Iron Age and Roman Remains at Bretton Way, Peterborough

Post-Excavation Assessment

oxfordarchaeology east east east

August 2011

Client: CgMs Consulting for PJ Care

OA East Report No: 1230
OASIS No: oxfordar3-97542
NGR: TF 160 077

Post-Excavation Assessment

Iron Age and Roman Remains at Bretton Way, Peterborough

Post-excavation Assessment and Updated Project Design

By Alexandra Pickstone BA (Hons) AIfA

With contributions by Stephen Boreham BSc PhD, Nina Crummy BA FSA, Chris Faine MSc AIfA, Rachel Fosberry HNC (Cert Ed) AIfA, Quita Mould MA FSA, Dr Alex Smith MIfA and Dr Stephen G. Upex,

Editor: Elizabeth Popescu BA PhD MIfA

Illustrator: Alexandra Pickstone BA (Hons) AIfA and Andrew Corrigan BA

Report Date: August 2011

Report Number:	1230
Site Name:	Bretton Way, Peterborough
HER Event No:	-
Date of Works:	October – November 2010
Client Name:	P.J. Care
Client Ref:	-
Planning Ref:	-
Grid Ref:	TF 160 077
Site Code:	PET BET 10
Finance Code:	PET BET 10
Receiving Body:	Peterborough Museum
Accession No:	-
Prepared by:	Alexandra Pickstone
Position:	Project Officer
Date:	10.08.11
Checked by:	James Drummond-Murray
Position:	Senior Project Manager
Date:	10.08.11
Signed:	.....

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

Table of Contents

List of Figures

List of Tables

Summary

An archaeological excavation was carried out by Oxford Archaeology East during October and November 2010 at the Oak Tree Site, Bretton Way, Peterborough. The works were commissioned by CgMs Consulting Ltd on behalf of PJ Care, prior to the construction of a neurological care unit. The site was 0.35ha and lay at approximately 22m OD.

The excavation revealed remains dating from the Late Iron Age to Late Roman periods. Medieval ridge and furrow was also identified.

The Late Iron Age activity was characterised by at least two partially truncated roundhouses and small ditches. An area of Early Roman activity which consisted of two enclosure ditches, extended beyond the limit of excavation to the west. There was significant quantities of 1st to 2nd century AD material incorporated into later features suggest of a contemporary settlement.

A 3rd century AD rectilinear field system extended across two thirds of the site on a north to south and east to west axis. A later 3rd to 4th century AD aisled barn truncated this field system.

A currently unparalleled late-Roman stone-lined feature was an unexpected find. The feature dating to the late 3rd to 4th century AD was 2m square and 2.5m deep. It was lined with re-used stones from a monumental building. The feature's interpretation is currently uncertain although an element of ritual deposition within is possible. It contained a large finds assemblage including pottery, animal bone, leather shoes and a small number of coins.

1 INTRODUCTION

1.1 Project Background

1.1.1 An archaeological excavation was carried out by Oxford Archaeology East during October and November 2010 at the Oak Tree Site, Bretton Way, Peterborough. The works were commissioned by CgMs Consulting Ltd on behalf of P.J. Care Ltd, prior to the construction of a neurological care unit.

1.1.2 The site was located in Bretton, to the north-west of Peterborough. It was to the west of Bretton Way, bounded by a road known as 'Flaxland' to the south, woodland to the north and farmland to the west.

1.2 Geology and Topography

1.2.1 The underlying geology was Cornbrash limestone (www.bgs.ac.uk/geoindex/index) and the site was at approximately 22m OD.

1.3 Archaeological and Historical Background

Desk-Based Assessment (DBA)

1.3.1 A DBA was prepared by CgMs Consulting Ltd, using a search area of 1km radius from the centre of the development area. The DBA established that the site had good potential for Neolithic, Bronze Age and Roman remains while low potential for all other periods.

1.3.2 Iron Age and Roman coins as well as pottery were recovered from the site during topsoil stripping in the early 1990s (HER 51164). Roman pottery was discovered from molehills in the adjacent Grimeshaw Wood, to the north of the development area (HER 51519). The density of finds suggested that an Iron Age/Roman settlement or activity was on or near the study site (Dicks 2010).

1.3.3 Medieval ridge and furrow, visible on aerial photographs, was observed in fields around Highlees Spinney, formerly within Hurn Field *c.* 500m east of the site (PCC HER ref 51164 at TF16064 00779).

1.3.4 The following maps were studied;

- 1805 Walton and Werrington Enclosure Map
- 1st Edition Ordnance Survey (1886)
- Ordnance Survey 1926
- Ordnance Survey 1958
- Ordnance Survey 1976

1.3.5 The site lay as fields to the south of Grimeshaw Wood during this period. Bretton Way is first shown on the 1976 map.

Evaluation

1.3.6 An evaluation carried out by Northamptonshire Archaeology in June 2010 revealed a number of ditches and gullies dating to the 3rd to 4th centuries. They were oriented east-west and north-south suggestive of a field system. Finds of coins, roof tile and glass were concentrated in the north-western area of the site indicative of settlement activity.

1.3.7 The evaluation also identified large numbers of concrete strip foundations from temporary offices which were on the site during the early 1990s. There was also evidence that the site had been levelled, resulting in the truncation of the subsoil and in places the natural substrate (Taylor 2010).

1.4 Methodology and Site Conditions

1.4.1 An area of 0.35 ha was stripped using a 360° tracked excavator. The overburden predominantly consisted of thin layer (up to 0.2m) of topsoil, overlying 0.15m – 0.3m of limestone aggregate over the natural substrate. Where the site had not been previously stripped, along the northern boundary adjacent to the woodland, the total topsoil and subsoil was 1m deep (both approximately 0.5m thick). The concrete strip foundations which were present across the whole excavation area were removed by machine.

1.4.2 The greatest levels of truncation were located adjacent to the northern baulk. In particular this affected an area of approximately 20m by 10m, where the natural was disturbed and a further area where the strip foundations were dug into the cornbrash, combined with a large number of modern drains (Fig. 2).

1.5 Acknowledgements

1.5.1 The author would like to thank PJ Care who funded the excavation, and CgMs who commissioned the work. The excavation was monitored by Rebecca Casa-Hatton of Planning Services, Peterborough City Council and managed by James Drummond-Murray. Alex Smith was the academic consultant. The site was excavated by John Diffey, James Fairbairn, John House, Tom Lyons, Helen Stocks-Morgan and Stephen Morgan. Survey support was provided by Louise Bush and Rachel Clarke and Steve Critchley metal detected the site. Philip Hill and Simon Pickstone volunteered on site. Carole Fletcher supervised the finds processing.

2 Summary of Results

2.1 Introduction

2.1.1 The excavation revealed a multi-period site, with features dating from the Late Iron Age to Late Roman period. The archaeology could be seen as typical for this area, with the exception of a large Late Roman stone-lined feature which is currently unparalleled.

2.1.2 All archaeological features have been assigned to a period and phase, or grouped as undated features using the stratigraphic data gained on site, in conjunction with the pottery assessment and spot dates. The periods and phases are as follows;

Period 1: Iron Age

- Phase 1 – Iron Age Settlement

Period 2: Roman

- Phase 2.1 - Early Roman Activity
- Phases 2.2.1 and 2.2.2 - ?Late 2nd to Early 3rd Century AD
- Phase 2.3 - Middle 3rd Century AD
- Phase 2.4 - Late 3rd to Early 4th Century AD

2.1.3 Period 3: Medieval

- Phase 3

2.1.4 The phases may be subject to change following the full analysis of the finds assemblage at a later date.

2.1.5 All archaeological features are referred to by their cut number; if more than one slot was excavated then the lowest cut number is used to describe the feature and is printed in **bold** type throughout the text.

2.2 Period 1: Iron Age

Phase 1: Iron Age Settlement **(Fig. 3)**

2.2.1 Late Iron Age occupation was concentrated in the eastern side of the site and covered an area of approximately 30m by 20m. A single isolated pit lay beyond this area, approximately 15m to the west.

2.2.2 At least two roundhouse drip gullies were have been identified, however they were both heavily truncated by modern features and later archaeology. Small lengths of curvilinear ditches containing Late Iron Age pottery may also provide further evidence of structures, however these will be addressed below under the sub-heading '*Ditches*'. Due to the location of these features, there would appear to have been more than one phase of structure.

2.2.3 The features were all very shallow and truncated (less than 0.30m deep) and contained a single relatively uniform fill of mid greyish brown to mid orangey brown clayey silt. There were no obvious concentrations of charcoal or burnt clay and the inclusions mainly consisted of small pieces of cornbrash. The features were all steep to gradual sided with concave bases. The pottery recovered from the features has been preliminarily identified as Late Iron Age Shell Gritted Ware (LIASGW), of which a total of 3.842kg was recovered from this period. Under 0.5kg of animal bone was recovered from these features.

Roundhouse Gullies

2.2.4 Drip gully **119** had a projected diameter of 7.5 – 8m and was 0.5m wide and 0.18m deep. No finds were recovered from its single fill.

2.2.5 Drip gully **192** was slightly larger with a projected diameter of 8.5m, but with a narrower ditch of 0.3m wide and 0.3m deep. It contained 10 large sherds (0.320kg) of pottery from the single fill.

Ditches

2.2.6 Ditch **208** was located to the east of gully **192**. It was oriented east-west and measured 5.4m in length, 0.4m wide and 0.2m deep. It contained a single fill with the largest assemblage of Late Iron Age pottery from the site, comprising a total of 128 sherds (3.210kg), 100 of which were from a single large bowl. It also contained a total of 0.293kg of animal bone.

2.2.7 Ditch **262** was located to the north of gully **199**. It was slightly curvilinear in shape and measured 4.2m long, 0.5m wide and 0.16m deep. The ditch contained a single fill with 10 sherds (100g) of pottery.

2.2.8 Ditch **266** was located to the north of ditch **119**. It was heavily truncated and was 0.5m wide and 0.1m deep. It contained no finds.

2.2.9 A short length of ditch (**258**) extended south from the northern baulk. It was also heavily truncated measuring 0.4m wide and 0.17m deep.

Pit

2.2.10 Pit **206** was truncated by ditch **208.** It measured 0.8m wide and 0.2m deep and contained a single fill.

2.2.11 Pit **315** was located to the west of the main settlement area but did contain a significant quantity of pottery at 28 sherds (0.240kg). It was oval in shape measuring 1.5m in length, 0.55m wide and 0.21m deep.

2.3 Period 2: Roman

Phase 2.1 – Early Roman Activity (Fig.4)

2.3.1 An area of Latest Iron Age to Roman activity was located in the north-western side of the development area. The majority of the activity appeared to extend beyond the limits of excavation leaving just the eastern sides of two enclosures, a ditch and a single pit exposed. The features were heavily truncated and contained single mid to dark greyish brown clayey silt fills with relatively small quantities of Late Iron Age to Early Roman pottery recovered from any one slot. The exception to this was ditch **110** which contained the largest assemblage of material from this period (1.471kg of pottery). This limited area covered approximately 40m north to south and 10m east to west.

Ditches

2.3.2 Ditch **6** was curvilinear in shape and located along the western baulk of site on a north-west to south-east axis, perhaps forming an enclosure beyond the limits of excavation. The visible portion of the ditch measured 28.5m in length and was 0.9m wide and up to 0.3m deep. It contained a single fill with 9 sherds (20g) of LIASGW and 1 sherd (20g) of Roman Grog Tempered Ware (RGTW) recovered from the most southerly section (Fig. 13, Section 2).

2.3.3 Ditch **10** was parallel to ditch **6** on its western side. It measured 0.51m wide and 0.08m deep and contained 4 sherds of Roman Grog Tempered Ware.

2.3.4 Ditch **110** contained 108 sherds (1.471kg) of pottery and 113g of animal bone The ditch extended east-west from the western baulk, it measured 1.65m wide and 0.27m deep and contained a single fill.

2.3.5 Ditch **137** a very short length of truncated ditch extended east to west. It measured 0.4m wide and 0.05m deep. It contained no finds.

Pit

2.3.6 Pit **3** was was oval in shape with steep straight sides. It measured 2.1m in length, 1.3m wide and 0.2m deep and contained two fills. The upper fill was a dark grey brown silty clay with orange heat affected patches along with frequent charcoal, burnt clay and burnt stone inclusions. The basal fill primarily consisted of redeposited natural clay and cornbrash. A total of 8 sherds (20g) of LIASGW and 41g of animal bone was recovered from the upper fill. It has been preliminarily grouped with the Early Roman

features due to its proximity to features of a similar date with comparable pottery assemblages.

Phase 2.2 - ?Late 2nd to Early 3rd Century AD (Fig.5)

2.3.7 The archaeology of this period is characterised by the re-cutting of the early Roman enclosure system on the western edge of the development area and the establishment of an significant, if yet shallow, east to west boundary. This phase has two sub-phases as there were a number of closely datable features clearly cutting through the boundary ditch.

Phase 2.2.1

2.3.8 Ditch **20** was not obviously associated with any other feature, however it respected the main east-west boundary of this phase. It measured 1m wide and 0.45m deep and contained 2 fills with 7 sherds (68g) of pottery. The curve in the ditch is of interest as its position may have influenced the position of the later stone-lined feature.

2.3.9 Ditches **144** and **229** appeared to be later versions of an Early Roman enclosure system. Ditch **144** was between 1m to 1.5m wide, and up to 0.4m deep. It contained a single fill. The northernmost slot contained a single sherd (4g) of LNVCCW, whereas the southern slot contained a relatively large but mixed assemblage of 1.187kg of pottery (over 200g of which is residual Late Iron Age/Early Roman).

2.3.10 Ditch **229** was much much shallower (0.15m – 0.2m deep) but of the same width. No finds were recovered from this ditch.

2.3.11 Ditch **99** extended for approximately 17m east-west. It was truncated at its western end and terminated at the eastern end. It measured 1.15m wide and 0.25m deep. It contained a single mid brown silty clay fill and 3 sherds (15g) of pottery.

2.3.12 A narrow, 20m long ditch (**113**) extended along an east -west axis. It terminated at both ends. It measured 0.45m wide and 0.08m deep. It contained a single fill and no finds.

2.3.13 Ditch **172** was located within the eastern arm of the development area. It was a small section of truncated ditch measuring 4.8m in length, 0.4m wide and 0.25m deep and contained 9 sherds (0.1kg) of residual pottery.

2.3.14 Ditches **178** and **181** were parallel and extended for approximately 35m before extending beneath the eastern baulk. At least one of the ditches may extend across the entire site in a very truncated form. They were approximately 1m wide and only 0.1 to 0.18m wide. Ditch **181** contained 2 sherds (40g) of Roman Shell Gritted Ware (RSGW). These ditches along with **99** and **113** may have influenced the layout of the later rectilinear field system.

2.3.15 Ditch **303** extended for 6m east-northeast from the western baulk, before terminating. It measured 0.3m wide and 0.1m deep.

Phase 2.2.2

2.3.16 Ditch **194** was located to the south of **192**, it extended east to west and was slightly curvilinear along its length, perhaps influenced by the position of the earlier roundhouse. The ditch was heavily truncated at its western end by modern drains, foundation cuts and by later archaeology. The ditch appeared to turn north at this point. It was 0.7m wide and 0.23m deep and contained a single fill with 10 sherds (0.2kg) of pottery and 0.127kg of animal bone.

2.3.17 Ditch **128** was oriented north-east to south-west. It had no clear association with any other features. It measured 1m wide and 0.18m deep and contained 2 fills. The upper fill contained 3 sherds (88g) of RSGW pottery.

2.3.18 Ditch **260** was curvilinear and heavily truncated. It measured 0.74m wide and 0.16m deep and contained no finds.

2.3.19 Water hole **231** was approximately 5m wide and a least 5m in length. It was 1.5m deep and contained four fills, of which the basal fill was waterlogged. The upper fills contained 3rd to 4th century pottery whilst the basal fills contained pottery dating to the 2nd and 3rd century. It was a steep-sided feature which was excavated predominately by machine.

2.3.20 Ditch **295** was oriented east-west but appeared to turn north-south before being truncated by the water hole.

Phase 2.3 - Middle 3rd Century AD (Fig. 6)

2.3.21 Activity during this period was predominantly characterised by a rectilinear field system, which extended across western two-thirds of the site. Eleven ditches, six aligned east to west and five north to south, have been provisionally assigned to this phase. Unfortunately, the key relationships between ditches belonging to this phase and subsequent phases lay a few metres beyond the limit of excavation, most noticeably towards the southern limit of the development area.

2.3.22 There was no direct evidence for structures or large quantities of domestic waste within the ditches. Much of the pottery assemblage was residual (1st and 2nd century) and/or abraded, suggesting that the settlement area was some distance away.

2.3.23 The most complete field was located centrally within the excavation area. It was formed by ditch **86** to the west, ditches **69** and **75** to the south and ditch **97** to the east. It measured approximately 45m square. Although the northern limit remained uncertain it may have been formed by an extension of ditch **141**. There could also have been a smaller rectangular subdivision formed by ditches **48** and **51** in its north-western corner. This small field or enclosure measured approximately 15m east to west and 20m north to south. It is feasible that there was an entrance on this western side, to the south of ditch **48**.

2.3.24 A second field located to the west may have been formed by ditches **83, 141** and **239.** This second field measured approximately 30m north to south but extended beyond the limit of excavation to the west.

2.3.25 Located to the north of the second field was a further north to south oriented ditch (**143**) and two short length of east to west ditch (**190**, **218**) which may also be part of this field system. They did not contain any dating evidence but were truncated by later features.

Field System Ditches

2.3.26 Ditch **48** was an L-shaped ditch which had been truncated by a modern drain on its western side. It measured 0.7m wide and 0.15m deep and contained a single fill with 20 sherds (0.078kg) of pottery.

2.3.27 Ditch **51** extended for 5m north to south before being truncated by modern disturbance. It measured 1.05m wide and 0.35m deep, it contained two fills and 3 sherds (0.053kg) of 3rd century pottery.

2.3.28 Ditch **69** was oriented east to west and measured 0.55m wide and 0.13m deep. It contained a single slightly silty clay fill which was mid yellow brown in colour with no finds recovered from either slot. It was recut along broadly the same lines by ditch **75** which was wider and deeper, at 1.1m and 0.3m respectively, however it terminated halfway along the visible length of the earlier ditch. It contained 0.143kg of pottery including 6 sherds (15g) of Lower Nene Valley Colour Coat (LNNCC) suggesting that this section of the field system was reused/recut in the later 3rd to 4th century AD.

2.3.29 Ditch **83** was a continuation west of ditch **86**.

2.3.30 Ditch **86** was oriented north to south and measured 1.05m wide and 0.34m deep. It contained two fills, a basal fill of mid yellow grey sandy clay and an upper fill that was slightly darker due to occasional charcoal flecks. This ditch contained a relatively large pottery assemblage of just under 2kg (221 sherds) of pottery, spot dated to the 2nd to 3rd century AD. Two coins were recovered from the upper 0.05m of ditch fill.

2.3.31 Ditch **97** was oriented north to south and measured 1.5m wide and 0.53m deep. It contained two fills with 50 sherds (0.620kg) of pottery and about 0.5kg of animal bone.

2.3.32 Ditch **141** was different in character in that it was the only sharp V-shaped ditch on site. It was oriented east to west and measured 0.85m wide and 0.51m deep and contained 2 fills with 19 sherds (0.162kg) of pottery.

2.3.33 Ditch **143** measured 0.95m across and 0.12m deep and contained a single fill and no finds.

2.3.34 Ditch **190** was oriented east to west and terminated 1m to the west of ditch **143**. It was truncated by later pit **188** at this point. It measured 0.4m wide and 0.2m deep and contained a single fill and no finds.

2.3.35 Ditch **218** was oriented east to west and measured 2.5m long, 0.4m wide and 0.2m deep. It contained a single fill and no finds.

2.3.36 Ditch **243** measured 0.2m deep and 0.7m wide and contained a single fill and no finds.

Ditches

2.3.37 A short length of heavily truncated ditch (**317**) measuring approximately 4m in length, 0.4m wide and 0.1m deep was oriented north-northwest to south-southeast. It was truncated by later pits **314** and **321**.

2.3.38 Two parallel ditches (**299**, **301**) were located in the north-western area of the site. They lay on a north-north-east to east-south-west axis and were heavily truncated at both ends. They measured approximately 8m in length, a maximum of 0.5m wide and 0.1m deep.

2.3.39 Ditch **307** was a narrow, truncated ditch which extended on an east to west axis. It measured 0.3m wide and 0.15m deep and was truncated by the aisled barn. No finds were recovered from this feature.

Phase 2.4: Late 3rd to Early 4th Century AD (Fig.7)

2.3.40 The phase is predominately characterised by an aisled barn and a unique stone-lined feature.

The Aisled Barn (Figs.7 and 10)

2.3.41 A large aisled barn lay on an east-west axis and clearly truncated the earlier rectilinear field system. It was formed by 7 pairs of large postholes, spaced between 2.2m – 2.4m apart encompassing an area of 21m from east-west and 8.5m from north-south. On the north-eastern corner of the building the postholes appear to have been modified as they were closer together and had been re-cut (**103, 105** and **108**). An underlying earlier ditch may have caused subsidence or increased rot of the post in this location. A possible beam slot and small posthole located 3m to the east of the furthest post hole pair were the only features potentially associated with external super structure of the building (**133/135**, **131**). Four further post holes sited within the area of the building have been assigned to this group, however they may equally pre- or post-date this structure. No large internal features such as hearths were observed.

2.3.42 The post holes measured between 0.6m – 1.25m (commonly 0.8m – 1.15m) in diameter and 0.15 – 0.43m deep. They contained 1 - 3 fills and at least 2 contained evidence of post pipes (**93**, **80**) located towards the centre of the building (Fig. 13, Section 25). Post hole **64** contained a large stone post pad. The fills were all composed of a fine clayey silt with cornbrash inclusions, they varied in colour from light orange grey basal fills to mid brownish grey upper fills.

2.3.43 A corroded coin was recovered from post hole **79**, a composite 'box stud' from **80**, an iron punch from **134** and a copper alloy sheet fitting with rivet hole from **105**. Four iron nails were also recovered. Approximately 4kg of pottery was recovered from the post holes associated with the building, the most significant quantities were derived from **105** (1.552kg), **108** (0.502kg) and **306** (0.350kg). The pottery from the remaining postholes totalled 1.388kg. The preliminary assessment of the pottery assemblage has identified late 3rd to early 4th century Lower Nene Valley Colour Coat and Grey Wares with some residual 2nd century material, which includes 3 small sherds of Samian ware. Less than 1kg of animal bone in total was recovered from the postholes.

Stone-Lined Feature (Figs. 11, 12, 13)

2.3.44 A large stone-lined feature was located to the south of the aisled barn. It was 2.25m square and 2.5m deep set within a larger cut of approximately 6m by 3.5m. It may have functioned as a well, tank, cistern but may also provide evidence for 'ritual' activity. The stone lining was very unusual as it was created using huge re-used monumental blocks. The individual blocks are described in Appendix A.3.

2.3.45 The construction cut (**60**) had one shallow side on the north-east which would have provided the 'entrance' to enable the blocks to be put into place (Fig.13, Section 105). The other three sides were near vertical with the stone blocks placed close to the edge of the cut. A clay and rubble packing (331) had been placed between the blocks and cut on these three sides. On the north-eastern side the two largest pieces of masonry were used (501, 511), and a series of layers (332, 328, 327, 326) filled the rest of the cut. Fill 332 was a compact mid orangey grey silty clay. The following fills only appeared on the north-eastern side of the cut. Fill 328 appeared to be a possible construction surface, it measured only 1cm thick but was a mid yellow brown and white with 50% degraded limestone. Fill 327 was a 0.16m thick, very dark grey silty clay with moderate quantities of charcoal. Fill 326 was a light orangey grey sandy clay. No finds were recovered from the construction cut or associated fills.

2.3.46 The lowest 2m of the features fills were waterlogged (340, 339, 338, 337 and 183). They were very dark grey, organic clayey silts and contained large finds assemblages of pottery and animal bone (Table 1). The preservation of environmental and organic

remains was good. Fills 146 and 107 were not waterlogged but were still very dark grey clayey silts. Fill 59 was similar in character but covered the entire construction cut sealing the feature.

Fill	Pottery	Animal Bone	Antler	CBM	Small Finds	Comments
59	7.630	2.459		0.176	1 x coin, 2 x nail, 1 x whetstone	
107	1.015	0.889		0.093	1 x coin, 1 x cu buckle, 1 x iron punch.	
146	1.987	1.328		0.172	1 x coin, 2 x nail	
183	1.957	2.738			1 x sledge runner	
337	6.593	36.112			1 x cu eyelet, 1 x cu strap frag, 3 x hobnails, leather shoes	Machine excavated
338	2.894	8.039		0.339	2 x fe strip frags, 3 x hobnails,1 x sledge runner, leather shoes, 3 x folded birch bark 'curses'.	Machine excavated
339	1.538	2.294	0.227		1 x hobnail, leather shoes	
340	2.176	1.524			1 x composite pendant, 2 x hobnail, leather shoes	

Table 1: Finds quantification by fill from stone-lined feature

Ditches (Fig.7)

2.3.47 Ditch **21** was the southernmost ditch at the site and oriented west-northwest to east-southeast. It contained a very mixed pottery assemblage including 3rd/4th century AD types. It was one of the widest ditches on site at 1.9m wide and 0.36m deep. It contained two fills and just over 0.7kg of pottery.

2.3.48 Ditch **155** may have been associated with the field system ditches but contained 59 sherds (1.160kg) of pottery dated to the 3rd/4th century AD. It was L'shaped and extended under the baulk to the north. It measured 1.4m wide and 0.42m deep, with two mid to dark brown clayey silt fills.

Pits (Fig.7)

2.3.49 Five pits (**149**, **188**, **241**, **313**, **321**) were located in the north-western corner of the development area. They were all situated in north-west to south-east line approximately 28m in length. They may therefore have respected another boundary beyond the limit of excavation. Three of these pits truncated the earlier field system ditches, as a result of which one pit (**241**), has been allocated to this phase even though it contained no dating evidence.

2.3.50 Pit **149** measured 1.90m in diameter and 0.75m deep. It contained three fills of which the lowest fill contained 14 sherds (0.131kg) of 3rd - 4th century pottery.

2.3.51 Pit **188** was similar in diameter, measuring 2.13m in diameter and 0.3m deep. It contained a single fill with 2 sherds (8g) of LNVGW.

2.3.52 Pit **241** measured 0.8m wide and 0.25m deep and contained a single fill.

2.3.53 Pit **313** measured 0.6m wide and 0.2m deep. It contained a single fill with 2 sherds (10g) of LNVGW.

2.3.54 Pit **321** measured 0.8m wide and 0.25m deep. It contained a single fill with a sherd (55g) of LNVCCW.

2.4 Period 3: Medieval (Fig.8)

Ridge and Furrow

2.4.1 Four ditches extended north-west to south-east. They were 7m apart and up to 15m in length, measuring 0.15 to 0.2m deep. They contained a mid grey brown clayey silt, with ditch **17** containing a single piece of abraded 5th century AD pottery.

2.5 Undated (Fig.9)

2.5.1 The following features remained undated (157, 166, 212, 202, 256, 266). They were all up to 0.3m deep and 0.4m wide. They contained single fills, with no finds and had no stratigraphic relationship to other features.

3 Factual Data and Assessment of Archaeological Potential

3.1 Stratigraphic and Structural Data

The Excavation Record

3.1.1 All hand written records have been collated and checked for internal consistency, and have been transcribed in to an *MS Access* database. Quantities of records are shown in the table below.

Type of Record	Number		
	Stone-lined feature	Site	Total
Context register		11	11
Context numbers	317	25	342
Plan registers		1	1
Section register		3	3
Sample register		7	7
Context sheets	317	25	342
Plans at 1:50	1	29	30
Plans at 1:20	2		2
Plans at 1:10		7	7
Sections at 1:20	13	8	21
Sections at 1:10	60	0	
Black and white photos		4 x 36	4 x 36
Digital photographs		*c.* 400	*c.* 400
GPS Survey	Yes	Yes	Yes

Table 2: Quantification of written archive

Finds and Environmental Quantification

3.1.2 All finds have been washed, quantified and bagged in accordance with Peterborough Museum archive guidance. The catalogue of all finds is on an *MS Access* Database. Total quantities of each material by feature type are listed in the table below.

Finds	Stoned-Lined Feature	Ditch	Gully	Pit	Aisled Barn	Surface Finds	Total
Pottery (kg)	29.608	13.451	0.336	0.579	3.937		47.911
CBM (kg)	0.780	1.789		0.009	1.282		3.860
Fired Clay (kg)	0.072	0.008					0.080
Slag (kg)	0.088				0.059		0.147
Animal Bone (kg)	56.112	4.321		0.318	0.949		61.700
Antler (kg)	0.227						0.227
Shell (kg)	0.151	0.203		0.037	0.032		0.423
Coins (no.)	5	5			2	8	20
Leather pieces (no.)							
Wood artefacts (no.)	4						4
Other small finds (no.)	25	14			11	2	76

Table 3: Quantification of finds by feature type

3.1.3 Ten litres of each sample for flotation has been processed and assessed (Appendix B.2). Pollen analysis has been completed (Appendix B.3)

Environmental Samples	Stoned-Lined Feature	Ditch	Pit	Aisled Barn	Total
Flotation	13	4	3	9	29
Pollen	2				2

Table 4: Quantification of environmental samples by feature type

3.2 Artefact Summaries

3.2.1 The following summaries are derived from the specialist reports appended. They address the assemblages as a whole, however the stone, leather and pollen solely relate to the stone-lined feature.

Small Finds (Appendix A.1)

Summary

3.2.2 The assemblage consists of a minimum of 76 items, ranging in date from Roman to medieval or later. Coins and ironwork dominate the group, with nails the most substantial element within the ironwork.

3.2.3 As a whole the coin assemblage conforms to the pattern usually seen on rural sites in eastern Britain, with little or no coinage appearing until the late 3rd century (Reece 1995; Guest 2003; Plouviez 2004). That coins represent nearly a quarter of the assemblage is also not necessarily unusual, but a high number of coins can be an indication of votive deposition and the four coins from the stone-lined feature, together with others found close by, may fall into this class. With a few exceptions the coins

found in other contexts appear to centre on this feature and enhance the possibility that it was used for votive offerings, but with the aisled barn so close by it is also possible that the coins relate to commercial activity in and around the building.

3.2.4 Two bone sledge-runners made from horse metapodials were recovered from the stone-lined feature. In Britain bone sledge runners and skates usually come from Late Saxon or early medieval contexts, but prehistoric examples are known from the continent (MacGregor 1985, 141-6). The recovery of the runners from the late Roman feature is therefore unique within Britain.

3.2.5 An unusual composite object from the same feature has here been assumed to be an amulet of some kind, although it may have some more mundane purpose.

Statement of Potential

3.2.6 The Bretton Way small finds provide a valuable dataset that highlights the contrast in conspicuous consumption between urban and rural life in the Roman period, and the introduction of coinage to rural areas in the later 3rd century AD. Individual finds also contribute to the understanding of religious expression in eastern Britain in the late Roman period and to the changes in material culture that mark the Late Roman to Early Anglo-Saxon transition. The potential of the assemblage to contribute to the revised research objectives is outlined below.

Rural settlement and landscape

No items could be intrinsically dated to the Late Iron Age or early Roman periods.

Coins

3.2.7 The earliest coins date to the latter part of the 3rd century, contributing to the increasing evidence from rural sites in eastern Britain and elsewhere that from the 1st to mid 3rd century or later rural economies were based on barter not cash. Analysis of the Bretton Way data and that from comparable North Cambridgeshire sites can be set against Reece's generalised studies of coin assemblages from Britain (1991; 1995) and Plouviez's more specific analyses of those from Suffolk (2004), allowing a formal presentation of the evidence to be made. An initial survey of the literature points to comparable sites at Haddon, Monument 97 at Orton Longueville, and West Fen Road, Trinity Lands and Hurst Lane reservoir at Ely (Guest 2003; Mackreth 2001, 39; Evans et al. 2007, 52, 68-9), as well as the more recent excavations at Love's Farm at St Neots and Bob's Wood at Hinchingbrooke (OAE in preparation).

Other small finds

3.2.8 The other objects also contribute to an emerging pattern in rural areas of low consumption throughout the Roman period of those items which typify the complexities of post-conquest urban or high-status villa life, such as toilet or medical instruments, writing and lighting equipment, keys, furniture fittings, or even structural fittings such as wall-hooks or clamps. Rural sites in Cambridgeshire and other parts of eastern Britain can be defined by a low proportion of copper-alloy and bone objects but a high proportion of iron objects, particularly tools and iron nails, characterising a working environment and a way of life only very slightly touched by consumer goods (Crummy 2005, 52). A structured analysis of the Bretton Way small finds data based on the 'functional group' method used for urban sites (2007; 2011, 120-32) would add to the evidence for the land use and economy of the site.

Continuity and change

3.2.9 While continuity of occupation in the early-mid Roman period at Bretton Way is largely evident in the absence of small finds and coins, change is marked by increased recovery of these items from contexts of the later Roman period, many of which appear to have been formally deposited.

Coins

3.2.10 The reasons for the appearance of coinage on rural sites from the mid 3rd century onwards is little understood, but must be bound up in some way with its debasement and the increased loss evident in towns at the same period. At Bretton Way the first coins immediately pre-date or coincide with the erection of the aisled building, one posthole for which contained a corroded coin – so far undated although conservation should enhance its legibility. Other coins found in the area of the building may relate to commercial activity linked to the building, or alternatively to ritual deposition associated both this building and the stone-lined pit (see below). Conservation should again allow these coins to be accurately dated and thus related to one or other of these constructions.

Other small finds

3.2.11 Other objects were also found in postholes for the aisled building and in the stone-lined pit, producing an increased rate of deposition parallel to that for coins. Many are nails that may be associated with their construction, although other possibilities are explored below.

3.2.12 Two bone sledge runners found in the stone-lined pit, and possibly associated with its construction, are the earliest stratified examples of these objects from Britain, and the only ones known from the Roman period. Previously considered not to have been introduced to this country before the Middle or Late Saxon period, their recovery in this secure late Roman context brings into question the date of unstratified examples found in the 19th century at London, Stixwold Ferry in Lincolnshire, Ramsey in Cambridgeshire and Mildenhall Fen in Suffolk (MacGregor 1985, 145). They may be an aspect of the increasing northern continental influence on the material culture of Britain in the late Roman period, and the concentration of the 19th century finds in the eastern region accords with the influxes, both official and uninvited, of northern European troops and other settlers to this area. Precise dating for the construction of the pit should allow these runners to be placed in a secure historical context.

<u>Ritual practices</u>

Coins

3.2.13 Many of the coins may be votive deposits, most particularly the coin in the posthole for the aisled building and the four coins from the stone-lined pit. The other coins appear to centre on the stone-lined pit and may also be votives, but both the pit and the coins may be associated with religious activity centred on the aisled building itself.

3.2.14 The coin in the posthole may be a foundation deposit, while those found in the pit and close to it parallel the deposition of coins in watery contexts and on sanctuary sites, where many may have been used by virtue of their colour and shape as solar symbols or because their reverses bore images that the depositors found to be personally meaningful (Allason-Jones & McKay 1985; Crummy 2006, 64-6; 2010, 38, 67). Conservation should allow the reverse types to be identified and compared to known instances of selection.

Other small finds

3.2.15 The superstitious use of iron as a protective material is well attested in the ancient world and included drawing a circle around individuals to ward off noxious influences (Crummy 2010, 56, 66; Pliny, Hist. Nat. 34.44–5). An examination of the location of the postholes of the aisled building that contained nails or other iron objects (strap fragments, a punch) may reveal that a similar practice of encirclement had been used here, a more subtle form of the more obvious foundation deposits found in many Roman buildings, such as pots, whole or partial animal carcasses, bells or small personalia (e.g. Fulford and Clarke 2011, 15, 19-20, 23, 26; Crummy 2010, 54).

3.2.16 The stone-lined pit produced an unusual composite (organic/metal) object that may prove when conserved to be an amulet. Pauli's definition of amulets includes objects of meaningful shape, objects with special external qualities, curiosities and remarkable objects, and objects made of a material valued for special properties, anyone of which category may apply to the Bretton Way artefact (Pauli 1975, 116–35).

Conclusion

3.2.17 Although small, the Bretton Way assemblage of coins and other artefacts represents a unique opportunity to examine both the historical associations of the introduction of sledge runners to eastern Britain. It may also go some way towards elucidating the causes for the appearance of coinage on rural sites in the late Roman period, and can add to an understanding of the symbolic associations of a range of objects used as votive offerings.

Pottery (Appendix A.2)

Summary

3.2.18 Over 42kg of pottery was recovered from the site, 23kg of which came from the Late Roman stone-lined feature.

3.2.19 The early pottery from the site suggests an Iron Age focus, followed by Roman occupation close by and throughout the 1st to mid 3rd century. Most of the material from these periods is represented by small, abraded sherds which suggest that they are residual to the site and perhaps represent the disposal of rubbish from occupation outside of the main excavation area. This aspect of the assemblage contrasts to the material from the stone-lined feature which is represented by large sherds which had apparently been disposed of fairly soon after breakage occurred and thus are very significant for dating. This material may be derived from the occupation of the associated aisled building which was some 7m away from the cistern or tank. There is nothing from the site's ceramic assemblage to indicate that occupation carried on beyond the late 4th or early 5th centuries.

3.2.20 Of particular interest are the series of whole, circular bases from vessels that were found in the stone-lined feature. Some of these appear to have been worked deliberately to remove the 'body' part of the vessel and in some cases the broken edges of the bases have been ground down to a smooth surface. In addition the site produced four near complete vessels.

Statement of Potential

3.2.21 The pottery from Bretton Way forms one of the most important aspects of the sites dating and chronology and is essential for the full understanding of the site and its economy, social ordering and history as well as the religious aspects which parts of the site present. The full chronological sequences of the site can only be worked out by a

full study of the pottery which could then be linked to the site's overall plan and allow a full interpretation of the site.

3.2.22 In addition, details of the economy of the site and the surrounding area are also locked within the study of the pottery assemblage. The study of the types of vessels, their date and any changes through time to the repertoire of pottery forms would indicate the dietary regimes of the local population and when linked to the other aspects of the site such as the coin assemblages and paeleobotanical evidence, give a full insight to how food processing, agriculture and the economy functioned. Additionally the pottery would provide a firm understanding of the relationship between the operation of the farmstead with its aisled building and field system and the presence of the stone-lined cistern which is totally out of place and character for the rest of the site.

3.2.23 Little is known about the use and functions of Iron Age pottery within the immediate and broader area of the site and the assemblage from Bretton provides a vital insight into this aspect of late prehistoric cultural development. In addition the detailed study of the Roman wares would add considerably to our understanding of the industrial scale of Roman pottery production.

3.2.24 Perhaps the most significant aspect of the ceramic assemblage from Bretton Way is the material recovered from the stone-lined cistern close to the aisled building. This stone-lined feature is at present without parallel within the region and archaeologically one is hard pressed to find comparisons within the broader context of Roman Britain. It is within this feature that the evidence from the pottery becomes of regional and potentially of national importance. The pottery seems to span the periods within the later Roman occupation of the province and included pottery discs cut from the basis of pottery vessels. At present it is difficult to say if the pottery assemblage has any clear aspect of religious or ritual affinity and it is here that the detailed study of this material becomes ever more vital. The structure of the cistern with its monumental stonework may have provided a focus for some form of water cult or other aspect of worship and the pottery discs may have been linked with such a cult function. Thus it is only by the detailed study of the pottery that any relationship between religious aspects of the site can be teased from the total evidence provided by the archaeology.

3.2.25 In conclusion the pottery assemblage is crucial in helping, to date and then interpret not just the site in general terms including the aisled building, but in particular the stone-lined feature. The quality, size and monumentality of this stonework marks this feature out as being one of the most significant Roman finds in the Lower Nene Valley and of regional importance.

Worked Stone (Appendix A.3)

Summary

3.2.26 The blocks of stone used in the stone-lined feature vary tremendously in size from smaller blocks measuring for example less than a metre x 57 x 42cm to monumental blocks of over 2m long.

3.2.27 The blocks used in this structure are clearly of monumental size. The features of the stones indicate that they have been used in another structure prior to this one, and if their primary source is the same, it is almost certain that they have been salvaged from the same secondary source.

Statement of potential

3.2.28 The blocks of stone used in the sunken feature are of great significance and have high potential to contribute to our understanding of the site. Publication of architectural stone petrology in Roman contexts is a poorly developed area of archaeology, and this will make a useful contribution to our understanding of the quarrying and use of monumental stones during that time period.

3.2.29 In order to fully understand the nature of the stone-lined feature found on site, all aspects of it should be thoroughly investigated and published as a case study. Analysing the blocks used in the feature is a key factor in understanding the effort involved in its construction. The more that can be determined about what type of stone was used, what sort of structure the blocks were previously used in and how far they have been transported, the more information we will have to help us interpret how important this feature was to the people who built it. That will help inform our interpretation of the site in general (Research aim on rural settlement). Understanding more of this feature and publishing its details will also add to our broader knowledge base about 'ritual' features (Research aim on ritual practices).

3.2.30 Detailed study of the construction of this feature will also contribute to broader Romano-British research aims concerning our understanding of stone exploitation for monumental structures (i.e. organised quarrying) and the dismantling and re-use of those structures.

Leather (Appendix A.4)

Summary

3.2.31 Leather was recovered from four contexts all apparently fills of the stone-lined feature. All the leather represents components from shoes of Roman date. The footwear appears to be the result of the disposal of domestic refuse rather 'structured deposition'. The exact number of shoes present is uncertain at this stage, however, as it may be possible to match up torn fragments and individual components from the same shoe during analysis.

Statement of Potential

3.2.32 The leather comes from well-stratified deposits within a feature that can be dated to the 4th century AD. The good state of preservation of the majority of the group and the amount of constructional features present makes this an interesting group of footwear. The amount of leather recovered from rural sites in this country is still very low compared with that from urban and predominately military contexts so that this group is of local, regional and wider interest. The recovery of a single shoe with distinctive decorative stitching down the vamp is of particular interest and may be worthy of a special note in an appropriate journal.

3.2.33 The leather shoes recovered reflect the degree of 'Romanisation' of their wearers in that they are essential a Roman product made in a Roman material (vegetable tanned leather) that was not available before the Roman conquest nor after the Romans left. As such their study is useful along with other finds in helping to characterise the degree of Roman influence on the daily lives of such rural communities. They form an important component of the filling of the stone-lined pit and will add to the evidence being gathered for its possible ritual use. One shoe in particular is of interest. It is one of only a very small number of examples found previously, to date only eight in this country are known. Of those eight two have been found in Peterborough (one here and the other at the Tower Works site) and one not far away at Rectory Farm in

Lincolnshire. The Rectory Farm site is finally coming to publication but without the benefit of any revisions, the leather report was written in 1995 with the result that it will be hopelessly outdated when it is published sometime ?next year. Study of this Peterborough example will allow the group to be brought to the attention of a wider audience and what is known about them to be updated. Consideration of the contexts in which the other examples have been recovered will be useful in the interpretation of the nature of the stone-lined pit.

Wood (Appendix A.5)

Summary

3.2.34 Three plastic boxes containing the fragmentary remains of waterlogged bark, PETBET10 338, 98, 99 and 100, recovered from the stone-lined feature were submitted for wood identification. These appear to be the remnants of Roman folded (not woven) birch-bark (*Betula sp.*) artefacts, perhaps used as curse tablets.

Statement of Potential

3.2.35 The fragments are very fragile and are unlikely to withstand unfolding without collapse or damage. Unfolding would provide a little more technical detail in terms of dimensions of stripped bark however considering the risks it is probably not justifiable. No further work is deemed necessary (Caroline Cartwright, pers. comm.).

3.3 Environmental Summaries

Faunal Remains (Appendix B.1)

Summary

3.3.1 The total weight of the animal bone assemblage is 61.7kg, of which over 56kg was recovered from the stone-lined feature.

3.3.2 Cattle are the dominant taxon (71% of the Late Roman sample), with at least 8 individuals being present, along with smaller numbers of sheep/goat and horse remains. Butchery indicating bone working waste (including Red Deer antler) was observed in both contexts. Small numbers of pig and dog remains were also present (including an intact dog skull from the stone-lined feature).

Statement of Potential

3.3.3 This a medium sized but nonetheless important assemblage especially with regard to the stone-lined feature material, with significant potential for further work to investigate questions of sexing, age/body part distribution etc. Deposits of this type are commonly seen in wells/shafts of this date, with other examples being seen at Loves Farm, St Neots (Baxter 2007) Springhead, Kent (Grimm forthcoming) and Water Newton (Roman Durobrivae, Perrin 1999). More locally a series of shafts with similar deposits were excavated at at Castle Hill, Cambridge (Alexander & Pullinger 1999). In terms of species and body part distribution the Bretton Way stone-lined feature most closely resembles shaft 6 at Castle Hill, (Ibid, p.54), with both showing a preponderance of cattle skulls, along with smaller amounts of other domestic taxa (including dog). However at this stage it appears both Loves Farm, Springhead and Castle Hill show a more varied species distribution than Bretton Way. It is recommended the assemblage be recorded and analysed fully, particularly as there is little published analysis of the Castle Hill and Water Newton material.

Environmental Remains (Appendix B.2)

Summary

3.3.4 The charred plant remains are dominated by cereal grains, chaff elements and occasional weed seeds. The charred plant assemblage is typical of a background scatter of domestic refuse in the Roman period. Further analysis of individual deposits may be possible once dating has been confirmed.

3.3.5 By far the most interesting plant assemblages are found in the stone-lined feature and watering hole. Waterlogged seeds recovered from the stone-lined feature deposits were numerous in both number and diversity compared to those from the waterhole which were less frequent and diverse. The waterhole contained numerous seeds of bittersweet (*Solanum dulcamara*) and water crowfoot (*Ranunculus* subgenus *Batrachium*), both of which are also found in the stone-lined feature.

3.3.6 The samples from the stone-lined feature are from measured depths rather than distinct contexts. There are seeds that occur in all of the samples such as bittersweet, bramble (*Rubus* sp.), chickweed (*Stellaria* sp.), knotgrass (*Polygonum* sp.), dock (Rumex sp.) along with numerous seeds of stinging nettles (*Urtica dioica*) . There are seeds that only occur in certain samples such as henbane (*Hyoscamus niger*), gypsywort (*Lycopus europaeus*) sainfoin (*Onobrychis viciifolia*).

Statement of Potential

3.3.7 The waterlogged samples from the stone-lined feature are of particular interest as they may help to contribute to an interpretation of the feature. A preliminary scan of the waterlogged material has identified an unusual assemblage, which may have been introduced through deliberate deposition.

3.3.8 Further assessment of the samples from the stone-lined feature is highly recommended. The initial appraisal of these samples has shown their significant archaeobotanical potential and the ability to address the original aims and objectives of this project. The samples from the stone-lined feature were taken from successive layers that will have accumulated over a period of time and the excellent conditions for preservation have resulted in a large dataset for further investigation.

3.3.9 Preservation by waterlogging results in large numbers of seeds and other plant parts that retain much of their original features such as morphology and cell structure. Waterlogged plant remains therefore offer an invaluable opportunity to study plant remains. Pollen grains are also likely to be preserved in these waterlogged deposits. Pollen can travel far greater distances than seeds producing information on the wider environment. The examination of pollen (and possibly insects) from the same contexts as the plant macrofossils will give a more complete insight into the nature of the surrounding environment and the activities that have resulted in deposition of plant remains into this enigmatic feature.

3.3.10 Further analysis of the charred cereal remains have the potential to provide information about agricultural practices including crop processing especially when studied in conjunction with pollen analysis.

3.3.11 Insects have the potential for showing the character of the local landscape, the quality of the water within the stone-lined feature feature and can also indicate the occurrence of domestic animals (EH 2002)

3.3.12 In summary, further study of the plant remains (charred and waterlogged), insects and pollen will provide information about agricultural practices including crop processing and the use of plants for food, fodder and potentially for medicinal purposes. This

analysis will also provide the opportunity to investigate the environmental history of the site and will provide better understanding of the landscape and its changes over time.

Pollen (Appendix B.3)

Summary

3.3.13 Two monoliths (3 samples) were taken from basal fills of the stone-lined feature.

3.3.14 The earliest sample in the sequence has a diverse selection of herb taxa typical of grassland, damp meadows (tall herb) and riparian (bank-side) habitats. However, there is also a strong signal of arable activity, with abundant cereal pollen and indicators of disturbed ground. There is also a faint signal from birch and hazel scrub, and this is an ostensibly tree-less environment with apparently very little local wetland. It seems that this was a post-clearance landscape with a mosaic of pastoral and arable activity.

3.3.15 The two further samples contained low numbers of pollen. Both samples represent a post-clearance grassland or meadow environment. Indeed, this could have been rather similar to the one indicated in the basal sample, although possibly with less arable activity.

3.3.16 The sparse nature of the pollen is curious, in that the pollen grains themselves were mostly well-preserved. There is some possible indication of post-depositional oxidation however, it could be that deposition of sediment was rather rapid, thus diluting the pollen 'rain' and causing low pollen concentrations. This is clearly not the case for the basal sample.

Statement of Potential

3.3.17 Examination of the pollen has enabled information to be gained about the local environment as well as the agricultural economy. The low numbers of pollen in the later fills may attest to depositional processes. No further work is required.

4 Research Aims and Objectives

4.1 Original Aims and Objectives

4.1.1 The primary objectives of the fieldwork were to examine the archaeological resource within a framework of defined aims, to seek a better understanding of that resource, to analyse the findings/record and then to disseminate the results of the work. These defined aims were listed in the Written Scheme of Investigation (2010) are as follows;

4.1.2 To establish a relative and absolute chronological framework for the site. Priority is to be given to establishing an overall plan of the site and determining the various phases and sub-phases of activity.

4.1.3 To determine the internal morphology of the site and land-use, to identify the nature, date and range of zones of activity: residential, industrial, religious, etc. and to determine the dynamics of the spatial distribution of activities and changes over time. Within these parameters, the excavation presents an opportunity to address the following research objectives:

- *To further define the nature, extent, character and chronology of the Roman activity on the site.*
- *To clarify whether the features identified indicate the types of activity being undertaken in the immediate vicinity, particularly to north of the site.*

- *In particular, the work will seek to ascertain whether specific agricultural activities, including activities such as crop and other food processing, storage and consumption, can be determined from the observed evidence.*
- *To ascertain if the archaeological remains provide any evidence for the economy of the area in the Roman period.*
- *To further define the nature, extent and character of any pre- or post-Roman deposits in the area of the site.*
- *To establish the potential for significant environmental deposits.*
- *To determine the environmental history of the site and its immediate surrounding area throughout the sequence of human activity on the site.*
- *To support the detailed assessment of the chronology of the artefactual and environmental material with a programme of radiocarbon samples if possible.*
- *To enhance the understanding of the Bretton area of Peterborough through the examination of the date, form and character within its local, regional and national context.*
- *To better understand the historic landscape character of the site and any changes through time.*

4.2 Revised Research Objectives

4.2.1 The principal aim of this project is to maximise the potential of the Bretton Way dataset to provide new understanding of later prehistoric and Roman settlement in the region through a programme of further analysis. It is proposed that this will result in a publication which will make a significant contribution to knowledge of Roman settlement at a local and regional level. It is anticipated that the report will also contribute to wider debates about the nature of religious expression within the Romano-British period.

4.2.2 These broad aims reflect the fundamental importance of rural settlement to the archaeology of Roman Britain (Taylor 2001; 2007, 1) and relate to both wider and more specific issues raised in Taylor's reviews. The objectives outlined below also relate to topics considered in the East Anglian Research Framework (Brown and Glazebrook 2000; Medlycott and Brown 2008).

Rural settlements and landscapes

4.2.3 Evidence for roundhouse use into the Roman period? What form do Roman farmsteads take, is the planned farmstead widespread across the region, what forms of buildings are present and how far can functions be attributed to them? How common are aisled buildings within the region, and how are they used?

Although the excavation revealed only a limited part of the Late Iron Age and Roman settlement, it did include a number of roundhouses and in particular a Late Roman aisled building. The Late Iron Age roundhouses were badly truncated and in themselves do little to contribute further to Iron Age settlement studies, although their relative

proximity (*c.* 1 km) to a potential major Iron Age centre at Westwood (a potential 'tribal sub-centre'; Upex 2008, 25) is notable and should be explored. There is no evidence that roundhouses continued in use beyond the Late Iron Age, with no further structures identified until the late Roman period. The late 3rd to 4th century aisled building is one of a growing number in the region, with nearby examples including Lynch Farm (*Durobrivae* 1 1973), which contained a number of furnaces, and Orton Hall Farm, where three aisled barns were linked with agricultural activity (Mackreth 1996). The Bretton Way aisled building was of a similar size to the Orton Hall Hall Farm examples, although the only evidence for outer walls came in the form of a single section of a possible beam slot. There is little obvious evidence for function, with no corn driers as found in the Orton Hall buildings, which were thought to have been used in the brewing process (*ibid.,* 230). It is likely that the building's close spatial relationship with the stone-lined feature (*c.* 6 m to the south) may have some bearing on its function, and this needs to be further examined. Additional analysis of environmental remains may help ascertain the economic basis of the site.

Continuity and change

4.2.4 *Understanding both the continuity of Iron Age into Roman settlement and the 2nd century 'Romanisation', identifying continuity as well as settlement structure and land use, examining Roman-Saxon transition.*

It is difficult to demonstrate direct continuity from Iron Age to Roman, but there is no reason to suspect any significant hiatus. However, there are no obvious domestic structures during the early to mid Roman period at the Breeton Way site, so it may be assumed that the excavated area at least reverted to agricultural use, with the main settlement lying some way distant. A substantial but poorly understood settlement is known to lie at Westwood (spread over 32 ha), less than 1 km to the south-east (Upex 2008, 80), and any relationship between this site and Bretton Way should be explored. It is known that there was a steady expansion of settlement and agricultural activity in the region during the 2nd and 3rd centuries AD, with a floruit of activity from the late 3rd and earlier 4th century (*ibid.,* 120), a period which saw significant changes at the Bretton Way site, with the construction of the aisled building and monumental stone-lined pit. This transformation will need to be examined in the context of wider change in the region, including the major town at *Durobrivae* and monumental complex at Castor, both lying to the south-west.

4.2.5 There is little evidence for any activity on the site continuing beyond the start of the 5th century AD and this chronology will need to be examined in relation to other sites in the region.

Ritual practices

4.2.6 *The evidence for change in ritual practices: How many religious sites are known from the region? Structured deposition is now accepted as being a widespread phenomenon, there is however a need to categorise/classify the different forms this takes and critically interpret their meaning.*

4.2.7 By far the most enigmatic feature on the Bretton Way site is the pit lined with monumental blocks of building stone, apparently re-used from a substantial structure. This would have taken considerable effort, far and above what may have been expected for a utilitarian well, and at present it remains largely unparalleled. Its function remains uncertain, though a ritual element is certainly a distinct possibility. Ritual pits and shafts are now a well-observed phenomenon in Roman Britain, identified through interpretation of structured deposition (Fulford 2001; Black 2008). Although the deposits

vary substantially, and often contain no overtly 'religious' items, certain more widespread characteristics have emerged. Firstly, is the deposition of whole pots, either singly or in larger numbers (e.g. over 40 pits or wells at Silchester containing one or more complete pots; Fulford 2001, 202), which Black has contested may be related to the veneration of a Sucellos type deity (2008, 2). Secondly, is the prevalence of animal remains, particularly dog skulls and skeletons, as seen for example in many of the ritual shafts at Cambridge (Alexander and Pullinger 2000, 53-6) and within pits in the temple complex at Springhead (Andrews *et al.* forthcoming). The finds from the stone-lined pit at Bretton Way certainly include some of these 'typical' ritual deposits, including a number of near complete pots and a dog skull, and in addition include other more unusual items such as the pottery discs (see Upex below) and a possible amulet (see Crummy below). In addition, a significant number of the coins from the site were found within or in the immediate vicinity of the pit, which are typical votive offerings on temple sites (Smith 2001), although there could equally be a more prosaic explanation for their presence. The (as yet unspecified) number of leather shoes from the pit is also of interest, as Driel-Murrey (1999) has noted the symbolic significance of shoes within possible ritual deposits.

4.2.8 Overall, the nature of the stone-lined pit and its contents does suggest a ritual explanation, and it has the potential to further our knowledge of religious expression within the region, which is already known to be rich and varied. As well as larger temples and shrines at places like Brigstock, Castor and *Durobrivae*, there are many other less obvious sites, such as the 'basement shrine' in the suburbs of *Durobrivae*, with complete pots, coins, animal bones and infant burials (Perrin 1999), as well as ritual pits found at Ashton and Weldon.

4.2.9 Further detailed study of the finds within the pit should help to elucidate the nature of their potential ritual significance, although whether the feature itself was originally constructed for this purpose is another concern. Fulford (2001, 214) noted that the functions of pits used for ritual deposits could change over their period of use, from wells, to storage pits to latrine pits, while some could be argued as ritual pits/shafts from the outset. Clearly, further research is needed on the Bretton Way pit, as the monumental stone used in its construction sets it apart from typical pits/wells found in domestic contexts. The source of the building stone itself is of great interest, and could potentially have come from the substantial settlement at Westwood to the south-east, where there were reportedly many buildings with stone foundations (Upex 2008, 80), or alternatively it may have come from further afield, perhaps the Roman town of *Durobrivae or* the Castor *praetorium?*

5 Methods Statements for Analysis

5.1 Stratigraphic Analysis

5.1.1 The environmental, finds and context data will be analysed using an *MS Office* database. Contexts will be assigned to final period and phase numbers based on the full analysis of the data.

5.2 Illustration

5.2.1 Once the results from analysis have been collated a list of required illustrations will be compiled. These will include site location plan, sections, finalised phase plans, location of key Roman sites in the area and plates. Where necessary finds will be drawn.

5.3 Documentary Research

5.3.1 Documentary research will centre around finding comparative data for the stone-lined feature, including investigating possible provenance for the stone e.g. *Durobrivae*, Castor *Praetorium*. A wider HER search will be conducted in order to place the site within its Iron Age to Roman setting.

5.4 Artefactual Analysis

5.4.1 Based on their potential, the following assemblages have been recommended for further analysis by the relevant specialists.

Small Finds

5.4.2 To ensure their long-term preservation and facilitate accurate identification, the coins and some of the other metal items should be cleaned and stabilised.

5.4.3 Should a publication level report be commissioned, 11 iron objects should be X-rayed to facilitate identification and illustration.

5.4.4 Similarly, if a published report is to be commissioned, a maximum of 15 objects should be illustrated. This number may be reduced following the X-raying of the more severely corroded ironwork.

5.4.5 Adrian Popescu should be commissioned to provide a publication level report on the coins.

Pottery

5.4.6 The assemblage should be analysed in accordance with the guidelines set out by the Study Group for Roman Pottery (Webster 1975; Young 1980; Darling 2004; Willis 2004) and the complete assemblage should be examined and itemised with a full catalogue constructed on Microsoft Excel.

5.4.7 A detailed fabric analysis should be undertaken to help identify sources for the ceramic assemblage and the identification of any imported wares onto the site.

5.4.8 An analysis of the forms of vessels should be undertaken to establish what the vessels were being used for and this analysis should be linked with chronological changes and the development sequences of form change through time.

5.4.9 The whole analysis should also include a comparison with other local and regional sites so that a fuller understanding can be obtained regarding the use, consumption, manufacture and trade of ceramics within the area during the late Iron Age and Roman periods.

5.4.10 The results of this work should be presented, as an archive for long term curation with the other site data and, in addition, a report written to publication standards which should include illustrations of the pottery from key contexts.

Worked Stone

5.4.11 It is recommended that the stone type be positively identified. Ideally this will require thin section analysis and comparison with reference material in the Archaeology Stone reference collection in Southampton University. Research and discussion will then need to be prepared on the use of this stone type in Roman Britain. The secondary source of the stone will also need to be investigated. A full report on the above is required.

Leather

5.4.12 A basic record of the entire assemblage is needed, to include measurement of complete insoles and other relevant dimensions, and leather species identification where possible. The brief 'finds register' can be updated with this data to form the basic record as the first part of analysis. A small proportion of the leather has individual components from more than one shoe contained within a single bag or parts of the same object scattered through several bags. The leather needs to be separated out into individual objects (and associated components) where necessary and allocated a unique identifying number by which they can be identified during recording, illustration and publication. This re-bagging and numbering can be undertaken during the recording process. Working drawings will be made of the significant finds. The contextual information can then be correlated. This information will inform those studying the stratigraphic sequence and may provide useful independent dating to compliment the ceramic and numismatic evidence. The leather assemblage should be summarised for inclusion in the publication of the site narrative. This will require a brief description of the shoes and the two varying constructions employed with diagrams of the shoe constructions and seams, as appropriate. The better preserved shoes should be illustrated and these will be catalogued for publication. Additional information will be presented in tabular form wherever possible.

5.4.13 Sketches will be provided to guide the illustrator as to views and details required, conventions to be used etc. Pencil drawings for digitising can be provided by prior arrangement.

5.4.14 The leather shoes should be studied for the information they will be able to contribute to aspects of two of the research objectives namely continuity and change and ritual practices.

5.5 Ecofactual Analysis

5.5.1 Based on their potential, the following assemblages have been recommended for further analysis by the relevant specialists.

Faunal remains

5.5.2 It is recommended the assemblage be recorded and analysed fully (10 days estimate). The data will be analysed using standard OA methodology for full analysis. Each element will be be identified to species where possible using comparative collections and reference manuals. Siding will also be noted for the purposes of calculating MNI's. Where applicable the number of diagnostic zones will be noted for each element (after Serjeantson 1996). Epiphyseal fusion data will also be noted (after Silver, 1969). Tooth wear data for domestic mammal loose molars and mandibles (after Grant, 1982) will also be noted to provide further ageing data. In addition to adult molars the presence of any other teeth, i.e. deciduous, will also be noted. Where possible sexing will be carried out via morphological criteria (e.g. Hatting 1995; Armitage & Clutton-Brock, 1976) or metrical analysis (Grigson 1982; Ruscillo 2006). Metrical analysis will largely follow von den Driesch (1976). Together this information will also be used to aid in species differentiation, e.g. between sheep and goat (after Boessneck 1969; Halstead *et al* 2002) and horse vis other equids (after Baxter 1998). As with the assessment, the preservation of each element will be assessed using a numbered scale of 0-5, with 0 representing excellent preservation and 5 being so badly degraded that identification is impossible. Finally the presence of any taphonomy (butchery, burning, gnawing) and pathology will be noted and described.

Environmental remains

5.5.3 Further assessment of the samples from the stone-lined feature is highly recommended. The initial appraisal of these samples has shown their significant archaeobotanical potential and the ability to address the original aims and objectives of this project. The samples from the stone-lined feature were taken from successive layers that will have accumulated over a period of time and the excellent conditions for preservation have resulted in a large dataset for further investigation.

5.5.4 Preservation by waterlogging results in large numbers of seeds and other plant parts that retain much of their original features such as morphology and cell structure. Waterlogged plant remains therefore offer an invaluable opportunity to study plant remains. Pollen grains are also likely to be preserved in these waterlogged deposits. Pollen can travel far greater distances than seeds producing information on the wider environment. The examination of pollen (and possibly insects) from the same contexts as the plant macrofossils will give a more complete insight into the nature of the surrounding environment and the activities that have resulted in deposition of plant remains into this enigmatic feature.

5.5.5 Further analysis of the charred cereal remains have the potential to provide information about agricultural practices including crop processing especially when studied in conjunction with pollen analysis.

5.5.6 In summary, further study of the plant remains (charred and waterlogged), insects and pollen will provide information about agricultural practices including crop processing and the use of plants for food, fodder and potentially for medicinal purposes. This analysis will also provide the opportunity to investigate the environmental history of the site and will provide better understanding of the landscape and its changes over time.

5.5.7 The charred plant remains from the other features are not considered worthy of further work at this stage.

6 Report Writing, Archiving and Publication

6.1 Report Writing

Tasks associated with report writing are identified in Table 6.

6.2 Archiving

6.2.1 Excavated material and records will be deposited with, and curated by, Peterborough Museum in appropriate county stores under the Site Code PET BET 10. During analysis and report preparation, OA East will hold all material and reserves the right to send material for specialist analysis.

6.2.2 The archive will be prepared in accordance with current OA East guidelines, which are based on current national guidelines

6.3 Publication

6.3.1 The stone-lined feature should be put in context and published an appropriate journal. The rest of the site should be analysed and the resultant report released through the Archaeological Data Service (ADS).

7 Resources and Programming

7.1 Staffing and Equipment

Name	Initials	Project Role	Establishment
Caroline Cartwright	CC	Wood Anatomist	British Museum
Andrew Corrigan	AC	Technical Supervisor	OA East
Nina Crummy	NC	Small Finds Specialist	Freelance
James Drummond-Murray	JDM	Project Manager	OA East
Chris Faine	CF	Animal Bone Specialist	OA East
Carole Fletcher	CFl	Finds Supervisor/Archive	OA East
Rachel Fosberry	RF	Environmental Supervisor	OA East
Gillian Greer	GG	Illustrator	OA East
Elizabeth Huckerby	EH	Plant Macrofossil Specialist	OA North
Quita Mould	QM	Leather Specialist	Freelance
Alexandra Pickstone	AEP	Project Officer	OA East
Adrian Popescu	AP	Coin Specialist	Fitzwilliam Museum
Elizabeth Popescu	EP	Editor/Publications Manager	OA East
Ruth Shaffrey	RS	Stone Specialist	OA South
Alex Smith	AS	Academic Consultant	OA South
Stephen Upex	SU	Roman Pottery Specialist	Freelance
Stephen Wadeson	SW	Samian Specialist	OA East

Table 5: Project Team

7.2 Task Identification

Task No.	Task	Staff	Days (excluding stone-lined feature)	Days (stone-lined feature only)	Total days
1	Project management	JDM	1		**1**
2	Team meetings	JDM/AEP	0.5/0.5		**1**
3	Liaison with relevant staff and specialists, distribution of relevant information and materials	AEP/CF	0.25/0.25	0.25/0.25	**1**
4	Update database and digital plans/sections to reflect any changes	AEP	0.5		**0.5**
5	Finalise site phasing	AEP	1		**1**
6	Add final phasing to database	AEP	0.5		**0.5**
7	Compile group and phase text	AEP	1.5	0.5	**2**
8	Compile overall stratigraphic text and site narrative to form the basis of the full/archive report	AEP	2	1	**3**
9	Review, collate and standardise results of all final specialist reports and integrate with stratigraphic text and project results	AEP	0.5	0.5	**1**
10	Digitise selected sections	GG	0.5		**0.5**

Task No.	Task	Staff	Days (excluding stone-lined feature)	Days (stone-lined feature only)	Total days
11	Prepare draft phase plans, sections and other report figures	GG	1	1	**2**
12	Select photographs for inclusion in the report	AEP	0.25		**0.25**
13	Reassessment of the HER record and aerial photographic sources	AEP	0.25	0.25	**0.5**
14	Examination of relevant published archaeological sources	AEP/AS	0.5	0.5/0.5	**1.5**
15	Examination, where possible, of relevant unpublished archaeological sources	AEP/AS	0.5	0.5/0.5	**1.5**
16	Prepare coin report	AP	0.5	0.5	**1**
17	Prepare small finds report	NC	1	3	**4**
18	Prepare pottery report	SU	5	5	**10**
19	Prepare samian report	SW	3		**3**
20	Prepare stone report	RS		6	**6**
21	Prepare leather report	QM		9.5	**9.5**
22	Prepare wood artefact report				
23	Prepare animal bone report	CF	2.5	7.5	**10**
24	Prepare miscellaneous finds report	AEP	0.25		**0.25**
25	Prepare environmental report	RF/EH		7	**7**
26	Write historical and archaeological background text	AEP	0.5	0.5	**1**
27	Write discussion and conclusions	AEP/AS	1	0.5/0.5	**2**
28	Internal edit	JDM/EP/ AS	0.5/1	1	**2.5**

Table 6: Task list for completion grey literature report

Staff	Days (excluding stone-lined feature)	Days (stone-lined feature only)	Total days
JDM	2		2
AEP	10	5	15
EP	1	1	2
AS		1.5	1.5
GG	1.5	1	2.5
CFI	0.25	0.25	1
Specialists	12.25	38.5	50.75

Table 7: Staff time for completion of grey literature

Task No.	Task	Staff	Days
29	Project management	JDM	0.5
30	Team meetings	JDM/AEP	0.25/0.25
31	Prepare draft phase plans, sections and other report figures	GG	5
32	Illustrate selected finds	GG	5.25
33	Integrate documentary research	AEP	0.5
34	Write historical and archaeological background text	AEP	0.5
35	Edit phase and group text	AEP	0.5
36	Write discussion and conclusions	AEP/AS	1 1
37	Collate/edit captions, bibliography, appendices etc.	AEP	0.5
38	Produce draft report	AEP	1
39	Internal edit	JDM/EP/AS	0.5/0.5/0.5
40	Incorporate internal edits	AEP	0.5
41	Final edit	EP	1
42	Send to publisher for refereeing	EP	0.25
43	Post-refereeing revisions	AEP	0.5
44	Copy edit queries	EP	0.25
45	Proof-reading	EP	0.25

Table 8: Task list for publication of stone-lined feature

Staff	Total days
JDM	1.5
AEP	5.25
EP	2.5
AS	1
GG	10.25

Table 9: Staff time for publication of stone-lined feature

7.3 Project Timetable

7.3.1 The project timetable is to be confirmed.

Appendix A. Finds Reports

A.1 Assessment of the Small Finds

by Nina Crummy

Summary

A.1.1 The assemblage consists of a minimum of 76 items, some bags contained more than one object. They range in date from Roman to medieval or later. Coins and ironwork dominates the group, with nails the most substantial element within the ironwork.

Condition

A.1.2 The objects are generally in a stable condition. The majority of the copper-alloy and lead objects are only lightly covered by corrosion products, but some are slightly more affected. Corrosion on the ironwork varies from a slight surface coating on objects from waterlogged contexts to a thicker encrustation incorporating some soil. The non-metal objects are in good condition.

A.1.3 Objects of all materials are packed to a high standard of storage in crystal boxes or polythene bags, supported by pads of foam. The bags and boxes are stored in airtight Stewart boxes with silica gel, which is monitored at regular intervals.

The assemblage

A.1.4 The objects are listed by material, and within material by cut and context number. The minimum number of objects by material is shown in Table 10, with multiple items in a bag counted only as one and coins as a separate entry. Although most of the coins are of copper-alloy some are coated with corrosion of a paler colour and may prove on cleaning to be silver or silver-washed.

coins	20
copper-alloy	9
lead	2
composite	2
iron	40
bone	2
stone	1
Total	**76**

Table 10: Summary of small finds by material, with coins shown as a separate group

A.1.5 The greater proportion of ironwork to other metals is not unusual. Ironwork is generally the largest group of metal small finds on both urban and rural sites, with the number of iron compared to copper-alloy objects enhanced on the latter because of a overall decrease in the consumption of material goods away from urban centres.

A.1.6 The high proportion of coins to other copper-alloy objects is more ambiguous. As a whole this group of coins conforms to the pattern usually seen on rural sites in eastern Britain, with little or no coinage appearing until the late 3rd century (Reece 1995; Guest 2003; Plouviez 2004). This points to a local economy based on barter rather than cash until the late 3rd century or later, if at all. North Cambridgeshire sites that conform to this pattern include the farmstead at Haddon that had no coins earlier than *c.* AD 260, Monument 97 at Orton Longueville that had only one *dupondius* of Antonia minted under Claudius I (AD 41-54), the West Fen Road site at Ely that had only one coin of Trajan and 3rd-4th century issues, while no Roman coinage at all was found at the Trinity Lands and Hurst Lane reservoir sites at Ely (Guest 2003; Mackreth 2001, 39; Evans *et al.* 2007, 52, 68-9). That coins represent nearly a quarter of the assemblage is also not necessarily unusual, but a high number of coins can be an indication of votive deposition and the four coins from the stone-lined feature, together with others found

close by, may fall into this class. There are many other examples of votive deposition within watery or waterlogged contexts, or on land adjacent to a spring or river, such as the assemblages from the Middle Walbrook valley in London, Springhead in Kent, the sacred spring at Bath, Coventina's Well in Northumberland and the hoard found close to the river Rhee near Ashwell in Hertfordshire (Merrifield 1995; Merrifield & Hall 2008; Andrews 2008; Cunliffe 1988; Allason-Jones & McKay 1985; Jackson & Burleigh 2007). With a few exceptions the coins found in other contexts at Bretton Way appear to centre on the stone-lined feature and enhance the possibility that it was used for votive offerings, but with the aisled barn so close by it is also possible that the coins relate to commercial activity in and around the building.

A.1.7 In the summary catalogue the objects other than coins are allocated to a functional category, using those defined in Crummy 1983. This approach can allow assemblages that are sufficiently large to be broadly characterised. Categories represented at Bretton Way are 1, dress accessories; 8: transport; 10, tools; 11, general fittings; 14, objects associated with religious beliefs; 15, metal-working; and 18, miscellaneous. 'Miscellaneous' covers small unidentifiable pieces of scrap and multi-functional items that cannot be allocated to a specific category. The objects are shown divided between the various categories in Table 11.

1: dress accessories	9
8: transport	2
10: tools	4
11: fittings	32
14: religion	1
15: metal-working	2
18: miscellaneous	6
Total	**56**

*Table 11: Objects other than coins shown by functional categ*ory

A.1.8 The dress accessories (category 1) are all Roman and consist of iron hobnails from composite leather shoes, two copper-alloy belt-fittings and part of a penannular armlet. All except the armlet fragment came from the stone-lined feature.

A.1.9 The two items associated with transport (category 8) are both bone sledge-runners made from horse metapodials. In Britain bone sledge runners and skates usually come from Late Saxon or early medieval contexts, but prehistoric examples are known from the continent (MacGregor 1985, 141-6). The recovery of both the Bretton Way runners from late Roman stone-lined feature is therefore unique within Britain. If they are Roman, then it is quite possible that they were fitted to sledges used to transport the stones from their original position to the site. Since the runners have the high polish and linear scratches characteristic of sledge runners and skates used on ice, it appears that the stones would have been transported during the course of a spell of hard winter weather. This interpretation of the runners' use is, however, highly speculative, especially as a Roman date is so unusual for these items.

A.1.10 The four tools (category 10) from the site are a whetstone, a punch, a possible second punch and part of what may be a chisel; two are therefore only tentative identifications before they have been X-rayed. The punch comes from one of the postholes of the aisled barn, the remaining three items from the stone-lined feature and they may, like the sledge runners, be associated with its construction. Apart from some copper-alloy studs and similar items (one of them an eyelet from the stone-lined feature that may be post-Roman), most of the fittings are iron nails. Several came from the postholes of the aisled barn and can be associated with the building's construction. A few came from the stone-lined feature and these may have come either from timber used to shore up the sides before the stones were fitted into place or from a timber frame used to lower them into the pit. A scatter of other nails from the site probably derived from fences, gates or agricultural equipment.

A.1.11 An unusual composite object from the stone-lined feature has here been assumed to be an amulet of some kind, although it may have some more mundane purpose. It consists of a copper-alloy strip, folded over to form a suspension loop onto which a suspension ring has been fitted. The lower part of the strip is encased by an ovoid organic ball, probably made of leather. Although a parallel for this object has not yet been found, its general method of construction makes it more likely to be a Saxon or early medieval piece than a Roman one.

A.1.12 Two lead spills found in ditch 144 come from casting lead objects. As these are substantial spills, the cast objects were probably also of some size.

A.1.13 The miscellaneous objects are comparatively few in number. Most are metal strip fragments, but there is a post-medieval or modern rod fragment from the fill of ditch 21.

A.1.14 In Roman site assemblages the functional categories that produce the greatest numbers of objects are 1, 11 and 18, and the Bretton Way assemblage conforms to this pattern. It is high numbers of items on one or more of the other categories that usually define the character of an assemblage, but here there is no such substantial group of material. Such an absence of any distinguishing functional characteristic and little evidence of economic wealth is in keeping with an agricultural site. The contextual emphasis on the stone-lined feature provides the idiosyncratic element of the assemblage, with the objects found within the feature ranging from items that might be associated with its construction to others that may mark it out as having a religious aspect. The evidence for the either, however, is not clear cut.

Catalogue of objects by material

SF	Context	Context description	Identification	Conserve	Illustrate	Date
13	39	fill of ditch 21	radiate *antoninianus*, corroded	y	-	mid-late 3rd century
2	28	finds unit, ditch 21	corroded	y	-	(3rd-)4th century
22	59	fill of stone-lined feature 60	corroded, minim	y	-	3rd-4th century
36	107	fill of stone-lined feature 60	corroded fragment	y	-	3rd-4th century
28	146	fill of stone-lined feature 60	corroded	y	-	4th century
44	334	fill of stone-lined feature 60	corroded	y	-	(3rd-)4th century

43	350	fill of stone-lined feature 60	corroded	y	-	3rd(-4th) century
37	79	fill of posthole 78, aisled barn	corroded	y	-	3rd-4th century
4	30	fill of ditch 85	corroded	y	-	4th century
12	38	fill of ditch 85	?House of Valentinian, rev. ?Gloria Romanorum	y	-	364-78
16	42	finds unit, ditch 115	corroded	y	-	4th century
19	45	finds unit, ditch 115	corroded fragment, ?radiate	y	-	mid-late 3rd century?
6	32	finds unit, ditch 229	House of Constantine, minim, copy of Fel Temp Reparatio falling horseman issue	y	-	350-60
3	29	surface find	corroded	y	-	(3rd-)4th century
7	33	surface find	corroded fragment, probably irregular copy	y	-	(3rd-)4th century
10	34	surface find	Claudius II, *antoninianus*, rev. Pax Aug	y	-	268-70
11	37	surface find	barbarous radiate, minim	y	-	270-94
14	40	surface find	Constantinopolis, rev. Victory on prow	y	-	330-7
18	44	surface find	barbarous radiate, minim	y	-	270-94
20	46	surface find	corroded	y	-	(3rd-)4th century

Table 12: Coin catalogue (all probably copper-alloy)

SF	Context	Context description	Identification	Conserve	Illustrate	Category	Date
1	27	finds unit, ditch 21	rod fragment	-	-	18	post-medieval or modern
24	107	fill of well 60	folded buckle-plate fragment	y	y	1	-
9	35	finds unit, stone-lined feature 60	belt- or strap-plate	y	y	1	-
56	337	masonry in stone-lined 60	eyelet (?copper-alloy)	-	-	11	(post-Roman)
42	95	fill of ditch 97	narrow strip fragment	y	-	18	-
40	106	fill of posthole 105, aisled barn	sheet fitting, with rivet hole	-	-	11	-
15	41	finds unit, waterhole 231	penannular armlet fragment, decorated	y	y	1	(late) Roman
8	34	surface find	disc, with irregular punched hole; possibly a damaged stud head	y	-	11	-
17	43	surface find	fitting with acorn terminal	y	?	18	Roman

Table 13: Copper alloy catalogue

SF	Context	Context description	Identification	Conserve	Illustrate	Category	Date
70	145	fill of ditch 144	lead-working spill	-	-	15	-
71	145	fill of ditch 144	lead-working spill	-	-	15	-

Table 14: Lead catalogue

SF	Context	Context description	Identification	Conserve	Illustrate	Category	Date

57	340	masonry in well 60	pendant – ovoid organic object fitted onto hooked strip, suspension ring in hook	y	y	14	(Saxon-medieval)
5	31	fill of posthole 80, aisled barn	box stud - cu-al head with iron shank, fixed together with tin-lead solder	-	-	11	Roman

Table 15: Composite catalogue

SF	Context	Context description	Identification	X-ray	Illustrate	Category	Date
63	23	fill of ditch 21	1 nail, incomplete	-	-	11	-
29	59	fill of well 60	1 nail shank fragment	-	-	11	-
30	59	fill of well 60	1 nail shank fragment	-	-	11	-
33	107	fill of well 60	punch or nail shank fragment	y	-	10?	-
34	146	fill of well 60	1 nail, incomplete	-	-	11	-
84	146	fill of well 60	1 nail, complete	-	-	11	-
80	324	fill of well 60	?chisel fragment	y	?	10?	-
82	324	fill of well 60	2 nails	-	-	11	-
85	330	fill of well 60	clenched nail shank (?part of head remains)	-	-	11	-
45	334	fill of well 60	tool or spike	y	y	18	-
46	337	masonry in well 60	strap fragment, ?from bucket	y	y	11	-
49.1	337	masonry in well 60	1 hobnail	-	-	1	Roman
50.1	337	masonry in well 60	2 hobnails	-	-	1	Roman
61	338	masonry in well 60	strip fragment	y	-	18	-
62	338	masonry in well 60	strap fragment, ?from bucket	y	y	11	-
67	338	masonry in well 60	2 hobnails	-	-	1	Roman
89.1	339	masonry in well 60	hobnail	-	-	1	Roman
55	340	masonry in well 60	1 hobnail	-	-	1	Roman
66	340	masonry in well 60	1 hobnail	-	-	1	Roman
23	72	fill of ditch 75	1 nail shank fragment	-	-	11	-
77	72	fill of ditch 75	1 nail, incomplete	-	-	11	-
76	85	fill of ditch 83	1 nail, incomplete	-	-	11	-
78	85	fill of ditch 83	strap fragment	y	-	11	-
79	85	fill of ditch 83	3 nails	-	-	11	-
81	85	fill of ditch 83	1 nail	-	-	11	-
83	85	fill of ditch 83	1 nail shank fragment	-	-	11	-
41	95	fill of ditch 97	strap or fitting fragment	y	?	11	-
86	95	fill of ditch 97	2 nails, both incomplete	-	-	11	-
21	65	fill of posthole 64, aisled barn	1 nail	-	-	11	-
39	65	fill of posthole 64, aisled barn	punch	y	y	10	-
38	79	fill of posthole 78, aisled barn	1 nail	-	-	11	-
75	106	fill of posthole 105,	2 nails, 1 incomplete	-	-	11	-

		aisled barn					
26	123	fill of posthole 122, aisled barn	1 nail, incomplete	-	-	11	-
35	123	fill of posthole 122, aisled barn	1 nail, incomplete	-	-	11	-
27	127	fill of posthole 126, aisled barn	1 nail, incomplete	-	-	11	-
73	250	fill of posthole 252, aisled barn	strip fragment	y	-	18	-
74	250	fill of posthole 252, aisled barn	1 nail, incomplete	-	-	11	-
64	304	fill of posthole 306, aisled barn	1 nail	-	-	11	-
65	236	fill of waterhole 231	1 nail	-	-	11	-
69	232	fill of waterhole 231	1 nail shank fragment	-	-	11	-

Table 16: Iron catalogue

SF	Context	Context description	Identification	Conserve	Illustrate	Category	Date
72	183	fill of well 60	sledge runner, with two tie holes and characteristic polish and wear marks	-	y	8	(Late Saxon-medieval)
87	338	Fill of well 60	sledge runner fragment, with tie hole and characteristic polish and wear marks	-	y	8	(Late Saxon-medieval)

Table 17: Bone catalogue

SF	Context	Context description	Identification	Conserve	Illustrate	Category	Date
31	59	fill of well 60	whetstone, fine-grained micaceous sandstone	-	y	10	Roman

Table 18: Stone catalogue

A.2 Pottery Assessment

By Stephen G. Upex

Introduction

A.2.1 Pottery constituting 3259 sherds, with a total weight of 42.532kg and with an estimated vessel equivalent (EVE) of 83.99 was recovered from the excavations (see Table 16). The average sherd weight was 13.05g but the assemblage was divided into a series of datable contexts from which came either well abraded sherds of small size and weight or what appeared to be freshly broken sherds where the size and weight were significantly higher. For example, from Late Iron Age/Early Roman contexts, 122 sherds, weighing 9.27g and with an average weight of 7.59g were produced, while from late 3rd early 4th century Roman contexts, 1087 sherds, weighing 20100g and with an average

sherd weight of 18.49g were produced. Some contexts appeared to have a largely residual collection of material which was both small in size and very well abraded (see for example context 72, with an average sherd weight of 4.36g or context 145 with an average sherd weight of 5.2g). The general condition of the pottery suggested that some of the Iron Age and the 3rd/4th century Roman pottery related to primary rubbish disposal but that the abraded and worn condition of much of the 1st to mid 3rd century material indicated its residual nature. Many of the deposits produced large proportions of only body and base sherds and thus the EVE (based on rim measurements) is in some cases an under representation.

A.2.2 The pottery was recovered from a series of pits, gullies and ditches, from postholes and features associated with an aisled building and from a large stone lined well or cistern. The broad date range runs from the Late Iron Age through to the end of the 4th century AD. Three sherds from contexts 146, 338 and 340 in Lower Nene Valley Colour Coated Ware (LNVCCW) and two sherds of Lower Nene Valley Post-Industrial Roman Pottery (LNVPIRP) from contexts 16 and 85, are potentially early 5th century in date. Sherd count per context ranged from single sherds (context 84) to 425 sherds from context 59.

A.2.3 A breakdown of datable material is shown in Table 16. This clearly shows that the bulk of material comes from late 3rd – early 4th century sources but that earlier there had been Late Iron Age occupation on the site, some Roman 1st century material and an increasing amount of material which appears to build up during the late 2nd and throughout the 3rd centuries. The closing date for the site, based on the pottery evidence, appears to be the end of the 4th century and possibly just into the early 5th century.

A.2.4 A substantial proportion of the pottery assemblage (42.25% by sherd count and 28.38% by sherd weight) was Roman but un-datable to a specific century or period. This was due to either its abraded nature, small sherd size (average weight 8.76g) or the lack of any diagnostic features such as rims or decoration.

A.2.5 The bulk of the assemblage is of a local Nene Valley provenance with 53.25% of the material represented by local colour coated, grey ware or cream/white ware products. Most other fabric types would seem to be Nene Valley products although their precise area of manufacture remains unclear and local kilns sites await discovery. Imported products from outside of the immediate area of the site include samian (1.058% of the assemblage by weight), Oxfordshire red slipped ware (1.363% of the assemblage by weight) and two sherds of amphorae (0.916% by weight) which come from Spain.

Date	Sherd count	Sherd weight (g)	EVE	Sherd count (%)	Sherd weight (%)
Late Iron Age	182	4337	1.2	7.70	10.197
LIA/Early Roman	122	927	0.39	3.74	2.179
Roman 1st/2nd century	35	223	0.0	1.07	0.524
Roman 2nd century	81	902	0.6	2.48	2.120
Roman 2nd /early 3rd century	221	2938	3.41	6.47	6.907
Roman late 3rd /early 4th century	1087	20100	73.11	31.81	47.255
Roman late 4th/early 5th century	154	1031	1.9	4.44	2.424
Roman (uncertain date)	1377	12074	3.38	42.25	28.388
Totals	3259	42532	83.99	99.96	99.994

Table 19: The pottery by period, sherd numbers, weight and EVE

Methodology

A.2.6 The assemblage was assessed in line with the guidelines set out by the Study Group for Roman Pottery (Webster 1975; Young 1980; Darling 2004; Willis 2004). The total assemblage was scanned and a preliminary catalogue prepared. The sherds were examined using a hand lens (x20 magnification) and then the assemblage was divided into fabric groups based on broad criteria such as the presence /absence of inclusions visible to the naked eye; or estimates of fabric coarseness/fineness where the suites of inclusions were similar; or of a particular firing property of the clays used in manufacture. The resulting categories most probably each contain products from more than one source, but without any formal fabric analysis programme and using only a visual inspection, the groupings could not hope to be definitive.

A.2.7 Fabric codes are descriptive and within the catalogue and this report abbreviated to the main letters of the title – thus Roman Grog Tempered Ware becomes RGTW. Spot dates were assigned to each context and sherd types were also recorded. Sherds from each context were weighed and counted by fabric group and comment was made on any decorated sherds, sherds which were unusual and sherds which were largely abraded or of a residual nature. Sherds were also selected for potential illustration.

The Late Iron Age Pottery

A.2.8 A total of 182 sherds weighing 4337g from 12 contexts with an EVE of 1.2 were recovered from the excavations. This represents only 7.70% of the total sherd count from the site by period but 10.197% of the site's total sherd weight by period. The majority of the assemblage consisted of handmade sherds which were shell gritted and fired in a reducing atmosphere. The majority of the sherds came from jars and bowls. Some vessels were decorated with a combed decoration and one large bowl had both combed and finger impressed decoration.

Late Iron Age/Early Roman Pottery (to c. AD50/75)

A.2.9 A total of 122 sherds weighing 927g was allocated to this transitional period of the site and consisted of sherds with sand or shell inclusions in their fabrics, (some of which were hand made (see Fabric 17, Table 20). This collection on first inspection looks similar to that recovered from Monument 97 in Orton Longueville parish (Rollo and Wild, 2001, Period 1) and a similar assemblage recovered from Werrington dated to between the first century BC and AD 50/60 (Perrin 1988).

Early Roman Pottery (late first and early second century)

A.2.10 A total of 116 sherds weighing 1125g were recovered from the site which accounts for 3.55% by sherd count and 2.644% by weight of the total assemblage. Many of the fabrics had sand or grit inclusions and grey fired reduced wares and Lower Nene Valley Cream/White wares were also present. Roman shell gritted wares were also present.

The vessels consisted of jars and bowls with some early beaker forms. The fabrics of early Roman ceramic assemblages in the lower Nene Valley are at present poorly understood and the identification of such material is limited to either decoration or the forms of vessels. Some fabric types from this grouping are similar to fabrics / vessels found at the military works depot at Longthorpe (Dannell and Wild 1987) and to material from Monument 97 and Orton Hall Farm in Orton Longueville (Mackreth 2001; 1996).

Roman Second/Third Century Pottery

A.2.11 Later 2nd and early 3rd century pottery accounted for 221 sherds weighing 2938g with an EVE of 3.41. This represents 6.47% of the total assemblage by sherd count and 6.907% by sherd weight. The vessels represented include beakers, jars and bowls. LNVGW and LNVCCW dominates this grouping, Roman Shell Gritted wares are present and some vessels continue to have been made in fabrics with sand and grit inclusions.

Fabric	Contexts	Abbrev	Sherd count	Sherd weight	EVE	Sherd Count (%)	Sherd weight (%)
Late Iron Age Shell Gritted Ware	12	LIASGW	182	4437	1.2	5.588	10.432
Roman Grog Tempered Ware	5	RGTW	16	68		0.490	0.159
Roman Shell Gritted Ware	48	RSGW	794	8407	3.45	23.983	19.766
Lower Nene valley Grey ware	48	LNVGW	675	7675	17.45	20.711	18.045
Lower Nene Valley Colour Coated Ware	41	LNVCCW	988	13601	54.6	30.316	31.978
Lower Nene Valley Cream/White Ware	11	LNVCWW	148	1375	1.48	4.541	3.232
Lower Nene Valley Post Industrial Roman Pottery	2	LNVPIRP	2	31		0.061	0.072
Oxfordshire Red Slipped Ware	5	OXRW	13	580	3.1	0.398	1.363
Samian	14	SAMIAN	19	450		0.583	1.058
Amphorae	2	AMPHOR	2	390		0.061	0.916
	4	Fabric 1	18	214		0.552	0.503
	1	Fabric 2	12	40		0.368	0.094
	14	Fabric 3	47	505		1.442	1.187
	7	Fabric 4	52	665	0.3	1.595	1.563
	6	Fabric 5	24	261		0.736	0.136
	1	Fabric 6	1	13		0.030	0.030
	3	Fabric 7	5	88		0.153	0.206
	5	Fabric 8	14	622		0.429	1.462
	2	Fabric 9	6	25		0.184	0.058
	4	Fabric 10	17	210		0.521	0.493
	5	Fabric 11	59	1170	2.02	1.810	2.750
	1	Fabric 12	3	30		0.092	0.070
	1	Fabric 13	4	12		0.122	0.028
	2	Fabric 14	14	100		0.429	0.235
	5	Fabric 15	27	372		0.828	0.874
	1	Fabric 16	2	100		0.061	0.235
	2	Fabric 17	6	210		0.184	0.493
	2	Fabric 18	49	290	0.39	1.503	0.681
	3	Fabric 19	44	452		1.350	1.062
	4	Fabric 20	6	39		0.184	0.091
	1	Fabric 21	10	100		0.308	0.235
Totals			3259	42532	83.99	99.613	99.507

Figure 2. Fabric Analysis

Roman Late 3rd / Early 4th Century Pottery

A.2.1 The largest part of the total assemblage of pottery recovered from the Bretton site falls within this category with 1087 sherds being recovered weighing 20100g and with an EVE of 73.11. This represents 31.81% of the total sherd count and 47.255% of the total weight from the site. Two main types of production dominated at this period - LNVCCW, and LNVGW, with RSGW and LNVCWW also present. This assemblage is almost exclusively made within a 10 mile radius of the site and consists of bowls, dishes, jars, with some flasks and bottles and some local mortaria.

A.2.2 The sherd size from this period is substantially bigger when compared with the early dated groupings. For example from context 59 the average sherd weight is 13.77g for LNVCCW and 25.45g for LNVGW. Some of this sherd size / weight ratio is reflected in the forms of vessels represented within the dated collections – for example, large grey ware jars with thick walls are common. Many of the vessels appear to be discarded as rubbish very shortly after breakage and thus are useful dating indicators.

Stone-lined feature

A.2.1 The stone-lined feature formed the most significant aspect of the site at Bretton Way. The ceramic assemblage from the feature consisted of a total of 934 sherds weighing 23105g and with an EVE of 71.25 and was recovered from 13 separate contexts.

A.2.2 The 934 sherds represented 28.64% of the total number of sherds from the site but the weight of sherds from the site, consisting of 23105 g, represented 54.324% of the total sherd weight from the site, showing the large average sherd size from the feature. The average sherd weight for the whole site was 13.05g but from the stone lined feature it was 24.73g.

A.2.3 Similarly the EVE for the whole site was 83.99 and from the stone lined feature it was 71.25. This represents 84.83% of the total figure. From the whole site it was suggested that 62 sherds /vessels should be illustrated in any forthcoming report on the site – 35 of this total came from the feature representing 56.45% of the total sherds suggested for illustration.

A.2.4 Almost all of the contexts contained Lower Nene Valley Grey Wares (LNVGW), Lower Nene Valley Colour Coated Ware (LNVCCW) and Lower Nene Valley Cream and White Ware (LNVCWW). In addition amphorae was recovered from context 146, and samian from context 340 while fragments of Oxford Red Ware (OXFW) came from contexts 59, 146 and 338. In addition, other fabrics were also identified which were listed numerically and came from contexts which are identified in Table 18.

Context	Sherds		Weight(g)	
	Sherd No.	% of site total	Weight (g)	% of site total
59	458	14.05	7225	16.98
107	45		1010	
146	159	4.8	2000	
183	12		403	
184	7		260	
324	64		2722	6.39
326	2		22	
327	6		290	
334	8		197	
337	86		4100	9.63
338	46		1903	
339	25		1570	
340	16		1403	
Totals	**934**	**28.64%**	**23105**	**54.324%**

Table 21: Contexts relating to the stone-lined feature

Fabric Group	Contexts
1	59
3	59, 146
4	59, 334
6	59
7	59,183
8	59,324,327,337
11	334
15	107
16	107

Table 22: Fabric groups by context

Late Roman Pottery (Late 4th /Early 5th Century)

A.2.1 Representing 2.424% by weight and 4.44% by sherd count with an EVE of 1.9 the pottery from this period consists of 154 sherds weighing a total of 1031g. Many of the forms of vessels developed during the late 3rd and early 4th century carry on through, and similar fabrics dominate as for the earlier period. There are no late painted wares

and none of the self coloured cream wares that one might expect from a late group. Products from the late Stibbington kilns seem largely absent (Upex 2008), although there are two vessels which probably do come from Stibbington and other one vessel which does fall well into the period after *c.* AD375 (Gilliam 1951). These three vessels come from contexts 146, 338 and 340.

Imported Wares

Oxfordshire Red Slipped Ware

A.2.2 Five contexts produced 13 sherds of OXRSW weighing a total of 580g and with an EVE of 3.1. This represents 1.363% of the total assemblage from the site by weight and 0.398% of the total sherd count. Most of the sherds were of a large size (average sherd weight =44.6g) and seem to have been discarded into rubbish deposits soon after being broken. All the sherds were found in contexts dated to the 4th century and this dating would fit the general pattern of the importation of Oxfordshire products into the lower Nene Valley albeit in very limited quantities (Evans 2003; Perrin 1996; Upex forthcoming)

Samian

A.2.3 Samian from 14 contexts weighing 450g and representing 1.058 of the total weight of the assemblage was recovered from the excavations – these represent 14 separate vessels. The average sherd weight of 23.68g is deceptive as two large stamped bases (both weighing 110g each) from contexts 85 and 87 make up a large proportion of this weight. The majority of the material is Antonine and from Lezoux. There are 1-2 pieces dating to the 1st century from la Graufesenque and at least 1 Trajanic piece from Les Martres-de-Veyer. The two stamps are both from Lezoux, one of Belinnicus iii, dated 140-170AD (context 85) and one of Genitor ii, dated 160-200AD (context 87).

Amphorae

A.2.4 Two sherds of amphorae come from the excavated area of the site from contexts 85 and 146. This represents only 0.061% of the total sherd count and fits the general situation for rural sites where amphorae are rarely found and where they do occur are found in very small quantities – for example at Haddon to the west of Peterborough only 0.2% was recorded (Evans 2003, 70). Both sherds from Bretton are small (average 195g) and little can be said about the form of the vessels, however, the fabrics probably comes from Dressel 20 oil amphorae from Spain and date to the late 1st – mid 2nd century (see Friendship-Taylor forthcoming; Peacock forthcoming).

Discussion

A.2.5 The general assemblage is fairly typical of what one might expect from a rural site in the area of northern Cambridgeshire. A small, late Iron Age collection of material including some handmade decorated vessels leads through into low level occupation evidence in the 1st and early part of the 2nd centuries, which then expanded throughout the 3rd century suggesting a maximum of occupation in the early part of the 4th century. Such a chronological development shown through pottery assemblages can be found on many rural sites (see for example Mackreth 1996; Hinman 2003).

A.2.6 However, there are very important aspects to the Bretton Way pottery assemblage which elevate the site above the status of simply a rural farmstead. These aspects are concerned with the discovery of the stone-lined feature which formed not only a major feature on the site but a most significant monument in the understanding of the local and regional Romano-British occupation of the area.

A.2.7 In general terms the early pottery from the site suggests an Iron Age focus, followed by Roman occupation close by and throughout the 1st and through into the middle of the 3rd century. Most of the material from these periods is represented by small, abraded sherds which suggest that they are residual to the site and perhaps represent the disposal of rubbish from occupation outside of the main excavation area. This aspect of the assemblage contrasts to that material which comes from the stone-lined feature which is represented by large sherds which appear to have been disposed of fairly soon after breakage occurred and thus very significant for dating. This material may be derived from the occupation of the associated aisled building which was some 7m away from the stone-lined feature. There is nothing from the site's ceramic assemblage to indicate that occupation carried on beyond the late 4th or early 5th centuries.

A.2.8 Of particular interest are the series of whole, circular bases from vessels that were found in the stone-lined feature. Some of these appear to have been worked deliberately to remove the 'body' part of the vessel and in some cases the broken edges of the bases have been ground down to a smooth surface. In addition the site produced four near complete vessels.

A.2.9 The assemblage is therefore crucial in helping first, to date and then interpret not just the site in general terms including the aisled building, but in particular the stone lined tank or cistern. The quality, size and monumentality of this stonework marks this feature out as being one of the most significant Roman finds in the Lower Nene Valley and of regional importance.

Context	Spot date	Fabric	Sherd type	Forms of vessels	Sherd count	Weight (g)	EVE	Comment	To Draw
4	LIA	LIASGW	bru	jar	8	20		abraded	
7	LIA	LIASGW	bru	jar	9	20		abraded	
7	LIA/ER	RGTW	bu		1	20			
11	R	RGTW			4	12		abraded	
13	?	RSGW	bu		1	14		abraded	
13	AD2	LNVGW							
15	R	RGTW	bu		5	11		abraded	
15	R	RSGW	r	jar	1	21			
16	R	RGTW			3	22		abraded	
16	AD5	NVPIRP	ur	bowl	1	11			*1
19	R	VNVGW	bu		1	10			
22	AD3/4	NVCCW	rb	bowl	2	55	1.25		
23	R	RSGW	rbu	large jar	5	185			
23	AD2	LNVC/WW	rb	beaker	2	5	0.6		*3
23	AD3/4	LNVCCW	R/bad	Jars bowls flask	27	290	1.3		
23	AD3/4	LNVGW	b	jar	1	30			
23	AD2/3	SAMIAN	b		1	5			samian ID
23		RSGW	b		8	49			
23	AD2	FABRIC 1	Ba b		10	100			
26	AD2/3	NVGW	b	jar	6	60			
47	AD2/3	NVGW	b		5	50			
47	AD2	SAMIAN	r	bowl	1	15		Form 31	samian ID
49	AD2	FABRIC 1	r	neck of jar?	2	2			*2

49	AD1/2?	RGTW	b		3	3		Abraded/ residual	
49	AD2	LNVGW	rb	jar	3	4		Stanground	
49	?	RSGW	bu		5	3		Abraded/ residual	
49	AD2/3	SAMIAN	bu	Cup-form 33	1	1			samian ID
53	AD3	FABRIC 3	b		1	9		Residual?	
53	AD3/4	LNVCCW	ba		2	43			
55		RSGW	b		5	10			
58	AD2/3	FABRIC 5	rb	Beaker	3	15			
58		RSGW	r	jar	4	40		residual	
59		FABRIC 3	handle		1	14			*4
59		FABRIC 1	ba		1	100			
59		FABRIC 6	b		1	13			
59	AD3/4	OXRW	Ba b	bowl	4	40			
59		FABRIC 7	rb	jar	3	45			
59	AD3/4	LNVGW	r	jar	2	35			
59		FABRIC 8	b	jar	8	300			
59		FABRIC 4	b	jar	4	150			
59	AD3/4	LNVCWW Mort fab 2	b	mort	1	20			
59	AD2/3	RSGW	R ba b	jars	35	640			

59	AD3	LNVGW	R ba b	jars	33	840	1.78		*5
59	AD3/4	LNVCCW	R ba b handle	Jars, dog dishes, flanged bowls flask	365	5028	28.5		*6 & 6a cross-fit – context 59 links with 183 *7 jar *8 bottle *9 F/bowl *10F/Bow *11jar *12D/dish *13D/dish
63	AD3/4	LNVCCW	r	bowl	1	15			
63		FABRIC 5	b		1	10			
65		RSGW	b		4	100			
65		FABRIC 4	b		3	20			
72	AD3/4	LNVCCW	bu		6	15		residual	
72		LNVGW	B ba	jars	11	48		residual	
72		FABRIC 3	b		2	10		residual	
72		RSGW	b		6	20		residual	
74	AD3	LNVGW	b	jar	2	20		residual	
79	AD3/4	LNVCCW	b		1	10		residual	
81	AD2	FABRIC 4	bd	jar	2	50		residual	
81		FABRIC 5	r	jar	1	14			
81	AD2	SAMIAN	b		1	13			Samian ID
84		FABRIC 10	b	jar	1	10		residual	
85	AD2/4	LNVCCW	Ba b de paint dec + roulette dec	Bottle /beakers Small jars	29	230		Residual 2nd C /close early 4th	
85		RSGW	b	jar	14	200			
85		FABRIC 11	b	jar	23	400			
85	AD2/3	LNVGW	Ba b	Jar/beaker	41	340	2.0		
85	AD3	LNVC/WW	r b	Jar /bowl	3	40	0.38		
85		FABRIC 3	b	beaker	1	15			
85	AD2/3	AMPHORAE	b	amphorae	1	200			
85	AD2	SAMIAN	Base	form18/31	1	110			Samian

			stamp						ID
85	AD5	LNVPIRP	b		2	20			
87	AD2	SAMIAN	Base stamp	Form 18/31	1	110			Samian ID
87		FABRIC3	R b	Large jar Small jar	4	140			
87		FABRIC 4	r	dish	1	15			
87		LNVGW	R bu	jars	19	100	0.3		
87		RSGW	R b	jars	9	120	0.7		
87	AD2	FABRIC 12	bd	Cordon jar	3	30			*20
88	AD2/3	LNVGW	b		14	450			
90	AD3	LNVGW	B r	jars	17	150	0.3		
90		LNVCWW Mort Fab 1	Br spout	Mort Local +black grit	45	410		residual	
90		RSGW	B r ba	Jar	85	480	0.7		*21
90		FABRIC 3	b	jar	13	90			
92	AD3/4	LNVCCW	b		1	10			
94	AD3/4	LNVCCW	rb	dish	2	20	0.35		
94	AD3/4	LNVGW	rb	Dish jar	10	110	0.38		
94		FABRIC 11	rb	dish	6	70	0.32		
95	AD3	LNVGW	rb	jars	11	120	1.17		
95		RSGW	b		2	20			
96		RSGW	b		6	130			
96	AD2	SAMIAN	ba	dish	1	40			Samian ID
96		FABRIC 11	b		13	130			
97	AD2/3	LNVCCW	Ba b	beakers	7	90			
97		LNVGW	b	jars	4	90			
97		RSGW	b		4				
98		RSGW	b		3	15		residual	
101	AD3	RSGW	b		3	14		residual	
101		LNVGW	r	jar	1	14		residual	
101		FABRIC 3	b		2	10		residual	
102	AD3	LNVGW	b		5	20		residual	
104		RSGW	rb		20	100		residual	
104	AD2/3	LNVGW	rb	jars	6	90		residual	
104		FABRIC 14	rb	jar	4	10		residual	
106		RSGW	rb	jar	36	400		Residual ?	
106		FABRIC 11	rbba	dish	15	530	1.7		
106	AD2	LNVCCW	B dec	beakers	13	60			*22
106		FABRIC 15	rb	Jars dishes	7	107			
106	AD2/3	LNVGW	rbba	jar	51	420		Mostly residual?	
106		FABRIC 2	bba		12	40		residual	
107	AD3/4	LNVCCW	rb	Jar beaker	28	550	O,55		
107		RSGW	b		7	160			
107	AD2	SAMIAN	b	bowl	2	40			Samian ID
107		FABRIC 15	rb	jar	5	140			
107		FABRIC 16	R ba	dish	2	100	0.7		*23
107		OXRW	b	mort	1	20			
109		LNVGW	b		12	48			
109		FABRIC 7	r	jar	1	30			
109		FABRIC 15	b		3	35			
108		RSGW	rb	jars	21	301			
111		FABRIC 10	Rba b dec	jars	8	140			*24
111		RSGW	br		48	380		residual	
111	LIA/ER	FABRIC 17	bbar	jar	5	110			*25
111	LIA/ER	FABRIC 18	rb	Jar/beaker	13	100	0.39		*25a *25b *25c
111	LIA/ER	FABRIC 4	b dec	Jar/beaker	34	190		Residual?	*26
123	LIA/ER	LIASGW	b		3	20			
123	LIA/ER	LNVGW	b		1	5			
125	LIA/ER	FABRIC 19	b		20	112			
125	AD3	LNVGW	r	dish	1	5			

125	R	FABRIC 5	b		3	20			
129	R	RSGW	b		2	80			
137	R	RSGW	b		7	60			
139	AD2/4	LNVCCW	b	Beakers dish	3	30			
139		FABRIC 3	b		2	12			
139	AD2/3	LNVGW	b	jar	3	30			
139	R	RSGW	rb	jar	11	90			
142	R	FABRIC 3	b		1	6			
145	AD2	SAMIAN	Rx2	dishes	2	15			Samian ID
145		FABRIC 1	b		5	12		Residual	
145	LIA/ER	FABRIC 18	rb	jars	36	190			*27
145	AD3/4	LNVCCW	Brba	Bowls Jars dishes	33	360	0.40		
145		RSGW	b	jar	29	600			
145		FABRIC 20	bdec	jar	1	10			
146	AD late4	LNVCCW	brba	Jar dishes Flanged bowls Vessel*29 mid/late 4th –see*59	138	810	1.9		*29 *30
146		OXFORD RED WARE	rdec	jar	1	10			*31
146	AD2/3	AMPHORAE	b	amphorea	1	190			
146	AD2/3	LNVGW	rb	jar	8	300	0.3		
146		FABRIC 3	b		1	10			
146		RSGW	b		10	680			
148		RSGW	b		5	12			
148	AD3	LNVCCW	b		1	5			
150	AD2	FABRIC 3	bba	jar	3	124			
150		FABRIC 10	b		1	10			
150	AD1/2?	LNVC/WW	b	Flagon?	22	120			
152	AD3/4	LNVCCW	rb	bowl	2	30			
152		LNVGW	b		6	12			
152		RSGW	b		4	90			
152		FABRIC 20	b		2	9			
153		FABRIC 5	rb	jar	14	190		0.2	
153	AD3/4	LNVCCW	rb	Bowl/ D/dish	3	40		0.2	
154		RSGW	rb	jar	13	390	1.15		
154		FABRIC 3	rb	jar	3	20			
154	AD3/4	LNVGW	rb	jar	5	110	0.20		
154	AD3/4	LNVCCW	rb	Bowls/jar/castor box	11	210	1.5		*31a
154	AD3/4	LNVCWW Mort fab 2	bba	mort	21	100			
171	LIA/ER	LIA/ERSGW	bdec		9	100			
174	AD3/4	LNVCCW	b		2	4			
174		LNVGW	b		3	4		residual	*32 *33
180		RSGW	b		2	40			
183	AD3/4	LNVGW	b	jars	3	100			
183		RSGW	br	jar	6	210			
183		FABRIC 7	b	flask	1	13			
183	AD3/4	LNVCWW Mort fab 2	ba	mort	1	10			
183	AD3/4	LNVCCW	r	D/dish	1	70			*6 & 6a cross fit-contexts 59 &183
184	AD3/4	LNVCCW	rb	bowl	3	90	0.2		
184	AD2/3	LNVGW	rb	jar	3	90	0.12		
184		RSGW	rdec	jar	1	80			*45
185	AD2/3	LNVCCW	b	beaker	1	4			
187	AD3.4	LNVGW			2	8		residual	
191	LIA	LIASGW	rbdec	Large dish	10	320	0.2		*34 *35

193	LIA	LIASGW	bdec		10	200			
201	AD2/3	FABRIC 10	rb	jar	7	50			
205	AD1/2	FABRIC 21	rb	jar	10	100			*36
207	LIA	LIASGW	Rb dec	Large bowl	100+	1920	1.0	Ones single large bowl?	*37
209	LIA	LIASGW	Bba?	Base of jar?	28	1290		Finger impressions	
229	AD3/4	LNVCCW	bab	bowl	8	50		Residual?	
229		RSGW	b		5	90			
230		RSGW	b		4	60			
230	AD2/3	LNVGW	b		1	10			
230		FABRIC 20	b		2	10			
232		FABRIC 19	rb	jar	20	280			*38
232		RSGW	bba		4	200			
232	AD3/4	LNVCCW	rb	jars	4	80			
232	AD3/4	LNVGW	b		2	20			
236	AD3/4	LNVGW	Rbba	Jar/bowls/cheese press	14	400			*39 *40 *41
236	AD3/4	LNVCCW	Bab dec	Jar	8	100	0.3		
236		RSGW	b		2	20			
246	AD2	SAMIAN	rba	dish	2	20			Samian ID
246		FABRIC 9	b	jar	1	15			
246		FABRIC 15	b		1	30			
250	AD3/4	LNVGW	b		5	55			
250	AD3/4	LNVCCW	b		1	5			
257	AD3/4	LNVCCW	b		1	10			
261	LIA	LIGSGW	rb	jar	16	100			*42
269		RSGW	b		1	8			
271	LIA/ER	FABRIC 17	r	jar	1	100			*43
271		RSGW	b		3	80			
271		FABRIC 19	b		4	60			
277	AD2/3	LNVGW	R b ba	jar	20	190	0.2		*44
281	LIA	LIASGW	R dec		1	12			
293		FABRIC 3	b		1	5			
298	AD2/3	LNVGW	r	bowl	2	20			
297	LIA	LIASGW	b	jar	40	195			
303	AD3/4	LNVCCW	rb	jar	2	12			
303		LNVGW	b		2	5			
303	AD2	SAMIAN	b		1	5			
304	AD3/4	LNVCCW	rb	Jar /flanged bowl	5	125	0.1		
304		FABRIC 14	b		10	90			
304		LNVGW	b		2	40			
304		FABRIC 15	rb	dish	11	60			
304	AD2	SAMIAN	r	dish	3	5			Samian ID X 2
304		RSGW	b		15	210			
305		FABRIC 5	b		2	12		residual	
309		FABRIC 9	rb	jar	5	10		residual	
309	AD2/3	LNVCWW	b		4	5			
309		RSGW	b		2	15		residual	
312	AD2/3	LNVGW	b		2	10		residual	
314	LIA	LIASGW	R b ba	Jar?	28	240			*47
320	AD3/4	LNVCCW	r	bowl	1	55			
324		FABRIC 8	b	Large jar	3	240			
324	AD3/4	LNVCCW	R b ba	Flanged bowls/jars	20	720	1.2		*48 *48a
324	AD3/4	LNVGW	R b ba	jars	16	890	0,2		
324		RSGW	rb	Large jar	1	430			*49
324	AD3/4	LNVCCW	b	Large jar	17	230			
324		FABRIC 8	b		1	12			
324		FABRIC4	B ba	jar	6	200	0.3		
326		FABRIC 20	b		1	10			
326	AD2/3	LNVGW	b		1	12			

327	AD3/4	LNVCCW	B ba r	Dish jar	3	200	0.1		
327		RSGW	b		2	40			
327		FABRIC 8	b		1	50			
334	AD3/4	LNVCCW	b		1	7			
334		LNVGW	rb	Flanged bowl	2	90	1.3		
334		FABRIC 11	b	jar	2	40			
334		RSGW	r	jar	1	20			
334		FABRIC 4	b		2	40			
337	AD3/4	LNVCCW	R b ba (8 full bases – one rubbed smooth	Jars dishes, lids, bowls flagons	42	2500	15.6		*50 *51 *52 *53 *54 *54a= complet e pot
337	AD3/4	LNVGW	R b ba (1 full base)	Jars dishes	23	900	5.3		*55 *56 *57
337		RSGW	R b ba (1 full base)	jar	13	90	0.7		*57a= complet e pot *59a
337		FABRIC 8	b		1	20			
337	AD3/4	LNVCWW Mort fab 2	r	mort	1	210	0.4		*58
337	AD3/4	OXRW	Rb ba	Bowls flask	5	310	2.9		
337	AD3/4	OXRW	ba	mort	1	70			
338*	AD late 4	LNVCCW	R b ba 3 full bases one rubbed smooth	Jars, bowls Vessel*59 late 4th(see vessel *29)	29	720	0.4		*59 *59a= Complet e pot
338	AD3/4	LNCWW Mort fab 2	ba	mort	2	230			
338	AD3/4	LNVGW	b		5	110			
338	AD2	SAMIAN	r	Bowl form 36	1	13			samian ID
338	AD3/4	OXRW	R ba	bowl	2	150	0.2		
338		RSGW	B Ba Full base	Jar?	7	680			
339	AD3/4	LNVCCW	Ba r b	Bowls dish	11	540	0.8		
339	AD3/4	LNVGW	rb	jar	4	800	4.1		*60
339		RSGW	R b	jars	10	230	0.2		
340	AD late 4	LNVCCW	B dec	Bottle bowl See vessels *29 & *59 for other late 4th dates	4	190			*61
340	AD3/4	LNVCWW Mort fab 3	r	mort	1	210	0.1		
340	AD3	LNVGW	B ba	jar	3	410			
340		RSGW	rb	jars	7	580			*62
340	AD2	SAMIAN	r	Bowl form 31	1	13			Samian ID

Table 23:Pottery Catalogue

NB Context 338 produced two fragments of Roman tile possibly *tegulae*
Context 339 produced I fragment of Collyweston roofing slate

Spot dates

LIA= Late Iron Age

LIA/ER= Late Iron Age/Early Roman

AD1= 1st century AD

AD2= 2nd century AD

AD3= 3rd century AD

AD4= 4th century AD

AD5= 5th century AD

R= Roman/Roman-abraded sherds with little detail/undated

Fabrics

LIASGW = Late Iron Age Shell Gritted Ware

RGTW = Roman Grog Tempered Ware

RSGW = Roman Shell Gritted Ware

LNVGW = Lower Nene Valley Grey Ware

LNVCCW = Lower Nene Valley Colour Coated Ware

LNVCWW = Lower Nene Valley Cream /White Wares

NVPIRP = Nene Valley Post-Industrial Roman Pottery

SAMIAN = Samian

AMPH = Amphorae

OXRW = Oxford Red Ware

Fabric 1= Crisply fired with grit inclusions colour orange throughout

Fabric 2 - Lower Nene valley cream /white wares (yellow firing)

Fabric 3= Grey/hard /grit inclusion /sandy feel

Fabric 4= Fired black /grey sandy inclusions

fabric 5= Orange fired shell gritted wear/thin walled – fine shell inclusion

fabric 6= Hard fired sandy inclusion oxidised

fabric 7= Very hard fired orange/grey coated with fine quartz grit inclusion

Fabric 8= Smooth soapy surface with fine shell inclusion fired pink/red with grey interior

Fabric 9= Well fired hard fabric with fine sandy grit inclusion

Fabric 10= Grey fired shell gritted fabric

Farbic 11 = Grey sandy exterior and lighter grey interior firing /sandy inclusion

fabric 12 = Grey hard surface v fine sandy feel

Fabric 13= Grey fired shelly wear

Fabric 14= Oxidised fine gritty fabric sandy feel

Fabric 15= Grey reduced fabric with fine sand – sandy feel

Fabric 16 = Fine coarse fabric with mica flecks/traces of a cc in red

Fabric 17= Fired black shell gritted . Hand made?

Fabric 18= Fine sandy finish –sandy to touch /light grey /pink

Fabric 19= Shell gritted with voids / soapy

Fabric 20= Fired light brown/grey=/shell and grit + sand inclusion, sandy feel

Fabric 21= Hard fired smooth paste with very fine shell inclusions/ oxidised orange-pink exterior +grey /black core

The local mortaria are further divided by fabric into the Type Series adopted by Hartley (1996, 199) for the Lower Nene Valley.

All are in LNCWW but are thus further described above as Mort fab 1 or 2 or 3

Sherd Types r = rim, b = body, ba = base, dec= decorated sherd, u=undecorated

* denotes a sherd selected for drawing with a sherd number

A.3 Worked Stone

By Ruth Shaffrey

Methodology

A.3.1 Each block of stone used in the lined sunken feature was examined with a view to recording the dimensions, condition, lithology (stone type), tooling marks and any other distinguishing features that might cast light on where the stones originated. Some of these stones were examined *in situ*, whilst others had been lifted out and were examined on the ground.

Description

A.3.2 A block by block description is included in Table 24, however a general description is also provided here. The blocks of stone used in the sunken feature vary tremendously in size from smaller blocks measuring for example less than a metre x 57 x 42cm (503) to monumental blocks of over 2m long for example block 501, which measures 233 x 84 x 24cm.

A.3.3 The blocks are in varying conditions of survival so that some have weathered surfaces and have lost all evidence of how they were worked while others have retained distinct tool marks, which demonstrate a number of techniques. Most surviving surfaces show evidence of regular diagonal tooling, often with a 20 mm blade and usually regularly spaced between 30 and 40 mm apart but up to 70 mm apart. Some blocks have patterned tooling, for example 507, which has segmented tool marks. A single block can have faces with several different tool marks for example block 500 has one smooth face but another face reveals clear use of a 20mm chisel blade.

A.3.4 Six blocks have distinctive features that provide evidence for their use in a previous structure in the form of shaping that bears no relevance to their function here, mostly recessing. Blocks 500, 507 and 509 are recessed at one end while block 502 is recessed along its length. Block 508 is chamfered which also relates to its primary use. This shaping presumably relates to how the blocks fitted together with other blocks in their primary structure.

A.3.5 Other features are more enigmatic. Block 500 has a circular sockets at each end of one face. Block 509 has a rectangular slot while block 510 has a single 50 mm diameter socket. The sockets could be related to how the blocks were lifted, how they connected to other blocks or some other as yet unknown purpose, for example the attachment of other items.

A.3.6 Block 511 is unusual in that it has a single wedge shaped slot on one face that seems likely to relate to its original extraction. Block 508 also has some unusual shaping at one end, of unknown purpose.

Recorded	SF	Description	Notes	Size (cm)
ex-situ	500	Very long block	Five faces visible. Long stone with one recessed end approx. 150mm long. Circular sockets at each end on one side, measuring 50mm diameter. Top has a smooth finish. One side has some diagonal chisel marks; chisel with roughly 20mm blade. Base is not visible. Tooling is not as visible on this as on other stones.	
ex-situ	501	Large block	Broken into three pieces. Small areas of tooling are visible but most of the exposed surfaces are weathered	233 x 84 x 24cm
ex-situ	502	Block	Wedge shaped slot visible on weathered face. One face is pecked into pit marks while opposite face has chisel marks with 2cm wide blade. This same side also has a shallow recess 4cm deep x 39cm long x full depth of block. The upper surface (as stored) is weathered. One end is roughly tooled - no pattern. Other end has diagonal tooling 40mm between lines	127 x 62 x 38cm
ex-situ	503	Block	Stored on its side. Distinctive tooling. One face is irregular. One face (top as stored) has irregular diagonal tooling, 35mm apart. Both ends have regular diagonal tooling 30-35mm apart	95 x 57 x 42cm
ex-situ	504	Irregular block	Irregular with one probably natural face. Mostly rough surfaces but two are tooled	
ex-situ	506	Block	The upper face (so lower originally) is rough. One side has diagonal tool marks about 20mm apart but quite rough	>74 x 72 x 15cm
ex-situ	507	Block	Broken in half. Patterned tooling, segmented on upper (so lower in pit) face. Some lines are 40mm, some 60mm apart. Rest is roughly tooled, not measurable and there are no cut features	>67 x 71 x 19cm
in-situ	508	Massive block	generally rough surfaces. It is shaped at one end - recessed and chamfered	

ex-situ	509	Large recessed block	Wide tooled channels approx 50mm apart although varied, and with a 13cm deep recess. Small rectangular slot on side. Opposite face to recessed one is similarly tooled although more weathered	157 x 66 x 33cm
ex-situ	510	Large block	Split into two along bedding when lifted. Largest block has very deep tooled channels 70mm apart and slightly curved. One side has less deep but also diagonal tooling and has a protrusion at one end possibly suggesting it wasn't finished. One face has a socket 50mm diameter x 30mm deep	98 x 83 x 31+19 = 50cm
in-situ	511	Massive block	Rough faces no tooling on side. Some tooling on top but muddy. Wedge shaped slot on top, possible from original extraction?	
in-situ	512	Large block	Two faces exposed. Distinctive diagonal tooling 40mm apart	
in-situ	513	Large block	Two faces exposed. Some diagonal tooling on side and on top, 50mm apart	
ex-situ	514	Block	Upper surface as stored is weathered and has no tooling. But note this was the underside *in situ*. Two sides have narrowly spaced pick marks roughly in lines but not even and 10mm apart. One side has roughly linear tooling roughly 20mm apart. One side has random tooling, some in lines	
in-situ	515	Block	Rough surfaces, no obvious tool marks. No cut features. Two faces exposed. Small block (relatively!)	
in-situ	516	Block	Rough surfaces, no obvious tool marks. No cut features. Two faces exposed. Large block. One corner obscured	
in-situ	517	Long block	Nearly the whole section in length. One face exposed. Diagonal pick marks 5cm between lines. No cut features	
in-situ	518	Small block	No tool marks. One face exposed	
in-situ	519	Small corner block	Cut to fit into corner of sections 1 and 2. Rough surfaces, no tool marks. Two faces (inside corner) exposed	
in-situ	520	Large recessed block	Small block 519 fits into the recess cut in this block. The left part of this block is pecked in dimples. The right side of the exposed face is picked into diagonal lines 45mm apart. One face exposed	
in-situ	521	Block	Rough faces, very weathered with no surviving tool marks. One face exposed	
in-situ	522	Small block	At far left of section. Rough stone with no tool marks and no cut features. One face exposed	
in-situ	523	Small block	Under 522. One face exposed. Rough stone with no tool marks surviving or cut features	
in-situ	524	Block	Part of top is visible as is inner face. Part of top is tooled, quite deep, 45mm apart	
in-situ	525	Large block	fairly rough, no visible tooling and no cut features. One face exposed	

in-situ	526	L-shaped corner block	Some tooling	
in-situ	527	Block	More worn than some other blocks but with some diagonal tooling	
in-situ	528	Block	Very weathered, no tool marks	
in-situ	529	Block	Not much visible, some tooling	
in-situ	530	Block	Weathered, no tooling	
in-situ	531	Block	Damaged. No features	
in-situ	532	Large block	At base. Tooling 40mm apart. One face visible	
in-situ	533	Block	Rough surfaces. No tooling	
in-situ	534	Block	Rough surfaces. No tooling	
in-situ	535	Block	Roughly shaped but no tooling or features	
in-situ	536	Block	Tooled surface - big pock marks but in rough lines 40mm apart	

Table 24: Catalogue of worked stone

Lithology and provenance

A.3.7 All the blocks are made of the same lithology and are of sufficiently similar petrology to have come from the same primary source. The stone has been examined in hand specimen and is a shelly oolitic limestone; the ooids have been weathered out so only the voids remain making it a matrix dominant oolite. In addition, a variety of other shells and fragments are present including crinoid stem fragments. The limestone is hard although the sand in the matrix is being weathered out so that the stone is degrading along the sandier parts. The fresh surfaces are a creamy yellow colour while some of the exposed areas are greyer, possibly where they have been exposed to the clay. The stone may be Barnack Rag but given the significance of the site, the stone will need to be more carefully examined and a lithology and provenance precisely determined.

Discussion

A.3.8 The blocks used in this structure are clearly of monumental size. They would have been extremely difficult to manoeuvre into position. Although their surface treatment is not uniform, the lack of variation in their petrology suggests they have the same primary provenance. The features of the stones indicate that they have been used in another structure prior to this one, and if their primary source is the same, it is almost certain that they have been salvaged from the same secondary source.

A.4 Assessment of the Leather

By Quita Mould

Methodology

A.4.1 The following assessment is based on a scan of the leather. The information gathered has been correlated with the available contextual information (Table 25). This short assessment is accompanied by a brief 'finds register' of the leather listed by context. Due to the fragile nature of Roman footwear some notes have been made and significant measurements of the wet leather have been taken. The majority of the work will be undertaken at analysis stage.

Condition of the material

A.4.2 The leather is washed and wet. It is well packed in double self-sealing polythene bags within plastic air-tight storage boxes. The wet leather is able to be successfully stored short term providing it is kept cool and dark. The leather cannot be stored long term unless it has been conserved. The wet leather is fragile and liable to tear and fragment easily. Conserving the leather will ensure it does not deteriorate further and allow examination, illustration and long term storage.

Summary of the leather assemblage

A.4.3 Leather was recovered from four contexts (337, 338,339, 340) all apparently fills of a large square feature lined with large pieces of masonry deriving from a significant public building. All the leather represents components from shoes of Roman date. The footwear appears to be the result of the disposal of domestic refuse rather 'structured deposition'. The accompanying register of leather finds lists 19 items. The exact number of shoes present is uncertain at this stage, however, as it may be possible to match up torn fragments and individual components from the same shoe during analysis. Two methods of shoe construction are present: shoes of nailed construction, the most common method of shoe construction throughout the Roman period, and shoes that are constructed using both stitching with leather thong and iron nailing. Stitched and nailed construction appears to be a feature of footwear of Late Roman date. Other constructional features such as nailing patterns, constructional thonging, methods of attaching the upper lasting margin to the bottom unit and the type of upper side seam used are all present. One shoe, SF60 (338) is almost complete, and has a closed upper of bovine leather with a line of decorative stitching running down the vamp from the throat to the toe. This decorative stitching has also been found on Late Roman shoes from a small but growing number of sites in Britain, the majority from rural sites like Bretton Way. It is of interest that another example was found at the Tower Works, Peterborough (MPF04), though this has not been published. Individual shoes with this decorative stitching known to the author are listed below:

- Tower Works Peterborough (MPF04) assessed for CAU March 2005
- Rectory Farm, Lincs
- Bancroft, Bucks
- Haynes Park, Beds
- Piddington, Northants
- Porchester, Hants
- Skeldergate, York
- Magor, Gwent

Context	SF. No	Construction	Components
337	49	nailed	49.2 waist area of sole. 49.3 insole for left foot adult size and tread and seat laminae. 49.4 second fragment torn from sole. 49.5 various small fragments of stitching thong and bottom unit
337	50	nailed and stitched	50.1 middle lamina. 50.2 piece from upper lasting margin. 50.3 piece broken from lower tread area of bottom unit including insole, middle lamina. 50.4 upper lasting margin fragment. 50.5 seat area of insole and compacted fragment of bottom unit. 50.6 seat area of upper lasting margin. 50.7 sole of adult size. 50.8 various small fragments of stitching thong
337	51	nailed	51.1 midsole lamina, fragment of lasting margin of upper. 51.2 sole of adult size
337	52	nailed	52.1 insole
337	52	nailed	52.2 seat area of insole from a second shoe, 52.3 middle lamina for seat. 52.4
337	58	nailed and stitched	piece broken from the side of a shoe upper lasting margin
337	59	nailed	fragment broken from the side of the seat area of insole
337	94	nailed	piece broken from right side of sole of adult size
337	96	nailed	two small pieces broken from bottom unit component
337	97	nailed	97.2 midsole lamina. 97.3 piece broken from forepart of sole of adult size. 97.4 various small pieces broken from highly fragmentary nailed bottom unit includes insole, midsole/sole
338	60	nailed and stitched	sole, insole, closed upper with line of tunnel stitching from decorative stitching running from throat to toe and suggestion of tooled decoration
338	90	nailed and stitched	90.1 tread area of sole and lasting margin of upper. 90.2 small fragment of insole. 90.3 2 small pieces of bottom unit component
338	91	nailed	91.2 waist area of bottom unit with insole and midsole. 91.3 fragment of lamina or midsole. 91.4 middle lamina. 91.5 small fragments torn from bottom unit
338	92	nailed	92.2 insole and midsole. 92.3 fragment of upper lasting margin
338	93	nailed and stitched	seat area of insole, middle lamina, left side of closed upper
339	89	nailed	89.2 insole or midsole fragment with upper lasting margin. 89.3 middle lamina. 89.4 fragment of middle lamina
340	88	nailed	88.1 insole for shoe of adolescent size. 88.2 piece torn from one side of bottom unit component possibly a midsole
340	88	nailed	88.3 waist area from bottom unit from a shoe of adult size. 88.4 right side of midsole seat area
340	95	nailed and stitched	95.1 middle lamina of adult size. 95.2 seat area of adult insole. 95.3 fragment broken from the edge of a midsole. 95.4 fragment of heel stiffener. 95.5 fragment broken from bottom unit component

Table 25: Catalogue of leather

A.5 Assessment of folded bark artefacts

By Caroline Cartwright

Introduction

A.5.1 Three plastic boxes containing the fragmentary remains of waterlogged organics from a 3rd to early 4th century Roman 'well' in Bretton Way, Peterborough, PETBET10 338, 98, 99 and 100 were submitted by Alexandra Pickstone (Oxford Archaeology East) for wood identification She reports that "the well is thought to be most unusual in that it is lined with massive dressed stones which must have been reused from a monumental building. It appears to contain votive offerings. Each of the three items is the same size and seems to comprise strips of some fibrous material that has been folded or possibly woven. These are reminiscent of the folded lead curses that the Romans were so fond of." (pers. comm. Alexandra Pickstone)

Methods

A.5.2 Standard techniques of wood identification and terminology as set out by the International Association of Wood Anatomists (IAWA) are usually adopted for the identification of modern wood as exemplified by Wheeler et al. (1986) and Wheeler, Baas, and Gasson (1989). For each sample, the key features are compared with reference collection specimens and textual descriptions (e.g. Schweingruber 1990). This methodology can often be applied to archaeological wood, providing it is modified to accommodate the effects of the conditions of preservation, e.g., waterlogging, desiccation, or charring (Cartwright 1996). In all cases, each sample needs to be prepared to expose transverse (TS), radial longitudinal (RLS), and tangential longitudinal (TLS) sections or surfaces for identification. For modern and certain types of archaeological wood (such as waterlogged) thin sections of approximately 12–14 microns are cut on a base-sledge microtome, mounted on glass microscope slides and examined by transmitted light optical microscopy. Variants of these standard techniques were applied to the Bretton Way bark fragments in an attempt to overcome the problems created by their fragmented and very soft condition.

A.5.3 Although scanning electron microscopy may sometimes be used to identify samples of modern or archaeological wood and charcoal, it was not practicable here on account of the very soft condition of the material which was still waterlogged. Ultimately, the method adopted for identification of the material was sectioning with a sharp scalpel blade. This was followed by examination of the three sections, TS, RLS and TLS, using reflected light optical microscopy on a Leica Aristomet biological microscope with darkfield and polarizing capabilities and a range of objectives comprising magnifications from x 20 to x 1000. The characterization of the anatomical features examined microscopically followed the above-mentioned standardized definitions published by IAWA (Wheeler, Baas, and Gasson 1989). It is worth re-emphasizing that the number of features available for characterization was restricted because there was little xylem present; the fragments were largely bark (Figures 1-4). In consequence, identification was heavily reliant on comparative reference specimens.

Results and Discussion

A.5.4 All the waterlogged samples were closely matched to comparative reference examples of Betula sp., birch. Several different species of birch are widely distributed in the British Isles and the use of birch bark for containers, bowls and other uses (Cartwright 2003),

including for birch-bark tar, has been well attested from Neolithic times onwards in locations such as Scandinavia and Switzerland and includes the famous so-called 'Iceman', Ötzi, whose accompanying two birch-bark containers are on display at the South Tyrol Museum of Archaeology in Bolzano (Italy). Although many such containers consist of rolls or segments of birch bark stitched together with lime-bast fibres, some are recorded as being bent and pegged (Zvelebil, Dennell & Domanska 1998: Figure 6.4.1). Several methods of crafting birch-bark artefacts were known, therefore, prior to the Roman period.

A.5.5 Birch bark can be detached relatively easily in spring or early summer by slitting the bark lengthwise and pulling it away from the trunk or branches of the tree. The resultant bark,

A.5.6 which should be spread open and kept pressed flat during storage to prevent it rolling up, is a strong and water-resistant which can readily be bent, cut, sewn or perforated. In order to create sharp folds or bends in fresh birch bark, the material should be scored with a blunt stylus. Dried or stored birch bark may be steamed or water-soaked to soften it before modification. The fungicidal properties within birch bark may help preserve the artefact itself as well as its contents.

A.5.7 No evidence for stitching or pegging could be detected microscopically, and, coupled with their very fragmentary nature, it cannot be established conclusively whether the Bretton Way folded birch bark artefacts are to be classified as containers, vessels or votive objects.

Conclusions

A.5.8 Three plastic boxes containing the fragmentary remains of waterlogged bark, PETBET10 338, 98, 99 and 100, recovered from a 'well' in Bretton Way, Peterborough, were submitted for wood identification. These appear to be the remnants of Roman folded (not woven) birch-bark (Betula sp.) artefacts.

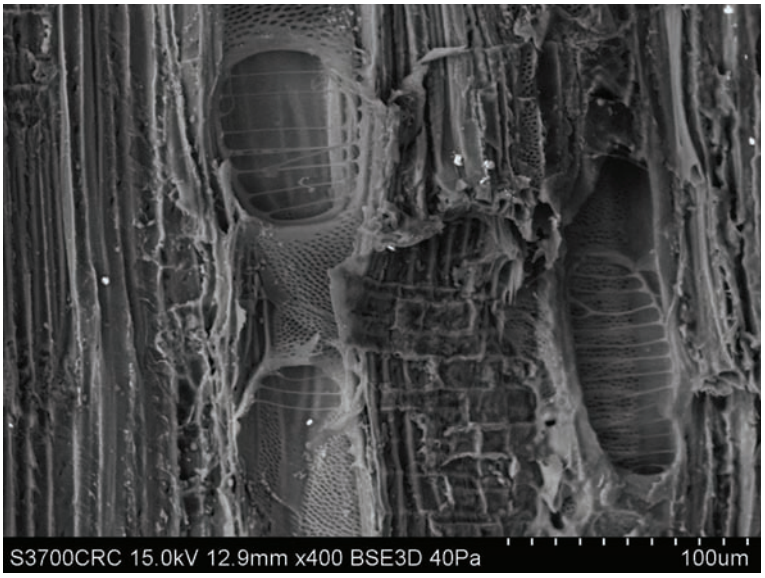


Figure 1: Radial longitudinal section of a small fragment of surviving xylem viewed in the scanning electron microscope. It shows some characteristic features of Betula sp., birch, including scalariform perforation plates commonly with 10 to 15 bars, homocellular rays, very small and numerous ray-vessel pits, and libriform fibres. It contrasts markedly with the equivalent section of Quercus sp. (oak) which never has scalariform perforation plates, but only simple ones. Scale bar in microns (micrometers). Image © Caroline Cartwright

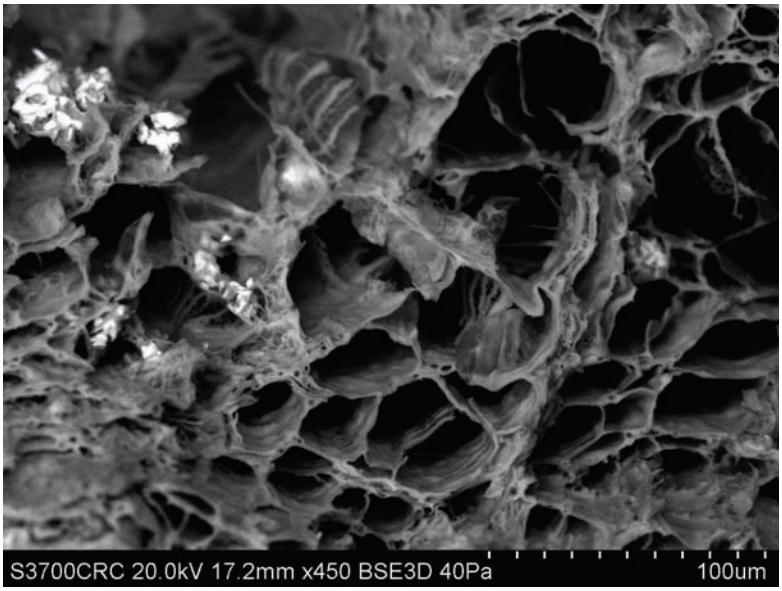


Figure 2: Scanning electron microscope image of the transverse section of Betula sp., birch bark. Scale bar in microns (micrometers). Image © Caroline Cartwright

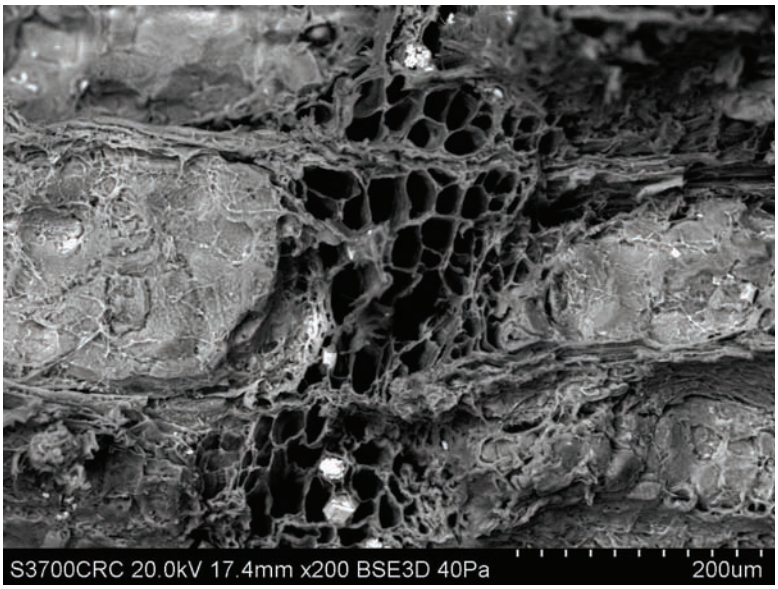


Figure 3: *Scanning electron microscope image of a section of Betula sp., birch bark. Scale bar in microns* (*micrometers). Image © Caroline Cartwright*

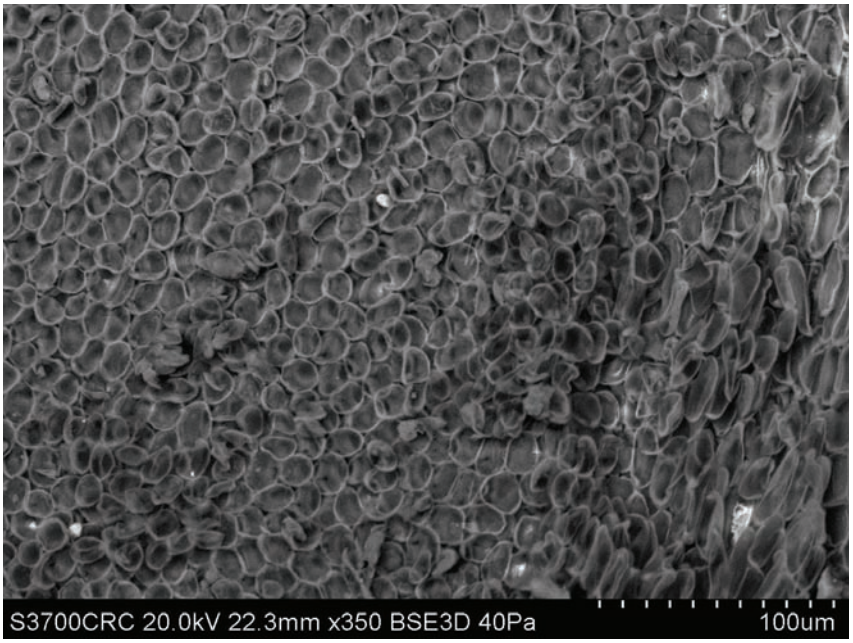


Figure 4: Scanning electron microscope image of the longitudinal section of Betula sp., birch bark. Scale bar in microns (micrometers). Image © Caroline Cartwright

APPENDIX B. ENVIRONMENTAL REPORTS

B.1 Faunal Remains Assessment

By Chris Faine

Introduction

B.1.1 Six hundred and twenty-seven fragments of animal bone were recovered with 580 identifiable to species (87.7% of the total sample).

The Assemblage

B.1.2 *Recovery:* the bones forming this assessment were collected by hand.

B.1.3 *Residuality and contamination:* no information regarding residuality or contamination is available to the author at this time.

B.1.4 *Context:* Faunal material was recovered from a variety of features including pits and linear features dating from the iron Age to Roman periods. The vast majority of identifiable fragments were recovered from Late Roman fills of the stone-lined feature.

B.1.5 *Preservation:* the preservation of the assemblage is generally good, with the material from the stone-lined feature especially well preserved due to the anaerobic nature of the deposits.

B.1.6 *Storage and quantity:* the hand collected animal bone is stored in crates measuring 45x30x23cm. The bones are washed and bagged by context. The total weight of the hand-collected bone is 64.2kg

Assessment

B.1.1 *Methods:* The entire assemblage was scanned initially by context, with all “countable” bones being recorded on a specially written MS Access database. The overall species distribution in terms of fragments (NISP) is shown in Table 26. The numbers of ageable mandibles and epiphyses are recorded in Tables 27 and 28. Available measurements and sexable bones are recorded in Tables 29 and 30. The counting system is based on a modified version of the system suggested by Davis (1992) and used by Albarella and Davis (1994). Completeness was assessed in terms of diagnostic zones (Dobney & Reilly 1988). Ageing was assessed via tooth wear (Grant 1982).

B.1.2 *The assemblage:* The largest number of ageable, sexable and measurable bones was recovered from the Late Roman phase, the assemblage being dominated by fills of the stone-lined feature, notably contexts 337 and 338. Cattle are the dominant taxon (71% of the Late Roman sample), with at least 8 individuals being present, along with smaller numbers of sheep/goat and horse remains. Butchery indicating bone working waste (including Red Deer antler) was observed in both contexts. Small numbers of pig and dog remains were also present (including an intact dog skull from context 337). As one would expect the vast majority of ageable and measurable elements derive from the cattle assemblage (although a relatively large number of ageable sheep/goat epiphyses

were also recovered). Juvenile cattle remains are present along with numerous horncores from at least two distinct breeds.

	NISP
Cattle	326
Sheep/Goat	73
Pig	9
Horse	26
Dog	5
Red Deer	1
Large Mammal	120
Med Mammal	20
Total:	**580**

Table 26: Number of identifiable fragments

	No.
Cattle	17
Sheep/Goat	5
Pig	1
Total:	**23**

Table 27: Number of ageable mandibles

	No.
Cattle	177
Sheep/Goat	54
Pig	5
Horse	12
Total:	**248**

Table 28: Number of ageable epiphyses

	No.
Cattle	99
Sheep/Goat	16
Pig	1
Horse	7
Dog	1
Total:	**124**

Table 29: Number of measurable elements

	No.
Cattle	39
Sheep/Goat	1
Pig	1
Horse	1
Dog	1
Red Deer	1
Total:	**44**

Table 30: Number of sexable elements

Conclusions

B.1.3 This a medium sized but nonetheless important assemblage especially with regard to material from the stone-lined feature, with significant potential for further work to investigate questions of sexing, age distribution etc. In comparison to other similar assemblages it is larger than that recovered from Loves Farm (Baxter 2007) with a similar preponderance of cattle. Other well assemblages further afield such as Springhead (Grimm forthcoming), show a more varied species distribution. It is recommended the assemblage be recorded and analysed fully.

B.2 Environmental Assessment

By Rachel Fosberry

Introduction and Methods

B.2.1 Twenty-eight bulk samples were taken from features within the excavated areas of the site in order to provide a rapid assessment of the quality of preservation of plant remains and their archaeobotanical potential.

B.2.2 Ten litres of each sample were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.3mm nylon mesh and the residue was washed through a 0.5mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to scanning by eye for the presence of artefacts. The flot was subjected to a rapid scan under a binocular microscope at x16 magnification and the presence of categories of plant remains or other artefacts are noted on Table 31.

B.2.3 Features sampled include secure archaeological contexts within post-holes from an aisled barn, pits, ditches and a watering hole dating primarily from the Roman period. Seven samples were taken from the fills of a stone-lined late-Roman the stone-lined feature.

Quantification

B.2.4 For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories

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

B.2.5 Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

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

Results

The results are recorded on Table 31.

Sample No.	Context No.	Cut No.	Feature Type	Comments	Cereals	Chaff	Charred Weed Seeds	waterlogged Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm
1	4	3	pit	Late Iron Age pit, burnt material thrown in pit, doesn't seem in situ burning, highly mixed, could be components of oven	0	0	#	0	#	0	++	++
2	49	50	ditch	Roman ditch, possible settlement enclosure	0	0	0	0	#	0	++	+
3	129	128	ditch	?Roman ditch. Burnt bone and charcoal	#	0	#	0	##	0	+++	++
4	107	60	well	demolition rubble over well	#	#	#	0	#	#	+++	+
5	146	60	well	black silt fill in well	#	#	0	0	#	0	+++	++
6	145	144	ditch	Roman ditch, found lump of molten lead, look for evidence of metalworking	0	0	0	0	0	0	+	0
7	85	83	ditch	Roman ditch fill. Rubbish dump / demolition layer, lots of finds and charcoal	#	0	#	0	0	0	++	++
8	183	59	well	Lower fill of well, 70 – 90cm depth	0	#	#	##	#	#	+++	++
9	82	80	post hole	upper fill of post hole, dark	#	0	0	0	#	0	++	+
10	195	80	post hole	post packing of post hole	0	#	0	0	#	0	++	+
11	197	66	post hole	upper fill of post hole. Dark grey	#	#	0	0	##	0	++	+
12	196	93	post hole	upper fill of post hole, rich in charcoal and pot (from post shadow)	##	0	#	0	#	0	+++	++
13	95	94	post hole	lower fill (packing) of post hole, some charcoal and finds	0	0	0	0	0	0	+	0
14	56	54	post hole	upper fill of post hole (from post shadow) rich in charcoal and finds	#	#	#	0	#	#	+++	++
15	55	54	post hole	lower fill (packing) of post hole, some charcoal and finds	#	0	0	0	0	0	+	0
16	63	61	post hole	fill of post hole	#	0	#	0	#	0	+++	++
17	109	108	post hole	fill of post hole, rich in finds and charcoal	#	0	#	0	0	0	++	+
18	200	199		grey silty fill, contained small flint flakes	0	0	0	0	0	0	+	0
19	201	202	pit	fill of small pit	#	0	0	0	0	0	+++	+++
20	327		well	charcoal rich fill in stone lined feature. In construction cut not main shaft	#	0	#	0	#	0	+++	++
21	329	237	water hole	lower waterlogged fill of water hole	0	0	0	###	##	0	0	0
22	329	237	water hole	monolith through lower fill of water hole	0	0	0	0	0	0	0	0

23		60	well	top of monolith at spot height 20.77m OD	0	0	0	0	0	0	0	0
24	338	60	well	dark waterlogged fill of well	0	0	0	###	##	0	0	+
25	339	60	well	dark waterlogged fill of well	0	0	0	###	##	0	0	+
26		60	well	lower well monolith. Top of monolith at 20.48m OD	0	0	0	0	0	0	0	0
27	340	60	well	waterlogged fill of well	#	0	0	###	##	0	0	0
28	341	60	well	blue clay, natural / packing?	0	#	0	###	##	0	0	0
29	340	60	well	waterlogged fill of pot within (340)	0	##	0	###	##	0	++	0
30	342			blue clay material	0	0	0	0	0	0	0	0
31	337	60	well	very dark waterlogged fill, lots of animal bone	#	0	0	###	##	0	0	+

Table 31. Environmental results

B.2.6 Preservation by both charring and waterlogging (survival of plant remains due to anoxic conditions) occurs in this assemblage. The waterlogged remains occur in the stone-lined feature and the waterhole **237**. The other features all contain charred plant remains in the form of charcoal and several of these features also contain charred plant remains including cereal grains, chaff elements and weed seeds.

B.2.7 Charred cereal grains and/or chaff occur in nineteen of the samples including some of the samples from the stone-lined feature. Both wheat (*Triticum* sp.) and barley (*Hordeum* sp.) were noted and the chaff was identified as spelt (*T.spelta*).

B.2.8 Charred weed seeds were rare and include seeds of common crop contaminants such as brome (*Bromus* sp.) and stinking mayweed (*Anthemis cotula*) along with common weeds of grassland and disturbed/cultivated soils such as dock (*Rumex* sp.), medick/clover (*Trifolium/Medicago* sp.), plantain (*Plantago* sp.). A single flax (*Linum* sp.) seed was noted in Sample 8, upper well fill 183.

B.2.9 Waterlogged seeds recovered from the well deposits were numerous in both number and diversity compared to those from the waterhole which were less frequent and diverse. The waterhole contained numerous seeds of bittersweet (*Solanum dulcamara*) and water crowfoot (*Ranunculus* subgenus *Batrachium*) both of which are also found in the well.

B.2.10 The samples from the stone-lined feature are from measured depths rather than distinct contexts. There are seeds that occur in all of the samples such as bittersweet, bramble (*Rubus* sp.), chickweed (*Stellaria* sp.), knotgrass (*Polygonum* sp.), dock (Rumex sp.) along with numerous seeds of stinging nettles (*Urtica dioica*) . There are seeds that only occur in certain samples such as henbane (*Hyoscamus niger*), gypsywort (*Lycopus europaeus*) sainfoin (*Onobrychis viciifolia*).

Discussion

B.2.11 The charred plant remains are dominated by cereal grains, chaff elements and occasional weed seeds. Many of the weeds represented in these deposits could have been growing amongst arable crops, and were probably discarded with the processing waste. The wheat grains recovered are of a elongated morphology typical of the prehistoric hulled wheat varieties. Further identification is possible through the recovery of several glume bases of spelt wheat. Spelt is a hulled wheat that requires several stages of crop processing in in order to release the grain from the tough outer-coating of the spikelet. These processes usually involves parching and pounding resulting in

characteristic chaff and weed seed assemblages. Chaff was also used as fuel which may also account for charred glume bases entering the archaeobotanical record.

B.2.12 The samples from the post holes from the aisle barn were all of a similar nature and are comprised of moderate amounts of charcoal with occasional charred grains, chaff and weed seeds. They are largely uninformative.

B.2.13 The charred plant assemblage at Bretton Way is typical of a background scatter of domestic refuse in the Roman period. Further analysis of individual deposits may be possible once dating has been confirmed.

B.2.14 By far the most interesting plant assemblages are found in the stone-lined feature and watering hole. Open water-filled features act as a pitfall trap for seeds and pollen. The seeds are most likely to be of plants in the near vicinity that fall naturally (such as nettles which are also high-seed producers) but may also be introduced through deliberate deposition. Plant species are very variable in the quantities of seeds produced and the methods of dispersal. All of these factors need to be taken into account when interpreting the data. It is also likely that most of the plant remains in the stone-lined feature would have accumulated in it after the feature went out of use.

B.2.15 Pollen grains are also likely to be preserved in these waterlogged deposits. Pollen can travel far greater distances than seeds producing information on the wider environment. The examination of pollen (and possibly insects) from the same contexts as the plant macrofossils will give a more complete insight into the nature of the surrounding environment and the activities that have resulted in deposition of plant remains into this enigmatic feature.

Further Work and Methods Statement

B.2.16 It is recommended that the seven waterlogged samples from the well are analysed. It may be useful to include the single sample from the water hole for comparison once dating is established.

B.2.17 The charred plant remains from the other features are not considered worthy of further work.

B.3 Pollen Analysis

By Steve Boreham

Introduction

B.3.1 This report presents the results of assessment pollen analyses from 3 samples of sediment taken from an unusual stone-lined feature.

B.3.2 The stone-lined feature was sampled for pollen analysis in the field with two 30cm monolith tins, which together covered a 60cm part of the sequence spanning three different contexts (340, 339 & 338).

B.3.3 Monolith 26 at the base of the sequence was sampled at 3cm (context 340) for pollen. Monolith 23 was sampled for pollen at 2cm (context 339) and 22cm (context 338).

B.3.4 The 3 samples of sediment from the monoliths were prepared using the standard hydrofluoric acid technique, and counted for pollen using a high-power stereo microscope. The percentage pollen data from these samples is presented in Table 32.

Pollen Analyses

B.3.5 The two pollen samples from monolith 23 appeared to be almost barren. Counting of two slides from each of these samples yielded low main sums and pollen concentrations that did not exceed 10,000 grains per ml. In contrast, the pollen concentration from single-slide assessment of the basal sample from monolith 26 was 113,584 grains per ml. Pollen counting was somewhat hampered by the presence of charcoal and finely divided organic debris. Preservation of the fossil pollen grains (palynomorphs) was in general quite good, even in the sparse samples from monolith 23. The pollen sums achieved from two slides for the upper samples from monolith 23 were 30 & 31. The assessment count from a single slide of the basal sample from monolith 26 yielded a pollen sum of 162. Although this count does not exceed the statistically desirable total of 300 pollen grains main sum, it does at least provide a total in excess of 100 grains. The same cannot be said for the counts from the two upper samples from monolith 23. Caution should be employed during the interpretation of assessment pollen counts, and in particular those with poor pollen concentrations and low main sums.

Monolith <26> context 340 - 3cm

B.3.6 The basal pollen sample from monolith 26 at 3cm was dominated by grass (*Poaceae*) pollen (32.1%), with a wide range of herbs including members of the cabbage family (*Brassicaceae*) (4.9%), meadowsweet (*Filipendula*) (4.9%), dock (*Rumex*) (5.6%), the disturbed ground indicator ribwort plantain (*Plantago lanceolata*) (7.4%), and cereal pollen (7.4%). Arboreal taxa included alder (*Alnus)* (1.9%), birch (*Betula*) (3.1%), ash (*Fraxinus*) (1.2%), and hazel (*Corylus)* (2.5%). Fern spores together accounted for 7.4%, and obligate aquatic plants were represented by the fringing emergent bur-reed (*Sparganium*) (0.6%).

B.3.7 This pollen assemblage has a diverse selection of herb taxa typical of grassland, damp meadows (tall herb) and riparian (bank-side) habitats. However, there is also a strong signal of arable activity, with abundant cereal pollen and indicators of disturbed ground. There is also a faint signal from birch and hazel scrub, and this is an ostensibly tree-less environment with apparently very little local wetland. It seems that this was a post-clearance landscape with a mosaic of pastoral and arable activity.

Monolith <23> context 339 - 2cm & context 338 - 22cm

B.3.8 The basal pollen sample from monolith 23 at 2cm was dominated by members of the lettuce family (*Asteraceae -Lactucea*e) and grass (*Poaceae*) pollen (both 16.7%). There was a surprisingly wide range of herb taxa for such a sparse sample, but only buttercup (*Ranunculus*) (6.7%) rose above the background 'noise'. No cereal pollen was detected, but that could easily be a result of the low main sum achieved. Arboreal taxa included maple (Acer) (6.7%), hazel (*Corylus*) (3.3%) and juniper (*Juniperus*) (3.3%). Fern spores together accounted for 6.6%, and bur-reed (*Sparganium*) was present at (3.3%).

B.3.9 The pollen sample from monolith 23 at 22cm was dominated by grass (*Poaceae*) pollen (25.8%), and also had a fair range of herb taxa which resembled the previous sample. Cereals were present at 3.2%, and other highlights included members of the cabbage family (*Brassicaceae*) (9.7%) and meadowsweet (*Filipendula*) (9.7%). Arboreal taxa included alder (*Alnus*) (3.2%), ash (*Fraxinus*) (3.2%), and hazel (*Corylus*) (6.5%). Fern spores accounted for 3.2%, and bur-reed (*Sparganium*) was present at (3.2%).

B.3.10 These sparse samples are in fact rather alike, despite the fact that they have different arboreal taxa. At these low main sums, each pollen grain accounts for *c.*3% of the total and so takes on an apparent importance far greater than that for a single pollen grain in an assessment count with even 100 main sum. Such low pollen concentrations would ordinarily be considered 'barren', or nearly so, and not worth counting. The occurrence of each pollen taxon in the assemblages is more a matter of chance, rather than reflecting what the final composition of the pollen spectrum would be if pollen counting were continued. However, it is clear that both samples represent a post-clearance grassland or meadow environment. Indeed, this could have been rather similar to the one indicated in the basal sample from monolith 26, although possibly with less arable activity.

B.3.11 The sparse nature of the pollen is curious, in that the pollen grains themselves were mostly well-preserved. There is some possible indication of post-depositional oxidation of palynomorphs indicated from monolith 23 at 2cm, since there are elevated proportions of resistant Asteraceae pollen and fern spores. However, it could be that deposition of sediment was rather rapid, thus diluting the pollen 'rain' and causing low pollen concentrations. This is clearly not the case for the basal sample from monolith 26.

Conclusion

B.3.12 Taken as a whole, these pollen analyses show a post-clearance landscape of grassland and meadows, with arable activity. The upper two samples are so sparse that it is difficult to draw meaningful conclusions from them. The well-preserved basal sample has a diverse herb assemblage with a strong cereal signal.

Monolith	**26**	**23**	**23**
Context	**340**	**339**	**338**
Sample	**3cm**	**2cm**	**22cm**
Trees & Shrubs			
Betula	3.1	0	0
Alnus	1.9	0	3.2
Fraxinus	1.2	0	3.2
Acer	0	3.3	0
Corylus	2.5	6.7	6.5
Juniperus	0	3.3	0

Herbs			
Poaceae	32.1	16.7	25.8
Cereals	7.4	0	3.2
Cyperaceae	1.9	3.3	6.5
Asteraceae (Asteroidea/Cardueae) undif.	0.6	3.3	3.2
Asteraceae (Lactuceae) undif.	3.7	16.7	3.2
Artemisia type	1.9	0	0
Centaurea nigra type	0	3.3	0
Cirsium type	0.6	0	0
Caryophyllacae	0.6	0	3.2
Chenopodiaceae	1.9	0	0
Brassicaceae	4.9	3.3	9.7
Filipendula	4.9	3.3	3.2
Helianthemum	0	0	3.2
Lamiaceae	1.9	3.3	0
Fabaceae	0	3.3	3.2
Plantago undif.	2.5	0	0
Plantago lanceolata	7.4	3.3	3.2
Ranunculus type	3.1	6.7	9.7
Rosaceae	0	3.3	0
Polygonum	0.6	0	0
Rumex	5.6	3.3	0
Urticatype	0	3.3	3.2
Apiaceae undif.	2.5	3.3	3.2
Lower plants			
Pteropsida (monolete) undif.	6.8	3.3	3.2
Pteropsida (trilete) undif.	0.6	3.3	0
Aquatics			
Sparganium type	0.6	3.3	3.2

Sum trees	6.2	3.3	6.5
Sum shrubs	2.5	10	6.5
Sum herbs	84	80	83.9
Sum spores	7.4	6.7	3.2
Main Sum	162	30	31

Table 32: Pollen analysis

Appendix C. Bibliography

Alexander, J and Pullinger, J, 2000, Roman Cambridge, Proc Cambridge Antiquarian Soc LXXXVIII

Allason-Jones, L. and McKay, B., 1985 Coventina's Well: a shrine on Hadrian's Wall (Hexham)

Albarella, U. and Davis, S.J.M. 1994. *The Saxon and Medieval animal bones excavated from West Cotton, Northamptonshire*. London: English Heritage AML Report 17/94.

Andrews, P., 2008 'Springhead, Kent – old temples and new discoveries' in D. Rudling (ed.), Ritual landscapes of Roman south-east Britain (Great Dunham/Oxford), 45-62

Andrews, P, Biddulph, E and Hardy, A, forthcoming, Settling the Ebbsfleet Valley - CTRL Excavations at Springhead and Northfleet, Kent: The Late Iron Age, Roman, Saxon, and Medieval Landscape, Volume 1: The Sites, Oxford Wessex Archaeology

Armitage, P.L. and Clutton-Brock, J. 1976. A System for Classification and Description of the Horn Cores of Cattle from Archaeological Sites. Journal of Archaeological Science 3: 329-348.

Baxter, I. L. 2007 *The mammal and amphibian bones from the late Romano-British Well in Area 4A at Love's Farm, St Neots, Cambridgeshire.* Unpublished.

Black, E, 2008 Pagan Religion in Rural South-East Britain: Contexts, Deities and Beliefs, in D Rudling (ed.), Ritual Landscapes in South-East Britain, Oxford, 1-26

Brown, N. and Glazebrook, J. 2000. Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy. EAA.

Boessneck, J. 1969. Osteological Differences between Sheep (Ovis aries Linne) and Goat (Capra hircus Linne). In: D. R. Brothwell, and E. Higgs, (eds.) Science in Archaeology, pp. 331-359. London: Thames and Hudson.

Crummy, N., 1983 The Roman small finds from excavations in Colchester 1971-9, Colchester Archaeological Report 2 (Colchester)

Crummy, N., 2005 'Small finds, briquetage and daub' in L. Pooley and S. Benfield, Excavations at Abbotstone field, Bell House Pit, Tarmac Colchester Quarry, Warren Lane, Stanway, Colchester, Essex, 1999-2001 (Colchester Archaeological Trust Report 312; http://cat.essex.ac.uk/reports/CAT-report-0312.pdf), 52-61

Crummy, N., 2006 'Worshipping Mercury on Balkerne Hill, Colchester' in P. Ottaway (ed.), A Victory Celebration: papers on the archaeology of Colchester and Late Iron Age-Roman Britain presented to Philip Crummy (Colchester), 55-68

Crummy, N., 2007 'Six honest serving men: a basic methodology for the study of small finds' in R. Hingley and S. Willis, Roman finds: context and theory (Oxford), 59-66

Crummy, N., 2010 'Bears and coins: the iconography of protection in Late Roman infant burials', Britannia 41, 37-93

Crummy, N., 2011 'The small finds' in Fulford and Clarke 2011, 100-3

Cunliffe, B., 1988 The Temple of Sulis Minerva at Bath, 2: the finds from the Sacred Spring, Oxford Univ Comm Archaeol Monograph 6 (Oxford)

Dannell, G.B. and Wild, J.P. 1987. Longthorpe II, The military works-depot: An episode in Landscape History, Britannia Monograph, Ser. 8 London

Darling, M.J. (ed) 2004, 'Guidelines for the Archiving of Roman pottery' Jnl Roman Pottery Studies 11, 67-74

Davis, S.J.M. 1992. *A rapid method for recording information about mammal bones from archaeological sites*, London: English Heritage AML Report 19/92.

Dicks, S. 2010. Archaeological Desk-Based Assessment, Land off Bretton Way, Peterborough. Unpub. Rep. CgMs Consulting

Dobney, K and Reilly, K. 1988. A method for recording archaeological animal bones: the use of diagnostic zones. Circaea 5(2): 79-96

van Driel-Murray, C, 1999 And did those feet in ancient time...Feet and shoes as a material projection of the self, in P Baker, C Forcey, S Jundi and R Witcher (eds), TRAC 1998: Proceedings of the eighth annual Theoretical Roman Archaeology conference Leicester 1998, 131-140

Driesch, A von den. 1976. *A guide to the measurement of animal bones from archaeological sites*, Harvard: Peabody Museum of Archaeology and Ethnology Bulletin 1.

Evans, J. 2003, 'The later Iron-Age and Roman Pottery', In M. Hinman, A late Iron Age farmstead and Romano-British site at Haddon, Peterborough, BAR British Series, 358, 68-107

Evans, C., Knight, M. and Webley, L., 2007 'Iron Age settlement and Romanisation on the Isle of Ely: the Hurst Lane Reservoir site', Proc Cambridge Antiq Soc 96, 41-78

Friendship-Taylor, R.M. (forthcoming) In S. Upex, 'A Roman Farmstead at North Lodge, Barnwell, Northamptonshire – 1973-1988' Northamptonshire Archaeology

Fulford, M, 2001 Links with the past: Pervasive 'Ritual' behaviour in Roman Britain, Britannia 32, 199-218

Fulford, M. and Clarke, A., 2011 Silchester: city in transition, Britannia Monograph 25 (London)

Gillam, J.P. 1951, 'Notes on pottery from the destruction layer', In P. Corder, The Roman Town and Villa at Great Casterton, Rutland, University of Nottingham

Grant, A. 1982. The use of tooth wear as a guide to the age of domestic ungulates. In B. Wilson, C. Grigson & S. Payne (eds.) *Ageing and sexing animal bones from archaeological sites*. Oxford: BAR British Series 199

Grigson, C. 1982. Sex and age determination of some bones and teeth of domestic cattle: a review of the literature. In B. Wilson, C. Grigson and S.Payne (eds) Ageing and sexing animal bones from archaeological sites. BAR British Series 199, Oxford

Grimm, J. Forthcoming. Faunal Remains. In: *Settling the Ebbsfleet Valley: the Late Iron Age, Roman and Anglo-Saxon landscape (CTRL excavations 1997-2003)*. Oxford Wessex Archaeology.

Guest, P., 2003 'The coins in M. Hinman, A Late Iron Age farmstead and Romano-British site at Haddon, Peterborough, BAR British Series 358/Cambridgeshire County Council Archaeological Field Unit Monograph 2 (Oxford), 114 and appendix 5

Hartley, K. F. 1996, 'A Type Series for Mortaria in the Lower Nene Valley', In D. F. Mackreth, Orton Hall Farm: A Roman and Early Anglo-Saxon Farmstead, East Anglian Archaeology, 76, 199-203

Hinman, M, 2003, A late Iron Age farmstead and Romano-British site at Haddon, Peterborough, BAR British Series, 358,

Mackreth, D.F. 1996, Orton Hall Farm: A Roman and early Anglo-Saxon farmstead, East Anglian Arch. 76,

Jackson, R. and Burleigh, G., 2007 'The Senuna treasure and shrine at Ashwell (Herts)' in R. Haeussler and A. C. King (eds), Continuity and innovation in religion in the Roman West 1, J Roman Archaeol Supplementary Series 67 (Portsmouth, RI)

MacGregor, A., 1985 Bone, antler, ivory and horn. The technology of skeletal materials since the Roman period (London)

Mackreth, D. F., 2001 Monument 97, Orton Longueville, Cambridgeshire: a late pre-Roman Iron Age and early Roman farmstead, East Anglian Archaeol Rep 97 (Manchester)

Merrifield, R., 1995 'Roman metalwork from the Walbrook – rubbish, ritual or redundancy', Trans London Middx Archaeol Soc 46, 27-44

Merrifield, R. and Hall, J., 2008 'In its depths what treasures – the nature of the Walbrook stream valley and the Roman metalwork found therein' in J. Clark, J. Cotton, J. Hall, R. Sherris and H. Swain (eds), Londinium and beyond: essays on Roman London and its hinterland for Harvey Sheldon, CBA Res Rep 156 (York), 121-7

Pauli, L., 1975 Keltischer Volksglaube. Amulette und Sonderbestattungen am Dürrnberg bei Hallein und im eisenzeitlichen Mitteleuropa, Müncher Beiträge zur Vor- und Frühgeschichte 28 (Munich)

Peacock, D. (forthcoming) In S. Upex, 'The Praetorium of Edmund Artis: A summary of Excavations and Surveys of the Palatial Roman Structure at Castor, Cambridgeshire 1828- 2010', Britannia, 42

Perrin, R.J. 1988, 'The pottery', In D.F. Mackreth, Excavation of an Iron Age and Roman Enclosure at Werrington, Cambridgeshire, Britannia, 19, 104-141

Perrin, R.J. 1996, 'The Roman pottery', In D.F. Mackreth, Orton Hall Farm: A Roman and early Anglo-Saxon farmstead, EEA. 76, 114-204

Pliny: Gaius Plinius Secundus, Historia Naturalis, Loeb Classical Library edition, vol. 9 trans. H. Rackham (1952), Cambridge, Mass./London

Plouviez, J., 2004 'Discussion of the coins' in T. Blagg, J. Plouviez, and A. Tester, Excavations at a large Romano-British settlement at Hacheston, Suffolk, East Anglian Archaeological Report 106 (Ipswich), 83-5

Reece, R., 1995 'Site-finds in Roman Britain', Britannia 26, 179-206

Reece, R., 1991 Roman coins from 140 sites in Britain (Cirencester)

Rollo L. and Wild F. 2001, 'The Iron Age and Roman Pottery', In D.F. Mackreth, Monument 97, Orton Longueville, Cambridgeshire: A late Pre-Roman Iron Age and Early Roman Farmstead. East Anglian Arch, 97, 46-79

Roman Finds Group and Finds Research Group AD 700-1700, 1993, The Guidelines for the Preparation of Site Archives and Assessments for all finds other than fired clay vessels.

Smith, A, 2001 The differential use of constructed sacred space in southern Britain from the late Iron Age to the 4th century AD, BAR Brit. Ser. 318, Oxford

Taylor, E. 2010, 'An Archaeological Trial Trench Evaluation on Land at Bretton Way, Peterborough, Cambridgeshire. Unpublished report 10/99 Northamptonshire Archaeology.

Upex, S. G. 2008, The Excavation of a 4th century Roman Pottery Production Unit at Stibbington, Cambridgeshire, Archaeological Journal, 165, 265-333

Upex, S.G. (forthcoming) 'A Roman Farmstead at North Lodge, Barnwell, Northamptonshire – 1973-1988' Northamptonshire Archaeology

Webster, G. 1975, Romano-British Pottery: A students guide, CBA Res. Rept. 6

Willis, S. 2004, 'The Study Group for Roman Research Framework Document for the Study of Roman Pottery in Britain', Jnl Roman Pottery Studies, 11, 1-20

Young, C.J. 1980, Guidelines for the processing and publication of Roman pottery from excavations, Dept of the Environment, Occasional Paper 4

APPENDIX D. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-97542		
Project Name	Excavation at Bretton Way, Peterborough		
Project Dates (fieldwork) Start	12-10-2010	Finish	11-11-2010
Previous Work (by OA East)	No	Future Work	No

Project Reference Codes

Site Code	PET BET 10	Planning App. No.	Ref. 10/00777/FUL
HER No.	To be assigned	Related HER/OASIS No.	-

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - PPG16

Please select all techniques used:

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

Monument Types/Significant Finds & Their Periods

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

Monument	Period	Object	Period
Roundhouses	Iron Age -800 to 43	pottery	Iron Age -800 to 43
Field system	Roman 43 to 410	pottery	Roman 43 to 410
Enclosure	Roman 43 to 410	animal bone	Iron Age -800 to 43
stoned-lined feature	Roman 43 to 410	animal bone	Iron Age -800 to 43
aisled barn	Roman 43 to 410	leather shoes	Roman 43 to 410
	Roman 43 to 410	coins	Roman 43 to 410

Project Location

County	Peterborough U.A.	Site Address (including postcode if possible)	
District	Peterborough U.A.	Oak Tree Site, Land off Bretton Way, Bretton Peterborough PE3 8DD	
Parish	Bretton		
HER	Peterborough		
Study Area	0.35 ha	National Grid Reference	TF 160 077

Project Originators

Organisation	OA EAST
Project Brief Originator	Rebecca Casa-Hatton, Peterborough Museum
Project Design Originator	Sally Dicks, CgMs Consulting
Project Manager	James Drummond-Murray
Supervisor	Alexandra Pickstone

Project Archives

Physical Archive	Digital Archive	Paper Archive
Peterborough Museum	OA East	Peterborough museum
PETBET10	PETBET10	PETBET10

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

Contains Ordnance Survey data © Crown copyright and database right 2011

Figure 1: Site location with development area outlined red

Figure 2: All Archaeology

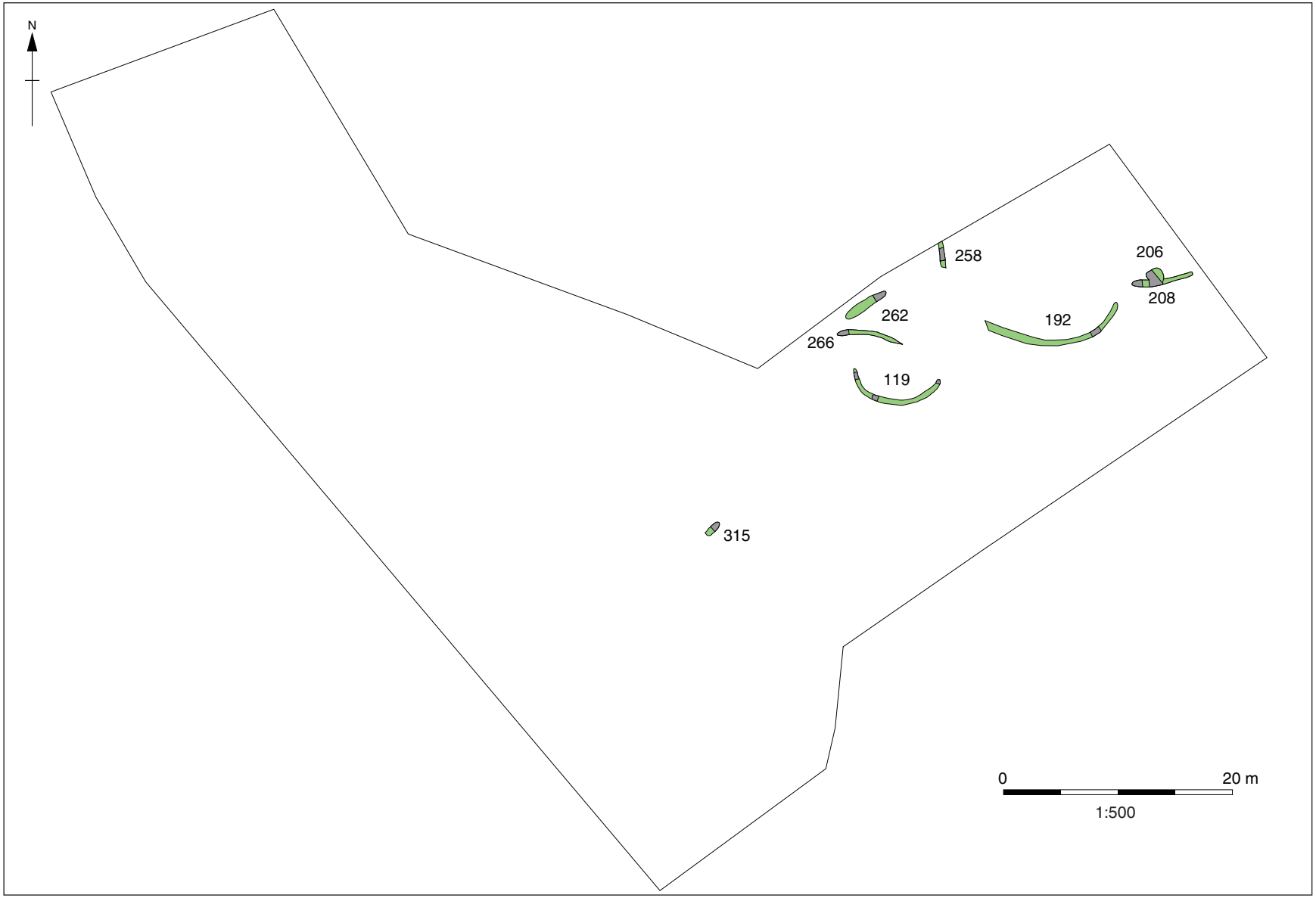


Figure 3: Period 1 - Late Iron Age features

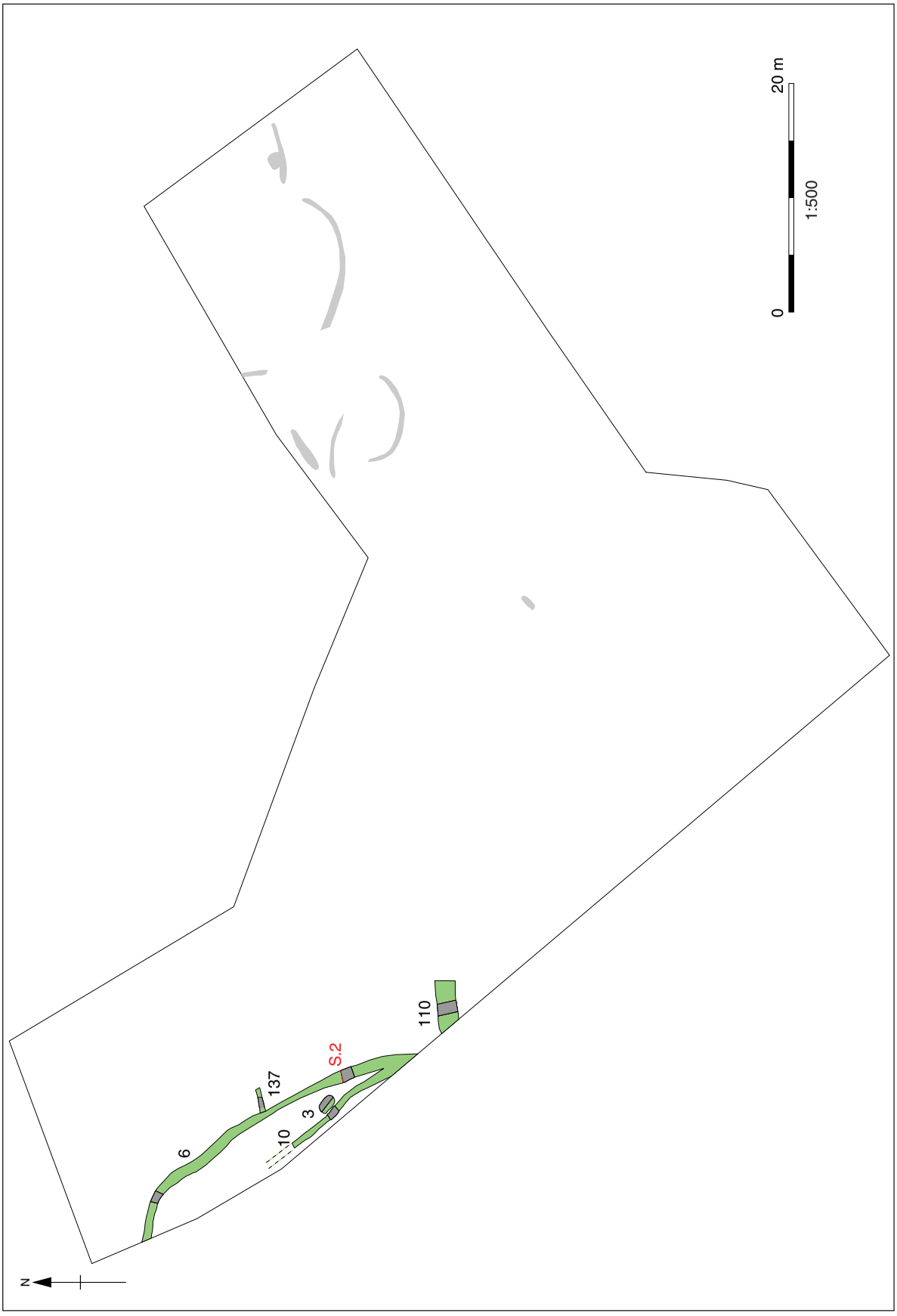


Figure 4: Phase 2.1 - Early Roman features

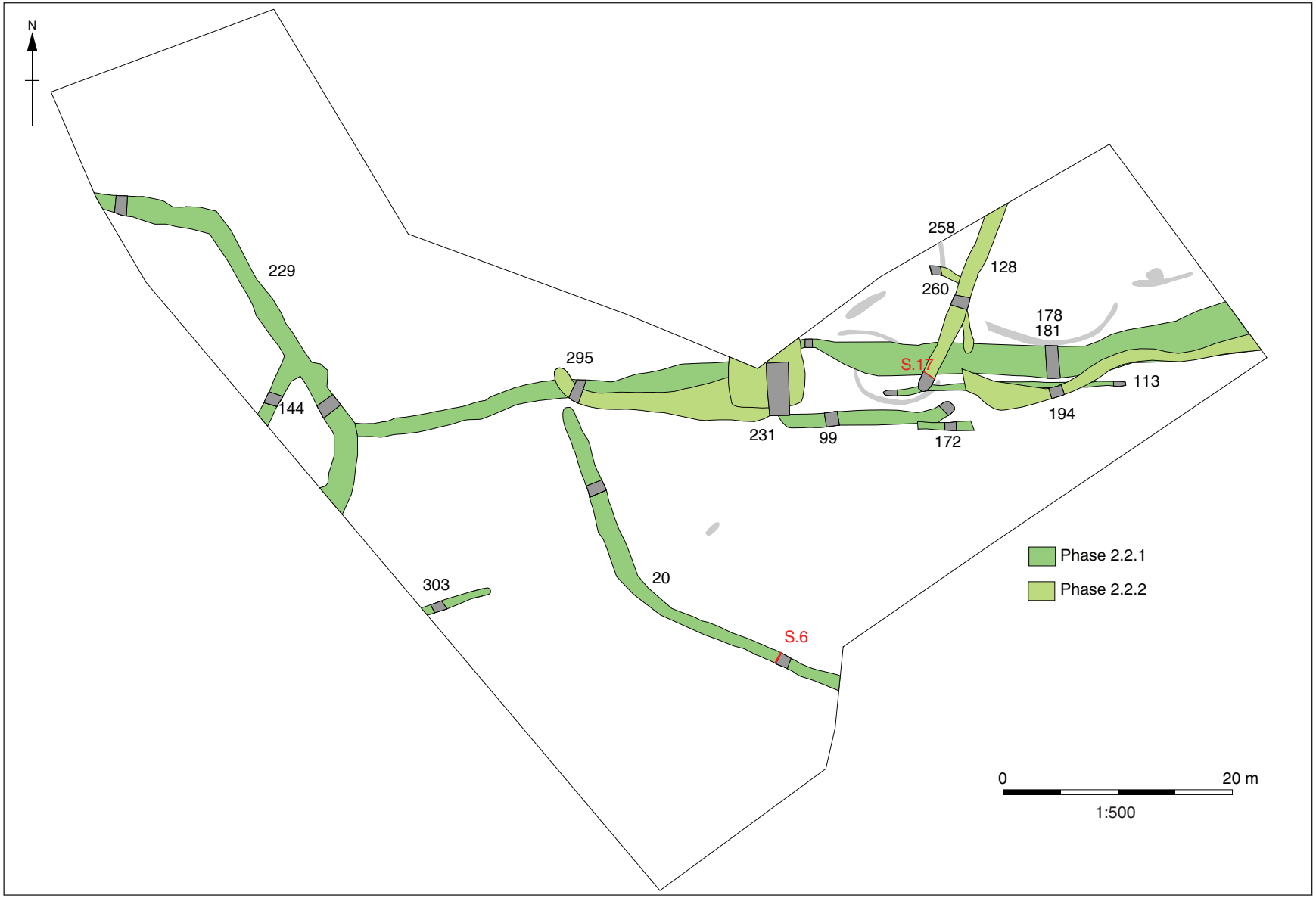


Figure 5: Phase 2.2. ?Late 2nd to Early 3rd Century AD

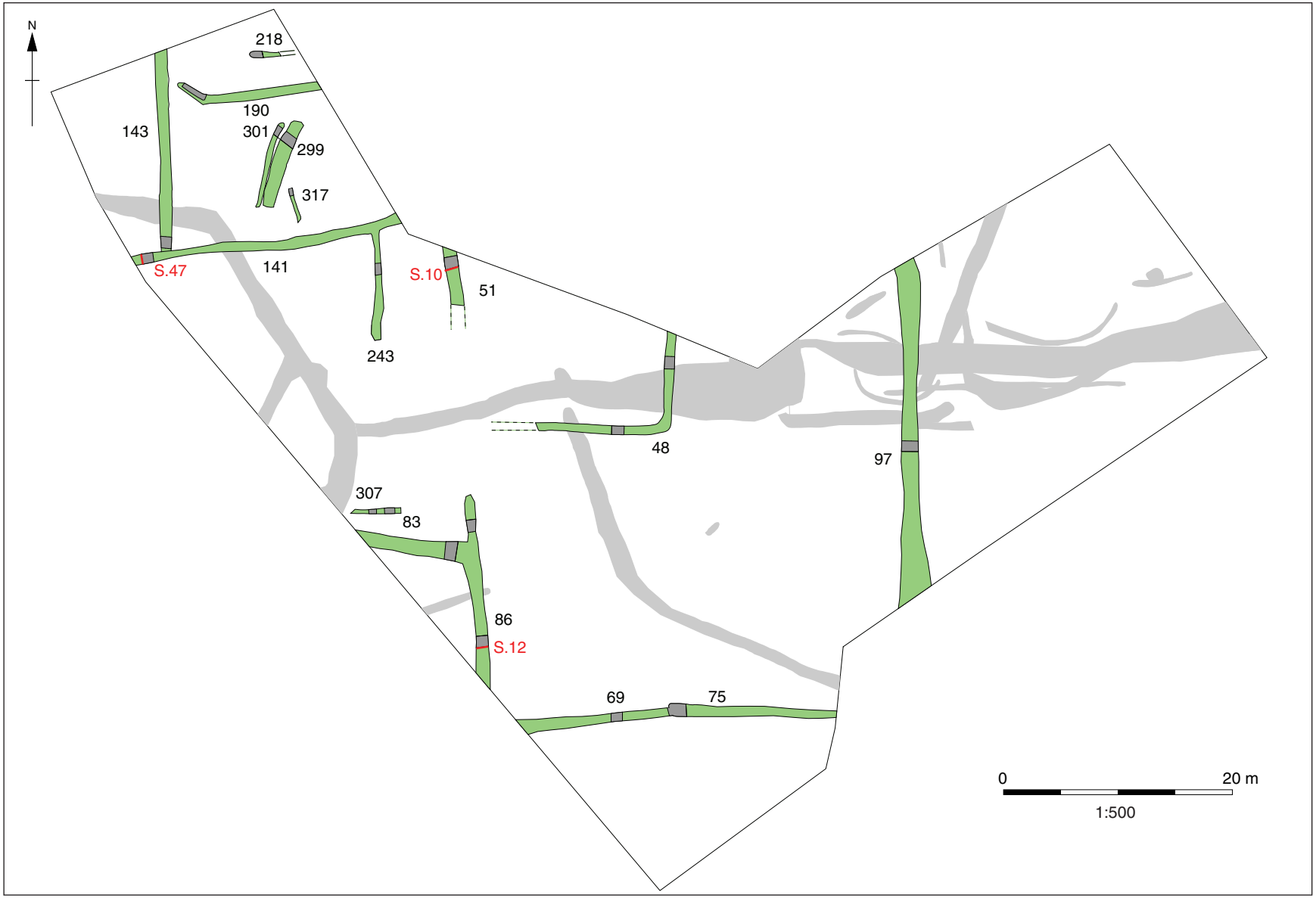


Figure 6: Phase 2.3 - Middle 3rd Century AD

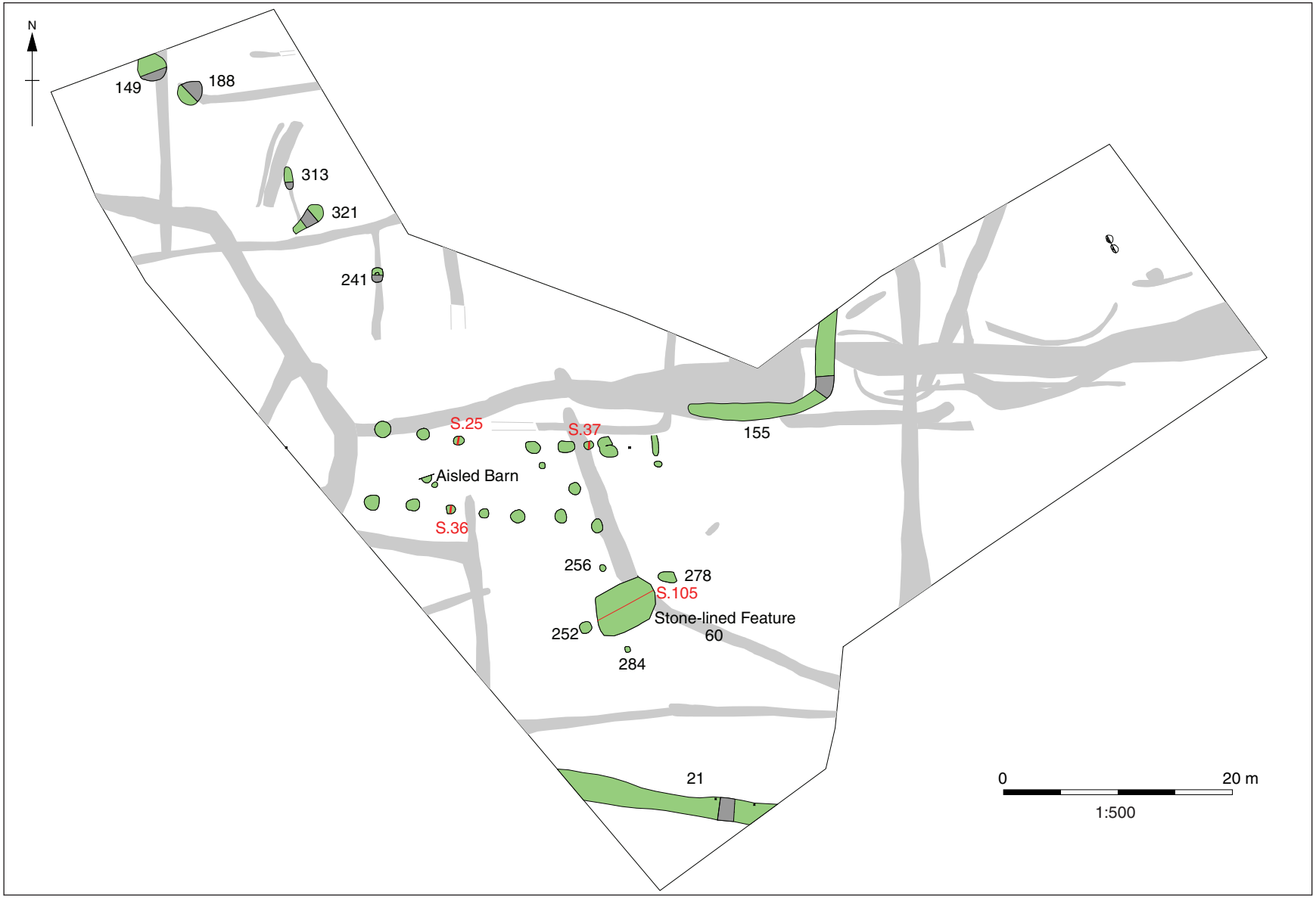


Figure 7: Phase 2.4 - Late 3rd to Early 4th Century AD

Figure 8: Period 3 - Medieval Ridge and Furrow

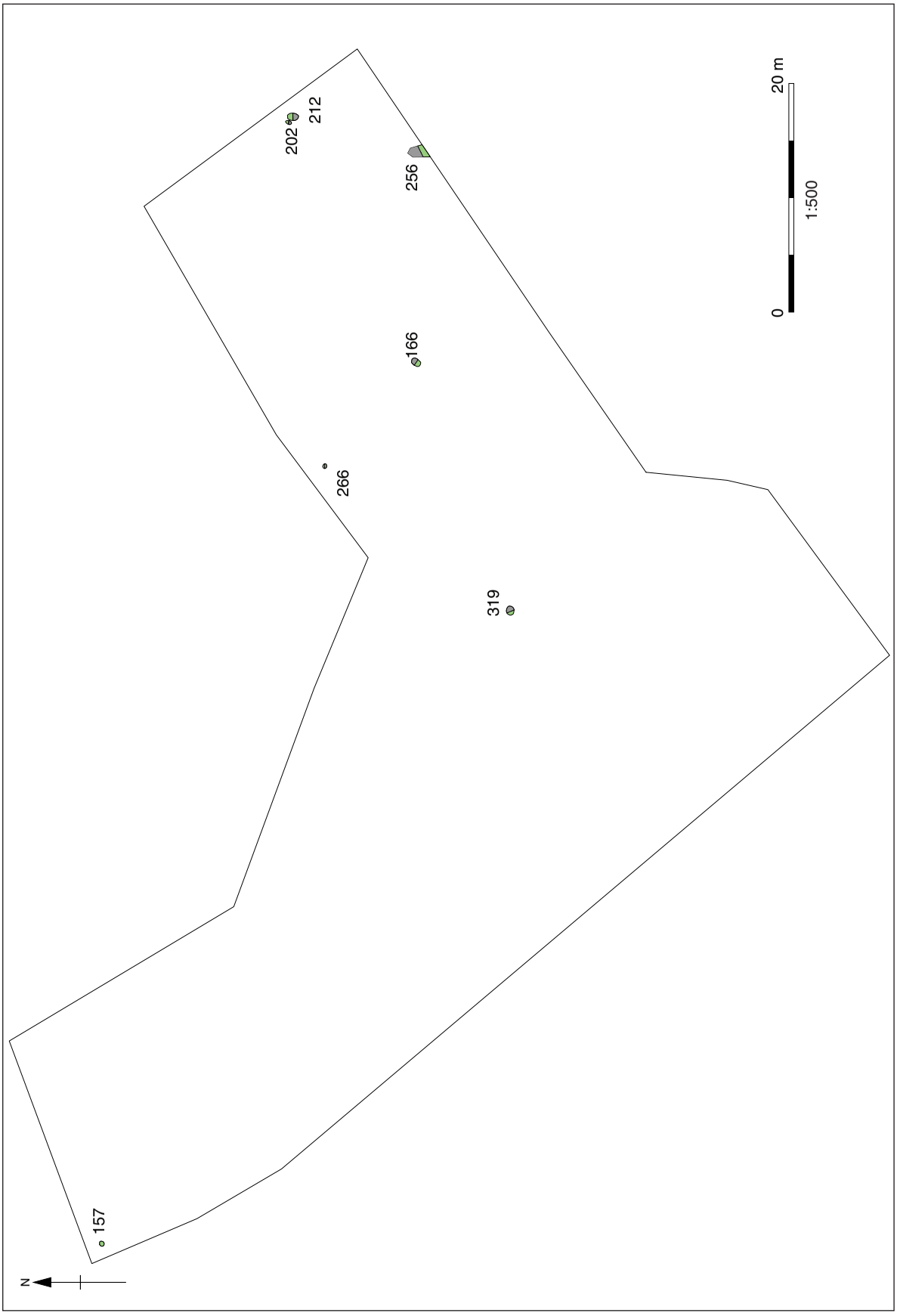


Figure 9: Un-phased

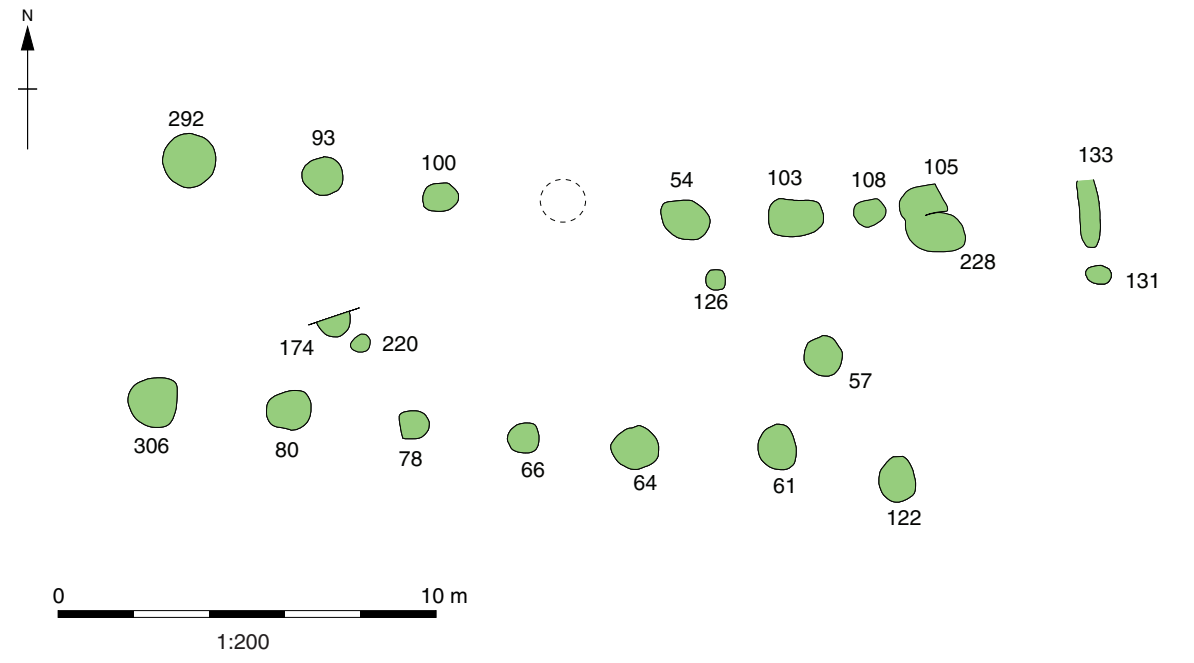
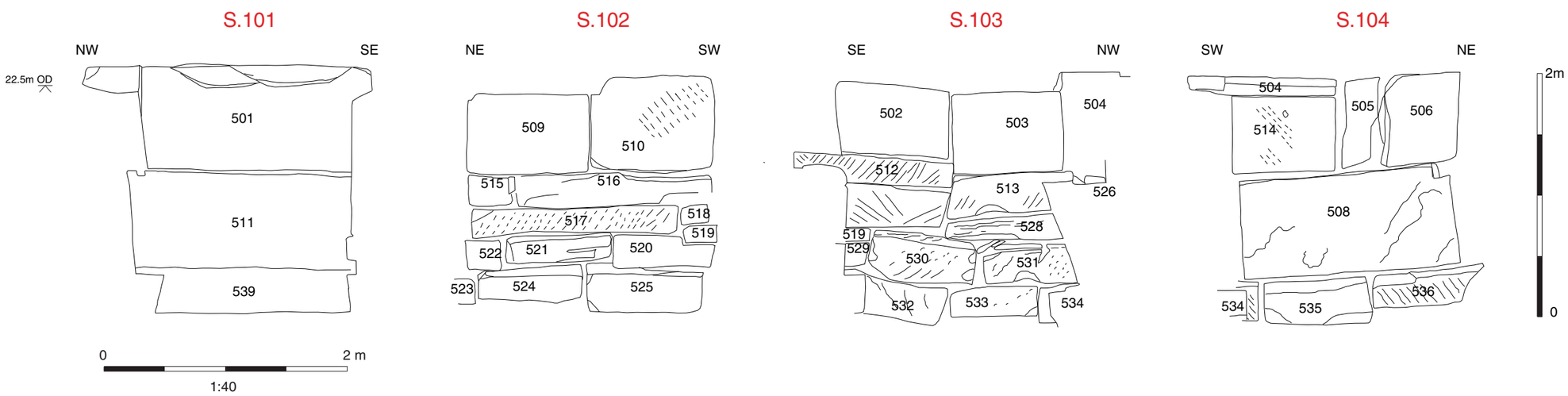


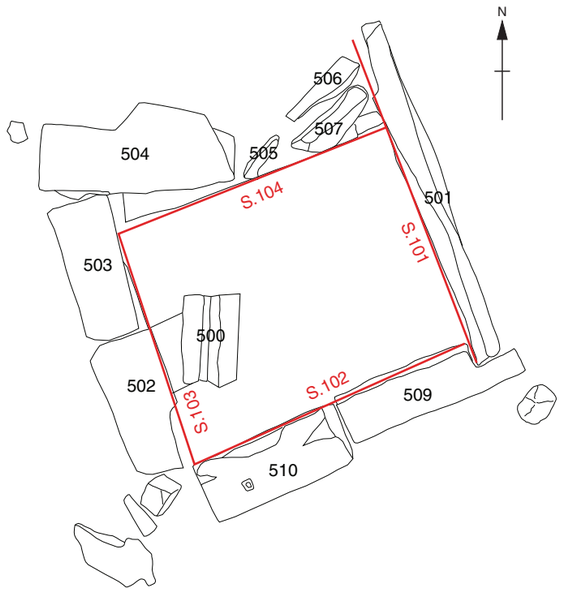
Figure 10: The Aisled barn

Figure 11: Stone-lined feature

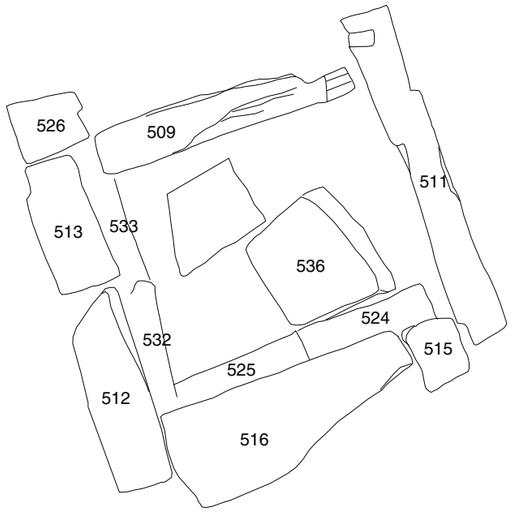
Sections



A Upper course



B Lower courses left *in-situ*



Lower courses of S. 103

Figure 12: Sections and plan of the stone-lined feature

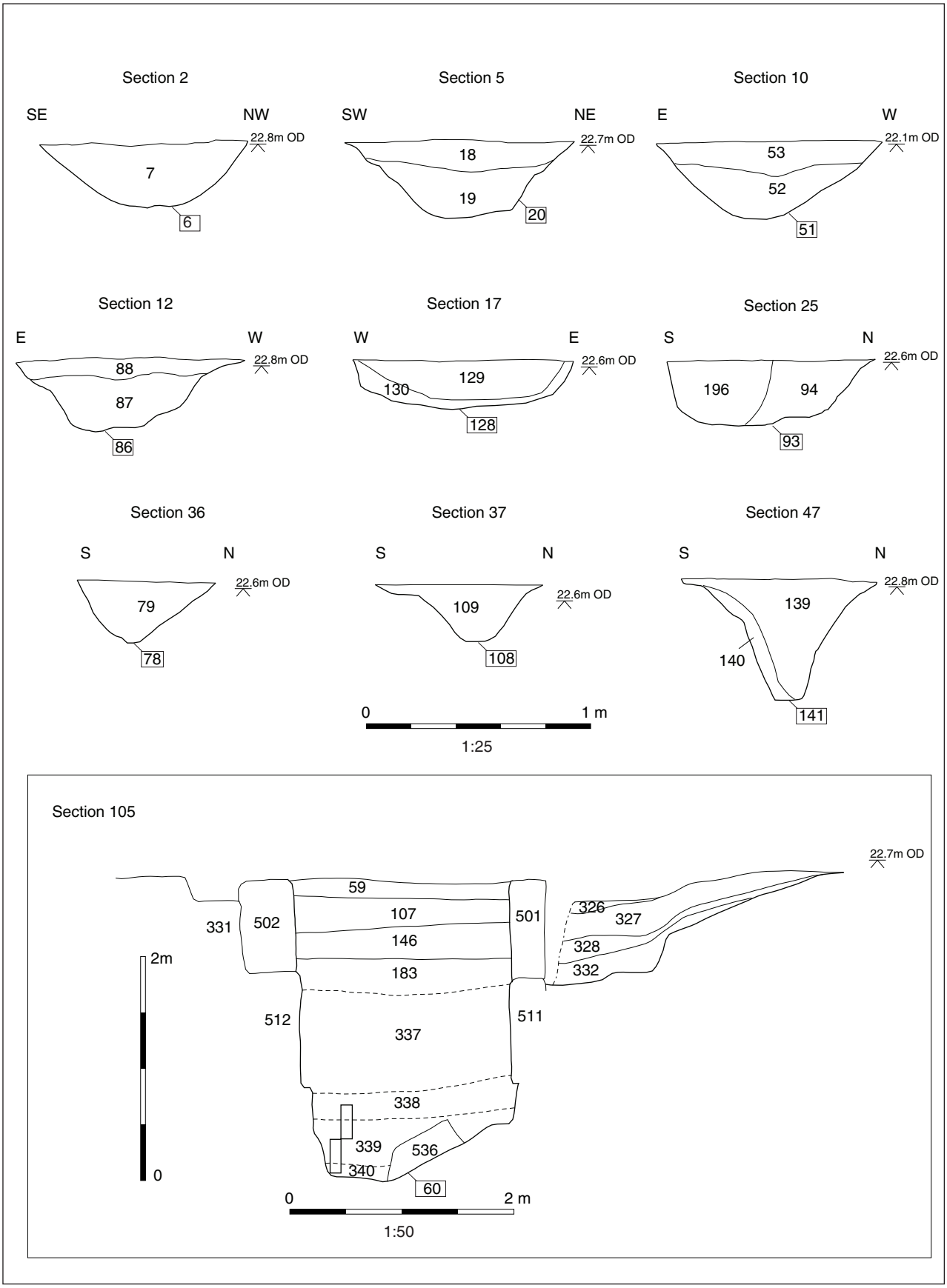


Figure 13: Sections

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@oxfordarch.co.uk
w:http://thehumanjourney.net

OA North

Mill 3
Moor Lane
Lancaster LA1 1GF

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@thehumanjourney.net
w:http://thehumanjourney.net

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
f: +44 (0) 1223 850599
e: oaeast@thehumanjourney.net
w:http://thehumanjourney.net