Excavation Report

Roman Settlement Remains on Land off St Michael's Way, Wenhaston, Suffolk

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Roman Settlement Remains on Land off St Michael's Way, Wenhaston, Suffolk

Archaeological Excavation Report

By Graeme Clarke BSc PCIfA

With contributions by Michael Bamforth BSc MCIfA, Paul Booth BA MCIfA FSA, Chris Howard-Davis BA MCIfA, Rachel Fosberry HNC ACIfA, Alice Lyons BA MA MCIfA, Sarah Percival BA MA MCIfA, Cynthia Poole BA MSc, Mairead Rutherford BA MSc, Alexandra Scard BA PCIfA, Ian R. Smith BA MSc and Roger Tomlin MA DPhil FSA

Editor: Rachel Clarke BA MCIfA

Illustrator: Séverine Bézie BA MA & Charlotte Walton BA MPhil MCIfA

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Signed:	

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Oxford Archaeology East,
15 Trafalgar Way,
Bar Hill,
Cambridge,
CB23 8SQ

t: 01223 850500
f: 01223 850599
e: oaeast@thehumanjourney.net
w: http://thehumanjourney.net/oaeast

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Summary

Between the 8th April and 28th May 2015 Oxford Archaeology East (OA East) carried out excavations at Land off St Michael's Way, Wenhaston with Mells Hamlet; the site of a putative Roman small town. A full excavation (preservation by record) was carried out of the 1.5 hectare development area.

An archaeological evaluation of the site was conducted by NPS Archaeology in 2013 that identified significant Roman remains including possible 'dark earth' deposits in the eastern part of the site. Confirming the evidence of substantial metalwork and other surface find assemblages recovered from the surrounding fields.

The excavation demonstrated the presence of extensive Roman settlement remains. In addition, many Roman metalwork artefacts were recovered from the excavation of the overlying topsoil and subsoil, and the tertiary fill of a palaeochannel that led from a spring towards the valley of the River Blyth. The coin assemblage is indicative of special deposition, rather than casual loss, while the range of other metalwork artefacts recovered, which includes a relatively large number of brooches and a miniature votive sword, may indicate the presence of a possible shrine/sanctuary in the close vicinity.

The settlement remains span the Middle Roman period (c. AD150-300) but appear to predominantly belong to the 2nd century AD. A regular system of ditched plot boundaries extended across the higher/flatter ground in the western part of the site. Within the central part of the site settlement remains focused on a spring, where palaeochannel deposits found equate to the 'dark earth' deposits encountered in the evaluation. An enclosure and two further ditched boundaries were revealed around a set of large pits, representing wells, and a watering-hole sunk into the perched water-table of the spring. The remains of three post-built structures were also revealed across the site, along with further pits and related activity.

Further excavation was undertaken of the waterlogged deposits within the wells and watering-hole between the 23rd November and 4th December 2015. These investigations revealed timber well lining preserved at the base of one well and deposits of preserved timbers at the base of another well. In addition, Roman pottery recovered from the base of these two wells displays examples of graffiti, including a swastika symbol.

Pollen remains (from the well deposits) provide evidence for a possible change in land-use during the Middle Roman period, from arable cultivation to a pastoral regime. Pollen remains are also suggestive of mixed stands of woodland, including beech and lime, either nearby or possibly in gardens within the settlement. Following the pastoral phase the surrounding environment appears to have deteriorated further to a landscape dominated by moorland and scrub vegetation.

The remains encountered in this excavation are of local and regional significance. The results provide a context for the substantial artefact scatters previously found in the surrounding fields and give an important insight into the chronology and evolution of the Roman settlement of Wenhaston. The planned nature of the settlement, combined with the artefact assemblages – especially the relatively high levels of samian and other fine ware pottery – combined provide some support for the interpretation of Wenhaston being a small town during the Middle Roman period.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 Between the 8th April and 4th December 2015 Oxford Archaeology East (OA East) carried out excavations at Land off St Michael's Way, Wenhaston with Mells Hamlet (NGR TM 4285 7535; Fig. 1). These investigations were carried out in two stages between 8th April-May 28th and then from 23rd November to 4th December. The site lies on the eastern edge of the historic village of Wenhaston and in an area with a number of known archaeological sites and remains, notably from the Roman period.

1.1.2 This work was commissioned by CgMs Consulting (Myk Flitcroft) on behalf of Hopkins Homes Ltd, in respect of a proposed residential development on the site (Planning Application: DC/14/2069/FUL).

1.1.3 The excavation was undertaken in accordance with a number of Written Schemes of Investigation (WSI) for the evaluation and excavation phases, prepared by OA East (Macaulay 2015) and approved by the Senior Archaeological Officer Jude Plouviez of Suffolk County Council Archaeological Service Conservation Team (SCCAS/CT).

1.1.4 This site was subject to a desk-based assessment by NPS Archaeology in 2013 which identified archaeological remains from the prehistoric, Roman, Saxon and medieval periods in the near vicinity, indicating a high potential for archaeological remains, particularly from the Roman period, on the site (Sillwood 2013; Figs 3 and 4). In addition, a geophysical survey of the site was carried out by Archaeological Services WYAS for NPS Archaeology. The results of this survey indicated the site to have low to moderate archaeological potential. The results were presented with the subsequent archaeological evaluation conducted by NPS Archaeology in 2013 (Event no. ESF23010; Ames 2015; Fig. 2). The evaluation revealed features and deposits attributed to the Roman period, with artefacts predominantly from the 2nd century AD.

1.1.5 Significant Roman settlement remains were encountered during the subsequent excavation conducted by OA East. These remains included the unexpected presence of a large watering-hole and a number of wells focused on a spring. Consequently an additional programme of excavation encompassing these remains was agreed upon after consultation with Jude Plouviez (SCCAS/CT) and Myk Flitcroft of CgMs, acting on behalf of Hopkins Homes Ltd. The further excavation was carried out between the 23rd November and 4th December 2015.

1.1.6 In December 2016 a Post-excavation Assessment and Updated Project Design was produced by OA East (Clarke 2016) that defined a suite of research aims relating to the remains encountered on the site.

1.1.7 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 March 2012).

1.1.8 The site archive is currently held by OA East and will be deposited with Suffolk County Council Archaeological Service (SCCAS) under the site code WMH038 in due course. The dissemination of the results of the excavation is described in Section 4.3 below.

1.2 Geology and topography

1.2.1 Located on Land off east of St Michael's Way and south of narrow Street, on the eastern edge of the village of Wenhaston, in the parish of Wenhaston with Mells

Hamlet, Suffolk (Fig. 1). It comprises a 1.5 hectare area of agricultural land between approximately 15m & 20m above Ordnance Datum (OD)(Fig. 5).

1.2.2 The underlying geology of the proposed development site comprises Crag Group - Sand bedrock. Superficial deposits are indicated to comprise Lowestoft Formation - Sand and Gravel (www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html, accessed 12th June 2015).

1.2.3 The natural sand of the Lowestoft Formation (102) was encountered at a depth of between 0.25m and 0.5m below ground level. This deposit comprised loose yellow and yellowish brown sand with some flint gravel inclusions. In the western part of the site encompassing the higher level ground, the natural deposits were overlain by a very thin subsoil (101) composed of loose mid orange brown silty sand with moderate gravel inclusions up to 0.1m thick. This was overlain by topsoil (100) comprising loose dark brown sand with moderate gravel inclusions, measuring 0.25m thick. In the eastern of the site encompassing the sloping ground there was a thickening of the subsoil overlying the natural up to 0.25m thick.

1.2.4 The previous phase of evaluation trenching conducted by NPS Archaeology encountered 'dark earth' deposits in the eastern part of the site (Ames 2015; Fig. 2). These were found during the excavation to equate to palaeochannel deposits that led eastwards from a natural spring revealed in the central part of the site, towards the valley floor of the River Blyth. The palaeochannel formed a broad depression in the eastward-facing slope of the site (Fig. 5).

1.2.5 The excavation revealed a natural spring line at the top of the eastward-facing slope of the site. An environmental investigation into the below ground site conditions conducted by GEMCO Ltd in June 2015 revealed a thin band of clay at a height of approximately 17m OD upon which ground water was perched.

1.3 Archaeological and historical background

1.3.1 A full search of the Suffolk Historic Environment Record (SHER) of a 1km radius centred on the excavation site was commissioned from SCCAS/CT. A desk-based assessment for the development was also produced by NPS Archaeology (Sillwood 2012). The following is a summary based on this report and on the findings of the SHER search, with pertinent records shown on Figs 3 and 4.

General

1.3.2 Wenhaston is a village within the parish of Wenhaston with Mells Hamlet. It is situated to the south of the River Blyth in Suffolk Coastal District *c.*20km south-west of Lowestoft.

1.3.3 It is described as 'Wenadestuna', meaning Wynhaeth's town, in the Domesday survey of 1086, which also describes the two manors of Wenhaston Manor & Wenhaston Grange. The parish has also been known historically as 'Wenlacston, Wenhastone and Wennachester'.

1.3.4 The Church of St Peter's (SHER WMH010; Fig. 4) dates back to at least the early medieval period where it is also mentioned in the Domesday survey. The current church building dates to the 12th century. SHER WMH024 (Fig. 4) records Saxon and medieval metalwork artefacts recovered from metal detecting of the playing fields immediately to the west of Wenhaston Primary School, to the south of the church. The Chapel of St Bartholemew is also recorded near the old site of Wenhaston Hall on Bartholomew's Lane.

1.3.5 Settlement at Wenhaston continued throughout the medieval period, centred on St Peter's church, the two manors and commons. A rectilinear cropmark enclosure has been observed on aerial photographs adjacent to Church Lane, 300m to the west of the site (SHER WMH015). This is interpreted as a possible medieval toft/croft property fronting onto Church Lane.

1.3.6 The remains of the Chapel of St Margaret (SHER WMH003) are located within Mells Hamlet with further deserted medieval village remains in the vicinity. This chapel was built *c.*1100-1120 and abandoned c.1465.

1.3.7 A search of past Ordnance Survey maps of the site at http://maps.nls.uk (accessed 12th June 2015) was carried out to determine the more recent use of the site in the modern period. It was determined that the site has been an agricultural field with the same boundaries from at least 1882.

Metal detecting and fieldwalking on the site and its immediate environs

1.3.8 The land on which the development area is situated and the fields immediately to the east and south of the site have been extensively fieldwalked and metal detected, the results of which indicate activity from the prehistoric, Roman, Saxon and medieval periods (SHER WMH005; Fig. 4). Study of aerial photographs of these fields show cropmarks of boundaries on a different alignment to existing field boundaries. The cropmark of a ring ditch, possibly representing a prehistoric round barrow, of 12m diameter is also shown. Further to these monuments, cropmarks show another ring ditch of *c.*20m diameter and a rectilinear enclosure (SHERs WMH001 and WMH002; Fig. 4). The substantial artefact scatter recovered from these fields to date includes:

Neolithic (4000 – 2351BC) flaked flint axe;

Late Iron Age (100BC – AD42) silver Iceni coin (Boar-Horse type) & enamelled terret ring fragment of harness;

Roman (AD43 – 409) pottery including Samian ware, Nene Valley ware and amphora sherds & metalwork including coins, rings, key, harness fittings, brooches, buckle, bead, knife, cosmetic grinders and a goat figurine;

Early Saxon (AD410 – 649) metalwork including brooches, clasp and a pin;

Late Saxon (AD850 – 1100) Thetford ware pottery;

Medieval (AD1101 – 1539) pottery & metalwork including a bronze seal, coin, buckle and harness fitting; and

Post-medieval (AD1540 – 1900) metalwork including bell, buckle, coin, spoon and strap fitting.

1.3.9 This activity extends to the north of the site beyond Narrow Way to the fields in the vicinity of Vale Farm (SHER WMH004; Fig. 4). Aerial photographs of these fields show a rectilinear cropmark system and part of a rectangular enclosure. Metal detecting of these fields has yielded many metal finds including:

Late Bronze Age (1000 – 701BC) fragment of bronze socketed axe and a complete socketed hammer;

Late Iron Age (100BC – AD42) Bow brooch (La Tene I style) and three coins;

Roman (AD43 – 409) coins, brooches, stylus, cosmetic grinders;

Early Saxon (AD410 – 649) Bow brooch, cruciform brooch and strap end; and

Medieval (AD1101 – 1539) penny and halfpenny coins from reigns of Henry II to Edward III and a harness pendant.

1.3.10 A Roman bronze statuette of a nude Venus, 6 inches high, was found in a field near Blyford Bridge on the northern edge of the parish, 1km to the north of the site (BLY002).

1.3.11 The SHER entries for the artefacts described in Sections 1.3.8 & 1.3.9 above are considered to be indicative of a large Roman settlement, possibly a small town. The Saxon pottery and metalwork are described as probably associated with a Saxon cemetery.

Previous work on the site

1.3.12 The geophysical survey revealed several discrete anomalies considered to be possibly archaeological with a number of further anomalies thought to be geological in origin. The subsequent evaluation trenching encountered ditches, pits and 'dark earth' deposits indicative of settlement. The associated finds indicate a Roman date with the settlement's main period of occupation being predominantly within the 2nd century AD (Ames 2015).

Previous work in the environs of the site

1.3.13 Archaeological excavations on Narrow Way, immediately to the north of the site, have revealed archaeological features dating from the Saxon and Roman periods (SHER ESF17070 Fig. 3; WMH019 Fig. 4). A single trench containing a pit and a ditch, both of which yielded abraded Roman pottery including colour coated and Samian wares. An evaluation and excavation at numbers 7-14 Narrow Way (SHERs ESF19941/ESF21812 (Fig. 3) and WMH033 (Fig. 4)) revealed Roman and Middle Saxon features including pits, post holes, ditches, a post hole building and a possible palisade ditch. Artefacts recovered consisted of Roman pottery and metalwork including a coin and a brooch along with Middle Saxon Ipswich ware pottery. Some medieval features and artefacts were also recorded (Stirk 2009a).

1.3.14 Roman pottery has also been recovered from monitoring of ground works that identified various features including a hearth, pit, post hole and ditch at the Old Vicarage on Church Lane, 300m to the west of the site (SHER ESF20438 Fig. 3; WMH034 Fig. 4) (Stirk 2009b).

1.4 Acknowledgements

1.4.1 The author would like to thank Myk Flitcroft of CgMs for commissioning the work on behalf of Hopkins Homes Ltd. Stephen Macaulay managed the project on behalf of OA East, while Jude Plouviez and Faye Minter of Suffolk County Council monitored the works. The fieldwork was supervised by the author and Ashley Pooley, and excavated by Lindsey Kemp, Tom Watson and Catherine Mackley. The site survey was conducted by Dave Brown, Louise Bush and Gareth Rees. The illustrations were produced by Charlotte Walton and Séverine Bézie. Thanks are extended to the various specialists for their contributions.

2 Aims and Methodology

2.1 Aims

2.1.1 The original aims of the project were set out in the Brief (Tipper 2013) and Written Scheme of Investigation (Macaulay 2015). These aims were further refined through liaison with SCCAS/CT and CgMs for Hopkins Homes Ltd following the first phase of excavation to include the watering-hole and wells encountered on the spring. These revisions were listed in the Updated Project Design and Post-Excavation Assessment (Clarke 2016).

2.1.2 The main aims of this excavation 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 phase 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 aims and objectives of the excavation were developed with reference to the national, regional and local frameworks, in particular English Heritage (1997), whilst the local and regional research contexts provided by Going & Plouviez (2000) and updated/revised by Medlycott & Brown (2008) and Medlycott (2011).

2.1.4 The Post-Excavation Assessment and Updated Project Design showed that some of the original aims and objectives of the excavation stated below could be met through the analysis of the excavated materials (Clarke 2016, 28-32).

2.2 Regional Research Objectives

2.2.1 Understanding settlement and layout: the putative Roman small town (Going & Plouviez 2000, 19)

- 'The limited evidence for rural settlement layout and economy rarely extends beyond the building plan in the case of villas and the settlement enclosure on other sites (often here lacking evidence of the building(s) because of agricultural erosion).'

2.2.2 Coinage/artefact patterns: casual loss or deliberate deposition? (Brown & Glazebrook 2000, 20)

- 'The quantities of metal detected information already collected in Norfolk and Suffolk and now beginning to accumulate in the other three counties is a barely touched research asset – preliminary work on coinage patterns for example identify low levels of both hoard deposition and general coin loss in the coastal zone in the second half of the 4th century.'

2.2.3 Research topics - towns (Brown & Glazebrook 2000, 21)

- 'The 'small towns' of the 1st and 2nd centuries appear to have developed along uncontroversial lines, but do not seem to have expanded much after a later Antonine apogee.'

2.3 Local and Site Specific Research Objectives

- The characterisation of the form and development history of the settlement;

- Settlement form;
- Relationship with the local and regional economy;
- Towns;
- Infrastructure; and
- Finds studies.

2.4 Additional Research Objectives

2.4.1 The post-excavation assessment process also identified new objectives drawn from the regional research assessments and agendas (Medlycott 2011) relating to:

- the atypical coin assemblage suggesting a special context to their deposition;
- the nature of the metalwork assemblage also suggesting the presence of a shrine/sanctuary;
- the potentially religious significance to the graffiti (including a swastika and possible Chi-Rho symbol) on pottery vessels recovered from the basal deposits of wells; and
- the possibility that the spring itself, into which the wells were excavated, acted as a focus for ritual activity.
- Metalwork artefacts (including a knee brooch and votive sword) recovered from Wenhaston are considered to be indicative of a possible military presence/aspect to the site.

2.4.2 Ritual and religion (Medlycott 2011, 48)

- 'The evidence for change in ritual practices, including the introduction of Christianity, needs re-assessing in the light of recent excavations. How many religious sites (temples/shrines/etc) are known from the region?'

2.4.3 Evidence for Early Roman military presence (Medlycott 2011, 44)

- 'The Portable Antiquities Scheme has contributed a quantity of data relevant to this theme, although some counties have noted the patchiness of the record, and a period of collation and analysis is required. Examples of early military metalwork include a set of 1st-century harness-fittings from SE Suffolk.'

2.4.4 Evidence for Late Roman military presence (Medlycott 2011, 45)

- 'The Portable Antiquities Scheme could shed light on later finds assemblages, e.g. numerous late Roman belt sets which are possibly associated with Germanic mercenaries are known, and a period of collation and analysis is required.'

2.5 Methodology

2.5.1 The methodology used followed that outlined in the Brief (Tipper 2013) and detailed in the Written Scheme of Investigation (Macaulay 2015) which required that approximately 1.5ha in total be machine stripped to the level of natural geology or the archaeological horizon and in particular to the top of the possible 'black earth' layer for systematic sub-sampling.

2.5.2 The excavation area was subject to a metal detector survey prior to the stripping of topsoil and subsoil from the site. The survey was carried out by OA East archaeologists

and local volunteers experienced in metal detector survey. Each metal artefact was mapped using a hand held Global Positioning System (GPS).

2.5.3 Machine excavation was carried out by a tracked 360º type excavator using a 2m wide flat bladed ditching bucket. under constant supervision of a suitably qualified and experienced archaeologist.

2.5.4 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.

2.5.5 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

2.5.6 A total of 64 bulk samples were taken from the excavated features. These each totalled 40L and were processed by flotation at OA East's environmental processing facility at Bourn.

2.5.7 Site conditions were good, with rain at times.

3 Results

3.1 Introduction

3.1.1 The proposed development area was subject to 10 evaluation trenches by NPS Archaeology in 2013 and an open-area excavation by OA East totalling approximately 1.5ha in 2015.

3.1.2 Combined, these demonstrated the presence of significant Roman settlement remains on the eastern edge of Wenhaston (Fig. 1; Plate 1). Artefacts recovered from features indicate this part of the Wenhaston settlement was primarily in use between the mid-2nd and 3rd centuries AD; the Middle Roman period.

3.1.3 Summaries and descriptions of the features identified during the evaluation undertaken by NPS Archaeology, the excavation conducted by OA East, and the artefacts recovered are given in this section. A context and finds quantification for each phase of work is presented in Appendix A, Tables 6-8.

3.1.4 The layout of the trenches excavated by NPS Archaeology in relation to the geophysical survey is given as Figure 2. A topographical model of the site in relation to the features is presented as Figure 5 with feature locations shown as Figures 6 and 7a-b. Detailed plans of the timber in two wells **229** and **422** are shown as Figures 8 and 9 respectively. Selected sections are presented as Figures 10a-c. The distribution of metalwork including coins recovered from the site by metal detector and hand excavation were mapped and are shown on Figure 11. The location of metalwork artefacts, where clustered, represent their approximate locations due to their recovery from mounds of mechanical excavated spoil. Illustrations of Roman pottery including the sherds displaying graffiti are included on Figures 12a-b. Illustrations of individual timbers recovered from within the wells are shown on Appendix B.9 Figures 1-7.

3.1.5 The chronological phasing presented below is largely based on stratigraphic relationships, spatial associations and, to a certain extent, similarity of alignment of linear features. Where possible this has been combined with dating evidence provided by stratified artefacts.

3.1.6 The activity identified on the site has been subdivided into two main periods:

Period 1: Natural features

Period 2: Middle Roman (*c*.AD150-300)

Period 2.1: plot boundary ditches, enclosure and a watering-hole

Period 2.2: three post-built structures, wells and pits

3.1.7 A very small quantity of diagnostically later Roman artefacts, including pottery and three coins, were found in the topsoil. Furthermore, post-Roman metalwork items were also recovered from the topsoil and subsoil as part of the metal detecting of the site prior to the excavation. These items are described in the relevant Appendix reports but as they fall outside the scope of updated research aims for the project (see Section 2) they are not considered further.

3.2 Period 1: Natural Features

Spring 500 and palaeochannel 269

3.2.1 A perched water table was observed in Trenches 7 & 9 (Fig. 2) during the evaluation phase, with groundwater continuously entering these trenches. During the excavation phase the line of a natural spring was revealed that followed the 18m OD contour

across the site (Figs 5 & 6). An investigation into the ground conditions of the site prior to the development revealed a band of sandy clay at 1m below ground level, on which groundwater was perched forming the spring on the east-facing slope of the site. A palaeochannel **269** was observed to run eastwards from the spring and down the hill towards the main valley and the River Blyth (Figs 5 & 6).

3.2.2 This former water-course, originating from and fed by the spring, was investigated by a series of test pits and a machine excavated trench (Figs 6 & 7b; Plates 2 & 3). This feature was found to be a maximum of 18.5m wide and 1m deep. The palaeochannel contained a primary deposit consisting of sterile pale yellow sand (270) overlain by a similarly sterile dark grey sand (239). These natural deposits were overlain by a thin tertiary deposit (195) that yielded Roman metalwork, ceramic artefacts and faunal remains (see Section 3.5).

3.2.3 This upper fill corresponded to 'dark earth' deposits 13 & 8, described respectively in Trenches 1 & 10, during the evaluation phase (Fig. 2). Sherds of Roman pottery dated to the 2nd-3rd centuries AD were recovered from these deposits which were described as dark brown sand with moderate flint gravel inclusions.

3.3 Period 2.1: Middle Roman (*c.*AD150 – 300)

Introduction

3.3.1 A series of four plots (Plots 1-4; Fig. 6) was revealed that extended across the higher/flatter western part of the site. A fifth plot (Plot 5; Fig. 6) was also revealed at the base of the sloping ground, at the eastern extremity of the site. Plots 1-4 were defined by a series of five regularly-spaced parallel ditches on a southwest to northeast alignment (Ditches 1-5). These ditches defined the three 25m-wide (Plots 1, 2 and 4) and one 32m-wide (Plot 3) plots of land. The ditch cuts each contained silty sand fills that yielded Middle Roman pottery sherds.

Plot 1 (Figs 6 & 7a)

3.3.2 This 25m-wide most northerly plot was defined by ditch 1 to the north, ditch 2 to the south and ditches **222** and **224** along part of the eastern side.

Ditch 1

3.3.3 The most northerly of these was ditch 1 (comprising cuts **104**, **106** (Section 106) & **108**) which measured up to 1.17m wide and 0.39m deep. Each cut contained a single fill (103, 105 & 107 respectively) which consisted of light grey sand with moderate gravel inclusions. This ditch was also encountered in Trench 4 during the evaluation phase as ditch **37**, the fill of which (38) produced a single sherd of Roman samian ware pottery.

Ditch 2

3.3.4 Located to the south, ditch 2 (comprising cuts **109**, **111**, **113** (Section 102), **115** & **117**) measured up to 0.85m wide and 0.2m deep, and extended for 40m. The southwestern and northeastern termini were considered to be the result of truncation of the feature. The fills (110, 112, 114, 116 & 118 respectively), consist of mid-grey sand with frequent gravel inclusions, yielded a combined total of two sherds (1g) of coarse ware and a sherd (22g) of Central Gaulish samian ware.

*Ditches **222** and **224***

3.3.5 Parallel ditches 222 & 224 were partly revealed at the northern limit of the excavation, on a north northwest to south southeast alignment and probably represent part of the eastern boundary of these plots. The fills of these ditches (223 & 225 respectively) consisted of dark grey sand with occasional flint gravel inclusions. A combined total of

five sherds (18g) of coarse wares and 160g of ceramic building material (CBM) were recovered from these deposits. These ditches may represent possible returns of ditch 1 along the eastern edge of this plot of land.

Plot 2 (Figs 6 & 7b)

3.3.6 This plot, to the south of Plot 1, was defined by ditch 2 to the north (described above) and ditch 3 to the south.

Ditch 3

3.3.7 Ditch 3 was the most substantial in the group (comprising cuts **190**, **192** (Section 134), **199**, **221**, **317** & **572** (Section 251) and measured up to 2.4m wide and 0.58m deep. The fills (189, 191, 198, 220, 318 & 587/588 respectively), consisting of light to dark brownish grey sand with gravel inclusions, contained a combined total of 21 sherds (199g) of coarse wares and one sherd (28g) of Central Gaulish samian ware.

Plot 3 (Figs 6 & 7b)

3.3.8 To the south of Plot 2, this plot was defined by ditch 3 to the north (described above) and ditch 4 to the south. On the sloping ground in the eastern part of the plot lay an enclosure and two further ditches (ditches 6 & 7).

Ditch 4

3.3.9 Ditch 4 (comprising cuts **412**, **414**, **439** (Section 216) & **584**) measured up to 1.3m wide and 0.3m deep. The two sections that comprised this ditch alignment were separated by a 6m-wide gap that is probably the result of truncation. The fills (411, 413, 438 & 585 respectively) consisted of light to dark grey silty sand with frequent gravel inclusions. A combined total of 22 pottery sherds (476g) comprising coarse ware and one sherd (30g) of South Gaulish samian ware, was recovered from these fills. In addition, 38g of Roman CBM and 14g of animal bone were also recovered. This ditch may be equated to ditch **20**/**22** excavated in Trench 8 during the evaluation phase. The fill (21/23) of this contained seven sherds of Roman pottery dated to the 2nd-3rd centuries AD.

Enclosure & Watering-hole

3.3.10 In the central part of the site a ditched enclosure and two further ditches were encountered extending over the spring, and may represent a controlled access to the wells (**422** *etc*) and watering-hole (**415**) described below. These were on the same alignment as the ditched plot boundaries (Ditches 1-5) described above and were presumably contemporary. Pottery dating to the Middle Roman period was recovered from all of these features.

3.3.11 The enclosure comprised the northern, western and eastern sides of a rectangular (30m x 20m) plot of land enclosing a watering-hole (**415**). Eight sections of this ditch cut (**375**, **377**, **379**, **381**, **383** (Section 192), **385**, **387** & **515**) were excavated measuring a maximum of 1.5m wide and 0.55m deep. The silty sand fills with varying flint gravel content (376, 378, 472-478, 382, 384, 386, 388 & 516/517 respectively) contained a combined total of 38 sherds (342g) of coarse ware Roman pottery. The fills varied in colour between light to dark brownish grey to greyish brown.

3.3.12 This enclosure was also excavated in Trench 2 during the evaluation phase as ditch **45** (Fig. 2). The fill (46) produced a single sherd of Roman pottery. A further section was excavated in Trench 9 as ditch **51** (Fig. 2), where the fill (52) yielded 28 sherds of Roman pottery dated to the 2nd century AD.

3.3.13 A large sub-circular pit with a shallow profile (Section 256), possibly a watering-hole (**415**), was located within the enclosure and measured up to 12m in diameter and 2.3m deep, containing a series of disuse backfills (successively 614, 416-418). The primary

fill (614) at the base of the watering-hole consisted of dark grey silty sand with moderate gravel and some charcoal inclusions. The overlying fills (416-418) consisted of a succession of dark, mid and light grey slightly silty sands with frequent gravel inclusions. Finds recovered from the fills included a hearth base, probably derived from iron smithing, and a fragment of Roman glass (Sf 246). Middle Roman pottery was recovered including: 61 sherds (803g) of coarse wares; 10 sherds (220g) of Central Gaulish samian ware; and one sherd (11g) of East Gaulish samian ware. A total of 1962g of Roman CBM was also recovered.

Ditches 6-7

3.3.14 To the immediate west of the enclosure were two narrow and small plots defined by ditches 6 and 7 on a northwest to southeast alignment.

3.3.15 Ditch 6 comprised a linear feature on a north northwest to south southeast alignment. Three sections of this ditch cut (**265**, **447** & **570** (Section 250)) were excavated measuring up to 1.3m wide and 0.5m deep. The grey/brown sand fills with moderate gravel inclusions (266, 448/449 & 571 respectively) yielded a combined total of six sherds (34g) of coarse wares.

3.3.16 Ditch 7 comprised a linear feature on the same alignment as ditch 6, to its west. Four sections of this ditch cut (**483**, **485**, **487** & **563**) were excavated, which measured up to 0.8m wide and 0.4m deep. The sand fills with varying gravel content (482, 484, 486 & 562 respectively) yielded a combined total of two sherds (14g) of coarse ware pottery. The fills were also observed to vary between reddish brown, yellowish brown and grey in colour.

Plot 4 (Figs 6 & 7b)

3.3.17 This plot, to the south of Plot 3, was defined by ditch 4 to the north (described above) and ditch 5 to the south.

Ditch 5

3.3.18 The most southerly ditch, ditch 5 (comprising cuts **532** & **535**) was the slightest, measuring a maximum of 0.95m wide and 0.1m deep. The fills (533 & 534 respectively) consisting of dark grey sand with frequent gravel inclusions yielded a combined total of two sherds (10g) of coarse ware pottery. Ditch **466** which extended south from the limit of excavation probably represents the eastern boundary of this plot.

Plot 5 (Figs 6 & 7b)

3.3.19 This plot was defined by ditch 8 along its western side, and was on the same alignment as ditches 1-7, cutting the palaeochannel. Ditch 9 may indicate further subdivisions of this plot or possibly further plots of land, on the same alignment as Plots 1-4, beyond the limit of the excavation.

Ditches 8-9

3.3.20 Three sections of ditch 8 were excavated (**327**, **329** (Section 184) & **372** (Section 200)) and measured up to 0.85m wide and 0.27m deep. Middle Roman pottery was recovered from the fills, with a combined total of five sherds (19g) of coarse wares. The fills (328, 330 & 371) consisted of brown/dark brownish grey sand with moderate flint gravel inclusions.

3.3.21 To the east of ditch 8 a single section of ditch 9, aligned northeast to southwest, was excavated (**321**) that measured 1.5m wide and 0.65m deep, from which no finds were recovered. The primary fill (322) consisted of grey sand with moderate gravel overlain by a secondary fill (323) comprising dark brown sand with moderate gravel inclusions.

Possible trackway (Fig. 6 & 7b)

3.3.22 The 10m-wide gap formed by the eastern arm of the enclosure within Plot 3 and ditch 8 of Plot 5 defined a possible trackway within the settlement, that led from the northwest to southeast across the site. No evidence of surfacing for this possible trackway was revealed.

3.4 Period 2.2: Middle Roman (*c.*AD150 – 300)

Introduction

3.4.1 The ditch alignments (Ditches 1-9) that defined each plot of land in Period 2.1 were encroached upon by a later phase of activity that included post-built structures, wells and pits. The pits of varying dimensions were encountered in each of the plots of land. A number of pits were found to truncate the ditches of Period 2.1. No fills or artefacts associated with their use were present, however, to indicate their primary function. Each was filled with a series of backfill deposits with some containing pottery dated to the Middle Roman period.

Plot 1 (Figs 6 & 7a)

Structure 1 and possible oven

3.4.2 This structure within Plot 1 comprised 18 post holes (**125** (Section 108), **127**, **129**, **131**, **133** (Section 120), **135**, **137**, **139**, **147**, **156**, **158**, **160**, **162**, **164**, **174**, **176**, **178** & **200**) that measured between 0.25m-0.6m in diameter and between 0.06m-0.26m deep with a single fill each. The fills (126, 128, 130, 132, 134, 136, 138, 140, 148, 157, 159, 161, 163, 165, 175, 177, 179 & 201 respectively) generally consisted of grey or brown silty sand with occasional inclusions of gravel and/or burnt clay.

3.4.3 The row of post holes defining the northwestern side of the structure indicated it to probably have been a rectilinear post-built structure. The partial remains of the structure encompassed an area of approximately 10m by 7m. The projected footprint of this structure indicate it to have probably extended over the path of Period 2.1 ditch 2.

3.4.4 The fill of post hole **146** yielded a coin tentatively dated to the late 3rd to 4th century AD and 11g of CBM. Post holes **127**, **131**, **133** & **164** contained small quantities of fired clay. The fill of post hole **131** also contained a fragment of solidified molten lead (Sf 369) and post hole **127** yielded an iron nail (Sf 334).

3.4.5 Within the footprint of this structure lay a heavily truncated sub-circular pit (**119**), 4.7m long, 2m wide and up to 0.15m deep (Section 108). It contained a series of burnt disuse fills (successively 120-124). The primary fill (120) consisted of dark brown sand which was overlain by a series deposits (121-124) consisting of brown or grey sandy clays with inclusions of gravel and burnt clay. These deposits may represent the remains of an oven or hearth housed within the structure. Combined, the fills contained a total of 19 sherds (384g) of Middle Roman coarse ware pottery, in addition to 2690g of CBM and 982g of fired clay.

3.4.6 The fill of the possible oven **119** and post holes **131** & **133** were are all rich in charcoal indicative of the burning of wood as fuel.

Larger pits

3.4.7 A number of pits (**142**, **171** and **182** (Section 132)) were located immediately to the west of Structure 1, two of which (**142** and **171**) truncated Period 2.1 plot boundary ditch 2. A further pit (**226**) was located immediately to the east of ditches **222** and **224**. Each pit was sub-circular in plan with near vertical sides and flat or slightly concave bases. Only backfill deposits were encountered in each of the pits (Table 1), although three examples contained multiple fills.

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
142	2.3	0.95	141	Light brownish grey sand with frequent gravel inclusions
171	1.55	1.2	166	Light grey silty sand with moderate gravel inclusions
			167	Mid greyish brown silty sand with occasional gravel inclusions
			168	Mid greyish brown silty sand with occasional gravel inclusions
			169	Light reddish brown silty sand with occasional gravel and cobble inclusions
			170	Dark brownish grey silty sand with occasional gravel inclusions
182	2.8	0.75	183	Dark brown sand with frequent gravel inclusions
			184	Pale yellow brown sand with moderate gravel
			185	Dark brown sand
			186	Brown sand with frequent gravel inclusions
226	1.35	0.35	227	Yellowish brown sand with occasional gravel inclusions
			228	Olive brown sand with moderate gravel inclusions

Table 1: Larger pit deposits in Plot 1

3.4.8 The backfill of pit **142** yielded three sherds (105g) of coarse wares and pit **171** contained three sherds (144g) of coarse wares with a sherd (9g) of Central Gaulish samian ware. Pit **182** yielded a sherd (9g) of Central Gaulish samian ware and the fill of pit **226** contained four sherds (20g) of coarse wares. Small quantities of CBM were also recovered from pits **142**, **171** and **226**.

Smaller pits

3.4.9 Small shallow pits (**143**, **146**, **149** (Section 123), **196** were also encountered in Plot 1, measuring between 0.5m-0.65m in diameter and 0.1m-0.32m deep, that may represent vestiges of structures or fence lines associated with the settlement. The fill of pit **196** contained four sherds (117g) of coarse wares. In addition, 93g of CBM and an iron nail (Sf 367) was recovered from pit **196**. Only backfill deposits were encountered in each of the pits (Table 2).

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
143	0.5	0.25	144	Dark brown silty sand
			145	Mid brown silty sand
146	0.6	0.32	147	Darkish brown silty sand
			148	Medium brown silty sand
149	0.65	0.2	150	Dark brown silty sand
			151	Mid brown silty sand
196	0.46	0.1	197	Dark brown silty sand

Table 2: Smaller pit deposits in Plot 1

Plot 2 (Figs 6 & 7b)

Small pits

3.4.10 Small shallow pits (**219**, **267**, **331**, and **333**) were also encountered in Plot 1, measuring between 0.15m-0.6m in diameter and 0.2m-0.25m deep, that may represent vestiges of structures or fence lines associated with the settlement. Pit **219** was found to truncate Period 2.1 plot boundary ditch 3. The fill of pit **219** yielded 11 sherds (247g) of coarse wares and a small quantity of CBM. The fill of pit **331** yielded three sherds (3g) of coarse wares. Only backfill deposits were encountered in each of the pits (Table 3).

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
219	0.94	0.35	217	Dark grey sand
			218	Brownish grey sand with occasional gravel inclusions
267	0.6	0.22	268	Mid greyish brown silty sand with occasional gravel inclusions
331	0.15	0.2	332	Brown sand with moderate gravel inclusions
333	0.55	0.25	334	Dark brown sand with moderate gravel inclusions

Table 3: Small pit deposits in Plot 2

Plot 3 (Figs 6 & 7b)

Structure 2 (Plate 4)

3.4.11 Structure 2 within Plot 3 was located immediately to the west of a group of wells (described below) associated with the spring. It comprised two beamslot gullies (**207** (Section 140) & **240**) and 10 post holes (**242**, **243** (Section 155), **244**, **246**, **247**, **248**, **249**, **250**, **251** & **252**). The post holes measured between 0.2m-0.87m in diameter and between 0.1-0.26m deep and the beamslots measured up to 0.25m wide and 0.2m deep, with each cut containing a single fill. The beamslot fills (208=209=210=211=212=213 & 241) consisted of mid-dark brown silty sand and the post hole fills (253, 254, 255, 256, 257, 258, 259, 260, 261, 262 & 263 respectively) consisted of mid-dark brown silty sand.

3.4.12 The beam slot gully defining the northwestern side of the structure indicated it to probably have been a sub-rectangular timber-framed building. The partial remains of the structure encompassed an area of approximately 10m by 5m.

3.4.13 The fills yielded Middle Roman pottery comprising a combined total of 10 sherds (91g) of coarse wares and two sherds (27g) of Central Gaulish samian ware.

Wells

3.4.14 A group of seven large sub-circular pits was located immediately to the east of Structure 2 within Plot 3 (**204**, **229** (Section 146), **419** (Section 252), **422**, **450** (Section 222), **489** & **574** (Section 251)). These features were situated on the spring and are therefore interpreted as wells. The near vertical cuts extended into the perched water-table of the spring to varying depths (Tables 4 & 5) with saturated deposits encountered in all the pits below a depth of approximately 1m. The wells were clustered in an area of *c.*16m by 23m. Four of the wells truncated Period 2.1 plot boundary ditches: wells **204** and **574** truncated ditch 3; well **450** truncated ditch 6; and well **489** truncated ditch 7.

3.4.15 The remains of timber lining (611) were revealed in the waterlogged deposits towards the base of well **229**. The timber lining comprise a 1.5m-square single course of timbers laid on edge, retained by four driven stakes at each corner, typical of 'corner-post' type construction. Timbers were also present in waterlogged deposits towards the base of

well **422**. The timbers of group 621 are thought to represent collapsed shuttering for the well which was originally held in place by the more substantial timbers of group 620. The presence of what appear to be internal retaining stakes / posts suggests that this lining was also of the 'corner-post' type construction. The roundwood timbers of group 619 lay above the collapsed well lining (620 & 621).The material appears to represent an *ad hoc* working platform in the base of the well, formed from a series of 'sleepers' supporting perpendicular 'rails', supported by two associated stakes.

Well	Dimensions (m)	
	Top diameter	Depth
204	3.7	2
229	2.2	1.6
419	4.6	4
422	7	2.3
450	3.5	2
489	5	3.8
574	2.2	1

Table 4: Well dimensions

Well	Deposits	
	Fill	Description
204	203	Greyish brown sand with frequent gravel inclusions
	214	Reddish brown sand with occasional gravel inclusions
	215	Grey sand with occasional gravel inclusions
	216	Yellowish orange sand with occasional gravel inclusions
	600	Dark brownish grey silty sand with occasional gravel inclusions and some larger flint nodules
229	230	Dark grey silty sand
	231	Mid-reddish/yellowish brown sandy clay
	232	Dark grey silty sand with occasional gravel
	233	Mid-grey silty sand
	234	Mid-greyish brown silty sand with occasional gravel inclusions
	235	Light yellow sand
	236	Mid-grey silty sand with occasional gravel
	237	Black to dark brown silty sand with occasional gravel
	611	Timber well lining
	613	Dark grey silty sand with moderate gravel inclusions
	616	Mid-grey clay with some chalk inclusions
419	420	Light grey slightly silty sand with moderate gravel inclusions
	421	Mid-brown sand with moderate gravel inclusions
	605	Mid-bluish grey silty sand with frequent gravel and wood fragments
	606	Light brownish grey silty sand with frequent gravel inclusions
	607	Light brownish grey sand with frequent gravel and wood fragments
	608	Light brownish grey silty sand with frequent gravel inclusions
	609	Light grey sand with frequent gravel inclusions
422	423	Light brownish yellow slightly silty sand with frequent gravel inclusions
	424	Grey with orange mottling slightly silty sand with moderate gravel inclusions
	425	Dark grey slightly silty sand with moderate gravel inclusions

Well	Deposits	
	Fill	Description
	426	Brown slightly silty sand with moderate gravel inclusions
	612	Dark grey silty sand with moderate gravel inclusions
	619	Timbers
	620	Timbers
	621	Timbers
450	451	Grey silty sand with moderate gravel inclusions
	452	Brown sand with moderate gravel inclusions
	610	Dark grey silty sand with occasional gravel inclusions
489	490	Dark grey silty sand with moderate gravel inclusions
	491	Yellowish brown silty sand with moderate gravel inclusions
	586	Dark grey silty sand with moderate gravel inclusions
	602	Dark grey silty sand with occasional gravel inclusions
	603	Dark grey silty sand with occasional gravel inclusions
	604	Mid-grey silty sand with occasional gravel inclusions
574	589	Light brownish yellow sand
	590	Mid-grey sand with occasional gravel inclusions
	591	Dark brown sand
	601	Light brownish grey silty sand with occasional gravel inclusions

Table 5: Well deposits

3.4.16 Each well contained a series of disuse backfills that yielded sherds of Middle Roman pottery, CBM, metalwork debris and quern fragments, with timbers also being recovered from wells **229** & **422**.

Well **204**

3.4.17 The backfills of well **204** contained: 42 sherds (688g) of coarse wares; two sherds (9g) of Central Gaulish samian ware and one sherd (51g) of Spanish globular olive oil amphora. A collection of 3095g of Roman CBM and an unidentifiable iron object (Sf 336) were also recovered.

Well **229**

3.4.18 The basal fill (613) **229** contained fragments of quern with an iron smithing hearth base. The uppermost backfill (237) produced two iron nails (Sf 371 & Sf 373) and a possible picture hook (Sf 372). The fills of well **229** also yielded a large quantity of pottery including: 242 sherds (3654g) of coarse wares; 22 sherds (332g) of Central Gaulish samian ware; five sherds (19g) of eastern Gaulish samian ware; two sherds (13g) of South Gaulish samian ware; and three sherds (862g) of Spanish globular olive oil amphora. Notably a large swastika had been carved into the base of a coarse ware folded beaker (Sf 444).

3.4.19 Two fragments of glass vessels (Sf 355, 356) and a fragment of prismatic bottle glass (Sf 357) found commonly on earlier Roman sites were also recovered from well **229**. In addition, the fills yielded 3553g of CBM.

Well **422**

3.4.20 A lead pot mend (Sf 437) and fragment of quern were recovered from the basal fill (612) of well **422**. The basal fill also contained Middle Roman pottery including: 46 sherds (2227g) of coarse wares; three sherds (101g) of East Gaulish samian ware; one sherd (20g) of Central Gaulish samian ware; and one sherd (32g) of South Gaulish samian ware. The Central Gaulish samian bowl (Sf 445) displayed an owner's mark scratched into the external wall. Other examples of adapted vessels were also recovered. In addition, the well yielded a small quantity of animal bone (663g).

Well **450**

3.4.21 The basal fill (610) of well **450** contained fragments of quern. The fills also contained one sherd (6g) of coarse ware pottery and one sherd of East Gaulish samian ware. In addition, 574g of CBM was recovered.

Wells **419**, **489** & **574**

3.4.22 The backfills of well **419** contained five sherds (32g), well **489** contained 12 sherds (265g) and well **574** contained four sherds (49g) of coarse ware pottery. Wells **419** & **574** also each contained one sherd of South Gaulish and Central Gaulish samian wares respectively.

Waterlogged wood finds

3.4.23 Waterlogged wood was encountered in wells **229** (Fig. 8; Plate 5) and **422** (Fig. 9; Plate 6). In well **229** this comprised oak planks supporting the sides of the well wedged in place by vertically driven wooden oak stakes at each corner to form a 1.5m square well lining (611). Well **422** contained what appeared to be a possible *ad hoc* platform (619) constructed of round-wood alder stakes at the base of the well (perhaps to aid construction?) and an adjacent dump of oak timbers, on the base of the well, comprised of two types: beams (620); and planks (621).

Larger pits

3.4.24 The larger pits, located in the western part of the plot (**441** (Section 216), **509** & **546**), were generally sub-circular in plan with near vertical sides and flat or slightly concave bases. Pit **441** was found to truncate Period 2.1 plot boundary ditch 4. Only backfill deposits were encountered in each of the pits (Table 6), although pit **509** contained multiple fills.

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
441	2.36	0.54	440	Dark brownish grey silty sand with occasional gravel inclusions
509	2.0	0.7	518	Mid brown sand
			519	Light-mid brown sandy silt with frequent gravel inclusions
			520	Very very dark brown sandy silt
			521	Mid brown sandy silt
546	1.65	0.25	547	Grey sand with frequent gravel inclusions

Table 6: Larger pit deposits in Plot 3

3.4.25 The backfill (440) of pit **441** yielded 26 sherds (146g) of coarse wares and two sherds (1g) of Nene Valley colour coated ware. The fill also contained fragments of quern, a small quantity of animal bone, an iron nail (Sf 321) and a hobnail (Sf 324).

3.4.26 The fill of pit **546** yielded 47 sherds (190g) of coarse ware and three sherds (12g) of Central Gaulish samian ware.

3.4.27 Small quantities of CBM were recovered from pits **441** and **546**.

Smaller pits

3.4.28 Small to medium sized pits were also encountered on the sloping ground on the spring (**206**, **319**, **403**, **405**, **407**, **409**, **453**, **494**, **502**, **504**, **506**, **510**, **561**, **565** (Section 248) & **568**). Pit **206** was found to truncate Period 2.1 ditch 6. Only backfill deposits were encountered in each of the pits (Table 7).

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
206	1.8	0.48	205	Mid brown sand with moderate gravel inclusions
319	0.9	0.64	320	Dark reddish brown silty sand with occasional gravel inclusions
403	0.56	0.16	404	Dark brown silty sand with rare gravel inclusions
405	0.7	0.23	406	Dark brown silty sand with occasional gravel inclusions
407	0.7	0.23	408	Dark brown silty sand with occasional gravel inclusions
409	0.93	0.1	410	Dark brown silty sand with rare gravel inclusions
453	0.4	0.2	454	Dark grey silty sand with occasional gravel inclusions
494	0.5	0.1	495	Light grey sand
			496	Mid grey sand
			497	Mid yellow sand with occasional gravel
			498	Mid greyish brown sand
			499	Light greyish yellow sand with occasional gravel
			501	Dark greyish brown silty sand with occasional gravel
502	0.35	0.15	503	Mid greyish brown sand with occasional gravel
504	0.2	0.1	505	Mid greyish brown sand with occasional gravel
506	1.7	0.2	507	Grey silty sand with moderate gravel inclusions
			508	Yellowish brown silty sand with moderate gravel inclusions
510	1.5	0.45	511	Dark grey sand with moderate gravel inclusions
			512	Mid grey sand with moderate gravel inclusions
			513	Yellow and light grey sand with moderate gravel inclusions
561	0.6	0.25	562	Dark grey sand with moderate gravel inclusions
565	1.3	0.3	566	Dark grey sand with moderate gravel inclusions
			567	Brown sand with moderate gravel inclusions
568	1.3	0.6	569	Olive brown sand with moderate gravel inclusions

Table 7: Smaller pit deposits in Plot 3

3.4.29 Pit **206** contained 28 sherds (210g) of coarse wares; two sherds (20g) of Central Gaulish samian ware; a single fragment of window glass (Sf 358); a twisted iron strip fragment (Sf 382) and an iron nail (Sf 381). The fill of pit **319** contained 27 sherds (1094g) and a small quantity of animal bone, while pit **407** yielded a single iron nail (Sf 320) and pit **409** contained three sherds (24g) of coarse wares.

3.4.30 Pit **494** yielded four sherds (40g) of coarse ware and a sherd (96g) of Central Gaulish samian ware. A number of oyster shells (11g) were also recovered from the fill, most displaying evidence for human consumption. In addition, the fill contained a small copper-alloy strip (Sf 365) and an iron nail (Sf 364).

3.4.31 Pits **510** & **561** each contained a sherd (19g & 5g respectively) of coarse ware pottery and pit **568** contained four sherds (45g) of coarse ware pottery. The fill of pit **565** yielded 11 sherds (149g) of coarse ware pottery, two sherds (34g) of Central Gaulish samian ware and an assemblage of horse bones (1929g) that probably originate from the same animal.

3.4.32 The only significant quantities of CBM were recovered from pits **319** (1350g), **453** (1013g) and **510** (3520g) with smaller quantities also recovered from pits **206**, **494**, **506** & **565**.

Plot 4 (Figs 6 & 7b)

Larger pits

3.4.33 The larger pits (**142**, **171**, **182** (Section 132), **226**, **441** (Section 216), **493**, **509**, **522**, **524**, **526**, **537**, **546**, **550**, **557** & **559**) were generally sub-circular in plan with near vertical sides and flat or slightly concave bases. Pits **522**, **524** and **537** were found to truncate Period 2.1 plot boundary ditch 5. Only backfill deposits were encountered in each of the pits (Table 8), although several contained multiple fills.

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
493	6.05	2.3	492	Mid greyish brown silty sand with frequent gravel inclusions
522	2	0.3	523	Mid greyish brown silty sand with frequent gravel inclusions
524	1.7	1.7	525	Light greyish yellow sand
526	1.9	1.7	527	Dark grey sand with occasional gravel inclusions
			528	Reddish brown sand with occasional gravel inclusions
			529	Dark grey sand with occasional gravel inclusions
			530	Brown sand with frequent gravel inclusions
			531	Grey sand with frequent gravel inclusions
537	1.2	0.45	536	Dark grey sand with frequent gravel inclusions

Table 8: Larger pit deposits in Plot 4

3.4.34 Pit **493** contained: 45 sherds (209g) of coarse ware pottery; three sherds (15g) of Central Gaulish samian ware; and a sherd (1g) of Colchester colour coated ware. The fill also contained fragments of quern.

3.4.35 The fill (541) of pit **524** yielded a fragment of prismatic bottle glass (Sf 347) produced in the 1st to 2nd centuries AD. In addition: 36 sherds (358g) of coarse wares; three sherds (7g) of Central Gaulish samian ware; and one sherd (141g) of Spanish globular olive oil amphora were recovered. Fill 545 produced a two iron nails (Sf 359 & 360).

3.4.36 Pit **526** contained 13 sherds (88g) and pit **537** contained 10 sherds (126g) of coarse ware pottery.

3.4.37 The only significant quantities of CBM were recovered from pits **493** (940g) and **524** (1330g) with smaller quantities also recovered from pits **522** & **526**.

Smaller pits

3.4.38 Small to medium sized pits (**442**, **445**, **548**, **558**, **557** & **559**) were also encountered within Plot 4. Only backfill deposits were encountered in each of the pits (Table 9).

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
442	0.7	0.27	443	Light brown silty sand with rare gravel inclusions
			444	Light yellowish brown silty sand
445	1.0	0.21	446	Dark brownish black silty sand with frequent flint gravel inclusions
548	1.2	0.4	549	Dark grey sand with moderate gravel inclusions
550	1.6	0.9	551	Mid grey silty sand with occasional gravel inclusions
			552	Yellowish brown sand with occasional gravel inclusions

Pit	Width (m)	Depth (m)	Deposits	
			Fill	Description
			553	Dark grey silty sand with occasional gravel inclusions
			554	Greyish brown silty sand with occasional gravel inclusions
			555	Dark grey silty sand with occasional gravel inclusions
			556	Dark grey silty sand with occasional gravel inclusions
557	1.1	0.2	558	Mid grey sand with occasional gravel inclusions
559	0.8	0.1	560	Mid grey sand with occasional gravel inclusions

Table 9: Smaller pit deposits in the central part of the site

3.4.39 The fill of pit **442** contained two sherds (23g) and pit **445** contained 67 sherds (449g) of coarse ware pottery. A sherd (24g) of Central Gaulish samian ware and small quantities of CBM and animal bone was also recovered from pit **445**.

3.4.40 Pit **550** contained 45 sherds (909g) of coarse wares, a sherd (6g) of Central Gaulish samian ware and small quantities of animal bone and CBM. Pit **557** contained three sherds (57g) and pit **559** contained two sherds (9g) of coarse ware pottery.

Plot 5 (Figs 6 & 7b)

Structure 3

3.4.41 This structure was positioned to the north of the palaeochannel, roughly parallel to ditch 9, within Plot 5. The rows of post holes defining the southeastern and northeastern sides of the structure indicated it to probably have been a sub-rectangular post-built structure. The partial remains of the structure encompassed an area of approximately 12m by 7m. Three of the post holes (**358**, **359** & **361**) along the southwestern side of the structure truncated Period 2.1 ditch 8. In total, the structure comprised 35 post holes (**294**, **295**, **296**, **297**, **298**, **299**, **300**, **301**, **302**, **303**, **304**, **305**, **306**, **307**, **308**, **309**, **310**, **311**, **312**, **313**, **314**, **315**, **316**, **357**, **358**, **359**, **360**, **361**, **362**, **363**, **364**, **365**, **366**, **367** & **368**) that measured between 0.1m-0.8m in diameter and between 0.08m-0.3m deep (Section 171). Two additional post holes (**391** & **393**) lay immediately to the south of the structure that may have been associated as subsidiary structural elements.

3.4.42 All but two post holes contained a single disuse fill (271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 827, 288, 289, 290, 291, 292, 293, 344, 345/346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 392/396 & 394 respectively) consisted of dark brownish grey silty sand. Post holes **358** & **391** contained evidence of post pipes indicating post diameters of between 0.15m-0.2m. The packing (346) of post hole **358** consisted of light greyish green clay and the packing (392) of post hole **391** consisted of yellowish brown clay.

3.4.43 Two fragmentary copper alloy needles (Sf 271 & 272) were recovered from the fill (280) of post hole **303**, and the fill of post hole **357** contained an iron nail (Sf 344). The Middle Roman pottery recovered from the post holes in total comprised: 25 sherds (161g) of coarse wares and one sherd (1g) of Central Gaulish samian ware. A total of 782g of Roman CBM and 36g of animal bone were also recovered from post hole fills.

3.4.44 Post hole **362** cut rectangular pit **374**, within the footprint of the structure. The pit had vertical sides and a flat base, measuring 1.8m long, 0.8m wide by 0.46m deep. This contained a mixed light reddish brown/mid-grey sand backfill deposit with occasional gravel inclusions that yielded a sherd (4g) of coarse ware pottery.

3.4.45 Also within the footprint of the structure, pit **370** was found to truncate Period 2.1 plot boundary ditch 8. It measured up to 1.62m in diameter and 1.2m deep and contained a single backfill (369). The fill yielded 19 sherds (374g) of coarse wares, small quantities of CBM and animal bone and an iron nail. A number of oyster shells (738g) were also recovered from the fill, most displaying evidence for human consumption.

3.4.46 A small pit or post hole (**14**) was also excavated at the western end of Trench 1 during the evaluation phase in this part of the site (Fig. 2). The fill (15) contained 50 sherds of Roman pottery, dated to the 2nd century AD, and fragments of fired clay. Furthermore, a range of environmental remains were recovered including barley grains, hazel, animal bone, fish bone and charcoal.

*Well **335***

3.4.47 This well was located at the lowest-lying point of the site towards its eastern extremity. This pit truncated the palaeochannel deposits (**269**) and measured up to 1.85m in diameter with near vertical sides. Backfill deposits were excavated to a depth of 1m below ground level and then augered to a depth of 2.8m below ground level. The base of the cut was not encountered and it may represent a well excavated to the true water-table at an unknown depth beneath the site. Fill 336 contained two iron nails (Sf 274 & 275) and an irregular disc (Sf 276) of reddle or haematite, possibly for use as pigment. A quantity of Middle Roman pottery was also recovered including: 67 sherds (348g) of coarse wares; 10 sherds (75g) of Central Gaulish samian ware; six sherds (6g) of Nene Valley colour coat; and two sherds (122g) of Spanish globular olive oil amphora. The well fill also contained 278g of fired clay and 154g of animal bone.

3.4.48 This well is probably equated to 'pit' **43** revealed in Trench 1 during the evaluation phase, when its upper fill (44) was partly excavated. The fill contained 10 sherds of Roman pottery, dated to the 2nd century AD, along with animal bone and fired clay.

3.5 Unstratified finds assemblages from the site

3.5.1 A total of 42 of the metal small finds (22 copper-alloy and 20 iron) recovered from the topsoil, subsoil and tertiary deposit overlying the palaeochannel could be securely dated to the Roman period. The distribution of the entire metalwork assemblage recovered from the site by material and type is presented as Figure 11.

Topsoil and subsoil

3.5.2 The metal detection of the topsoil and subsoil prior to stripping during the excavation phase recovered 100 metalwork items from topsoil (100) and 57 metalwork items from subsoil (Appendix B.2). The assemblage includes 22 Roman coins (Appendix B.1).

Tertiary palaeochannel deposit 195

Metalwork

3.5.3 A total of 40 metalwork items including coins were recovered from this deposit. The broad depression formed by the palaeochannel in the eastern part of the site appears to have acted as a natural accumulator of artefacts from the Roman settlement. The copper-alloy finds included: a Colchester type brooch (Sf 261) and a rosette-type brooch (Sf 239) dated to the 1st century AD; a headstud-type brooch (Sf 265) dated to the 2nd century AD; two 2nd century fragmentary finger rings (Sf 212, 251); and eight coins (Sf 243, 244, 246, 247, 248, 249, 254, 259). The dates for the coins range from one possible Republican coin (1st century BC) to one from the late 2nd/early 3rd century AD. Iron work finds comprised 19 nails including a hobnail (Sf 328).

Ceramic and faunal finds

3.5.4 The pottery recovered comprises: 227 sherds (2940g) of coarse wares; 13 sherds (261g) of Central Gaulish samian ware; two sherds (23g) of Hadham red ware; two sherds (18g) of Colchester colour coat; and one sherd (69g) of Mancetter-Hartshill white mortaria. A total of 8228g of Roman CBM and 169g of animal bone was also recovered.

3.6 Finds Summary

Introduction

3.6.1 The finds recovered from the excavation consist of: coins, metalwork; metalworking debris; quern stone; glass; pottery; ceramic building material; fired clay and timbers; all of Roman date. A small assemblage of post-Roman metalwork was also recovered from the topsoil and subsoil. Faunal remains, shell and ecofacts from environmental samples were also recovered from features dating to the Roman period.

Coins (Appendix B.1)

3.6.2 Thirty-two coins were recovered. These comprise a thin flat (incomplete) disc, possibly of medieval date, and 31 Roman coins. Most of the coins were not securely stratified, all were metal-detector finds. The coin loss pattern is remarkable in relation to that usually observed in rural settlement contexts (including those associated with minor nucleated settlements/'small towns', as here). The group, though small, is notable for its domination by Early Roman issues. Such a concentration of Early Roman material suggests a special context for their deposition, and the most obvious suggestion is that they were associated with a shrine or location of votive deposition, not necessarily involving a formal religious structure.

Metalwork (Appendix B.2)

Copper alloy

3.6.3 A total of 87 fragments of copper alloy (including 11 brooches, 2 fragmentary finger rings, a miniature votive sword & an ornate key) were collected/recovered. The overwhelming majority (95.4%) of the objects are from topsoil 100, subsoil 101, and fill 195 (a tertiary fill of palaeochannel **269)** which produced 41, 23, and 19 objects respectively. Only four objects came from other contexts.

Iron

3.6.4 In all, 127 fragments of ironwork were recovered, the majority (83%) from topsoil 100, subsoil 101, and the tertiary fill (195) of palaeochannel **269**, which produced 40, 36, and 27 fragments respectively. There are very few objects of particular interest, although there is a medieval arrowhead (Sf 258) from fill 195. Nails form the largest part of the assemblage, although half of these came from topsoil 100, subsoil 101, and tertiary fill 195.

Lead

3.6.5 A total of 33 fragments of sheet and cast lead were recovered and one of cast pewter (Sf 124). By far the majority are from topsoil 100 (23 items) and subsoil 101 (seven items), with two of the remaining objects from the tertiary fill (195) of palaeochannel **269**, and one from post hole **131**, fill 132. Very few of the lead artefacts can be identified with any precision. The only object likely to be of any antiquity is a pot mend (Sf 437) recovered from well/pit **422**.

Metalworking debris (Appendix B.3)

3.6.6 A total of four pieces of metalworking debris weighing 830g were collected from three features and from subsoil. The assemblage includes fragments of iron tapping slag and fragments of smithing hearth base. The small assemblage is all redeposited with none being associated with structures connected with iron production or working.

Stone (Appendix B.4)

3.6.7 A total of ten pieces of stone weighing 13.264kg were collected from seven features. The assemblage includes incomplete fragments from several Roman querns including fragments of Hertfordshire Puddingstone, two pieces of Millstone Grit flat quern and five fragments of lava quern. The small quern assemblage is typical of quern found in Roman settlements in Suffolk. The assemblage suggests crop processing was taking place at the settlement during the Middle Roman period.

Shale (Appendix B.5)

3.6.8 A large block of shale (Sf 362) was recovered from the tertiary fill (195) of palaeochannel **269**. As its surfaces are smoothed and flat it seems likely to be an artefact rather than a naturally-formed piece, but it has no other distinctive features.

Glass (Appendix B.6)

3.6.9 There are six objects of glass, comprising five vessel fragments, and one of matte-glossy window glass. All are in fair to good condition and all are most likely to be of Roman date.

Pottery (Appendix B.7)

3.6.10 An assemblage of Romano-British pottery comprising 1467 fragments, weighing 21208g, was recovered from the site. The pottery is in a fairly good but fragmentary condition, with an average sherd weight of *c*. 14.5g, and represents a minimum of 421 vessels. This is a relatively small, but well-recorded and stratified, assemblage of primarily 2nd and 3rd century pottery. The assemblage mostly comprises locally produced utilitarian sandy reduced (grey) ware jars and dishes, supplemented by a small number of Colchester, and Nene Valley fine ware beakers. It is worthy of note that the settlement was well supplied with samian from all the major Gaulish factories; there is also at least one Colchester samian vessel. Several well preserved well assemblages were excavated, particularly from Period 2.2 well **422** which contained an interesting group of adapted and grafittied vessels.

Ceramic building material and fired clay (Appendix B.8)

3.6.11 A modest assemblage of ceramic building material (CBM) amounting to 315 fragments (41.023kg) together with a small quantity of fired clay (184 fragments, 2.093kg) was recovered predominantly from pits, wells and the watering-hole, and to a lesser extent from a hearth or oven base, postholes and a palaeochannel. The tile is all of Roman date and fragmentary with no complete dimensions surviving apart from thickness and the majority exhibited moderate to heavy abrasion. Brick formed the largest constituent of the assemblage (45% by weight). Much of the brick had been moderately or heavily abraded and burning or heat discolouration was common suggesting use in hearth floors, ovens or built into the clay wall of an oven or flue. The majority of fired clay is likely to have derived from small clay structures such as ovens or hearths.

Waterlogged wood (Appendix B.9)

3.6.12 A total of 45 wood items were recorded. The material was all situated in waterlogged deposits comprising the lower fills of seven large wells. The lack of diagnostic features

on many of the timbers precludes firm identification in terms of their original functions. However, the size ranges allow the timbers to be broadly grouped and ascribed possible functions. The groups comprising primary members such as posts and studs, supports such as staves or lesser studs and plank-like wall cladding may have originated within a timber-framed building. The diagnostic timbers with tenons lacking peg-hole evidence, tapered ends, square section nail-holes and possible notches and sockets are more clearly consistent with building material. The lack of peg-holes within the diagnostic timbers are very much consistent with Roman building technology. The presence of charring on two possible building timbers raises the possibility that the building(s) the timbers were derived from may have been damaged or destroyed by fire. The oak, corner-post, timber lined wells are typical of examples seen across Roman Britain in the 1st and 2nd century AD in major and minor urban centres and rural settings.

3.7 Environmental Summary

Faunal remains (Appendix C.1)

3.7.1 A small assemblage (2.611kg) of cattle, horse, sheep/goat and pig bones were recovered from Roman contexts comprising pits, post holes, ditches, and the fill of the palaeochannel. The sample of cattle, sheep and pig is unfortunately too small upon which to base a reconstruction of animal husbandry practices. However, it appears probable that whole carcases of cattle (and possibly of sheep and pig although the evidence is insubstantial) were butchered here. Although the sample is small, the nature of some of the chop marks amongst the cattle remains is reminiscent of widespread Roman butchery practices.

Shell (Appendix C.2)

3.7.2 A total of 0.782kg of marine shell was recovered from three contexts. Oyster shell is the only species present and displays evidence for human consumption. The preservation of the shell assemblage is noticeably poor.

Environmental remains (Appendix C.3)

3.7.3 Sixty-three bulk samples were taken from Roman features within the site. Preservation of plant remains is extremely poor with the majority of the samples producing small flot volumes and containing only sparse charcoal fragments. There is limited preservation of plant remains by waterlogging in the wells/watering holes with only occasional survival of some of the tougher seeds of plants such as bramble, elderberry, stinging nettle and hemlock. The fill of the possible oven/hearth with its associated rake out is rich in charcoal. It is unusual to not recover charred cereal grains or chaff from a Roman settlement site and it can only be assumed that the acidic soil has affected preservation. The level of preservation of plant remains by waterlogging in the deeper features is also poor and the samples have limited potential for the interpretation of the local environment.

Pollen (Appendix C.4)

3.7.4 A total of seven sub-samples were submitted for pollen analysis from bulk samples of the fills of the Period 2.1 watering-hole and Period 2.2 wells. Pollen counts of between 300-500 grains were achieved for four of the sub-samples, but in the remaining three sub-samples, pollen was too poorly preserved for analysis to proceed. The pollen data suggests that an earlier phase of crop cultivation (or processing) was replaced by a later phase of possible pastoral activity.

4 Discussion and Conclusions

4.1 Discussion

Introduction - the putative Roman 'small town' of Wenhaston

4.1.1 This site has provided a small sample excavation of the putative Roman small town of Wenhaston. The small town was first identified in 1975 as a result of the nature and character of Roman artefacts recovered from fieldwalking and metal detecting events on the arable fields on the eastern and northeastern periphery of the village. The numerous artefacts recovered from the surrounding fields have been supplemented by the discovery of Roman remains within the village itself, through archaeological excavation, as a result of residential development over recent years (see Section 1.3).

4.1.2 The fieldwalking and metal detecting surveys indicated the probable extent of the small town towards the River Blyth. However, no geophysical survey has been undertaken on these fields to date (excepting the site itself) to determine the possible 'planned' layout of the Roman small town with regard to: street layout and orientation; industrial/residential areas; communal foci of activity including shrines, temples, markets, *etc*. The current excavation has provided some indication of deliberate planning but provides only a small sample of the area once occupied by the settlement.

Settlement hierarchy - Wenhaston's place within the Roman landscape

4.1.3 These small towns or nucleated settlements would each have served as a focus for the localities in which they lay and may have provided to varying degrees an administrative mercantile, industrial or religious centre. The small towns of Suffolk often appear to be planned in ribbon like developments along the existing Roman road network. Many of the small Roman towns of Suffolk including Wenhaston, Scole, Hacheston, and Wixoe also share the common characteristic of lying close to river crossings on the road network. Although Wenhaston does not lie directly on the course of a known Roman road, the routes of 'Stone Street' and the A12 carriageway, regarded as likely Roman roads through this part of Suffolk, run close-by (Steerwood 2003, 258). Wenhaston lies above the flood plain to the south of the River Blyth and to the north of a smaller tributary river. Historically, the River Blyth was once navigable from the sea to Reydon Quay located 6km to the east of Wenhaston (Good and Plouviez 2007, 41). It is postulated that the river may have been navigable to Wenhaston during the Roman period, further facilitating trade (Steerwood 2003, 258). The road and river network carrying trade from small towns such as Wenhaston would have ultimately led to the larger regional markets such as the Roman town of Caistor-by-Norwich (located 35km to the northwest) and the city of Colchester located 55km to the southwest.

4.1.4 Evidence of Roman Wenhaston's place within the trading network is indicated by the artefact range on the site. Although dominated by the local coarse wares there is a significant part of the pottery assemblage from the site comprising of samian from Gaul (7% by weight) and Spanish globular olive oil amphora (5.5% by weight) that were mostly imported in the 2nd century AD. At least one samian vessel was manufactured at Colchester and stamped by GABRUS ii (AD160-200). The high level of samian in the pottery assemblage gives further weight to Wenhaston being an urban-like centre well connected within the Roman infrastructure. The presence of these fine wares also demonstrate the 2nd century population had the means to invest in high-status table wares (Appendix B.7.69).

4.1.5 There are very few finds of other fine wares, represented by small assemblages (<1% by weight) of Colchester and Lower Nene Valley colour coated beaker fragments. One mortaria vessel originated from the Mancetter-Hartshill kilns on the Warwickshire/Leicester border. The brooches for the most part are of 1st century AD Colchester derivative types with a further group of 2nd to 3rd-century date. The latter group contains at least one Continental type example. These higher-status finds excavated from the feature fills confirms Roman Wenhaston to have been an important centre of the area, and more than merely a self-sufficient farming community.

4.1.6 The assemblages of lava quern from the Rhineland, Millstone Grit quern from the southern Pennines and Hertfordshire pudding stone recovered from the site provide further examples of materials brought to Wenhaston from the wider regions along the Roman road and river networks.

Settlement remains – chronology, feature types and layout

Chronology

4.1.7 The datable artefacts (coins, metalwork, pottery) recovered from all the feature types (plot boundary ditches, structures, wells and pits) across the site indicate that settlement activity was focussed in the latter half of the 2nd century to the first half of the 3rd century AD; spanning the Middle Roman period. The small sample of the excavation makes further interpretation difficult with regard to the overall chronology and discernible evolution of the Roman settlement of Wenhaston. However, the layout and stratigraphic relationships between the different feature types encountered provide evidence for the origins and development of this part of the settlement.

Plot boundary ditches

4.1.8 Evidence for an initial planned layout to this part of the settlement is represented by the five regularly spaced boundary ditches on the higher plateau in the western part of the site that defined Period 2.1 Plots 1-4. The orientation of these property/land divisions is at right-angles to the present alignment of the current main thoroughfare through Wenhaston; The Street/Hall Road. This orientation suggests Roman Wenhaston may have originated as ribbon development along a Roman road on the same alignment as the present thoroughfare. The present major road network through Wenhaston may be inferred to reflect the past layout of the Roman small town. The property/land divisions revealed on the site appear to delineate their rearmost parts, along the eastern edge of the plateau, with the property frontages possibly lying beyond the western boundary of the site.

4.1.9 Regular sets of enclosures, perpendicular to the Roman road network, were also identified during the excavations at the Roman small town of Scole adjacent to the River Waveney, dating to the early-middle 2nd century AD (Ashwin and Tester 2014, 33 fig. 2.10). These plots were *c.*40m wide and were also considered to be indicative of a co-ordinated laying out of the settlement in a ribbon like development. The orientation of the road appeared to dominate all the subsequent development and alignments of the site. Similarly, the small towns of Roman Hacheston adjacent to the River Deben (Blagg 2004, 66) and Wixoe adjacent to the River Stour (Atkins Fth.) developed along existing roads. On each site, post-built structures within plots were revealed alongside one or more roads.

Post-built structures

4.1.10 The remains of three post-built structures were also encountered on the site. No internal floor surfaces or features survived to indicate the use of these structures,

although Structure 1 appeared to house an oven or a kiln structure. Given the distance of these structures from the probable plot frontages to the west and the proximity of the wells and watering-hole, these remains may represent possible barns or shelters for livestock rather than domestic dwellings. The property/land divisions described above may have only been in use for a short period of time. Structures 1 & 3 (and many of the wells and pits on the site) were observed to cut and encroach on these boundaries.

4.1.11 Undiagnostic timbers, of probable structural origin such as posts, studs, staves and plank-like wall cladding, were recovered from the base of Period 2.2 well **422**. These may have originated from a timber-framed building that once stood within this part of Roman Wenhaston. Diagnostic structural timbers from a timber-framed building displaying features such as: tenons lacking peg-holes, tapered ends, squared section nail-holes and possible sockets and notches were also recovered from the base of well **422**. Charring was present on two of the timbers raising the possibility that they derived from a building that may have been damaged or destroyed by fire (Appendix B.9.79-82). Several of the samian pottery sherds recovered from the site were also noted to displayed evidence of burning (Appendix B.7.30). These timbers may also have been part of the well's above ground structure, re-used from previous buildings, although it is not possible to prove this re-use function.

Masonry buildings

4.1.12 The small assemblage of Roman tile and brick recovered from the site indicates that masonry buildings were not present in the immediate vicinity of the site but in the wider locality. The tile is of a standard form for a masonry building with a tile roof. The presence of flue tile indicates a building with heated rooms, suggesting a higher than average status of the owner. The small tile assemblage recovered indicates the probable reuse of this material in ovens and hearths in this part of the site, as many fragments displayed signs of burning and heat discolouration (Appendix B.8.16-19). One single fragment of window glass was also recovered from Period 2.2 pit **206**.

Wells

4.1.13 Seven large pits extended into the perched water-table of the spring probably represent wells supplying water for the evolving settlement during the Middle Roman period. They appear to represent a succession of wells that were excavated as each existing well silted up or fell out of use due to changing groundwater levels or contamination. The remains of a timber wooden box lining was revealed at the base of Period 2.2 well **229**, of a construction similar to those multiple examples excavated at Scole that belonged to the later 2nd to early 3rd centuries (Ashwin and Tester 2014, 49-78, figs 2.29, 2.39, 2.42, 2.46, 2.50 & 2.52). The oak timber lined well construction with horizontally-lain shuttering planks fixed by corner-posts are typical of examples seen across Roman Britain in the 1st and 2nd centuries AD in major, minor and rural settings (Appendix B.9.82).

4.1.14 The oak structural timbers and alder stakes comprising the possible platform recorded at the base of Period 2.2 well **422** resemble a similar 'jumble' of wooden artefacts recovered from a waterlogged pit excavated at Scole (Ashwin and Tester 2014, 84-86). A wooden revetment was revealed around the side of the well made from re-used timbers, including cleft stakes and planks made of oak. A clay lining was observed behind the revetment. It is interesting to note that this pit also contained the largest pottery assemblage from this site (9.08kg), including fine wares, samian, colour-coated wares and amphora. These artefacts as a whole were considered to possibly be refuse from a dining room rather than kitchen waste. The large pottery assemblage (2.38kg)

from well **422** at Wenhaston was noted to be particularly well preserved. This assemblage included an unusually large group of both adapted vessels and vessels displaying graffiti interpreted as individual marks of ownership. There is a possibility that these vessels may have been selected for votive deposition (Appendix B.7.70).

4.1.15 Large water-filled pits and a watering-hole were also found during the excavations at Scole, dating to the early-middle 2nd century AD (Ashwin and Tester 2014, 35). These pits were interpreted as having an industrial use and possibly used during the leather tanning process. Leatherwork was found at associated with these pits. These pits lay in the wetter margins of the settlement, beyond the western limit of the main settlement, in an area that may have been set aside for various industrial processes. The excavations at Wenhaston however did not recover any evidence for industrial activity, including leatherwork, associated with any of the wells.

4.1.16 Timber-lined wells also appeared at the Roman small town of Scole in the later 2nd to middle 3rd centuries AD associated with each property/land division and their respective structures. At the eastern end of the Wenhaston site one further vertical sided well (**335**) was revealed near Period 2.2 Structure 3 with which it may have been associated. The base of this feature was not encountered as it lay beyond the 2.8m excavated depth. It is interesting to note that even at this depth saturated deposits were not encountered, confirming that outside the zone of the spring-line groundwater lies at a significant depth beneath the site.

Watering-hole

4.1.17 This very large feature with a wide and shallow profile (**415**), was set apart within a three-sided enclosure, encompassing an area of approximately 30m x 20m. This arrangement is considered to possibly represent a penned watering-hole for stock animals. Similar to the wells described above, saturated deposits were encountered towards the base of the pit's profile. Similar three-sided enclosures were also revealed at Scole (Ashwin and Tester 2014, 80 fig. 2.54), dated to the mid-late 3rd century AD, where an area of *c.*27m x 23m was enclosed by a ditch on three sides. However no further interpretation was provided for this type of enclosure.

Pits

4.1.18 Pits of varying size extended across the excavation area that all broadly dated to the Middle Roman period. There were no obvious groupings or arrangement to the pitting activity. The pits contained small assemblages of artefacts suggestive of low-level disposal of waste. It is also possible that some of the more substantial pits may have represented small scale quarrying into the underlying natural sand deposits. A number of the pits were observed to cut the plot boundary ditches. Therefore these features further demonstrate the erosion of the initial property/land division boundaries and encroachment of activity over them during the evolution of the settlement.

4.1.19 Similarly, the excavations of the Roman small town of Scole also revealed a plethora of pits of varying size that appeared on the site from the later 2nd century to middle 3rd centuries AD (Ashwin and Tester 2014, 48 fig. 2.24). Like Wenhaston, these pits were stratigraphically proved to post-date the plot boundary ditches, and also encroached on the major roadside boundary ditches.

Decline of the settlement?

4.1.20 There appears to have been a decline in activity for the settlement from the second half of the 3rd century AD, after which date this part of the settlement appears to have been abandoned. Only a very small number of diagnostically Late Roman vessel fragments

were found during the excavation (Appendix B.7.72). These later sherds came from the tertiary layer (195) overlying the palaeochannel and the subsoil. Only one diagnostic and three further worn coins of later Roman date (3rd-4th century) were recovered from the site itself (Appendix B.1.4). However, the date range of the wider coin assemblage recovered during the neighbouring metal detecting events (HER WMH004 and WMH005) conforms to the overall pattern of a preponderance of Late Roman issues. Due to the small area of the excavation it is unclear whether this decline reflects the fate of the wider settlement. This part of the settlement may simply have become peripheral to the small town in the 4th century. Excavations on other small Roman towns of the region including Scole, Hacheston and Wixoe also show similar declines during the 4th century. At Scole, the similar abundance of later Roman (4th century) coins recovered from the site led to the conclusion that there was in fact no decline in activity for this settlement. Furthermore, at Scole the appearance of new ditches in the 4th century indicated development on this site during this period (Ashwin and Tester 2014, 103).

Settlement-related activities

Industry

4.1.21 Only slight evidence for industrial activity was found in the form of a heavily truncated fired clay base of a possible kiln or oven (**119**) that was probably housed within Period 2.2 Structure 1. This feature, which produced the largest assemblage of fired clay from the site, also incorporated tile fragments embedded in its structure (Appendix B.8.18).

4.1.22 A couple of fragments of metalworking debris including an iron smithing hearth base were the only industrial artefacts recovered from the features. In addition, a single cloth working needle (Sf 272) provides evidence for textile manufacture and recovered from Period 2.2 Structure 3. It can only be postulated that the manufacturing areas associated with Roman Wenhaston lie elsewhere within the settlement.

Arable and pastoral agricultural practices and the local environment

4.1.23 Plant processing evidence in the form of charred plant remains were practically non-existent on the site. However, the small quern assemblage suggests crop processing was taking place at the settlement. The faunal remains assemblage is too small to enable a reconstruction of animal husbandry practices, however, it appears probable that whole carcases of cattle (and possibly sheep and pig) were butchered here (Appendix C.1.14). Based on current evidence it is not possible to determine if the settlement was producing a surplus of either crops or meat.

4.1.24 Assessment of the pollen provided evidence for a possible change in land-use during the Middle Roman period at Wenhaston (Appendix C.4.35). The sample from the lower fill of Period 2.2 well **229** produced an abundance of cereal-type pollen indicative of arable cultivation at the site. The sample from the upper fill of well **299** however is more suggestive of open grassland for grazing animals and a pastoral regime for the surrounding land-use. The sample from Period 2.2 well **450** also provided strong evidence for pastoralism. The increase in use of wells at the spring in Period 2.2 may possibly be associated with the need for watering of stock animals. These wells Pollen remains are also suggestive of mixed stands of woodland, including beech and lime, either nearby or possibly in gardens within the settlement. Lime blossom was used in herbal tea and mead during the Roman period (Appendix C.4.10). Following the pastoral phase the surrounding environment may have deteriorated further to a landscape dominated by moorland and scrub vegetation, possibly coinciding with the abandonment of the site.

The spring

4.1.25 The spring afforded a more easily accessible water supply for the settlement as the nearest surface water lay in the River Blyth approximately 600m northeast of the site. A total of eight large pits were grouped along the spring-line and are therefore interpreted as wells. The largest example (Period 2.1 watering-hole **415**) was interpreted as an animal watering-hole of perhaps earlier date, as this feature lay within a separate enclosure that respected the Period 2.1 plot boundary ditches. Timber well-lining was found to survive at the base of only one of the Period 2.2 wells (**229**). This may suggest the other wells of this group, without evidence for timber-linings, may possibly have been shorter-lived features.

The spring as a possible ritual focus?

4.1.26 The Roman coin assemblage recovered from the topsoil and subsoil prior to the excavation of the site is atypical to that usually observed in rural settlement contexts (including minor nucleated settlements/'small towns'). The domination of Early Roman issues recovered in this part of the settlement suggests a special context for their deposition, possibly associated with a shrine or location of votive deposition, which leads to the possibility of the spring itself acting as a focus for this activity (Appendix B.1.5-6). A range of other metalwork artefacts was recovered from the topsoil, subsoil and tertiary fill overlying the palaeochannel that included a relatively large number of brooches of Early Roman date and a miniature votive sword (Sf 107). This further suggests the presence of a shrine/sanctuary in the close vicinity (Appendix B.2.61-62). The miniature sword is of particular significance due to its rarity: less than 20 of these objects are recorded in the PAS database, with an apparent concentration in Lincolnshire. Metal-detection of the surrounding fields (HER WMH004 & WMH005) believed to be part of the Roman small town, has also yielded many metalwork artefacts, including a bias towards early brooches and later coins (see also Section 4.1.20). This pattern of deposition is often associated with votive activity and suggests the presence of a shrine or temple within the Roman settlement at Wenhaston.

4.1.27 The unusually large group of adapted vessels and vessels displaying owner's marks deposited in Period 2.2 well **422** (see Section 4.1.14) also suggests the possibility of items selected for votive deposition within a well at the spring.

A possible military presence

4.1.28 Two metalwork artefacts comprising a knee brooch (Sf 103) and votive sword (Sf 107) recovered from the topsoil prior to excavation are considered to be indicative of a possible military presence. The PAS records a 1st century crest holder from a Coolus-type helmet found within the parish. The appearance of Early Roman brooch types are thought to indicate the presence of the Roman military during the early days following the conquest. As described above (see Section 4.1.26), there is a bias towards early brooches in the examples excavated from the site and in the wider PAS record for Wenhaston. However this handful of metal detected artefacts are the only indicators for a possibly military presence as yet within Wenhaston (Appendix B.2.63).

4.2 Significance

4.2.1 The remains encountered in this excavation are of local and regional significance. The results provide some well needed context for the substantial artefact scatters found in the surrounding fields, and an important insight into the chronology and evolution of the Roman settlement of Wenhaston. The artefact assemblages from feature fills and especially the relatively high level of samian and other fine ware pottery recovered

provide some corroboration for the interpretation for Wenhaston as a small town or settlement of some significance during the Middle Roman period.

4.3 Dissemination of the results of excavation

4.3.1 A publication proposal will be submitted to the Proceedings of the Suffolk Institute of Archaeology and History with the aim of publishing a short article on the Roman settlement remains in the Institute's journal. The article to be published will be submitted by the end of 2019.

4.3.2 The publication will include an illustrated catalogue of *c*.15 sherds of pottery (including samian and the group displaying graffiti) and an illustrated catalogue of *c*.23 metalwork items.

4.3.3 The archive for the project will be deposited with SCCAS in 2020.

Appendix A. Trench Descriptions and Context Inventory

A1 NPS archaeological evaluation (Ames 2013)

Trench 1

Trench 1, looking east

Figs 2-5, Plate 1

Location		
Orientation	East - west	
East	642934.246	275350.921
West	642901.665	275350.920
Dimensions		
Length	30.00m	
Width	2.20m	
Average Depth	1.10m	
Levels		
East End	15.627m OD	
West End	16.783m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.45m	0.00–0.50m
2	Subsoil	Mid orange brown clayey sand	0.14-0.25m	0.50–0.75m
12	?Buried soil	Dark brown silty sand	0.30-0.45m	0.75–1.05m
13	?Dark earth	Greyish black silty sand	0.10-0.40m	0.85–1.20m
14	Pit	Sub-circular in plan	0.70m	1.10–1.80m
15	Fill of [11]	Dark brown sandy silt	0.70m	1.10–1.80m
41	Pit	Sub-circular in plan	0.15m	1.15–1.30m
42	Fill of [41]	Dark brownish black sandy silt	0.15m	1.15–1.30m
43	Pit	Sub-circular in plan	1.00m	1.15–2.15m
44	Fill of [43]	Dark brownish black sandy silt	1.00m	1.15–2.15m
73	U/S find	Iron scale-tang knife, Roman glass, Roman tegula fragment, 50 sherds of Roman pottery, two unidentified copper-alloy objects, seven iron objects, seven iron nails, 1 lead object	–	--

Discussion

Trench 1 was located in the lowest part of the proposed development site and positioned within a hollow in the landscape. The hollow slopes south to north and west to east with Trench 1 ranging between 16.78m OD (west) and 15.62m OD (east). The excavated depth of Trench 1 was between 1m (west) and 1.20m (east) before naturally blackened silvery sands were reached.

Four deposits ([1], [2], [12] and [13]) (Fig. 4 sections 1-6) were identified above the natural sands. Two of the deposits ([12] and [13]) are of particular archaeological interest and have been characterised as 'buried soils' or 'dark earth'. Their presence was recorded throughout Trench 1 and a similar dark earth deposit ([8]) was noted in the northern end of Trench 10, (Fig. 12, section 4) approximately 5.00m south of Trench 1 (Fig. 2)

Below topsoil [1] and a narrow band of mid orange brown subsoil [2] was deposit [12]. This deposit was between 0.30m and 0.50m deep with undulating horizons between deposits [2] and [13] (Fig. 4, sections 1-6). It consisted of a homogeneous dark brown silty sand from which 12 sherds of

Trench 1

2nd– to early 3rd-century AD pottery was recovered. Environmental sample <6> (Appendix 6) was taken from this deposit and recovered goosegrass, bone, charcoal, burnt or fired clay, small coal fragments, black porous 'cokey' material and black tarry material.

Below deposit [12] was deposit [13] that varied in depth measuring between 0.10m and 0.40m deep and consisted of a greyish black silty sand. This deposit has the possibility of being a 'dark earth' often associated with the Roman period and mainly formed during dumping episodes or prolonged settlement abandonment. Recovered from deposit [13] were 13 sherds of mid 2nd-century AD pottery and an iron nail. Environmental sample <3> (Appendix 6) was taken from this deposit and recovered hazel, charcoal, burnt or fired clay, small coal fragments, black porous 'cokey' material and black tarry material.

Plate 1. Trench 1, north facing section showing deposits [12] and [13] and unexcavated pit [43], looking south-east.

Archaeological features in the form of pits [14], [41] and [43] were observed below deposit [13] and cutting into natural sands. However, it remains uncertain whether these pits were cut from above [13] or were sealed by it after possible settlement abandonment.

Pit [14] may give an indication that the pits were possibly contemporary with or of similar depositional period as dark earth [13] as it was sealed by a deep subsoil (or even buried soil) [12] (Fig. 4, section 1). Pottery recovered from deposit [15] in pit [14] comprised 50 sherds of 2nd century AD wares and also iron nails. Environmental sample <7> (Appendix 6) was taken from this deposit and recovered barley grains, hazel, bone, fish bone, charcoal, burnt or fired clay, small coal fragments, black porous 'cokey' material, vitreous material and black tarry material.

Pit [41] was located 8.00m west of the eastern end of the trench and was also seen to be sealed by deposit [13]. This pit was only partially exposed thereby limiting the amount of excavation that could take place. It was established that the feature measured 2.30m long by at least 0.50m wide by 0.20m deep. No finds were recovered from its fill [42] but it is considered to be contemporary with pits [14] and [43].

Pit [43] was located in the central part of the trench and almost covered the entire width of the trench, continuing beyond the southern limit. The northern part of the feature was rounded. It was anticipated that the feature would exceed safe limits of works especially considering that the overburden above this pit was 1.10m deep. Therefore, the edge of excavation was stepped in from the southern limits of excavation by 0.50m before excavations took place. Excavation of this pit

Trench 1

ceased after 0.90m from the natural ground surface at 15.04m OD (Fig. 4, section 9). Although, only limited excavations took place it was possible to demonstrate that the pit had a steeply sloping western edge and a near vertical eastern edge and the depth exceeded the 0.90m excavated depth. Pit fill [44] consisted of dark brownish black silty sand from which 10 sherds of mid 2nd-century AD were recovered. Environmental sample <12> (Appendix 6) was taken from this deposit and recovered bone, small mammal/amphibian, charcoal, burnt/fired clay small coal fragments, black porous 'cokey' material and black tarry material.

Trench 1 has proven to contain well-sealed archaeological features and deposits dating to the 2nd century AD.

Unstratified metal-detected and hand collected finds were recovered from the spoil upcast from the trench and numbered as context [73].

Trench 2

Trench 2, looking south

Figs 2, 3 and 6		
Location		
Orientation	North - south	
North End	642873.966	275364.396
South End	642873.963	275337.006
Dimensions		
Length	30.00m	
Width	1.80mm	
Average Depth	0.70mm	
Levels		
North End	18.188m OD	
South End	17.984m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.60m	0.00–0.60m
2	Subsoil	Mid orange brown clayey sand	0.10m	0.60–0.70m
45	Ditch	East-west aligned	0.50m	0.70–1.20m
46	Fill of [45]	Dark brown silty sand	0.50m	0.70–1.20m
74	U/S find	Roman iron punch, copper alloy Roman coin dated to the 1st – 2nd century AD, 6 sherds of Roman pottery	--	–

Discussion

Trench 2 was located on a south-facing slope ranging between 18.18m OD (north) and 17.98m OD (south) that forms the western part of the hollow noted in Trench 1.

Ditch [45] was located in the southern part of the trench and was aligned east-west. The ditch crossed the trench and was 1.50m wide and 0.50m deep. It contained single fill [46] consisting of dark brown silty sand from which a single sherd of Roman pottery was recovered. Environmental sample <4> (Appendix 6) was taken from this deposit and recovered charred root/stem, bone, charcoal, burnt or fired clay, small coal fragments and black porous 'cokey' material.

Unstratified metal-detected and hand-collected finds were recovered from the spoil upcast from the trench and given the context number [74].

Trench 3

Trench 3, looking west

Fig. 2 (location)		
Location		
Orientation	East - west	
East End	642855.103	275369.288
West End	642822.483	275369.303
Dimensions		
Length	30.00m	
Width	1.80m	
Depth	0.40m	
Levels		
East End	19.107	
West End	20.163	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.30m	0–0.30m
2	Subsoil	Mid orange brown clayey sand	0.10m	0.30–0.40m
75	U/S find	Decorated lead sheet fragment, 3rd century AD silver Roman coin	–	–

Discussion

Trench 3 was located on the north-western edge of the proposed development site and was situated on a tract of land at an elevation of 19.10m OD (east) to 20.16m OD (west).

This trench was devoid of archaeological features and deposits.

Unstratified metal finds recovered from the upcast spoil from the trench were given the context number [75].

Trench 4

Trench 4, looking west

Figs 2, 3 and 7		
Location		
Orientation	North-west - south-east	
North west End	642794.239	275390.883
South east End	642814.455	275377.208
Dimensions		
Length	30.00m	
Width	1.80m	
Average Depth	0.50m	
Levels		
North west End	20.602m OD	
South east End	20.357m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.30m	0–0.30m
2	Subsoil	Mid orange brown clayey sand	0.10m	0.30–0.40m
33	Ditch	North-west to south-east aligned	0.40m	0.40–0.80m
34	Fill of [34]	Dark brown silty sand	0.40m	0.40–0.80m
35	Pit/ditch termini	Pit / Ditch terminus	0.70m	0.40–1.10m
36	Fill of [35]	Dark brown silty sand	0.70m	0.40–1.10m
37	Ditch	North-east to south-west aligned	0.20m	0.40–0.60m
38	Fill of [34]	Dark brown silty sand	0.20m	0.40–0.60m
76	U/S find	Roman silver coin, Roman pottery, post-medieval pottery, undated decorated lead		

Discussion

Trench 4 was located on the western edge of the proposed development site and was situated on a higher tract of land ranging between 20.60m OD (north-west) and 20.35m OD (south-east). Two ditches ([33] and [37]) and ditch terminus/pit [35] were recorded in this trench (Fig. 6, sections 1-3).

Ditch [33] was located in the west of the trench and was aligned north-west to south-east. The ditch measured at least 1.80m long by 1.50m wide and 0.40m deep. It contained single fill [34] consisting of dark brown silty sand (Fig. 6, section 1). No finds were recovered. Environmental sample <10> (Appendix 6) taken from this deposit recovered a fruit/nutshell fragment, charcoal, small coal fragments, black porous 'cokey' material and black tarry material.

To the east of ditch [33] was ditch terminus/pit [35]. The feature extended beyond the edge of the trench; the part within the trench measured 0.50m long, 0.70m wide by 0.70m deep. It contained single fill [36] consisting of dark brown silty sand (Fig. 6, section 2). No finds were recovered. As only a limited amount of this feature was exposed within the trench, interpretation is difficult – a pit or the terminus of a ditch being the most likely descriptions.

Narrow ditch [37] was crossed the central part of the trench and was 0.60m wide and 0.20m deep. It contained single fill [38] consisting of dark brown silty sand (Fig. 6, section 3). A single sherd from a samian ware bowl was recovered from the fill.

A piece of decorated lead and a silver Roman coin of ?Hadrian AD 117-138 were recovered from the spoil upcast from the trench ([76]) along with post-medieval pottery and undated lead.

Trench 5

Trench 5, looking west

Fig. 2 (location)		
Location		
Orientation	North-south	
North End	642801.890	275363.887
South End	642800.872	275337.067
Dimensions		
Length	30.00m	
Width	1.80m	
Depth	0.50m	
Levels		
North End	20.54m OD	
South End	20.32m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.30m	0.00–0.30m

Discussion

Trench 5 was located on the western edge of the proposed development site and was situated on a tract of land at an elevation ranging between 20.54m OD (north) and 20.32m OD (south) .

This trench was devoid of archaeological features, deposits and finds.

Trench 6

Trench 6, looking east

Figs 2, 3 and 8		
Location		
Orientation	East-west	
East End	642857.374	275343.342
West End	642824.435	275343.679
Dimensions		
Length	30.00m	
Width	1.80m	
Average Depth	0.60m	
Levels		
East End	18.59m OD	
West End	19.85m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.50m	0.00–0.50m
2	Subsoil	Mid orange brown clayey sand	0.10m	0.50–0.60m
47	Ditch	North west-south east aligned	0.30m	0.40–0.70m
48	Fill of [47]	Dark brown silty sand	0.30m	0.40–0.70m
49	Pit/ditch termini	Pit / Ditch termini	0.35m	0.40–0.75m
50	Fill of [35]	Dark brown silty sand	0.35m	0.40–0.75m
77	U/S find	10 sherds of Roman pottery, Roman tegula, modern copper-alloy button		

Discussion

Trench 6 was located in the centre of the proposed development site and was situated on an east facing slope ranging at an elevation between 18.59m OD (east) and 19.85m OD (west). Ditch [47] and pit/ditch terminus [49] were identified within this trench (Fig. 7, sections 1 and 2).

Ditch [47] was located in the western half of the trench and was aligned north-west to south-east. It crossed the trench and was 0.60m wide and 0.30m deep. It contained single fill [49] consisting of dark brown silty sand, (Fig. 7, section 1). No finds were recovered from this ditch.

Immediately to the east of ditch [47] was pit/ditch terminus [49]. This feature extended beyond the southern edge of the trench. Its recordable dimensions were 0.60m long by 1.50m wide by 0.35m deep. It contained single fill [50] consisting of dark brown silty sand (Fig. 7, section 2). Six fragments of 2nd-century AD pottery were recovered from this feature. Similar to pit/ditch terminus [35] recorded in Trench 4, this feature could be either a pit or the terminus of a ditch.

All unstratified metal-detected and hand-collected finds recovered from the soil upcast from the trench were numbered [77].

Trench 7

Trench 7,looking north

Figs 2, 3 and 9		
Location		
Orientation	North-south	
North End	642841.144	275335.252
South End	642841.125	275308.242
Dimensions		
Length	30.00m	
Width	1.80m	
Depth	0.85m	
Levels		
North End	19.20m	
South End	19.74m	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.35m	0.00–0.35m
27	Ditch/pit	?East-west aligned/sub-circular	0.55m	0.86–1.41m
28	Fill of [27]	Dark brown silty sand	0.55m	0.86–1.41m
39	Pit	Circular in plan	0.45m	0.86–1.31m
40	Fill of [39]	Dark brown silty sand	0.45m	0.86–1.31m
55	Deposit	Topsoil	0.35m	0.00–0.35m
56	Deposit	Sandy layer	0.06m	0.35–0.41m
57	Deposit	Subsoil	0.11m	0.41–0.52m
58	Deposit	Earlier subsoil layer	0.28m	0.52–0.80m+
59	Deposit	Pale sand	0.06m	0.80–0.86m+
60	Deposit	Yellowish sand	0.08m	0.80-0.88m+
61	Deposit	Whitish sand	0.12m	0.80-0.92m+
62	Deposit	Grey yellow sand	0.12m	0.80-0.92m+

Discussion

Trench 7 was located in the centre of the proposed development site and was situated on a north-facing slope at an elevation ranging between 19.20m OD (north) and 19.74m OD (south). Ditch [27] and pit [39] were identified within this trench (Fig. 8, sections 1 and 2).

It appears that there was a perched water table in the vicinity of Trenches 7 and 9 as these trenches were constantly flooded. Furthermore, the overburden within Trench 7 appears to have been altered by a series of events, possibly human intervention or natural occurrences such as flooding. Below the topsoil ([1] and [55] were seven deposits ([56], [57], [58], [59], [60], [61] and [62]) (Fig. 8, section 1). Deposit [58] appears to be subsoil sealing archaeological features and deposits.

Pit/ditch [27] (Fig. 8, section 2) was located at the northern end of the trench. It crossed the trench, its width varying between 3.00m (on the west side) and 5.00m (east). The excavation of this feature was curtailed after 0.50m depth because of water continuously seeping into the excavated slot. One deposit ([28]) was allocated to the fill, although it is likely that it would have contained more than a single context. Deposit [28] consisted of dark brown silty sand with occasional large flint nodules. Recovered from [28] were 65 sherds of mid 2nd-century AD

Trench 7

pottery, Roman ceramic building material and fired clay. Environmental sample <2> (Appendix 6) was taken from this deposit and recovered charcoal, burnt or fired clay, small coal fragments and black porous 'cokey' material.

Because of the irregular nature of this feature and the amount of Roman debris it contained it is, on balance, considered to be more likely to be a pit rather than an east-west ditch. An equally large pit with comparable characteristics was partially excavated in Trench 1, pit [43], (Fig. 3) and also produced mid 2nd century AD pottery and ceramic building materials, therefore large domestic pits are not out of place on this site. Also because of the perced water table there is possibility of environmentally important water logged deposits surviving within these pits.

Pit [39] (Fig. 8, section 2) truncates the south-eastern end of pit/ditch [27]. It contained single fill [40] which produced two Roman tegula fragments. Environmental sample <5> (Appendix 6) was taken from this deposit and recovered goosegrass, bone, charcoal, burnt or fired clay, small coal fragments, black porous 'cokey' material and black tarry material.

Trench 8

Trench 8, looking north

Figs 2, 3 and 10. Plate 2

Location		
Orientation	East-west	
East End	642857.237	275289.527
West End	642824.300	275289.534
Dimensions		
Length	30.00m	
Width	1.80m	
Average Depth	0.45m	
Levels		
East End	19.93m OD	
West End	20.32m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.30m	0.00–0.30m
2	Subsoil	Mid orange brown clayey sand	0.10m	0.30–0.40m
20	Ditch	North east-south west aligned	0.20m	0.40–0.60m
21	Fill of [20]	Mid brown silty sand	0.20m	0.40–0.60m
22	Ditch	North east-south west aligned	0.20m	0.40–0.60m
23	Fill of [22]	Mid greyish brown silty sand	0.20m	0.40–0.60m
24	Ditch	North-south aligned	0.25m	0.40–0.65m
25	Fill of [24]	Dark greyish brown silty sand	0.25m	0.40–0.65m
29	Ditch	North west-south east aligned	0.20m	0.40–0.60m
30	Fill of [29]	Mid brown silty sand	0.20m	0.40–0.60m
31	Ditch	North-south aligned	0.15m	0.40–0.55m
32	Fill of [31]	Mid brown silty sand	0.15m	0.40–0.55m
79	U/S	Late Mesolithic/Early Neolithic struck flint core, copper-alloy Roman coin, 11 sherds of Roman pottery, Roman tegula fragment, Roman fired clay, copper-alloy medieval brooch, unidentified copper-alloy object, two undated pieces of lead.	–	–

Discussion

Trench 8 was located in the southernmost part of the proposed development site and was situated on an east-facing slope at an elevation ranging between 19.93m OD (east) and 20.32m OD (west). Three ditches ([20], [29] and [31]) were identified within this trench (Fig. 9, sections 1-3).

Ditch [20]=[22] (Fig. 9, section 1), was located at the eastern end of the trench extending beyond the eastern and southern limits of the trench. It was aligned approximately east-west and measured at least 7.00m long by 1.18m wide by 0.25m deep. It contained single fill [21]=[23]]which produced seven sherds of 2nd- to 3rd-century AD pottery. Environmental sample <9> (Appendix 6) was taken from this deposit and recovered charcoal, bone, black porous 'cokey' material and black tarry material.

Ditch [31]=[24] (Fig. 9, section 2), was aligned north-south with the northern end extending beyond the limits of excavation. The southern part of ditch [31] links to east-west ditch [20] but it is unclear

Trench 8

(because of the limits of excavation) whether ditch [31] continues south of ditch [20].

A slot was excavated between ditches [20] and [31], (Fig. 9) to try and establish a relationship between them but none was perceivable. However it is probable that they were contemporary with each other and form part of a Roman land division.

Ditch [29] (Fig. 9, section 3) was located at the western end of the trench. It was aligned north west to south-east and crossed the trench; it was 0.85m wide by 0.20m deep. It contained single fill [30]. No finds were recovered from this deposit. Environmental sample <11> (Appendix 6) was taken from this deposit and recovered fruit/nutshell fragment, charcoal, small coal fragments, black porous 'cokey' material and black tarry material.

The unstratified finds collected from the soil upcast from this trench ([79]) form an interesting group. The only worked flint from the site was recovered in the vicinity of this trench perhaps hinting that Late Mesolithic/Early Neolithic activity was present, perhaps located on an interfluve with a plateau at 20m OD. Roman artefacts, including several sherds of pottery, ceramic building material and a coin of Hadrian (AD 117-138) were also present. An unusual sub-annular copper-alloy object with a central curving serpentine bar (Plate 3) was collected. Despite no exact parallels for the object being established it has similarities with medieval annular brooches of late 13th- to mid 14th-century date.

Trench 9

Trench 9, looking west

Figs 2, 3 and 11. Plate 2

Location		
Orientation	East-west	
East End	642892.305	275323.409
West End	642859.796	275323.438
Dimensions		
Length	30.00m	
Width	1.80m	
Average Depth	0.60mm	
Levels		
East	17.75m OD	
West	18.61m OD	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.40m	0.00–0.40m
2	Subsoil	Mid orange brown clayey sand	0.20m	0.40–0.60m
51	Ditch	North west-south east aligned	0.20m	0.60–0.80m
52	Fill of [20]	Mid brown clayey sand	0.20m	0.60–0.80m
53	Ditch/gully	North east-south west aligned	0.10m	0.60–0.80m
54	Fill of [22]	Mid greyish brown clayey sand	0.10m	0.60–0.80m
80	U/S Find	Copper-alloy Roman coin, nine sherds of Roman pottery	–	--

Discussion

Trench 9 was located in the central part of the of the proposed development site and was situated on an east-facing slope at an elevation ranging between 17.75m OD (east) and 18.61m OD (west). Two ditches [51 and 53] were identified within this trench (Fig. 10, sections 1 and 2). Excavations of these ditches were difficult due to the high water table and the sandy clay natural.

Ditch [51] (Fig. 10, section 1, Plate 2), was located at the western end of the trench and appears to be curvilinear in shape. It crossed the trench and was1.10 wide and 0.20m deep. It contained single fill [52] which produced 28 sherds of Roman pottery dated to the 2nd century AD. Environmental sample <1> (Appendix 6) was taken from this deposit and recovered charcoal, burnt stone, small coal fragments, black porous 'cokey' material and black tarry material.

Narrow ditch or gully [53] (Fig. 10, section 1) was located to the east of ditch [51]. Ditch/gully [53] was aligned north-east to south-west. During excavation it was realised that ditch [53] was shallow (0.10m deep) and seemed to fade out before reaching ditch [51].

A Roman copper-alloy coin of Sestertius coin dated to 2nd century AD and nine sherds of Roman pottery were recovered from the soil upcast from the trench ([80]).

Trench 10

Trench 10, looking north

Figs 2, 3 and 12		
Location		
Orientation	North-south	
North End	642910.302	275344.805
South End	642910.307	275317.393
Dimensions		
Length	27.00m	
Width	1.80m	
Average Depth	0.75m	
Levels		
North End Top	16.519m	
South End Top	17.782m	

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Dark brown clayey sand	0.30m	0.00–0.30m
3	Ditch	East-west aligned	0.45m	0.75–1.20m
4	Fill of [3]	Dark brown sandy silt	0.25m	0.75–0.95m
5	Ditch	East-west aligned	0.20m	0.75–0.95m
6	Fill of [5]	Dark brown sandy silt	0.20m	0.75–0.95m
7	?Dark earth	Accumulation horizon	0.16m	0.75–0.91m
8	Fill of [7]	Greyish black silty sand	0.16m	0.75–0.91m
9	Ditch	Curvilinear in plan	0.15m	0.75–0.90m
10	Fill of [9]	Dark brown sandy silt	0.15m	0.75–0.90m
16	Ditch	Curvilinear in plan	0.15m	0.75–0.90m
17	Fill of [16]	Dark brown sandy silt	0.15m	0.75–0.90m
18	?Post hole/pit	Circular in plan	0.35m	0.75–1.10m
19	Fill of [18]	Dark brown sandy silt	0.35m	0.75–1.10m
26	U/S Find	Mid/late 4th- to early 5th-century AD pottery	–	--
63	Void	–	–	--
64	Topsoil	Dark brown clayey sand	0.30m	0.00–0.30m
65	Deposit	Yellow grey sand	0.10m	0.30–0.40m
66	Deposit	Grey brown sand	0.20m	0.40–0.60m
67	Subsoil	Mid to dark greyish brown silty sand	0.20m	0.60–0.80m
68	Deposit	Pale grey sand	0.07m	
69	Deposit	Pale greyish white sand	0.08m	
70	Fill of [3]	Mid brown silty sand	0.20m	0.95–1.15 m
71	Deposit	Natural silvery white sand	0.15m +	0.75–0.90m
72	Fill of [9]	Mid brown clayey sand	0.08m	0.90–0.08 m

Trench 10				
81	U/S Find	Two Roman coins, Roman tegula, six sherds of Roman pottery, Copper-alloy sheet fragment		

Discussion

Trench 10 was located in the south-eastern part of the proposed development site and was situated on a north-facing slope ranging at an elevation ranging between 16.51m OD (north) and 17.78m OD (south). This trench was cut short at the eastern extent by 3.00m because of its close proximity to a public footpath. Four ditches ([3], [5], [9] and[16]), ?post-hole [18] and ?dark earth [8] were identified within the trench (Fig. 12, sections 1-4).

Above the features were six deposits ([64], [65], [66], [67], [68], [69]) (Fig. 12, section 3) with a combined depth of 0.80m. The deposits, apart from subsoil [67], are probably modern overburden.

Below, deposit [67] in the northern part of the trench was very clear horizon [7] comprising mid greyish black silty sand [8] was observed. Figure 12 section 4 shows horizon [7] overlying silvery white sand [71], which is potentially the same as the natural sand recorded in Trench 1.

The Trench 1 results demonstrate that potential dark earth [13] directly overlies natural silvery white sands. Considering that the northern end of Trench 10 was located just 3.30m from the southern side of Trench 1 (Fig. 2) it is not surprising that deposits [8] and [13] share similar characteristics and may suggest that the potential dark earth survives on the higher (southern) part of a hollow at 15.11m OD sloping down to 14.66m OD in the lowest point recorded in Trench 1.

Two ditches ([3] and [5]) were located south of potential dark earth [13] (Fig. 11). These ditches were aligned east-west and shared similar widths (1.20m). Northernmost ditch [5] was 0.20m deep and ditch [3] was 0.45m deep. Both ditches contained Roman pottery, with ditch [5] (fill [6]) producing pottery of 2nd-century AD date which parallels the date range for dark earth [13] in Trench 1. It is unclear whether the potential dark earth and ditches were contemporary but it is worth noting that the ditches were arranged perpendicular to the southern extent of the hollow which contained the dark earth. If it was deliberately planned that the ditches should bisect the higher southern slopes it may indicate that the potential dark earth was formed by episodes of dumping material rather than soil accumulation as the ditches could have acted as a boundary, effectively stopping hill wash forming in the hollow. Environmental sample <8> (Appendix 6) was taken from ditch [3] (fill [4]) and recovered bone, charcoal, burnt or fired clay, black porous 'cokey' material and black tarry material.

Ditch [18] was located immediately south of ditch [3] and was roughly aligned north-east to south-west with a slight curve in the central part of the ditch. It crossed the trench and was 1.00m wide by 0.35m deep. Although not immediately apparent on the surface of ditch [18], the excavated section demonstrated that the ditch was truncated by post-hole or small pit [18] (Fig. 12, Section 4). No finds were recovered from the ditch or post-hole/pit.

Located at the southern end of the trench was ditch [9] (Fig. 12, section 1). Ditch [9] was irregular in plan and roughly aligned north-west to south-east. It contained two fills ([10] and [72]) with the upper deposit [10] producing 10 sherds of Roman pottery.

Unstratified metal-detected and hand-collected finds were collected from upcast soil from the trench spoil and numbered [81]. The Roman coins were dated to the 2nd and 4th centuries AD.

A2 Excavation

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
100				layer	topsoil	-	-	0.25	dark brown	silty sand	moderate gravel	firm	-	-
101				layer	subsoil	-	-	0.25	mid orange brown	silty sand	moderate gravel	firm	-	-
102				layer	natural	-	-	-	yellowish orange	sand	moderate gravel	loose	-	-
103	104	Ditch 1	2.1	fill	ditch	silting			light grey	sand	moderate gravel	loose		
104	104	Ditch 1	2.1	cut	ditch	boundary	0.95	0.23					linear	irregular
105	106	Ditch 1	2.1	fill	ditch	silting			light grey	sand	moderate gravel	loose		
106	106	Ditch 1	2.1	cut	ditch	boundary	1.17	0.39					linear	irregular
107	108	Ditch 1	2.1	fill	ditch	silting			light grey	sand	moderate gravel	loose		
108	108	Ditch 1	2.1	cut	ditch	boundary	1.12	0.39					linear	irregular
109	109	Ditch 2	2.1	cut	ditch	boundary	0.5	0.13					linear	U-shape
110	109	Ditch 2	2.1	fill	ditch	silting			mid grey	sand	frequent gravel	loose		
111	111	Ditch 2	2.1	cut	ditch	boundary	0.7	0.1					linear	U-shape
112	111	Ditch 2	2.1	fill	ditch	silting			mid grey	sand	frequent gravel	loose		
113	113	Ditch 2	2.1	cut	ditch	boundary	0.85	0.2					linear	U-shape
114	113	Ditch 2	2.1	fill	ditch	silting			mid grey	sand	frequent gravel	loose		
115	115	Ditch 2	2.1	cut	ditch	boundary	0.6	0.13					linear	U-shape
116	115	Ditch 2	2.1	fill	ditch	silting			mid grey	sand	frequent gravel	loose		
117	117	Ditch 2	2.1	cut	ditch	boundary	0.78	0.1					linear	U-shape

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
118	117	Ditch 2	2.1	fill	ditch	silting	0.78	0.1	mid grey	sand	frequent gravel	loose		
119	119	Str. 1	2.2	cut	pit	oven	2	0.15					sub-circular	U-shape
120	119	Str. 1	2.2	fill	pit	disuse			dark brown	sand		loose		
121	119	Str. 1	2.2	fill	pit	disuse			mid brown	sandy clay	occasional gravel	firm		
122	119	Str. 1	2.2	fill	pit	disuse			dark brown	sandy clay	burnt clay	firm		
123	119	Str. 1	2.2	fill	pit	disuse			dark grey	fine clay sand	occasional gravel	firm		
124	119	Str. 1	2.2	fill	pit	disuse			dark yellowish brown	sandy clay		firm		
125	125	Str. 1	2.2	cut	post hole	structure	0.35	0.14					sub-circular	U-shape
126	125	Str. 1	2.2	fill	post hole	disuse			light grey brown	sand	occasional gravel	firm		
127	127	Str. 1	2.2	cut	post hole	structure	0.35	0.2					circular	U-shape
128	127	Str. 1	2.2	fill	post hole	disuse			dark brown	silty sand	occasional burnt clay	firm		
129	129	Str. 1	2.2	cut	post hole	structure	0.24	0.13					circular	U-shape
130	129	Str. 1	2.2	fill	post hole	disuse			mid grey	silty sand		firm		
131	131	Str. 1	2.2	cut	post hole	structure	0.36	0.26					sub-circular	square
132	131	Str. 1	2.2	fill	post hole	disuse			dark black brown	silty sand	occasional gravel and burnt clay	firm		
133	133	Str. 1	2.2	cut	post hole	structure	0.55	0.26					circular	U-shape
134	133	Str. 1	2.2	fill	post hole	disuse			dark grey	silty sand	frequent gravel	firm		
135	135	Str. 1	2.2	cut	post hole	structure	0.3	0.09					circular	U-shape
136	135	Str. 1	2.2	fill	post hole	disuse			mid brown	silty sand	occasional burnt clay	firm		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
137	137	Str. 1	2.2	cut	post hole	disuse	0.25	0.06					circular	U-shape
138	137	Str. 1	2.2	fill	post hole	disuse			mid grey	silty sand		loose		
139	139	Str. 1	2.2	cut	post hole	structure	0.35	0.1					sub-rectangular	U-shape
140	139	Str. 1	2.2	fill	post hole	disuse			mid brown	silty sand	frequent gravel	firm		
141	142	Pits	2.2	fill	pit	disuse			light brownish grey	sand	frequent gravel	loose		
142	142	Pits	2.2	cut	pit	unknown	2.3	0.95					sub-circular	U-shape
143	143	Pits	2.2	cut	pit	unknown	0.5	0.25					circular	U-shape
144	143	Pits	2.2	fill	pit	disuse			dark brown	silty sand		firm		
145	143	Pits	2.2	fill	pit	disuse			medium brown	silty sand		firm		
146	147	Pits	2.2	fill	pit	disuse	0.6	0.32					circular	U-shape
147	147	Pits	2.2	cut	pit	unknown			darkish brown	silty sand		firm		
148	147	Pits	2.2	fill	pit	disuse			medium brown	silty sand		firm		
149	149	Pits	2.2	cut	pit	unknown	0.65	0.2					circular	U-shape
150	149	Pits	2.2	fill	pit	disuse	0.5	0.5	dark brown	silty sand		firm		
151	149	Pits	2.2	fill	pit	disuse			medium brown	silty sand		firm		
156	156	Str. 1	2.2	cut	post hole	structure	0.25	0.09					circular	U-shape
157	156	Str. 1	2.2	fill	post hole	disuse			mid greyish brown	silty sand		firm		
158	158	Str. 1	2.2	cut	post hole	structure	0.3	0.15					circular	U-shape
159	158	Str. 1	2.2	fill	post hole	disuse			mid grey	silty sand	occasional gravel	loose		
160	160	Str. 1	2.2	cut	post hole	structure	0.3	0.8					circular	U-shape
161	160	Str. 1	2.2	fill	post hole	disuse			mid grey	silty sand	occasional	firm		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
									brown		gravel, burnt clay			
162	162	Str. 1	2.2	cut	post hole	structure	0.3	0.09					rectangular	U-shape
163	162	Str. 1	2.2	fill	post hole	disuse			mid grey	silty sand	occasional gravel	firm		
164	164	Str. 1	2.2	cut	post hole	structure	0.3	0.15					circular	U-shape
165	164	Str. 1	2.2	fill	post hole	disuse			dark grey	silty sand	occasional gravel	firm		
166	171	Pits	2.2	fill	pit	disuse			light grey	silty sand	moderate gravel	loose		
167	171	Pits	2.2	fill	pit	disuse			mid greyish brown	silty sand	occasional gravel	loose		
168	171	Pits	2.2	fill	pit	disuse			mid greyish brown	silty sand	occasional gravel	loose		
169	171	Pits	2.2	fill	pit	disuse			ligth reddish brown	silty sand	occasional gravel and cobble inclusions	loose		
170	171	Pits	2.2	fill	pit	disuse			dark brownish grey	silty sand	occasional gravel	loose		
171	171	Pits	2.2	cut	pit	unknown	1.55	1.2					sub-rectangular	not fully excavated
174	174	Str. 1	2.2	cut	post hole	structure	0.3	0.1					circular	shallow U-shape
175	174	Str. 1	2.2	fill	post hole	disuse			dark grey	silty sand	occasional gravel	compact		
176	176	Str. 1	2.2	cut	post hole	structure	0.3	0.09					circular	shallow U-shape
177	176	Str. 1	2.2	fill	post hole	disuse			dark grey	silty sand	occasional gravel	compact		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
178	178	Str. 1	2.2	cut	post hole	structure	0.4	0.06					circular	shallow U-shape
179	178	Str. 1	2.2	fill	post hole	disuse			dark grey	silty sand	occasional gravel	compact		
180	180	Str. 1	2.2	cut	post hole	structure	0.4	0.08					circular	shallow U-shape
181	180	Str. 1	2.2	fill	post hole	disuse			mid grey	silty sand	occasional gravel inclusions	compact		
182	182	Pits	2.2	cut	pit	unknown	2.8	0.75					sub-circular	flat based U-shape
183	182	Pits	2.2	fill	pit	disuse			dark brown	sand	frequent gravel	loose		
184	182	Pits	2.2	fill	pit	disuse			pale yellow brown	sand	moderate gravel	loose		
185	182	Pits	2.2	fill	pit	disuse			dark brown	sand		loose		
186	182	Pits	2.2	fill	pit	disuse			brown	sand	freq gravel	loose		
189	190	Ditch 3	2.1	fill	ditch	silting			light brownish grey	sand	freq gravel	loose		
190	190	Ditch 3	2.1	cut	ditch	boundary	2.4	0.58					linear	U-shape
191	192	Ditch 3	2.1	fill	ditch	silting			light brownish grey	sand	moderate gravel	loose		
192	192	Ditch 3	2.1	cut	ditch	boundary	2.1	0.46					linear	U-shaped
195	269		2.2	fill	palaeo-channel	tertiary layer			dark brown	sand	moderate flint gravel	loose		
196	196	Pits	2.2	cut	pit	unknown	0.46	0.1					circular	flat based U-shape
197	196	Pits	2.2	fill	pit	disuse			dark brown	silty sand		compact		
198	199	Ditch 3	2.1	fill	ditch	silting			mid grey	silty sand	occasional gravel,	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
											charcoal fragments			
199	199	Ditch 3	2.1	cut	ditch	boundary	1.25	0.25					linear	U-shape
200	200	Str. 1	2.2	cut	post hole	structure	0.25	0.1					circular	flat based U-shape
201	200	Str. 1	2.2	fill	post hole	disuse			dark grey black	silty sand	occasional gravel	compact		
202	199	Ditch 3	2.1	fill	ditch	silting			dark grey	silty sand	moderate gravel	loose		
203	204	Wells	2.2	fill	pit	disuse			greyish brown	sand	frequent gravel	loose		
204	204	Wells	2.2	cut	pit	well	3.88	0.78					sub-circular	flat based U-shape
205	206	Pits	2.2	fill	pit	disuse			mid brown	sand	moderate gravel	loose		
206	206	Pits	2.2	cut	pit	unknown	1.8	0.48					circular	U-shape
207	207	Str. 2	2.2	cut	beam slot	structure	0.2	0.15					linear	U-shape
208	207	Str. 2	2.2	fill	ditch	disuse			medium dark brown	silty sand		compact		
209	207	Str. 2	2.2	fill	beam slot	disuse			medium dark brown	silty sand		compact		
210	207	Str. 2	2.2	fill	beam slot	disuse			medium dark brown	silty sand		compact		
211	207	Str. 2	2.2	fill	ditch	disuse			medium dark brown	silty sand		compact		
212	207	Str. 2	2.2	fill	beam slot	disuse			medium dark brown	silty sand		compact		
213	207	Str. 2	2.2	fill	beam slot	disuse			medium dark brown	silty sand		compact		
214	204	Wells	2.2	fill	pit	disuse			reddish	sand	occasional	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
									brown		gravel			
215	204	Wells	2.2	fill	pit	disuse			grey	sand	occasional gravel	loose		
216	204	Wells	2.2	fill	pit	disuse			yellowish orange	sand	occasional gravel	loose		
217	219	Pit	2.2	fill	pit	disuse			dark grey	sand	occasional CBM flecks	loose		
218	219	Pit	2.2	fill	pit	disuse			brownish grey	sand	occasional gravel	loose		
219	219	Pit	2.2	cut	pit	unknown	0.94	0.35					sub-circular	U-shape
220	221	Ditch 3	2.1	fill	ditch	silting			light brown	sand	occasional gravel	loose		
221	221	Ditch 3	2.1	cut	ditch	boundary	0.94	0.18					linear	flat based U-shape
222	222		2.1	cut	ditch	boundary	0.5	0.15					linear	U-shape
223	222		2.1	fill	ditch	silting			dark grey	sand	occasional flint gravel	loose		
224	224		2.1	cut	ditch	boundary	0.9	0.17					linear	U-shape
225	224		2.1	fill	ditch	silting			dark grey	sand	occasional flint gravel	loose		
226	226	Pits	2.2	cut	pit	unknown	1.35	0.35					sub-circular	flat based U-shape
227	226	Pits	2.2	fill	pit	disuse			yellowish brown	sand	occasional flint gravel	loose		
228	226	Pits	2.2	fill	pit	disuse			olive brown	sand	moderate gravel	loose		
229	229	Wells	2.2	cut	pit	well	2.15	0.9					circular	not fully excavated
230	229	Wells	2.2	fill	pit	disuse			dark grey	silty sand		loose		
231	229	Wells	2.2	fill	pit	disuse			mid red	sandy clay		firm		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
									yellowish brown					
232	229	Wells	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel	loose		
233	229	Wells	2.2	fill	pit	disuse			mid grey	silty sand		loose		
234	229	Wells	2.2	fill	pit	disuse			mid greyish brown	silty sand	occasional gravel	compact		
235	229	Wells	2.2	fill	pit	disuse			light yellow	sand		loose		
236	229	Wells	2.2	fill	pit	disuse			mid grey	silty sand	occasional gravel	loose		
237	229	Wells	2.2	fill	pit	disuse			black to dark brown	silty sand	occasional gravel	loose		
238	269		1	fill	palaeo-channel	silting			pale yellow	sand	frequent gravel	loose		
239	269		1	fill	palaaeo-channel	silting			dark grey	sand	occasional flint gravel	loose		
240	240	Str. 2	2.2	cut	ditch/ beam slot	structure	0.25	0.2					linear	square
241	240	Str. 2	2.2	fill	ditch	disuse			medium dark brown	silty sand		compact		
242	242	Str. 2	2.2	cut	post hole	structure	0.68	0.14					circular	U-shape
243	243	Str. 2	2.2	cut	post hole	structure	0.53	0.19					circular	U-shape
244	244	Str. 2	2.2	cut	post hole	structure	0.87	0.14					circular	U-shape
245	245	Str. 2	2.2	cut	post hole	structure	0.25	0.26					circular	U-shape
246	246	Str. 2	2.2	cut	post hole	structure	0.3	0.11					circular	U-shape
247	247	Str. 2	2.2	cut	post hole	structure	0.2	0.2					circular	U-shape
248	248	Str. 2	2.2	cut	post hole	structure	0.23	0.15					circular	U-shape
249	249	Str. 2	2.2	cut	post hole	structure	0.2	0.1					circular	U-shape
250	250	Str. 2	2.2	cut	post hole	structure	0.26	0.2					circular	U-shape

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
251	251	Str. 2	2.2	cut	post hole	structure	0.22	0.11					circular	U-shape
252	252	Str. 2	2.2	cut	post hole	structure	0.3	0.19					circular	U-shape
253	242	Str. 2	2.2	fill	post hole	disuse	0.68	0.14	medium dark brown	silty sand		loose		
254	243	Str. 2	2.2	fill	post hole	disuse	0.53	0.19	medium dark brown	silty sand		loose		
255	244	Str. 2	2.2	fill	post hole	disuse	0.87	0.14	medium dark brown	silty sand		loose		
256	245	Str. 2	2.2	fill	post hole	disuse	0.25	0.26	medium dark brown	silty sand		loose		
257	246	Str. 2	2.2	fill	post hole	disuse	0.3	0.11	medium dark brown	silty sand		loose		
258	247	Str. 2	2.2	fill	post hole	disuse	0.2	0.2	medium dark brown	silty sand		loose		
259	248	Str. 2	2.2	fill	post hole	disuse	0.23	0.15	medium dark brown	silty sand		loose		
260	249	Str. 2	2.2	fill	post hole	disuse	0.2	0.1	medium dark brown	silty sand		loose		
261	250	Str. 2	2.2	fill	post hole	disuse	0.26	0.2	medium dark brown	silty sand		loose		
262	251	Str. 2	2.2	fill	post hole	disuse	0.22	0.11	medium dark brown	silty sand		loose		
263	252	Str. 2	2.2	fill	post hole	disuse	0.3	0.19	medium dark brown	silty sand		loose		
264	206	Pits	2.2	fill	pit	disuse			grey	sand	moderate gravel	loose		
265	265	Ditch 6	2.1	cut	ditch	boundary	0.9	0.3					linear	U-shape
266	265	Ditch 6	2.1	fill	ditch	silting			greyish brown	sand		loose		
267	267	Pits	2.2	cut	pit	unknown	0.6	0.22					circular	flat based U-shape

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
268	267	Pits	2.2	fill	pit	disuse			mid greyish brown	silty sand	occasional gravel	compact		
269	269		1	cut	natural	palaeo-channel	18.5	1					linear	wide shallow U-shape
270	269		1	fill	palaeo-channel	silting			pale yellow	sand	occasional flint gravel	loose		
271	294	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
272	295	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
273	296	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
274	297	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
275	298	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
276	299	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
277	300	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
278	301	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
279	302	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
280	303	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
281	304	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
282	305	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
283	306	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
284	307	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
285	308	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
286	309	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
287	310	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
288	311	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
289	312	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
290	313	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
291	314	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
292	315	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
293	316	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
294	294	Str. 3	2.2	cut	post hole	structure	0.3	0.1					sub-circular	U-shape
295	295	Str. 3	2.2	cut	post hole	structure	0.5	0.2					sub-circular	U-shape
296	296	Str. 3	2.2	cut	post hole	structure	0.45	0.1					sub-circular	U-shape
297	297	Str. 3	2.2	cut	post hole	structure	0.45	0.2					sub-circular	U-shape
298	298	Str. 3	2.2	cut	post hole	structure	0.5	0.13					sub-circular	U-shape
299	299	Str. 3	2.2	cut	post hole	structure	0.4	0.15					sub-circular	U-shape
300	300	Str. 3	2.2	cut	post hole	structure	0.65	0.25					sub-circular	U-shape
301	301	Str. 3	2.2	cut	post hole	structure	0.8	0.3					sub-circular	U-shape

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
302	302	Str. 3	2.2	cut	post hole	structure	0.4	0.12					sub-circular	U-shape
303	303	Str. 3	2.2	cut	post hole	structure	0.7	0.3					sub-circular	U-shape
304	304	Str. 3	2.2	cut	post hole	structure	0.4	0.28					sub-circular	U-shape
305	305	Str. 3	2.2	cut	post hole	structure	0.7	0.2					sub-circular	U-shape
306	306	Str. 3	2.2	cut	post hole	structure	0.3	0.13					sub-circular	U-shape
307	307	Str. 3	2.2	cut	post hole	structure	0.4	0.12					sub-circular	U-shape
308	308	Str. 3	2.2	cut	post hole	structure	0.1	0.1					sub-circular	U-shape
309	309	Str. 3	2.2	cut	post hole	structure	0.35	0.16					sub-circular	U-shape
310	310	Str. 3	2.2	cut	post hole	structure	0.3	0.18					sub-circular	U-shape
311	311	Str. 3	2.2	cut	post hole	structure	0.4	0.08					sub-circular	U-shape
312	312	Str. 3	2.2	cut	post hole	structure	0.4	0.15					sub-circular	U-shape
313	313	Str. 3	2.2	cut	post hole	structure	0.25	0.14					sub-circular	U-shape
314	314	Str. 3	2.2	cut	post hole	structure	0.35	0.15					sub-circular	U-shape
315	315	Str. 3	2.2	cut	post hole	structure	0.4	0.1					sub-circular	U-shape
316	316	Str. 3	2.2	cut	post hole	structure	0.35	0.1					sub-circular	U-shape
317	317	Ditch 3	2.1	cut	ditch	boundary	0.4	0.18					linear	U-shape
318	317	Ditch 3	2.1	fill	ditch	disuse			very dark brown	silty sand		compact		
319	319	Pits	2.2	cut	pit	unknown	0.9	0.64					sub-circular	square
320	319	Pits	2.2	fill	pit	disuse			dark red brown	silty sand	occasional fleck of CBM, occasional gravel	compact		
321	321	Ditch 9	2.1	cut	ditch	boundary	1.5	0.65					linear	U-shape
322	321	Ditch 9	2.1	fill	ditch	silting			grey	sand	moderate gravel	loose		
323	321	Ditch 9	2.1	fill	ditch	silting			dark brown	sand	moderate gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
324	319	Pits	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel, irregular patches of yellow sand	compact		
325	319	Pits	2.2	fill	pit	disuse			light yellow grey	sand	occasional gravel	loose		
326	319	Pits	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel	firm		
327	327	Ditch 8	2.1	cut	ditch	boundary	0.7	0.15					linear	flat based V-shape
328	327	Ditch 8	2.1	fill	ditch	disuse			brown sand	sand	moderate flint gravel	loose		
329	329	Ditch 8	2.1	cut	ditch	boundary	0.85	0.27					linear	flat based V-shape
330	329	Ditch 8	2.1	fill	ditch	disuse			brown	sand	moderate flint gravel	loose		
331	331	Pits	2.2	cut	pit	unknown	0.15	0.2					circular	U-shape
332	331	Pits	2.2	fill	pit	disuse			brown	sand	moderate gravel	loose		
333	333	Pits	2.2	cut	pit	unknown	0.55	0.25					circular	U-shape
334	333	Pits	2.2	fill	pit	disuse			dark brown	sand	moderate gravel	loose		
335	335	Well	2.2	cut	pit	well	1.85	2.8					circular	not fully excavated
336	335	Well	2.2	fill	pit	disuse			dark brown	silty sand		compact		
337	319	Pits	2.2	fill	pit	disuse			mottles of strong yellow and dark brown	medium sand		comapct		
338	319	Pits	2.2	fill	pit	disuse			dark red	medium sand		compact		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
									brown					
339	319	Pits	2.2	fill	pit	disuse			mottles of mid and light yellow	clay		firm		
340	319	Pits	2.2	fill	pit	disuse			dark brown	medium sand		loose		
341	319	Pits	2.2	fill	pit	disuse			mottles of mid yellow and light yellow	clay		firm		
342	319	Pits	2.2	fill	pit	disuse			mid brown	sandy clay		firm		
343	319	Pits	2.2	fill	pit	disuse			light yellow	clay	occasional small pockets of dark brown sand, occasional flint	firm		
344	357	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
345	358	Str. 3	2.2	fill	post hole	post packing			dark brownish grey	silty sand		loose		
346	358	Str. 3	2.2	fill	post hole	post pipe			light greyish green	clay	N/A	firm		
347	359	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
348	360	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
349	361	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
350	362	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
351	363	Str. 3	2.2	fill	post hole	disuse			dark brownish	silty sand		loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
									grey					
352	364	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
353	365	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
354	366	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
355	367	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
356	368	Str. 3	2.2	fill	post hole	disuse			dark brownish grey	silty sand		loose		
357	357	Str. 3	2.2	cut	post hole	structure	0.4	0.18					circular	U-shape
358	358	Str. 3	2.2	cut	post hole	structure	0.5	0.25					circular	U-shape
359	359	Str. 3	2.2	cut	post hole	structure	0.45	0.17					circular	U-shape
360	360	Str. 3	2.2	cut	post hole	structure	0.6	0.3					circular	U-shape
361	361	Str. 3	2.2	cut	post hole	structure	0.37	0.2					circular	U-shape
362	362	Str. 3	2.2	cut	post hole	structure	0.45	0.23					circular	U-shape
363	363	Str. 3	2.2	cut	post hole	structure	0.6	0.1					circular	U-shape
364	364	Str. 3	2.2	cut	post hole	structure	0.32	0.12					circular	U-shape
365	365	Str. 3	2.2	cut	post hole	structure	0.15	0.23					circular	U-shape
366	366	Str. 3	2.2	cut	post hole	structure	0.3	0.17					circular	U-shape
367	367	Str. 3	2.2	cut	post hole	structure	0.35	0.15					circular	U-shape
368	368	Str. 3	2.2	cut	post hole	structure	0.17	0.15					circular	U-shape
369	370	Pits	2.2	fill	pit	disuse			dark brownish grey	silty sand	occasional gravel	loose		
370	370	Pits	2.2	cut	pit	unknown	1.62	1.2					circular	not fully excavated
371	372	Ditch 8	2.1	fill	ditch	silting			dark brownish grey	silty sand	-	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
372	372	Ditch 8	2.1	cut	ditch	boundary	0.75	0.28					linear	shallow U-shape
373	374	Pits	2.2	fill	pit	disuse			mixed light reddish brown/mid grey	sand	occasional gravel	loose		
374	374	Pits	2.2	cut	pit	unknown	0.8	0.46					rectangular	square cut
375	375	Encl.	2.1	cut	ditch	enclosure	0.7	0.2					linear	U-shape
376	375	Encl.	2.1	fill	ditch	disuse			mid reddish brown	silty sand	-	compact		
377	377	Encl.	2.1	cut	ditch	boundary	1.5	0.5					linear	U-shape
378	377	Encl.	2.1	fill	ditch	disuse			light brownish grey	sand	-	loose		
379	379	Encl.	2.1	cut	ditch	boundary	1.5	0.55					linear	flat-based U-shape
381	381	Encl.	2.1	cut	ditch	boundary	1.25	0.52					linear	flat-based U-shape
382	381	Encl.	2.1	fill	ditch	disuse			dark greyish brown	silty sand	-	loose		
383	383	Encl.	2.1	cut	ditch	boundary	1	0.28					linear	U-shape
384	183	Encl.	2.1	fill	ditch	disuse			dark grey	silty sand	occasional gravel	loose		
385	385	Encl.	2.1	cut	ditch	boundary	1.05	0.34					linear	U-shape
386	385	Encl.	2.1	fill	ditch	disuse			light grey	sand	-	loose		
387	387	Encl.	2.1	cut	ditch	boundary	0.47	0.12					linear	U-shape
388	387	Encl.	2.1	fill	ditch	disuse			mid greyish brown	silty sand	-	loose		
389	389	Encl.	2.1	cut	ditch	boundary	0.67	0.37					linear	U-shape
390	389	Encl.	2.1	fill	ditch	disuse			dark brown	sand	moderate flint gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
391	391	Str. 3	2.2	cut	post hole	structure	0.6	0.2					circular	U-shape
392	391	Str. 3	2.2	fill	post hole	post packing			yellowish brown	clay	chalk; occasional flint gravels	firm		
393	393	Str. 3	2.2	cut	post hole	structure	0.6	0.16					circular	U-shape
394	393	Str. 3	2.2	fill	post hole	disuse			yellowish brown	clay	chalk; occasional flint gravels	firm		
395	335	Well	2.2	fill	pit	disuse			v. dark brown/black	silty sand	-	compact		
396	391	Str. 3	2.2	fill	post hole	post pipe			dark brown	sand	-	loose		
397	375	Encl.	2.1	fill	ditch	disuse			mid greyish brown	silty sand	occasional gravel	compact		
398	375	Encl.	2.1	fill	ditch	disuse			dark brown	silty sand	occasional gravel	compact		
399	377	Encl.	2.1	fill	ditch	disuse			dark greyish brown	silty sand	occasional gravel	compact		
400	377	Encl.	2.1	fill	ditch	disuse			light greyish yellow	sand	-	loose		
401	377	Encl.	2.1	fill	ditch	disuse			light yellow	sand	occasional gravel	loose		
402	335	Well	2.2	fill	pit	disuse			mid brown	silty clay	-	firm		
403	403	Pits	2.2	cut	pit	structure	0.56	0.16					sub-circular	U-shape
404	403	Pits	2.2	fill	pit	disuse			dark brown	silty sand	rare gravel	compact		
405	405	Pits	2.2	cut	pit	structure	0.7	0.23					circular	U-shape
406	405	Pits	2.2	fill	pit	disuse			dark brown	silty sand	occasional gravel	compact		
407	407	Pits	2.2	cut	pit	structure	0.7	0.23					circular	square cut
408	407	Pits	2.2	fill	pit	disuse			dark brown	silty sand	rare gravel	compact		
409	409	Pits	2.2	cut	pit	structure	0.93	0.1					circular	flat-based U-

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
														shape
410	409	Pits	2.2	fill	pit	disuse			dark brown	silty sand	rare gravel	compact		
411	412	Ditch 4	2.1	fill	ditch	silting			light grey	sand	frequent gravel	loose		
412	412	Ditch 4	2.1	cut	ditch	boundary	0.9	0.24					linear	U-shape
413	414	Ditch 4	2.1	fill	ditch	silting			dark brownish grey	silty sand	frequent gravel	loose		
414	414	Ditch 4	2.1	cut	ditch	boundary	0.68	0.27					linear	U-shape
415	415	W-hole	2.1	cut	pit	Water-hole	11.5	2.1					circular	U-shape
416	415	W-hole	2.1	fill	pit	disuse			dark grey	slightly silty sand	frequent gravel	loose		
417	415	W-hole	2.1	fill	pit	disuse			mid grey	slightly silty sand	frequent gravel	loose		
418	415	W-hole	2.1	fill	pit	disuse			pale grey	slightly silty sand	frequent gravel	loose		
419	419	Pits	2.2	cut	pit	water hole	5	1.7					circular	U-shape
420	419	Pits	2.2	fill	pit	disuse			light grey	slightly silty sand	moderate gravel	loose		
421	419	Pits	2.2	fill	pit	disuse			mid brown	sand	moderate gravel	loose		
422	422	Wells	2.2	cut	pit	well	8	2.3					circular	not excavated
423	422	Wells	2.2	fill	pit	disuse			light brownish yellow	slightly silty sand	frequent gravel	loose		
424	422	Wells	2.2	fill	pit	disuse			grey with orange mottling	slightly silty sand	moderate gravel	loose		
425	422	Wells	2.2	fill	pit	disuse			dark grey	slightly silty sand	moderate gravel	loose		
426	422	Wells	2.2	fill	pit	disuse			brown	slightly silty sand	moderate gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
428	229	Wells	2.2	fill	pit	disuse			yellowish brown	slightly silty sand	occasional gravel	loose		
429	229	Wells	2.2	fill	pit	disuse			blueish grey	silty clay	-	soft		
430	229	Wells	2.2	fill	pit	disuse			light grey	slightly silty sand	moderate gravel	loose		
431	229	Wells	2.2	fill	pit	disuse			brown	sand	mod gravel	loose		
432	432	Wells	2.2	cut	pit	well	4	2.6					circular	U-shape
433	432	Wells	2.2	fill	pit	disuse			mid grey	slightly silty sand	moderate gravel	loose		
434	432	Wells	2.2	fill	pit	disuse			brown	sand	moderate gravel	loose		
436	574	Wells	2.2	fill	pit	disuse			dark brown	silty sand	moderate gravel	loose		
437	574	Wells	2.2	fill	pit	disuse			light grey	sand	moderate gravel	loose		
438	439	Ditch 4	2.1	fill	ditch	silting			dark brownish grey	silty sand	frequent gravel	loose		
439	439	Ditch 4	2.1	cut	ditch	boundary	1.16	0.19					linear	U-shape
440	441	Pits	2.2	fill	pit	disuse			dark brownish grey	silty sand	occasional gravel	loose		
441	441	Pits	2.2	cut	pit	unknown	2.36	0.54					circular	U-shape
442	442	Pits	2.2	cut	pit	unknown	0.7	0.27					circular (? oval)	U-shape
443	442	Pits	2.2	fill	pit	disuse			light brown	silty sand	rare gravel	compact		
444	442	Pits	2.2	fill	pit	disuse			light yellowish brown	silty sand	-	compact		
445	445	Pits	2.2	cut	pit	unknown	1	0.21					circular (? oval)	broad U-shape
446	445	Pits	2.2	fill	pit	disuse			dark brown-black	silty sand	frequent gravel	compact (?)		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
447	447	Ditch 6	2.1	cut	ditch	boundary	1.1	0.5					linear	flat-based U-shape
448	447	Ditch 6	2.1	fill	ditch	disuse			grey	slightly silty sand	moderate flint gravel	loose		
449	447	Ditch 6	2.1	fill	ditch	disuse			brown	sand	mod gravel	loose		
450	450	Wells	2.2	cut	pit	well	3.7	2					circular	unknown
451	450	Wells	2.2	fill	pit	disuse			grey	silty sand	moderate gravel	loose		
452	450	Wells	2.2	fill	pit	disuse			brown	sand	moderate gravel	loose		
453	453	Pits	2.2	cut	pit	unknown	0.4	0.2					sub-circular	U-shape
454	453	Pits	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel	loose		
465	466		2.1	fill	ditch	silting			mid brownish grey	silty sand	frequent gravel	loose		
466	466		2.1	cut	ditch	boundary	0.72	0.1					linear	flat based U-shape
467	467	Encl.	2.1	cut	ditch	boundary	1	0.75					linear	U-shape
468	467	Encl.	2.1	fill	ditch	silting			mid yellowish brown	sand		loose		
469	467	Encl.	2.1	fill	ditch	silting			dark brownish grey	sand		loose		
470	467	Encl.	2.1	fill	ditch	silting			mid yellowish grey	sand		loose		
471	467	Encl.	2.1	fill	ditch	silting			dark brownish grey	sand		loose		
472	379	Encl.	2.1	fill	ditch	silting			dark greyish brown	sand	occasional gravel	loose		
473	379	Encl.	2.1	fill	ditch	silting			mid greyish yellow	sand	occasional gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
474	379	Encl.	2.1	fill	ditch	silting			mid grey	sand	occasional gravel	loose		
475	379	Encl.	2.1	fill	ditch	silting			mid greyish brown	silty sand	occasional gravel	loose		
476	379	Encl.	2.1	fill	ditch	silting			mid greyish yellow	sand	occasional gravel	loose		
477	379	Encl.	2.1	fill	ditch	silting			dark greyish brown	silty sand	occasional gravel	loose		
478	379	Encl.	2.1	fill	ditch	silting			light brownish grey	sand	occasional gravel	loose		
479	381	Encl.	2.1	fill	ditch	silting			light grey-brown with light greyish yellow lenses	silty sand		loose		
480	381	Encl.	2.1	fill	ditch	disuse			dark greyish brown	silty sand	occasional patches yellow clay	loose		
481	385	Encl.	2.1	fill	ditch	disuse			mid grey	silty sand		loose		
482	385	Encl.	2.1	fill	ditch	disuse			dark reddish brown mottled with dark grey	silty sand		compact		
483	483	Ditch 7	2.1	cut	ditch	boundary	0.6	0.15					linear	U-shape
484	483	Ditch 7	2.1	fill	ditch	disuse			yellowish brown	sand	frequent gravel	loose		
485	485	Ditch 7	2.1	cut	ditch	boundary	0.4	0.1					linear	U-shape
486	485	Ditch 7	2.1	fill	ditch	disuse			mid grey	sand	occasional gravel	loose		
487	487	Ditch 7	2.1	cut	ditch	boundary	0.8	0.4					linear	U-shape
488	487	Ditch 7	2.1	fill	ditch	disuse			mid grey	sand	occasional gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
489	489	Wells	2.2	cut	pit	well	0.9	0.6					sub-circular	not excavated
490	489	Wells	2.2	fill	pit	disuse			dark grey	silty sand	moderate gravel	loose		
491	489	Wells	2.2	fill	pit	disuse			yellowish brown	silty sand	moderate gravel	loose		
492	493	Pits	2.2	fill	pit	disuse			mid greyish brown	silty sand	frequent gravel	loose		
493	493	Pits	2.2	cut	pit	unknown	6.05	2.3					circular	not fully excavated
494	494	Pits	2.2	cut	pit	unknown	0.5	1					sub-rectangular	square-cut
495	494	Pits	2.2	fill	pit	disuse			light grey	sand		loose		
496	494	Pits	2.2	fill	pit	disuse			mid grey	sand		loose		
497	494	Pits	2.2	fill	pit	disuse			mid yellow	sand	occasional rounded small stones	loose		
498	494	Pits	2.2	fill	pit	disuse			mid greyish brown	sand		loose		
499	494	Pits	2.2	fill	pit	disuse			light greyish yellow and yellowish brown	sand	occasional gravel	loose		
500			1	na	spring	natural feature								
501	494	Pits	2.2	fill	pit	disuse			dark greyish brown	silty sand	occasional gravel	compact		
502	502	Pits	2.2	cut	pit	structure	0.35	0.15					circular	U-shape
503	502	Pits	2.2	fill	pit	disuse			mid greyish brown	sand	occasional gravel	loose		
504	504	Pits	2.2	cut	pit	structure	0.2	0.1					circular	U-shape

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
505	504	Pits	2.2	fill	pit	disuse			mid greyish brown	sand	occasional gravel	loose		
506	506	Pits	2.2	cut	pit	unknown	1.7	0.2					sub-circular	U-shape
507	506	Pits	2.2	fill	pit	disuse			grey	silty sand	moderate gravel	loose		
508	506	Pits	2.2	fill	pit	disuse			yellowish brown	silty sand	moderate gravel	loose		
509	509	Pits	2.2	cut	pit	unknown	2	0.7					sub-circular	flat-based U-shape
510	510	Pits	2.2	cut	pit	unknown	1.5	0.45					sub-rectangular	flat-based U-shape
511	510	Pits	2.2	fill	pit	disuse			dark grey	sand	moderate gravel	loose		
512	510	Pits	2.2	fill	pit	disuse			mid grey	sand	moderate gravel	loose		
513	510	Pits	2.2	fill	pit	disuse			yellow and light grey mottled	sand	moderate gravel	loose		
514	493	Pits	2.2	fill	pit	disuse			dark brown	silty sand	frequent gravel	loose		
515	515	Encl.	2.1	cut	ditch	boundary	0.65	0.2					linear	U-shape
516	515	Encl.	2.1	fill	ditch	siltiing			mid grey	silty sand	frequent gravel	loose		
517	515	Encl.	2.1	fill	ditch	silting			dark grey	silty sand	frequent gravel	loose		
518	509	Pits	2.2	fill	pit	disuse			mid brown	sand	-	compact		
519	509	Pits	2.2	fill	pit	disuse			light-mid brown	sandy silt	frequent gravel	compact		
520	509	Pits	2.2	fill	pit	disuse			dark brown	sandy silt	-	compact		
521	509	Pits	2.2	fill	pit	disuse			mid brown	silty sand	-	compact		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
522	522	Pits	2.2	cut	pit	unknown	0.4	0.3					sub-rectangular	flat-based U-shape
523	522	Pits	2.2	fill	pit	disuse			mid greyish brown	silty sand	frequent gravel	compact		
524	524	Pits	2.2	cut	pit	unknown	1.7	1.7					sub-rectangular	square cut
525	524	Pits	2.2	fill	pit	disuse			light greyish yellow	sand	-	loose		
526	526	Pits	2.2	cut	pit	unknown	1.9	1.7					circular	not excavated
527	526	Pits	2.2	fill	pit	disuse			dark grey	sand	occasional gravel	loose		
528	526	Pits	2.2	fill	pit	disuse			reddish brown	sand	occasional gravel	loose		
529	526	Pits	2.2	fill	pit	disuse			dark grey	sand	occasional gravel	loose		
530	526	Pits	2.2	fill	pit	disuse			brown	sand	frequent gravel	loose		
531	526	Pits	2.2	fill	pit	disuse			grey	sand	frequent gravel	loose		
532	532	Ditch 5	2.1	cut	ditch	boundary	0.95	0.1					linear	U-shape
533	532	Ditch 5	2.1	fill	ditch	silting			dark grey	sand	frequent gravel	loose		
534	535	Ditch 5	2.1	fill	ditch	disuse			dark grey	sand	frequent gravel	loose		
535	535	Ditch 5	2.1	cut	ditch	boundary	0.66	0.06					linear	U-shape
536	537	Pits	2.2	fill	pit	disuse			dark grey	sand	frequent gravel	loose		
537	537	Pits	2.2	cut	pit	unknown	1.2	0.45					sub-circular	U-shape
538	524	Pits	2.2	fill	pit	disuse			dark brown	sand	-	loose		
539	524	Pits	2.2	fill	pit	disuse			mid brownish	sand	rare gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
									yellow					
540	524	Pits	2.2	fill	pit	disuse			dark greyish brown	silty sand		compact		
541	524	Pits	2.2	fill	pit	disuse			dark brownish grey	silty sand	occasional gravel and cobbles	compact		
542	524	Pits	2.2	fill	pit	disuse			dark grey	sand		loose		
543	524	Pits	2.2	fill	pit	disuse			light yellowish grey	sand	occasional gravel	loose		
544	524	Pits	2.2	fill	pit	disuse			mid greyish brown	silty sand	occasional gravel	loose		
545	524	Pits	2.2	fill	pit	disuse			mid brown	silty sand	occasional gravel	loose		
546	546	Pits	2.2	cut	pit	unknown	1.65	0.25					circular	U-shape
547	546	Pits	2.2	fill	pit	disuse			grey	sand	frequent gravel	loose		
548	548	Pits	2.2	cut	pit	unknown	1.2	0.4					circular	flat-based U-shape
549	548	Pits	2.2	fill	pit	disuse			dark grey	sand	occasional gravel	loose		
550	550	Pits	2.2	cut	pit	storage	1.6	0.9					sub-circular	square-cut
551	550	Pits	2.2	fill	pit	disuse			mid grey	silty sand	occasional gravel	loose		
552	550	Pits	2.2	fill	pit	disuse			yellowish brown	sand	occasional gravel	loose		
553	550	Pits	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel	loose		
554	550	Pits	2.2	fill	pit	disuse			greyish brown	silty sand	occasional gravel	loose		
555	550	Pits	2.2	fill	pit	disuse			dark grey	silty sand	occasional	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
											gravel			
556	550	Pits	2.2	fill	pit	disuse			brown	silty sand	occasional gravel	loose		
557	557	Pits	2.2	cut	pit	unknown	1.1	0.2					circular	U-shape
558	557	Pits	2.2	fill	pit	disuse			mid grey	sand	occasional gravel	loose		
559	559	Pits	2.2	cut	pit	unknown	0.8	0.1					circular	U-shape
560	559	Pits	2.2	fill	pit	disuse			mid grey	sand	occasional gravel	loose		
561	561	Pits	2.2	cut	post hole	structure	0.6	0.25					circular	flat-based U-shape
562	561	Pits	2.2	fill	post hole	disuse			dark grey	sand	moderate gravel	loose		
563	563	Ditch 7	2.1	cut	ditch	boundary	0.65	0.2					linear	U-shape
564	563	Ditch 7	2.1	fill	ditch	silting			brown	sand	moderate gravel	loose		
565	565	Pits	2.2	cut	pit	unknown	1.3	0.3					sub-rectangular	flat-based U-shape
566	565	Pits	2.2	fill	pit	disuse			dark grey	sand	moderate gravel	loose		
567	565	Pits	2.2	fill	pit	disuse			brown	sand	moderate gravel	loose		
568	568	Pits	2.2	cut	pit	unknown	1.3	0.6					circular	flat-based U-shape
569	568	Pits	2.2	fill	pit	disuse			olive brown	sand	moderate gravel	loose		
570	570	Ditch 6	2.1	cut	ditch	boundary	1.3	0.5					linear	flat-based V-shape
571	570	Ditch 6	2.1	fill	ditch	silting			olive brown	sand	moderate gravel	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
572	572	Ditch 3	2.1	cut	ditch	boundary	0.95	0.4					linear	U-shape
574	574	Wells	2.2	cut	pit	Well	2.2	0.6					circular	U-shape
577	577		2.2	cut	ditch	boundary	0.8	0.2					linear	Flat-based U-shape
578	577		2.2	fill	ditch	silting			dark greyish brown	silty sand	rare gravel	loose		
584	584	Ditch 4	2.1	cut	ditch	boundary	1.3	0.3					linear	U-shape
585	584	Ditch 4	2.1	fill	ditch	disuse			mid grey	sand	moderate gravel	loose		
586	489	Wells	2.2	fill	pit	disuse			dark grey	silty sand	moderate gravel	loose		
587	572	Ditch 3	2.1	fill	ditch	silting			light greyish brown	sand	occasional gravel	loose		
588	572	Ditch 3	2.1	fill	ditch	silting			light yellowish grey	sand	rare gravel	loose		
589	574	Wells	2.2	fill	pit	disuse			light brownish yellow	sand	interrupted layers of dark brown silty sand	loose		
590	574	Wells	2.2	fill	pit	disuse			mid grey	sand	occasional gravel	loose		
591	574	Wells	2.2	fill	pit	disuse			dark brown	sand		loose		
600	204	Wells	2.2	fill	pit	disuse			dark brownish grey	silty sand	occasional gravel and cobbles	loose		
601	574	Wells	2.2	fill	pit	disuse			light brownish grey	silty sand	occasional gravel	loose		
602	489	Wells	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel	loose		
603	489	Wells	2.2	fill	pit	disuse			dark grey	silty sand	occasional	loose		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
											flint gravel			
604	489	Wells	2.2	fill	pit	disuse			mid grey	silty sand	occasional flint gravel	loose		
605	419	Wells	2.2	fill	pit	disuse			mid bluish grey	silty sand	frequent gravel and wood fragments	loose		
606	419	Wells	2.2	fill	pit	disuse			light brownish grey	silty sand	frequent gravel	loose		
607	419	Wells	2.2	fill	pit	disuse			light brownish grey	sand	frequent gravel and wood fragments	loose		
608	419	Wells	2.2	fill	pit	disuse			light brownish grey	silty sand	frequent gravel	loose		
609	419	Wells	2.2	fill	pit	disuse			light grey	sand	frequent gravel	loose		
610	450	Wells	2.2	fill	pit	disuse			dark grey	silty sand	occasional gravel	loose		
611	229	Wells	2.2	timber well lining	pit	use	1.4	0.25						
612	422	Wells	2.2	fill	pit	disuse			dark grey	silty sand	moderate gravel	loose		
613	229	Wells	2.2	fill	pit	disuse			dark grey	silty sand	moderate gravel	loose		
614	415	Wells	2.2	fill	pit	Water-hole			dark grey	silty sand	moderate gravel and some charcoal	loose		
616	229	Wells	2.2	fill	pit	disuse			mid grey	clay	chalk	firm		

Cxt.	Cut	Group	Period	Category	Feature Type	Function	Breadth	Depth	Colour	Fine component	Coarse component	Compaction	Shape in Plan	Profile
619	422	Wells	2.2	timber	pit	platform?								
620	422	Wells	2.2	timber	pit	disuse								
621	422	Wells	2.2	timber	pit	disuse								

Table 10: Excavation context inventory

A3 Finds quantification inventory

Context	Material	Object Name	Weight in kg
101	Ceramic	Ceramic Building Material	2.76
101	Ceramic	Vessel	0.14
101	Ceramic	Vessel	0.02
101	Slag	Metal-working debris	0.05
101	Ceramic	Fired clay	0.02
101	Glass	Window glass	0.00
101	Ceramic	Vessel	0.32
101	Ceramic	Vessel	0.04
101	Ceramic	Vessel	0.02
101	Ceramic	Vessel	0.04
101	Ceramic	Potter's stamp	0.05
114	Ceramic	Vessel	0.00
118	Ceramic	Vessel	0.02
121	Ceramic	Vessel	0.11
121	Ceramic	Ceramic Building Material	0.61
122	Ceramic	Ceramic Building Material	0.27
122	Ceramic	Vessel	0.06
123	Ceramic	Vessel	0.21
123	Ceramic	Daub	0.13
123	Ceramic	Ceramic Building Material	1.88
123	Ceramic	Ceramic Building Material	0.55
123	Ceramic	Ceramic Building Material	0.19
123	Ceramic	Ceramic Building Material	0.04
123	Ceramic	Vessel	0.24
123	Bone	Calcined	0.00
128	Ceramic	Fired clay	0.03
132	Ceramic	Fired clay	0.05
132	Bone	Calcined	0.00
134	Ceramic	Fired clay	0.01
134	Ceramic	Vessel	0.00
141	Ceramic	Ceramic Building Material	0.07
141	Ceramic	Vessel	0.11
148	Ceramic	Ceramic Building Material	0.01
165	Ceramic	Fired clay	0.03
167	Ceramic	Ceramic Building Material	0.30

Context	Material	Object Name	Weight in kg
167	Ceramic	Vessel	0.06
167	Ceramic	Vessel	0.01
169	Ceramic	Ceramic Building Material	0.19
169	Ceramic	Vessel	0.09
170	Ceramic	Vessel	0.08
186	Ceramic	Vessel	0.01
189	Ceramic	Vessel	0.03
191	Ceramic	Vessel	0.00
193	Ceramic	Ceramic Building Material	0.07
195	Ceramic	Vessel	0.12
195	Stone	Artefact	0.25
195	Slag	Metal-working debris	0.15
195	Lava	Stone	0.03
195	Shell		0.03
195	Ceramic	Fired clay	0.03
195	Bone	Bone	0.17
195	Shale	Artefact	0.07
195	Ceramic	Vessel	0.14
195	Ceramic	Vessel	1.24
195	Ceramic	Ceramic Building Material	8.24
195	Ceramic	Vessel	1.15
195	Ceramic	Vessel	0.68
197	Ceramic	Vessel	0.12
197	Ceramic	Ceramic Building Material	0.05
198	Ceramic	Vessel	0.10
203	Ceramic	Fired clay	0.02
203	Bone	Bone	0.00
203	Ceramic	Vessel	0.22
203	Ceramic	Vessel	0.06
203	Ceramic	Ceramic Building Material	1.32
205	Ceramic	Ceramic Building Material	0.59
205	Ceramic	Fired clay	0.05
205	Ceramic	Vessel	0.22
205	Ceramic	Vessel	0.02
205	Ceramic	Ceramic Building Material	0.04
205	Glass	Artefact	0.00
209	Ceramic	Vessel	0.00
210	Ceramic	Vessel	0.01
211	Ceramic	Vessel	0.00
212	Ceramic	Vessel	0.02

Context	Material	Object Name	Weight in kg
213	Ceramic	Vessel	0.08
213	Ceramic	Vessel	0.01
214	Ceramic	Ceramic Building Material	0.23
214	Ceramic	Vessel	0.02
215	Ceramic	Ceramic Building Material	1.02
215	Ceramic	Vessel	0.05
216	Ceramic	Ceramic Building Material	0.47
216	Ceramic	Vessel	0.46
217	Ceramic	Ceramic Building Material	0.06
218	Ceramic	Fired clay	0.06
218	Ceramic	Vessel	0.24
223	Ceramic	Vessel	0.01
225	Ceramic	Vessel	0.01
225	Ceramic	Ceramic Building Material	0.16
228	Ceramic	Vessel	0.02
228	Ceramic	Ceramic Building Material	0.07
233	Ceramic	Roofing tile	0.39
233	Lava	Quern	1.72
234	Ceramic	Vessel	0.10
234	Ceramic	Vessel	0.03
234	Ceramic	Ceramic Building Material	0.04
236	Glass	Vessel	0.00
236	Ceramic	Vessel	1.00
236	Ceramic	Vessel	0.08
236	Ceramic	Ceramic Building Material	2.05
236	Ceramic	Fired clay	0.09
237	Slag	Metal-working debris	0.08
237	Glass	Vessel	0.00
237	Glass	Vessel	0.01
237	Ceramic	Vessel	1.65
237	Ceramic	Vessel	0.10
237	Ceramic	Ceramic Building Material	0.99
237	Bone	Bone	0.01
237	Ceramic	Fired clay	0.02
237	Ceramic	Vessel	0.02
258	Ceramic	Vessel	0.00
258	Ceramic	Vessel	0.00
258	Bone	Bone	0.00

Context	Material	Object Name	Weight in kg
264	Ceramic	Ceramic Building Material	0.40
273	Ceramic	Vessel	0.01
275	Ceramic	Vessel	0.01
277	Ceramic	Vessel	0.00
278	Ceramic	Ceramic Building Material	0.23
280	Ceramic	Ceramic Building Material	0.15
280	Ceramic	Vessel	0.01
291	Ceramic	Vessel	0.01
318	Ceramic	Vessel	0.00
320	Ceramic	Ceramic Building Material	0.40
320	Ceramic	Fired clay	0.04
320	Bone	Bone	0.00
320	Ceramic	Vessel	0.09
324	Ceramic	Vessel	1.01
328	Ceramic	Vessel	0.02
331	Ceramic	Vessel	0.00
334	Ceramic	Fired clay	0.00
336	Ceramic	Vessel	0.05
336	Bone	Bone	0.16
336	Ceramic	Fired clay	0.05
336	Ceramic	Ceramic Building Material	1.00
336	Ceramic	Ceramic Building Material	0.18
336	Ceramic	Vessel	0.02
336	Ceramic	Vessel	0.51
344	Ceramic	Vessel	0.00
347	Ceramic	Fired clay	0.00
347	Ceramic	Vessel	0.00
347	Bone	Bone	0.00
348	Ceramic	Vessel	0.03
349	Ceramic	Vessel	0.00
349	Ceramic	Vessel	0.02
350	Bone	Bone	0.01
350	Ceramic	Vessel	0.01
350	Ceramic	Vessel	0.05
369	Bone	Bone	0.13
369	Ceramic	Ceramic Building Material	0.45
369	Ceramic	Ceramic Building Material	0.04
369	Ceramic	Vessel	0.37
369	Shell		0.74

Context	Material	Object Name	Weight in kg
373	Ceramic	Vessel	0.00
390	Ceramic	Vessel	0.01
392	Bone	Bone	0.01
392	Ceramic	Vessel	0.02
397	Ceramic	Vessel	0.03
399	Ceramic	Vessel	0.02
402	Ceramic	Vessel	0.01
410	Ceramic	Vessel	0.02
411	Ceramic	Vessel	0.03
411	Bone	Bone	0.02
411	Ceramic	Vessel	0.13
413	Ceramic	Vessel	0.34
418	Ceramic	Vessel	0.28
418	Ceramic	Vessel	0.09
418	Ceramic	Ceramic Building Material	0.87
418	Glass	Vessel	0.00
418	Ceramic	Ceramic Building Material	1.53
418	Ceramic	Vessel	0.10
418	Ceramic	Vessel	0.01
418	Ceramic	Vessel	0.10
420	Ceramic	Vessel	0.01
421	Ceramic	Vessel	0.00
438	Ceramic	Vessel	0.01
438	Ceramic	Ceramic Building Material	0.04
440	Stone		1.04
440	Ceramic	Vessel	0.15
440	Ceramic	Ceramic Building Material	0.04
440	Bone	Bone	0.05
443	Ceramic	Vessel	0.03
443	Ceramic	Fired clay	0.01
446	Bone	Bone	0.01
446	Ceramic	Fired clay	0.02
446	Ceramic	Vessel	0.02
446	Ceramic	Vessel	0.32
446	Ceramic	Vessel	0.10
446	Ceramic	Ceramic Building Material	0.02
446	Ceramic	Fired clay	0.07
446	Ceramic	Vessel	0.03
448	Ceramic	Vessel	0.01
449	Ceramic	Vessel	0.02
451	Ceramic	Ceramic Building	0.57

Context	Material	Object Name	Weight in kg
		Material	
451	Ceramic	Vessel	0.01
451	Ceramic	Ceramic Building Material	0.05
454	Ceramic	Ceramic Building Material	1.01
486	Ceramic	Vessel	0.00
490	Ceramic	Vessel	0.01
492	Ceramic	Vessel	0.03
492	Ceramic	Ceramic Building Material	0.19
492	Stone	Quern	0.46
492	Ceramic	Ceramic Building Material	0.31
501	Bone	Bone	0.04
501	Ceramic	Vessel	0.04
501	Ceramic	Vessel	0.10
501	Shell		0.01
501	Ceramic	Ceramic Building Material	0.11
508	Ceramic	Ceramic Building Material	0.14
512	Ceramic	Ceramic Building Material	2.83
512	Ceramic	Vessel	0.02
513	Ceramic	Ceramic Building Material	0.69
514	Ceramic	Vessel	0.19
514	Ceramic	Vessel	0.02
514	Ceramic	Ceramic Building Material	0.45
517	Ceramic	Vessel	0.29
527	Ceramic	Vessel	0.01
527	Ceramic	Ceramic Building Material	0.10
527	Ceramic	Fired clay	0.01
529	Ceramic	Vessel	0.04
531	Ceramic	Ceramic Building Material	0.20
531	Ceramic	Vessel	0.04
533	Ceramic	Vessel	0.01
536	Ceramic	Vessel	0.13
541	Bone	Bone	0.00
541	Ceramic	Vessel	0.02
541	Glass	Artefact	0.01
541	Ceramic	Vessel	0.14
541	Ceramic	Ceramic Building Material	0.09

Context	Material	Object Name	Weight in kg
544	Bone	Bone	0.07
544	Ceramic	Vessel	0.14
544	Ceramic	Vessel	0.00
544	Ceramic	Vessel	0.00
544	Ceramic	Ceramic Building Material	1.12
544	Ceramic	Ceramic Building Material	0.14
545	Ceramic	Vessel	0.21
545	Ceramic	Vessel	0.00
545	Ceramic	Ceramic Building Material	0.01
547	Ceramic	Ceramic Building Material	0.18
547	Ceramic	Vessel	0.01
547	Ceramic	Vessel	0.19
552	Bone	Bone	0.02
552	Ceramic	Ceramic Building Material	0.02
554	Ceramic	Ceramic Building Material	0.06
554	Ceramic	Vessel	0.32
554	Ceramic	Vessel	0.01
558	Ceramic	Vessel	0.06
560	Ceramic	Vessel	0.02
562	Ceramic	Vessel	0.01
564	Ceramic	Vessel	0.01
566	Ceramic	Vessel	0.04
566	Ceramic	Vessel	0.03
566	Ceramic	Ceramic Building Material	0.14
566	Bone	Bone	1.91
566	Ceramic	Vessel	0.01
567	Bone	Bone	0.02
567	Ceramic	Ceramic Building Material	0.04
567	Ceramic	Vessel	0.10
569	Ceramic	Ceramic Building Material	0.11
569	Ceramic	Vessel	0.05
585	Ceramic	Vessel	0.00
588	Ceramic	Vessel	0.11
591	Ceramic	Ceramic Building Material	0.47
591	Ceramic	Vessel	0.01
591	Ceramic	Vessel	0.05
600	Ceramic	Vessel	0.01

Context	Material	Object Name	Weight in kg
602	Ceramic	Vessel	0.02
603	Ceramic	Vessel	0.25
603	Ceramic	Fired clay	0.15
603	Ceramic	Fired clay	0.10
603	Ceramic	Vessel	0.14
603	Bone	Bone	0.01
605	Ceramic	Vessel	0.02
605	Ceramic	Ceramic Building Material	0.25
609	Ceramic	Vessel	0.01
609	Bone	Bone	0.00
610	Ceramic	Vessel	0.08
610	Stone	Quern	3.13
610	Ceramic	Vessel	0.00
610	Bone	Bone	0.00
612	Ceramic	Vessel	0.12
612	Ceramic	Ceramic Building Material	1.33
612	Bone	horn core	0.01
612	Flint		0.00
612	Ceramic	Vessel	1.20
612	Ceramic	Vessel	0.14
612	Lava	Quern	0.61
612	Ceramic	Ceramic Building Material	3.22
612	Ceramic	Vessel	0.01
612	Ceramic	Vessel	0.01
612	Ceramic	Vessel	0.03
612	Bone	Bone	0.59
612	Ceramic	Vessel	0.45
612	Ceramic	Vessel	0.38
612	Pudding stone	Quern	3.74
613	Ceramic	Vessel	0.07
613	Bone	Bone	0.00
613	Ceramic	Vessel	0.65
613	Ceramic	Ceramic Building Material	0.06
613	Ceramic	Fired clay	0.05
613	Ceramic	Vessel	0.59
613	Lava	Quern	1.30
614	Ceramic	Vessel	0.56
614	Ceramic	Vessel	0.50
614	Slag		0.61
614	Ceramic	Vessel	0.14
614	Bone	Bone	0.01
614	Bone	Bone	0.00

Context	Material	Object Name	Weight in kg
614	Bone	Bone	0.00
616	Ceramic	Vessel	0.00
616	Bone	Bone	0.00
624	Ceramic	Vessel	0.01

Table 11: Finds quantification by context

Appendix B. Finds Reports

B.1 Coins

By Paul Booth

Introduction

B.1.1 Thirty-two coins were recovered from the site. The distribution of the coins and other metalwork artefacts (Appendix B.2) is shown on Figure 11. These comprise a thin flat (incomplete) disc, possibly of medieval date (not discussed further), and 31 Roman coins. The coins were scanned and identified where possible. These identifications are listed below (Table 9). Five silver pieces (including the possible medieval one) had already been roughly cleaned prior to examination and a further 13 coins were cleaned subsequent to initial assessment (but with no subsequent refinement of identification in a number of cases). Many of the coins are in poor condition, with flaking surfaces and eroded edges, and/or are worn. Consequently many legends are incomplete (and in some cases lacking altogether), as a result of which few coins could be identified to the level of individual numbers in the standard catalogues (eg RIC and LRBC), although many could be assigned to issue periods as defined by Reece (eg 1991). Most of the coins were not securely stratified; all were metal-detector finds. It is notable that most were of early Roman date.

The assemblage

B.1.2 The Roman coins are summarised in terms of Reece periods in Table 13 and listed in more detail in approximate chronological order of issue in Table 12 below.

Date	Reece Period	Total coins	Phase total
-41	1	1	
41-54	2		
54-68	3	2	
69-96	4	7	
96-117	5	3	
117-138	6	1	
138-161	7	3	
161-180	8	2	
180-192	9	1	
192-222	10	1	
222-238	11		
238-260	12		
Phase A (-260)	uncertain	6	**27**
260-275	13		
275-296	14	1?	
Phase B (260-296)	uncertain		**1**
3-4C uncertain		3	
TOTAL		31	**28**

Table 12: Quantification of Roman coins by issue period and phase

B.1.3 The earliest Roman coin is a very worn Republican denarius (Sf. 246) of 103 BC. The great majority of the coins span the period from *c*. AD 64-211, the earliest copper alloy coin being a dupondius/as of Nero with a reverse of the temple of Janus, while a further as (Sf. 298) was less certainly of Nero. There are two asses of Vespasian and five

dupondii/asses are ascribed to Domitian with varying degrees of confidence. This was certain in the case of the fragmentary obverse legend on Sf. 296, and the size, condition and identical (if usually extremely worn) obverse busts of Sf.2 259, 282, 303 and 316 suggest that they were directly comparable with Sf. 296. Three coins were of Trajan, one of Hadrian, three of Antoninus Pius (including one with the well-known Britannia reverse), and there were single issues for Lucius Verus and Commodus, both under Marcus Aurelius, and one of Commodus as sole Augustus. The latest certainly dated 'early Roman' coin is a denarius of Julia Mamaea. Another damaged denarius is at present only assigned to a wide late 2nd-early 3rd century date range, while two further pieces, one fragmentary, were probably cores of plated denarii of similar date.

B.1.4 Later Roman coins comprise a possible barbarous radiate, and three fragmentary or eroded coins in such poor condition that they can only be assigned a broad late 3rd-4th century date.

Discussion

B.1.5 The coin loss pattern is remarkable in relation to that usually observed in rural settlement contexts (including those associated with minor nucleated settlements/'small towns', as here). On sites of this character occupied through the Roman period assemblages are invariably dominated by late Roman coins, particularly those of the 4th century, while sites only occupied in the early Roman period will typically have very few coins, or perhaps none at all. Coin loss data for a number of 'small towns' from Suffolk, conveniently summarised by Plouviez (1995, 75), support the general trend, and this is emphasised by recent publication of the evidence from Scole (Davies 2014). In Plouviez's summary, however, it is notable that the evidence from Wenhaston, derived almost entirely from surface finds (ibid., 69) includes respectable representation from the Flavian period onwards while still conforming to the overall pattern of a preponderance of late Roman coins.

B.1.6 The present assemblage, though small, is notable for its domination by Early Roman issues. Such a concentration of early Roman material suggests a special context for their deposition. It lacks a very narrow chronological focus such as might have been associated with military activity, and the most obvious suggestion is that most of the coins were associated with a shrine or location of votive deposition. This need not necessarily have involved a formal religious structure. A parallel is suggested by the material from Westhawk Farm, Ashford, Kent, where a largely 2nd-century assemblage from a waterhole was almost certainly associated with an adjacent shrine structure of unusual form (Guest 2008). The poor condition of the Wenhaston coins makes it difficult to determine if the early Roman component represents deposition throughout the later 1st and 2nd centuries, or if it occurred over a shorter time-span, with the 1st-century coins already worn through previous circulation. In either case it is likely that the postulated votive deposition ceased before the Late Roman period, and that the few coins of that date represent activity of a different character.

Sf. no.	Cxt.	Category	Est. date	Reece period	Denomination	Obv.	Rev.	Mint	Ref.	Condition	Comment
297	100	topsoil	64-67?	3	as 25mm	head r (Nero?) ? globe at point of bust	standing figure	Lugdunum ?		VW/VW	edges eroding
188	100	topsoil	103-111?	5	sestertius 32mm	head r (Trajan?)	Bridge?	Rome	RIC II, 569?	VW/EW	edges eroding, no legends. Rev not very clear
219	100	topsoil	140-144	7	sestertius? 25-28mm	ANTONINVS [AVG PIVS P P] TRP COS III?	BRITANNIA S C	Rome	RIC III, 742	W/W	irregular shape, possibly cast?
288	100	topsoil	178?	8	sestertius 30mm	L AVREL COMMODUS AUG TR P III?	LIBERTAS AVG IMP II] COS PP S C	Rome	RIC III (M Aurelius), 1588?	W/W	
102	100	topsoil	1-2C?		denarius fragment?					C/C	poss core of plated denarius, incomplete and illegible
106	100	topsoil	late 2C-e 3C		denarius	bearded head r	standing figure			SW/W	incomplete, legends lost. Marcus to Septimius on portrait
222	100	topsoil	late 3-4C?		AE3 15mm					EW/EW	very incomplete and surfaces mostly lost
101	100	topsoil	late 3-4C?		AE4 11-12mm					C/C	mostly eroded and surfaces lost
298	101	subsoil	64-68	3	dupondius/as 26mm	(Nero) with countermark	temple of Janus			C/W	no legends survive
303	101	subsoil	71-73?	4	as 25mm	… VES]PASIAN[head r	Eagle on globe	Rome?	cf RIC II.1, 322 etc	EW/EW	encrusted, edges eroding. Cf SF296
300	101	subsoil	71-79	4	as 25mm	head r (Vespasian)	Altar SC, PROVIDENT in exergue			EW/EW	edges eroded, no obv legend survives
299	101	subsoil	84-96	4	dupondius 27mm	IMP CAES DOMIT AVG GERM COS X[…	standing figure			VW/VW	

Sf. no.	Cxt.	Category	Est. date	Reece period	Denomination	Obv.	Rev.	Mint	Ref.	Condition	Comment
296	101	subsoil	84-96?	4	dupondius? 27mm	]AVG GERM COS [	-			VW/EW	obv legend suggests Domitian. rev flat
282	101	subsoil	81-96?	4	dupondius/as 28mm	head r	standing figure			VW/VW	edges eroding, probably Domitian. Odd letters of obv legend survive
316	101	subsoil	81-96?	4	dupondius/as 26-27mm	head r	standing figure			EW/EW	legends worn off or eroded, poss Domitian?
196	101	subsoil	1C		denarius	head l, legend anticlockwise?	poss altar?			VW/EW	damaged, rev effectively obliterated. Poss anticlockwise obv legend suggests pre-Flavian date?
302	101	subsoil	1C		as 25mm	head r				C/C	almost completely eroded
319	101	subsoil	114-117	5	sestertius 32mm	IMP CAES NER TRAIANO OPTIMO] AVG GER DAC P M [TR P COS VI P P	PROVIDENTIA AVGVSTI] SPQR S C	Rome	RIC II, 663	W/W	
202	101	subsoil	139-161	7	sestertius 31mm	ANTONINVS AVG [	figure in tunic standing l, r hand raised, l holding ? staff S C	Rome		W/W	closest cfs are Dacia (RIC 581) & Genio Senatus (RIC 605) but neither is exact - erosion of edges v problematic
292	101	subsoil	186-190	9	sestertius 26mm	M COMMO]D ANT P FEL[IX AVG BRIT …				VW/EW	edges eroding, obv legend partly lost, rev flat
109	101	subsoil	1-2C		dupondius/as 28mm					C/C	?obv encrusted, ?rev completely flat
160	101	subsoil	275-296?	14?	antoninianus 15mm	radiate head?	standing figure cf Mars?			VW/VW	incomplete, irregular?
208	148	**147** pit	late 3-4C?		AE3 17mm					C/C	eroded and surfaces ?damaged and encrusted (on balance poss late 3C?)
246	195	tertiary fill of **269**	103 BC	1	denarius	helmeted head (Mars) l	Venus in biga of cupids l/ L IVL[I L F below	Rome	RRC 320/1	VW/VW	

Sf. no.	Cxt.	Category	Est. date	Reece period	Denomination	Obv.	Rev.	Mint	Ref.	Condition	Comment
259	195	tertiary fill of **269**	81-96?	4	dupondius/as 25mm	head r	standing figure			EW/EW	edges eroding, no legends. Cf SF296
249	195	tertiary fill of **269**	1-early 2C		sestertius 29mm	head r	standing figure			EW/EW	no legends survive
243	195	tertiary fill of **269**	103-111	5	dupondius 18mm	Trajan	S P Q R OPTIMO PRINCIPI, SC in exergue, Roma seated l	Rome	RIC II, 490?	W/W	
248	195	tertiary fill of **269**	125-128	6	dupondius 25mm	HADRIANVS] AVGVS[TVS	[COS III] S C in exergue, Aequitas seated l	Rome	RIC II, 655	W/VW	
254	195	tertiary fill of **269**	157-158	7	denarius	AVRELIVS CAES ANTON AVG PII F	TR POT [XII] COS II Felicitas	Rome	RIC III (Antoninus), 475a	W/W	reverse variant without the column
244	195	tertiary fill of **269**	162-163	8	dupondius 28mm	IMP CAES L AVREL VERUS AUG	FORT RED TR POT III (COS II in exergue) S C	Rome	RIC III (M Aurelius), 1341	SW/W	
247	195	tertiary fill of **269**	193-211	10	denarius	IVLIA AVGUSTA	JVNO] REGINA	Rome	RIC IV (Severus), 560	SW/SW	trimmed - outer part of obv legends lost and half of rev ditto
287	101	subsoil	MED?							EW/EW	incomplete and flat

Table 13: Coin catalogue

B.2 Metalwork

By Chris Howard-Davies

Methodology

B.2.1 Every fragment was examined, assigned an identification and, where possible, date range. A database was created, using Microsoft Access 2000 format, and the data recorded (context, small finds number, material, category, type, quantity, condition, completeness, maximum dimensions, outline identification, brief description, and broad date) serve as the basis for the report below. A summary of the database is presented as Tables 14-16. The state of preservation (condition) was assessed on a broad four-point system (namely poor, fair, good, excellent).

Copper alloy (Table 14)

B.2.2 In all, 87 fragments of copper alloy were recovered from the excavations, probably representing a similar number of objects. Most (c 95%) were recovered from topsoil 100, subsoil 101, and a tertiary fill (195) overlying palaeochannel **269**; only four objects came from other contexts. The objects range in date from the first century AD to as late as the twentieth century, although late medieval material is conspicuous by its absence.

Roman

B.2.3 There are probably eleven brooches of Late Iron Age/Roman date, most of which are in fair to good condition, although none are complete. All are from topsoil 100, subsoil 101 or tertiary deposit 195 overlying palaeochannel **269** (Sf 103, Sf 104, Sf 205, Sf 108 and from 100; Sf 159 and Sf 301 from 101; Sf 211, Sf 239, Sf 257, Sf 261 and Sf 264 from 195). In general terms, they reflect the dating of the large number of brooches recorded in the area by the Portable Antiquities Scheme, most of which seem to be Colchester derivative types of first century date

B.2.4 Two very small brooches, Sf 104 and Sf 205, are both badly damaged, but appear to be Polden Hill variant types with cylindrical wings, and probably both with hinged pins, a type current in the 1st century AD. Brooch Sf 257 is a 1st to 3rd century Colchester-derivative brooch of Polden Hill type, characterised by the rearward-facing hook to hold the spring chord. Unusually it has a moulded foot, but similar, though larger, examples can be seen in the Richborough collection (Bayley and Butcher 2004, fig 72, 213). Brooch Sf 159 is again a Colchester derivative, perhaps falling into Bayley and Butcher's (2004, fig 127) initial T-shaped brooches, attributed to the Flavian period, as might Sf 261, a much smaller and plainer brooch. Brooch Sf 211 is a substantial Dolphin brooch, found in tertiary deposit 195 overlying palaeochannel **269**. Dolphin brooches can be dated, broadly, to the period c 50 – 125 AD.

B.2.5 Catalogue:

> Sf 104: Small badly eroded bow brooch with a cylindrical spring case. The lower part of the bow and foot are missing, as is the pin. There is no indication of decoration on the poorly preserved surviving part of the bow. L: 19mm; W: 12mm; Ht: 8mm. WHM038, 100 topsoil, 1st century.
>
> Sf 205: Small bow brooch with a hinged pin set in a cylindrical spring case. The lower part of the bow and the foot are both missing, as is the pin. There are transverse ridges on the upper part of the bow. L: 15mm; W: 14mm; Ht: 6mm. WHM038, 100 topsoil, 1st century (Appendix B.2 Plate 1).
>
> Sf 257: Colchester derivative brooch of Polden Hill type. The spring and pin are absent and the spring-case damaged. There is a rearward-facing hook to rear of the spring case.

The bow is decorated by a single medial ridge, and there is a small foot. L: 39mm; W: 25mm; Ht: 12mm. WHM038, 195 tertiary deposit, 1st century (Appendix B.2 Plate 2).

Sf 159: T-shaped brooch, with very wide cylindrical wings and a hinged pin. The lower part of the bow, catchplate, and pin are all missing. The wings, decorated with four encircling grooves to each side, completely enclose the axial bar (seen in X-ray). The bow has a single central ridge crossed by faint transverse lines, and a zig-zag motif, created by groups of three diagonal lines, down the sides of the bow. L: 21mm; W: 36mm; Ht: 9mm. WHM038, 101 subsoil, 1st century? (Appendix B.2 Plate 3)

Sf 261: Small T-shaped brooch with wide cylindrical wings, the foot damaged and the pin missing. The bow has a medial ridge but is otherwise undecorated. L: 25mm; W: 27mm; Ht: 8mm. WHM038, 195 tertiary deposit, 1st century (Appendix B.2 Plate 4).

Sf 211: Large dolphin brooch, the spring cover is damaged and the spring missing. The foot and catchplate are missing, as is the pin. The bow is ridged, and the ridge decorated with faint transverse grooves. L: 77mm; W: 24mm; Ht: 15mm. WHM038, 195 tertiary deposit, 1st century (Appendix B.2 Plate 5).

B.2.6 A large but twisted fragment of sheet (Sf 239), from tertiary deposit 195 overlying palaeochannel **269**, effectively lacking its original edges, but with a pair of lugs to accommodate a hinged pin, and a catchplate to the rear, has been identified as a debased rosette-type brooch, similar to one included by Mackreth amongst his 'Odd' examples (see particularly Mackreth 2011, pl 19, no 6038) and two discussed by Bayley and Butcher (2004, fig 95 nos 348 and 349, p154) as a mid-1st-century type, and an example was present at Itter Crescent (Peterborough). Olivier, discussing material from Dragonby (1996, 247) suggests that, although of Claudio-Neronian origin, the general type persisted in use through the 1st century, and possibly into the 2nd century.

B.2.7 Catalogue:

Sf 239: Large hinged plate brooch, its original form is not clear, but it is now roughly kite-shaped, with a hinge for a pin at the wider end, and a damaged catchplate at the other end. No obvious decoration. L: 49mm; W: 24mm; Ht: 10mm. WHM038, 195 tertiary deposit, 1st century.

B.2.8 A fixed-loop headstud-type brooch (Sf 264) came from the tertiary deposit (195) overlying palaeochannel **269** and could be as early as the mid- 1st century, although evidence from Hadrian's wall shows that the type remained in production well into the 2nd century (Bayley and Butcher 2004, 165, Olivier 1996, 255). A knee brooch (Sf 103) from topsoil 100, confirms an element of second-century activity. A small enamelled plate brooch (Sf 108), also from 100, is most likely to be of second-century date, when enamelled decoration was at its most popular. A close parallel can be seen amongst the Richborough assemblage (Bayley and Butcher 2004, fig 97, no 366), except that the outer ring of enamel is opaque yellow and purple. A fragment (Sf 301), from subsoil 101, is probably from the foot of a bow-brooch, the type cannot be identified, but its apparently crude workmanship might suggest it to be unfinished, adding slight weight to the possibility of metalworking suggested by other finds on the site.

B.2.9 Catalogue:

Sf 264: Incomplete headstud brooch, the hinge and catchplate are damaged, the headloop and pin are both missing. It has a fixed headloop cast in one with the bow. The wings have two transverse grooves. The headstud is probably enamelled, but the glass is now in poor condition and has lost its original colour. There are two deep grooves running down each side of the bow, with the central ridge between them bearing transverse ridges. There are also transverse ridges across the base of the bow, and on the foot. L: 40mm; W: 12mm; Ht: 17mm. WHM038, 195 tertiary deposit, 1st-2nd century (Appendix B.2 Plate 6).

Sf 103: Tubular-headed knee brooch with horizontal catch-plate, the pin and part of the catch are missing. A transverse moulding on the lower part of the curved bow has closely-spaced nicks, giving the impression of a beaded line. White-metal coated. See Mackreth 2011, plate 131, especially 7592, 7603. The type is particularly associated with military contexts (Crummy 2015). L: 40mm; W: 12mm; Ht: 17mm. WHM038, 100 topsoil, 2nd century (Appendix B.2 Plate 7).

Sf 108: Enamelled plate brooch, there is slight damage, with the pin and catchplate both missing. The brooch is round, with four opposed lobes, two of which accommodate the pin hinge and catchplate. Each lobe is decorated with a single enamel dot, the colour of which is now lost. The decoration on the main body of the brooch comprises a central spot (colour lost) surrounded by an unbroken ring of orange enamel, and then by a ring comprising alternating blocks of opaque white and what now appears green enamel, but was probably opaque yellow, having been affected by corrosion products from the copper alloy body of the brooch. L: 29mm; W: 24mm; Ht: 5mm. WHM038, 100 topsoil, 2nd century (Appendix B.2 Plate 8).

B.2.10 There are few other obviously Roman or Romano-British objects, but these include two fragmentary finger-rings (Sf 212 and Sf 251), both from topsoil 101 and tertiary deposit 195 over the palaeochannel (**269**) respectively. Ring Sf 251 falls into Guiraud's type 1 (1989), dated from *c*.50 BC to the end of the 1st century AD. Both Guiraud and Henig (1974) regard the form as of Graeco-Roman Mediterranean origin, and note that they are uncommon in Britain, and most likely to have been brought here from the Continent as personal possessions. The second finger-ring (Sf 212) is a common form (Henig 1974, type II/III, Guiraud (1989) type 2), current in the 1st and 2nd centuries, but persisting (as Henig type V) into the early 3rd century (Johns 1996, 43).

B.2.11 A large faceted bead from subsoil 101 (Sf 284) is a typical Roman type, and may have been intended to decorate horse harness. Two small knobs, each with the remnants of an iron pin (Sf 114 and Sf 206) are again a well-known Roman type, but cannot be dated with any further precision. There are also two stud/rivets, intended to decorate leather straps, which are most likely to be of Roman date (Sf 291 from 100; Sf 165 from 101). The former is oval/conical, rising to a well-defined central point, the latter is flattened hemispherical, and possibly has a white metal coating (see for instance Crummy 1983, fig 120.3187)

B.2.12 Catalogue:

Sf 212: Fragment from the bezel of a finger ring with large oval gem setting (gem missing). The ring falls into Henig's type II/III (1974, 37-8, fig 1). L: 17mm; W: 13mm; Th: 2mm. WHM038, 195 tertiary deposit, 1st and 2nd century, possibly later (Appendix B.2 Plate 9).

Sf 251: Fragmentary bezel from a finger ring. The bezel, rising from the widest part of the hoop, is an elongated oval, set with a now-shattered transparent blue glass gem. Guiraud (1989) type 1. L: 12mm; W: 21mm; Th: 7mm. WHM038, 101 subsoil, 1st century (Appendix B.2 Plate 10)?

Sf 284: Large faceted cylindrical bead. Complete, with only slight damage to edges. L: 37.5mm; Max diam: 11mm. WHM038, 101 subsoil (Appendix B.2 Plate 11).

B.2.13 A miniature votive sword, Sf 107, from topsoil 100, is of particular interest. Clearly intended to represent a gladius, but only 64mm long, it is a detailed representation of the sword, now bent at the point at which the blade joins the hilts, where it seems to have been deliberately part-cut or scored, in order, presumably, to facilitate bending. The bend, seen on several examples of this type, perhaps reflects a 'ritual killing' (King and Soffe 2013). Its insubstantial nature and small size sets it apart from those identified by Kiernan (2009) as small but utilitarian knives. The presence, on this site,

albeit in very mixed contexts, of a relatively large number of brooches and a clearly votive model sword might raise the possibility of a Romano-British temple or sanctuary in the close vicinity, a likelihood also posited by the coin assemblage. This combination has been seen on a number of Late Iron Age / Early Roman temple sites, for instance Hayling Island (Briggs *et al.* 1992), Nettleton Top in Lincolnshire (Farley 2011), or Thetford in Norfolk (Gregory 1991).

B.2.14 Catalogue:

> Sf 107: Miniature spatha with detail of handle and pommel well-defined. Bent just below the handle at what appears to be a deliberate cut. L: 64mm; W: 8mm; Th: 3mm. WHM038, 100 topsoil (Appendix B.2 Plate 12).

B.2.15 The distinctive comma-shaped terminal of object (Sf 221) found in topsoil 100 seems to link it to a well-known group of Late Roman toothpicks typified by examples from the Hoxne treasure (see Johns and Bland 1995; Johns 2010), although in most cases the comma-shaped terminal is considerably more slender than this example. Those from Hoxne are made in silver, but copper alloy examples are known (see, for example, PAS HAMP4669A5), often with the opposing terminal intended as an ear cleaner.

B.2.16 Catalogue:

> Sf 221: Asymmetrical comma-shaped object with the stump of a rectangular-sectioned protrusion, presumably part of a handle, now broken and incomplete. L: 35mm; W: 33mm; Th: 7mm. WHM038, 100 topsoil.

B.2.17 A poorly preserved fragment of a needle (Sf 272) with a long narrow eye, came from the fill (280) of post hole **303** in Period 2.2 Structure 3, it seems most likely to be dated from its context rather than *vice versa*, and could thus be Roman. A second fragment of thin rod, presumably also from a pin or needle (Sf 271) was from the same context.

Early medieval and medieval

B.2.18 There are, in addition, a few objects of Late Saxon or early Norman date. Again, all are from topsoil or similarly disturbed contexts, especially the tertiary deposit (195) overlying palaeochannel **269**. Whilst no very close parallels have been found for brooch Sf 209, from topsoil 100, it is unusual in form, being rectangular, with expanded trefoil corners, and with deeply incised, almost chip-carved, concentric decoration. Although bearing some resemblance to a Late Roman belt-plate, the presence of a hinge and broken catch indicates that it served as a small plate brooch. It does not, however, fit well within the range of Roman plate brooches, illustrated, for instance by Mackreth (2011), and thus, even a Late Roman date can probably be ruled out. Mackreth does, however, illustrate one similar brooch (Pl 121, no 14347) which he regards as unclassifiable, and is published without a date.

B.2.19 Brooch Sf 209 does, however, bear sufficient resemblance to a small, disparate, and rare (Hinton 1990, 633) group of Late Saxon quadrilateral plate brooches, making an early medieval date seems more likely. An enamelled example is illustrated by Hammond (2013, fig 1.1.2a) and a broadly similar example is known from Winchester (Hinton 1990, fig 170, no 2009), where its generic resemblance to Carolingian rechteckfibel was noted, although the latter are more frequently enamelled, unlike both the Winchester and the Wenhaston examples. Weetch (2014) notes several broadly similar brooches (her Type 29Bi) suggesting a general late 8th to 11th century date, with continental examples perhaps more tightly confined to the mid-late 8th and 9th centuries. Several rectangular copper alloy brooches of the same general date appear in the PAS database, see for example SF-ED1145 from Suffolk, and SWYORR-906685, from North Yorkshire, but neither is a close parallel. A lead alloy brooch from

Lincolnshire (LIN-B7B006) is closer in shape to Sf 209, and has been allocated a late ninth to 10th century date, as have two examples from Mill Lane Thetford (Youngs 2004).

B.2.20 Catalogue:

> Sf 209: Rectangular plate brooch with expanded (trefoil/lobate) corners (all damaged) and deeply engraved, pseudo-chip-carved decoration arranged in concentric rectangles. The hinged pin is missing and the catchplate broken. Probably white-metal-coated. L: 29mm; W: 21mm; Ht: 5mm. WHM038, 100 topsoil, late eighth – eleventh century.

B.2.21 Object Sf 105 is an openwork mount from topsoil 100. As it lacks the perforations typical of both stirrup mounts and strap ends, but has three projecting pins on the underside, it seems likely to have been intended to adorn leatherwork, perhaps harness. It is cast, and its symmetrical, perhaps foliate, design seems to place it in the increasingly well-known Winchester-style of decoration, current from *c*.950AD and into the 11th century (Kershaw 2008). Recent studies (ibid) have shown the adoption of this style of decoration to be relatively widespread within the Danelaw. Winchester-style decoration, characterised by both fleshy foliate and zoomorphic decoration, was thought to have been confined to the ecclesiastical milieu, focussed on Winchester, but in recent years it has become obvious that its adoption was much more widespread, and it is used widely on secular objects such as this. Fragment Sf 245 is part of a prick spur from palaeochannel fill 195, and is, again, likely to be of Late Saxon or Early Norman date.

B.2.22 Catalogue:

> Sf 105: Complete cast openwork harness mount with three attachment points to rear. The decorative scheme is probably debased foliate ornament in the Winchester style. L: 47mm; W: 32mm; Ht: 6mm. WHM038, 100 topsoil, late 10th – 11th century.
>
> Sf 245: Fragment of a prick spur with short neck and conical prick. L: 33mm; W: 30mm; Ht: 11mm. WHM038, 195 tertiary deposit, late 10th – 11th century or slightly later.

B.2.23 An ornate key (Sf 200) came from subsoil 101. The form is most reminiscent of Late Saxon types, especially those intended for the locks of smaller items like caskets, but close parallels have not been found, and it could be of later date.

B.2.24 Catalogue:

> Sf 200: Complete, ornate mortise lock key, with only slight damage. The triangular head is formed from two opposed scrolls, with a small suspension loop situated at the top, where they meet. The key has a round shaft with ward at 90 deg to the plane of the head. The ward is almost plain, except for two transverse lines. L: 63mm; W: 24mm; Th: 14mm. WHM038, 101 subsoil, Late Saxon or medieval.

B.2.25 Object Sf 242, again from the tertiary deposit (195) overlying palaeochannel **269**, is probably an ingot; such a simple object is effectively undatable, but it bears some resemblance, especially in dimensions, and the presence of evidence for hammering, to several identified as Late Saxon or Viking Age, in the PAS database. It should be noted that there are also six small droplets of solidified metal which could, like the ingot, derive from small-scale industrial activity, but as they come from topsoils 100 (Sf 351, Sf 366) and 101 (Sf 280, Sf 308, Sf 318, Sf 322), they cannot be associated with any particular period of activity.

B.2.26 Catalogue:

Sf 242: Tapering rectangular-sectioned bar, surface now poor, but some evidence of hammering. L: 70mm; W: 6.5mm; Th: 4mm. WHM038, 195 tertiary deposit, Late Saxon or Viking.

B.2.27 Later medieval artefacts are very poorly represented, although a small conical lace tag (Sf 293) from subsoil 101 could be of medieval or early post-medieval date. Object Sf 213, from topsoil 100 remains undated, although it has a small hinge retaining the remnant of a wound pin, to the rear, suggesting it to be a brooch. It appears to be a now-empty equal-armed, cross-shaped setting within a similar-shaped frame, decorated with stylised flowers, possibly Tudor roses, with a loop between two of the arms giving the appearance of a post-medieval sword hilt, though this might be fortuitous.

B.2.28 Catalogue:

Sf 293: Small conical ferrule or lace tag, with a spherical knob on the end. Hollow with opposed fixing holes at the open end. L: 22mm; Max diam: 8mm. WHM038, 101 subsoil.

Sf 213: Brooch in the form of a cross, but with a loop joining two of the arms, and giving the impression that it represents the hilt of a miniature renaissance sword, although any evidence of a blade is lost. The now-empty equal-armed cross gem-setting is surrounded by an embossed copper alloy sheet, probably with floral decoration. Gilded. L: 24mm; W: 21mm, Ht: XX. WHM038, 100 topsoil.

Post-medieval and later

B.2.29 Most of the assemblage is made up by artefacts of 18th century or more recent date, with easily-lost personal items such as buckles and buttons particularly well-represented. There is a small 18th century tinned copper alloy garter buckle (Sf 100) from topsoil 100, probably dating between 1720 and 1790 (Whitehead 2003). Four less ornate buckle fragments came from topsoil 100, subsoil 101 and tertiary deposit 195 overlying palaeochannel **269** (Sf 281, Sf 290, Sf 256, and Sf 350). A folded fragment of sheet (Sf 168) from topsoil 100 is possibly a much-damaged buckle plate. Object Sf 250, from deposit 195, is a half-oval plate, with one empty rivet hole and two highly corroded iron rivets along its edge, suggesting that it might have served as a simple strap-end.

B.2.30 Catalogue:

Sf 100: Plain oval garter buckle with two pins, the frame is drilled for separate spindle. The buckle lacks a chape, implying that it was not transferable between garments. Probably coated in tin or another white metal. L: 17mm; W: 13mm; Th: 2mm. WHM038, 100 topsoil, 18th century.

Sf 250: Cast half-oval fitting, now with part of one edge missing. There are at least two, possibly three rivets along flat side and one in centre. L: 31mm; W: 35mm; Th: 1.5mm. WHM038, 195 tertiary deposit.

B.2.31 There were 11 post-medieval buttons, all from topsoil 100 and subsoil 101, and most are of 19th or early 20th century date. Two (Sf 295 and Sf 197 both from 101) are military in origin; one (Sf 295) is embossed DG is from the uniform of the 3rd (Prince of Wales's) Dragoon Guards, designated in 1765 (http://www.nam.ac.uk/research/famous-units/3rd-dragoon-guards-prince-wales) and merged with the 6th Dragoon Guards in 1922, and the other (Sf 197) is embossed '97', perhaps indicating the 97th regiment of foot, raised in 1824 and amalgamated with the 50th regiment of foot in 1881 (http://www.nam.ac.uk/research/famous-units/97th-earl-ulsters-regiment-foot). None of the remaining buttons are of any particular interest, being plain flat round buttons with a loop to the rear (Sf 131, Sf 137, Sf 147, Sf 162), two- (Sf 153) and four-hole (Sf 154)

sew-through buttons, plain (Sf 309) and decorated (Sf 278) domed buttons with a loop to the rear, and a decorated flat button with loop to rear (Sf 152). None are illustrated.

B.2.32 Catalogue:

> Sf 295: Military button with wire loop, now missing. Embossed design with three feathers, 'ich dien' and DG, signifying the Prince of Wales Dragoon Guards. The poor quality of the button might suggest an early date, perhaps around 1800. Diam: 16.5mm; Ht: 2mm. WHM038, 101 subsoil, late 18th century
>
> Sf 197: Very thin embossed button cap. Embossed with the number 97 in an ellipsoid, otherwise plain. Diam: 11mm; Ht: 2mm. WHM038, 101 subsoil, 1824-81.

B.2.33 Sf 262, from tertiary deposit 195 appears to be a modern press-stud or snap fastener, a clear indication that deposition continued on the site until quite recently, such fasteners being patented in 1885 and remaining in use to the present day.

B.2.34 A small rumbler bell (Sf 120) from topsoil 100 is made from stamped sheet, joined at the circumference, and with a loose wire suspension loop; it is probably of very recent date, as are two small escutcheons with keyhole-shaped suspension loops (Sf 143, Sf 156), again from 100, and a decorative insert (Sf 130; not illus) intended to reinforce the keyhole on a clock, desk, or decorative case.

B.2.35 A number of items can be identified, but are impossible to date with precision and do not merit illustration; these include knife guard Sf 118 from topsoil 100, two cast plain rings from 100 and 195 (Sf 286 and Sf 260 respectively), and two small fragments from the rims of raised vessels (Sf 117, Sf 119), both from 100. Four small nails (Sf 139, Sf 210, Sf 223, Sf 353) again all from topsoil 100 are likewise impossible to date.

B.2.36 Effectively unidentifiable fragments included four of cast round-sectioned rod (Sf 192, Sf 220, Sf 306, Sf 310), an offcut from sheet metal (Sf 123), and other fragments of sheet (Sf 132, Sf 315) and cut strip (Sf 365, from context 501). Fragments of very thin sheet (Sf 277) came from the fill (336) of Period 2.2 well **335**.

B.2.37 Several other objects (Sf 133, Sf 138, Sf 155, Sf 161, Sf 252, Sf 255, Sf 267, Sf 312) remain unidentified. All are from contexts 100, 101, and 195, and all are most likely to be of modern date. More detailed descriptions can be found in the finds catalogues.

Ironwork (Table 15)

B.2.38 The site produced 126 fragments of ironwork, and again, the majority (81.7%) came from topsoil 100, subsoil 101, and the tertiary fill (195) of palaeochannel **269**, which produced 40, 36, and 27 fragments respectively. All are in quite poor condition, being fragmentary and with surfaces obscured by corrosion products. All have been subject to x-radiography, and final identification made from the x-rays. Measurements have also been taken from the x-ray images and, where given, can only be regarded as an approximate guide.

B.2.39 Nails formed the largest part of the assemblage, with a minimum of 83 coming from 13 contexts, although half of the assemblage came from topsoil 100, subsoil 101, and tertiary deposit 195 (26, 19, 18 respectively). Only two other contexts (the fill (344) of Period 2.2, Structure 3 post hole **357**, and 369, the fill of Period 2.2 pit **370** produced more than a single example. Most of the surviving fragments, were between 30 and 70mm in maximum dimension, with flat round heads around 12mm in diameter, suggesting that the nails were of a size to be used in general carpentry rather than in major structural timbers. Several were clenched, indicating that they are likely to have

been deposited whilst still in place within timbers. A single T-clamp structural fixing (Sf 191) came from topsoil 101.

B.2.40 There were very few objects of particular interest, and fewer still that could be assigned a date, albeit broad. Nothing can be identified as unarguably Roman in date, although it might be assumed that nails from post holes associated with Roman structures are effectively contemporary with the structure. Most of the nails, however, are from the topsoils etc, and can thus be of any date, there being little discernible difference in the form of nails over the last two millennia. There is, however, a single small nail, probably a hobnail (Sf 324) from a shoe within Period 2.2 pit **442** (fill 444). A second example comes from tertiary deposit 195 (Sf 328). The numbers represented are insignificant, presumably reflecting individual losses, rather than any deliberate deposition.

B.2.41 Only one item can be regarded as of medieval date, being a broadly leaf-shaped socketed arrowhead (Sf 258) from tertiary deposit 195. It conforms to Jessop's type MP3 (1996), a very common type spanning the 10th to 16th centuries, and perhaps reflecting the other Late Saxon/Norman material from the site. Although it could possibly be earlier, a fragment of loop-in-loop chain (Sf 174) from topsoil 100 seems most likely to be modern.

B.2.42 The remainder of the assemblage comprises small, effectively unidentifiable, fragments.

Lead and lead alloy (Table 16)

B.2.43 There are 32 fragments of sheet and cast lead from the site, and one of cast pewter (Sf 124). They vary considerably in condition, from rather poor (Sf 241) to excellent (Sf 227). By far the majority are from topsoil 100, subsoil 101, with two of the remaining objects from the tertiary deposit (195) overlying palaeochannel **269**, and one from Period 2.2, Structure 1 post hole **131** (fill 132).

B.2.44 Very few of the lead artefacts can be identified with any precision. Two small discs from topsoil 100 (Sfs 122, 144) have been provisionally identified as seals, perhaps cloth seals, but are not thought to be of particular antiquity, with Sf 122 perhaps being of early post-medieval date. A single piece of musket shot, of early post-medieval date (Sf 307) came from subsoil 101. A roughly-cast washer or possibe spindle whorl (Sf 352, topsoil 100) cannot be dated, and other finds from this very mixed context suggest such a wide range of dates, that none can be offered with confidence.

B.2.45 Weights came from topsoil 100 (Sf 227) and tertiary deposit 195 (Sf 241). The former is a large pulley-shaped weight which is probably of no great antiquity, and Sf 241, from 195 is a badly damaged cylindrical weight, which cannot be dated with any precision. Context 195 also produced a cast lead toy figurine, depicting a soldier in perhaps 17th century armour. It is highly unlikely, however, that the item is of that date, being most likely to date to the 19th or early 20th century.

B.2.46 The use of lead in structures was indicated by a small gallet (Sf 283 from topsoil 101), and a short fragment of milled window kame with a deep H-shaped cross-section (Sf 145, topsoil 100) which is probably of 19th century date. In addition, there are 10 fragments of solidified molten lead (Sfs 149, 164, 218, and 368 from topsoil 100; Sfs 113, 194, 198, and 311 from subsoil 101, and Sf 369 from Period 2.2, Structure 1 post hole **131** (fill 132), presumably originating in the melting and use of lead in structural contexts, or the accidental melting of structural lead in fires.

B.2.47 The remaining fragments, all from topsoil 100, comprise sheet offcuts (Sfs 126, 128, 134, 136, 141, 142, 268) and other more amorphous fragments of sheet (Sfs 135, 140, 148, 150) and strip (Sfs 125, 146).

B.2.48 Part of the bowl of a pewter spoon (Sf 124, topsoil 100) is likely to be of post-medieval date.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
165	101	subsoil	stud	Copper-alloy	Romano-British?	0	0	16	24	0	Large riveted stud with sub-hemispherical head and flattened shaft.
221	100	topsoil	toothpick	Copper-alloy	not closely datable	35	33	7	0	0	Asymmetrical comma-shaped object with the stump of a rectangular-sectioned protrusion, presumably part of a handle, now broken and incomplete.
251	195	tertiary deposit over **269**	finger-ring	Copper-alloy	Romano-British	12	21	7	0	0	Fragmentary bezel from finger ring. Bezel is elongated oval, set with now-shattered transparent blue glass gem. Henig's (1974) type II.
271	280	**303** / Structure 3	pin	Copper-alloy	not closely datable	22	0	0	1.5	0	Fragment of thin pin.
284	101	subsoil	Bead. Harness decoration?	Copper-alloy	Romano-British	37.5	0	0	11	0	Large faceted cylindrical bead. Complete, with only slight damage to edges.
291	100	topsoil	stud	Copper-alloy	Romano-British?	16	13	14	0	0	Riveted stud with square shaft and oval/conical head rising to well-defined point.
301	101	subsoil	brooch?	Copper-alloy	Romano-British / C1-C3?	20	13	3	0	0	Possible fragment from foot and catchplate of bow brooch.
365	501	**494** / Pits	strip	Copper-alloy	not closely datable	13	4	1	0	0	Small fragment of strip
103	100	topsoil	knee brooch	Copper-alloy	Romano-British / C2 - eC3	29	15	16	0	0	Tubular-headed knee brooch with horizontal catch-plate, pin and part of catch missing. A transverse moulding on the lower part of the curve has closely-spaced nicks, giving the impression of a beaded line. White-metal coated. See Macreth 2011, plate 131, especially 7592, 7603. The type is particularly associated with military contexts (Crummy 2015)
104	100	topsoil	brooch	Copper-alloy	Romano-British	19	12	8	0	0	Small badly eroded bow brooch with cylindrical spring case. No indication of decoration on the surviving part of the bow, lower part of bow and foot missing, pin missing..

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
107	100	topsoil	votive sword	Copper-alloy	Romano-British	64	8	3	0	0	Miniature spatha with detail of handle and pommel well-defined. Bent just below the handle at what appears to be a deliberate cut.
108	100	topsoil	plate enamelled brooch	Copper-alloy	Romano-British / C2-eC3	29	24	5	0	0	Enamelled plate brooch, slight damage, with pin and catchplate missing. The brooch is round, with four opposed lobes, to of which accommodate the pin hinge and catchplate. The pin is missing. Each lobe is decorated with a singe enamel dot, the colour of which is now lost. The decoration on the main body of the brooch comprises a central spot (colour lost) surrounded by an unbroken ring of orange enamel, and then by a ring comprising alternating blocks of opaque white and what now appears green, but has been affected by corrosion products from the copper alloy body of the brooch.
159	101	subsoil	brooch	Copper-alloy	Romano-British / C1	21	36	9	0	0	T-shaped brooch, with very wide cylindrical wings. Lower part bow, catchplate, and pin missing. X-ray shows axis for the pin to survive within the wings. Hinged pin. Wings, decorated with four encircling grooves, completely enclose axial bar. Bow has a single central ridge crossed by faint transverse lines, and a zig-sag motif, created by groups of three diagonal lines, down the sides of the bow.
205	100	topsoil	Polden Hill type? brooch	Copper-alloy	Romano-British / C1-C2	15	14	6	0	0	Small bow brooch with hinged pin set in a cylindrical spring case, transverse decoration on upper part of bow. Lower part of bow and foot missing, pin missing.
211	195	tertiary layer of **269**	dolphin brooch	Copper-alloy	Romano-British / C1	77	24	15	0	0	Very large dolphin brooch, spring cover damaged and spring missing, foot and catchplate missing, pin missing. Bow ridged, and ridge decorated with faint transverse grooves.
212	195	tertiary deposit over **269**	ring	Copper-alloy	Romano-British / C1-C3	17	13	2	0	0	Fragment from the bezel of a finger ring with large oval gem setting (gem missing). The ring falls into Henig's type V (1978, 37-8, fig 1)

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
239	195	tertiary deposit over **269**	brooch	Copper-alloy	Romano-British	49	24	10	0	0	Large hinged plate brooch, its original form is not clear, but it is now roughly kite-shaped, with a hinge for a pin at the wider end, and a damaged catchplate at the other end. No obvious decoration.
257	195	tertiary deposit over **269**	Colchester derivative brooch	Copper-alloy	Romano-British / C1	39	25	12	0	0	Two-piece Colchester derivative brooch. Spring and pin absent and spring-case damaged. Rearward-facing hook to rear of the spring case. Bow decorated by a single ridge. Small ridged foot.
261	195	tertiary deposit over **269**	T-shaped brooch	Copper-alloy	Romano-British / C1	25	27	8	0	0	Small T-shaped brooch with wide cylindrical wings, foot damaged and pin missing.
264	195	tertiary deposit over **269**	headstud brooch	Copper-alloy	Romano-British / C2	40	12	17	0	0	Incomplete headstud brooch, hinge damaged, catchplate damaged, headloop and pin missing. Fixed headloop cast in one with the bow. The wings have two transverse grooves. The headstud is probably enamelled. There are two deep grooves running down each side of the bow, with the central ridge between them transverse ridges. There are also transverse ridges across the base of the bow, and on the foot.
272	280	**303** / Structure 3	needle	Copper-alloy	not closely datable	77	0	0	3	0	Poorly preserved fragment of needle with long (c 11mm) narrow eye.
277	336	**335** / Well	object	Copper-alloy	not closely datable	0	0	0	0	0	Disintegrating fragments of very thin sheet. X-ray does not clarify
114	101	subsoil	knob	iron	Romano-British	19	0	0	15	0	Sub-conical knob with (originally) an iron pin.
320	408	**407** / Pits	nail	iron	not closely datable	65	0	0	16	0	Large-headed nail.
323	369	**370** / Pits	nail	iron	not closely datable	41	0	0	0	0	Head and shaft fragment 30mm head 16mm; shaft only 23mm
324	440	**441** / Pits	hobnail	iron	not closely datable	15	0	0	7	0	Small nail or hobnail, head form not certain.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
325	167	**171** / Pits	nail	iron	not closely datable	40	0	0	14	0	Head and shaft fragment.
274	336	**335** / well	nail	iron	not closely datable	50	0	0	0	0	Fragment. X-ray unclear.
275	336	**335** / well	nail	iron	not closely datable	45	0	0	12	0	Head and shaft fragment.
321	440	**441** / Pits	nail	iron	not closely datable	78	45	0	0	0	Very large nail, possibly with pyramidal head.
328	195	tertiary deposit over **269**	hobnail	iron	not closely datable	18	0	0	7	0	Fragment, hobnail.
334	128	**127** / Structure 1	nail	iron	not closely datable	16	0	0	22	0	Fragment, head only?.
335	344	**357** / Structure 3	nail	iron	not closely datable	17	0	0	0	0	Shaft fragment.
336	203	**204** / Wells	object	iron	not closely datable	52	0	0	0	0	Unidentifiable object.
359	545	**524** / Pits	nail	iron	not closely datable	50	0	0	16	0	Head and shaft fragment.
360	545	**524** / Pits	nail	iron	not closely datable	30	0	0	0	0	Shaft fragment.
364	501	**494** / Pits	nail	iron	not closely datable	51	0	0	0	0	Shaft fragment.
367	197	**196** / Pits	nail	iron	not closely datable	45	0	0	0	0	Shaft fragment.
371	237	**229** / Pits	nail	iron	not closely datable	65	0	0	0	0	Fragment.
373	237	**229** /	nail	iron	not closely	17	0	0	0	0	Shaft fragment.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
		Pits			datable						
381	205	**206** / Pits	nail	iron	not closely datable	51	0	0	0	0	Shaft fragment. 45mm, head 11mm, head and shaft fragment.
382	205	**206** / Pits	strip?	iron	not closely datable	70	18	0	0	0	Twisted fragment, possibly with large hole; bar 49 x 14mm.

Table 14: Roman metalwork catalogue

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
100	100	topsoil	buckle	Copper-alloy	modern / C18	17	13	2	0	0	Plain oval garter buckle with two pins, frame drilled for separate spindle. The buckle lacks a chape, implying that it was not transferable between garments. Probably coated in tin or another white metal.
105	100	topsoil	harness fitting	Copper-alloy	Late Saxon/ Early Norman	47	32	6	0	0	Complete cast openwork harness mount with three attachment points to rear .Probably debased foliate ornament in the Winchester style
117	100	topsoil	vessel	Copper-alloy	not closely datable/ post-medieval or later	41	10	1	0	0	Part of the slightly out-turned rim of a raised vessel.
119	100	topsoil	object	Copper-alloy	not closely datable/ post-medieval or later	24	9	1	0	0	Curving fragment, possibly edge of a raised vessel.
118	100	topsoil	knife guard?	Copper-alloy	not closely datable/ post-medieval or later	0	0	1	26	0	Slightly convex disc with central square hole. Dished edge.
123	100	topsoil	offcut	Copper-alloy	not closely datable/ post-medieval or later	33	27	0.5	0	0	Rectilinear offcut.
130	100	topsoil	fitting	Copper-alloy	modern	17	10	3.75	0	0	Cast one-piece lining for a keyhole.
131	100	topsoil	button	Copper-alloy	modern / C19-C20	0	0	1.5	14	0	Plain flat round button, loop missing.
132	100	topsoil	sheet	Copper-alloy	not closely	20	12	0.5	0	0	Amorphous fragment of sheet.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
					datable/ post-medieval or later						
133	100	topsoil	object	Copper-alloy	modern	24	18	1.5	0	0	Amorphous fragment of cast object.
138	100	topsoil	seal?	Copper-alloy	modern	17	12	1	0	0	Small disc with tag to one side.
137	100	topsoil	button	Copper-alloy	modern / C19-C20	0	0	3.5	15	0	Small flat round button with loop to the rear, now missing. Silvered?
139	100	topsoil	nail	Copper-alloy	modern?	37	0	0	9	0	Complete, unused nail. Head originally oval.
147	100	topsoil	button	Copper-alloy	modern / C18-C20	0	0	2	20	0	Plain flat round button, silvered, with stamped design? Perhaps an ear of corn?
152	100	topsoil	button	Copper-alloy	modern / C19-C20	0	0	5	12	0	Small cast flat button with loop to rear. Edge beaded, surrounding a ring of 11 rings, surrounding a six-petalled flower, with dots between the petals.
153	100	topsoil	button	Copper-alloy	modern / C19-C20	0	0	3	16	0	Stamped button with oval central depression. Two holes within depression.
154	100	topsoil	button	Copper-alloy	modern / C19-C20	0	0	12.5	3	0	Small (?base metal?) button with illegible inscription around dished, four hole centre.
155	100	topsoil	fitting	Copper-alloy	modern	17	8	7	0	0	Small rectangular object with folded edges suggesting that it was intended to be slotted over a second item. Has a central raised, cylindrical knob.
161	101	subsoil	object	Copper-alloy	modern?	66	17	17	0	0	Fragment, possibly originally a tube, but now milled into a T-shaped cross-section.
162	101	subsoil	button	Copper-alloy	modern / C19-C20	0	0	6	18	0	Flat round button with soldered loop to rear. Underside of cap stamped LONDON BEST QUALITY
168	100	topsoil	sheet	Copper-alloy	not closely datable/ post-medieval or later	21	30	2	0	0	Folded fragment, originally oval with an extended tag on one side, and with central perforation.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
192	100	topsoil	rod	Copper-alloy	not closely datable/ post-medieval or later	22	0	0	2.5	0	Curving fragment of rod, probably cast.
197	101	subsoil	button cap?	Copper-alloy	modern	0	0	2	11	0	Very thin embossed button cap. Embossed with the number 97 in an ellipsoid, otherwise plain.
200	101	subsoil	key	Copper-alloy	Late Saxon or medieval	65	24	14	0	0	Complete, ornate mortise lock key, with only slight damage. Triangular head is formed from two opposed scrolls, with a small suspension loop situated at the top, where the scrolls meet. The key has a round shaft with ward at 90 deg to the plane of the head. The ward is almost plain, except for two transverse lines.
242	195	tertiary deposit over **269**	ingot??	Copper-alloy	not closely datable / Late Saxon?	70	6.5	4	0	0	Tapering rectangular-sectioned bar, surface now poor, but some evidence of hammering.
245	195	tertiary deposit over **269**	spur	Copper-alloy	Late Saxon/ Early Norman	33	30	11	0	0	Fragment of prick spur with short neck and conical prick.
250	195	tertiary deposit over **269**	fitting	Copper-alloy	not closely datable/ post-medieval or later	31	35	1.5	0	0	Cast half-oval fitting, now with part of one edge missing. At least two, possibly three rivets along flat side and one in centre.
252	195	tertiary deposit over **269**	fragment	Copper-alloy	modern	19	18	5	0	0	T-shaped fragment, one end possibly outer part of a hinge.
255	195	tertiary deposit over **269**	washer?	Copper-alloy	modern	0	0	2	9	0	Slightly irregular 'cut' disc with asymmetrically-placed central perforation.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
256	195	tertiary deposit over **269**	buckle??	Copper-alloy	modern?	34	3.5	1	0	0	Curving cast fragment with oval cross-section. Probably part of insubstantial buckle.
262	195	tertiary deposit over **269**	press-stud?	Copper-alloy	modern / after 1885	0	0	10	5	0	possibly two elements of a press-stud, now fused together?
267	195	tertiary deposit over **269**	object	Copper-alloy	modern	21	17	4	0	0	Irregular sub-triangular object with apparently embossed or cast upper surface. Could be hollow, filled with sandy mortar?
278	101	subsoil	button	Copper-alloy	modern	0	0	6	14	0	Hemispherical button, loop to rear now missing. Upper surface coated in white metal, central pimple forms centre of a radiate floral design.
281	101	subsoil	buckle	Copper-alloy	modern?	37	19	2	0	0	Part of insubstantial cat buckle loop, probably D-shaped.
290	101	subsoil	object	Copper-alloy	not closely datable / post-medieval or later	27	6.5	7	0	0	One side or a rectangular or D-shaped loop. Cast, with a heavy D-shaped cross-section.
293	101	subsoil	ferrule?	Copper-alloy	not closely datable / medieval to early post-medieval	22	0	0	8	0	Small conical ferrule or lace tag, with a spherical knob on the end. Hollow with opposed fixing holes.
295	101	subsoil	button	Copper-alloy	modern / C18-C20	0	0	2	16.5	0	Military button with wire loop, now missing. Embossed design with three feathers, 'ich dien' and DG, signifying the Prince of Wales Dragoon Guards. The poor quality of the button might suggest an early date, perhaps around 1800.
309	100	topsoil	button	Copper-alloy	modern	0	0	2	9	0	Small button or stud with low convex head. Shaft or loop now missing.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
312	101	subsoil	cap or cover	Copper-alloy	modern?	0	0	6	30.5	0	Substantial cast cap or cover with plain upper surface and wide (c 22mm) rebate to rear.
315	101	subsoil	sheet	Copper-alloy	not closely datable / medieval to early post-medieval	21	15	1	0	0	Small fragment of cast sheet, with radiating punched lines.
120	100	topsoil	bell	Copper-alloy	modern / C20-C21	0	0	16	13	0	Small rumbler bell made from stamped sheet and joined at the circumference. Loose wire suspension loop.
209	100	topsoil	plate brooch	Copper-alloy	Late Saxon/ Early Norman	29	21	5	0	0	Rectangular plate brooch with expanded (trefoil/lobate) corners (all damaged) and deeply engraved, pseudo-chip-carved decoration arranged in concentric rectangles. Hinged pin missing and catchplate broken. Probably white-metal-coated.
213	100	topsoil	brooch?	Copper-alloy	post-medieval?	24	21	0	0	0	Brooch in the form of a cross, but with a loop joining two, possibly three of the arms, and giving the impression that it represents the hilt of a miniature renaissance sword, although any evidence of a blade is lost. The equal-armed cross setting is surrounded by an embossed copper alloy sheet, probably with floral decoration. Gilded.
220	100	topsoil	rod	Copper-alloy	not closely datable/ post-medieval or later	12	6	5	0	0	Short curving fragment of cast rod.
260	195	tertiary deposit over **269**	ring	Copper-alloy	not closely datable/ post-medieval or later	0	0	3	21	16	Plain ring

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
286	101	subsoil	ring	Copper-alloy	not closely datable/ post-medieval or later	0	0	3	25.5	17	Plain cast ring with flattened oval cross-section.
306	195	tertiary deposit over **269**	rod	Copper-alloy	not closely datable/ post-medieval or later	32	0	0	2	0	Curved fragment of rod, flattened at one or both ends.
310	101	subsoil	rod	Copper-alloy	not closely datable/ post-medieval or later	43	0	0	4	0	Curving fragment of round-sectioned rod.
350	100	topsoil	object	Copper-alloy	not closely datable/ post-medieval or later	25	15	4.5	0	0	Fragment of rectangular buckle frame???
157	101	subsoil	screw	iron	not closely datable	27	0	0	0	0	40mm. Shaft fragments, one obviously threaded.
158	101	subsoil	object	iron	not closely datable	22	0	0	13	0	Fragment of socket or tube.
163	100	topsoil	padlock key?	iron	not closely datable	74	40	0	0	0	Tapering bar with hooked terminal.
173	100	topsoil	screw	iron	modern	42	0	0	14	0	Electrical screw
174	100	topsoil	chain	iron	modern?	32	11	0	0	0	Folded link chain, six links survive.
193	101	subsoil	strip	iron	modern?	65	7	0	0	0	Perforated strip, with rectangular cross-section. Slight curve suggests it to be a clog iron.
214	195	tertiary	finial	iron	modern?	30	12	0	0	0	Small fragment, probably a terminal, curled into a tight

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
		deposit over **269**									spiral.
228	100	topsoil	staple?	iron	modern	35	0	0	0	0	Complete staple
237	100	topsoil	nail	iron	modern?	62	0	0	5	0	Small-headed nail.
258	195	tertiary deposit over **269**	arrowhead	iron	medieval	75	21	0	0	0	Large socketed, ogival-bladed arrowhead. Socket 9mm diam, 32 long.
384	100	topsoil	blade	iron	Anglo-Saxon?	150	14	0	0	0	Whittle-tang knife blade, now bent into a curve, but tang contiguous with back of blade. Possibly broken-backed blade at a c 22mm from tip. Also what appears to be scale plate for second knife, with small rivet holes at each end (52 x 15mm)
143	100	topsoil	escutcheon	iron	modern / C20-C21	20	15	0.5	0	0	Small escutcheon with keyhole-shaped suspension loop. Embossed DW. Fixed to vessel in different material (possibly iron?) by two rivets.
156	100	topsoil	escutcheon	iron	modern / C20-C21	18	11	0.5	0	0	Small escutcheon with keyhole-shaped suspension loop. Fixed to vessel in different material (possibly iron?) by two rivets.
372	237	**229** / Pits	picture hook?	iron	not closely datable	32	24	0	0	0	S-shaped wall hook with perforation for nail or screw.
122	100	topsoil	seal?	lead	early post-medieval?	18	17	2	0	0	Round disc with what appear to be series of oval impressions forming a pattern on both faces.
124	100	topsoil	spoon	lead	early post-medieval? / C17-C18?	42	23	4	0	0	Approximately half of a long oval spoon bowl
145	100	topsoil	kame	lead	modern / C19-C20	32	9	3	0	0	Milled kame, long H-shaped cross section. Damaged.
227	100	topsoil	weight	lead	modern?	0	0	29	33	0	Large pulley-shaped weight.
265	195	tertiary	toy soldier	lead	modern /	50	20	9	0	0	Small lead soldier in medieval armour, feet and one

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
		deposit over **269**			C19-C20						arm missing
113	101	subsoil	melt	lead	not closely datable	67	40	11	0	0	Large solidified melt.
125	100	topsoil	strip	lead	not closely datable	33	9	1	0	0	Fragment of carefully-cut strip.
126	100	topsoil	offcut	lead	not closely datable	31	15	4	0	0	Sub-triangular offcut.
128	100	topsoil	offcut	lead	not closely datable	26	13	1.5	0	0	Small triangular offcut, folded in two.
134	100	topsoil	offcut	lead	not closely datable	32	12	4	0	0	Triangular offcut.
135	100	topsoil	object	lead	not closely datable	22	19	3	0	0	Roughly oval fragment of lead sheet, probably deliberately shaped.
136	100	topsoil	offcut	lead	not closely datable	36	28	1	0	0	Crumpled rectangular fragment of sheet.
140	100	topsoil	object	lead	not closely datable	19	14	6.5	0	0	Oval fragment of folded and crimped thin sheet.
141	100	topsoil	sheet	lead	not closely datable	24	22	2	0	0	Triangular offcut
142	100	topsoil	tablet	lead	not closely datable	22	12	1.5	0	0	Small rectangle of lead.
144	100	topsoil	seal?	lead	not closely datable	12	13.5	3.5	0	0	Small oval object with central depression on one side and tag on one edge.
146	100	topsoil	strip	lead	not closely datable	43	14	1.5	0	0	Fragment of ?cast strip, deformed.
148	100	topsoil	object	lead	not closely datable	16	12	2	0	0	Small oval fragment.
149	100	topsoil	melt	lead	not closely	22	11	8	0	0	Battered solidified melt.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
					datable						
150	100	topsoil	rod	lead	not closely datable	11	8	6.5	0	0	Short fragment robust oval-sectioned rod
164	100	topsoil	melt	lead	not closely datable	40	20	8	0	0	Solidified melt.
194	101	subsoil	melt	lead	not closely datable	55	32	3	0	0	Solidified run of molten lead.
198	101	subsoil	melt	lead	not closely datable	29	20	2	0	0	Solidified melt.
218	100	topsoil	melt	lead	not closely datable	33	18	7	0	0	Solidified melt.
225	195	tertiary deposit over **269**	gallet?	lead	not closely datable	62	42	12	0	0	thin skin of metal run-in around a circular object.
241	195	tertiary deposit over **269**	weight??	lead	not closely datable	0	0	19	25	0	Badly damaged cylindrical weight with possibly a central iron pin
352	100	topsoil	spindle whorl?	lead	not closely datable	23	22	4	0	0	Poorly cast whorl or weight, or washer.
268	100	topsoil	offcut	lead	not closely datable	60	17	2	0	0	Slightly curved triangular offcut.
283	101	subsoil	gallet	lead	not closely datable	23	14	12	0	0	Approximately half of a conical-shaped gallet, run-in round an object with a square cross-section.
307	101	subsoil	shot	lead	not closely datable	0	0	0	18	0	Musket ball, now damaged.
311	101	subsoil	melt	lead	not closely datable	45	30	5	0	0	Solidified spill of molten lead
368	100	topsoil	melt	lead	not closely datable	25	18	8	0	0	Solidified melt.

Sf no.	Context	Cut / Group	Object	Material	Period / century	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
369	132	**131** / Structure 1	melt	lead	not closely datable	34	30	13	0	0	Fragments of solidified lead spatter, very open texture.

Table 15: Post-Roman metalwork catalogue

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
151	100	topsoil	stud	Copper-alloy	not closely datable	0	0	2	9.5	0	Small dome-headed stud or pin, cap only.
206	101	subsoil	knob	Copper-alloy	not closely datable	18	0	0	10	0	Small spherical knob with iron pin.
210	100	topsoil	nail or rivet	Copper-alloy	not closely datable	10	0	0	9	0	conical-headed nail or rivet. Shaft short.
223	100	topsoil	nail	Copper-alloy	not closely datable	33	0	0	7	0	Nail with characteristic S-bend of extraction.
280	101	subsoil	melt	Copper-alloy	not closely datable	46	31	8	0	0	Solidified melt or splash.
308	101	subsoil	melt	Copper-alloy	not closely datable	36	21	11	0	0	Solidified melt.
318	101	subsoil	melt?	Copper-alloy	not closely datable	26	12	4	0	0	Solidified melt.
322	101	subsoil	melt?	Copper-alloy	not closely datable	19	15	6	0	0	Solidified melt.
351	100	topsoil	melt	Copper-alloy	not closely datable	14	9	6	0	0	Solidified melt.
353	100	topsoil	nail	Copper-alloy	not closely datable	14.5	0	0	10	0	Square-sectioned nail or rivet (end missing) with irregular flat round head.

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
366	100	topsoil	melt	Copper-alloy	not closely datable	20	10	2.5	0	0	Solidified melt.
110	101	subsoil	nail	iron	not closely datable	35	0	0	14	0	Head and shaft.
111	100	topsoil	nail	iron	not closely datable	47	0	0	0	0	35 mm. Shaft fragments.
112	101	subsoil	nail	iron	not closely datable	100	0	0	12	0	42mm; 56mm. Shaft fragments.
116	101	subsoil	nail	iron	not closely datable	33	0	0	14	0	32mm, 34mm, heads 14mm. Head and shaft fragments.
121	100	topsoil	nail	iron	not closely datable	43	0	0	11	0	Clenched as c 31mm.
127	100	topsoil	ring?	iron	not closely datable	42	0	0	0	0	Fragment.
129	100	topsoil	sheet	iron	not closely datable	22	20	0	0	0	Fragment. Folded with perforation.
166	101	subsoil	nail	iron	not closely datable	60	0	0	7	0	Small-headed nail..
167	101	subsoil	sheet	iron	not closely datable	35	25	0	0	0	Fragment.
169	100	topsoil	nail	iron	not closely datable	45	0	0	0	0	Shaft fragment.
170	100	topsoil	nail	iron	not closely datable	90	3	0	0	0	Pin fragment? Long slender shaft.
171	100	topsoil	nail	iron	not closely datable	32	0	0	0	0	Fragment.
179	101	subsoil	nail	iron	not closely datable	46	0	0	8	0	Head and shaft fragment.
180	100	topsoil	nail	iron	not closely	40	0	0	0	0	Shaft fragment.

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
					datable						
181	100	topsoil	nail	iron	not closely datable	45	0	0	7	0	Head and shaft fragment.
182	100	topsoil	object	iron	not closely datable	25	0	0	0	0	Fragment.
183	100	topsoil	object	iron	not closely datable	20	17	0	0	0	Fragment.
185	100	topsoil	nail	iron	not closely datable	22	0	0	0	0	Fragment.
186	100	topsoil	nail	iron	not closely datable	78	0	0	0	0	Shaft fragment.
189	100	topsoil	nail	iron	not closely datable	30	0	0	0	0	Shaft fragment.
190	100	topsoil	nail	iron	not closely datable	65	0	0	0	0	Robust shaft fragment..
191	101	subsoil	T-piece	iron	not closely datable	75	65	0	0	0	Large T-shaped holdfast.
195	101	subsoil	sheet?	iron	not closely datable	30	16	0	0	0	Unidentifiable fragment.
199	101	subsoil	object	iron	not closely datable	25	0	0	0	0	Unidentifiable fragment.
201	101	subsoil	nail	iron	not closely datable	11	0	0	21	0	Head and shaft fragment.
203	100	topsoil	nail	iron	not closely datable	74	0	0	8	0	Small-headed nail, shaft fragment 50mm, shaft with spatulate head 44mm, head 14 wide.
207	101	subsoil	nail	iron	not closely datable	50	0	0	9	0	Head and shaft.
215	195	tertiary deposit	nail	iron	not closely datable	40	0	0	13	0	Head and shaft fragment.

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
		over **269**									
216	195	tertiary deposit over **269**	nail	iron	not closely datable	40	0	0	13	0	Head and shaft fragment.
217	195	tertiary deposit over **269**	nail	iron	not closely datable	51	0	0	14	0	40, head 12mm; 40mm shaft fragment.
224	195	tertiary deposit over **269**	nail	iron	not closely datable	30	0	0	0	0	Shaft fragment.
225	195	tertiary deposit over **269**	object	iron	not closely datable	37	0	0	0	0	Fragment. X-ray unclear.
226	195	tertiary deposit over **269**	nail	iron	not closely datable	60	0	0	14	0	Large-headed nail.
229	100	topsoil	nail	iron	not closely datable	40	0	0	14	0	70 - clenched + 30?, head 11mm diam
230	100	topsoil	nail	iron	not closely datable	30	0	0	0	0	Shaft fragment.
231	100	topsoil	nail	iron	not closely datable	34	0	0	11	0	Head and shaft fragment.
232	100	topsoil	nail	iron	not closely datable	46	0	0	10	0	Head and shaft fragment..
233	100	topsoil	nail	iron	not closely datable	55	0	0	14	0	Large-headed nail.
234	100	topsoil	nail	iron	not closely datable	35	0	0	0	0	Shaft fragment.
235	100	topsoil	nail	iron	not closely datable	59	0	0	0	0	Shaft fragment.

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
236	100	topsoil	object	iron	not closely datable	42	0	0	0	0	Fragment. No ID
238	100	topsoil	nail	iron	not closely datable	35	0	0	7	0	Head and shaft.
240	195	tertiary deposit over **269**	nail	iron	not closely datable	39	0	0	17	0	Head and shaft fragment.
253	195	tertiary deposit over **269**	object	iron	not closely datable	33	0	0	0	0	Unidentifiable fragment.
263	100	topsoil	nail	iron	not closely datable	33	0	0	13	0	Large-headed nail.
264	195	tertiary deposit over **269**	nail	iron	not closely datable	35	0	0	0	0	23, 12. Amorphous fragments, possibly nails.
269	100	topsoil	nail	iron	not closely datable	56	0	0	6	0	Small-headed nail.
279	101	subsoil	object	iron	not closely datable	21	10	0	0	0	Amorphous lump; shaft fragment 37mm
285	101	subsoil	object	iron	not closely datable	40	0	0	0	0	Amorphous fragment.
294	101	subsoil	sheet	iron	not closely datable	44	26	0	0	0	Triangular fragment sheet.
305	101	subsoil	nail	iron	not closely datable	38	0	0	11	0	Head and shaft fragment.
313	100	topsoil	nail	iron	not closely datable	24	0	0	0	0	20mm. Shaft fragments
314	101	subsoil	nail	iron	not closely datable	46	0	0	0	0	47. Shaft fragments.
317	100	topsoil	nail	iron	not closely	30	0	0	0	0	Shaft fragment.

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
					datable						
326	100	topsoil	sheet	iron	not closely datable	46	21	0	0	0	Fragment, possibly one original edge.
327	101	subsoil	nail	iron	not closely datable	38	0	0	0	0	14.Shaft fragments.
329	195	tertiary deposit over **269**	sheet	iron	not closely datable	32	0	0	0	0	Fragment. X-ray not clear.
330	195	tertiary deposit over **269**	object	iron	not closely datable	45	0	0	0	0	Fragment. X-ray unclear.
331	101	subsoil	nail	iron	not closely datable	52	0	0	0	0	25mm. Both shaft fragments..
332	101	subsoil	object	iron	not closely datable	36	0	0	0	0	Shaft fragment.
333	101	subsoil	object	iron	not closely datable	25	0	0	0	0	Fragment. X-Ray unclear
337	195	tertiary deposit over **269**	nail	iron	not closely datable	75	0	0	11	0	Head bent over.
338	195	tertiary deposit over **269**	nail	iron	not closely datable	40	0	0	12	0	Complete, clenched at 35mm
339	195	tertiary deposit over **269**	nail	iron	not closely datable	55	0	0	12	0	Detached head and shaft fragment.
361	195	tertiary deposit over **269**	nail	iron	not closely datable	70	0	0	0	0	50mm, Shaft fragments.
370	195	tertiary	nail	iron	not closely	27	0	0	0	0	11 mm. Shaft fragments.

Sf no.	Context	Cut / Group	Object	Material	Period	Max. length (mm)	Max. width (mm)	Max. thickness (mm)	External diameter (mm)	Internal diameter (mm)	Description
		deposit over **269**			datable						
374	195	tertiary deposit over **269**	strip	iron	not closely datable	22	17	0	0	0	Fragment. X-Ray unclear.
375	195	tertiary deposit over **269**	object	iron	not closely datable	0	0	0	0	0	Fragment. X-ray unclear, no dimensions available.
376	101	subsoil	nail	iron	not closely datable	58	0	0	0	0	Shaft fragment.
377	101	subsoil	nail	iron	not closely datable	48	0	0	0	0	Shaft fragment.
378	101	subsoil	nail	iron	not closely datable	21	0	0	10	0	Head and shaft fragment.
379	101	subsoil	strip	iron	not closely datable	35	14	0	0	0	Tapering fragment of strip.
380	101	subsoil	strip	iron	not closely datable	27	18	0	0	0	Unidentifiable fragment.

Table 16: Unphased metalwork catalogue

Summary of finds from the site

B.2.49 The metal detection of the topsoil and subsoil prior to the excavation recovered 100 metalwork items from topsoil (100), 57 metalwork items from subsoil and 40 items from the tertiary deposit (195) over palaeochannel **269** (Tables 14-16). The broad depression formed by the palaeochannel in the eastern part of the site appears to have acted as a natural accumulator of artefacts from the Roman settlement. The 22 Roman coins also recovered from the topsoil and subsoil are reported separately in Appendix B.1. The subsequent excavation of the site produced a further 23 items from Roman features within the settlement. The distribution of the entire metalwork assemblage, including the coins, is presented as Figure 11.

Roman artefacts

B.2.50 An assemblage of 42 metal small finds (22 copper-alloy and 20 iron) was recovered from the topsoil, subsoil, tertiary deposit and settlement features that could be securely dated to the Roman period.

B.2.51 The copper-alloy objects comprised 11 brooches, two finger-rings, a toothpick, a needle, a pin, two studs, a votive sword, a bead and 2 unidentifiable strips. The iron objects comprised 15 nails, two hobnails, a knob, and two unidentifiable objects.

Roman artefact function

B.2.52 Each object has been assigned to one of the functional categories defined in Crummy 1983, and these are summarised in Table 17 below.

Category	Function	Copper alloy number	Iron number	Total number
1	dress and dress accessories	13	2	15
2	toilet items	1		
3	textile manufacture and working	1		1
4	household utensils and furniture			
5	recreation			
6	weighing and measuring			
7	literacy and written communications			
8	transport	3		3
9	buildings and services			
10	tools			
11	fasteners and fittings		16	16
12	agriculture and animal husbandry			
13	military	1		1
14	religious	1		1
15-17	tools and waste from working metal, skeletal materials and pottery			
18	unknown function	2	2	4
Total of artefacts in functional categories		**20**	**18**	**38**
Total number of artefacts		**22**	**20**	**42**

Table 17: Roman small finds by function

B.2.53 Dress accessories include: the brooches and brooch fragments (Sf 104, Sf 108, Sf 159, Sf 205, Sf 211, Sf 239, Sf 257, Sf 261, Sf 264 & Sf 301); two hobnails (Sf 324 & Sf 328); and thin pin (Sf Sf 271) from Structure 3. The needle (Sf 272) also recovered from Structure 3 belongs to the textile manufacture and working category. The toothpick (Sf 221) belongs to the toilet category. The fasteners and fittings category comprise the

nails (Sf 274, Sf 275, Sf 320, Sf 321, Sf 323, Sf 325, Sf 334, Sf 335, Sf 359, Sf 360, Sf 364, Sf 367, Sf 371, Sf 373, Sf 381) and iron knob (Sf 114). The items in the 'transport' category comprise the possible harness fittings studs (Sf 165 & Sf 291) and possible harness fitting bead (Sf 284). The single military item consists of the knee brooch (Sf 103) and the votive sword (Sf 107) was the single religious item. Items of unidentified function include the two copper-alloy strips (Sf 277 & 365) and two unidentifiable iron objects (Sf 336 & Sf 382).

Late Anglo-Saxon artefacts

B.2.54 An assemblage of four metal small finds was recovered from the topsoil and subsoil (3 copper-alloy and 1 iron) dated to the Anglo-Saxon period. The copper-alloy objects probably date to the Late Saxon or Norman periods and comprise: a harness fitting (Sf 105); a prick spur (Sf 245); and an ornate mortise lock key (Sf 200). Furthermore an iron whittle-tang knife blade (Sf 384) was recovered from the topsoil.

Post-Roman artefacts

B.2.55 The later post-Roman finds recovered can all be associated with activities surrounding the historical village of Wenhaston and casual loss from agricultural workers on the fields comprising the site during this period.

The Portable Antiquities Scheme database for Wenhaston – the wider context

Roman material

B.2.56 The large group of Romano-British artefacts listed in the Portable Antiquities Scheme (PAS) database for this part of Wenhaston seems to reflect the location of a substantial settlement, active to a greater or lesser extent throughout the Roman period. The group includes a range of metal artefacts from coins and personal possessions, to domestic equipment in the form of vessel fragments. Any consideration of the evidence this might present for the existence of sanctuary or temple must concentrate on the coins and items of personal adornment, both items that have been associated at many potential temple sites, with votive deposition at a personal level, as individuals deposited items of relevance or importance to themselves.

B.2.57 In all, 889 coins of likely Roman date were listed, the overwhelming majority (792) generated by event WMH05, with one from the vicinity of WMH, seven from WMH04, and 89 without evidence of origin. Table 18 (below) gives a very simple indication of the chronological distribution of coinage from each site, concentrating on WMH05, where copper alloy coinage shows an extremely strong bias towards deposition in the third and fourth centuries, whilst, for silver coinage, this is concentrated in the second and third centuries, but with a recogniseable presence of pre-Conquest and first century coins. Coins from WMH038 (Appendix B.1) were notable for the percentage of early coins, presumably reinforcing the evidence for Early Roman activity in the vicinity. Two Late Iron Age coins were also recovered from WMH005, raising the likelihood of Late Iron Age/peri-Conquest activity.

B.2.58 Brooches form the next largest group in the record (Table 19), with 128 examples, the majority, again, from event WMH005, with three from WHM004 and 11 without recorded location. None of those entered without a specific location are described, and so will be omitted from this summary. Similarly those recorded as originating in event WMH005 which lack descriptions are not discussed further. All discussion is based solely on the identifications given by PAS.

B.2.59 Even at a gross level there is a strong emphasis on 1st and early 2nd century brooch deposition, a situation regarded as normal for the South-East (Crummy 2015). This

early phase of heavy deposition is not, however, reflected in the coinage from WMH005, although it is noted in the assemblage from WMH038, which might well suggest that the criteria governing deposition at WMH005 during the pre- and immediate post-Conquest period were different to those influencing coin deposition at a later date.

B.2.60 Some form of structured deposition might seem an appropriate explanation for the relatively large number of brooches, but as most of the finds from WMH005 are presumably the result of metal-detecting, they cannot be associated with specific structures. It is possible that they might reflect a similar regime of deposition to that seen at WMH038 where many of the metal finds were recovered from a slowly filling palaeochannel and from topsoil. At Elms Farm, Heybridge, Crummy (2015) notes the high incidence of early brooches in the topsoil, even when later material is securely stratified, but cannot provide an explanation.

B.2.61 This pattern of deposition, with peaks in early brooches and late coins, is often associated with votive activity. Brooches seem most likely to reflect a period of active deposition of Late Iron Age and early Post-Conquest Roman date, especially in eastern England and seen, for instance, at Nettleton Top in Lincolnshire, where many of the finds were also recovered by metal-detecting (Farley 2011). Nettleton Top is also notable for having an exceptionally large number of miniature (votive?) weapons amongst the group, a presence noted in both event WHM005 which records two (axe SF10999; knife (?) SF 2F7DA2), and the present excavations WHM038, which produced a single miniature sword (see Section B.2.13-14). A similar pattern of deposition can be seen at Great Walsingham temple in Norfolk (NHER2024) where the number of brooches has been commented on (Bagnall Smith 1999). Albeit at a later date, at Elms Farm, Heybridge in Essex, late Roman coins are concentrated within a pool of standing water immediately outside the temple precinct (Guest 2015), suggesting that the votive deposition of small but personally significant possessions, like coins and brooches, was a widespread feature of the entire Roman period. Interestingly the bias towards late coins seen at event WMH005 could also be seen in this light, as, at Elms Farm, the majority of the coins were relatively late (Guest 2015) and he notes that coins seem to have become increasingly popular as ritual/votive objects in the later Roman period. Deposition was not, however, confined to brooches and coins, with other personal items also playing their part. To this end, the group of 17 finger rings (including two of silver and one of gold), four bangle fragments, and five pins might, again, represent votive activity. There are also two small fragments of figurines (Sf 11000 and SF-A9A3EC) but whether these originate from a temple or from household religious observation must remain open to debate.

B.2.62 Thus, although it cannot be conclusive, there is a reasonable amount of evidence to suggest a temple, probably of Romano-Celtic type, within the settlement at Wenhaston, its origins probably lying in the 1st century. The evidence from the PAS database seems to reinforce this suggestion, with its heavy bias towards coins and brooches, although it must be accepted that the methods of collection, and the specific interests of individuals engaged in the surface collection of artefacts, might lend itself to the preferential collection of the more easily recogniseable objects, especially bow brooches. Evidence from event WHM005 seems to point towards Late Roman votive activity, but this is complemented by the evidence from WHM038, which lays more emphasis on early material, although both sites seem to indicate unbroken activity at some level from the 1st century AD, if not earlier.

B.2.63 In terms of Early Roman military activity, evidence is scant at all dates. PAS records a crest holder from a 1st century Coolus-type helmet (SF-170D83) but does not provide a

location for the find. There is, amongst the other finds, nothing of overtly military nature, although the appearance of Republican silver coins, such as the issues of Mark Anthony from WMH005, are on occasion linked to early military activity (although they remained in circulation to the end of the second century (Guest 2015)), as is the appearance of early brooch types, for instance the Hod Hill type (Crummy 2015), thought to have been brought in by the Roman military in the early days of the Conquest (Bayley and Butcher 2004, 190). In the late Roman period, knee brooches and crossbow brooches and their variants are also thought to have military connections (Bayley and Butcher 2004, 199), but it must be noted that a handful of brooches, lost over several centuries provides little evidence of military activity beyond the occasional visit of individuals or small groups of soldiery to the settlement.

Post-Roman material

B.2.64 PAS information for this area has 14 entries which fall within the Anglo-Saxon date range, of which most (10 entries) were from the event designated WMH005. Two of the items listed (SF 1498, a coin, and SF 4D18E1, a brooch) are not further described and thus cannot be commented upon. There is no indication that any early medieval material came from site WMH004, with one item from event WMH M (SF D7CD44, a hooked tag), and the remainder effectively unlocated (SF 6551, a strap fitting; SF C43E86, a pin; SF 0FB889, a stirrup). A small, but significant number of early medieval finds (four objects) came from the present excavation (WMH038), see Sections B.2.12-16.

B.2.65 Most of the recorded artefacts from WMH005 are brooches, which lend themselves most easily to dating, and appear to span the Early and Middle Saxon periods, with one 5th century equal-armed example (SF 1571) one cruciform (SF 307773) and one cruciform/small-long brooch (SF 1971) popular in the 5th and 6th centuries, and two later, ansate brooches (SF A799FB and SF A77BBC) with a date range from the late 7th to the 9th centuries, if not later. Other finds recovered during event WMH005 are a pin (SF A70D05) regarded as Middle Saxon in date, a vessel mount (SF 7577) and a bridle fitting (SF 10998), neither of which are assigned a date other than early medieval, although horse trappings are considerably less common in the Early Anglo-Saxon period than later. The Anglo-Saxon material from WMH038 is interesting in that it complements the PAS group, reflecting Late Saxon/Saxo-Norman activity spanning the 9th to 11th centuries, thereby strongly implying a low, but persistent level of activity throughout the early medieval period. There is nothing in the material, considered as a whole, to suggest any specific range of activities, although it might be reasonable to see its origin in continued domestic activity, the presence of riding equipment implying the presence (over a long period of time) of one or two individuals of sufficient status to be mounted.

B.2.66 Comment on the medieval and post-medieval finds listed in the PAS data has not been attempted, lying beyond the range of research questions listed for the current project.

	Silver	Copper alloy		C1BC	C1	C1-C2	C2	C2-C3	C3	C3-C4	C4	No date	*Total*
No location	3	86		1	1	3	0	0	11	1	28	44	*89*
N of WMH	1	0		0	1	0	0	0	0	0	0	0	*1*
WMH004	1	6		0	0	0	0	0	1	0	0	6	*7*
WMH005 (Cu)	97	695		0	6	3	16	0	122	5	335	208	*695*
WMH005 (Ag)	-	-		2	10	1	33	14	32	0	1	4	*97*
Total	***112***	***777***	***889***	***3***	***18***	***7***	***49***	***14***	***166***	***6***	***364***	***262***	***889***

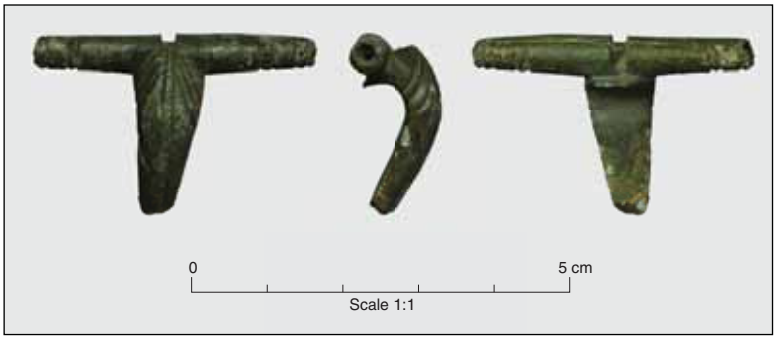
Table 18: Distribution of Roman coins within PAS record, in broad chronological order

		1st Century			Later 1st to 2nd century					Mid-2nd to 3rd century		3rd to 4th century	Not dated	
	No ID	Hod Hill	Aesica	Colchester derivative	Polden Hill	Bow and Fantail	Headstud	Trumpet	T-shaped	Knee	P-shaped	Crossbow	Plate	*Total*
No location	1	2		7						1				*11*
WMH004				2	1									*3*
WMH005	25	5	1	53	4	2	2	2	1	1	2	1	15	*114*
Total	***26***	***7***	***1***	***62***	***5***	***2***	***2***	***2***	***1***	***2***	***2***	***1***	***15***	***128***

Table 19: Distribution of brooch types within PAS record, in broad chronological order (left to right)

Appendix B.2 Plate 1: Incomplete small bow brooch. 100 topsoil, Sf 205, 1st century

Appendix B.2 Plate 2: Polden Hill type brooch. 195 tertiary deposit, Sf 257, 1st century



Appendix B.2 Plate 3: T-shaped brooch. 101 subsoil, Sf 159, 1st century

Appendix B.2 Plate 4: Small T-shaped brooch. 195 tertiary deposit, Sf 261, 1st century

Appendix B.2 Plate 5: Large dolphin brooch. 195 tertiary deposit, Sf 211, 1st century

Appendix B.2 Plate 6: Incomplete headstud brooch. 195 tertiary deposit, Sf 264, 1st-2nd century

Appendix B.2 Plate 7: Tubular-headed knee brooch. 100 topsoil, Sf 103, 2nd century

Appendix B.2 Plate 8: Enamelled plate brooch. 100 topsoil, Sf 108, 2nd century

Appendix B.2 Plate 9: Fragmentary bezel from a finger ring. 101 subsoil, Sf 251, 1st century

Appendix B.2 Plate 10: Fragment from the bezel of a finger ring. 195 tertiary deposit, Sf 212, 1st-2nd century

Appendix B.2 Plate 11: Large faceted cylindrical bead. 101 subsoil, Sf 284

Appendix B.2 Plate 12: Miniature spatha. 100 topsoil, Sf 107

B.3 Metalworking debris

By Sarah Percival

Introduction and methodology

B.3.1 A total of four pieces of metalworking debris weighing 830g were collected from three features and from subsoil (Table 20). The assemblage includes fragments of iron tapping slag and fragments of smithing hearth base.

Context	Feature	Feature Group	Type	Quantity	Weight (g)	Pot Date	Period
101	101	Subsoil	Tapping	1	46	C2-C4	-
195	269	Palaeochannel	Tapping	1	152	MC1-C4	1
237	229	Wells	Hearth base	1	79	C2	2.2
614	415	Watering-hole	Hearth base	1	553	LC1-C3	2.1
Total				4	830		

Table 20: Quantity and weight of metalworking debris by feature

B.3.2 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.

Slag

B.3.3 Two pieces of tapping slag with characteristic flowing profile were collected from subsoil 101 and from the tertiary fill (195) of palaeochannel 269. The pieces are not closely datable, but considering the range of the other Roman artefact types present in these deposits with the slag, these pieces are also likely to be of Roman origin.

Hearth base

B.3.4 Two concave hearth base fragments have vitrified slag on the upper surfaces and sand adhering to the underside. The fragments are perhaps derived from iron smithing.

Discussion

B.3.5 The small assemblage is all redeposited with none being associated with structures connected with iron production or working.

B.4 Stone

By Sarah Percival

Introduction and methodologylogy

B.4.1 A total of ten pieces of stone weighing 13,264kg were collected from seven features belonging to the Middle Roman period (Table 21). The assemblage includes incomplete fragments from several querns plus two utilised cobbles.

Context	Feature type	Feature	Type	Form	Petrology	Quantity	Weight (g)	Period
195	Palaeo-channel	269	Quern	Unknown	Lava	1	33	2.2
			Rubber	Unknow	Micaceous	1	252	2.2

Context	Feature type	Feature	Type	Form	Petrology	Quantity	Weight (g)	Period
				n	quartzitic cobble			
613	Wells	229	Quern	Flat quern?	Lava	1	1280	2.2
233	Wells	229	Quern	Roman flat quern	Lava	2	2751	2.2
612	Wells	422	Quern	Bun shaped	Puddingstone	1	3743	2.2
				Flat quern?	Lava	1	597	2.2
440	Pits	441	Cobble	Unknow n	Micaceous quartzitic cobble	1	1033	2.2
610	Wells	450	Quern	Quern	Millstone grit	1	3119	2.2
492	Pit	493	Quern	Flat quern?	Millstone grit	1	456	2.2
Total						**10**	**13264**	

Table 21: Quantity and weight of stone by feature

B.4.2 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 gramme. 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.

Querns

B.4.3 A fragment of a Hertfordshire Puddingstone quern was recovered from fill 612 of well **422** which also contained 2nd to 3rd century pottery. The fragments represents just less than one quarter of a bun-shaped lower quern with drilled central spindal hole. The diameter at the smoothed grinding surface is around 320mm and the quern is 120mm thick.

B.4.4 Hertfordshire Puddingstone is a silaceous conglomerate of flint beach pebbles and sand indurated by silica in solution to form a very hard rock. The rock was quarried at Braughing and probably other sites in Hertfordshire from around 50-100AD (Green 2011, 123) and was distributed widely throughout East Anglia (King 1986).

B.4.5 Two pieces of Millstone Grit flat quern were also found, one from pit **493** and one from well **450**. The form of the querns suggests a Roman date, *c.*1st to 2nd century AD (King 1986, fig.4). The larger example, from pit **450**, is 89mm thick with a flat grinding surface whilst the second is 39mm thick with a steeply sloping grinding surface. Both grinding surfaces are smoothed through use and one example has pecked dressing to the opposing surface.

B.4.6 Millstone Grit are a series of sandstones and conglomerates quarried in the southern Pennines (King 1986, 87). Querns from the Pennines were imported across south east

England from the Iron Age to the Middle Ages (King 1986). Roman examples such as these show a distribution closely linked with the Roman road network.

B.4.7 Lava quern fragments form the third group of imported quern or millstones. Five fragments of lava were recovered of which four came from Roman flat querns. Two fragments, from the fills of wells **229** and **422**, have channelled grinding surfaces with grooving continuing over the external edge of the stone, the first has a diameter of 340mm and is 37mm thick the second has a diameter of 360mm and is 40mm thick. A third fragment, from pit **229** is 53mm thick with pecked dressing on the exterior surface. Lava was imported from sources in the Rhineland throughout the Roman period.

Unworked Stone

B.4.8 A possible utilised quartzitic cobble, from the tertiary fill (195) of Period 1 palaeochannel **269**, has a smoothed surface perhaps suggesting that it had been used as a rubber. A second similar cobble was collected from pit **441**.

Discussion

B.4.9 The composition of the worked stone assemblage compares well with other Roman rural sites in Suffolk. Puddingstone querns have been widely found at sites with Late Iron Age to Roman occupation such as Scole, West Stow and Beck Row Mildenhall (Buckley 2014, 383; West 1990, 93; Tester, 2004, 43). At all these sites Puddingstone formed the smallest component of the assemblages with lava being most numerous and Millstone Grit also common. Buckley has suggested that the heavy cumbersome Puddingstone querns were replaced in East Anglia by lava as the trade in these imports became established in the Early Roman period (2014, 383).

B.5 Shale

By Chris Howard-Davies

Quantification & Discussion

B.5.1 A large block of shale (Sf 362) was recovered from the tertiary fill (195) of Period 1 palaeochannel **269**. As its surfaces are smoothed and flat it seems likely to be an artefact rather than a naturally-formed piece, but it has no other distinctive features. A small and irregular disc (Sf 276) from Period 2.2 pit **335** (fill 336) has provisionally been identified as reddle or haematite, possibly brought to the site for use as a pigment. It is, however, small, and otherwise undiagnostic.

B.5.2 *Catalogue*:

> Large trapezoidal block of shale, now laminating badly. Surfaces are smooth and it seems modified, as the edges are worn, but it could simply be a water-worn as shales occur naturally in the area. L: 85mm; W: 33mm; Th: 24mm. WMH038, 195, Sf 362, not closely dated.
>
> Round flat object, with raised area on one surface. Possibly ceramic, but seems more like haematite/reddle or a natural concretion. Diam: 29mm. WMH038, 336, Sf 276, not closely dated.

B.6 Glass

By Chris Howard-Davies

Quantification & Discussion

B.6.1 Only six fragments of glass were recovered, all of them small and slightly abraded. Five are fragments from Roman vessels, but largely undiagnostic as to form, the sixth is matte-glossy window glass, again of Roman date.

B.6.2 There are three small wall fragments from free-blown vessels, all are in a natural blue-green metal, and whilst all three are clearly from small thin-walled vessels, their forms remain undetermined. Two (Sfs 355 and 356) are from Period 2.2 pit **229** (fill 237), but do not appear to derive from the same vessel, one possibly coming from an indented vessel, although this is unclear. The other fragment, Sf 246, is from Period 2.2 pit **415** (fill 418), and is effectively undiagnostic. In addition, there are two fragments from mould-blown prismatic bottles. One is a rim fragment from Period 2.2 pit **229** (fill 237; Sf 357), the other a body fragment from Period 2.2 pit **524** (fill 541; Sf 347). These bottles (Isings 1958, form 50) are common finds on earlier Roman sites, being produced throughout the 1st and 2nd centuries, with their robust nature allowing frequent survival into the 3rd century.

B.6.3 There is a single mid-pane fragment of matte-glossy cast window glass (Sf 358) from Period 2.2 pit **206** (fill 205). This is usually regarded as being in production and use during the 1st to 3rd centuries AD. It is in a colourless metal rather than the more common blue or greenish metals.

B.6.4 *Catalogue*:

Natural blue-green body fragment. Free-blown vessel. L: 15.5mm; WL 12mm; Th: 1mm. WMH038, 418, Sf 245, Romano-British.

Natural blue-green body fragment. Mould-blown prismatic bottle. L: 30mm; W: 23mm; Th: 5.5mm. WMH038, 541, Sf 347, mid-1st – 2nd century.

Natural blue-green body fragment. Free-blown vessel. L: 30mm; W: 16mm; Th: 1.25mm. WMH038, 237, Sf 355, Romano-British.

Body fragment, pale natural blue green, appears mould-blown, or possibly indented. Free-blown vessel. L: 42mm; W: 21mm; Th: 1.5mm. WMH038, 237, Sf 356, Romano-British.

Rim fragment, pale natural blue-green. Mould-blown prismatic bottle. L: 38mm; W: 16mm; Th: 8mm. WMH038, 237, Sf 357, mid-1st to 2nd century.

Mid-pane fragment, colourless. Matte-glossy window? L: 25mm; W: 13mm; Th: 2.5mm. WMH038, 205, Sf 358, mid-1st to 3rd century.

B.7 Pottery

By Alice Lyons, with contributions by Roger Tomlin and Stephen Wadeson

Summary

4.3.1 This is a relatively small, but well-recorded and stratified, assemblage of primarily 2nd and 3rd century pottery from the Roman settlement of Wenhaston. The assemblage mostly comprises locally produced utilitarian sandy reduced (grey) ware jars and dishes, supplemented by a small number of Colchester, and Nene Valley fine ware beakers. It is worthy of note that the settlement was well supplied with samian from all the major Gaulish factories, also at least one Colchester samian vessel is present.

Several well preserved well assemblages were excavated, one of which contained an interesting group of adapted and grafittied vessels.

Introduction

4.3.2 An assemblage of Romano-British pottery comprising 1467 fragments, weighing 21208g, was recovered from the site. The pottery is in a fairly good but fragmentary condition, with an average sherd weight of *c*. 14.5g, and represents a minimum of 421 vessels.

4.3.3 The Roman pottery was recovered from two phases within a single period (Middle Roman; Period 2), with a greater amount retrieved from Period 2.2 (Table 22).

Period and phase	Sherd count	Weight (g)	EVE	Weight (%)
Subsoil	54	538	0.67	2.54
2.1	166	1761	2.09	8.30
2.2	1247	18909	21.95	89.16
Total	**1467**	**21208**	**24.71**	**100.00**

Table 22: The Roman pottery quantified by period and phase

4.3.4 The majority of the pottery was found within a series of pits, wells and a watering-hole cut into a spring-line (*c*. 74% by weight) and in the tertiary fill over a palaeochannel (*c*. 16%) leading down the hillside from the spring-line, although lesser amounts were also found in other features (Table 23).

Feature	Sherd count	Weight (g)	EVE	Weight (%)
Pit (including watering-hole and well)	1011	15727	19.09	74.16
Palaeochannel	245	3311	3.33	15.61
Ditch	109	1206	1.17	5.69
Subsoil	54	538	0.67	2.54
Post hole	39	318	0.39	1.49
Beam slot	9	108	0.06	0.51
Total	**1467**	**21208**	**24.71**	**100.00**

Table 23: The Roman pottery quantified by feature type

Methodology

4.3.5 The pottery was analysed following the guidelines of the Study Group for Roman Pottery (Barclay *et al* 2016, 14-18). Both local (Arthur 2004; Lyons and Tester 2014) and national (Tomber and Dore 1998; Tyers 1996) publications were used for referencing the fabrics and forms. The total assemblage was studied and a catalogue was prepared (in archive; summarised in Table 27). The sherds were examined using a hand lens (x10 magnification) and were divided into broad fabric groups defined on the basis of inclusion types present. Vessel forms (jar, bowl) were also recorded. The sherds were counted and weighed to the nearest whole gram and recorded by context. Decoration, residues and abrasion were also noted. OA East currently curates the pottery and archive.

Acknowledgements

B.7.1 The authour would like to thanks the specialist contributors: Roger Tomlin and Stephen Wadeson.

The pottery

B.7.2 A total of 11 fabric families were identified during the analysis of this assemblage (Table 24). The majority of the assemblage are locally produced reduced (grey) and oxidised (white) ware utilitarian forms, supplemented by a small number of finewares and specialist vessels.

Fabric Family (with published reference)	Abbreviation	Vessel forms	Sherd Count	Weight (g)	EVE	Weight (%)
Sandy reduced (grey) ware Lyons and Tester 2014, 256-261	SGW	Storage jar, jar, beaker, bowl, cup, dish, platter, lid, mortaria	1026	14361	18.23	67.71
Sandy oxidised (white) ware Lyons and Tester 2014,256-261	SOW	Storage jar, beaker, jar, dish, flagon, mortaria	266	3077	3.28	14.51
Samian – all factories (see report below)	SAM	Bowl, cup, dish	109	1575	2.68	7.43
Spanish globular olive oil amphora Tomber & Dore 1996, 84-86; Tyers 1996, 87-89	BAT AM	Amphora	7	1176	0.00	5.55
Grey ware with common grog inclusions Lyons and Tester 2014,256-261	GW(GROG)	Jar, storage jar	18	806	0.00	3.80
Sandy red ware Lyons and Tester 2014,256-261	SREDW	Beaker, bowl, dish, jar, mortaria	25	91	0.42	0.42
Mancetter-Hartshill white ware Tomber & Dore 1996, 189; Tyers 1996, 123-124	MANCETTHER HARTSHILL	Mortaria	1	69	0.00	0.33
Hadham red ware Tomber & Dore 1996, 153; Tyers 1996, 168-169	HADREDW	Jar	2	23	0.05	0.11
Colchester colour coat Tomber & Dore 1996, 132; Tyers 1996, 167-168	COL CC	Beaker	3	19	0.00	0.09
Nene Valley colour coat Tomber & Dore 1996, 118; Tyers 1996, 173-175	NVCC	Beaker	8	7	0.05	0.03
Shell tempered ware Tyers 1996, 192-193	STW	Jar	2	4	0.00	0.02
Total			**1467**	**21208**	**24.71**	**100.00**

Table 24: The Roman pottery, listed in descending order of percentage of weight

Coarse Wares

Sandy reduced (grey) wares

B.7.3 The largest part of this assemblage comprise SGW coarse ware vessels (c. 68% by weight). This is a broad fabric group but the majority is made from clay which contains common silver mica as a natural component and are therefore typical of local production. The largest known area of contemporary pottery production was based in

north Suffolk within the Waveney Valley (Arthur 2004, 161-162; Smedley and Owles 1959), although many other production sites are known, such as that at Hacheston (Seeley 2004).

B.7.4 A conservative range of vessel SGW forms were recorded, of which most are undecorated globular jars, some with external soot residues, also internal lime-scale, suggesting they were used as cooking pots and kettles. This group, although containing some (residual) Early Roman grog tempered wares is largely Mid Roman in date (mid-2nd to mid-3rd centuries) and is strongly influenced by the fashion for Black Burnished ware which made cross-hatch burnished motifs popular at this time (Tyers 1996, 186-188).

B.7.5 Vessel types: narrow mouthed jar (type 2.1), beaker (type 3.8, 3.11; 3.14), cup (Dr33 copy), medium mouthed jars (type 4.1, 4.4, 4.5. 4.5.3, 4.8, 4.13, 4.14), wide mouthed jar (type 5; 5.4), bowl (type 6.3, 6.4, 6.14; 6.15), dish (6.18, 6.19, 6.21), lid (type 8.1).

Sandy oxidised (white) wares

B.7.6 Also found in significant numbers are SOW (c. 14% by weight) and SREDW (0.4% by weight), which are the same fabric as SGW but fired in an oxidising kiln. These fabrics were used to manufacture a more limited range of vessels, most commonly flagons and mortaria (discussed below).

B.7.7 Vessel types: flagon (type 1.9), cup (Dr33 copy), narrow mouthed jar (type 2.1), beaker (type 3.3, 3.6, 3.13), jar (type 4.4, 4.5, 4.13), bowl (type 6.3, 6.4; 6.14), dish (type 6.18), storage jar (type 4.14).

Shelly wares

B.7.8 Only two late Roman STW fragments were found, produced using clay with fossil shell as a natural component (Tyers 1996, 192-193).

B.7.9 Vessel types: jar.

Fine wares

Colchester colour coats

B.7.10 Fine fabric with smooth fracture, but varying from soft to very hard; core pink to grey with slipped matt dark grey or red surfaces. Inclusions of black iron ore, mica, quartz sand and fine calcerous flecks. Wheel-thrown. Most of the sherds are decorated with clay roughcast pellets (Tyers 1996, 167-168; Tomber and Dore 1998, 132).

B.7.11 Vessel types: beaker.

Nene Valley colour coats

B.7.12 The Nene Valley industry was founded in the mid-2nd century probably by Germanic potters and initially a limited range of beakers, in the Rhenish style, were produced. As the industry developed a wider range of pottery forms was produced including more utilitarian vessels including mortaria (Perrin 1999). The fabric is fired to a pale cream-to-orange colour with a wide range of coloured slips (Tomber and Dore 1998, 118). It is possible that some of this material may also have been produced at the north Suffolk colour coat production centre at Pakenham (Smedley and Owles 1960), however, no distinct material was identified.

B.7.13 Vessel types: beaker.

Hadham red ware

B.7.14 Two pieces from a Late Roman Hadham red ware jar were also found. The fabric is distinctive as it is orange in colour with burnished surfaces (Tyers 1996, 168-169). It is noteworthy that no Oxfordshire red wares were identified (Tyers 1996, 175-178).

B.7.15 Vessel types: jar/bowl.

The samian assemblage

by Stephen Wadeson

B.7.16 A total of 109 sherds, weighing 1.575kg (2.68 EVE) and representing a maximum of 94 vessels were recorded. The samian assemblage is primarily from Central Gaul (c.85% by weight), principally Lezoux and can be dated to the 2nd century AD (Table 25).

B.7.17 Recovered from a total of 32 stratified deposits, the majority of the assemblage (*c*. 69% by weight) was retrieved from a set of large pits probably representing wells, with a smaller yet significant quantity of material (c.17% by weight) recovered from a tertiary deposit overlying paleaochannel **269** (195). The assemblage has an average sherd weight of c.14g.

Fabric	Sherd Count	Weight (g)	EVE	Weight (%)
South Gaul	6	78	0.36	5.0
Central Gaul (Les Martres)	3	3	0.00	0.2
Central Gaul (Lezoux)	83	1331	2.00	84.50
Colchester	1	48	0.00	3.0
East Gaul	16	115	0.32	7.3
Total	**109**	**1575**	**2.68**	**100.00**

Table 25: Distribution of Samian fabrics in chronological order

South Gaulish Samian

B.7.18 The earliest material recovered is South Gaulish from La Graufesenque (Tomber and Dore 1998, 28) accounting for just 5% (by weight) of the total assemblage, and is represented by a maximum of six vessels with an EVE of 0.36. The assemblage consists of a limited quantity of plain ware forms and includes a single example of a form 18 platter, and dish forms 18/31 and 36. The remaining three sherds are too small and abraded to assign to a specific form, however it is most likely that at least two of the sherds are from unspecific cup forms. No stamped or decorated sherds were identified.

B.7.19 With the exception of the form 18 platter, which may be slightly earlier in date (c. AD50-100), the two vessels identified are forms typically associated to the Flavian period (c. AD70-110). The remaining sherds are not closely datable and can only be dated broadly to between c. AD50-100.

Central Gaulish Samian

B.7.20 The majority of the samian identified comes from Central Gaul (Tomber and Dore 1998, 30-33) accounting for c. 85% of the total assemblage by weight. These are attributed to the kilns of both Les Martres-de-Veyre and Lezoux, with a maximum of 124 vessels (2.00 EVE) recorded and dating to the 2nd century AD.

Les Martres-de-Veyre

B.7.21 Noticeable by its almost complete absence from the assemblage, the earliest material recovered from Central Gaul is Trajanic (100-120AD) from the kilns at Les Martres-de-Veyre (Tomber and Dore 1998, 30) and accounts for just 0.2% (by weight) of the total

assemblage. Due to the small abraded nature of the fragments identification is tentative and none of the sherds can be assigned to a specific vessel type or form. As such the material identified is not closely datable and only a broad date of c. AD100-120 can be suggested. No stamped or decorated sherds were recovered.

Lezoux

B.7.22 The majority of the Central Gaulish samian was produced at Lezoux (Tomber and Dore 1998, 32). Represented by a maximum of 72 vessels (2.00 EVE) the assemblage dates to the Hadrianic and/or Antonine periods (c. AD120-200). No stamped vessels were recovered.

B.7.23 Early plain ware forms identified within the assemblage include cup form 33a and dish forms 18/31 and 18/31R, which went out of production by the middle of the 2nd century (AD150/160), and includes an example of post-firing graffiti (Sf445; R, Tomlin below). In addition, accounting for the majority of the assemblage from Lezoux, examples of cup O&P, LV, 13 and 33, and bowls 31 and 38 were recovered alongside later plain ware forms which are regarded as typical of the second half of the 2nd century. These include dish forms 36, 79 and Ludowici Tg, and bowls form's 31, 31R, 38 and 44. A further 15 plain ware sherds are too small and abraded for accurate identification and are not closely datable (6.5% by weight), as a result, only a broad date of between c. AD120-200 can be assigned to these sherds.

B.7.24 Sherds from a maximum of eleven decorated bowls were identified as Lezoux samian, accounting for all but one of the decorated bowls found. These include sherds from a maximum of nine form 37 hemispherical bowls as well as a single example of the cylindrical bowl form 30. Of these only seven vessels, retain any decorative figures or motifs of which just two form 37 bowls can be attributed to a specific potter's style. In addition, the only example of a non-mould decorated vessel identified in the assemblage come from the fill of pit **229**, (237) and consists of a small, abraded burnt rim sherd from what appears to be a form 30R bowl.

B.7.25 The first vessel, a form 37 bowl (Sf 343; Pit **494**), is in the style of the mid to late Antonine potter Paternus II (AD150-185). The decorative scheme used on this example is of a winding scroll design which was popular during this period but not limited to it (Webster 1996, 85). Vessel decoration which can be identified includes a beaded border above scrollery which uses the large leaf H25 (Rogers 1974, p118) and rosette C242, (Rogers 1974, p62), pl.107, 27 (Stanfield & Simpson, 1958). The only figure type in the design which can be identified is Os.2365 (Oswald, 1936), a peacock (facing right) which can be seen on a stamped bowl with a scroll, but with a different leaf, by Paternus II (AD150-185), Pl.107, 26 (Stanfield & Simpson, 1958).

B.7.26 The second vessel (D6) is a form 37 bowl, (Pit **565**) Sf 345, comprising two joining rim sherds Decoration consists of Ovolo B105 (Rogers 1974) as used by Paternus II (AD150-185), with a beaded border (Pl.105, 12 Stanfied & Simpson, 1958). The remaining decoration is too fragmentary for any specific identification.

B.7.27 It should be noted moreover, that a third form 37 bowl (Sf 446; Well **422**), is possibly a product of either Drusus ii (AD125-140) or Sacer i (AD115-140) and would one of the earliest example of a Hadrianic, decorated vessel in the assemblage. Little of the design remains to be certain of the vessel's provenance, however back-to-back triffids (G76 Rogers, 1974) as seen on this example were utilised by Drusus ii in his designs (Inv. No. 0013073, Mainz Database). The remaining decorated sherds are fragmented and do not retain enough of the vessel's design to be certain of their provenance (full descriptions can be found in the catalogue).

Colchester Samian

B.7.28 A single example of British-produced samian from Colchester (Tomber & Dore 1998, 133) was identified within the assemblage and is the only vessel recovered during excavation which contains a maker's stamp. Recovered from subsoil layer (101), the stamp, reading GABRVS∆F∆ (Hartley and Dickinson Vol 4, 2009, 129; Hull 1963, 86-87) is located on the inner base of a form 33 cup and is associated with the potter Gabrus ii (S1), who was active during the mid to late Antonine period (AD160-200). In addition to the stamp the vessel contains a single example of post-firing graffiti in the form of an incised letter found on the inner slope of the vessel's foot-ring (see Tomlin below).

East Gaulish Samian

B.7.29 Samian from East Gaulish production centres (Tomber and Dore 1998, 34-41) is limited and accounts for c. 7% (by weight) of the total assemblage. Dating broadly from the late 2nd century to mid-3rd century (c. AD160-250) a limited range of forms were recorded including form 31, 31R and 38 bowls and two examples of form 33 cups. The remaining sherds are too small and abraded for accurate identification and as such are not closely datable. No stamped or decorated sherds were recovered.

Condition, use and re-use

B.7.30 The majority of the samian is fragmentary and moderately to heavily abraded while several sherds show evidence of burning. Two of the vessels identified, a Ludowici Tg dish from the tertiary fill overlying paleaochannel **269** (195), Sf 363 and a form 31R bowl recovered from the fill of well **450**, have multiple small (drilled/cut) holes in their base and wall respectively, most likely to enable repair using lead rivets. Also identified was a single re-worked sherd, (Pit **335**) Sf 273, from a vessel of indeterminate type from Lezoux, Central Gaul. The sherd has been cut down and trimmed in antiquity to make a circular gaming counter (22mm Dia, 7mm thick).

B.7.31 In addition, several of the vessels have visible post-firing graffiti incised into them. While graffiti on pottery is a well-recorded phenomenon within the Romano-British ceramic record of East Anglia (Biddulph *et al.* 2015) this small assemblage contains several unusual examples (see Tomlin below).

Discussion

B.7.32 This is a relatively small assemblage the majority of which was recovered from stratified pits and well deposits. Associated with settlement activity, possibly a Roman small town, the date range of the material recovered suggests that the inhabitants of the settlement had access to samian, albeit limited, from the mid to late 1st century onwards. The majority of the samian recovered is 2nd century Central Gaulish (c.85%), primarily from Lezoux (AD120-200) with the majority of forms identified regarded as being typical of the second half of the 2nd century (mid to Late Antonine). In addition, a small yet significant quantity of East Gaulish samian was also identified (c. AD150-250). As such the date of the samian assemblage is consistent with the Mid Roman date assigned to the site's pottery assemblage as a whole.

B.7.33 Plain ware forms account for the largest proportion of the assemblage consisting principally of platters, dishes, bowls and cups. Decorated wares account for just c.17% of the material recovered and is lower than the suggested 20.1% average from assemblages recovered from rural sites yet it is consistent with the 16.9% average percentage from smaller civil centres. (Willis 2005, Ch. 7.3.3). This relationship between plain wares and decorated vessels is typical of material recovered from low order settlements in the region (Evans 2003,105).

B.7.34 Availability of samian continued through to the end of the production period as indicated by the presence of Late Antonine forms within the assemblage. Later mid-2nd to mid-3rd century East Gaulish products are limited which is a characteristic seen consistently on other rural sites of this period. Predominately 2nd century, the assemblage is too small and fragmentary to make specific comments on the nature of supply to the site, however the limited quantity of decorated wares and the small number of sherds recovered in total is entirely consistent with the low frequency of samian recovered on many rural sites (Willis 2003, 100).

Catalogue of samian potters stamps

B.7.35 A single stamp was identified; the following entry gives; potter; die; form; reading; pottery of origin; area; date; excavation number; period. All periods noted refer to site periods assigned to each context and not ceramic period.

S1 Gabrus ii 2a. Drag.33. GABRVS∆F∆ Colchester. c. AD160-200. Subsoil Layer (101). Sf115.

Catalogue of decorated samian

B.7.36 The following catalogue lists and identifies the decorated pieces recovered from the site that could be attributed to individual potters or groups of potters. Each entry gives the catalogue number and the excavation context number, with details of the decoration. All of the decorated vessels are from Lezoux, Central Gaul.

B.7.37 The letter and number codes used for the non-figured types on the Central Gaulish material; such as B223, C281, etc. are the ones created by Rogers (1974). The figured-types referred to as Os. *** are the ones illustrated by Felix Oswald in his Index of figure-types on terra sigillata (1936).

B.7.38 The Inventory Numbers (Inv. No.) quoted are taken from European intake of Roman Samian ceramics. http://www2.rgzm.de/samian/home/frames.htm.

D1. Drag. 37 Bowl: Single body sherd, double border medallion or festoon and circular motif ? Leaf J51 as on Pl.73, 1 (Rogers 1974, p126), as used by Mercator ii (AD160-180). Late Antonine. Fill (258), Post Hole **247**, Structure 2, Sf 354. Period 2.2.

D2. Drag. 30 or 37 Bowl: Single burnt upper body sherd, partial ovolo to abraded for identification. Hadrianic to Antonine. Fill (336), Well **335**, Sf342a. Period 2.2.

D3. Drag. 37 Bowl: Single, burnt lower body sherd, with a ?double cordon at base of design. Partial figure type, and (?)non-figure type both unidentifiable. Hadrianic to Antonine. Fill (336), Well **335**, Sf342b. Period 2.2.

D4. Drag. 37 Bowl: Single lower body sherd, with a double groove at base of the design. Partial remains of an unidentified figure type below which is OS1518, (Oswald 1936, Pl. LXIII) Panther galloping to right. ?Mid to Late Antonine. Fill (446), Pit **445**, Sf344. Period 2.2.

D5. Drag. 37 Bowl: Single, thick walled sherd, poorly executed. Three grooves at base of design. Partial Ovolo, not identifiable, above beaded border. Winding scroll design. Large leaf H25, (Rogers 1974, 108). Peacock motif OS2365, facing right, (Oswald 1936, Pl. LXXXVII) as used on a stamped bowl with a scroll with a different leaf by Paternus II (AD150-185), Pl.107, 26 (Stanfield & Simpson, 1958) and Rosette C242, (Rogers 1974, p62), Pl.107, 27 (Stanfield & Simpson, 1958). Mid to Late Antonine Paternus II (AD150-185). Fill (501), Pit **494**, Sf343. Period 2.2.

D6. Drag. 37 Bowl: Ovolo B105 (Stanfield & Simpson, 1958 pl.105 no.12) associated with Paternus II, AD150-185. Mid to Late Antonine. Fill (566), Pit **565**, Sf345. Period 2.2.

D7. Drag. 37 Bowl: Single lower body sherd, single cordon at base of design. Small plain circular motifs above back to back triffids, (G76 Rogers, 1974, p90) as used by Drusus ii (Inv. No. 0013073). Winding scroll design, with circular motifs and rosette C280 (Rogers, 1974, p63) as

can be seen on Pl. 88, 6 (Stanfield & Simpson, 1958). ?Drusus ii or Sacer i, Hadrianic. Fill (612), Well **422**, Sf446. Period 2.2.

Specialist wares

Amphora

B.7.39 Spanish globular olive oil amphora fragments were found, some in quite large pieces and therefore represent 5.5% (by weight) of the entire assemblage. Although imported from the Late Iron Age, most amphora found their way into settlements in this region during the 2nd century AD (Tyers 1996, 87-89).

B.7.40 Vessel types: DR20.

Mortaria

B.7.41 Mortaria mixing bowls were also a relatively common find and 19 fragmentary examples were recorded (Tyers 1996 116-135). One vessel fragment originated from the Mancetter-Hartshill kilns on the Warwickshire/Leicester border, although the majority are of East Anglian bead and flange type (with flint trituration grits) and were manufactured in SOW and occasionally SGW fabrics. One SOW bead and flange example has a partial and very abraded makers stamp surviving.

B.7.42 Vessel types: bead and flange (7.1), wall-sided (7.3).

Adapted pottery

B.7.43 Several pottery fragments show evidence of post-firing adaptation. One central Gaulish samian bowl fragment was cut down to make a circular gaming counter (Sf273), while a SGW jar has several post-firing nicks taken out of the rim (Sf448). Also noteworthy are the two small holes that have been incompletely drilled into the inside base of SGW flanged mica dusted dish. The SGW jar and flanged dish were both recovered from within Period 2.2 well **422**.

Graffiti

by Roger Tomlin

B.7.44 All graffiti were made *after* firing, and thus relate to the ownership or use of the vessel, not its manufacture. Each graffito and its significance is described below.

Catalogue

B.7.45 **Sf 115. (101) Subsoil:** Base sherd of a Colchester samian vessel (Drag. 33 cup) stamped GABRVS□ F□ (Gabrus ii, die 2A, AD 160–200) which preserves the whole of the foot-ring. Incised on its inner slope is a small letter formed by three successive, intersecting cuts. The scribe seems to have made them on the face nearest to him, by drawing the stylus towards him in two vertical cuts and joining them with an upward diagonal. They might be interpreted as a reverse N, but are probably H. This would be the initial letter of the owner's name, identifying the vessel as his property.

B.7.46 **Sf 445. (613) Period 2.2 Well 229:** Base sherd of a samian vessel (CG, Drag. 18/31) preserving part of the foot-ring and lower wall. Incised on the outer wall above the foot-ring is a graffito difficult to interpret. It was made when the vessel was inverted, and apparently on the face then further from the scribe, who first made a vertical stroke towards the foot-ring, to which he almost joined a shorter stroke at an acute angle, as if to make 'Y', before intersecting them both with a long diagonal stroke, to the right end of which he added a small '8'-like figure, apparently B. This reading is complicated by casual damage, and a shorter vertical stroke to the lower left, which seems to have

been deliberate; however, it is difficult to relate this to the others, and it may only have been a preliminary stroke which was not pursued.

B.7.47 The first three strokes can hardly be K, since the long diagonal extends well to the left, and KB could not be an abbreviated name. They are much more likely to be an incomplete 'cross' or 'star', to which B was added, as the initial letter of the owner's name. A 'cross' or 'star' to the left of the owner's name (often abbreviated, or even reduced to a single letter) is quite often found on samian.

B.7.48 It must, however, be considered whether the graffito should be turned ninety degrees to the right and interpreted as a Christian Chi-Rho, consisting of the Greek letter P (*rho*) imposed upon X (*chi*). This would, however, be an unusual location for a graffito, which would not usually be made to the left or right of the vessel when inverted, and especially not to the left if the scribe were right-handed. Also the putative X would be incomplete, and the angle of intersection of its two cross-strokes (the second being incomplete) much too acute. Above all, the double-looped figure could hardly be read as P, which for Chi-Rho would have been made with a single loop to the right (or occasionally to the left). Oddly enough, this double-looped figure would resemble the main element of a *phallus* (see *RIB* III, 3256 and 3358, for example), but the two cross-strokes do not support this interpretation. But the 'double-loop', if turned back ninety degrees, is easily read as B.

B.7.49 The graffito is therefore best interpreted as a mark of identification, an elaboration of the letter B, which was the initial letter of the owner's name.

B.7.50 **Sf 444. (612) Period 2.2 Well 422:** Five conjoining sherds (and a small fragment) comprising about one-half of a sandy grey ware (SGW) folded beaker, which preserve the whole profile and all of the base. On the underside of the base, within the foot-ring, a swastika has been neatly incised. This may have been intended to have votive or religious significance, but is more likely to be only a mark of identification, like the 'crosses', 'stars' and simple patterns often scratched on Romano-British samian and coarseware. These non-literate graffiti on pottery have not been systematically collected like the literate graffiti in *RIB* II.7 and 8, but no swastika seems to have been noted among them. Its rarity, however, should not imply that it was votive: non-literate graffiti include the 'wheel' and 'palm branch' (*RIB* II.7, p. xii), for example, which in the context of altars and carved reliefs are associated with Jupiter and Victory respectively, but on pottery are only decorative motifs intended as marks of identification.

B.7.51 The swastika or hooked cross, the so-called *crux gammata* because it resembled a 'cross' made from four *gammas* (the Greek letter G, written like an inverted L), is a very ancient and widespread motif which has often been interpreted as a religious symbol, a symbol of the sun in particular (Green 1984, 156–9). In south-western Gaul, it is found on altars dedicated to Jupiter (ibid., 158). But it occurs too often in non-religious contexts for it to be necessarily religious: the Battersea Shield, for example, a masterpiece of Celtic art but quite secular, is lavishly decorated with small roundels each enclosing a swastika. In Roman Britain, the swastika is sometimes associated with a deity, but not exclusively with one deity. At the Woodeaton temple, where the prime deity may have been Mars, a swastika has been found on a votive axe and a bronze leaf (Bagnall Smith 1995, 184 and 186). On stone inscriptions, it is found on altars variously dedicated to Mars Condates (*RIB* 1024), the Genius and Standards of an auxiliary cohort (1263), Minerva (1268) and Jupiter (1877), but also on a tombstone (1641). The only Christian instance seems to be a bronze buckle plate from Caves Inn (*Tripontium*) incised with two confronted peacocks, a Christian image of eternity, above

each of which is a tiny motif which can be seen as a small swastika (Hawkes 1973 with Watts 1991, 305; Mawer 1995, 61).

B.7.52 Two swastika-brooches noted in Britain (Green 1984, 63) are likely to be imports, since this type is mostly found on the Rhine frontier; they have no explicit religious association. In Romano-British mosaic pavements, the borders display many variants of the 'swastika-meander' (as listed in the glossaries of Neal and Cosh 2002–2010), but again they have no explicit religious significance: they are only decorative geometric patterns. This negative conclusion is confirmed by the mosaic from Verulamium (Neal and Cosh III.2, Mosaic 348.40) which depicts a *cantharus* (a vase with handles) in each corner, pointing towards the central motif; each *cantharus* is marked with a swastika, but the central motif is nothing more than a large lion.

B.7.53 If the swastika was intended to mark the beaker as votive, it would surely have been more prominent, inscribed on the wall instead of within the foot-ring like a typical mark of identification. Its obscure location might instead be taken to suggest a covert Christian symbol, but this would be special pleading. The beaker has been dated to the late 2nd century / early 3rd century, which would be very early for any Christian association in Britain, even if the graffito was made after it had been used, since it cuts through sooty residues. As already said, the graffito is most likely to be a mark of identification, a geometrical pattern unusually well executed and intended to be distinctive, but without religious significance.

B.7.54 **Sf 449. (612) Period 2.2 Well 422:** Wall sherd of a sandy grey ware (SGW) jar or bowl, apparently from just below the rim, the groove of which shows on the upper edge. It is incised with the upper part of two intersecting lines, the first (made twice) being vertical, the second cutting it at about 45 degrees. They might be interpreted as a rather wide N (whether or not followed by other letters), but are quite likely to be a 'cross' intended as a non-literate mark of identification.

B.7.55 **Pot catalogue ID 122. (228) Period 2.2 Pit 226:** Flat sherd from the base of a sandy grey ware (SGW) vessel, incised with two incomplete straight lines converging at an acute angle. They are part of an ownership graffito on the underside, best interpreted as the upper-left portion of a capital N, although M would be possible. Too little remains to tell whether this was the only letter, although it is quite likely that it was; if so, it was presumably the initial letter of the owner's name, identifying the vessel as his property.

The Forms

B.7.56 The Roman type series is based on one originally designed by Jude Plouviez (Suffolk Archaeological Unit) and adapted by the authour in this case to reflect the Chelmsford typology (Going 1987) and the Hacheston publication (Plouviez 2004).

B.7.57 *Flagons* (Going 1987 Class J)

1.9: Cupped-rim flagon, plain rim. (Equivalent to Going Class J7; Perrin 1996, 159).

B.7.58 Narrow mouthed jars

2.1: Narrow-mouthed jar with rolled everted rim, rounded body and various cordons, with decoration on the neck, body and base of the vessel (Equivalent to Going 1987 G14; Perrin 1996, 132; 222; 416; Plouviez 2004, 43).

B.7.59 *Beakers* (Going 1987 Class H)

3.3: Indented beakers (Equivalent to Going 1987 H32-H39; Plouviez 2004, no 9 A-C, 10, 11 A-D).

3.6: Bag-shaped beakers (Equivalent Going 1987 H20; Perrin 1996, 233; Plouviez 2004, 12 A-F)

3.8: Poppy-head beaker with barbotine dot decoration (Equivalent to Going 1987 H6).

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

3.13: Butt beaker (Plouviez 2004 17A-C).

3.14: Beaker with everted rim (Plouviez 2004, 27F)

B.7.60 *Medium-mouthed jars and storage jars* (Going 1987 Class G)

4.1: medium-mouthed jar with high-shouldered profile (Rogerson 1977, 1; 2; 19; 22; 44; 107).

4.4: jar with short angular neck, lid-seated or flattened rim (Equivalent to Going 1987 E2 & G5; Perrin 1996, 387).

4.5: medium-mouthed jar, short neck, rolled and generally undercut rim and globular body (Rogerson 1977, 43; 93; 115; 202).

4.8: medium-mouthed jar, everted rim that is hollowed or with projection underneath (bifid), globular body (Equivalent to Going 1987 G28; Perrin 1996, 592; 583).

4.13: medium-mouthed jar, rounded body and simple everted rim (Rogerson 1977,5; Seeley 2004, 10).

4.14: large storage vessels miscellaneous or indeterminate.

B.7.61 *Wide mouthed jars* (Going 1987 Class E)

5: miscellaneous wide-mouthed jars.

5.4: rounded jar, reverse 'S' profile, one or two grooves mid body.

B.7.62 *Bowls* (Going 1987 Class C), *dishes* (Going 1987 Class B) *and platters* (Going 1987 Class A)

6.3: carinated bowl with a flattish out-turned rim (Equivalent to Going 1987 C16; Rogerson 1977, 16; 69; 72).

6.4: hemispherical bowl, copy of samian form Dr 37 (Plouviez 2004, 34A).

6.14: hemispherical bowl with a plain hooked flange, copy of samian form Dr 38 (Equivalent to Going 1987 C8).

6.15: flanged rim bowl with curving sides, out-turned rim and foot-ring base (Rogerson 1977, 74; 76; 97).

6.17: flanged rim straight-sided dishes with a flat base (Equivalent to Going 1987 B5 & B6; Perrin 1996, 468; 469; 483).

6.18: Dish, straight-sided, flat-based, thickened everted 'triangular' rim (Equivalent to Going 1987 B2. Perrin 1996, 417; 426; 449; 453; 455).

6.19: Dish, straight sides which may be upright or angled, plain rim or may have external groove just below the rim (Equivalent to Going 1987 B1; Perrin 1996, 402; 403; 415).

6.21: open dish internal angle, in curving rim, flat or foot ring base (Perrin 1996, 28, 29, 30; Plouviez 2004 32 A-C).

B.7.63 *Mortarium* (Going 1987 Class D; Tyers 1996, 116-135)

7.1: Bead and Flange mortarium identified (Plouviez 2004, no, 45).

7.3: Wall-sided (Plouviez 2004, no 46).

B.7.64 *Lids* (Going 1987 Class K)

8.1: lid - standard type to fit cooking/storage pot, in-turned or out-turned, can have terminal grip (Perrin 1996, 57; 58; 59; Plouviez 2004, 50A-C).

B.7.65 Samian

Based on a type series largely designed by Dragendorff in 1895 and described by Paul Tyers (1996, 105-116; Webster 1996).

Dr 15/17: platter with quarter-round moulding internally at the junction of the wall and floor. The moulding on the exterior walls vary considerably from example to example.

Dr 18: platter with curved wall and beaded lip.

Dr 18/31: 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.

Dr 33: A conical cup with a foot-ring. There are often grooves (or a groove) on the external vessel wall.

Dr 35: Concave cup with out-turned rim decorated with moulded leaf decoration. Often forms part of a set with larger (similar) bowl Dr36.

Dr 37: A hemispherical decorated bowl. The wall of the vessel is usually divided into two (approximately) equal zones, where the lower half is decorated.

Dr 38: hemispherical bowl with a plain hooked flange below the mid-way point on the wall. The rim can be beaded or plain.

Dr42: A dish or cup with applied strap handles at the rim. There is a curved wall and a foot-stand.

Dr44: A bowl resembling Dr38 but with a cordon instead of a flange.

Dr80: A cup with strongly curving walls and a beaded rim.

Ludowici Tg: Large shallow dish flanged with an upturned edge. Forms a set with cups Ludowici Tf' an Tx.

B.7.66 Amphorae

There is no unified typological series covering all amphora forms but many were classified in Dressel's 1899 typology which is summarised by Paul Tyers (1996, 88-105).

DR20: large globular form (principally olive oil containers) with two handles and thickened, rounded or angular rim, concave internally. Manufactured in Baetica in southern Spain. (Equivalent to going 1987 Type P1).

Discussion

B.7.67 This is a moderately sized, well recorded and largely stratified assemblage of primarily mid-Roman pottery (although a small number of late Roman vessel fragments were found), largely recovered from pit-type deposits associated with the small town of Wenhaston. It is a small assemblage, however, when compared to others excavated from the region's towns and should only be seen as a sample (Table 26).

Fabrics	*Billingford*	*Scole (1973)*	*Scole (1993–4)*	*Wixoe*	*Radwinter*	*Wenhaston*
Brampton grey wares	54.00	0.00	0.38	0.00	0.00	0.00
Nar Valley reduced wares	5.80	0.00	0.24	0.00	0.00	0.00
Local micaceous grey wares (Wattisfield type)	<1.00	Not calc.	70.50	42.63	38.00	67.71
Samian	4.10	3.45	2.74	2.50	2.85	7.43
Nene Valley colour coat	1.50	1.38	0.93	0.44	0.29	0.03
Oxfordshire red colour coat	1.70		0.84	0.14	0.37	0.00
Shelly wares (South Midland type)	1.10	Not calc.	1.23	0.19	0.92	0.02
Assemblage weight total (to nearest kg).	**81kg**	**700kg**	**756kg**	**484kg**	**81kg**	**21kg**

*Table 26: Comparison of major fabrics from small towns in East Anglia (after Lyons and Tester 2014, Chapter 6). *No statistics available for Hacheston*

B.7.68 Similar to the pottery assemblages from other small towns in the region such as: Hacheston (Seeley 2004), Scole (Lyons and Tester 2014), Billingford (Cooper and Lyons 2011), Wixoe (Lyons Forthcoming) and Radwinter (Lyons in prep) - the Wenhaston pottery assemblage appears typical for the region in that ceramic supply is dominated by sand tempered reduced (grey) wares. At Wenhaston these sand tempered coarse ware fabrics, commonly have silver mica as a natural component of the clay and are typical of local production (Seeley 2004). This production followed the fashion of the BB2 industries of the Upper Thames Valley (Tyers 1996, 186-188) whereby high-shouldered jars with everted rims (type 4.13) and straight-sided dishes with triangular rims (type 6.18) were manufactured in the mid-2nd to 3rd centuries AD.

B.7.69 In addition to these coarse wares a small amount of domestic finewares came from Colchester and the Nene Valley, with Spanish olive oil amphora arriving in small quantities and with samian coming from Gaul throughout the whole period of importation. The supply of samian is of particular interest as it is forms an unusually high percentage of the assemblage when compared to other small town assemblages (Table 23). The relatively high levels of samian may be due in part to the date of the assemblage – which is mid Roman (mid 2nd to 3rd century AD) – which includes the period when the importation of Central Gaulish samian was at its most prolific (150-200AD: see Wadeson above). It also suggests an urban pattern of samian use which may indicate that Wenhaston was well located within the Roman infrastructure of rivers and roads, while its proximity to the sea may also suggest imported pottery reached the town this way (Lucas 2006, 399, table 7.27). Relatively common samian also indicates that the 2nd century population of Wenhaston had both the fiscal means and the desire to invest in high-status table wares and the associated style of Roman eating.

B.7.70 The ceramic group from well **422** is particularly well preserved and includes both adapted vessels and vessels with post-firing graffiti, most of which has been interpreted as individual marks of ownership (see Tomlin above). This is of interest as it not only shows that these vessels had significant value to their owners, enough to be individually marked, but also shows a level of literacy among the town's population. This well

assemblage does form an unusually large group of graffito and adapted vessels from a single feature which may suggest they were selected or grouped for deposition for a particular (possibly votive) purpose. So although graffiti on pottery is a well-recorded phenomenon within East Anglia (Biddulph *et al.* 2015), the concentration and range of ceramic graffiti from one well is of significance.

B.7.71 It has become clear, however, from examining the whole assemblage that ceramic supply, use and deposition was in decline by the end of the 3rd century AD, possibly reflecting the fate of the wider settlement - although the ceramic sample is too small to be certain. It is interesting, however, that a similar decline in pottery deposition was also recorded at Hacheston during the 4th century (Blagg *et al.* 2004) and also at Wixoe (Lyons Fth).

B.7.72 The pottery assemblage from Wenhaston, although relatively small, adds to the growing corpus of data from the Roman small towns of East Anglia (Lyons Fth (Wixoe)). It informs on the use of local utilitarian products, supplemented by small numbers of regional finewares and relatively large amounts of Gaulish table wares. The unusual collection of graffito and adapted vessels suggests individual pots had meaning to their owners, enough to mark them individually and perhaps select them for deposition in a well. The activity recorded within the ceramic assemblage suggests this part of the Wenhaston settlement was primarily in use between the mid-2nd and 3rd centuries AD, with only very small quantities of diagnostically Late Roman pottery found.

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
101		subsoil	0	SAM	SAM CG	RU	DISH	Dr18/31	7	75	C2
101		subsoil	0	SAM	SAM CG	B	DISH		1	48	?160-190
101		subsoil	0	GW (GROG)	GW(GROG)	U	JAR/BEAK		1	22	C1
101		subsoil	0	SGW	SGW	RUB	JAR	4.5.3	19	128	C2-C4
101		subsoil	0	SGW	SGW(BLUE)	RUB	JAR/BEAK		8	89	LC1-C4
101		subsoil	0	SGW	SGW(MICA)(BS)	UF	JAR/BOWL	6.14	4	32	MC3-C4
101		subsoil	0	SGW	SGW(OX SURFACES)	U	JAR/BOWL		3	30	C2-C4
101		subsoil	0	SGW	SGW(SANDW)	R	JAR	4.5	2	26	C4
101		subsoil	0	SOW	SOW	U	FLAG		3	13	MC1-C3
101		subsoil	0	SOW	SOW	R	MORT	7.WALL	1	24	C2-C4
101		subsoil	0	SOW	SOW	R	JAR	4.13	1	4	LC1-C3
101		subsoil	0	SREDW	SREDW	R	MORT	7.B&F	1	30	C4
101		subsoil	0	SREDW	SREDW	U	JAR/BOWL		2	11	C2-C4
114	113	Ditch 2	2.1	SOW	SOW(ORANGE)	U	FLAG		2	1	MC1-C3
118	117	Ditch 2	2.1	SAM	SAM CG	U	DISH	Dr18	1	22	C2
121	119	Str. 1	2.2	SGW	SGW(MICA) (BSRW)	U	FBEAK		6	106	M/LC2-C3
122	119	Str. 1	2.2	SGW	SGW	U	JAR		5	42	LC1-C4
122	119	Str. 1	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		2	11	E/MC2-C3
122	119	Str. 1	2.2	SOW	SOW	U	FLAG		1	14	MC1-C3
123	119	Str. 1	2.2	SGW	SGW	UB	JAR		3	136	LC1-C4
123	119	Str. 1	2.2	SGW	SGW(MICA) (BSRW)	UB	JAR		2	29	MC1-C4
123	119	Str. 1	2.2	SGW	SGW(Q)	R	DISH	6.18(LARGE)	1	46	MC2+
141	142	Pits	2.2	SGW	SGW	B	JAR		1	14	LC1-C4
141	142	Pits	2.2	SGW	SGW(Q)	UB	JAR		2	91	MC1-C4
167	171	Pits	2.2	SAM	SAM CG	R	CUP	Dr33	1	9	C2
167	171	Pits	2.2	SOW	SOW(Q) (ORANGE)	R	MORT	WALL-SIDED	1	59	C2-C4
170	171	Pits	2.2	SGW	SGW(MICA)(BS)	B	JAR		1	75	E/MC2-C3
170	171	Pits	2.2	SOW	SOW(Q) (ORANGE)	U	MORT		1	10	C2-C4
186	182	Pits	2.2	SAM	SAM CG	U	BOWL		5	9	C2
189	190	Ditch 3	2.1	SAM	SAM CG	B	BOWL		1	28	C2

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
191	192	Ditch 3	2.1	SGW	SGW(MICA)(BS)	U	JAR		1	5	LC1-C4
195	269		2.2	SAM	SAM CG	R	CUP	Dr80	2	37	160+
195	269		2.2	SAM	SAM CG	R	DISH	Dr18	1	30	C2
195	269		2.2	SAM	SAM CG	UB	DISH		8	56	C2
195	269		2.2	SAM	SAM CG	P	DISH	LUDOW ICI TG	2	138	160+
195	269		2.2	COL CC	COLCC	D	BEAK		1	4	E/MC2-LC3
195	269		2.2	COL CC	COLCC	D	BEAK		1	14	E/MC2-LC3
195	269		2.2	HADREDW	HADREDW	R	JAR	S	2	23	C4
195	269		2.2	MANCETTHER HARTSHILL	MANCETTHER HARTSHILL	UB	MORT		1	69	C2-C3
195	269		2.2	SGW	SGW	R	UDB	JAR/BEAK	32	259	E/MC2-C3
195	269		2.2	SGW	SGW(BLUE)	UB	JAR/PURN		61	1017	E/MC2-C4
195	269		2.2	SGW	SGW(BLUE)	RUB	JAR	4.13	11	78	LC1-C4
195	269		2.2	SGW	SGW(BLUE)	R	DISH	6.19	3	44	MC2-C4
195	269		2.2	SGW	SGW(BLUE)	R	PLAT	6.18	1	35	MC2-C4
195	269		2.2	SGW	SGW(BLUE)	R	CUP	Dr33COPY	1	8	MC2-MC3
195	269		2.2	SGW	SGW(BLUE)	R	LID	8.1	1	26	MC1-C3
195	269		2.2	SGW	SGW(BLUE)	R	DISH	6.18	2	18	MC2+
195	269		2.2	SGW	SGW(BLUE)	R	JAR	4.5	6	76	LC1-C4
195	269		2.2	SGW	SGW(BLUE)	R	JAR	4.13	6	82	LC1-C4
195	269		2.2	SGW	SGW(BS)	B	DISH		1	20	C3-C4
195	269		2.2	SGW	SGW(BSRW)	RU	JAR	4.5.3	3	37	LC2-C4
195	269		2.2	SGW	SGW(BSRW)	U	JAR		3	29	MC1-C4
195	269		2.2	SGW	SGW(BSRW)(MICA)	RUB	DISH	6.18	7	71	MC2-C4
195	269		2.2	SGW	SGW(MICA)	B	DISH		8	216	MC2-C4
195	269		2.2	SGW	SGW(MICA)	R	LID	8.1	2	55	MC1-C3
195	269		2.2	SGW	SGW(MICA)	R	DISH/CUP	6.19	1	16	LC1-C4
195	269		2.2	SGW	SGW(MICA)(FINE)	UDB	BEAK	POPPY	4	18	LC1-E/MC2
195	269		2.2	SGW	SGW(Q)	RU	JAR/KETTLE	4.5	24	214	E/MC2-C4
195	269		2.2	SGW	SGW(Q)	RU	JAR/KE	4.5	2	55	E/MC2-

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
							TTLE				C4
195	269		2.2	SGW	SGW(Q)	R	LID		1	10	MC1-C3
195	269		2.2	SGW	SGW(SANDW)	R	BOWL	6.15	1	33	MC2-C4
195	269		2.2	SGW	SGW(SANDW)	D	JAR		5	29	E/MC2
195	269		2.2	SOW	SOW	R	FLAG	1.9-LARGE	1	16	LC1-C4
195	269		2.2	SOW	SOW	D	SJAR/AMPH		1	63	C1-C3
195	269		2.2	SOW	SOW	RU	MORT	WALL-SIDED	4	81	C2-C3
195	269		2.2	SOW	SOW	U	FLAG		3	11	MC1-C3
195	269		2.2	SOW	SOW	U	FLAG		12	14	MC1-C3
195	269		2.2	SOW	SOW(FINE RED GROG)	U	FLAG		8	184	MC1-C3
195	269		2.2	SOW	SOW(FINE)	U	FLAG		4	27	MC1-C3
195	269		2.2	SOW	SOW(GREY CORE)	UB	JAR		4	64	MC1-C3
195	269		2.2	SOW	SOW(MICA)(FINE)	B	BEAK		1	12	E/MC2+
195	269		2.2	SOW	SOW(Q)	UB	JAR		3	22	MC1-C4
197	196	Pits	2.2	SGW	SGW(BLUE)	R	JAR	4.5.3	1	25	LC1-C4
197	196	Pits	2.2	SOW	SOW	B	MORT		2	86	C2-C3
197	196	Pits	2.2	SOW	SOW(MICA)	U	JAR		1	7	MC1-C4
198	199	Ditch 3	2.1	SOW	SOW(FINE)	R	BEAK	3.13	5	1	M/LC1-C2
198	199	Ditch 3	2.1	SOW	SOW(GREY CORE)	R	SJAR	4.5.3	1	90	C2-C3
203	204	Wells	2.2	SAM	SAM CG	R	CUP	Dr33	2	9	C2
203	204	Wells	2.2	SGW	SGW	R	JAR	4.1	2	21	LC1-C4
203	204	Wells	2.2	SGW	SGW(BLUE)	UB	JAR		12	93	LC1-C4
203	204	Wells	2.2	SGW	SGW(BLUE)	R	DISH	6.18	1	11	MC2+
203	204	Wells	2.2	SGW	SGW(BLUE)	R	MJAR	4.13	1	2	LC1-C3
203	204	Wells	2.2	SGW	SGW(Q)	R	SJAR	4.14	1	55	MC1-C3
203	204	Wells	2.2	SOW	SOW(Q)	U	JAR		5	24	MC1-C3
205	206	Pits	2.2	SAM	SAM CG	FB	DISH	Dr38	2	20	MC2
205	206	Pits	2.2	GW (GROG)	GW(GROG)	U	SJAR		2	18	MC1-C3
205	206	Pits	2.2	SGW	SGW(BLUE)	U	JAR		8	71	LC1-C4
205	206	Pits	2.2	SGW	SGW(BS)	RUB	DISH	6.18	3	38	MC2-MC3
205	206	Pits	2.2	SGW	SGW(BS)	R	DISH	6.18	1	11	MC2+
205	206	Pits	2.2	SGW	SGW(MICA)	D	BEAK		1	11	MC2

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
					(PALE)						
205	206	Pits	2.2	SGW	SGW(SANDW)	UB	JAR		4	34	MC1-C4
205	206	Pits	2.2	SGW	SGW(SANDW)	R	DISH	6.19	1	9	M/LC1-MC2
205	206	Pits	2.2	SOW	SOW(MICA)	U	JAR/FLAG		2	5	M/LC1-C4
205	206	Pits	2.2	SOW	SOW(Q)	U	FLAG		1	4	MC1-C4
205	206	Pits	2.2	SOW	SOW(Q) (ORANGE)	RU	JAR	4.5.3	3	6	C2-C4
205	206	Pits	2.2	SREDW	SREDW(FINE)	U	BOWL		2	3	C2
209	207	Str. 2	2.2	SGW	SGW(MICA)	U	JAR		1	1	LC1-C4
210	207	Str. 2	2.2	SGW	SGW(Q)	U	JAR		2	6	MC1-C4
211	207	Str. 2	2.2	SGW	SGW(MICA)	R	DISH	6.18	1	4	MC2-MC3
212	207	Str. 2	2.2	SAM	SAM CG	R	DISH	Dr18	1	21	C2
213	207	Str. 2	2.2	SAM	SAM CG	U	CUP	?Dr33	1	6	C2
213	207	Str. 2	2.2	GW (GROG)	GW(GROG)	U	SJAR		1	52	C1-C3
213	207	Str. 2	2.2	SGW	SGW(BLUE)	UB	JAR		3	22	LC1-C4
214	204	Wells	2.2	SGW	SGW	U	JAR		1	1	MC1-C4
214	204	Wells	2.2	SGW	SGW(MICA)	R	DISH	6.18	1	22	MC2-MC3
215	204	Wells	2.2	SGW	SGW(BLUE)	U	BEAK		1	3	LC1-C2
215	204	Wells	2.2	SGW	SGW(MICA) (BSRW)	D	JAR		5	24	E/MC2-MC3
215	204	Wells	2.2	SGW	SGW(SANDW)	RU	JAR	4.4/4.5.3	2	18	LC1-C2
216	204	Wells	2.2	BAT AM	BAT AM	U	AMPH		1	51	C1BC-ADC3(C2)
216	204	Wells	2.2	GW (GROG)	GW(GROG&FLINT)	B	SJAR		1	258	C1-C2
216	204	Wells	2.2	SGW	SGW(BLUE)	U	JAR		4	25	LC1-C2
216	204	Wells	2.2	SGW	SGW(BLUE)	B	BEAK		1	122	M/LC2-C4
218	219	Pits	2.2	SGW	SGW	RUB	JAR		8	105	LC1-C4
218	219	Pits	2.2	SGW	SGW(GROG&FLINT)	R	JAR	5.4	1	105	M/LC1-MC2
218	219	Pits	2.2	SGW	SGW(MICA)	R	BEAK	3.14	1	10	LC1-C2
218	219	Pits	2.2	SOW	SOW(Q)	D	SJAR		1	27	MC1-C3
223	222		2.1	SGW	SGW(BSRW)	U	JAR		1	6	LC1-C4
225	224		2.1	SGW	SGW(BLUE)	D	JAR		2	8	LC1-C4
225	224		2.1	STW	STW	U	JAR		2	4	MC1-C4

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
228	226	Pits	2.2	SGW	SGW(BS)	B	DISH		1	10	MC2+
228	226	Pits	2.2	SGW	SGW(BSRW)	U	JAR		2	7	LC1-C4
228	226	Pits	2.2	SGW	SGW(Q)	U	JAR		1	3	MC1-C4
234	229	Wells	2.2	SAM	SAM CG	RUB	DISH	Dr18	9	100	C2
234	229	Wells	2.2	SGW	SGW(BS)	U	JAR		1	13	LC1-C4
234	229	Wells	2.2	SGW	SGW(MICA)	U	JAR		1	9	LC1-C4
234	229	Wells	2.2	SOW	SOW(Q)	U	JAR(KETTLE)		1	13	MC1-C4
236	229	Wells	2.2	SAM	SAM CG	R	DISH	Dr18	6	81	C2
236	229	Wells	2.2	BAT AM	BAT AM	U	AMPH		1	207	C1BC-ADC3(C2)
236	229	Wells	2.2	SOW	OW(GROG)	U	FLAG	LARGE	1	45	MC1-C3
236	229	Wells	2.2	SOW	OW(GROG)	R	CUP	Dr33COPY	1	10	MC1-C3
236	229	Wells	2.2	SGW	SGW	R	DISH	6.18	1	15	MC2+
236	229	Wells	2.2	SGW	SGW	R	MJAR	4.5.3	1	43	LC2-C3
236	229	Wells	2.2	SGW	SGW	RU	JAR/BEAK	S	3	24	LC1-C3
236	229	Wells	2.2	SGW	SGW	R	JAR	S	1	11	LC1-C3
236	229	Wells	2.2	SGW	SGW	R	MJAR	4.5.3	1	15	LC2-C3
236	229	Wells	2.2	SGW	SGW	R	JAR	4.5	1	7	MC1-C4
236	229	Wells	2.2	SGW	SGW(BLUE)	U	JAR		12	121	LC1-C4
236	229	Wells	2.2	SGW	SGW(BSRW)	U	BEAK		2	4	LC1-C4
236	229	Wells	2.2	SGW	SGW(MICA)(BSRW)	RU	DISH	6.18	5	100	MC2+
236	229	Wells	2.2	SGW	SGW(Q)	UB	JAR		9	157	MC1-C4
236	229	Wells	2.2	SOW	SOW	U	MORT		1	34	C2-C4
236	229	Wells	2.2	SOW	SOW	U	FLAG		3	6	MC1-C3
236	229	Wells	2.2	SOW	SOW	R	FLAG	1.9(SMALL)	3	12	LC1-C2
236	229	Wells	2.2	SOW	SOW(Q)	R	SJAR	4.14(4.5.3)	1	163	C1-C3
236	229	Wells	2.2	SOW	SOW(Q)	UDB	JAR/FLAG		3	25	C2-C3
237	229	Wells	2.2	SAM	SAM SG	R	PLAT	Dr15/17a	1	5	C1
237	229	Wells	2.2	SAM	SAM EG	UB	DISH		4	13	MC2-MC3
237	229	Wells	2.2	SAM	SAM CG	UB	BOWL		6	83	C2
237	229	Wells	2.2	GW (GROG)	GW(GROG)	U	SJAR		1	88	C1-C3

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
237	229	Wells	2.2	SOW	OW	U	FLAG		2	6	MC1-C3
237	229	Wells	2.2	SGW	SGW	R	MJAR	4.13	6	40	LC1-C3
237	229	Wells	2.2	SGW	SGW	R	DISH	6.18	3	57	MC2+
237	229	Wells	2.2	SGW	SGW	R	CUP	6.19	1	4	E/MC2
237	229	Wells	2.2	SGW	SGW	R	JAR	4.5.3	6	63	M/LC2-C3
237	229	Wells	2.2	SGW	SGW	R	JAR	4.5	3	20	LC1-C4
237	229	Wells	2.2	SGW	SGW(BLUE)	D	JAR		3	18	LC1-MC2
237	229	Wells	2.2	SGW	SGW(BLUE)	RUB	JAR	4.13	71	575	E/MC2-MC3
237	229	Wells	2.2	SGW	SGW(MICA) (BSRW)	R	DISH	6.18	1	15	MC2+
237	229	Wells	2.2	SGW	SGW(MICA) (BSRW)	D	JAR		1	4	E/MC2-MC3
237	229	Wells	2.2	SGW	SGW(MICA) (BSRW)	UB	JAR		24	221	E/MC2-MC3
237	229	Wells	2.2	SGW	SGW(OX SURFACES)	R	LID		1	16	MC1-C3
237	229	Wells	2.2	SGW	SGW(OX SURFACES)(FINE)	U	BEAK		1	12	M/LC1-C2
237	229	Wells	2.2	SGW	SGW(Q)	RU	MJAR	4.5.3	6	83	M/LC2-C3
237	229	Wells	2.2	SGW	SGW(Q)	UB	JAR		11	102	MC1-C4
237	229	Wells	2.2	SOW	SOW	RUB	MORT	B&F	3	198	MC2-MC3
237	229	Wells	2.2	SOW	SOW(MICA)	U	FLAG		2	41	MC1-C3
237	229	Wells	2.2	SOW	SOW(Q)	U	JAR		2	14	MC1-C4
237	229	Wells	2.2	SOW	SOW(Q)	U	FLAG		2	23	MC1-C3
237	229	Wells	2.2	SOW	SOW(Q) (ORANGE)	U	JAR/FLAG		3	14	MC1-C3
237	229	Wells	2.2	SREDW	SREDW(FINE)	RU	BOWL	Dr38(COPY)	4	11	C2
258	247	Str. 2	2.2	SAM	SAM CG	D	BOWL	Dr37	1	5	E/MC2
258	247	Str. 2	2.2	SGW	SGW(MICA) (BSRW)	D	JAR		1	1	E/MC2-MC3
273	296	Str. 3	2.2	SGW	SGW(MICA) (BSRW)	D	JAR		1	3	E/MC2-MC3
273	296	Str. 3	2.2	SGW	SGW(Q)	D	JAR		1	4	MC1-C4
275	298	Str. 3	2.2	SGW	SGW(MICA) (BSRW)	D	JAR		1	8	MC1-C4
277	300	Str. 3	2.2	SGW	SGW(BSRW)	U	JAR		1	4	MC1-C3
280	303	Str. 3	2.2	SGW	SGW(MICA)	U	JAR		1	6	LC1-C4

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
280	303	Str. 3	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		1	3	MC1-C4
280	303	Str. 3	2.2	SOW	SOW(ORANGE)	R	DISH/FLAG		1	3	MC1-C3
291	314	Str. 3	2.2	SGW	SGW(MICA)	U	JAR		1	6	LC1-C4
318	317	Ditch 3	2.1	SGW	SGW	U	JAR		1	1	LC1-C4
318	317	Ditch 3	2.1	SGW	SGW(Q)	U	JAR		1	1	MC1-C4
320	319	Pits	2.2	SGW	SGW	UB	JAR		3	56	MC1-C4
320	319	Pits	2.2	SGW	SGW(BSRW)	R	DISH	6.18	1	23	MC2-MC3
320	319	Pits	2.2	SGW	SGW(MICA)	U	JAR		1	3	LC1-C4
324	319	Pits	2.2	SGW	SGW(BLUE)	RU	JAR	5.4	10	697	LC1-C2
324	319	Pits	2.2	SGW	SGW(MICA) (BSRW)	RU	JAR	4.5	12	315	E/MC2-C3
328	327	Ditch 8	2.1	SGW	SGW(BLUE)	R	MJAR		1	16	MC1-C2
328	327	Ditch 8	2.1	SOW	SOW(ORANGE)	U	FLAG		4	3	MC1-C3
331	331	Pits	2.2	SOW	SOW	U	FLAG		3	3	MC1-C3
336	335	Well	2.2	SAM	SAM CG	P	DISH	Dr18	2	26	C2
336	335	Well	2.2	SAM	SAM CG	U	BOWL		1	22	C2
336	335	Well	2.2	SAM	SAM CG	UD	CUP	Dr33	3	4	C2
336	335	Well	2.2	SAM	SAM CG	U	GAMING COUNTER		1	3	C2
336	335	Well	2.2	SAM	SAM CG	DB	BOWL	Dr37	3	20	C2
336	335	Well	2.2	BAT AM	BAT AM	U	AMPH	DR20	2	122	C1BC-ADC3(C2)
336	335	Well	2.2	NVCC	NVCC	D	BEAK		6	6	MC2-C3
336	335	Well	2.2	SGW	SGW	U	JAR		28	109	M/LC1-C4
336	335	Well	2.2	SGW	SGW	R	DISH	6.18	1	10	MC2-MC3
336	335	Well	2.2	SGW	SGW	R	MJAR	4.8	1	15	MC2-MC3
336	335	Well	2.2	SGW	SGW	R	MJAR	4.5.3	1	9	LC2-C3
336	335	Well	2.2	SGW	SGW	R	DISH	6.19	1	8	C2-C4
336	335	Well	2.2	SGW	SGW	R	DISH	6.19	1	6	MC2-C3
336	335	Well	2.2	SGW	SGW	R	JAR/BEAK	4.13	1	2	LC1-C3
336	335	Well	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		3	6	E/MC2-C3
336	335	Well	2.2	SGW	SGW(OXSURFAC	RUB	JAR	4.5	4	32	MC1-C2

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
					ES)						
336	335	Well	2.2	SGW	SGW(OXSURFACES)	B	DISH		1	8	C2-C4
336	335	Well	2.2	SGW	SGW(Q)	U	SJAR		1	11	MC1-C4
336	335	Well	2.2	SGW	SGW(Q)	R	JAR	4.5	1	5	MC1-C4
336	335	Well	2.2	SOW	SOW	R	MORT	B&F	1	14	M/LC1-C2
336	335	Well	2.2	SOW	SOW	R	MORT	WALL	1	27	E/MC2
336	335	Well	2.2	SOW	SOW	U	FLAG		10	36	MC1-C3
336	335	Well	2.2	SOW	SOW(FINE)	U	BEAK		1	3	M/LC1-C2
336	335	Well	2.2	SOW	SOW(Q)	U	SJAR		1	20	MC1-C2
336	335	Well	2.2	SOW	SOW(Q)	U	JAR		3	14	MC1-C3
336	335	Well	2.2	SREDW	SREDW(FINE)	D	BEAK		3	4	M/LC2
344	357	Str. 3	2.2	SGW	SGW(Q)	U	JAR		1	4	MC1-C4
347	359	Str. 3	2.2	SGW	SGW	U	JAR/BEAK		1	3	LC1-C4
348	360	Str. 3	2.2	SGW	SGW(BS)	UD	JAR/BEAK		2	14	LC1-C2
348	360	Str. 3	2.2	SGW	SGW(Q)	U	JAR		4	13	MC1-C4
349	361	Str. 3	2.2	SAM	SAM CG	R	DISH	Dr18	1	1	C2
349	361	Str. 3	2.2	SGW	SGW	UB	JAR		4	14	LC1-C2
349	361	Str. 3	2.2	SOW	SOW	U	JAR/FLAG		1	3	MC1-C3
350	362	Str. 3	2.2	SGW	SGW	RU	NJAR	2.1	2	46	M/LC1-MC2
350	362	Str. 3	2.2	SGW	SGW	D	JAR		1	9	M/LC1-C2
369	370	Pits	2.2	GW (GROG)	GW(GROG)	U	SJAR		1	45	C1-C3
369	370	Pits	2.2	SGW	SGW(BLUE)	RUD	JAR/BEAK	4.13	8	57	E/MC2-C3
369	370	Pits	2.2	SGW	SGW(Q)	RUB	JAR	4.5.3	4	116	C2-C4
369	370	Pits	2.2	SOW	SOW	UB	MORT		2	88	M/LC1-C2
369	370	Pits	2.2	SOW	SOW	U	JAR/BEAK		1	4	MC1-C2
369	370	Pits	2.2	SOW	SOW(MICA)	U	MORT		1	41	M/LC1-C2
369	370	Pits	2.2	SOW	SOW(MICA)(FINE)	D	BEAK		1	9	C2
369	370	Pits	2.2	SOW	VEROW	U	FLAG		1	14	MC1-C2
373	374	Pits	2.2	SGW	SGW(BS)	U	JAR/BEAK		1	4	LC1-C3

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
390	389	Encl.	2.1	SGW	SGW(BS)	R	JAR/BEAK	4.13	1	8	LC1-C3
392	391	Str. 3	2.2	SGW	SGW	R	JAR	4.5	1	18	M/LC1-C4
397	375	Encl.	2.1	SGW	SGW(BLUE)	UB	JAR		1	27	M/LC1-C4
399	377	Encl.	2.1	SGW	SGW(SANDW)	RD	JAR	S	3	21	M/LC1-C2
402	335	Well	2.2	SGW	SGW	U	JAR		3	9	LC1-C4
410	409	Pits	2.2	SGW	SGW	UD	JAR		3	24	E/MC2-C3
411	412	Ditch 4	2.1	SAM	SAM SG	P	CUP	Dr35	1	30	LC1-EC2
411	412	Ditch 4	2.1	SGW	SGW(MICA)	RU	JAR/SJAR	4.5	6	133	LC1-C2
413	414	Ditch 4	2.1	SGW	SGW(BS)	D	JAR/BEAK		1	6	LC1-C2
413	414	Ditch 4	2.1	SGW	SGW(MICA)	UD	SJAR		9	275	M/LC1-C3
413	414	Ditch 4	2.1	SGW	SGW(MICA)	RD	JAR/BEAK	4.13(LID - SEATED)	4	57	E/MC2
418	415	W-hole	2.1	SAM	SAM EG	R	CUP	Dr33	1	11	E/MC3
418	415	W-hole	2.1	SAM	SAM CG	RUB	BOWL	Dr44	5	90	M/LC2
418	415	W-hole	2.1	SAM	SAM CG	RUB	DISH	Dr18	4	81	C2
418	415	W-hole	2.1	SGW	SGW	UB	JAR		20	144	MC1-C4
418	415	W-hole	2.1	SGW	SGW	U	SJAR		2	43	MC1-C3
418	415	W-hole	2.1	SGW	SGW(FLINT)	R	WJAR	5	2	31	MC1-E/MC2
418	415	W-hole	2.1	SGW	SGW(MICA)	R	DISH	6.18	7	46	MC2+
418	415	W-hole	2.1	SGW	SGW(MICA)	UB	JAR		5	74	LC1-C2
418	415	W-hole	2.1	SOW	SOW	UB	FLAG		8	16	MC1-C3
418	415	W-hole	2.1	SOW	SOW(Q) (ORANGE)	U	JAR		2	8	MC1-C4
418	415	W-hole	2.1	SOW	SOW(REDUCED SURFACES)	U	NJAR	2.1	1	12	MC1-C2
418	415	W-hole	2.1	SREDW	SREW(VERY FINE)	R	BEAK	BAG-CORNICE RIM	1	3	E/MC2
420	419	Pits	2.2	SGW	SGW(Q)	R	BOWL	6.15	1	5	MC1-C2
420	419	Pits	2.2	SOW	SOW(ORANGE)	U	FLAG		1	10	MC1-C3
421	419	Pits	2.2	SGW	SGW(BLUE)	U	JAR		1	1	LC1-C4
438	439	Ditch 4	2.1	SGW	SGW(BLUE)	U	JAR		2	5	LC1-C4

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
440	441	Pits	2.2	NVCC	NVCC	RU	BEAK		2	1	MC2-MC3
440	441	Pits	2.2	SGW	SGW	R	JAR	4.5	1	16	M/LC1-C4
440	441	Pits	2.2	SGW	SGW	R	JAR	4.5	1	12	LC1-C4
440	441	Pits	2.2	SGW	SGW	U	JAR		14	90	LC1-C4
440	441	Pits	2.2	SOW	SOW(Q)	U	FLAG		3	7	MC1-C3
440	441	Pits	2.2	SOW	SOW(Q) (ORANGE)	RU	MJAR	4.5	5	12	MC1-C3
440	441	Pits	2.2	SREDW	SREDW(Q)	R	DISH	6.18	2	9	MC2-C4
443	442	Pits	2.2	SGW	SGW(MICA) (BSRW)	RU	JAR	4.5.3	2	23	LC1-C4
446	445	Pits	2.2	SOW	SOW	RS	MORT	B&F	6	321	M/LC1-E/MC2
446	445	Pits	2.2	SAM	SAM CG	D	BOWL	Dr37	1	24	C2
446	445	Pits	2.2	SGW	SGW(BLUE)	RUD	JAR	RUD	9	43	LC1-C2
446	445	Pits	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		4	8	E/MC2-C3
446	445	Pits	2.2	SOW	SOW	RUH	FLAG	1.9	44	57	C2
446	445	Pits	2.2	SOW	SOW(ORANGE)	UB	FLAG		4	20	MC1-C3
448	447	Ditch 6	2.1	SGW	SGW(Q)(BSRW)	D	JAR		1	13	C2-C3
449	447	Ditch 6	2.1	SGW	SGW(BS)	D	JAR/BOWL		3	13	M/LC1-E/MC2
449	447	Ditch 6	2.1	SOW	SOW	H	FLAG		2	8	MC1-C3
451	450	Wells	2.2	SGW	SGW(Q)	R	DISH/LID	6.21	1	6	LC1-C3
486	485	Ditch 7	2.1	SGW	SGW(BLUE)	U	JAR		1	3	LC1-C4
490	489	Wells	2.2	SGW	SGW(Q)(BLUE)	U	JAR		1	4	LC1-C2
490	489	Wells	2.2	SREDW	SREDW(FINE)	RD	BEAK	BAG	3	7	E/MC2
492	493	Pits	2.2	SGW	SGW	RUD	MJAR	4.5.3	9	29	MC2-C4
501	494	Pits	2.2	SAM	SAM CG	D	BOWL	Dr37	1	96	C2
501	494	Pits	2.2	SGW	SGW(BLUE)	UD	JAR		3	18	LC1-C4
501	494	Pits	2.2	SOW	SOW	R	MORT	WALL	1	22	M/LC2
512	510	Pits	2.2	SGW	SGW(Q)	R	JAR	S	1	19	LC1-C4
514	493	Pits	2.2	SAM	SAM CG	U	DISH/BOWL		3	15	C2
514	493	Pits	2.2	COL CC	COL CC	D	BEAK		1	1	E/MC2
514	493	Pits	2.2	SGW	SGW	R	JAR	4.5	1	12	LC1-C4
514	493	Pits	2.2	SGW	SGW(BLUE)	U	JAR		25	111	LC1-C4
514	493	Pits	2.2	SGW	SGW(BLUE)	R	JAR	4.5	1	6	LC1-C4
514	493	Pits	2.2	SGW	SGW(BS)	U	JAR/BE		3	9	LC1-C4

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
							AK				
514	493	Pits	2.2	SGW	SGW(BS)	R	DISH	6.18	1	15	MC2-MC3
514	493	Pits	2.2	SGW	SGW(BS)	R	DISH	6.18	1	9	MC2-MC3
514	493	Pits	2.2	SGW	SGW(Q)	R	DISH	6.19	1	6	MC2-C4
514	493	Pits	2.2	SGW	SGW(Q)	R	BOWL		1	3	LC1-C4
514	493	Pits	2.2	SOW	SOW	R	DISH	6.3	1	5	E/MC2
514	493	Pits	2.2	SREDW	SREDW(FINE)	R	BOWL	6.4	1	4	MC1
517	515	Encl.	2.1	SGW	SGW	UDB	JAR		19	151	LC1-C4
517	515	Encl.	2.1	SGW	SGW(Q)	RU	MJAR	4.5	9	134	M/LC1-C4
517	515	Encl.	2.1	SREDW	SREDW(FINE)	RD	BEAK	BAG-FOLDED	6	9	E/MC2
527	526	Pits	2.2	SOW	SOW	U	FLAG		1	6	MC1-C3
527	526	Pits	2.2	SOW	SOW(Q)	U	JAR/FLAG		1	4	MC1-C4
529	526	Pits	2.2	SGW	SGW(BLUE)	RD	DISH	6.18	2	32	MC2-MC3
529	526	Pits	2.2	SGW	SGW(Q)	U	JAR		1	13	LC1-C4
531	526	Pits	2.2	SGW	SGW(MICA)	UD	JAR		2	22	LC1-C4
531	526	Pits	2.2	SGW	SGW(MICA)(BS)	R	MJAR	S	1	8	LC1-C4
531	526	Pits	2.2	SOW	SOW	U	FLAG		5	3	MC1-C3
533	532	Ditch 5	2.1	SGW	SGW(MICA)(BS)	U	JAR		2	10	LC1-C4
536	537	Pits	2.2	SGW	SGW	R	DISH	6.3	1	31	LC1-E/MC2
536	537	Pits	2.2	SGW	SGW	U	JAR/BOWL		5	13	LC1-C4
536	537	Pits	2.2	SGW	SGW(BS)	B	DISH		1	42	MC2-C4
536	537	Pits	2.2	SGW	SGW(BSRW)	DB	JAR		2	22	E/MC2-C3
536	537	Pits	2.2	SGW	SGW(Q)	U	JAR/BOWL		1	18	MC1-C4
541	524	Pits	2.2	BAT AM	BAT AM	U	AMPH	DR20	1	141	C1BC-ADC3(C2)
541	524	Pits	2.2	SGW	SGW(BLUE)(MICA)	UD	JAR		3	16	LC1-C4
544	524	Pits	2.2	SAM	SAM CG	R	DISH	Dr18	1	3	C2
544	524	Pits	2.2	SGW	SGW(MICA)	U	JAR		2	16	LC1-C4
544	524	Pits	2.2	SGW	SGW(Q)	UB	SJAR		1	123	MC1-C3
545	524	Pits	2.2	SAM	SAM CG	R	DISH	Dr37	2	4	C2

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
545	524	Pits	2.2	SGW	SGW(BLUE)	U	JAR		12	69	LC1-C4
545	524	Pits	2.2	SGW	SGW(BLUE)	R	DISH	6.18	1	10	MC2-MC3
545	524	Pits	2.2	SGW	SGW(MICA)	R	MJAR	4.5.3	1	12	LC2-C4
545	524	Pits	2.2	SGW	SGW(MICA)	R	MJAR	4.5	1	8	LC1-C4
545	524	Pits	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		1	1	E/MC2-C3
545	524	Pits	2.2	SGW	SGW(Q)	U	JAR		2	32	LC1-C4
545	524	Pits	2.2	SOW	SOW	U	FLAG	LARGE	6	38	MC1-C3
545	524	Pits	2.2	SOW	SOW	U	FLAG		3	7	MC1-C3
545	524	Pits	2.2	SOW	SOW(ORANGE)	R	MJAR	4.4	3	26	M/LC1-C3
547	546	Pits	2.2	SAM	SAM CG	UB	DISH		3	12	C2
547	546	Pits	2.2	GW (GROG)	GW(GROG)	U	SJAR		9	75	MC1-C3
547	546	Pits	2.2	SGW	SGW	UD	JAR		26	64	E/MC2-C3
547	546	Pits	2.2	SGW	SGW(Q)	UB	SJAR		1	27	C1-C3
547	546	Pits	2.2	SOW	SOW	U	FLAG		9	23	MC1-C3
547	546	Pits	2.2	SOW	SOW(FINE) (ORANGE0	U	BEAK		5	1	MC1-C2
552	550	Pits	2.2	GW (GROG)	GW(GROG)	U	SJAR		1	210	MC1-C3
552	550	Pits	2.2	SGW	SGW	R	JAR	4.5	2	8	LC1-C4
552	550	Pits	2.2	SGW	SGW	B	DISH		1	41	C3-C4
552	550	Pits	2.2	SGW	SGW(BLUE)	UB	JAR		8	146	E/MC2-C3
552	550	Pits	2.2	SGW	SGW(BLUE)	R	DISH	6.18	1	41	MC2-MC3
552	550	Pits	2.2	SGW	SGW(MICA) (BSRW)	UB	JAR		5	76	E/MC2-C3
552	550	Pits	2.2	SGW	SGW(Q)	RU	JAR	4.5	2	14	MC1-C4
552	550	Pits	2.2	SOW	SOW	US	FLAG		4	50	MC1-C3
554	550	Pits	2.2	SAM	SAM CG	R	DISH	Dr18	1	6	C2
554	550	Pits	2.2	GW (GROG)	GW(GROG)	U	SJAR		1	38	MC1-C3
554	550	Pits	2.2	SGW	SGW	UB	JAR		5	28	LC1-C4
554	550	Pits	2.2	SGW	SGW(BLUE)	R	JAR	4.5	1	15	LC1-C2
554	550	Pits	2.2	SGW	SGW(BS)	RU	JAR	4.13	3	22	E/MC2-MC3
554	550	Pits	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		3	29	E/MC2-C3
554	550	Pits	2.2	SGW	SGW(MICA)	R	LID		1	14	MC1-C3

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
					(BSRW)						
554	550	Pits	2.2	SGW	SGW(ORANGE SURFACE)(?HAD)	U	JAR		1	3	C3-C4
554	550	Pits	2.2	SGW	SGW(Q)	RU	JAR	4.5	4	42	MC1-C4
554	550	Pits	2.2	SOW	SOW	R	MORT	B&F	1	129	LC1-C2
554	550	Pits	2.2	SOW	SOW	U	FLAG		1	3	MC1-C3
558	557	Pits	2.2	SGW	SGW(MICA)	R	DISH	6.15	1	17	C2-C3
558	557	Pits	2.2	SGW	SGW(MICA)	U	JAR		2	40	LC1-C4
560	559	Pits	2.2	SGW	SGW(MICA)	D	DISH		1	5	MC2-C4
560	559	Pits	2.2	SGW	SGW(Q)	U	JAR		1	4	LC1-C4
562	561	Pits	2.2	SGW	SGW(MICA) (BSRW)	U	JAR		1	5	E/MC2-C3
564	563	Ditch 7	2.1	SGW	SGW(Q)	U	JAR		1	11	LC1-C4
566	565	Pits	2.2	SAM	SAM CG	R	BOWL	Dr37	2	34	C2
566	565	Pits	2.2	SGW	SGW	UD	JAR		2	12	E/MC2-C3
566	565	Pits	2.2	SGW	SGW(BS)	RU	DISH	6.18	2	25	MC2-MC3
566	565	Pits	2.2	SGW	SGW(MICA)	U	DISH		1	5	MC2-C4
566	565	Pits	2.2	SOW	SOW	U	FLAG		2	8	MC1-C3
567	565	Pits	2.2	SGW	SGW(BLUE)	D	JAR		2	24	E/MC2-C3
567	565	Pits	2.2	SGW	SGW(MICA)(BS)	U	JAR		1	6	LC1-C4
567	565	Pits	2.2	SOW	SOW	R	MORT	B&F	1	69	LC1-C2
569	568	Pits	2.2	SOW	SOW(ORANGE)	D	FBEAK		4	45	M/LC2-C3
585	584	Ditch 4	2.1	SOW	SOW(ORANGE)	U	JAR		1	1	MC1-C3
588	572	Ditch 3	2.1	SGW	SGW(MICA)	D	JAR		1	5	LC1-C4
588	572	Ditch 3	2.1	SGW	SGW(Q)	U	JAR		1	7	LC1-C4
588	572	Ditch 3	2.1	SGW	SGW(Q)(OX SURFACES)	U	JAR		7	43	M/LC1-C2
588	572	Ditch 3	2.1	SGW	SGW(Q)(OX SURFACES)	U	SJAR		1	42	M/LC1-C2
588	572	Ditch 3	2.1	SOW	SOW	U	FLAG		1	2	MC1-C3
588	572	Ditch 3	2.1	SOW	SOW(Q) (ORANGE)	R	FLAG	1.9(SMALL)	1	2	LC1-C2
591	574	Wells	2.2	SAM	SAM CG	U	CUP		1	7	C2
591	574	Wells	2.2	SGW	SGW	U	JAR		2	13	LC1-C4
591	574	Wells	2.2	SGW	SGW(BS)	U	JAR		2	36	E/MC2-C3
600	204	Wells	2.2	SGW	SGW(Q)	U	JAR		4	9	MC1-C4

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
603	489	Wells	2.2	SGW	SGW(MICA)	DB	BEAK	POPPY	2	95	LC1-E/MC2
603	489	Wells	2.2	SGW	SGW(BLUE)	RUD	JAR		5	107	E/MC2-C3
603	489	Wells	2.2	SGW	SGW(MICA)	R	WJAR	CARINATED RIPPLED RIM	1	52	M/LC1
605	419	Wells	2.2	SAM	SAM SG	R	DISH	dr18	1	7	M/LC1
605	419	Wells	2.2	SGW	SGW(Q)	U	JAR		1	6	MC1-C4
605	419	Wells	2.2	SOW	SOW(Q)	U	CBM/AMPH		1	10	C1BC-ADC3(C2)
610	450	Wells	2.2	SAM	SAM EG	R	DISH	Dr18/31	1	75	LC2-MC3
612	422	Wells	2.2	SAM	SAM EG	R	CUP	Dr33	1	8	LC2-MC3
612	422	Wells	2.2	SAM	SAM EG	U	DISH		1	18	LC2-MC3
612	422	Wells	2.2	SAM	SAM CG	U	BOWL		1	20	C2
612	422	Wells	2.2	SGW	SGW	RD	JAR	4.8	4	281	C2-C3
612	422	Wells	2.2	SGW	SGW(BSRW)	RD	WJAR	5.4	8	426	C2-C4
612	422	Wells	2.2	SGW	SGW(MICA)	P	BOWL	copy of samian form Dr38	1	382	M/LC2
612	422	Wells	2.2	SGW	SGW(MICA)(BS)	R	JAR/BEAK		1	13	C2-C3
612	422	Wells	2.2	SGW	SGW(BLUE)	U	JAR/BEAK		1	10	LC1-C4
612	422	Wells	2.2	SGW	SGW(MICA)(BS)	P	FBEAK	3.11	5	485	M/LC2-EC3
612	422	Wells	2.2	SAM	SAM SG	D	BOWL		1	32	M/LC1
612	422	Wells	2.2	SGW	SGW(BLUE)	RUB	JAR		15	308	LC1-C4
612	422	Wells	2.2	SGW	SGW(BS)	RB	BOWL	6.4	3	60	C2-C3
612	422	Wells	2.2	SGW	SGW(MICA)(BS)	R	JAR		2	52	C2-C4
612	422	Wells	2.2	SGW	SGW(Q)	UB	JAR/BOWL		2	118	MC1-C4
612	422	Wells	2.2	SGW	SGW(WS)	B	MORT		1	70	MC1-C4
612	422	Wells	2.2	SOW	SOW(FINE)	D	BEAK		1	4	MC2-C3
612	422	Wells	2.2	SOW	SOW(FONE)	D	BEAK		1	12	LC1-C2
613	229	Wells	2.2	SAM	SAM SG	U	BOWL		1	8	M/LC1
613	229	Wells	2.2	SAM	SAM EG	U	BOWL		1	6	LC2-E/MC3
613	229	Wells	2.2	SGW	SGW(BLUE)	U	JAR/SJ		2	134	LC1-C4

Cxt.	Cut	Group	Per-iod	Fabric Family	Fabric Description	Dsc.	Form	Type	Quantity	Weight (g)	Date
							AR				
613	229	Wells	2.2	SGW	SGW(MICA)(BS)	P	JAR	4.13	18	564	E/MC2-C3
613	229	Wells	2.2	SOW	SOW	R	MORT	B&F	1	114	C2
613	229	Wells	2.2	SOW	SOW	R	MORT	B&HOOKED FLANGE	2	260	C3-C4
613	229	Wells	2.2	SAM	SAM CG	B	BOWL		1	68	C2
613	229	Wells	2.2	BAT AM	BAT AM	U	AMPH	DR20	1	592	C1BC-ADC3(C2)
613	229	Wells	2.2	BAT AM	BAT AM	U	AMPH	DR20	1	63	C1BC-ADC3(C2)
613	229	Wells	2.2	SGW	SGW(MICA)(BS)	RUDB	JAR	4.13	9	123	E/MC2-C3
613	229	Wells	2.2	SOW	SOW	U	JAR		1	7	MC1-C3
614	415	Wells	2.2	SAM	SAM CG	B	BOWL		1	49	C2
614	415	Wells	2.2	SGW	SGW(BLUE)	R	JAR	4.8	1	50	MC2-MC3
614	415	Wells	2.2	SGW	SGW(MICA)	RU	JAR	4.5	3	227	LC1-C4
614	415	Wells	2.2	SGW	SGW(MICA)(BS)	RU	JAR	4.5.3	9	149	LC1-C3
624			0	SGW	SGW(Q)	U	JAR		1	6	MC1-C4

Table 27: Summary Roman pottery catalogue

KEY: B = base, Beak = beaker, C=century, D = decorated body sherd, E=early, Flag= flagon, L=late M=mid, Mort= mortaria, R = rim, SJAR = storage jar, U=undecorated body sherd.

For full fabric names see Table 24.

B.8 Ceramic building material & fired clay

By Cynthia Poole

Introduction

B.8.1 A modest assemblage of ceramic building material (CBM) amounting to 315 fragments (41.023kg) together with a small quantity of fired clay (184 fragments, 2.093kg) was recovered predominantly from pits, wells and waterholes, and to a lesser extent from a hearth or oven base, postholes and a palaeochannel. The assemblages are quantified by form in Table 28. All pieces are fragmentary with no complete dimensions surviving apart from thickness and the majority exhibit moderate to heavy abrasion. The tile is all of Roman date apart from two examples thought to be medieval/postmedieval roof tile, though their presence in Roman features, the general absence of later material and the small size of the pieces suggests the identification must be regarded as uncertain.

Methodology

B.8.2 The assemblage has been fully recorded on an Excel spreadsheet in accordance with guidelines set out by the Archaeological Ceramic Building Materials Group (ACBMG 2007). The CBM and fired clay catalogues are summarised in Tables 30-33. The record includes quantification, fabric type, form, surface finish, forms of flanges, cutaways and vents, markings and evidence of use/reuse (mortar, burning etc) together with a visual record of digital photos, rubbings and profile drawings. The terminology follows Brodribb (1987); coding for markings, tegula flanges, etc. follows that established by OA for the recording of CBM and tegula cutaway types follow Warry (2006). Fabrics were characterised with the aid of x20 hand.

Fabrics

B.8.3 The CBM was made in a sandy clay fabric containing moderate to high densities of quartz sand, predominantly of medium-coarse grain size and varying from rounded to angular. Laminations in the clay matrix were sometimes visible, together with clay pellets and small red ferruginous grits up to 5mm in size. Occasional flint or quartzite grit and pebbles up to 20mm were noted. Although some attempt was made to note the variations in the fabric during recording there were no distinctive subdivisions that would indicate distinctive sources as opposed to minor variations in the raw materials or preparation of the clay.

B.8.4 The fired clay fabric is fairly uniform throughout the assemblage. It is generally fired to shades of orange, red and brown, though some pieces were tinged pink or cerise and less commonly buff or pale grey. The clay was commonly laminated or variegated with paler streaks and contained a moderate to high density of medium - coarse quartz sand, rounded-subrounded and poorly sorted; occasional flint grits mostly 2-6mm but up to 20mm also occurred sporadically. Only rarely were organic impressions of chaff or straw observed, indicative of deliberately added organic temper. Similarly small chalk grit or the leached voids of such grits were only occasionally present.

	Total	
Type	Nos	Wt (g)
Tegula	46	11428
Imbrex	27	1317
Ridge	1	41
Brick	65	18389

	Total	
Flue	11	1035
Flat	111	7861
Disc	3	454
Indet	45	447
Roof?	6	51
Total CBM	315	41023
Fired clay	184	2093

Table 28: Quantification of Forms

The Ceramic Building Material

Tegulae

B.8.5 Tegulae formed 28% (by weight) of the assemblage and were identified by the presence of flanges or cutaways or indications of their presence such as the finger groove running along the base of the flange, which commonly survived deliberate deflanging of the tile. The only surviving complete dimension was thickness which ranged from 17-38mm with considerable variation up to 10mm within individual tiles, largely as a result of undulations created by the knife or wire trimming of the bases. Most pieces were fragmentary, but one lower half preserved the full width between flanges measuring 290mm, allowing the full width to be estimated at c.340-350mm based on the average flange size in the assemblage. Most of the surviving flanges were rectangular in form (type A); less common were examples with an inclined inner edge (type B) or rounded profile (type E and F). Details of flanges are summarised in Table 29. Cutaways were present on eight tiles, but all were incomplete. Three were upper cutaways of standard rectangular form. The remaining lower cutaways were of type C5 and B6 as classified by Warry (2006). Complete lengths survived on only three of the B6 cutaways, which measured 36, 41 and 50mm long.

Type	Nos	Width mm	Height mm	Notes
A	7	27-37; one 19	41-47	Thin flange may be alongside cutaway
A3	1	22-34	44-52	Tapered
A4	6	20-34	37-48	Two tapered; with and without fg
B	3	18-28t, 25-36b	40, 44, 53	One tapered
E	2	>21	>35	Both incomplete
F	1	27	41	
U	5	19 - >30	-	

Table 29: Tegula flange types and sizes

Imbrex & Ridge

B.8.6 Imbrex formed a small proportion of the assemblage (4% by weight). All fragments had a well smoothed upper surface and regular even underside. Thickness ranged from 13 to 22m, except for one measuring 27mm thick, which may in fact be a fragment of ridge tile. No other dimensions survived, except for the height of one piece estimated to be 80mm, well within the standard average range or imbrex. They include both rounded and angular profiles.

Flue Tile

B.8.7 Flue tile is the least common tile form (2.5% by weight): all were standard tubulus or box flue type. Most measured 19-22mm thick, but one was distinctly thinner with a thickness of 10-13mm. Only two retained fragmentary evidence of keying in the form of straight bands of combing. The thin tile had some marking that could be remnants of combing, but may have resulted from some other incidental striations or impressions. The remaining pieces were all plain; no vents were survived and it is possible some of the flue tile was plain on all faces. Most pieces had some evidence of burning or heat discolouration on one or both surfaces, though in a few cases it is clear this had occurred after the tile had broken.

Brick

B.8.8 Brick forms the largest constituent of the assemblage (45% by weight). All fragments over 40mm thick were designated as bricks; thinner examples were designated as brick where at least one corner was present to confirm the identification. A proportion of those measuring between 28 and 40mm thick were designated as brick based on general finish of surfaces and edges, which suggested they were most likely brick. However there is significant overlap in thickness with tegulae and it is possible some identifications are erroneous. The maximum thickness was 63mm but examples over 45mm were few, suggesting larger brick types were rare and that the majority derived from the smaller varieties of bessalis, pedalis and lydion.

B.8.9 A number of bricks have very smooth even lower and upper surfaces, which were difficult to distinguish and in general there were very few rough irregular bases. Much of the brick had been moderately or heavily abraded and burning or heat discolouration was common: patterns of burning suggest much of the brick had been used in hearth floors with burning on one face only, but some was burnt on both surfaces and edges suggesting use in ovens possibly as a suspended floor or supports, whilst some were burnt along the edge suggesting most of the tile had been built into the clay wall of an oven or flue and only the brick edge exposed to direct heat. One with heavy burning on an edge and one surface had been deliberately chipped to a neat rectangular form probably to form a ledge between upper and lower chambers of a kiln or similar structure.

Miscellaneous

B.8.10 Plain flat tile (forming 19% by weight of the assemblage) clearly derived from the mix of forms present in the assemblage. Thickness ranged from 10-38mm. Over half had evidence of burning with the same range of patterns as observed on the brick.

B.8.11 Two circular discs and one semi-circular disc had been cut from tile, two certainly from tegula and the other probably so. The two smaller discs are of similar size measuring 25-26mm thick and 70mm diameter and 75x80mm. The smaller example from Period 2.2 pit **524** (544) is very neatly finished and has part of a signature mark running across the surface. That from the larger Period 2.2 pit **171** (169) is more roughly finished or perhaps unfinished as one part of the edge is well curved, but the other irregular possibly broken and abandoned during manufacture. The function of such discs may have been as lids for containers, either ceramic or of other materials. The third semi-circular disc from the subsoil (101) is larger and made from a deflanged tegula with the deflanged edge forming the straight side and with a well shaped worn circular edge extending from it, but partly broken. It measures 23mm thick and 160mm wide and has a patch of heat discolouration across the top of the disc. It had probably been used as a piece of oven furniture, possibly used to cover a vent.

Markings

B.8.12 Signature marks were the most common marking and 13 were identified. Most occurred on tegula or thinner examples of flat tile, likely to be tegula, with only four occurring on brick. Nearly all were of the most common variety of hoop or semicircle made against the tile edge with one, two or three fingers. The two best preserved of these came from context 195: one with two finger grooves measured 84mm high and over 140mm wide, whilst one with three finger grooves was smaller measuring 62mm high and 120mm wide. The only exceptions to this type were: a tightly curved groove probably forming a loop that was inscribed on the possible base of a brick from tertiary layer 195 over Palaeochannel **269**, rather than the more usual top surface; and one partial mark with three finger grooves which may have formed a combination of a spiral within an arc from the subsoil (101). A third signature from Period 2.2 well **335** (336) initially appears to be a standard three-finger arc, but the grooves converge and the two outer may cross, whilst the innermost must have been made separately and probably all three were made in three separate swipes.

B.8.13 Imprints were all incidental or accidental impressions: either finger marks from handling the tile during manufacture or occasional organic impressions, generally chaff, but also including a partial leaf, probably from a tree, on the tile surface.

B.8.14 Two cut diverging grooves 30mm long on a brick from Period 2.2 pit **453** (454) may be a possible crude tally mark. Tally marks are normally associated with military sites, but this is not a standard type and probably was made just for a single occasion when it was necessary to mark a consignment of tile.

The Fired Clay

B.8.15 The majority of fired clay is likely to have derived from small clay structures such as ovens or hearths. Most fragments have only a single moulded surface varying from a smooth flat finish to rougher irregular surfaces, sometimes with finger marks or grooves from shaping the surface. In most cases the back face was broken, though occasionally an internal structural bonding face survived. In one case there were shallow rectangular facets, which may have been made as keying. Surviving thickness ranges from 10 to 40mm. Some of the better finished pieces may have been fragments of oven furniture, but no recognisable items of portable furniture were recognised. Only one fragment had a definite wattle impression surviving, measuring 24mm diameter.

Discussion

B.8.16 The few pieces of tegula which could be dated more closely are consistent with the phasing. Two of the tegulae are of 2nd century date and two later of mid-2nd to mid-3rd century date. The character of the flue tile is consistent with a 2nd century or later date.

B.8.17 The assemblage contains the standard range of Roman tile forms, that would be expected in a masonry building with tile roof and one or more heated rooms suggesting a higher than average status of the owner. However the quantities and proportions do not suggest the presence of such a building in the immediate vicinity of the site, but more generally in the locality. Tile was probably obtained from a local villa or similar type of building during rebuilding, refurbishment or demolition, when tile might become available for reuse.

B.8.18 The emphasis of the assemblage is on flat slabs whether tegula or brick almost certainly selected for the purposes of reuse. The evidence of burning and heat discolouration on the tile suggests much of it was used in ovens and hearths. The observed patterns of burning indicate that both types of structure were constructed with

tile, probably bedded in clay, though none of the fired clay retained tile impressions. Those tiles with uniform burning on one surface have most probably been used as hearth surfaces and such structures are commonly found in Roman sites. More variable patterns of burning or heat discolouration suggest some were built into structures and only partly exposed to heat in the wall face of an oven, whilst others with burning on multiple sides and edges suggest use as suspended floors in double chambered structures or as furniture used in conjunction with ovens such as supports, baffles or cheek pieces for flues. Clear evidence for the use of tile in such structures comes from the possible oven base **119** within Period 2.2 Structure 1, which produced tile fragments that had clearly been partly embedded in a clay structure. Associated with this was the largest group of fired clay, which included the pieces with some sort of keying on the surface and fragments which had been pressed up against an edge or into and angle suggestive of plain tile and tegulae.

B.8.19 This pattern of usage is typical of lower status rural settlements, where tile would have been too expensive a commodity for major structures, but was valued as a resource in the construction of minor structures such as ovens and hearths and supplanted purpose made portable oven and hearth furniture of earlier periods.

Cxt.	Cut	Group	Period	No.s	Wt (g)	Fabric Group	Fabric	Class	Mark type	Markings
101				1	933	Sandy	Q (C)	Tegula	Signature	type 1.1? & spiral: middle finger groove discontinuous and there appears to be part of circular dot in the middle of the innermost ring. Finger grooves not concentric or parallel - could they have formed a spiral? - or at least the less regular inner 2 gr
101				1	58	Sandy	Q (C)	Flue	None	None
101				2	100	Sandy	Q (C)	Imbrex	None	None
101				1	32	Sandy	Q (C)	Flat tile	None	None
101				1	168	Sandy	Q (C)	Tegula	None	None
101				1	125	Sandy	Q (C)	Disc	None	None
101				4	1581	Sandy	Q (C)	Brick RB	None	None
101				1	302	Sandy	Q (E)	Flat tile	None	None
101				1	398	Sandy	Q (E3)	Flat tile	None	None
121	119	Structure 1	2.2	4	606	Sandy	Q (C)	Tegula	Imprint	Scattered organic impressions in top surface, possibly chaff awns
122	119	Structure 1	2.2	1	274	Sandy	Q (OF)	Brick RB	None	None
123	119	Structure 1	2.2	4	543	Sandy	Q (C)	Flat tile	None	None
123	119	Structure 1	2.2	3	598	Sandy	Q (C)	Brick RB	None	None
123	119	Structure 1	2.2	7	530	Sandy	Q (C)	Flat tile	None	None
123	119	Structure 1	2.2	1	139	Sandy	Q (C)	Flat tile	None	None
141	142	Pits	2.2	9	68	Sandy	Q (E)	Flat tile	None	None
148	147	Structure 1	2.2	4	11	Sandy	Q (C)	Roof: flat	None	None
167	171	Pits	2.2	1	303	Sandy	Q (C)	Brick RB	None	None
169	171	Pits	2.2	1	187	Sandy	Q (C)	Disc	Imprint	Two finger prints from handling on top surface
195	269	Palaeo-channel	2.2	3	2020	Sandy	Q (C)	Tegula	Signature	Signature type 1.3; 120mm wide, 62mm high, but almost discontinuous in centre. Starts 60mm from LH flange and 75mm from RH.
195	269	Palaeo-channel	2.2	1	179	Sandy	Q (C)	Flat tile	Signature	Signature type 1.2; >40mm wide, >40mm high; thin fgs.
195	269	Palaeo-channel	2.2	2	42	Sandy	Q (C)	Flue	Keying	Band of diagonal combing possibly crossing a second vertical band running parallel to the corner angle; c. 4+teeth, >14mm wide.
195	269	Palaeo-channel	2.2	3	40	Sandy	Q (C)	Imbrex	None	None
195	269	Palaeo-channel	2.2	1	127	Sandy	Q (C)	Imbrex	None	None
195	269	Palaeo-channel	2.2	1	294	Sandy	Q (C)	Tegula	None	None
195	269	Palaeo-channel	2.2	1	424	Sandy	Q (C)	Brick RB	None	None
195	269	Palaeo-channel	2.2	1	187	Sandy	Q (C)	Flat tile	None	None
195	269	Palaeo-channel	2.2	1	75	Sandy	Q (C)	Tegula	None	None
195	269	Palaeo-channel	2.2	1	504	Sandy	Q (C)	Brick RB	Imprint	finger tip depressions from handling
195	269	Palaeo-channel	2.2	3	405	Sandy	Q (C)	Flue	None	None
195	269	Palaeo-channel	2.2	2	30	Sandy	Q (C)	Flat tile	None	None

Cxt.	Cut	Group	Period	No.s	Wt (g)	Fabric Group	Fabric	Class	Mark type	Markings
195	269	Palaeo-channel	2.2	3	247	Sandy	Q (C)	Flat tile	None	None
195	269	Palaeo-channel	2.2	3	114	Sandy	Q (B)	Flat tile	None	None
195	269	Palaeo-channel	2.2	19	573	Sandy	Q (C)/ (B)	Flat tile	None	None
195	269	Palaeo-channel	2.2	3	102	Sandy	Q (C)	Tegula	None	None
195	269	Palaeo-channel	2.2	2	72	Sandy	Q (C)	Flat tile	None	None
195	269	Palaeo-channel	2.2	2	1477	Sandy	Q (C)	Tegula	Signature	Signature type 1.2; 84mm H, >140mm W (inner groove 100mm w and 46mm H). The 2 grooves diverge from 14mm apart at LH on edge to 31mm on RH side. Starts 40mm from LH edge
195	269	Palaeo-channel	2.2	1	745	Sandy	Q (C)	Brick RB	None	None
195	269	Palaeo-channel	2.2	1	312	Sandy	Q (E)	Brick RB	None	None
195	269	Palaeo-channel	2.2	1	259	Sandy	Q (E)	Brick RB	Signature	type 5.1? Tightly curved finger groove suggestive of loop
197	196	Pits	2.2	1	43	Sandy	Q (C)	Indet	None	None
203	204	Wells	2.2	1	255	Sandy	Q (E)	Tegula	None	None
203	204	Wells	2.2	1	288	Sandy	Q (E/B)	Tegula	None	None
203	204	Wells	2.2	2	431	Sandy	Q (C)	Tegula	None	None
203	204	Wells	2.2	1	173	Sandy	Q (C)	Brick RB	None	None
203	204	Wells	2.2	2	40	Sandy	Q	Roof: flat	None	None
203	204	Wells	2.2	1	16	Sandy	Q	Indet	None	None
203	204	Wells	2.2	1	107	Sandy	Q (D)	Flat tile	None	None
203	204	Wells	2.2	1	64	Sandy	Q (C)	Indet	None	None
205	206	Pits	2.2	1	406	Sandy	Q (C)	Tegula	None	None
205	206	Pits	2.2	1	63	Sandy	Q (E3)	Tegula	Signature	narrow shallow finger groove slightly curved running across top surface.
205	206	Pits	2.2	1	117	Sandy	Q (B?)	Brick RB	None	None
205	206	Pits	2.2	1	9	Sandy	Q (B)	Imbrex	None	None
205	206	Pits	2.2	3	29	Sandy	Q	Indet	None	None
214	204	Wells	2.2	1	231	Sandy	Q (C)	Flat tile	Imprint	incidental organic impression on base
215	204	Wells	2.2	1	172	Sandy	Q (C)	Tegula	None	None
215	204	Wells	2.2	2	842	Sandy	Q (C)	Brick RB	None	None
216	204	Wells	2.2	1	66	Sandy	Q (C)	Tegula	None	None
216	204	Wells	2.2	1	52	Sandy	Q (B)	Flat tile	None	None
216	204	Wells	2.2	1	85	Sandy	Q (C)	Flat tile	None	None
216	204	Wells	2.2	1	273	Sandy	Q (C)	Brick RB	None	None
217	219	Pits	2.2	19	62	Sandy	Q	Indet	None	None
225	224	Ditch	2.1	1	160	Sandy	Q (C)	Brick RB	None	None
228	226	Pits	1	1	68	Sandy	Q (C)	Brick RB	None	None
233	229	Wells	2.2	1	385	Sandy	Q (B)	Flue	None	None
234	229	Wells	2.2	1	37	Sandy	Q (B)	Imbrex	None	None
236	229	Wells	2.2	1	101	Sandy	Q (C)	Tegula	None	None
236	229	Wells	2.2	2	73	Sandy	Q (C)	Tegula	None	None
236	229	Wells	2.2	1	499	Sandy	Q (C)	Brick RB	Signature	Short length of 2 parallel finger

Cxt.	Cut	Group	Period	No.s	Wt (g)	Fabric Group	Fabric	Class	Mark type	Markings
										grooves c 10mm apart
236	229	Wells	2.2	1	152	Sandy	Q (C)	Brick RB	None	None
236	229	Wells	2.2	1	120	Sandy	Q (C)	Imbrex	None	None
236	229	Wells	2.2	5	549	Sandy	Q (B/E)	Flat tile	None	None
236	229	Wells	2.2	5	316	Sandy	Q (C)	Flat tile	None	None
236	229	Wells	2.2	1	331	Sandy	Q (E1)	Ridge	None	None
237	229	Wells	2.2	4	305	Sandy	Q (C)	Brick RB	None	None
237	229	Wells	2.2	1	190	Sandy	Q (CV)	Brick RB	None	None
237	229	Wells	2.2	2	117	Sandy	Q (C)	Flat tile	None	None
237	229	Wells	2.2	1	203	Sandy	Q (C)	Brick RB	Imprint	chaff glume impression in one surface.
237	229	Wells	2.2	1	54	Sandy	Q (CF)	Tegula	None	None
237	229	Wells	2.2	1	103	Sandy	Q (C)	Imbrex	None	None
237	229	Wells	2.2	1	18	Sandy	Q (C)	Flue	Keying	Very coarse striated keying; >26mm w, 3+ teeth, 5-8mm w?
278	301	Structure 3	2.2	1	219	Sandy	Q (C)	Brick RB	None	None
278	301	Structure 3	2.2	1	185	Sandy	Q (C)	Tegula	None	None
278	301	Structure 3	2.2	1	232	Sandy	Q (C)	Brick RB	None	None
280	303	Structure 3	2.2	1	146	Sandy	Q (C)	Flat tile	None	None
320	319	Pits	2.2	1	395	Sandy	Q (C)	Brick RB	None	None
336	319	Pits	2.2	7	492	Sandy	Q (C)	Flat tile	Signature	3 arcs of curved finger grooves converging; uncertain type. The two outer grooves are concentric on the RH side but have possibly crossed by the LH side. The third inner groove is on a different alignment and must have been swiped separately to the other
336	319	Pits	2.2	1	136	Sandy	Q (C)	Tegula	None	None
336	319	Pits	2.2	1	50	Sandy	Q (C)	Imbrex	None	None
336	319	Pits	2.2	1	85	Sandy	Q (C)	Brick RB	None	None
336	319	Pits	2.2	16	192	Sandy	Q (C)	Indet	None	None
369	370	Pits	2.2	5	455	Sandy	Q (C)	Brick RB	None	None
369	370	Pits	2.2	1	40	Sandy	Q (E)	Flat tile	None	None
418	415	Watering-hole	2.1	1	83	Sandy	Q (E)	Imbrex	None	None
418	415	Watering-hole	2.1	4	1409	Sandy	Q (E)	Brick RB	None	None
418	415	Watering-hole	2.1	5	470	Sandy	Q (E)	Flat tile	None	None
438	439	Ditch 4	2.1	1	38	Sandy	Q (C)	Flat tile	None	None
440	441	Pits	2.2	3	40	Sandy	Q (C)	Imbrex	None	None
446	445	Pits	2.2	2	15	Sandy	Q (C)	Indet	None	None
451	450	Wells	2.2	1	574	Sandy	Q (C)	Brick RB	Imprint	finger print from handling
454	453	Pits	2.2	1	335	Sandy	Q (C)	Tegula	None	None
454	453	Pits	2.2	1	235	Sandy	Q (CF)	Brick RB	Tally?	2 cut grooves c. 30mm long, slightly separated and diverging; may be crude tally mark cut into top surface, or could just be damage.
454	453	Pits	2.2	4	443	Sandy	Q (E2)	Flat tile	Signature	Arcs of 2 concentric curving finger grooves ?type 1.2

Cxt.	Cut	Group	Period	No.s	Wt (g)	Fabric Group	Fabric	Class	Mark type	Markings
492	493	Pits	2.2	1	305	Sandy	Q (C)	Flat tile	None	None
492	493	Pits	2.2	1	187	Sandy	Q (C)	Brick RB	None	None
501	494	Pits	2.2	2	112	Sandy	Q (C)	Flat tile	None	None
508	506	Pits	2.2	1	96	Sandy	Q (C)	Brick RB	None	None
508	506	Pits	2.2	1	41	Sandy	Q (C)	Tegula	None	None
512	510	Pits	2.2	3	604	Sandy	Q (E)	Tegula	None	None
512	510	Pits	2.2	2	396	Sandy	Q (B)	Tegula	None	None
512	510	Pits	2.2	1	165	Sandy	Q (B)	Tegula	None	None
512	510	Pits	2.2	2	235	Sandy	Q (C)	Tegula	None	None
512	510	Pits	2.2	1	221	Sandy	Q (C)	Imbrex	None	None
512	510	Pits	2.2	1	783	Sandy	Q (B)	Brick RB	Signature	signature type 1.1 small; 40mm H, >60mm wide. Finger mark depression within signature.
512	510	Pits	2.2	1	423	Sandy	Q (C)	Brick RB	None	None
513	510	Pits	2.2	1	64	Sandy	Q (B)	Imbrex	None	None
513	510	Pits	2.2	1	146	Sandy	Q (E3)	Flat tile	None	None
513	510	Pits	2.2	2	483	Sandy	Q (B)	Brick RB	Signature	short length of curved finger groove on smaller fragment.
514	493	Pits	2.2	1	106	Sandy	Q (C)	Imbrex	None	None
514	493	Pits	2.2	2	124	Sandy	Q (CF)	Tegula	None	None
514	493	Pits	2.2	6	155	Sandy	Q (C)	Flat tile	None	None
514	493	Pits	2.2	1	22	Sandy	Q (E)	Flat tile	None	None
514	493	Pits	2.2	1	41	Sandy	Q (CF)	Imbrex/ridge	None	None
522	522	Pits	2.2	1	21	Sandy	Q (V)	CBM/FC ?	None	None
527	526	Pits	2.2	1	100	Sandy	Q (C)	Imbrex	None	None
531	526	Pits	2.2	1	198	Sandy	Q (C/E3)	Flat tile	Signature	signature type 1.2; very thin shallow finger grooves 13mm apart.
541	524	Pits	2.2	1	60	Sandy	Q	Flat tile	None	None
544	524	Pits	2.2	1	142	Sandy	Q	Disc	Signature	part of a curved finger groove forms an arc across the disc.
544	524	Pits	2.2	1	931	Sandy	Q (C)	Brick RB	None	None
544	524	Pits	2.2	1	192	Sandy	Q (E)	Brick RB	None	None
545	524	Pits	2.2	1	5	Sandy	Q	Indet	None	None
547	546	Pits	2.2	7	58	Sandy	Q (C/E)	Imbrex	None	None
547	546	Pits	2.2	3	127	Sandy	Q (C)	Flue	Keying	Possible combing: larger fragment has 2 worn coarse grooves of probable combing. Straight band 17mm w ?3 teeth.
554	550	Pits	2.2	1	59	Sandy	Q (C)	Imbrex	None	None
566	565	Pits	2.2	1	136	Sandy	Q (C)	Flat tile	None	None
567	565	Pits	2.2	4	44	Sandy	Q (C)	Flat tile	Keying	surface has 3 parallel grooves, which appear to be teeth marks from combing forming straight band 17mm wide, and 4 teeth marks set 5-7mm apart.
591	574	Wells	2.2	2	209	Sandy	Q (C)	Brick RB	None	None
591	574	Wells	2.2	1	191	Sandy	Q (C)	Brick RB	None	None
591	574	Wells	2.2	1	49	Sandy	Q (C)	Flat tile	None	None

Cxt.	Cut	Group	Period	No.s	Wt (g)	Fabric Group	Fabric	Class	Mark type	Markings
total				**300**	**36289**					

Table 30: Summary CBM catalogue

Key to codes used in CBM catalogue	
Surface finish	
T	Top/Upper/Outer surface
T1	very smooth and flat
T2	slighty rough and/or irregular
T3	cut, knife / wire trimmed
T4	fairly even but undulating
T5	ribbing/finger ridging (mainly found on imbrex)
T6	Wiped/smoothed resulting in striations of varying fineness/coarseness (usually depending on size of sand/grit dragged across surface in process)
T w	One of above categories with additional significant wear or weathering to surface
B	Base/ lower / inner surface
B1	even and flat
B2	flat with turf / organic impressions
	B2a if very irregular
B3	Flat with imprint of gound/working surface (impressions suggestive of bare ground, pebbles, grits or pellets of clay waste)
	B3a if very rough and irregular
B4	impression of former / mould / timber surface
B5	cut, knife / wire trimmed
	B5a over most of surface
	B5b intermittently all over most of surface
	B5c over margin only; B5cc if margin is chamfered; B5cc(00) - give width of margin in mm eg. B5cc(18)
B6	flat, undulating, slightly irregular / rough.
Sides and Edges	
S	Smooth / flat
R	Rough, irregular
K	Knife / wire trimmed
kb	Knife / wire trimmed along lower surface of side/end edge
kt	Knife / wire trimmed along upper surface of side/end edge
Tac	Top arris chamfered
Bac	Base arris chamfered
Bev	Bevelled
Abrasion	
H	High
M	medium
L	low
O	None
~	No observation made
vH	very high

Imbrex profile	
C	curving
A	angular
R	half-round/semicircular
U	U-shaped
P	polygonal
Moulding sand	
CG	coarse sand with grits
C	Coarse sand
M-C	
M	Medium sand
F-M	
F	Fine sand
N	None
~	No observation made
G	Grit
G Ch	Grit chalk
G Fl	Grit flint
V	organic - chaff
MS	

Table 31: Key to codes used in CBM catalogue

Context	Cut	Group	Nos	Wt (g)	Fabric	Class	Type	Burning
101			2	15	Q (C)	Oven str	FC1	Surface burnt grey
123	119	Structure 1	49	784	Q (C)	Oven str	FC1	fired
123	119	Structure 1	2	68	Q (C)	Oven str	FC1	fired
123	119	Structure 1	2	109	Q (C)	Oven str	FC1	fired
123	119	Structure 1	2	21	Q (C)	Oven str	FC2	fired
128	127	Structure 1	3	24	Q (C)	Oven str	FC1	fired
132	131	Structure 1	2	45	Q (C)	Oven str	FC1/FC2	fired
134	133	Structure 1	2	6	Q (C)	Oven str	FC2	fired
165	164	Structure 1	2	25	Q (C)	Oven str	FC1, FC4	fired
195	269	Palaeochannel	1	28	Q (C)	Oven str	FC7	fired
203	204	Well	2	18	Q (C)	Oven str	FC2	fired
205	206	Pits	5	50	Q (C)	Oven str	FC1	fired
218	219	Pits	4	64	Q (C)	Oven str	FC7	fired
236	229	Well	2	87	Q (C)	Oven str	FC2, FC4	fired
237	229	Well	2	20	Q (C)	Oven str	FC1	fired
320	319	Pits	1	44	Q (C)	Oven str	FC1	fired
334	333	Pits	1	3	Q (C)	Hearth floor/plate?	FC1	burnt surface
336	335	Pits	29	233	Q (C)	Oven str	FC1	fired
336	335	Pits	8	45	Q (C)	Oven str	FC1	fired
347	359	Structure 3	2	4	Q (C)	Indet	FC9	fired
443	442	Pits	2	5	Q (C/E)	Oven str/furniture	FC1	fired

Context	Cut	Group	Nos	Wt (g)	Fabric	Class	Type	Burning
446	445	Pits	36	70	Q (C)	Oven str	FC1/9	fired
446	445	Pits	3	19	Q (C)	Oven str	FC1	fired
451	450	Well	4	48	Q	Oven misc	Indet	fired
527	526	Pits	1	11	Q (C)	Oven str	FC9	fired
541	524	Pits	1	26	Q (V)	Oven misc	FC4	fired
569	568	Pits	1	110	Q (V)	FC	Flat	fired
591	574	Well	1	18	Q (C)	Oven misc	FC1	fired
total			**172**	**2000**				

Table 32: Summary fired clay catalogue

Key to codes used in fired clay catalogue	
Surface finish	
P	Flat
C	Convex
Cv	Concave
u	undulating
w	worn
PC	plano-convex
PCv	plano-concave
S	irregular surface
Surface finish	
1	Smooth, very even and regular
2	even, fairly regular
2b	Wiped
3a	Finger smoothed - grooves
3b	Finger smoothed - dimples
3c	Finger tip depressions/prints
3d	Pie-crust - finger-thumb pressed
4	Roughly moulded, irregular finish
5	bonded / impressed / plastered (5c-wattle framework,5 st-stems/straw; 5r-bedrock/natural; 5p-stone; 5t-tile; 5d-daub/clay structural surface)
6	sheared at constructional interface
7	rounded, worn, sheared/broken
8	rough irregular
9	broken
Structural	
FC1	One flat surface
FC2	One convex surface
FC3	One concave surface
FC4	Two flat surfaces at right angles
FC5	One flat & 1 curved surfaces at right angles
FC6	3 flat surfaces at right angles forming a square corner
FC7	2 flat // shaped surfaces
FC8	largely amorphous, some hint of utilisation or moulded surface
FC9	indeterminate, amorphous

Table 33: Key to codes used in fired clay catalogue

B.9 Waterlogged wood analysis

By Michael Bamforth

Introduction and methodology

B.9.1 This report has been compiled by Michael Bamforth on behalf of Oxford Archaeology East (OA East). Maggie Henderson consulted on Romano-British building practices. Taxonomic identifications were carried out by Lisa Gray. This document analyses the waterlogged wood assemblage in line with recommendations made in the Post-Excavation Assessment and Updated Project Design Report (Clarke 2016). This report considers 45 wood records assigned to the Romano-British period.

B.9.2 The material was recorded by site staff during the excavation and by Michael Bamforth alongside Matt Brooks (OA East) and Alexandra Scard (OA East) off site during March 2016.

B.9.3 The material was all situated in waterlogged deposits which created the anaerobic conditions necessary for organic preservation.

B.9.4 Seven large, circular pits probably representing wells and a watering-hole were encountered, accessing a perched water table associated with a natural spring. Saturated deposits were encountered in all these features below a depth of c.1m. These features belonged exclusively to Period 2.2 of the site.

B.9.5 Six items were recovered from well **229** comprising split timbers supporting the sides of the well retained by vertically driven wooden stakes on the inside of each corner to form a 1.5m square well lining (611).

B.9.6 A single item was recovered from the backfill (605) of well **419**.

B.9.7 A total of 36 items were recovered from the base of well **422**. Two items are assigned to backfill 612 and eleven items are assigned to an ad-hoc roundwood working platform (619). An adjacent dump of timbers, in the base of the well, comprised two types, with six items assigned to 'beams' (620) and 17 items assigned to 'planks' (621).

B.9.8 Two items were recovered from backfill 602 of well **489**.

B.9.9 There are a total of 45 wood records, consisting of ten items classed as roundwood, 33 as timber and two items classed as timber debris. No artefacts or smaller pieces of primary woodworking debris, such as woodchips, were recovered. The assemblage consists entirely of larger material recovered from the base of wells, either associated with the use or disuse of the features.

Methodology

B.9.10 This document has been produced in accordance with Historic England guidelines for the treatment of waterlogged wood (Brunning 2010) and recommendations made by the Society of Museum Archaeologists (1993) for the retention of waterlogged wood.

B.9.11 Each discrete item was recorded individually using a pro forma ‘wood recording sheet’, based on the sheet developed by Fenland Archaeological Trust for the post-excavation recording of waterlogged wood.

B.9.12 Every effort was made to refit broken or fragmented items. However, due to the nature of the material, the possibility remains that some discrete yet broken items may have been processed as their constituent parts as opposed to as a whole.

B.9.13 The metric data were measured with hand tools including rulers and tapes. The tool marks were measured using a profile gauge.

B.9.14 The system of categorisation and interrogation developed by Taylor (1998, 2001) has been adopted within this report. Joints and fixings are described in accordance with the Museum of London archaeological site manual (Spence 1994).

B.9.15 Items identifiable to species by morphological traits visible with a hand lens – oak (Quercus sp.) and ash (Fraxinus excelsior) – were noted. Other items were sub-sampled to allow later identification to taxa via microscopic identification as necessary.

B.9.16 The taxonomic identifications were carried out by Lisa Gray. Slides were made of the transverse, radial longitudinal and transverse longitudinal sections using techniques based on those given in Hather (2000: 12-19). These were examined using a compound microscope with magnification ranging from 4x to 100x. Diagnostic features were noted and identifications were made using a wood atlas (Schoch et al. 2004 and Hather 2002) and modern reference material. Identifications were made to species were diagnostic features were clear in all three sections and given possible identifications (e.g. cf. Quercus sp.) where diagnostic features were not clear. Nomenclature follows Stace (2010). Two taxa are represented:

- Quercus sp. - oak
- Alnus glutinosa / incana - alder

B.9.17 The condition scale developed by the Humber Wetlands Project (Van de Noort et. al. 1995: table 15.1) will be used throughout this report (Table 34). The condition scale is based primarily on the clarity of surface data. Material is allocated a score dependent on the types of analyses that can be carried out, given the state of preservation. The condition score reflects the possibility of a given type of analysis but does not take into account the suitability of the item for a given process.

Condition score	Museum conservation	Technology analysis	Woodland management	Dendrochronology	Species Identification
5 excellent	+	+	+	+	+
4 good	-	+	+	+	+
3 moderate	-	+/-	+	+	+
2 poor	-	+/-	+/-	+/-	+
1 very poor	-	-	-	-	+/-
0 non-viable	-	-	-	-	-

Table 34: Timber condition scale

B.9.18 If preservation varies within a discrete item, the section that is best preserved is considered when assigning the item a condition score. Items that were set vertically in the ground often display relatively better preservation lower down and relatively poorer preservation higher up.

Condition score	Frequency	% of assemblage
5 excellent	0	0
4 good	1	2

3 moderate	38	84
2 poor	6	13
1 very poor	0	0
0 non-viable	0	0
total	*45*	100

Table 35: Condition of timbers

B.9.19 Using the above condition scale (Table 34) the material all scores a 2, 3 or 4, describing an assemblage in poor to good condition (Table 35).

B.9.20 Material that scores 2 will be suitable for species identification. The form of the item will probably be visible, and it may be possible to see some woodworking evidence. The conversion may be apparent, but it is unlikely that clear tool faceting will be visible.

B.9.21 Material that scores 3 will have a clearly visible primary conversion and some tool facets are likely to be visible.

B.9.22 Material that scores 4 will have all the relevant surface data clearly visible. The primary conversion, tool facets and tool marks / signatures will all be visible if present.

Results

*Well **229**, context 611*

B.9.23 Well **229** was 2.2m in diameter and 1.6m deep. The base of this feature was retained by a 1.5m square, timber lining. This consisted of a single course of timbers laid on edge, retained by four driven stakes: one at each corner. The retaining timbers and one stake were recovered (Table 36). With the exception of the items discarded on site, they have all been identified as oak. The material is in poor to moderate condition.

B.9.24 The retaining timbers are a mixture of tangential and radially aligned timbers, two of which have been cut at the ends at 45 degrees. No evidence of tooling survives. The timbers are somewhat degraded with evidence of wet rot and water wear, which is to be expected of items recovered from the base of a well. Timbers Sf 393 (Appendix B.9 Figure 1) & 396 (Appendix B.9 Figure 2) – the two items with ends cut at 45 degrees – both show evidence of brown rot. Often referred to as dry rot, this is unlikely to have occurred in the wet environment of a well (Coggins 1980) and strongly suggests the items have been re-used.

B.9.25 The retaining stake (Sf 406) is a radial quarter split that has been trimmed at the bottom end from two directions to a tapered point.

B.9.26 The presence of an extra timber on the east side suggests at least a second course of timbers may originally have been present, which have subsequently degraded.

B.9.27 This type of construction is known as a corner-post well, with the boards simply wedged in place behind the retaining stakes with no evidence that the corners have been in any way braced, jointed or nailed. This form necessitates construction *in-situ* and rules out the possibility of any pre-fabrication of the lining.

B.9.28 Three of the timbers had been sourced from medium to large trees, which is relatively unusual. The presence of brown rot provides evidence that at least two of the timbers have been re-purposed, suggesting the lining may have been constructed of material that was to hand, as opposed to items that had been specifically sourced for the construction.

*Well **419**, context 605*

B.9.29 A single item, Sf 392, was recovered from this context. This piece of oak heartwood is classed as timber debris and is in moderate condition. It is tangentially faced and has a possible halving lap. The author has not seen this item and cannot confirm this interpretation. The item measures 38 x 60 x 20mm.

B.9.30 It seems likely that this item represents waste material, discarded in the well after it has gone out of use.

*Well **422***

B.9.31 Well **422** had a diameter of 7m and was 2.3m deep. A total of 36 items were recovered from the base of this feature. Two items are assigned to the backfill (612) and eleven items assigned to the 'roundwood' working platform (619). The six items assigned to 'beams' (620) and 17 items assigned to 'planks' (621) are likely to represent a collapsed timber lining of the well. The presence of what appear to be internal retaining stakes / posts suggests that this lining was of the 'corner-post' type construction.

Backfill 612

B.9.32 Two items were recovered from the backfill of this feature.

Sf 415: Roundwood, condition 3, trimmed at one end from two directions to a point. Measuring 450 x 100mm. This item may have originally been utilised as a stake before being discarded in the backfill of the well.

Sf 436: Oak, tree trunk, condition 2, both ends degraded, evidence of wet rot. This item is radially aligned but may well have degraded into this shape. Measures 1000 x 170mm.

B.9.33 It seems likely that these items represents waste material, discarded in the well after it has gone out of use.

'Roundwood' 619

B.9.34 Eleven items are assigned to this group, which lay above the collapsed well lining (620 & 621). Wood items Sf 434 and Sf 435 are presented as Appendix B.9 Figure 3.

B.9.35 The material appears to form an ad-hoc working platform in the base of the well, formed from a series of 'sleepers' supporting perpendicular 'rails', supported by two associated stakes (Table 37). Six items were submitted for taxonomic identification, all of which were identified as alder.

B.9.36 The material is all in moderate to good condition. With the exception of two items (Sf. 398 – radially cleft and Sf 400 – tangentially cleft) the material is formed of robust roundwood, much of which still has the bark surface intact. With the exception of the split items, woodworking evidence is limited to trimmed ends and side branches. Where visible, the tool facets are relatively large and flat, as would be expected from the iron axes of the period (Sands 1997).

'Beams' 620

B.9.37 The six items assigned to this group are thought to have provided cross bracing for a subsequently collapsed wooden shuttering supporting the sides of the well (Table 38). Wood items Sf 426 and Sf 428 are presented as Appendix B.9 Figure 4.

B.9.38 The items are all formed of moderate to good quality oak heartwood and are in moderate condition with no evidence of the original tooling remaining. A variety of joints are present including tenons, mortice holes and sub-circular holes, several with the

original pegs still in place. Wet rot is present on several of the timbers and is assumed to have occurred during the timbers time in the wet environment of the well. The presence of brown rot suggests the timbers originally had a different function in a drier environment (Coggins 1980). The size, joints and fixings and taphonomy all point towards the timbers original use in an above ground structure, probably a timber framed building. The presence of charring on one face of Sf 428 suggests the use life of this building may have terminated in a fire.

'Planks' 621

B.9.39 The timbers assigned to this group are thought to represent collapsed shuttering for the well. They are in poor to moderate condition and several show evidence of wet rot (Table 39).

B.9.40 The majority of the items (11: Sf 399 (Appendix B.9 Figure 5), 401, 405, 408, 410, 411, 420, 422, 431, 432, & 438) are radially cleft heartwood planks. With the exception of the items discarded on site, they have all been identified as oak. This relatively uniform group of material has all had the sapwood removed (although no evidence of tooling remains) and, where the original ends survive, they have been cross cut. In the one case where tooling was visible, it was clear that this had been carried out with an edged tool.

B.9.41 Two items (Sf 423 & 433) are radial quarter splits and two items (Sf 419 & 421 (Appendix B.9 Figure 7)) are tangentially aligned. The latter has a series of diagonal marks that may be saw marks. However, the author has not seen this item and so cannot be certain of this interpretation.

B.9.42 Sf 418 is a large section of limb that has been trimmed to length at both ends.

B.9.43 Large, oak, radially converted timber Sf 429 is of some interest. Not only is it derived from an extremely large tree, with a diameter in excess of 800mm, but is also displays clear evidence for brown rot and charring. This suggests it may have originally formed part of the same building(s) the timbers assigned to 'beams' (620) are derived from.

B.9.44 Sf 399 is similar in appearance and conversion to Sf 429 and is also of interest due to the large tree it is derived from, with an original diameter in excess of 600mm.

*Well **489**, backfill 602*

B.9.45 Two items were recovered from the backfill (602) of well **489**.

B.9.46 Sf 385 Oak timber formed of sapwood and heartwood, in moderate condition. Radially aligned, displays evidence of wet rot. Measures 650 x 167 x 165mm.

B.9.47 Sf 386 Stake classed as timber debris, formed of heartwood and in moderate condition. Radially aligned and measuring 210 x 50 x 45mm.

B.9.48 It seems likely that these items represent waste material, discarded in the well after it has gone out of use.

Sf no.	Species	Notes	Bark / Sapwood / Heartwood	Condition Score	Wood Working	Conversion	Function	Length (mm)	Breadth (mm)	Thickness (mm)	Original Diameter
393	Oak	Both ends and inner edge degraded. Brown rot, Wet rot / water wear	H	2	1 end TR 1 dir at 45 degrees. No visible tooling.	Rad	West side of well frame	1403	253	35	>506
394	Oak	Both ends and all surfaces heavily degraded and also wet rot.	H	2		Rad	East side of well frame	750	100	40	>200
395			SH	3		Tan outer	East side of well frame	1500	170	60	
396	Oak	Both ends degraded. Water worn. Brown rot.	H	3	1 end TR 1 dir at 45 degrees. No visible tooling.	Rad	North side of well frame	850	150	25	>300
397		Fragmented	H	2		Tan	South side of well frame	1230	200	20	
406	Oak	Top end degraded	SH	3	1 end TR 2 dir to tapered point	Rad 1/4	Stake	490	85	50	c.100

*Table 36: Timbers recovered from well **229***

Sf no.	Type	Taxa	Notes	Bark / Sapwood / Heartwood	Condition Score	Wood Working	Function	Length (mm)	Breadth (mm)	Thickness (mm)
398	TIM			H	3	Tan – Square cross section	Rail	863	62	65
400	TIM			H	3	Rad	Rail	750	120	50
402	RW	alder		SH	3	1 end TR to point	Rail	1500	100	100
407	RW	alder	1 end broken. Wet rot	SH	3	1 end TR from 1 direction. No visible tooling	Sleeper	1190	110	90
409	RW			BSH	3		Sleeper	1000	100	100
412	RW	alder		BSH	4	1 end TR 2 dir to point. Max facet length 66mm	Sleeper	720	111	111
414	RW		Mod knots present	BSH	3		Rail	1750	220	130
417	RW			BSH	3	Both ends TR 1 dir	Stake	1350	100	100
427	RW	alder	Fragmented	BSH	3	Both ends and 1 SB TR 1 dir	Rail	1110	70	70
434	RW	alder	1 end degraded	BSH	3	1 end TR 2 dir to point. 1 SB TR 1 dir	Rail	860	90	90
435	RW	alder	Top end degraded	BSH	3	1 end TR all dir to point. Flat facets, max length 94mm	Stake	980	80	80

Table 37: Material assigned to working platform 'roundwood' 619

Sf no.	Notes	Bark / Sapwood / Heartwood	Condition Score	Wood Working	Conversion	Length (mm)	Breadth (mm)	Thickness (mm)	Original Diameter
416	Wet rot	H	3	1 end cross cut, one end TR from 1 dir	Rad 1/4	1280	200	60	>400
424	Wet rot and beetle attack	H	3	Both ends terminate in bare faced tenons. Sub-circular hole with roundwood peg 70 x 40mm	Tan	780	290	30	>290
425	Both ends degraded, wet rot	H	3	Chamfered edges	Tan	620	340	75	>340
426	Both ends degraded, wet rot and beetle attack	H	3	Sub-square blind mortice measuring 80 x 80mm	Tan	2050	330	170	>330
428	Wet rot, brown rot and wood worm attack. 1 end broken and degraded. Charring to part of 1 face with c.15mm of material charred away.	H	3	Shouldered tenon at one end. Small oblique sub-square mortice adjacent to tenon. Birds mouth lap on one edge	Tan	2150	320	90	
430	Radial drying cracks. Beetle attack on one face: circular holes c.6mm diameter	H	3	Both ends cross cut, sapwood removed, no visible tooling. 1 x sub-rectangular ?nail hole. 5 x circular holes along length, 1 contains RW peg and 1 contains oak heartwood dowel	Tan	1500	150	20	

Table 38: Oak timbers assigned to 'beams' 620

Sf no.	Species	Notes	Bark / Sapwood / Heartwood	Condition Score	Wood Working	Conversion	Length (mm)	Breadth (mm)	Thickness (mm)	Original Diameter
399	oak	Degraded surfaces. 1 end broken	H	3	1 end cross cut, sapwood removed, no visible tooling	Rad	730	300	90	>600
401	oak	Both ends broken. Degraded surfaces, wet rot	H	3	Sapwood removed, no visible tooling	Rad	630	110	20	>220
405			H	3		Rad	1110	130	30	>260
408		Degraded	H	2		Rad	530	110	20	>220
410		Degraded	H	3		Rad	1200	150	40	>300
411		Degraded	H	2		Rad	700	190	80	>380
418	oak	Curved limb	SH	3	Distal end TR 1 dir. Proximal end TR and SN from 2 dir. 1 x SB TR 1 dir.		1380	120	110	
419	oak	Wet rot and brown rot.	H	3	1 end TR 1 dir. 1 end cross cut.	Tan	440	120	20	
420	oak	Both ends degraded	H	3	Sapwood removed, no visible tooling	Rad	420	90	20	>180
421	oak	Both ends degraded, wet rot	SH	3	Diagonal marks. ?saw marks	Tan	790	130	10	
422	oak	One end degraded. Fast grown	H	3	1 end cross cut, sapwood removed, no visible tooling	Rad	480	120	45	>240
423	oak	Radial drying cracks. Moderate growth	H	3	1 end cross cut, 1 end trimmed 1 dir. Broad flat facets, max w: 70mm	Partially boxed rad 1/4	400	170	45	
429	oak	Degraded surfaces, wet rot and brown rot. Charring to part of one face c. 1m from end, 20mm of material charred away with small protection mark	H	3	Both ends cross cut, sapwood removed, no visible tooling	Rad	2060	400	90	>800

Sf no.	Species	Notes	Bark / Sapwood / Heartwood	Condition Score	Wood Working	Conversion	Length (mm)	Breadth (mm)	Thickness (mm)	Original Diameter
431	oak	1 end degraded and broken. 1 face moderate wet rot.	H	3	1 end cross cut with edged tool. Sapwood removed, no visible tooling	Rad	1390	130	20	>260
432	oak	1 end broken, slight wet rot.	H	3	1 end cross cut, sapwood removed, no visible tooling	Rad	1570	140	20	>280
433	oak	Degraded surfaces and wet rot	BSH	3	Both ends cross cut and knot removed, no visible tooling	Rad 1/4	1750	140	70	>280
438	oak	Both ends and surfaces degraded. Wet rot to 1 face	H	2		Rad	1220	150	70	>300

Table 39: Timbers assigned to 'planks' 621

Discussion

Woodworking technology

B.9.49 The material displays a range of basic primary conversions, including radially cleft planks, radial quarter splits and tangentially faced items. There is a tendency throughout the timber assemblage for sapwood removal, although there is no evidence of tooling to describe if this was hewn or split away. There is also a strong tendency within the timber assemblage for cross cut ends. In the single case where evidence of tooling has survived (Sf 431), this was achieved with an edged tool – probably an axe. However, cross cutting items with an axe is very labour intensive and it is possible that some items were sawn. A single item (Sf 421) shows possible evidence of sawing. The lack of surviving evidence for tooling is to be expected, given the generally moderate level of preservation. Where tool facets have survived, they are relatively broad and flat, as would be expected of the period (Sands 1997).

B.9.50 The carpentry present, in the form of mortise holes and tenons is typical of the period. The presence of round, pegged holes, is somewhat unusual from the Romano-British period, but is not unknown. The joints and fixings recorded from the timbers of the well linings all seems to relate to previous use of the items, probably in timber framed buildings.

B.9.51 Although much of the recorded taphonomy – including wet rot and water wear – is related to the items use in the base of wet features, there are other processes – such as brown rot and charring – that most probably relate to the items previous function in above ground timber built structures.

Woodland reconstruction and species identification

B.9.52 The material utilised is generally of moderate to good quality, with straight grained items dominating and only occasional knots and other defects noted. The timber assemblage is dominated by oak and the few items that have not been identified as such are those that were discarded on site before being seen by a wood specialist. It seems likely that many of these items were also oak.

B.9.53 The exception to this are the elements of platform 619 which seems to be formed exclusively of alder.

B.9.54 The size of some of the raw material being split down for use in the timber assemblage is of note, with several unusually large oak trees with diameters around or in excess of 400mm being split down for use. One item (Sf 429) is derived from a tree with a diameter in excess of 800mm. Evidence for trees of this is unusual within any archaeological wood assemblage.

B.9.55 Oak grows in stands and mixed woodland and will also tolerate damp soils. As such, it is likely to have been growing in the vicinity of the site. Oak occurs ubiquitously throughout the prehistoric and historic period as an excellent hard wearing structural timber that has incredibly wide ranging uses, including in wet environments such as well linings and revetments. It is an easily worked timber that can be split readily in both planes (Wilson and White 1986; Gale and Cutler 2000). Oak is the timber of choice for lining Wells in Roman Britain (Blair *et al*. 2006, Wilmott 1982).

B.9.56 Alder generally grows in damp areas, often close to running water, either in damp woodland mixed with oak, or in marshland mixed with other species to form alder carr (Gale and Cutler 2000), and may well have been growing in the vicinity of the site. Although it does not split particularly easily, it is recognised as surviving well in wet

environments, making it an ideal choice for use in a structures associated with wet use (Gale and Cutler 2000).

Roman wooden well linings

B.9.57 Timber Roman well linings are well represented in the archaeological record. There is evidence from Romano-British urban centres in England for major investment in centralised water management systems. Excavations in the city of London represent the largest single corpus of Roman wells and water management systems excavated in the UK to date.

B.9.58 Much of London's water was probably provided by the streams and rivers of the area, and to some extent rainwater collection (Blair *et al.* 2006). However recent excavations have provided evidence that an area near Cheapside Baths seems to have been dedicated to centralised civic water supply. Five deep, timber, box-framed wells or cisterns serviced by bucket chain water lifting systems, were in use from AD63 to the mid 2nd century (Blair *et al.* 2006). There is also limited evidence for both wood and ceramic water pipes (Blair *et al*. 2006). Operating alongside these major water management systems were hundreds of small, private, timber lined wells, (Blair *et al.* 2006), similar to those considered herein.

B.9.59 A synthesis of evidence for well construction in London in the 1st and 2nd Century AD reports that barrel, corner-post (un-jointed timber planks or boards retained by internal posts) and box-frame wells (similar to corner-post wells but with the timbers jointed at the corners) are all represented, with the techniques occasionally used in conjunction with one another (Wilmott 1982). There is some evidence of change through time with barrel lined wells becoming less common after the 2nd century and box-framed wells becoming increasingly complex, with earlier examples generally having half-lapped or rebated corners (often braced) and later examples generally having more complex bridled or square dovetail joints, with and without bracing. However, it is suggested that throughout the Romano-British period both within London and throughout the country, it is the simple, corner-post well that remains the most common type of construction (Wilmott 1982).

B.9.60 Looking further afield the 2nd to 3rd century well at Skeldergate, York incorporated corner-post construction (for the bottom four courses, above which it was of box-frame construction)(Carver et al. 1978) as did two 1st century wells from Colchester (Hawkes and Hull 1947), an example from Wickford, Essex (Rodwell 1975) and one from Scole, Norfolk (Rogerson 1977).

B.9.61 The corner-post construction of the timber well linings recorded from this site is very much in keeping with Romano-British well building in the 1st and 2nd centuries AD, being closely similar to well structures excavated in major and minor urban centres as well as from rural contexts.

Re-used timbers

Maggie-Henderson and Michael Bamforth

B.9.62 Several of the timbers have evidence for re-use in terms of the presence of brown rot or charring. Several of the timbers also show evidence of distinctive joints or fixings. This discussion aims to provide possible interpretations regarding the original function(s) of the items.

B.9.63 Brown rot is unlikely to have occurred in the saturated environment of a well (Coggins 1980), leading to the inference that any timbers with evidence for this form of taphonomy originally formed part of an above ground structure.

B.9.64 Similarly, the presence of charring is also inferred to point to re-use as neither of the well linings show evidence for *in-situ* burning.

B.9.65 Although little is known of the above ground structure of Romano-British roundhouses, there are numerous reconstructions of Bronze and Iron Age roundhouses (cf. Flag Fen, Butser Ancient Farm, Ancient Technology Centre, Townsend 2007) and several collapsed Bronze Age roundhouses have recently been excavated at Must Farm in Cambridgeshire (Symonds 2016, Bamforth and Robinson-Zeki In Prep). Although Townsend (2007) has argued that many reconstructions may be overly simplistic, the Must Farm examples fit this model, the only evidence for joints or fixings coming in the form of rough, loose fitting mortise joints. The timbers they connect are all in the round or half split. As such, it is suggested that the majority of the timbers considered in this report, and certainly those included in the re-use section due to the complexity of the extant joints and fixings, are unlikely to have originally formed elements of roundhouses.

*Well **229***

B.9.66 Two timbers from well **229** (Sf 393 and Sf 396) show taphonomic evidence for re-use in the form of brown rot.

B.9.67 These two thin, radially split, oak boards are broadly similar to one another in appearance and conversion, both have ends cut at 45 degrees and both are split from large, mature trees (Table 37).

B.9.68 Based on their appearance and conversion, it is tentatively suggested that they may originally have formed plank walling / weather boards of a timber framed building.

*Well **422***

Diagnostic timbers

B.9.69 There are seven timbers with diagnostic joints or fixings present in the assemblage recovered from this feature.

B.9.70 Timbers Sf 426 and Sf 428 appear to be primary structural members, both timbers are approximately 2m in length with rectangular sections, consistent with studs or posts found within Romano-British buildings. Timber Sf 428 also has brown rot and charring.

B.9.71 The tenon of timber Sf 428 with a nail hole adjacent suggests that this was part of a frame. The opposite, pointed end of this timber may indicate that it had been vertically set, perhaps one end going into the ground and the other into a plate. It is important to note the lack of peg-hole associated with the tenon as this is very much consistent with Romano-British building technology whereby nails were used alone or in conjunction with joints to fix members rather than timber pegs (Goodburn 1995). The birds mouth lap cut into the edge of the timber may have accommodated the end of a raking shore/brace, or horizontal batten.

B.9.72 The tapering end of timber Sf 426 suggests that it had been a vertical post. there is a lack of nail holes or other fixing evidence other than a shallow sub-square blind mortise measuring 80 x 80mm, possibly where a horizontal lath/batten or rod end terminated.

B.9.73 Three other timbers with possible diagnostic features are present, of these two (Sf 399 and Sf 429) have wedge-shaped sections that may be consistent with weather-board type cladding, either horizontally or vertically set. Both timbers are wide at c.300 mm and 360 mm respectively. Timber Sf 429 appears to have further shaped sections that might be consistent with feeding the timber into a groove to create a panel. This timber displays clear evidence for brown rot and charring, both on the same face. The charring

occurs approximately 1m from the end of the timber where c.20mm of material has been charred away around a small protection mark, possibly where the item has been in contact with another timber. Both items are also of note both for their large size and the extremely large trees they are derived from (Table 39).

B.9.74 Two timbers have peg holes. Timber Sf 430 (Appendix B.9 Figure 7) bears a series of peg and nail holes. The peg-hole is indicated by an *in situ* peg. Sf 424 also has a sub-circular hole with a roundwood peg measuring 70 x 40mm and a bare face tenon at each end. The presence of pegs is unusual as, for the most part, Romano-British buildings tended to have their members nailed in place (Goodburn 1995; Allen and Kenward 2016). Although likely to be structural, the function (and origin) of these timbers is unclear.

Non-diagnostic timbers

B.9.75 The remaining timbers from this feature are non-diagnostic. Where it is possible that they may represent re-used building timbers possible original functions have been suggested based on the timbers size and form.

B.9.76 The remaining timbers appear to fall into three broad categories. This includes eleven that are comparatively narrow in width and plank-like in section (Sf 401, Sf 405, Sf 408, Sf 410, Sf 419, Sf 420, Sf 421, Sf 422, Sf 423, Sf 431 and Sf 432). The timbers are in lengths ranging from 400 - 1570 mm x 90 – 170 mm x 10 – 45 mm: these timbers may represent staves intended to support wall panel in-fill. The lack of diagnostic features such as nail holes or shaped ends does, however, limit interpretation and it must also be considered that some of these, perhaps those at the upper end of the width range, could have been cask staves (No. 1 Poultry, London, produced items interpreted as staves 1960mm x 170mm x 35 mm thick (Goodburn 2000)).

B.9.77 Three slightly more robust timbers (Sf 411, Sf 416 and Sf 438) may represent studs or posts due to their greater thickness. The timbers range from 700 – 1280mm x 150 – 200mm x 60 – 80mm: the timbers may represent further frame components, posts, studs or indeed plates although once again the lack of further diagnostic features prohibits identifying their intended function.

B.9.78 One further timber (Sf 425) is board-like in character measuring 620 x 340 x 75mm. This timber may represent plank-walling of a similar form to that found in-situ during the recent Walbrook excavations, London. The plank walls at Walbrook were in short sections of ‘thick horizontal timber planking’ supported on a frame, with re-used planks and off-cuts identified (Walbroook Discovery Project).

Summary

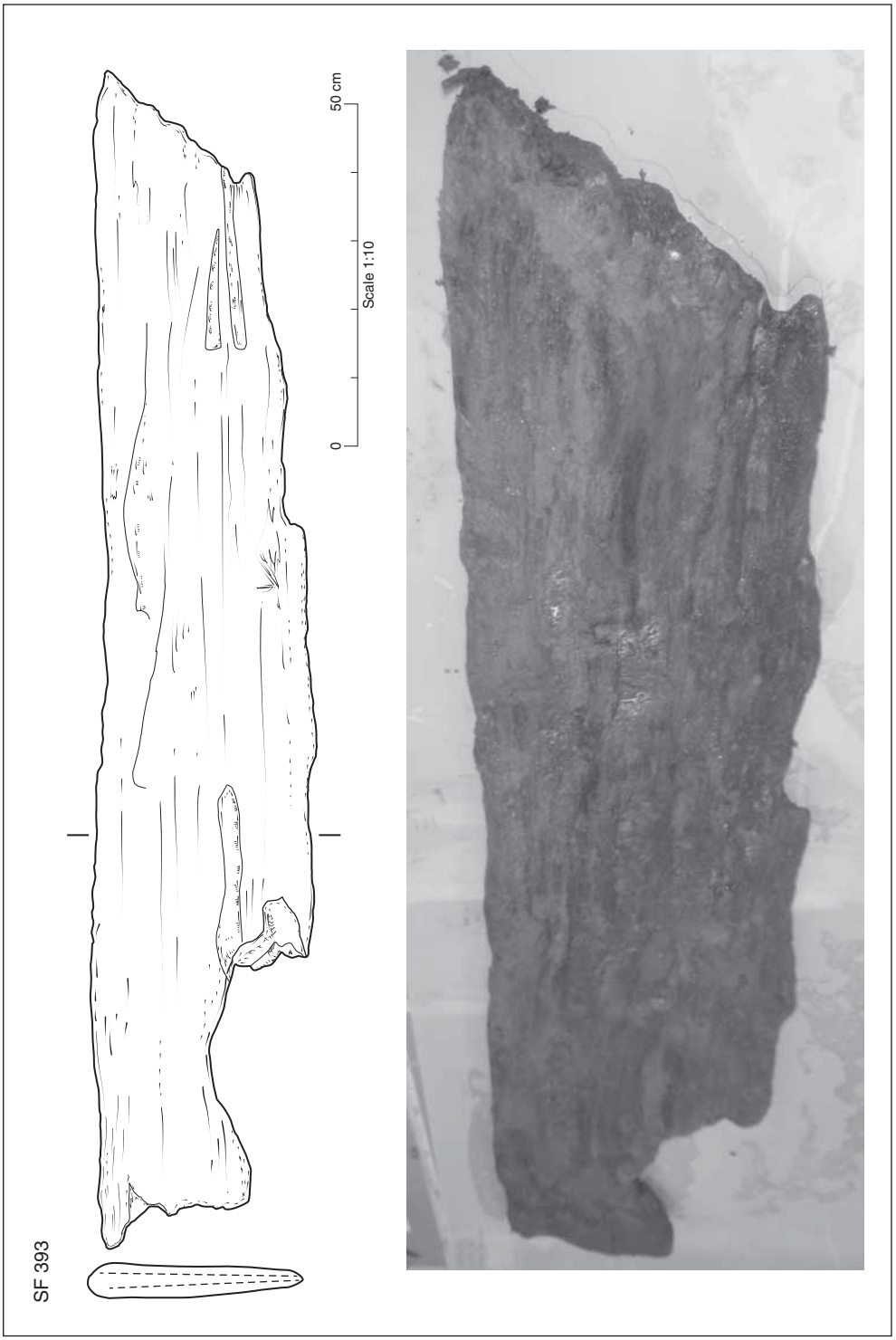
B.9.79 The lack of diagnostic features on many of the timbers precludes firm identification in terms of their original functions. However, the size ranges allow the timbers to be broadly grouped and ascribed possible functions, the groups comprising primary members such as posts and studs, supports such as staves or lesser studs and plank-like wall cladding. It is suggested that the timbers are structural and that they may have originated within a timber-framed building.

B.9.80 The diagnostic timbers with tenons lacking peg-hole evidence, tapered ends, square section nail-holes and possible notches and sockets are more clearly consistent with building material, the dimensions of the diagnostic timbers assist in assigning those lacking such features to the categories outlined above. The lack of peg-holes within the diagnostic timbers are very much consistent with Roman building technology: the two anomalies being Sf 424 and Sf 430.

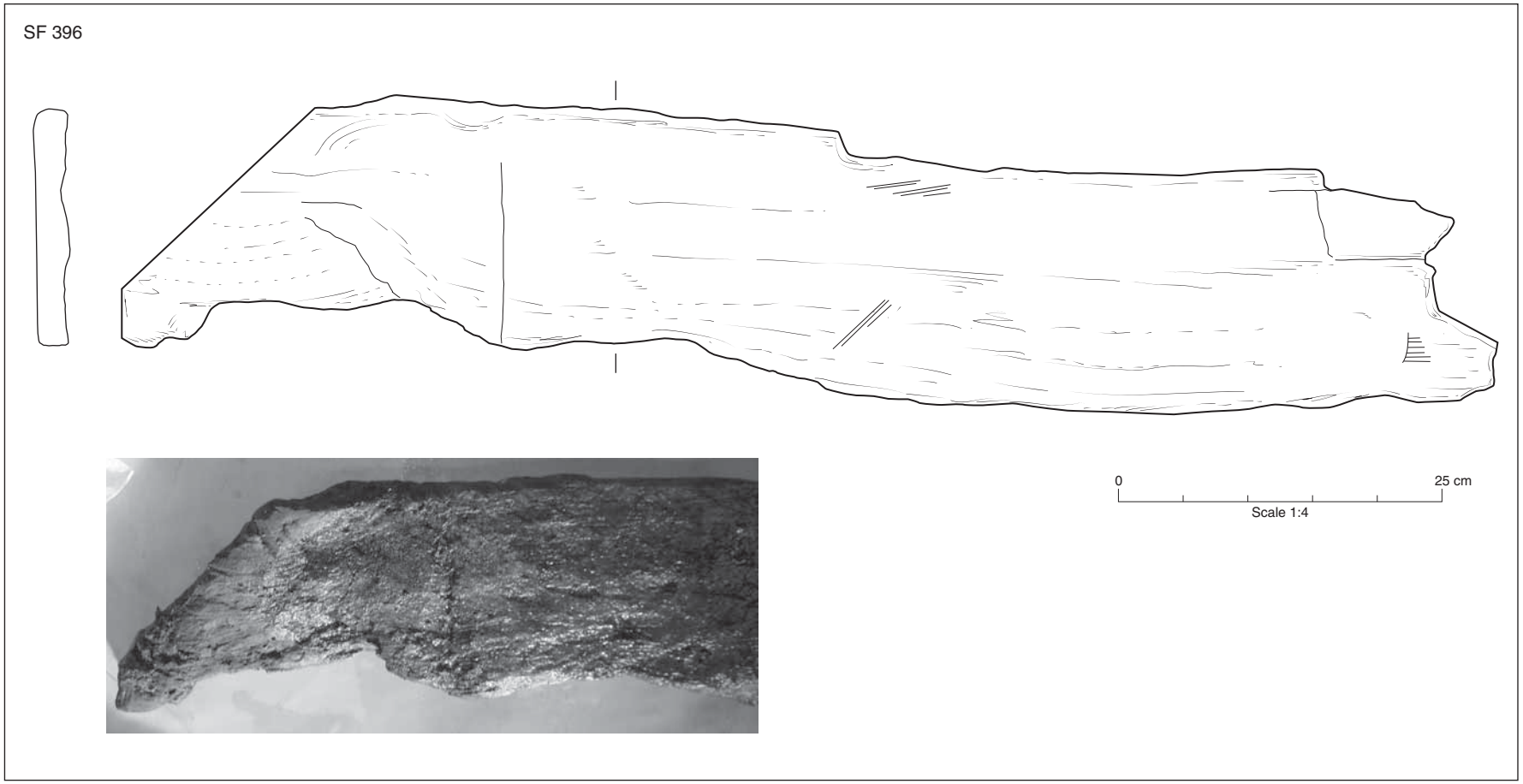
B.9.81 The presence of charring on possible building timbers Sf 428 and Sf 429 raises the possibility that the building(s) the timbers are derived from may have been damaged or destroyed by fire.

Conclusion

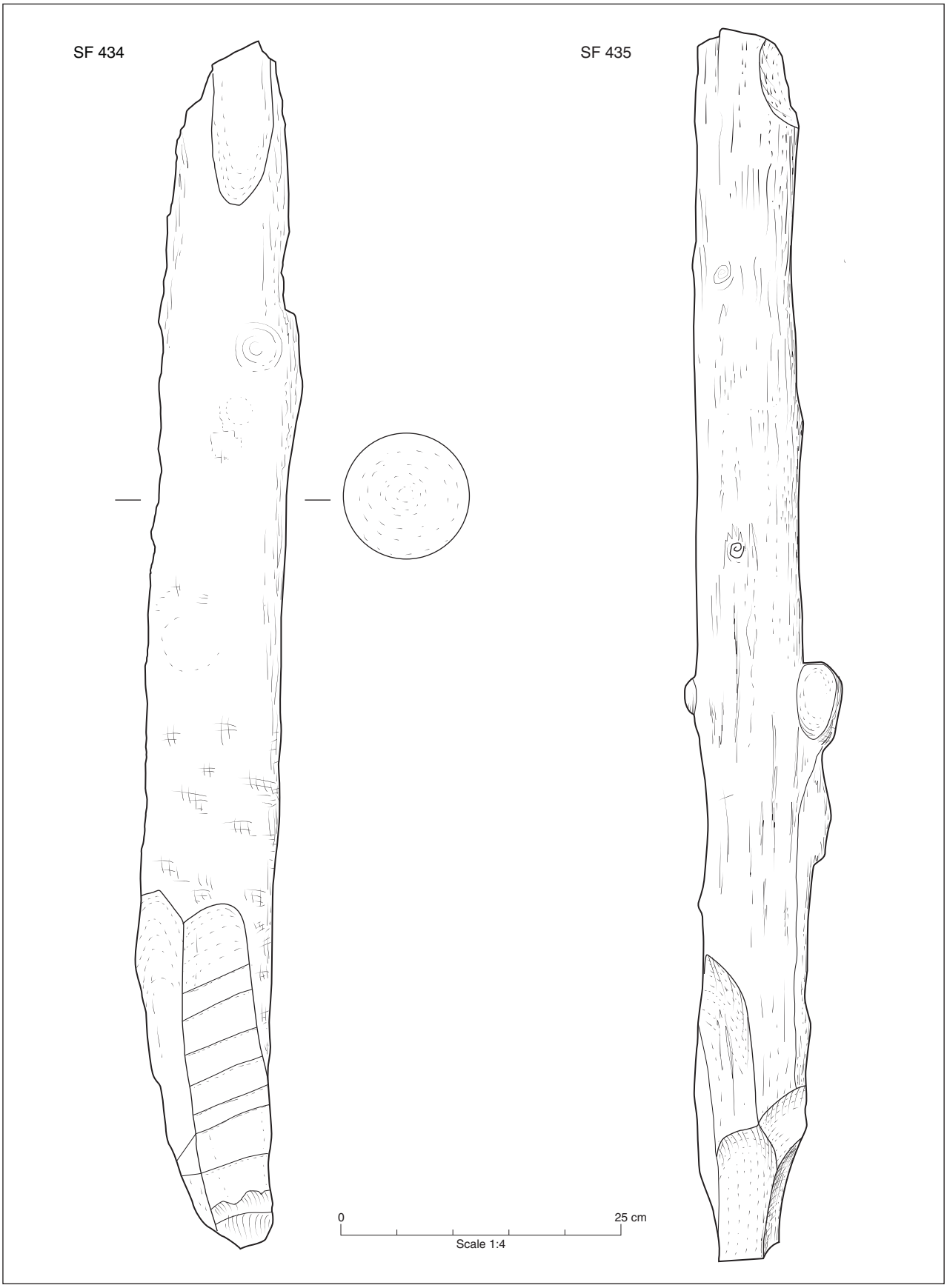
B.9.82 The oak, corner-post, timber lined wells are typical of examples seen across Roman Britain in the 1st and 2nd century AD in major and minor urban centres and rural settings. The linings of both wells contained timbers likely to represent re-used building material derived from timber framed buildings. Elements identified include possible studs, posts, wall staves and weather-boards / wall planks. The presence of charring on two of the timbers suggests that the building(s) the timbers are derived from may have been damaged or partially destroyed by fire.



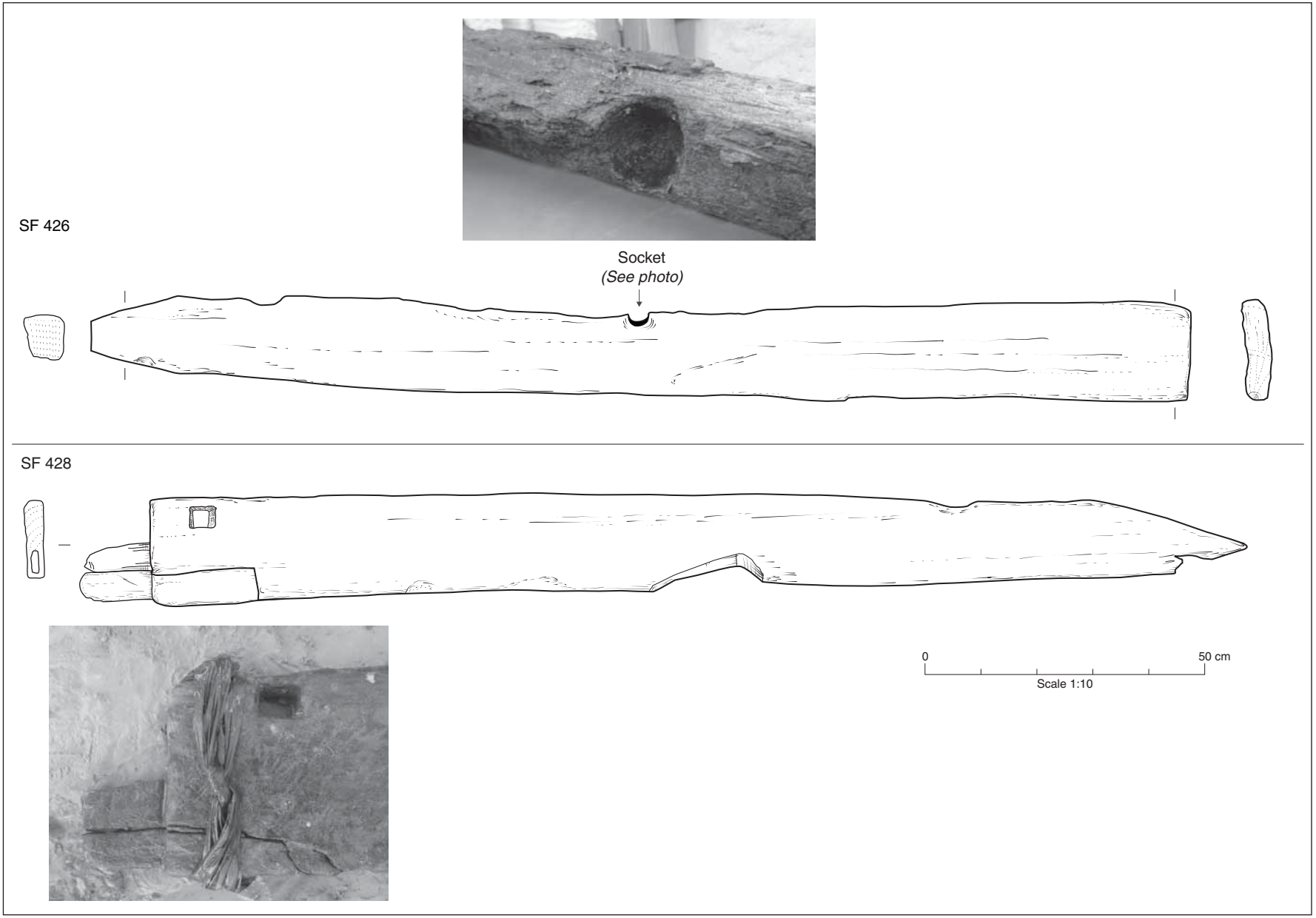
Appendix B.9 Figure 1: Wood item Sf 393, part of 611 in Period 2.2 well ***229***



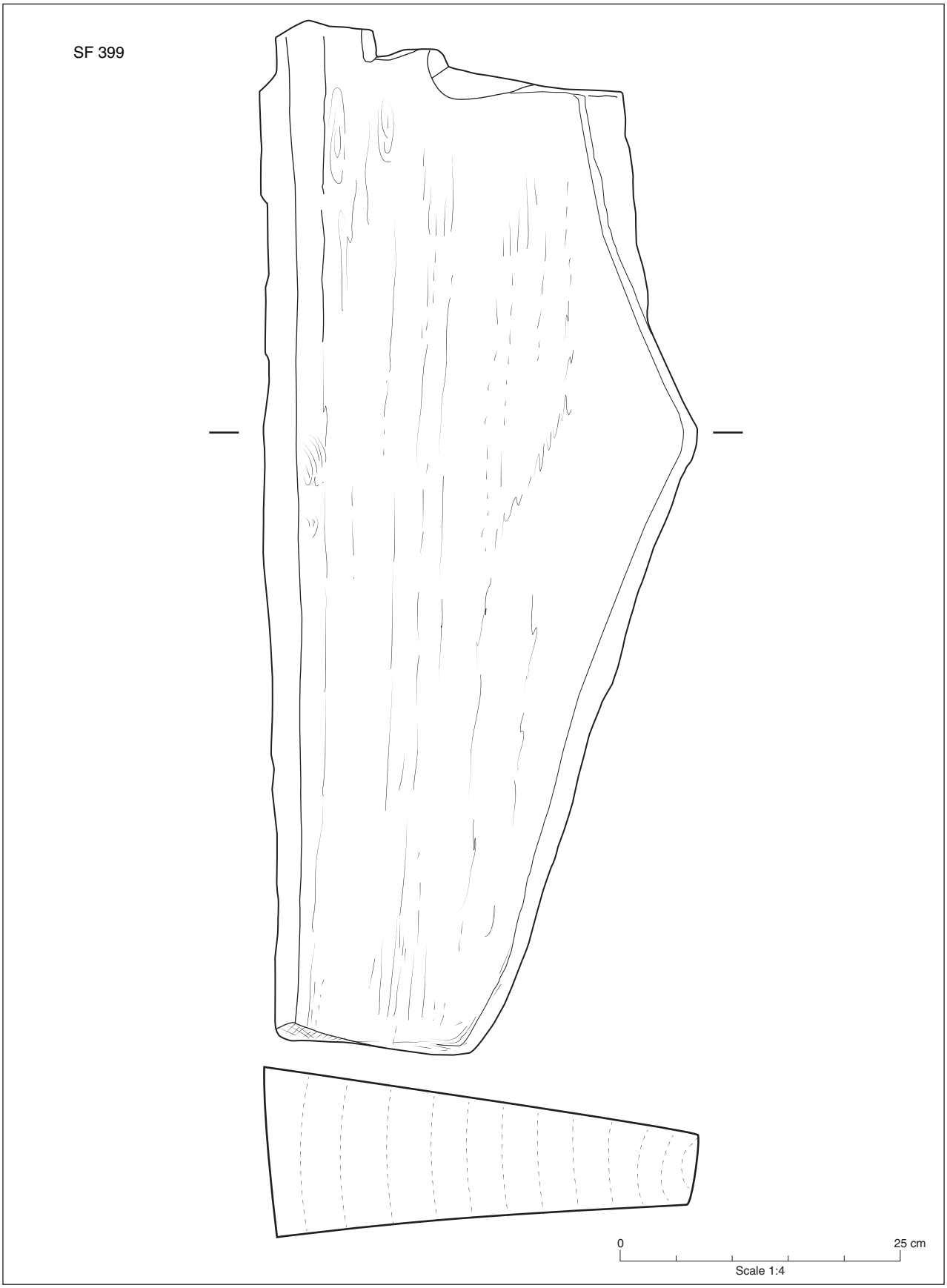
Appendix B.9 Figure 2: Wood item Sf 396, part of 611 in Period 2.2 well ***229***



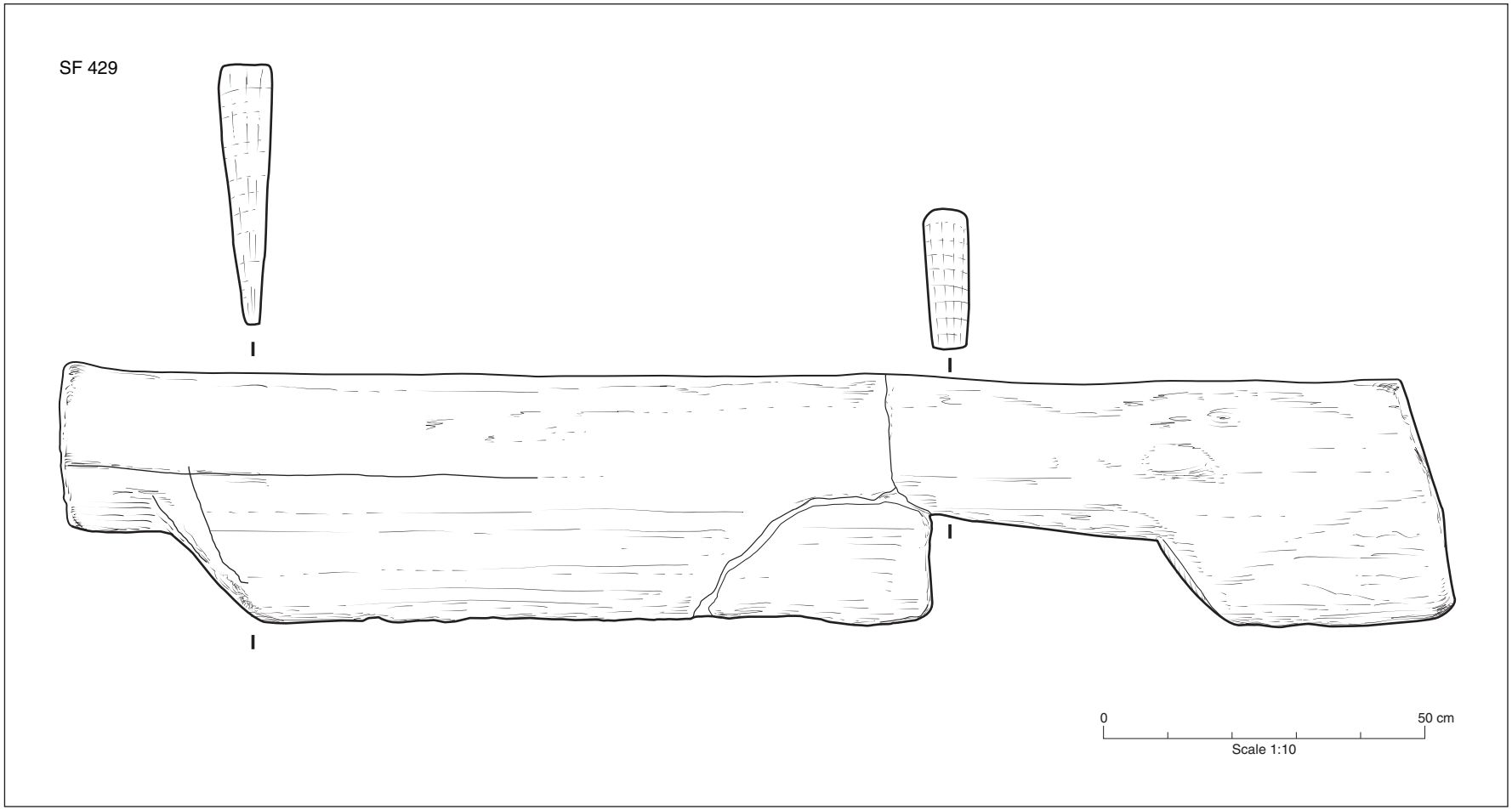
Appendix B.9 Figure 3: Wood items Sf 434 and Sf 435, part of timber group 619 in Period 2.2 well ***422***



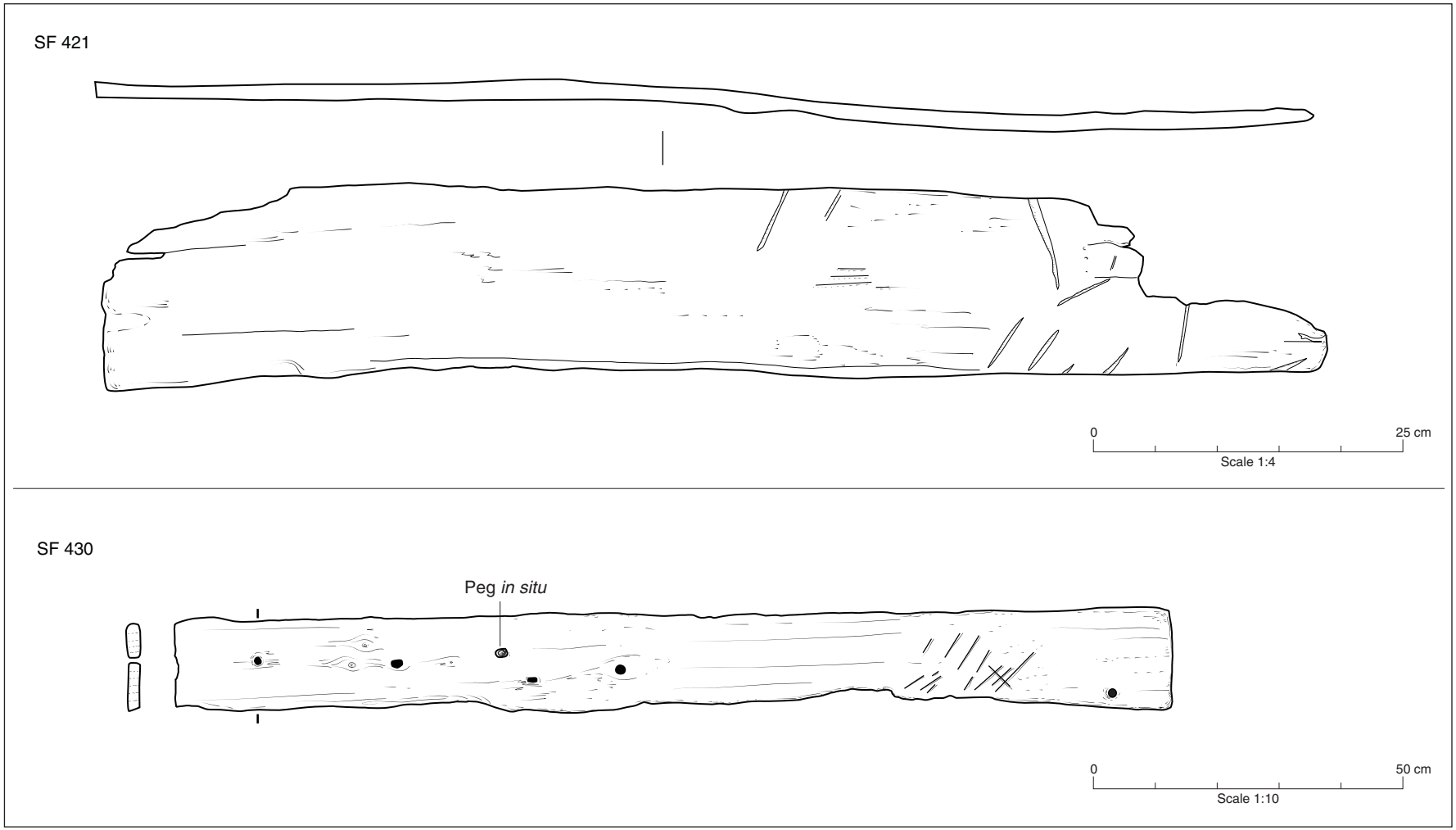
Appendix B.9 Figure 4: Wood items Sf 426 and Sf 428, part of timber group 620 in Period 2.2 well ***422***



*Appendix B.9 Figure 5: Wood item Sf 399, part of timber group 621 in Period 2.2 well **422***



Appendix B.9 Figure 6: Wood item Sf 429, part of timber group 621 in Perid 2.2 well ***422***



Appendix B.9 Figure 7: Wood items Sf 421 and Sf 430, part of timber group 621 in Period 2.2 well ***422***

Appendix C. Environmental Reports

C.1 Faunal Remains

By Ian R. Smith

Introduction

C.1.1 A small assemblage of cattle, horse sheep/goat and pig bones were recovered from Roman dated contexts comprising pits, post holes, ditches and sediments overlying a palaeochannel. There is relatively little zooarchaeological information from most rural and military Roman dated sites in this region (Going and Plouviez 2000, 21) and so the elucidation of even small data sets is valuable.

Aims

C.1.2 The aim was to investigate whether a contribution could be made to the local and site specific research objectives through analysis of the faunal remains. One aim was to establish if it was possible to determine whether the area was a largely self-sufficient farming community or whether it was producing a surplus of meat or secondary animal products for local population centres.

Methods

C.1.3 Identifications were undertaken with the aid of modern comparative specimens and with the aid of Halstead and Collins (1995) and Eisenmann (1986). Minimum numbers of individuals (MNI) estimates were based on diagnostic zones of Dobney and Reilly (1988). Most of the small shaft fragments or of spongy bone remain unidentified although refitting of adjoining fragments suggests that many of these fragments are parts of specimens which do appear in the tables. Equus specimens are referred to as horse although for most individual anatomical elements donkey or mule cannot be excluded.

Assemblage overview and dating

C.1.4 Approximately nine litres by volume (2611 grams) of bone was recovered from Roman dated features (Table 40). A sample of 99 specimens was recorded from Middle Roman contexts (Table 41).

Feature				ditch	Palaeochannel	pit	Post hole	Grand Total (g)
Cxt.	Cut	Group	Period					
195	269	Palaeo-channel	1		169			169
203	204	Wells	2.2			0.5		0.5
237	229	Wells	2.2			5		5
258	247	Str. 2	2.2				0.5	0.5
320	319	Pits	2.2			0.5		0.5
336	335	Pits	2.2			154		154
347	359	Str. 3	2.2				14	14
350	362	Str. 3	2.2				11	11
369	370	Pits	2.2			124		124
392	391	Str. 3	2.2				11	11
411	412	Ditch 4	2.1	14				14

Feature				ditch	Palaeochannel	pit	Post hole	Grand Total (g)
Cxt.	Cut	Group	Period					
440	441	Pits	2.2			49		49
446	445	Pits	2.2			6		6
501	494	Pits	2.2			39		39
541	524	Pits	2.2			2		2
544	524	Pits	2.2			67		67
552	550	Pits	2.2			16		16
566	565	Pits	2.2			1908		1908
567	565	Pits	2.2			21		21
603	489	Wells	2.2			8		8
609	419	Wells	2.2			1		1
610	450	Wells	2.2			3		3
612	422	Wells	2.2			663		663
613	229	Wells	2.2			4		4
614	415	Wells	2.2			12		12
616	229	Wells	2.2			1		1
Grand Total				**14**	**169**	**3084**	**36.5**	**2611.5**

Table 40: Weight of bone by context, period, feature type (grammes)

Provenance	ditch	palaeo-channel	pit	posthole	Grand Total
cattle		**3**	**16**	**1**	**20**
horncore				1	1
skull			2		2
tooth			2		2
scapula			1		1
radius			1		1
pelvis			3		3
femur			1		1
phalanx1			1		1
tooth		1			1
rib		1			1
humerus		1	2		3
metacarpal			1		1
astragalus			2		2
pig		**2**	**1**		**3**
incisor		1			1
scapula		1			1
metaodial			1		1
Sheep/goat			**2**		**2**
mandible			1		1

Provenance	ditch	palaeo-channel	pit	posthole	Grand Total
ulna			1		1
horse	**1**	**2**	**42**		**45**
mxM1			2		2
mxM2			2		2
mxM3			2		2
mxP4			2		2
mdM1			2		2
mdM2			2		2
mdM3			2		2
mdP2			1		1
mdP3			2		2
mdP4			2		2
tooth	1	1	3		5
pelvis			3		3
sacrum			1		1
femur			7		7
tibia			3		3
astragalus			1		1
calcaneus			3		3
metatarsal			2		2
phalanx3		1			1
large mammal		**1**	**16**	**1**	**18**
vertebra			1	1	2
vertebra lumbar			2		2
tibia			2		2
long bone		1	2		3
skull			5		5
tooth			1		1
rib			3		3
medium mammal		**1**	**3**		**4**
long bone		1	3		4
med or lge mammal				**1**	**1**
tooth				1	1
Grand Total	**1**	**9**	**51**	**1**	**62**

Table 41: Provenance by feature type/species/anatomical element

Key: mxM1=maxillary first molar; mxP4=maxillary fourth premolar; mdM1= mandibular first molar; mdP2= mandibular second premolar

context	Cut	Group	type	element	species	side	Bd	BFd	GH	LmT	M3	AGE
501	494	Pits	pit	metacarpal	cattle	R		50.1				
566	565	Pits	pit	astragalus	horse	L		54	c62	60.8		
336	335	Pits	pit	metapodial	pig	indet	20.4	18.7				
336	335	Pits	pit	mandible	sheep/g	L					10G	3-4yrs

Table 42: Measurements (von den Driesch 1976) and tooth wear (Payne 1973)

Key: indet=indeterminate; M3=mandibular 3rd molar; 10G=Payne (1973) tooth wear stage; "BFd" in pig metapodial (third or fourth) was taken on the distal articular surface in the same axis as "Bd" of von den Driesch (1976).

Bone preservation

C.1.5 Feature and water table depth and the complex nature of the Lowestoft formation were undoubtedly key factors with regard to bone preservation. Nearly all of the bone was recovered from silty sand and sand fills and preservation is mainly poor but with considerable variation approximating to the weathering stages 2 to 5 (Lyman 1994, 355). However the state of most bone surfaces suggests most of this bone was probably not subject to extensive sub-aerial weathering prior to burial. Recent breakages occur at 42% amongst the horse bones (Table 44) and this is undoubtedly a reflection of the relatively fragile and light state of much of the assemblage. Bone might be expected to survive relatively well in clay or silty anoxic microenvironments in deep features (such as wells) and amongst rich organic fills (such as cess pits). Poor bone survival and a fragile and light state might be expected with repeated wetting and drying in fast draining sands and gravels above the water table. Whilst the Lowestoft formation is characterised by chalky till, and the presence of calcium is good for bone preservation (Behrensmeyer 1991, 311), in addition it comprises outwash gravels, sands, silts and clays with varying degrees of permeability. (http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html, accessed 6th October 2015).

Preservation states	1	2	3	4	5	Grand Total
ditch fills					1	1
contexts over the palaeochannel		1	1	1	7	10
pit fills	1	26	21	10	10	68
posthole fills		1	1		1	3
Grand Total	**1**	**28**	**23**	**11**	**19**	**82**

Table 43: Preservation states

Key: Stage 1= excellent, 2=good, little surface damage, 3=moderate, 4=poor, light in weight, 5=very poor, highly fragmented

Provenance and quantification

C.1.6 By weight 92% of the bone came from mainly well stratified and clearly defined pits, with a further 6% from the shallow, finds rich, tertiary deposits over the palaeochannel (Table 41). Based on the zones of Dobney and Reilly (1988) there are only one each (MNI=1) of cattle, pig, sheep/goat and horse. Consideration of the left and right paired

whole horse teeth also indicates the presence of a single horse. The presence of some additional heavily fragmented teeth from ditch context 411 (**412**) of Period 2.1 Ditch 4 and a Period 2.2 sand (195) overlying the palaeochannel **269** does not change this conclusion. The latter could in theory either suggest the possibility of additional individuals or alternatively these specimens could relate to the horse deposited in Period 2.2 pit **550** (556) since five teeth are missing from the tooth rows recovered from that context.

C.1.7 The cattle bones include skull fragments including a paramastoid process from Period 2.2 well **335** (fill 336), heavily fragmented maxillary teeth from Period 2.2 pit **524** (fill 544) but also some postcranial parts including a scapula, radius and pelvic fragments.

Butchery

C.1.8 Bone surface preservation is relatively poor in many cases (Table 43) and this and recent fragmentation may have obscured much butchery evidence. The sample of bones with clear evidence for butchery is small (Table 44) but some features amongst the cattle bone are consistent with the intensive chopping seen in many Roman dated assemblages. From Period 2.2 pit **370** (fill 369) there is a cattle pelvic fragment which has evidence for chopping on the edge of the acetabulum and through the ischium. Some evidence for the chopping of cattle ribs into sections is seen in Period 2.2 well **335** (fill 336). A cattle metacarpal from Period 2.2 pit **494** (fill 501) is transverse hacked approximately in the manner of Lauwerier (1988, 201) probably to extract marrow.

Tapho-nomy	total	gnawed	gnawed %	chop marks	chopped %	recent	recent %
cattle	7			2	29	3	43
astragalus						1	
humerus						2	
metacarpal				1			
rib				1			
horse	42					17	40
calcaneus						2	
femur						5	
metatarsal						2	
pelvis						3	
phalanx3						1	
sacrum						1	
tibia						3	
large	7					8	88
long bone						3	
tibia						2	
vertebra						1	
vert lumbar						2	
medium	2					2	100
long bone						2	
pig	2					1	50
scapula						1	
cattle	13	1	8	2	15	5	38

Tapho-nomy	total	gnawed	gnawed %	chop marks	chopped %	recent	recent %
astragalus						1	
femur						1	
pelvis		1		2		1	
phalanx1						1	
scapula						1	
horse	3	1	33			1	33
calcaneus		1				1	
large	8			1	13	2	25
rib				1			
unid						1	
vertebra						1	
pig	1					1	100
metapodial						1	
Grand Total		**2**		**5**		**40**	

Table 44: Taphonomic evidence recorded by phase/species

Key: gnawed=carnivore gnawed; recent=recent damage; medium=sheep sized mammal; large=cattle sized mammal

Horse

C.1.9 A group of horse (Equus sp) skull, mandible and hind limb parts were recovered from the dark lower fill of Period 2.2 pit **565** (fill 566) and they form the largest group of bones from the site (Table 40).

C.1.10 The paired maxillary and mandibular teeth and non-replication amongst the post-cranial parts suggest that it is likely that all of the horse bones came from a single animal. The pit was 1.3m wide and 0.3m deep and so apparently not deep enough to dispose (and cover) a reasonably large animal unless there was later truncation or recutting. Found in association with a cattle astragalus and pot sherds, the context (566) was originally interpreted as relating to refuse disposal (and later it was suggested that this might be a secondary use). The lower fill does not appear to be ordinary refuse however. The presence of parts of the head, vertebrae and limbs suggests that much of a horse was buried here.

C.1.11 Amongst the horse mandibular teeth there is a complete tooth-row from the left hand side (second premolar to third molar) and the majority of the right hand side (third premolar to third molar). The mandibular teeth bear a number of features which are suggestive of horse and not donkey. The dental patterns amongst the mandibular teeth include “U” shaped lingual (or internal) sulci in each case amongst P3 P4 M1 and M2 (n=8). In donkey it would be expected that these should be slightly more “V” shaped (Eisenmann 1986 figs 21, 25). Again amongst the mandibular teeth, the ectoflexid is deeper than is typical amongst E. asinus specimens. Amongst the eight recovered maxillary teeth, the protocone appears relatively elongated, and particularly towards posterior, as should be expected amongst horses (and in contrast to the expected pattern amongst donkeys). It must be admitted that these conclusions are tentative since there is much intraspecific variation amongst Equus species and hybrids (Eisenmann 1986, 75).

C.1.12 This horse is estimated to have been between about 3 and 3.5 years old when it died since the distal femur and proximal tibia are fused and yet the proximal femur is still unfused (Silver 1969). There are no complete long bones from which one might estimate withers height.

C.1.13 Many of the horse bones are incomplete and this limits the conclusions that can be drawn. However, measurements of the astragalus indicate that this was a relatively large animal as compared to most measured specimens readily available to the author and from a range of Roman and Medieval sites. Although there is some damage to the ventral/medial part of the trochlea, the distal articular surface (BFd) is completely unaffected and each of the measurements (BFd, LmT and GH are large compared to all other specimens from Roman and Medieval contexts). The LmT is 60.8 which was compared to specimens from the Roman sites examined here and supports the large size suggested by GH x BFd. This specimen was recovered with the associated horse bones and pot sherds from the lower fill of pit **565** and appears to be securely stratified.

Conclusions

C.1.14 The sample of cattle, sheep and pig is unfortunately too small on which to base a reconstruction of animal husbandry practices. However, it appears probable that whole carcases of cattle (and possibly of sheep and pig although the evidence is insubstantial) were butchered here. Although the sample is small, the nature of some of the chop marks amongst the cattle remains is reminiscent of widespread Roman dated butchery practices. The varied state of the bones and teeth clearly reflects differential but generally poor survival amongst the various feature types. It is probable that the assemblage as a whole is heavily biased by taphonomic processes.

C.2 Shell

By Alexandra Scard

Introduction & Methods

C.2.1 A total of 0.782kg of marine shell was recovered from three contexts (Table 46).

Species	Common name	Habitat	Total weight (Kg)	Total number of contexts
Ostrea edulis	Oyster	Estuarine and shallow coastal water	0.782	3

Table 45: Overview of identified, quantified shell

C.2.2 This assemblage is the result of shell collected by hand on site.

C.2.3 Only shell apices were counted in order to obtain the minimum number of individuals (MNI) present for each species, noting that each individual originally had two apices. *Ostrea edulis* (oysters) have a defined left and right valve. The left is oval and more concave in shape and displays radiating ribs on the outer surface. The right is generally more flat and lacks the formerly described ribs, though concentric growth rings are often visible (Winder 2011, 11). To obtain the MNI for oyster shell, the number of left and right valves were counted. The largest number was then taken as the MNI. All bivalve shells were unhinged. Apices were noted in all contexts, along with the number of left and right oyster valves. The left and right valves were not observed to be matching in any of the contexts.

C.2.4 In order to obtain the average size of shell per species, the length of each shell from its apex to the outer edge has been measured, the average measurement per context and species has then been recorded. Size is significant with regards to shell, as it can be telling of the age of each species upon harvest. Using oysters as an example, if the oyster shell is found to be of uniform size it would suggest that they were harvested at the same, rather particular time. The larger the oysters, the longer they have been left before harvesting. Smaller oysters might suggest a greater need for food and perhaps a period of bad harvest.

C.2.5 Details of interest, for example man-made damage such as 'shucking': the process of prising open the oyster for consumption, or evidence of parasitic activity, such as polychaete worm infestation (PWI), have also been noted.

Results

C.2.6 A table of quantification can be seen below (Table 46). All features containing shell date to the Early-Middle Roman period (1st-2nd century), a time when oyster was consumed frequently.

Con-text	Cut	Feature Group	Period	Weight (kg)	MNI	Oyster left valve (kg and quantity)	Oyster right valve (kg and quantity)	Average size (cm)	Comments
195	195	Palaeo-channel	1	0.033	1	-	0.033/1	8.4	
369	370	Pits	2.2	0.738	41	0.471/41	0.229/18	7.2	Clear evidence of shucking. Preservation not great: very flakey. No clear evidence of PWI, but evidence for bore-holes.
501	494	Pits	2.2	0.011	2	-	0.011/2	5.1	Poor preservation.

Table 46: Quantified oyster shell

C.2.7 Oyster shell is the only species present. Preservation of shell within the assemblage is noticeably poor. The geology of the site was noted to be made up of acidic soils, affecting the preservation of animal bone in particular. The acidity of the soil has undoubtedly had an impact on the oyster shell, with it being visibly ‘flakey’ and fragile to touch.

C.2.8 The average size of oyster shell varies somewhat, however, is still notably large, with the smallest shell in the assemblage measuring just over 5cm, the largest measuring nearly 8.5cm.

C.2.9 Shucking is evident throughout the assemblage. The presence of 'bore-holes' have been noted in one valve. Aside from this, no prominent evidence for PWI, nor any other man-made or taphonomic damage, has been noted during the assessment.

Discussion

C.2.10 As established above, oyster shell accounts for 100% of the assemblage on site. This is unsurprising for a site of Roman date, as oyster was a popular staple within the diet, more so than any other shellfish.

C.2.11 Two of the three contexts containing shell were the fills of pits containing Roman pottery, ceramic building material (CBM) and animal bone. The animal bone is likely to have been preserved in the pits due the oyster shell increasing the pH of the soil to a state where it would be less acidic.

C.2.12 Given the finds within the pits and the close proximity to other features (for example, pit **370** was adjacent to Structure 3, it is plausible that pits **370** and **494** were middens, containing waste and debris, in this case from shell fish consumption amongst other activities. Context 195 was the uppermost layer of deposition over an old palaeochannel or water-course. The low quantity of shell retrieved and nature of this feature suggests that the oyster inclusions would have been unintentionally deposited.

C.2.13 The size of oyster shell recovered on site is of significance. With an average size of 6.9cm, the oysters would have been harvested at an older age, thus would have been larger and more enjoyable to eat. This 'good harvest' may suggest that the inhabitants of Wenhaston had both knowledge and tools for 'farming' and consuming oysters, again reiterating their popularity within the diet of the Roman period.

C.2.14 One of the oyster shells contains two small holes no more than 0.3cm in diameter. The nature of the shell itself and irregularity of the holes suggests that the marks are not man-made damage, *i.e.* for ornamentation, but, more likely, that the holes are 'bore-holes', the result of predatory marine gastropod molluscs, who use their tooth-bearing radula to bore into the shell of oysters and then suck the meat out from within (Winder 2011, 17 & 33). Younger molluscs are less able to fend off the attack, thus, the small size of the valve retrieved from fill 369 could be further evidence of such predators.

C.2.15 Throughout the assemblage, shucking is particularly prominent. Shucking is the process of prising open the oyster, usually with a knife, to reveal the meat inside for consumption. Such activity is known to leave a mark on oyster shell, varying from a small 'u-shaped' cut along the outer edge of the shell, to a longer, more obvious hole, usually found on the right valve. During the shucking process of oysters, the right valve is prised off and sometimes discarded separately to the left valve, which contains the meat. Equal numbers of left and right valves within an assemblage may suggest that the oysters were being prepared and eaten together. A total of 41 left valves and 21 right valves occur in this assemblage. The unequal ratio of left to right valves on site would imply that the oysters were being prepared in a different place to consumption. That being said, one must always remain open to the notion that poor preservation may have rendered such observations unreliable.

C.3 Environmental samples

By Rachel Fosberry

Introduction

C.3.1 Sixty-three bulk samples were taken from features within the site in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Features sampled are predominantly dated to the Middle Roman period and included a number of wells/watering holes and a possible oven/hearth.

Methodology

C.3.2 A single bucket (approximately ten 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 0.25mm 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. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and the results are presented in Table 47.

C.3.3 After an initial scan of the dried flots, further processing of the waterlogged samples was undertaken. Samples preserved by waterlogging should really be examined whilst still wet as drying will cause shrinkage of organic components making identification more difficult. Assessment of a dried sample can be performed extremely rapidly compared to the laborious process of looking at small aliquots of a wet-sample (in which the contents float about) and it is easier to examine a larger, dried sample in order to ascertain the presence/absence of ecofacts. It was considered to be the most practical method for this initial stage in order to ascertain whether further, more detailed analysis would be suitable. Information about past environments can be provided from contemporary waterlogged deposits which typically primarily consist of organic remains that have been preserved through anoxic conditions in which oxygen is absent and there is no or little bacterial decay. Preservation can be variable dependent on many factors including the plant species present and environmental conditions such as acidity. The types of remains preserved can include plants, molluscs and insects all of which can provide information on the local environment whereas pollen can be useful for wider paleoenvironmental reconstruction. Plants parts, in particular seeds, are often well preserved with the outer testa and cell-structure visible. The subsequent additional processing involved wet-sieving a 1L sub-sample of the sediment through a stack of sieves and examining each fraction whilst wet.

Quantification

C.3.1 For the purpose of this initial assessment, items such as seeds and artefacts have been scanned and recorded qualitatively according to the following categories

= 1-5, ## = 6-10, ### = 11-50, #### = 51+ specimens ##### = 100+ specimens

Items that cannot be easily quantified such as charcoal have been scored for abundance

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

Key to table ch =charred, w = waterlogged

Results

C.3.2 Preservation of plant remains is extremely poor with the majority of the samples producing small flot volumes and containing only sparse charcoal fragments. There is limited preservation of plant remains by waterlogging in the wells/watering holes with only occasional survival of some of the tougher seeds of plants such as bramble (*Rubus* sp.), elderberry (*Sambucus nigra*), stinging nettle (*Urtica dioica*) and hemlock (*Conium maculatum*). Sample 153, fill 600 of pit **204** contains numerous nettle seeds and occasional seeds of dead-nettle (*Lamium cf. maculatum*), goosfoots (*Chenopodium* sp.), hemlock, bramble and elderberry in the dried flot. The 1L sub-sample contains occasional nettle and goosefoot seeds. Sample 158, fill 160 of pit/well **450** produced waterlogged nettle seeds in both the dried and wet flot. Sample 163, fill 616 of pit 229 contains occasional seeds of nettles and bramble in addition to a few seeds water crowfoot (*Ranunculus* subgenus *batrachium*) which is an obligate aquatic plant indicating that the feature held water. The 1L sub-sample did not contain any seeds.

C.3.3 The fill (122) of hearth **119** with it's associated rake out (123) and post holes **131** and **133** are all rich in charcoal as evidence of the burning of wood and fill 134 of post hole **133** contains the only preserved seed from this site; a single charred specimen of black-bindweed (*Fallopia convolvulus*).

Sample No.	Context No.	Cut No.	Feature type	Sample Size (L)	Volume processed (L)	Flot volume	Weed Seeds	Charcoal <2mm	Charcoal > 2mm	Hammerscale:	Burnt animal bones	Large animal bones	Pottery	CBM	Fired clay	Metal Fe nails)
100	105	106	Ditch	20	9	1	0	+	0	0	0	0	0	0	0	0
101	141	142	Pit	20	9	1	0	+	0	0	0	0	0	##'	0	0
102	184	182	Pit	40	9	1	0	+	0	0	0	0	0	0	0	0
103	145	143	Post hole	10	8	1	0	0	0	0	0	0	0	0	0	0
104	151	149	Post hole	10	8	1	0	+	0	0	0	0	0	0	0	0
105	148	146	Post hole	10	9	1	0	+	0	0	0	0	#	#'	0	0
106	123	119	rake out	40	9	10	0	+++	+++	0	#	0	#	##	###	0
107	132	131	Post hole	40	8	10	0	+++	+++	0	#	0	0	0	####	##
108	134	133	Post hole	20	8	10	#(ch)	+++	+++	0	0	0	#	##	##	0
109	122	119	Hearth	40	8	25	0	+++	+++	0	0	0	0	0	####	0
110	197	196	Post hole	0.7	5	1	0	+	0	0	0	0	0	#	#	0
111	203	204	Pit	40	9	1	0	+	0	0	0	0	0	0	0	0
112	170	171	Pit	20	8	1	0	0	0	0	0	0	0	#	0	0
113	205	206	Pit	40	8	5	0	0	0	0	0	0	#	##	0	0
114	216	204	Watering hole	40	8	1	0	0	0	0	0	0	#	0	0	0
115	208	207	beam slot	10	7	1	0	0	0	0	0	0	#	#	0	0
116	217	219	Pit	40	9	10	0	+++	0	0	0	0	#	##	0	#
117	210	207	beam slot	10	8	1	0	+	0	0	0	0	0	0	0	0
118	212	207	beam slot	10	6	1	0	+	0	0	0	0	#	#	0	0
119	232	229	well	0			0	0	0	0	0	0	0	0	0	0
120	232	229	well	0			0	0	0	0	0	0	0	0	0	0
121	236	229	well	40	9	2	0	+	0	0	0	0	##	##	##	0
122	320	319	Pit	40	8	1	0	++	0	0	0	0	###	###	###	0
123	324	319	Pit	40	7	1	0	+	0	0	0	0	0	#	0	0
124	195	269	palaeochannel	40	8	1	0	+	0	0	0	##	###	##	0	#

Sample No.	Context No.	Cut No.	Feature type	Sample Size (L)	Volume processed (L)	Flot volume	Weed Seeds	Charcoal <2mm	Charcoal >2mm	Hammerscale:	Burnt animal bones	Large animal bones	Pottery	CBM	Fired clay	Metal Fe nails)
125	239	269	palaeo channel	40	8	1	0	+	0	0	0	0	0	#'	0	0
126	278	301	Post hole	10	8	1	0	+	0	0	0	0	0	0	0	0
127	275	298	Post hole	10	9	1	0	+	0	0	0	0	#	#	0	0
128	277	300	Post hole	10	9	1	0	+	+	+	0	0	0	#'	0	0
129	280	303	Post hole	10	8	1	0	+	0	0	0	0	0	0	#'	0
130	336	335	Pit	40	8	1	0	+	+	+	#	0	#	#	###	0
131	342	319	Pit	10	8	10	0	+	0	0	0	0	0	0	0	0
132	355	367	Post hole	10	7	1	0	0	0	0	#	0	#	0	#'	0
133	392	391	Post hole	20	8	1	0	+	0	++	#	##	#	0	0	0
134	394	393	Post hole	20	9	1	0	+	0	+	0	#	#	0	0	0
135	402	335	Pit	0.05	3	1	0	++	0	0	#	##	#	#	#	0
136	413	414	Ditch	40	10	1	0	++	0	0	##	0	##	0	###	0
137	440	441	Pit	40	8	1	0	0	0	0	0	0	#	0	##	0
138	446	445	Post hole	40	8	1	0	+	0	+	#	0	#	#	##	0
139	448	447	Ditch	40	7	1	0	+	0	0	0	0	0	0	0	0
140	451	450	Pit	40	8	1	0	0	0	0	0	0	##	0	#	0
141	454	453	Post hole	20	10	30	0	+++	+++	0	0	0	##	0	##	###
142	492	493	Pit	40	10	1	0	+	0	0	0	0	#	0	##'	0
143	512	510	Pit	40	9	1	0	+	0	+	0	0	#	##	#	0
144	516	515	Ditch	40	8	1	0	+	0	0	#	0	##	#	##	0
145	527	526	Pit	40	9	1	0	+	0	+	#	0	0	#'	#'	0
146	529	526	Pit	40	9	1	0	+	0	++	#	0	#	#	#	0
147	547	546	Pit	40	7	2	0	++	+	0	0	0	##	#	0	0
148	553	550	Pit	40	9	5	0	+++	++	0	#	###	###	#	##	0
149	566	565	Pit	40	9	5	0	++	++	+	##	#	##	##	#	#
150	586	489	Pit	40	10	1	0	+	0	+	0	0	#	0	0	0
151	420	419	Pit	40	8	1	0	+	0	0	0	0	0	#'	0	0
152	425	422	Pit	40	8	1	0	+	0	0	0	0	##	#	#	0
153	600	204	Pit	30	10	10	####w	+	++	0	0	0	0	0	0	0
154	601	574	Pit	30	9	1	0	+	+	0	0	0	0	0	0	0
155	602	489	Pit	30	10	1	0	+	+	0	0	0	##	0	0	0

Sample No.	Context No.	Cut No.	Feature type	Sample Size (L)	Volume processed (L)	Flot volume	Weed Seeds	Charcoal <2mm	Charcoal >2mm	Hammerscale:	Burnt animal bones	Large animal bones	Pottery	CBM	Fired clay	Metal Fe nails)
156	603	489	Pit	30	8	215	0	++++ +	++++	0	###	0	###	0	###	0
157	604	489	Pit	30	9	1	0	0	0	0	0	0	0	0	0	0
158	610	450	Pit	30	8	1	#w	+	0	0	#	0	#	0	0	0
159	609	419	Pit	30	8	1	0	+	+	0	#	#	#	0	0	0
160	613	229	Pit	30	8	1	0	+	++	0	0	0	0	0	0	0
161	614	415	Pit	30	8	2	0	+++	0	0	##	###	###	0	#	0
163	616	229	Pit	30	6	5	#w	+	+	0	0	#	#	0	0	0

Table 47: Environmental samples

Discussion

C.3.4 The environmental samples taken from the site do not contain carbonised plant remains other than charcoal and a single charred seed. It is unusual to not recover charred cereal grains or chaff from a Roman-period site of occupation and it can only be assumed that the acidic soil has affected preservation.

C.3.5 The level of preservation of plant remains by waterlogging in the deeper features is also poor and the samples have limited potential for the interpretation of the local environment other than a hint of disturbed ground with nettles, brambles and elderberry shrubs/trees.

C.4 Pollen

By Mairead Rutherford

Introduction

C.4.1 Following a rapid pollen assessment of two sub-samples from the basal fills of Period 2.1 watering-hole **415** and Period 2.2 well **229**, from the site, an additional five sub-samples from three other wells, were submitted for full analysis. All the sub-samples are from bulk samples, dated by pottery finds within the fills, to the Middle Roman period. It was hoped that palaeoenvironmental work may be able to contribute to an understanding of land-use at the site.

Methodology

C.4.2 Volumetric samples (1 ml) were taken from the sub-samples and prepared using a standard chemical procedure (method B of Berglund and Ralska-Jasiewiczowa, 1986). Pollen identification and nomenclature follows Moore et al 1991 with reference to a small type collection held by OA North. Plant nomenclature follows Stace (2010). Identification of non-pollen palynomorphs (NPP) follows van Geel (1978) and van Geel and Aptroot (2006). Non-pollen palynomorphs are prefixed by HdV (corresponding to their listing in the NPP catalogue in the Hugo de Vries laboratory, University of Amsterdam, The Netherlands).

C.4.3 Pollen counts of between 300-500 grains have been achieved for four of the sub-samples, but in the remaining three sub-samples, pollen was too poorly preserved for analysis to proceed. If deteriorated pollen (ie pollen grains that are broken, corroded,

concealed or crumpled) exceed 30% of the total count, then the reliability of the assemblage is doubtful, as counts will be biased in favour of the better preserved grains. Pollen was counted from equally spaced traverses across whole slides at a magnification of x400 (x1000 for critical examinations). The pollen data from all the sub-samples is presented in Table 49. In addition, where full counts were possible, the pollen data are presented as percentage diagrams using the computer programs TILIA and TGView (Grimm 1991-2012) (Appendix C.4 Figures 1 and 2). The percentage values are based on a total land pollen (TLP) sum that includes trees, shrubs, herbs and fern spores. Pollen of aquatic plants, non-pollen palynomorphs (NPP) and deteriorated grains, are expressed as percentages of TLP plus the respective sum to which they belong. Rare pollen types (single occurrences of taxa) are marked on the diagrams using a plus symbol. Counts for microscopic charcoal (as a percentage of TLP) are also shown on the pollen diagrams.

Previous work

C.4.4 The Suffolk Valleys River Project has revealed a relative lack of detailed palaeoenvironmental data for the Romano-British period in Suffolk (Hill *et al* 2008; Gearey *et al* 2016). Of the available data, it would appear that permanent woodland clearance in East Anglia, that was initiated in the Bronze Age continued into the Roman period, with as little as 10% arboreal pollen present in early Roman sedimentary archives (Scaife 1988). The clearance was primarily for agricultural purposes, with evidence from plant macrofossils for the production of cereals including spelt and emmer wheat, as well as barley, oats and rye (Going 2000). Of the pollen evidence that is available for the Romano-British period, questions remain concerning how wooded the landscape was at the time, and if, at the end of the Roman period, previously cultivated land regenerated as woodland in response to settlement abandonment. The palaeoenvironmental record that exists, for example, for sites at Hengrave, Ixworth and Beccles, is limited by poor radiocarbon chronologies (Hill et al 2008; Gearey *et al* 2016).

C.4.5 A pollen diagram from the Norfolk/Suffolk boundary at Scole, in the Waveney Valley, was interpreted to suggest that the Early Iron Age environment was broadly similar to that of the Late Bronze Age, with a pastoral landscape and expansion of arable agriculture in the Middle Iron Age (Wiltshire and Murphy 1999). After the Middle Iron Age, there was a brief re-expansion of woodland at Scole, and by the Late Iron Age / Early Roman period at this site, renewed major clearance associated with cultivation, was underway (*ibid*). At Diss Mere, Norfolk, disturbance is interpreted from a decrease in tree pollen during the Iron Age, with associated increase in pollen of grasses, sedges, mugworts, ribwort plantain and docks/sorrels. The decline in tree pollen and major expansion of herbs suggests widespread and extensive deforestation and, in the absence of cereal pollen, an increase in pastoral rather than arable agriculture, at this site (Peglar *et al* 1989).

C.4.6 A pollen diagram from Hockham Mere, Norfolk, was interpreted by Bennett (1983), to suggest woodland clearance during the Late Bronze Age/Early Iron Age, (2660±50 BP (Q-2223; 920-780 cal BC)), with significant cereal pollen in the later Iron Age. A reduction in arboreal pollen coincident with an increase in grasses, ruderal plant and in particular heather, was described during the Romano-British period. The development of heathland was dated at Hockham Mere to 1980±50BP (Q-2224; cal AD 110-150) and the expansion of heathland was interpreted as occurring as a result of soil deterioration following woodland clearance (*ibid*). Open conditions continued through to the Late Roman period, the pollen sequences suggesting long term stability in the environment and nature of land use between the Roman and early medieval periods, although a slight increase in trees at the start of the early medieval could be interpreted as evidence for tree management (Rippon *et al* 2015). At Hockham Mere, the 4th and 5th

centuries show continuity in open conditions, a reduction in all tree species, increase in herb taxa and an increase in cultivation, including of rye, hemp and flax (Bennett 1983). A similar pattern emerges from Staunch Meadow in Brandon (Norfolk) where, after a decline in agricultural intensity in the Roman period, there was an increase in arable cultivation and pasture (Rippon *et al* 2015).

Results

C.4.7 The data represent spot-samples, sub-sampled from bulk samples, rather than a continuous sequence through the feature fills. In only one feature, Period 2.2 well **229**, were sub-samples taken from successive fills. The precision which could have been obtained from close-spaced stratigraphic sampling, was therefore not possible. The following bulk samples were sub-sampled:

Feature	Sample Number	Context Number	Lithology
Period 2.2 Well 204	153	600	Dark medium brown sandy clay
Period 2.2 Well 450	158	610	Dark brown silt and coarse fine sand
Period 2.2 Well 422	152	425	Dark brown silty sand and coarse pebbles
Period 2.1 W-hole 415	161	614	Dark brown silt and sand
Period 2.2 Well 229	163	616	Dark grey silt, very sticky
Period 2.2 Well 229	160	613	Dark brown silt and sand
Period 2.2 Well 229	121	236	Dark brown silt, clay and sand

Table 48: Details of sub-samples processed for pollen

***Well 204** (600)*

C.4.1 *Description*: Pollen grains are preserved within the sample, which was assessed but not analysed, as the quantity of deteriorated grains was considered too high to permit a reliable interpretation. Nevertheless, some useful palaeoenvironmental information may be obtained from the assessment. The sample contained evidence for pollen of hazel-type (*Corylus avellana*-type), heather (*Calluna*) and alder (*Alnus*) as well as lower counts for pollen of birch (*Betula)*, pine (*Pinus*), oak (*Quercus*), willow (*Salix*), lime (*Tilia*) and ivy (*Hedera*). The herbs assemblage contained pollen of grasses (*Poaceae*) and dandelion-type (*Taraxacum*-type) as well as rare presence of pollen of ribwort plantain (*Plantago lanceolata*), mugworts (*Artemisia*) and knotgrass (*Polygonum aviculare*). Moderate amouants of microcharcoal were also recorded.

C.4.2 *Interpretation*: the pollen data suggest that hazel-type scrub was present within the palaeoenvironment, with possible development also of heather moorland. Alder trees probably occupied damp areas, perhaps near streams or rivers. There is evidence from the pollen for the existence of small areas of mixed deciduous woodland, comprising birch, lime, and oak. There is also evidence to support the presence of more open, grassy areas, supporting a poorly diverse herb assemblage. The pollen data from this deposit do not provide any clear evidence for either arable or pastoral farming.

***Well 450** (610)* (Appendix C.4 Figure 1)

C.4.3 *Description*: A rich but only moderately well preserved assemblage (up to 25% deteriorated grains) is recorded in the fill from this well. Pollen of trees/shrubs is recorded in equal measure to pollen of herbs and fern spores. The tree and shrub pollen assemblage is dominated by heather and hazel-type, with lower counts of pollen of alder, oak, lime and birch. Rare occurrences of pollen of elm (*Ulmus*), beech (*Fagus*), elder (*Sambucus*) and ivy are also recorded. A diverse herb assemblage is dominated

by pollen of docks/sorrels, including common sorrel (*Rumex acetosa*) and sheep's sorrel (*Rumex acetosella*), as well as abundant grasses (*Poaceae*), ribwort plantain and dandelion-type. Among the pollen of other herbs with lower occurrences are grains of common knapweed (*Centaurea nigra*), cornflower (*C. cyanus*), thistles (*Cirsium*-type), mugworts, buttercup-type (*Ranunculaceae*) and knotgrass. There are also occurrences of pollen of the carrot family (*Apiaceae*, a broad group including plants such as pignuts, burnet-saxifrages and fool's parsley), goosefoot family (*Amaranthaceae*, formerly *Chenopodiaceae*, comprising plants such as fat-hen, good king henry and many seeded goosefoot)), daisy family (*Asteraceae*, a large group comprising for example, sow-thistles, burdocks and oxeye daisies) and pinks family (*Caryophyllaceae*).

C.4.4 Fern spores are represented by polypody ferns (*Polypodium*-type), bracken (*Pteridium aquilinum*) and occasional monolete fern spores (*Pteropsida*). A single Sphagnum moss spore was recorded. Of interest is the presence of a fungal spore assemblage, including spores of *Sordaria* (HdV-55A/B), *Sporomiella* (HdV-113), *Chaetomium* (HdV-7A), *Podospora* (HdV-368) and *Arnium* (HdV-261).

C.4.5 *Interpretation*: The variety and abundance of tree and shrub pollen suggests the most commonly occurring pollen type is that of heather, closely followed by hazel-type. Such an abundance of heather pollen may suggest development of heather moorland at or very close to the site, or may have resulted from the collection of heather for uses such as animal feed or bedding/thatching (Dickson and Dickson 2000). The abundance of hazel-type pollen could suggest development of hazel-type scrub, for example, on rough ground or as an understorey plant in more wooded areas. The presence of mixed woodland stands is interpreted from the occurrences of pollen of oak, lime, beech and birch. The records of pollen of ivy and elder could derive from the woodland areas or from more open areas such as hedgerows. Damp alder woodlands were also present in the area. Polypody ferns are common as epiphytes on woodland trees, however, the presence of spores of bracken could be indicators of more open areas adjacent to woodland and these spores have also been described as indicator-species for grazed forest environments (Behre 1981). However, it may be that like heather, bracken was deliberately collected for use as animal fodder or for bedding/thatching. In addition, bracken is known as a positive pyrophyte, and in association with the large count for microscopic charcoal particles, could represent colonisation of the fern in areas opened up following burning (Innes 1999).

C.4.6 The pollen data provide compelling evidence for the presence of open, grassy areas, such as meadowland, suitable for grazing animals. High counts of pollen of ribwort plantain, a species linked to grazing intensity (Tipping 2002), in combination with pollen from a range of meadow plants, such as grasses, common sorrel, daisies, buttercup-types, thistles and dandelion-types, support this interpretation. Behre (1981) has documented common occurrence of pollen of ribwort plantain as an indicator of wet meadowland and pastures. These plants, and others, are also commonly found on rough ground, waste places and waysides, for example, mugworts and common knapweed (Stace 2010). Of interest is the occurrence of pollen of cornflower, commonly associated with arable cultivation (Behre 1981). In addition, pollen of sheep's sorrel is known from heathy open ground, short grassland and cultivated ground (Stace 2010). These weeds may have occurred as remnants of a former cultivated environment or could have been deposited in the well, as waste products.

C.4.7 Among the fungal spores identified, spores of *Sporomiella* represent obligate coprophilous fungi (van Geel 1978). These spores only occur in present day surface samples where grazing herbivores are locally abundant (Davis 1987). *Sordaria* species are commonly associated with coprophilous fungi such as *Sporomiella*, but they can live on decaying wood and other plant material, although the preferred substrate is dung

(van Geel 1986). *Podospora* and probably also *Arnium* are considered as reliable coprophilous indicators of herbivore dung, especially when in combination with taxa such as *Sporomiella* (van Geel *et al* 2003). *Chaetomium* species are cellulose-decomposing fungi, occurring on a variety of substrates, including plant remains, fibres, dung and also appear to be linked to archaeological sites where settlements may have provided substrates such as damp straw, clothing and leather (van Geel and Aptroot 2006).

Conclusion

C.4.8 The variety of herb pollen, particularly in association with the fungal spores assemblage, suggests that it was likely that pastoral agriculture was occurring at the site. This interpretation testifies to the usefulness of certain fungal spores, in combination with pollen analysis.

C.4.9 The presence of quite significant numbers of pollen of heather may support the natural expansion of acid moorland adjacent to the site, or could reflect heather been brought to the site for domestic use. The replacement of woodland by heather moorland is well documented in the pollen literature from the south-east of England. Pollen sequences from Hockham Mere, Norfolk, show development of heathland from cal AD 110-150 (1980±50BP; Q-2224), during the Romano-British period (Bennett 1983). The spread of heathland was interpreted as occurring as a result of soil deterioration following woodland clearance (Gearey *et al* 2016).

C.4.10 Stands of mixed woodlands existed, possibly locally, including the presence of beech and lime. Pollen grains of beech are heavy and rarely spread far from the tree canopy, suggesting beech may have been growing locally. Lime trees are insect pollinated and generally poorly represented in the pollen record. Lime blossom was an important part of herbal tea and mead during the Roman period and it is possible that trees such as these could have been planted within the urban area, possibly in gardens (Sidell *et al* 2000).

C.4.11 Weeds, such as cornflower, normally associated with an agrarian regime but not associated with cereal-type pollen in this spot-sample, may reflect a remnant cultivated vegetation, or perhaps an adjacent cultivated area or the pollen could have been transported to the site via animal movement or human activity.

C.4.12 Evidence for damp areas is supported from the commonly recorded pollen of alder, a tree indicative of damp woodland vegetation (Stace 2010).

Well 422 *(425)*

C.4.13 Pollen grains are preserved within the sample, but the quantity of grains of dandelion-type relative to the other taxa, is too high to permit a reliable interpretation. The dominance of dandelion-type pollen may be representative of preferential preservation of robust pollen types. Dandelion-type pollen is highly resistant to microbial attack and oxidation, as it has an exine (outer layer) rich in an organic polymer sporopollenin, which is extremely resistant to degradation (Wilmshurst *et al* 2005). More resistant pollen types may be over-represented in the pollen assemblage, following a period when conditions were unsuitable for pollen preservation (Bottema 1975). Significant amounts of dandelion-type pollen may also be indicative of disturbed, cultivated or waste ground (Nayling and Caseldine 1997).

Well 415 *(614)* (Appendix C.4 Figure 1)

C.4.14 *Description*: Poor-mixed pollen preservation enabled counts of over 300 pollen grains to be achieved. The assemblage is dominated by tree and shrub pollen, accounting for more than 70% of the assemblage, in particular hazel-type, with pollen of alder and

heather also commonly recorded. Fewer counts for pollen of birch, oak and lime, are present. Pollen of herbs is very low and dominated by grasses and dandelion-type. A few grains of pollen of the goosefoot family are recorded, as well as occurrences of mint (*Mentha*-type), thistles and bird's foot trefoil (*Lotus*-type). Relatively few fern spores are present, but include mostly bracken and also polypody and monolete ferns. A single moss spore is also present. Moderate counts for microcharcoal particles, are recorded. Fungal spores are rarely present and include single occurrences for each of *Sordaria* (HdV-55A/B) and *Gelasinospora* (HdV-1).

C.4.15 *Interpretation*: the pollen data suggest the area was covered by hazel-type scrub, with development also of heather moorland. Alder trees probably occupied damp areas, perhaps near streams or rivers. There is evidence from the pollen for the existence of small areas of mixed deciduous woodland, comprising birch, lime and oak. There is also evidence to support the presence of more open, grassy areas, supporting a poorly diverse herb assemblage. Pollen of the goosefoot family, mint, thistles and bird's foot trefoil, dandelion-types and grasses, suggest possible meadow areas or areas of disturbed ground such as waysides or rough ground. High counts for dandelion-type grains may represent preferential preservation of robust pollen types.

C.4.16 The fungal spores count is very low, however, spores of *Gelasinospora* (HdV-1) are associated with charred plant remains (van Geel 1978). Together with the moderate amounts of microcharcoal, these data may be interpreted to suggest that the products of burning may have been deposited in the watering hole/well.

C.4.17 The pollen data from this deposit do not provide any clear evidence for either arable or pastoral farming.

Well 229 *(613) – the lower fill* (Appendix C.4 Figure 2)

C.4.18 *Description*: The mixed - poorly preserved pollen daa comprise mostly herbs, in particular cereal-types, pollen of the cabbage family (*Brassicaceae*, a large group including plants such as mustards, radishes and rocket) and grasses (*Poaceae*). Dandelion-types are also commonly occurring along with pollen of the daisy family, docks/sorrels, pinks family, goosefoot family, bedstraws (*Rubiaceae*), knotgrass, common knapweed and cornflower. Tree pollen represents less than 5% of the pollen counted, and comprises mostly oak and hazel-type as well as birch and alder. Fern spores are well represented by spores of bracken, with much lower counts for polypody and monolete ferns. Moderate amounts of microcharcoal are recorded. Unfortunately, the number of deteriorated grains is quite high (up to 25%), however, this is not uncommon in pollen assemblages from archaeological sites.

C.4.19 The dimensions of the grain size and pore diameter, and sculpturing elements of the cereal-type pollen have been quantified, where possible, and the resulting data suggest the presence of barley (*Hordeum*-type), wheat/oats (*Triticum/Avena*) and rye (*Secale*). However, the vast proportion of these grains are just assigned to cereal-type (indeterminate), due to poor preservation. The interpretation of palynological investigations into the nature of anthropogenic land-use can be greatly influenced by the presence or absence of cereal pollen and the separation of the pollen of cultivated cereal crops from that of naturally occurring wild grasses, is therefore of considerable importance. This is especially the case given the absence of supporting plant macrofossil evidence. The parameters for cereal identification, for barley in particular, overlap significantly with those for wild grasses, such as sweetgrass (*Glyceria*) (Andersen 1979). Tweddle *et al* 2005 suggest that, with care, it is possible to distinguish between many wild taxa and the cultivated genera oats (*Avena*), barley (*Hordeum*), rye (*Secale*) and wheat.

C.4.20 Rare occurrences of pollen of aquatic plants, pondweed (*Potamogeton*) and whorled water-milfoil (*Myriophyllum verticillatum*) are present. Microcharcoal particles are recorded in moderate numbers.

C.4.21 *Interpretation*: The abundance of cereal-type pollen and associated herbs (cornflower, sheep's sorrel, knotgrass) supports a probable agrarian palaeoenvironment. The evidence may be interpreted to suggest local cereal cultivation, of barley, and wheat/oats, within an almost completely open environment. Weeds of waste or cultivated ground are present, for example, common knapweed, pollen of the goosefoot family (may be represented, for example, by fat-hen), dandelion and daisy-types. There is a possibility that the pollen grains could represent cereals brought on-site for processing rather than grown on-site, and subsequently disposed of, as domestic waste tipped in the well. Pollen can be released from the husks of cereals as a result of threshing and winnowing (Robinson and fHubbard 1977). Cereal pollen may also have been derived from straw or animal dung, which was deposited in the well. However, given the association of cereal pollen with that of so many weeds of waste or cultivated ground, it would seem sensible to interpret the assemblage as indicative of arable cultivation at the site.

C.4.22 The counts for arboreal pollen are really low, suggesting that only small areas or stands of deciduous trees were present in the palaeoenvironment, following presumed earlier clearances. Fern spores of bracken greatly exceed those of other fern types in this sample; as discussed previously, bracken may have been deliberately brought to the area for use as bedding or thatching or as fodder for animals. Bracken may also represent colonisation of open areas that had been subjected to burning. Counts for microcharcoal particles are moderate, supporting the incidence of burning episodes. The presence of rare pollen of aquatic plants suggests water was still present in the well within this basal fill.

Well 229 *(236) – the upper fill* (Appendix C.4 Figure 2)

C.4.23 *Description*: The pollen data include commonly occurring grains of arboreal pollen such as hazel-type, alder and heather. Very rare grains of other tree types are recorded, for example, birch, elm, lime and oak. Pollen of dandelion-type is dominant among the herb assemblage, which also includes abundant pollen of grasses and commonly occurring ribwort plantain, with fewer counts for pollen of daisy-types, buttercups, common knapweed, bedstraws and pollen of the goosefoot family. A single cereal-type pollen grain is recorded. Fern spores are rare. Microcharcoal particles are present in low numbers.

C.4.24 *Interpretation*: The pollen data suggest that the local palaeoenvironment is one of open meadow grassland with abundant weeds, many of which may be associated with disturbed, waste, or possibly previously cultivated ground, for example, ribwort plantain, common knapweed, daisy-types and buttercups. Significant amounts of dandelion-type pollen may also be indicative of disturbed, cultivated or waste ground (Nayling and Caseldine 1997). Such areas could have been used for pasturing animals, as indicated from relatively high counts for ribwort plantain, described from wet meadows and pastures (Behre 1981) and used as an indicator species for grazing activity (Tipping 2002). The presence of a single cereal-type grain may be residual from previous use of the land or may have been derived from an adjacent area under cultivation. The tree and shrub pollen assemblage suggests an expansion of hazel-type and heather, reflecting the encroachment of scrub vegetation and possible spread of acid moorland. As previously suggested, it may be that heather represents materials brought on-site for use as roofing or bedding (Dickson and Dickson 2000). Values for alder pollen are also relatively high, suggesting an expansion of alder woodland in wet or damp areas.

***Well 229** (616)*

C.4.25 The sample provided very few pollen grains that were well preserved and a relative abundance of deteriorated pollen. The sample provided insufficient pollen for assessment and was therefore not analysed.

Conclusion

C.4.26 The pollen data, although not from contiguous samples, provide spot-samples from two of the fills from well **229**, the lower one (613) and the upper one (236). The data suggest that the use of land in the local environment changed through time.

C.4.27 During the time of accumulation of the lower fill, the evidence suggests that arable farming was occurring locally or that food crops were being processed locally.

C.4.28 By the time of the upper fill, there is very little evidence for arable farming or crop processing and the pollen data may be interpreted to suggest that arable farming ceased at the site and that the area may have been mainly used as pasture land.

Discussion

C.4.29 The pollen and NPP data provide an insight into land-use during the Middle Roman period at Wenhaston.

C.4.30 The fills of well **229** provide excellent evidence for a change in land-use, from one that was used for probable arable cultivation to one that may have been used for pastoral activity only.

C.4.31 The fill from well **450** provides excellent evidence for use of the land to support grazing animals; this is based on pollen and fungal spore evidence.

C.4.32 The fill of well **415** suggests an area of land dominated by scrub vegetation and possibly heather moorland, with little evidence for either arable or pastoral farming activity.

C.4.33 Although pollen is preserved in the sample from well **204**, the number of deteriorated grains is too high for full analysis. Assessment of the data suggests a similar palaeoenvironment to that described from well **415** above.

C.4.34 The pollen data from well **422** contain high counts for dandelion-types, suggesting preferential preservation of more robust grains, which could be indicative of disturbed, cultivated or waste ground.

C.4.35 The ages of the various fills relative to each other is unknown, apart from the stratigraphic positioning of the fills in well **229**, dated by pottery to the Middle Roman period. The pollen data from the lower deposits from well **229** (613) suggest that an earlier phase of crop cultivation (or processing) was replaced by a later phase of possible pastoral activity (**229** (236)). This may be contemporaneous with the strong evidence for pastoralism interpreted from the fill of well **450**. Following the arable and pastoral phases, it may be that the site reverted to an area of hazel-type scrub and heather moorland, as interpreted from the pollen assemblage from the fill in well/watering hole **415**. The spread of acid moorland may coincide with abandonment of the site, but as no precise dates are currently available, this interpretation cannot be substantiated.

Feature Number		204	450	422	415	229	229	229
Sample Number		153	158	152	161	121	160	163
Context		600	610	425	614	236	613	616
Preservation		poor	mixed	poor	mixed	mixed	mixed	poor
Potential for analysis		no	yes	no	yes	yes	yes	no
Trees/Shrubs								
Alnus	Alder	17	35	4	55	43	4	2
Betula	Birch	1	3		7	2	3	
***Corylus avellana*-type**	Hazel-type	26	95	1	146	60	5	6
Fagus	Beech		1					
Pinus	Pine	1						
Ulmus	Elm		1		1	1		
Quercus	Oak	1	4		4	2	6	
Salix	Willow	1					1	
Sambucus	Elder		1			1		
Tilia	Lime	1	6		6	2		
Calluna	Heather	19	107		37	31	1	4
Hedera	Ivy	1	1					
Crops								
Barley	*Hordeum*					1	4	
Wheat/Oats	*Triticum/Avena*						10	
Rye-type	*Secale*						1	
Cereal-type (undiff.)	Cereal-type						86	

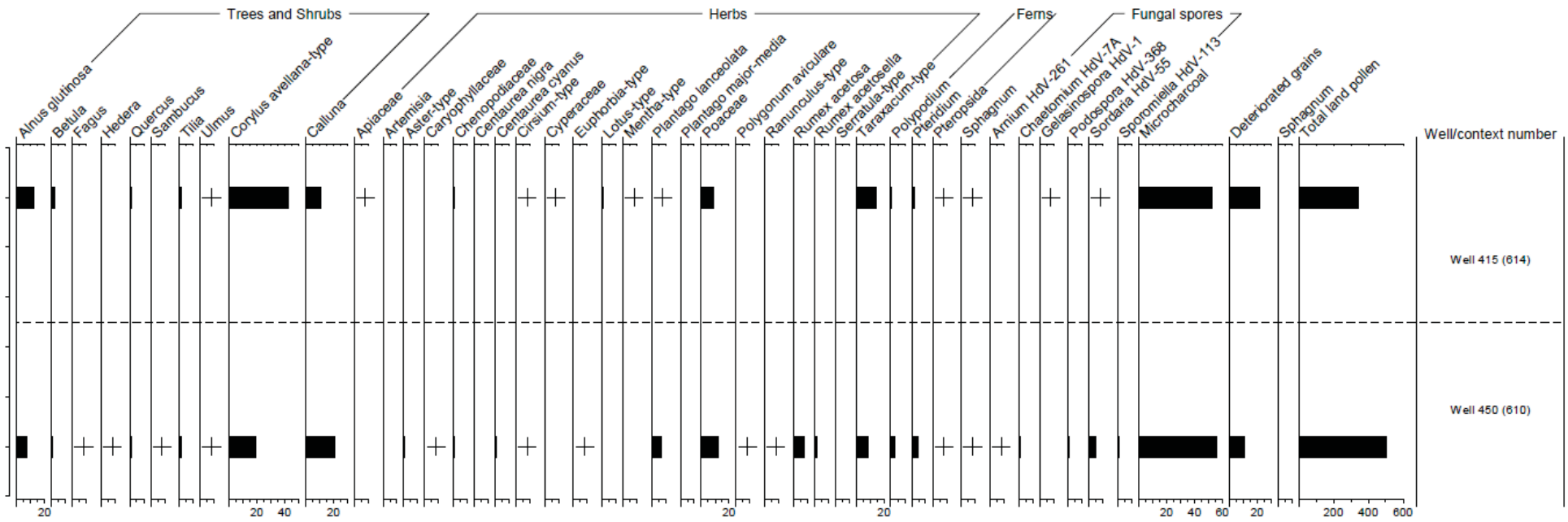
Feature Number		204	450	422	415	229	229	229
Sample Number		153	158	152	161	121	160	163
Context		600	610	425	614	236	613	616
Preservation		poor	mixed	poor	mixed	mixed	mixed	poor
Potential for analysis		no	yes	no	yes	yes	yes	no
Herbs								
Amaranthaceae	Goosefoot family	1	2		3	1	3	
Apiaceae	Carrot family		2		1	4	1	
Artemisia	Mugworts	1	3				1	
Asteraceae	Daisy family	1	2			7	12	
Brassicaceae	Cabbage family	1		1			78	
Caryophyllaceae	Pink family		1				2	
Centaurea cyanus	Cornflower		2				8	
Centaurea nigra	Common knapweed		2			6	1	
***Cirsium*-type**	Thistles		1		1			
Cyperaceae	Sedges		2	2	1	1	1	
***Euphorbia*-type**	Spurges		1					
Fabaceae	Pea family	1				1		1
***Lotus*-type**	Bird's foot trefoils				2	1		
***Mentha*-type**	Mints				1			
Plantago lanceolata	Ribwort plantain	1	36		1	17		
Plantago media/major	Hoary/Greater plantain	1						
***Plantago* spp.**	Plantains (undiff.)	1	2			1		
Polygonum aviculare	Knotgrass	1	1				2	
Poaceae	Grass Family	21	60	22	29	97	68	6
Rhianthus-type	Yellow-rattles						1	
Rumex acetosa	Common sorrel		38				2	
Rumex acetosella	Sheep's sorrel		9				1	
Rubiaceae	Bedstraw			1		2	2	

Feature Number		204	450	422	415	229	229	229
Sample Number		153	158	152	161	121	160	163
Context		600	610	425	614	236	613	616
Preservation		poor	mixed	poor	mixed	mixed	mixed	poor
Potential for analysis		no	yes	no	yes	yes	yes	no
	family							
Ranunculaceae	Buttercup family		1			2		
Serratula-type	Saw-worts		2					
Taraxacum-type	Dandelions	11	43	66	51	213	67	3
Ferns and Mosses								
***Polypodium*-type**	Polypodies	3	15		2	1	4	
Pteridium aquilinum	Bracken	19	25	13	6	6	36	2
Pteropsida (monolete)	Fern spores(monolete)		1		1		3	
	Total land pollen	**131**	**505**	**110**	**355**	**503**	**405**	**24**
	Number of traverses	7	14	6	28	6	20	5
Lycopodium spores	Exotic	11	52	33	16	24	24	25
Sphagnum	Moss spores	1	1		1			
Aquatics								
Myriophyllum verticillatum	Whorled water-milfoil						1	
Potamogeton	Pondweed						1	
Corroded grains					5			25
Broken grains		15	23	5	14	17	20	40
Concealed grains		21	66	6	30	16	56	5
Crumpled grains		23	31	15	36	15	24	5
	Total deteriorated	**59**	**120**	**26**	**98**	**48**	**100**	**75**
	Percentage deteriorated	**45%**	**24%**	**24%**	**28%**	**10%**	**25%**	**300%**
Microscopic charcoal		238	637	30	378	57	240	90
Fungal spores/NPP								
Arnium HdV-261			1					
Chaetomium HdV-7A			5					
Gelasinospora HdV-1					1			

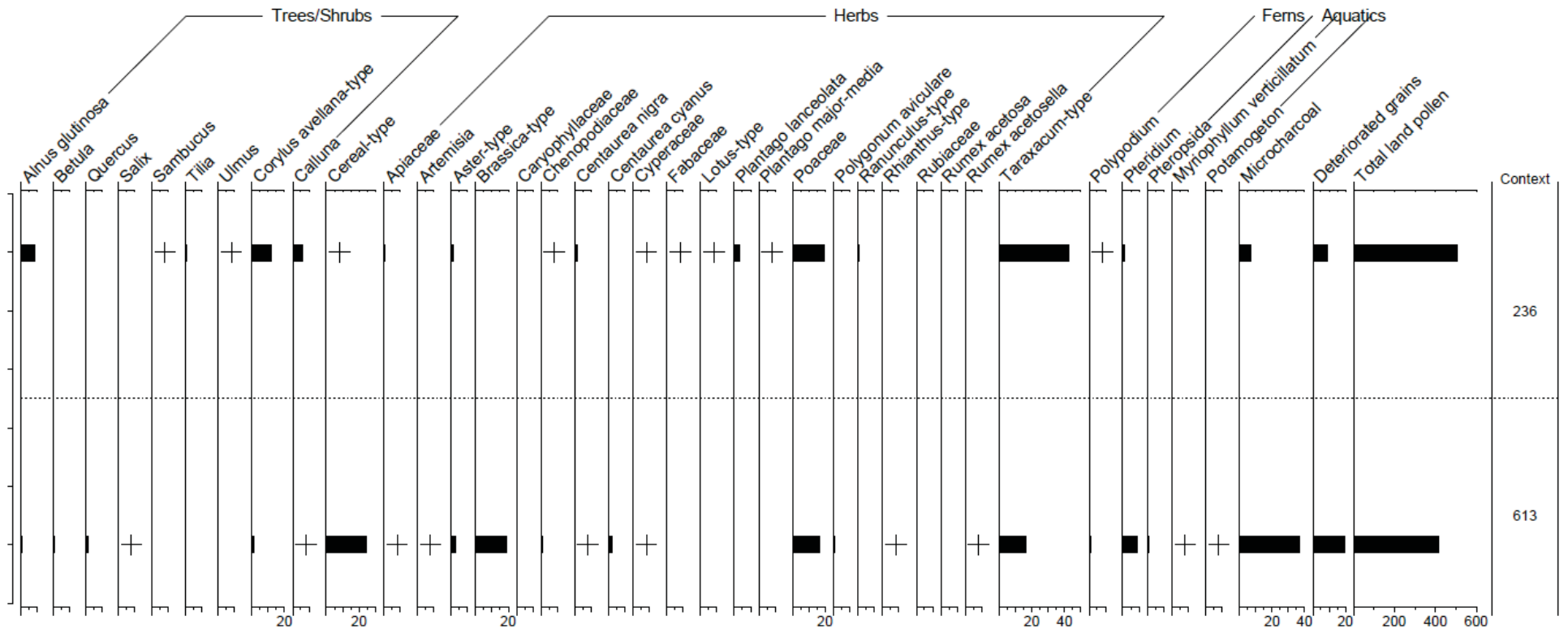
Feature Number		204	450	422	415	229	229	229
Sample Number		153	158	152	161	121	160	163
Context		600	610	425	614	236	613	616
Preservation		poor	mixed	poor	mixed	mixed	mixed	poor
Potential for analysis		no	yes	no	yes	yes	yes	no
Podospora HdV-368			2					
Sordaria HdV-55A/B			27		1			
Sporomiella HdV-113			6					

Table 49: Raw counts for all pollen sub-samples analysed or assessed for palynology

*Appendix C.4 Figure 1: Pollen percentage diagram: wells **450** (610) and **415** (614)*



*Appendix C.4 Figure 2: Pollen percentage diagram: well **229***



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Mainz Database | | http://www.rgzm.de/samian/home/frames.htm

Appendix E. OASIS Report Form

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3 - 207269		
Project Name	Roman Settlement Remains at a Spring on Land off St Michael's Way, Wenhaston, Suffolk		
Project Dates (fieldwork) Start	08-04-2015	Finish	04-12-2015
Previous Work (by OA East)	No	Future Work	No

Project Reference Codes

Site Code	XSFWSM15	Planning App. No.	DC/14/2069/FUL
HER No.	WMH038	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - PPS 5

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
Ditches/pits/posts	Roman 43 to 410	Pot/CBM/animal bone	Roman 43 to 410
	Select period...	Metalwork	Roman 43 to 410
	Select period...		Select period...

Project Location

County	Suffolk	Site Address (including postcode if possible)	
District	Suffolk Coastal District	Land off St Michael's Way, Wenhaston, Suffolk	
Parish	Wenhaston with Mells		
HER	Suffolk Museums		
Study Area	1.5 ha	National Grid Reference	TM 4285 7535

Project Originators

Organisation	OA EAST
Project Brief Originator	Jude Plouviez (SCCAS/CT)
Project Design Originator	Stephen Macaulay (OA East)
Project Manager	Stephen Macaulay (OA East)
Supervisor	Graeme Clarke (OA East)

Project Archives

Physical Archive	Digital Archive	Paper Archive
Suffolk Museums	OA East	Suffolk Museums
WMH038	XSFWSM15	WMH038

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

Notes:

Appendix F. Written Scheme of Investigation

Oxford Archaeology East
15 Trafalgar Way, Bar Hill
Cambridgeshire CB23 8SQ
tel 01223 850 500
fax 01223 850 599
email oaeast@oxfordarch.co.uk
web www.oxfordarchaeology.com

Written Scheme of Investigation
Archaeological Excavation

Site name	Land off St Michael's Way, Wenhaston with Mells Hamlet
Site code	XSFWSM15
Location	TM 428 753
Project number	17921
Project type	Excavation
Event No.	WMH038
Planning Application No.	DC/14/2069/FUL
Client	CgMs for Hopkins Homes
Date	19/3/15 revised 10/11/15
Author	Stephen Macaulay

TABLE OF CONTENTS

1. General background

This WSI conforms to the principles identified in English Heritage's guidance documents 'Management of Research Projects in the Historic Environment', specifically the Morphe Project Manager's Guide (2006) and PPN3 (Project Planning Note 3): Archaeological Excavation.

1.1. Circumstances of the project

A proposal to construct new houses and access on land off St Michael's Way, Wenhaston.

A condition attached to the planning permission requires a programme of archaeological works in accordance with an approved Written Scheme of Investigation (WSI).

A program of controlled strip, map and excavation is required to record all archaeological remains within the development site.

This Written Scheme of Investigation (WSI) has been prepared on behalf of the DEVELPERS Hopkins Homes and CgMs in response to an Archaeological Brief for Investigation issued by Suffolk County Council.

1.2. The proposed development and the archaeological requirements

A proposal to construct new houses and access on land off St Michael's Way, Wenhaston.

1.3. The geology and topography of the site

The British Geological Survey indicates that the bedrock geology of the site at Wenhaston comprises sands, of the Crag Group, overlain by sands and gravels of the Lowestoft formation.

The site lies at 10m OD, to the south-east of the village of Wenhaston. The site is currently under agricultural cultivation.

2. Archaeological background

2.1. Prehistoric

Two Bronze Age barrows lie to the south-west of the site, along the brow of the hill. Later Iron Age occupation in the area has been from finds pots, particularly of coins, however this may be a bias caused by metal detecting.

2.2. Roman

The first settlement remains to have been found in the immediate vicinity date to the Roman period when a small town was established. This has included the remains of buildings, plots of land and a possible defensive

palisade surrounding the settlement, however these finds have been from extensive field walking and metal detecting rather than excavation.

2.3. Saxon

To the south of the site is a putative Anglo-Saxon burial ground, this is supposed by the retrieval of several artefacts in one location. Evidence for Middle Saxon occupation is limited to the remains of one pit and a probable timber building, located during excavations to the north-west on Narrow Way.

By the Late Saxon period, a settlement has been established and thought to be part of the hamlets of Mells and Wenhaston, recorded in the Domesday book. The presence of two commons in this period is also evidenced.

2.4. Medieval

Settlement continues throughout the medieval period, centred on the church and two commons, however the small nature of the hamlets continues into the modern era.

3. Aims and objectives

3.1. Aims of the excavation

The main aim of the project will be 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.

This information will be used in conjunction with additional information drawn from the results of the trial trenching in order that the likely archaeological potential of the site can be assessed with regard to current regional and national research issues and preservation criteria.

3.2. Research frameworks

This excavation takes place place within, and will contribute to the goals of Regional Research Frameworks relevant to this area:

- *Research and Archaeology Revisited: A Revised Framework for the East of England* (Medlycott 2011, East Anglian Archaeology Occasional Papers 24)

Roman Local Research Aims

- *The characterisation of the form and development history of the settlement.*

Evidence of field systems on differing alignment suggests more than one phase of activity is present. Further to this, the remains of a 'black earth' soil (or buried soil) suggests that settlement lay within the immediate vicinity. The Remains of this occupational evidence; their form and associated artefacts will help to define their function, date and use and any subsequent modifications in form and usage. Indeed the artefactual evidence from

Wenhaston also suggests that there might be a military aspect to the settlement's function or inhabitants. If evidence of crop or food processing survives (e.g. burnt grain, butchered animal bone) conclusions can be drawn on the type(s) of agricultural regimes that may have been in operation (both domestic and wild).

- *The characterisation of the form, date of establishment, subsequent development of the field systems, and their relationship to the settlement.*

Field systems and settlement remains have been revealed by the evaluation. The field systems size and shape can help inform us about agricultural regimes.

- *The determination of the relationship of the agricultural regime and any associated settlement with the local and regional economy.*

Analysis of artefactual and ecofactual material may determine whether the area was a largely self-sufficient farming community or whether it was producing a surplus of either crops or meat for local population centres. Through evidence of large-scale crop processing if present, as will evidence of importation of luxury or specialised items such as fine pottery (if present).

- *Settlement Form*

Work is needed to assess the typologies of rural settlements across the region to look at possible hierarchies and infer the social organisation of the population during the Roman period. As 2nd century settlement remains were found during the evaluation the excavation could find evidence of structures, therefore looking at their construction methods could help highlight the unclear change from roundhouses to aisled barns seen in the 2nd Century.

- *Towns*

The putative Roman small town of Wenhaston was first identified in 1975 as a result of fieldwalking and subsequent finds, notably numerous artefacts recovered from the arable fields has been supplemented by the remains of Roman archaeology as a result of development over the past 30 years. Additional data that would shed more light on the nature and origins of a Roman urban settlement would be significant.

- *Infrastructure*

The sites location on the coastal zone of Suffolk, little at present is known about how the settlement and economy differ from more inland settlements. Therefore looking at settlement patterns and their relation to infrastructure can help elucidate economic practices.

- *Finds Studies*

The need to provide a syntheses on how material culture is utilised on rural sites in comparison to urban sites and how far the deposition within the archaeological record is a reflection of religious beliefs.

4. Methods

4.1. Background research

The desk based assessment highlighted the potential for Roman period remains associated with the known small town of Wenhaston. Further evidence was proposed for early Anglo-Saxon occupation. The geophysical survey conducted on this site revealed few anomalies, thought to be of geological origin. The evaluation encountered 2nd Century settlement remains; comprising ditches, pits and a buried soil, known as 'black earth'.

4.2. Event number

An event number (WMH 038) has been obtained from the County HER. This number is unique for the site and will be clearly marked on all documentation relating to the work.

4.3. Aerial Photographs

Aerial photography is not required at this site.

4.4. Geophysical Survey

Geophysical survey has been undertaken at this site.

4.5. Excavation method

The total area to excavate is 1.5ha. This will be completed in two phases with the eastern half excavated first, followed by the western half.

Spoil from the machine stripping of the eastern area will be temporarily stored on the western side, then when this half is complete the spoil and overburden for the western side will be transferred onto the eastern side.

Archaeological features will be excavated by hand, with special provision made for the 'black earth' deposits. Where this is the case a 1m grid system will be used and the total sample will comprise 25% of the deposits.

ADDENDUM – A series of Roman Wells will be excavated (N=7-8) which lie within the centre of the site. These are expected to be around 2m deep with a maximum of 3m in depth (determined from Auguring). These features will be 100% excavated by Machine (Toothless Ditching Bucket). The area of investigation (trench) will be stepped by machine to provide safe access with bulk sampling at all stages and deposits encountered (monolith samples will be taken if possible). The upper fill of these features have all been sampled as part of the initial excavation. Any waterlogged material, including well linings etc. will be hand excavated (if safe/possible) and recovered.

Due to the nature of previous finds recovery in the vicinity, metal detecting

will be carried out at all stages of the excavation, before and after all stages of soil removal.

4.6. Recording of archaeological deposits and features

Records will comprise survey, drawn, written and photographic data.

Each feature will be individually documented on context sheets, and hand drawn in section and plan. Written descriptions will be recorded on pro-forma sheets comprising factual data and interpretative elements.

Where stratified deposits are encountered, a Harris Matrix will be compiled during the course of the excavation.

Site plans will normally drawn at 1:100, but on deeply-stratified sites a scale of 1:50 or 1:20 will be used. Detailed plans of individual features or groups will be at an appropriate scale (1:10 or 1:20). The site grid will be accurately tied into the Ordnance Survey National Grid and located on the 1:2500 or 1:1250 map of the area.

Long sections showing layers will be drawn at 1:50. Sections of features or short lengths of trenches will be drawn at 1:20. A register of sections will be kept. All sections will be tied in to Ordnance Datum.

The photographic record will comprise high resolution digital photographs.

4.7. Human remains

If **Human remains** are encountered, the relevant County Archaeological Advice Team, the Coroner and the client will be informed. Removal of these remains will be carried out in accordance with all appropriate Environmental Health regulations and will only occur after a Ministry of Justice licence has been obtained.

4.8. Outreach activities

We propose to hold controlled Open Days on the site to allow visitors to view and understand the ongoing results of the excavations. The Open Days will be subject to agreement with the Client.

OA East will liaise with the Client on site security and provision of off-site parking if possible. Fencing will be erected around excavation areas, and walking routes across the site will be clearly demarcated.

OA East will also progress on the site to the public via regular updates on the OA website and on local websites.

OA East maintains a dedicated Outreach Team which includes:

- a full time Outreach Officer, David Crawford-White
- two Jigsaw Community Archaeologists, Joanna Richards and Jemima Woolverton. Jigsaw is a county-wide, HLF Funded Community Archaeology Project run by OA East and Cambridgeshire County Council (http://www.jigsawcambs.org/)
- support from a dedicated Senior Project Manager, Stephen Macaulay.

5. Timetable

Fieldwork is expected to take 5 weeks to complete, based on a five-day week, working Monday to Friday. This does not allow for delays caused by bad weather.

Post-excavation processing and assessment tasks will commence shortly after excavation commences, to inform the excavation strategy, and minimise time required to prepare the final report after excavation is completed.

Post-excavation tasks and report writing will take a maximum of 2 years following the end of fieldwork, unless there are exceptional discoveries requiring more lengthy analysis.

6. Staffing and support

6.1. Fieldwork

The fieldwork team will be made up of the following staff:
1 x Project Manager (supervisory only, not based on site)
1 x Project Officer/Supervisor (full-time)
4 x Site Assistants (as required)
1 x Finds Assistant (part-time, as required)
1 x Environmental Assistant (part-time, as required)

The Project Manager will be Stephen Macaulay and Project Officer TBC.

All Site Assistants will be drawn from a pool of qualified and experienced staff. Oxford Archaeology East will not employ volunteer, amateur, or student staff, whether paid or unpaid, except as an addition to the team stated above.

6.2. Post-excavation processing

It is anticipated that the site may produce later prehistoric to medieval remains, and environmental remains will also be sampled.

Pottery will be assessed by Sarah Percival (prehistoric), Alice Lyons (Roman) and Dr Paul Spoerry (Saxon and medieval).

Environmental analysis will be carried out by OA East staff, in consultation with the OA Environmental Department in Oxford. The results will be reported to the English Heritage Regional Scientific Adviser. Environmental analysis will be undertaken by Rachel Fosberry (charred plant macrofossils, plant macrofossils), Liz Stafford (land molluscs), and Denise Druce and Mairead Rutherford (pollen analysis).

Faunal remains will be examined by Chris Faine.

Conservation will be undertaken by Colchester Museums.

In the event that OA's in-house specialists are unable to undertake the work

within the time constraints of the project, or if other remains are found, specialists from the list at Appendix 2 will be approached to carry out analysis.

7. Post-excavation, publication and archive

7.1. Assessment Report

A post-excavation Assessment Report and updated research design will be delivered within 6 months of the completion of fieldwork.

Post-excavation analysis and reporting will follow guidance in English Heritage's (2009) *Management of Research Projects in the Historic Environment.*

Following approval of the report by SCCAS/CT, a single copy of the report will be presented to the Suffolk HER as well as a digital copy of the approved report. If there are positive results a summary report will be prepared for the Proceedings of the Suffolk Institute of Archaeology and History.

If substantial remains are recorded during the project, it may be necessary to undertake a full programme of analysis and publication in accordance with the guidelines contained in English Heritage's *Management of Archaeological Projects 2.* If this is the case, then a timetable and programme of work for this aspect of the project will need to be submitted to the Local Planning Authority for agreement.

7.1.1. Contents of the assessment report

The report will include:

- a title page detailing site address, site code and accession number, NGR, author/originating body, client's name and address
- full list of contents
- a non-technical summary of the findings
- a description of the geology and topography of the area
- a description of the methodologies used
- a description of the findings
- site and trench location plans, and plans of each area excavated showing the archaeological features found
- sections of excavated features
- interpretation of the archaeological features found
- specialist reports on artefacts and environmental finds
- relevant photographs of features
- a predictive model of surviving archaeological remains, where affected by development proposals, and assessment their importance
- the OASIS reference and summary form.

7.1.2. Draft and final reports

A draft copy of the report will be supplied to The Archaeological Service Conservation Team, Suffolk County Council for comment. Following approval

of the draft report, one copies of the approved report will be provided to Suffolk County Council's Archaeologist, and to the Planning Department to demonstrate compliance with the planning condition.

One hard copy and one digital copy of the report will be supplied to the Suffolk County Council Historic Environment Record.

A copy of the approved report will be uploaded to the OASIS database.

7.2. Archive Report

Following on from the updated project design a full archive report will be produced within 2 years of the completion of fieldwork. The archive report will incorporate the results of the archaeological evaluation.

An Oasis report will be submitted on completion of report.

A hard copy of the approved report will be produced for the HER and the County Archaeological Advisor. In addition a digital copy of the report will also be made available.

If appropriate a report will be published in an appropriate journal as approved by the County Archaeological Advisor.

7.3. Archiving

A security copy of the archive will be made.

All artefactual material recovered will be held in storage by OA East and ownership of all such archaeological finds will be given over to the relevant authority to facilitate future study and ensure proper preservation of all artefacts. In the unlikely event that artefacts of significant monetary value are discovered, and if they are not subject to Treasure Act legislation, separate ownership arrangements may be negotiated.

It is Oxford Archaeology Ltd's policy, in line with accepted practice, to keep site archives (paper and artefactual) together wherever possible. All archives will comply in format with PPN3 recommendations.

The project archive will follow the guidelines contained in *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (United Kingdom Institute for Conservation, 1990), *Standards in the Museum care of Archaeological Collections* (Museums and Galleries Commission 1992), and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation (*Brown 2007*).*

The archive will be deposited within an approved county store. Costs associated with the deposition of the archive will be met by the client.

8. Other matters

8.1. Monitoring

Each week during the excavation, representatives of the client (CgMs), OA

East (Stephen Macaulay) and Suffolk County Council Archaeology Service (Jude Plouviez) will meet on site to monitor the excavations and to discuss progress and findings to date and excavation strategies to be followed.

8.2. Insurance

OA East is covered by Public and Employer's Liability Insurance. The underwriting company is Allianz Cornhill Insurance plc, policy number SZ/14939479/06. Details of the policy can be seen at the OA East office.

8.3. Services, Public Rights of Way, Tree Preservation Orders etc.

The client will inform the project manager of any live or disused cables, gas pipes, water pipes or other services that may be affected by the proposed excavations before the commencement of fieldwork. Hidden cables/services should be clearly identified and marked where necessary. The client will likewise inform the project manager of any public rights of way or permissive paths on or near the land which might affect or be affected by the work. The client will also inform the project manager of any trees subject to Tree Preservation Orders within the subject site or on its boundaries

8.4. Site Security

Unless previously agreed with the Project Manager in writing, this specification and any associated statement of costs is based on the assumption that the site will be sufficiently secure for archaeological work to commence. All security requirements, including fencing, padlocks for gates etc. are the responsibility of the client.

8.5. Access

The client will secure access to the site for archaeological personnel and plant, and obtain the necessary permissions from owners and tenants to place a mobile office and portable toilet on or near to the site. Any costs incurred to secure access, or incurred as a result of withholding of access will not be OA East's responsibility. The costs of any delays as a result of withheld access will be passed on to the client in addition to the project costs already specified.

8.6. Site Preparation

The client is responsible for clearing the site and preparing it so as to allow archaeological work to take place without further preparatory works, and any cost statement accompanying or associated with this specification is offered on this basis. Unless previously agreed in writing, the costs of any preparatory work required, including tree felling and removal, scrub or undergrowth clearance, removal of concrete or hard standing, demolition of buildings or sheds, or removal of excessive overburden, refuse or dumped material, will be charged to the client, in addition to any costs for archaeological evaluation already agreed.

8.7. Backfilling/Reinstatement

Backfilling is not included in the cost unless otherwise agreed with the client.

8.8. Monitoring

The relevant planning authority will be informed appropriately of dates and arrangements to allow for adequate monitoring of the works.

8.9. Health and Safety, Risk Assessments

A risk assessment covering all activities to be carried out during the lifetime of the project will be prepared before work commences, and submitted to the Suffolk County Council as required in the Written Brief. This will draw on OA East's activity-specific risk assessment literature and conforms with CDM requirements.

All aspects of the project, both in the field and in the office will be conducted according to OA East's Health and Safety Policy, Oxford Archaeology Ltd's Health and Safety Policy, and Health and Safety in Field Archaeology (J.L. Allen and A. St John-Holt, 1997). A copy of OA East's Health and Safety Policy can be supplied on request.

8.10. Invoicing

It is proposed that invoicing will be submitted by stage:-

1. Stage 1 (Set up, Strip overburden, Fieldwork)
2. Stage 2 (Data Base, Digitisation & Finds Processing)
3. Stage 3 (PXA) – to be invoiced on submission of Draft PXA Report
4. Stage 4 (PX Analysis & Report) – to be invoiced on submission of Draft Report

It is expected that payment will be received within 30 days of invoicing. If payment is not made within this time interest will be charged at base rate. After a period of three months Oxford Archaeology Ltd employs a debt collection company to recover unpaid invoices and any costs incurred during this process will be passed on to the client.

APPENDIX 1: EXCAVATION AND SAMPLING STRATEGY, AND FINDS PROCESSING PROCEDURES

Relevant excavation standards and guidelines

The proposed archaeological excavation and analysis will be conducted in accordance with current best archaeological practice and the appropriate national and regional standards and guidelines.

All work will be conducted in accordance with the Institute for Archaeologists':

- Code of Conduct
- Standard and Guidance for Archaeological Watching Briefs
- Standard and Guidance for Archaeological Field Evaluations
- Standard and Guidance for Archaeological Excavation.

Additional guidelines, specific to the region, which we also adhere to are:

- *Standards for Field Archaeology in the East of England* (East Anglian Archaeology Occasional Paper 14)

All fieldwork will be undertaken in accordance with the requirements of the OA Field Manual (ed. D Wilkinson 1992), and the revised OA fieldwork manual (publication forthcoming). Further guidance is provided to all excavators in the form of the OA *Fieldwork Crib Sheets – a companion guide to the Fieldwork Manual.* These have been issued ahead of formal publication of the revised Fieldwork Manual.

Excavation of archaeology

All excavation of all archaeological deposits will be done by hand unless it can be shown there will be no loss of evidence using a machine. The method of excavation will be decided by the senior project archaeologist. Significant archaeological features (e.g. solid or bonded structural remains, building slots or post-holes) will be preserved intact, even if fills are sampled.

Exposed surfaces will be cleaned by trowel and hoe as necessary in order to clarify features and deposits. Any archaeological features revealed my be excavated and sampled to gauge their date and character. Trench spoil will be scanned visually and with a metal detector to aid recovery of artefacts. Metal detecting will be carried out at all stages of the excavation, before and after all stages of soil removal, by Steve Critchley (experienced metal detector user and known to the PAS scheme).

All features will be investigated and recorded to provide an accurate evaluation of archaeological potential, whilst at the same time minimising disturbance to archaeological structures, features and deposits.

There will be sufficient excavation to give clear evidence for the period, depth, and nature of any archaeological deposit. We will use the following levels for excavating features, unless other are agreed during the project.

Feature Class	*Proportion*
Layers/deposits/horizontal stratigraphy relating to domestic/industrial activity (e.g. hearths, floor surfaces)	100%
Post-built structures of pre-modern date	100%
Domestic ring-ditches or roundhouse gullies	50%
Pits associated with agricultural & other activities	50%
Linear features (ditches & gullies) associated with structural remains (minimum 1m slot excavated across width)	20%
Pre-modern linear features not associated with structural remains(minimum 1m slot excavated across width)	10%
Human burials, cremations & other deposits relating to funerary activity	100%
Deep Well, possibly with waterlogged structures	100%

The depth and nature of colluvial or other masking deposits will also be established across the site. Any natural subsoil surface revealed will be hand cleaned and examined for archaeological deposits and artefacts.

Spoil will be scanned visually and with a metal detector to aid recovery of artefacts.

Bulk sampling

Features with good potential for retrieving environmental remains will be targeted for sampling.

Bulk samples of up to 40 litres per sample will be taken by the excavator, then tested for the presence and potential of micro- and macro-botanical environmental indicators. Testing will be done in consultation with the Historic England Regional Scientific Advisor (Zoe Outram/Mark Ruddy) and the projects environmental specialist.

Environmental sampling will follow the guidelines set out in:

- English Heritage (2011, 2nd edition) *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation*.
- Association for Environmental Archaeology (1995) *Environmental archaeology and archaeological evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England*. Working Papers of the Association for Environmental Archaeology 2. York: Association for Environmental Archaeology.
- Dobney, K., Hall, A., Kenward, H. & Milles, A. (1992) *A working classification of sample types for environmental archaeology*. Circaea 9.1: 24-26
- Murphy, P.L. & Wiltshire, P.E.J. (1994) *A guide to sampling archaeological deposits for environmental analysis*
- English Heritage (2011) *Environmental Archaeology, A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-*

Excavation.

Finds processing

A finds supervisor will be appointed to oversee the collection, processing, cataloguing, and specialist advice on all artefacts collected. Artefacts will be collected by hand and metal detector, assigned a context number and returned to OAE offices daily for processing.

All artefacts will be treated in accordance with UKIC guidelines, *First Aid for Finds* (1998). All finds will be bagged and labelled according to the individual deposit from which they were recovered, ready for later cleaning and analysis.

Processing will take place in tandem with excavation, and advice will be sought from relevant specialists on key artefact types. (See Appendix 1 for a list of specialists.) The Project Manager and fieldwork project officer will be given feedback to enable them to develop excavation strategies during fieldwork.

Any finds requiring specialist treatment and conservation will be sent for appropriate treatment.

APPENDIX 2: CONSULTANT SPECIALISTS

NAME	SPECIALISM	ORGANISATION
Allen, Leigh	Worked bone, CBM, medieval metalwork	Oxford Archaeology
Allen, Martin	Medieval coins	Fitzwilliam Museum
Anderson, Sue	HSR, pottery and CBM	Suffolk County Council
Bayliss, Alex	C14	English Heritage
Biddulph, Edward	Roman pottery	Oxford Archaeology
Bishop, Barry	Lithics	Freelance
Blinkhorn, Paul	Iron Age, Anglo-Saxon and medieval pottery	Freelance
Boardman, Sheila	Plant macrofossils, charcoal	Oxford Archaeology
Bonsall, Sandra	Plant macrofossils; pollen preparations	Oxford Archaeology
Booth, Paul	Roman pottery and coins	Oxford Archaeology
Boreham, Steve	Pollen and soils/ geology	Cambridge University
Brown, Lisa	Prehistoric pottery	Oxford Archaeology
Cane, Jon	illustration & reconstruction artist	Freelance
Champness, Carl	Snails, geoarchaeology	Oxford Archaeology
Cotter, John	Medieval/post-Medieval finds, pottery, CBM	Oxford Archaeology
Crummy, Nina	Small Find Assemblages	Freelance
Cowgill, Jane	Slag/metalworking residues	Freelance
Darrah, Richard	Wood technology	Freelance
Dickson, Anthony	Worked Flint	Oxford Archaeology
Donelly, Mike	Flint	Oxford Archaeology
Doonan, Roger	Slags, metallurgy	
Druce, Denise	Pollen, charred plants, charcoal/wood identification, sediment coring and interpretation	Oxford Archaeology
Drury, Paul	CBM (specialised)	Freelance
Evans, Jerry	Roman pottery	Freelance
Faine, Chris	Animal bone	Oxford Archaeology
Fletcher, Carole	Medieval pot, glass, small finds	Oxford Archaeology
Fosberry, Rachel	Charred plant remains	Oxford Archaeology
Fryer, Val	Molluscs/environmental	Freelance
Gale, Rowena	Charcoal ID	Freelance
Geake, Helen	Small finds	Freelance
Gleed-Owen, Chris	Herpetologist	
Goffin, Richenda	Post-Roman pottery, building materials, painted wall plaster	Suffolk Archaeology CIC
Hamilton-Dyer, Sheila	Fish and small animal bones	
Howard-Davis, Chris	Small finds, Mesolithic flint, RB coarse pottery, leather, wooden objects and wood technology;	Oxford Archaeology

NAME	SPECIALISM	ORGANISATION
Hunter, Kath	Archaeobotany (charred, waterlogged and mineralised plant remains)	Oxford Archaeology
Jones, Jenny	Conservation	ASUD, Durham University
King, David	Window glass & lead	
Locker, Alison	Fishbone	
Loe, Louise	Osteologist	Oxford Archaeology
Lyons, Alice	Late Iron Age/Roman pottery	Oxford Archaeology
Macaulay, Stephen	Roman pottery	Oxford Archaeology
Masters, Pete	geophysics	Cranfield University
Middleton, Paul	Phosphates/garden history	Peterborough Regional College
Mould, Quita	Ironwork, leather	
Nicholson, Rebecca	Fish and small mammal and bird bones, shell	Oxford Archaeology
Palmer, Rog	Aerial photographs	Air Photo Services
Percival, Sarah	Prehistoric pottery, quern stones	Freelance
Poole, Cynthia	Multi-period finds, CBM, fired clay	Oxford Archaeology
Popescu, Adrian	Roman coins	Fitzwilliam Museum
Rackham, James	Faunal and plant remains, can arrange pollen analysis	
Riddler, Ian	Anglo-Saxon bone objects & related artefact types	Freelance
Robinson, Mark	Insects	
Rowland, Steve	Faunal and human bone	Oxford Archaeology
Rutherford, Mairead	Pollen, non-pollen palynomorphs, dinoflagellate cysts, diatoms	Oxford Archaeology
Samuels, Mark	Architectural stonework	Freelance
Scaife, Rob	Pollen	
Scott, Ian	Roman, Medieval, post-medieval finds, metalwork, glass	Oxford Archaeology
Sealey, Paul	Iron Age pottery	Freelance
Shafrey, Ruth	Worked stone, cbm	Oxford Archaeology
Smith, Ian	Animal Bone	Oxford Archaeology
Spoerry, Paul	Medieval pottery	Oxford Archaeology
Stafford, Liz	Snails	Oxford Archaeology
Strid, Lena	Animal bone	Oxford Archaeology
Tyers, Ian	Dendrochronology	
Ui Choileain, Zoe	Human bone	Oxford Archaeology
Vickers, Kim	Insects	Sheffield University
Wadeson, Stephen	Samian, Roman glass	Oxford Archaeology
Walker, Helen	Medieval Pottery in the Essex area	
Way, Twigs	Medieval landscape and garden history	Freelance
Webb, Helen	Osteologist	Oxford Archaeology

NAME	SPECIALISM	ORGANISATION
Willis, Steve	Iron Age pottery	
Young, Jane	Medieval Pottery in the Lincolnshire area	
Zant, John	Coins	Oxford Archaeology

Radiocarbon dating is normally undertaken for Oxford Archaeology East by SUERC and by the Oxford University Accelerator Laboratory.
Geophysical prospection is normally undertaken by Cranfield University, Geoquest, and Geophysical Surveys, Bradford.

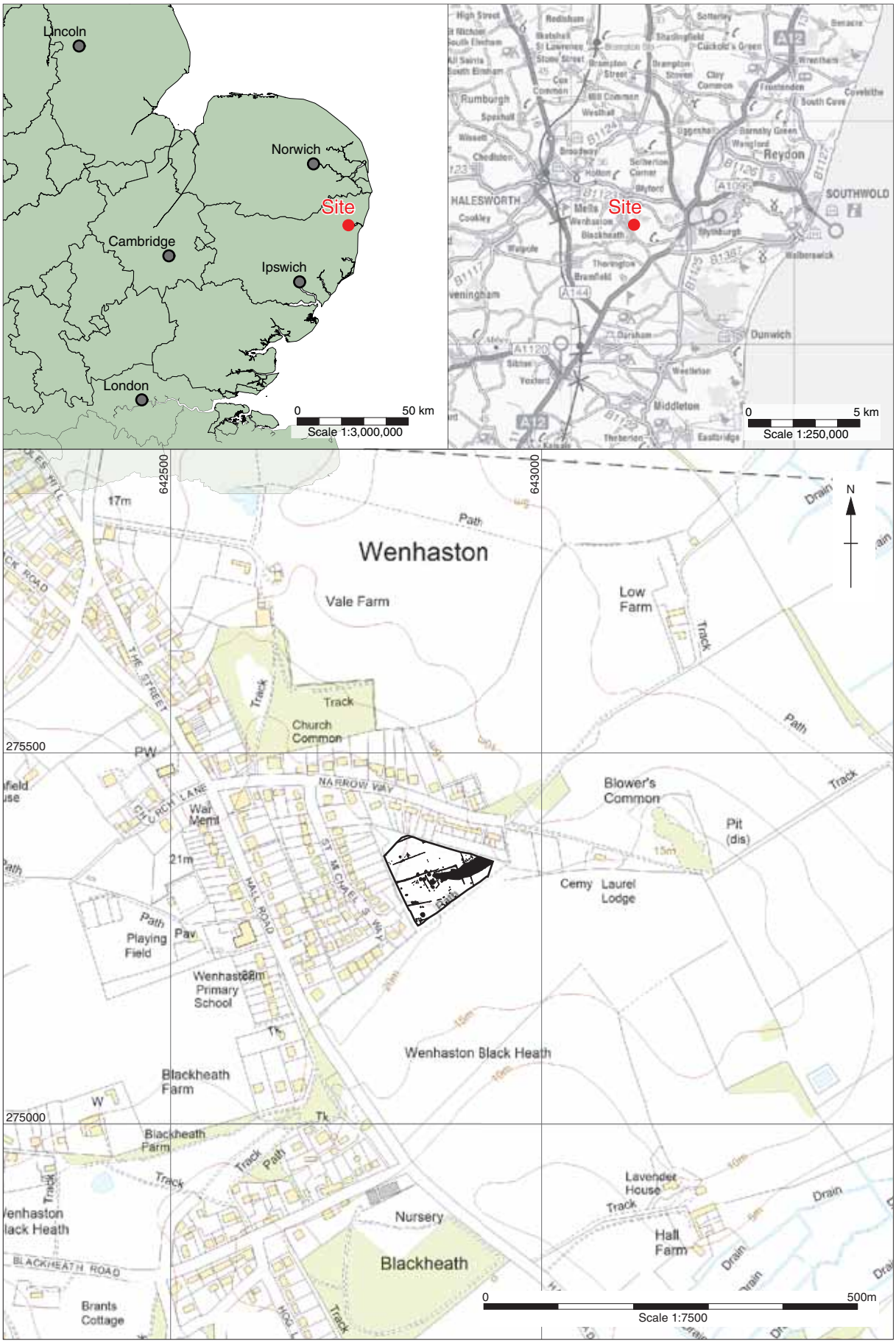

Figure 1: Site location showing excavated area (black)

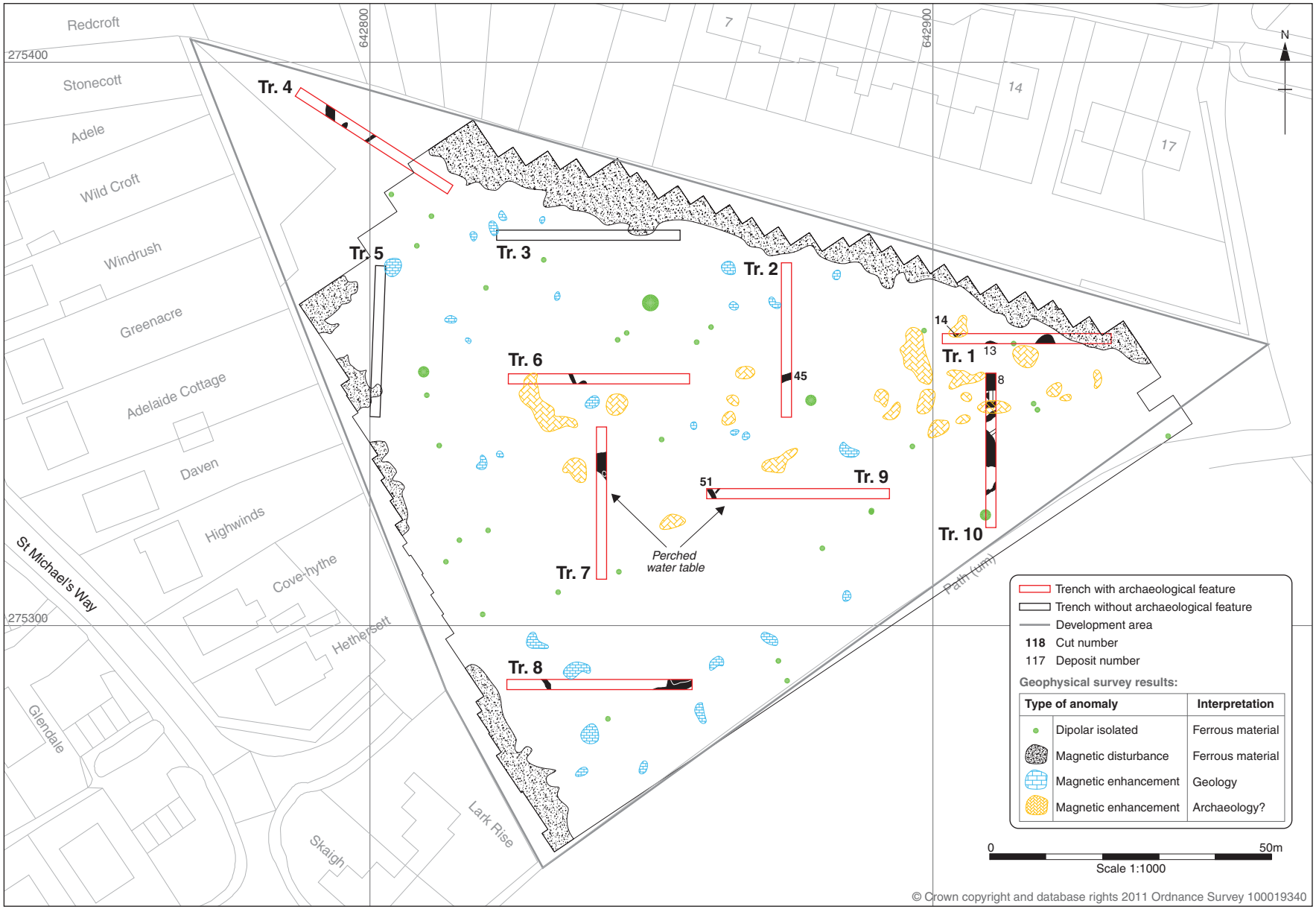

Figure 2: NPS archaeological evaluation trenches with WYAS geophysical survey results (reproduced from Ames 2015)

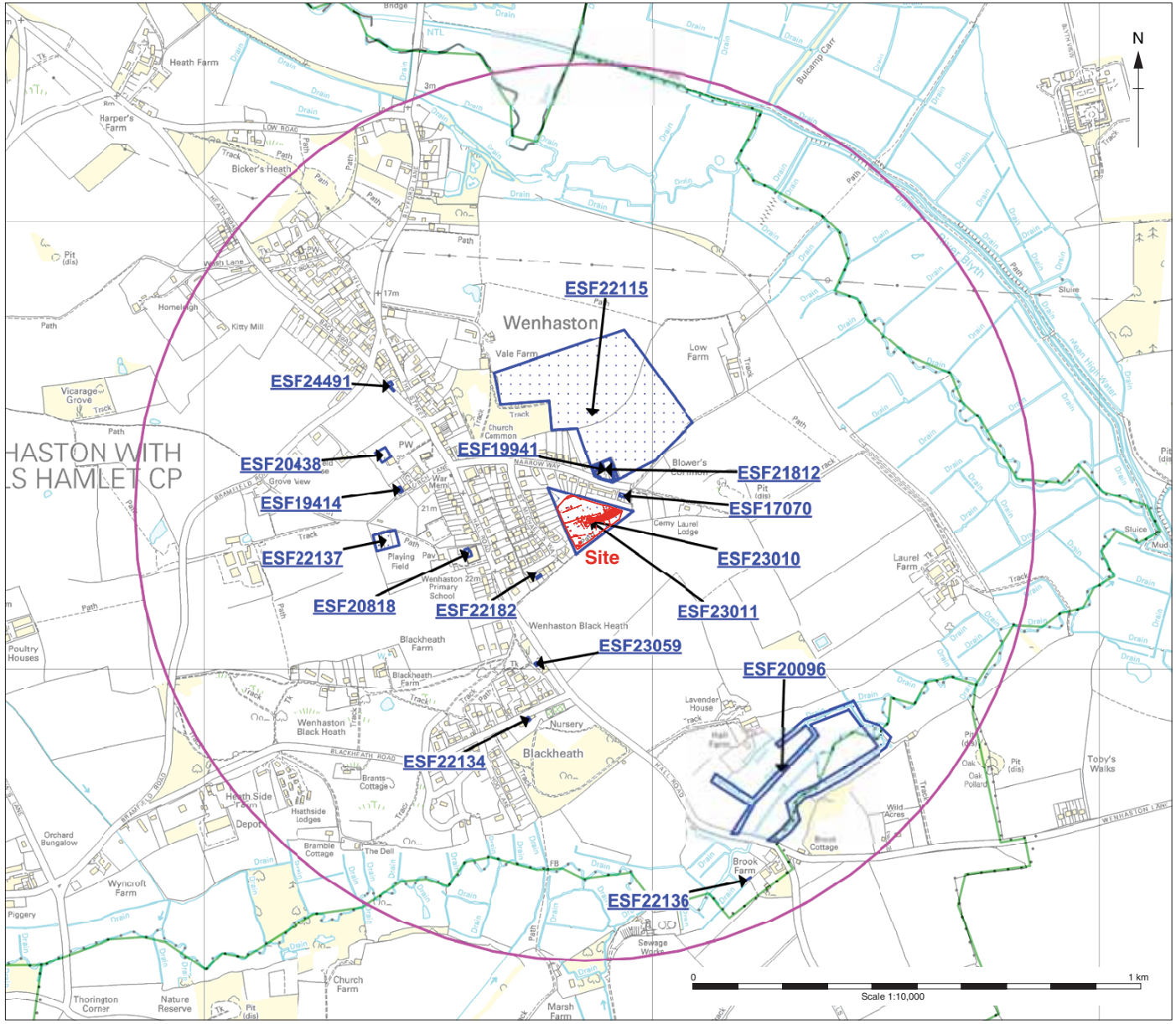

Figure 3: Map showing location of SHER Events

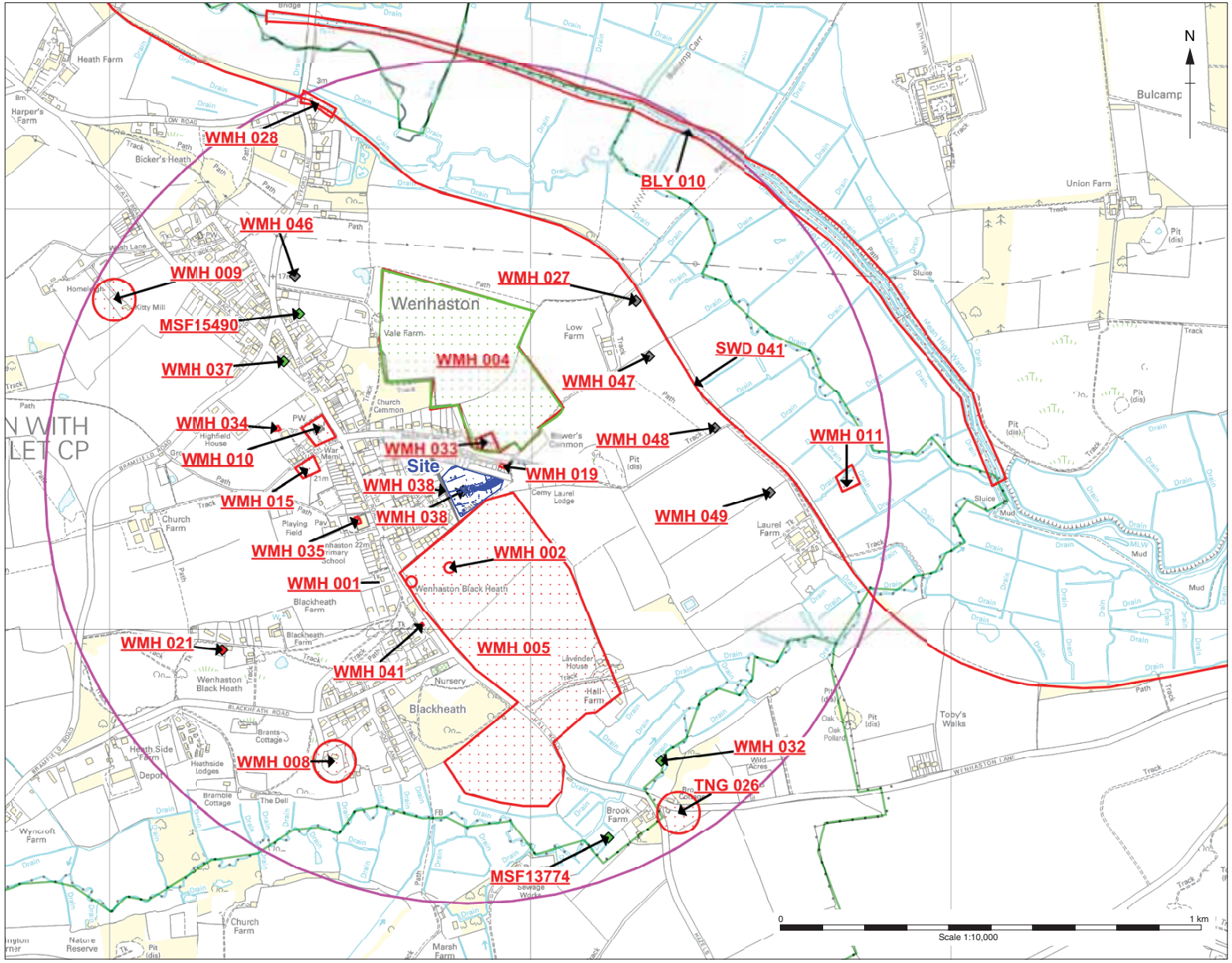

Figure 4: Map showing location of SHER Monuments

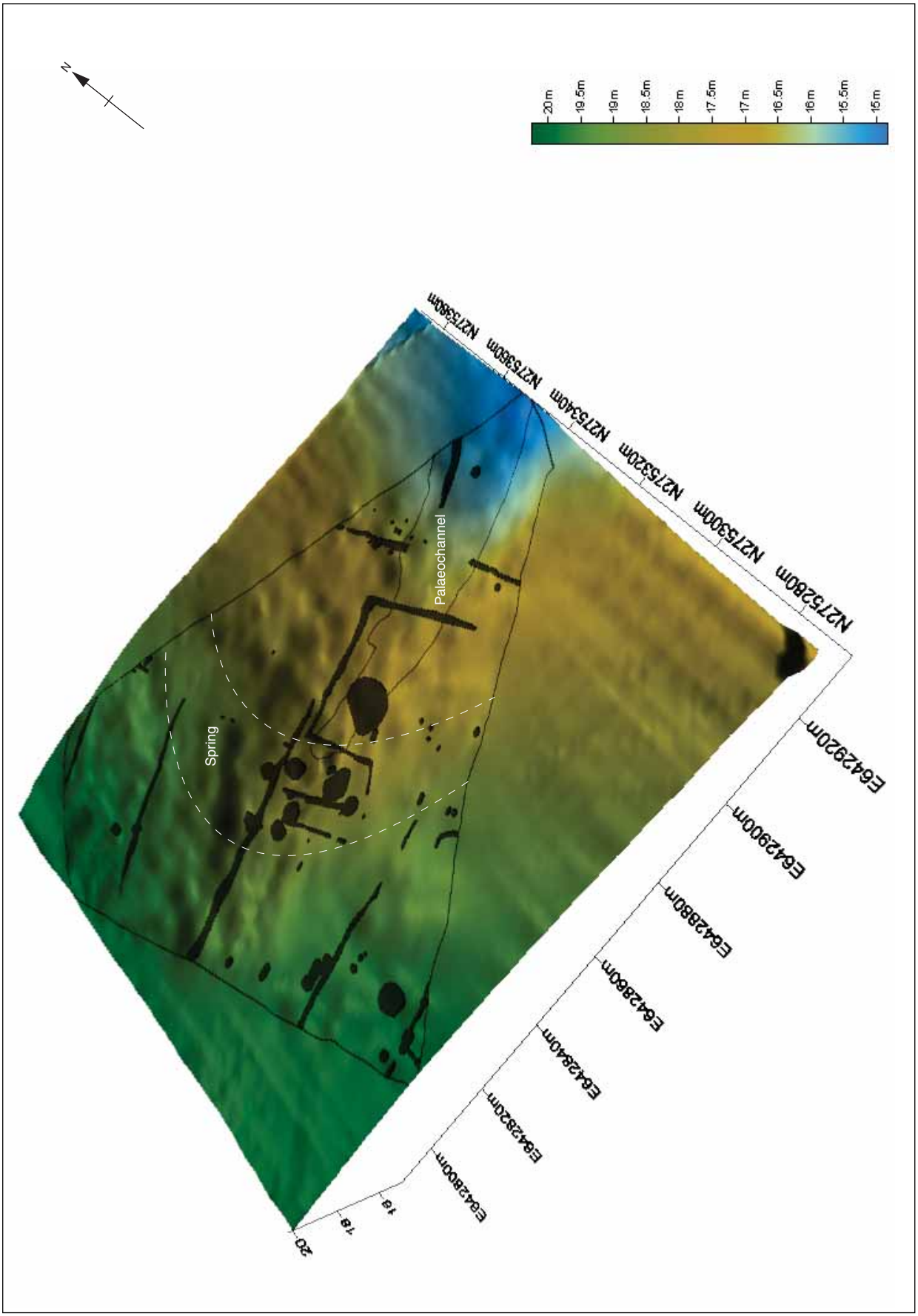

Figure 5: Topographical model of the site (created using Surfer)

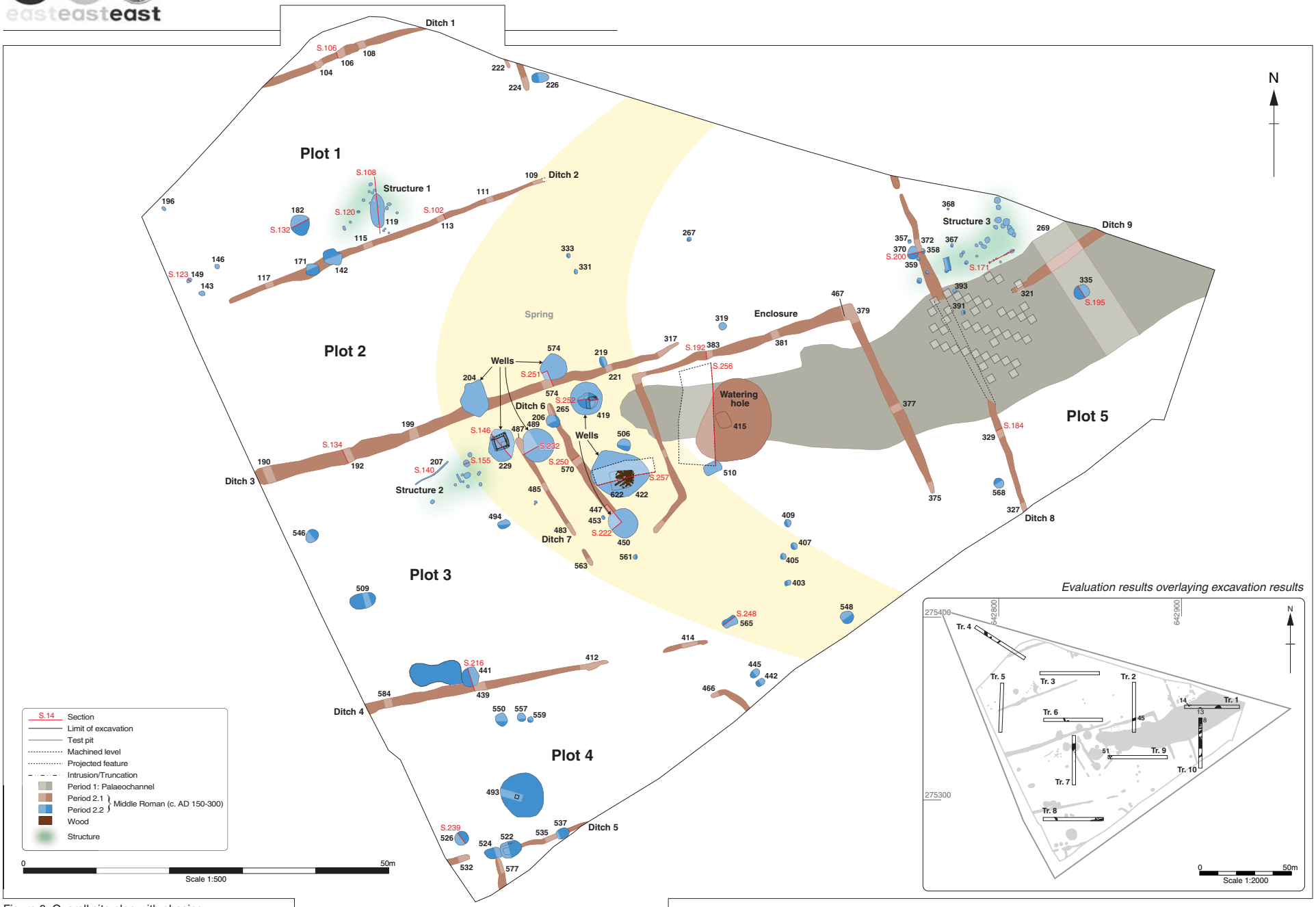

Figure 6: Overall site plan with phasing

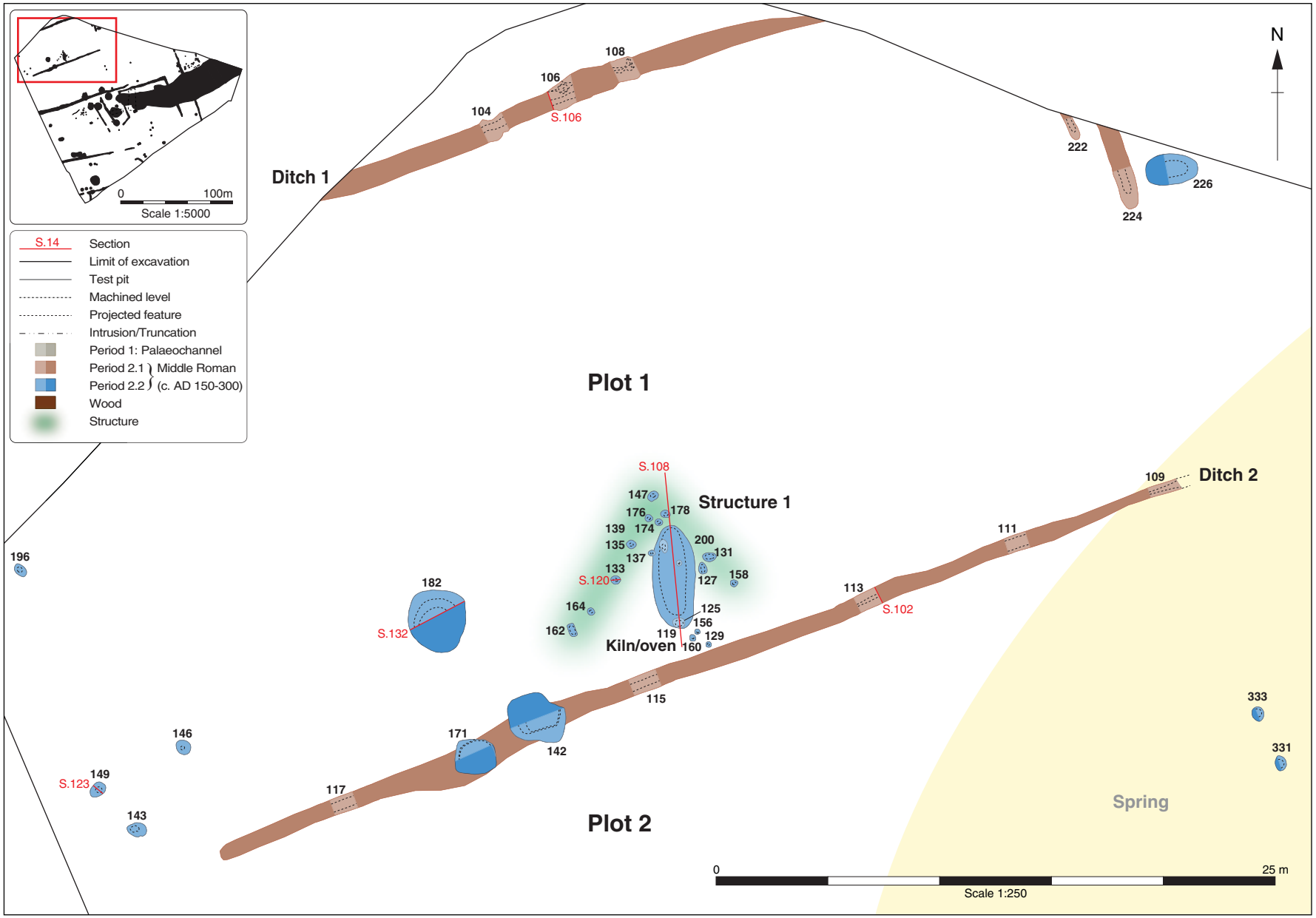

Figure 7a: Detail phase plans

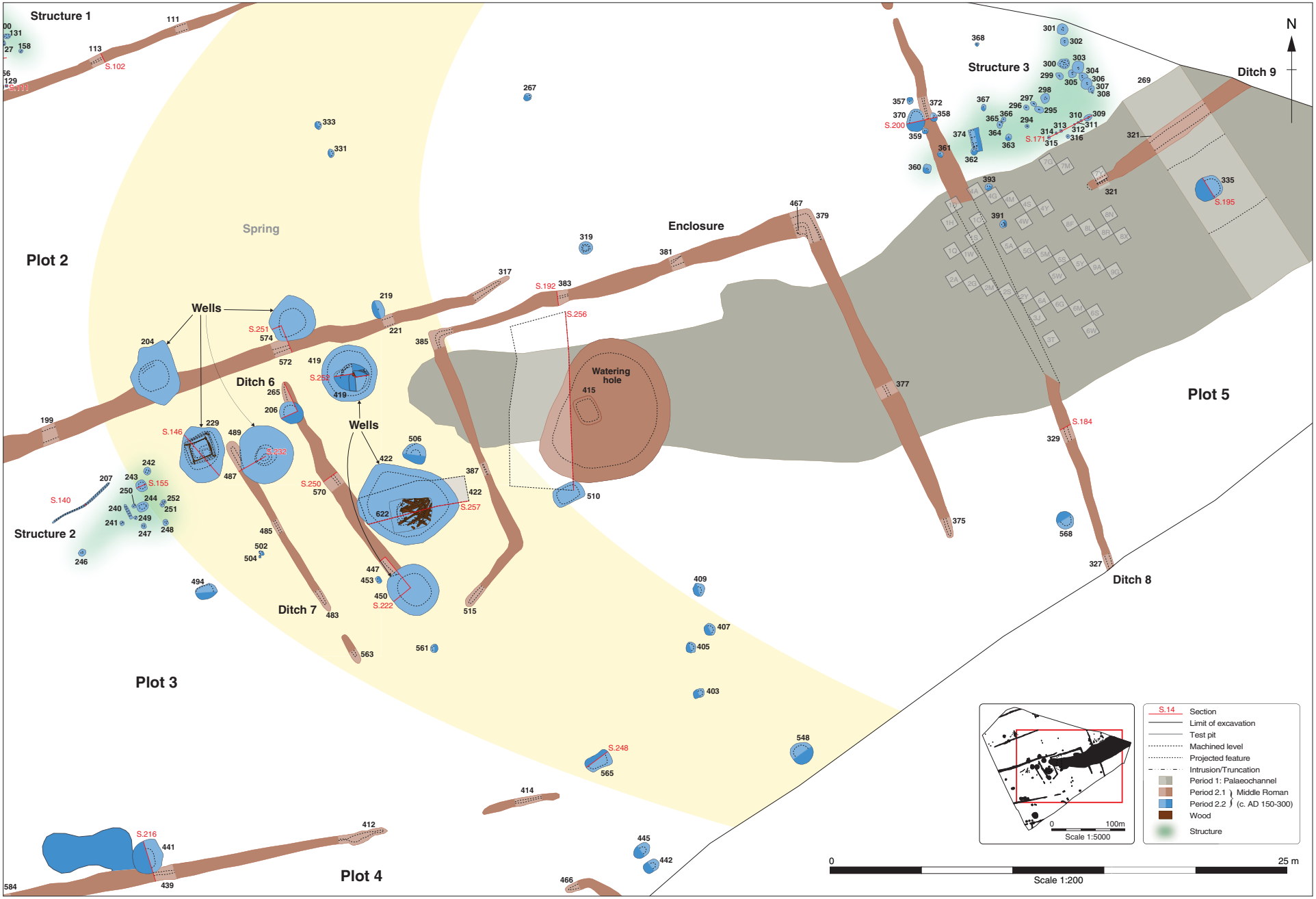

Figure 7b: Detail phase plans

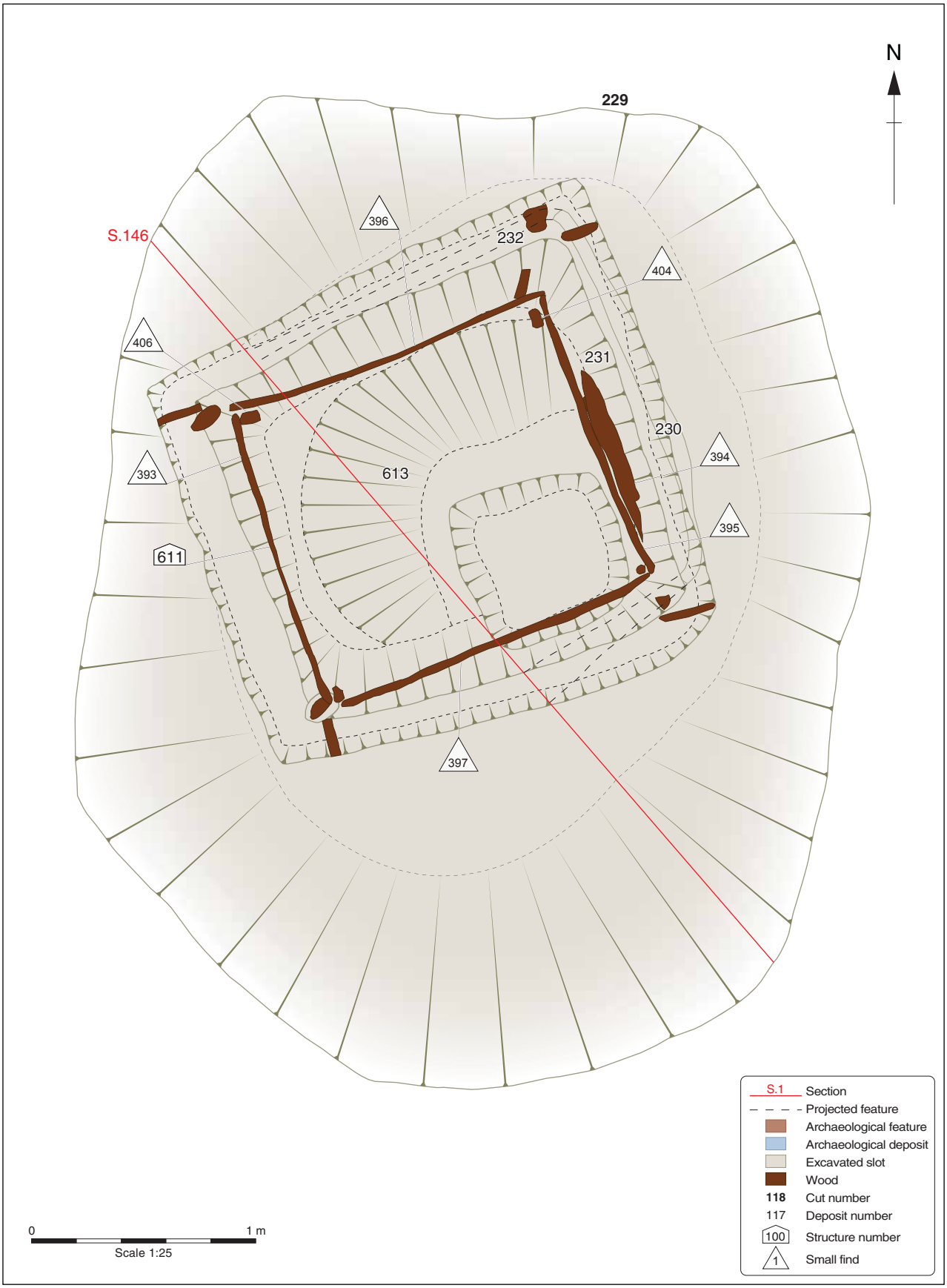

Figure 8: Well **229** with timber lining 611

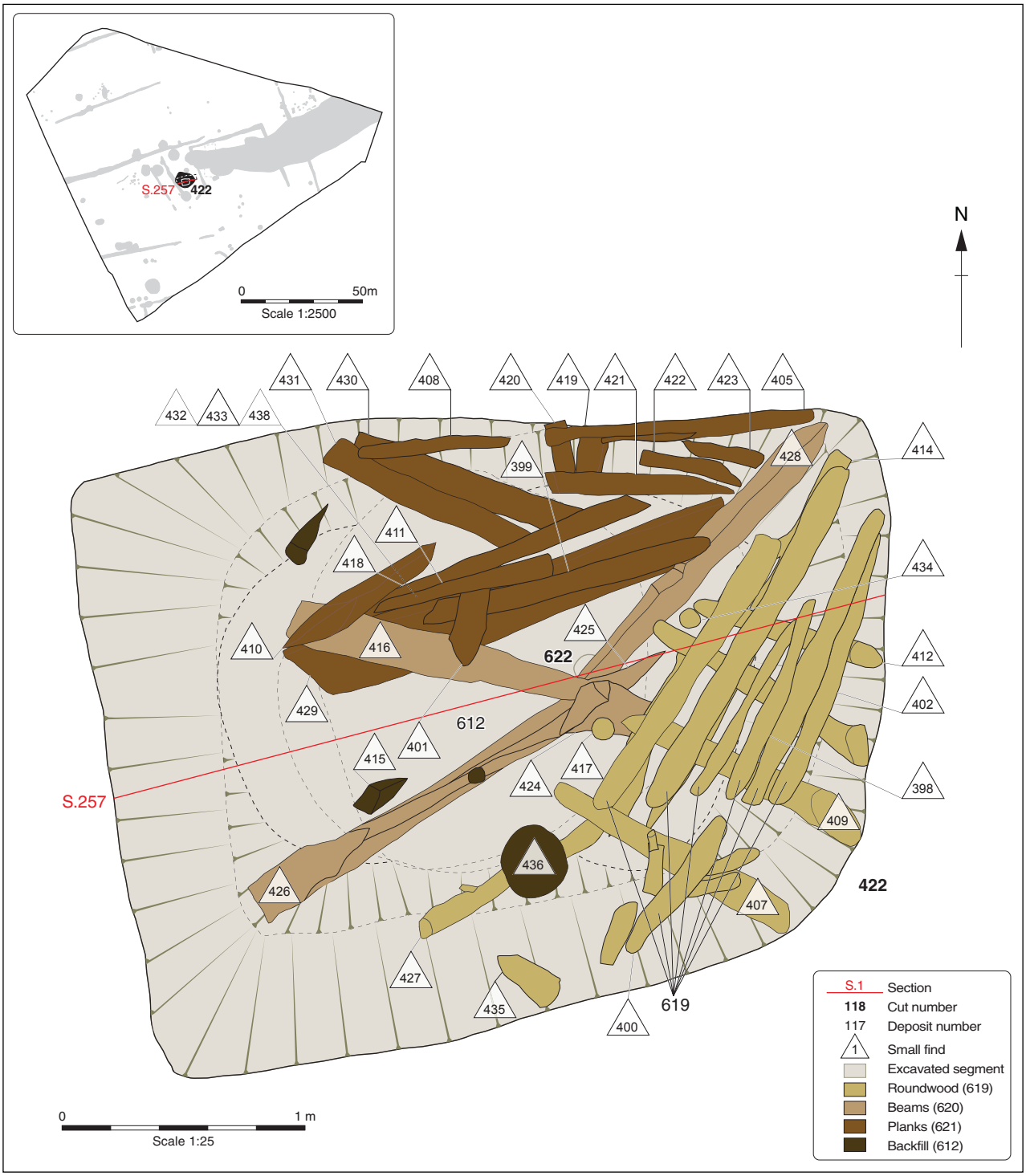

Figure 9: Well **422** with timber groups 619, 620 and 621

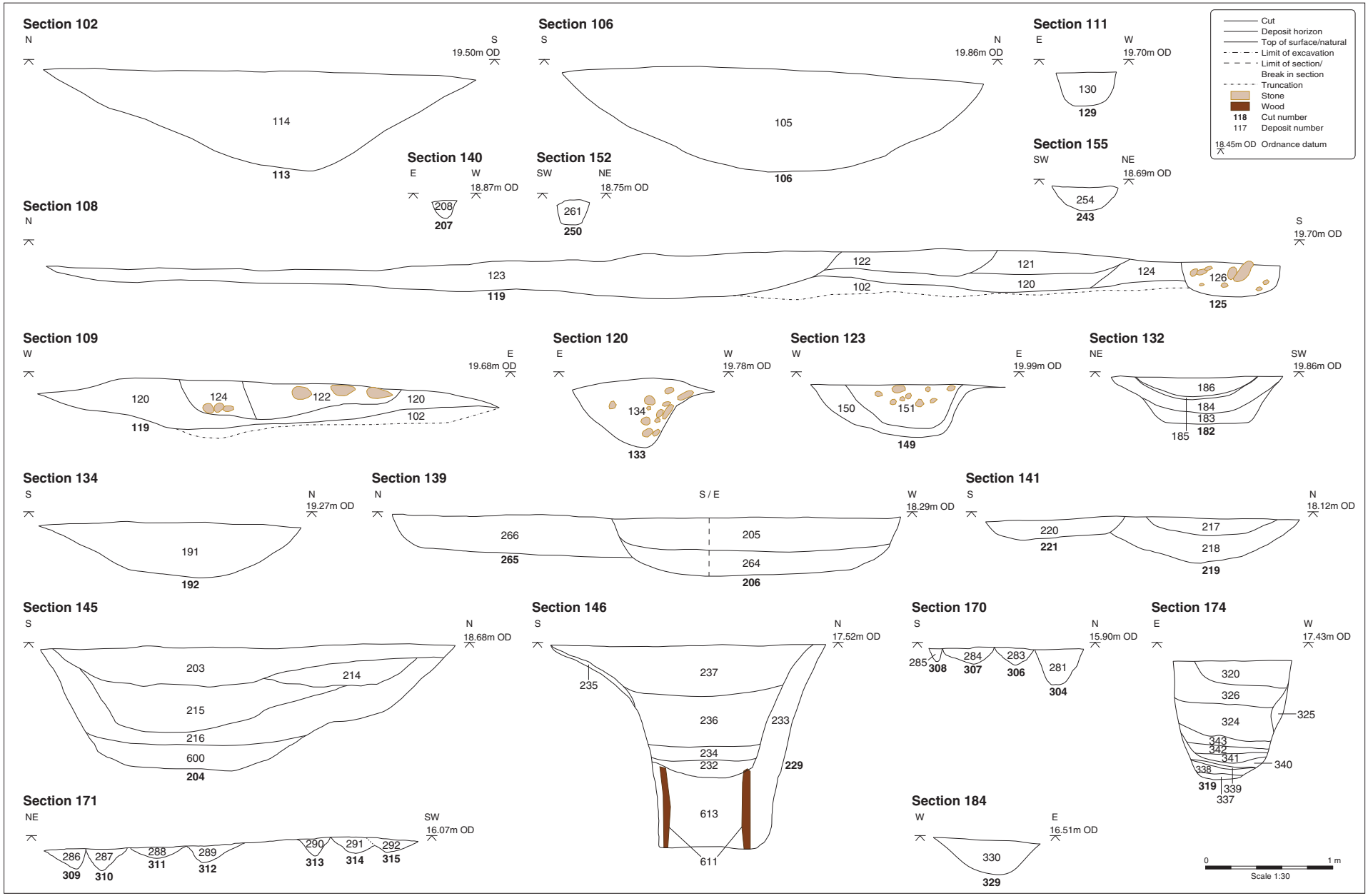

Figure 10a: Selected sections

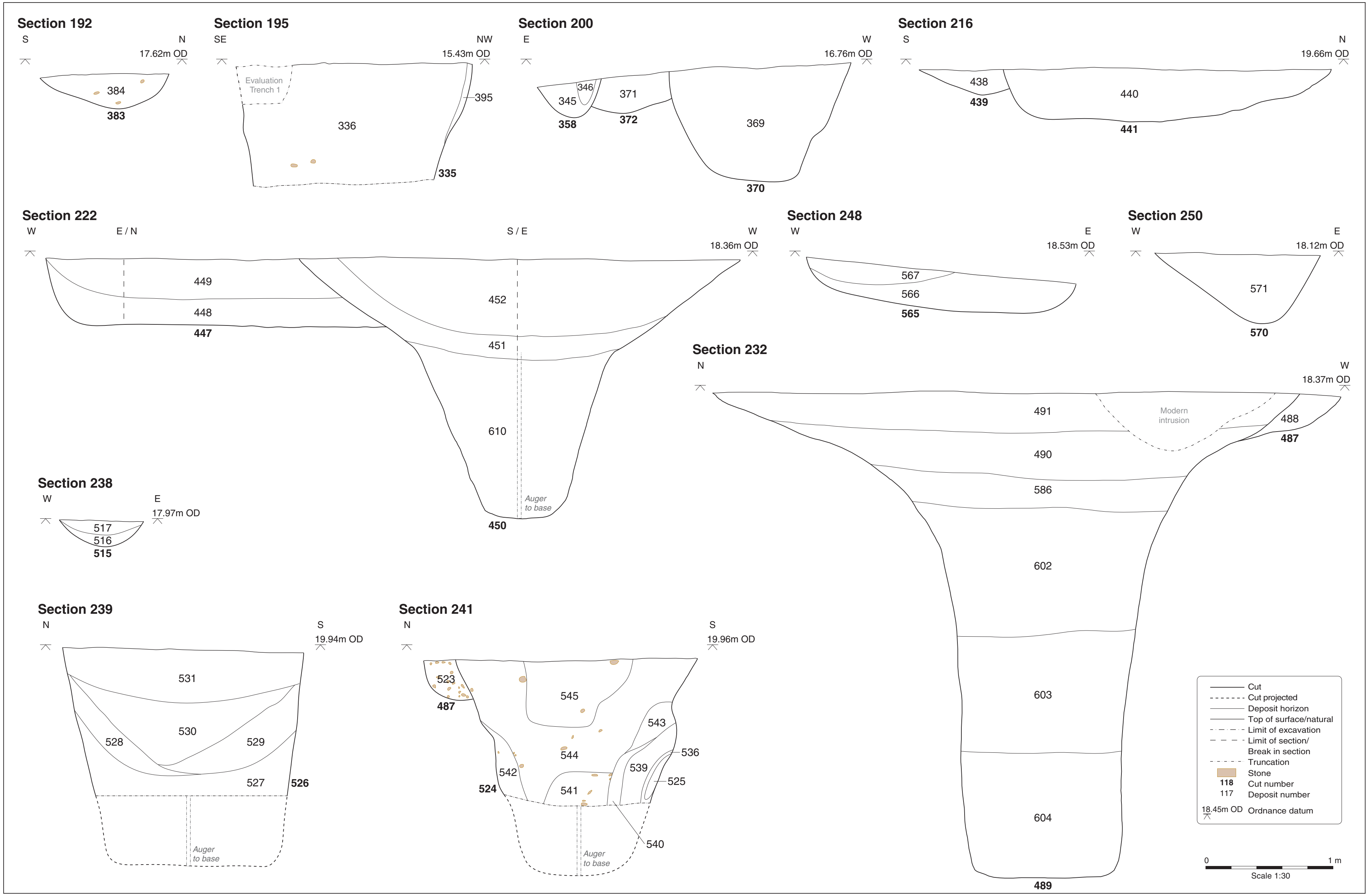

Figure 10b: Selected sections

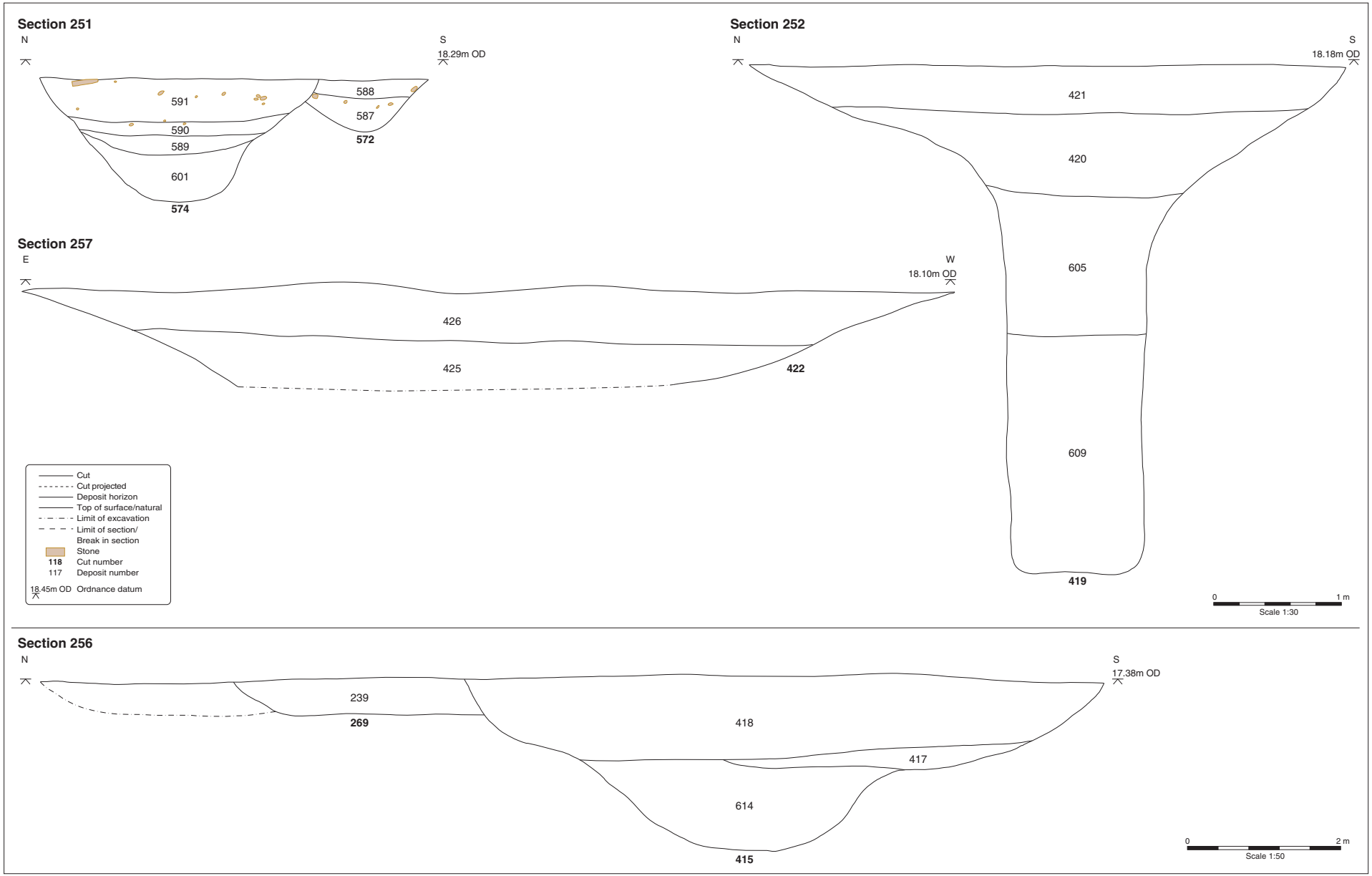

Figure 10c: Selected sections

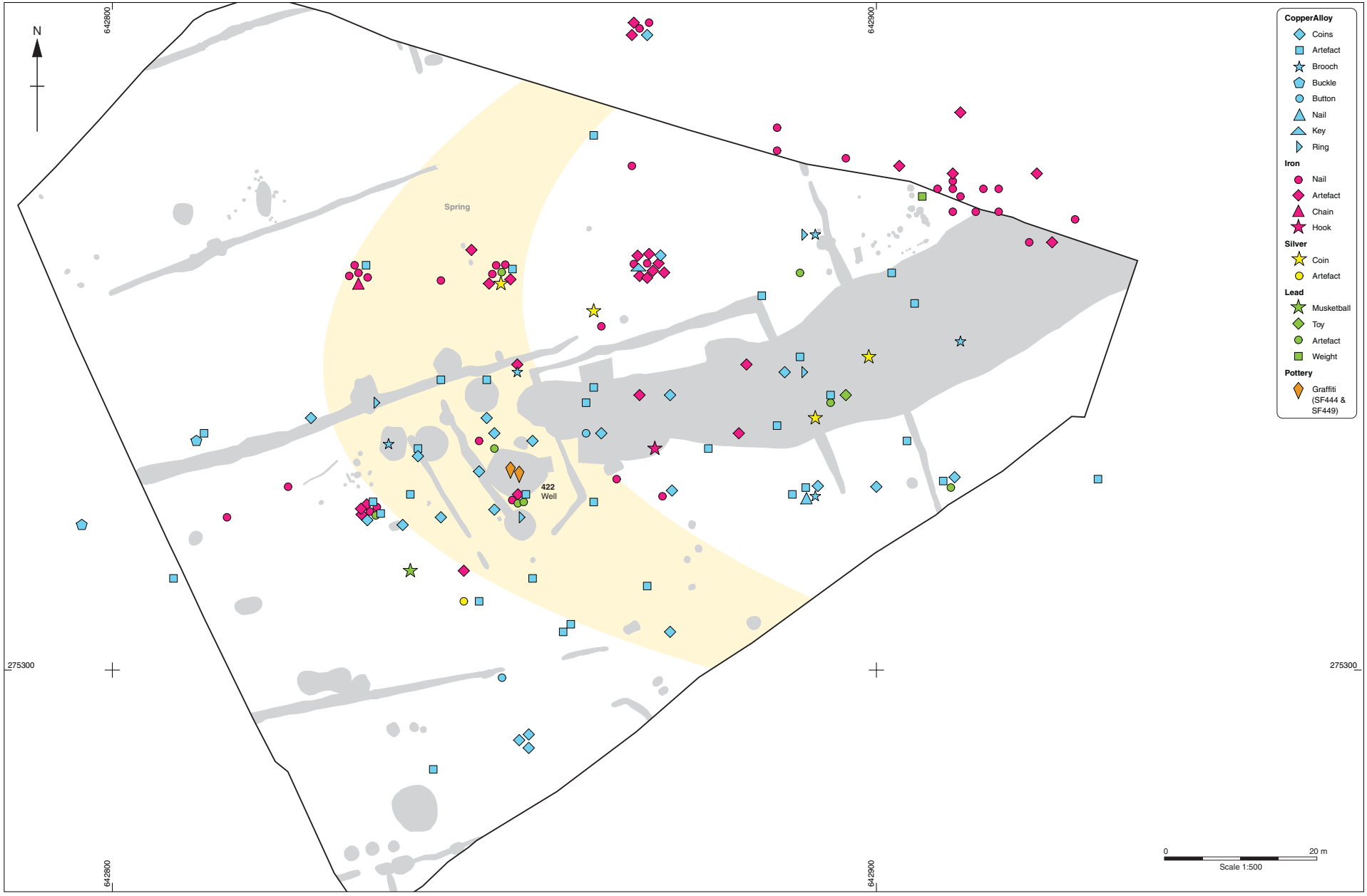

Figure 11: Metalwork distribution

Plate 1: Aerial photograph of the excavation area, looking west towards St Peter's Church

Plate 2: Section of Period 1 palaeochannel **269** and test pits, looking west

Plate 3: Working shot of Period 1 palaeochannel **269** and test pits, looking southwest

Plate 4: Period 2.2 Structure **207**, pre-excavation, looking north

Plate 5: Period 2.2 Well **229** with timber lining 611, looking south

Plate 6: Period 2.2 Well **422** with timber groups 620 and 621, looking east

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com