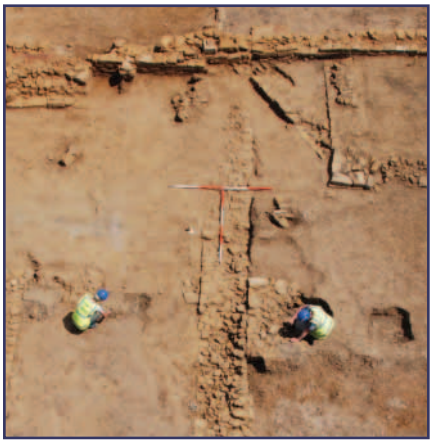
Excavation Report

Late Iron Age and Roman settlement at land off Broadway, Yaxley Peterborough



Excavation Report

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Late Iron Age and Roman settlement at land off Broadway, Yaxley, Peterborough

Archaeological Excavation

By Tom Phillips BA AIfA

With contributions by Peter Boardman BA, Matt Brudenell PhD AIfA, Steve Critchley, Chris Faine MA MSc, Nina Crummy BA FSA, Alice Lyons MA MIfA, Ruth Shaffrey PhD MIfA and Stephen Wadeson Btech

Editor: Rachel Clarke BA MIfA

Illustrators: Séverine Bézie BA MA and Andrew Corrigan BA

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Prepared by:	Tom Phillips
Position:	Project Officer
Date:	September 2014
Checked by:	James Drummond-Murray
Position:	Project Manager
Date:	September 2014
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

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Summary

Between 16th November 2009 and 14th January 2010 Oxford Archaeology East (OA East) carried out an excavation at land off Broadway, Yaxley, Peterborough in advance of residential development. The work was commissioned by Camvil Developments Ltd. The excavation area was 0.7 hectares and lay at approximately 20m OD. The site was adjacent to an area excavated by Northamptonshire Archaeology in 2005. The earlier excavation covered 1.9 hectares and found evidence of a Late Iron Age through to Late Roman farming settlement. The current excavation should be viewed as part of this larger site and the results combined to form a more coherent picture of a settlement which developed from the Late Iron Age through to the end of the Roman period.

The investigations by OA East revealed evidence of previous land use from two broad periods; the Late Iron Age and Late Roman periods. The Late Iron Age occupation was restricted to the south-eastern half of the site and comprised a square enclosure, a roundhouse and parts of a field system. Within the square enclosure was a much smaller C-shaped enclosure which may have been the remains of a shelter of some form. The presence of slag and hammerscale suggests that this shelter or structure was the focus of industrial activity. The low density of artefacts from the Late Iron Age features suggests this was on the periphery of any settlement.

Late Roman activity was restricted to the north-western half of the site. The dating evidence suggests that there may have been an earlier Roman presence, although it has been difficult to separate this out from the predominantly Late Roman (3rd - 4th century AD) activity. Two Late Roman phases have been identified. In the earlier phase a rectilinear field system of small fields was constructed on a north-east to south-west alignment. A significant feature was a rectangular 'tank' with parallel beamslots in its base, interpreted as having once held water. In the second phase the earlier fields had been partially abandoned giving the site a more open plan. A narrow boundary ditch cut across the earlier field system, as did a beamslot structure. A second beamslot structure was found, as well as an aisled building or barn, which possibly extended beyond the western limit of excavation.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 An archaeological excavation was conducted by Oxford Archaeology East at land off The Broadway, Yaxley, Peterborough (TL 19140 93200; Fig. 1) in advance of a residential housing development. The site was located in fields on the north-eastern edge of Yaxley and was adjacent to an area excavated by Northamptonshire Archaeology in 2005, which covered 1.9 hectares (Brown 2008). The combined sites were the subject of a desk-based assessment undertaken by Birmingham University Field Archaeology Unit (Watt 2002). The current work was commissioned by Camvil Developments Ltd (Planning Application 08/01138/OUT). The excavation was monitored by Rebecca Casa-Hatton of Peterborough City Council.

1.1.2 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *Planning and Policy Guidance 16 – Archaeology and Planning* (Department of the Environment 1990).

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

1.2 Geology and topography

1.2.1 Yaxley lies approximately 5km south of Peterborough and the River Nene. The village sits on higher ground overlooking fenland to the south and east. The site was located on the north-east side of Yaxley, close to the edge of the peninsula, with the land dropping away to the north and east. Broadway, the main road which runs through Yaxley, is to the south. Access was via Thistle Close, part of a new housing development.

1.2.2 The following geological information is supplied by Steve Critchley. The Yaxley – Farcet ridge is underlain by a solid geology of mudstones and clays of Middle Jurassic Oxford Clays. These are overlain by more recent sediments deposited during the Middle Pleistocene. Predominantly these are silts, sands and clays deposited during a period of glacial lake formation which are overlain in part on the higher ground by glacial tills deposited by the overriding ice sheets of the Anglian Glaciation. The actual excavation area lies on an area of these glacial tills, commonly referred to as the Chalky Tills which have been much modified by late Pleistocene periglacial ground ice processes. Evidence for periglacial features such as sand wedge polygons and thermal contraction cracks, now filled with soft orange brown predominantly aeolian sands was noted, along with decalcification of the upper till layers by the permafrost active layer (BGS 1995).

1.2.3 The site was relatively flat, the machined level ranging between 19.3m OD near the northern edge of site to 19.8m OD at the south.

1.3 Archaeological and historical background

Desk-Based Assessment (DBA)

1.3.1 The proposed development area was the subject of a desk-based assessment prepared by Birmingham University Field Archaeology Unit (Watt 2002). The following summary is partially based on the desk-based assessment.

Prehistoric

1.3.2 The Cambridgeshire Historic Environment Record (CHER) records a Palaeolithic hand axe found at 'Yaxley Yard' (CHER 01419), approximately 1km to the south-west (Fig. 2). A further 500m to the south-west a single pit containing a small number of prehistoric flints and fragmented bone was found at Vicarage Farm (CHER 11336A). A single site on the gravel island between Farcet Fen and Yaxley Fen, 4.5km to the east, yielded a range of flint artefacts of Neolithic date, with some items of the Mesolithic and Bronze Age also present (CHER 10871; Hall 1992, 19, fig. 10). Bronze Age remains comprising two barrows (CHER 10872 and 10873) and a possible burnt mound (CHER 10874) also lie upon this island (Hall 1992, 22, fig. 10). In contrast, both Yaxley and Farcet Fens lack evidence for prehistoric settlement.

1.3.3 Prior to the recent excavations there were no recorded instances of Iron Age sites in Yaxley or Farcet Fen (Hall 1992, 22). The nearest Iron Age sites include Orton Longueville (Mackreth 2001), Fengate – particularly Cat's Water and Vicarage Farm (Pryor 1984), and Werrington (Mackreth 1988). Cat's Water, Fengate, approximately 5km to the north, was a significant Middle – Late Iron Age farmstead consisting of a rectilinear field system and many roundhouses covering more than 1ha. Vicarage Farm was of a similar date but was much smaller and contained mainly ditches and pits. At Werrington, 10km to the north-west, a square enclosure of Middle-Late Iron Age date was discovered. The enclosure measured approximately 70m x 70m and contained a roundhouse gully and a larger penannular ditch (*ibid*).

Roman

1.3.4 The Roman town of *Durobrivae* lay on Ermine Street close to the present village of Water Newton and 7.5km due north-west of the site. *Durobrivae* was a small but important town and would have been the focus for a variety of contemporary farms, burial grounds and industrial sites, in particular the Nene Valley pottery industries. Information on the extent to which it affected the prosperity of the local region is limited, as little excavation has taken place within *Durobrivae* itself and few villa sites have been identified and investigated in the area (Hinman 2003, 6).

1.3.5 On the basis of the known sites from the CHER, there was a high potential at Yaxley for the survival of Roman remains in the form of settlement or craft industry, given its proximity to Ermine Street (Watt 2002, 6). The results of aerial photograph interpretation for the site were unable to confirm this suggestion, possibly due to the unresponsive clay soils (APS 2002, 2).

1.3.6 The CHER records several Roman sites within approximately 2km of the site. The nearest were located 500m to the north-east of the excavated area and comprised finds of Roman pottery (CHER 01353 and 01379). The site of a Roman pottery kiln is located 700m to the south of the excavated area at Cow Bridge Farm (CHER 01628). An evaluation north of Manor Farm, 1.75km to the south-west, included an earthwork survey which recorded a series of linear earthwork features including banks and ditches. During trial trenching, a small group of possible 2nd century AD Romano-

British pottery was recovered from a ditch-type feature in the southern part of the study area, and a single sherd of abraded Samian ware was found elsewhere (Hughes and Jones 1998; CHER CB15469). Finds of coins and pottery were also located at these places (CHER 01390, 01409 and 00996). A Roman burial was encountered in 1906 in Farcet Fen at a location roughly 2.5km to the north-east; it was reported to have been buried beneath a stone slab 1.8m long by 0.75m wide (Hall 1992, 22; CHER 02811). Recently, a small excavation at the western end of Broadway, approximately 1.2km to the west, uncovered evidence for small-scale pottery production in the form of a large assemblage of pottery (6.93kg) including wasters, as well as kiln furniture (bars, brick, plates and lining), all recovered in the middle and upper fills of a ditch (Atkins 2013; CHER 03819). Part of a cheese press was also recovered.

1.3.7 Major sites slightly further afield include a substantial farmstead at Haddon, 5km to the west, close to Ermine Street (Hinman 2003; CHER 09748). The farmstead, in use throughout the Roman period, included a number of structures, one of which was an aisled barn. To the south of the farmstead a Roman bathhouse was excavated in 1991 (Upex 1991; CHER 10384). A Roman settlement or farmstead including enclosures, ditches, gullies and stone surfaced yard areas was found at Norman Cross during road improvements to the A1 (Ellis *et al*. 1998; CHER 11925). The higher land that Yaxley sits on drops off to the north before rising again on the southern fringe of Peterborough. Within this area an excavation at Orton Hall Farm, 2.75km to the north, revealed a farmstead in use throughout the Roman period (Mackreth 1996). As well as an evolving pattern of ditched enclosures, three aisled barns were uncovered. These were linked with agricultural activity, specifically brewing.

Medieval

1.3.8 The study of the surrounding fen indicates that use of the upland would have been extensive (Hall 1992). The village of Yaxley was an inland port of consequence where goods were unloaded for transport by road further up the Nene Valley throughout the Middle Ages until the mid-17th century (Hall 1992, 22). The River Nene and Yaxley Brook were canalised via Conquest Lode and Yaxley Lode. Their banks were sufficiently high to allow erection of buildings which would have included dwellings, landing stages, fisheries, toll houses and a wealth of other structures. The fen itself was sufficiently well drained to allow the extension of the medieval open fields with its characteristic ridge and furrow, although much of this has been destroyed by modern ploughing.

Previous investigations

Evaluation

1.3.9 Originally the current site was part of a larger development area which also included an area investigated by Northamptonshire Archaeology (hereafter referred to as NA). Trial trench evaluation in early 2005 revealed evidence for Iron Age and Roman settlement features within an area of extensive occupation spanning the 1st to 4th centuries AD. The main focus of the activity was at the northern end of the site whilst the southern part of the development area was largely devoid of archaeology (Taylor and Chapman 2005; CHER MCB16368).

1.3.10 From the evaluation it was concluded that Yaxley was probably the site of a small Roman rural settlement, possibly close to a modest farmstead or villa (Taylor and Chapman 2005, 21-22). The presence of imported pottery indicated portable wealth alluding to the presence of a building of some status. The nearby location of probable

pottery kilns suggested that this was an area of industry. The dominance of spelt wheat from sieved samples mirrored other assemblages from the fens and indicated the agricultural productivity of the area. The site provided a possible pattern of enclosure that, with more environmental evidence, could enhance the understanding of the rural economy and any possible changes over the 2nd to 4th centuries. As this was the first site of Iron Age and Romano-British activity to indicate such potential in the area in association with the local pottery kilns recorded at Hog Fen and Cow Bridge Farm, it was considered to be a site of regional importance (Taylor and Chapman 2005, 22).

Excavation

1.3.11 Following evaluation the site was split and the larger, western half (1.9ha) was excavated by NA between July and October 2005. The combined areas of the current excavation and the NA excavation can be seen in Fig. 7. The following is a summary taken from the final excavation report (Brown 2008, 1):

1.3.12 'A principal [Late Iron Age] east to west bank and ditch had existed along the apex of the natural clay ridge with Late Iron Age roundhouses close by. The boundary included an important crossing point that was in use until the 1st century AD. In the late 1st century the roundhouses were cleared. The Iron Age entrance was slighted and the former ditches were incorporated into a new enclosure design. A single roundhouse was built and a small short-lived pottery kiln produced basic storage vessels for use on the site. The land is likely to have been incorporated into a larger agrarian settlement by the mid-2nd century. Activity was defined by a large enclosure with a small cemetery along its western perimeter. A stone-roofed building was present with other timber framed structures close by and probably fulfilled a domestic function. During the 4th century habitation moved elsewhere and the land was reorganised to form a pattern of smaller enclosures. This indicated a major change in the agricultural economy of the estate and marked the final stage of development.'

1.4 Acknowledgements

1.4.1 The author would like to thank Camvil Developments Ltd. who commissioned and funded the excavation. The excavation was monitored by Rebecca Casa-Hatton of Planning Services, Peterborough City Council and managed by James Drummond-Murray. The site was excavated by Peter Boardman, Louise Bush, Dave Brown, Chris Faine, Steve Graham, Jon House, Tom Lyons, Stephen Morgan, Helen Stocks-Morgan and Michael Webster. Survey support was provided by Louise Bush. Steve Critchley metal detected the site and provided the geological background. Illustrations were by Séverine Bézie and Andrew Corrigan.

2 Aims and Methodology

2.1 Aims

2.1.1 The primary objective of this excavation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

2.1.2 Based on the excavation results specific research objectives were discussed in the post-excavation assessment and are listed again below. The objectives are site specific but also relate to topics considered in the East Anglian Research Framework (Brown and Glazebrook 2000; Medlycott and Brown 2008).

Iron Age

Rural settlements and landscapes

2.1.3 What is the evidence for roundhouse use in the later Iron Age? How does the form and layout of the settlement compare to other known sites?

2.1.4 The excavation only revealed evidence of a single roundhouse which was badly truncated and cannot contribute further to studies. However, it should be viewed in conjunction with the several roundhouses excavated by NA on the adjacent site.

2.1.5 The layout of the settlement, incorporating the current site and the adjacent NA site, covers approximately 3 hectares of a rural Late Iron Age settlement. The form and layout should be compared to other local and regional examples. The square enclosure which contains the smaller C-shaped enclosure is an interesting feature for which parallels should be sought.

Industrial practices

2.1.6 What is the evidence for metalworking? How does it compare to other local and regional rural sites?

2.1.7 The C-shaped enclosure is believed to be associated with metalworking, probably as a shelter or windbreak for small-scale smithing. Such activity is not uncommon on contemporary rural sites in the region, although similar examples should be examined.

Roman

2.1.8 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?

2.1.9 The excavation has identified specific elements which characterise this farmstead, including domestic habitation (pottery assemblage and items of personal adornment), crop processing (crop processing waste and use of quern stones) and agricultural practices (faunal assemblages and fittings/tools). These should be viewed in conjunction with the main elements of the NA site to discuss the economy and status of the farmstead as a whole.

2.1.10 The 3rd to 4th century aisled building is one of a growing number in the region, with local examples including Haddon (Hinman 2003), a recently discovered one at Bretton Way, Peterborough (Pickstone 2011), 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), specifically brewing. There is no

obvious evidence for function apart from abundant crop processing waste in the immediate vicinity, which is not necessarily indicative of crop processing itself.

Industrial processes

2.1.11 What is the function of the Late Roman tank? Are there local and regional parallels?

2.1.12 The tank has been interpreted as a water tank. Presumably it provided a source of water for an industrial activity taking place close by. There is little evidence for what activity this was or where it may have taken place. It could have been off site to the north or it could be associated with the aisled building (although this has been interpreted as having been constructed in the later phase). The abundant crop processing waste nearby, which was utilised as kindling, could be evidence of this industrial activity. Alternatively, the pit itself may have been used for a specific activity such as tanning or retting.

2.2 Methodology

2.2.1 Machine excavation was carried out under constant archaeological supervision with a 360° tracked excavator using a toothless ditching bucket. A total area of 0.7ha was stripped.

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

2.2.3 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits. Site survey was carried out by Louise Bush using a Leica GPS 1200 system.

2.2.4 The subsoil was a mid grey clayey silt typically between 0.2 and 0.3m thick. This was sealed by a dark brown loamy silt topsoil, measuring between 0.2 and 0.35m thick. There was partial disturbance of the natural geology in the south-west corner, where the topsoil had possibly been stripped during groundwork for the adjacent development and then replaced.

2.2.5 Site conditions were hampered by a wet late November/ early December 2009, which raised the water table dramatically. This was followed by harsh winter conditions with prolonged periods of frost and snow in late December/ early January 2010.

3 Results

3.1 Introduction

3.1.1 The excavation revealed evidence of land use from two broad periods; later Iron Age and Late Roman. Defining the Roman phases was problematic in so much as the ceramic assemblage for the infilling of most features was a mixture of clearly late fabrics, particularly Nene Valley wares, and fabrics which date anywhere between the 2nd and 4th centuries AD. No features could confidently be assigned to a date earlier than the 3rd century. Therefore, based on the dating evidence and stratigraphy, two Late Roman phases have been proposed.

3.1.2 Figures 3 – 5 show all the features on site with original cut numbers. Features were then assigned to a period and phase, or grouped as undated features. The periods and phases are as follows:

Period 1: Iron Age (c.800 BC – AD 43)

- Phase 1: Later Iron Age (c.350 BC – AD 43)

Period 2: Roman (AD 43 – AD 410)

- Phase 2: Late Roman (3rd to 4th century AD)
- Phase 3: Late Roman (3rd to 4th century AD)

Period 3: Medieval (AD 1066 – 1485)

- Phase 4

3.1.3 The results are described chronologically by feature or feature group. Basic details for all contexts can be found in the context summary in Appendix A. Finds are mentioned where appropriate or relevant; for the Late Roman phases however, the quantities are considerable, meaning that only significant examples are listed. Full reports on the finds can be found in Appendix B, and reports on environmental remains can be found in Appendix C.

3.2 Natural features

Eight features were interpreted as being geological rather than archaeological. These comprised mainly natural hollows as well as one tree throw and a root hole. The natural features have been grouped together as **472** (Figs. 4 – 5).

3.3 Period 1: Iron Age

Phase 1: Later Iron Age (c.100 BC – AD 43)

3.3.1 The later Iron Age activity consisted of a principal boundary ditch orientated east-north-east to west-south-west, with a roundhouse located close by. To the west, in the centre of the excavation area, was a square enclosure, which contained a small C-shaped structure apparently associated with metalworking (Figs. 4 and 6). With the exception of two wheel-made 'Belgic-related' sherds (33g), all the pottery recovered was handmade. In terms of fabric and form, most of these handmade wares had affinities to the region's

long-lived Middle Iron Age-type potting tradition (*c*. 350 BC – AD 50), though present throughout a number of major feature groups were a small number of diagnostic Late Iron Age sherds (combed and grog tempered sherds dated *c*. 50 BC – AD 50). The fills of most of the later Iron Age features had naturally accumulated and were sterile with little humic component. There were a couple of exceptions to this, including C-shaped structure **112** and ditch **579**. Both are covered in more detail below. When viewed in relation to the adjacent NA site, it is apparent that the current area lay away from the core of any contemporary settlement. To the west, the ditched enclosures were more dense and there were four roundhouses identified.

*Principal boundary ditch **630***

3.3.2 A substantial linear boundary ditch, orientated east-north-east to west-south-west, was located in the south-east of the site (Plate 1 and Fig. 8, section 124). The ditch had two earlier versions which had been truncated to varying degrees by ditch **630**. Ditch **653** was the earliest cut although it was heavily truncated and undated. Ditch **632** represented a re-working of the original ditch. A greater part of this ditch survived (it was traced for approximately 40m) and it contained a small assemblage of later Iron Age pottery (2 sherds, 54g; Appendix B.1).

3.3.3 Ditch **630** extended for 46m from the southern baulk towards the north-east corner of the site, where it formed a junction with ditch **617**. It measured between 1.46 and 2.68m wide and between 0.4 and 0.87m deep. It contained a small assemblage of later Iron Age pottery (7 sherds, 69g) and two animal bones (139g, horse and cattle; Appendix C.2).

3.3.4 Ditch **630** formed part of a much longer boundary recorded by NA (Brown 2008, 8), demonstrating that it extended for a further 179m to the south-west (Fig. 7). In the NA area the ditch was also re-worked in the Early Roman period and to a lesser extent in the Late Roman period.

*Roundhouse **667***

3.3.5 Roundhouse **667** was located 10m to the north of ditch **630**. All that remained of it was the northern part of the curvilinear eaves drip gully which would have collected water from the roof. The rest of the structure had been truncated away. It consisted of two short lengths of gully measuring between 0.25 and 0.38m wide and between 0.08 and 0.16m deep. At the eastern end of the gully there was a convincing terminal which may have been one side of an east facing entrance. The only finds retrieved from the gully consisted of a single cattle bone (49g). The lack of finds suggest that, while the form indicates this was a roundhouse, it may not have been a domestic dwelling.

3.3.6 In the NA excavation area to the south-west, four Late Iron Age roundhouses were located close to the principal boundary ditch, a pattern which roundhouse **667** conforms to (Fig. 7).

*Sub-square enclosure: ditches **103** and **579***

3.3.7 In the centre of the site was a square enclosure delineated by a substantial continuous ditch on three sides (ditch **103**) and a separate ditch on the south-eastern side (ditch **579**), enclosing an area of approximately 20m^2. The enclosure appeared to be open in its southern corner although there could have been an additional part of it beyond the limit of excavation.

3.3.8 Ditch **103** measured between 1 and 3.36m wide and between 0.25 and 1.02m deep (Fig. 8, section 35). It contained up to four fills which were generally sterile. Four of the eight excavated sections contained Late Iron Age pottery, although in total it was still a small assemblage (22 sherds, 141g). The section closest to the eastern corner also contained hearth lining (51g; Appendix B.5) and slag (25g; Appendix B.7). Animal bone for the enclosure totalled 403g and comprised cattle and sheep/goat where identifiable.

3.3.9 Ditch **579** was approximately 15m in length and formed the south-eastern side of the enclosure. It measured between 0.6 and 1.2m wide and between 0.44 and 0.6m deep. The fills had a higher humic component than the rest of the enclosure and contained a larger assemblage of later Iron Age pottery (27 sherds, 540g), although some sherds were definitively Late Iron Age. The ditch also contained a moderate amount of animal bone (1382g) compared to the rest of the enclosure. Cattle bone predominated, followed by rare instances of sheep/goat, pig and dog.

*C-shaped structure **112***

3.3.10 Within the western half of the square enclosure was a small C-shaped structure with an open west-facing entrance and a diameter of 4m north to south (Plate 2 and Fig. 8, section 10). Gully **112** measured between 0.4 and 0.86m wide and between 0.12 and 0.54m deep. The fills contained a moderate assemblage of later Iron Age pottery (52 sherds, 374g) and animal bone (538g), consisting of cattle where identifiable. Significantly the fills also contained a small assemblage of metalworking waste (171g) including a fragment of smithy base, along with 254g of vitrified clay. Hammerscale (tiny droplets of waste) was also retrieved from five environmental samples. One piece of the vitrified clay had very small spots of copper on its surface (see section 4.1.3, discussion).

3.3.11 Gully **150** directly to the west may have been associated although it did not contain any evidence of metalworking. It measured between 0.4 and 0.55m wide and between 0.09 and 0.3m deep.

*Pit **119***

3.3.12 The only other feature within the enclosure was a small pit (**119**), which measured 0.6m wide and 0.25m deep. Abundant inclusions of charcoal were retrieved from the environmental sample but its function remains unknown.

Other Late Iron Age features

3.3.13 A series of ditches in the north-east corner of the site may have formed part of an enclosure or field system extending beyond the limit of excavation. Ditch **637** and its re-cut **617** was a curvilinear ditch which presumably continued to the north. Ditch **617** measured between 1.49 and 3.4m wide and between 0.58 and 0.93m deep with a U shaped profile. It contained up to three fills from which a small assemblage of later Iron Age pottery (20 sherds, 185g), animal bone (883g; virtually all cattle with two instances of sheep/goat), fired clay (126g) and a single piece of hearth lining (15g) were recovered. Linear boundary ditch **630** formed a junction with ditch **617** but no relationship was visible.

3.3.14 Ditch **660** was 'L' shaped. It measured between 0.61 and 0.84m wide and between 0.2 and 0.48m deep, with a U shaped profile. It truncated ditch **617** at its southern end and extended beyond the limit of excavation. Finds from the ditch comprised a single sherd of later Iron Age pottery (11g) and two animal bones (227g; cattle and dog).

3.3.15 The eastern end of ditch **660** was truncated by a medieval furrow, as was a short length of curvilinear ditch (**705**), directly to the east. This curvilinear ditch measured 0.41m wide and 0.2m deep. It contained no finds in its single fill.

3.3.16 Curvilinear ditch **604** was located west of ditch **617** and north of roundhouse **667**. Its south-eastern end may have continued further to the east but it was truncated by a medieval furrow. The ditch measured between 0.7 and 1.4m wide and between 0.3 and 0.38m deep. It contained up to two fills; the only finds retrieved was a small quantity of animal bone (59g).

3.3.17 Curvilinear ditch **683** was located in the south of the site, measuring 0.8 wide and between 0.38 and 0.4m deep. Three sherds (57g) of Late Iron Age pottery and a single cattle bone (182g) were retrieved from the single fill.

3.3.18 Ditch **108** extended from the western side of enclosure ditch **103**. It measured 8m in length, 1.8m wide and 0.7m deep and was also encountered in the NA excavation to the south-west. A small assemblage of later Iron Age pottery was recovered from the upper of its two fills.

3.3.19 Pits **611** and **613** were located between sub-square enclosure ditch **579** and linear boundary ditch **630**. Pit **611** measured 1.45m wide and 0.68m deep. It contained three fills from which the only find was a dog mandible (85g). Pit **613** measured 1.15m wide and 0.45m deep. There were two fills in the pit, the lower of which contained a fragment of rotary quern formed from quartzitic sandstone (Appendix B.6). The upper fill contained a tiny amount of animal bone (4g).

3.4 Period 2: Roman

Phase 2: Late Roman (3rd – 4th Century AD)

3.4.1 The Late Roman activity was restricted to the western half of the site. In the earlier phase a rectilinear system of small fields was constructed on a north-east to south-west alignment (Figs. 5 and 6). The infilling of these field ditches was consistent across the area with dark brown fills containing large assemblages of Late Roman pottery and animal bone, along with varying quantities of charcoal, fired clay and crop processing waste.

3.4.2 One other feature assigned to this phase was a rectangular tank with parallel beamslots in its base.

*Enclosure ditch **173***

3.4.3 An 'L' shaped enclosure ditch extended 30m from the north-west baulk on a north-west to south-east alignment before turning north-east to south-west for a further 30m where it disappeared beyond the south-western baulk (Plate 3 and Fig. 8, section 24).

3.4.4 There were two earlier cuts of this ditch (**180** and **176**), both of which were truncated to varying degrees by ditch **173**. Both also contained similar assemblages of finds. Ditch **180** measured between 0.66 and 2.1m wide and between 0.28 and 0.46m wide with a U shaped profile. Recorded in four excavated sections its two fills contained 11 sherds (216g) of 2nd to 4th century pottery (Appendix B.2), animal bone (643g, mainly cattle; Appendix C.2), ceramic building material (CBM, 221g; Appendix B.5) and a fragment of quern stone (Appendix B.6). Ditch **176**, recorded in three excavated sections, contained up to four fills. An assemblage of predominantly 2nd to 4th century pottery (17 sherds,

470g), CBM (108g) and a rotary quern fragment (216g; SF 88), probably of Millstone Grit, were recovered mainly from the upper fills. Animal bone totalled 1597g and consisted predominantly of cattle with a single instance of red deer antler.

3.4.5 Ditch **173** measured between 1.2 and 1.6m wide and between 0.36 and 0.6m deep. It contained a large finds assemblage including ceramics ranging in date from the 2nd to 4th centuries AD (222 sherds, 6393g). A large assemblage of animal bone was recovered (8091g), comprising cattle and sheep/goat where identifiable. The ditch yielded a large assemblage of CBM (4543g), 75% of which came from the three excavated sections closest to the northern baulk and included one large thick piece and two fragments of *tegulae*. Six coins were metal detected along the course of the ditch (SF 17, 21, 31, 32, 39 and 52), ranging in date from the 2nd to 4th centuries AD (Appendix B.4). A fragment from a copper-alloy cable armlet (SF 9 from cut **173**) was also recovered, as well as an iron knife blade (SF 72 from cut **407**) (Appendix B.3). The armlet is an element of female dress and dates to the later 3rd or 4th century. Other iron finds consisted of at least seven nails. Environmental samples produced a small amount of cereals along the ditch, while sample 44 from cut **407** close to the northern baulk produced abundant chaff (Appendix C.1).

3.4.6 Ditch **173** should be viewed as part of a larger enclosure that was encountered in the NA excavation area, where it had also been re-cut several times and was again Late Roman in date.

*Boundary ditch **146***

3.4.7 Ditch **146** extended from the north-western baulk for 20m on a north-west to south-east alignment before being truncated by enclosure ditch **173**. It also ran parallel with the northern arm of enclosure ditch **173**.

3.4.8 Ditch **146** measured between 1.2 and 2m wide and between 0.54 and 0.65m deep. The ceramic assemblage was predominantly 3rd to 4th century AD (81 sherds, 1636g). It also contained CBM (including a combed fragment of roof tile and two fragments of *tegulae*, 1487g), mainly in the upper fill of cuts **181** and **392**, along the central part of the ditch, and animal bone (2502g; predominantly cattle with single instances of horse and pig). Three coins were retrieved from the surface of the ditch (SFs 6, 25, 28) dating to the 3rd and 4th centuries. A complete globular-headed bone hairpin was recovered from cut **392** (SF 47), the tip of which may have been repointed.

*L shaped enclosure ditch **155***

3.4.9 A second 'L' shaped enclosure ditch formed a small rectangular field or paddock, incorporating ditch **146** into its layout. It enclosed a space of 15m north-east to south-west by 21m north-west to south-east.

3.4.10 Ditch **155** was insubstantial in places, measuring between 0.78 and 2m wide and between 0.12 and 0.6m deep. The ceramic assemblage ranged from the 2nd to 4th centuries AD (164 sherds, 5296g). A large assemblage of animal bone (4671g) was also recovered, consisting mainly of cattle with three instances each of horse and sheep/goat. A small amount of CBM (420g) and a 4th century coin (SF 37) were retrieved from the north-western element of the ditch. Another 4th century coin was retrieved from the south-western ditch (SF 3), either Valentinian or Theodosius (AD 383-92).

*Ditch **282***

3.4.11 Located in the northern part of the site, ditch **282** formed a set of enclosures with ditches **328** and **280**. The main axis of ditch **282** was orientated north-east to south-west. It measured between 0.9 and 1.6m wide and between 0.25 and 0.5m deep. The small ceramic assemblage ranged from the 2nd to 4th centuries AD (10 sherds, 627g). Animal bone was also found (803g; cattle and sheep/goat).

*Ditch **280***

3.4.12 Ditch **280** formed a small sub-enclosure on the side of enclosure ditches **173** and **282**, the latter of which it appeared to truncate. It enclosed a space of 17m north to south and 5m east to west. Ditch **280** measured between 0.7 and 1.35m wide and between 0.24 and 0.5m deep. The ceramic assemblage ranged from the 2nd to 4th centuries AD (102 sherds, 2877g) and was found alongside a small quantity of animal bone (543g; cattle and sheep/goat).

*Ditch **328***

3.4.13 Ditch **328** appeared to mirror the shape of ditch **280**, forming a small square enclosure with part of ditch **282**. An earlier version of this ditch was represented by ditch **424.** This small field enclosed a space of 13m^2. Ditch **328** measured between 0.55 and 2.4m wide and between 0.2 and 0.55m deep. The ceramic assemblage from the ditch is predominantly 4th century AD (60 sherds, 1584g). It also contained a moderate amount of animal bone (2615g), virtually all cattle. A 3rd century House of *Constantine* coin was retrieved from cut **551**, while a complete globular-headed bone hairpin was recovered from cut **422** (SF 55).

*Ditch **312***

3.4.14 Ditch **312** was located to the south of ditch **282**, orientated north-east to south-west. It extended for 20.5m from its intersection with ditch **173**.

3.4.15 There were two earlier versions of this ditch, **433** and **435**, both were truncated to varying degrees by ditch **312**. Ditch **312** measured between 0.8 and 1.05m wide and between 0.35 and 0.39m deep. It contained a single sherd of pottery (33g), a small amount of animal bone (1048g; cattle and horse) and a 4th century House of *Valentinian* coin, which was found by metal detector in the top of the ditch (SF 19).

*Ditch **480***

3.4.16 Ditch **480** extended for 6m from the northern limit of excavation and was truncated by ditch **328**. It measured between 0.4 and 0.5m wide and 0.1m deep. The ditch contained no finds.

*Ditch **563***

3.4.17 Ditch **563** extended for 9.5m from the northern limit of excavation, orientated north-east to south-west. It measured between 0.7 and 0.92m wide and between 0.25m and 0.58m deep. It contained an assemblage of predominantly 3rd – 4th century pottery (57 sherds, 2285g), animal bone (580g; cattle where identifiable) and one side of a copper-alloy two-piece strap-end (SF 73) with organic (possibly leather) remains on the underside.

*Tank **555***

3.4.18 Close to the north-western limit of excavation and to the south of ditch **173**, was a rectangular pit or tank, measuring 2.4m long, 2m wide and 0.37m deep with vertical sides and a flat base. Within the base were four parallel beamslots running along the longest axis, each approximately 0.15m wide and 0.05m deep (Plate 4 and Fig. 8, section 72). The only dating evidence from the tank consisted of three sherds of 3rd century pottery (59g). An iron nail and two shank fragments from possible nails were also recovered (SFs 27, 34, 36). Environmental samples taken from two of the beamslots produced abundant chaff.

3.4.19 The tank appeared to have been re-cut or re-lined, making it slightly smaller and square in shape, as there was a clay lining which again had vertical sides but sealed part of the original beamslots. This later tank (**467**) measured 1.9m^2 and contained a larger assemblage of pottery, predominantly 3rd – 4th century Nene valley wares (50 sherds, 602g), as well as CBM (roof tile, 662g). Four iron nails and 3 shank fragments were also recovered. Again, abundant chaff was present in its fill.

3.4.20 Presumably the tank was originally wood lined and held water. The impermeable clay geology would prevent water from draining away quickly; a wood lining would have made it more water tight, while keeping it relatively clean. The presence of nails in the tank may relate to a timber lining or superstructure. A holding tank such as this would presumably have been associated with something industrial that was taking place very close by.

3.4.21 Ditches **396** and **508** were located close to tank **555**. They may have been part of a small enclosure or shelter associated with the tank and whatever activity was being carried out here. Curvilinear ditch **396** measured between 0.28 and 0.3m wide and between 0.06m and 0.08m deep. It contained a single sherd of Nene Valley Colour Coated pottery (3g). Ditch **508** was 'L' shaped, measuring between 0.7 and 0.9m wide and between 0.3m and 0.5m deep. The only find was a single sherd of undiagnostic pottery (3g).

Other Phase 2 features

3.4.22 Ditch **458** was located in the west of the site. It had been truncated by Phase 3 ditches **402** and **507**. It may have formed an enclosure or been associated with ditches **396** and **491**. Ditch **458** measured between 0.3 and 0.65m wide and between 0.07 and 0.16m deep. It contained 3 sherds (305g) of Late Roman pottery and animal bone (29g).

3.4.23 Ditch **491** was orientated north-east to south-west and ran parallel to the north-western baulk. It measured between 0.8 and 1m wide and between 0.23m and 0.42m deep. It contained 2 sherds (56g) of 2nd to 4th century pottery and animal bone (22g).

3.4.24 Ditch **356** was orientated north-west to south-east. Its northern end truncated the corner of ditch **155**, and, when traced through into the NA excavation area, formed another enclosure or paddock. Ditches **416** and **418** were also probably associated with it. Ditch **356** measured between 0.6 and 1.5m wide and between 0.24m and 0.26m deep. It contained no finds.

3.4.25 Ditch **441** was located in the west of the site immediately to the south of ditch **356**. It was aligned north-north-east to south-south-west, measuring 6m in length, between 0.45 and 0.55m wide and between 0.19 and 0.2m deep. There was a small assemblage of pottery including 2 sherds of greyware (25g), which could be Early or Late Roman, and a sherd of Early Roman pottery (9g). The ditch also contained 310g of cattle bone.

3.4.26 Pit **486** was located close to the northern corner of the site. It truncated the terminal of ditch **282** and measured 1.6m wide and 0.3m deep. It contained a small assemblage of pottery (4 sherds, 141g), animal bone (13g) and a copper-alloy penannular brooch (SF 50), which dates to the 1st century AD. Although the brooch could be residual from the earlier phase of activity on the site, it is believed that the absence of any other obviously residual metalwork from that period argues rather for curation or survival in use (see Appendix B.3).

3.4.27 Two postholes were located directly to the east of pit **486**. Posthole **526** measured 0.29m wide and 0.09m deep, posthole **528** measured 0.26m wide and 0.06m deep. Neither posthole contained any finds and there were no other associated postholes near by.

Phase 3: Late Roman (3rd – 4th Century AD)

3.4.28 In this later phase the site became more open. Although parts of the field system evidently remained in use, some of it had been abandoned. A narrow boundary truncated several of the main Phase 2 ditches. Two beamslot buildings were constructed along with an aisled barn that may have continued beyond the limit of excavation. A small C-shaped enclosure and a group of pits truncated the Phase 2 tank (Figs. 5 and 6).

*Boundary ditch **261***

3.4.29 Extending for 50m and orientated north-east to south-west, ditch **261** truncated several of the earlier field system ditches including ditches **146**, **173**, **280** and **328**. Significantly it also appeared to disregard the layout of the earlier field pattern.

3.4.30 Ditch **261** measured between 0.26 and 0.92m wide and between 0.02 and 0.34m deep. It contained up to three fills. Finds were recovered from throughout the fills and included a large ceramic assemblage (167 sherds, 5591g) ranging in date from the 2nd to 4th centuries AD, and a moderate quantity of animal bone (2802g; predominantly cattle with rare instances of horse and sheep/goat). It also contained four coins dating to the 3rd and 4th centuries (SF 22, 23, 24 and 29), an iron wool comb tooth indicative of fibre preparation (SF 44), one side of a copper-alloy V-shaped scabbard chape (SF 30), and a small amount of CBM (336g). There was good environmental evidence in the form of cereals and crop processing waste from the central part of the ditch.

*Ditch **402***

3.4.31 Located to the west of the aisled barn, ditch **402** was curvilinear and may have formed a C-shaped enclosure with ditch **561**, which truncated the Phase 2 tank (**555**). Ditch **402** measured between 0.25 and 1.51m wide and between 0.18 and 0.7m deep. It contained a mixed ceramic assemblage (67 sherds, 1910g), predominantly 3rd – 4th century AD in date, as well as a moderate quantity of animal bone (1362g; cattle and sheep/goat).

*Ditch **507***

Ditch **507** was 'L' shaped and located directly to the west of ditch **402**. It measured between 0.79 and 1.22m wide and between 0.33 and 0.48m deep. The ceramic assemblage was relatively small (20 sherds, 371g), with dates ranging from the 2nd – 4th centuries AD. An iron rake prong recovered from cut **575** (SF 71) may relate to a number of agricultural activities, principally hay-making. The ditch also contained 508g

of CBM and 112g of animal bone. Environmental sample 84 from cut **575** produced cereals and abundant chaff (Appendix C.1).

*Pit group **408***

3.4.32 A series of three shallow pits truncated Phase 2 tank **555**. They were located close to the terminal of ditch **402**. If ditch **402** had formed an enclosure or small paddock with ditch **561** then these pits would have been located within the possible entrance way. All three were wide and shallow, measuring between 1.06 and 1.6m wide and between 0.08 and 0.25m deep, having more the appearance of hollows. Pit **408** produced the most finds including pottery of mainly 2nd – 4th century date (27 sherds, 1256g), animal bone (211g) and a large amount of CBM (3477g) comprising approximately 20 pieces of roof tile including some *tegulae*. In addition, 16 fragments of an upper millstone (SF 58; 5475g) were recovered, measuring approximately 0.85m in diameter. The millstone is of particular significance, because it has been heavily reused as a rotational grindstone for sharpening blades, although it is difficult to determine whether it has been used as a grindstone on site or elsewhere (see Appendix B.6). Pit **408** also contained good environmental evidence in the form of cereals, chaff and abundant charcoal.

Beamslot structures

3.4.33 Two beamslot structures were located in the south-west of the site. The first was formed by beamslots **218** and **233**. Beamslot **233** was located close to the south-western baulk and truncated the upper fill of enclosure ditch **155**. It was orientated north-east to south-west, measuring 6m long, between 0.2 and 0.4m wide and between 0.05 and 0.15m deep. It contained a single sheep/goat bone (18g) and a moderate assemblage of pottery (6 sherds, 637g), all from a single excavation slot, dated as 2nd – 3rd century. However, the stratigraphy suggests the structure must be later than this. Beamslot **218** was perpendicular to **233**, measuring 2.6m long, 0.25m wide and between 0.05 and 0.1m deep. Given the truncated nature of the beamslots it is likely they once formed part of a single structure.

3.4.34 The second beamslot structure, **273** (Plate 5), was located less than 5m to the north. It was on a similar alignment and was more intact than the first, forming a rectangle which was open on the western side. The space it enclosed was approximately 8m north-east to south-west. The beamslot measured between 0.2 and 0.59m wide and between 0.03 and 0.21m deep. The ceramic assemblage (29 sherds, 980g) ranged from the 2nd to 4th centuries AD. CBM was recovered from the beamslot (610g, including one large fragment of *tegulae*), as well as two large fragments of rotary quern (SF 89 and 90), one of probable Old Red sandstone and the other of probable Millstone Grit. Single instances of cattle and sheep/goat bone were also recovered (254g). Environmental remains consisted of moderate amounts of cereals, chaff, weed seeds and charcoal. Posthole **347** may have been associated with this structure. It measured 0.27m wide and 0.12m deep and contained 2 sherds (10g) of 2nd – 4th century pottery.

*Aisled barn **450***

3.4.35 Part of an aisled barn (**450**) was located close to the north-west limit of excavation (Plate 6), between two earlier ditches, **146** and **173**. The structure consisted of six large postholes (cuts **365**, **367**, **369**, **371**, **373** and **375**) which contained varying degrees of stone packing material. The length of the barn was 8m although it is possible the structure continued beyond the limit of excavation. There were intervals of approximately 3m between the postholes along each side of the structure while the

nave measured 4.2m wide. The size of the postholes was indicative of a structure that could have had aisles. No structural remains for these survived but it is likely they would have jutted out towards the line of the earlier ditches. Ditch or beamslot **510**, a feature truncating the top of earlier ditch **146**, is the only associated feature which possibly had a structural function and could denote the position of the western aisle.

3.4.36 The postholes measured between 0.79 and 1.75m in diameter and between 0.18 and 0.4m deep (Fig. 8, section 93). The packing material consisted of fragments of limestone, some measuring up to 0.35m^2. Posthole **369** was perhaps the best preserved, with the packing material arranged around a void of 0.3m (Plate 7). No internal features such as hearths or associated features such as beamslots had survived.

3.4.37 The ceramic assemblage was relatively small, with dates ranging from the 2nd – 4th centuries AD (14 sherds, 214g). There was a small amount of CBM (252g) and animal bone (53g), while a fragment of an upper rotary quern or millstone had been re-used as packing material in posthole **375** (SF 66). Posthole **373** produced a fragment of glass from a prismatic bottle (SF 67), which may be residual Early Roman (Appendix B.3). Environmental remains included charcoal in one posthole, cereals in another and chaff in three postholes, but none in any great quantities.

3.5 Period 3: Medieval

3.5.1 The medieval activity on site consisted of the truncated remains from the ridge and furrow system of agriculture, the sub-surface furrows being the features that survive. In the western part of the site the furrows were orientated north-east to south-west, measuring approximately 2.5m wide and 0.1m deep and were spaced roughly 4.5m apart (Fig. 3). In contrast, the furrows in the south-east corner of the site were orientated north-west to south-east, measured approximately 1.5m wide and were spaced roughly 7.5m apart. It is worth noting that the orientation of the furrows in the west of the site shared a striking similarity with the Late Roman field system, indicating possible continuity in the landscape between the Roman and medieval periods. All furrows have been grouped together as group **185**.

3.5.2 An unstratified silver farthing of Henry III (*c*. 1242-7) was recovered (SF 1), cut down from a short cross penny.

3.6 Finds Summary (see Appendix B)

Late Iron Age

3.6.1 The most general statement that could be made about the artefactual evidence is that the Late Iron Age features produced small quantities of finds where as the Late Roman features produced a large finds assemblage. The Late Iron Age pottery amounted to 174 sherds weighing 1629g including a few sherds of Late Pre Roman Iron Age wares. The assemblage, mainly recovered from ditches, was fragmentary with the majority of sherds being significantly abraded. As a result, little evidence for surface finishes or residues survive. The pottery consists predominately of a number of shell tempered fabrics. Locally manufactured and handmade, shell tempered fabrics such as these were the darker, coarser (often thicker) predecessor of the more Romanised shell tempered ware, typical of the Early Roman period onwards. Due to a lack of diagnostic

sherds only a small number of vessel types were identified in the assemblage and are limited predominately to jars reflecting the utilitarian nature of the assemblage. Decoration on vessels was also rare and was identified on just twelve separate occasions. The most common form of decoration was simple linear scoring/combing, however the decoration on one vessel was more complex consisting of vertical lines divided by a single horizontal line.

3.6.2 The other significant Late Iron Age assemblage was a small quantity of metalworking slag. The majority (171g) came from C-shaped structure **112**, along with 254g of vitrified clay, suggesting small scale smithing.

Romano-British

3.6.3 The Romano-British pottery amounted to 1285 sherds weighing 38457g. The assemblage, mainly Late Roman, is fragmentary and moderately abraded with an average sherd weight of 30g. Relatively high for a Roman assemblage the data may be slightly skewed by the inclusion of large storage jars in the assemblage and is indicative of low levels of post-depositional disturbance (such as middening or ploughing) suggesting the majority of the sherds were found near to or within their primary site of deposition. Surfaces are generally well preserved with evidence of both use and wear still surviving. The majority of the assemblage is of a utilitarian nature with locally produced domestic coarse wares, specifically shell tempered wares, accounting for the majority of the assemblage. Most of the sherds are undiagnostic. Where specific forms can be identified vessels consist primarily of jars, specifically large, thick walled storage jars and narrow, medium mouthed jars. Soot residues have survived well on the surface of many of these sherds and would suggest that a number of the vessels were used for cooking as well as small scale storage. Other forms identified include a number of dishes, platters and bowls. A large quantity of fine wares were identified and are generally Late Roman in date. The majority of this material consists of Nene Valley colour coated fine wares (NVCC). A relatively large number of mortarium sherds were identified within the assemblage, the majority of which can be associated with the industries of the Lower Nene Valley.

3.6.4 A total of 200 fragments of ceramic building material (CBM), weighing 14606g, was recovered. The majority is Romano-British tile (126 fragments, weighing 13682g) comprising bonding tile, roof tile (*tegula, imbrices*) and flue-tiles. Some of this may have been present in the structures through secondary reuse, e.g. builders may have utilised broken CBM in their foundations (as post-packing). However, a substantial aisled building could support a tiled roof. Whether aisled building **450** was substantial enough for such a roof is difficult to say.

3.6.5 Metalwork on the site included 27 Roman coins, 25 of which belonged to the late 3rd century and 4th century periods of high coin loss, but with greater emphasis on the late 3rd century. The general copper-alloy small finds include a penannular brooch dating to the 1st century AD, of a type that appears in both pre- and post-conquest contexts, and a cable armlet dating to the 3rd-4th century. Another Roman item is a small narrow bar with broken terminals that may be the shaft of a nail-cleaner. Most of the iron objects are nails or nail shank fragments. The other iron objects principally consist of a variety of fittings and several tools. The fittings are part of a split-spike loop, a possible pintle (used to hang gates, shutters and similar structural items), and a ring that appears to have a projection on one side, which may be a terret from the harness of a driven animal. The tools consist of a knife, the tip from a second knife, a rake tine and a fibre-processing spike from a wool-comb. The rake tine provides evidence for grassland and

the cutting of hay for fodder. The fibre-processing spike points to the keeping of a flock of sheep and/or goats in which a substantial proportion of the animals were allowed to reach maturity so that they would provide wool, instead of slaughtering most in their first or second year for milk and meat.

3.7 Environmental Summary (see Appendix C)

3.7.1 Faunal remains from the site comprised 242 fragments weighing a total of 34.6kg. Of these, 139 were identifiable to species (57.4% of the total sample). Cattle are the dominant taxon in both Late Iron Age and Late Roman phases, along with smaller numbers of sheep/goat and pig remains. There is little change in the domestic mammal distribution between the two periods aside from a slight decrease in Roman sheep relative to cattle. Horse is a minor taxon in both phases albeit more prevalent in the Roman assemblage. Rare instances of dog and a single instance of red deer remains are present in the Iron Age and Roman assemblages respectively. The faunal assemblage conforms to the picture of a self sustaining settlement in which cattle were the most prevalent species, with both this species and sheep being exploited for meat, milk, skins and breeding.

3.7.2 Bulk soil samples were taken from across the excavation area. The samples taken from the later Iron Age deposits contain a background scatter of occasional single charred cereal grains and chaff elements that could actually be intrusive material from later deposits. Charred plant remains were recovered from most of the samples from the later Roman deposits and are dominated by chaff elements, in particular glume bases and rachis fragments along with cereal grains and occasional weed seeds. The charred cereal assemblage comprises a moderate density of wheat (*Triticum sp*.) grains of which the hulled wheat, spelt (*T. spelta*) predominates and seems to have been processed on a large scale. The assemblages are particularly unusual as no other cereal crops were noted and neither were any other food crops such as peas and beans. It seems that hulled wheat is being exclusively utilised on this site, perhaps for specialised economic reasons. The area in the northern part of the site contains a significant amount of redeposited burnt crop processing waste in the form of chaff. This by-product of the cereal harvest is generally under-represented in the archaeobotanical record as the majority will be lost through the processes of threshing and winnowing prior to total decomposition unless it is preserved by either carbonisation or waterlogging. Thus, the presence of crop processing waste does not provide evidence for the actual location of crop processing activities, rather it is evidence of the disposal of the material after it has subsequently become carbonised through combustion. The fine chaff elements would have been excellent kindling for both domestic and industrial hearths. The majority of the charred weed seeds were from segetal plants that are commonly found growing on cultivated ground amongst crops.

4 Discussion and Conclusions

4.1 Late Iron Age

4.1.1 The Late Iron Age activity consisted of agricultural and small-scale industrial land-use, outside the main core of the settlement, which was located to the south-west in the NA area. This general impression can be gained by looking at a plan of both the NA area and the current site (Fig. 7). To the west, the Late Iron Age activity is more dense with a number of ditched enclosures and dwellings. To the east, in the current area, the activity is much more limited and the number of features far fewer. This difference is also borne out in the quality and quantity of finds, illustrated best by the ceramics. In the NA area there were over 600 sherds of Middle – Late Iron Age pottery weighing nearly 12kg. It was in a good, unabraded condition and a number of features produced large joining sherds or substantially complete vessels (McSloy in Brown 2008, 22 – 25). In the current area there were fewer than 200 sherds, weighing 1.6kg. The assemblage was fragmentary with the majority of sherds being significantly abraded.

4.1.2 It seems that the area to the east may have been associated, at least partially, with specialised activities that took place outside of the main settlement. This is evidenced by the square enclosure formed by ditches **103** and **579**, and by the C-shaped structure (**112**) within it. Both of these features require closer examination. The square enclosure enclosed an area of approximately 20m x 20m. It was linked to the principal boundary (**630**) by means of ditch **108**, which may itself have formed part of an enclosure that remained mainly under the baulk between the two areas. The dimensions of the square enclosure ditches varied considerably; narrower and shallower on the eastern side, wider and deeper to the west. Ditch **579** in particular was much smaller and may have been added separately. Apart from ditch **579**, the fills within the enclosure ditch were very sterile and had accumulated naturally. The lack of artefacts and ecofacts or any hint of a domestic presence makes it unlikely there was ever a dwelling in the enclosure. It may have been constructed to house the metalworking area within, although it seems rather elaborate for such a purpose. It is most likely that the enclosure was constructed for a particular agricultural purpose and later served a secondary use as somewhere to house a small and probably short-lived metalworking area. The square enclosure at Yaxley bears a striking resemblance to an example excavated at Werrington, only 10km to the north-west (Mackreth 1988). The square enclosure at Werrington was of a similar date – Middle-Late Iron Age – although somewhat larger, measuring approximately 70m x 70m. It contained a roundhouse gully and more intriguingly a penannular ditch, which had a diameter of 15m and measured up to 2m wide and 0.7m deep (*ibid*, 68). These dimensions are much larger than those for a typical roundhouse eaves drip gully although the excavators were confident that it did relate to a structure, with the large ditch possibly providing spoil for a raised platform within, something which may have been necessary due to the dampness of the site.

4.1.3 C-shaped structure **112** measured 4m in diameter north to south and was open to the west. The fills contained a small assemblage of metalworking waste (171g) including a fragment of smithy base, along with 254g of vitrified clay. Hammerscale (tiny droplets of waste) was also retrieved from the environmental samples. One piece of the vitrified clay had very small spots of copper on its surface. This has been interpreted as the remains of a crucible for alloying copper. There is not enough evidence to suggest metalworking on any great scale but the concentration of waste within the C-shaped structure and its unusual form suggest this feature could have been a small shelter for

light industrial activity. The structure appears to have been too small to be a roofed structure with an eaves drip gully but rather could have been a ditch and bank acting as a form of windbreak or shelter, enclosing a hearth or furnace. Such activity is not rare on Late Iron Age sites, as extended family groups or small communities would have been self sufficient in specialisms such as metalwork and pottery. At Fengate, 5km to the north, small fragments of crucibles, furnace lining and slag indicative of small-scale metal working were recovered from four different sites (Craddock, in Pryor 1984, 174).

4.1.4 Environmental evidence was generally poor with only single cereal grains or glume bases being preserved in a few locations. The faunal remains were predominantly cattle (27 fragments), with a small amount of sheep/goat (6 fragments) and individual instances of horse and pig. Three dog mandibles were also recovered.

4.1.5 In its wider landscape, the Late Iron Age farmstead is the largest yet discovered across the higher ground on which Yaxley is located. The farmstead will not have existed in isolation; there are likely to be others nearby (either currently unexcavated or already built on) to complement those known slightly further away, at Haddon (Hinman 2003), Orton Longueville (Mackreth 2001) and Fengate (Pryor 1984). The principal boundary ditch which extends through the NA area and the current site (ditch **230**) was orientated east-north-east to west-south-west, which means it was following the highest ground. The modern road, Broadway (which is itself probably pre-medieval in origin), follows the same course as the principal boundary, although it is impossible to say on current knowledge how far the boundary continues.

4.2 Late Roman

Settlement form and chronology

4.2.1 Whereas the NA area continued in use from the Late Iron Age into the Early Roman period, the current area was only re-occupied in the Late Roman period. This is probably because the Early Roman farmstead evolved directly out of the Late Iron Age one, the focus of which was to the west. It was only in the Late Roman period that the farmstead once again expanded into a previously unused plot of land.

4.2.2 The evidence of Late Roman land use was far more varied than that for the Late Iron Age, and, unlike the Iron Age activity, was as extensive in the current excavation area as it was to the west (Fig. 7). The Late Roman evidence can be summarised as a nucleated farmstead with strong evidence for occupation in the form of structures and large finds assemblages of the sort associated with nearby habitation.

4.2.3 The main feature of the first Late Roman phase (Phase 2) was a series of small enclosures, formed by moderately sized ditches, which conformed to the pattern of those in the NA area. None of the enclosure ditches were massive, the largest was ditch **146**, which measured up to 2m wide and 0.65m deep. The other larger ditches (**155**, **173** and **280**) were of a similar size. Truncation of features due to medieval and modern ploughing will have reduced the dimensions of the ditches to some extent. With this extra width and depth the ditches would have been large enough to firstly provide material for accompanying banks and to aid drainage on the heavy clay. Many of the ditches appeared to have infilled in two stages. Initially, probably while the ditches were in use, there was natural accumulation of soil, characterised by leached, sterile clays. The upper fills were typically darker and more organic with higher frequencies of finds, charcoal and in some places, crop processing waste. These represent the remains of

rubbish accumulated or middened when the site was occupied, which found its way into the ditches through manuring or simply being dumped in.

4.2.4 The form and layout is typical of Romano-British field systems both in the Fenland area and in the region. Local examples of nucleated Roman settlements formed by ditched enclosures include Haddon (Hinman 2003) and Orton Hall Farm (Mackreth 1996). The extensive Fenland Survey (e.g. Hall 1992) recognised that much of the area was colonised in the Roman period. This was partly due to marine regression which led to former wetland becoming available for settlement. On the higher ground or 'islands' however, some settlements originated in the Late Iron Age (as at Yaxley) before gradually encroaching on former wet areas during the 1st and 2nd centuries AD.

4.2.5 In terms of regional patterns, a recent survey of all known Roman rural settlements in England states that enclosed settlements were the most common form recorded in East Anglia, particularly in Cambridgeshire, but linear systems of settlement were also common, especially in the river valleys of the west of the region and in the Fenland (Taylor 2007). Linear-system settlements are described in the survey as being 'defined by complex groups of enclosures, compounds or other spaces defined by multiple boundaries' *(ibid.*, 19). The farmstead at Yaxley Broadway can be included in this group.

4.2.6 In the later phase (Phase 3) the farmstead became more open. A long running linear ditch, **261**, truncated several enclosures from the previous phase, suggesting the ditches had mostly gone out of use. Two L-shaped ditches (**402** and **507**) may have been part of a set of enclosures extending to the west. The main elements of the latest phase were two beamslot structures (**218**=**233** and **273**) and an aisled barn (**450**). Assigning these structures to this phase was difficult as the ceramic evidence was the same mixture of dates as in the previous phase. However, beamslot **233** clearly truncated ditch **155**, while beamslot **273** was aligned closely with ditch **261**. There was a similar problem with the aisled barn; it could easily have been constructed in the earlier phase. It seems unlikely, however, that the fairly large enclosure ditches would have been excavated at the same time that a substantial aisled structure was built in the narrow space between the ditches. It seems more likely that the space in the enclosure was utilised to build the structure once the ditches had at least partially gone out of use.

The tank

4.2.7 An unusual feature of Phase 2 was the square tank (**555**) and its re-cut (**467**). The earlier version measured 2.4m long, 2m wide and 0.37m deep. The beamslots in the base indicate that the tank was wood lined, or at least partially wood lined; it is possible that lead could also have been used to form part of the structure. The feature has been interpreted as a tank for holding water, which would either have enabled a specific task to be carried out in the tank or would have provided a controlled supply of water to somewhere presumably close by. One possible function of the tank could relate to malting, with the tank being employed to soak the grains, which encourages germination. The best parallel for the Yaxley tank was found at Stebbing Green, Essex, and was interpreted as being used for malting (Bedwin and Bedwin 1999). The tank at Stebbing Green was rectangular with steep sides and a flat base, measuring 4.1m long, 2.7m wide and 0.24m deep (*ibid*, 8). Preserved in the base of the tank was a series of dark, parallel stains, the remains of timbers that once formed part of the structure. The feature was interpreted as a tank for soaking grain – crucially there was convincing supporting evidence such as a number of sprouted wheat grains, an adjacent building

with a floor surface that could have been used as a malting floor and flue bases which may have been the remains of hearths used for parching (*ibid*, 23). Although assigned to Phase 3, the adjacent aisled barn at Yaxley could have provided the space for a malting floor. Unfortunately, the environmental evidence from the tank and the barn, while indicative of large-scale crop processing happening somewhere nearby, did not provide any direct evidence for malting activities.

4.2.8 An alternative function for the tank could have related to the processing of animal skins, either for tanning or dyeing. Another very similar example found at Bob's Wood, Hinchingbrooke, near Huntingdon, consisted of a rectangular tank measuring 3m by at least 4m. It was slightly shallower than the Yaxley example but again had parallel beamslots in the base and vertical sides (Hinman 2005). The tank appeared to have been fed by a channel from a nearby balancing pond and was associated with a smithy area. No evidence of a gully or channel was found at Yaxley but a number of Phase 3 features did truncate the tank which means additional evidence may have been lost. Also, the feature was on the edge of the excavation area; there may be features directly to the north which would have helped with interpretation of the tank. There are known examples of Roman water tanks in Britain but these are much larger, stone-lined cisterns found in towns or forts. However, the principle is still the same; the tank could have been used for holding water and there may have been a way of controlling the flow of water from the tank to somewhere close by. Although a lot of charred cereals, chaff and charcoal were recovered from the tank, similar crop processing remains were found in many of the features across the site and is probably not indicative of the feature's primary use.

Structures

4.2.9 The two beamslot structures could have been domestic in function although they are more likely to have been agricultural out-buildings. Structure **273** was the best preserved of the two and gave an idea of the length of the structure; 8m north to south.

4.2.10 The aisled barn is a well recognised element of Romano-British farmsteads. The example at Yaxley has been interpreted as an aisled structure due to the size of the postholes/post-pads and the spacing between them. No structural remains for the aisles survived but it is likely they would have jutted out towards the line of the earlier ditches, giving the structure a width of up to 9m. The length of the building was 8m although it is likely the structure extended beyond the north-west limit of excavation. The postholes themselves did not contain anything that aided in determining a function for the building. However, large quantities of crop processing waste were found in many features nearby, suggesting it could have been used for the processing and storage of grain and/or other crops. The presence of sixteen fragments of millstone in pit **408** could be interpreted as further evidence to support this theory. However, the millstone had been heavily reused as a rotational grindstone for sharpening blades and Shaffrey (Appendix B.6) believes that the reuse, coupled with the lack of a suitable watersource for a mill, points to a use for something other than grinding grain for flour.

4.2.11 There are a number of known Romano-British aisled buildings in the local area. At Haddon, two aisled barns dating to the 2nd century AD were discovered (Hinman 2003). The larger of the two measured 15m x 12m including the aisles. As at Yaxley the main roof support was provided by a series of circular stone-packed postholes arranged in pairs within the interior of the barn, while the northern wall was defined by a series of post-pads. Phosphate analysis demonstrated a marked increase in the concentration of phosphate within the building, consistent with animal use *(ibid,* 34).

The smaller barn measured 13m x 8m and only survived through a series of clay-packed postholes of varying size. A recently discovered aisled barn at Bretton Way, Peterborough, dated to the late 3rd – early 4th centuries, similar to that at Yaxley (Pickstone 2011). The barn was formed by seven pairs of large postholes, between 2.2 and 2.4m apart, encompassing an area 21m in length by 8.5m in width. There was no packing material in the postholes although one did contain a large stone post-pad. There was little to determine the function of the building. The most impressive local example is Orton Hall Farm, where a series of four 3rd century barns was uncovered (Mackreth 1996). The smallest measured approximately 16m x 9m while the largest measured 25m x 13m including aisles. They were again defined by parallel rows of stone filled postholes or post-pads while two of the barns, including the largest, had surviving evidence of the stone-built exterior walls. Two of the barns contained stone-built features described as driers, thought to relate to malting, and other features interpreted as 'vat bases', leading to the idea that there was a brewery on the site.

4.2.12 The above examples illustrate the variety in design and function of Romano-British aisled barns close to Yaxley. All share some characteristic with the example at Broadway, which clearly places it in this class of agricultural building.

The economy of the Late Roman farmstead

4.2.13 The economy of the farmstead during the Late Roman period was geared towards agricultural production, almost certainly a mixed farming economy. The faunal remains reveal that cattle were by far the dominant species, followed by sheep/goat and some horse. This correlates with the NA area where quantities of cattle bone increased from the Early Roman period, which may be indicative of intensification of production. Both cattle and sheep/goat would have provided a source of meat and also secondary products such as milk, cheese and wool. A fibre processing spike from a wool comb (SF 44) in ditch **261** points to the keeping of sheep/goat in which a substantial proportion of the animals were allowed to reach maturity so that they would provide wool. The Roman cattle bone assemblage suggests culling between 3 – 5 years of age. This age range indicates the cattle were being used for secondary products and then culled for meat as they reached maturity. Although they could have been used as draught animals at this age it is likely they would have been kept alive much longer than the age of the individuals suggest.

4.2.14 The size of the enclosures and paddocks at Yaxley do not appear suitable for any large-scale livestock management. The open pasture was likely to have been lower down the side of the valley, possibly to the north. The enclosures within the excavation area were probably used for arable or other crops, or for specific activities such as processing of crops.

4.2.15 Evidence for arable farming and crop processing came from the abundant charred remains of processing waste found in many of the Late Roman features. The assemblage is dominated by spelt wheat, which seems to have been processed on a large scale. Hulled wheats such as spelt require several stages of processing, which leave different forms of waste in the archaeological record. Some of the different stages are represented at Yaxley. Elements of chaff, such as glume bases and large weed seeds, which is produced from parching and/or pounding the spikelet to release the grain, was present in many samples. Also present in significant amounts is burnt chaff, which had a secondary use as kindling for both domestic and industrial hearths. Several samples contained detached embryos and cereal sprouts, which could be interpreted as evidence for malting and the production of beer. A drying oven or floor

would have been required to dry the malted grain and although no such feature was found the large quantities of burnt chaff could have provided fuel for this purpose. Although the crop processing waste was distributed across the Late Roman features, the biggest concentration was around the aisled barn, which could have been used for specific activities such as processing of grain and malting, as well as storage.

4.2.16 Another indicator for crop processing on a small scale is the presence of quern stones, a number of which appeared at Yaxley during the Late Roman period. Their presence is significant when paired with the evidence for crop processing and indicates that grain was being ground on the site or somewhere very nearby. A further 13 quern fragments were found by Northampton Archaeology (NA) during excavations of the adjacent site (Hylton *et al.* 2008). In addition to the quern stones, 16 fragments of an upper millstone (SF 58) were found in pit **408**. Millstones represent processing on a much larger scale and are not common on rural Roman sites. Significantly though, the millstone had been heavily reused as a rotational grindstone for sharpening blades. While it is difficult to be certain, this secondary use probably represents what it was employed for on site, rather than as a millstone, as there is no obvious or suitable water source here.

4.3 Significance

4.3.1 The significance of the current excavation area cannot be assessed without taking into account the area excavated by Northamptonshire Archaeology. The two areas form one site, a rural settlement or farmstead that originated during the later Iron Age and continued in use until the end of the Roman period. The findings contribute to regional studies of late prehistoric and Roman landscapes, specifically in the archaeologically rich area of the Fenland and the hinterland of *Durobrivae*.

Appendix A. Context Inventory

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
100	0	layer	top soil		0.35		
101	0	layer	sub soil		0.3		
102	0		Master number			102	1
103	103	cut	ditch	1.5	0.58	103	1
104	103	fill	ditch	0.78	0.24	103	1
105	103	fill	ditch	0.62	0.3	103	1
106	108	fill	ditch	1.8	0.15	108	1
107	108	fill	ditch	1.4	0.5	108	1
108	108	cut	ditch	1.8	0.7	108	1
109	103	fill	ditch	1.5	0.27	103	1
110	112	fill	gully		0.12	112	1
111	112	fill	gully		0.12	112	1
112	112	cut	gully	0.66	0.12	112	1
113	115	fill	gully	0.3	0.24	112	1
114	115	fill	gully	0.6	0.3	112	1
115	115	cut	gully	0.6	0.3	112	1
116	116	cut	pit	0.85	0.54	112	1
117	116	fill	pit		0.5	112	1
118	119	fill	pit	0.6	0.25	119	1
119	119	cut	pit	0.6	0.25	119	1
120	122	fill	gully	0.7	0.2	112	1
121	122	fill	gully	0.8	0.3	112	1
122	122	cut	gully	0.8	0.3	112	1
123	125	fill	gully		0.19	112	1
124	125	fill	gully		0.3	112	1
125	125	cut	gully	0.8	0.3	112	1
126	130	fill	ditch	1.53	0.3	103	1
127	130	fill	ditch	1.35	0.3	103	1
128	130	fill	ditch	0.63	0.14	103	1
129	130	fill	ditch	0.38	0.09	103	1
130	130	cut	ditch	1.74	0.64	103	1
131	131	cut	ditch	1.65	0.67	103	1
132	131	fill	ditch	1.08	0.15	103	1
133	131	fill	ditch	1.5	0.3	103	1
134	136	fill	ditch	1	0.15	103	1
135	136	fill	ditch	1	0.1	103	1
136	136	cut	ditch	1	0.25	103	1
137	138	fill	gully	0.8	0.19	112	1
138	138	cut	gully	0.8	0.19	112	1
139	140	fill	gully	0.7	0.14	112	1
140	140	cut	gully	0.7	0.14	112	1

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
141	131	fill	ditch	1.65	0.22	103	1
142	143	fill	post hole	0.3	0.15	143	1
143	143	cut	post hole	0.3	0.15	143	1
144	145	fill	natural	0.7	0.15	472	
145	145	cut	natural	0.7	0.15	472	
146	146	cut	ditch	2	0.54	146	2
147	146	fill	ditch	1.7	0.29	146	2
148	146	fill	ditch	2	0.25	146	2
149	150	fill	gully		0.3	150	1
150	150	cut	gully	0.55	0.3	150	1
151	152	fill	gully		0.09	150	1
152	152	cut	gully	0.4	0.09	150	1
153	155	fill	ditch	2	0.3	155	2
154	155	fill	ditch	2	0.3	155	2
155	155	cut	ditch	2	0.6	155	2
156	158	fill	gully	0.3	0.24	112	1
157	158	fill	gully	0.6	0.3	112	1
158	158	cut	gully	0.6	0.3	112	1
159	161	fill	gully	0.3	0.24	112	1
160	161	fill	gully	0.6	0.3	112	1
161	161	cut	gully	0.6	0.3	112	1
162	164	fill	gully	0.3	0.24	112	1
163	164	fill	gully	0.6	0.3	112	1
164	164	cut	gully	0.6	0.3	112	1
165	166	fill	gully		0.22	112	1
166	166	cut	gully	0.86	0.22	112	1
167	168	fill	gully		0.19	112	1
168	168	cut	gully	0.8	0.19	112	1
169	173	fill	ditch	0.18	0.2	173	2
170	173	fill	ditch	1.41	0.32	173	2
171	173	fill	ditch	1.2	0.17	173	2
172	173	fill	ditch	0.99	0.13	173	2
173	173	cut	ditch	1.59	0.6	173	2
174	176	fill	ditch	0.88	0.33	176	2
175	176	fill	ditch	0.79	0.2	176	2
176	176	cut	ditch	1.1	0.52	176	2
177	178	fill	ditch	0.78	0.46	155	2
178	178	cut	ditch	0.78	0.46	155	2
179	180	fill	ditch	0.66	0.3	180	2
180	180	cut	ditch	0.66	0.3	180	2
181	181	cut	ditch	1.95	0.65	146	2
182	181	fill	ditch	1.15	0.28	146	2
183	181	fill	ditch	1.95	0.4	146	2
184	185	fill	furrow	1.12	0.12	185	4

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
185	185	cut	furrow	1.12	0.12	185	4
186	187	fill	ditch	1.4	0.46	173	2
187	187	cut	ditch	1.4	1.46	173	2
188	192	fill	ditch	0.54	0.18	176	2
189	192	fill	ditch	1.14	0.18	176	2
190	192	fill	ditch	0.6	0.1	176	2
191	192	fill	ditch	1.36	0.16	176	2
192	192	cut	ditch	2.7	0.6	176	2
193	194	fill	gully		0.15	150	1
194	194	cut	gully	0.5	0.15	150	1
195	196	fill	gully		0.11	150	1
196	196	cut	gully	0.4	0.11	150	1
197	199	fill	ditch	1.3	0.25	155	2
198	199	fill	ditch	1.3	0.1	155	2
199	199	cut	ditch	1.3	0.35	155	2
200	201	fill	ditch	0.8	0.2	155	2
201	201	cut	ditch	0.9	0.2	155	2
202	203	fill	pit		0.4	112	1
203	203	cut	pit	0.4	0.4	112	1
204	205	fill	furrow	1	0.1	185	4
205	205	cut	furrow	1	0.1	185	4
206	207	fill	furrow	1.4	0.1	185	4
207	207	cut	furrow	1.4	0.1	185	4
208	208	cut	furrow	1.6	0.17	185	4
209	208	fill	furrow	1.6	0.17	185	4
210	211	fill	ditch		0.55	103	1
211	211	cut	ditch	1.6	0.76	103	1
212	211	fill	ditch		0.63	103	1
213	211	fill	ditch		0.76	103	1
214	0		Master number				
215	216	fill	post hole	0.5	0.1	216	3
216	216	cut	post hole	0.5	0.1	216	3
217	218	fill	beamslot	0.25	0.05	218	3
218	218	cut	beamslot	0.25	0.05	218	3
219	219	cut	ditch	1.64	0.73	103	1
220	219	fill	ditch	0.46	0.1	103	1
221	219	fill	ditch	1.64	0.38	103	1
222	223	fill	evaluation slot			173	2
223	223	cut	evaluation slot			173	2
224	226	fill	ditch	1.5	0.23	173	2
225	226	fill	ditch	1.39	0.25	173	2
226	226	cut	ditch	1.5	0.45	173	2
227	229	fill	ditch	0.57	0.29	176	2
228	229	fill	ditch	0.38	0.2	176	2

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
229	229	cut	ditch	0.77	0.29	176	2
230	231	fill	ditch	1.71	0.28	180	2
231	231	cut	ditch	1.71	0.28	180	2
232	233	fill	beamslot	0.25	0.05	233	3
233	233	cut	beamslot	0.25	0.05	233	3
234	235	fill	beamslot	0.3	0.05	233	3
235	235	cut	beamslot	0.3	0.05	233	3
236	237	fill	beamslot	0.4	0.15	233	3
237	237	cut	beamslot	0.4	0.15	233	3
238	239	fill	post hole	0.2	0.1	233	3
239	239	cut	post hole	0.2	0.1	233	3
240	219	fill	ditch	1.12	0.26	103	1
241	241	cut	furrow	1.38	0.29	185	4
242	241	fill	furrow	1.38	0.29	185	4
243	244	fill	furrow	1.78	0.12	185	4
244	244	cut	furrow	1.78	0.12	185	4
245	246	fill	beamslot	0.25	0.1	218	3
246	246	cut	beamslot	0.25	0.1	218	3
247	248	fill	beamslot	0.25	0.07	233	3
248	248	cut	beamslot	0.25	0.07	233	3
249	250	fill	beamslot	0.25	0.1	233	3
250	250	cut	beamslot	0.25	0.1	233	3
251	252	fill	beamslot	0.25	0.1	233	3
252	252	cut	beamslot	0.25	0.1	233	3
253	254	fill	furrow	1.3	0.09	185	4
254	254	cut	furrow	1.3	0.09	185	4
255	257	fill	ditch	0.38	0.21	257	
256	257	fill	ditch	0.28	0.09	257	
257	257	cut	ditch	0.42	0.24	257	
258	261	fill	ditch	0.72	0.31	261	3
259	261	fill	ditch	0.43	0.1	261	3
260	261	fill	ditch	0.32	0.15	261	3
261	261	cut	ditch	0.8	0.33	261	3
262	263	fill	ditch	0.6	0.3	257	
263	263	cut	ditch	0.6	0.3	257	
264	265	fill	ditch	0.8	0.2	261	3
265	265	cut	ditch	0.8	0.2	261	3
266	267	fill	ditch	0.9	0.25	261	3
267	267	cut	ditch	0.9	0.25	261	3
268	268	cut	ditch	1.75	0.77	103	1
269	268	fill	ditch	1.2	0.37	103	1
270	268	fill	ditch	1.75	0.41	103	1
271	271	cut	furrow	2	0.2	185	4
272	271	fill	furrow	2	0.2	185	4

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
273	0		Master number			273	3
274	275	fill	ditch	1.3	0.36	173	2
275	275	cut	ditch	1.3	0.36	173	2
276	278	fill	ditch	0.45	0.22	278	2
277	278	fill	ditch	2.1	0.13	278	2
278	278	cut	ditch	2.1	0.43	278	2
279	280	fill	ditch	1.1	0.3	280	2
280	280	cut	ditch	1.1	0.3	280	2
281	282	fill	ditch	1.6	0.35	282	2
282	282	cut	ditch	1.6	0.35	282	2
283	284	fill	beamslot	0.39	0.17	273	3
284	284	cut	beamslot	0.39	0.17	273	3
285	286	fill	beamslot	0.39	0.21	273	3
286	286	cut	beamslot	0.39	0.21	273	3
287	288	fill	beamslot	0.48	0.19	273	3
288	288	cut	beamslot	0.48	0.19	273	3
289	290	fill	beamslot	0.44	0.12	273	3
290	290	cut	beamslot	0.44	0.12	273	3
291	292	fill	beamslot	0.49	0.11	273	3
292	292	cut	beamslot	0.49	0.11	273	3
293	294	fill	beamslot	0.49	0.11	273	3
294	294	cut	beamslot	0.49	0.11	273	3
295	296	fill	beamslot	0.49	0.12	273	3
296	296	cut	beamslot	0.49	0.12	273	3
297	298	fill	beamslot	0.41	0.13	273	3
298	298	cut	beamslot	0.41	0.13	273	3
299	300	fill	beamslot	0.52	0.14	273	3
300	300	cut	beamslot	0.52	0.14	273	3
301	302	fill	beamslot	0.52	0.19	273	3
302	302	cut	beamslot	0.52	0.19	273	3
303	304	fill	beamslot	0.59	0.2	273	3
304	304	cut	beamslot	0.59	0.2	273	3
305	306	fill	beamslot	0.59	0.2	273	3
306	306	cut	beamslot	0.59	0.2	273	3
307	308	fill	beamslot	0.25	0.07	273	3
308	308	cut	beamslot	0.25	0.07	273	3
309	310	fill	beamslot	0.2	0.03	273	3
310	310	cut	beamslot	0.2	0.03	273	3
311	311	cut	ditch	3.36	1.02	103	1
312	312	cut	ditch	1.05	0.39	312	2
313	312	fill	ditch	1.05	0.25	312	2
314	311	fill	ditch		0.61	103	1
315	311	fill	ditch		0.8	103	1
316	311	fill	ditch			103	1

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
317	311	fill	ditch		1.02	103	1
318	319	fill	ditch	0.8	0.32	319	2
319	319	cut	ditch	0.8	0.32	319	2
320	322	fill	ditch		0.32	278	2
321	322	fill	ditch		0.3	278	2
322	322	cut	ditch	1.8	0.46	278	2
323	325	fill	ditch	1.05	0.13	173	2
324	325	fill	ditch		0.4	173	2
325	325	cut	ditch	1.3	0.5	173	2
326	328	fill	ditch	1.2	0.25	328	2
327	328	fill	ditch	0.6	0.1	328	2
328	328	cut	ditch	1.2	0.35	328	2
329	312	fill	ditch	0.66	0.14	312	2
330	325	fill	ditch		0.1	173	2
331	332	fill	furrow	2.5	0.1	185	4
332	332	cut	furrow	2.5	0.1	185	4
333	335	fill	ditch	0.87	0.21	261	3
334	335	fill	ditch	0.6	0.08	261	3
335	335	cut	ditch	0.87	0.28	261	3
336	338	fill	ditch	0.72	0.3	261	3
337	338	fill	ditch	0.55	0.15	261	3
338	338	cut	ditch	0.92	0.34	261	3
339	340	fill	ditch	0.85	0.19	261	3
340	340	cut	ditch	0.85	0.19	261	3
341	342	fill	ditch	0.37	0.02	261	3
342	342	cut	ditch	0.37	0.02	261	3
343	0		Master number			261	3
344	345	fill	ditch		0.2	155	2
345	345	cut	ditch	1.1	0.29	155	2
346	347	fill	post hole	0.27	0.12	347	3
347	347	cut	post hole	0.27	0.12	347	3
348	345	fill	ditch		0.29	155	2
349	350	fill	ditch	1.03	0.8	350	2
350	350	cut	ditch	1.03	0.8	350	2
351	353	fill	ditch	1.6	0.35	173	2
352	353	fill	ditch	1	0.2	173	2
353	353	cut	ditch	1.6	0.52	173	2
354	392	fill	ditch	1.9	0.45	146	2
355	356	fill	ditch		0.24	356	2
356	356	cut	ditch	0.6	0.24	356	2
357	358	fill	pit	0.5	0.15	358	2
358	358	cut	pit	0.5	0.15	358	2
359	361	fill	ditch		0.22	155	2
360	361	fill	ditch		0.27	155	2

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
361	361	cut	ditch	0.9	0.27	155	2
362	363	fill	ditch	0.7	0.5	280	2
363	363	cut	ditch	0.7	0.5	280	2
364	282	fill	ditch	0.8	0.1	282	2
365	365	cut	post hole	1.02	0.21	450	3
366	365	fill	post hole	1.02	0.21	450	3
367	367	cut	post hole	1.75	0.26	450	3
368	367	fill	post hole	1.75	0.26	450	3
369	369	cut	post hole	1	0.28	450	3
370	369	fill	post hole	1	0.28	450	3
371	371	cut	post hole	0.79	0.18	450	3
372	371	fill	post hole	0.79	0.18	450	3
373	373	cut	post hole	0.84	0.4	450	3
374	373	fill	post hole	0.84	0.4	450	3
375	375	cut	post hole	0.86	0.28	450	3
376	375	fill	post hole	0.86	0.28	450	3
377	380	fill	ditch		0.12	155	2
378	380	fill	ditch		0.07	155	2
380	380	cut	ditch	1	0.12	155	2
381	383	fill	pit	1.26	0.23	383	2
382	383	fill	pit	0.72	0.11	383	2
383	383	cut	pit	1.3	0.26	383	2
384	386	fill	pit	0.57	0.18	383	2
385	386	fill	pit	0.66	0.12	383	2
386	386	cut	pit	0.66	0.3	383	2
387	340	fill	ditch	0.48	0.1	261	3
388	389	fill	ditch	0.39	0.23	389	2
389	389	cut	ditch	0.39	0.23	389	2
390	0	layer		1.26	0.08	0	
391	392	fill	ditch	1	0.2	146	2
392	392	cut	ditch	1.9	0.6	146	2
393	394	fill	ditch	1.1	0.5	282	2
394	394	cut	ditch	1.1	0.5	282	2
395	396	fill	ditch	0.3	0.08	396	2
396	396	cut	ditch	0.3	0.08	396	2
397	398	fill	ditch	0.28	0.06	396	2
398	398	cut	ditch	0.28	0.06	396	2
399	407	fill	ditch	1.2	0.2	173	2
400	402	fill	ditch	1.23	0.23	402	3
401	402	fill	ditch	1.16	0.21	402	3
402	402	cut	ditch	1.44	0.38	402	3
403	404	fill	ditch	1.2	0.4	282	2
404	404	cut	ditch	1.4	0.5	282	2
405	404	fill	ditch	1.4	0.5	282	2

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
406	407	fill	ditch	1.2	0.3	173	2
407	407	cut	ditch	1.2	0.5	173	2
408	408	cut	pit	1.2	0.22	408	3
409	408	fill	pit	1.2	0.1	408	3
410	411	fill	pit	1.6	0.08	408	3
411	411	cut	pit	1.6	0.08	408	3
412	414	fill	ditch		0.19	356	2
413	414	fill	ditch		0.24	356	2
414	414	cut	ditch	1.5	0.26	356	2
415	416	fill	ditch		0.18	416	2
416	416	cut	ditch	1.7	0.18	416	2
417	418	fill	ditch			418	2
418	418	cut	ditch	0.34	0.1	418	2
419	420	fill	ditch	0.99	0.4	402	3
420	420	cut	ditch	1.51	0.4	402	3
421	422	fill	ditch	0.55	0.2	328	2
422	422	cut	ditch	0.55	0.2	328	2
423	424	fill	ditch	0.8	0.3	424	2
424	424	cut	ditch	0.8	0.3	424	2
425	420	fill	ditch	1.39	0.09	402	3
426	420	fill	ditch	1.38	0.16	402	3
427	429	fill	ditch	0.94	0.2	173	2
428	429	fill	ditch		0.2	173	2
429	429	cut	ditch	1.26	0.4	173	2
430	431	fill	ditch	0.8	0.35	312	2
431	431	cut	ditch	0.8	0.35	312	2
432	433	fill	ditch	0.5	0.4	433	2
433	433	cut	ditch	0.5	0.4	433	2
434	435	fill	ditch	1.3	0.5	435	2
435	435	cut	ditch	1.3	0.5	435	2
436	437	fill	post hole	0.25	0.05	437	2
437	437	cut	post hole	0.25	0.05	437	2
438	439	fill	ditch		0.16	439	2
439	439	cut	ditch	0.6	0.16	439	2
440	441	fill	ditch		0.18	441	2
441	441	cut	ditch	0.55	0.19	441	2
442	443	fill	ditch		0.2	441	2
443	443	cut	ditch	0.45	0.2	441	2
444	446	fill	ditch	0.5	0.13	280	2
445	446	fill	ditch	1	0.15	280	2
446	446	cut	ditch	0.9	0.28	280	2
447	367	fill	post hole			450	3
448	449	fill	ditch	0.5	0.05	449	
449	449	cut	ditch	0.5	0.05	449	

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
450	0		Master number			450	3
451	365	fill	post hole			450	3
452	371	fill	post hole			450	3
453	373	fill	post hole			450	3
454	369	fill	post hole			450	3
455	375	fill	post hole			450	3
456	0		Master number			0	
457	458	fill	ditch	0.45	0.07	458	3
458	458	cut	ditch	0.45	0.07	458	3
459	462	fill	ditch	0.79	0.17	402	3
460	462	fill	ditch	0.7	0.12	402	3
461	462	fill	ditch	0.5	0.1	402	3
462	462	cut	ditch	0.94	0.31	402	3
463	464	fill	ditch	0.3	0.07	458	3
464	464	cut	ditch	0.3	0.07	458	3
465	467	fill	pit		0.16	467	2
466	467	fill	pit		0.36	467	2
467	467	cut	pit		0.36	467	2
468	469	fill	pit	1.06	0.25	408	3
469	469	cut	pit	1.06	0.25	408	3
470	408	fill	pit	1.1	0.12	408	3
471	472	fill	natural			472	
472	472	cut	natural	0.7	0.27	472	
473	474	fill	post hole		0.21	474	2
474	474	cut	post hole	0.5	0.21	474	2
475	476	fill	post hole	0.42	0.18	474	2
476	476	cut	post hole	0.42	0.18	474	2
477	478	fill	post hole		0.12	474	2
478	478	cut	post hole	0.25	0.12	474	2
479	480	fill	ditch	0.5	0.1	480	2
480	480	cut	ditch	0.5	0.1	480	2
481	482	fill	ditch	1	0.3	328	2
482	482	cut	ditch	1	0.45	328	2
483	484	fill	ditch	0.8	0.4	257	
484	484	cut	ditch	0.8	0.4	257	
485	486	fill	pit	1.6	0.3	486	2
486	486	cut	pit	1.6	0.3	486	2
487	482	fill	ditch	1	0.4	328	2
488	489	fill	ditch	0.4	0.1	480	2
489	489	cut	ditch	0.4	0.1	480	2
490	491	fill	ditch		0.23	491	2
491	491	cut	ditch	0.8	0.23	491	2
492	493	fill	beamslot	0.15	0.05	555	2
493	493	cut	beamslot	0.15	0.05	555	2

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
494	495	fill	beamslot	0.13	0.05	555	2
495	495	cut	beamslot	0.13	0.05	555	2
496	497	fill	beamslot	0.14	0.05	555	2
497	497	cut	beamslot	0.14	0.05	555	2
498	499	fill	beamslot	0.15	0.05	555	2
499	499	cut	beamslot	0.15	0.05	555	2
500	501	fill	ditch	0.4	0.1	501	
501	501	cut	ditch	0.4	0.1	501	
502	502	cut	ditch	1.35	0.24	280	2
503	502	fill	ditch	1.05	0.16	280	2
504	502	fill	ditch	1.05	0.14	280	2
505	502	fill	ditch	1.16	0.22	280	2
506	507	fill	ditch	0.79	0.21	507	3
507	507	cut	ditch	0.79	0.33	507	3
508	508	cut	ditch	0.9	0.5	508	2
509	508	fill	ditch	0.9	0.5	508	2
510	510	cut	ditch	1	0.22	510	3
511	510	fill	ditch	1	0.22	510	3
512	512	cut	ditch	1.2	0.62	146	2
513	512	fill	ditch	0.9	0.1	146	2
514	512	fill	ditch	0.1	0.05	146	2
515	512	fill	ditch	1	0.4	146	2
516	512	fill	ditch	0.6	0.15	146	2
517	512	fill	ditch	0.8	0.3	146	2
518	519	fill	drain	0.6	0.45	257	
519	519	cut	ditch	0.6	0.45	257	
520	522	fill	ditch	2.4	0.4	328	2
521	522	fill	ditch	2.4	0.55	328	2
522	522	cut	ditch	2.4	0.55	328	2
523	524	fill	ditch	0.9	0.25	282	2
524	524	cut	ditch	0.9	0.25	282	2
525	526	fill	post hole	0.29	0.09	526	2
526	526	cut	post hole	0.29	0.09	526	2
527	528	fill	post hole	0.26	0.06	528	2
528	528	cut	post hole	0.26	0.06	528	2
529	507	fill	ditch	0.42	0.1	507	3
530	531	fill	ditch	0.65	0.14	458	3
531	531	cut	ditch	0.65	0.14	458	3
532	534	fill	ditch	0.62	0.08	402	3
533	534	fill	ditch	0.74	0.06	402	3
534	534	cut	ditch	0.74	0.7	402	3
535	536	fill	ditch	0.71	0.16	402	3
536	536	cut	ditch	0.71	0.24	402	3
537	538	fill	ditch	0.26	0.2	261	3

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
538	538	cut	ditch	0.26	0.2	261	3
539	540	fill	furrow	2.8	0.18	185	4
540	540	cut	furrow	2.8	0.18	185	4
541	536	fill	ditch	0.44	0.08	402	3
542	544	fill	ditch		0.39	507	3
543	544	fill	ditch		0.48	507	3
544	544	cut	ditch	1.22	0.48	507	3
545	547	fill	ditch		0.31	491	2
546	547	fill	ditch		0.42	491	2
547	547	cut	ditch	1	0.42	491	2
548	549	fill	ditch	0.4	0.5	424	2
549	549	cut	ditch	0.4	0.5	424	2
550	551	fill	ditch	0.9	0.5	328	2
551	551	cut	ditch	0.8	0.5	328	2
552	553	fill	natural	0.6	0.25	472	
553	553	cut	natural	0.6	0.25	472	
554	555	fill	pit	2	0.37	555	2
555	555	cut	pit	2	0.37	555	2
556	557	fill	ditch	0.68	0.37	328	2
557	557	cut	ditch	0.68	0.37	328	2
558	558	cut	pit	0.7	0.23	558	3
559	561	fill	ditch	1.26	0.19	561	3
560	561	fill	ditch	1	0.15	561	3
561	561	cut	ditch	1.26	0.33	561	3
562	563	fill	ditch	0.92	0.25	563	2
563	563	cut	ditch	0.92	0.25	563	2
564	564	cut	pit	1.4	0.6	564	2
565	564	fill	pit	1.1	0.3	564	2
566	564	fill	pit	1	0.3	564	2
567	564	fill	pit	1	0.2	564	2
568	568	cut	pit	0.9	0.2	564	2
569	568	fill	pit	0.9	0.2	564	2
570	571	fill	natural	0.5	0.2	472	
571	571	cut	natural	0.5	0.2	472	
572	573	fill	ditch		0.58	563	2
573	573	cut	ditch	0.7	0.58	563	2
574	575	fill	ditch	0.98	0.29	507	3
575	575	cut	ditch	1.03	0.41	507	3
576	577	fill	ditch	0.46	0.21	458	3
577	577	cut	ditch	0.46	0.16	458	3
578	579	fill	ditch		0.44	579	1
579	579	cut	ditch	0.6	0.44	579	1
580	575	fill	ditch	0.82	0.15	507	3
581	582	fill	pit	0.55	0.09	582	2

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
582	582	cut	pit	0.55	0.09	582	2
583	583	cut	ditch	0.7	0.3	508	2
584	583	fill	ditch	0.7	0.3	508	2
585	588	fill	ditch		0.22	579	1
586	588	fill	ditch		0.4	579	1
587	588	fill	ditch		0.6	579	1
588	588	cut	ditch	1.2	0.6	579	1
589	590	fill	natural	0.8	0.24	472	
590	590	cut	natural	0.8	0.24	472	
592	593	fill	ditch	0.67	0.46	579	1
593	593	cut	ditch	0.67	0.46	579	1
594	0		void			0	
595	0		void			0	
596	598	fill	ditch		0.35	579	1
597	599	fill	ditch	0.7	0.17	579	1
598	598	cut	ditch	0.8	0.35	579	1
599	599	cut	ditch	0.7	0.52	579	1
600	601	fill	natural		0.21	472	
601	601	cut	natural	0.8	0.21	472	
602	603	fill	post hole		0.1	603	1
603	603	cut	post hole	0.25	0.16	603	1
604	604	cut	ditch	0.7	0.3	604	1
605	604	fill	ditch	0.7	0.3	604	1
606	603	fill	post hole		0.06	603	1
607	609	fill	ditch		0.26	604	1
608	609	fill	ditch		0.38	604	1
609	609	cut	ditch	1.4	0.38	604	1
610	611	fill	pit	1.1	0.23	611	1
611	611	cut	pit	1.45	0.68	611	1
612	613	fill	pit	1.1	0.26	611	1
613	613	cut	pit	1.15	0.45	611	1
614	611	fill	pit	0.8	0.28	611	1
615	611	fill	pit	0.8	0.28	611	1
616	613	fill	pit	0.55	0.19	611	1
617	617	cut	ditch	2.4	0.82	617	1
618	617	fill	ditch	2.4	0.2	617	1
619	617	fill	ditch	2.4	0.3	617	1
620	617	fill	ditch	2.4	0.32	617	1
621	558	fill	pit	0.7	0.12	558	3
622	558	fill	pit	0.7	0.12	558	3
623	558	fill	pit	0.42	0.05	558	3
624	625	fill	ditch	0.25	0.18	402	3
625	625	cut	ditch	0.25	0.18	402	3
626	627	fill	ditch		0.28	604	1

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
627	627	cut	ditch	0.8	0.34	604	1
628	627	fill	ditch		0.34	604	1
629	630	fill	ditch	2.68	0.52	630	1
630	630	cut	ditch	2.68	0.85	630	1
631	632	fill	ditch	1.52	0.44	632	1
632	632	cut	ditch	1.52	0.44	632	1
633	635	fill	ditch	2	0.34	617	1
634	635	fill	ditch	2.4	0.5	617	1
635	635	cut	ditch	2.4	0.86	617	1
636	637	fill	ditch	1	0.24	637	1
637	637	cut	ditch	1	0.24	637	1
638	630	fill	ditch	1.21	0.4	630	1
639	639	cut	ditch	1.78	0.54	630	1
640	639	fill	ditch	1.78	0.54	630	1
641	641	cut	ditch	0.4	0.2	632	1
642	641	fill	ditch	0.4	0.2	632	1
643	643	cut	ditch	2.2	0.4	630	1
644	643	fill	ditch	1	0.2	630	1
645	643	fill	ditch	1.8	0.1	630	1
646	650	fill	ditch		0.61	630	1
647	653	fill	ditch		0.6	653	1
648	650	fill	ditch		0.8	630	1
649	650	fill	ditch		0.87	630	1
650	650	cut	ditch	2.2	0.87	630	1
651	652	fill	ditch		0.26	632	1
652	652	cut	ditch	0.6	0.26	632	1
653	653	cut	ditch	0.51	0.6	653	1
654	654	cut	ditch	3.4	0.93	617	1
655	654	fill	ditch	3.4	0.18	617	1
656	654	fill	ditch	3.3	0.68	617	1
657	657	cut	ditch	1.3	0.31	637	1
658	657	fill	ditch	1.3	0.31	637	1
659	660	fill	ditch		0.45	660	1
660	660	cut	ditch	0.8	0.45	660	1
661	662	fill	ditch	1.46	0.67	630	1
662	662	cut	ditch	1.46	0.67	630	1
663	664	fill	ditch	0.83	0.29	632	1
664	664	cut	ditch	1.3	0.7	632	1
665	666	fill	ditch	1.02	0.43	653	1
666	666	cut	ditch	1.21	1.06	653	1
667	0		Master number			667	1
668	669	fill	gully	0.25	0.1	667	1
669	669	cut	gully	0.25	0.1	667	1
670	671	fill	gully	0.25	0.1	667	1

Context	Cut	Category	Feature Type	Width	Depth	Group	Phase
671	671	cut	gully	0.25	0.1	667	1
672	673	fill	gully	0.38	0.16	667	1
673	673	cut	gully	0.38	0.16	667	1
674	675	fill	gully	0.29	0.16	667	1
675	675	cut	gully	0.29	0.16	667	1
676	677	fill	gully	0.3	0.08	667	1
677	677	cut	gully	0.3	0.08	667	1
678	679	fill	gully	0.3	0.08	667	1
679	679	cut	gully	0.3	0.08	667	1
680	681	fill	gully	0.31	0.13	667	1
681	681	cut	gully	0.31	0.13	667	1
682	683	fill	ditch	0.8	0.4	683	1
683	683	cut	ditch	0.8	0.4	683	1
684	685	fill	ditch	0.8	0.38	683	1
685	685	cut	ditch	0.8	0.38	683	1
686	664	fill	ditch	1.3	0.39	632	1
687	666	fill	ditch	1.21	0.4	653	1
688	688	cut	ditch	0.61	0.48	660	1
689	688	fill	ditch	0.61	0.22	660	1
690	688	fill	ditch	0.43	0.27	660	1
691	691	cut	ditch	0.31	0.23	693	1
692	691	fill	ditch	0.31	0.23	693	1
693	693	cut	ditch	0.67	0.2	693	1
694	693	fill	ditch	0.67	0.2	693	1
695	696	fill	natural		0.16	472	
696	696	cut	natural	0.62	0.16	472	
697	697	cut	ditch	0.8	0.28	697	1
698	697	fill	ditch	0.8	0.28	697	1
699	700	fill	natural	0.75	0.24	472	
700	700	cut	natural	0.75	0.24	472	
702	703	fill	ditch	0.98	0.5	282	2
703	703	cut	ditch	0.98	0.5	282	2
704	705	fill	ditch		0.2	705	1
705	705	cut	ditch	0.41	0.2	705	1
706		finds unit	ditch			173	2
707	708	fill	ditch	0.84	0.2	660	1
708	708	cut	ditch	0.84	0.2	660	1
709	710	fill	ditch	1.49	0.58	617	1
710	710	cut	ditch	1.49	0.58	617	1
711		finds unit	ditch			146	2
712		finds unit	ditch			146	2
713		finds unit	ditch			261	3
714		finds unit	ditch			155	2

Appendix B. Finds Reports

B.1 Iron Age Pottery

By Matt Brudenell

Introduction and methodology

B.1.1 A total of 151 sherds of later Iron Age pottery was recovered from the excavations, weighing 1623g. The pottery was retrieved from 32 excavated contexts, mainly related to the Iron Age sub-rectangular enclosure and its associated C-shaped structure (feature groups **103**, **108**, **570** and **112**), and the series of boundaries ditches and compounds to the south (features groups **617**, **630**, **632**, **660**, **683**, **693**). With the exception of two wheel-made 'Belgic-related' sherds (33g), all the pottery is handmade. In terms of fabric and form, most of these handmade wares have affinities to the region's long-lived Middle Iron Age-type potting tradition (*c*. 350 BC – AD 50), though present throughout a number of major feature groups are a small number of diagnostic Late Iron Age sherds (combed and grog tempered sherds dated *c*. 50 BC – AD 50). In general the ceramics are in a fair to good condition with few thoroughly abraded sherds, or fragments completely leached of their calcareous inclusions. The mean sherd weight for the assemblage is 10.7g, with 70% of sherds being classified as small (<4cm in size), 28% as medium (4-8cm in size) and 2% large (>8cm).

B.1.2 This report provides a quantified description of the assemblage and a discussion of its date and affinities. The ceramics have been fully recorded following the recommendations laid out by the Prehistoric Ceramics Research Group (PCRG 1997). Sherds weighing less than 1g were recorded as crumbs (14g in total), and were excluded from the analysis which follows.

Assemblage characteristics – fabric, forms and surface treatment

B.1.3 As with most Iron Age pottery groups from the lower Nene Valley, the assemblage is dominated by local fossiliferous shelly wares (derived from the region's Jurassic clays) which varied along a spectrum of coarse to fine depending on the grade, density and sorting of the inclusions. Although 12 fabric types were ultimately distinguished – divisible into five basic groups (Table 1) – by weight 91% of the pottery has shell as the sole inclusion, with coarseware fabric S1 accounting for 60% of the material alone. The remaining 9% of the pottery is shared amongst minor fabric groups with a combination of shell and sand (5%), grog (3%), sand (2%), and shell and grog (<1%). These are also likely to have been made with locally sourced clays and inclusions, though it is possible that some of the grog-tempered ceramics, particularly the wheel-made sherds, were acquired from elsewhere.

Fabric type	Fabric group	No./wt. sherds	% of fabric (by wt.)	No./wt. sherds burnished	No./wt. sherds scored	No./wt sherds combed	No./wt. sherds wheel-made	MNV
G1	Grog	1/31	1.9	1/31	-	-	1/31	-
G2	Grog	2/6	0.4	-	-	-	1/2	-
G3	Grog	3/12	0.7	-	-	-	-	-
Q1	Sand	3/5	0.3	-	-	-	-	-
Q2	Sand	2/19	1.2	-	-	-	-	1
S	Shell	12/16	1.0	-	-	-	-	-
S1	Shell	73/993	61.2	1/4	5/180	8/134	-	9
S2	Shell	39/383	23.6	-	4-32	1/13	-	7
S3	Shell	8/78	4.8	-	-	-	-	3
SG1	Shell and grog	1/2	0.1	-	-	-	-	-
SQ1	Shell and sand	2/42	2.6	-	-	-	-	-
SQ2	Shell and sand	5/36	2.2	-	-	-	-	-
TOTAL	-	*151/1623*	*100.0*	*2/35*	*9/212*	*9/147*	*2/33*	*20*

Table 1: Assemblage quantification by fabric. MNV = minimum number of vessels calculated as the total number of different rims and bases identified (14 different vessel rims, six different bases).

Fabric series:

B.1.4 Shell fabrics

S1: Moderate to common medium to very coarse poorly sorted shell (mainly 2-5mm)

S2: Moderate to abundant medium shell (mainly 1-2mm)

S3: Sparse to common fine shell and/or shell flecks (mainly <1mm)

S: Generic category for sherds with shell inclusions too small to assign to a numbered fabric group

B.1.5 Shell and sand fabrics

SQ1: Moderate to common coarse to very coarse shell (mainly 2-5m) and moderate to common quartz sand

SQ2: Sparse to moderate shell flecks (mainly <1mm) and sparse to common quartz sand

B.1.6 Shell and grog

SG1: Moderate to common fine shell (<1mm) and sparse fine grog (<1mm)

B.1.7 Grog fabrics

G1: Moderate to common fine grog (<1.5mm).

G2: Sparse fine grog (<1.5mm) and sparse quartz sand

G3: Sparse fine grog (<1mm) and sparse calcareous flecks (possibly shell <1mm)

B.1.8 Sand fabrics

Q1: Rare to sparse sand and sparse fine voids (<1mm)

Q2: Common quartz sand, moderate fine calcareous flecks (<1mm) and rare gravel detritus

B.1.9 Owing to the small size of the assemblage, it was only possible to reconstruct the partial profile of eight vessel forms (Table 2) - instances where single sherds or groups of refitting sherds retained portions of both the rim and shoulder. Those identified comprise a series of ovoid and slightly globular jars, most having weakly defined shoulders and short necks terminating in either rounded, flat-topped or externally thickened rims: handmade forms typical of the Middle/Later Iron Age in Cambridgeshire, and paralleled in the adjacent excavations (McSloy in Brown 2008). Although no wheel-made forms were positively identified, the larger of the two wheel-made sherds in the assemblages (31g, from context 578, enclosure ditch **579**) belonged to the shoulder and lower wall of a sharply carinated vessel, possibly part of a tazza. In total, just under half of the vessels (eight out of 20) in the assemblage could be assigned to form, including 13 sherds (325g) representing 9% of the pottery by sherd count of 20% by weight.

Form	Description	MNV	No./wt. (g) sherds	Rim diameter range (cm)
A	Slack shouldered jars with a short upright neck	3	3/182	15-22
B	Constricted jars with a pronounced rounded shoulder	1	2/17	-
D	Slack shouldered jars with an outwardly flared neck	2*	5/79	12
K	Ovoid jars with no neck	1	2/7	-
L	Ovoid jars with no neck, but a distinct rim zone separate from the wall of the vessel	1	1/40	-
TOTAL	-	*8*	*13/325*	*12-22*

*Table 2: Quantification of vessel forms. The lettered form series relate to that developed by JD Hill which is widely employed in northern East Anglia. The descriptions are a simplified version of those fully published by Hill and Horne (2003, 174) and Hill and Braddock (2006, 155-156). MNV = minimum number of vessels. * denotes a vessel with carbonized residue; in this instance sooting of the exterior of one Form D jar (47g).*

B.1.10 Surface treatment and decoration is relatively rare, with only two sherds burnished (35g), and two rims ornamented: one with fingernail impressions on the rip-top (one sherd, 6g), the other with tool marks on the same zone (one sherd, 8g). Scoring and combing is found on the body of a total of 18 sherds (359g) from a maximum of 11 vessels. The scored sherds (9 sherds, 212g) reflect affinities with the East Midlands Scored Ware style-zone (which extends along the lower Nene Valley (Elsdon 1992; Knight 2002). In this region, Middle/later Iron Age scoring frequencies typically fall within the c. 20-50% range by weight (Webley in Evans *et al*. forthcoming), though the figures here are slightly lower at 13%. These may be skewed by the small size of the pottery group, or could otherwise reflect the site's chronology, since scoring frequencies tend to fall at the end of the Iron Age. There are certainly indications that activity may be quite late in the Iron Age sequence at Yaxley, as there are a few wheel-made sherds, grog-tempered fabrics, and also, the presence of combed handmade vessels. The latter are thought to be appear after *c.* 50 BC, with nine such sherds (147g) recorded in the assemblage.

Summary of key pottery groups

B.1.11 With the exception of four residual sherds from three Roman features (21g), all the pottery derived from stratified Iron Age contexts, mostly associated with enclosure ditches, boundaries and gullies.

B.1.12 The sub-rectangular enclosure and its adjoining ditches (feature groups **103**, **108** and **579**): The series of enclosure features yielded the largest group of pottery, and comprised 56 sherds weighing 853g. This represents 37% of the overall assemblage by

sherd count or 53% by weight. Although the group is mainly composed of plain handmade body sherds, contexts 578, 599 and 597 yielded all the site's Late Iron Age combed wares. Context 578 also contains a grog tempered wheel-made sherd: the shoulder/lower wall of a carinated vessel, possibly a tazza. The other handmade sherds – two of which were lightly scored (196g) - were all shell and shell-and-sand tempered and included the partial profile of four slack-shouldered jars (three form A, one form D) and three further vessel rims (one of which was tool-impressed on the rim-top).

B.1.13 The C-shaped structure (feature group **112**): The second largest sub-assemblage derived from contexts associated with the C-shaped structure, housed within the interior of the sub-rectangular enclosure. This yielded a total of 52 sherds weighing 347g, representing 34% of the overall assemblage by sherd count or 21% by weight. All the pottery is handmade, but includes one grog-tempered sherd (4g) of Late Iron Age attribution. Based on the total number of different rims and bases recovered, this group comprises a minimum of eight vessels. Amongst these are the partial profiles of one form B jar and one form L jar, plus a rim decorated with fingernail impressions on the rim-top. The only other decorated pieces are two scored body sherds (28g).

B.1.14 The southern boundary ditch and associated compounds (feature groups **617**, **630**, **660**, **683**, **693**): The series of re-cut ditches which made up the boundary line and its associated compounds yielded a total 35 sherds weighing 334g. This represents 23% of overall assemblage by sherd count or 21% by weight. Diagnostic feature sherds are again rare, but include a base and three different vessel rims – one, the partial profile of a scored form D slack-shouldered jar from context 618, ditch **617**. In total, five sherds (55g) in this group are scored. The sub-assemblage also contains four Late Iron Age grog-tempered wares from context 635, ditch **617**, one of which is part of a cordoned wheel-made vessel (2g).

Discussion

B.1.15 Apart from a small assemblage of combed shelly wares, a few grog-tempered sherds, and two fragments of wheel-made Late Iron Age 'Belgic-related' pottery, all the Iron Age ceramics recovered from the site are of classic Middle/later Iron Age-type, dominated by shelly wares and slack-shouldered jars with affinities to the Scored Ware style-zone of the East Midlands. This handmade Middle/later Iron Age potting tradition was extremely conservative, and in the lower Nene Valley around Peterborough, the vessel forms, fabrics, and methods of surface treatment typical of this tradition changed very little over the course of its currency between the mid 4th century BC and mid 1st century AD. However, possibly as early as mid 1st century BC, a limited range of grog tempered wheel-made ceramics allied to the 'Belgic' tradition began to filter into the repertoire of pots used on settlement sites in the area. The adoption of this new ceramic technology was a protracted and piecemeal process, which only began to accelerate in the decades immediately prior to the Roman Conquest. At Yaxley, as on other sites around Peterborough, there was no wholesale replacement of the handmade potting traditions, but a gradual decline relative to the importance of wheel-made ceramics. In short, there was a period of perhaps a century at most when traditional Iron Age potting practices persisted alongside the gradual introduction of wheel-made wares, combed handmade jars and imitations of typical 'Belgic-related' vessels: the 'normal' diagnostic ceramics of the Late Iron Age.

B.1.16 Judging by the distribution of these Late Iron wares at Yaxley, the bulk of the assemblage detailed here probably falls within this century-long period when these two ceramic traditions co-existed. Some of the Middle/later Iron Age-type wares could be

slightly earlier in origin, though given the fairly 'pristine' character of the site plan, it is hard to imagine that these pre-date the 1st century BC. Moreover, the low frequency of wheel-made pottery, and the absence of any wheel-made sandy wares in particular, suggests that the deposition of ceramics was likely to have ceased before the Roman Conquest. In terms of local parallels, the pottery had broad affinities to the published ceramics from Cat's Water, Fengate (Pryor 1984), Werrington (Mackreth 1988), and some of the early phase pottery from Haddon (Rollo in French 1994; Evans *et al*. in Hinman 2003) and Monument 97, Orton Longueville (Mackreth 2001).

B.2 Romano-British Pottery

By Stephen Wadeson

Introduction

B.2.1 A relatively small assemblage of Romano-British pottery (mid 2nd to early 5th century), totalling 1287 sherds, weighing 38.475kg, with an Estimated Vessel Equivalent (EVE) of 19.63 vessels was recovered during the excavation. Primarily later Roman in date the assemblage was recovered from a total of 131 stratified deposits with the majority, *c.* 87% (by weight) of the assemblage, recovered from ditches (Table 3) thought to be the remains of Roman field systems associated with a small farmstead.

B.2.2 Most of the assemblage is fragmentary and moderately abraded with an average sherd weight of *c.* 30g. Relatively high for a Roman assemblage the data however may be slightly skewed by the inclusion of large storage jars, primarily shell tempered wares, in the assemblage and is indicative of low levels of post-depositional disturbance (such as middening or ploughing) suggesting the majority of the sherds were found near to or within their primary site of deposition. Surfaces are generally well preserved with evidence of both use and wear still surviving.

Feature type	Sherds	Sherds (%)	Weight (kg)	Weight (%)	EVE
Ditch	1098	85.31	33.620	87.38	18.19
Pit	98	7.61	2.235	5.81	0.87
Beam Slot	35	2.72	1.617	4.20	0.00
Post Hole	32	2.49	0.512	1.33	0.16
Natural	18	1.40	0.364	0.95	0.41
Layer	1	0.08	0.070	0.18	0.00
Evaluation Slot	2	0.16	0.036	0.09	0.00
Furrow	3	0.23	0.021	0.05	0.00
Total	**1287**	**100.00**	**38.475**	**100.00**	**19.63**

Table 3: Romano-British pottery quantified by feature type.

Methodology

B.2.3 The assemblage was examined in accordance with the guidelines set down by the Study Group for Roman Pottery (Webster 1976; Darling 2004; Willis 2004). The total assemblage was studied and a preliminary catalogue was prepared. The sherds were examined using a magnifying lens (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types present. The fabric codes (primarily used in the archive) are descriptive and abbreviated by the main letters of the title (Sandy grey ware = SGW); vessel form was also recorded.

B.2.4 All sherds have been counted, classified and weighed to the nearest whole gram. Decoration and abrasion were also noted and a spot date has been provided for each individual sherd and context. Both fabric and form are paralleled with published examples to demonstrate the character of the Romano-British assemblage.

B.2.5 The excavation was carried out by hand and selection made through standard sampling strategies on a feature by feature basis. There are not expected to be any inherent biases. Where bulk samples have been processed for environmental and artefactual remains, there has also been some recovery of pottery. These are small quantities of abraded sherds and have not been quantified, and serious bias is not likely to result.

B.2.6 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

The Romano-British Pottery

Coarse Wares

B.2.7 The majority of the assemblage (*c*. 61% by weight) is of a utilitarian nature with locally produced domestic coarse wares, specifically shell tempered wares, Nene Valley grey wares and Sandy grey wares dominating the recovered assemblage (Table 4).

B.2.8 The most common fabric recovered is Shell tempered wares accounting for *c*. 50% by weight (5.57 EVE) of the assemblage and are typical in most domestic assemblages in this region throughout the Roman period. While the majority of these wares are unsourced it is likely that the range of forms produced and their place of production changed throughout the Roman period.

B.2.9 It is most likely that much of Roman shell tempered wares were produced in the Lower Nene Valley between the 1st and 3rd centuries (Perrin 1996). Later vessels identified have included wares of the type manufactured at the Harrold kilns in Bedfordshire (Brown 1994). However, currently it is not known how much of the later Roman pottery was manufactured at Harrold and how much was supplied by as yet unlocated local sites in the Nene Valley (Perrin and Webster 1990, 37).

B.2.10 It should be noted that while no specific vessel forms were identified, a significant number of fragments from thick walled storage jars (type 4.14) were recorded within the assemblage accounting for approximately one third of the shell tempered wares by weight (34%). Due to its durability, this type of jar successfully remained in production alongside finer vessel types throughout the Roman period.

B.2.11 While the majority of the sherds are undiagnostic where specific forms could be identified a limited range of utilitarian forms were recorded. Vessels types present include medium mouthed globular jars with a short neck and squared rim (type 4.5.2), out turned and underscored rim (type 4.5.3), rolled rim (type 4.5) as well as unspecific jar forms (type 4.0 and 5.0). Soot residues have survived well on the surface of many of these sherds and would suggest that a number of the vessels were used for cooking as well as small scale storage (especially lid seated vessels) of food and drink. Decoration is common on jars with simple, single or multiple horizontal grooves most frequently used. Other forms recovered include a limited number of dishes and/or bowls. Most likely to have been also used in a variety of kitchen related tasks these include the Black Burnished ware (BB2; Tyers 1996, 186-88) inspired straight sided dish form, with a triangular rim (type 6.18) and the thicker walled, later Roman period flanged dish variety (type 6.17).

B.2.12 The third most common fabric identified in this period is Nene Valley grey wares (Perrin 1999, 78-87) representing *c*. 13% (by weight) of the assemblage recovered (3.90 EVE). Produced between the late 2nd and early 4th centuries AD (*ibid*, 112) after which their range of forms were produced in colour coated fabrics (see below), allowing the later Roman shell tempered ware industry to flourish (see above), their manufacture established the sandy grey ware fabric as the main utilitarian ware in the region.

B.2.13 Produced in a wide range of forms the majority of the fragments consist of undiagnostic body sherds. Forms include body sherds from a flagon (type 1.0) as well as a rim fragment from a globular beaker with an everted rim (type 3.7). Jar forms identified

include both miscellaneous medium mouthed (type 4.0) and wide mouthed (type 5.0) varieties. Recovered also were examples of the high shouldered (type 4.1) medium mouthed jar as well as the wide mouthed jar with reverse 'S' profile with grooves on the neck and body (type 5.3). A single uncommon example of a narrow mouthed jar with a frilled cordon was found, with a pierced lug on the shoulder, similar in form to the narrow mouthed/medium mouthed jar (type 2.3 or 4.8).

B.2.14 The majority of forms recorded, however, consist of a number of differing dish types. These include the straight sided dish with plain rim (type 6.19 & 6.19.4), black burnished ware inspired straight sided dish with a triangular rim (type 6.18; BB2 Tyers 1996, 186-88) and the later, thicker walled dishes such as the flanged rim (type 6.17) and straight sided with plain rim (type 6.19 & 6.19.4). Other forms identified include a samian inspired dish with curving sides and out turned rim. Also present is a dish with curving sides and out turned rim (type 6.15) derived from samian form 36 and the hemispherical bowl (type 6.6), a copy of the samian form 37.

B.2.15 In addition a small but significant quantity of sandy grey wares (not assigned to source) were identified accounting for a further *c*. 10% of the assemblage retrieved (2.62 EVE). Distinct from the typical Nene Valley grey wares (*ibid* 78) they are an indication of small-scale production in the Lower Nene Valley prior to the main phase of production of the Lower Nene Valley industry (Perrin 1996, 120).

B.2.16 The majority of the sandy grey wares are abraded undiagnostic sherds, although a limited range of utilitarian forms were identified. These include the globular (type 4.5) medium mouthed jar, wide mouthed jars of unspecific (type 5.0) form and reverse 'S' profile (type 5.4), short neck and thickened rim (type 5.7) wide mouthed jars. Other grey wares identified include a beaker (type 3.0) of unspecific form as well as a single (type 6.18) straight sided, flat based dish with a thickened 'triangular' rim and the base fragment from a large storage jar (type 4.14). Other forms include both narrow mouthed jars of unspecific (type 2.0) and rolled everted rimmed (type 2.1) type.

Fine Wares

B.2.17 The second most common fabric identified within the assemblage is Nene Valley colour-coated wares (Tomber and Dore 1998, 118). Produced in the Lower Nene Valley and centred on the Roman town of Durobrivae (Water Newton) most sherds are typical of the later 3rd to 4th century AD.

B.2.18 The industry was started in the mid 2nd century AD (Tyers 1996, 173-75) by migrant workers from, or inspired by, continental manufacturing centres in Gaul and the Lower Rhineland (*ibid*, 146-48). Between the mid 2nd and 3rd centuries AD a range of fine ware beakers and flagons was produced (*ibid*, 173-75). However, during the later Roman period the industry underwent a period of radical reorganisation (Perrin 1999, 87-89) whereby less beakers were produced and more domestic jars and thick walled dishes were made. Utilitarian in nature, although colour-coated these products do not comfortably fit into the 'fine ware' category (Lyons in Hinman and Zant, in prep.).

B.2.19 Produced in the widest range of forms of any fabric recovered they represent *c*. 18% of the assemblage by weight (6.52 EVE). Introduced during the mid 2nd century, early forms include funnel necked (type 3.3), grooved (type 3.6.3), globular (type 3.7) and unspecific (type 3.0) beakers. By the end of the 2nd century flagons had been added to the repertoire with straight necked (type 1.7) and indeterminate (type 1.0) versions in use. With the demise of the Lower Nene Valley grey ware industry and subsequent reorganising of the industry, a range of jars, bowls and dishes was introduced. Jar forms were identified in limited quantities consisting primarily of both miscellaneous medium

mouthed (type 4.0) and wide mouthed (type 5.0) as well as the wide mouthed jar with a short neck and thickened rim (type 5.7) version.

B.2.20 Dishes were recovered in significant quantities; their robust nature means they have survived well within the assemblage. Most commonly identified is the straight sided dish with plain rim (type 6.19) and the flanged dishes (type 6.17, 6.17.1) In addition, a straight sided dish with a thickened 'triangular' rim (type 6.18) was also recorded. Other open forms identified, several imitating samian forms, include a hemispherical bowl (type 6.6 - imitating Dr 37), a flanged bowl (type 6.14 - imitating Dr 38) and a bowl with a flanged rim (type 6.15). Also present is a castor box container (type 6.2.2) as well as a 'coffee pot' (type 8.3) and unspecific (type 8.0) lids.

B.2.21 The majority of sherds are undiagnostic, their fragmentary nature making identification of individual vessel types difficult. The presence of Nene Valley wares, on this and other sites in the area however is due to the proximity of the site to the production centres of the Nene Valley and as a result should act as a chronological indicator for the site rather than one of status.

B.2.22 Continental imports include a relatively small amount of Samian ware with thirteen sherds (*c*. 1% by weight) identified within the assemblage, which is consistent with the pattern for Roman Britain: *c*. 1% of the sherds from rural sites (Willis 2005). Produced at Lezoux (AD 120-200), Central Gaul (Tomber and Dore 1998, 32) the majority of the vessels date from the mid to late Antonine period. Vessel types are limited and include several Drag 31/31R bowl sherds and a single rim sherd from a Drag. 36 dish.

B.2.23 In addition a single, undecorated Cologne colour coat ware sherd (Tomber and Dore 1998, 57) from a beaker was identified.

B.2.24 The majority of this assemblage is mid to late Roman in date with a small component of early Roman material. The late Romano-British character of this assemblage is confirmed by the lack of early Romano-British fine wares, this sparse use of imported wares on rural sites typical of low order settlements in the region (Evans 2003, 105).

B.2.25 Also present were a limited quantity of Oxfordshire red colour coat (0.46% by weight) and Oxfordshire white colour coat (0.15% by weight) wares (Tomber and Dore 1998, 176-7). First produced in the mid 3rd century AD many of the fine ware products of the Oxfordshire industry were imitations of later east Gaulish samian prototypes (Tyers 1996, 177-78).

B.2.26 Due to the rarity of Oxfordshire products in the assemblage only a small number of vessels were identified, these include a flanged bowl imitating samian form Drag. 38 (Young 1977, C51) and a steep wall sided mortarium derived from the samian form Drag. 45 both in a OXRCC fabric (*ibid*, C97). Both are typical imports into the Nene Valley in the 4th century. Also present was a further example of a mortarium (*ibid*, WC7) produced in a OXWCC, the only example of this fabric identified in the assemblage.

B.2.27 Late Roman in date these fabrics were imported into northern East Anglia from the end of the 3rd century, a trade which continued into the early 5th century (Lyons 2004). Oxfordshire red colour coat wares were produced by the domestic market to replace samian, which by the 3rd century AD ceased to be imported into Britain and their presence reinforces the later date of the assemblage.

Specialist Wares

B.2.28 Forms and fabrics traditionally associated with specialist wares are poorly represented within the assemblage. These include a single amphorae sherd (c.1% by weight) from a

DR20/Peacock and Williams Class 25 vessel type (Tomber and Dore 1998, 85). Produced in Baetica (Southern Spain) amphorae is typically poorly represented in low order settlements in East Anglia and its presence here may reflect the closeness of the site to the military supply route of Ermine Street (Lyons 2008).

B.2.29 Also present were fragments from NVCC flagons (type 1.0; 1.7) alongside a further three sherds from flagons or jugs. Other sherds may be present in the assemblage but may have been misidentified as jars due to the lack of diagnostic features. The presence of these sherds alongside the remains of amphora would suggest the consumption of wine was taking place at Yaxley, even if only on a small scale.

B.2.30 A relatively large number of mortarium sherds (c. 5% by weight) were identified within the assemblage. The majority of the sherds (4.8% by weight) can be associated with the products of the Lower Nene Valley. Produced in an oxidised fabric with slag trituration grits (Tomber and Dore 1998, 120) the majority of the mortarium fragments can be assigned to a specific type (7.9.1), having a reeded rim design for which this industry is well known (Lyons 2008). In addition fragments of both Oxfordshire red colour coat (Tomber and Dore 1998, 176) and Oxfordshire white colour coat (*ibid* 177) mortaria were identified in small numbers. The presence of mortaria in the assemblage may indicate that the local population were becoming more Romanized, embracing foreign cooking methods which involved the grinding of herbs and spices and the production of sauces, or simply that the community was becoming more affluent (Lyons 2008).

Fabric	Fabric Code	Sherds	Weight (kg)	Weight (%)
Shell tempered ware	STW	616	19.044	49.50
Nene Valley colour coated ware	NVCC	291	6.962	18.09
Nene Valley grey ware	NVGW	172	5.047	13.12
Sandy grey ware	SGW	128	3.745	9.73
Nene Valley oxidised ware	NVOW	32	1.936	5.03
Amphora	AMP	1	0.522	1.36
Central Gaulish samian (Lezoux)	CGSAM	13	0.408	1.06
Sandy oxidised ware	SOW	6	0.192	0.50
Oxfordshire red colour coat ware	OXRCC	7	0.178	0.46
Sandy coarse ware	SCW	1	0.142	0.37
Oxfordshire white colour coat ware	OXWCC	1	0.059	0.15
Black surfaced Horningsea grey ware	HORN R04	2	0.044	0.11
Sandy grey ware (Reduced surface)	SGW (Reduced Surface)	2	0.035	0.09
Sandy reduced ware	SRW	1	0.034	0.09
?Sandy oxidised ware	?SOW	1	0.031	0.08
Sandy grey ware (Fine)	SGW (Fine)	3	0.020	0.05
Sandy grey ware (Oxidised surface)	SGW (Oxidised Surface)	1	0.016	0.04
Grey ware (Fine) (Oxidised surface)	GW (Fine) (Oxidised Surface)	2	0.016	0.04
Sandy reduced ware (Oxidised surface)	SRW (Oxidised Surface)	1	0.014	0.04
Nene Valley cream ware	NVCW	2	0.012	0.03
Hadham/Oxfordshire red ware	HAD/OX	1	0.008	0.02
Cologne colour coated ware	KOLCC	2	0.008	0.02
Miscellaneous red ware	MISC RW	1	0.002	0.01
	Total	**1287**	**38.475**	**100**

Table 4: The Romano-British pottery quantified by period and by fabric

Discussion

B.2.31 Located on the (Jurassic shell) clay uplands of north Cambridgeshire, Yaxley lies approximately 5km to the south of Peterborough and the River Nene. The pottery was largely recovered from stratified deposits, of which the majority (c. 87%) came from ditches. Most of the Romano-British assemblage consists of locally produced products from the kilns of the lower Nene Valley, centred on the town of *Durobrivae* (Water Newton) (Howe *et al.* 1980; Perrin 1999). Evidence of local pottery production south of the River Nene in the immediate vicinity of Stilton/Yaxley is limited. It consists of kiln bars and kiln dome material (Swan 1984), while pottery kilns most probably producing shell-tempered wares were recorded to the east of Stilton and also at Haddon (Wessex Archaeology 2006; Hinman 2003). Recently, a large assemblage of pottery (6.93kg) including wasters, as well as kiln furniture (bars, brick, plates and lining) were recovered in the middle and upper fills of a ditch at the western end of Broadway, approximately 1.2km to the west of the site (Atkins 2013). Throughout the Romano-British period, local raw materials were obtained from the local shell clay beds.

B.2.32 Yaxley lies in a rural but archaeologically rich landscape, close to both Ermine Street and the River Nene; these routes formed part of a long distance trade and communication network. As Lyons suggests, this means that the local inhabitants would have been exposed to a number of native pottery traditions, while having access to a range of traded goods, including those from continental sources; these would initially have been imported for use by the army, but later became available more widely through the influence of the Nene Valley production centre (Lyons in Hinman and Zant, in prep.).

B.2.33 Typical of a utilitarian domestic assemblage recovered from low order settlements within this region (Evans 2003, 105), the majority of the Yaxley assemblage is mid to late Roman in date. It adds to the corpus of data yielded by other recent excavations in Yaxley and the general local vicinity, from which contemporary pottery has been published (McSloy 2008; Atkins 2013).

B.2.34 The later Roman character of this assemblage is confirmed by the lack of Early Roman fine wares, while the sparse use of imported wares is a further indication of the settlement's low status. The main characteristics of the assemblage are the use of local shell-tempered clays (c. 50% of the vessels) to produce utilitarian forms throughout the Romano-British period. Secondary fabrics include Nene Valley grey ware and colour-coated fabrics. Quartz-tempered fabrics form a lower proportion of the assemblage, along with other imported or traded wares.

B.2.35 As noted above, the combined use of imported and specialist wares (e.g. mortaria and flagons) suggests that at least some of the site's occupants were adopting a more Romanised method of eating and drinking and could afford good quality pottery. Continental imports include a small amount of 2nd century Central Gaulish samian, with Spanish amphorae also present in small quantities.

B.2.36 Use of Lower Nene Valley storage jars continued until the end of the 2nd century, when they were followed by a new range of shell-tempered wares. The latter include under-scored hooked rim globular jars and straight sided, flanged rim dishes. These later wares are very similar to the range of products produced at the Harrold kilns in Bedfordshire (Brown 1994). It is not yet known how much of the shell-tempered later Roman pottery was made at Harrold and how much was supplied by as yet unlocated local sources (Lyons in Hinman and Zant in prep.).The range of non-local fabrics increased at Yaxley during the Mid to Late Roman period.

B.2.37 The majority of other traded wares largely came from the massive domestic production centres that had developed by this time, most significantly the Lower Nene Valley pottery industry (Perrin 1999). From the mid 2nd century AD, this industry produced fine ware beakers and specialist white ware mortaria; these were followed by the production of grey wares throughout the 3rd century. After a massive reorganisation of the industry in the later 3rd century, large quantities of durable dishes and jars in a colour-coated fabric were produced (Perrin 1996, 87-88). These wares were supplemented by limited quantities of late Roman redwares from the Oxfordshire production centres.

B.2.38 Due to the site's proximity to the production centres of the Lower Nene Valley it is therefore unsurprising that the majority of the fine wares recovered are Nene Valley colour-coated wares; their manufacture acting to limit the availability of other, mainly domestic finewares. As a result, they act as a chronological indicator for the site rather than one of its status.

Fabric Descriptions

Amphorae *(1sherd, weighing 522g, 0 EVE. A total of 1.36% of the entire assemblage by weight)*

Self-coloured large storage vessels used for transporting luxury goods (Tyers 1996, 87; Tomber and Dore 1998, 82-113). Several different fabric and form types were found consistent with the importation of wine and olive oil.

Vessel types: Dressel 20

Cologne colour coat ware *(2 sherds, 8g, 0 EVE. A total of 0.02% of the entire assemblage by weight)*

Almost pure white fabric with a dark brown or black matt colour coat, containing sparse fine inclusions of colourless quartz, black and red iron and rare fine white mica (Tyers 1996, 146). Principally producing beakers this fabric is often difficult to distinguish from Nene Valley products when abraded.

Vessel types: 3.0

Grey ware (fine) (Oxidised surfaces) *(2 sherds, weighing 16g, 0 EVE. A total of 0.04% of the entire assemblage by weight)*

This has a dark brownish grey fabric with oxidised surfaces; it is hard with a smooth fracture and it has a smooth to soapy feel. Some of this material may be imported Gaulish grey wares (Tomber and Dore 1998, 74), however the majority is of a type sometimes referred to as 'London ware'(*ibid*, 159). This fabric was made at several centres including West Stow and Wattisfield in Suffolk, the Nene Valley, also London. This is a fine fabric used to make good quality vessels in the Early Roman period, some of the vessels copied samian and other Gaulish pot shapes.

Vessel types: none identified

Black surfaced Horningsea grey ware *(2 sherds, 44g, 0EVE. A total of 0.11% of the entire assemblage by weight)*

A reduced fabric with a dark brown core, margins and black surfaces, with abundant sand temper *c*. 0.2-0.4mm. Lucus (1997) fabric 44, produced in a range of forms mainly BB copies.

Vessel types: none identified

Misc red ware *(1 sherd, weighing 2g, 0 EVE. A total of 0.01% of the entire assemblage by weight)*

These are oxidized, normally red or orange and frequently have a reduced core and pink margins. The fabric contains well-sorted inclusions and is characterized by common fine, silver (sometimes gold) mica and common to abundant quartz. This material is not slipped. It may be a local copy of Samian and Oxfordshire wares, such as those produced at the Obelisk kilns at Harston in South Cambridgeshire (CHER 05074), between the 2nd and 4th centuries.

Vessel types: none identified

Nene Valley colour-coat *(291 sherds, weighing 6962g, 6.52 EVE. A total of 18.09% of the entire assemblage by weight)*

Pale cream-to-orange sherds with a wide range of coloured slips (Tomber and Dore 1998, 118). This assemblage contains many of the 4th century utilitarian dishes and jars, which are thicker and more substantial than the early continental-type beakers, with darker colour-coats (mainly brown and dark grey).

Vessel types: 1.0, 1.7, 3.0, 3.3, 3.6.3, 4.0, 5.0, 5.7, 6.0, 6.2.2, 6.6, 6.12.2, 6.14, 6.15, 6.17, 6.17.1, 6.18, 6.19, 8.0, 8.3, Misc Jar, Misc Jar/Bowl

Nene Valley grey ware (172 sherds, weighing 5047g, 4.16 EVE. A total of 13.12% of the entire assemblage by weight)

Pale cream-to-pale grey sherds with a grey surface (Perrin 1999, 78–87), not dissimilar to the colour-coat fabric described above. This material was first produced in the second quarter of the 2nd century, continuing throughout the 3rd century, but appears to have ceased production in the 4th century.

Vessel types: 1.0, sim 2.3, 2.0, 3.7, 4.0, 4.1, sim 4.8, 5.0, 5.3, 6.0, 6.6, 6.15, 6.17, 6.18, 6.19, 6.19.4, Misc Jar, Misc Jar/Bowl

Nene Valley oxidised ware *(32 sherds, weighing 1936g, 0.52 EVE. A total of 5.03% of the entire assemblage by weight)*

A white fabric with cream surfaces and some variation (Tomber and Dore 1998, 119). It was frequently used in the production of mortaria.

Vessel types: 7.9, 7.9.1

Oxfordshire red ware with a red colour-coat *(7 sherds, weighing 178g, 0.10 EVE. A total of 0.46% of the entire assemblage by weight)*

Oxfordshire red ware with a white colour-coat *(1 sherd, weighing 59g, 0 EVE. A total of 0.15% of the entire assemblage by weight)*

These are oxidized, normally red or orange with either a red/brown or a white slip, and frequently have a reduced core and pink margins (Tomber and Dore 1998, 176). The fabric contains well-sorted inclusions and is characterized by common fine, silver (sometimes gold) mica and common to abundant quartz. This fabric is particularly common in the late Roman period in the 4th and early 5th centuries.

Red colour coat vessel types: 6.0, 6.14, 7.7/C97

White colour coat vessel types: 7.7/WC7

Samian *(13 sherds, weighing 408g, 0.08 EVE. A total of 1.06% of the entire assemblage by weight)*

A distinctive glossy red fabric, often decorated (Tomber and Dore 1998, 25-41). A variety of southern and central Gaulish samian was recovered, of which central Gaulish was the most common.

Central Gaulish Vessel types: Drag. 18/31, Drag. 31, Drag. 31R, Drag. 36

Sandy coarse wares *(1 sherd, weighing 142g, 0 EVE. A total of 0.37% of the entire assemblage by weight)*

This is a loosely mixed sandy fabric that often presents as a sandwich ware with a variety of core and surface colours ranging from pale grey to dark brown. It is a poorly made fabric that represents low quality utilitarian vessel manufacture throughout the Roman period.

Vessel types: 4.14

Sandy grey ware *(128 sherds, weighing 3745g, 2.62 EVE. A total of 9.73% of the entire assemblage by weight)*

A light brown to dark grey fabric that contains abundant well-rounded quartz and sparse mica (Perrin 1996, 120). It is a utilitarian fabric that was used to produce most jar and bowl forms during the Roman period. The source of this material is unknown, and could originate from anywhere within a radius of twenty to thirty miles- perhaps further if water transport was available (*ibid*, 121).

Vessel types: 2.0 2.1, 3.0, 4.0, 4.5, 4.14, 5.0, 5.4, 5.7, 6.18, Misc Jar, Misc Jar/Bowl, Misc Jar/Beaker

Sandy grey ware *with Oxidised surfaces* *(1 sherd, weighing 16g, 0 EVE. A total of 0.04% of the entire assemblage by weight)*

Similar to sandy grey ware but with oxidised surfaces

Vessel types: none identified

Sandy grey ware (fine) *(3 sherds, weighing 20g, 0 EVE. A total of 0.05% of the entire assemblage by weight)*

A grey ware fabric which is similar to the Grey ware (fine) fabric described above, but the presence of more quartz means it has a less soapy texture

Vessel types: none identified

Sandy grey ware with reduced surfaces *(2 sherds, weighing 35g, 0.06 EVE. A total of 0.09% of the entire assemblage by weight)*

Similar to sandy grey ware but with reduced surfaces, often with heavily burnished surfaces

Vessel types: 6.19

Sandy oxidized ware *(6 sherds, weighing 192g, 0 EVE. A total of 0.50% of the entire assemblage by weight)*

An oxidized fabric that can vary in colour from very pale brown to creamy white, and often has sand inclusions (Andrews 1985, 94–5, OW2).

Vessel types: Misc Jar/Bowl

Sandy reduced ware (1 *sherd, weighing 34g, 0 EVE. A total of 0.09% of the entire assemblage by weight*)

A quite hard, rough fabric, very dark grey throughout, with a moderate amount of quartz and occasional fragments of flint, resulting in an irregular fracture. This sandy reduced fabric became more common towards the end of the Iron Age and continued in use as wheelmade technology was introduced. Indeed it remained in use throughout the Roman era as a tough utilitarian form.

Vessel types: 6.17.3

Sandy reduced ware with oxidised surfaces *(1 sherd, weighing 14g, 0.06 EVE. A total of 0.04% of the entire assemblage by weight)*

Similar to sandy reduced ware but with oxidised surfaces

Vessel types: 6.19

Shell-tempered ware (unsourced) *(A total of 616 sherds, weighing 19044g, 5.57 EVE. A total of 49.50% of the entire assemblage by weight)*

Most are brown-grey and are heavily tempered with fossil shell, which is a natural constituent of the clay. Where rim forms are lacking, it can be difficult to differentiate between the various possible manufacturing centres for shell-tempered wares in the Roman period. The Romanised shell tempered wares differed from their Iron Age predecessors as they do not include grog and showed signs of finer preparation (the shell is often crushed). The Lower Nene Valley was know to have been a production centre for shell-tempered storage jars (Perrin 1996, 119–20) between the late Iron Age and 3rd century AD. Early Roman shell tempered wares were known to have been produced at Bourne in Lincolnshire and Greetham in Humberside (Tomber and Dore 1998, 156), while distinctive lipped Dales ware shell tempered jars were made in the Lincolnshire area between the late 2nd and 3rd centuries. Moreover the the Harrold kilns in Bedfordshire (Tomber and Dore 1998, 115) and other unsourced sites (Tomber and Dore 1998, 212) produced rilled cooking pots in the later Roman period. However, numerous unsourced local production sites would have exploited the Jurassic shelly clay beds throughout the Roman period (Perrin 1996, 119).

Vessel types: 4.0, 4.5, 4.5.2, 4.5.3, 4.5.4, 4.14, 5.0, 6.0, 6.17, 6.18. Misc Jar, Misc Jar/Bowl

List of Forms

D.3.2 Table 5 lists the broad vessel forms found in this assemblage and their Estimated Vessel Equivalent (EVE).

Vessel Form	EVE	EVE (%)
Wide Mouth Jar	4.71	23.99
Miscellaneous Jar	3.16	16.10
Medium Mouth Jar	2.68	13.65
Flanged Rim Dish	2.20	11.21
Jar or Bowl	1.81	9.22
Plain Rim Dish	1.04	5.30
Beaker	0.90	4.58
Narrow Mouth Jar	0.71	3.62
Dish	0.52	2.65
Mortaria	0.52	2.65
Bowl	0.49	2.50
Triangular' Rim Dish	0.32	1.63
Storage Jar	0.18	0.92
Dish or Bowl	0.15	0.76
Flagon or Jug	0.12	0.61
Flagon	0.06	0.31
Jar or Beaker	0.06	0.31
Total	**19.63**	**100.00**

Table 5: List of forms

Form Descriptions and Parallels

Coarse wares

1.0 Flagons and Jugs: Miscellaneous or indeterminate

1.7 Straight narrow necked flagons (Perrin 1996, 161; Howe *et al*. 1980, 67)

2.0 Narrow mouthed jars: Miscellaneous or indeterminate

2.3 sim Narrow mouthed jar, broader, globular, thickened everted rim and frilled cordons around neck and rim (IKL: 37, 48; Scole: 166)

3.0 Beakers: Miscellaneous or indeterminate

3.3 Funnel necked indented beakers, miscellaneous or indeterminate

3.6.3 Grooved beaker (Howe *et al*. 1980, 44, 45. PKM: 0332/142, 174 0394/6-8, 52)

3.7 Globular beakers with and everted rim (Perrin 1996, 18; 62; 63; 67)

4.0 Medium mouthed jars: Miscellaneous or indeterminate

4.1 Medium mouthed jar with high shouldered profile (Scole: 1, 2, 19, 22, 44, 107; WS:209)

4.5 Medium mouthed jar with a short neck and rolled rim and globular body (Scole: 43,93, 115, 202)

4.5.2 Medium mouthed jar with a short neck and squared rim (WSF: 003, 004. RKS: 017. Scole 1993)

4.5.3 Medium mouthed jar, short neck, rolled and generally undercut rim and globular body (Rogerson 1977, 43; 93; 115;202)

4.5.4 Medium mouthed jar with a short neck, rolled rim to form a large bead (WSF: 003. HYN: 005)

4.14 Large storage vessels: Miscellaneous or indeterminate

4.8 sim	Medium mouthed jar, everted rim hollowed or with projection underneath, globular body (Perrin 1999, 59; 274; 381; 382)
5.0	Wide-mouthed jars: Miscellaneous or indeterminate
5.3	Rounded jar, reverse 'S' profile (PKM:4034/7, 0113/201-205, 4067/40: Scole: 39, 46, 94)
5.4	Rounded jar, reverse 'S' profile, one or two grooves mid body (Scole: 6, 40, 62, 66, 73, 92, 122. WS: 211, 212, 213)
5.7	Wide mouthed jar with a short neck and thickened rim (NV: 75. IKL: 46, 50, 85)
6.0	Bowl, Cup, Dish, Platter: Miscellaneous or indeterminate
6.2.2	Castor box (Howe *et al*. 1980, 89; Perrin 1996, 228; 335)
6.6	Bowl, copy of a samian form Dr. 37 (Jackson and Potter 1996, 72)
6.12.2	Bowl, copy of a samian form Dr. 31 (Howe *et al*. 1980, 80; Perrin 1999, 239)
6.14	Hemispherical bowl with a plain hooked flange, copy of samian form Dr. 38 (Howe *et al*. 1980, 83; 101)
6.15	Flanged rim dish with curving sides, out-turned rim and foot-ring base, copy of a samian form Dr. 36 ((Howe *et al*. 1980, 15; 81; Perrin 1996, 95; 96; 97; 97; 242; 243; 244)
6.17	Flanged rim, straight-sided dish with a flat base (Perrin 1996, 468; 469;483)
6.17.1	Flanged rim dish, slight bead (IKL: 16, 25. WSF: 003)
6.17.3	Flanged rim dish, plain, standard with high bead (Scole 147, 155, 181, 182, 224. (WSF: 003)
6.18	Dish, straight-sided, flat-based, thickened everted 'triangular' rim (Perrin 1996, 417; 426; 449; 453; 455)
6.19	Dish, straight sides which may be upright or angled, plain rim (Perrin 1996, 402; 403; 415; Darling and Gurney 1993, 642; 643)
6.19.4	Dish, angled sides with external groove below rim (Howe *et al.* 1980, 20; Perrin 1999, 83; 84; 85; 86)
8.0	Lids: Miscellaneous or indeterminate
8.3	'Coffee pot' lid – carinated profile and flange, to fit narrow mouthed jars (Howe *et al*. 1980, 72)

Mortarium (Tyers 1996, 116-135)

7.7	All Red Oxfordshire mortaria, (red and white colour coat)
C51	Oxfordshire red colour coat flanged bowl copying form 38 (Young 2000, 160-1, fig.59)
C97	Oxfordshire red colour coat mortarium copying samian form 45 (Young 2000, 173, fig.67)
WC7	Oxfordshire white colour coat mortarium copying M22 (Young 2000, 122, fig.38)
7.9	All Nene Valley mortarium
7.9.1	A Nene Valley mortarium with slightly angled reeded rim, usually with three grooves. The bead is substantial and often square in section (Howe *et al.* 1980, 102)

Samian (Tyers 1996, 105-116)

Dr. 18/31	A shallow bowl, with a very slightly curved wall, (the division between the wall and the floor is apparent), while the floor rises noticeably in the centre.

Dr. 31	A shallow bowl with a curved wall and beaded rim, the division between the wall and the floor is apparent.
Dr. 31R	A shallow bowl with a curved wall and beaded rim, the division between the floor and wall is vestigial, although marked by a slight ledge.
Dr. 36	A dish with curved walls and over hanging rim, trailed leaves are applied on the rim.

Amphorae (Tyers 1996, 88-91)

DR 20	A large globular form (principally olive oil containers) with two handles and thickened, rounded or angular rim, concave internally.

B.3 The Small Finds

By Nina Crummy

The assemblage

B.3.1 Dress accessories form a considerable proportion of the assemblage, but, considering the main period of occupation involved, they are not numerous. Female-gendered objects are often absent from rural sites, but here at least three of the pieces – two hairpins and part of an armlet – are elements of female dress, although only the armlet can be considered as jewellery.

B.3.2 The earliest item is a copper-alloy penannular brooch from Phase 2 (Late Roman) pit **486** (SF 50). An example of Fowler's Type C (1960, 152), with the terminals rolled up in the opposite plane to the hoop, its size and round-section hoop point to a date in the 1st century AD (Fowler 1983, 19; Mackreth 2011, 207). It may be residual from Period 1, but the absence of any other obviously residual metalwork from that period argues rather for curation or survival in use (although see a glass bottle fragment, below). Two globular-headed bone hairpins from Phase 2 enclosure ditches date broadly from c. AD 150/200 to the Late Roman period (Crummy 2011a, 125). Both are complete, although one may have been repointed (SF 47 from enclosure ditch **146** and SF 55 from enclosure ditch **328**). A fragment from a copper-alloy cable armlet (SF 9 from enclosure ditch **173**) dates to the later 3rd or 4th century. One side of a two-piece strap-end (SF 73 from boundary ditch **563**) is similar in shape to Late Roman military one-piece split-ended heart-shaped strap-ends (Simpson 1976, 201-2; Bishop & Coulston 2006, 218-19), suggesting that it might be a roughly-made replacement or a civilian product tapping into a common pool of designs. The remaining items are all iron hobnails, most from Phase 2 enclosure ditches, but one from Phase 3 (Late Roman) boundary ditch **335**.

B.3.3 A single fragment of glass from a prismatic bottle came from posthole **373** in the aisled building (**450**) and may be residual Early Roman. Prismatic bottles may be square, rectangular, hexagonal, octagonal or even triangular, and the fragment from Yaxley is too small to allow the shape of the complete vessel to be determined. Made over a long period from the 1st century AD, they were storage containers used in the first instance for the transportation of liquid or semi-liquid goods, but, once empty, they often remained in use (Cool & Price 1995, 179-99). The Yaxley fragment therefore is the only continental item among the small finds, and the only one that represents access to trade networks dealing in imported, if not necessarily luxury, food or drink.

B.3.4 A wool comb tooth from boundary ditch **261** (SF 44; Phase 3) adds to the considerable body of data for fibre preparation and cloth manufacture in the eastern region (Manning 1985, 34; Sealey 1995, 77; Crummy 2011b, 58-9, with further references). It need not necessarily imply textile production on the site as the spun fibre may have been sold on for weaving, but it does point to the keeping of sheep and/or goats, a number of which were allowed to reach maturity so that they could be shorn for their wool, instead of being slaughtered for their meat when young.

B.3.5 A rake prong from enclosure ditch **507** (SF 71; Phase 3) may relate to a number of agricultural activities, chief among them hay-making, but there is some possibility that the prongs may also have been used on harrows (Rees 2011, 96-7; Manning 1985, 59). The head from a wooden hay-rake with seven prongs in place was found at Newstead, Borders (Curle 1911, 283, pl. 61, 7).

B.3.6 The only other tools are two knives from Late Roman contexts that cannot be associated with any particular craft or activity (SF 72 from enclosure ditch **173** and SF 79 from enclosure ditch **155**), and a chape fragment that, like the strap-end catalogued above under Dress accessories, is more likely to be a civilian item rather than a military one (SF 30 from boundary ditch **261**).

B.3.7 The general fittings consist principally of iron nails (Table 6), the only other items being part of a split-spike loop and a penannular ring. Most of the nails are of Manning's Type 1b, with round or square, flat or slightly convex, head (1985, 134), but a Type 2 nail, with a triangular head no wider than the shank came from enclosure ditch **173** (SF 94; cut **407**) and a Type 3 nail, with T-shaped head no wider than the shank came from ditch **261** (SF 68; cut **538**), a possible fence line that produced no other nails. The heads of Type 2 nails can be driven fully into the wood, suggesting specialised use, but no other examples of the form came from cut **407** or the surrounding area.

B.3.8 There are no large concentrations or coherent spreads of nails, and most are residual in secondary contexts, such as ditch fills. Most would have derived originally from farm buildings, vehicles, fences or gates, with the possible exception of the few from the fill of the holding tank, which may derive from a timber lining or superstructure.

B.3.9 A small number of pieces of scrap metal came from a scatter of contexts across the site. A fragment of an iron strip from the tank may, like the nails from that feature, be associated with a timber lining or superstructure (SF 92).

B.3.10 The small number of items recovered at Yaxley is typical of Romano-British rural sites, and is indicative not only of the working nature of the site – typified by the wool comb tooth and rake prong – but also of only minor engagement with the conspicuous consumption evident in Roman towns, where imported goods and a greater range of lost or discarded personalia are more in evidence. At Yaxley most damaged metalwork may have been saved to be melted down for recycling, and it is pertinent in this regard that one of the bone hairpins seems to have been repointed; that both are complete also argues for their having been used both carefully and rarely.

Catalogue

Dress accessories

SF 50. (485), fill of pit **486** (Group **486**); Period 2, Phase 2. Copper-alloy penannular brooch of Fowler Type C. The hoop is circular in section; the pin is missing. Diameter 27mm, section diameter 2mm.

SF 9. (170), fill of enclosure ditch **173** (Group **173**); Period 2, Phase 2. Fragment of a copper-alloy three-strand cable armlet. Length 34mm, section 2 by 1.5mm.

SF 73. (562), fill of boundary ditch **563** (Group **563**); Period 2, Phase 2. One side of a heart-shaped copper-alloy strap-end with organic (leather?) remains on the underside. Length 31mm, width 21mm.

SF 47. (354), fill of enclosure ditch **392** (Group **146**); Period 2, Phase 2. Bone hairpin with globular head (Crummy 1979, Type 3). Unusually for the type, the shaft is not noticeably swollen. The tip may have been repointed. Length 84mm.

SF 55. (421), fill of enclosure ditch **422** (Group **328**); Period 2, Phase 2. Bone hairpin with globular head as SF 47 above, but with clearly swollen shaft. The head is quite roughly shaped. Length 80mm.

SF 77. (170), fill of enclosure ditch **173** (Group **173**); Period 2, Phase 2. Three iron hobnails. Length of longest 15mm.

SF 80. (427), fill of enclosure ditch **429** (Group **173**); Period 2, Phase 2. Iron hobnail. Length 21mm.

SF 76. (377), fill of enclosure ditch **380** (Group **155**); Period 2, Phase 2. Four iron hobnails. Length of longest 11mm.

SF 75. (333), fill of boundary ditch **335** (Group **261**); Period 2, Phase 3. Iron hobnail, clenched. Length 16mm.

Household

SF 67. (453), fill of posthole **373** in aisled building (Group **450**); Period 2, Phase 3. Fragment of blue-green glass from a prismatic bottle. 60 by 29mm, 5mm thick.

Tools

SF 44. (336), fill of boundary ditch **338** (Group **261**); Period 2, Phase 3. Iron wool comb tooth or spike from a flax heckle, in two pieces. Length 98mm, diameter 5mm.

SF 71. (574), fill of enclosure ditch **575** (Group **507**); Period 2, Phase 3. Iron rake prong, with only the stump of the tang. Length 129mm.

SF 72. (399), fill of enclosure ditch **407** (Group **173**); Period 2, Phase 2. Iron knife blade with the stump of the tang. Both back and edge are offset from the tang and taper to the point. Length 191mm, maximum width 35mm.

SF 79. (348), fill of enclosure ditch **345** (Group **155**); Period 2, Phase 2. The point of an iron knife blade, both back and edge curve down to the point. Length 51mm, width 30mm.

SF 30. (339), fill of boundary ditch **340** (Group **261**); Period 2, Phase 3. One side of a copper-alloy V-shaped scabbard chape with the round terminal pierced for a rivet. Length 40mm, width of side bars 5mm.

Fittings (see also Table SF1)

SF 98. (399), fill of enclosure ditch **407** (Group **173**); Period 2, Phase 2. Iron split-spike loop fragment, with one incomplete shank and only part of the loop. Length 55mm.

SF 56. (427), fill of enclosure ditch **429** (Group **173**); Period 2, Phase 2. Iron penannular circular-section ring, both ends broken, one is flattened. Diameter 30mm, section diameter 5mm.

Miscellaneous

SF 10. (222), fill of evaluation slot (Group **173**); Period 2, Phase 2. Copper-alloy strip fragment, broken at one end, pierced at the other. Length 34mm, width 12mm.

SF 42. (301), fill of beamslot **302** (Group **273**); Period 2, Phase 3. Fragment of a copper-alloy bar, elliptical in section, possibly a nail-cleaner. The ends are flattened and broken, one across a perforation. Length 40mm, section 2 by 1.5mm.

SF 92. (466), fill of holding tank **467** (Group **467**); Period 2, Phase 2. Tapering iron strip fragment. Length 70mm, maximum width 17mm.

SF 82. (537), fill of ditch (fence line?) **538** (Group **261**); Period 2, Phase 3. Two fragments of thick iron sheet. 28 by 24mm, 25 by 24mm.

SF 62. (410), fill of pit **411** (Group **408**); Period 2, Phase 3. Iron sheet fragment. 52 by 24mm.

SF 20. (351), fill of enclosure ditch **353** (Group **173**); Period 2, Phase 2. Rolled lead(-alloy) sheet fragment, both ends broken. Length 33mm, diameter 21mm.

SF	Context	Context description	Group	Period & phase	Description	Length (mm)
86	354	enclosure ditch 392	146	2.2	complete nail	72
78	170	enclosure ditch 173	173	2.2	shank fragment (?from hobnail)	17
81	351	enclosure ditch 353	173	2.2	complete nail, shank bent into an s	52
95	399	enclosure ditch 407	173	2.2	3 nails (1 complete)	61, 37, 30
94	399	enclosure ditch 407	173	2.2	nail, Manning Type 2 with triangular head no wider than the shank	89
96	399	enclosure ditch 407	173	2.2	shank fragment	50
97	399	enclosure ditch 407	173	2.2	clenched shank fragment	57
57	427	enclosure ditch 429	173	2.2	nail	55
13	230	enclosure ditch 231	180	2.2	nail	47
85	403	enclosure ditch 404	282	2.2	shank fragment	37
43	327	enclosure ditch 328	328	2.2	shank fragment	63
87	415	boundary ditch 416	416	2.2	nail, clenched near head	30
61	465	holding tank 467	467	2.2	2 nails and 2 shank fragments	47, 21, 43, 35
63	466	holding tank 467	467	2.2	nail	29
84	466	holding tank 467	467	2.2	shank fragment	29
93	466	holding tank 467	467	2.2	nail	41
69	554	holding tank 555	555	2.2	nail and 2 shank fragments (?fit)	34, 36, 27
68	537	ditch 538 (fence line?)	261	2.3	complete nail, Manning Type 3, with T-shaped head no wider than the shank	55
46	333	ditch 335	261	2.3	shank fragment	51
53	400	enclosure ditch 402	402	2.3	shank fragment	53
91	410	pit 411	408	2.3	shank fragment	35
54	374	posthole 373 in aisled building	450	2.3	clenched shank fragment	70
83	562	boundary ditch 563	563	2.2	shank fragment	69
64	409	pit 408	408	2.3	3 nails and 1 shank fragment	100, 37, 25, 99
99	470	pit 408	408	2.3	nail (and amorphous lump)	42
60	470	pit 408	408	2.3	3 shank fragments (1 clenched)	58, 42, 20
49	209	furrow 208	185	3.4	nail	35
27	255	drainage ditch 257	257	4	shank fragment	41

Table 6: Iron nails from The Broadway, Yaxley. All are of Manning 1985, Type 1b, with round or square, flat or slightly convex, head. Lengths are incomplete unless stated otherwise.

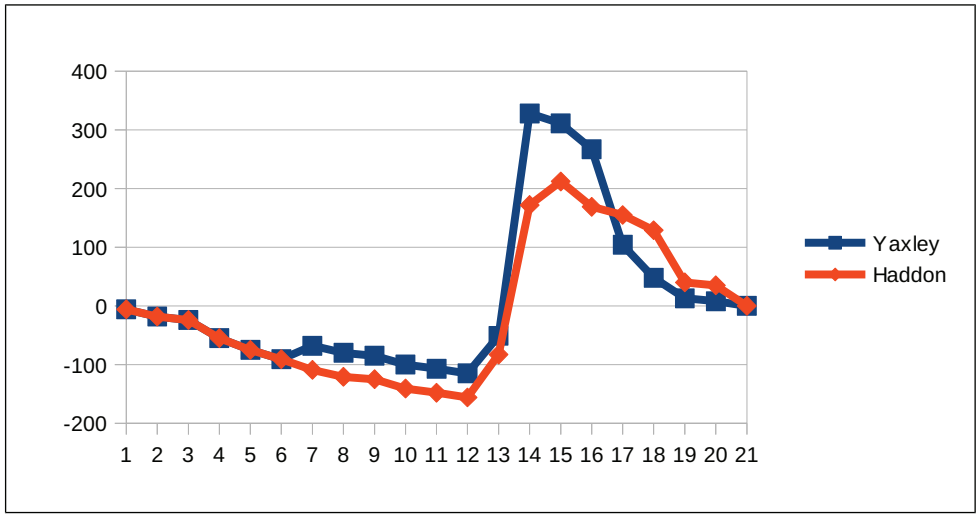
B.4 The Coins

By Nina Crummy

B.4.1 Apart from an unstratified medieval silver farthing all the coins are copper-alloy Roman issues, which, where stratified, are all from ditch fills (Table 7). The ditches mainly date to Phase 2, but two belong to Phase 3. The stratified coins range in date from the 2nd century to the late 4th or early 5th century, with most being late 3rd century issues and with many of those being irregular issues. Evidence from hoards suggests that some copper-alloy coins of the 2nd century remained in circulation at least until the late 3rd or early 4th century (Reece 2002, 43-4), and the one from ditch **173** (SF 52; cut **407**) is therefore not out of place in this assemblage. The latest stratified coin came from the fill of the L-shaped enclosure ditch **155**. An issue of the House of Theodosius dating to AD 388-402, it suggests that occupation continued at least until the very late 4th century and possibly for some time into the 5th century.

B.4.2 The medieval coin is a farthing of Henry III, cut down from a short cross penny, probably of Class 8 (North 1963, 163, 166).

B.4.3 Where possible, the Roman coins in Table 7 have been allocated to one of the coin periods defined by Reece, and using his method of cumulative comparison per thousand (1991; 1995; 2002, 145-50), Graph 1 shows the Roman coin loss against the mean for Britain and compared to that at Haddon near Peterborough (Guest 2003). The line of the Haddon graph differs a little from Guest's, who may have allocated coins that were not fully legible to some of the late 4th century periods (2003, Appendix 5). The 2nd century coin has been included, although only tentatively identified as an issue of Antoninus Pius. Both Yaxley and Haddon show early-low coin loss, a feature of most rural Romano-British sites, only rising above the British mean in the late 3rd century (Reece 1995; Plouviez 2004). The overall pattern occurs on other sites in eastern England and Guest (2003) considered that it reflects the location of the Peterborough area on the border between the eastern region and the east Midlands.



Graph 1: Roman coin loss at Yaxley against the mean for Britain and compared to that at Haddon near Peterborough (Guest 2003). Horizontal axis refers to coin period (defined in Reece 1991, 1995 and 2002)

B.4.4 The early-low characteristic points to rural economies in eastern Britain and elsewhere being based on barter rather than cash until the mid to later 3rd century, but even then there is little evidence that coinage was used conventionally on rural sites in the Late Roman period. For example, at Monument 97 at Orton Longueville only one dupondius of Antonia minted under Claudius I (AD 41-54) was found, the West Fen Road site at Ely produced only one coin of Trajan and a few 3rd to 4th century issues, while no Roman coinage at all was found at the Trinity Lands and Hurst Lane reservoir sites at Ely (Mackreth 2001, 39; Evans *et al.* 2007, 52, 68-9). Either coinage was so highly valued on these sites that once acquired it was very rarely moved about, or it was so little valued that no effort was made to acquire it. Both possibilities would result in low, or no, coin loss, and the second might also mean that any coins reaching a site where they were not considered to be useful would be quite lightly discarded. This small group of coins from Yaxley therefore points to wider issues regarding how coins were perceived, valued and used in rural Britain, and if they do relate to commercial activity, then it appears to have been very limited.

SF	Context	Context description	Group	Period & phase	Identification	Date	Mint	Diameter (mm)	Weight (g)	Reference	Coin Period
6	183	enclosure ditch 181	146	2.2	illegible AE4, copy	-	-	10	0.48	-	-
25	183	enclosure ditch 181	146	2.2	barbarous radiate *antoninianus*; obv. illegible; rev. altar	270-94	-	14	0.54	-	14
28	354	enclosure ditch 393	146	2.2	barbarous radiate *antoninianus* (minim); obv. Victorinus; rev. *Pax*	270-94	-	10	0.61	-	14
3	153	enclosure 155	155	2.2	House of Theodosius, AE4; obv. legend missing; rev. (SAL)VS REIPVBLICAE); mm chi-rho in field left	388-402	-	11	0.97	-	21
37	377	enclosure ditch 380	155	2.2	illegible minim	late 3rd-4th century	-	12	1.45	-	-
7	224	enclosure ditch 226	173	2.2	barbarous radiate *antoninianus*; obv. Tetricus I; rev. *Pax*	270-94	-	15	2.34	-	14
17	274	enclosure ditch 275	173	2.2	House of Valentinian, AE4; obv. DN/-; rev. *Gloria Romanorum*, emperor with captive, legend missing	364-78	-	16	1.47	-	19
21	351	enclosure ditch 353	173	2.2	barbarous radiate *antoninianus;* obv. illegible; rev. *Pax*	270-94	-	14	1.58	-	14
31	351	enclosure ditch 353	173	2.2	barbarous radiate *antoninianus*; obv. illegible; rev. *Virtus*	270-94	-	15	2.33	-	14
32	351	enclosure ditch 353	173	2.2	barbarous radiate *antoninianus*; obv. Tetricus I; rev. *Salvs*; identified at assessment, now illegible	271-4	-	13	0.94	-	14

SF	Context	Context description	Group	Period & phase	Identification	Date	Mint	Diameter (mm)	Weight (g)	Reference	Coin Period
39	351	enclosure ditch 353	173	2.2	barbarous radiate *antoninianus*; obv. illegible; rev. *Virtus*	270-94	-	18	2.95	-	14
52	399	enclosure ditch 407	173	2.2	Antoninus Pius(?), *sestertius*, legends eroded; obv. bust right; rev. -/ S C, Annona(?) standing facing, holding ?corn ears in right hand, rudder in left	138-61?	Rome	29	21.76	as RIC 981	7?
29	336	boundary ditch 338	261	2.3	Constantius II, AE3, surface eroded DN CONSTANTIVS P F AVG; rev: FEL TEMP REPARATIO, falling horseman (type obscured)	350-60	-	18	1.10	as CK 47	18
22	339	boundary ditch 340	261	2.3	barbarous radiate *antoninianus*; obv. Tetricus I(?); rev: *Victoria*	270-94	-	15	0.77	-	14
23	339	boundary ditch 340	261	2.3	Gallienus, *antoninianus*; obv. GALLIENVS AVG; rev. MARTI PACIFERO; mm A in field left	260-8	Rome	17	1.20	RIC 236; Cunetio 1149	13
24	339	boundary ditch 340	261	2.3	barbarous radiate *antoninianus,* obv. Tetricus II; rev. sacrificial implements	270-94	-	15	0.78	-	14
19	281	boundary ditch 282	282	2.2	Valentinian I, AE3; obv. DN VALENT(INIANVS) P F AVG; rev. *Gloria Romanorum*, emperor with captive, legend very worn	364-79	-	17	2.01	-	19
34	550	enclosure ditch 551	328	2.2	Constantine II, AE4; obv. CONSTANTINVS IVN N C; rev. GLORIA EXERCITVS, one standard; mm TRP in exergue	335-41	Trier	15	1.07	copy as HK 88	17

SF	Context	Context description	Group	Period & phase	Identification	Date	Mint	Diameter (mm)	Weight (g)	Reference	Coin Period
36	412	enclosure ditch 414	356	2.2	Allectus, *quinarius*, obv. IMP C ALLECTVS P F AVG, rev. VIRTVS AVG, galley left; mm Q C in exergue	293-6	'C'	19	1.74	RIC 128	14
4	99999	unstratified	-	-	Claudius II, *antoninianus*; obv. IMP C CLAVDIVS AVG; rev. VICTORIA AVG	268-70	Rome	19	2.23	RIC 104; Cunetio 1946	13
5	99999	unstratified	-	-	barbarous radiate *antoninianus*; obv. Tetricus I; rev. illegible	270-94	-	16	1.26	-	14
18	99999	unstratified	-	-	Gallienus, *antoninianus* obv. illegible; rev. (DIANAE) CON(S AVG), gazelle(?) walking right	260-8	Rome	20	1.91	As RIC (S) 181	13
26	99999	unstratified	-	-	Tetricus I, *antoninianus*; obv: IMP C TETRICVS P F AVG; rev: PAX AVG	271-4	mint 1	19	2.40	Elmer 775; Cunetio 2603	13
33	99999	unstratified	-	-	Constantine II, AE3; obv. CONSTANTINVS IVN NOB C; rev. GLORIA EXERCITVS, two standards; mm illegible	330-5	Arles?	17	2.23	as HK 88	17
35	99999	unstratified	-	-	Victorinus, *antoninianus*; obv. legend illegible; rev. VIRTVS AVG	269-71	mint I	18	1.25	Elmer 699; Cunetio 2553	13
40	99999	unstratified	-	-	barbarous radiate *antoninianus*; obv. Tetricus I(?); rev. illegible	270-94	-	17	1.56	-	14
1	99999	unstratified	-	-	Henry III, cut silver short cross farthing, ?Class 8	*c.* 1242-7	-	radius 9	29	North 1963, 163, 166	-

Table 7: The coins from Broadway, Yaxley. Coin Periods are those defined in Reece 1991, 1995 and 2002.

Abbreviations listed in Table 7

CK R. A. G. Carson and J. P. C. Kent, 'Part 2: bronze Roman imperial coinage of the Later Empire AD 346-498' in R. A. G. Carson, P. V. Hill, and J. P. C. Kent, *Late Roman bronze coinage* (London; 1972)

Cunetio E. Besley and R. Bland, *The Cunetio treasure* (London; 1983)

Elmer G. Elmer, 'Die Münzprägung der gallischen Kaiser von Postumus bis Tetricus in Köln, Trier und Mailand', *Bonner Jahrbücher* 146, 1-106

HK P. V. Hill and J. P. C. Kent, 'Part 1: the bronze coinage of the House of Constantine AD 324-346' in R. A. G. Carson, P. V. Hill, and J. P. C. Kent, *Late Roman bronze coinage* (London; 1972)

RIC *Roman Imperial Coinage*

B.5 Ceramic Building Material

By Alice Lyons

Introduction and methodology

B.5.1 A total of 199 fragments of ceramic building material (CBM), weighing 14.579kg, was recovered. This assemblage consists of both Iron Age-type burnt clay daub (74 fragments, weighing 924g) and Romano-British tile (126 fragments, weighing 13682g). The kiln fired tile mostly comprises roof tile (c. 56% by weight) consisting of *tegula*, *imbrices* and miscellaneous fragments. Wall bonding tile that can also be used as floor tile and hypocaust flue-tiles were also found (Table 8).

B.5.2 The assemblage was mostly retrieved from ditches (c. 60% by weight) and pits (c. 25%). All the material was significantly abraded. The daub has an average fragment weight (AFW) of only c. 12g and the tile an AFW of c. 73g.

CBM type	Quantity	Weight (g)	AFW (g)	Weight (%)
Tegula (roof)	67	6724	100.36	46.12
Imbrex (roof)	16	1369	85.56	9.39
Miscellaneous (roof)	2	48	24.00	0.33
Bonding tile (wall and floor)	16	4381	273.81	30.05
Flue tile (hypocaust)	7	857	122.43	5.88
Undiagnostic fragments	17	276	16.24	1.89
TOTAL	**199**	**14579**	**73.26**	**100.00**

Table 8: The Romano-British CBM, grouped by type in descending order of weight

Methodology

B.5.3 The CBM was counted and weighed, by form and fabric type and any complete dimensions measured (mm). Levels of abrasion and any evidence of re-use or burning were also recorded. This follows guidelines laid down by Archaeological Ceramic Building Materials Group (ACBMG 2002). The terminology used follows Brodribb (1987).

The Fabrics

B.5.4 Six fabric types were recorded. These fabrics are clays that have been commonly tempered with sand, chalk and flint, also shell. All these are consistent with (relatively) local production as Yaxley lies on the clay uplands of north Cambridgeshire on the interface between Oxford Clay Formation (grey mudstone) and Glaciolacustrine Deposits: clay, silt and sand (BGS 1995). Clay beds containing Jurassic shell are also known in north Cambridgeshire.

B.5.5 Q1: 40 fragments, weighing 5771g: representing 39.58% by weight

The second most common fabric at Yaxley; this is a hard, red clay with abundant sand inclusions, also common fine angular flint. It has a harsh texture.

Types: Bonding (5/2711g), *Imbrex* (6/703g), *Tegula* (12/1206g), Daub (17/251g).

B.5.6 Q2: 55 fragments, weighing 757g: representing 5.19% by weight

Clay, orange in colour, that has been mixed with sand and abundant chalk pieces, also occasional flint pebbles. Commonly used to make daub, it has a friable texture.

Types: *Imbrex* (2/154g), *Tegula* (1/45g), Daub (52/558g).

B.5.7 Q3: 13 fragments, weighing 266g: representing 1.82% by weight

Clay, orange to grey in colour that has been mixed with a moderate amount of sand, but no other visible inclusions. The surfaces are soft with a powdery texture.

Types: Daub (13/266g)

B.5.8 Q4: 80 fragments, weighing 6662g: representing 45.70% by weight

This is the most common tile fabric found at Yaxley. It is grey with orange surfaces and the clay has been mixed with sand, common fine flecks of chalk and occasional large flint pebbles. It is a soft fabric that has a smooth texture.

Types: Bonding (8/1272g), Flue (7/857g), *Imbrex* (6, 272g), *Tegula* (49/4123g), Roof (U) (1/13g).

B.5.9 Q5: 8 fragments, weighing 834g: representing 5.72% by weight

Poorly mixed orange and pale clay that has sand and fine chalk flecks deliberately added as a temper. The fabric is soft with a powdery surface.

Types: Bonding (3/398g), *Imbrex* (2/240g), *Tegula* (3/196g).

B.5.10 S1: 3 fragments, weighing 289g: representing 1.98% by weight

Dark grey/black clay that has high shell content, possibly a natural constituent of the clay. The fabric is soft with a powdery surface.

Types: *Tegula* (2/254g), Roof (U) (1/35g).

Tile Types

B.5.11 *Tegula*, *Imbrex* and miscellaneous roof tile combined to form the majority of this assemblage (*c*. 56% by weight). *Tegula* and *Imbrex* are interlocking roof tiles; a complete roof was very heavy and relied on solid foundations, walls and roofing timbers for support. Once the roof was in place, however, it was waterproof and long-lasting. Although no complete dimensions of any tile survived, the *Tegula* measured between 13 and 18mm thick and the *Imbrex* between 17 and 25mm thick.

B.5.12 Bonding tiles form a significant part (*c*. 30% by weight) of this assemblage. Bonding tile was used to form bands of brickwork which alternated with wider sections of regular stonework; they normally run through the entire thickness of the wall, to give stability to the mortared rubble-core. They were also useful as levelling courses during construction. As no complete examples were found it is also possible these tiles could have been used as flooring. Although no complete dimensions could be recorded the Yaxley examples vary in thickness between 30-45mm.

B.5.13 Flue tiles form a small part of this assemblage (*c*. 6% by weight). They are open-ended, box-shaped tiles built in the thickness of the walls of a room heated by hypocaust, they are often decoratively combed. The combing served the purpose of providing a key for any mortar required to hold the tile in place. Although no complete dimensions could be recorded the Yaxley examples varied between 19-23mm.

B.5.14 Undiagnostic fragments (*c*. 2% by weight) have only one (or no) original surfaces surviving and are therefore impossible to assign to type.

B.5.15 Daub (*c*. 6% by weight) is hardened clay, used in the production of ovens, kilns and houses. It sometimes bears the impressions of wattles and withies that formed the superstructures of these buildings; however these examples are without form.

Discussion

B.5.16 This is a small abraded assemblage of ceramic building material mostly recovered as secondary refuse from ditches and pits where it may have been deposited as rubbish or possibly to aid drainage in the heavy clay soil.

B.5.17 The tile fabrics are consistent with more than one source of local production. One possible source is the tile kiln recorded close by at Stilton c. 3km to the south-west of Yaxley. While the shell tempered tile was commonly used in the Midlands and is thought to have originated from the Harrold industries in Bedfordshire (Zeepvat 1987, 118), a source in the Nene Valley (Perrin 1999, 116) may be more likely due to the closeness of Yaxley to that industry. The heavy nature of tiles meant they were not generally transported long distances (Upex 2008, 107).

B.5.18 The fragmentary nature of this tile suggests it has been robbed from its original situation (a high status building with hypocaust) and has been brought to this site for re-use. That a small quantity of CBM was recovered from structural features (a beamslot, post-hole and gully) may support this theory.

B.5.19 Within the structural features chalky daub (Q2) of Iron Age-type was found in the disuse and demolition fills which indicates that these buildings were (at least partially) constructed using wattle and daub technology. It is likely that these buildings burnt down causing the daub to harden and survive in the soil. It is noteworthy that Romano-British CBM was also found in these deposits. Structures that had tile roofs required strong foundations and it is likely that post-built houses present at Yaxley would have not have been strong enough to support a tiled roof. It is more likely, therefore, that they utilised broken CBM in their foundations (as post-packing). This suggests that although the occupants of the site were utilising Iron Age technology (wattle and daub) they may have been doing so in the Romano-British era when CBM (either complete or in rubble form) was commonly available.

B.5.20 Although this is an abraded, fragmentary assemblage the presence of daub and tile at Yaxley does indicate that both wattle and daub structures and (at least) one substantial building with bonded walls, a tiled roof and hypocaust existed in the vicinity. Indeed the location of the settlement within a busy Iron Age and Roman landscape (Upex 2008), close to both the Roman town of *Durobrivae* and fort at Longthorpe within the prosperous Nene Valley, suggests that ceramic building material was in relatively plentiful supply.

B.6 Worked Stone

By Ruth Shaffrey

Introduction and methodology

B.6.1 Excavations at Yaxley produced a total of nine querns, of which one is a rubber, one is a saddle quern and the remainder are rotary querns or millstones. All were found in Late Roman contexts apart from a single rotary quern.

Description

B.6.2 A single rotary quern was found in a Late Iron Age feature, in pit **613** (fill 616). Although this is the only stratified pre-Roman quern, a heavily damaged fragment of saddle quern (ditch **180**, cut **231**; SF 12) and a cobble possibly used as a rubber (tank **467**, fill 465) may also be of pre-Roman origin as they utilise different materials to the Roman querns (quartzite and an erratic cobble).

B.6.3 Four rotary querns and one millstone were recovered from features of Late Roman date. Macroscopic identification indicates that several are probably of Millstone Grit, with one of likely Old Red Sandstone (Structure **273**, cut **284**; SF 90), whilst others are of less diagnostic sandstone types. More certain identifications could have been achieved through microscopic analysis but it was not possible to thin section any querns within the scope of this project.

B.6.4 The four rotary querns are of varying forms with the Old Red Sandstone example being of classic lozenge style (Shaffrey 2006, fig 4.20) while another has a channel running parallel to the circumference, which may be in imitation of the kerbs seen on lava querns (structure **273**, cut **286**; SF 89). Sixteen fragments were found in pit **408** (fill 470) and are probably all from the same item, a millstone measuring approximately 850mm in diameter and with typical deep spaced pock marks on the grinding surface (SF 58). The number of very small fragments indicate that part of the millstone had been deliberately smashed. The pit also produced one other quern fragment, not from the millstone (SF 65), although both are made of Millstone Grit. The millstone is of particular significance, because it has been heavily reused as a rotational grindstone for sharpening blades. It isn't clear from the wear patterns what sort of blades would have been sharpened, but that reuse, and the lack of a suitable watersource for a mill, points to a use here for something other than grinding grain for flour. Either the stone was used here as a grindstone or it was brought here as rubble and smashed into smaller pieces for the purpose of packing postholes. Either way, its presence in a stratified Roman context is significant as rotating grindstones are generally thought to be of medieval date (Roe 2001, 425).

Discussion

B.6.5 None of the querns were found *in situ* but their presence is significant when paired with the evidence for crop processing and indicates that grain was being ground on the site or somewhere very nearby. In addition, a further 13 quern fragments were found by Northampton Archaeology (NA) during excavations of the adjacent site (Hylton *et al* 2008). Taken together, these querns indicate domestic activity on the site from the Late Iron Age through to the Late Roman period. There is a single stratified quern from this excavation of Late Iron Age date plus a saddle quern and a beehive style rotary quern from a probable Late Iron Age pit on the NA part of the site. The remaining querns are all from Roman contexts, although some may be residual from pre-Roman activity.

B.6.6 In addition to the stratigraphic information, the varying forms and lithologies suggest that the querns were brought to the area at different times. Both saddle and rotary querns are represented and the rotary querns are of variable forms including the early Beehive form and later flatter types such as disc and lozenge types. The millstone fragment indicates intensive grinding somewhere in the vicinity, although probably not on this site. As well as a long time period of use, the variable nature of the Millstone Grit suggests that there were multiple sources for it in addition to a likely Wye Valley (Forest of Dean) source for the Old Red Sandstone and a Lincolnshire source for the Spilsby sandstone from the NA part of the site (Hylton *et al* ibid). Lava querns were not found on either excavation at Yaxley, despite its known occurrence in the area (for example at Stonea (Jackson and Humphrey 1996) but this may be due to the lack of Early Roman activity.

B.6.7 The variety in sources for the querns is in keeping with rural settlements lacking an organised or controlled supply of equipment. Querns were sourced on an ad-hoc basis according to requirements and probably depending on availability in the vicinity at the time. The dominant quern material in the area around Peterborough on non-military sites was Millstone Grit so the findings here are in keeping with what is already known.

Catalogue of quern fragments

Approx 1/3 upper rotary quern. Micaceous quartzitic sandstone. Very slightly concave grinding surface, worn smooth but with remnants of fine pecking. There is a deep but fairly narrow U-shaped hopper 45mm diameter x 50mm deep leading into a very narrow eye 15mm diameter. Measures 74mm thick x 430mm diameter. Ctx 616. Fill of pit **613**. Phase 1: Later Iron Age (c.100 BC – AD 43).

Possible rubber. Igneous. Unformed cobble with naturally flat face that has been well worn. Measures >100 x >90 x 20mm. Fill 465 of pit **467**. Late Roman.

Saddle quern fragment. Quartzite. Probably unformed saddle quern without original edges. The grinding surface is slightly concave and very well worn with some areas of polish. Measures >100 x >80 x 40mm. Cream coloured. SF 12. Ctx 230. Fill of ditch **180**, cut **231**. Phase 2: Late Roman (3rd to 4th century AD).

Rotary quern fragment. Medium grained gritty sandstone, probably Millstone Grit. Small edge fragment measuring 34mm thick. SF 88. Ctx 174, fill of ditch **176**, cut **176**. Phase 2: Late Roman (3rd to 4th century AD).

Lower rotary quern. Probable Old Red sandstone, medium grained well-sorted sandstone with some pink quartz grains. Classic lozenge style with thickness tapering towards the edge and flat base. The base is roughly worked while the grinding surface has been neatly pecked and now has significant rotational wear in evidence. The quern has also been burnt so the central portion is very blackened. Measures 440mm diameter x 41mm thick. SF 90. Ctx 283. Structure **273**, cut **284**. Phase 3: Late Roman 3rd - 4th century AD.

Upper rotary quern. Probable Millstone Grit. Of disc type with roughly flat faces although slightly curved. The grinding surface has crude radial grooving, probably segmented. The upper surface is neatly finished and has a U-shaped channel 25mm from the circumference. The

edges lean in slightly. Measures approximately 450mm diameter x 47mm thick. moderately coarse reasonably well sorted feldspathic sandstone. SF 89. Ctx 285. Structure **273**, cut **286**. Phase 3: Late Roman 3rd - 4th century AD.

Lower rotary quern fragment. Possible Millstone Grit, (medium to coarse grained poorly sorted feldspathic and micaceous sandstone). Thickness tapers towards the edge. Base is slightly concave and roughly shaped (not pecked). The grinding surface is smooth and has some remnants of pecking. Measures >44mm thick. SF 65. Fill 409 of pit **408**. Phase 3: Late Roman 3rd - 4th century AD.

Upper rotary quern or possible millstone. Millstone Grit, coarse grained moderately well sorted highly feldspathic sandstone with lots of pink feldspar. Disc type with parallel faces - the grinding surface is noticeably concave and has deep spaced pock marks while the upper surface has neater finer pecking all over. The quern has been exposed to heat. Measures 43mm thick. SF 66. Fill 455 of posthole **375**. Aisled barn **450**. Phase 3: Late Roman 3rd - 4th century AD.

Upper millstone fragment. Millstone Grit. Medium/coarse grained, well sorted feldspathic sandstone with pink feldspar, poorly cemented with obvious porosity. Disc style with flat surfaces and vertical edges. The circumference has been reused as a grindstone and is worn very smooth from extensive use. The grinding surface has deep spaced but irregular pock marks. Measures 48mm thick x approximately 850mm diameter. SF 58. Fill 470 of pit **408**. Late Roman 3rd - 4th century AD.

B.7 Industrial Residues

By Peter Boardman

Introduction and methodology

B.7.1 A total of 520g of industrial residues was recovered from the site. Both vitrified clay and iron slag were recovered during hand-excavation and bulk samples were taken from each of the deposits within the features for retrieval of additional industrial residues.

B.7.2 The industrial residues comprise 223g of small magnetic and non-magnetic fragments of metalworking slag, magnetic residues including microscopic hammerslag, flake hammerscale, spheroidal hammerslag and 297g of vitrified clay.

B.7.3 Magnetic residues were recovered from the samples by running a magnet through the washed residues and examination under a binocular microscope at x8 magnification.

Results

Context	Cut	Non-magnetic(g)	Magnetic (g)	Total (g)	Feature type
110	112	3	0	3	C structure
113	115	19	5	24	C structure
117	116	1	0	1	C structure
120	122	123	0	123	C structure
123	125	2	1	3	C structure
126	130	25	0	25	enclosure ditch
162	116	17	0	17	C structure
172	173	27	0	27	ditch
			Total	**223**	

Table 9: Slag recovered from hand excavation and bulk samples

Context No.	Cut No.	Vitrified clay (g)	Feature Type
113	115	103	C structure
117	116	64	C structure
120	122	35	C structure
126	130	25	enclosure ditch
156	158	19	C structure
159	161	16	C structure
162	116	17	C structure
618	617	15	ditch
646	650	3	ditch
	Total	**297**	

Table 10: Vitrified clay from hand excavation

Discussion

B.7.4 Only a small amount of iron slag was recovered from the excavation. Most of the slag recovered was from a small C-shaped feature, **112**, or features associated with **112**. Within **112** several contexts produced iron working residues (see Table 9). Context 120 produced a fragment that was identifiable as potential smithy base and was also the context that produced the most slag. All other fragments recovered were small with

only a small amount of structure. Few voids within the slag have been observed suggesting constant heating at high temperatures. The discolourations observed suggests that some of the slag, especially that recovered from contexts 120 and 126 were formed at the base of a consistently heated superstructure. The nature of all the other fragments from all contexts would support the interpretation that the site does not contain primary iron production, *i.e.* smelting. The fragmentary and small size of the remaining slag pieces supports a theory of smithing on a small scale. This process does produce slag but in small amounts as impurities in the smelted iron are further removed during the process of item production. Some pieces of slag and vitrified clay do show small impressions of in-combusted fuel suggesting they are from a build up at the base of the forge.

B.7.5 A total weight of 297g of vitrified clay was recovered. The heavily vitrified nature of the clay from contexts within structure **112** suggest long periods of super heating prior to removal and dumping. The shape of all pieces recovered suggest that they have been produced within a feature with a shallow, slightly concave base, possibly a smithy or smelt. Many pieces recovered also have small pieces of slag amalgamated with them. The coloration and make up of these slag additions would suggest smithy base, rather than smelt.

B.7.1 When examining the vitrified clay, it was discovered there were four pieces of a different, greyish clay, rather than the red observed previously, with no iron slag amalgamations. They also had a slightly different form and appeared to have a specific rim form. These pieces occurred in contexts 126 and 159. One piece from context 126 was also observed to have very small spots of copper on its surface. These pieces have therefore been interpreted as the remains of a crucible for alloying copper. These vessels are often found in a fragmentary form as they do not tolerate the temperatures required for alloying copper, preventing prolonged usage.

Appendix C. Environmental Reports

C.1 Environmental Samples

By Rachel Fosberry

Introduction and methods

C.1.1 Samples were taken from across the excavated area and 101 samples were submitted for processing. Features sampled include secure archaeological contexts within post-holes, pits, and ditches from two phases of occupation in the later Iron Age and the later Roman period. The Iron Age phase included several enclosures and evidence for industrial activities. Twenty-nine samples were analysed and found to have low archaeobotanical potential. The Roman period saw the construction of several structures including a large aisled building that may have been a barn. Seventy samples were analysed and proved to be rich in charred plant remains.

C.1.2 Previous excavations by Northamptonshire Archaeology of an area of settlement to the west of the current site had shown that there was good archaeobotanical potential with evidence of crop processing waste and good recovery of charred plant remains (Fryer in Brown 2008).

C.1.3 The samples were soaked in a solution of sodium carbonate for two weeks prior to processing in order to break down the heavy clay. For the purpose of this report, ten litres of each sample were processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The 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 sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted in Table 11. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands and the authors' own reference collection.

Quantification

C.1.4 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

C.1.5 Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

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

Results

C.1.6 The results are recorded in Table 11.

C.1.7 Preservation is predominantly by charring with the only evidence of preservation by waterlogging occurring in Sample 84 (fill 580 of ditch **575**). Charred plant remains

include charcoal, cereal grains, chaff and weed seeds and there is a clear distinction in the quantity and diversity of charred plant remains recovered from the Iron Age and the Roman deposits.

C.1.8 The samples taken from the later Iron Age deposits contain a background scatter of occasional single charred cereal grains and chaff elements that could actually be intrusive material from later deposits.

C.1.9 Charred plant remains were recovered from most of the samples from the later Roman deposits and are dominated by chaff elements, in particular glume bases and rachis fragments along with cereal grains and occasional weed seeds. Charcoal quantities were unusually low with most of the small charcoal flecks appearing to be burnt fragmented chaff fragments. The charred cereal assemblage is comprised of a moderate density of wheat (*Triticum sp*.) grains, of which the hulled wheat, spelt (*T. spelta*) predominates. This species has been identified by the numerous diagnostic chaff elements including glume bases and spikelet forks which occur in huge quantities in several of the samples. Tentative identifications of emmer (*T. dicoccum*) wheat chaff elements suggest this earlier form of hulled wheat is also present in low quantities, possibly as a contaminant. No other cereal types such as barley (*Hordeum sp*.) were noted but several of the cereal grains are extremely abraded and have been identified as 'indeterminate cereals'.

C.1.10 The majority of the charred weed seeds were from segetal plants that are commonly found growing on cultivated ground amongst crops and include bromes (*Bromus sp*.), rye grass (*Lolium sp*.), cornflower (*Centaurea sp*.), stinking mayweed (*Anthemis cotula*), vetches (*Vicia sp*.), goosefoot (*Chenopodium sp*.), clover/medick (*Trifolium/Medicago sp.*), black mustard (*Brassica nigra*), thistle (*Carduus/Cirsium sp*.), ribwort plantain (*Plantago lanceolata*), grasses (*Poaceae*), dock (*Rumex sp*.) and knotgrass (*Polygonum aviculare*).

C.1.11 Charred seeds of wetland plants that can often be found growing on the banks of rivers, ponds and water-filled ditches such as sedges (*Carex sp.*) and common spike-rush (*Eleocharis palustris*) occur occasionally. Other wetland resources represented include charred nutlets of saw-sedge (*Cladium mariscus*) and a seeds of slender rush (*Juncus tenuis*). Waterlogged seeds of water-crowfoot (*Ranunculus subgenus batrachium*) and pondweed (*Potamogeton sp*.) occur along with charred plant remains in Sample 84 (fill 580 of ditch **575**).

C.1.12 Calcified seeds of duckweed (*Lemna sp*.) were noted in Sample 16 (fill 172 of ditch **173**). Duckweed is a plant that quickly colonises shallow ponds, ditches and even puddles forming seeds only when the feature starts to dry out. It is unclear whether the seeds in these samples are contemporary with the deposits or a later contaminant.

Discussion

C.1.13 A clear distinction can be seen between the Iron Age and Roman samples from the site. The Iron Age samples contain very little charred plant material. Sparse grains and chaff elements may suggest small settlements where grain was conserved and not wasted. In contrast, the samples from the later Roman deposits are dominated by spelt wheat which seems to have been processed on a large scale. The assemblages are particularly unusual as no other cereal crops were noted and neither were any other food crops such and peas and beans. It seems that hulled wheat was being exclusively utilised on this site, perhaps for specialised economic reasons.

C.1.14 Hulled wheats such as spelt and emmer require several stages of crop processing with each stage producing a characteristic assemblage of grain, chaff and weed seeds as described by Hillman (1994). Spikelets of wheat are broken off the cereal ear during the first stages of crop processing (threshing, winnowing and sieving) and are a convenient form in which to transport and store the wheat until it is required (Stevens 2003). The second stage of crop processing involved parching and/or pounding the spikelet to release the grain. These final processes produce diagnostic waste elements of chaff including glume bases and larger weed seeds as seen in this assemblage.

C.1.15 The area in the north of the site contains a significant amount of redeposited burnt crop processing waste in the form of chaff. This by-product of the cereal harvest is generally under-represented in the archaeobotanical record as the majority will be lost through the processes of threshing and winnowing prior to total decomposition unless it is preserved by either carbonisation or waterlogging. Thus, the presence of crop processing waste does not provide evidence for the actual location of crop processing activities, rather it is evidence of the disposal of the material after it has subsequently become carbonised through combustion. The fine chaff elements would have been excellent kindling for both domestic and industrial hearths.

C.1.16 The charred weed seeds are consistent with the final stages of crop processing in which the semi-cleaned grain would be sieved and hand picked to remove contaminating seeds that are of a similar size to the actual grains such as rye grass and brome. Both rye grass and brome seeds are often found in charred grain assemblages as the plants grow to the same height as the cereal crop and the seeds are a similar size to the cereal grain. They could have been tolerated as a crop contaminant as they are unlikely to greatly affect quality of flour. Other plant species such as vetches, knotgrass and cleavers grow in cultivated fields and would have been harvested along with the crops. One notable weed is stinking mayweed which commonly grows on heavy clay soils and is evidence of expansion of cultivation onto these more challenging soils in the Roman period. This agricultural development could only have taken place with the use of larger breeds of cattle and cultivation equipment. The inclusion of small seeds of low-growing plants such as stinking mayweed suggest reaping low on the straw. Although the seeds of sinking mayweed are small, they are most likely to be harvested in their seed heads which means they are removed along with the larger seeds in the final stages of crop processing. They may subsequently break up into individual seeds during carbonisation.

C.1.17 More tangible evidence for crop processing are quern stones and millstones, both of which were found at this site in the later Roman period. Quern stones suggest small scale processing probably for an individual family or small group whereas millstones represent processing on a much larger scale.

C.1.18 Several of the samples contained detached embryos and cereal sprouts although very few sprouted grains were noted. This could be interpreted as evidence of malting and the production of beer as spelt wheat is known to have been used for brewing in the Roman period. Similar results were found at Haddon, Peterborough (Fryer 2003) where samples with a higher density of germinated grains were interpreted as malt-drying residue. A drying oven/floor would have been required to dry the germinated (malted) grain prior to the next stage of the brewing process and crop processing waste would have been one of the main fuels used in malt drying in the Roman period (Van der Veen 1989). No corn driers/malting ovens were found at Yaxley although the area in which the greatest volume of crop processing waste occurs is close to the edge of the excavation and it is entirely feasible that this area of activity extended further. The

proximity of the aisled barn further suggests that this was a dedicated area for the processing of grain and possibly the subsequent uses for milling and brewing.

C.1.19 In summary, there is tangible evidence of the impact of Romanisation at the site. The earlier stages of crop processing are absent suggesting that semi-cleaned grain was being imported onto the site for the specific purpose of large-scale processing. There is evidence of technological developments leading to expansion of cultivation onto heavier clay soils and the use of animal-driven millstones. It seems likely that this was an important site for the production of cleaned grain, flour and possibly beer.

Sample No	Context No	Cut No	Feature Type	Hammerscale:	Cereals	Chaff	Weed Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm	Flot comments
1	107	108	ditch					#		+		sparse charcoal
2	113	115	ditch	++						+++	+	fine charcoal fragments
3	118	119	post hole							+++	++	charcoal only
4	120	122	ditch	++						+++	+	charcoal only
5	139	139	ditch	+						++		fragments of fuel-ash slag
6	110	112	ditch	++						++		charcoal flecks
7	127	125	ditch	++						+++	+	charcoal only
8	137	138	ditch	++	#					+++	++	fragments of fuel-ash slag, exploded grains
9	142	143	stake hole							+++	+	charcoal flecks
10	149	150	ditch							+		sparse charcoal
11	153	155	ditch	+	##	##			#	+++	++	Fishscale, Bromus/lollium sp, Medicago sp., Poaceae, glume bases, wheat grains
12	170	173	ditch	+	#		#	##	#	++	+	Cladium mariscus nutlet, Bromus/lollium sp., Poaceae, wheat grains
13	174	176	ditch		#	#	#	##	#	+	+	Bromus/lollium sp., Silene sp., wheat grains
14	183	181	ditch		#			#		++	+	wheat grains
15	186	187	ditch					###	##	++	+	moderate charcoal
16	172	173	ditch			#		#	#	+	+	Lemna sp., single glume base
17	210	211	ditch							++	+	sparse charcoal
18	215	216	post hole		#	#				++	+	wheat grain and glume base
19	234	235	wall trench							+		sparse charcoal
20	236	237	beam slot		#	##	#			+++	++	Bromus/lollium sp. Plantago sp., wheat grains, glume bases, rachis fragments
21	221	219	ditch					##				snails only
22	314	311	ditch					#				snails only
23	327	328	ditch		##	###	##	#	#	+++	+	Fishscale, Bromus/lollium sp, Rumex sp., Poaceae, glume bases, wheat grains

Sample No	Context No	Cut No	Feature Type	Hammerscale:	Cereals	Chaff	Weed Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm	Flot comments
24	318	319	ditch		#	##	#			+++	+	Fishscale, abraded wheat grains, glume bases, rachis fragments
25	323	325	ditch		#			#		+		single grain
26	333	335	ditch	+	#	#	##	#		+++	+	Bromus/lollium sp, Poaceae, glume bases, rachis fragments, wheat grains
27	336	338	ditch		##	###	##	#		+++	++	Bromus/lollium sp, Poaceae, glume bases, rachis fragments, wheat grains
28	339	340	ditch		##	###	#			++	+	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, Anthemis cotula
29	344	345	ditch			#				++		single glume base
30	283	284	beam slot		#	##	#	#		+++	++	Bromus/lollium sp.Poaceae sp., wheat grains, glume bases, rachis fragments
31	289	290	beam slot	+		#	#			++		Polygonum sp., Lollium sp.
32	295	296	beam slot	+	##	###	##		##	+++	+	Fishscale,Fishbone, Bromus/lollium sp, Rumex sp., Medicago sp. Poaceae, glume bases, rachis fragments, wheat grains, ostracods
33	301	302	beam slot		#	###	#			+++	+	Cyperus sp., awn fragment,fishscale,glume bases, rachis fragments, wheat grains,
34	305	306	beam slot		#	##	#			+++	+	scirpus sp., fishscale, glume bases, rachis fragments, wheat grains,
35	351	353	ditch		#	###	#		#	+++	+	Anthemis cotula, Tripleurspermum sp., glume bases, rachis fragments, wheat grains,
36	377	380	ditch	+	#	###		#	#	++	+	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, Anthemis cotula
37	378	380	ditch		#	##	#			+		Sprouted wheat grain, degraded chaff glume bases, rachis fragments, fish scale
38	384	386	pit		#	###	###			++	+	tons chaff, few grains, tons weed seed; Ant cot, grass, brome. Detached embryos
39	354	392	ditch		#	###	#		#	+++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains,
40	395	396	gully		#	##	##			++	+	tons chaff, few grains, weed seed; Ant cot, grass, brome, juncus tenuis

Sample No	Context No	Cut No	Feature Type	Hammerscale:	Cereals	Chaff	Weed Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm	Flot comments
41	405	404	ditch							+		sparse charcoal
42	401	402	ditch		#	##	#			++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains,
43	409	408	pit									
44	399	407	ditch		##	###	#			++	+	abundant chaff, occ weed seeds
45	415		ditch					#		++		sparse charcoal
46	412	414	ditch			#				+		single glume base
47	374	373	post hole			##				+		degraded chaff
48	376	375	post hole		#	#				+		fragmented and abraded grain and chaff
49	421	422	ditch			##	#			++		glume bases, rachis fragments, Trifolium sp.
50	419	420	ditch		#	###	#			+++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, Anthemis cotula
51	444	446	ditch		##	###	#			+++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains,
52	430	431	ditch							+		sparse charcoal
53	366	365	post hole							+		sparse charcoal
54	372	371	post hole							+		sparse charcoal
55	447	367	post hole			#	#			+		glume bases, rachis fragments, Poaceae sp.
56	438	439	ditch		#	#				+		Trfolium/Medicago sp, glume bases, rachis fragments, wheat grains
57	440	441	ditch		#	#				+		Bromus/lollium sp, Poaceae, Rumex sp, Trifolium sp, glume bases, rachis fragments, wheat grains
58	442	443	ditch		#	##				+		Bromus/lollium sp,Anthemis cotula, Viciaa sp.,, glume bases, rachis fragments, wheat grains, Fish scale
59	428	429	ditch			#				+		single glume base
60	460	462	ditch			#	#			++		Poaceae sp.
61	409	408	pit		##	###	#			+++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, Anthemis cotula, Poaceae sp, uncharred Rubus sp.
62	470	408	pit		##	##	#			+++	+	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, Rumex sp., Poaceae sp., awn fragment

Sample No	Context No	Cut No	Feature Type	Hammerscale:	Cereals	Chaff	Weed Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm	Flot comments
63	465	467	structure		#	##	##			+		Bromus/lollium sp., glume bases, rachis fragments, wheat grains, Rumex sp., Poaceae sp., awn fragment, Anthemis cotula
64	466	467	structure		##	###	##			+		glume bases, rachis fragments, wheat grains, Rumex sp., Anthemis cotula
65	473	474	post hole		#	#				+		occ grain and chaff
66	475	476	post hole							+		sparse charcoal
67	370	369	post hole							+	+	sparse charcoal
68	485	486	pit		###	###	##			++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains,barley grains, Anthemis cotula, Rumex sp, Poaceae sp, Polygonum sp.,
69	488	489	ditch		##	###	##			+++	+++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, oat grains Anthemis cotula, Rumex sp, Poaceae sp, awn fragments
70	490	491	ditch		#	##	#			+++	++	fishscale, rachis fragments, glume bases, wheat grains, Urtica sp., Rumex sp
71	492	493	beam slot		##	###	#		##	+++	++	Bromus/lollium sp., glume bases, rachis fragments, wheat grains, barley grains, free-threshing wheat grains
72	496	497	beam slot		##	###	#			++	+	abundant chaff, single seeds of Poaceae and chenopdium. Awn fragment
73	503	502	ditch		##	###	#			++	++	Fishscale, Bromus/lollium sp, Anthemis cotula, glume bases, wheat grains
74	494	495	beam slot									
75	498	499	beam slot									
76	514	512	ditch									
77	523	524	ditch									
78	535	536	ditch		#	#	#	#	+	+	+	occ grain and chaff, brome, vetch
79	542	544	ditch		#	##				++		glume bases, wheat grains
80	545	547	ditch							+		sparse charcoal
81	572	573	ditch		#	###				+++	+	fine chaff fragments, glume bases, wheat grains
82	578	579	ditch			#	#			++	+	occ glume bases

Sample No	Context No	Cut No	Feature Type	Hammerscale:	Cereals	Chaff	Weed Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm	Flot comments
83	562	563	ditch		##	###	##		#	++	+	Fishscale, Bromus/lollium sp, Anthemis cotula, glume bases, wheat grains, polygonum, plantago, Rumex, poaceae, chenopodium
84	580	575	ditch		##	###	#		#	++	+	Abundant chaff, mod grains,lollium
85	592	593	ditch							++	+	sparse charcoal
86	607	609	ditch		#					++	+	single grain
87	615	611	pit									Fishscale,no cpr
88	620	617	ditch							+		sparse charcoal
89	622	558	hearth									no cpr
90	629	630	ditch									no cpr
91	633	635	ditch							+		sparse charcoal
92	644	643	ditch									no cpr
93	646	650	ditch							+		sparse charcoal
94	659	660	ditch		#	#				+		single glume base and grain
95	668	669	gully		#					++		fragmented and abraded grain
96	672	673	gully									no cpr
97	680	681	gully							+	+	single glume base
98	682	683	gully							++	+	charcoal flecks
99	686	664	ditch							++	+	charcoal flecks
100	695	696	pit							++	+	charcoal flecks
101	704	705	ditch							+		sparse charcoal

Table 11: Environmental results

C.2 Faunal Remains

By Chris Faine

Introduction

C.2.1 Two hundred and forty two fragments (34.66kg) of animal bone were recovered from the excavation with 139 of these identifiable to species (57.4% of the total sample). All bones were collected by hand apart from those recovered from environmental samples; hence a bias towards smaller fragments is to be expected. Residuality appears not to be an issue and there is no evidence of later contamination of any context. Faunal material was recovered from a variety of features largely dating from the Middle to Late Iron Age and Roman periods.

Methodology

C.2.2 All data was initially recorded using a specially written MS Access database. Bones were recorded using a version of the criteria described in Davis (1992) and Albarella and Davis (1994). In brief, all teeth (lower and upper) and a restricted suite of parts of the skeleton was recorded and used in counts. These are: horncores with a complete transverse section, skull (zygomaticus), atlas, axis, scapula (glenoid articulation), distal humerus, distal radius, proximal ulna, radial carpal, carpal 2+3, distal metacarpal, pelvis (ischial part of acetabulum), distal femur, distal tibia, calcaneum (sustenaculum), astragalus (lateral side), centrotarsale, distal metatarsal, proximal parts of the 1st, 2nd and 3rd phalanges. At least 25% of a given part had to be present for it to be counted. The presence of large (cattle/horse size) and medium (sheep/pig size) vertebrae and ribs was recorded for each context but not used in counts. Where practicable, these elements have been attributed to taxon and numbers present estimated on the basis of vertebra centra and the heads of ribs. This information is retained on the animal bone database.

C.2.3 Each element was identified to species where possible using comparative collections and reference manuals. Siding was noted for the purposes of calculating MNI's. Where applicable the number of diagnostic zones was noted for each element (after Serjeantson 1996). Epiphyseal fusion data was also noted (after Silver 1969). Tooth wear data for domestic mammal loose molars and mandibles (after Grant 1982) was recorded to provide further ageing data. In addition to adult molars the presence of any other teeth i.e. deciduous was also noted. Where possible sexing was carried out via morphological criteria (e.g. Hatting 1995, Armitage and Clutton-Brock 1976), or metrical analysis (e.g. Grigson 1982, Ruscillo 2006, Greenfield 2002). Metrical analysis followed Von Den Driesch (1976), Grigson (1982) & Payne and Bull (1988). This information was used to aid in species differentiation e.g. between sheep and goat (after Boessneck 1969, Halstead et al 2002). No goats were identified therefore all ovid remains will be referred to as sheep for the remainder of this report. Identification of horse vs other equids was carried out via morphological criteria after Baxter (1998), Davis (1980) and Eisenmann (1986).

Quantification

C.2.4 Tables 12 & 13 show the species distribution for the assemblage in terms of fragment count (NISP) and minimum numbers of individuals (MNI). Cattle are the dominant taxon in both Late Iron Age and Roman phases, along with smaller numbers of sheep and pig remains. There is little change in the domestic mammal distribution between the two

phases aside from a slight decrease in Roman sheep relative to cattle. This is also seen in the species distribution from the adjacent area (Armitage 2008). King (1978) characterised higher numbers of sheep/goat remains as possibly representative of Late Iron Age "native" settlement, with higher numbers of pig remains being seen in later Early Roman populations. This pattern can be seen in other nearby sites such as Haddon (Baxter 2003). However, given the small sample size in this case it is not possible to draw any such conclusions about the nature of the settlement. Neither this nor the adjacent assemblage (Armitage 2008) show the relative increase in pig remains that could indicate increased pork consumption. This reflects the degree of inter and intra-site variability seen in many East Anglian Iron Age and Early Roman assemblages noted by Hambelton (1999). Horse is a minor taxon in both phases albeit more prevalent in the Roman assemblage. Rare instances of dog and a single instance of red deer remains are present in the Iron Age and Roman assemblages respectively.

Species Present

Cattle

C.2.5 As mentioned above cattle is the most prevalent taxon in both phases. The Iron Age cattle assemblage is limited, consisting of fragmentary remains from all parts of the skeleton. Preservation is poor therefore further ageing data via epiphyseal fusion is not available. Graph 2 shows the body part distribution for the Roman assemblage (insufficient numbers of Iron Age fragments were recovered). All body parts represented in the Roman assemblages show a slightly higher instance of hind limbs. The distributions seen here suggest the processing of complete carcasses (if not live animals). However, the lack of meat bearing lower hind limbs could suggest certain cuts of meat were either consumed and deposited elsewhere on site or traded.

C.2.6 Graph 3 shows the rates of epiphyseal fusion for the Roman cattle assemblage. The majority of animals appear to have been culled at around 3-5 years old, indicating a concentration on meat and secondary products. Six mandibles were recovered from Roman contexts; 3 from young adult and 3 from old adult animals. Three measurable bones were recovered from Roman contexts giving withers heights of 1.22, 1.24 & 1.25m. These are within the range seen in the adjacent assemblage (Armitage 2008).

C.2.7 Sexable elements (horncores, pelves and metapodia), are scarce in the assemblage as a whole, with only 7 being recovered from the Roman assemblage. Out of the seven sexable elements 4 are from males (55%) and 3 from castrates. No female elements were recovered. Three metacarpals were provisionally identified as castrates, although they all fell at the lower (male) end of the criteria set out by Howard (1961). However, the scarcity of sexable elements means that no further conclusions can be drawn.

Sheep

C.2.8 Sheep remains are scarce in both phases, with Iron Age contexts yielding only fragmentary adult limb elements and loose teeth. The Roman assemblage consists largely of lower limb elements (tibiae, metapodia) and mandibles, suggesting initial carcass processing waste. Four mandibles were recovered from animals 1-6 years of age.

Pig

C.2.9 Only two fragments of pig were recovered; a mandible (age at death: 7-14 months) from Iron Age context 592 (enclosure ditch **579**) and a 1st phalanx from Late Roman context 354 (boundary ditch **146**).

Horse

C.2.10 Horse remains are slightly more prevalent in the Romano-British phase, consisting largely of loose adult teeth and mandible fragments and a partial radius from context 313 (ditch **312**). A single 1st phalanx was recovered from Iron Age context 661 (ditch **630**).

Dog

C.2.11 Two fragmentary mandibles were recovered from Iron Age contexts 592 (enclosure ditch **579**) and 659 (ditch **660**).

Wild Mammals

C.2.12 Wild mammal remains are limited, consisting of a portion of Red deer antler tine from Late Roman context 227 (boundary ditch **176**).

Conclusions

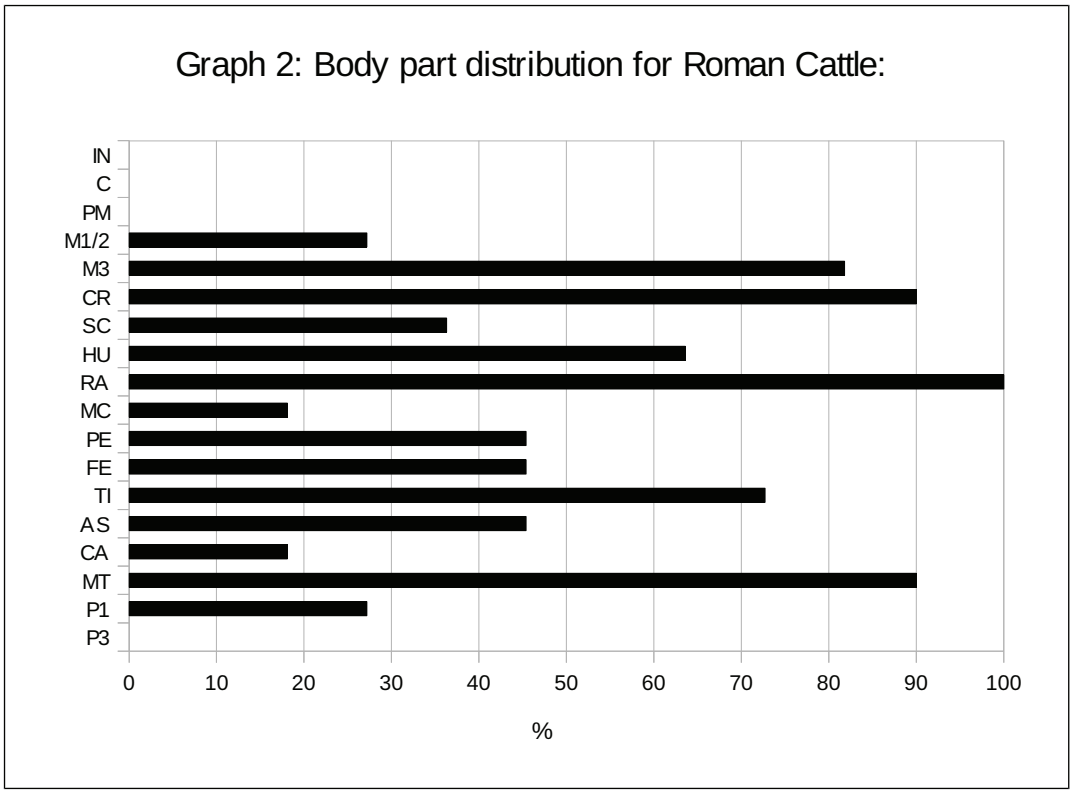
C.2.13 This is a small assemblage that can provide relatively little in itself. Considered as an extension to the adjacent 2005 site it also conforms to the picture of a self sustaining settlement in which cattle were the most prevalent species, with both this species and sheep being exploited for meat, milk, skins and breeding.

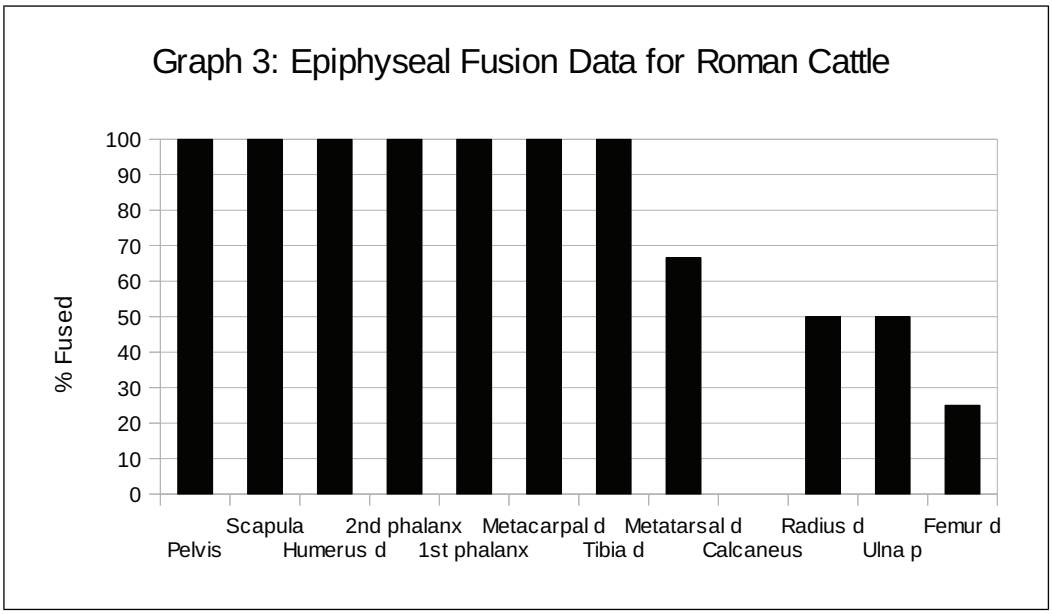
	Late Iron Age		**Roman**	
	No.	**%**	**No.**	**%**
Cattle (Bos)	22	70.8	84	78.0
Sheep/Goat (Ovis/Capra)	5	16.2	15	13.7
Pig (Sus scrofa)	1	3.3	1	0.9
Horse (Equus)	1	3.3	7	6.5
Dog (Canis familiaris)	2	6.4	0	0.0
Red Deer (Cervus elaphus)	0	0	1	0.9
Total	**31**	**100**	**108**	**100**

Table 12: Species distribution for the assemblage (NISP)

	Late Iron Age		**Roman**	
	No.	**%**	**No.**	**%**
Cattle (Bos)	9	50	35	66
Sheep/Goat (Ovis/Capra)	5	28	10	18.8
Pig (Sus scrofa)	1	5.5	1	1.9
Horse (Equus)	1	5.5	5	9.5
Dog (Canis familiaris)	1	5.5	1	1.9
Red Deer (Cervus elaphus)	1	5.5	1	1.9
Total	**18**	**100**	**53**	**100**

Table 13: Species distribution for the assemblage (MNI)


Graph 2: Body part distribution for Roman Cattle:
IN
C
PM
M1/2
M3
CR
SC
HU
RA
MC
PE
FE
TI
AS
CA
MT
P1
P3
0
10
20
30
40
50
60
70
80
90
100
%


Graph 3: Epiphyseal Fusion Data for Roman Cattle
% Fused
100
90
80
70
60
50
40
30
20
10
0
Pelvis
Scapula
Humerus d
2nd phalanx
1st phalanx
Metacarpal d
Tibia d
Metatarsal d
Calcaneus
Radius d
Ulna p
Femur d

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APPENDIX E. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-178083		
Project Name	Late Iron Age and Roman settlement at land off Broadway, Yaxley, Peterborough		
Project Dates (fieldwork) Start	16-11-2009	Finish	14-01-2010
Previous Work (by OA East)	No	Future Work	No

Project Reference Codes

Site Code	PET BRY 09	Planning App. No.	08/01138/OUT
HER No.	52131	Related HER/OASIS No.	1978

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
Enclosure	Iron Age -800 to 43	Pottery, animal bone	Iron Age -800 to 43
Enclosure	Roman 43 to 410	Pottery, animal bone	Roman 43 to 410
Aisled Building	Roman 43 to 410	Metalwork, CBM	Roman 43 to 410

Project Location

County	Peterborough U.A.	Site Address (including postcode if possible)	
District	Peterborough U.A.	Thistle Close, off Broadway, Yaxley	
Parish	Yaxley		
HER	Peterborough		
Study Area	0.7 ha	National Grid Reference	TL 519140 293200

Project Originators

Organisation	OA EAST
Project Brief Originator	
Project Design Originator	OA East
Project Manager	James Drummond-Murray
Supervisor	Tom Phillips

Project Archives

Physical Archive	Digital Archive	Paper Archive
Peterborough Museum	OA East	Peterborough Museum
PETBRY 09	PETBRY 09	PETBRY 09

Archive Contents/Media

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

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

Notes:

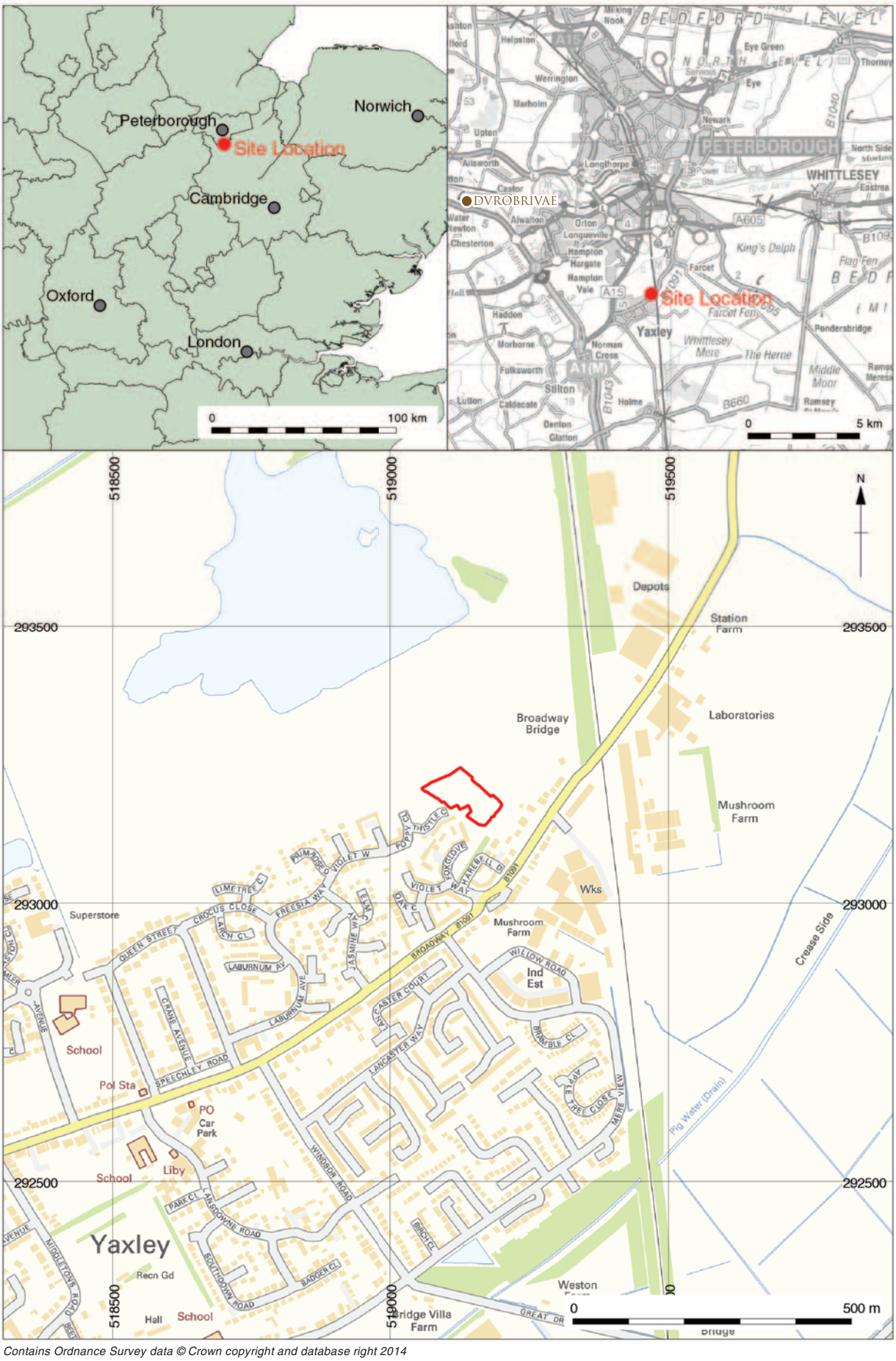

Figure 1: Site location with development area (outlined in red)

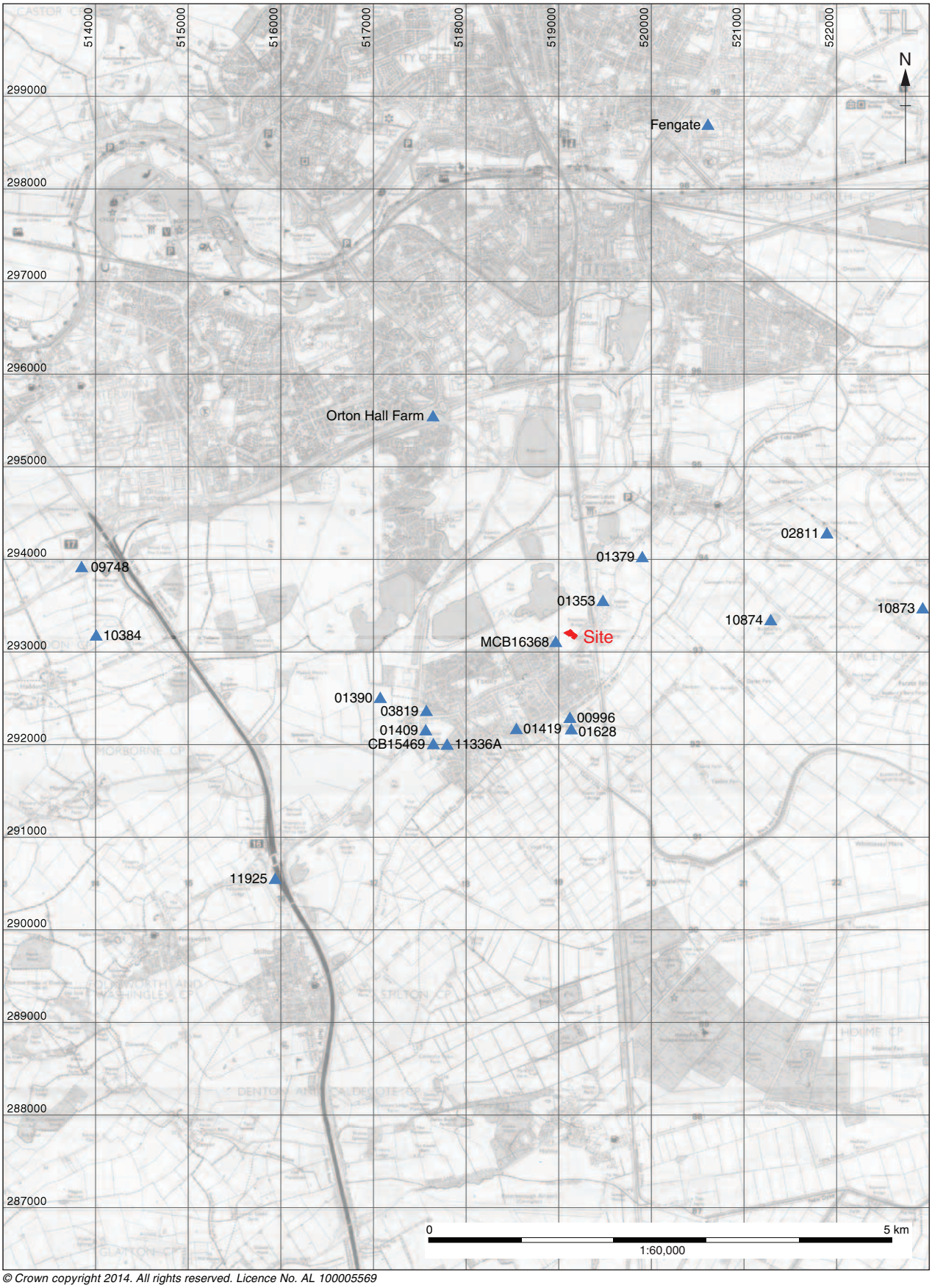

Figure 2: Historic Environment Record entries within the vicinity of the site

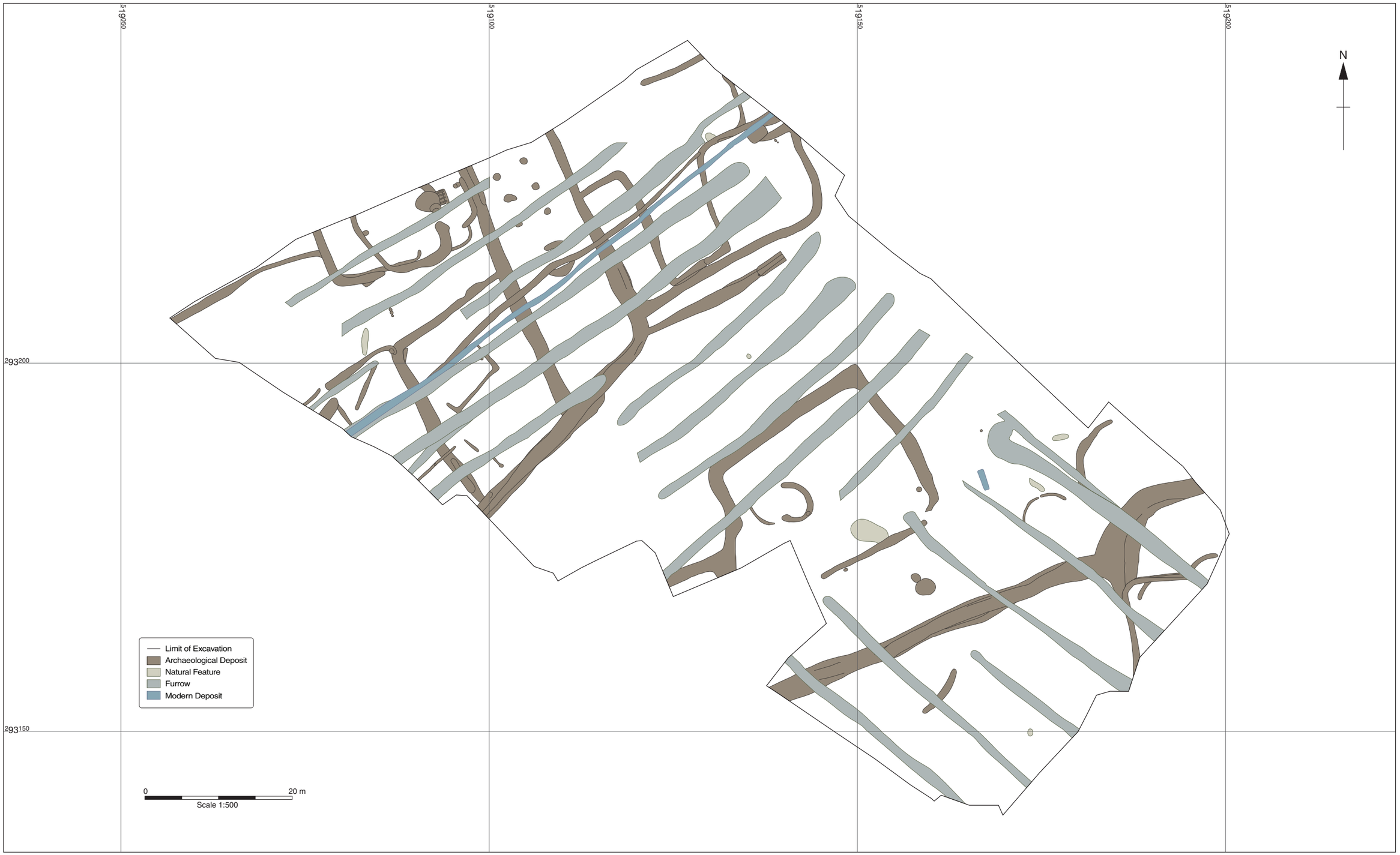

Figure 3: Excavation plan showing all archaeological features

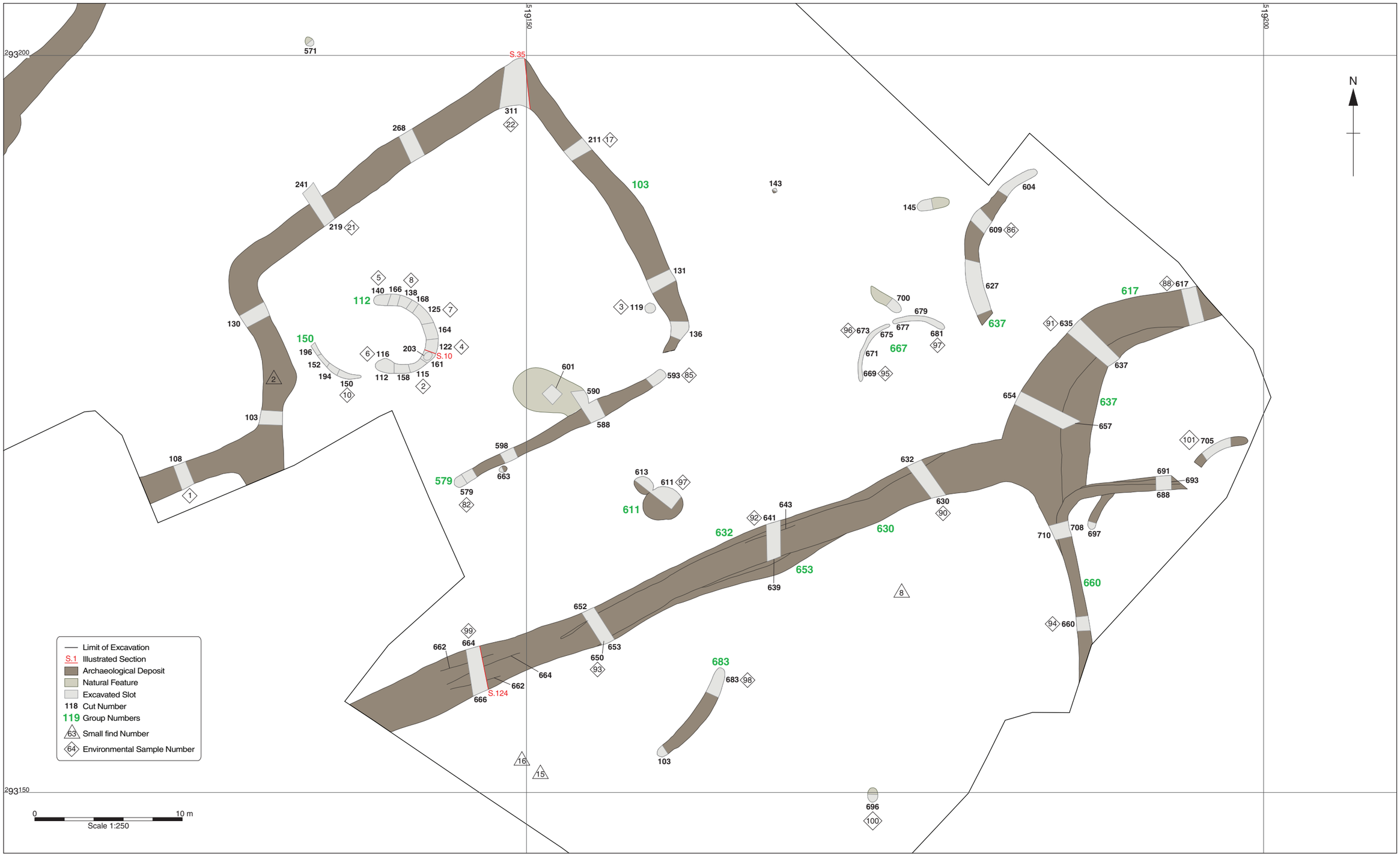

Figure 4: Plan of archaeological features in the southern part of the site

Figure 5: Plan of archaeological features in the northern part of the site

Figure 6: Phase plan

Figure 7: All phased features of the OA East and Northamptonshire Archaeology excavations (some data kindly supplied by NA)

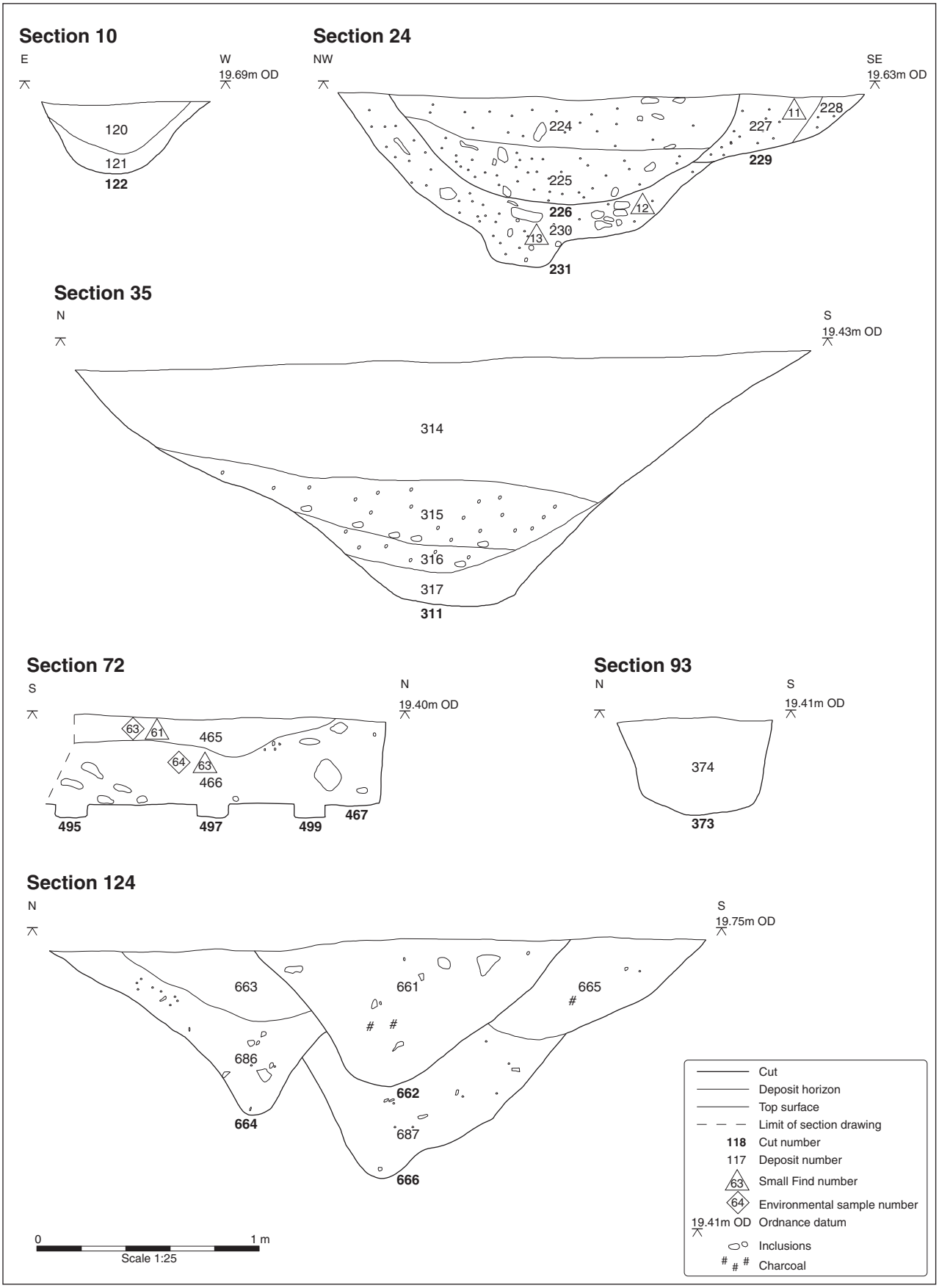

Figure 8: Selected section drawings

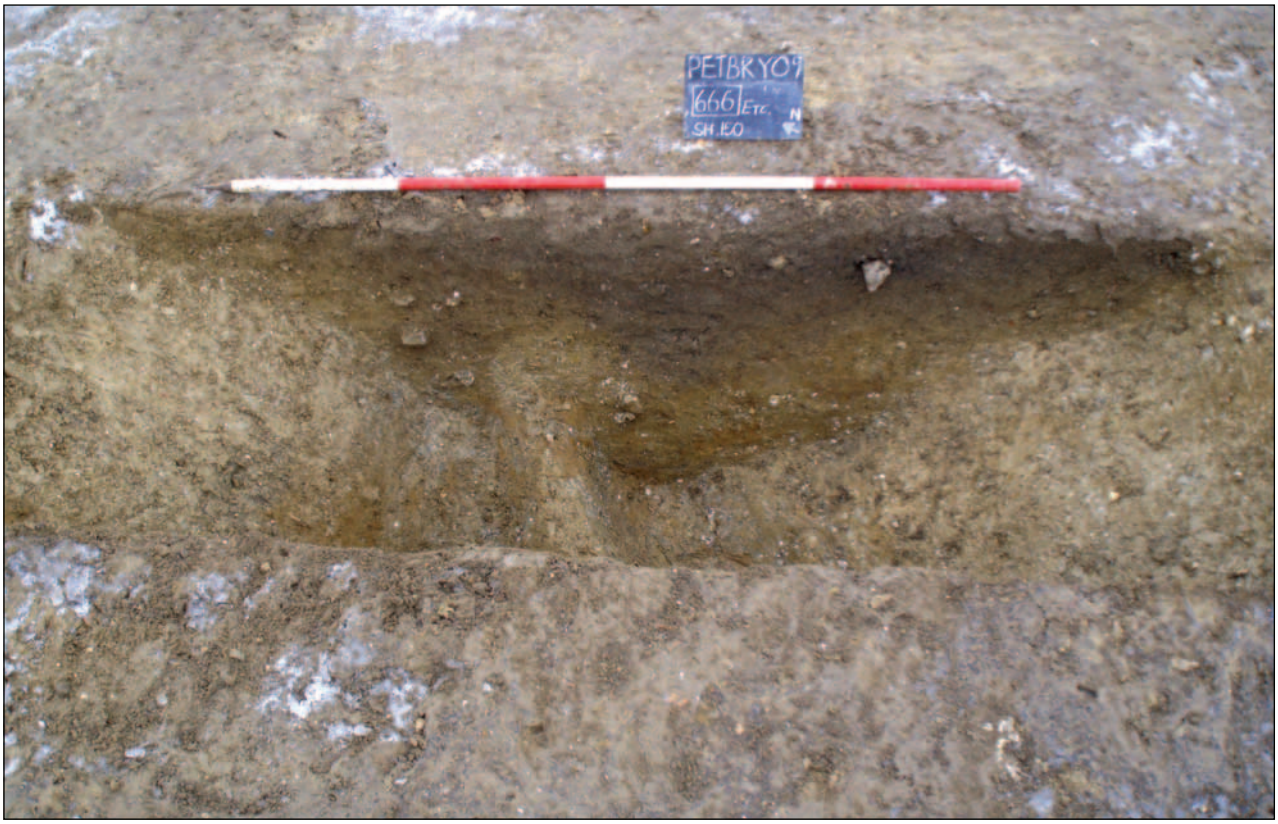

Plate 1: Late Iron Age boundary ditch **630**, **632**, **653**, looking north-east, 2m scale

Plate 2: Late Iron Age C-shaped structure **112**, looking west, 2m scales

Plate 3: Late Roman enclosure ditch **173**, looking north-east, 2m scale

Plate 4: Late Roman 'tank' feature **555**, looking north-west, 1m scales

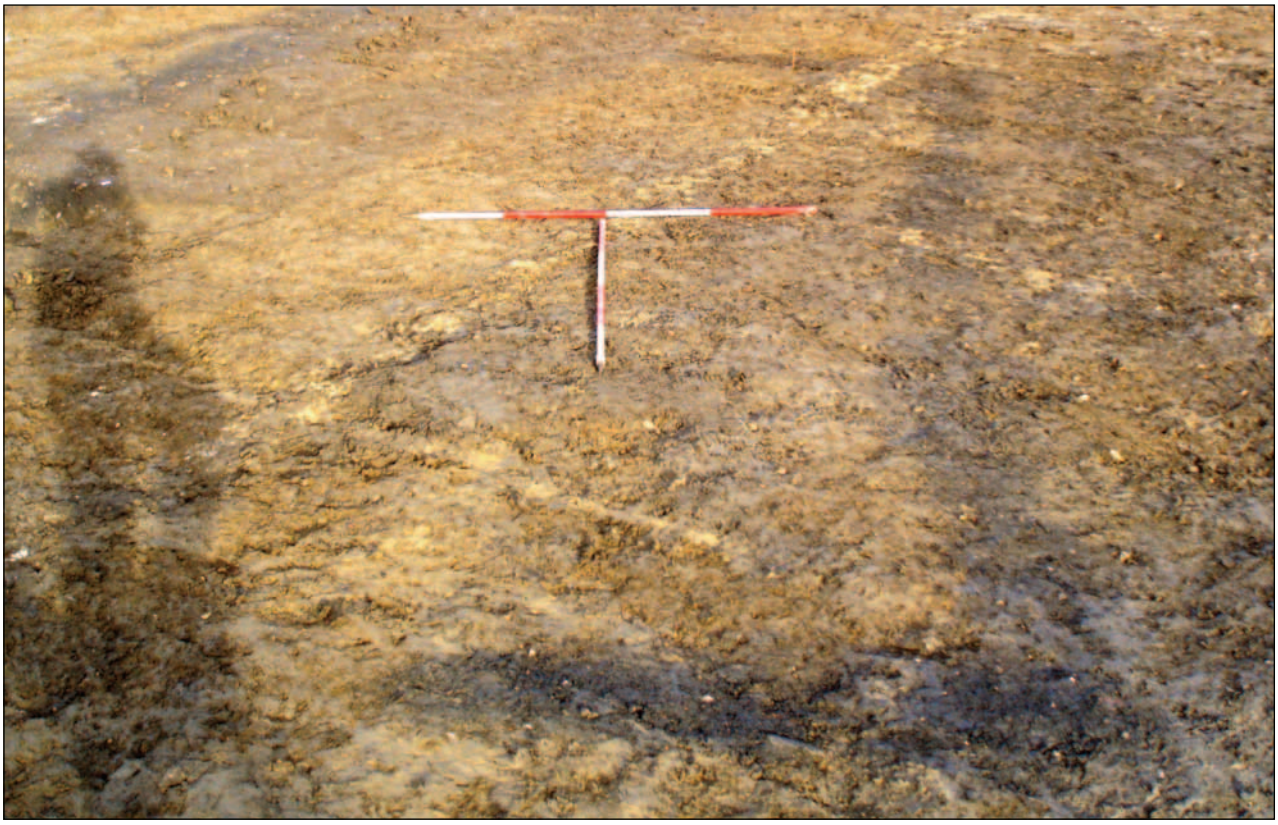

Plate 5: Late Roman beamslot building **273**, prior to excavation, looking north, 2m scales

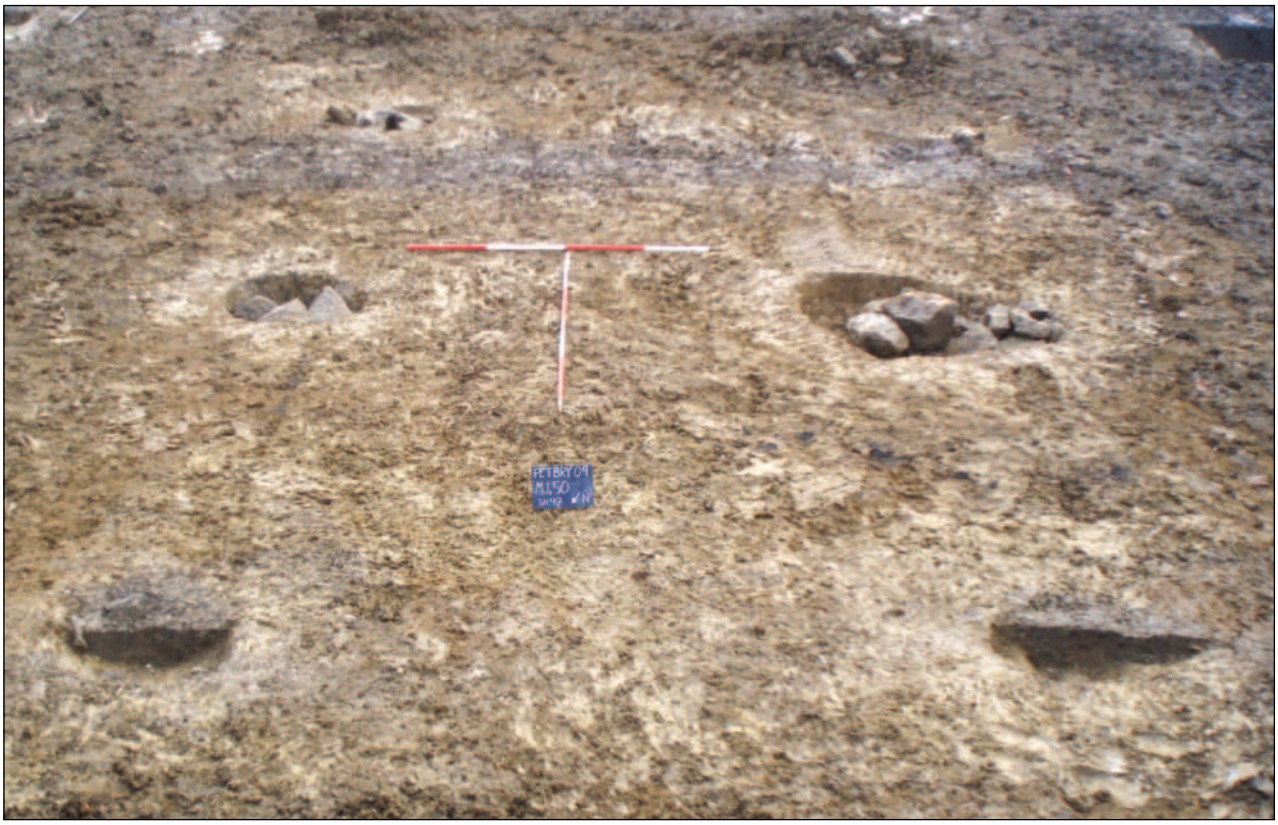

Plate 6: Late Roman aisled building **450**, looking south-east, 2m scales

Plate 7: Posthole **369**, part of aisled building **450**, 0.5m scale

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1GF

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

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com