex hearth lining suggesting that the metalworking was taking place near the structure, perhaps in a nearby building, becoming incorporated into the feature during backfilling. Similar small scale metalworking assemblages are fairly often found in SFBs, for example at West Stow where the assemblage included smithing slags, hearth lining and small, 'bun-shaped' plano-convex hearth bottoms (Macalister 1985, 69).

B.5 Struck flint

By Anthony Haskins

Introduction and methodology

B.5.1 An assemblage of 43 struck flints was collected from a variety of features ranging in date from the Late Neolithic through to the Middle Saxon period.

B.5.2 Individual artefacts were assessed and then assigned to a category within a simple lithic classification system (Table 4). Unmodified flakes were assigned to an arbitrary size scale in order to identify the range of debitage present within the assemblage. Edge retouched and utilised pieces were also characterised. Beyond this no detailed metrical or technological recording was undertaken due to the insignificant size of the assemblage.

Results

B.5.3 The raw material is difficult to assess as it has undergone recortification and therefore is generally an opaque light whitish-blue to off white. Where the flint is freshly damaged the flint is a dark grey-blue. The cortex, where present, is generally very thin and off-white to cream, suggesting the raw material was collected from a secondary source such as a riverbed.

B.5.4 Core technology identified within the assemblage is sparse with two small amorphous cores recovered, which are likely to be of later prehistoric date. One of the fragments of burnt flint also shows characteristics of being derived from a blade core, and therefore more likely to be Late Mesolithic or Early Neolithic in date with structured parallel blade scars present on the dorsal surface.

B.5.5 There is a small range of debitage, being a mix of blades, narrower flakes and some larger squatter flakes and angular shatter. The blades and narrow flakes are characteristic of Neolithic flint working. Some of the flakes show signs of soft hammer production and indirect percussion is demonstrated by the presence of punctiform butts on some of the blades. Both working methodology and form would support an Early Neolithic date. Some of the larger squatter flakes are more likely to be of a more recent Bronze Age date, generally formed with hard hammer percussion and with less evidence for structured working.

B.5.6 All of the recovered flints are heavily abraded and rolled suggesting they derive from residual material.

Conclusion

B.5.7 The characteristics identified suggest that the assemblage is a mix of Early Neolithic and Late Neolithic or Bronze Age flint working.

Context	Cut	Feature	Period	Group	Core technology	Flakes (>50mm)	Flakes (>25mm <50mm)		Flakes (>10mm <25mm)			Blades (all sizes)			Chunk (<50mm)	Burnt flint (all types)	Total
					core	tertiary	secondary	tertiary	secondary	tertiary	broken	secondary	tertiary	broken			
33	34	pit	1	-		1											**1**
37	38	pit	1	-			1	1									**2**
109	107	pit	2	Pit Group 1							1						**1**
110	107	pit	2	Pit Group 1				1								1	**2**
111	-	spread	2	Pit Group 1												1	**1**
140	139	pit	2	Pit Group 1			1									1	**2**
153	151	pit	2	Pit Group 1	1												**1**
244	242	pit	2	Pit Group 1								1					**1**
252	107	pit	2	Pit Group 1				1						1			**2**
289	-	unstrat	-	-									1				**1**
297	298	ditch	2	Feature Group 1				1									**1**
309	312	ditch	2	Feature Group 1				1									**1**
319	318	pit	2	Pit Group 1										1			**1**
336	339	ditch	2	Feature Group 1												1	**1**
354	353	pit	2	-						1							**1**
365	364	pit	2	Pit Group 2				1									**1**
383	382	pit	2	-											1		**1**
384	382	pit	2	-			1							1			**2**
385	382	pit	2	-	1												**1**
421	420	pit	2	-											1		**1**
425	424	pit	2	-			1	2									**2**
487	488	ditch	2	Feature Group 1				1									**1**
557	558	pit	2	Pit Group 4			1										**1**
582	597	solution hollow	2	Boundary 2			1			1							2
607	606	solution hollow	2	Boundary 2					1	1							2

Context	Cut	Feature	Period	Group	Core technology	Flakes (>50mm)	Flakes (>25mm <50mm)		Flakes (>10mm <25mm)			Blades (all sizes)			Chunk (<50mm)	Burnt flint (all types)	Total
638	637	solution hollow	2	Boundary 2			2								4	1	7
646	647	solution hollow	2	Boundary 2			1										1
675	-	topsoil	-				1										1
Total					**2**	**1**	**10**	**9**	**1**	**3**	**1**	**1**	**1**	**3**	**6**	**5**	**43**

Table 4: Flint catalogue

B.6 Glass Objects

By Chris Howard-Davis

Vessel glass

B.6.1 Only a very small amount of vessel glass was recovered, with all the fragments being of Roman date, although item 1 was found in a later context. Joining fragments from a badly mineralised colourless blown vessel of small size (1) came from SFB **55** (fill 31), where it must be regarded as residual, or as evidence for the collection and reuse of Roman glass. Rim 2 is from a storage bottle of Isings (1957) form 50 or 51; of these, form 50 was particularly common in the late 1st to early 2nd centuries, falling out of use soon after; whilst form 51, appearing at the same time, persisted in common use until the end of the 2nd century (Price & Cottam 1996). Both forms appear in a range of sizes, and the estimated diameter of the rim might suggest a larger vessel (see for instance Cool & Price 1995, no 1834). Fragment 3 is from the handle of a flagon or (less likely) jug, the strong colour and narrow diameter neck suggest an early date, being most common from the Claudian conquest to the early Flavian period, but with vessels in some colours, including greenish-amber like this example, remaining in production into the late 1st or early 2nd centuries (Price and Cottam 1996, 15).

1 Two joining fragments of a small and extremely thin-walled blown vessel (body diameter around 60mm). Probably originally colourless, but now surfaces etched, and the metal badly mineralised and almost black.
Th: 1mm; Ht: 30mm
XNNWAR13, 31, SF11, fill of SFB **55**. Area 1. Period 4

2 Rim fragment, dark natural blue-green metal. Cylindrical or prismatic bottle of Isings types 50 or 51).
Rim diam: c 90mm
1st to early 2nd century
XNNWAR13, 718, SF1003, fill of pit **717**. Area C. Period 3. Pit Group 6

3 Upper part of an angular ribbon handle with a single central rib, in a transparent dark greenish amber metal. Evidence suggests a very narrow-necked vessel, most likely to be a jug.
L: 37mm; W: 24mm
1st or very early 2nd century
XNNWAR13, 743, SF1002, fill of pit **742**. Area C. Period 3. Pit Group 6

Beads

B.6.2 Only two beads were found, both coming from Late Bronze Age/Early Iron Age pits. A large 'eye' bead (4: SF 24/73, Fig. 25) came from the fill (288) of pit **286** (Pit Group 4). Bearing in mind the stratigraphic context, it seems most likely to be of Iron Age date, although exact parallels have proved elusive. It does, however, bear considerable resemblance to Guido's (1978, 49) Class 1, type II beads, albeit slightly larger in diameter, at 16.5mm, rather than *c.* 12mm. The four conchoidal depressions seen on this bead seem to have been deliberately struck off to form shallow depressions for the applied eyes, suggesting that this bead falls into the group of 'stratified' beads (sensu Eisen 1916). It has, however, lost its eyes, which are now detached and have decayed sufficiently to have lost their colours, except to be certain that they are opaque, and one small fragment is probably white, as might be expected. The very shiny surfaces seen in the depressions presumably explain why the eyes have fallen away from the main part of the bead.

B.6.3 Giles (2012) notes similar 'stratified' beads, albeit with considerably more eyes, amongst those from Iron Age burials in East Yorkshire, where they are thought possibly to have Continental origins (ibid, 145; Guido 1978 Class 1, type II). Whilst the dating of Class 1 beads is unrefined, the 4th to 2nd centuries BC date assigned to the East Yorkshire cemeteries, would not seem unreasonable. The bead also bears similarities to Guido's Class 3 beads (although these normally have only three eyes) the appearance of which she dates to the 1st century BC, continuing in use to the end of the 2nd century AD, but not surviving in any quantity into the 3rd century. Swift (1999) notes similar beads in Continental Europe during the Roman period, with concentrations in Pannonia and west of the Rhine, but she also remarks on their rarity in Roman Britain. Although similar beads appear in the Early Anglo-Saxon period, they are not common, and none are listed in Brugmann's 2004 study.

B.6.4 Bead 5 is a small plain dark blue bead of a kind encountered at almost all periods. Iron Age examples are known, for instance from Wetwang (Hill 2001, Giles 2012; table 5.2), but similar beads are also known, for instance, from late Roman burials in Colchester (Crummy 1983, objects 666, 1797), as well as from Anglo-Saxon contexts.

4 Medium-sized very dark blue (almost black) bead in a very poor and bubbly metal, and effectively opaque. Probably originally globular, it is now sub-square in cross-section, with concave sides. The concavities appear to be the result of irregular conchoidal fragments being detached, but the small disc-like fragments recorded as SF 73 fit convincingly into two of the concavities and seem to reflect the differential decay and resulting detachment of applied 'eyes', meaning that this is a decorated bead.
Max diam: 16.5mm, min diam: 10mm; Ht: 10.5mm; Diam perf: 4.5mm
XNNWAR13, 288, SF24/SF73, fill of pit **284**. Area 1. Period 2. Pit Group 1

5 Small very dark blue globular bead.
Diam: 3.4mm; Ht: 2.2mm
XNNWAR13, 577, SF81, fill of pit **578**. Area 2. Period 2. Pit Group 4

B.7 Prehistoric Pottery

By Paul Blinkhorn

Introduction and methodology

B.7.1 The pottery was initially bulk-sorted and recorded on a computer using DBase IV software. The material from each context was recorded by number and weight of sherds per fabric type, with featureless body sherds of the same fabric counted, weighed and recorded as one database entry. Feature sherds such as rims, bases and lugs were individually recorded, with individual codes used for the various types. Decorated sherds were similarly treated. In the case of the rim sherds, the form, diameter in mm and the percentage remaining of the original complete circumference was all recorded. This figure was summed for each fabric type to obtain the estimated vessel equivalent (EVE).

B.7.2 All the statistical analyses were carried out using a DBase package written by the author, which interrogated the original or subsidiary databases, with some of the final calculations made with an electronic calculator. Any statistical analyses were carried out to the minimum standards suggested by Orton (1998-9, 135-7).

Results

Late Neolithic

B.7.3 The Late Neolithic assemblage comprised 11 sherds with a total weight of 817g (EVE = 0.20). The following fabric types were noted:

F2001: Shelly. Moderate to dense shell up to 4mm. 10 sherds, 808g, EVE = 0.20

F2002: Flint. Sparse to moderate angular white calcined flint up to 3mm. 1 sherd, 9g, EVE = 0

B.7.4 The assemblage appears to represent no more than two vessels, both with a similar shelly fabric, although most of the inclusions have been leached away. The first of these consists of three large non-joining fragments of a vessel with an open form and comb-point, finger-nail and slashed decoration (Fig. 26, no. 1), from context 33 (pit **34**, Period 1). Context 37 (pit **38**, Period 1) produced five further sherds with similar decoration (Fig. 26, no. 2). None of them join, but the similarity of the fabric suggest that they could easily all be from the same vessel, although not the same one as occurred in context 33. A further small and somewhat abraded sherd occurred in context 480 (ditch **482**, Trackway **290**, Period 2).

B.7.5 The decoration and form of the vessels from contexts 33 (pit **34**) and 37 (pit **38**) is in the Mortlake Style tradition of the Late Neolithic period. Such pottery has been noted at sites in north-eastern Northamptonshire, such as Tansor Crossroads (Gibson 1997). It has also been noted at sites near to Northampton, at Ecton (Bamford 1975) and Briar Hill (ibid.1985).

B.7.6 The Mortlake Ware from Tansor Crossroads was associated with a radiocarbon date of 3635-3365 cal BC (Chapman 1997, 9), but it was thought that the date may have been obtained from wood which was old when deposited, and thus a date nearer 3000BC was thought more appropriate (ibid. 11). The pottery itself was fairly fragmentary (Gibson 1997, fig. 17), and difficult to compare directly with the well-preserved sherds from this site, although both the Tansor pottery and one of the vessels from this site have flattened bases, which is somewhat unusual for the style (ibid. 37). The Tansor fabrics are grog-tempered rather than shell tempered, as is the case here. A similarly

fragmentary assemblage occurred at Aldwincle (Manby 1976, fig. 19). The site produced an uncalibrated radiocarbon date of 2690-2540BC (Jackson 1977), but it was not in direct association with any of the pottery (Jackson 1976, 22). The material from Ecton also had few similarities with the material from this site. The best-preserved vessels were mainly stab-decorated, with a small bone probably used to make the impressions. Again, the fabrics were different, being mainly flint- and/or grog-tempered (Bamford 1975, 14). A small assemblage of Mortlake Ware (nine sherds) was noted at Briar Hill, Northampton and was bracketed by radiocarbon dates of 2420 BC +/- 80 and 1590BC+/- 80 (ibid. 1985, 102).

B.7.7 The single sherd of flint-tempered pottery from context 239 (pit **238**, Pit Group 1, Period 2) is very abraded and precise dating is impossible. It occurred in an Iron Age feature. It has been classified as Neolithic as a *terminus post quem*, but such pottery is known in the area throughout the Bronze Age and also the early Iron Age, and so it could date to any time within that range.

Late Bronze Age/Early Iron Age

B.7.8 The Late Bronze Age/Early Iron Age assemblage comprised 1,153 sherds with a total weight of 8,026g (EVE = 1.42). The range of decorated vessels suggests that activity was entirely limited to the Late Bronze Age/Early Iron Age. The following fabric types were noted:

F1002: Fine Shell. Moderate to dense shell up to 5mm, most 2mm or less, rare to sparse iron-rich sandstone up to 0.5mm, occasional fragments of organic material. 993 sherds, 6622g, EVE = 1.07

F1003: Coarse Shell. Sparse to dense shell fragments up to 10mm, rare fine ironstone fragments. 63 sherds, 646g, EVE = 0

F1004: Fine Shell and Quartz. Sparse to moderate shell fragments up to 2mm, rare to moderate sub-angular quartz up to 0.5mm, rare ironstone. 65 sherds, 448g, EVE = 0.09.

F1005: Calcite. Moderate to dense sub-angular calcite up to 2mm. 18 sherds, 56g, EVE = 0.04

F1006: Grog and Ironstone. Sparse to moderate sub-angular grey-light brown grog up to 2mm, sparse sub-angular black ironstone up to 1mm, rare to sparse calcareous material up to 0.5mm. 4 sherds, 52g, EVE = 0

F1007: Ironstone and Quartz. Sparse to moderate sub-angular ironstone up to 3mm, most 1mm or less, sparse to moderate sub-angular quartz up to 1mm, rare to sparse shell up to 3mm. 10 sherds, 202g, EVE = 0.22

B.7.9 The range of fabric types is fairly typical of Iron Age sites in the region (*e.g.* Knight 1985). The sherds were generally in fairly good condition, although the mean sherd weight is fairly small (*c.*7g). No vessels were reconstructible to a full profile, despite the fact that context-specific assemblages often contained more than one sherd from an individual vessel. The whole assemblage therefore appears to be the product of secondary deposition.

Chronology

B.7.10 The assemblage included fragments from ten pots with fingertip and/or fingernail decoration upon the rim and/or the fairly pronounced or sharply carinated shoulders of the vessels, indicating a date of the Late Bronze Age to Early Iron Age (Knight 2002, fig.12.3). Common pottery of middle Iron Age type, such as Scored Ware (Elsdon 1992), and later wheel-thrown wares and curvilinear decorated pottery are entirely absent. It

seems very likely therefore that most, if not all the Iron Age pottery dates to the beginning of the period, and could even date to the Late Bronze Age.

B.7.11 Large assemblages of Early Iron Age pottery are relatively rare in Northamptonshire, with one of the few being from Ditch A at Gretton (Knight 1985). It produced 1271 sherds weighing c 24.6kg, and as well as finger-tip decorated vessels, there were also a number of small vessels with open profiles very similar to examples from this site (*e.g.* Fig. 27a, no. 8; ibid. fig. 7, nos 28-33). The ditch produced two calibrated radiocarbon dates (Jackson and Knight 1985, 81), but they are very broad (790-260BC and 765-390BC at one sigma). However, the assemblage was found in direct association with a ring-headed pin, which could date to as early as the late 7th century BC (Knight 2002, 130).

Vessel Size

B.7.12 The rim sherd occurrence per diameter class, by EVE, in mm, is shown in Illustration 1. Just 18 rim sherds occur, but the diameter occurrence suggests very strongly that there were two size categories which were generally favoured. The first of these is the fairly small, thin-walled vessels (*e.g.* Fig. 27a no. 8) which had a rim diameter range of between 120 – 180mm, and the second is, presumably, large storage vessels with a diameter range of 280 – 380mm. This broadly fits with the pattern observed amongst Middle and Late Iron Age pottery from Northamptonshire and Buckinghamshire, which suggested that there were three main favoured size of vessel in use, albeit based on data from a much larger population (Woodward & Blinkhorn 1997).

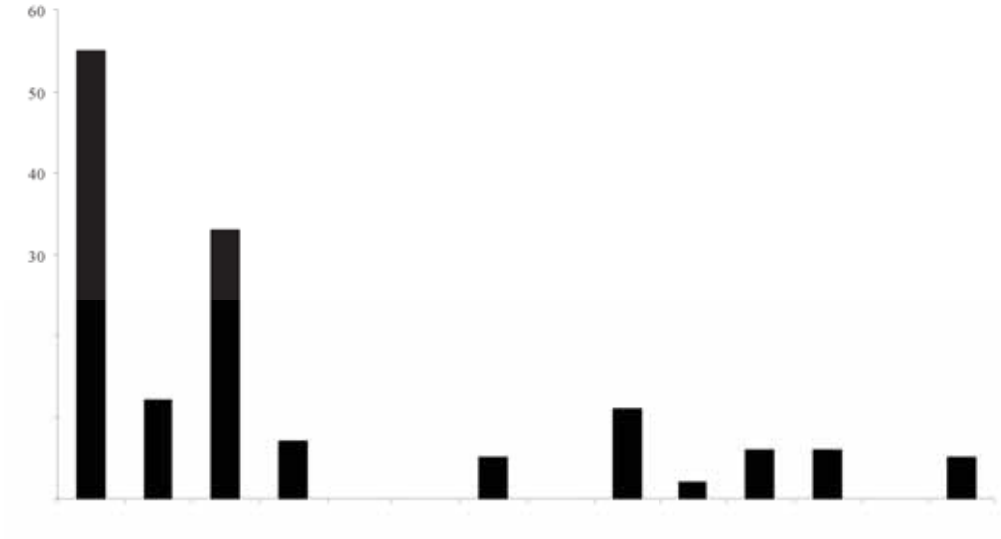


Illustration 1: Rim sherd occurrence per diameter class, by EVE, in mm for LBA/EIA assemblage

B.7.13 Only four rim sherds were from vessels which could definitely be said to be decorated. One, with a fingernail-impressed rim (Fig. 27a, no. 5), had a rim diameter of 180mm, another, with a rim diameter of 280mm had finger-tipped shoulders and fingernail-impressed rim (Fig. 27b, no. 10), while the other two had finger-tipped shoulders and plain rims, had diameters of 300mm (Fig. 27a, no. 9) and 380mm. The larger of these has an inturned rim (Fig. 27a, no. 7), and was of quite a different form to all the other vessels from the site.

Cross-fits

B.7.14 The Iron Age assemblage was thoroughly checked for cross fits. Just two were noted:

110 = 252 (pit **107**, Pit Group 1). Fabric F1002 (Fig. 27a, no. 4)

152 = 153 (pit **151**, Pit Group 1). Non-joining sherds from the same finger-tipped vessel

B.7.15 In each case, both contexts were within one feature. This further suggests that the majority of the deposits are the result of secondary deposition, from a number of different original sources.

Illustration catalogue

1: Fabric F2001, context 33 (pit **34**). Three large fragments from the same vessel. Dark grey fabric with light reddish-brown outer surface.

2: Fabric F2001, context 37 (pit **38**). Five non-joining sherds, probably from the same vessel. Dark grey fabric with brown – orange surfaces.

3: Fabric F1003, context 30. Body sherd with fingertip decoration. Grey fabric with reddish-brown outer surface. Pit **56**. Period 2.

4: Fabric F1002, contexts 110 and 252. Near full profile of a small bowl. Dark grey fabric, slightly lighter surfaces. Pit **107**. Pit Group 1. Period 2.

5: Fabric F1002, context 110. Fingernail-impressed rim sherd. Grey fabric with orange-red outer surface. Pit **107**. Pit Group 1. Period 2.

6: Fabric F1002, context 110. Finger-tipped shoulder from a jar. Grey fabric with browner surfaces. Pit **107**. Pit Group 1. Period 2.

7: Fabric F1002, context 111. Finger-tipped inturned jar rim. Grey fabric with browner surfaces. Spread. Pit Group 1. Period 2.

8: Fabric F1002, context 111. Rim sherd from small bowl. Grey fabric with brown patches. Spread. Pit Group 1. Period 2.

9: Fabric F1002, context 149. Rim sherd from a jar with finger-tipped shoulders. Grey fabric with orange-red outer surface. Pit **148**. Pit Group 1. Period 2.

10: Fabric F1002, context 153. Fingernail-impressed rim sherd from a jar with finger-tipped shoulders. Grey fabric with browner outer surface. Pit **151**. Pit Group 1. Period 2.

11: Fabric F1002, context 153. Finger-tipped shoulder from a jar. Grey fabric with browner outer surface. Pit **151**. Pit Group 1. Period 2.

12: Fabric F1004, context 287. Finger-tipped shoulder from a jar. Grey fabric with light brown outer surface. Pit **286**. Pit Group 1. Period 2.

13: Fabric F1002, context 336. Finger-tipped shoulder from a jar. Dark grey fabric with reddish-brown outer surface. Ditch **339**. Feature Group 1. Period 2.

14: Fabric F1002, context 336. Finger-tipped shoulder from a jar. Dark grey fabric with brown outer surface. Ditch **339**. Feature Group 1. Period 2.

15: Fabric F1002, context 361. Finger-tipped shoulder from a jar. Dark grey fabric with brown surfaces. Pit **360**. Pit Group 2. Period 2

B.8 Romano-British Pottery

By Alice Lyons

Introduction

B.8.1 A total of 692 sherds, weighing 12,144g (11.11 estimated vessel equivalent (EVE)), of Romano-British pottery was recovered from excavations and a watching brief at Warth Park, Raunds, Northamptonshire (Table 5). The pottery represents a minimum of 231 individual vessels which, although fragmentary, are only moderately abraded with some surface residues surviving. The assemblage has an average sherd weight (ASW) of 17.5g.

Project type	*Sherd count*	*Weight (g)*	*EVE*	*ASW (g)*	*Weight (%)*
Excavation	19	312	0.42	16.42	2.57
Watch Brief	673	11832	10.69	17.58	97.43
Total	**692**	**12144**	**11.11**	**17.55**	**100**

Table 5: Roman pottery by project type

B.8.2 The majority of pottery was recovered from contemporary Romano-British deposits (Period 3), a small amount was intrusive in prehistoric layers (Period 2), with a slightly larger amount present in Anglo-Saxon features (Period 4; Table 6).

Period	*Sherd count*	*Weight (g)*	*Weight (%)*
2: LBA/EIA	3	8	0.06
3: Romano-British	672	11831	97.42
4: Anglo-Saxon	15	263	2.17
Unstratified	2	42	0.35
Total	**692**	**12144**	**100**

Table 6: Pottery by period

Methodology

B.8.3 The pottery was examined in accordance with the guidelines set down by the Study Group for Roman Pottery (Barclay *et al* 2016, 14-18). The total assemblage was studied and a catalogue prepared.

B.8.4 All the sherds have been counted and weighed to the nearest whole gram. The pottery was divided into fabric groups defined on the basis of inclusion types present and a sample was examined using a x10 magnifying lens. The fabric codes are descriptive and abbreviated by the main letters of the title (Sandy grey ware = SGW). Vessel form was also noted, also any decoration, residue and levels of abrasion.

B.8.5 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

The Pottery

B.8.6 Eight broad Roman pottery fabric groups were recovered during the excavations and watching brief (Table 7).

Coarse wares

Sandy grey wares

B.8.7 The majority of the material found consists of locally produced sandy grey wares used to produce a range of utilitarian vessels in colours varying from pale to dark grey. The most common vessel type is the globular jar produced with a variety of rim designs including lid seated (type 4.4), rolled (type 4.5) and bi-fid (type 4.8). These jars were usually undecorated and several show signs of use as cooking pots (soot residue) and kettles (lime scale). Straight-sided dishes were also common (types 6.18 and 6.19), a small number of which were flanged (type 6.17). The exact source of manufacture for much of this ware is not known, however, the majority are consistent with production in the Lower Nene Valley (Timby 2009, 153-154).

Shell tempered wares

B.8.8 Another common utilitarian coarse ware was manufactured from clay containing fossilised shell fragments. A single unstratified example of Bourne-Greetham ware (context 381) was recovered from Area C, consisting of an undiagnostic body fragment the sherd which dates to the 2nd-3rd century (Tomber & Dore 1998, 156). While the remainder of the assemblage consists of the Harrold-type rolled rimmed jars with underscored rims (type 4.5.3; Tomber & Dore 1998, 115), bi-fid jars (type 4.8) and Nene Valley storage jars (Perrin 1996, 119–20).

Sandy oxidised wares

B.8.9 A relatively small number of Sandy oxidised pottery pieces were recovered. Where found they have been identified as undiagnostic flagon and beaker pieces, also a jar (type 4.5), bowl (type 6.15) and a straight-sided dish (type 6.18). Where this material was manufactured is not known but is suspected to be local, a lower Nene Valley source is also possible.

Fine wares

Samian

B.8.10 Central Gaulish samian wares form a significant part of this assemblage (12.5% by weight). This distinctive glossy red tableware was imported from central Gaul during the 2nd century AD (Tyers 1996, 113). A deep decorated bowl was recorded (Dr37), also a flanged bowl (Dr38) as well as a range of plain cups (Dr33; O&P LV 13, TYPE A) and dishes (Dr15/31, Dr18/31, Dr31).

B.8.11 It is noteworthy that the Central Gaulish (Lezoux) flanged bowl (Dr38) recovered during the Watching Brief, from posthole **677** (fill 676, Pit Group 6), was stamped by its maker and can therefore be dated to AD160-200. This stamp ‘CARUSSA I’ is of particular interest as it had not been previously recorded.

Nene Valley colour coats

B.8.12 Colour coated fines wares produced in the Lower Nene Valley, centred on the Roman town of Durobrivae (Water Newton), between the mid 2nd and 3rd centuries are also well represented (Tyers 1996, 173-175). Most commonly found were bag-shaped beakers (type 3.6), also funnel necked (type 3.1) and folded examples (type 3.3). Several Castor box (type 6.2) lid fragments were also found – this is an interesting form which can best be described as a decorative casserole or tureen (Perrin 1999, 98-100). Late Roman Nene Valley products comprising undiagnostic jar pieces, a straight-sided dish (type 6.19) and lid (type 8.1) were also found.

Trier Black Slipped Ware

B.8.13 A small fragment from a distinctive glossy Trier Black slipped ware beaker was found; dated to the 3rd century AD (Tyers 1996 138-139).

Specialist wares

B.8.14 Specialist wares are not common within this assemblage.

Amphora

B.8.15 Only three small and abraded body sherds from Spanish olive oil amphora were recorded (Tyers 1996, 87-89).

Mortaria

B.8.16 Also found was a single flat base from a Mancetter Hartshill mortaria, within which the trituration grits had been worn smooth (Tyers 1996, 123-124).

Fabric	*Code*	*Vessels*	*Sherd count*	*Weight (g)*	*EVE*	*Weight (%)*
Sandy grey ware	SGW	Pedestal urn, beaker (type 3.3, 3.11), jar (type 2, 4, 4.1, 4.4, 4.5, 4.6, 4.13, 5.3, 5.13), dish (type 6.15, 6.17, 6.18, 6.19), platter (type 6.22).	372	5323	6.67	43.83
Shell tempered ware	STW	Jar (type 4.5, 4.8, 4.13, 4.14)	131	2841	1.51	23.39
Sandy white ware	SOW	Flagon, beaker, jar (type 4.5), bowl (type 6.15), dish (type 6.18)	41	1642	0.37	13.53
Samian, central Gaulish	SAM CG	Bowl (Dr37, Dr38), cup (Dr33; O&P LV 13, TYPE A), dish (Dr15/31, Dr18/31, Dr31)	72	1516	1.24	12.48
Nene Valley colour coat	NVCC	Flagon (type 1.9), beaker (type 3.1, 3.3, 3.6), jar, bowl (type 6.15), castor box (type 6.2), dish (type 6.19), lid (type 8.1)	70	590	1.32	4.86
Mancetter Hartshill white ware	MANCHH	Mortaria	2	165	0.00	1.36
Spanish amphora	BAT AM	Amphora	3	66	0.00	0.54
Trier Black slipped ware	RHEN	Beaker (type 3.3)	1	1	0.00	0.01
Total			**692**	**12144**	**11.11**	**100.00**

Table 7: Pottery fabrics and forms

The Pottery Type Series

Coarsewares

1.9: cupped-rim flagon, plain rim (Perrin 1996, 159)

3.1: beaker with a tall straight neck (funnel necked) and rounded body (Timby 2009, no 117)

3.3: Indented beakers (Timby 2009, no 32)

3.6: Bag-shaped beakers (Timby 2009, no 35, 96)

3.11: Beaker with a 'cavetto Rim' (Perrin 1996, 315)

4: miscellaneous medium-mouthed jars

4.1: medium-mouthed jar with high-shouldered profile (Timby 2009, no 55)

4.4: jar with short angular neck, lid-seated or flattened rim (Timby 2009, no 10

4.5: medium-mouthed jar, short neck, rolled and generally undercut rim and globular body (Timby 2009, no 19)

4.6: medium- (sometimes wide-) mouthed jar, short neck, globular body, rolled and undercut rim with grooves at base of neck. Same as type 4.5 except for grooves (Perrin 1996, 361)

4.8: medium-mouthed jar, everted rim that is hollowed or with projection underneath (bifid), globular body (Perrin 1996, 592; 583)

4.13: medium-mouthed jar, rounded body and simple everted rim (Timby 2009, no 8)

4.14: large storage vessels miscellaneous or indeterminate

5.3: rounded jar with a reverse 'S' profile and a cordon on the neck (Rogerson 1977, 39; 46; 94)

5.13: carinated jar, plain (no cordons) with groove at base of neck (Stead and Rigby 1986, 610)

6.2: Castor box lid (Timby 2009, no 85)

6.4: hemispherical bowl (Martin 1988, 269; 270; 273–275)

6.15: flanged rim bowl with curving sides, out-turned rim and foot-ring base (Timby 2009, no 118)

6.17: flanged rim straight-sided dishes with a flat base (Timby 2009, no 103)

6.18: dish, straight-sided, flat-based, thickened everted 'triangular' rim (Timby 2009, no 49)

6.19: dish, straight sides which may be upright or angled, plain rim or may have external groove just below the rim (Perrin 1996, 402; 403; 415; Timby 2009, no 96)

6.22: platters (Timby 2009, no 105)

8.1: lid: standard type to fit cooking/storage pot, in-turned or out-turned, can have terminal grip (Perrin 1996, 57; 58; 59)

Mortarium (Tyers 1996, 116-135)

7: all miscellaneous mortarium

Samian (Tyers 1996, 105-116)

Dr15/18: wall-sided platter

Dr18/31: a shallow bowl, with a very slightly curved wall, (the division between the wall and the floor is apparent), while the floor rises noticeably in the centre. Dr18/31R: as above but the division between floor and wall is vestigial, although marked by a slight ledge.

Dr31: a shallow bowl with a curved wall and beaded rim, the division between wall and floor apparent.

Dr33: a conical cup with a footring. There are often grooves (or a groove) on the external vessel wall.

Dr37: a deep bowl with slightly curved sides. The wall of the vessel is usually divided into two (approximately) equal zones, where the lower half is decorated.

Dr38: a hemispherical bowl with a plain hooked flange below the mid-way point on the wall. The rim can be beaded or plain.

O&P LV 13, TYPE A: cup version of Curle 23.

Amphorae (Tyers 1996, 88-91)

DR20: a large globular form (principally olive oil containers) with two handles and thickened, rounded or angular rim, concave internally.

Illustration Catalogue

1: SGW. Lid-seated cooking pot with soot on rim and shoulder, type 4.4. 729, pit **727**. Area C. Pit Group 6 Period 3.

2: SGW. Globular jar, type 4.13. 729, pit **727**. Area C. Pit Group 6. Period 3.

3: SGW. Flanged dish, type 6.17. 735, pit **733**. Area C. Pit Group 6. Period 3.

4: SGW. Straight-sided dish with a triangular rim, type 6.18 (large). 729, pit **727**. Pit Group 6. Area C. Period 3.

5: SGW. Straight-sided dish, type 6.19. 729, pit **727**. Pit Group 6.Area C. Period 3.

6: STW. Globular jar with rolled and under scored rim, type 4.5.3. 726, **727**. Pit Group 6. Area C. Period 3.

7: STW. Bi-fid jar, type 4.8. 719, pit **717**. Pit Group 6. Area C. Period 3.

8: NVCC. Funnel necked beaker, type 3.1. 554, ditch **553**. Area 1. Boundary 3. Period 5 (residual, worn on rim).

9: NVCC. Folded beaker, type 3.3. 743, pit **742**. Area C. Pit Group 6. Period 3.

10: NVCC. Bag-shaped beaker, type 3.6. 726, pit **727**. Pit Group 6. Area C. Period 3.

11: NVCC. Castor box (decorated body sherd), type 6.2. 726, pit **727**. Pit Group 6. Area C. Period 3.

12: SAM CG (Lezoux). Fanged bowl, Dr38 with new stamp CARUSSA-I. AD 160-200. 676, pit **677**. Structure 6. Area C. Period 3.

Results

B.8.17 The Roman pottery was recovered exclusively from pits. When the quantified assemblages of the pits are tabulated it is clear that the majority of the assemblage originates from pits **717** and **727** of Pit Group 6 (Table 8).

Feature	*Cut*	*Sherd count*	*Weight (g)*	*Weight (%)*
Pit	677	14	893	7.55
	679	12	818	6.91
	696	1	17	0.14
	698	1	50	0.42
	717	*130*	*2096*	*17.72*
	723	19	234	1.98
	725	81	620	5.24
	727	*275*	*4712*	*39.83*
	733	19	525	4.44
	736	19	1080	9.13
	738	9	101	0.85
	742	92	685	5.79
Total		**672**	**11831**	**100.00**

Table 8: Roman pottery quantified by feature type

Pit 717

B.8.18 Large irregular pit **717** contained *c.*17% of the entire Roman pottery assemblage (by weight), most of which was recovered from the topmost fill (Table 9).

Deposit	*Sherd Count*	*Weight (g)*	*Weight (%)*
Top fill: 718	68	1270	60.60
Middle fill: 719	59	771	36.78
Base fill: 720	3	55	2.62
Total	**130**	**2096**	**100.00**

*Table 9: Pit **717**, pottery quantified by fill*

B.8.19 The pit contained a range of objects in addition to the Roman pottery comprising a selection of Roman iron objects (SF 1009; 1011; 1013; 1014; 1015; 1012) and a glass bottle fragment (SF1003). The character of the pottery is consistent with a utilitarian group of kitchen wares, mostly comprising Sandy grey ware jars and dishes. Some table wares were also found, including fine ware vessels from the Nene Valley and imported central Gaulish samian which includes dish (Dr15/31 and 18/31) and cup (Dr33) forms. Several pieces of olive oil amphora were also recorded. As a group the pottery dates between the mid-2nd to the 3rd centuries AD.

Fabric	*Vessel type*	*Sherd Count*	*Weight (g)*	*EVE*
Sandy grey ware	Jar (type 4.1, 4.4, 4.5, 4.6, 4.13, 5.13), dish (type 6.18, 6.19)	58	1152	2.51
Shell tempered ware	Jar (type 4.4, 4.5(.3), 4.8, 4.13)	28	538	0.65
Nene valley colour coat	Flagon, beaker (type 3.6), jar/beak, castor box (type 6.2)	22	127	0.47
Samian, central Gaul	Cup (Dr33), dish (Dr15/31, Dr18/31)	10	117	0.15
Sandy oxidised ware	Flagon, beaker, jar, dish (type 6.18)	9	96	0.10
Spanish olive oil amphora	Amphora	3	66	0.00
Total		**130**	**2096**	**3.88**

*Table 10: Pit **717**, by fabric*

Pit 727

B.8.20 Large oval pit **727** contained *c.*39% (by weight) of the entire assemblage, most of which was recovered from the topmost fill (Table 11).

Deposit	*Sherd Count*	*Weight (g)*	*Weight (%)*
Top fill: 729	126	2166	45.97
Middle fill: 728	19	778	16.51
Base fill: 726	130	1768	37.52
Total	**275**	**4712**	**100.00**

*Table 11: Pit **727**, pottery quantified by fill*

B.8.21 The pit contained a wide range of Roman detritus in addition to the pottery including animal bone, metal working debris, ironwork (SF1024), copper alloy fragments

(SF1022-1023 and SF1025-1027). The majority of the pottery assemblage are Sandy grey ware jar and dish forms, with other utilitarian wares including Shelley ware jars and Sandy oxidised ware flagons and jar/bowl forms. Table wares including Nene Valley colour coated beakers and casseroles (Castor boxes) were found, also imported central Gaulish dish forms (Dr 18/31, Dr 18/31R and Dr31). The samian included a partial unreadable stamp on a cup base, also a dish decorated with a known die (DIE 1B: ADVOCIS[]). While although no amphora was recovered from this pit several Manchetter-Hartshill products were found including a flagon and mortaria. As a whole this pit group contained pottery dated between the late 2nd to early 4th century AD.

Fabric	*Vessels type*	*Sherd Count*	*Weight (g)*	*EVE*
Sandy grey ware	Beaker (type 3.3), jar (type 4.4, 4.5(.3), 4.6, 4.13, 5.3), dish (type 6.15, 6.18, 6.19), platter (type 6.22).	162	2088	2.68
Shell tempered ware	Jar (type 4.5(.3), 4.14)	61	1645	0.56
Samian, central Gaul	Bowl, dish (Dr18/31, Dr 18/31R, Dr31)	25	371	0.32
Sandy oxidised ware	Flagon, jar, bowl (type 6.15)	7	276	0.05
Nene valley colour coat	Flagon (type 1.9), beaker/jar, beaker (type 3.6), jar, bowl (type 6.15), castor box (type 6.2)	18	167	0.33
Mancetter-Hartshill white ware	Flagon, mortaria	2	165	0.00
Total		**275**	**4712**	**394**

*Table 12: Pit **727**, by fabric*

Discussion

B.8.22 This assemblage of Roman pottery was collected both from the excavation and watching brief areas. It is of medium size, in fair condition, and the majority was recovered from stratified deposits.

B.8.23 The ceramic analysis shows a group of pottery consisting of a relatively small number of fabrics and forms. Indeed, the group largely comprises locally produced, sand- and shell-tempered, utilitarian jars and dishes dating to the Mid-Late Roman period, although not including pottery typical of a date after the mid 4th century AD. Comparison of this material with other local sites suggests it is typical of the region, for example it is very similar to pottery recovered from Higham Ferrers located only *c.*3km to the south-west (Timby 2009).

B.8.24 It is noteworthy, however, that although most specialist wares are rare, which is typical of low order settlements (Evans 2003, 105) – there is an unusually high percentage of samian table wares. Where 3% (by weight) would be a typical of samian representation (Timby 2009, 179, table 5.11), within this assemblage it represents 12.5%. The relatively high levels of samian suggest, therefore, that an affluent settlement was located near-by perhaps in the Antonine period when samian supply to the area peaked (McSloy 2007, 15). Pits **717** and **727** (Pit Group 6) were used to dump a range of domestic kitchen and table ware pottery vessels, as well as a range of other materials. The slight chronological difference between the two pottery assemblages from these pits suggests pit **717** was the earlier of the two.

B.8.25 Other pottery found in small quantities across the site does not appear to have been deliberately placed, indeed a small part of the Roman pottery assemblage is residual in later Saxon structures.

B.8.26 This assemblage, therefore, makes a valuable contribution to the ceramic narrative of Northamptonshire where although large assemblages have been studied, few are yet to be published (McSloy 2007, 15).

B.9 Anglo-Saxon and Later Pottery

By Paul Blinkhorn

Introduction and methodology

B.9.1 The pottery was initially bulk-sorted and recorded on a computer using DBase IV software. The material from each context was recorded by number and weight of sherds per fabric type, with featureless body sherds of the same fabric counted, weighed and recorded as one database entry. Feature sherds such as rims, bases and lugs were individually recorded, with individual codes used for the various types. Decorated sherds were similarly treated. In the case of the rim sherds, the form, diameter in mm and the percentage remaining of the original complete circumference was all recorded. This figure was summed for each fabric type to obtain the estimated vessel equivalent (EVE).

B.9.2 The terminology used is that defined by the Medieval Pottery Research Group's Guide to the Classification of Medieval Ceramic Forms (MPRG 1998) and to the minimum standards laid out in the Minimum Standards for the Processing, Recording, Analysis and Publication of post-Roman Ceramics (MPRG2001). All the statistical analyses were carried out using a DBase package written by the author, which interrogated the original or subsidiary databases, with some of the final calculations made with an electronic calculator. Any statistical analyses were carried out to the minimum standards suggested by Orton (1998-9, 135-7).

Results

B.9.3 The Early/Middle Anglo-Saxon assemblage comprises 602 sherds with a total weight of 6,968g (EVE =3.79). It comprises fragments of largely undecorated vessels, and most of it was stratified in the back-filled hollows of sunken-featured buildings. One of these did produce fragments of two stamped and incised urns, and, overall, it seems the Anglo-Saxon activity at the site lasted from the 6th-late 7th/early 8th century.

B.9.4 The following fabric types were noted:

F1: Fine Quartz. Sparse to moderate sub-angular quartz up to 0.5mm, most less than 0.2mm. Rare calcareous material and ironstone. 92 sherds, 1184g, EVE = 0.98

F2: Sandstone. Sparse to moderate sub-angular, calcite-cemented sandstone up to 2mm, moderate to dense sub-angular 'free' quartz grains up to 0.5mm, rare calcitic fragments up to 1mm, moderate flecks of silver mica. Occasional fragments of ferruginous sandstone in the same size-range. 377 sherds, 4116g, EVE = 2.18

F3: Coarse Sandstone. Sparse to moderate sub-angular, calcite-cemented sandstone up to 4mm, moderate to dense sub-angular 'free' quartz grains up to 1.0mm. 34 sherds, 464g, EVE = 0.05

F4: Granite. Sparse to moderate sub-angular granite up to 3mm, sparse to moderate organic voids up to 5mm, occasional calcareous material up to 2mm. 63 sherds, 646g, EVE = 0.39

F5: Ironstone: Sparse to moderate iron-rich sandstone and iron or fragments up to 1mm, rare calcareous material up to 3mm. 30 sherds, 462g, EVE = 0.15

F6: Sandstone and Limestone. As F2, with rare to sparse sandstone, and sparse to moderate limestone up to 3mm, rare organic material. 6 sherds, 96g, EVE = 0.04

B.9.5 The range of fabric types is typical of pottery of the period from the Raunds area (*e.g.* Pearson 2009, table 6.2).

Chronology

B.9.6 The dating of Early Saxon hand-built pottery is almost entirely reliant on the presence of decorated sherds. It seems that the Anglo-Saxons generally stopped decorating hand-built pottery in the 7th century (Myres 1977, 1), but it cannot be said with certainty that an assemblage which produced only plain sherds is of 7th century date unless it is very large. Usually, decorated hand-built pottery only comprises around 3-4% of domestic assemblages, as was the case at sites such as West Stow, Suffolk (West 1985) and Mucking, Essex (Hamerow 1993). Thus, fairly small assemblages of plain pottery have to be given a broad period date of the 5th-9th century.

B.9.7 This assemblage produced sherds from just two decorated vessels, which are likely to be of 6th to early 7th century date (Myres 1977), with most of the plain wares likely to be later. Two sherds from one of the vessels occurred in two separate contexts, 386 and 512. Datable Middle Saxon wares, such as Ipswich and Maxey types, were entirely absent, so, given the size of the assemblage, it seems likely that activity lasted from the 6th-late 7th/early 8th century.

The Assemblages

B.9.8 The bulk of the pottery came from a series of sunken-featured buildings, as follows:

SFB 55

B.9.9 SFB **55** produced 173 sherds with a total weight of 2,055g (EVE =1.50). The pottery occurrence per context by weight of sherds by fabric type, expressed as a percentage of the context-specific assemblage is shown in Table 13. The upper fill, contexts 31 and 32, had a somewhat different make-up to the stratigraphically earlier fills, being dominated by fabric F2, along with small quantities of fabric F3. The earlier fills, 41, 42 and 43 produced pottery which is broadly evenly divided between fabrics F1 and F2, along with smaller quantities of fabric F4, with the earliest fill, context 44, having a similar make-up to the material from contexts 31 and 32, but only 80g of pottery occurred. Generally, the assemblage is in good condition and the sherd size is, in the main, reasonably large (mean weight = 11.9g), but very few re-fits or cross-fits were noted, and no vessels were remotely complete, indicating that all the pottery is the result of secondary deposition, probably from a domestic midden. Cross-fitting sherds from a single vessel were noted from contexts 41 and 42, suggesting that the two deposits are contemporary, or at least from the same source.

B.9.10 No decorated sherds are present, and all the vessels appear to be jars of a simple globular form with upright and slightly everted rims (*e.g.* Fig 29a, no. 2). The vessel with refitting sherds from contexts 41 and 42 is slightly unusual in that the exterior surface has traces of vertical finger-wiping (Fig. 29a, no. 1).

Context	*F1 (%)*	*F2 (%)*	*F3 (%)*	*F4 (%)*	*F5 (%)*	*F6 (%)*	*Total weight (g)*
31=32	1.6	80	16.1	2.3			948
41	42.9	48.3		8.8			354
42=43	48.7	34.8		10.4	4.8	1.3	973
44	11.2	88.8					80
Total (g)	**504**	**1234**	**153**	**123**	**32**	**9**	**2055**

*Table 13: Pottery occurrence per context by weight of sherds by fabric type, SFB **55**, expressed as a percentage of the context-specific assemblage*

SFB 77

B.9.11 SFB **77** produced 82 sherds with a total weight of 1,259g (EVE =0.50). The pottery occurrence per context by weight of sherds by fabric type, expressed as a percentage of the context-specific assemblage is shown in Table 14. The data show that the compositions of the assemblages from the two fills is broadly similar in each case, with fabric F2 being the dominant type. All the pottery was in good condition, with the mean sherd weight fairly large (15.4g), but there were few re-fitting sherds within in each layer, suggesting that all the pottery is the product of secondary deposition. A re-fit of two fairly large sherds from contexts 29 (north-east quadrant) and 98 (south-east quadrant) was noted however, suggesting that the two layers may be contemporary, or at least contain material that came from a common source. All the sherds appear to be from jars or small bowls, including seven rim sherds, but no decorated sherds were present. One sherd from context 29 had vertical wiping on the outer surface Fig. 29a, no. 3).

Context	*F1 (%)*	*F2 (%)*	*F3 (%)*	*F4 (%)*	*F5 (%)*	*F6 (%)*	*Total weight (g)*
29=80=97=100	1.8	59	0.6	6.8	28.9	2.9	849
75=81=98=101		78.3		11.5	10.3		400
76=82=99=102							
Total (g)	**15**	**814**	**5**	**104**	**286**	**25**	**1249**

*Table 14: Pottery occurrence per context by weight of sherds by fabric type, SFB **77**, expressed as a percentage of the context-specific assemblage*

SFB 225

B.9.12 SFB **225** produced 62 sherds with a total weight of 528g (EVE =0.38). The pottery occurrence per context by weight of sherds by fabric type, expressed as a percentage of the context-specific assemblage is shown in Table 15.

Context	*F1 (%)*	*F2 (%)*	*F3 (%)*	*F4 (%)*	*F5 (%)*	*F6 (%)*	*Total weight (g)*
223=228=230=232		80	8.7	11.4			184
224=229=231=233	2.5	57.3	30.8	4.4		4.1	344
Total (g)	**12**	**344**	**122**	**36**		**14**	**528**

Table 15: Pottery occurrence per context by weight of sherds by fabric type, SFB225, expressed as a percentage of the context-specific assemblage

B.9.13 The proportions of fabric types in both layers are reasonably similar, although the upper layer had a higher proportion of fabric F2. The pottery was fairly fragmented, with the mean sherd weight quite low (8.5g), suggesting that all the pottery is the product of secondary deposition. All the sherds were from jars or small bowls. Some vessels were represented by more than one sherd, and a re-fit was made for several sherds from the lower layer, from context 229, in the south-west quadrant, and 231, in the north-west quadrant (Fig. 29a, no. 4). The vessel is a small bowl with a fairly pronounced carination, a vessel form which is very typical of the 5th century (Myres 1977). However, such vessels are known from contexts as late as the 6th century at Mucking (Hamerow 1993), and given the complete lack of decorated sherds from the feature and the fact that the vessel is not a crisply made as the 'classic' early vessels (eg. Myres 1977, fig. 201), this dating cannot be advanced with confidence.

SFB 373

B.9.14 SFB **373** produced 211 sherds with a total weight of 2,180g (EVE = 1.13). The pottery occurrence per context by weight of sherds by fabric type, expressed as a percentage of the context-specific assemblage is shown in Table 16.

Context	F1 (%)	F2 (%)	F3 (%)	F4 (%)	F5 (%)	F6 (%)	Total weight (g)
374=386=507=511	19.7	52.4	1.9	18.7	7.2		790
375=387=508=512	22.4	46.9	8.5	16.9	4.3		1390
Total (g)	**481**	**1066**	**133**	**383**	**117**		**2180**

*Table 16: Pottery occurrence per context by weight of sherds by fabric type, SFB **373**, expressed as a percentage of the context-specific assemblage*

B.9.15 The proportions of fabric types in both fills is reasonably similar, and the mean sherd weight is reasonably large (10.3g). All the sherds were from jars or small bowls. This SFB is notable for being the only feature from the site to produce decorated early Anglo-Saxon pottery. Two non-joining sherds from the same stamped vessel (Fig. 29b, nos. 7 and 8) occurred in contexts 386 (south-west quadrant, upper fill) and 512 (north-west quadrant, lower fill). The latter has a brown deposit adhering to much of the surface, suggesting a different deposition history to the former, while both sherds have signs of fairly heavy attrition to the inner surface. Perry (2011, 12) has shown that such wear patterns on early Anglo-Saxon pottery is almost certainly due to the action of lactic acid produced during fermentation, either due to the brewing of ale, or the storage of milk prior to butter- or cheese-making. He also showed that, in the case of the urns from the Cleatham cremation cemetery, such attrition was three times as common on decorated vessels than on plain pots (ibid. fig. 15). It is worthy of note that the only Anglo-Saxon vessel from this site which showed such a pattern was one of only two decorated vessels from the site.

B.9.16 A further stamped sherd, from a different vessel (Fig. 29b, no. 9) occurred in context 508 (south-east quadrant, lower layer). The presence of the stamped sherds suggests very strongly that this SFB is of a different date to the others, probably 6th century, and thus the earliest of the five.

B.9.17 Few re-fits were made, and, despite the presence of the sherds each from the decorated layer in both fills, no cross-fits were made. Once again, it would appear that all the pottery is the product of secondary deposition, and either both layers are contemporary, or were backfilled from a common source. Another vessel with vertical wiping on the body was also noted (Fig. 29a, no. 6).

SFB 700

B.9.18 SFB 700 produced 30 sherds with a total weight of 251g (EVE = 0.09). The pottery occurrence per context by weight of sherds by fabric type, expressed as a percentage of the context-specific assemblage is shown in Table 17.

Context	F1 (%)	F2 (%)	F3 (%)	F4 (%)	F5 (%)	F6 (%)	Total weight (g)
701=702=709=710	53	43.4	20		1.6		251
Total (g)							

*Table 17: Pottery occurrence per context by weight of sherds by fabric type, SFB **700**, expressed as a percentage of the context-specific assemblage*

B.9.19 The pottery assemblage from this SFB largely comprised fairly small plain body sherds (mean wt = 8.4g). A single rim sherd, from a jar, occurred in context 410. It all appears to be the product of secondary deposition. A fragment of a probable loomweight (10g) was present.

Other features

B.9.20 The other Anglo-Saxon features from the site produced 44 sherds of pottery with a total weight of 695g (EVE = 0.19). Almost all of it came from post-holes or tree-throws, along with a few small pits. All the assemblages were quite small, comprising no more than a

handful of sherds, although as the mean sherd weight (15.8g) suggests, some are quite large. No decorated sherds were noted.

Discussion

B.9.21 The paucity of decorated sherds from this site suggests that the bulk of the activity dates to the 7th century, although the few decorated sherds from SFB **373** shows that there was an Anglo-Saxon presence here in the 6th century. The complete lack of certifiably Middle Saxon material such as Maxey-type Ware and Ipswich Ware, despite them being present in at Langham Road and Burystead in Raunds (Blinkhorn 2009) some 600m to the east of this site, indicates that it did not continue into the late 7th-8th centuries. This all suggests that the early Anglo-Saxon activity at this site lasted from the 6th-late 7th/early 8th century, with all the features likely to date to the 7th century other than SFB **373**.

B.9.22 The range of fabrics and the decorated sherds from here are very similar to those from the Furnells Manor site, some 500m to the east. There, just fifteen decorated sherds, most of them stamped, were noted in an assemblage of over 11,000 sherds. Ipswich and Maxey Wares were similarly absent (Pearson 2009), indicating a date range of the 6th-7th century for the material. The few decorated sherds of Early Saxon pottery from Langham Road and Burystead are also mostly stamped, suggesting a similar date. It seems that the activity at this site is almost certainly contemporary with that at Furnells, and of similar duration, and also the early phases of Langham Road and Burystead. This suggests that the features represent an outlier of what appears to have been a very large settlement. Here, all the assemblages had a fairly similar make-up in terms of the fabric occurrence, with fabrics F1 and F2 dominating. This further enhances the suggestion that the settlement was relatively short-lived. At Langham Road and Burystead, there was a distinct shift over time in the occurrence of different fabric types (Blinkhorn 1997).

B.9.23 As noted above, the only feature which produced decorated early Anglo-Saxon pottery was SFB **373**, which produced sherd from two different stamped vessels (Fig. 29b, nos. 7-9). This suggests this building may have fallen from use earlier than the others, but all the pottery from the SFBs appears to be the result of secondary deposition, indicating that they were probably deliberately back-filled with material from domestic middens, and thus the pottery may reflect the date of the sources of the refuse used rather than the occupation of the structures.

B.9.24 One curious trait worthy of note was the presence of a small number of Anglo-Saxon vessels with fairly pronounced vertical wiping on the outer surface (Fig. 29a, nos. 2, 3 and 6). This is very rare on Early Anglo-Saxon vessels, which were often smoothed with a “wet-hand” self slip by the potter, and/or burnished. Vertical wiping is however very common on Iron Age pottery of the period, and given the presence of fairly large quantities of Iron Age pottery from this site, it is possible that the Anglo-Saxon potters may have been imitating the style of material which they noted when the ground was disturbed. Certainly, Anglo-Saxon imitations of Roman pottery, such as at West Stow in Suffolk (West 1985, fig. 92 no. 7), have been noted in the past.

Late Saxon and later

B.9.25 The Late Saxon and later pottery assemblage comprises 16 sherds with a total weight of 82g (EVE = 0). It was quantified using the chronology and coding system of the Northamptonshire County Ceramic Type-Series (CTS), as follows:

F100: T1(1) type St. Neots Ware, AD850-1100. 2 sherds, 5g, EVE = 0

F319: Lyveden/Stanion 'A' ware, AD1150-1400. 1 sherd, 4g, EVE = 0

F320: Lyveden/Stanion 'B' ware, AD1225-1400. 3 sherds, 8g, EVE = 0

F330: Shelly Coarseware, AD1100-1400. 1 sherd, 2g, EVE = 0

F409: Staffordshire Slipwares, AD1680-1750. 1 sherd, 3g

F413: Manganese Glazed Ware, AD1680-1750. 1 sherd, 5g

F421: Frechen Stoneware, 1550 – 1750. 1 sherd, 12g

F426: Iron-Glazed Coarsewares, c late 17th – 18th century. 1 sherd, 20g

F1000: Miscellaneous 19th and 20th century wares. 5 sherds, 23g

B.9.26 All the fabric types are well-known in the region. The sherds are all small, and likely to have been deposited during manuring or similar agricultural activity.

Illustration catalogue

1: Contexts 41 and 42. Fabric F1. Jar rim with vertical and diagonal finger-wiping on the outer surface. Uniform black fabric. SFB **55**. Period 4

2: Contexts 31 and 32. Fabric F2. Jar rim. Uniform black fabric. SFB **55**. Period 4

3: Context 29, fabric F2. Sherd from the neck and shoulder of a jar with vertical exterior wiping. Uniform black fabric. SFB **77**. Period 4

4: Contexts 229 and 231, fabric F2. Rim from a carinated bowl. Uniform black fabric with light brown patches on the outer surface. SFB **225**. Period 4

5: Context 512, fabric F2. Jar rim. Uniform black fabric. SFB **373**. Period 4.

6: Context 386, fabric F1. Jar rim, vertical wiping on the outer surface. Uniform black fabric.

7: Context 386, fabric F2. Stamped and incised body sherd. Light grey fabric with darker surfaces. Inner surface degraded. SFB **373**. Period 4.

8: Context 512, fabric F2. Stamped and incised body sherd. Light grey fabric with darker surfaces, even brown deposit on both surfaces. Inner surface degraded. SFB **373**. Period 4.

9: Context 598, fabric F2. Stamped and incised body sherd. Uniform black fabric, burnished inner surface. Solution hollow **596**. Boundary 2. Period 2.

B.10 Objects of Stone

By Sarah Percival

Introduction

B.10.1 Eight stone objects were recovered, two from the excavation and six from the watching brief (Table 18). The excavation produced an incomplete saddle quern, found in Late Bronze Age/Early Iron Age pit **382** (fill 384, SF39) and a complete Middle Saxon chalk spindlewhorl from SFB **373** (SF29). Stone objects from the watching brief comprise five roof tile fragments and a stone marble.

Object Date	*Object type*	*Petrology*	*Feature type*	*Quantity*	*Weight (g)*
Later Bronze Age/ Early Iron Age	Quern	Ferruginous sandstone	Pit 382	1	
Roman	Roof Tile	Ferruginous sandstone	Pit 725	1	122
		Micaceous sandstone		1	35
		Ferruginous sandstone	Pit 727	1	28
		Micaceous sandstone	Pit 738	2	397
Anglo-Saxon	Spindlewhorl	Chalk	SFB 373	1	38
19th century	Marble	Alabaster	Unstratified	1	6
Total				**8**	**626**

Table 18: Objects of stone

Methodology

B.10.2 A full catalogue was prepared of the total assemblage. Each piece was examined using a hand lens (x20 magnification) and the basic lithology recorded. The pieces were counted and weighed to the nearest whole gram. Type and form were observed. For saddle querns grinding surface, wear angle, thickness, secondary re-use and tooling were recorded. For rotary shape, collar width, collar depth, hopper diameter, hopper shape, hopper depth, handle attachment, handle socket height above grinding surface, handle socket angle, spindle notch and diameter of feed were recorded. Spindle material, use wear, secondary re-use and tooling were also noted. The typological variables were selected to aid identification of the chronology and form of the quern, the petrological examination was undertaken to distinguish possible imports and locate the source of supply of stone to the site. OAE curate the assemblage and archive.

Results

Later Bronze Age/Early Iron Age

B.10.3 A broken fragment representing about two thirds of a saddle quern in ferruginous sandstone was found in pit **382** which also contained Early Iron Age pottery (SF39, Fig. 30). The fragment is 190mm long and 100mm wide and has a dished grinding surface and smoothed edges and base indicating extensive use. The careful shaping and regular form of the quern suggests that it wasn't formed from an erratic boulder as some local examples such as Mallards Close, Earls Barton (Chapman & Atkins 2005, 6). Petrographic analysis (see Appendix B.10) has shown that the quern is made from sub-arkose sandstone probably collected from a local source, perhaps the quartz-rich

Northampton Sandstone Formation to the north west of Raunds (English Heritage 2011) or more locally from exposures of ironstone alongside the road below Raunds parish church (A. Chapman pers. comm.).

B.10.4 The quern is of block-shaped form similar to examples from Danebury (Laws *et al.* 1991, 396). More locally a saddle quern has been found in a pit associated with Later Bronze Age/ Early Iron Age pottery at Upton some 38km west of Raunds (Walker and Maull 2010). This saddle quern came from a small pit that produced a substantial pottery assemblage with an associated radiocarbon date that places it in the first half of the 8th century BC (Walker and Maull 2010, 16). Further examples have been found at Crick, Covert Farm (ref).

B.10.5 The Late Bronze Age quern provides evidence for secondary crop processing at the site. The context of deposition, (broken and within a pit fill) is of interest and may suggest deliberate smashing and disposal, as fragmented querns often form a component of structured deposits (Watts 2011, 341) as suggested for local examples from Upton (Walker & Maull 2010,29).

Roman

B.10.6 Five fragments of sandstone roof tile weighing 582g were collected from pits **725**, **727** and **738** (Pit Group 6).

Anglo-Saxon

B.10.7 The spindlewhorl (SF29, Fig. 30) forms part of a group of textile manufacturing items recovered from the SFBs. The chalk spindlewhorl found in SFB **373** is roughly cone-shaped with one flattened surface (Form A1 Walton Rogers 1997, fig. 806). Diameter at the base is 40mm and the central perforation has a diameter of 15mm. It is 20mm high. A single chalk spindle whorl was found in an SFB at Mucking (Hamerow 1993, fig.126, GH72, 1) and many examples have been found in York in 9th and 10th century contexts, though Walton Rogers notes that outside York dating of this form is less certain (1997, 1736). Contemporary examples from Northamptonshire include an unstratified find from Collingtree parish https://finds.org.uk/database/artefacts/record/id/79324

Modern

B.10.8 An alabaster marble, probably from an early 19th century Cobb bottle was found in unstratified surface collection.

Illustration catalogue

1: Saddle quern in sub-arkose sandstone from context 384 fill of pit **382**. SF39. Area 1. Period 2.

2: Cone-shaped chalk spindlewhorl from context 375 fill of SFB **373**. SF29. Area 1. Period 4.

B.11 Petrographic Analysis

By Patrick Quinn

Introduction and methodology

B.11.1 Petrographic analysis has been undertaken on a partial quernstone (SF39, context 384, pit **382**) of Late Bronze Age/Early Iron Age date. The aim of the analysis was to characterise the composition and geological identity of the quern stone and determine the probable source of its raw materials.

B.11.2 A small piece of the quern stone sample was removed using a diamond saw. This was polished, mounted on a glass slide and prepared as a standard 30 µm petrographic thin section at the Institute of Archaeology, University College London. The thin section was studied under the microscope and described in terms of its compositional, textural and micro-structural characteristics. The parent rock was classified using Adams et al. (1984). The likely source of the material was interpreted using geological maps and guides covering Northamptonshire and surrounding counties (*e.g.* Hains et al. 1969).

Results

B.11.3 The lithic raw material used to fashion the quern stone is a fine subarkose sandstone composed of well-sorted, equant and elongate, rounded to angular. interlocking quartz and subordinate weathered feldapar and rare elongate muscovite mica and zircon. The clasts are overgrown with interlocking sutures and the rock has almost no matrix. Very little bedding is visible in the thin sectioned sub-sample and the grains are randomly oriented. The rare white micas appear to be oriented sub-parallel to the dominant quartzes. Photomicrographs of the quern stone sample are presented in Illustration 2.

B.11.4 The site is situated on limestone bedrock of the Jurassic Blisworth Limestone Formation. Regionally this is characterised by “pale grey to off-white or yellowish limestones” (BGS Lexicon of Named Rock Units). Whilst this material has traditionally been used for construction purposes in the Raunds area (*e.g.* the Porch of St Mary’s church), it is not likely to have been the source of the quartz-rich sandstone from which the quern stone was made.

B.11.5 Sandstone layers occur in the older Rutland Formation and Northampton Sand Formation, which form the bedrock a few hundred meters to the west of the site, on the edge of the Neane Valley. The Rutland Formation is composed mainly of mudstone and siltstone, but contains fluviatile and lacustrine sandstone beds at its base. On the outskirts of Northampton, pale grey or whitish fine-grained sandstones occur within the Stamford Member of the Rutland Formation (English Heritage 2011). This rock was used for building and is known locally as the ‘Kingsthorpe White Sandstone’. Whether beds of the Kingsthorpe White Sandstone occur in the Rutland Formation as far east as Raunds is not known.

B.11.6 The Northampton Sand Formation is also a good local candidate for the source of the material used for the quern stone. This geological unit is dominated by ferruginous sandstone and ironstone with occasional muddy and calcareous layers. Sandstone from below the ironstone is used for building in the Kettering area, where it is referred to as ‘Cottingham Stone’ (English Heritage 2011).

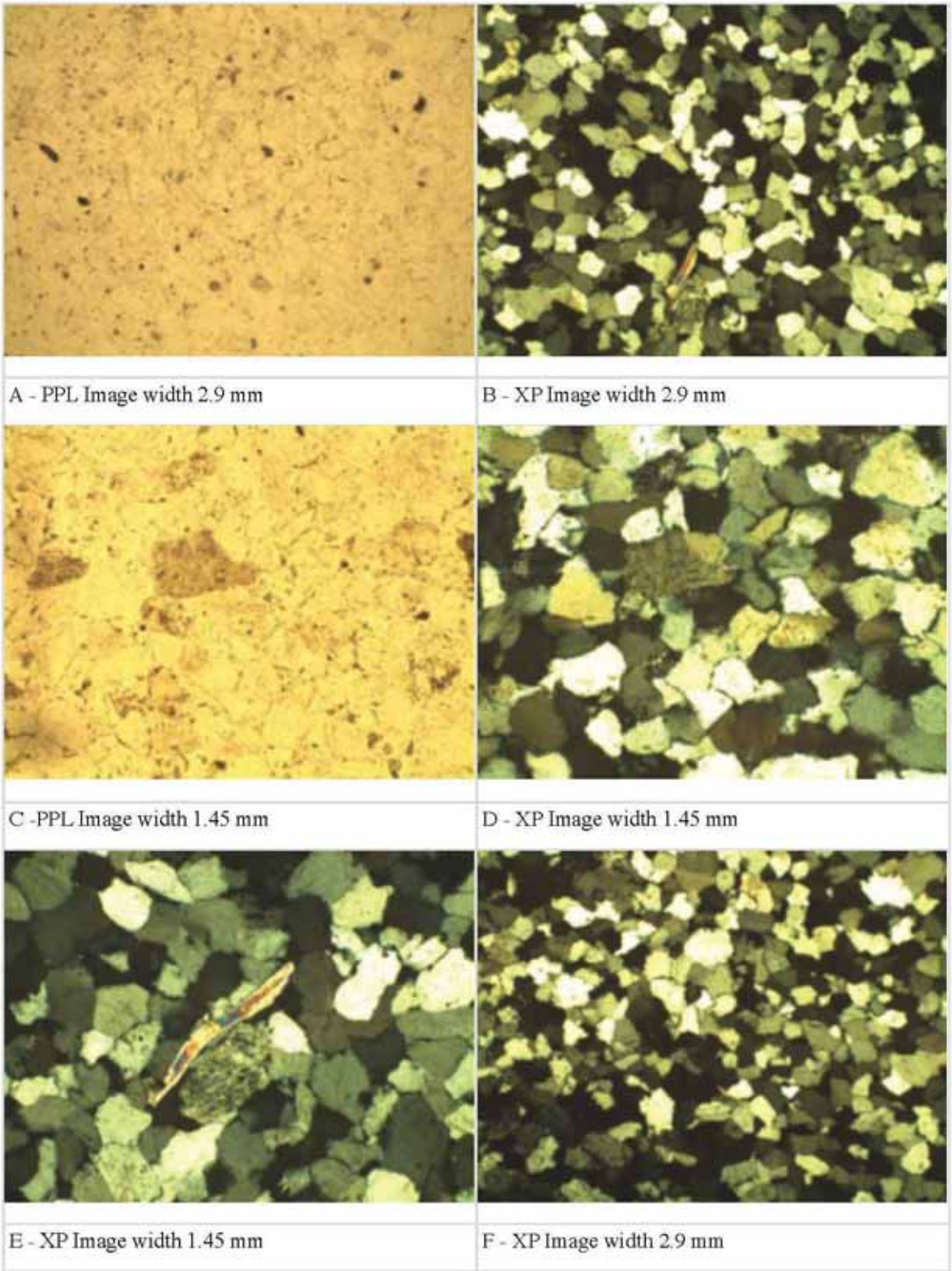


Illustration 2: Thin section photomicrographs of Late Bronze Age/Early Iron Age quernstone (PPL = plane polarised light, XP = crossed polars)

B.11.7 It is not clear whether the sandstone beds of the either the Kingsthorpe White Sandstone or Cottingham Stone match the sandstone analysed in this report without

field sampling and analysis. The Cottingham Stone can be fossilifereous (Hains et al. 1969; English Heritage 2011), unlike the quern stone sample, however, the presence of ironstone in the overlying strata suggests that non-marine, less fossiliferous sandstone also occurs in the Northampton Sand Formation. The Kingsthorpe White Sandstone was deposited in swampy conditions and appears to be less calcareous. However, its light colour may rule it out as a source of the quern material, which contains appreciable iron. Sandstone layers can occur in the The Whitby Mudstone, which underlays the floor of the Neane Valley near Raunds, but these are calcareous.

B.11.8 Superficial glacial deposits cover much of the bedrock in the Raunds area. These include the Oatby Till Member and the Bozeat Till. These are composed of clasts of Jurassic and Cretaceous age which may contain sandstone. It is possible that a large clast or erratic boulder from such deposits was used as a raw material for the quern stone. Whether large enough material is present in these till deposits is not clear.

Conclusion

B.11.9 Given the presence in the Raunds area of several Jurassic units with sandstone strata and the extraction of this for building stone, it is likely that the sub-arkose sandstone used to fashion the quern stone analysed from Warth Park in this study had a local source. The marine character of the Jurassic strata may be at odds with this interpretation due to the likely presence of calcite and fossils in much of the bedrock. However, non-calcareous sandstone is likely to occur in some of the sandy non-marine or near-shore deposits. Alternatively, sandstone of other types may occur in the superficial glacial material, though this is less likely.

B.12 Objects of Baked Clay

By Sarah Percival

Introduction

B.12.1 A total of 95 fragments weighing 3,735g were recovered from nine excavated features and from natural deposit 730. Fragments from four cylindrical loomweights from pit **578** (Pit Group 4) are of Late Bronze Age/Early Iron Age date (Table 19). The assemblage comprises one complete spindle whorl and two complete Middle Saxon annular loomweights plus fragments from up to eight others found in the fills of SFBs **225**, **373** and **700** and tree throw 730.

Object date	*Type*	*Fabric*	*Quantity*	*Weight (g)*	*No. of objects*	*Feature*
Late Bronze Age /Earlier Iron Age	Loomweight	Blocky friable clay low fired or unfired	46	1628	2	Pit 578
		Dense silty clay occasional rounded quartz gravel	16	791	2	Pit 578
Saxon	Loomweight	Hard fired orange sandy with quartz	2	25	1	SFB 225
			10	186	1	SFB 700
		Hard fired orange sandy with quartz elongated voids	2	135	2	SFB 225
			1	122	1	Structure 373
			13	324	1	SFB 700
		Hard fired orange sandy with quartz and sparse big angular flint pieces	2	150		Tree trhrow 730
		Hard fired orange sandy with quartz and sparse rounded and sub rounded voids	2	365	2	SFB 700
	Spindle whorl	Hard fired orange sandy with quartz	1	9		SFB 55
Total			**95**	**3735**	**12**	

Table 19: Baked clay objects by fabric and feature

Methodology

B.12.2 The complete assemblage was analysed and the baked clay recorded by context, grouped by object type, form and fabric, and counted and weighed to the nearest whole gram. Diameter, width and height of objects were noted where complete measurements were available. Fabrics were identified following examination using a x10 hand lens and are classified by major inclusion present. Examples of diagnostic forms within each class were selected for illustration.

Results

Later Bronze Age/Early Iron Age loomweights

B.12.3 A total of 62 pieces of baked clay weighing 2,419g were recovered from the fill of pit **578** (in Pit Group 4) which also contained Late Bronze Age/Early Iron Age pottery (see Appendix B.7). The pieces are made of two fabrics (Table 19) and are poorly mixed and low fired, producing highly friable objects. The surfaces are well finished and several fragments are pierced vertically through the centre for suspension, the diameter of the perforation is 22mm. The fragments were too broken up to allow other dimensions to be recorded.

B.12.4 Cylindrical loomweights were introduced from the Early Bronze Age and continued to be used until the 9th-8th centuries cal BC (Powell *et al*., forthcoming). Local examples include Crick, Covert Farm where cylindrical weights were found in a pit alongside a deposit of flax seed which produced a radiocarbon date of *c*.1426-1281 cal. BC (Hughes & Woodward 2015). A Bronze Age weight was also found at Fengate (Pryor 1980, fig.13, 4 & 5), whilst elsewhere Later Bronze Age cylindrical weights have been found at Black Patch, Sussex (Drewett 1982, 371 and fig. 34), Aldermaston (Bradley *et al* 1980, fig.19.5) and Yarnton (Barclay and Edwards 2011).

Anglo-Saxon loomweights

B.12.5 Two complete annular loomweights weighing 566g (SF1006 and 1007, Fig. 31) and thirty fragments weighing 741g from a further six low-fired, annular loomweights were recovered from SFBs **225**, **373** and **700** (Table 20). The weights are made of four fabrics all sandy, one with visible, rounded quartz grains, one with elongated voids indicative of organic temper such as chopped grass, one with sparse flint inclusions and one with sub-rounded voids.

B.12.6 One of the complete weights has a diameter of 95mm and central perforation of 34mm with wall thickness of 35mm and the second has a 107mm diameter, central perforation of 36mm and wall thickness of 34mm. The annular form of the weights, which have a diameter at the central perforation equal of greater than that of the surrounding clay ring, suggests an earlier Saxon date, perhaps 5th and 6th century (Hamerow 1993, 66).

Anglo-Saxon spindlewhorl

B.12.7 An incomplete spindlewhorl weighing 9g was found in the fill of SFB **55** (SF12, Fig. 31). The disc-shaped whorl is made of silty fabric with a few visible organic inclusions. It is 39mm high and has a radius of 12mm to the central perforation, which has a diameter of *c.*13mm. The edges of the whorl are damaged but may be rounded (Hamerow 1993, 65). Similar examples have been found in Early Saxon buildings at Mucking (Hamerow 1993, fig.82, GH1).

Illustration catalogue

1: Annular loomweight in hard fired orange sandy fabric with quartz and sparse rounded and sub rounded voids. SF1006. Context 709, SFB **700**. Area C. Period 4.

2: Annular loomweight in hard fired orange sandy fabric with quartz and sparse rounded and sub rounded voids. SF1007. Context 710, SFB **700**. Area C. Period 4.

3: Annular spindle whorl in hard fired orange sandy fabric with quartz. SF12. Context 42, SFB **55**. Area 1. Period 4.

Feature type	Feature	Complete	Fabric	Dimensions	Quantity	Weight (g)	Count
SFB	225	Incomplete	Hard fired orange sandy with quartz		2	25	1
			Hard fired orange sandy with quartz elongated voids		2	135	2
	373	Incomplete	Hard fired orange sandy with quartz elongated voids		1	122	1
	700	Complete	Hard fired orange sandy with quartz elongated voids	Diameter 107mm, central perforation 36mm, thickness 35mm	1	301	1
			Hard fired orange sandy with quartz and sparse rounded and sub rounded voids	Diameter 95mm, central perforation 34mm, thickness 35mm	1	265	1
		Incomplete	Hard fired orange sandy with quartz	Thickness 37mm	1	167	1
					9	19	
			Hard fired orange sandy with quartz elongated voids		12	23	
			Hard fired orange sandy with quartz and sparse rounded and sub rounded voids	Thickness 35mm	1	100	1
Tree throw	730	Incomplete	Hard fired orange sandy with quartz and sparse big angular flint pieces	32mm	2	150	
Total					**32**	**1307**	**8**

Table 20: Anglo-Saxon annular loomweights by feature

B.13 Baked and Unbaked Clay

By Sarah Percival

Introduction and methodology

B.13.1 A total of 201 pieces of clay weighing 2,959g were collected. Of these 172 fragments weighing 2,470g were collected from the excavation and a further 29 pieces weighing 489g from the watching brief.

B.13.2 The excavation assemblage comprised a total of 81 pieces weighing 333g are from contexts which also produced Late Bronze Age/Early Iron Age pottery. Ninety one pieces weighing 2,137g are from SFBs and a single Saxon pit. Within the Saxon assemblage 16 pieces weighing 974g are unbaked but do not appear to represent unfired objects and may be stored building or lining material.

B.13.3 The watching brief produced two shell tempered pieces which may be from a large Roman pottery jar and 27 undated pieces in poorly baked and unbaked fabrics. Most of the assemblage is poorly fired and crumbly.

B.13.4 The complete assemblage was analysed and the baked clay recorded by context, grouped by form and fabric, and counted and weighed to the nearest whole gram. Diameter of withy or round wood impressions was noted where available. Surface treatment and impressions were recorded along with the form and number of surviving surfaces. Fabrics were identified following examination using a x10 hand lens and are classified by major inclusion present. The archive is held by OAE.

Results

Later Bronze Age/Early Iron Age

B.13.5 Baked clay was recovered from nine later prehistoric pits, one post-hole and the fill of a ditch (Table 21).

B.13.6 Function of the majority of the pieces is uncertain as they have no surviving surfaces, however four fragments, 15g, have one flat surface suggesting that they may be structural. One large fragment from pit **578** (Pit Group 4) has one flattened surface and an opposing surface with impressions from a wattle hurdle or former indicating that it once form part of a structure (SF60). This large structural fragment is made of poorly mixed clay with moderate shell and chalk inclusions. It is likely that this calcareous clay is local to the site and was utilised *ad hoc* to form the walls of structures. Similar deposits of daub have been noted locally in redeposited contexts at Upton (Walker and Maul 2010, 29).

B.13.7 A variety of further fabrics were identified, most in sandy clay with a range of inclusions, some probably naturally occurring such as chalk, shell and clay pellets, some deliberately added such as chopped grass or chaff and grog (Table 22).

Date	Feature type	Feature	Form	Quantity	Weight (g)
Iron Age	Ditch	339	Miscellaneous	1	2
	Pit	107	Miscellaneous	12	43
		139	Miscellaneous	4	6
		206	Lining	2	22
			Miscellaneous	51	60
		240	Miscellaneous	1	23
		353	Miscellaneous	1	1
		382	Miscellaneous	3	3
		578	lining	1	152
		637	Miscellaneous	1	15
		647	Miscellaneous	2	2
	Post hole	430	Miscellaneous	1	1
	Spread		Miscellaneous	1	3
Total				**81**	**333**

Table 21: Later prehistoric baked clay by feature and form

Fabric	Quantity	Weight (g)
Dense orange fabric moderate medium to large angular fossil shell	2	22
Dense orange sandy	2	2
Dense orange sandy fabric with common angular chalk	1	2
Dense orange sandy, sparse clay pellets inclusions, rare chalk	51	60
Dense silty grey fabric no visible inclusions	3	3
Dense silty grey fabric sparse elongated voids	2	16
Dense silty grey fabric with shell inclusions	12	40
poorly mixed with shell and chalk	1	152
Soft orange fabric with red and buff clay pellets and common plate like voids	5	34
Soft orange fabric with red grog and common plate like voids	2	2
Total	**81**	**333**

Table 22: Quantity and weight of Later prehistoric baked clay by fabric

Roman

B.13.8 During the watching brief, Roman features produced 29 fragments of baked clay weighing 489g. These included five fragments 75g from pit **717** (Pit Group 6)

comprising two fragments 23g of shell-tempered ware and three pieces, 52g of daub with wattle impressions. Pit **727** (Pit Group 6) also produced a single miscellaneous fragment weighing 32g.

Anglo-Saxon

B.13.9 Baked and unbaked clay was collected from six Saxon contexts (Table 23). The largest assemblage came from SFB **373** which included 39 pieces, 768g, with vitrified surfaces suggesting that they had been subjected to intense heat. This suggests that they were used as hearth lining or perhaps associated with a high heat process such as metal working. A quantity of smithing slag was also recovered from SFB **373**.

Feature type	*Feature*	*Form*	*Quantity*	*Weight (g)*
Pit	276	Miscellaneous	1	1
SFB	55	Miscellaneous	10	879
	77	Miscellaneous	3	40
	225	Miscellaneous	10	87
	373	Hearth lining	39	768
		Lining	24	317
		Miscellaneous	4	45
	700	Miscellaneous	23	382
Total			**91**	**2219**

Table 23: Quantity weight and form of baked clay from Anglo-Saxon features

Fabric	*Quantity*	*Weight (g)*
Dark brown sandy with sparse shell and quartz	1	7
Dense orange fabric with medium to large angular fossil shell	15	400
Dense orange fabric moderate sand rare large chalk	8	180
Dense orange sandy	1	3
Dense orange sandy fabric with common angular chalk	1	2
Dense orange sandy fabric with common voids	2	5
Dense orange sandy sparse ferrous inclusions rare chalk	24	299
Dense silty grey fabric sparse elongated voids	17	216
Dense silty orange fabric no visible inclusions	1	1
Poorly mixed sandy orange fabric with shell and chalk	1	5
Soft orange fabric with red grog occasional flint	4	45
Unfired clay with moderate medium angular chalk	6	73
Unfired sandy clay with moderated medium angular chalk	10	901
Total	**91**	**2137**

Table 24: Quantity and weight of Anglo-Saxon baked clay by fabric

B.13.10 Fabrics are sandy with a range of inclusions, including shell, chalk and flint. Elongated voids typical of added organic material are also present. (Table 24). The range of fabrics suggests that local clay sources were being utilised for use in buildings, ovens and hearth linings.

B.14 Ceramic Building Material

By Sarah Percival

Introduction and methodology

B.14.1 A small assemblage of ten pieces of ceramic building material weighing 817g was collected. The assemblage comprises a small quantity of Roman tile including undiagnostic pieces and a fragment of *imbrex* and seven post medieval roof tile fragments.

B.14.2 The assemblage was quantified by context by fabric and form and counted and weighed to the nearest whole gram. Fabrics were examined using a x20 hand lens and were described by main inclusions present. Width, length and thickness were recorded.

Results

Roman

B.14.3 Three fragments in red sandy fabric with chalk and grog inclusions are of Roman date (Table 25). These include an abraded, curved fragment of *imbrex*. The remainder of the assemblage is not identifiable to form.

B.14.4 All the Roman CBM was recovered from the fills of Saxon SFBs **55** and **373**. Roman building material is often found locally in Saxon churches, for example Brixworth (Watkins, 1867, 34) and occasionally in Saxon sunken-featured buildings, such as at Kilverstone, Norfolk (Garrow *et al,* 2006, table 5.2).

Date	*Fabric*	*Quantity*	*Weight (g)*
Roman	Dense orange poorly mixed blocky fabric with numerous voids, sparse small to medium chalk, sparse red clay pellets, sparse pink grog >10mm.	3	186
Total		**3**	**186**

Table 25: Quantity of Roman CBM by fabric

Post-medieval

B.14.5 A total of seven pieces of post-medieval roof tile weighing 631g was recovered from the fills of ditches 302 and 328. The fragments are made of two fabrics (Table 26) and are of 20th century date.

Date	*Fabric*	*Quantity*	*Weight (g)*
Post-medieval	Dense orange sandy fabric with dark grey reduced core, rare red clay pellets, rare, rounded ferrous inclusions.	3	105
	Orange sandy fabric dark grey reduced core, speckled through with small angular chalk pieces. Some voids in surface	4	526
Total		**7**	**631**

Table 26: Quantity of post-medieval CBM by fabric

B.15 Worked Bone

By Chris Howard-Davis

Combs

B.15.1 Parts of two combs (1 and 2, Fig. 32) were recovered from fill 29 within SFB **77** and fill 508 within SFB **373**. Both are from composite double-sided combs with undifferentiated teeth and (probably) plain end plates, and are most likely to fall into Ashby's type 11 or type 12 (2011). Comb 1 is only represented by a small fragment of side plate, and as the teeth are lost, its identification cannot be refined beyond noting that at five per 10mm in both sides, the undifferentiated teeth are relatively coarse. The fragments of comb 2 can be reassembled to suggest a comb slightly in excess of 120mm in length, and as a detached part of a partly uncut tooth plate has been identified, it would seem most likely to fall into Ashby's type 11.

B.15.2 Both comb types were in common use from the 6th to the 8th centuries AD, with evidence increasingly suggesting that type 12 persisted in use into the 9th century. Crummy (1988, 23) suggests that combs with a total length of less than *c.* 180mm are, as a rule of thumb, earlier than the mid-7th century, and this example is comparable with several of those from West Stow (see, for instance West 1985, fig 49, nos 1 and 3). The lack of decoration and the slightly tapered ends of the side plates, however, are both regarded by Foreman (2009) as characteristics typical of Middle Saxon combs, and can be seen in the large assemblage from Flixborough, dated from the late 7th to mid-late 9th centuries AD. As a result the dating must remain broad.

B.15.3 Objects 3 and 4 are single detached teeth from similar combs. Both are in considerably better condition than the larger items, despite one of them (4) coming, like No. 2, from SFB **373**, which might suggest that they are parts of the same comb. Both show a series of fine, irregular grooves, which have been interpreted as evidence of wear.

1 Fragmentary comb side plate from double-sided composite, comb. One original end survives in part (indicated by the lack of teeth cuts along its edge). Probably antler, with cancellous tissue visible to rear. The first rivet hole is c 8mm from the original terminal, the second c 20mm further on, and the third at c 23.5mm (between centres). Teeth cuts suggest five teeth per 10mm on both sides of the comb.
L: 72.5mm: W: 12mm; Th: 3mm
XNNWAR13, 29, SF66 fill of SFB **77**. Area 1. Period 4

2 Ten joining fragments of composite double-sided comb, comprising riveted plano-convex side plates and very small fragments from tooth plates. The side plates taper towards squared ends (from c 14mm in the centre to c 11mm at the end), but only a small part of one original terminal survives. At least six iron rivets survive but are in very poor condition, the diameter of the best-preserved being c 2.5mm. The first rivet hole is c 7mm from the original end, the second c 15mm further on, the third at c 20mm, the fourth at c 22mm; the fifth at c 21mm, and the sixth at c 19mm (between centres). As is common, the teeth were cut after the comb was assembled, leaving shallow cuts on the plates. These suggest five teeth per 10mm on each side of the comb. A small, uncut fragment from a comb plate presumably comes from close to the end of the comb. The surviving surfaces are in very poor condition, but do not appear decorated. One small fragment, probably from the end of one side plate, has a good polish, presumably reflecting the original finish of the comb.
L: 115mm: W: 20mm; Th: 11.5mm
XNNWAR13, 508, SF42, fill of SFB **373**. Area 1. Period 4

3 Single tooth from a bone comb. Narrow edges crossed by several very narrow

parallel grooves, presumably wear.
L: 17.5mm; W: 2.5mm; Th: 1.25mm
XNNWAR13, 78, SF83 (from sample 23), fill of posthole **79** in SFB **77**. Area 1. Period 4

4 Single tooth from a bone comb. Narrow edges crossed by several very narrow parallel grooves, presumably from wear.
L: 14mm; W: 2mm; Th: 1.5mm
XNNWAR13, 375, SF82 (from sample 77), fill of SFB **373**. Area 1. Period 4

Pins and points

B.15.4 Pin 5 is difficult to date with any precision. It does not fall easily into the typology of Romano-British bone pins (Crummy 1979), although in size, if not the shape of its head, it is akin to late Roman jet examples from, for example, Colchester, (Crummy 1983). MacGregor (1985, 117) suggests that small spherical-headed pins, of which this could seen as a poorly executed example, persist until the Norman period. It bears some resemblance, both having a rectangular cross-section at the head, to a spatulate example from Flixborough (Rogers 2009, fig 128), which has been dated to the Middle Saxon period. Alternatively, it could be seen as a very poorly executed example of a 'cheese-headed' pin, a type which it is thought appear *c.* AD 600 (Greep 1995, 1145, fig 504), although it lacks the characteristic (hipped) expansion close to the point. Alternatively its robust nature might suggest a different use, perhaps as a tuning peg for a stringed instrument, although it lacks the groove or perforation often seen in such objects.

B.15.5 Object 6 is clearly the point and shaft of a pin or possibly a needle, flaring towards the damaged head. Its generally poor condition limits further identification, but a perforated pin of the type made from a pig ulna, a common Anglo-Saxon type, is not impossible.

5 Short pin or peg. Fair condition, complete. Clumsily-made, with irregularly faceted sides and a sub-rectangular head defined by a single shallow groove. Possibly cut from a long bone splinter. The cross-section of the shaft changes from a rounded rectangle close to the head to circular in the centre, before tapering to a sharp point.
L: 56.5mm; W: 9mm; Th: 4.5mm
XNNWAR13, 32, SF5, fill of SFB **55**. Area 1. Period 4

6 Pin or needle with mainly rectangular cross-section, rounded and polished at the point, the other end flattened. Poor condition, incomplete, surfaces eroded.
L: 69mm: W: 5.5mm; Th: 3.5mm
XNNWAR13, 265, SF22, fill of posthole **264** in SFB **259**. Area 1. Period 4

Textile production

B.15.6 Object 7 is a typical double-ended pin beater, used in weaving on a warp-weighted loom (Rogers 1997, 1755). These are common finds in the Early and Middle Saxon periods (McGregor 1985, 188-9; Walton Rogers 1997; Owen-Crocker 2011) but they are also known from Roman sites (Greep 1996). Whilst they would not be out of place in a domestic context at either date, they seem to have been more widely used in the Anglo-Saxon period. They disappear in the mid-9th century, at about the same time as the warp-weighted loom (Walton Rogers 1997, 1755).

B.15.7 Item 8 is an example of a single-ended beater. MacGregor (1985, 189) suggests that these might have been either a more general-purpose tool than the double-ended types, or were, in contrast, used for a specific purpose, but Walton Rogers (ibid) links their appearance to a change in weaving technology and the appearance of the two-beam loom, in the mid-9th century. They stay in common use into the 13th or 14th

centuries. Both are from SFB **55**, perhaps suggesting some textile production within this structure.

7 Typically 'cigar-shaped' double-ended pin beater, probably made from antler. In poor condition, with one end missing, and the other damaged.
L: 76mm; W: 12mm; Th: 7.5mm
XNNWAR13, 42, SF74, fill of SFB **55**. Area 1. Period 4

8 Single ended bone pin-beater in fair condition, but with the surfaces eroded. The wider end is roughly rounded with cancellous tissue visible, suggesting that it has been cut from a limb bone (MacGregor 1985, 189). The point is well-formed and polished. Good condition.
L: 89mm; W: 13mm; Th: 12.5mm
XNNWAR13, 43, SF6, fill of SFB **55**. Area 1. Period 4

Other

B.15.8 Object 9 is a relatively small, badly eroded, but largely complete point, or awl made from a largely unmodified bone. As such simple objects were in use for a very long time, it remains undated. Object 10 seems most likely to be an off-cut generated by antler-working.

9 Small point or awl. Surface very poorly preserved.
L: 69mm: W: 18mm
XNNWAR13, 41, SF68, fill of SFB **55**. Area 1. Period 4

Manufacturing waste

10 Small rectangular fragment of antler, original surfaces surviving. There are several deep cuts, and the ends are bevelled. Purpose not obvious, but possibly manufacturing waste. Fair condition, incomplete.
L: 24mm; W: 16.5mm; Th: 15mm
XNNWAR13, 386, SF38, fill of SFB **373**. Area 1. Period 4

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Human Skeletal Remains

By Zoë Ui Choileáin

C.1.1 A single fragment (weighing 0.002kg) of occipital cranium was recovered from the basal fill (375) of SFB **373**. The fragment was determined to be adult based on general size and robustness. The condition of the bone represented grade two on the McKinley scale (McKinley 2004, 11). No other human remains were found on the site and no further information can be extrapolated.

C.1.2 Faunal Remains

By Lena Strid

Introduction

C.1.3 The animal bone assemblage consists of approximately 6000 fragments (19.729kg) from layers and features dating from the Late Neolithic to the modern period, although the bulk of the assemblage is Early-Middle Saxon. The entire Anglo-Saxon assemblage and bones from a selection of Late Bronze Age/Early Iron Age pits has been fully recorded and is discussed in this report. Information on the smaller assemblages from the Neolithic and Roman features is summarised, with more detailed information provided in the PXA report (Strid 2014).

C.1.4 A full record of the assemblage, documented in a Microsoft Access database, can be found in the site archive.

Methodology

C.1.5 The bones were identified at Oxford Archaeology using a comparative skeletal reference collection in addition to standard osteological identification manuals. All animal remains were counted and weighed, and where possible identified to species, element, side and zone. For zoning, Serjeantson (1996) and the mandible zoning system by Worley (Strid 2012) were used. Sheep and goat were identified to species were possible, using Boessneck *et al*. (1964) and Prummel and Frisch (1986) but were otherwise classified as 'sheep/goat'. Long bone fragments, ribs and vertebrae, with the exception for atlas and axis, were classified by size: 'large mammal' representing cattle, horse and deer, 'medium mammal' representing sheep/goat, pig and large dog, 'small mammal' representing small dog, cat and hare, and 'microfauna' representing animals such as frog, rat and mice.

C.1.6 The general condition of the bones was graded on a 6-point system: Grade 0 equating to very well preserved bone, and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable (Table 27).

Grade 0	Excellent preservation. Entire bone surface complete.
Grade 1	Good preservation. Almost all bone surface complete.
Grade 2	Fair preservation
Grade 3	Poor preservation. Most bone surface destroyed.
Grade 4	Very poor preservation. No surface structure remaining.
Grade 5	Extremely poor preservation. Unlikely to be able to identify element.

Table 27: Bone preservation grading methodology

C.1.7 For ageing, Habermehl's (1975) data on epiphyseal fusion was used. Tooth wear was recorded using Grant's tooth wear stages (Grant 1982) and correlated with tooth eruption (Habermehl 1975). In order to estimate an age for the animals, the methods of Halstead (1985), Payne (1973) and O'Connor (1988) were used for cattle, sheep/goat and pig respectively. Sexable elements, i.e. cattle and sheep/goat pelves, sheep horn cores, pig canine teeth and deer antlers, were recorded using data from Boessneck et al (1964), Hatting (1983), Prummel and Frisch (1986) and Schmid (1972). Measurements were taken according to von den Driesch (1976), using digital callipers with an accuracy of 0.01mm. Large bones were measured using an osteometric board, with an accuracy of 1mm. Withers height was calculated from May (1985).

Results

C.1.8 The condition of the Late Iron Age/Early Bronze Age bone was varied but generally fair. The majority of the better preserved bones came from an articulated pig skeleton from pit **382** (Area 1, Period 2); disarticulated remains were in poorer condition. In comparison, the Early-Middle Saxon bone was in very poor condition (Table 28). Gnawed bones were rare, but gnawing may well have been obscured because of the poor condition of many of the bones. Burning, ranging from partially charred to fully calcined fragments, was evident on seven Late Bronze Age/Early Iron Age bones and 40 from the Early-Middle Saxon period.

C.1.9 Of the 3580 fragments included in the analysis, 816 (22.8%) could be determined to taxon (Table 29). The identified animals included cattle, sheep, goat, pig, horse, dog, red deer, roe deer, hare/rabbit, domestic fowl and frog.

	N	*0*	*1*	*2*	*3*	*4*	*5*	*Gnawed fragments*	*Burnt fragments*
LBA/EIA	864	0.1%	4.9%	49.7%	21.5%	23.8%		5	7
LBA/EIA excl. pig	531	0.2%	4.0%	22.4%	34.8%	38.6%			
E-MS	2716	0.3%	2.5%	12.7%	16.8%	67.8%		21	40

Table 28: Preservation level for bones, including number of gnawed and burnt bones

	Late Bronze Age/Early Iron Age	*Early-Middle Saxon*
Cattle	11 (1)	138 (5)
Sheep/goat	45 (2)	136 (10)
Sheep	3	4
Goat		4 (1)
Pig	343* (2)	100 (3)
Horse	10** (2)	6 (1)
Dog	1 (1)	1 (1)
Canid		1 (1)
Red deer		6 (1)
Roe deer	1 (1)	
Hare/rabbit		1 (1)
Domestic fowl		5 (1)
Indet. bird		8
Frog	1 (1)	
Medium mammal	117	603
Large mammal	35	382
Indeterminate	297	1,321
TOTAL	**864**	**2,716**
Total weight (g)	**4,120**	**11,049**

Table 29: Number of identified fragments per species (: including 333 fragments from a pig skeleton. **: including four bones from a semi-articulate horse skeleton)*

Late Neolithic

C.1.10 The Late Neolithic assemblage came from the fills of three small pits and pig was the most commonly identified animal, although almost all the fragments came from context 37 within pit **38**. Single bones of cattle and small mustelid were also present in these features. The small sample size precludes any discussion of animal husbandry for this period.

Late Bronze Age/Early Iron Age assemblage

C.1.11 The recorded Late Bronze Age/Early Iron Age assemblage came from pits **107**, **139** and **148** of Pit Group 1. Pit **279** and **360** of Pit Group 2. Pit **346** of Pit Group 3 and large pit **382**. The selection of these features for analysis was made on criteria including number of speciable fragments, ageable or measurable elements and/or the presence of articulated remains or 'special deposits'.

C.1.12 Excluding an articulated pig skeleton in pit **382**, discussed further below, sheep/goat is the most numerous animal in the assemblage by fragment count. However, when using Minimum Number of Individuals (MNI) there is almost no difference in abundance between the four main domesticates. Both of these quantification methods have well established limitations and it is not clear which provides the more accurate representation of the original herd structure as the sample size is small – secure inter-species comparisons requires a minimum of 300 fragments or 30 MNI (Hambleton 1999, 39-40). Consequently any discussion of husbandry for this period is of necessity tentative.

C.1.13 While most of the faunal remains come from domesticates, fragments of a roe deer antler and a lagomorph tibia suggest that hunting may have taken place around the settlement. However, if the antler was shed it might have been collected in the fields or

woods and brought to the settlement as a raw material for antler working. Since rabbits were first introduced in Britain in the Roman period (Sykes and Curl 2010, 119-120), the tibia is likely to be hare, unless intrusive.

C.1.14 Bones suitable for ageing and measuring were few and the data has been summarised in Tables 30-32. Sheep/goat were evidently slaughtered at a wide range of ages, as would be expected for animals kept for multiple products, including young surplus animals killed for their meat and adult animals kept for secondary products such as dairy and wool as well as for breeding. Too few ageable battle bones were present to provide useful information about cattle husbandry strategies, but these animals were probably also kept for both meat and secondary products. Sexable bones include one female cattle pelvis, one female sheep/goat pelvis, one male and one female pig skull. A withers' height of 134.6cm could be calculated from measurements on a horse metatarsal.

C.1.15 The only evidence for butchery was a cattle mandible with a horizontal chop mark on the lateral side below the articulate process and cut marks on the medial side of the coronoid process. These may have originated from disarticulation and filleting of meat from the mandible.

C.1.16 Articulated animals deposited in pits and ditches are known from many Iron Age, Roman, Anglo-Saxon and medieval sites (cf Morris 2011). Such depositions may have had special significance rather than merely represent deposit of a natural mortality deemed unsuitable for consumption. Special animal deposits are usually typified by unusual placement, for example at the base of pits and wells, and by body parts which differ from normal food waste by species and age group composition (Fulford 2001; Hill 1995; Wilson 1992, 342-345). A find of an articulated pig in the bottom fill of pit **382** may be a 'special deposit'. The pig skeleton is mostly complete, only missing the right patella and the metapodials and phalanges of the right forelimb. The first molar was in wear (wear stage e) and the second molar was unerupted, suggesting that the pig was between 6 months and one year old. No butchery marks or gnaw marks were found, and the fair condition of the bones suggest that if any such marks were present, they would have been noted. While deposition of an animal that died of sudden disease cannot be excluded, the placement at the bottom of the pit and absence of any butchery marks or gnaw marks suggest that this is probably a deposit that may have had some ritual significance.

Romano-British

C.1.17 The Roman assemblage came from a number of pit and posthole fills in Area C and includes bones from cattle, sheep/goat, pig and horse. As with the Neolithic assemblage, the small sample size limits any discussion of animal husbandry. However, these animals are common components of Roman bone assemblages.

Early-Middle Saxon assemblage

C.1.18 The Early-Middle Saxon assemblage comes almost exclusively from sunken-featured buildings (SFB). While there is great variation in species abundance between the SFBs (Table 33), as a whole the site is dominated by sheep/goat bones, both when using fragment count and Minimum Number of Individuals (Table 29). The latter method greatly increases the relative abundance of sheep/goat in relation to cattle, but it is unclear whether this reflects a more accurate representation of the living herds or whether it is merely a reflection of the methodology, larger bones breaking into fewer identifiable fragments.

4.6.2 Cattle dental ageing data was very limited (Table 20), but epiphyseal fusion data suggest that most were killed as adults or sub-adults (Table 31). In contrast, the much larger dataset for sheep/goat show a wide range of slaughter ages, from young lambs to old adults (Tables 30-31). Despite this apparent difference between the two animals, they would probably have been kept in a similar way: a large part of the herds retained into adulthood to provide secondary products such as dairy, wool and power for traction, as well as for breeding purposes. Young cattle and sheep/goats that were not needed to replenish older animals past their prime, would have been raised for meat and slaughtered when either they reached their full growth or at their first winter, depending on the amount of fodder available for overwintering. The dataset for pigs suggests that with exception of some breeding animals, they were kept for meat and slaughtered young (Table 30-31).

C.1.19 Sexing data was only available for sheep/goat (one ram skull, one pelvis each from female, castrate and indeterminate male) and pig (four male mandibular canines, one female mandibular canine and two female maxillary canines). Measurements were likewise few, but have been summarised in Table 32, in order to facilitate future research.

C.1.20 Butchery marks were found on bones from cattle, sheep/goat, pig, medium and large mammal. They include evidence of axial division of the carcass, disarticulation of the lower leg with a knife, severing of the ilium with a cleaver to remove the hind limb, and portioning of ribs as well as hip and elbow joints with cleavers. Filleting was indicated by cut marks on a medium mammal rib and a sheep/goat femur shaft. A cattle radius had been split axially, possibly to facilitate removal or marrow or to portion the cut for cooking. Cut marks on the anterior side of a cattle first phalanx suggest skinning. Evidence of horn working is found on a cattle horn core with a saw-mark on the middle of the horn core and on a goat horn core which had been chopped off the skull. A cattle metacarpal had a perforation (8.5×11.8mm) in the middle of the medial part of the proximal joint. The purpose for this modification is unknown. Similar finds have been noted from London where they were found on early post-medieval leather working sites (Yeomans 2006, 152). The presence of one shed red deer antler suggest that antler working took place at the site.

Phase	Species	dp4	M1	M2	M3	MWS	Estimated age
LBA/EIA	Sheep/goat	f				4-12	2-12 months
		h				9-24	6 mon – 2 years
		j	g			14-27	6 mon – 2 years
			g	g		31-36	2-6 years
			g	g	e	34	3-4 years
	Pig	f	e	V		11-12	Immature
E-MS	Cattle	C-E				1-3	0-1 months
		j	f	C-V		14-18	8-18 months
	Sheep/goat	f				4-12	2-12 months
		f				4-12	2-12 months
		f				4-12	2-12 months
			g	e	E	25	1-2 years
			g	g	E	27	1-2 years
			g	d		22-29	1-3 years
			f-g	e		23-30	1-3 years
			g	e	PM	25-30	1-3 years
			g	g	d	33	2-3 years
			g	g	f	35	3-4 years
			g	g	g	36	4-6 years
			j	g	g	38	4-6 years
			m	g	g	41	4-6 years
					g	36-46	4-8 years
	Pig	E	C			1	Juvenile
		PM	C			1	Juvenile
				f	c	35-36	Adult

Table 30: Tooth wear and estimated age of sheep/goat and pig, following Grant (1982), O'Connor (1988) and Payne (1973). (PM = post-mortem loss)

C.1.1 Pathologies included a fracture of a large mammal rib that was in the process of healing when the animal died, bilateral exostoses on a horse second phalanx, and pre-mortem tooth loss and a broken-off incisor on a dog skull (Illustration 3). The exostoses may stem from muscle strain, but age-related changes cannot be ruled out. Rib fractures are relatively common in both large and medium mammals and are probably caused by animal interaction, accidents or by animal abuse. The dog skull shows evidence of an infection of the left canine, which consequently was lost in life. Other pre-mortem tooth-loss include the left and right first incisors and the third right incisor. The latter was broken off and the root was left in the alveole. There is pathological bone growth around the alveole of the right canine, which may also be an indication of infection. That tooth, however, was lost post-mortem, as was the left second and third incisors.

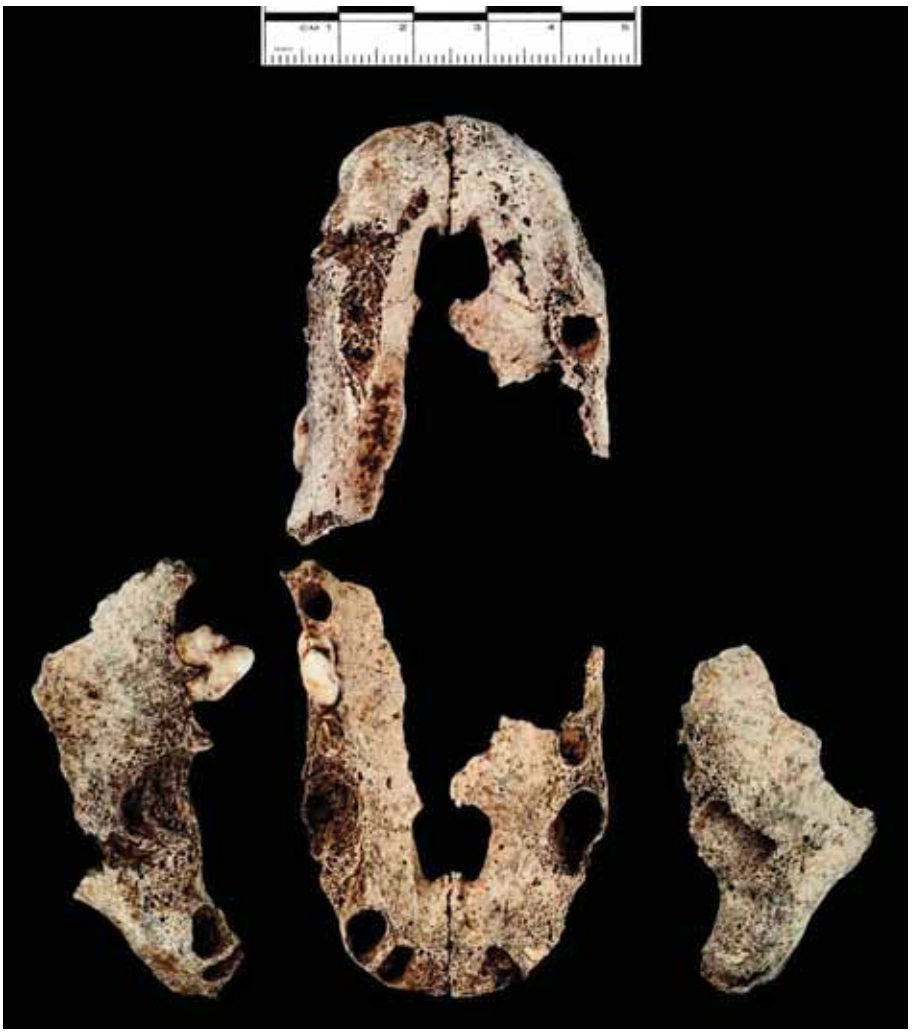


Illustration 3: Pre-mortem tooth loss and broken incisor of dog skull

Discussion

C.1.1 It is difficult to tell whether the Late Bronze Age/Early Iron Age assemblage from Warth Park is representative, since animal bone from these periods are rarely preserved on the sand and gravel regions in the east Midlands. Environmental evidence from the Raunds Area project (1985-1993) show that most Neolithic and Bronze Age deposits were decalcified, resulting in poor bone survival (Harding and Healy 2007, 15; Monckton 2006). Regional syntheses of Bronze Age and Iron Age faunal assemblages suggest that sheep and pig husbandry were similar throughout southern England, with sheep raised for multiple products (meat, wool and possibly dairy) and pigs raised for meat. Cattle husbandry was different in the Upper Thames Valley, where more animals were slaughtered at a younger age, presumably for meat, than in the rest of southern England (Hambleton 2008, 56-68; Lambrick 2014, 126).

LBA/EIA		Unfused	Fusing	Fused
Cattle	Early fusion			1
	Mid fusion			
	Late fusion			1
Sheep/goat	Early fusion			
	Mid fusion			3
	Late fusion	3		
Pig	Early fusion	1		
	Mid fusion	2		1
	Late fusion			
Horse	Early fusion			
	Mid fusion			
	Late fusion			4

E-MS		Unfused	Fusing	Fused
Cattle	Early fusion	1		11
	Mid fusion			9
	Late fusion	1		5
Sheep/goat	Early fusion	2		11
	Mid fusion	1		12
	Late fusion	8	1	2
Pig	Early fusion			4
	Mid fusion	7	1	3
	Late fusion	3		
Horse	Early fusion			
	Mid fusion			
	Late fusion			1

Table 31: Epiphyseal fusion of cattle, sheep/goat, pig and horse, following Habermehl (1975). Fusion stages follows Serjeantson (1996). (NB Articulated remains are counted as one bone each)

C.1.2 Anglo-Saxon sites are better represented in the region (Holmes 2011, table 2.1), but they do not show a consistent picture (Illustration 4). The species abundance in Warth Park, as indicated by fragment count, is similar to that of pre-9th century assemblages from the nearby estate centre at Higham Ferrers (Evans 2007). In the late 8th-early 9th century, cattle increases in abundance and remains that way until the late 14th century when sheep/goat again becomes the predominant taxon (Evans 2007, 150-153). The rural sites in what is now Northampton show high abundance of sheep/goat primarily to the expense of cattle. The smaller sites at Langham Road/Burystead and Brixworth are dominated by cattle (Davis 2008; Holmes 2001, Appendix C). All sites have similar local environments, but differences in socio-economic status and related accessibility of the local environment might have been an issue. This inter-site comparison also ignores the quality of arable land which would have been an important factor for decisions regarding agricultural strategies.

C.1.3 Comparative slaughter patterns are only available for Higham Ferrers, where cattle and sheep/goat show a similar slaughter pattern as Warth Park (Evans 2007, 146-149). While Higham Ferrers was an estate centre, structures and finds suggest that it functioned as a collection and redistribution centre for regional tribute, rather than as the final destination for tribute. The similarity of both livestock abundance, livestock slaughter pattern and relative scarcity of game suggest that the two sites may have functioned on similar economic levels. Undoubtedly Early and Middle Saxon society would have seen several differences in social and economic status between Warth Park and Higham Ferrers, but there is not enough comparative data for Anglo-Saxon sites in the Midlands (Holmes 2011) to discuss this from an archaeological point of reference.

Phase	Species	Element	GL	Bp	Bd	SD
LBA-EIA	Sheep/goat	Tibia			22.5	
		Tibia			24.4	
	Pig	Tibia			28.2	
	Horse	Metatarsal	257.0	45.6	44.6	31.0
		Tibia			63.4	
E-MS	Cattle	Calcaneus	129.5			
		Metacarpal			48.5	
		Metacarpal			59.5	
		Metatarsal			51.5	
	Sheep	Calcaneus	51.0			
		Tibia			26.1	
		Tibia			26.2	
		Tibia			26.2	
		Tibia			26.8	
		Tibia			26.8	
		Tibia			27.0	
		Tibia			27.5	
		Tibia			28.9	

Table 32: Measured bones from the assemblage

	SFB 55	SFB 77	SFB 225	SFB 259	SFB 373	SFB 700
Cattle	34	43	10	7	36	8
Sheep/goat	44	29	4	1	53	4
Sheep	2				2	
Goat	3				1	
Pig	61	19	2		14	4
Horse	3	1			1	1
Dog		1				
Canid		1				
Red deer		4				2
Hare/rabbit	1					
Domestic fowl	1				2	2
Indet. bird	3	1	3		2	
Medium mammal	203	109	36	3	241	9
Large mammal	138	66	19	9	113	21
Indeterminate	437	414	124	9	282	52
TOTAL	**930**	**688**	**198**	**29**	**747**	**103**
Total weight (g)	**3,682**	**3,037**	**351**	**275**	**2,917**	**775**

Table 33: Number of identified fragments per species from the Anglo-Saxon SFBs

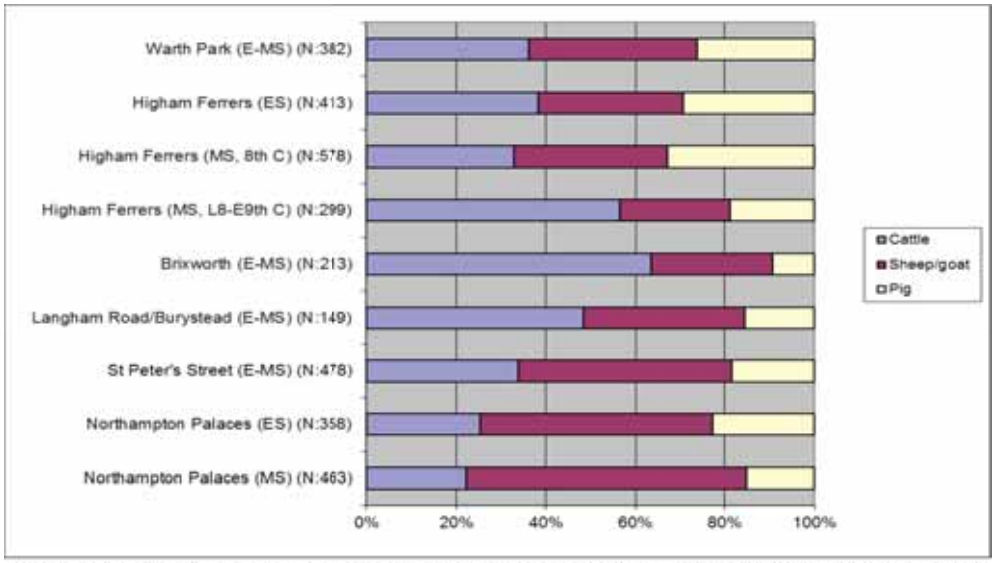


Illustration 4: Representation of animal remains on surrounding Anglo-Saxon sites

C.2 Environmental Samples

By Rachel Fosberry

Introduction

C.2.1 A total of 123 bulk samples were taken from features within the excavated areas at Warth Park, Raunds, in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations and/or analysis.

C.2.2 Features sampled included a concentration of Saxon sunken-featured buildings (SFBs), along with contemporary pits and postholes and Iron Age features including shallow ditches and a trackway. The site had been heavily truncated.

C.2.1 Sub-samples of selected deposits were processed and assessed during the period of excavation in order to provide feedback and the potential for modification of the site-specific sampling strategy. Initial assessment showed that preservation of plant remains was poor. The SFBs and associated features were shown to rarely contain preserved plant remains and sampling was targeted for the recovery of artefacts.

Methodology

C.2.1 The total volume (up to 45 litres) of each bulk sample was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds.

C.2.2 The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* and the authors' own reference collection. Nomenclature is according to Stace (1997). Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

C.2.1 For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50, ### = 51+ specimens, #### = 100+ specimens

C.2.2 Items that cannot be easily quantified such as charcoal has been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

Results

C.2.1 Preservation of plant remains is by carbonisation along with a single seed preserved by mineralisation. None of the features sampled were waterlogged. The majority of the

samples were devoid of plant remains other than modern rootlets and, occasionally, sparse charcoal fragments.

C.2.2 Samples taken from Neolithic pits **34**, **36** and **38** (Area 1) all contained occasional fragments of hazelnut (*Corylus avellana*) and sparse amounts of charcoal in addition to calcined bone.

C.2.3 Forty-two samples were taken from Late Bronze Age/Early Iron Age deposits (Table 34). Pit **151** (Pit Group 1) contains a small number (12) of barley and wheat grains. Samples were taken from several of the fills of large group of intercutting Iron Age pits. A sample taken from fill 109 of pit **107** (Pit Group 1) contains a single mineralised seed of corn gromwell (*Lithospermum arvense*) along with charred barley and wheat grains, glumes bases of hulled wheat spelt/emmer (*T. spelta/dicoccum*) and single seeds of dock (*Rumex* sp.) and corn buttercup (*Ranunculus arvensis*). Occasional charred cereal grains are present in some of the other samples taken from these intercutting pits but they are generally poorly preserved, single specimens.

Sample Number	*Context Number*	*Cut Number*	*Feature Type*	*Cereals*	*Chaff*	*Weed Seeds*	*Charcoal <2mm*	*Charcoal > 2mm*
24	108	107	pit	#	0	0	++	++
25	109	107	pit	0	#	#	++	++
28	140	139	pit	#	0	#	+	+
29	144	145	pit	#	0	0	+	0
30	149	148	Pit	#	0	0	+	+
31	152	151	pit	##	0	0	+	0
36	211	206	pit	#	0	0	+++	+++
44	239	238	pit	#	0	0	++	+
45	241	240	pit	#	0	0	+++	++
49	252	107	pit	#	0	0	+++	0
65	141	139	pit	#	0	#	++	++
67	216	212	pit	##	0	#	++	+
79	363	360	pit	#	0	0	+	+
83	409	408	posthole	#	0	0	++	++
94	425	424	pit	#	0	0	+	0
95	517	518	posthole	#	0	0	+	+
108	543	544	posthole	#	0	0	+	+
110	557	558	pit	#	0	0	++	+
118	646	647	pit	#	0	0	+	+

Table 34: Environmental samples from Iron Age deposits that contain plant remains

C.2.4 Six SFBs and associated postholes were extensively sampled (Table 35). SFBs **77** and **259** did not contain any preserved plant remains other than charcoal. A small fragment of egg shell was recovered from fill 75 of SFB **77**. SFBs **55**, **225**, **373** and **700** all contain occasional charred cereal grains including barley (*Hordeum vulgare*) and wheat (*Triticum* sp.) with many of the grains occurring in the fills of the postholes of the structures.

C.2.5 Thirty-six samples were taken from other features across the site. Fill 24 of Anglo-Saxon pit **23** (Area 3) contains the largest assemblage of charred plant remains and is comprised of free-threshing wheat grains with a rounded, compact morphology suggesting that they are the bread wheat variety *Triticum aestivum cf. compactum*. The grains are not well preserved and are heavily abraded. Occasional grains of barley and

oat/large grass seeds may also be present in addition to three halves (cotyledons) of a legumes (Vicia/Pisum/Lathyrus sp). A single seed of campion (*Silene* sp.) is the only weed seed included in the assemblage.

Sample No.	Context No.	Cut No.	SFB No.	Feature Type	Volume processed	Cereals	Charcoal	Small animal bones	Large animal bones	Fish bone	Depth
9	32	55	55	SFB	17	#	+	0	#		0.29
10	43	55	55	SFB	17	0	+	0	##	0	0.19
11	44	55	55	SFB	17	0	+	0	0	0	0.36
16	31	55	55	SFB	15	0	+	0	0	0	0.16
17	41	55	55	SFB	16	0	+	0	#	0	0.18
18	42	55	55	SFB	15	#	+	0	##	0	0.2
19	54	55	55	posthole	9	0	+	0	#	0	0.33
21	29	77	77	SFB	19	0	+	0	##	0	0.12
22	75	77	77	SFB	19	0	+	0	#	0	0.15
23	78	79	77	posthole	19	0	+	0	0	0	0.42
38	224	225	225	SFB	16	0	0	0	0	0	0.08
39	226	227	225	posthole	14	#	++	0	##	0	0.29
40	228	225	225	SFB	20	#	+	#	##	#	0.09
41	229	225	225	SFB	16	0	0	0	0	0	0.12
42	236	237	225	posthole	13	0	0	0	0	0	0.23
43	234	235	225	posthole	20	#	+	#	##	0	0.08
50	230	225	225	SFB	15	0	0	0	0	0	0.09
51	231	225	225	SFB	20	#	++	0	##	0	0.12
52	232	225	225	SFB	19	0	+	0	##	0	0.09
53	233	225	225	SFB	20	0	+	0	0	0	0.12
54	257	258	225	posthole	14	#	+	##	##	0	0.1
55	265	264	259	posthole	30	0	0	0	0	0	0.43
57	260	259	259	SFB	24	0	0	0	0	0	0.07
58	261	259	259	SFB	28	0	+	0	0	0	0.15
77	375	373	373	SFB	35	0	0	0	0	0	0.15
81	386	373	373	SFB	32	0	0	0	0	0	0.25
82	387	373	373	SFB	32	0	0	0	0	0	0.18
96	510	373	373	posthole	16	0	0	0	0	0	0.26
1000	701	700	700	SFB	20	#	+	0	0	0	0.17
1001	702	700	700	SFB	20	#	+	0	0	0	0.17
1002	709	700	700	SFB	20	#	+	0	0	0	0.17
1003	710	700	700	SFB	18	#	+	0	0	0	0.17

Table 35: Environmental samples from SFBs

Discussion and conclusions

C.2.1 In general the samples are poor in terms of identifiable material which precludes detailed interpretation of the features sampled. The charred plant remains consist mainly of cereal grains that are poorly preserved which is most likely due to taphonomic factors including the burial environment which is mostly acidic sand. The poor preservation did not allow detailed identifications and most of the grains have been identified simply as cereals although barley and at least two varieties of wheat are

present. The evidence of glume bases indicate the presence of a hulled wheat; either spelt or emmer wheat, both of which are the common prehistoric wheat varieties. Such small quantities of chaff elements (three degraded glume bases) cannot be interpreted as anything more than small-scale grain processing.

C.2.2 The recovery of a significant assemblage of free-threshing wheat grains in pit **23** suggests a later date of the feature although bread wheat was cultivated in this region from the later Iron Age onwards (Grieg, 1991). Both free-threshing wheat and barley were recovered from a Middle Saxon ditch at Burystead, Raunds (Campbell & Robinson 2009, 231). Barley is a common cereal in both the Iron Age and the Anglo-Saxon period as is reflected in the presence of barley grains in samples of both periods on this site. It would have been used for both animal fodder and human consumption and was particularly valued for brewing although none of the grains recovered showed evidence of germination. The oat grains present in this assemblage are of a similar size to large grass seeds and have been identified as oat/grass. It is likely that, if oats are present, they are of the wild rather than the cultivated variety. The charred weed seed assemblage has only limited species diversity.

C.2.3 Very little charred material was recovered from the deposits within the SFBs. The primary fills of the hollows of these sunken-featured structures commonly produce sparse assemblages of occasional charred grains and charcoal which could be due to the presence of flooring within the building, with the little material recovered falling through the floor boards into the under-floor space. Assemblages from SFBs at West Cotton (Campbell & Robinson 2010, 431) were similarly sparse. Once a SFB has fallen out of use, the rectangular pit would have served as a convenient depository for the disposal of domestic/culinary waste. Animal bone and pottery have been recovered from several of the backfills of the SFBs on this site but, if plant remains were included they have not been preserved, which is to be expected if they had not been previously burnt and completely carbonised.

C.2.4 Carbonisation only occurs under certain conditions when plant material is incompletely burnt and reduced to pure carbon. Any surviving charred remains will only ever represent a small proportion of the original material being burnt. The only significant charred assemblage from the site is from pit **23** which was subjected to radiocarbon dating and returned a date of 769-962 cal AD at 95.4% probability (SUERC-62327; 1177 ± 30 BP). Preservation by mineralisation occurs when the organic component of a seed or fruit is replaced by minerals such as calcium phosphate. This process will also only occur under certain conditions, most commonly when mixed with cess, and only certain types of plant remains usually become mineralised. A single mineralised seed of corn gromwell (*Lithospermum arvense*) was recovered from a sample taken from fill 109 of pit **107** and this may suggest that this group of intercutting pits may have included latrine waste in addition to general domestic and culinary waste. Corn gromwell is a common crop weed that produces large, tough-coated seeds that are unlikely to have been consumed but would be most susceptible to preservation.

C.2.5 In summary, the evidence of the disposal of charred plant remains at Warth Park is limited either due to the preservation conditions, the truncation of the site or possibly the lack of burial of carbonised material.

APPENDIX D. RADIOCARBON CERTIFICATES

Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor R M Ellam Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

16 September 2015

Laboratory Code	SUERC-62327 (GU38378)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	XNNWAR13
Context Reference	24
Sample Reference	71
Material	Charred cereal grain : Triticum sp.
$\delta^{13}C$ relative to VPDB	-22.1 ‰
Radiocarbon Age BP	1177 ± 30

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

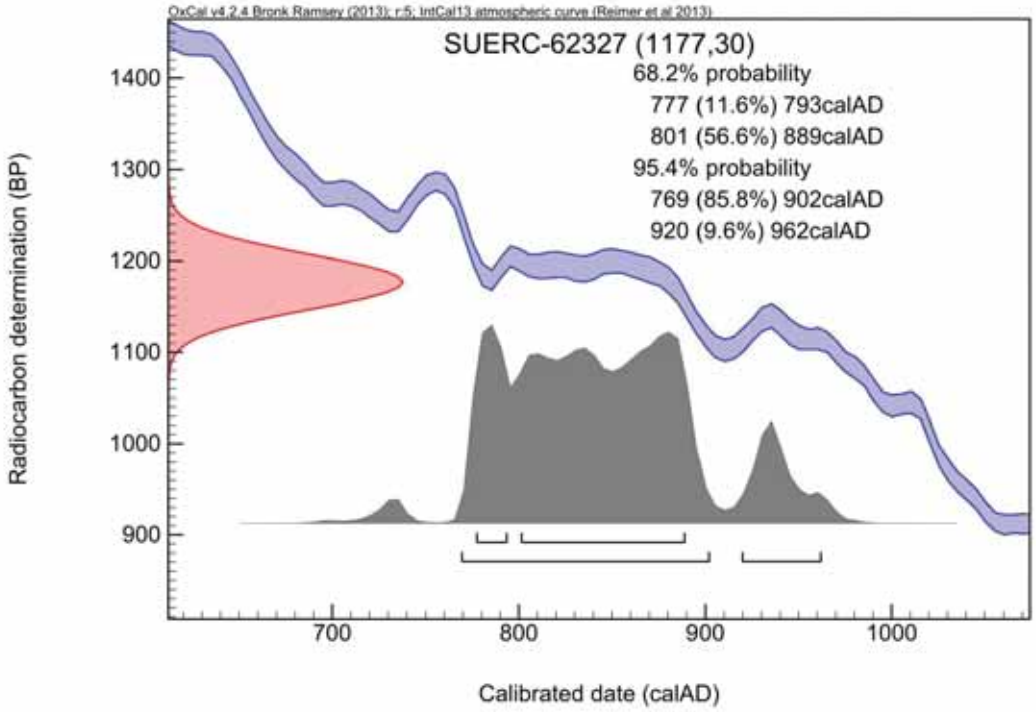
Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 16/09/2015

Checked and signed off by :- P. Naysmith Date :- 16/09/2015

University of Glasgow

Calibration Plot



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APPENDIX F. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-263017		
Project Name	Warth Park, Raunds, Northamptonshire		
Project Dates (fieldwork) Start	09-10-2013	Finish	24-10-2014
Previous Work (by OA East)	No	Future Work	No

Project Reference Codes

Site Code	XNNWAR13	Planning App. No.	EN/11/00700/OUT
HER No.	ENN 107957 & ENN 107958	Related HER/OASIS No.	oxfordar3-168995

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - PPG16

Please select all techniques used:

☐ Field Observation (periodic visits)	☒ Part Excavation	☐ Salvage Record
☐ Full Excavation (100%)	☐ Part Survey	☐ Systematic Field Walking
☐ Full Survey	☐ Recorded Observation	☐ Systematic Metal Detector Survey
☐ Geophysical Survey	☐ Remote Operated Vehicle Survey	☐ Test Pit Survey
☐ Open-Area Excavation	☐ Salvage Excavation	☒ Watching Brief

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
SFB	Early Medieval 410 to 1066	Pottery	Early Medieval 410 to 1066
Pit	Roman 43 to 410	Pottery	Roman 43 to 410
Trackway	Iron Age -800 to 43	Pottery	Iron Age -800 to 43
Ditch	Iron Age -800 to 43	Pottery	Neolithic -4k to -2k
Pit	Iron Age -800 to 43	Metalwork	Early Medieval 410 to 1066
Post built structure	Iron Age -800 to 43	Baked clay	Bronze Age -2.5k to -700
Pit	Neolithic -4k to -2k	Glass beads	Iron Age -800 to 43

Project Location

County	Northamptonshire	Site Address (including postcode if possible)	Warth Park Way Raunds Northamptonshire NN1 6NY
District	East Northamptonshire		
Parish	Raunds		
HER	Northamptonshire		
Study Area	7.1ha	National Grid Reference	498330, 273171

Project Originators

Organisation	OA EAST
Project Brief Originator	Liz Mordue
Project Design Originator	OA East
Project Manager	James Drummond-Murray
Supervisor	Louise Bush

Project Archives

Physical Archive	Digital Archive	Paper Archive
Northamptonshire county store	OA East	Northamptonshire county store
ENN 107957/8	XNNWAR13	ENN 107957/8

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☐	☐
Ceramics	☒	☐	☐
Environmental	☒	☐	☐
Glass	☒	☐	☐
Human Bones	☐	☐	☐
Industrial	☒	☐	☐
Leather	☐	☐	☐
Metal	☒	☐	☐
Stratigraphic		☐	☐
Survey		☒	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☒	☐	☐
Worked Stone/Lithic	☒	☐	☐
None	☐	☐	☒
Other	☐	☐	☐

Digital Media	Paper Media
☒ Database	☐ Aerial Photos
☒ GIS	☒ Context Sheet
☒ Geophysics	☐ Correspondence
☒ Images	☐ Diary
☒ Illustrations	☒ Drawing
☐ Moving Image	☐ Manuscript
☐ Spreadsheets	☐ Map
☒ Survey	☐ Matrices
☒ Text	☐ Microfilm
☐ Virtual Reality	☐ Misc.
	☐ Research/Notes
	☒ Photos
	☒ Plans
	☒ Report
	☒ Sections
	☐ Survey

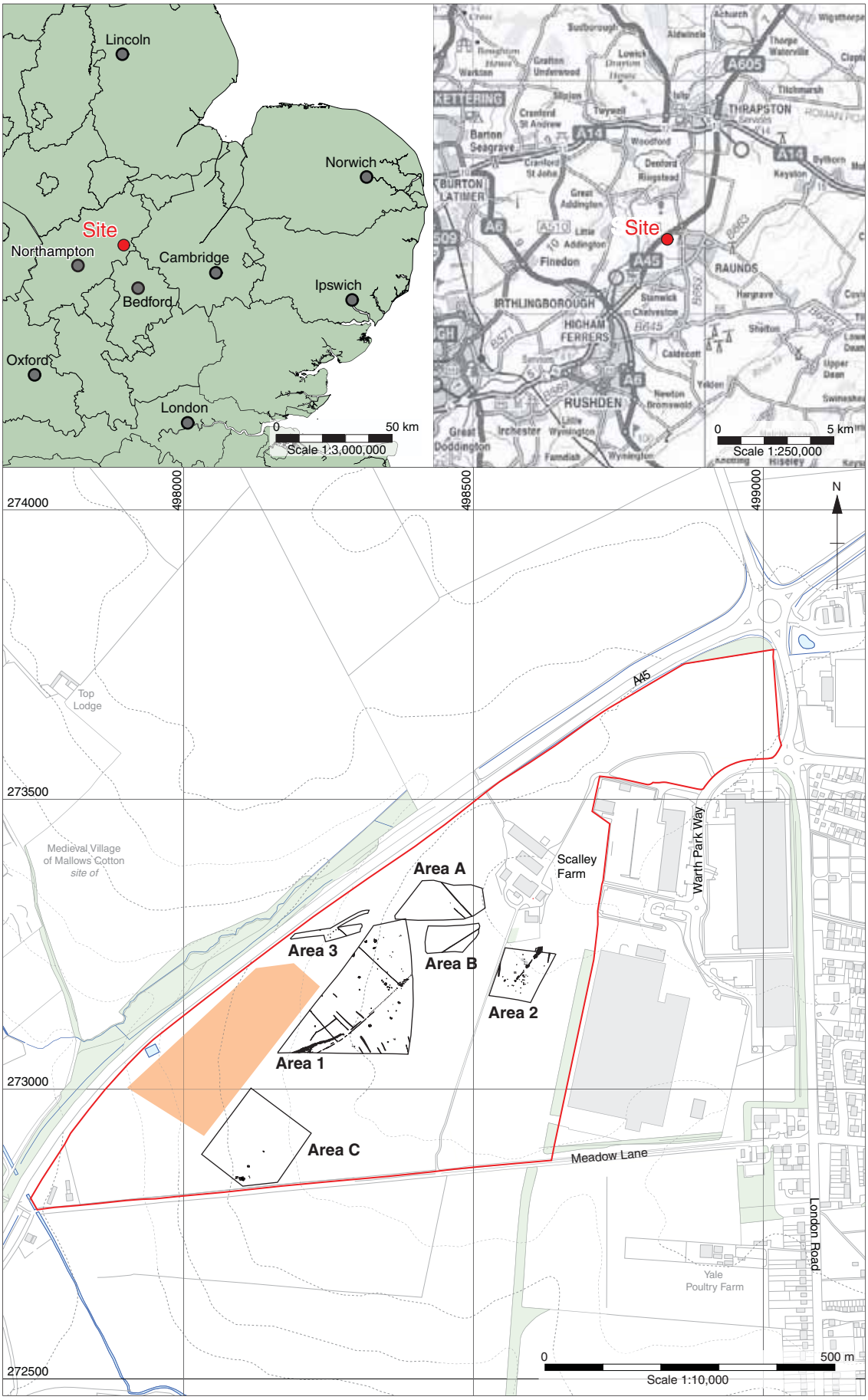


Figure 1: Site location showing overall development (red), excavation areas (1-3), watching brief areas (A-C) and area of preservation *in situ* (orange)

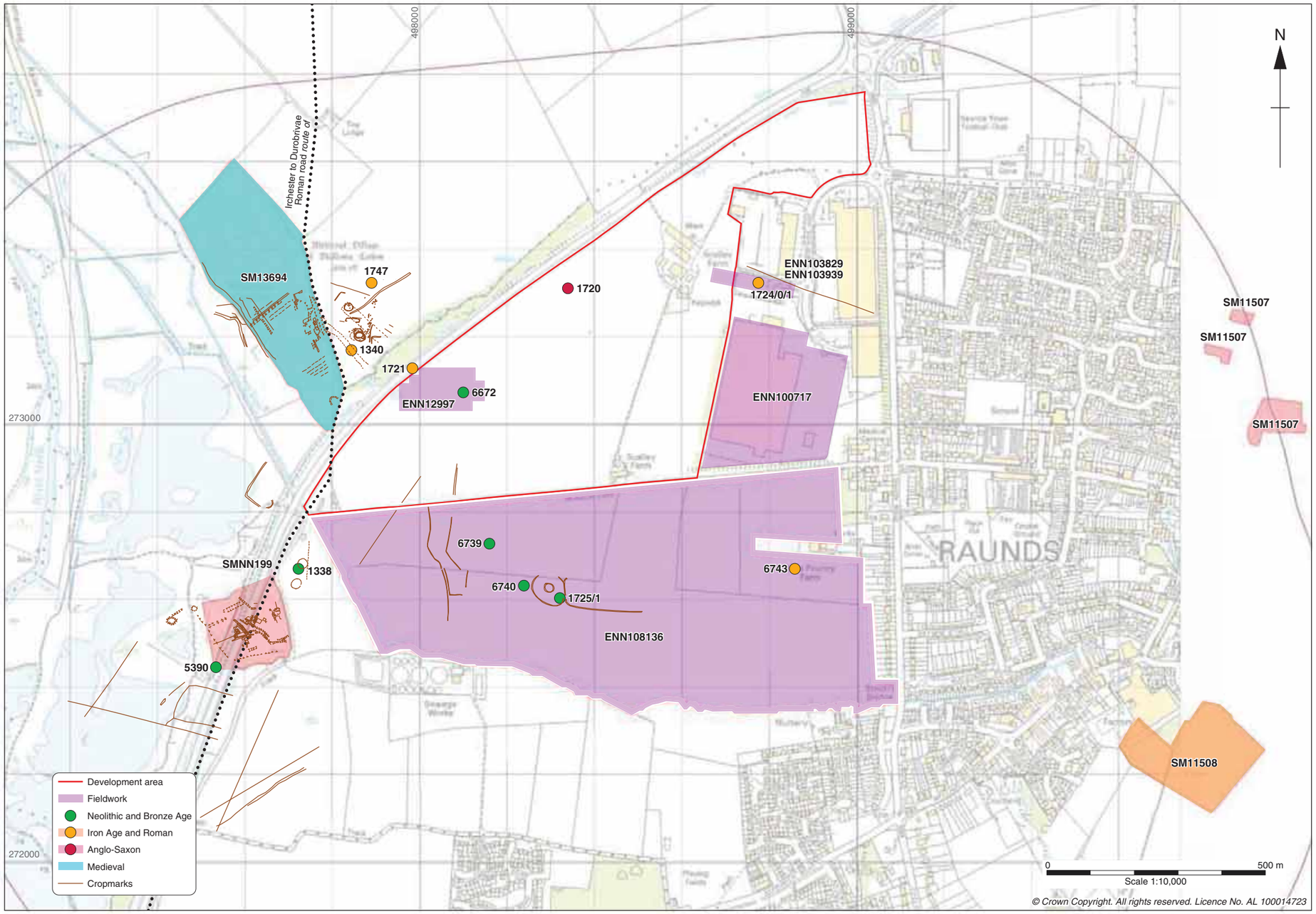


Figure 2: HER plot

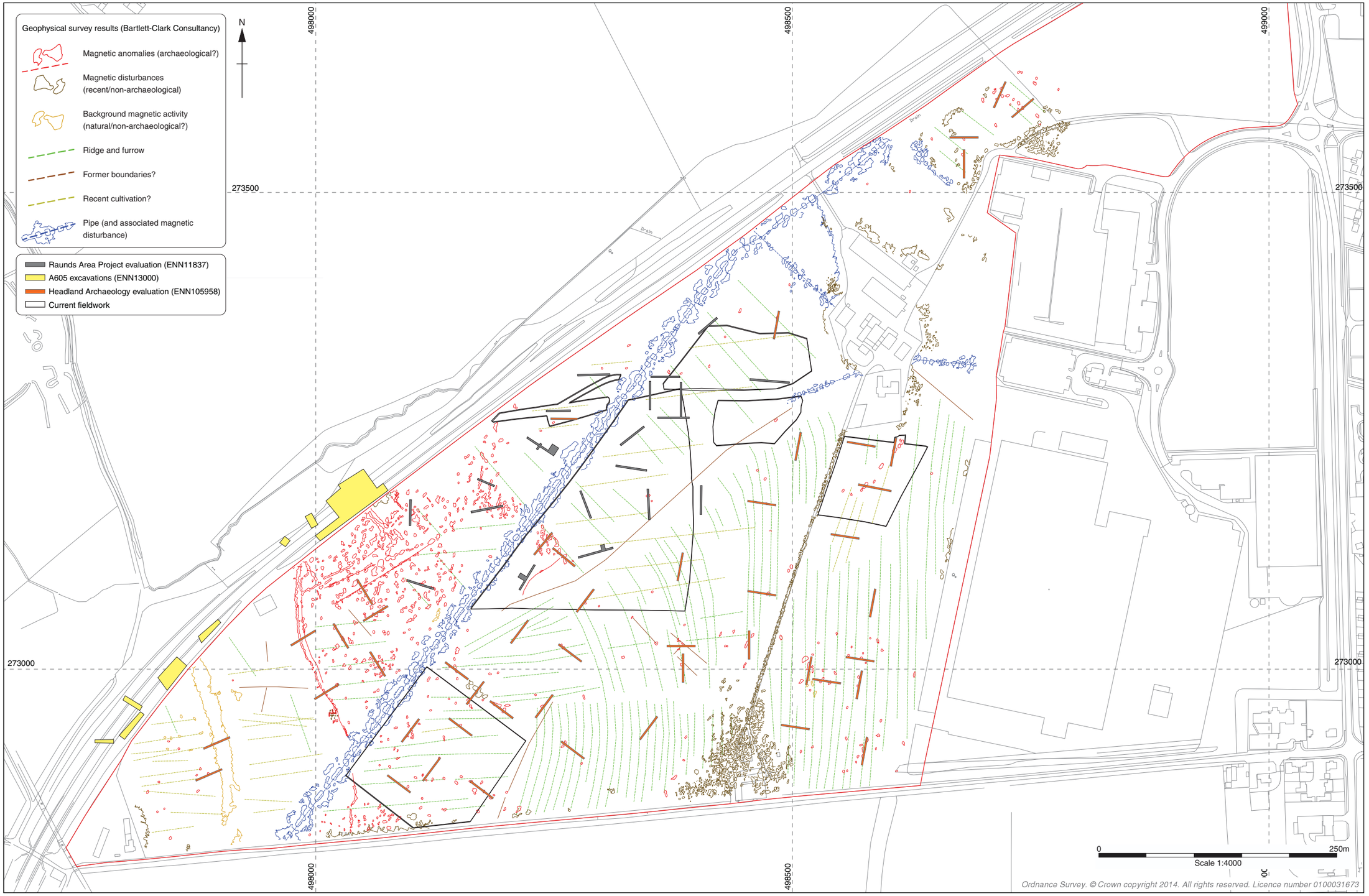


Figure 3: Plan of geophysical survey results, including locations of trial trenching and A605 excavations

Figure 4: All features phase plan

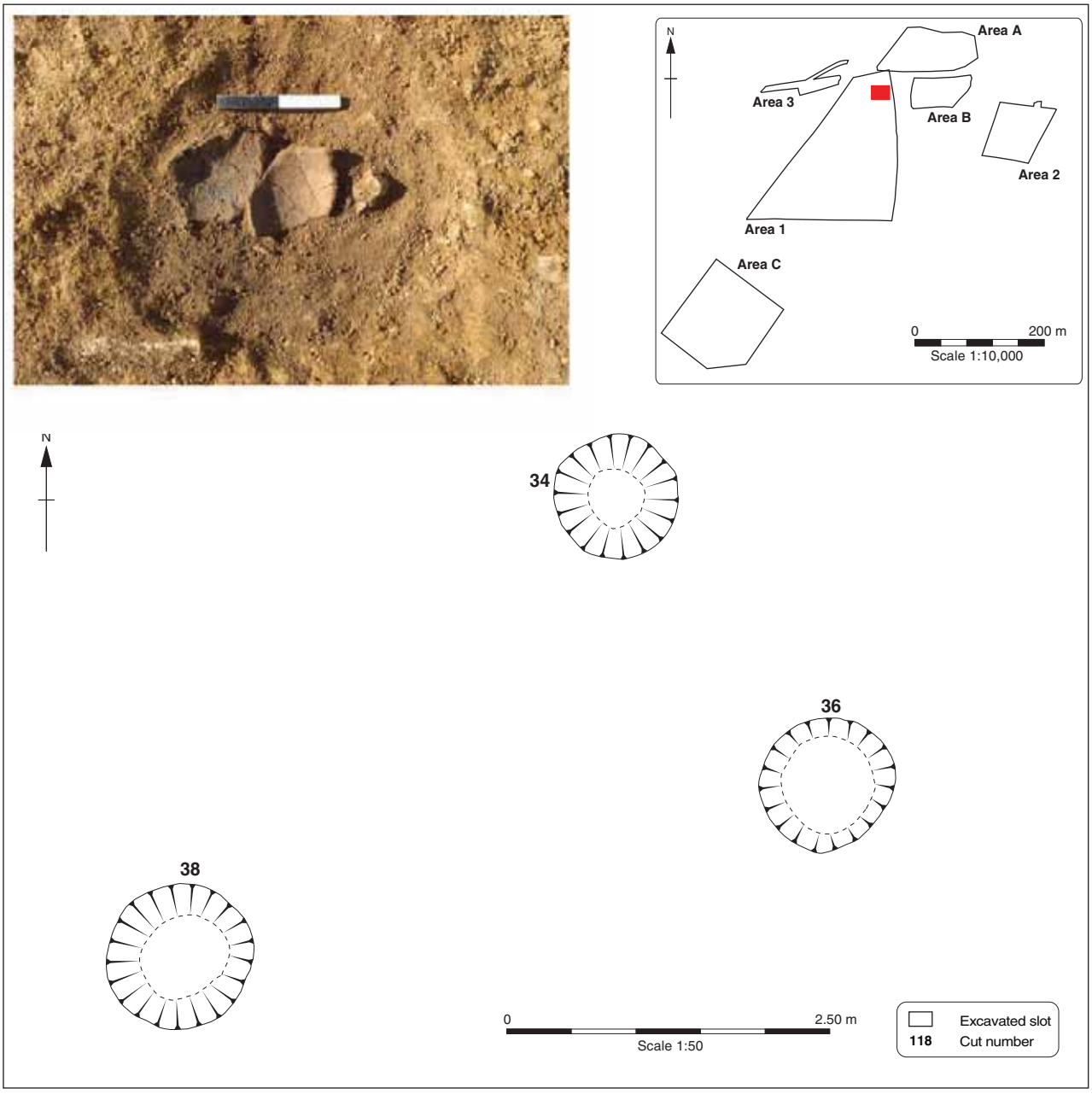
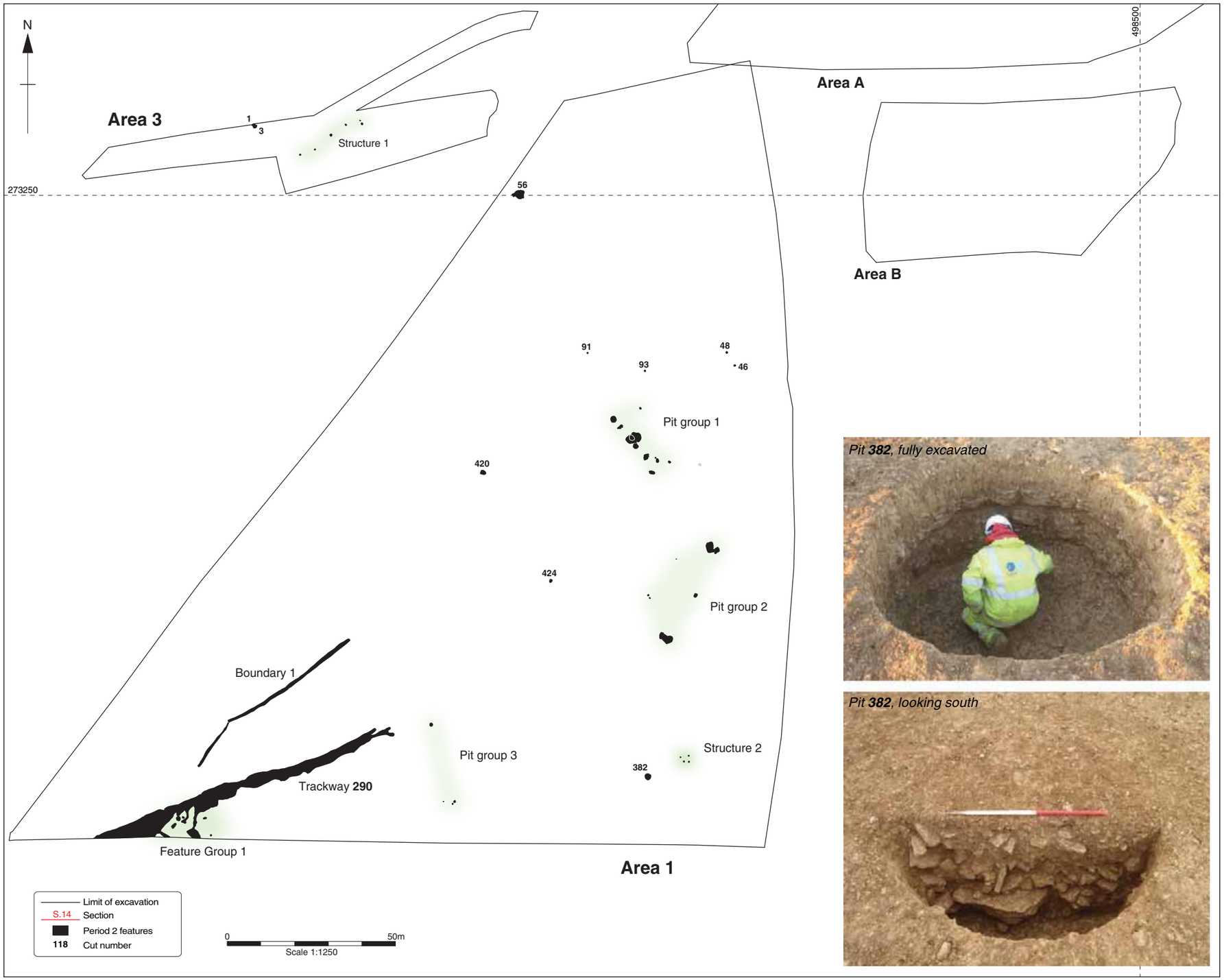


Figure 5: Period 1 - Late Neolithic



*Pit **382**, fully excavated*

*Pit **382**, looking south*

Figure 6: Period 2 - Late Bronze Age to Early Iron Age (Areas 1 and 3)

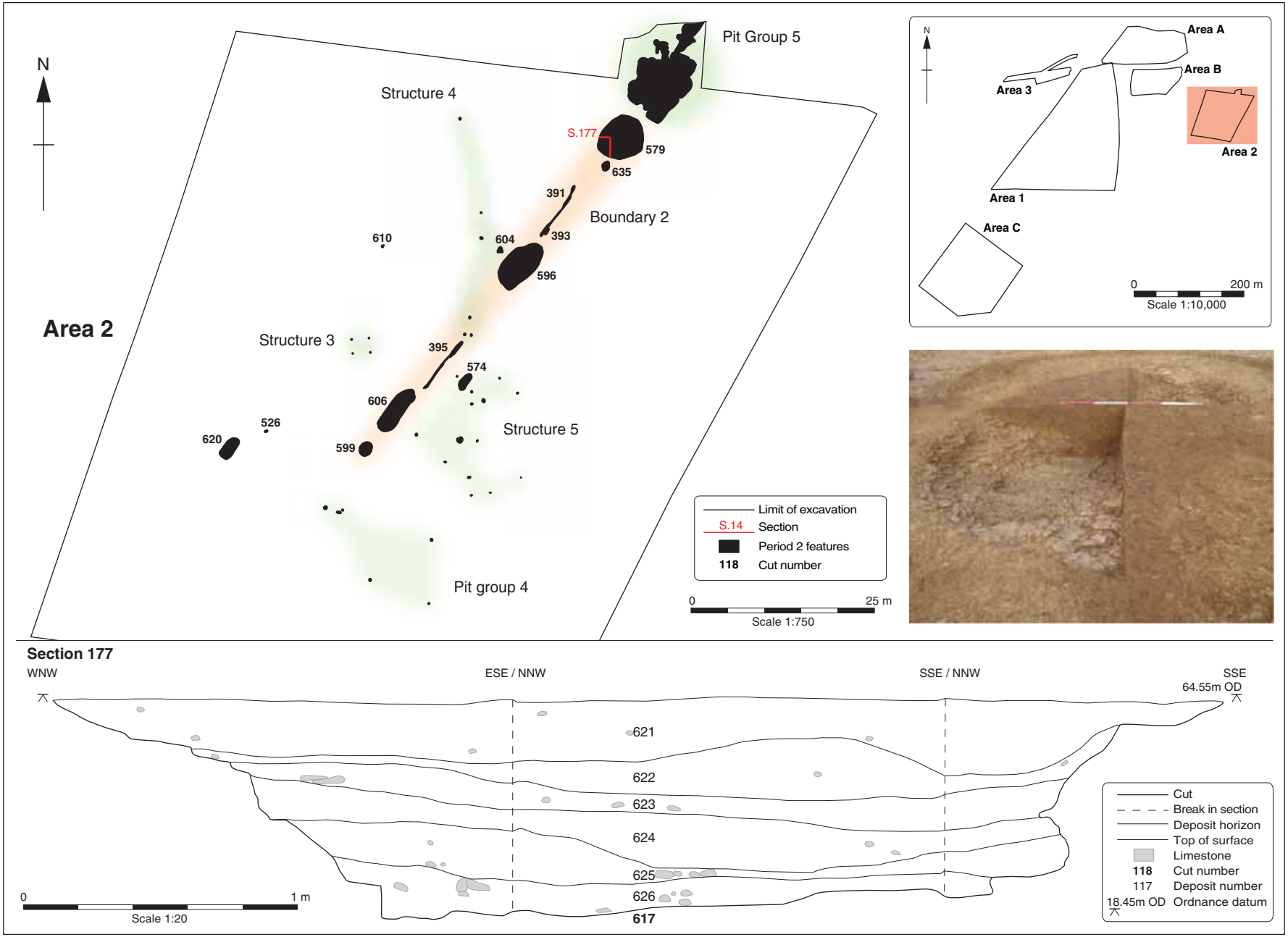
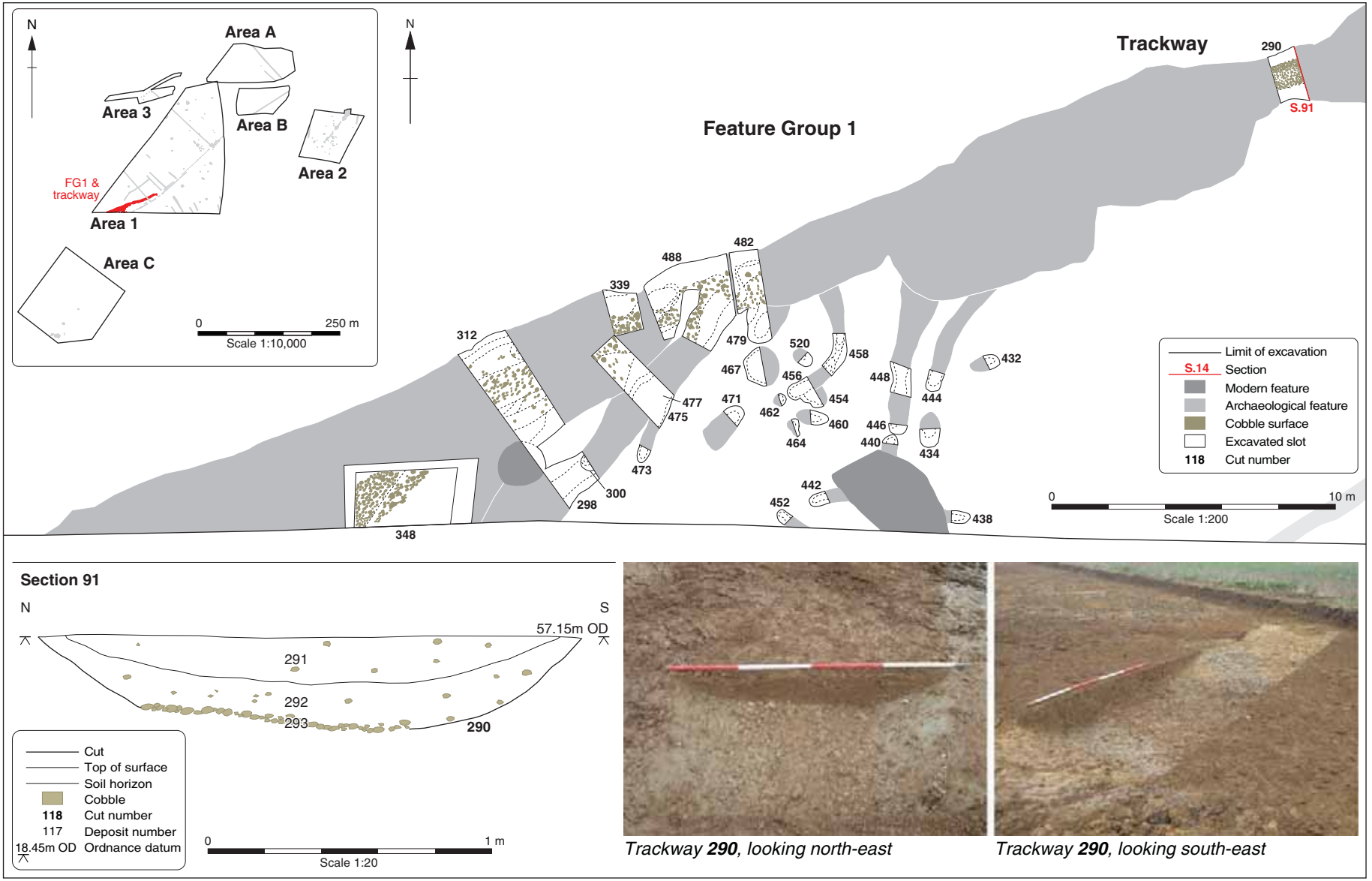


Figure 7: Period 2 - Late Bronze Age to Early Iron Age (Area 2)



*Trackway **290**, looking north-east*

*Trackway **290**, looking south-east*

Figure 8: Period 2 - Feature Group 1 and Trackway **290**

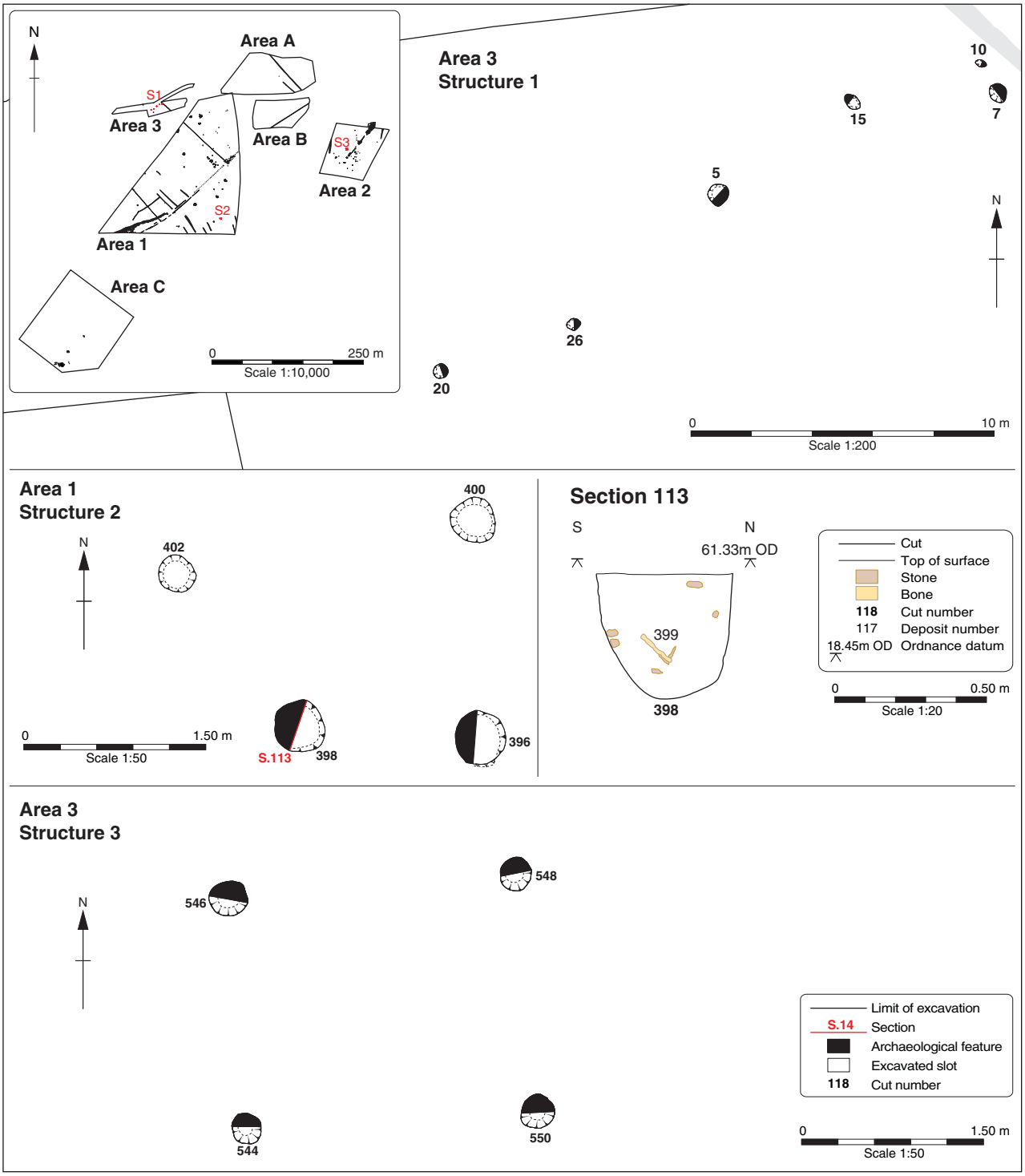


Figure 9: Period 2 - Structures 1-3

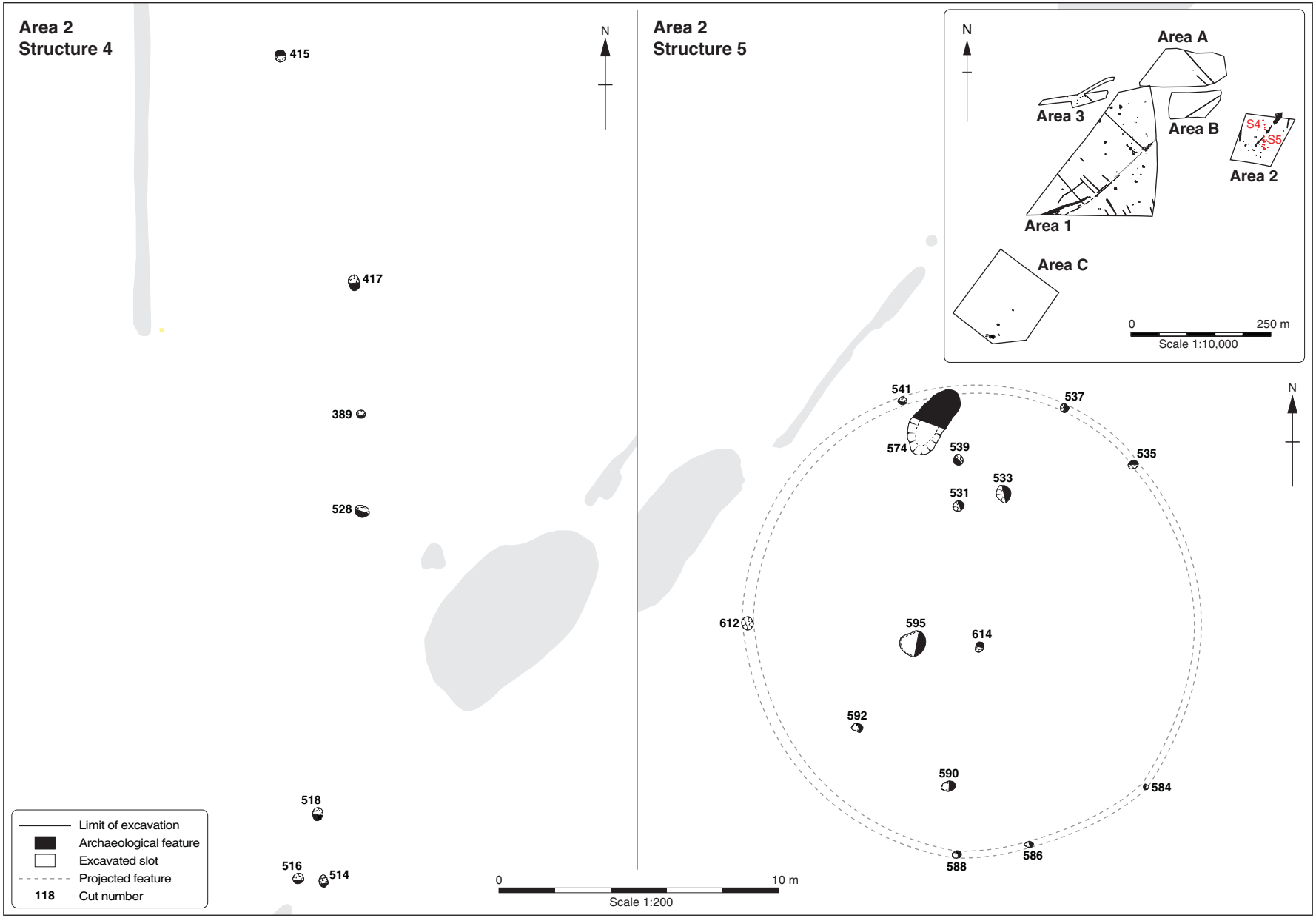


Figure 10: Period 2 - Structures 4 and 5

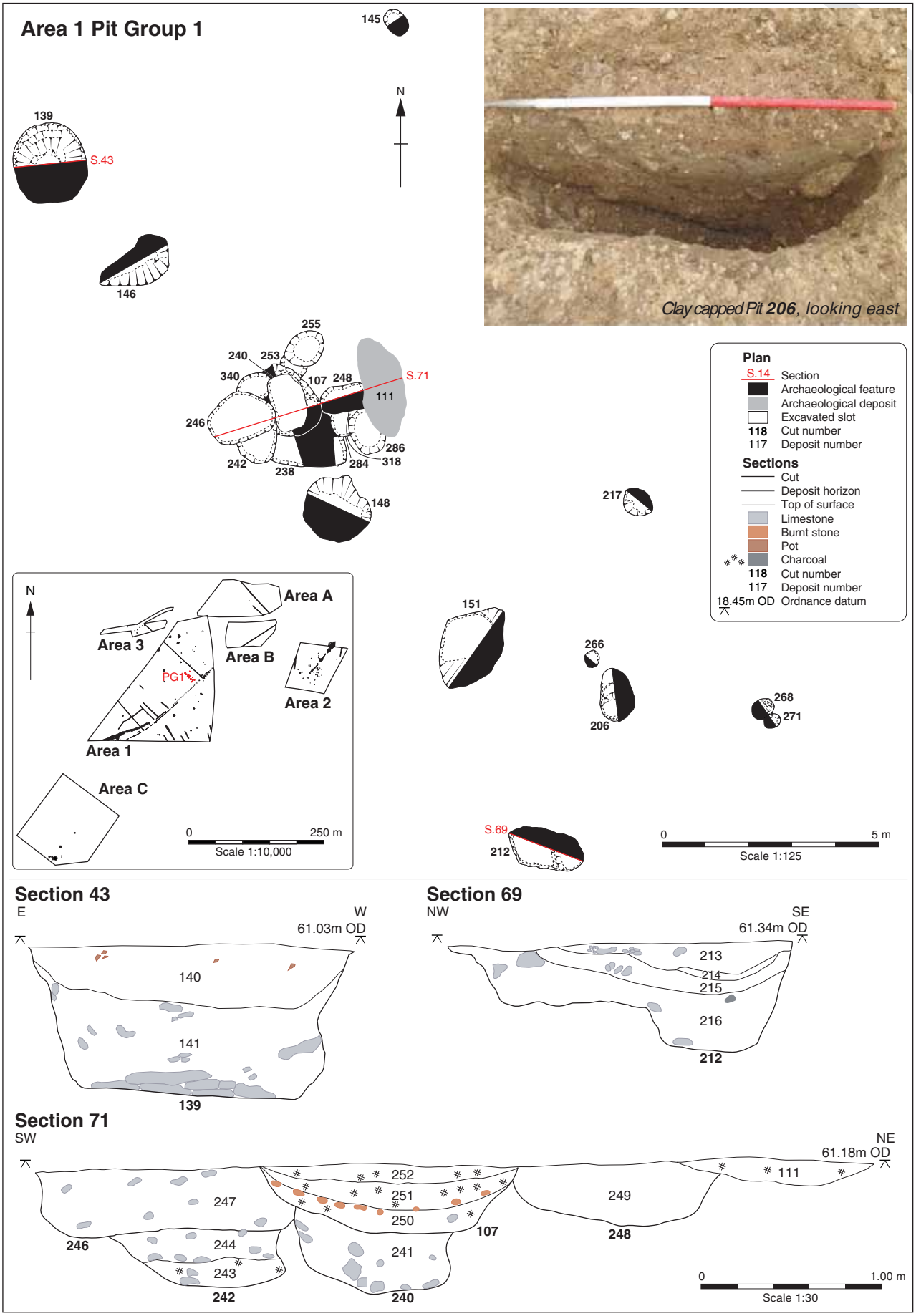


Figure 11: Period 2 - Pit Group 1

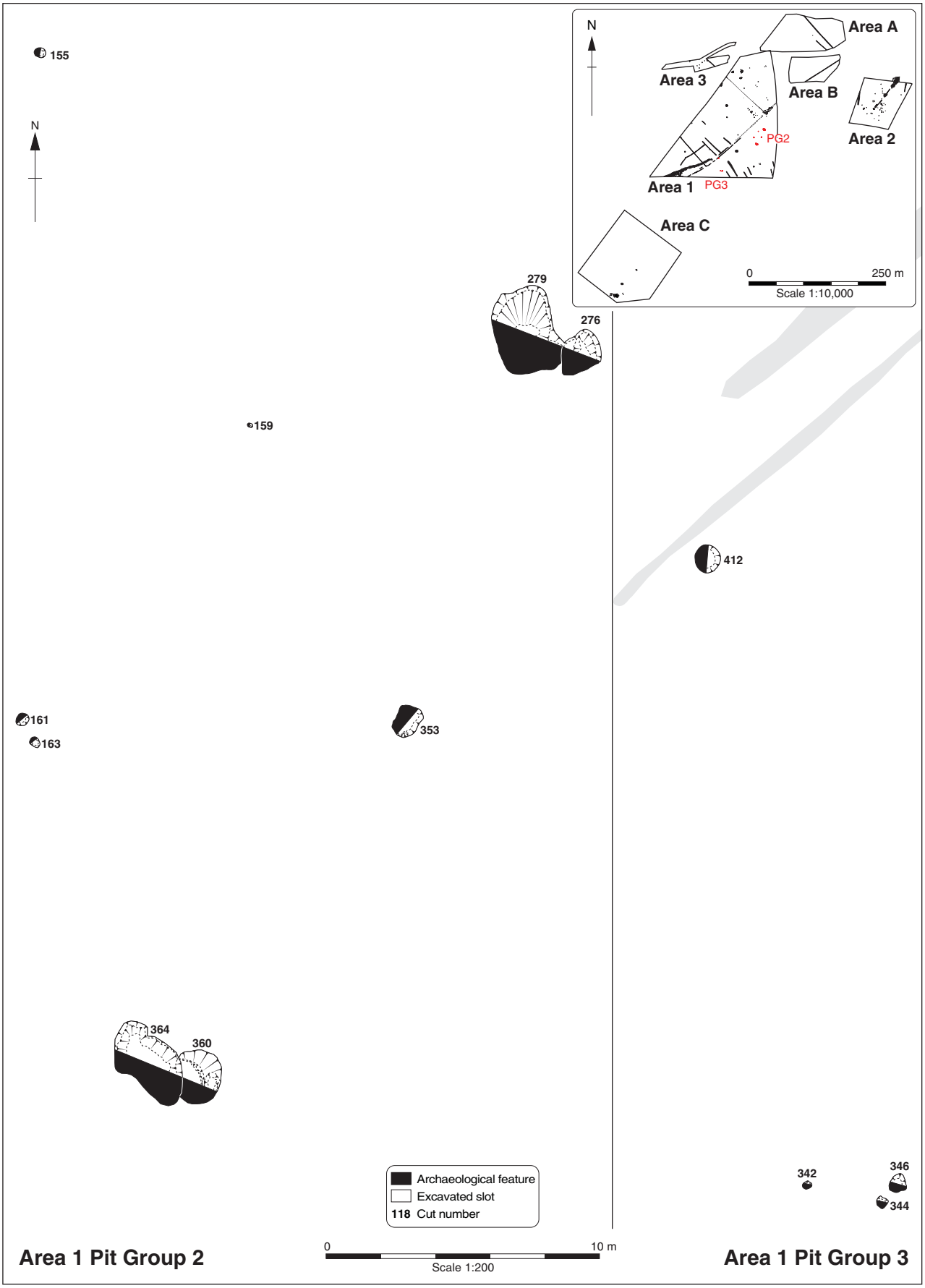


Figure 12: Period 2 - Pit Groups 2 and 3

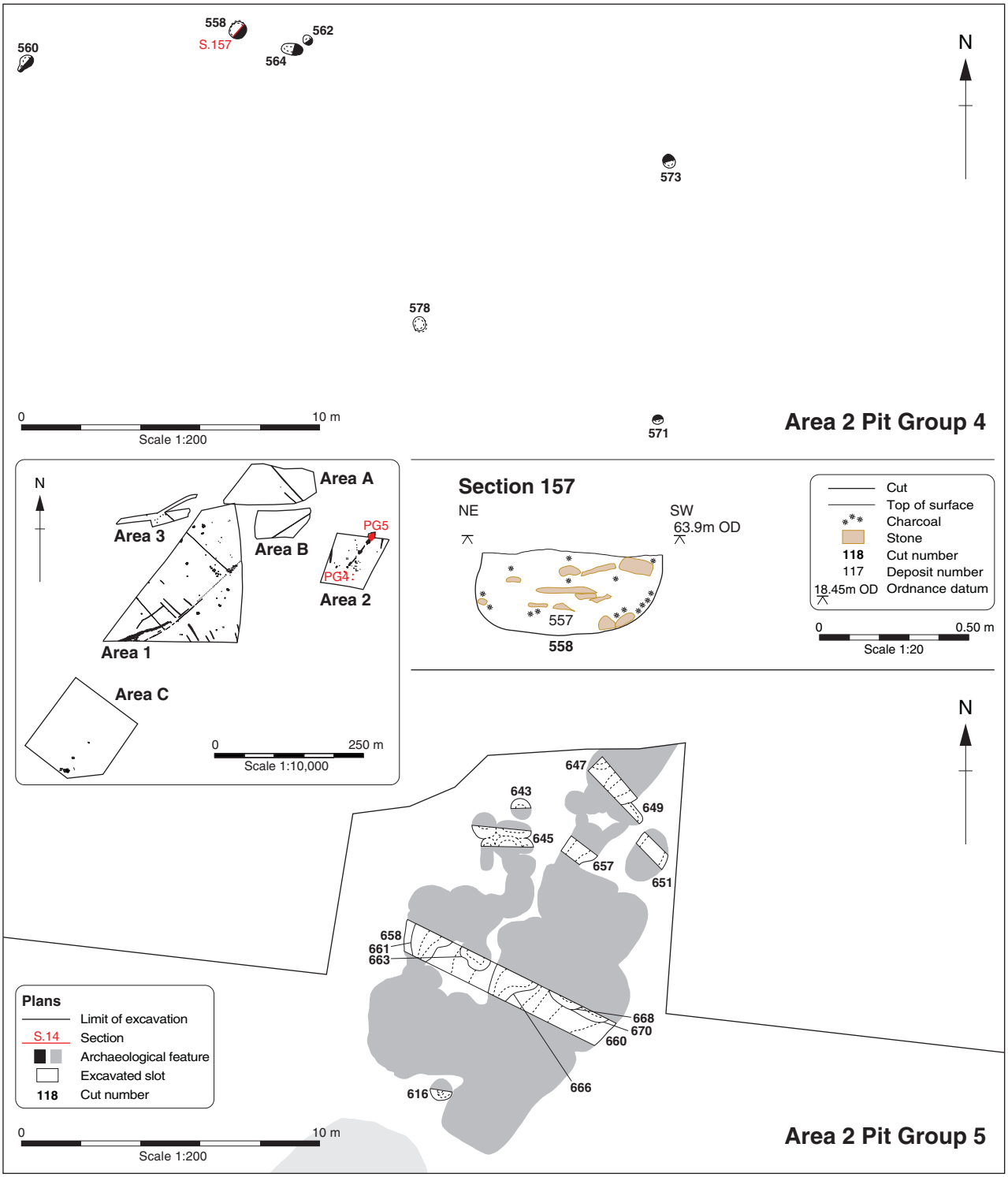


Figure 13: Period 2 - Pit Groups 4 and 5

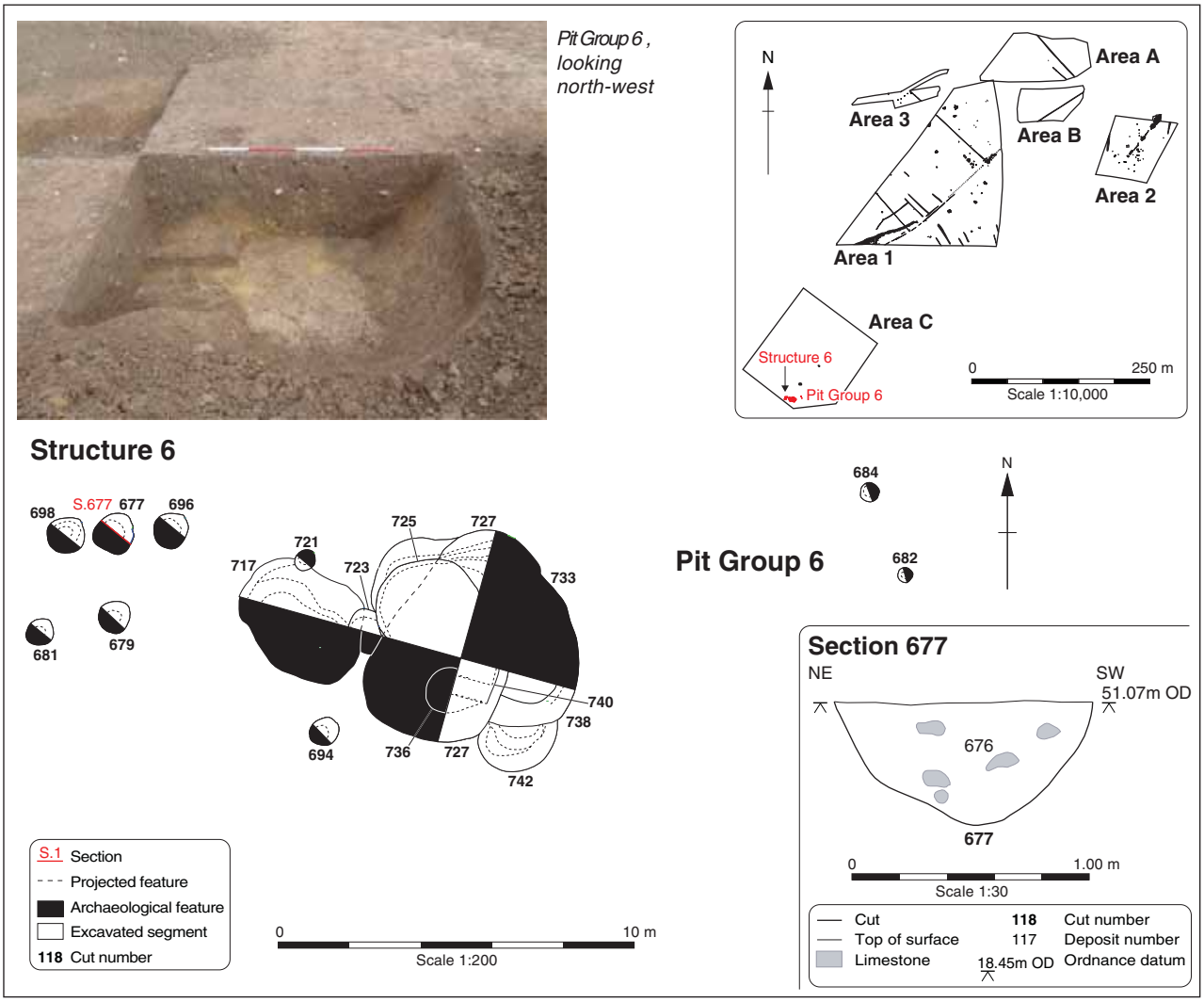


Figure 14: Period 3 - Romano-British (Area C)

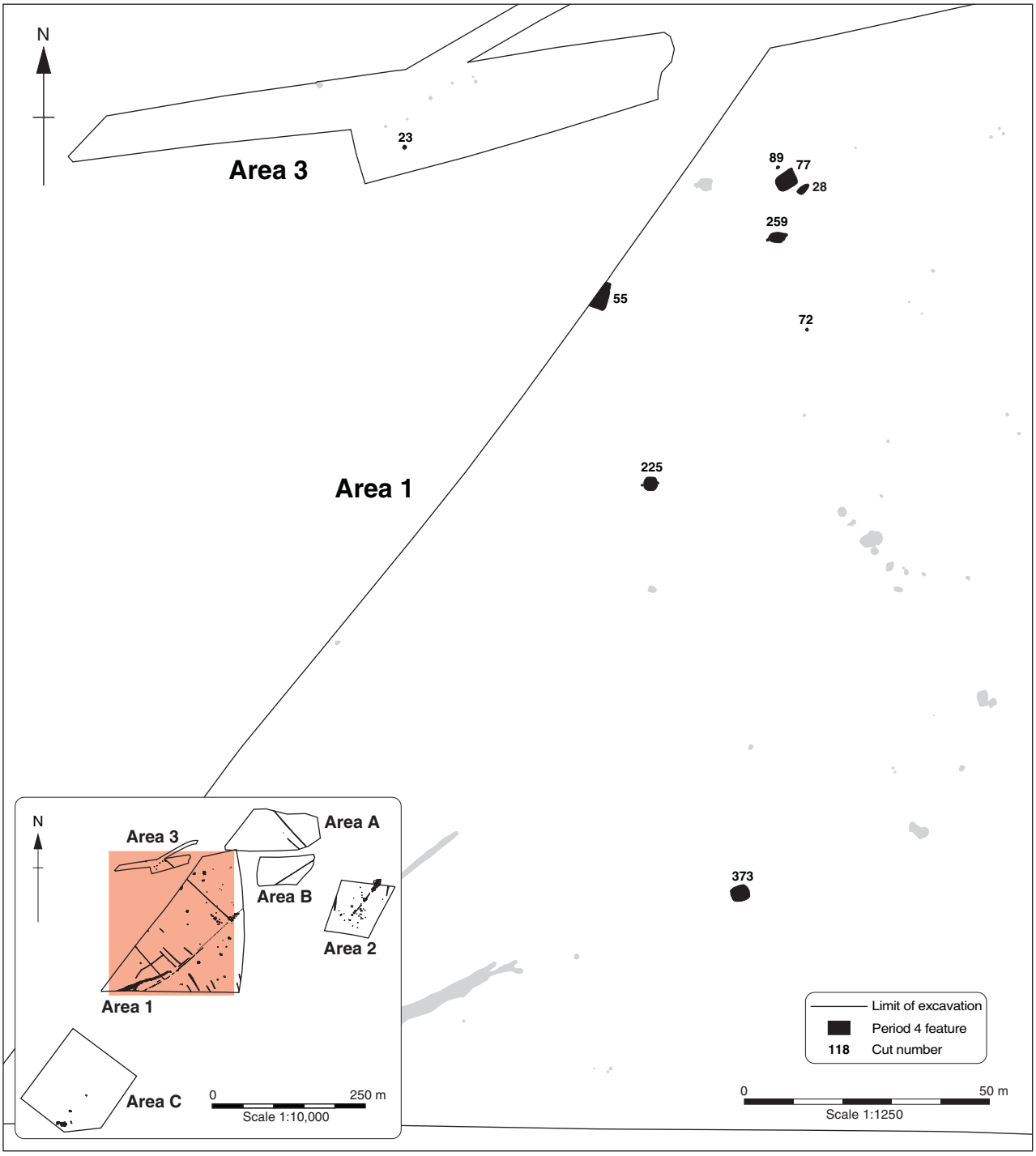


Figure 15: Period 4 - Early to Middle Saxon (Areas 1 and 3)

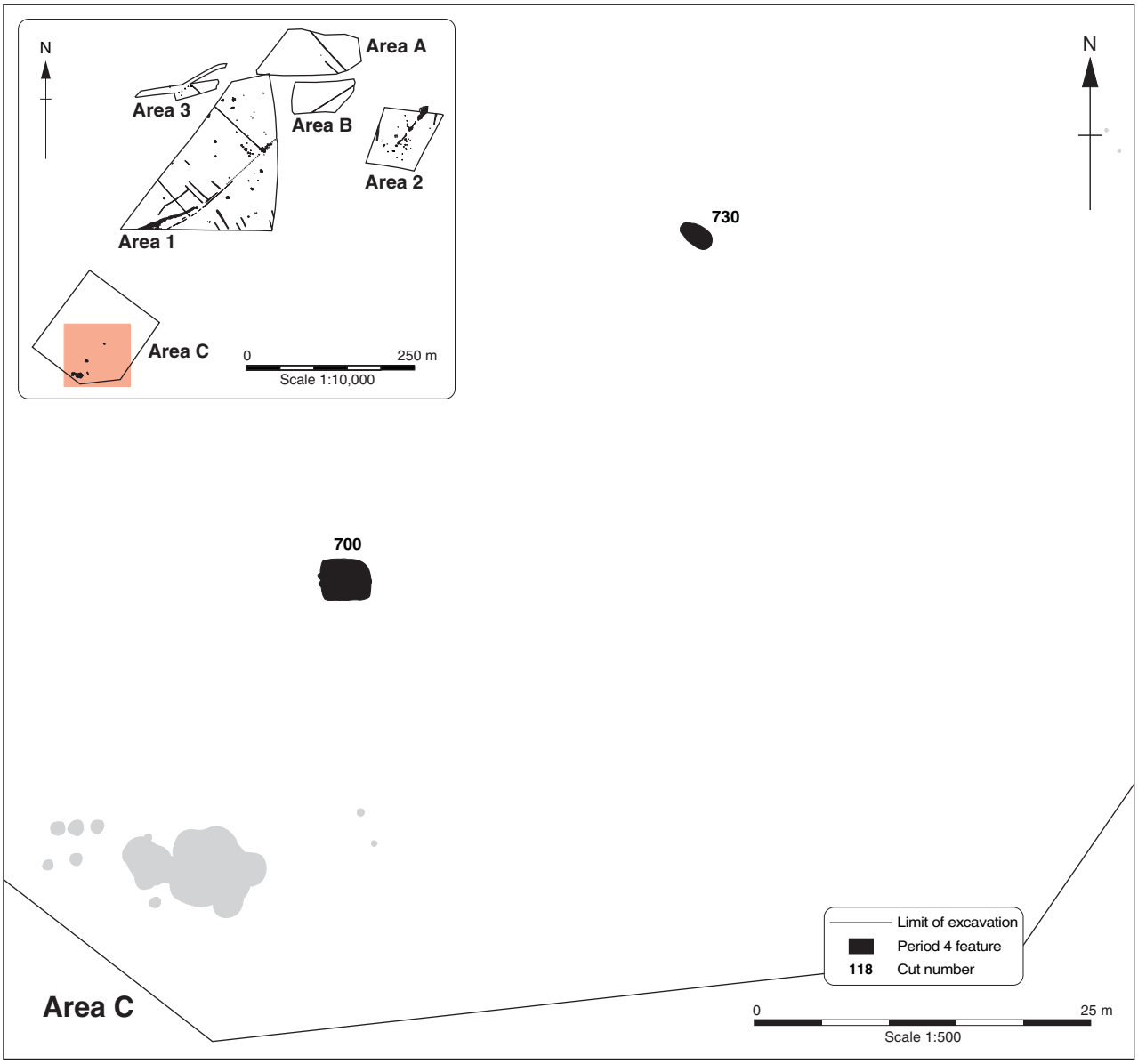
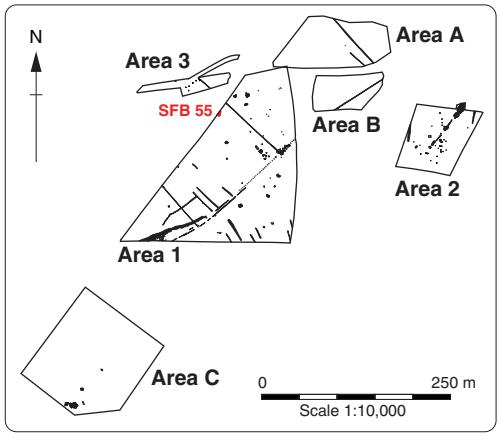
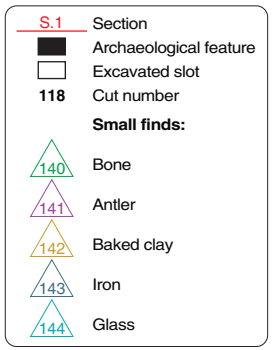


Figure 16: Period 4 - Early to Middle Saxon (Area C)





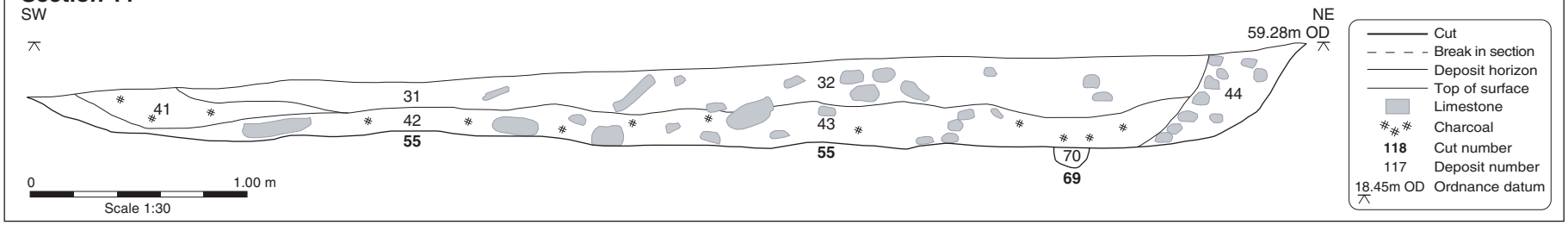


Figure 17: Period 4 - SFB **55** (Area 1)

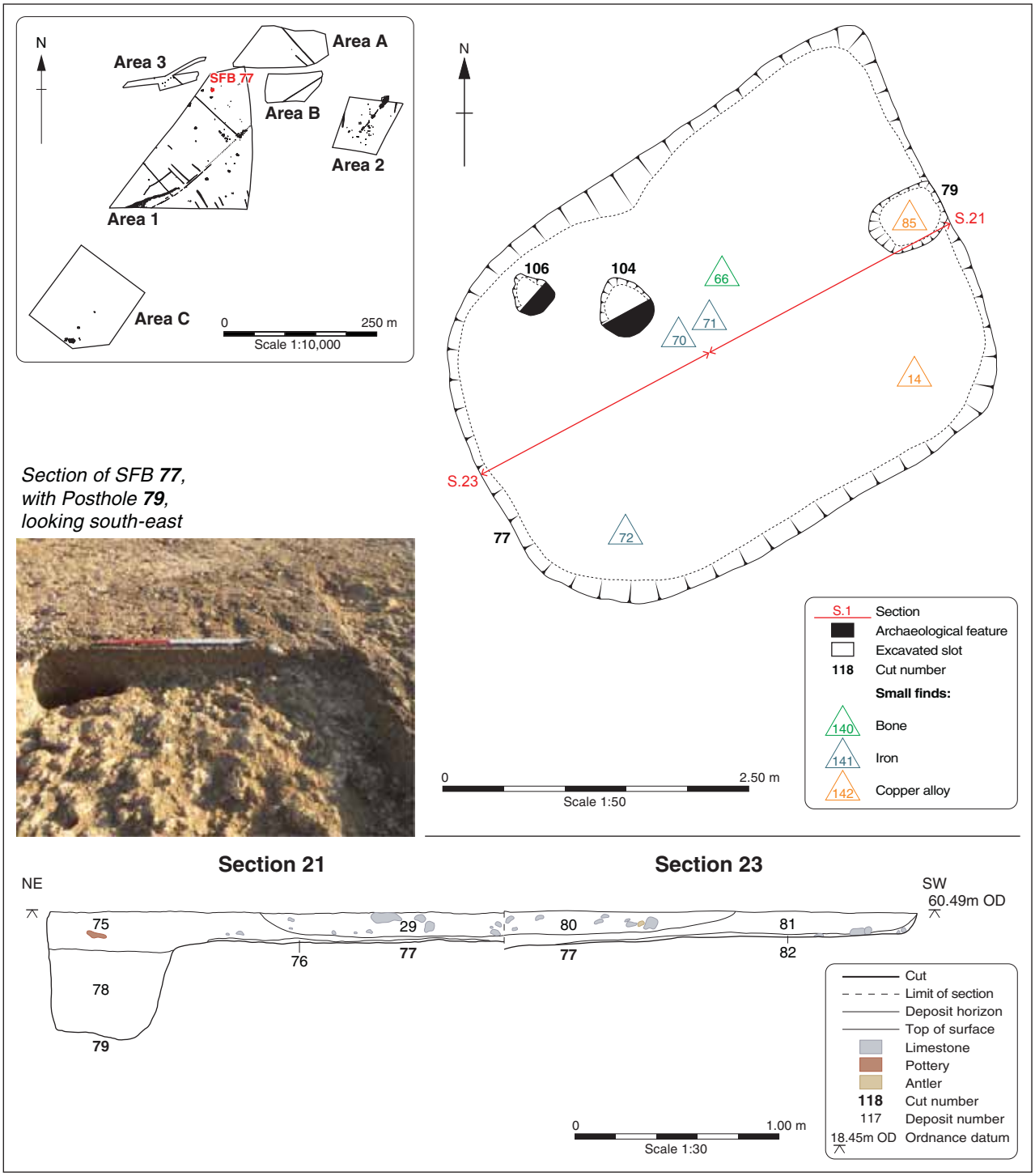
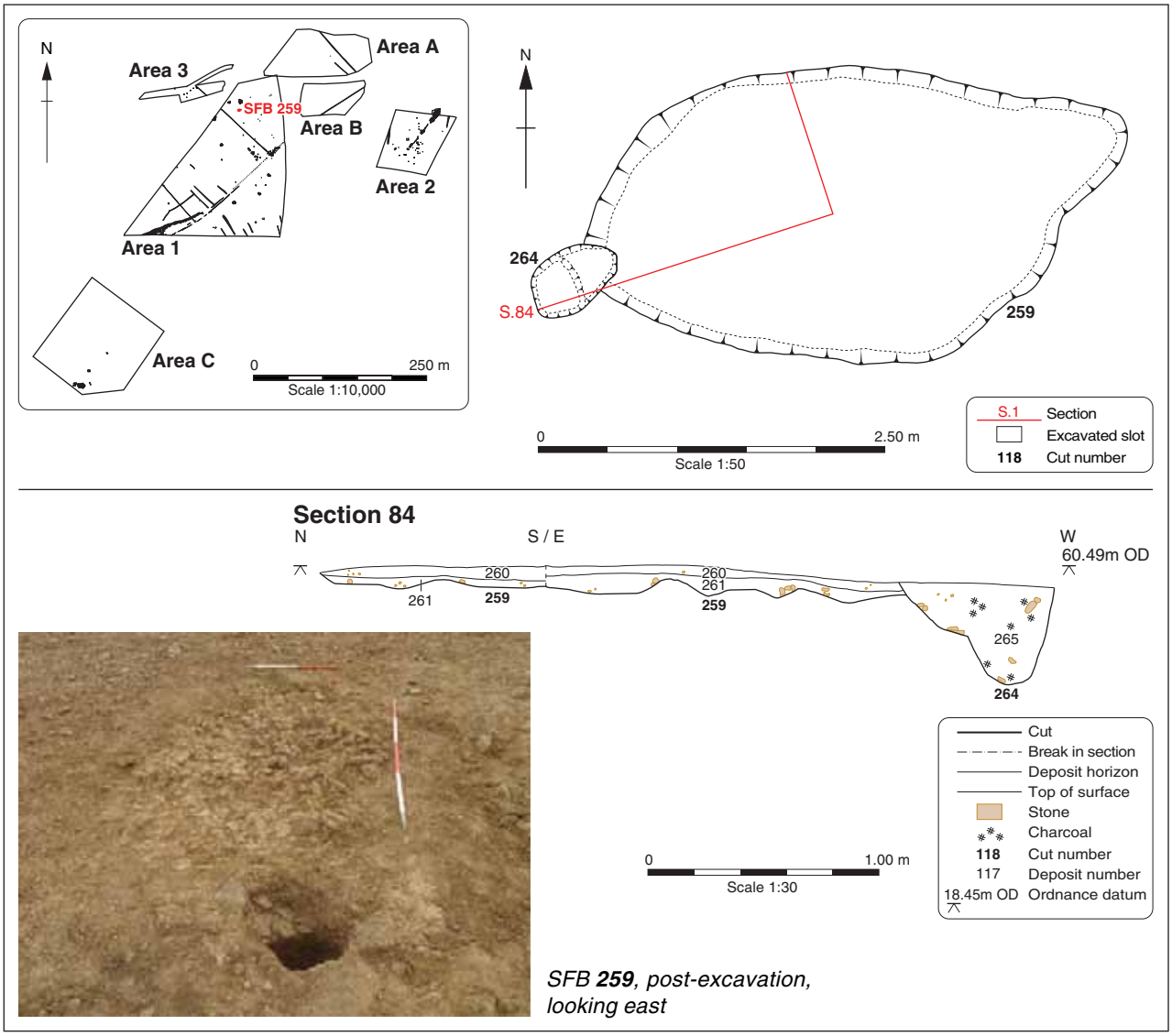


Figure 18: Period 4 - SFB **77** (Area 1)



*SFB **259**, post-excavation, looking east*

Figure 19: Period 4 - SFB **259** (Area 1)

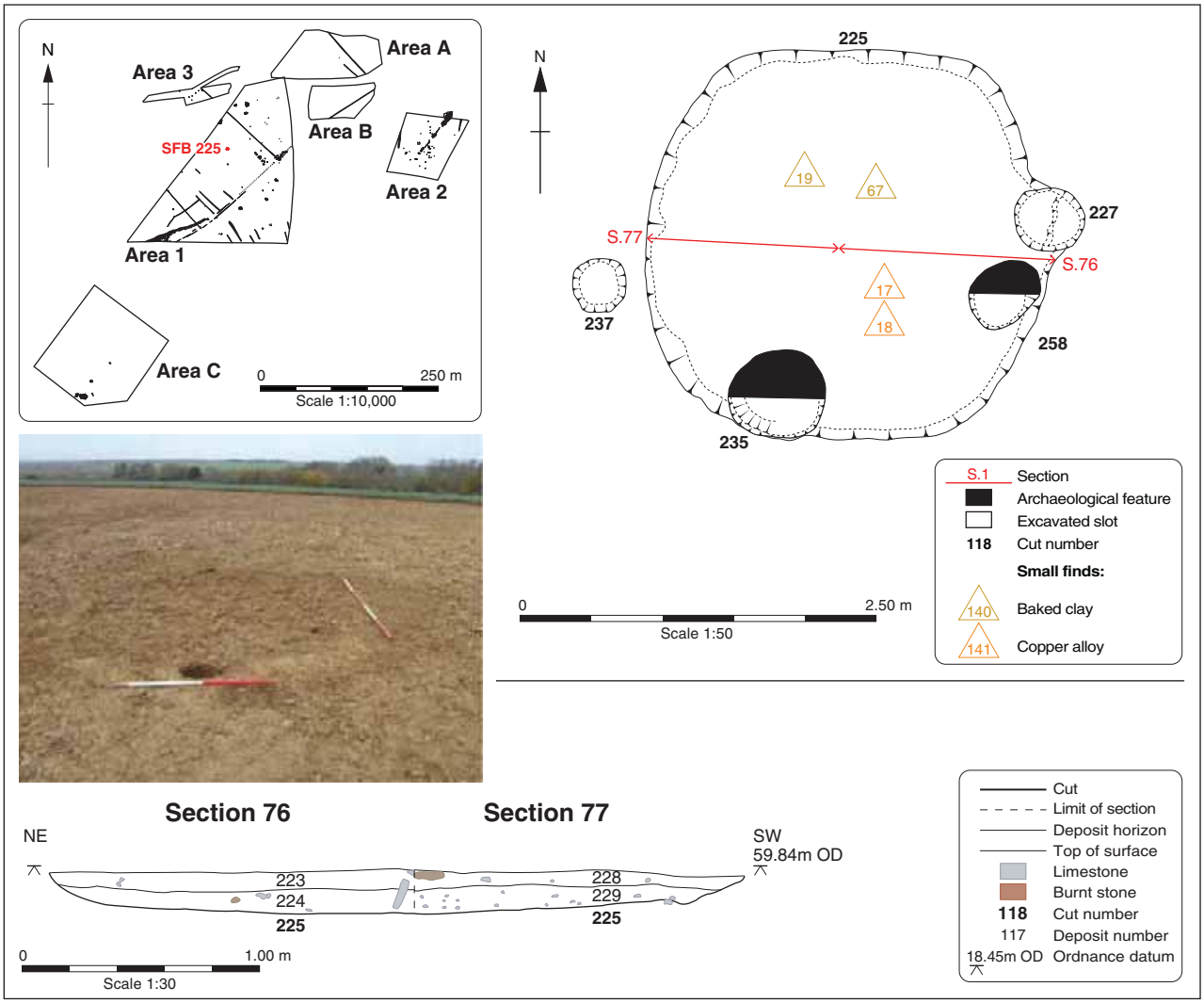


Figure 20: Period 4 - SFB **225** (Area 1)

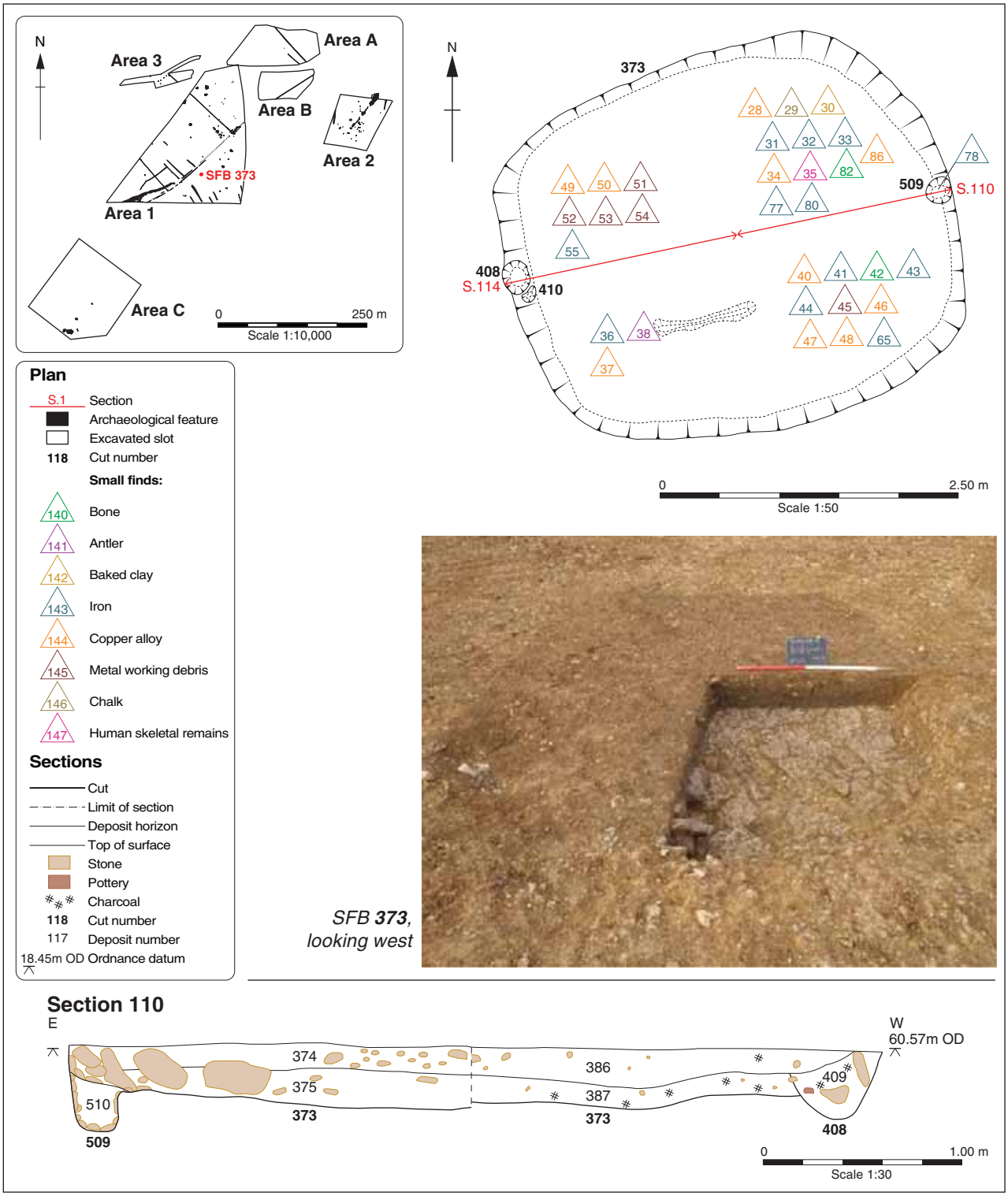


Figure 21: Period 4 - SFB **373** (Area 1)

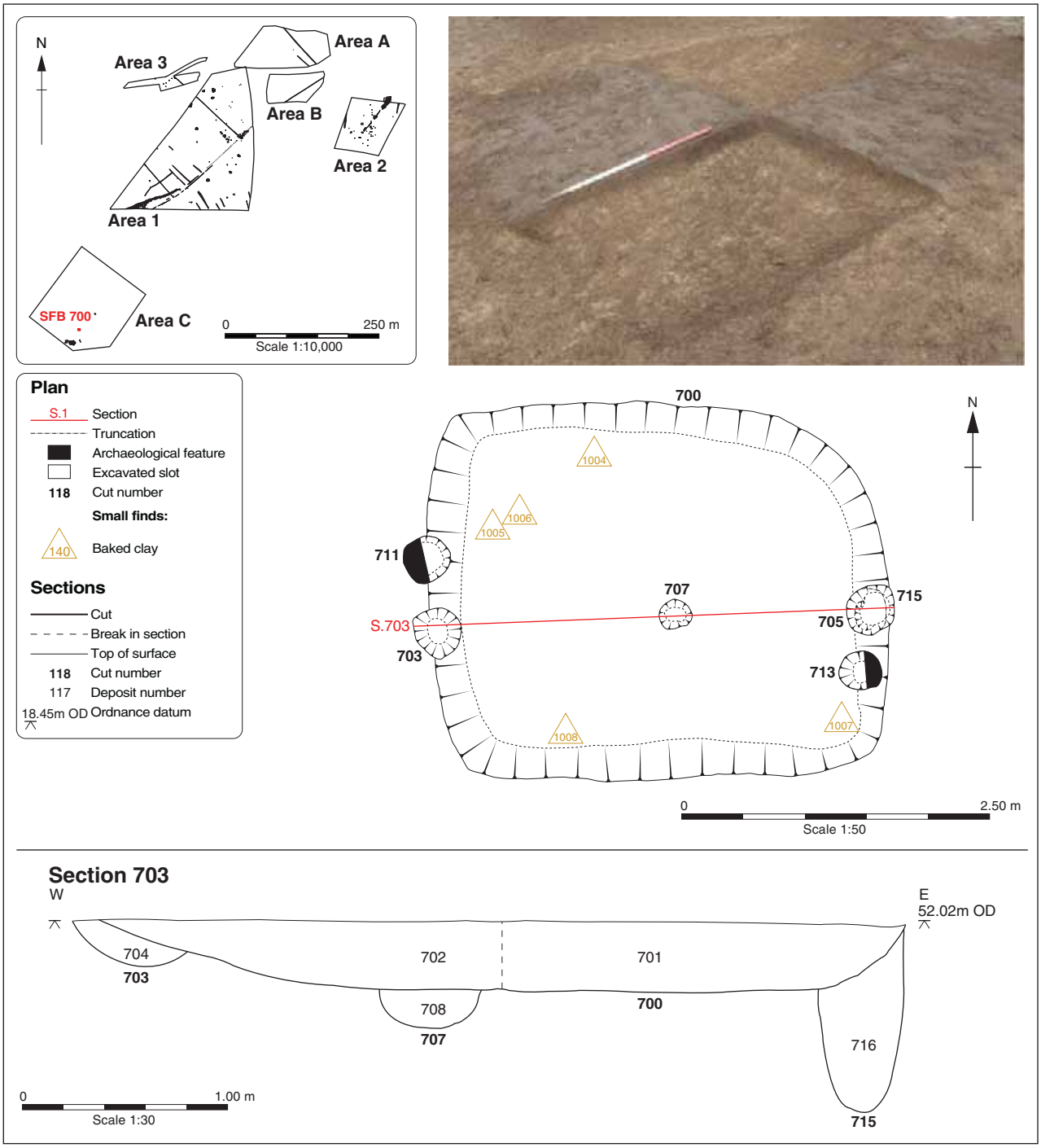


Figure 22: Period 4 - SFB **700** (Area C)

Figure 23: Post-Medieval, Modern and undated features

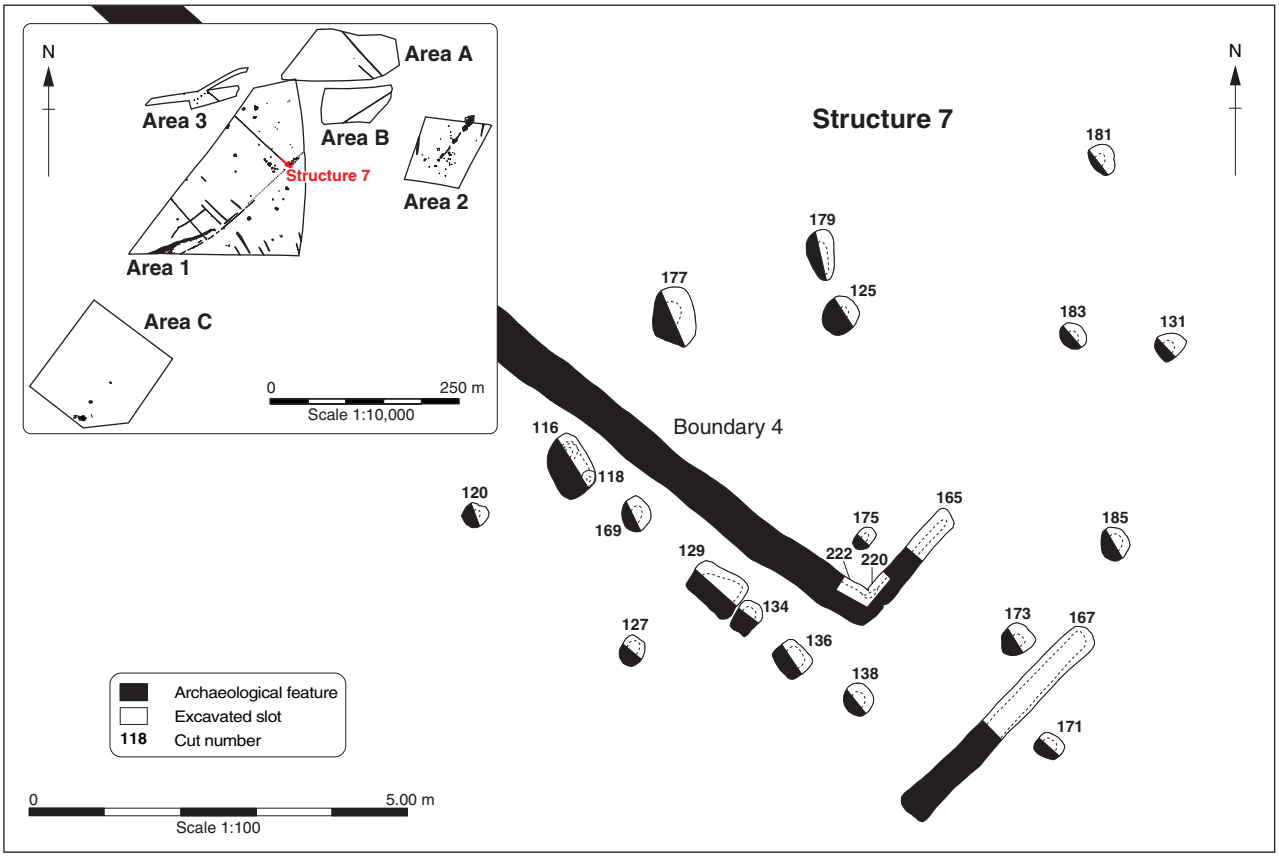


Figure 24: Period 5 - Structure 7

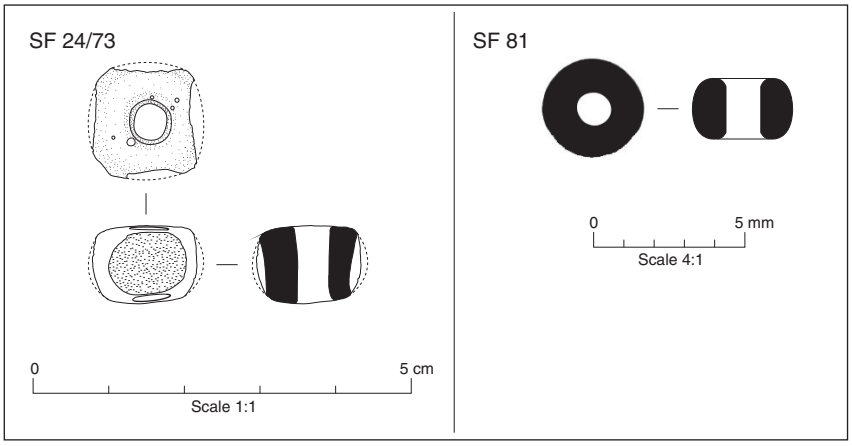


Figure 25: Glass objects

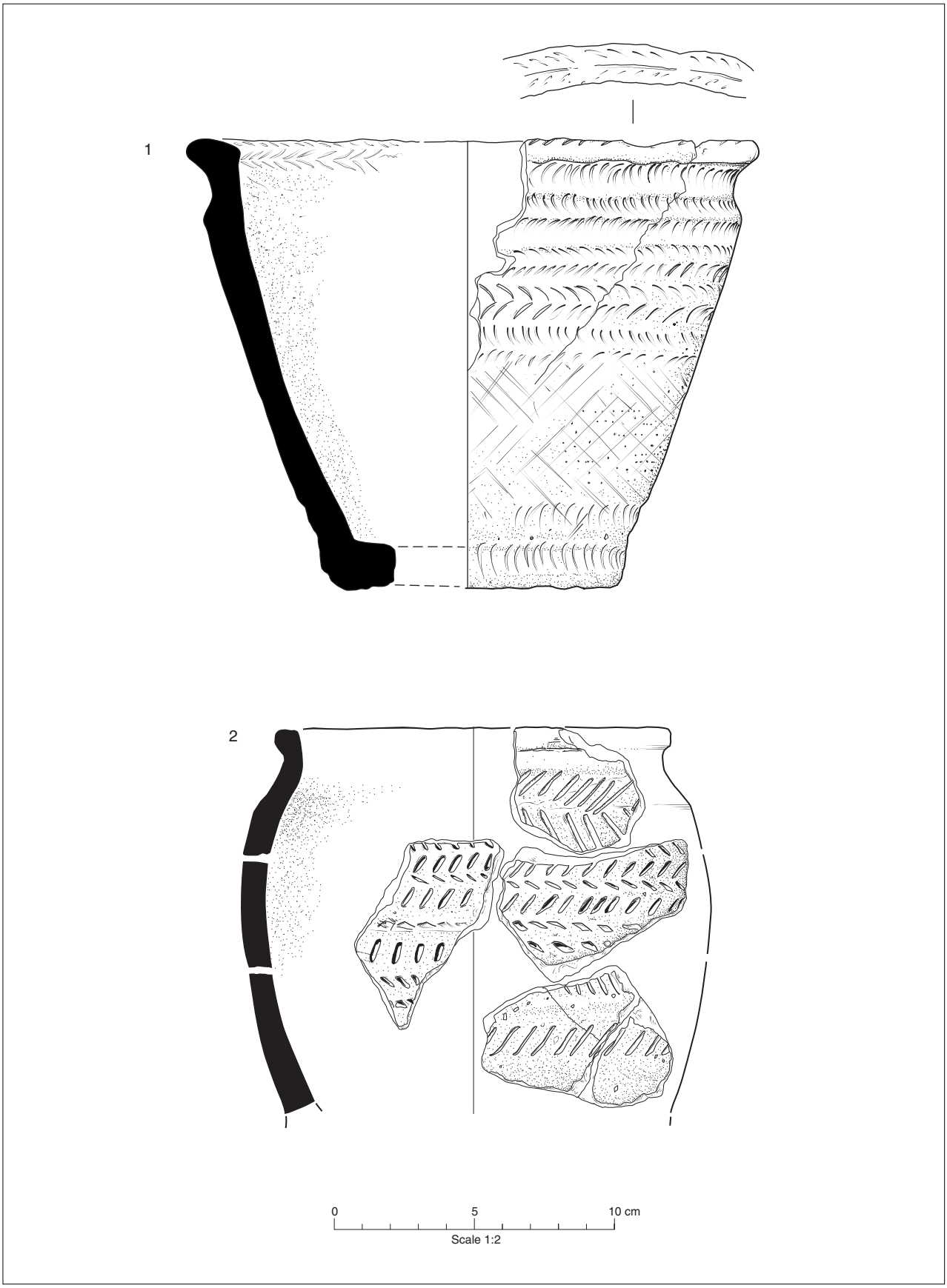


Figure 26: Neolithic pottery

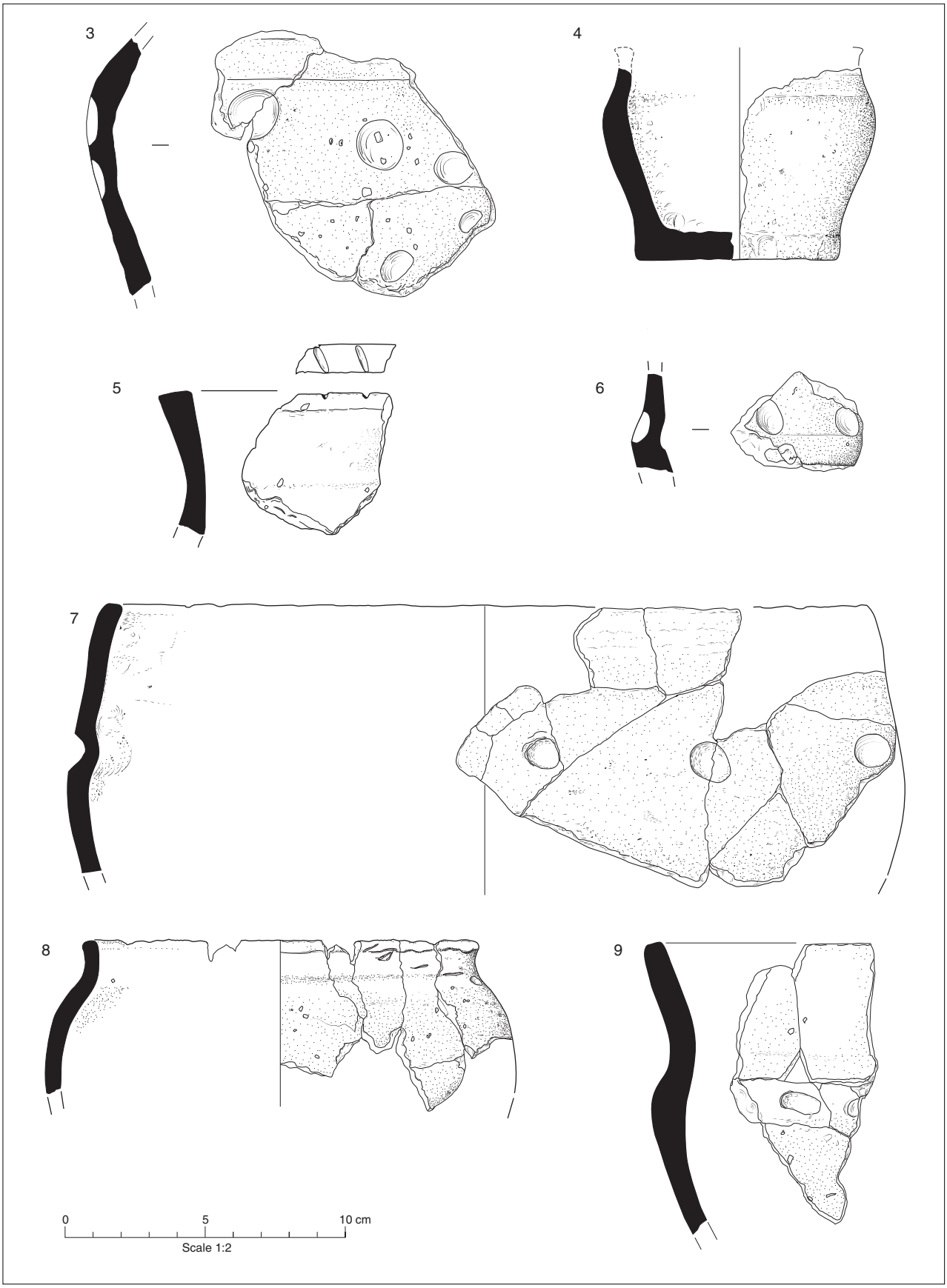


Figure 27a: Late Bronze Age / Early Iron Age pottery

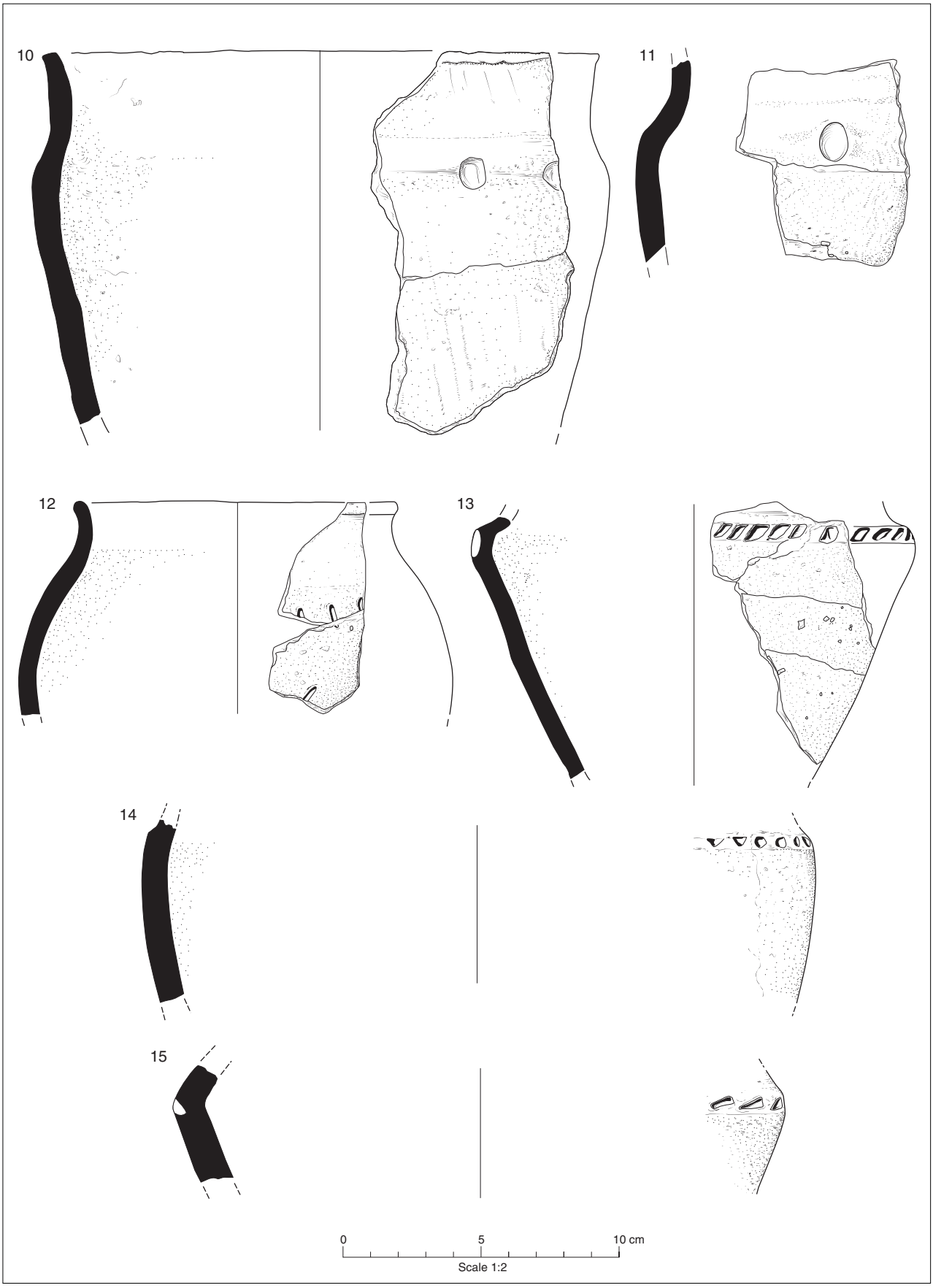


Figure 27b: Late Bronze Age / Early Iron Age pottery

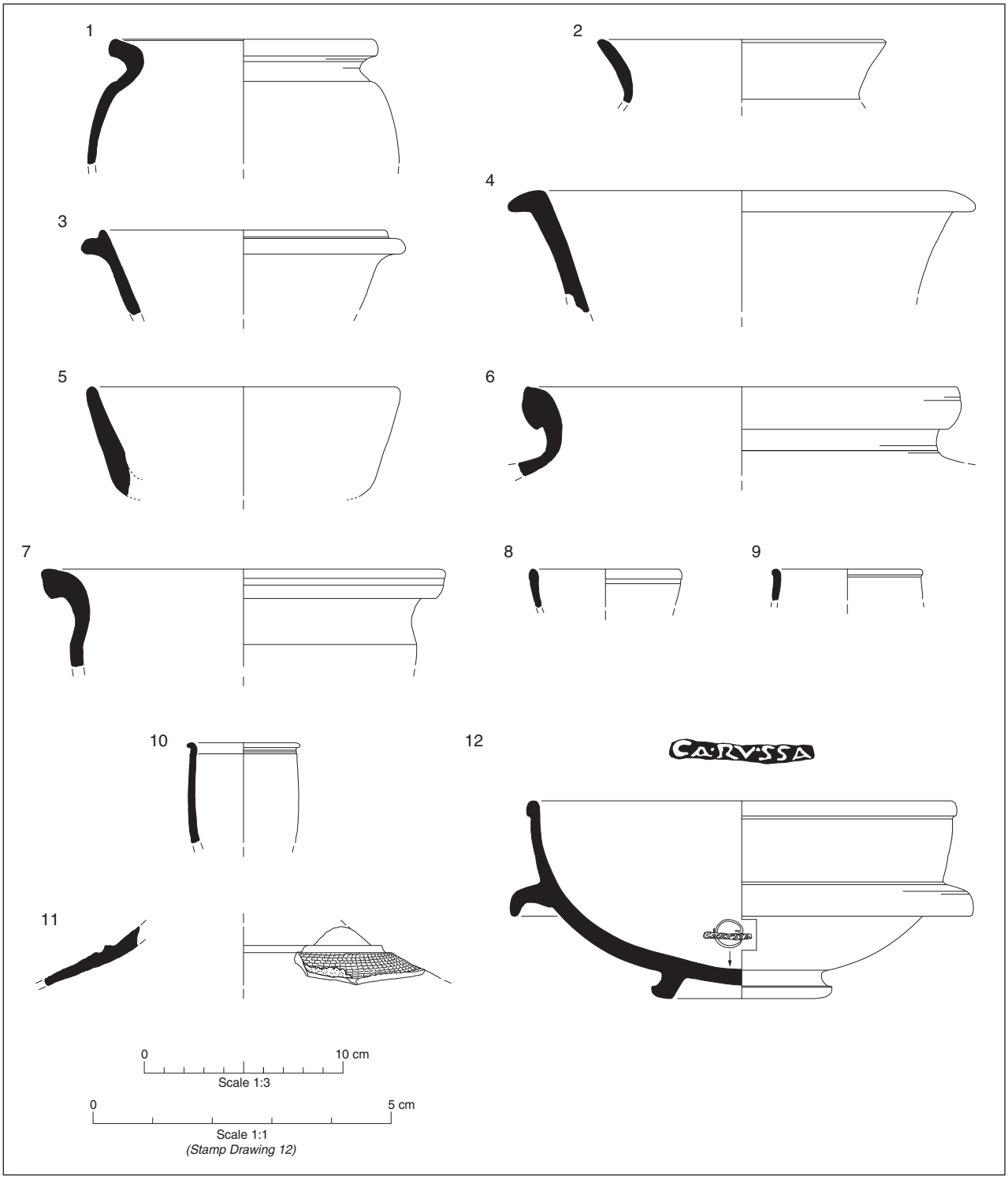


Figure 28: Roman pottery

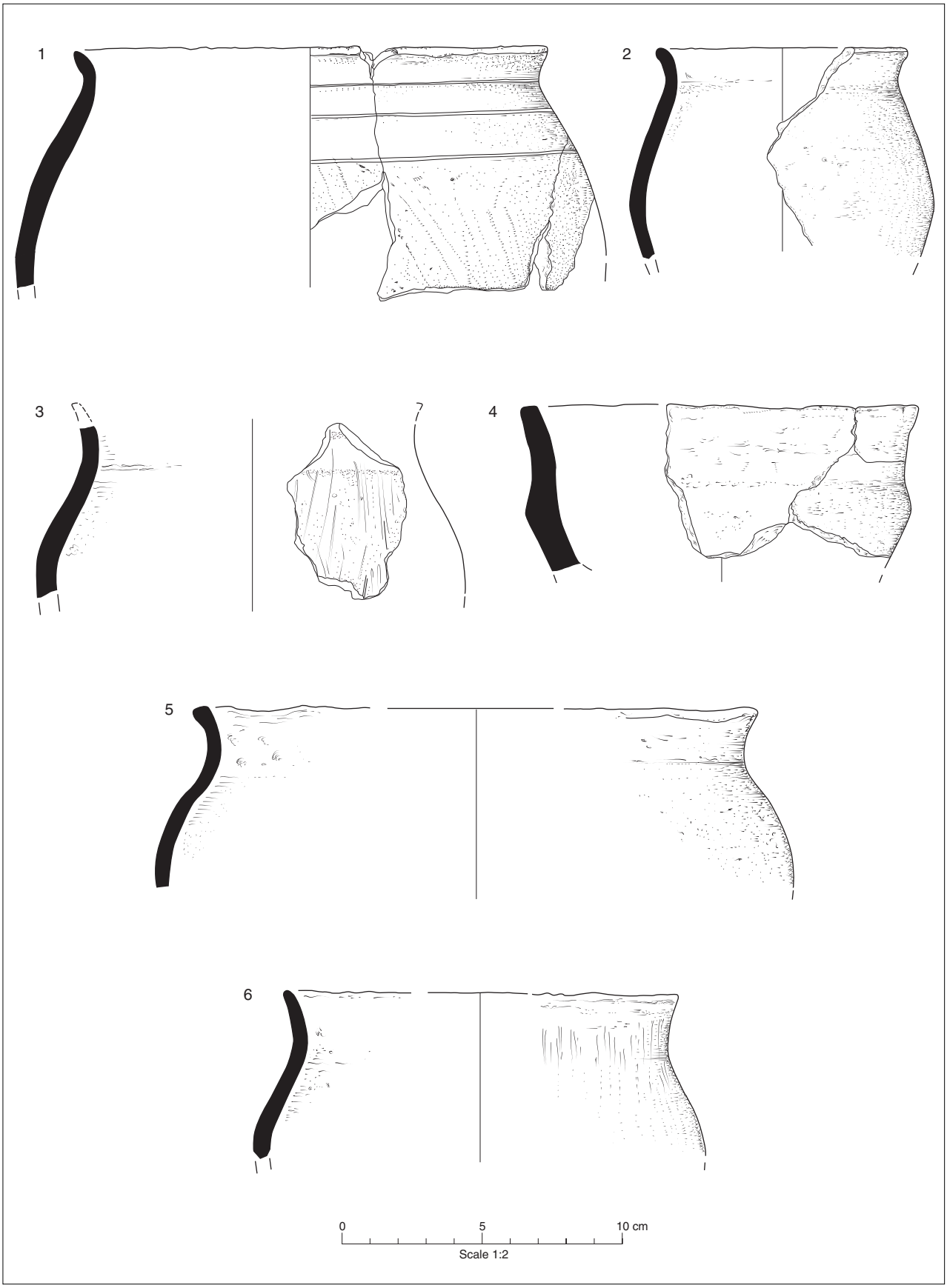


Figure 29a: Anglo-Saxon pottery

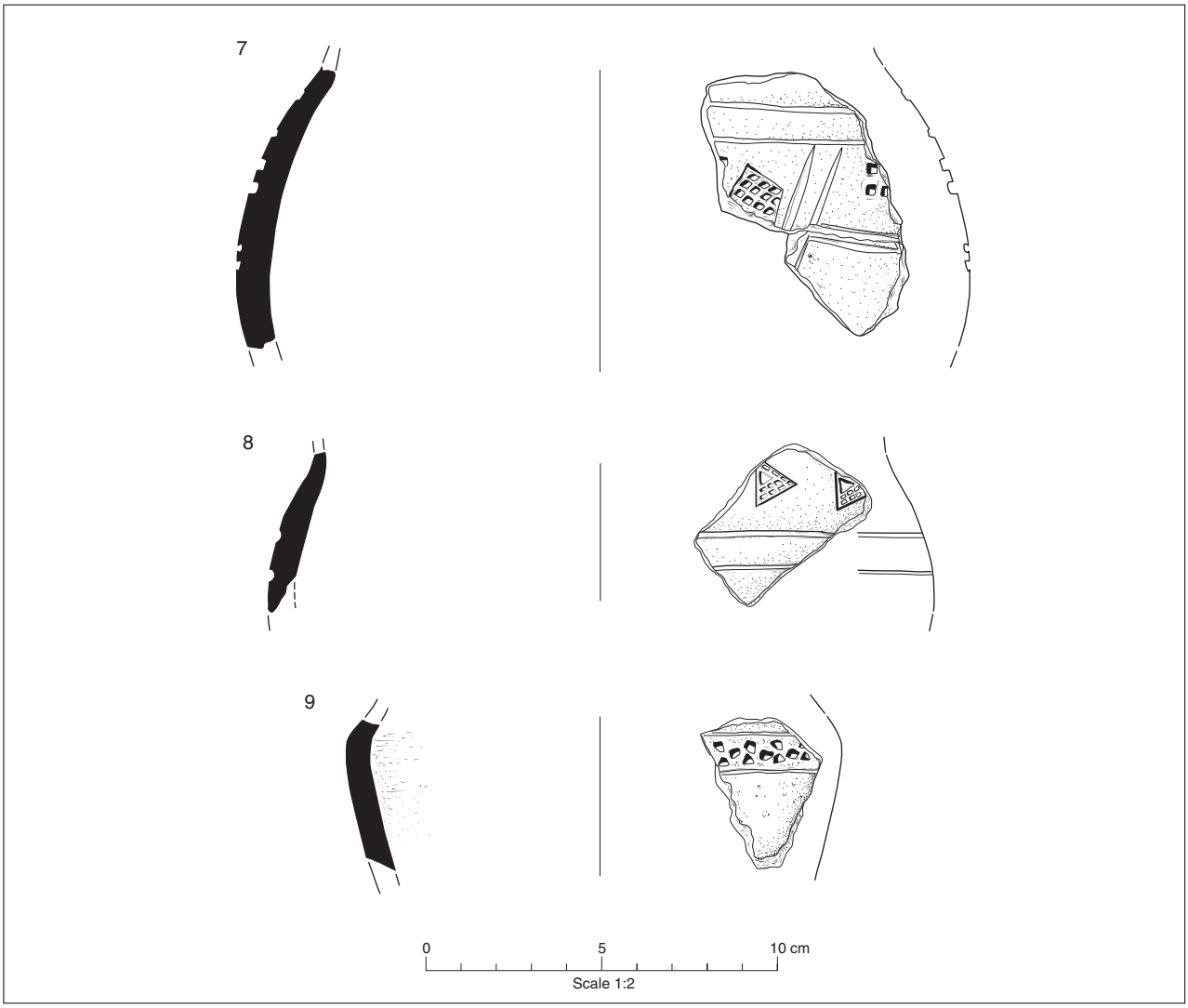


Figure 29b: Anglo-Saxon pottery

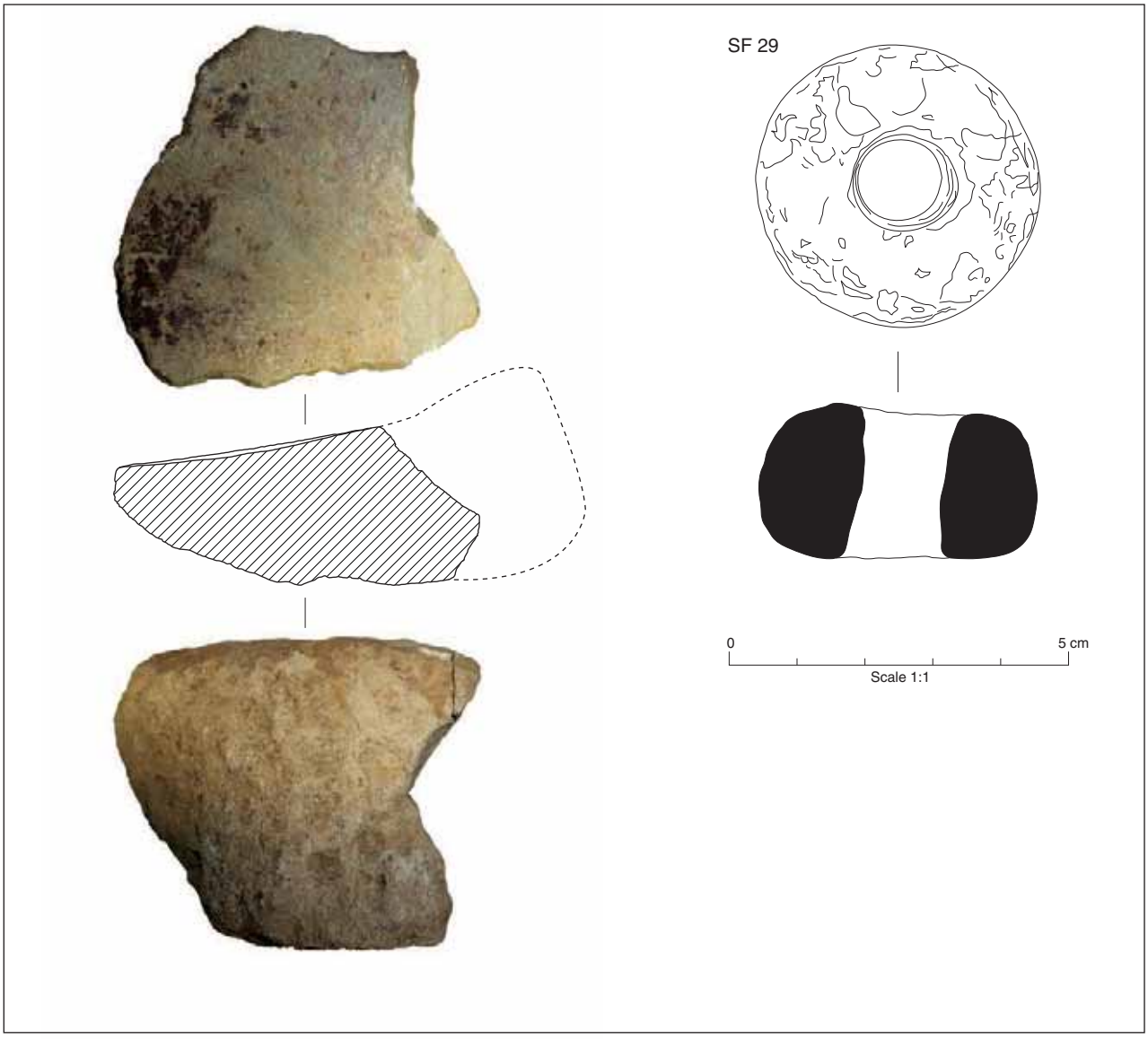


Figure 30: Objects of stone

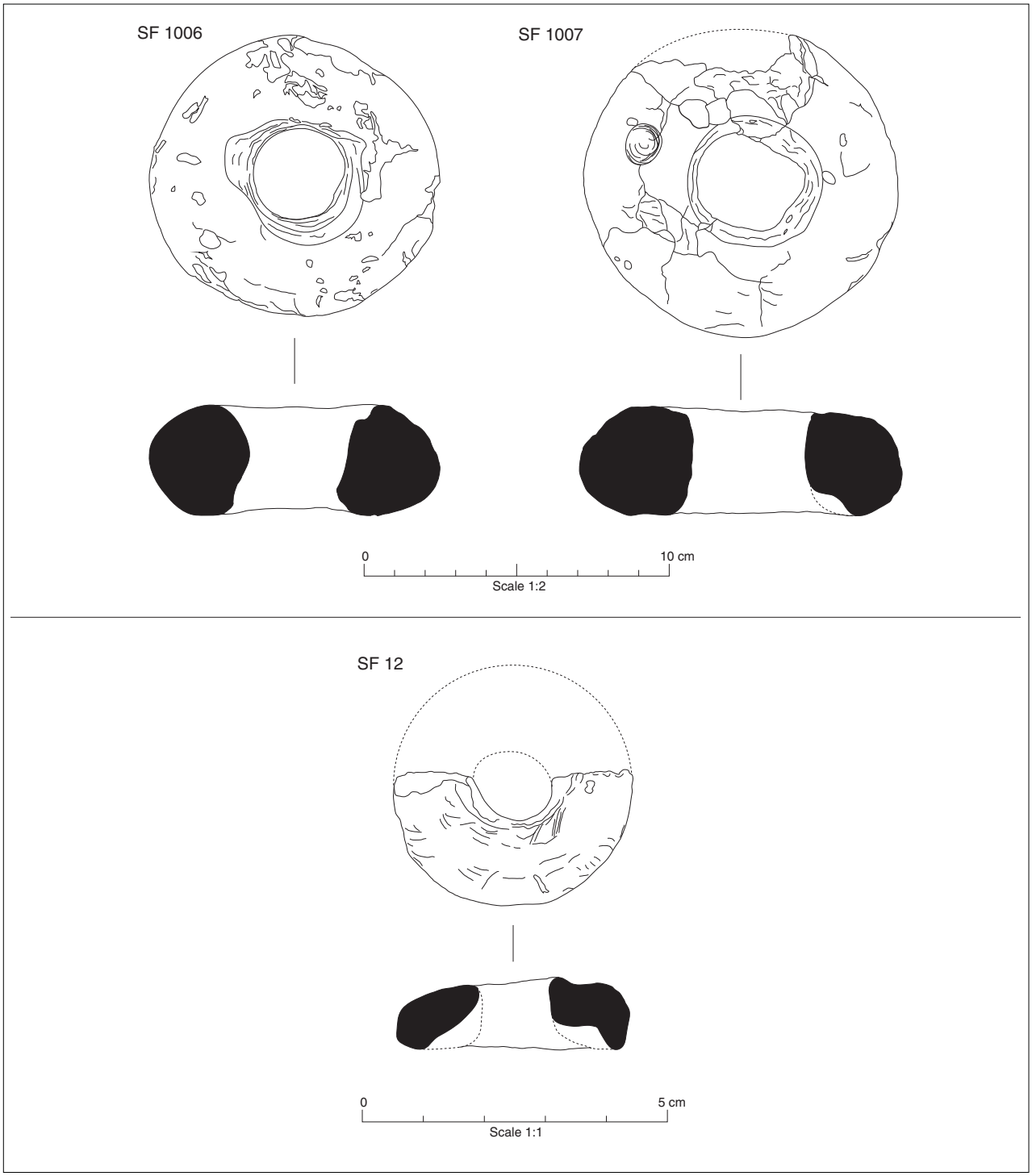


Figure 31: Baked clay objects

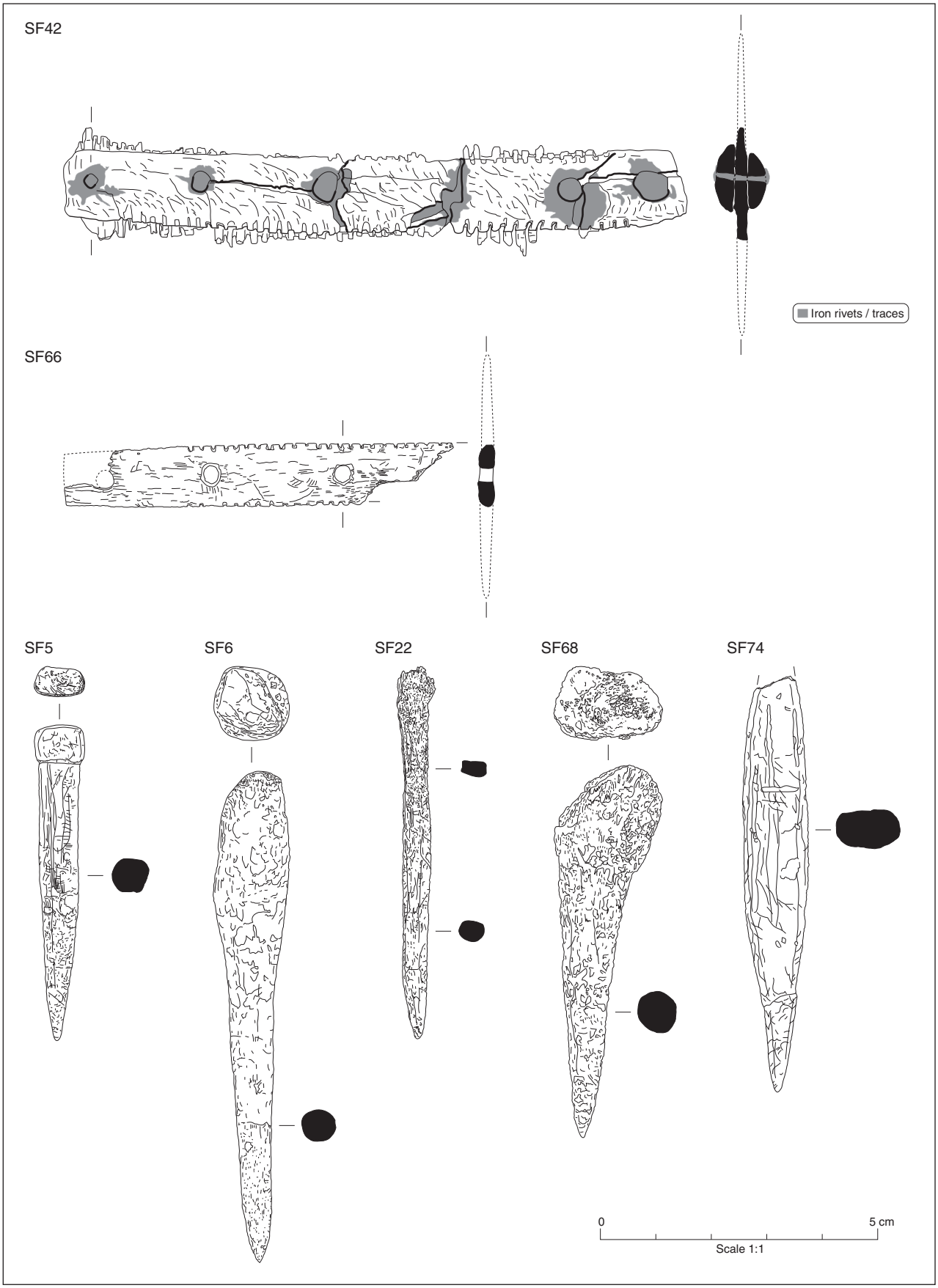


Figure 32: Worked bone objects

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