Northamptonshire Archaeology

Excavation of Iron Age and Roman settlement at Upton, Northampton September-December 2000

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

Northamptonshire County Council

Charlotte Walker and
Anthony Maull

Report 10/137
September 2010

NORTHAMPTONSHIRE COUNTY COUNCIL

NORTHAMPTONSHIRE ARCHAEOLOGY

September 2010

EXCAVATION OF IRON AGE AND ROMAN SETTLEMENT AT UPTON NORTHAMPTON SEPTEMBER-DECEMBER 2000

STAFF

Project Managers	Anthony Maull Cert Arch and Andy Chapman BSc MIfA FSA
Text	Charlotte Walker BSc, AIfA and Anthony Maull
Copyediting	Andy Chapman
Illustrations	Jacqueline Harding BA, HND, Halle Moharramzadeh BA, MA (Bergen), Amir Bassir BSc and Charlotte Walker
Fieldwork	Anthony Maull and Michael Webster
Watching brief	David Leigh BA
Flint	Yvonne Wolframm-Murray PhD
Bronze Age and Iron Age pottery	Dennis Jackson and Andy Chapman
Roman pottery	Jane Timby BA, PhD, FSA, MIfA & Tora Hylton
Small finds	Tora Hylton
Querns	Andy Chapman
Coins	Ian Meadows BA
Ceramic building materials	Pat Chapman BA CMS AIfA
Fired clay	Pat Chapman
Slag	Andy Chapman
Environmental analysis	Val Fryer BA MIfA
Animal bone	Stephanie Vann MSc
Wood identifications	Rowena Gale Honorary Research Associate, Royal Botanic Gardens, Kew
Metal detecting	Steve Critchley BSc MSc

QUALITY CONTROL

	Print name	Signed	Date
Checked by	Pat Chapman		
Verified by	Anthony Maull		
Approved by	Andy Chapman		

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Upton, Northampton South-West District	
Short description (250 words maximum)	Excavation at Upton, Northampton prior to residential development, located settlement from the late Bronze Age/early Iron Age and continuing through the Iron Age and Roman periods. A small group of isolated pits, radiocarbon dated to the late Bronze Age/early Iron Age, contained a small pottery assemblage and a saddle quern. A short length of a pit alignment was examined. A number of pits contained early/middle Iron Age pottery, but a radiocarbon date centred on the 4th to 3rd centuries BC indicates that the pits, which were unusually deep, were still open into the middle Iron Age. Middle to late Iron Age settlement comprised several enclosures of varying sizes and plan forms set alongside a linear boundary ditch. The boundary was later reinstated contemporary with a second phase of enclosure construction. The landscape was re-organised in the late 1st/early 2nd centuries AD, with the introduction of a rectilinear ditch system, and continued through the 3rd century and into the late 4th century, and was peripheral to the 'small town' situated at Duston. There was a complex palimpsest of rectilinear and more irregular ditched enclosures, which contained a kiln and possible potter's workshop, a stone-lined well and two inhumation burials.	
Project type	Excavation	
Site status	none	
Previous work	Evaluation, geophysical survey	
Current Land use	Housing	
Future work	No	
Monument type/ period	Late Bronze Age/ early Iron Age pits; Iron Age settlement; Roman settlement	
Significant finds	Mesolithic microlith, Late Bronze Age/early Iron pottery,	
PROJECT LOCATION		
County	Northamptonshire	
Site address (including postcode)	Upton, Northampton	
Study area (sq.m or ha)	43.9ha	
OS Easting & Northing (use grid sq. numbers)	SP 722 600	
Height OD	80m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	NCC Historic Environment Team	
Project Design originator		
Director/Supervisor	Anthony Maull and Michael Webster	
Project Manager	Anthony Maull	
Sponsor or funding body	English Partnership	
PROJECT DATE		
Start date	Sept 200	
End date		
ARCHIVES	**Location (Accession no.)**	**Content (eg pottery, animal bone etc)**
Physical	Northants Archaeology	Pottery, animal bone, flint, small finds
Paper	Northants Archaeology	
Digital	Northants Archaeology	

Contents

Tables

Figures

APPENDICES

APPENDIX 1: ROMAN POTTERY QUANTIFICATION

APPENDIX 2: TABULATED DATA FOR PLANT MACROFOSSILS

EXCAVATION OF IRON AGE AND ROMAN SETTLEMENT AT UPTON, NORTHAMPTON SEPTEMBER-DECEMBER 2000

by

Charlotte Walker and Anthony Maull

with contributions by
Andy Chapman, Tora Hylton, Dennis Jackson, David Leigh, Jane Timby, Stephanie Vann, Val Fryer, Ian Meadows, Pat Chapman and Yvonne Wolframm-Murray

Illustrations by
Jacqueline Harding, Halle Moharramzadeh and Amir Bassir

SUMMARY

Excavation at Upton, Northampton prior to residential development located settlement from the late Bronze Age/early Iron Age and continuing through the Iron Age and Roman periods.

A small group of isolated pits, radiocarbon dated to the late Bronze Age/early Iron Age, contained a small pottery assemblage and a saddle quern. A short length of a pit alignment was examined. A number of pits contained early/middle Iron Age pottery, but a radiocarbon date centred on the 4th to 3rd centuries BC indicates that the pits, which were unusually deep, were still open into the middle Iron Age.

Middle to late Iron Age settlement comprised several enclosures of varying sizes and plan forms, and a possible roundhouse, all set alongside a linear boundary ditch with the same orientation as the pit alignment, but lying 50m to the south. The linear boundary was later reinstated and relocated slightly south of its original line, contemporary with a second phase of enclosure construction.

The landscape was re-organised in the early Roman period, the late 1st/early 2nd centuries AD, with the introduction of a rectilinear ditch system and a patchwork of small enclosures, lying largely to the east of the Iron Age settlement and either a satellite of or peripheral to the 'small town' at Duston. Settlement continued through the 3rd century and into the later 4th century. There was a complex palimpsest of rectilinear and more irregular ditched enclosures, and in the early phase there was a pottery kiln and possible workshop, a stone-lined well and two inhumation burials. The material finds are fairly typical for a small rural settlement, although the presence of some finewares and a range of building materials suggest that there was a well appointed household nearby.

1 INTRODUCTION

English Partnerships (now part of the Homes and Communities Agency) was granted planning permission to develop a 43.9ha block of land at Upton, in the Northampton South West District, for residential purposes (Fig 1; NGR SP 722 600). Geophysical survey and trial trench evaluation had defined areas of extant Iron Age and Roman occupation in the northern part of the development area (Shaw 1990 and Prentice 1999).

For the purpose of discharging the archaeological condition attached to the planning consent, Northamptonshire Archaeology carried out a programme of archaeological works comprising open area excavation of the identified cores of the Iron Age and Roman settlement areas between September and December 2000, in advance of any site groundworks. In addition, there was further evaluation in the form of geophysical survey and trial trenching in the southern part of the development area, where only remains of the medieval open field system were found (Hayward 2001).

An interim report summarising the results was produced immediately after completion of the excavations (Maull 2001), but as there were to be archaeological watching briefs during the initial phases of infrastructure development on the unexcavated parts of the development site (Jones 2002 and 2003; Leigh 2003), the results were not taken further towards analysis and publication at that time.

Watching briefs have also been conducted during the 2000s on groundworks for several of the housing areas that lay close to the known areas of archaeology. This fieldwork and its analysis have been funded separately, but the results have been incorporated with those of the main excavations.

Acknowledgements

The project was sponsored by English Partnerships (now part of the Homes and Communities Agency). The excavation was monitored by Myk Flitcroft (formerly of Northamptonshire Heritage). The project set up was managed by Andy Chapman and the fieldwork was led and directed by Anthony Maull. The excavation was supervised by Michael Webster and Sarah Jane Haston, and the fieldwork was conducted by David Leigh, Theodora Anastasiadou, Charlotte Walker, Ian McGregor and Catriona Toms. Metal detecting was undertaken by Steve Critchley. Geophysical survey was by Peter Masters. The watching briefs have been undertaken by David Leigh. The report has been written by Charlotte Walker and Anthony Maull, based on the analysis of the site record prepared by Anthony Maull. Copyediting of the report has been carried out by Andy Chapman. The illustrations were compiled by Jacqueline Harding, Hale Moharramzadeh, Charlotte Walker and Amir Bassir. Northamptonshire Archaeology thanks all specialists named in the report for their contributions.

Anthony Maull would like to thank the field staff for completing the excavation of the site on time despite appalling conditions during the wettest autumn since records began.

2 BACKGROUND

2.1 Location, topography and geology

The site was located about 4km to the south-west of central Northampton in the former parish of Upton. The site was bounded by the A45 to the north and Upton Way to the east (Fig 1). The main archaeological features in the northern part of the site lay at around 80-85m OD (Fig 2). The ground slopes gently to the south towards the River Nene, which is about 1.5km from the northern edge of the site and lies at c65m OD. To the north the ground rises more sharply to the north-east, up to 115m OD. This location provided fairly distant views to the south across the Nene valley and towards Hunsbury hillfort, which lies to the south-east on the facing slopes south of the river (Fig 2).

There were no sources of water, other than the Nene, in the vicinity of the site, although the watertable was very high at the time of excavation and several springs

spontaneously appeared on various parts of the site. A reconstruction of the probable topography and hydrology of the area shows the distribution of known Iron Age and Roman sites around Upton and the Hunsbury ridge (Fig 2). The sites are largely concentrated on the valley slopes and Hunsbury ridge, with little known activity to the west of the area.

The underlying geology of the site has been mapped as Northampton Sand with ironstone to the north of the site and as Glacial Lake Clays to the south. Although the excavation largely confirmed this, the interface between the differing geologies was situated further to the north, with the Iron Age boundary ditch approximately marking the division.

2.2 Previous archaeological work

The prehistoric and Roman settlements at Upton are part of a wider landscape of known sites situated on the valley slopes of the Upper Nene Basin (Figs 1 and 2).

Mesolithic to early Iron Age activity

Although present day fieldwalking on and around the site has recovered only a scattering of prehistoric flints, an estimated 25,000 implements and cores dating from the Mesolithic to the Bronze Age were recovered from an area of around 50ha at Duston during ironstone extraction between 1904 and 1912. The Mesolithic site at Duston is only one of two in the county known in national literature; the other is at Honey Hill (Phillips 2004). Early Mesolithic material was also recovered during excavations at Chalk Lane, Northampton (Williams and Shaw 1981).

There are also large amounts of Neolithic flintwork in the Duston assemblage, though there is little accompanying settlement evidence in the area. There is a putative Neolithic mortuary enclosure to the west of the site, although no corroborative dating was found (Northamptonshire Historic Environment Record (HER) 1475/0/2; Jackson 1993/1994; Fig 1). The Briar Hill causewayed enclosure, which was respected from the early Neolithic to the late Bronze Age/early Iron Age, lay on the facing slopes to the south of the river, below Hunsbury Hill (Bamford 1985).

A number of pit alignments, often dated to the late Bronze Age/early Iron Age and interpreted as territorial boundary markers, have been recorded in the wider vicinity of the site. Recent excavation at Quinton House School, some 100m to the west of the site, has revealed a continuation of the pit alignment found at Upton (Foard-Colby and Walker 2007). A pit alignment located and partly excavated during the construction of the Cross Valley Link Way *c*1km to the west of the site may converge with the pit alignment at Upton as it runs towards the site on an east-west axis (Carlyle 2008). Further afield, two separate pit alignments were recorded at Briar Hill, one running tangentially off the Neolithic causewayed enclosure and another some 300m to the south (Bamford 1985 and Jackson 1974). To the south-east, a pit alignment is known from geophysical survey at Wootton Fields. The precinct wall of a Roman villa ran closely parallel to the alignment, suggesting that the boundary persisted into the Roman period (Chapman *et al* 2005). Further pit alignments have been observed at Kingsheath/Dallington, again in the vicinity of a Neolithic causewayed enclosure.

Middle to late Iron Age settlement

One of the most prominent Iron Age monuments in the area is that of Hunsbury hillfort, *c*2.5km to the south-east (Fig 2). The hillfort was built in the early-middle Iron Age and was probably abandoned at some time in the late Iron Age. Many unfinished iron objects found at the site suggest that it may have served as a centre for the local production of iron. However, there is no evidence of iron smelting having taken place

at the hillfort itself, even though it is located on good sources of workable ironstone (Jackson 1993/4). A collection of 124 querns in Northampton Museum are thought to have come from the hillfort. The stones used come from many different places within England, indicating that Hunsbury had wide-ranging contacts and must have been a site of some importance (Ingle 1993/4). A number of possibly contemporary Iron Age sites also occupied the Hunsbury ridge, including enclosures examined during the excavation of the causewayed enclosure at Briar Hill (Bamford 1985). Two distinctive, defended enclosures excavated at Wootton Hill Farm (Jackson 1988/9) and Briar Hill, belong to a group located on higher ground along the main river valleys (Holmes and Chapman 2005). Other Iron Age settlement on the ridge appeared to be taking advantage of the ironstone outcrops for smelting.

A group of Iron Age pits was recorded during the widening of the A45, 750m to the west of the site (HER 5134; Jackson *et al* 1969). They were adjacent to, and probably associated with, some ditches that seemed to have formed the north-eastern corner of an enclosure and may have been the result of domestic activity. There was a sub-square enclosure, visible as a cropmark and subsequently investigated, located to the south of the site on the Nene floodplain (HER 5132/0/3; Jackson 1993/4). There was no associated dating evidence but it is thought to have been Iron Age or Roman in origin. Linear ditches and possible trackways to the south-west of the site may also have been Iron Age or Roman in origin (HER 1475/0/1; Jackson 1993/4). Further linear features to the north have been interpreted as Saxon or medieval in origin, but may date to the same period (5177/0/9).

Since the excavation of the settlement at Upton, a large sub-square enclosure, dated to the middle Iron Age, has been excavated to the immediate west at Quinton House (Foard-Colby and Butler 2006 and Foard-Colby and Walker 2007). Here there was a roundhouse within an enclosure also containing numerous pits and postholes. The Quinton House enclosure appears to respect the same linear boundary system as the Upton settlement, indicating that the Upton enclosures are no more than a half of the settlement area, which may extend even further westward.

A significant later Iron Age settlement focus at Duston probably replaced Hunsbury hillfort as a centre for social/economic activity in the area (Friendship-Taylor 1998). It was clearly an important economic centre, as evidenced by the comparatively large amount of coins that have been found here. Unfortunately, most of the site has been destroyed, principally by ironstone quarrying in the 19th century.

Further afield, a middle to late Iron Age settlement has been located *c*2km to the south-west at Pineham Barn (Brown 2007; Fig 2). There were also large agglomerated settlements to the north and east at Ecton/Sywell, the Bramptons, Wilby Way, Wellingborough and at Wollaston. It can be postulated that further settlement was located further downstream, to the east of Upton, and has since been lost by the development of Northampton.

Roman settlement

The Roman settlement at Duston developed during the 1st century AD and was focused on at least two roads, one from *Bannaventa* (Whilton Locks), *c*10km to the northwest, and one from *Lactodorum* (Towcester), *c*15km to the south (Fig 2). It eventually became one of the more significant undefended nucleated settlements in the county. The settlement was composed of a series of '*irregularly shaped ditched enclosures laid out to either side of the main roads within which stood first timber then stone buildings of simple form fronting on to the roads*' (Taylor 2002). The site is poorly understood due to the lack of targeted excavation and large-scale destruction by mining in the 19th century. It appears to have been in use up to the 4th century and seems to have functioned as an agricultural and commercial centre. The coin evidence from the site may suggest that it had a significant role in monetary

exchange in the 1st century AD. There has been no specific evidence suggesting craft specialisation however.

Saxon and medieval settlement

Early/middle Saxon settlement features have been found to the west of the current site (HER 5773/0/3). A sunken featured building (SFB) was found during the widening of the A45 in 1965. The building contained more than 60 loomweights and it was interpreted as a weaving shed, rather than a domestic building, which was eventually destroyed by fire (Jackson *et al* 1969). More evidence of SFBs and posthole buildings were found during evaluation about 200m further to the north (Shaw 1993/4). These features may form separate elements within a dispersed early/middle Saxon settlement pattern.

The Roman settlement at Duston does not seem to have continued into the Saxon period, and by the middle Saxon period the main core of settlement had migrated to the east, present day central Northampton.

To the immediate west of the site is Upton Park. The walled area of the park contains the remains of Upton deserted medieval village to the south, medieval fishponds and ridge and furrow to the west, as well as the still upstanding Upton Hall and St Michaels Church to the north (HER 5138). The medieval manor house probably stood on the same site as the present Hall, but no medieval fabric survives within it (RCHME 1985).

A ring ditch on the Nene floodplain to the south of the site was, as a result of trial trench evaluation, thought more likely to be the remains of a medieval post-mill than a Bronze Age round barrow (HER 5137/0/1; Jackson 1993/4).

3 OBJECTIVES

The Archaeological Brief for excavation was issued in 2000 by Northamptonshire Heritage. The main site-specific objectives for the site are outlined below:

- Establish the chronological development of the Iron Age/early Roman landscape by investigating the enclosure complexes and key features and intersections within the field system/trackways
- Establish the economic basis of the Iron Age/early Roman activity by investigating the form and layout of the enclosure complexes and the intervening field systems and trackways, by recovering associated environmental deposits and by means of phosphate analysis
- Investigate the nature of the Iron Age/early Roman social organization
- Investigate the relationships between the natural and human landscapes by reconstructing the local geology, topography and hydrology of the site in the Iron Age/early Roman period
- Examine the longer-distance contacts of the Iron Age/early Roman settlements by identifying the imported artifacts
- Interpret the Iron Age/Roman settlement pattern at Upton
- Establish the dates of abandonment or change in the landscape use within the Roman period

- Attempt to establish the pattern(s) and character of land use(s) in the later Roman, early/middle Saxon and late Saxon/medieval periods

Research frameworks for the region have subsequently been published and this report has taken these into account (Cooper 2006).

4 METHODOLOGY

The areas to be excavated, which totalled 2.8ha, had been defined in the archaeological brief. To the west, Area 1, a rectangular area of 1.90ha measuring 170m east-west by 115m north south, took in the known core of the Iron Age settlement (Fig 4). To the east, Area 2, was a square area of 0.87ha, measuring 100m east-west by 100m north south. It had to be split in two by a 9m-wide baulk due to the presence of overhead cables. It should also have extended further to the east, but this could not be achieved due to the adverse weather conditions. Area 2 was designed to take in the more irregular elements of the Roman ditch system, while the more regular, ladder arrangement further south was largely excluded from excavation (although part of this area was later recorded during a watching brief on access road construction, see below).

The two areas were stripped of topsoil and overburden using a combination of box scrapers and 360° excavators fitted with toothless ditching buckets, to reveal the upper archaeological horizon. The incredibly heavy rainfall during the course of the excavation destroyed much of the integrity of the soil structure, effectively turning it into slurry, which brought machine stripping to a halt at one stage.

In addition to the main areas, a small trench, Area 3, was targeted on a single strong geophysical anomaly, which was considered to be a possible kiln site although it proved not to be.

A metal detector survey for metal finds was undertaken by Steve Critchley during the excavation. This included a rapid scan over the entire area, as well as a more intensive survey in specific areas, which were generally centred on the structural remains.

As part of the wider programme of development works and concurrent with the open area excavation of 2000, other evaluation work was undertaken. This comprised trial trenching to the north of the A45 and geophysical survey and targeted trial trenching in fields to the south of the excavated area (Hayward 2001). Apart from occasional furrows, no archaeological features or pre-modern finds were found in any of these trenches.

A series of watching briefs were undertaken during the construction of the road infrastructure to the south of the excavation areas and in the area to the north of the A45 (Jones 2002 and 2003; Leigh 2003). Once more, no archaeological features were observed. Further watching briefs were undertaken during the construction of the road infrastructure and groundworks for the housing in the area of the former excavation, including an area to the immediate south of Area 2 that took in part of the Roman enclosure system.

A separately funded watching brief, not reported here, has located several pits containing burnt debris and Roman pottery (David Leigh pers comm), located around the south-western limit of the geophysical survey, adjacent to the double-ditched boundary ditches (Figs 3 & 4).

5 THE EXCAVATED EVIDENCE

5.1 Summary of site chronology

The sequence of development is summarised below (Table 1).

Table 1: Summary of site chronology

Period/phase	Description
Late Bronze Age/early Iron Age pits 8th to mid-6th centuries BC	Small pit group and isolated pit
Early/middle Iron Age pit alignment Possibly 6th to 4th/3rd centuries BC	Suspected early Iron Age origin, but pits still open at beginning of middle Iron Age
Middle/Late Iron Age Settlement 2nd to early 1st century BC 1st century BC to mid-1st century AD	 Linear boundary with associated enclosures and a roundhouse Boundary redefined and new enclosures set out
Roman settlement 2nd/3rd century AD 3rd/4th century AD 3rd/4th century AD	 Kiln, well and associated activity. Irregular enclosure systems. Rectilinear enclosure system
Medieval activity	The site lies within the medieval field system of the deserted village of Upton

5.2 Mesolithic to early Bronze Age

Struck flints, ranging in date from the Mesolithic to the Early Bronze Age, were recovered as residual finds.

Large amounts of Mesolithic flint have previously been found in Duston, indicating that the area may have been a favoured location for hunter gatherer groups. It is thought that Mesolithic sites are generally located on the permeable geologies with extensive views of the surrounding landscape, but also reasonably close to water. Many of the sites in Northamptonshire are situated on the Nene Valley and the site at Upton fits with this pattern.

5.3 The late Bronze Age/early Iron Age pits

Three pits, 305, 377 and 383, formed a small group in the southern part of Area 1, while a fourth pit, 4, lay 105m to the west, near the edge of the excavated area (Fig 5). These pits were from 0.75m to 1.60m in diameter and from 0.24m to 0.38m deep. The fills of the cluster of three pits was largely grey-brown sandy silts with occasional small stones, some of which were burnt, and flecks of charcoal. Distinct lenses of material, indicating deliberate episodes of dumping, comprised pieces of charcoal and burnt stone. In two of the pits, 383 and 377 there were large amounts of pottery (see Fig 20), and pit 383 also contained a near complete saddle quern (see Fig 24). Plant macrofossils included barley and wheat, as well as onion couch, a tuber sometimes eaten in the Bronze Age, but this material could be intrusive from the overlying Iron Age settlement. Charcoal from pit 383 has been radiocarbon dated but, due to the nature of the calibration curve for this period, the calibrated range spans 250 years, spanning the 8th to early 6th centuries BC (810-530 cal BC, 95% confidence, 2540 +/- 40 BP, Beta-215490).

5.4 Early/middle Iron Age pit alignment

Part of a previously unknown pit alignment lay in the north-western part of Area 1 (Figs 5 and 6). It was aligned north-east to south-west, following the contour along the valley. Subsequent geophysical survey and excavation at Quinton House School, to the west, has located a further length of the same alignment (Foard-Colby and Butler 2006 and Foard-Colby and Walker 2007), indicating that it followed a closely linear course for at least 170m (Fig 4), and it may be part of or related to a pit alignment found even further to the west prior to road construction (Carlyle 2008), suggesting a possible length of at least 1.3km.

In a recorded length of 36m there were 13 pits, of which 12 were either sectioned or fully excavated (Figs 6, 7 and 12). The pits were 2.00-2.60m in diameter, and between 0.30m and 0.8m apart, but with a regular spacing of 3.0m centre-to-centre. In plan the pits were irregularly sub-circular to sub-square in shape, but the surface plans were a product of prolonged erosion of the upper edges.

Three of the pits, 96, 122 and 144, were only 0.65-0.70m deep, but the others were all deeper, within the range 0.80-1.00m deep. Excavation showed that the bases and basal edges were generally sub-square in plan, with flat bases and steep sides where they were cut into the more stable and solid ironstone geology. This suggests that when newly cut the pits were square in plan, with sides some 1.5m long orientated along the line of the alignment. At 1.5m square and a spacing of 3.0m centre-to-centre there would have been 1.5m between each pit. As with many pit alignments, it appears that the original layout was quite precise, but this had been blurred through time as a result of erosion.

Two of the pits, 144 and 146, had homogeneous fills made up of orange-brown sandy clay with ironstone fragments, indicating that they may have been deliberately backfilled. Both of these pits retained a more regular surface plan, indicating that they had been subject to less erosion due to being open for less time. The remainder of the pits showed a more complex sequence of silting. The accumulation of the primary fills to a depth of 0.30 to 0.60m (Fig 6, Sections 1-3) may have occurred quite rapidly, and these fills were generally brown-grey silty sands with frequent large pieces of ironstone and large cobbles. In one of the pits this was sealed by a 0.10m-thick layer of rammed ironstone, as if the pit had been partly backfilled by the natural upcast soon after excavation (Fig 5, Section 3, pit 102). This pit was also the deepest excavated example.

Subsequently, the pits were open for some considerable time as the upper edges had eroded into the less stable cornbrash of the surface geology. The sharply angled shelf on the south-west side of pit 111 (Fig 6, Section 1) may even suggest that there was some recutting of the upper parts of some pits. Pottery was found in some quantity in the central five pits, 99 to 111, with smaller quantities in two others, 93 and 144. A total of 267 sherds were recovered but much of the material is small and abraded, indicating that it had probably been deposited as a result of edge erosion into surface scatters. The majority of the material was scattered through the upper fills, but some is recorded in the primary fills, which suggests that the pottery scatter may have pre-dated or been closely contemporary with the construction of the pit alignment. Unfortunately, there is a lack of diagnostic material, but the assemblage has been tentatively dated to the late Bronze Age/early Iron Age. A piece of sheet copper alloy rolled to form a cylindrical tube was recovered from pit 99.

It would be expected that the construction of the alignment would have occurred in the early Iron Age, and there is a body of radiocarbon dates from pits alignments in the region spanning the range 800-500 cal BC. However, a sample of wood charcoal from the lower fill of pit 108 has been radiocarbon dated to the 4th to 3rd centuries BC, the early Middle Iron Age (400-200 cal BC, 95% confidence, 2270 +/- 40 BP, Beta-215489). This indicates that the pits were still substantially open at the

beginning of the middle Iron Age, and either the origin of the alignment was quite late or the pits were open for around two centuries or more.

5.5 Middle to late Iron Age Settlement

A small settlement was probably established in the 2nd century BC. It comprised a group of small enclosures largely set along the southern edge of a linear boundary ditch. It seems likely that the settlement had been deliberately placed to take advantage of the transition between the permeable and clay geologies.

The linear boundary ditch

The linear boundary ditch (Fig 5, 209) was aligned north-east to south-west and was visible as a continuous feature across the entire excavated area, about 182m. The geophysical survey records it further to the east and the location of an Iron Age enclosure at Quinton House School is consistent with a westward continuation, giving a recorded extent of at least 350m (Fig 4). This boundary runs closely parallel to the pit alignment but 50m to the south, suggesting a degree of continuity in the landscape boundaries through the Iron Age.

The boundary follows a sinuous linear course, although to the west there is an abrupt kink, perhaps where separately excavated lengths were slightly misaligned. Within the excavated area, the character of the ditch changed from east to west. To the east, at the highest elevation, the ditch was cut through clay geology and was fairly shallow, at 0.19m deep with a flat base. The fill of the ditch consisted of silty clays with occasional fragments of ironstone and small stones. To the west the ditch was cut through Northampton Sand and Ironstone and had stepped sides with a rounded base, and was much deeper, at around 0.70m. Here there was a primary fill of orange-brown silty clay that contained frequent ironstone fragments, probably reflecting the fact that the upper part of the ditch cut was less stable in the sand and ironstone than it was in the clay geology. The upper fill comprised orange-brown sandy clay.

At the eastern end of the boundary, there were a further three ditches to the south of the main boundary, all lying closely adjacent (Fig 5). Two of these terminated arbitrarily, while the central ditch terminated at the north-eastern corner of Enclosure 6 (Fig 9, 434), illustrating the close association between the setting out of the boundary system and the adjacent enclosures.

Enclosure 3

Enclosure 3, the most westerly of the early enclosures, was oval in plan with internal dimensions of 6.5m north-south by 5.0m east-west, and an entrance 1.5m wide that faced to the north-east (Fig 5, Enclosure 3 and Fig 8). The ditch had a complicated sequence of re-cutting. The gullies were between 0.50-0.87m wide and 0.20-0.45m deep, with steep sides and a flat or concave base. The fills were fairly sterile dark brown clay silts with occasional ironstone fragments and large pebbles.

If the ditch had enclosed a roundhouse, the structure would have been no more than 4.0m in diameter, which is very small, and this seems unlikely

Enclosure 4

This was a square enclosure with no apparent entrance, which shared the same alignment as the linear boundary ditch (Fig 5, Enclosure 4). There were two phases of ditch. The outer ditch was the earliest, and would have enclosed an area around 11m square. After the ditch had been recut, the central area was 9.0m square.

The inner edge of the original ditch, 472, had been almost entirely truncated by the recut, but it was at least 1.00m wide and 0.20m deep, with fairly gently sloping sides leading onto an irregular, concave base. It was filled with dark brown clay silt with

frequent ironstone. The recut was 1.75m wide and 0.58m deep, with a wide U-shaped profile. The fills contained no domestic debris. A sinuous gully which abutted the eastern side of the enclosure and continued a further 16m to the south may have formed a contemporary boundary (Fig 5, 474).

Enclosure 6 and associated activity

To the east, and aligned with the linear boundary ditch, there was a sub-square enclosure that enclosed a complex of structures, probably including a roundhouse (Figs 5 and 9). This outer enclosure measured 28m east-west by 24m north-south. The southern end of the south-western arm turned slightly inward, but otherwise the south-eastern side was open.

The north-eastern arm of the ditch was 0.59m deep, with steep sides and a fairly narrow rounded base, but elsewhere it was shallower with a wider, flatter base, and the terminal of the south-western terminal, which had been recut, was only 0.15m deep. It is possible that this outer enclosure was a later addition, enclosing pre-existing features

A roundhouse?

At the north-eastern end of Enclosure 6 there was a complex of gullies (Fig 9). A curving gully, 414/424, partly removed by a furrow, was up to 1.20m wide by 0.28m deep. Its curvature, at *c*11m diameter, would be appropriate to form a partial ring ditch surrounding the north-western side of a roundhouse. Within the area of the putative house, there was a pit, 416, with a fill containing burnt debris, and to the south of this the base of a pottery jar, 386, was embedded in the natural; it may have been the *in situ* remains of a storage jar set into the floor of a roundhouse.

The space between the possible roundhouse and Enclosure 5 had been sub-divided by an L-shaped length of gully, 406, which was cut by a shorter length of gully, 393, running west-east, which had relatively steep sides leading onto a narrow U-shaped base. There was a primary fill of yellow-brown silty sand and the upper fill was pale brown sandy silt that contained deposits of large stones throughout its length, as well as what appeared to be a 'structured' deposit of pottery, which was laid flat on top of large cobbles, in the eastern terminal.

A pit or posthole at the eastern end of the gully was packed with stones, some large and some burnt. Other nearby pits, including 387 and 410, were from 0.22m to 0.50m deep with steep sides and flat or slightly concave bases. The fills were brown clay silts with varying amounts of charcoal, stone (some of which was burnt) and pottery. Two of the pits contained fuel ash slag. Two postholes, 397 and 401, further to the south, had post-pipes visible within the fills. The marked concentration of burnt debris, burnt stones and pottery in these features supports the suggested presence of a roundhouse in this area.

Enclosure 5

Enclosure 5 occupied the western half of Enclosure 6. It was oval in plan, measuring 13.5m north-south by 9.5m east-west (Fig 9, Enclosure 5). There was a narrow entrance, 1.3m wide, to the south-east, with a slightly sunken causeway filled with a deposit very similar to the uppermost fill of the ditch terminals. At least three phases of ditch, up to 1.75m wide and 0.84m deep, were recorded on the western side of the circuit, but elsewhere only a single phase was recognised (Fig 10, Section 4). Fuel ash slag was found in the primary fill of this ditch, as well as in three other contexts. The internal area was devoid of features.

5.6 Late Iron Age settlement

Either in the later 1st century BC or into the 1st century AD, the linear boundary ditch was replaced by a new ditch system that followed the same alignment but was relocated some 7.5-9.0m to the south. All of the earlier enclosures appear to have fallen out of use, as the new boundary ditches cut across them, and two new enclosures lay at the western end of the new boundary system.

The boundary ditches

The boundary ditch was fairly consistent throughout its length, being a narrow U-shape in profile with a fill of grey-brown clay silt (Fig 5, 357). For much of its length there was a second ditch, 359, of similar dimensions to the immediate north, but to the west this ditch turned abruptly southward and terminated. It is possible that initially both ditches had terminated here, with a ditch, 231, at right angles to this line, running northward and forming a western boundary. A ditch to the south-east, 375, may have been a contemporary southern boundary. At a later date, the linear boundary was extended westward, cutting across the end of ditch 231, to meet the north-east corner of Enclosure 7. The arrangement of the outer boundaries, 231 and 375, and the western termination of the double ditches linear boundary all suggest there was a very clear distinction between the open area to the east and the area to the west occupied by the new enclosures.

Enclosure 2

Enclosure 2 was rectangular, with internal dimensions of 39.0m north-south and 27.0m east-west, an area of 1000sq.m or 0.1ha (Figs 5, 11 and 12). Slightly west of centre on the southern arm there was a narrow, 1.6m wide, entrance causeway, although the width of this causeway had probably been considerably reduced through erosion of the soft upper edges of the ditch. The ditch was consistent in width measuring 3.00-3.20m wide (Fig 10, Section 5). The ditch terminals were 0.65m and 0.90m deep, to the east and west respectively, but elsewhere the ditch was 1.20-1.46m deep. Some evidence of a re-cut was observed in a single excavated section, 80, but this was not seen elsewhere.

The primary fills of the ditch were very variable ranging from orange-brown sandy clay in the north-western corner to light brown-grey silty clay in the north-eastern corner. The upper fills were equally variable being generally grey to orange-brown sandy or clay silts. Mottled areas and iron panning in the upper fills of the ditch indicate that it was probably seasonally waterlogged, even when the ditch had largely silted up. All the fills contained moderate amounts of ironstone and pebbles.

There was some evidence of structured deposition in the terminal on the eastern side of the entrance, where a number of large stones were recovered along with the greater part of a small saddle quern but few other finds were recovered from the fill of the ditch.

Enclosure 1

This D-shaped enclosure had no apparent entrance, and internal dimensions of 10.80m north-south by up to 7.80m east-west (Fig 11). The ditch was 1.38-1.90m wide and 0.70m deep, with a stepped inner edge due to the erosion of the upper part of the ditch cut, suggesting that it was left open for some time. The fills were primarily dark brown-grey sandy silt, with an asymmetrical primary fill that may have been derived from either an external bank or dumping from the outer edges. There were no contemporary internal features.

A short length of curvilinear gully to the immediate west of Enclosure 1 was very shallow at 0.10m (Fig 11, 68). It is possible that it represents the very truncated remains of a ring ditch surrounding a roundhouse, perhaps 10m in diameter. A layer of stones filling a shallow hollow to the east, which cut across Enclosure 1, may have been a cobbled path leading to an eastern entrance (Fig 11, 185).

There were several pits within the enclosure, and the pit fills contained quantities of pottery, bone and daub (Fig 10, Section 6, pit 82). Fragments from several loomweights were recovered from pit 50, in the southern half of Enclosure 2, indicating that weaving was being undertaken nearby. Many of the pits contained small amounts of fuel ash slag, but the only evidence for metalworking was a smithing hearth bottom also from pit, 50. Cereal processing waste was found in low densities in pits 50, 58, 74 and 188, with the richest assemblage from pit 66, which contained oat, barley, wheat, emmer and spelt.

Enclosure 7

Enclosure 7 was probably contemporary with Enclosure 2, as they respected each other's circuits, with the western arm of Enclosure 7 not impeding access into the larger enclosure (Fig 5). To the south the ditch was up to 1.10m wide and 0.50m deep, but the western and northern arms were less substantial. The fill was brownish sandy silts containing occasional fragments of ironstone and pebbles. The only features within the enclosure were two small pits, one of which, 55, 0.30m wide and 0.15m deep, contained the unurned cremation of a juvenile, aged 12-20 and accompanied by about 40 hobnails. This cremation is likely to date to the 1st century AD or later, and may represent a post abandonment reuse of the enclosure. A nearby pit contained a charcoal-rich fill but no artefacts.

Scattered pits

A number of pits lay to the east of Enclosure 2, and some of these truncated the earlier boundary ditch. They were exclusively on the Northampton sand and ironstone, and not the impermeable clay geology, perhaps suggesting that they were intended for grain storage. The size of the pits was very variable, between 0.40-2.70m wide and 0.10-0.90m deep. The profiles were equally diverse, ranging from vertical sides and flat bases, a type generally associated with storage pits, to shallow scoops with rounded bases.

Some of the pits had homogeneous fills of orange or grey-brown sandy or clay silts with frequent ironstone, pebbles and flint fragments, perhaps suggesting that they had been rapidly backfilled. Others had more stratified fills, indicating probable longer periods of filling. Pit 188 contained a number of burnt stones as well as blocks of ironstone and frequent charcoal. There was a moderate amount of cereal processing waste; barley, wheat and spelt were all represented. A possible sharpening or polishing stone was recovered from the upper fill of another pit, 265 (Fig 5). Within this area there was also a number of very shallow slots; 166, 180, 257 and 298, and associated shallow posthole bases.

Further to the east, adjacent to the double linear boundary, a shallow pit, 450, contained the remains of triangular loomweights, as well as burnt stones and daub (Fig 5). The clay around the pit appeared to be scorched, suggesting burning *in situ*.

5.7 Roman settlement

The Roman settlement here may either be an outlying part or a satellite of the large settlement at Duston, 0.5km to the east. The geophysical survey provides a broad overview of the form of the Roman settlement in the eastern part of the site (Fig 3). To the north, it comprised an irregular area measuring 180m east-west by 100m north-south, bounded by sinuous outer boundaries and sub-divided into a complex patchwork of small enclosures. To the south, two linear boundaries ran north-east to south-west and there was a more regular system of abutting rectangular plots. Evident overlapping of ditch systems showed that this complex spanned an extended period of use, with modifications of the boundary systems occurring.

The excavation has gone some way to further defining this system and its development, but the results are limited by a number of factors (Fig 4). Firstly, the limits of excavation were set too tightly within the core area of the less regular ditch systems, which left too many features running out of the excavated area and therefore inexplicable as to function and associations. Secondly, the appalling weather conditions during the excavation severely hampered the basic processes of establishing relationships and of fully investigating the features themselves. However, the broad pattern of development has been established.

The double-ditched boundary system (2nd century AD)

To the west, overlying the Iron Age settlement, there was an L-shaped double-ditch system, with ditches 1.50m to 3.50m apart, and associated linear ditches, which have been dated to the 2nd century AD (Fig 5). The relationship of the L-shaped ditches to another pair of broadly contemporary ditches along the northern arm, suggests that the inner ditch, 277, of the L-shaped system was earlier in date, with the outer ditch, 273, a later addition (Figs 4 and 5). Both ditches had wide V-shaped profiles, and were relatively shallow to the north, 0.25m deep, while to the south they were 0.58-0.70m deep.

The eastern arm continued to the south of the excavated area, but the geophysical survey did not show it extending any great distance southward. However, it is possible that the excavated ditch was associated with ditch systems further to the south, recorded on the geophysical survey, comprising a double-ditch system to the west and a single ditch to the east (Figs 3 & 4). Together, these ditch systems encompass an area measuring 170m north to south by in excess of 200m east to west, but they do not fully enclose it by themselves, as at least the northern and eastern arms were incomplete. On the southern arm, northwards returns, a double ditch to the west and a single ditch to the east, may have formed a funnelled entrance passage *c*50m long and tapering from 15m to 12m wide. If this had been centrally placed, the enclosed area would have been 260m wide, giving a total area of *c*4.4ha.

The alignment of the southern boundary line was also repeated or continued to the east, where it was respected by part of a regular system of small rectangular enclosures or plots. This suggests that the western ditch system may have been contemporary in origin with the Roman settlement to the east, but dating evidence is sparse to the west and profuse to the east, making comparison of the chronologies difficult.

The uniformity of these early Roman features suggests that a planned re-organisation was undertaken. There is no evident relationship to domestic occupation, so this enclosure system either formed part of a rectilinear field system or was, perhaps, part of single massive enclosure, perhaps a stock corral, lying to the west of contemporary domestic occupation.

The kiln and associated features (2nd–early 3rd centuries)

In Area 2, to the east, the earliest features comprised a pottery kiln and possible potter's workshop and a well (Figs 4 and 13). These features seem to have had a relatively short life-span. In addition, two burials were placed here towards the western edge of the occupied ditched plots.

The kiln is a horizontal draught kiln, dated to the 2nd century. It corresponds in form to type IIIC of Woods' typology of early Roman kilns in the Nene Valley (Woods 1974).

The furnace chamber was bowl-shaped, 1.40m in diameter and 0.30m deep (Fig 14 & 15). The bowl had been lined with clay which had been fired to a blue-grey colour. The flue was 0.35m wide by 0.44m long, and was lined with clay onto three to four uneven courses of split limestone blocks set in a construction trench 0.86m wide. It

appeared that the two pedestals had been set in the bowl after a first firing. The pedestals comprised a limestone core bonded with grey-yellow clay, and faced with further clay. Part of a circular kiln shelf was recovered from the enclosure ditch (Fig 30).

The stokehole lay on the north-western side. It was large and irregular, around 3.00m wide by 1.90m long and 0.46m deep. An ashy deposit found throughout the kiln and the part of the stokehole closest to the flue, was deepest at the entrance of the flue, suggesting that the last firing of the kiln had been set at the entrance of the flue. The main fill of the stokehole consisted of a clean sandy silt, indicating it was deliberately backfilled when the kiln was abandoned, although the upper fills of the kiln chamber and flue were dominated by pieces of collapsed superstructure.

Surrounding the kiln was a regular curvilinear gully, which had been re-cut a number of times forming an enclosure up to 8.5m long by 7.0m wide. The earliest phase of ditch, 1093, was 0.52-0.90m wide and 0.30-0.60m deep and had steep sides and a flat base (Fig 14, Section 8 and Fig 16). The later re-cuts were all made up of short lengths of gully and were much the same in width and depth, but had shallower sides and rounded bases. All the gullies contained large amounts of burnt daub and charcoal, as well as some pottery. The daub, as well as the depth of the gully, suggests that it was cut to hold some form of screen or wattle and daub structure that would have functioned as a windbreak around the kiln.

A possible small building lay to the south-west of the kiln (Fig 13, Building 1). There was a cluster of postholes in an area roughly 5-6m square. Some of the postholes contained large stones as probable post packing, but no post pipes were observed.

Closely associated with the postholes were two spreads of stone (Fig 13, 1099 and 1071). Both comprised limestone and ironstone pieces, most of which were laid flat, though some were pitched. These stone spreads may have been used to consolidate the ground over earlier features and provide a solid surface around the outside of the building. The head of a drill-bit, a piece of *tegula* roof tile with a nail-hole and a lead pot repair were found in a shallow pit beneath layer 1099, while part of a shale bracelet was incorporated into the layer.

To the south-west of the building was a stone-lined well. This was not bottomed, but it was over 2.50m deep (Figs 13 and 19, 1138). The well cut was sub-circular in plan with very steep sides. It was 2.90m in diameter at the top, but tapered to 1.80m. The well lining was constructed in limestone. The fill of the shaft was fairly undifferentiated and made up of dark grey-brown sandy silt, with few inclusions.

It is possible that the building and the well constitute the remains of a potter's workshop associated with the kiln.

To the east of the kiln, an early L-shaped length of the ditch, 1251, may have formed a sub-square enclosure, measuring 30m north-south by in excess of 30m east-west. The ditch was 0.85m wide by 0.30m deep and the pottery, which included Black Burnished Ware, is dated to the late 2nd to 3rd centuries. The northern boundary was probably a linear ditch, 1255, which was retained into the later phase of occupation.

Two inhumations lay to the south of the kiln (Figs 13, 17 and 18, 1199 and 1236). Lying within a metre of each other, they were probably closely contemporary. Both were orientated east to west, with the heads at the eastern end. The grave cut for the northern burial had vertical sides leading onto a flat base and was 0.65m wide and 0.45m deep. The south-western end of the grave had been truncated by a ditch. The only surviving skeletal remains were eight fragments of a single limb bone, probably the femur. The individual had probably been an adult. The southern grave cut had similar dimensions. The burial was only slightly better preserved, with parts of the skull and the long bones represented. The skeleton was of an adult who was

probably no more than 25-35 years old at death. The graves may have been located in the corner formed by the intersection of two gullies. Pottery from the grave fills is dated to the late 2nd to 3rd centuries.

The late Roman ditch systems (3rd-4th centuries)

The industrial activity of the 2nd-early 3rd centuries appears to have been abandoned, and a new pattern of ditched boundaries was established. The relatively small size of the excavated area means it is difficult to understand how the landscape was being used, but the ditch systems appear to have formed small, sub-square plots or paddocks with little apparent uniformity or planning, resulting in an apparently haphazard development, although some major boundary lines are apparent within the excavated area.

At the northern end of the excavated area there was a ditch aligned east-west, which was seen in the geophysical survey to continue to the west for at least 90m beyond the area of excavation, forming the major northern boundary to the settlement area (1031 and 1255, Fig 13 and Figs 3 & 4). The ditch was 2.22m wide and 0.47m deep, and was later partially truncated by a substantial ditch, 1033/1262, with an unusual, meandering north-south orientation, which may have been a drainage ditch rather than a boundary marker. Pottery from the ditch fills included decorated Samian stamped by the mould maker ADVOCISI.

A major north-south boundary ditch, 1089, recut several times, truncated the kiln enclosure ditch, but appeared to be only slightly later in date than the kiln (Figs 13 and 14). To the north the ditches were 0.90-2.00m wide and 0.41-0.68m deep, with steep sides and narrow concave bases, but to the south they were only 0.70-1.44m wide and 0.24-0.49m deep, suggesting, perhaps, that they had been truncated. This boundary also continued into the watching brief area, 5030/5032 (the dislocation in the line is a product of surveying errors between stages of archaeological work some years apart.

An AE3 House of Constantine issue coin, from ditch 1089 to the north, is dated to the early 4th century, suggesting that this north-south boundary was functioning into the late Roman period.

In the southern part of the excavated area and into the watching brief area there was a more regular system of small, rectangular enclosures. In the south-west corner of the excavated area, the northern, 1216, and eastern, 1312, arms of a sub-square enclosure produced quantities of pottery. The primary fill included the base of a Samian dish with a stamp of ROPPVOFF (Roppus) of Les Martres-de-Veyre, in the Auvergne region of central France, dated to the 2nd century. Large quantities of pottery recovered from the upper fills of the ditch were generally dated to the late 2nd and 3rd centuries. A layer of pitched ironstone had been set into the upper fill, probably consolidating a particularly damp area. The western arm was formed by a similarly-sized gully, 1220, and coins from this gully are dated to the 3rd and later 4th centuries, suggesting it remained open until the latter stages of the settlement. The westernmost ditch within the excavated area, 1210, was recorded on the geophysical survey as another extensive, if sinuous boundary ditch.

Boundary modifications

The latest Roman activity on the site comprised further modification of the ditch systems. A key change was the provision of a new linear boundary, lying in the southern part of the excavated area. This was formed by a large V-shaped ditch, 1.75m wide and 0.65m deep, 1017 and 1302 (Fig 13). More coins were recovered from this feature than any other on site; with the latest dating to the mid-late 4th century, the boundary ditch must have remained at least partially open until the end of the Roman period. A Roman steelyard weight was also recovered from this ditch.

The geophysical survey shows this ditch continuing to the south-west, where it forms the northern boundary to several abutting rectangular enclosures.

To the north of the ditch there were a number of large pits. Some of them may have functioned as water holes while others may have been quarry pits for extracting clay for building material. The largest, 1004, 5.50m long 4.60m wide, was not excavated, but finds from the surface include pottery, bone and daub, some tile, and a coin dating to the middle of the 4th century. Another large pit, 1147, was 4.50m long, 3.65m wide and at least 0.95m deep (Fig 13). The high watertable at the time prevented deeper excavation. Finds included pottery, bone and daub as well as a fragment of thick tile, perhaps part of a *bipedalis* used to bridge the gaps between hypocaust pillars.

The finds of structural material indicate that there were buildings in the vicinity, but either they had left no below-ground evidence or had lain beyond the area of excavation. The possible *bipedalis* suggests a well-appointed house.

Within the excavated area, none of the other more extensive ditch systems can be shown to have been retained in the final phase of development, but there were a series of shallow, curving gullies,1078, 1169/1300 and 1009 (Fig 13).

Coins that were metal-detected from the subsidence fill of an earlier, 2nd-3rd century, ditch, included an AE4 Valentinian II issue dating to 375-392, the latest coin found on site, indicating local activity continued until the late 4th century.

5.8 The medieval field system

A series of regularly-spaced north-south aligned gullies are visible on the geophysical survey and were recorded across the excavated area (Figs 3 and 4). They are the truncated furrows of a former medieval ridge and furrow field system. The furlongs ran down the slope towards the river. There did not appear to be any correlation between the medieval open field system and any earlier landscape features.

The site would have been situated within the common fields of Upton village. The date of enclosure is unknown, but Bridges, reporting in about 1720, stated that part of the lordship 'hath been enclosed within these few years' but that the rest was old enclosure (RCHME 1985). It is thought that the earlier enclosure may date to when the Knightley family acquired Upton, in 1420.

6 THE FINDS

6.1 The worked flint by Yvonne Wolframm-Murray

In total, 75 pieces of worked flint were recovered as residual finds from Iron Age and Roman contexts. The flint consists of 40 flakes, 17 blades, six cores, three core fragments, and eight retouched tool forms. A summary of the general makeup of the assemblage is listed below.

Table 2: Summary of flint assemblage

Item	Whole	Broken	Burnt	Total
Flakes	17	19	2	38
Flakes (utilised)	1	2	-	3
Blades	9	7	-	16
Blades (utilised)	1	-	-	1
Cores	6	2	1	9
Scrapers	3	-	1	4
Piercer	-	1	-	1
Microlith	1	-	-	1
Serrated blade	-	1	-	1
Notched flake	-	1	-	1
Total	**38**	**33**	**4**	**75**

The appearance of the flint is generally fresh with little or no post-depositional edge damage. Just three pieces of flint show some patination, of which only one is due to heat alteration, similarly there is a small amount of burnt material with only four pieces presenting such evidence.

The raw material comprises of a vitreous flint ranging in colour from a light grey to a dark grey and from a light greyish-brown to a mid greyish-brown. There is also a small amount of a light brownish-grey opaque flint. The cortex of the flint ranges from a light brown to dark brown or to a thick, white patination. The appearance of the flint and cortex indicates the origin of the raw material to have been local gravel flints.

There is one bladelet core, five flake cores and three flake core fragments present in the assemblage. The single platform bladelet core, recovered from the topsoil, dates stylistically to the late Mesolithic, it was probably used to produce blanks for microliths. There is also a joint platform core and the remaining cores have also two or more platforms.

The assemblage is dominated by flakes, there are 41 flakes, of which 21 are broken and two are burnt. Also there are 17 blades, of which seven are broken. There is macroscopically visible evidence of utilisation on three flakes and one blade

The eight retouched tools comprise four scrapers, a piercer, a notched flake, a serrated blade fragment and a microlith. The scrapers consist of one end/side scraper, one end scraper, a roughly-shaped discoidal scraper, and a burnt and patinated scraper fragment. The remaining tools comprise a proximal fragment of a serrated blade, a piercer fashioned on the proximal end of a blade fragment, and a flake notched near the proximal end.

One microlith is a geometric type of Late Mesolithic date. There is inverse basal retouch, backing along one lateral edge and partially near the distal end of the other

edge on the artefact. Similar microlith types have been recorded from Honey Hill, Elkington (Saville 1981).

The characteristics of the assemblage suggest a Neolithic date with Late Mesolithic/Early Neolithic element. The microlith, the bladelet core and a flake are diagnostic of the Late Mesolithic, the end scraper and the serrated blade fragment are diagnostic of the Early Neolithic. The domination of flakes in the assemblage, the remaining cores and retouched tools are indicative of the Neolithic. Examples of other local sites with a Mesolithic and Neolithic component are Duston, Chalk Lane, Northampton (RCHM 1985).

6.2 The Iron Age pottery by Dennis Jackson with Andy Chapman

The total number of sherds recovered was 2474 (30,245g), with 420 sherds coming from pits radiocarbon dated to the late Bronze Age/early Iron Age, 267 sherds (1700g) probably residual early Iron Age material from a pit alignment radiocarbon dated to the early middle Iron Age, and 1816 sherds (26039g) coming from features dating to the later middle/Late Iron Age, the two centuries before the Roman period. In addition to the given sherd count, there are approximately another 1250 small fragments of pottery too small to be subject to analysis.

The report was compiled by Dennis Jackson although the sections on dating and the resultant discussions have been edited by Andy Chapman to take account of the implications of the radiocarbon dates.

Late Bronze/Early Iron Age pottery

A group of three pits 383, 377, and 305, situated within the area of later Iron Age activity and some 100m south of the pit alignment, and a single small pit, 4, some 29m south of the pit alignment near the western edge of the excavated area, produced an assemblage of pottery dated to the late Bronze Age/early Iron Age on the basis of form and decoration.

The pottery from pits 383, 377 and 305 is similar in appearance and is therefore treated as one assemblage. A total of 420 sherds, 2506g, came from pits 383 and 305, with only three small sherds from pit 377. In addition, there are approximately 130 fragments which are not included in the count. It is estimated that the sherds from the pits came from not less than 32 vessels.

Fabric

The sherds are generally small and weathered and in many respects their fabric is similar to the sherds from the pit alignment. Shell had not survived but is likely to have been the dominant inclusion. The assemblage from the pits, however, contains more sherds where the voids are sparse or fine, and there are a small number of sherds, particularly from the rim and neck of the vessels, where the ware is extremely fine with few if any inclusions in the fabric.

Thickness and colour

The majority of the sherds from the pits are thin-walled, ranging from 5 to 10mm. Only 5% of the sherds have walls more than 10mm thick. The fine ware rim or rim and neck sherds are exceptionally thin-walled (2-5mm), and these are terracotta in colour throughout (Fig 20, 2 and 3). There are a higher percentage of sherds with an oxidised external surface from the pits than occurred in the pottery from the pit alignment, and more sherds in general were oxidised throughout (Table 3).

Vessel form
There are over 400 body sherds from the two pits; 214 from pit 383 and 193 from pit 305, yet there are only eleven small rim sherds and two small base sherds in the assemblage. Eight of the rims sherds derive from the vessels with the very thin rims, described above. About 35% of the sherds from pit 305 derive from one vessel but there is still a variety of types in the assemblage from the two pits.

There are no diagnostic sherds that derive from the shoulders of any vessel, and most are fairly flat suggesting they may have come from vessels with large diameters. A vessel with a diameter at the mouth of 510mm was recovered from the primary fill of the ring ditch at Thrapston, and it may be that wide-mouthed or large diameter vessels were a feature of this period in the region. It is of interest that the fabric of the fine thin rim and neck sherds was not recognised in any of the body sherds and it is assumed that the main body of the vessels was in a coarser fabric.

Table 3: Colour variations in pottery from Thrapston and Upton

Type	Description	Percentage occurrence		
		Thrapston	Upton Pits 383/305	Upton Pit Alignment
1	Inner and outer face reduced (grey/brown to black)	22.3	26	59
2	Outer face oxidised (orange to red/brown)	56.6	57	38
3	Oxidised both faces	15.9	17	3

Decoration
There is one sherd from a small bowl with two horizontal grooves below the rim and short diagonal grooves on the outer edge of the rim (Fig 20, 1), and narrow incised lines occur below the rims of some of the fine wares (Fig 20, 3). There is no other form of decoration on the pottery from the two pits.

Rim sherd from Pit 4
A decorated rim sherd from an isolated pit, 4, is the only sherd from it (Fig 20, 4). It has a very thin rim and neck similar to examples of fine ware from pits 383 and 305, but in colour is black and not terracotta. The sherd is decorated on the shoulder with deep oval impressions with raised edges, made either with a piece of wood or bone or as small fingertip impressions. There is similar decoration on a sherd of Late Bronze Age pottery from Borough Hill, Daventry (Jackson 1996-7).

Date and discussion
There is very little diagnostic pottery amongst the assemblage from these pits, but the colour and thickness of the sherds suggest it is closely comparable to the material recovered from a late Bronze Age ringwork at Thrapston (Hull 2000-1). Superficially, the assemblages look different because the shell, common in the fabric at Thrapston, had not survived at Upton.

Two radiocarbon dates from Thrapston suggest that the site was occupied between the 9th and 7th centuries BC. Similar pottery has also been recovered from sites at Briar Hill Farm, Northampton (Jackson 2003) and Oakley, Northants (Jackson 1982). Radiocarbon dates from two groups of pits at Oakley span the 10th to 7th centuries BC, but perhaps define a single period of occupation centred on 800BC. Wood charcoal from a short-lived species (hazel) in pit 385 at Upton, has been radiocarbon

dated to 800-740 and 710-530cal BC (95% confidence, 2540+/-40 BP, Beta-215490), indicating a date in either the first half of the 8th century or within a wider range covering the 7th to early 6th century BC. This is in broad agreement with the dates for the sites at Thrapston and Oakley.

Pottery from the pit group
(Fig 20)

Pit 383
1 Vessel decorated with two horizontal grooves below the rim and incisions on the outer edge of the rim. Brown-grey-brown. Corky texture with common fine voids, 9mm thick.
2 Thin rim sherd (4mm thick) with a slight lip externally. Red-brown, Smooth faced with no visible inclusions. Very similar vessel from pit 305.
3 Thin rim sherd (4mm thick). Horizontal lines below the rim. Brown-grey-brown. Smooth faced with no inclusions.

Pit 4
4 Jar with a fine thin rim and decoration on the pronounced shoulder, dark grey-brown ware. Smooth faced. Medium voids and some grits.

The Iron Age pottery from the pit alignment

A total of 267 sherds of pottery, including 33 small fragments, weighing 1700g, was recovered from the filling of a group of the pits in the pit alignment. Most of the sherds were small and very weathered. It is estimated that the pottery came from not less than 30 vessels.

Fabric
Most of the sherds contain voids where shell and perhaps soft sandstones inclusions have not survived. Shell appears to be the dominant inclusion in Iron Age pottery, in all phases, around Northampton (*cf* Hunsbury, Jackson 2003), however, where ironstone or sandstone is the bedrock, as at Upton, ironstone inclusions are more common in the pottery. Stone grits commonly occur in the pottery from the pit alignment but these may have been naturally present in the clay used.

Thickness and colour
The majority of the sherds from the pit alignment are relatively thin walled (5-10mm), with only 6% having a wall thickness in excess of 10mm. Although a majority of the sherds are grey-brown in colour some 38% have an oxidised external surface and a grey or grey-brown core and internal surface (see Table 3).

Vessel form
The sherds are mostly too small to assess the vessel forms. There is one sherd from a probable round shouldered bowl, but no evidence of any carinated vessels. It may be significant that many of the sherds have little curvature and could derive from large diameter vessels. There are only six small rim sherds: five of these are flat-topped and two of these are lipped internally.

Decoration
There is no obvious decoration on any of the sherds although lightly incised lines may have weathered away. On one sherd the surface has been brushed or wiped and, as a result, it superficially resembles early scored ware.

Date and discussion
Pit alignments appear to be mainly early Iron Age in date and complete vessels of this period have been found in pits at Gretton (Jackson 1974) and Ringstead

(Jackson 1978). A pit alignment at Grendon, Northamptonshire (Last 2005), and the final filling of a pit alignment on the River Ouse at Gayhurst, near Newport Pagnell, Buckinghamshire (Chapman 2007), have been radiocarbon dated to the 8th to 6th centuries BC, and therefore within the late Bronze Age/early Iron Age transition.

In assessing the date of the pottery at Upton, the lack of decoration and the apparent lack of carinated vessels was seen as potentially significant. Carinated vessels are common in the early Iron Age (6th to 4th centuries BC), and their absence suggests that the pottery does not belong to this period. It was therefore tentatively suggested that the pottery might be of an earlier period, with the thin walls and typically oxidised external surfaces perhaps similar to material found on other late Bronze Age/early Iron Age sites such as the ringwork at Thrapston, Northamptonshire (Hull 2000-01), the pit alignment at Briar Hill (Jackson 1974), and settlement sites at Oakley and Corby (Jackson 1982). The flat-topped rim sherds might date to a period around the 7th century BC and would not be out of place in the assemblage from the Thrapston ringwork, or the earlier material from Rainsborough Camp (Avery *et al* 1967).

However, the radiocarbon date for the Upton pit alignment spans the 4th and 3rd centuries BC (400-210 cal BC, 95% confidence, 2270+/-40BP, Beta-215489). A similar radiocarbon date has come from a pit alignment at Cottisford Turn, near Silverstone, Northamptonshire (390-200 cal BC, 95% confidence, 2230+/-25 BP, NZA 16362) (Mudd 2007, 71-76). There is therefore good evidence for pit alignments continuing in use into at least the early Middle Iron Age.

The weathered nature of the pottery at Upton and its limited distribution within a cluster of pits, suggests that it is most likely to be residual material eroded from an existing surface scatter. It is therefore possible that the material came from a surface scatter considerably earlier in date than the wood charcoal, and the proposed 7th-century date may still be valid, with the assemblage perhaps only slightly later in date than the material from the pit group.

Pottery from the pit alignment
(Fig 21)

5 Rim sherd expanded externally, brown-dark to grey-brown. Abundant medium sized voids. Pit 102
6 Rim, flat-topped, with a triangular internal expansion, dark grey-brown. Common fine to medium voids. Pit 102
7 Flat-topped rim, slightly expanded, dark grey-brown. No obvious inclusions. Pit 105
8 Flat-topped rim, slighfly expanded internally, uneven, brown-grey-light brown. Pit 105

The later-middle to late Iron Age pottery

The 1816 sherds (26,039g) of pottery assigned to the later phases at Upton came from a series of enclosure and boundary ditches, with a small amount from pits. The pottery is from 90 different contexts but on the whole it was only sparsely present. A relatively large amount of the pottery came from Enclosure 6, in comparison to the rest of the site, and it is possible that occupation was concentrated in this area, perhaps associated with a roundhouse.

Fabric
Due to the acid nature of the soil many of the inclusions had weathered away. The inclusions that survived include ironstone and other stone grits, and there is some grog mainly in pottery of late Iron Age date. Due to the condition of the pottery no

detailed analysis of the fabrics has been undertaken. Fabric analysis has been undertaken on pottery of this period from the nearby hillfort at Hunsbury (Jackson 2003) and other local sites, and the fabric of the pottery from Upton is unlikely to differ to any significant extent.

Forms
Much of the pottery has derived from bipartite bowls or medium to small jars which are of globular or slack-sided form. It can be compared to the material from the Hunsbury hillfort (Fell 1936 and Jackson 2003), although the numerous large jars found on this site are not as common at Upton. The rim sherds in the Upton assemblage derive largely from bipartite vessels with direct rims and little or no neck.

Decoration
Decoration is sparse and no pottery decorated in the La Tene or curvilinear style occurs in the assemblage. The few decorated sherds in the assemblage are on vessels of late Iron Age type.

Date and Discussion
There is no early Middle Iron Age pottery present in the assemblage. The slightly longer rim and neck profiles on pottery from Enclosures 1 and 6, as well as from pits to the north-west of Enclosure 1, suggest that these may be the earliest features, dating to the 2nd or early 1st century BC. After this date, it seems likely that activity continued through the 1st century BC, and up to and beyond the introduction of wheel-turned pottery and into the Roman period.

The late Middle to Late Iron Age pottery
(Figs 22 and 23)

9 Rim from a jar. Buff-brown/grey/buff-brown. Inner face sooted. Some ironstone and rounded grits. Context 443, Enclosure 6 ditch
10 Flat-topped rim. Dark grey. Uneven. Some grits. Context 443, Enclosure 6
11 Jar. Roughly made and uneven. Black neck and brown shoulder. Inner face and core grey-brown. Many grits. Context 394, gully 393, Enclosure 6
12 Globular bowl. Black-brown. Originally burnished. Some ironstone grits Context 171, posthole 170
13 Large, thick-walled Jar with a flat topped rim. Orange-brown to grey-brown and orange-brown, ironstone and rounded grits. Context 77, pit 76, Enclosure 2

6.3 The Bronze Age and Iron Age finds

by Tora Hylton, with Andy Chapman and Pat Chapman

A total of 46 individual objects were recovered, comprising a copper alloy cylinder, 42 iron nails and three querns, as well as some fired clay and slag.

The cylinder was found in pit 99 of the pit alignment and is manufactured from sheet metal, it measures 22mm in length and has a diameter of 3mm; although it is heavily corroded, it is possible to observe that the longitudinal edges join to form an edge to edge seam. Such fragmentary objects are difficult to identify with any certainty, but a similar unidentifiable object was recovered from an Iron Age hut circle ditch at Ashville Trading Estate, Abingdon (Parrington 1978, fig 59, 17).

The majority of nails were recovered from a cremation, 55, deposited within Enclosure 7. The group represents *c*40 individual examples, of which 14 are

complete; they range in length from 20mm-35mm and all have flat sub-circular heads with square-sectioned shanks. They probably represent the remains of a small box/casket which was placed on the pyre when the body was cremated. In addition, a complete iron nail with square-sectioned shank (67mm long) and a flat sub-circular head was recovered from the fill of a posthole, 136.

The querns and other worked stone by Andy Chapman

Three stones with worn surfaces were recovered. Two of these can be classified as saddle querns, while the other was perhaps used as a sharpening/polishing stone.

One stone is of particular interest for its regular oval form and its asymmetrical concave grinding surface that would have channelled ground flour to the centre and one side only (Fig 24). This saddle quern, SF 117, came from a small pit 383 that produced a substantial pottery assemblage with an associated radiocarbon date that places it in the first half of the 8th century BC, the late Bronze Age/early Iron Age. Carefully-shaped saddle querns and rubbing stones are a feature of Neolithic and Bronze Age societies, and there is a particularly fine example of a regular oval rubbing stone with chamfered edges, of Neolithic date, from the nearby causewayed enclosure at Briar Hill (Bamford 1985, 93 and fig 49, S16).

The other saddle quern and the sharpening/polishing stone are from features dating to the middle Iron Age.

Catalogue of worked stone

Context 384, fill of pit 383, SF 117

An oval block of fine-grained sandstone, 325mm long by 205mm wide and 25-55mm thick. The stone was probably originally *c*345mm long, shaped to a semi-regular oval plan, but one end is lost. One side is also damaged and this edge is reddened from burning. The stone is thickest at each end, although it also tapers longitudinal, so one end would have stood higher than the other. It also tapers transversely, so one edge stood higher than the other. The worn grinding surface is concave both longitudinally and transversely, so the stone is thinnest at its centre. It is probably a small saddle quern, (Fig 24). The underside is irregular but smoothed, and it is likely that this was a large water-worn cobble that has been split and had some marginal modification to make the shape more regular.

Context 141, primary fill of eastern terminal of Enclosure 2, ditch 132, SF 100

An irregular block of medium-grained, quartz-rich sandstone, possibly Millstone Grit, measures 300mm long by 210-320mm wide. It is 95mm thick at the broader end and 35mm thick at the narrower end, so that when placed on the ground there is a natural slope from the broader to the lower end. The upper surface is worn and concave, and the sides and under surface are irregular but smoothed. It is probably the greater part of a small saddle quern, with a little of the narrower end lost.

Context (266), upper fill of pit 265, SF 116

An irregular block of fine-grained, quartz-rich sandstone, 230mm long by 215mm wide and up to 70mm thick. One surface has been worn smooth and near flat, although it is very slightly concave. The edges and underside are also smoothed, perhaps indicating that the stone was a large water-worn cobble, and there are also four deep and broad parallel furrows, 15-20mm wide, across the under surface. It is most likely to be a water-worn cobble utilised as a sharpening or polishing stone.

Loomweights by Pat Chapman

This is a small assemblage from 12 contexts, weighing 1108g. Nine of the contexts only produced only a few fragments, while three contexts contained 822g, and all this material is probably fragments of triangular clay loomweights.

In particular, two contexts, the fill of pit 50 in Enclosure 2, and the fill of pit 450 to the north-east of Enclosure 2, have fragments with the remnants of the characteristic corner perforations, together with the smoothed face and edge surfaces. The largest fragment, which still retains a partial triangular profile, has organic and stem impressions on the surviving face, indicating the surface it had been fashioned upon. The majority of the fragments from all contexts have either flat surfaces or curved smoothed edges.

The fabrics are typically a hard light red-brown with a few creamy streaks and occasional grog, ironstone or gravel inclusions. One large fragment has a reduced core indicative of the rough mixing and uneven firing typical of these objects.

Slag by Andy Chapman

A total of 974g of fuel ash slag came from seven features of Iron Age date on the western part of the site. The individual quantities per context varied from 4-524g, although two contexts, (52), the primary fill of pit [50] and (440), the primary fill of an Enclosure 5 ditch, each contained more than 300g, constituting the majority of the assemblage. This material comprises irregular lumps of light and vesicular slag, ranging from pale brown to dark grey in colour and is derived from some high temperature burning of some description.

No ferrous slag was obtained from any features of Iron Age date, however, a single complete hearth bottom, denoting the presence of a smithing hearth, was recovered from pit 50 within Enclosure 2.

6.4 The Roman pottery by Jane Timby

Introduction and methodology

The archaeological work at Upton resulted in the recovery of 3476 sherds of pottery weighing 72.6kg dating to the Romano-British period. Sherds were recovered from Areas 1-3 with most of the sherds, 91% by count coming from Area 2. The pottery was generally in good condition, reflected in the overall average sherd weight of 20.9g, indicative of material that has undergone little ongoing disturbance. Roman pottery was recovered from 117 individual features including pits, ditches, gullies, wells and a kiln. In the following report a brief description is given of the fabrics and associated forms. This is followed by a phased discussion of the assemblage, and finally a more general discussion looking at the assemblage in its local and regional context.

The pottery was sorted into fabrics based on firing colour and the main visible inclusions. Named or traded wares are coded using the National Roman reference series. Other wares are coded according to their colour and fabric characteristics. The sorted material was quantified by sherd count, weight and estimated vessel equivalent (rim only) (see Appendix 1: Table 1). Rim sherds were coded according to vessel type and other features such as surface finish; decoration and evidence of use (eg sooting or calcareous coating) were also noted. The quantified data was entered onto an Excel spreadsheet, a copy of which is deposited with the site archive. A selection of material has been illustrated along with other pieces of intrinsic interest.

Discussion of fabrics and associated forms

Continental imports

Samian: Some 160 sherds of samian were recorded nearly all of which is of Central Gaulish origin. The range of vessels is fairly limited being confined to dishes forms Dragendorff (Drag) 31, 36 and 79, bowls Drag 37 and 38 and cups Drag 33. One sherd from the kiln stokehole has a post-firing graffiti (Fig 25). A sherd from a Drag 37 bowl from ditch 1262 is stamped by the mouldmaker ADVOCISI (Fig 27) dating to the Antonine period (AD 160-90). Only one other stamp was noted, that of the potter Roppus of Les Martres-de-Veyre (Fig 26).

Central Gaulish black slipped ware (CNG BS) (Tomber and Dore 1998, 50). A single sherd of this ware was recovered from pit 1004.

Dressel 20 amphorae (BAT AM) (Tomber and Dore 1998, 84). Some 10 bodysherds of South Spanish (Baetican) amphora are present from four features. This amphora type was used to transport olive oil and is the commonest to be found on Roman sites.

Regional imports

Dorset black burnished ware (DOR BB1) (Tomber and Dore 1998, 127). At least 90 sherds of DOR BB1 are present, 2.6% by count of the total assemblage. Most of the forms are plain-sided dishes with single examples of rims from a conical flanged bowl, a grooved rim bowl and a jar. The emphasis of date is later 2nd-4th centuries.

Hadham ware (HAD OX) (Tomber and Dore 1998, 151). A single sherd came from well/pit 1147.

Oxfordshire wares (OXF RS(M); OXF WH (M) (Tomber and Dore 1998, 173ff). A number of products from the Oxfordshire industries are present in both whiteware and colour-coated ware. The former includes one flask (Young 2000, type W15) and ten sherds of mortaria (Young 2000, type M18 and M22) dating to the 3rd-4th centuries. The colour-coated wares include four sherds of mortaria and tableware including bowls (Young 2000m types C51 and C68), a 4th-century sherd with a rosette stamp and a very worn face flagon (Fig 28, 18).

Verulamium-type whiteware (VER WH) (Tomber and Dore 1998, 154). Five sherds including a jar rim in a buff sandy ware, which is probably Verulamium ware. Some of the sherds are probably from flagon.

Local wares

The local wares have been divided into three groups: grog-tempered wares, sandy wares and shelly wares.

A: Grog-tempered

A1: Late Iron Age-early Roman grog-tempered ware: Largely handmade dark brown to black wares with a soapy fabric typical of the 'Belgic' type (GROG). No featured sherds. Related to this is a grog and shell-tempered ware (GRSH) most of which came from gully 38 in Area 1, the Iron Age settlement. In addition a rim from a lid-seated jar and a single sherd of a sandier grog-tempered fabric (GRSA) in the same tradition came from pits in Area 2.

A2: Roman grog-tempered wares: a variety of wares in different colours but sharing the same tradition are present effectively accounting for 10% of the assemblage by count. This appears to be a more Romanised development out of the earlier LIA-ERO grog-tempered tradition. Some of the fabrics are sandier but all contain a sparse scatter of grog. Colours range from white (WWGR), black (BWGR), grey (GYGR), oxidised (OXGR), whiteware with a black exterior (BWH GR) and oxidised ware with a blackened exterior (BOXGR). It is likely that the sandier version was made at the site despite the fact that very little of this was present (see below). Forms are nearly exclusively jars with an emphasis on lid-seated jars with lesser numbers of rolled rim, triangular rim, bifid rim and large storage jar (Fig 28; 4-7 and 10). Vessels often show fine horizontal rilling on the exterior surface.

A3: Pink grogged ware (PNK GT) (Tomber and Dore 1998, 210). This ware is well recognised in the Midlands area from the later 2nd century to 4th centuries (Booth and Green 1989), accounts for 5.2% of the assemblage by count, 16% by weight. The latter higher number reflects the fact that the majority of vessels are large storage jars.

B: Sandy wares

B1: Various coloured sandy wares: The range of wares defined for the Roman grog-tempered wares have a sandy counterpart where no grog is present and the pastes have a fine-medium sandy texture where the quartz grains are just macroscopically visible. These include burnt, oxidised, sandy ware (BOXSY), a blackened, pink, sandy ware (BPNKSY), a blackened, white, sandy ware (BWHSY), a black ware (BW), grey ware (GREY), oxidised ware (OXID), pink sandy (PNKSY) and a white sandy ware (WW). The range of forms appears to be slightly

more diverse compared to the grog wares with beakers, bowls, straight-sided dishes and lids in addition to lid-seated jars, everted rim jars and bifid rim jars (Fig 28, 9 and 12).

B2: Lower Nene Valley wares (grey reduced wares LNV RE, colour-coated wares LNVCC, whitewares LNVWH(M)) (Tomber and Dore 1998, 118ff). In addition two extra wares have been added, an oxidised ware (LNV OX) and a fine whiteware sometimes with red-brown painted decoration (LNV PA).

The reduced wares (LNV RE) form the largest group accounting for 34.8% of the total assemblage by count. The industry was established by the second quarter of the 2nd century. Vessels include rolled rim jars, triangular-rimmed bowls, plain-rimmed dishes, beakers and flanged bowls. Other jars include some with a ridged neck, bifid rim, triangular rims and neckless forms. Some vessels have a burnished line decoration as wavy lines, latticing or hooks (Fig 28; 8, 14 & 15). A base from pit [1103] has at least four holes drilled through after firing.

The Lower Nene Valley colour-coated industry (LNV CC) was also established in the 2nd century continuing through into the 4th century. This accounts for 5.5% of the total assemblage. A variety of vessels are present including beakers with rouletted or diagonal hairpin barbotine decoration, white painted arcs and dots, floral, scale (Fig 28, 15) and figured barbotine, all typical of the mid-late 2nd-3rd centuries. Of similar date is the lid of a box. Slightly later are plain-rimmed dishes, indented beakers, flanged hemispherical cups, conical flanged bowls (Fig 28, 16) and a disc-necked flagon.

The Lower Nene Valley whitewares (LNV WH) are also well represented accounting for 2.9% by count with whiteware mortaria accounting for a further 0.5%. Most of the former appear to be from flasks, flagons or beakers although there were only three rims present. Most of the mortaria had hammer rims, at least two with red painted decoration (Fig 29).

B3: Other minor sandy wares, source unknown.
Black/orange micaceous ware (BWMIC/OXIDMIC). A minor group with a single black and six oxidised sherds of fine, sandy, ware distinctively micaceous. The latter includes at least one beaker and one bowl with a lid seating.

Blackware BB1 imitations (BB1IMIT). A dense black sandy wheelmade ware closely imitating Dorset black burnished forms, in particular jars and plain-rimmed dishes.

Buff sandy ware (BUFF). A brown or buff sandy ware quite similar to Verulamium ware. Sherds include a lid seated jar and an everted rim jar and one bodysherd decorated with a red painted line.

Cream sandy ware (CREAM). A single cream medium sandy ware and four fine cream sherds, probably from beaker or flagon. It is possibly these were once colour-coated.

Fine grey or oxidised wares (GYF/OXIDF). The grey wares, represented by just six sherds include bowls copying the samian form Drag 30, necked jars and beaker. The oxidised group is larger, although with few featured sherds. At least two beakers are present, one with rouletted decoration.

Pinkish grey micaceous ware (GYPNKMIC). A distinctive fine, silky, grey micaceous ware with a pinkish tinge. Represented by multiple sherds probably from a single everted rim jar from gully 1247.

White slipped grey ware (WSGREY). A single sherd from a closed form.

C: Calcareous wares
C1 Dense shelly ware. Classic Midlands shelly ware in wheelmade and handmade forms. This ware, which spans the entire Roman period, accounts for 13.4% of the assemblage by count. Vessels include large storage jars, everted rim jars, lid-seated jars, plain-rimmed dishes and flanged bowls (Fig 28, 16).

C2 Sparse shell-tempered ware. A small group of hard brown ware with sparse fossil shell inclusions used for making jars.

C3 Grey sandy ware with limestone. A distinctive medium grey, sandy ware with limestone inclusions. Represented by a single flanged bowl from pit [1085].

Site discussion

The pottery was placed into the site phasing with some minor alterations where there were clear discrepancies between the date of the pottery and the inferred stratigraphic dating (see Appendix 1: Table 2). Some 78 sherds, 1210 g, of Romano-British date were recovered from the topsoil and subsoil.

Iron Age
Very little pottery was associated with the later Iron Age-early Roman period. This comprised exclusively shelly wares and late Iron Age grog-tempered ware all of which came from Area 1.

Early Roman
Substantially more pottery, 396 sherds weighing 6698g, came from 2nd to early 3rd century contexts. This includes the kiln and associated features in Area 2. Globally the phase shows a dominance of the grog-tempered class of ware which accounts for 41.7% by count (see Appendix 1: Table 3). Samian accounts for 6.6% of this phase, a surprisingly high percentage as most rural sites would be expected to yield in the region of 2%. Only a single sherd of amphora came from this phase.

Most features contained very modest assemblages, often with no diagnostic sherds. It is thus difficult to know whether some features appear to be earlier on the basis of the pottery or whether there is a problem of redeposition on the site. A small amount of material, 56 sherds, came from contexts in Area 1, notably the boundary ditches, 273 and 277 with just three sherds and Enclosure 6 ditch, 443, with 10 sherds. The bulk of the assemblage came from Area 2.

The kiln produced 111 sherds, 2757g from the stokehole (1095) and a further 56 sherds (1661g) from the kiln chamber (1096). The material is very diverse and it is not immediately apparent which, if any, represents pottery likely to have been produced at the kiln. There are no obvious wasters and only one or two sherds appear burnt. A few sherds appear discoloured (Fig 28, 5 and 6) and in the latter case spalled. In total, some 23 discoloured sherds of white sandy and white grog-tempered came from the kiln enclosure ditch with a further 38 sherds from the kiln structure and it is possible this was the ware made on the site. The oxidised sandy with grog sherds from the same deposits may also be part of the same production. Sherds from the same vessel to one from the kiln were present in a gully, 1154, to the south. The paucity of material might suggest that the kiln was short-lived.

The remaining assemblage from the kiln structure includes nine sherds of samian, one with an incised graffiti (Fig 25), forty-four sherds of LNV RE and two possible sherds of LNV CC, alongside a variety of grog-tempered, sandy and shelly wares. An almost complete beaker with a hole in the base and missing a rim in a black sandy ware was recovered from (1096) (Fig 28, 9). The assemblage suggests a mid 2nd-century currency. The kiln enclosure ditches, 1093, 1132 and 1192, produced a further 112 sherds.

Grave 1199 produced four sherds from the fill including a rim from a grooved rim DOR BB1 dish which typologically dates from the late 2nd-3rd century. Grave [1236]

produced a single rim from a DOR BB1 plain-rimmed dish, which is probably of similar date.

Late Roman: 3rd – 4th centuries

The two main boundary ditches placed in this group crossing the site north-south collectively produced 228 sherds, 4.84kg. The latest datable material from this ditch includes a hammer rim LNV WH mortarium which dates typologically to the 3rd century and an Oxfordshire whiteware mortarium, Young (2000) type M22, dating to the mid 3rd-4th century. A few sherds of LNV CC includes a flanged bowl which is probably late 3rd-4th century along with two sherds of Oxfordshire colour-coated ware with again point to a late 3rd-4th century date. Also present are a number of residual sherds spanning the 2nd-3rd centuries.

Features placed in the final phase of activity collectively produced 1287 sherds of pottery weighing *c*27kg. Again the material is quite mixed chronologically but it is also the most diverse range. Sherds that only occur once in the assemblage, for example, CNG BS and HAD OX, occur here. This group also includes the largest number of Oxfordshire and Nene Valley colour-coated sherds, Lower Nene Valley white ware mortaria and pink grogged ware jars (PNK GT). One of the latest vessels present is a flanged bowl in shelly ware from ditch 1011 suggesting a later 4th century date. A particularly large assemblage of some 324 sherds came from pit 1103, which appears to date to the later 2nd-3rd century. Amongst these is a greyware LNV RE flat rim bowl with several holes made through the base after firing of which four are extant. Pits 1273, 1267, 1506 and gully, 1023, also appears to be 3rd century in date.

Other vessels of note from this phase includes a very worn OXF RS face flagon (Fig 28, 18) from gully 1249, and a pinkish-orange fine sandy ware beaker with rouletted decoration (Fig 28, 14) and a LNV CC beaker with applied scales (Fig 28, 15) from gully 1154.

The remaining features and layers allocated to the later Roman period produced an assemblage of 728 sherds, *c*115kg. A similar range of material occurs as found in the last two with a marked presence of Oxfordshire wares, Nene Valley colour-coated ware and pink grogged ware. Fine ware imports, ie samian, account for 3% of the assemblage by count, a high figure considering that samian was no longer being imported and that these sherds represent redeposited or curated material. Compared to the early phases of activity, regional imports are better represented. The shelly and the grog-tempered class of wares has considerably declined but Nene Valley products account for over half the total Phase 4 assemblage (see Appendix 1: Table 3).

A fragment of OXF RS bowl, probably Young (2000) type C68, and mortarium indicates a 4th-century date or later for gully 1216. A DOR BB1 flanged conical bowl from ditch 1262 also indicates a later 3rd- 4th century date for this feature. Ditch 1312 produced a large assemblage of 222 sherds weighing 5042g dominated by sherds of LNV RE and with several samian sherds. However, a single sherd of OXF RS with a rosette stamp indicates a date of abandonment sometime after the mid 4th century.

Other wares of note from the later phases include a whiteware everted rim jar from stone layer 1313, decorated with orange slip blobs, a disk-necked LNV CC flagon from gully 1239 and a sherd of a Antonine Central Gaulish samian decorated Drag 37 bowl stamped by Advocisi (Fig 27) from ditch 1262.

Summary

The Roman pottery assemblage from Upton appears to show modest activity from the later 1st-2nd century, increasing through the 2nd and 3rd centuries and continuing into the second half of the 4th century. The pottery trends appear to show a decrease from shelly and grog-tempered wares in the early-mid Roman period to

products of the Nene Valley in the mid-later Roman phases accompanied by regional imports mainly from the Dorset black burnished ware kilns and the Oxfordshire industries. Although in some respects the Upton assemblage would appear to be fairly typical for a rural settlement site with a fairly limited range of continental and regional imports it has some slightly aberrant features to the norm. The moderately high percentage of samian at 4.6% by count is unusual as this is higher than might be expected from a site of this nature. It is also curious why a site which clearly had a demand for imported finewares from this date has negligible other imported wares. Unfortunately, the pottery from most of the contemporary sites in the locality has not been quantified to allow comparison. In recent work at Higham Ferrers, where the settlement appears to be much larger with religious foci, the samian accounts for 3.84% by count of the considerably larger assemblage (Timby 2009). At the Roman small town at Alcester, Oxon, samian accounted for 2.4% of the site assemblage (Evans 2002, 277), whereas at Stanwick, Northamptonshire, the samian accounted for *c* 2% by weight of the total assemblage (McSloy 2002). Upton therefore does not fit the expected pattern.

In terms of vessels present (Table 4) coarseware jars dominate accounting for just over half the assemblage (52.1% by EVE) followed by bowls/dishes (23.5%). The proportion of jars to bowls/dishes places the site almost at the boundary between typical rural and urban assemblages for the Midlands (see Evans 2002, fig 7.56). Rural sites generally speaking tend to display a higher proportion of jars, particularly large storage jars. At Upton storage jars account for *c*10% of the jar assemblage. Tablewares, including imported finewares and colour-coated wares, are quite well represented (21.9%), particularly drinking vessels (cups and beakers, 11.3%).

Whilst there appears to be no extant traces of habitation on the site, the pottery from the mid 2nd century would suggest a fairly well-appointed household in the immediate locality.

Table 4: Roman pottery, vessel forms

	Form	% EVE
Tableware	dish	3.5
	bowl	2.9
	cup	4.2
	box lid	0.9
	flagon	3.2
	beaker	7.1
	jar	0.1
Coarseware	jar	52.1
	bowl	13.8
	dish	9.7
	mortaria	2.2
	lid	0.3
TOTAL		**100.0**

Catalogue of illustrated sherds

Samian

Fig 25 Base of Central Gaulish samian dish with incised X.
Kiln stokehole 1095 (1134).

Fig 26 ROPPVOFF Roppus of Les Martres-de-Veyre. Base with central stamp within a rouletted wreath. Probably a dish 31R or 18/31R.
Ditch 1312 (1315).

Fig 27 Decorated bowl, Drag. 37 stamped by the mould maker ADVOCISI. AD 160-190. Ditch 1264 (1263).

Other wares: 4-13 Kiln stokehole 1095 (1096); 14-16 Kiln (1155).

(Fig 28)

4 Jar with slightly warped rim. Grey sandy ware with sparse grog.
Fabric: GYGR (sandier version).

5 Jar. Discoloured orange-grey. Fabric: GYGR (sandier version).

6 Jar. Discoloured black-orange. Spalling on interior. Fabric: GYGR (sandier version).

7 Lid-seated jar. Grey-black. Fabric: GYGR (sandier version).

8 Deep bowl with burnished lattice decoration. Fabric: LNVRE.

9 Complete body of a beaker missing the rim and with a deliberate hole through the base. Fabric: BW.

10 Bifid rim jar. Grey sandy with sparse grog. Fabric: GYGR (sandier version).
Kiln enclosure ditch 1093, (1094).

Other contexts

11 Grey ware bowl. Fabric: ?LNV RE. Gully 1154, (1156)

12 Plain-rimmed dish. Fabric: BW. Gully 1154, (1156)

13 Lid seated jar. Fabric: LNV RE. Gully 1154, (1156)
Gully 1154, (1156)

14 Several sherds from an ovoid beaker with rouletted decoration. Fabric as no, 39.
Gully 1154, (1156)

15 Black colour-coated beaker with applied scales diagonally ridged. Fabric: LNV CC. Gully 1154 (1156)

16 Flanged bowl, in brownish-red colour-coated ware. Fabric: LNV CC.
Gully 1169, (1170)

17 Flanged rim bowl. Fabric: SHELL. Pit/posthole 1119 (1120). Late Roman.

18 Face flagon. Orange micaceous ware, probably worn OXF RS
(Young 2000, form C11). 2nd half 4th century AD. Gully 1249 (1250)

Fig 29 Hammer rim mortaria with red painted decoration. Fabric: LNV WHM.
Gully 10 23 (1024)

Roman pottery recovered during the watching brief by Tora Hylton

In total, the watching brief on the southern part of the Roman settlement produced 366 sherds with a combined weight of 4.95kg, recovered from 14 individual deposits. The pottery was analysed using the same method and fabric codes as that used by Jane Timby previously (see above). The assemblage comprises a range of kitchen, storage and table wares and the range of fabrics and form span the 2nd to 4th centuries and parallel those recovered previously. Very few of the sherds display signs of excessive abrasion suggesting that they had been deposited soon after use.

With the exception of small quantities of imports (6% by weight) and regional fabrics (9%), the majority of the pottery is of local origin (85%) and predominantly comprises

greywares (28%) and shell-gritted wares (25%), together with smaller amounts of grog-tempered ware (16%).

Locally produced Greyware fabrics (GREY, LNV RE) dominate the assemblage; forms include necked and neckless jars, some decorated with rouletting or grooving, and dishes/bowls with plain and flanged rims. Shell-gritted fabrics (C1 and C2) are represented by jars, some with rilled external surfaces, and bowls. Grog-tempered wares in the form of Soft-Pink-Grog type fabrics (PNK GT) comprise undiagnostic body sherds, probably from storage jars. Finally colour coated wares from the Lower Nene Valley (LNV CC) include fine beakers with underslip barbotine decoration and jars.

Regional wares include jars and shallow bowls in Dorset black burnished ware (DOR BB1), Verulamium type whiteware (VER WH) and Oxfordshire colour coat fabrics (OXF RS), one replicating Dragendorf 37, Young type C55 (2000, fig 60) and a fragment of mortaria. Oxfordshire whitewares (OXF WHM) include a mortaria resembling a Young type M22 (ibid, fig 23).

Imported wares are represented by 12 sherds of Central Gaulish Samian (CGSAM) and one fragment of amphorae (BATAM). Diagnostic sherds of Samian include two hemispherical bowls representing Dragendorf 37 and 38 (Webster 1996, 47-51) and a cup displaying similarities of Curle 23 (Webster 1996, 67).

6.5 **The Roman finds** by Tora Hylton, with Ian Meadows, Pat Chapman and Andy Chapman

There are 122 Roman finds, of which 68 came from deposits in Area 2 dated to the 1st-4th centuries and 59 were retrieved from unstratified topsoil and subsoil deposits. The assemblage is dominated by 88 coins, either dating from the 1st-4th centuries or undiagnostic fragments (see report by Ian Meadows). Identifiable finds comprise items for personal adornment, domestic use, and woodworking. The range of Roman finds is small and provides little insight into life at that time. The categories are tabulated below along with the quantities recovered.

Later Roman finds

The majority of finds from the Roman period were located in features lying on the western side of Area 2. Finds from 2nd to 3rd-century deposits (12) were recovered from a series of features lying adjacent to the western edge, they include, four intrusive 3rd/4th century coins from gully 1251, pit 1201 and well 1138, a shale bracelet from stone layer 1099 and a bit-head and a lead pot repair from the pit below the stone layer. With the exception of a small number of 3rd to 4th-century finds recovered from the north-east corner, most were concentrated in the central and south-western corner of Area 2. There is a large number of coins (36), from boundary ditches 1017, 1089, 1220, 1033, 1302, 1305 & 1312 and from gullies 1009, 1023, 1169, 1296 & 1310, and pits 1004, 1008, 1189 & 1267. Other finds of interest include a spoon handle and a steelyard weight.

Table 5: Roman finds quantified by functional categories

Functional Category	Date		
Personal possessions	2nd-3rd centuries	3rd-4th centuries	U/S
Costume and jewellery	1		4
Equipment and furnishings			
Nails		7	
Household equipment		1	1
Querns			
Weight		1	1
Tools			
Wood working	1		
Coinage	4	36	48
Miscellaneous and unidentified			
Copper alloy			2
Iron	3	5	
Lead	2		3
Glass	1	1	

The finds

Personal Possessions

Jewellery

Items of jewellery recovered from the site include one plate brooch, one finger ring and fragments from two armlets. With the exception of a fragment of shale armlet, all items of jewellery were recovered from topsoil and subsoil deposits overlying Area 2.

The plate brooch is incomplete, much of the outer edge is missing. It has been identified by Don Mackreth as a Type 2 British plate brooch, comprising two concentric annular zones of red and green enamel with a centrally placed empty circular cell, which dates to *c* AD125-200.

The finger ring has lost over three quarters of its hoop, originally it would have been annular with a D-shaped cross-section. The hoop expands towards the bezel where there is a vestige of an oval recess (depth: 1mm) containing a white paste which would have held a glass setting in place, rather like an example from Stoney, Cambridgeshire (Johns 1996, fig 103, 13) which dates to the 2nd-3rd centuries.

There is a fragment from an armlet with D-shaped cross-section; the terminal represents a stylised devolved serpent's head. It displays similarities to Johns Type Bii, which is flat and quite broad (1997, 36). The piece is heavily corroded and the patina has flaked off, so it is impossible to determine the presence of surface decoration. Serpent's heads are commonly represented on items of jewellery during the Roman period and represent health and healing, rebirth and the spirits of the departed (Johns 1998/2000, 7). Similar armlets have been recovered from 3rd/4th-century deposits at Gadebridge Park (Neal and Butcher 1974, fig 60, 158) and Magiovinium (Wardle 1989, fig 24, 25).

Part of a shale armlet was recovered from a stone spread 1099. The armlet is lathe turned and although incomplete (only a small fragment survives), it is possible to determine that originally it would have been plain with a D-shaped cross-section and measure in excess of *c*70mm in diameter, *c*11mm thick and *c*11-13mm high.

Stylistically it displays similarities to a simply decorated example from Colchester (Crummy 1983, fig 38, 1554).

Building Equipment
There is a dearth of structural related ironwork and therefore there is little to characterise the nature of the buildings that may once have existed on the site. There are a small number of nails (seven) which may have been used as part of a structure; all were recovered from stratified deposits from 3rd to 4th-century deposits. Three examples are incomplete; and the others are classified according to the shape of the head (Manning 1985, 134ff). Two different types are represented, Type 1B (4) which have flat sub-circular heads and measure from 25-79mm in length and Type 3 (1) which has a T-shaped head and measures 53mm in length. The former would have had any number of uses and the latter used with timber.

Household Equipment
There are a small number of objects which may be classed for domestic use; they include a spoon handle and a hook from a swivel link.

Part of a copper alloy spoon was recovered from a pit, 1277. All that remains is a tapered circular-sectioned handle, which expands to a rectangular cross-section towards the bowl (now missing). The junction between the handle and bowl is off-set with two notched mouldings like examples from Bancroft Villa, Milton Keynes which date to the mid 4th century (Hylton and Zeepvat 1994, fig 148, 128,129).

The hook was recovered from subsoil deposits overlying Area 2. It comprises a circular-sectioned shank with a hooked terminal at one end and a conical knob at the other. It would have been used in conjunction with a swivel link for suspension.

In addition there are five lead sub-circular 'patches' probably for repairing ceramic vessels, two from 2nd to 3rd century deposits and three from subsoil.

Tools
The head of a drill-bit was recovered from a pit underlying stone layer 1099; it is lanceolate-shaped with a rectangular cross-section, rather like an example from Hod Hill, Dorset (Manning 1985, plate 12, B65). The x-ray reveals the presence of marked shoulders at the junction of the head and shank, and the terminal appears to be burred.

Miscellaneous finds
There are various undiagnostic fragments of sheet metal, rod fragments, and a suspension ring. The only item of note is a large steelyard weight recovered from boundary ditch 1017. The weight is sub-spherical (65mm x 55mm) with the corroded remains of an iron suspension loop visible at the top, it weighs 1.56kg, which, if converted to Roman units, would be a little under five Roman pounds or Libra (1 Libra = 327.45g).

The coins by Ian Meadows

The coin assemblage of 87 coins spans almost the entire Roman period, unfortunately only 40 came from securely stratified contexts, the remainder being recovered from the topsoil, subsoil or machine spoil. The use of a metal detector throughout the project will have maximised the recovery of coins from the site so the examples should be seen as representative of the whole. The range of coins that could be dated reflects a fairly normal loss pattern for a site occupied from the 2nd to 4th centuries, with the bulk of the coins dated to the 4th century. The few recognisable mintmarks preclude any comments about money supply.

The coins of the 2nd century were all in an extremely worn condition reflecting their long circulation life and therefore even where they occur in stratified contexts (SF 50, 57, 106, 107, 113) they should be considered as residual. This may to a large degree also be true of most of the 3rd century coins in so far as they mostly occur in contexts that also contain 4th century issues. It is, perhaps, possible that this is a reflection of the long life of many of the open features spanning many years by a process of recutting and scouring. This process of maintaining the open features may also have contributed to the poor condition of the coins by exacerbating weathering; a large proportion of coins could only be identified to the 3rd/4th centuries on the grounds of flan size.

The occurrence of late coins in the upper part of gully 1251 and ditch 1220 (SF 65, 43 and 75 respectively) probably indicates the presence of a hollow formed as the fills consolidated and settled in which later material collected. These coins are, however, a reflection that activity on or near the site continued until at least the last quarter of the 4th century.

Table 6: The Roman coins

Phase	Identification	Date	Context Description
3	Ae Centenionalis Magnentius Rev: Emperor with standard	AD 350-353	Gully (1251)
	Ae4 Valentinian II	AD 375-392	
	Ae Ant. Radiate Type	Mid-Late 3rd century	Pit (1201)
	Ae 3 – Rev: Gloria Romanorvm- Emperor dragging captive	Mid 4th	Well (1173)
4	Ae Sestertius - illegible	Late 1st – 2nd century	Enclosure/boundary ditch (1220)
	Ae 3 Constantius II	AD 337-361	
	Ae 3 Valens	AD 364-378	
	Ae Illegible	3rd/4th century	
	Illegible	Early-Mid 4th century	Boundary ditch (1262)
	Illegible		
	Ae Sestertius - illegible	Early-Mid 2nd century	Ditch (1312)
	Ae Sestertius - illegible	Late 2nd century	
	Illegible	3rd/4th century	
4	Ae Dupondius? Empress - illegible	Mid 2nd century	Ditch (1305)
	Denarius – Macrinus Rev: Providentia Deorvm- Providence with Cornucopia	AD 217-218	Gully (1296)
	Ae Ant. Illegible	Late 3rd century	
	Ae3 Constantine I	AD 307-337	Gully (1310)
4A	Ae 3 Constantine I	AD 307-337	Boundary ditch (1089)
4B	Ae Sestertius	Late 1st-2nd century	
	Ae Ant. Victorinus ?	AD 268-270	
	Ae Ant. Carausius?	AD 287-293	

Phase	Identification	Date	Context Description
	AE3 Constantius II Rev: Gloria Exercitvs – two soldiers, two standards	AD 337-361	Boundary ditch (1017)
	Ae Illegible	3rd/4th century	
	Ae Illegible	3rd/4th century	
	Ae Illegible	3rd/4th century	
	Ae 3 Rev: Victory with wreath – Securitas Reipublicae	4th century	
	Ae 3 Valens - illegible	AD 364-378	
	Ae 3/4 - illegible	4th century	Boundary ditch (1302)
	Ae Ant. Gallienus – illegible	AD 253- 268	
	AE4 Constans (Pre –reform issue AD337-348)	AD 337-350	Curvilinear gully (1009)
	Ae Ant. Illegible	Late 3rd century	Curvilinear gully (1023)
	Ae 3 – Emperor with Labarum Gloria Romanorvm	Mid 4th century	
	Ae 3 – Emperor dragging captive	Mid 4th century	
	Ae 3 Valens? - Emperor dragging captive	AD 368--378	Gully (1169)
	Ae Centenionalis. Decentius?	AD 351-353	
	Ae 3 - illegible	3rd/4th century	Pit/sump (1004)
	Ae 3 - Illegible	4th century	Pit/well (1008)????
	Ae 3 – Illegible	3rd/4th century	Pit (1189)
	Ae 3 - Illegible	3rd/4th century	Pit (1267)
5	Ae Ant.	3rd/4th century	Furrow (1323)

Ceramic building materials by Pat Chapman

Roof tile

This assemblage of tile comprises 34 fragments, counting joining sherds as one, weighing 4.18kg (Table 7). These are most likely all roof tile sherds, as some flanges survive from *tegula* tiles and there are a few curved *imbrex* fragments. The sherds are generally worn, a few shellyware tile sherds are friable.

In this small assemblage, the dominant fabric, by a small margin, is shellyware with the inclusions varying in density from a mass within one sherd to very sparse. The two other fabrics comprise either a hard or slightly soft fine silty orange with occasional fine shell or calcareous material, or a fine to coarse sandy fabric with occasional grog or ironstone inclusions. The sherds are between 15mm and 25mm thick, but typically 18-20mm thick.

Table 7: Roman ceramic tile quantification

Context/feature	Feature type	Sherd no	Weight (g)	Comment
1001	Topsoil	1	25	
1005 /1004	Pit	1	477	tegula
1008 /1147	Pit	1	188	tegula
1020 /1019	Ditch system [1089]	1	236	tegula
1024 /1154	Gully	2	98	tegula/flue – grooves on surface
1064 /1063	Gully	2 (2, 5 joining)	358	
1079 /1078	Gully	4	137	
1090 /1089	Ditch	1	136	tegula
1126 /1125	Pit	1 (2 joining)	192	nail hole
1148 /1147	Pit	1	247	
1150 /1147	Pit	2	654	1 tegula
1170 /1169	Gully	3	180	
1217 /1216	Gully	1 (2 joining)	137	
1259 /1258	Gully	1	186	tegula
1268 /1267	Pit	3 (3 joining)	332	imbrex
1297 /1296	Gully	3	400	1 tegula
1301 /1300	Gully	1 (2 joining)	99	tegula
1303 /1302	Ditch	2	38	
1508 /1506	Pit	3 (3 joining)	57	
Totals		**34**	**4177**	

Eight of the sherds have part of the flange surviving, indicating that they come from the *tegula* roof tile. The flanges are thin and 18-27mm higher than the body. Two of the flanges have top cutaway notches and two have lower notch cutaways, cut so the tiles can overlap on the roofs. The design of the lower cutaways can be datable (Warry 2007). The *tegula* from pit/waterhole 1004 has a vertical cutaway without an angle at the bottom, while the sherd from gully 1258 is angled at the bottom, but the top does not survive. These would suggest a 2nd to late 3rd century date for the tiles. The only *imbrex,* in fragments, comes from pit 1267.

Of the body sherds one, from a pit 1125, overlaid by stone layer 1099, has broken along a square nail hole 8mm across, a feature indicating it is most likely a roof tile. Another body sherd, from gully 1154 has wide shallow grooves on the surface, similar to the finger swirls often seen on *tegulae*, but these appear to be straight and joining at an acute angle, as is seen on flue tiles, although combing on flue tiles is usually narrower and deeper.

The thickness of the tile sherds, the shape of the lower cutaways and the presence of a nail, which may indicate a steeper pitch than early roofs, suggest a 2nd and 3rd century date. The building or buildings from which they originated could be some distance away, perhaps from the Roman town of Duston.

Floor tile

Two very similar fragments of floor tile, from the primary fill of pit 1147 and the primary fill of pit 1125, are 50-55mm thick and made from hard fine silty clay with occasional ironstone inclusions and fired to pinkish brown with a few buff streaks. One surface has been smoothed although it is slightly uneven, the other is rougher. The thickness of these fragments would suggest they were part of a *bipedalis*, the large tile used to bridge the gaps between the hypocaust pillars as a floor base, or as paving (Ward 1999, 43). One small fragment, only 35mm thick from pit 1227 is made

from a hard coarse sandy fabric with occasional sub-angular gravel fragments and fired to a dark orange red.

Fired clay by Pat Chapman

This assemblage, weighing 14.5kg, comprises structural debris found in and around the kiln 1097 from which it derives.

The majority of the fragments comprise thin sheets, measuring up to 100mm by 90mm and either 8-10mm or 20-25mm thick, in a hard orange pink clay occasionally heated to pale grey or burnt black with occasional small gravel inclusions. They are covered on both sides in dense stem impressions. These could be the result of dense grass tempering to ensure the quick firing of the structural material. Similar fragments were found at kilns 18 and 22 at Camp Hill, Northampton, which were interpreted as collapsed roofing material (Shaw 1979, 24). There are also a few lumps with roughly smoothed surfaces and sharp angular impressions, made from orange or pale brown and black sandy clay with some flint and ironstone inclusions.

From fill (1096) of the kiln stokehole, 1095, there are fragments of fired clay and reddened roughly rectangular pieces of densely fossiliferous limestone, one fragment of clay still adhering to a piece of limestone. The large, relatively flat, fired clay fragments up to 30mm thick are in a hard smooth sandy fabric heated to pale grey with occasional large calcined inclusions. The presence of rectangular pieces of limestone may suggest the use of limestone bonded with clay in a flue arch.

From the same context there was also part of a clay pedestal base with a diameter of *c*80mm.

The kiln enclosure ditches, 1093, 1132 and 1192, contained the fragments of two circular clay kiln shelves with a straw marked surface (Fig 30). A fragment of fired clay with what appears to be part of a sandal imprint, denoted by the hob nail impressions came from 1192.

Fired clay

Fig 30 Circular kiln shelf. Diameter *c*340 mm. Well-fired, hard grey/orange sandy ware with grass/straw impressions on lower face. Kiln enclosure ditch 1093, (1094).

The slag by Andy Chapman

A total of 1.70kg of miscellaneous ferrous slag was recovered from nine contexts of Roman date on the eastern part of the site. Six contexts (1016, 1020, 1092, 1124, 1263, and 1306) each produced between 160g and 534g. This material indicates that there was some iron smithing carried out in this area, but probably on a domestic basis and not on an industrial scale.

6.6 **Medieval and post-medieval finds** by Tora Hylton

All finds of medieval and post-medieval date were recovered from topsoil, subsoil and furrow deposits.

The former include a penny of Edward I or II (1272-1307/1307-1327), Durham mint, a fragment of a long cross penny of Edward III (1327-77) and a 14th-century French jetton.

Finds of post-medieval date comprise two 16th/17th-century Nuremburg jettons, a fragment of a silver pin head decorated with spiral wire filigree ornament like

examples from Norwich which were recovered from 17th and 18th-century deposits (Margeson 1993, fig 4, 26-28), an undecorated book clasp which dates to *c*1600-1800 (*cf* Ibid 1993, fig 40, 454) and a buckle.

7 FAUNAL AND ENVIRONMENTAL EVIDENCE

7.1 The animal bone by Stephanie Vann

Method

The animal bone from Upton was subjected to macroscopic examination and identifiable bone was noted and quantified by context. A summary of the results is presented in Table 8. Age was calculated where possible from bones where fusion was discernible, neonatal/juvenile bone and teeth.

Results

Table 8: Total number of bone fragments per species

Phase	*Bos* Cattle	*Ovicaprid* Sheep/ Goat	*Equus* Horse	*Sus* Pig	*Canid* Dog	Large Mammal	Small Mammal	Unid
Late Bronze Age-middle Iron Age	0	0	0	0	0	0	1	43
Late Iron Age	30	10	11	0	0	94	1	344
Early Roman	19	9	5	6	0	10	3	267
Later Roman	53	21	20	5	4	82	7	515
Medieval	0	0	0	0	0	0	0	21
Unknown	0	0	0	0	0	0	0	8
TOTAL	151	41	36	11	4	186	12	1198

Preservation of the animal bone at this site was poor to moderate. Fragmentation was moderate to high and surface abrasion was moderate to high with bone exhibiting signs of erosion, weathering and other taphonomic damage in many instances. Fragmentation six was the result of both old and fresh breaks. Evidence for butchery was low with six definite examples and two possible examples. These included both cut and chop marks. There was evidence of canid gnawing on 18 bones and 57 burned bone fragments were noted. There was no evidence of pathology.

The total number of fragments was 1639, of which 441 (27 %) were identifiable. This identifiable material was, with the exception of one fragment, all from the Iron Age and Roman phases. The species present were cattle, ovicaprid (sheep/goat), horse, pig and dog. No wild species were present, nor was there any evidence of bird or fish remains.

Tooth wear was recorded for the few mandibles that were complete enough to permit it following Grant (1982) and the results are shown in Table 9. This is a widely used, published procedure that records the stage of tooth eruption and wear based on a series of defined stages, enabling an age to be assigned to individual animals and thus analysis of age at death patterns to be undertaken.

Table 9: Ageing of species by tooth wear (Grant 1982)

Context	Feature	Species	DP4	M1	M2	M3
1010	Gully 1009	Ovicaprid	-	-	k	-
1016	Pit 1015	Ovicaprid	l	g	e	-
1079	Gully 1078	Bos	-	l	k	k
1099	Stone layer 1099	Sus	-	-	f	b
1105	Pit 1103	Sus	-	c	v	-
1107	Gully 1106	Bos	-	-	j	g
1127	Pit 1125	Bos	-	g	e	-
1149	Pit 1147	Bos	j	g	e	-
1150	Pit 1147	Bos	-	j	f	-
1150	Pit 1147	Ovicaprid	-	e	-	-
1172	pit 1171	Ovicaprid	-	g	f	f
1185	Pit 1184	Bos	-	-	f	e
1197	Posthole 1196	Sus	-	d	e	-
1197	Posthole 1196	Sus	-	c	-	-

Discussion

Whilst it is true that the small size of the assemblage and its poor condition makes it difficult to draw any significant conclusions, there is nothing about the assemblage that is in any way extraordinary for one of this period. Sheep/goat and cattle are regularly exploited throughout the Iron Age and Romano-British periods, as is the horse and pig, albeit not generally in the same numbers as ovicaprids or cattle (Maltby 1981). The dominance of such remains within the assemblage from Upton is therefore not unusual. The good survivability of large, strong bones such as those of cattle and horse does also need to be taken into consideration, however, as this dominance may be a reflection of preservation rather than husbandry practices at this site.

Table 10 is based on the York System which uses mandibles with at least one recordable molar or fourth premolar, to analyse the age at death. Adult stages are defined by reference to Tooth Wear Stage sensu Grant (1982; also Reitz and Wing 1999: 163-5). Following the York System (Table 3), the mandibles for which it was possible to calculate ages would appear to have belonged to immature – adult animals. Two mandibles from pit 1015 and pit 1147 still have the deciduous (dp4) premolar present, and two mandibles from pit 1147 and posthole 1196 show the M2 permanent molar in the process of erupting 9 (stage E). This suggests that these animals might have been slaughtered before reaching full maturity, perhaps for their meat. However, in contrast to this, others, such as the mandibles from gully 1078, gully 1106, pit 1171 and pit 1184 show the M3 permanent molar in wear to stage e or above. These would be classified as A3 Adult animals using the York System. Species such as cattle and sheep can also be reared for their secondary products such as milk and wool or, in the case of cattle, used for traction. Such uses could explain the presence of adult animals within the assemblage.

Table 10: Definitions of dental eruption and attrition stages used in analysis of age at death (after O'Connor 2003, table 31)

Cattle and Sheep Mandibles		
N	Neonatal	DP4 Unerupted or just in the process of eruption
J	Juvenile	DP4 in wear, M1 not in wear
I	Immature	M1 in wear, M2 not in wear
SA	Subadult	M2 in wear, M3 not in wear
SA1		M3 forming, to just erupting
SA2		M3 erupting
A	Adult	M3 in wear
A1		M3 up to minor dental exposure (stages a and b)
A2		M3 dentine exposure across central column (stages c and d)
A3		M3 dentine exposure on distal column (stages e to h)
E	Elderly	Dentine exposure to or beyond stage j
Pig Mandibles		
N	Neonatal	DP4 Unerupted or just in the process of eruption
J	Juvenile	DP4 in wear, M1 not in wear
I	Immature	M1 in wear, M2 not in wear
I1		M2 present in crypt
I2		M2 erupting
SA	Subadult	M2 in wear, M3 not in wear
SA1		M3 present in crypt
SA2		M3 erupting
A	Adult	M3 in wear
A1		M3 with enamel attrition only (stage a)
A2		M3 with minor dentine exposure (stages b to d)
A3		M3 dentine exposure merging on mesial cusps (stages e to h)
E	Elderly	Three main zones of dentine exposure across M3 merging (stage j)

Only four elements at this site showed unfused epiphyses. These were all from cattle, or large ungulates comparable in size to cattle. The first of these was the proximal epiphysis of a tibia from pit 1085. The other three were vertebral centrum from gully 1009 and gully 1078. There is some debate about the precise age at which fusion occurs in different species and the extent to which modern species are comparable to their prehistoric forebears. Proximal tibiae are, however, generally considered to be late fusing bones; fusion believed to be complete in cattle between 42-48 months. Vertebral centrum, also late fusing, are believed to fuse in cattle between 84-108 months (Reitz and Wing, 1999: Table 3.5).

Whilst the only evidence of canids within the faunal assemblage itself came from teeth and a mandible in pit 1147 and boundary ditch 1302, the presence of gnawing upon several elements confirms the presence of dogs at the site on at least some occasions. Whilst incomplete, the canid mandible had an estimated mandibular cheektooth row length measurement of 90 mm. This suggests the individual was comparable in size to a modern greyhound (Clark 1996, fig 6).

The majority of the burnt material (79%) came from Iron Age contexts, whilst 9% came from early Roman contexts and 9% came from later Roman contexts. Several of these contexts also contained charcoal, suggesting that there may have been localised burning of some nature in the vicinity during this period.

Fifty percent of the evidence for butchery comes from early Roman contexts, whilst 25% comes from Iron Age contexts and 25% comes from later Roman contexts. However, 50% of the evidence for gnawing comes from later Roman contexts, whilst 28% comes from possible early Roman contexts and 22% comes from Iron Age

contexts. The number of fragments exhibiting these is too low to draw any definitive conclusions. It is noteworthy though that the canid bones also come from later Roman contexts, permitting the tentative suggestion that there were higher numbers of canids on site during this period.

7.2 **The human bone** by Andy Chapman

The human skeletal material is very fragmentary and, as a result, it was not submitted for examination by an osteoarchaeologist. For Burial 2, 1199, parts of the long bone shafts survive and the skull was in poor condition, decayed and distorted by crushing, although a number of teeth survive (Figs 17 and 18). The remains are from an adult and there is some but not excessive wear of the teeth, suggesting that this individual would be classified at either the upper end of the young adult group (20-30 years) or the lower end of the adult group (30-40/45 years), so perhaps 25-35 years given the limitations of dental pathology as a determiner of age. A second inhumation, Burial 1, 1236 comprises only a few fragments of long bone shaft, although the size of the grave might suggest that this too was the inhumation of an adult.

The cremated bone from a single deposit, 55 within Iron Age Enclosure 5, includes a few fragments of cranial vault that are thinner than an adult and have the sutures line still visible. The cremation therefore represents the partial remains of an immature individual within the juvenile age range (12-20 years) and probably the earlier part of that range.

7.3 **The charred plant remains** by Val Fryer

The samples were bulk floated by Northamptonshire Archaeology and the flots were collected in a 500 micron mesh sieve. The dried flots were sorted under a binocular microscope at magnifications up to x 16. Nomenclature within the tables follows Stace (1997), and identifications were made by comparison with modern reference specimens. All plant remains were charred. As none of the samples contained sufficient material for quantification, the density of macrofossils within each assemblage is recorded in the tables as follows: x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens. The plant macrofossil remains by sample are presented in Appendix 2.

Sample composition

Cereal grains and chaff and/or seeds of common weed plants were recorded at a low to moderate density from all but four samples (6, 15, 22 and 78). Preservation was generally quite poor, with a high proportion of the grains being puffed and distorted, probably as a result of combustion at very high temperatures.

Both barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were noted. The wheat grains were predominantly of an elongated 'drop-form' shape typical of emmer (*T. dicoccum*) or spelt (*T. spelta*), although a small number of more rounded hexaploid type grains were also present. Double keeled spelt glume bases were recovered from a number of samples, but only one possible single keeled emmer glume base was noted within sample 30. Oat (*Avena* sp.) awn fragments were recorded from samples 30 and 62 and a possible poorly preserved grain was found in sample 17.

Weed seeds generally occurred at a very low density, and were frequently noted as single specimens within an assemblage. Most were of common segetal or grassland species including brome (*Bromus* sp.), goosegrass (*Galium aparine*), grasses (Poaceae), knotgrass (*Polygonum aviculare*), dock (*Rumex* sp.) and scentless

mayweed (*Tripleurospermum inodorum*). Wetland plant macrofossils occurred infrequently (within only six assemblages), but did include sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) nutlets and seeds of blinks (*Montia fontana*). Somewhat surprisingly, tree/shrub macrofossils, most notably hazel nutshell fragments, did not appear within any of the assemblages studied.

Charcoal fragments were present throughout, but rarely at a high density. Other plant macrofossils occurred infrequently, but did include pieces of charred root stem and heather (Ericaceae) stem and floret fragments.

Other material types were particularly scarce. The fragments of black porous and tarry material were probable residues of the combustion of organic remains at very high temperatures, while the vitreous residues and ferrous globules may be indicative of small-scale industrial activity on or near the site.

Discussion

For the purposes of this discussion, samples have been divided by phase and context type.

Pit alignment (Appendix 2; Table 1)
A total of four pits were sampled from a early/middle Iron Age pit alignment at the north-west corner of Area A1. Of these, three (pits 99, 105 and 108) contain assemblages with small quantities of probable cereal processing waste including grains, chaff (including spelt glume bases) and segetal weed seeds. While none contain sufficient material to be indicative of primary deposition, there is probably sufficient to suggest that cereal processing was taking place somewhere nearby during this period of site use.

Pits within and outside Enclosure 2 (Appendix 2; Table 2)
Of the seven assemblages studied, four (from pits 50, 66, 74 and 188) appear to contain low densities of cereal processing waste including grains, chaff (predominantly wheat) and weed seeds. As with the earlier assemblages from the pit alignment (see above), there is probably insufficient material to indicate primary deposition; it is perhaps more likely that the remains recovered are derived from either scattered or wind-blown refuse from nearby processing activities, or from material brought into the enclosure to be used as kindling/fuel. Whatever the source of the material, these assemblages may contain some indicators of contemporary agricultural practice. Although the composition of the weed assemblages appears to indicate that most cultivation was occurring on lighter soils or freshly ploughed grassland, the occurrence of wetland plant macrofossils may suggest that some more marginal areas of damp grassland were also coming into production for the first time.

The remaining three assemblages from Enclosure 2 contain insufficient material for accurate interpretation.

Other Iron Age pit fills (Appendix 2; Table 3)
Samples were taken from a further six pit fills. Of these, four contained individual cereal grains and/or weed seeds, while two contained only charcoal fragments. All remains are almost certainly accidental inclusions within the contexts.

Iron Age ditch fills (Appendix 2; Table 4)
Eight samples were taken from fills within the ditches surrounding Enclosures 1, 2 and 6. Of these, two (samples 18 and 33) from Enclosure 1, ditch 195 and Enclosure 2, ditch 80 respectively, appear to again contain very small quantities of possible

cereal processing waste. The remaining assemblages contain insufficient material for interpretation.

Earlier Roman samples (Appendix 2; Table 5)
Samples were taken from fills within a kiln in Area A2 and from a posthole, the well and grave fills. Although samples were taken from the kiln stoke-hole and from the ditch/gully surrounding the structure, plant macrofossils are extremely scarce, possibly indicating that the kiln was cleaned after its final firing. Assuming that the few remains recorded are derived from materials burnt within the kiln, it would appear that a variety of fuels were used including wood/charcoal, cereal processing waste, uprooted grasses and grassland herbs and possibly even heather, the latter perhaps being favoured as it burns at a high and even temperature. Similar fuel assemblages have been recorded from a number of other contemporary kilns including Postwick, Norfolk (Fryer, 1997a) and Two Mile Bottom, Thetford (Fryer, 1997b).

Although cereal processing waste again appears to be present within the assemblage from grave 1199, the macrofossils are all severely abraded, probably indicating that they were accidentally included within the grave fill after a long period of exposure within the surrounding soil horizon. The assemblages from posthole 1196 and well 1173 contain insufficient material for interpretation.

Later Roman features (Appendix 2; Table 6)
Two samples are from fills within pit/waterhole, 1506. The upper fill (context 1508) contains an assemblage very similar in composition to the fuel waste from the kiln (see above), with a particular abundance of heather stem fragments. It would, therefore, appear most likely that this material is derived from a small deposit of spent fuel, which either accumulated or was placed within the feature fill. The lower fill (context 1507) contains a very sparse assemblage, comprising a single indeterminate cereal grain and a small number of charcoal fragments.

Conclusions

In summary, the assemblages are all extremely small (most being considerably <0.1 litre in volume), and most are probably derived from accumulations of either scattered or wind-blown refuse. There is no evidence for primary deposition within any of the assemblages studied. Cereals were almost certainly of importance to the occupants of the site during the Iron Age period, although it is unclear whether the grain was being grown locally or imported to the site in a semi-cleaned state.

Processing waste is present, and indeed it occurs in most features on the site, but the density of material recovered is low, possibly indicating that primary processing was not occurring in the immediate vicinity. Similar low densities of processing waste have now been recorded from a number of contemporary sites, for example Fison Way, Thetford (Murphy 1992) and Stansted Airport (Murphy 1990). In both of the latter, local soil conditions were not conducive to cereal production, and it is assumed that the occupants were following a largely pastoral regime, relying on imported batches of semi-cleaned grain, which would be finally processed on site. Evidence from the current assemblages certainly suggests that the latter interpretation would be relevant to the present site. The surrounding area appears to have consisted primarily of dry grassland, with only ephemeral indications of either heath or wetland, so a pastoral economy would certainly appear to be indicated. Habitation activity at Upton appears to have been centred on Enclosure 2. Although few samples were taken from the subsidiary enclosures, those that have been studied contain very little material, and it is tentatively suggested that some or all of these structures may have been used as stock pens.

By the Roman period, activity on the site appears to have been minimal, although a kiln utilising a mixture of fuels was in use.

7.4 Wood species identifications by Rowena Gale

Four samples of charcoal were submitted for species identification prior to radiocarbon dating. The samples were prepared using standard methods (Gale and Cutler 2000). Anatomical structures were examined using incident light on a Nikon Labophot-2 compound microscope at magnifications up to x400 and matched to prepared reference slides of modern wood. When possible, the maturity of the wood was assessed (ie, heartwood/ sapwood).

Results

Late Bronze Age/early Iron Age pit 305

4 x ash (*Fraxinus excelsior*), weight <1g
5 x hazel (*Corylus avellana*), weight 1g
1 x birch (*Betula* sp.), weight 1g
1 x oak (*Quercus* sp.), knotty
1 x oak (*Quercus* sp.) sapwood

Late Bronze Age/early Iron Age pit 383

4 x ash (*Fraxinus excelsior*), weight <1g
1 x field maple (*Acer campestre*), weight <1g
2 x alder (*Alnus glutinosa*), weight <1g
10 x hazel (*Corylus avellana*), weight 1g
8 x oak (*Quercus* sp.) heartwood and unknown maturity

Pit alignment, lower fill (110) of pit 108

4 x hazel (*Corylus avellana*), weight <1g

Pit alignment, upper fill (112) of pit 111

4 x hawthorn/ *Sorbus* group (Pomoideae)

7.5 The radiocarbon dates

Radiocarbon dates have been obtained from wood charcoal from one of the pits, 383, containing Late Bronze Age/Early Iron Age pottery, and from one of the pits, 108, of the pit alignment.

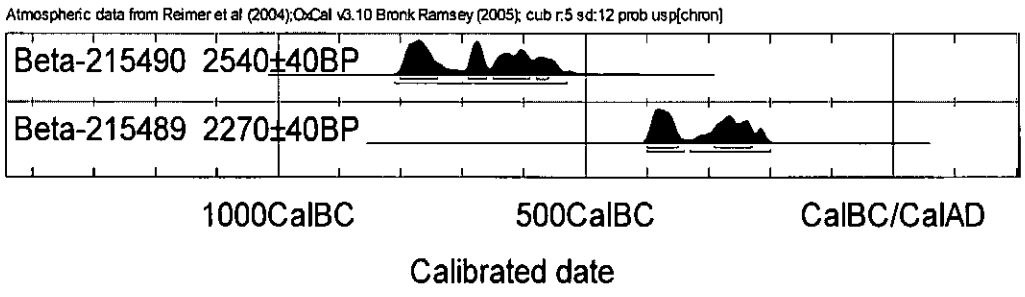
These have confirmed the suspected Late Bronze Age/Early Iron Age date for the pit group. Due to the nature of the calibration curve in this period, two date ranges are possible for the material from pit 385: a date within the first half of the 8th century BC or a broader span covering the 7th to early 6th century BC. The earlier date, firmly Late Bronze Age/Early Iron Age, would be preferred given the nature of the pottery.

The charcoal from the pit alignment also has two possible calibrated date ranges due to nature of the calibration curve: the first half of the 4th century BC or the late 4th to the end of the 3rd century BC, indicating the pit alignment was still open into the Middle Iron Age.

Table 11: The radiocarbon determinations

Lab. No. (Sample No)	Context details	Sample Details	d13C	Conventional radiocarbon age BP	Cal BC 68% confidence 95% confidence
Beta-215490 (UP00/385)	Fill of pit 383 Pit group	Wood charcoal (Hazel)	-24.8	2540 +/-40	790-760 & 620-590 800-740 & 710-530
Beta-215489 (UP00/110)	Fill of pit 108 Pit alignment	Wood charcoal (Hazel)	-24.6	2270 +/-40	390-360 & 280-240 400-340 & 320-210

Radiocarbon Dating Laboratory: Beta Analytic, Miami, Florida, USA.
Calibration: INTCAL 98



8 DISCUSSION

8.1 The late Bronze Age/early Iron Age pits

The small group of late Bronze Age/early Iron Age pits have been radiocarbon dated to a 250-year period between the 8th and mid-6th centuries BC, which may be considered to include the end of the late Bronze Age/early Iron Age transition and much of the early Iron Age.

Three postholes or small pits found at the Quinton House School site to the west may have formed a contemporary continuation of this settlement (Foard-Colby and Walker this volume). Such sparse scatters of pits and postholes are generally thought to be the remains of short-lived settlements indicative of a relatively mobile settlement pattern.

The pottery assemblage is typologically similar to pottery associated with a late Bronze Age ringwork at Thrapston, which has been interpreted as a possible aristocratic residence. Scattered post-built structures and pits have been found at various other sites across the region, including Sywell and Ecton (Atkins *et al* 2000-1), Gretton, Great Oakley and Weekley Wood (Kidd 2004). Unenclosed sites also seem to represent the earliest phases of the long-lived settlements at Crick (Hughes 1998) and Wilby Way, Wellingborough (Thomas and Enright 1999).

8.2 The pit alignment

The pit alignment is the earliest visible man-made division of the landscape at Upton. Although generally regarded as landscape boundaries dating to the late Bronze Age and early Iron Age, the pit alignment at Upton has a radiocarbon date in the early middle Iron Age, indicating that these unusually large pits were still partially open features at this time, perhaps several generations after the formation of the alignment. A similar radiocarbon date has come from a pit alignment at Cottisford Turn, near Silverstone, Northamptonshire (Mudd 2007), and it is likeky that some pit alignments were either still being created or were at least being maintained at the beginning of the middle Iron Age. Some pit alignment boundaries survived as landscape features until the Roman period, as at Wollaston (Meadows pers comm) and the alignment of the pit alignment at Upton certainly influenced the layout of the succeeding Iron Age linear boundary, which ran on a parallel alignment, although after the Roman conquest these earlier landscape divisions were abandoned.

The slightly irregular shape of the pits at Upton appears to have been due to the unstable nature of the geology, where the sandy, upper edges of the pits were liable to cave in and erode more readily, while the solid ironstone towards the base retained what was probably the original square plan form. A pit alignment at Briar Hill also exhibited this effect (Jackson 1974).

Part of a pit alignment has been excavated *c*1km to the west during the construction of the Cross Valley Link Road (Carlyle 2008). There may have been a western terminal to this alignment, but it extended eastward beyond the limit of the geophysical survey and it may either have met up with or been part of the same alignment as that at Upton. If so, this would give a minimum length of 1.3km, with the alignment at Upton still continuing to the east.

Many excavated pit alignments exhibit slight displacements every five to eight pits or so. These slight changes of orientation in the alignment are thought to indicate that the pits were dug by gangs and have been noted locally at Briar Hill (Jackson 1974), Harlestone Quarry (Field and Chapman 2006) and Pitsford (Hallam *et al* 2003). There are two slight displacements in the line of the pits at Upton, occurring between pits 93 and 96 and 111 and 122, with a central group of six pits spanning a length of 17.5m.

It is not known what influenced the original alignment of these boundaries, but Pollard (1996) argues that they may have served to re-instate existing divisions, delineating actual boundaries but also symbolic ones. Certainly the degree of care and precision used in excavating the pits is far more than would be required to merely create a physical boundary, where a ditch and bank would be far more effective in any case. Significantly the orientation of the pit alignment at Upton parallels the alignment between the sand and ironstone and clay geologies, though it is set 60 metres to the north. A pit alignment at Warth Park, Raunds was also orientated over the division between geological zones, in this case cornbrash and marl clay (McAree 2006).

8.3 Iron Age settlement

A number of enclosures were laid out alongside a linear boundary ditch during the middle Iron Age. The settlement commanded extensive views south across the Nene Valley towards Hunsbury Hill, in the near distance, and towards Blisworth and Gayton further to the south, although it did not sit on the highest point of the ridge

(Fig 12). A small rise to the west of the settlement, currently occupied by Quinton House School, may have protected it somewhat from the prevailing westerly winds. Medieval and post-medieval ploughing of the site indicates that the settlement was located on agriculturally viable land; indeed, it was in an ideal situation to practice a mix of pastoral and arable farming because of its location on the interface between the permeable and impermeable geologies. However, the paucity of plant macrofossil evidence suggests that the inhabitants were not directly involved in arable farming and may have concentrated on a pastoral economy, perhaps utilising meadows below the site on the floodplain; although this paucity may at least partly be a product of poor preservation. The environment at the time appears to have consisted largely of open grassland, with very few trees or shrubs and smaller pockets of wetland. Cattle appeared to be the dominant species, followed by sheep/goat and horse. Similar biases towards cattle also occur at nearby Grange Park, Courteenhall and at Crick (Jones *et al* 2006). However, the comparative lack of animal bone on the site suggests that much of the stock was being slaughtered elsewhere. The absence of wild animal bones could suggest that there was no reliance on hunting, which is typical of middle Iron Age settlements.

The most prominent landscape feature was a boundary ditch that paralleled the alignment of the pit alignment, which was probably still a visible feature within the landscape when the settlement was created. The ditched boundary has been traced for at least 340m and associated ditches set at right angles, at both Upton and Quinton House School, and running northwards from this boundary, suggest the presence of a series of larger plots or fields to the north, on higher ground. Linear ditch systems that stretch for several kilometres have been found at Ecton/Sywell, the Bramptons and near Rainsborough Hillfort (Kidd 2004) and there are middle Iron Age field systems at Wollaston (Meadows 1995).

Development of a series of enclosures along a linear boundary is also seen at an Iron Age and Roman site at Weekley, and is thought to have originated prior to the introduction of La Tene style pottery (Jackson and Dix 1986-7). There were four apparently contemporary early middle Iron Age sites situated in close proximity at Grange Park, Courteenhall. At one of these sites, Areas 9 and 10, a series of linear ditches associated with enclosures were interpreted as a droveway, but may have also functioned as a boundary. A further linear ditch, over 100m in length, was associated with later middle Iron Age enclosures in Area 6 at Grange Park (Jones *et al* 2006).

Enclosure 6 at Upton seems to have been a focus of domestic activity in the middle Iron Age, there may have been a roundhouse here, although only an arc of curvilinear gully survived. Some 210m to the west there may have been another, possibly contemporary, roundhouse within the enclosure at Quinton House School (Foard-Colby and Walker 2007).

Upton had been part of a larger agrarian landscape for many centuries by the late Iron Age, probably forming a component of a larger network of communities situated around the Upper Nene Valley with the large, nearby hub based at Hunsbury Hill to the south. By the middle of the 1st century AD, however, the large settlement at Duston had developed, perhaps even impinging on the land farmed by the occupants of the Upton site. The large amount of late Iron Age coinage recovered from the area around Duston would seem to indicate that it had a high status, whether social, political or religious.

The Iron Age finds, with no indication of any imported or 'exotic' goods, suggest that the status of the late Iron Age settlement at Upton does not appear to have been greatly influenced by the development of the 'small town' next to it, and the lifestyle of the inhabitants remained much the same as it had been during the previous centuries.

This is mirrored at many other late Iron Age sites in the county, where there is generally little sign of the major social or economic change that is evident on sites in the South-East and South Midlands (Kidd 1999).

By the late Iron Age the settlement at Upton seems to have contracted; there is little evidence that it extended beyond the limit of excavation in any direction and it seems to have been centred on a single ditched enclosure, Enclosure 2. This small enclosure had a substantial ditch, up to 1.5m deep in places. There was no evidence for an internal bank, and the enclosure contained a scatter of pits, which produced some domestic debris, and a curvilinear gully may have marked the location of a near central roundhouse. Enclosure 7, which was enclosed by a shallow gully, was probably contemporary with Enclosure 2, although the cremation deposit within this enclosure, of a juvenile accompanied by about 40 hobnails, is likely to date to the 1st century AD or later.

8.4 Roman settlement

At some point around the time of the Roman Conquest, the Iron Age settlement was abandoned. The old landscape divisions appear to have been fundamentally re-organised and the earliest Roman activity on the site was a series of single and double linear ditches that may have formed large rectangular enclosures, which probably functioned as livestock enclosures, during the later 1st and 2nd centuries, overlapping with the growth in settlement activity to the east, which began in the 2nd century with the pottery kiln and associated ditch systems. All of this activity seems to have been peripheral to but associated with the Roman 'small town' at Duston.

The kiln and associated features were the earliest activity; industrial activity at the margins of the growing Roman town perhaps. Excavation behind the frontages and along smaller side tracks at Roman settlement in Northamptonshire, including Towcester and Ashton, has indicated that domestic occupation was scarce and dominated by ancillary buildings, structures and deposits associated with craft and agricultural activity, and rubbish disposal (Taylor 2000), and this corresponds with the evidence found during the excavations at Upton where, although no evidence for habitation was found, pottery production, and possibly ironsmithing, was taking place during the 2nd and into the 3rd centuries. However, recovery of a significant amount of imported pottery, including Samian, indicates the presence of a fairly well-appointed household somewhere in the vicinity.

The kiln at Upton is most like Woods type IIIC (1974). The kiln was in good condition and there were very few wasters in features surrounding the kiln, which may suggest that it wasn't in use for a long period of time. Fuel used in the kiln appears to have been a mixture of wood/charcoal, cereal processing waste and heather. The pottery produced by the kiln seems to have been white sandy and white grog-tempered wares, although too little was found to be sure. Most of the kiln bars, at least, were removed and possibly utilized in another kiln elsewhere. Clay for the pots was probably dug from nearby and prepared close to the kiln. A possible potter's workshop to the west of the kiln may have been where the pots were made and stored prior to firing. No other pottery kilns have been reported in Duston, the nearest being at Dallington, but it is believed that a further kiln has excavated during development of the housing estate to the immediate east (Paul Woodfield pers comm). Several 1st and 2nd century kilns were also excavated at Camp Hill, on the opposite side of the Nene Valley (Shaw 1979). Typologically, the kilns were not the same as the Upton example and they appeared to be in use at an earlier date. Early

Roman kilns have also been excavated and in the grounds of Delapre Abbey (Woodfield 2010).

The two graves, probably dated to the same period as the kiln, appear to have been isolated burials, situated beyond any formal settlement and may be categorized as 'backland burials' (Esmonde-Cleary 2000). The location of rural Roman burials close to enclosure ditches, especially towards the entrances or to the rear of the enclosed area, has previously been discussed (Pearce 1999). The absence of any wood stains and nails suggest that the bodies were not interred in coffins but probably wrapped in shrouds before being buried.

Craft production ceased during the early 3rd century and there may have been a hiatus in activity until the late 3rd century, when a series of small enclosures were created. While to the south there was a series of small rectangular plots set along a common linear boundary, to the north the system seems to have expanded in an organic fashion, where the layout of the boundaries was haphazard and size of resulting plots irregular, with many realignments occurring. As previously, there was still no physical evidence for direct occupation, but high incidence of later coins and the pottery assemblage suggest that ditched plots were attached to a nearby building of some status.

Finds evidence from Duston itself, including malting/drying kilns, suggest that the whole community was involved in agricultural practices and the processing of arable crops and stock management (Taylor 2002). However, the poor environmental evidence does not help to define the exact economic base, although the area generally appears to have comprised open areas of grassland, indicating the importance of pastoral farming in the immediate vicinity.

BIBLIOGRAPHY

Atkins, R, Parry, S, Holmes, M, and Meadows, I, 2000-1 Excavations of Iron Age Settlements at Sywell Aerodrome (1996) and at Ecton (1992-3) Northamptonshire, *Northamptonshire Archaeol*, **29**

Avery, D M E, Sutton, J E G, and Banks, J W, 1967 Rainsborough, Northants: excavations 1961-65, *Proceedings of the Prehistoric Soc*, **33**, 2

Bamford, H M, 1985 *Briar Hill excavation 1974-8*, Northampton Devel Corp Archaeol Monog, **3**

Barrett, J C, 1980 The pottery of the later Bronze Age in Lowland England, *Proceedings of the Prehist Soc*, **46**, 297-319

Booth, P M, and Green, S, 1989 The nature and distribution of certain pink grog tempered vessels, *J Roman Pottery Stud* **2**, 77-84

Booth, P M, Evans, J, Hiller, J, *et al* (eds) 2002 *Excavations in the extramural settlement of Roman Alchester, Oxfordshire, 1991*, Oxford Archaeol monog, **1**

Brown, J, 2007 *The Industrial Infrastructure Strip, Map & Sample Areas at Pineham Barn, Upton, Northampton, 2006–7: Assessment*, Northamptonshire Archaeology report, **06/66**

Carlyle, S, 2008 *An Iron Age pit alignment near Upton, Northampton Cross Valley Link Road (CVLR): Watching brief and strip, map and sample, April to July 2007*, Northamptonshire Archaeology report, **08/62**

Chapman, A, Thorne, A, and Upson-Smith, T, 2005 A Roman villa and an Anglo-Saxon burial at Wootton Fields, Northampton, *Northamptonshire Archaeol*, **33**, 79-112

Chapman, A, 2007 A Bronze Age barrow cemetery, a pit alignment and Iron Age settlement at Gayhurst Quarry, Buckinghamshire, *Records of Buckinghamshire, 47(2), 81-211*

Clark, K M, 1996 Neolithic dogs: a reappraisal based on evidence from the remains of a large canid deposited in a ritual feature, *International Journal of Osteoarchaeology*, **6**, 211-219

Cooper, N J, (ed) 2006 *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda*, Leicester Archaeology Monog, **13**

Crummy, N, 1983 *The Roman small finds from excavations in Colchester 1971-9*, Colchester Archaeol Rep, **2**

Esmonde Cleary, S, 2000 *Putting the Dead in their Place: Burial Location in Roman Britain*, in Pearce *et al* (eds) 2000, 127-142

Evans, J, 2002 Iron Age, Roman and Anglo-Saxon pottery, in P M Booth *et al* (eds)

Fell, C I, 1936 The Hunsbury hillfort, Northants: a new survey of the material, *Archaeol J*, **93**, 57-100

Foard-Colby, A, and Butler, A, 2006 *Geophysical Survey and Archaeological Evaluation at Quinton House School, Upton*, Northamptonshire Archaeol report, **06/39**

Foard-Colby, A, and walker, C, 2007 *Archaeological excavation at Quinton House School, Upton, Northampton, January to February 2007*, Northamptonshire Archaeology report, **07/91**

Foard, G, Ballinger, J, and Taylor, J, 2001 *Northamptonshire Extensive Urban Survey: Overview*, Northamptonshire County Council

Friendship-Taylor, R M, 1998 *Aspects of late La Tène Pottery of the Nene and Welland Valleys of Northamptonshire: with particular reference to channel-rim jars*, unpublished MPhil thesis, Nottingham University

Fryer, V, 1997a *Charred macrobotanical and other remains from a Roman pottery kiln, Heath Farm, Postwick*, Assessment report for NAU Archaeology

Fryer, V, 1997b *Charred plant macrofossils and other remains from Two Mile Bottom, Thetford, Norfolk*, Assessment report for NAU Archaeology

Gale, R, and Cutler, D, 2000 *Plants in Archaeology*, Otley/London, Westbury Publishing and Royal Botanic Gardens, Kew

Grant, A, 1982 The use of tooth wear as a guide to the ageing and sexing of domestic animals, in Wilson, Grigson and Payne 1992, 91-108

Hallam, T, Lloyd, R, Steadman, S, and Yates, A, 2003 *Pitsford Quarry Archaeological recording, Bottom Sheep Dale Field: Assessment and Updated Project Design*, Northamptonshire Archaeology report

Hayward, S, 2001 *Northampton Southwest District at Upton: Archaeological Evaluation*, Northamptonshire Archaeol report

Holmes, M, and Chapman, P, Iron Age settlement at Swan Valley Business Park, near Rothersthorpe, Northampton, *Northamptonshire Archaeol*, **33**, 19-46

Hull, G, 2000-01 A Late Bronze Age Ringwork; Pits and Later Features at Thrapston, Northamptonshire, *Northamptonshire Archaeol*, **29**, 73

Hughes, G, 1998 *The excavation of an Iron Age Settlement at Covert Farm (DIRFT East), Crick, Northamptonshire, Post-excavation assessment and updated research design*, unpublished BUFAU report

Hylton, T, and Zeepvat, R J, 1994 Objects of Copper Alloy, Silver and Gold, in Williams and Zeepvat 1994, 303-321

Ingle, C, 1993/4 The Quernstones from Hunsbury Hillfort, Northamptonshire, *Northamptonshire Archaeol*, **25**, 21-34

Jackson, D A, and Ambrose, T M, 1978 Excavations at Wakerley, Northants, *Brittania*, **9**, 115-242

Jackson, D A, and Dix, B, 1986-7 Late Iron Age and Roman settlement at Weekley, Northants, *Northamptonshire Archaeol*, **21**, 41-93

Jackson, D A, Harding, D W, and Myres, J N L, 1969 The Iron Age and Anglo-Saxon Site at Upton, Northants, *The Antiquaries Journal*, **49**, 202-21

Jackson, D A, 1974 Two new pit alignments and a hoard of currency bars from Northamptonshire, *Northamptonshire Archaeol*, **9**,13-45

Jackson, D A, 1978 A late Bronze-Early Iron Age vessel from a pit alignment at Ringstead, Northants, *Northamptonshire Archaeol*, **13**, 168

Jackson, D, 1982 Great Oakley and other Iron Age sites in the Corby area, *Northamptonshire Archaeol*, **17**, 3-23

Jackson, D A, 1993/4 Iron Age and Anglo-Saxon settlement and activity around the Hunsbury Hillfort, Northampton, *Northamptonshire Archaeol*, **25**, 35-46

Jackson, D, 1993/4 Archaeological Evaluation at Upton, *Northamptonshire Archaeol*, **25**, 69-76

Jackson, D A, 1996-7 Further Evaluation at Borough Hill, Daventry, Northants, *Northamptonshire Archaeol*, **27**, 143-164

Jackson, D A, 2003 Quantification and assessment of the pottery from the hillfort at Hunsbury, Northampton, *Northamptonshire Archaeol*, **31** 137-141

Jackson, T W, and Potter, R P J, 1996 *Excavations at Stonea, Cambridgeshire, 1980-85*

Johns, C, 1996 Bracelets, in Jackson and Potter 1996, 334

Johns, C, 1997 *The Snettisham Roman Jeweller's Hoard*, British Museum Press

Johns, C, 1998/2000 *Roman Iconography: A brief Introductory Guide*

Jones, C, 2002 *Archaeological Watching Brief, New Roundabout Upton Way, Northampton*, Northamptonshire Archaeology report

Jones, C, 2003 *Archaeological Watching Brief west of new roundabout Upton Way, Northampton*, Northamptonshire Archaeology report

Jones, J, Woodward, A, and Buteux, S, 2006 *Iron Age, Roman and Saxon Occupation at grange Park: Excavations at Courteenhall, Northamptonshire, 1999*, British Archaeological Report, British Series, **425**

Jones, M, and Dimbleby, G, (eds), 1981 *The Environment of Man: the Iron Age to the Anglo-Saxon Period*, British Archaeological Report British Series, **87**

Kidd, A, 1999 *An Archaeological Resource Assessment of the Later Bronze and Iron Ages (the First Millennium BC) in Northamptonshire*, East Midlands Archaeological Research Framework

Kidd, A, 2004 Northamptonshire in the First Millenium BC, in Tingle 2004, 44-62

Last, J, 2005 Life by the River: a Prehistoric Landscape at Grendon, Northamptonshire *Proceedings of the Prehistoric Soc*, **71**, 333-360

Lawrence, S, and Smith, A, 2009 *Between Villa and Town: Excavations of a Roman Roadside Settlement and Shrine at Higham Ferrers, Northamptonshire,* Oxford Archaeol Monog, **7**

Leigh, D, 2003 *Archaeological Watching Brief Weedon to St Crispin Link Road, Northampton*, Northamptonshire Archaeology report

Maltby, M, 1981 Iron Age, Romano-British and Anglo-Saxon animal husbandry – a review of the faunal evidence, in Jones and Dimbleby 1981, 155-203

Margeson, S, 1993 *Norwich Households: Medieval and Post-medieval Finds from Norwich Survey Excavations 1971-78,* East Anglian Archaeol, **58**

Manning, W H, 1985 *Catalogue of the Romano-British Iron tools, fittings and weapons in the British Museum,* British Museum

Maull, A, 2001 *Archaeological Investigations at Upton, Northampton South West District, autumn 2000*, Northamptonshire Archaeology report

McAree, D, 2006 A pit alignment at Warth Park, Raunds, *Northamptonshire Archaeol*, **33**, 9-18

McSloy, E, 2002, Stanwick *pottery: revised assessment*, unpub document English Heritage

Meadows, I, 1995 Wollaston, *South Midlands Archaeology,* **25**, 41-45

Mudd, A, 2007 *Iron Age and Roman settlement on the Northamptonshire Uplands: Archaeological work on the A43 Towcester to M40 Road Improvement scheme in Northamptonshire and Oxford*, Northamptonshire Archaeology monog, **1**

Murphy, P, 1990 *Stansted Airport, Essex: carbonised plant remains*, Ancient Monuments Laboratory Report, **129/90**, English Heritage

Murphy, P, 1992 Plant remains and the environment, in T Gregory *Excavations in Thetford 1980 – 1982, Fison Way, Vol 1*, East Anglian Archaeol, **53**

Neal, D S, 1974 The *Excavation of the Roman Villa in Gadebridge Park, Hemel Hempstead 1963-8*

Neal, D S, and Butcher, S A, 1974 Miscellaneous Objects of Bronze, in Neal 1974, 128-150

Neal, D S, 1989 Excavations at Magiovinium, *Records of Buckinghamshire,* **29**, 1-124

O'Connor, T P, 2003 *The Analysis of Urban Animal Bone Assemblages: A Handbook for Archaeologists*, The Archaeology of York, **19**

Parrington, M, 1978 *The excavation of an Iron Age settlement, Bronze Age ring-ditches and Roman features at Ashville Trading Estate, Abingdon (Oxfordshire) 1974-76*, CBA Research Rep, **28**

Pearce, J, 1999 The dispersed dead: preliminary observations on burial and settlement space in rural Roman Britain, *Theoretical Roman Archaeology Conference Proceedings*, **98**, 151-162

Pearce, J, Millett, M, and Struck, M, (eds) 2000 *Burial, Society and Context in the Roman World*, Oxbow, Oxford

Phillips, G, 2004 The Mesolithic, in Tingle 2004, 18-24

Prentice, J, 1999 An *Archaeological Evaluation at Upton, Northampton (South-West District)*, Northamptonshire Archaeology report

RCHME 1985 *An Inventory of the Historical Monuments in the County of Northampton*, **V**, Royal Commission on Historical Monuments (England)

Reitz, E J, and Wing, E S, 1999 *Zooarchaeology*

Saville, A, 1981 Honey Hill, Elkington: a Northamptonshire Mesolithic site, *Northamptonshire Archaeol,* **16**, 1-13

Shaw, M, 1979 Romano-British pottery kilns on Camp Hill, Northampton, *Northamptonshire Archaeol,* **14**, 17-30

Shaw, M, 1990 *Archaeological Evaluation at Upton, Northampton (South West District)*, Northamptonshire Archaeology report

Shaw, M, 1993/4 The discovery of Saxon sites below fieldwalking scatters:settlement evidence at Brixworth and Upton, Northants, *Northamptonshire Archaeol*, **25**, 77-92

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

Taylor, J, 2002 *Northamptonshire Extensive Urban Survey: Duston,* Northamptonshire County Council

Thomas, A, and Enright, D, 2003 Excavation of an Iron Age Settlement at Wilby Way, Great Doddington, *Northamptonshire Archaeol*, **31**,15–69

Timby, J R, 2009 The pottery, in Lawrence and Smith 2009

Tingle, M, 2004 *The Archaeology of Northamptonshire,* Northamptonshire Archaeological Society

Tomber, R S, and Dore, J, 1998 *The National Roman fabric reference collection: A handbook,* Museum of London/ English Heritage/ British Museum

Ward, C, 1999 *Iron Age and Roman Piddington: The Roman Ceramic and Stone Building materials, 1979-1998,* The Upper Nene Archaeological Society, Fascicule, **4**

Wardle, A, 1989 Miscellaneous Objects of Copper Alloy, in Neal 1989, 44-50

Warry, P, 2007 Roman Tile, hard-core or hard data? *Current Archaeology,* 209, 27-30

Webster, P, 1996 *Roman Samian Pottery in Britain,* Council for British Archaeol, **19**

Williams, J, 2002 *Notes from John Williams archive on the Duston excavations,* held by Northamptonshire Sites and Monuments Record

Williams, J H, and Shaw, M, 1981 Excavations in Chalk Lane, Northampton, 1975-1978, *Northamptonshire Archaeol*, **16**, 87-136

Williams, R J, and Zeepvat, R J, 1994 *Bancroft: A late Bronze Age/Iron Age Settlement Roman Villa and Temple-Mausoleum, Vol 2, Finds and Environmental Evidence*, Buckinghamshire Archaeol Soc Monog, **7**

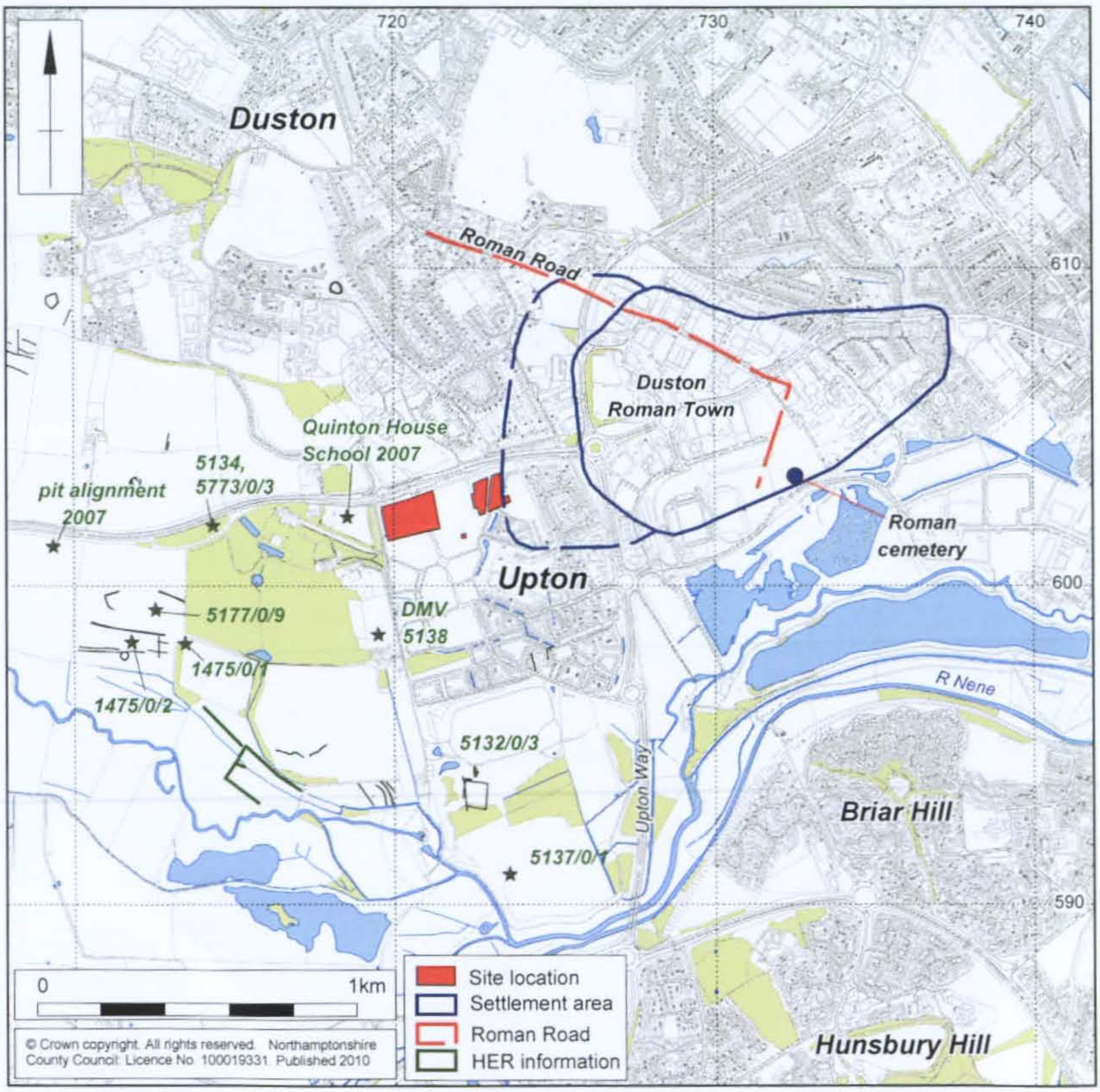
Wilson, B, Grigson, C, and Payne, S, (eds), 1982 *Ageing and Sexing Animal Bones from Archaeological Sites*, British Archaeological Reports, British Series, **109**

Woodfield, P, 2010 The Delapré Roman kiln field, Northampton, *Northamptonshire Archaeol,* **36**

Woods, P J, 1974 Types of Late Belgic and Early Romano-British Pottery Kilns in the Nene Valley, *Brittannia*, **5**, 262-281

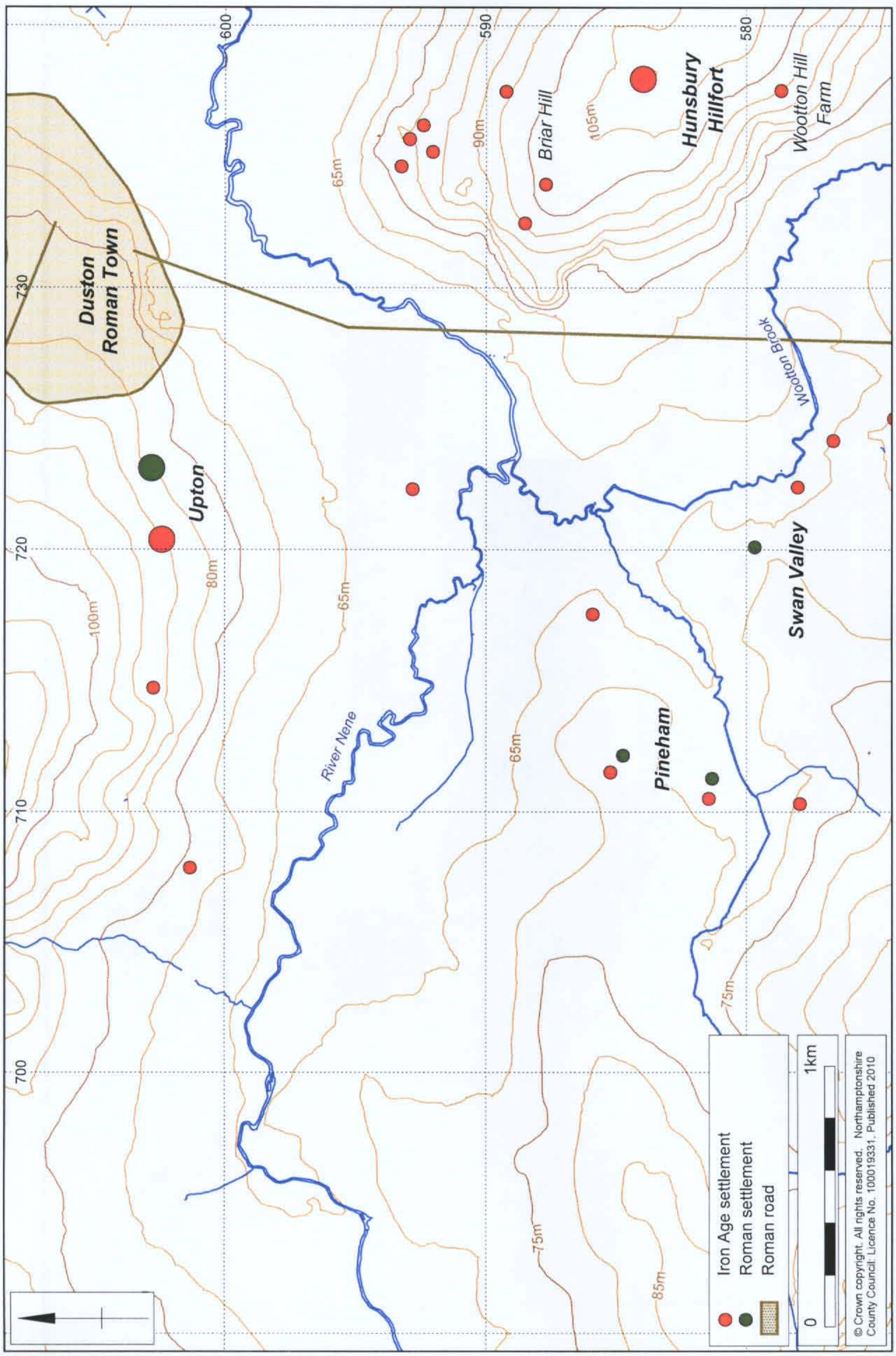
Young, C J, 2000 (reprint from 1977) *The Roman pottery industry of the Oxford region*, British Archaeological Reports, **43**, Oxford

Northamptonshire Archaeology
A service of Northamptonshire County Council 8 September 2010



Scale 1:20,000

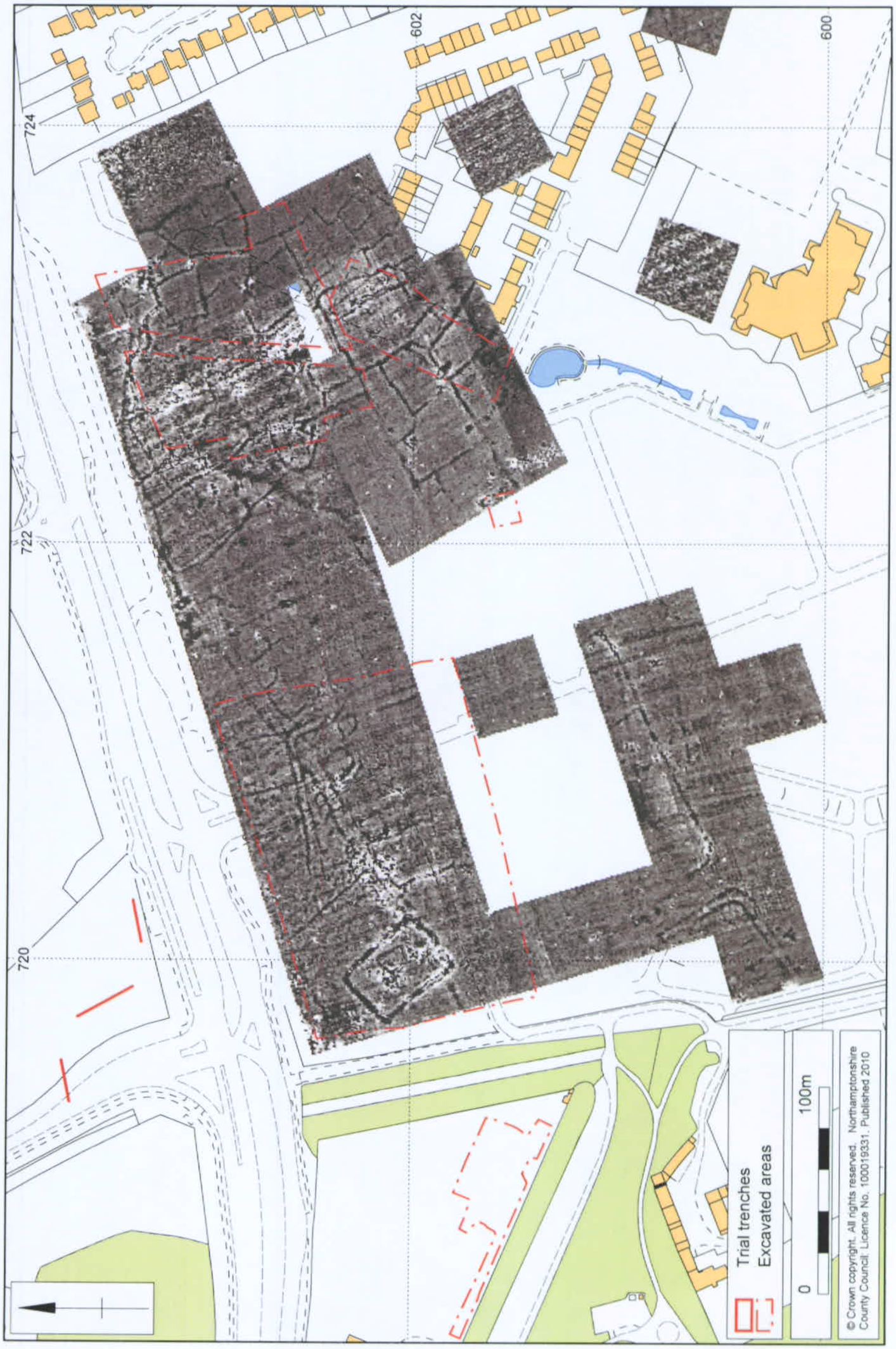
Site Location Fig 1



Scale 1:20,000

The topography and the distribution of Iron Age and Roman sites around Upton

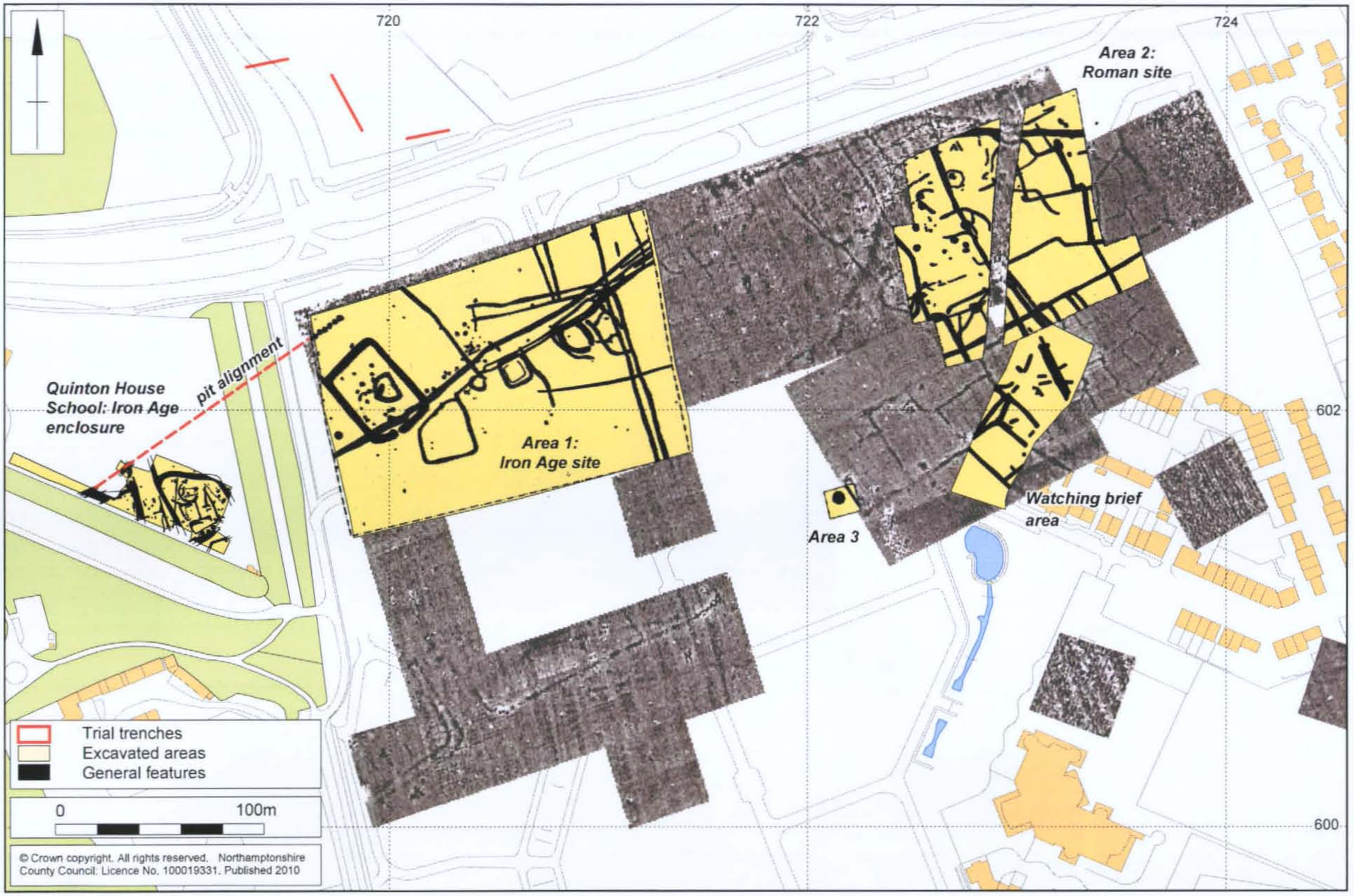
Fig 2



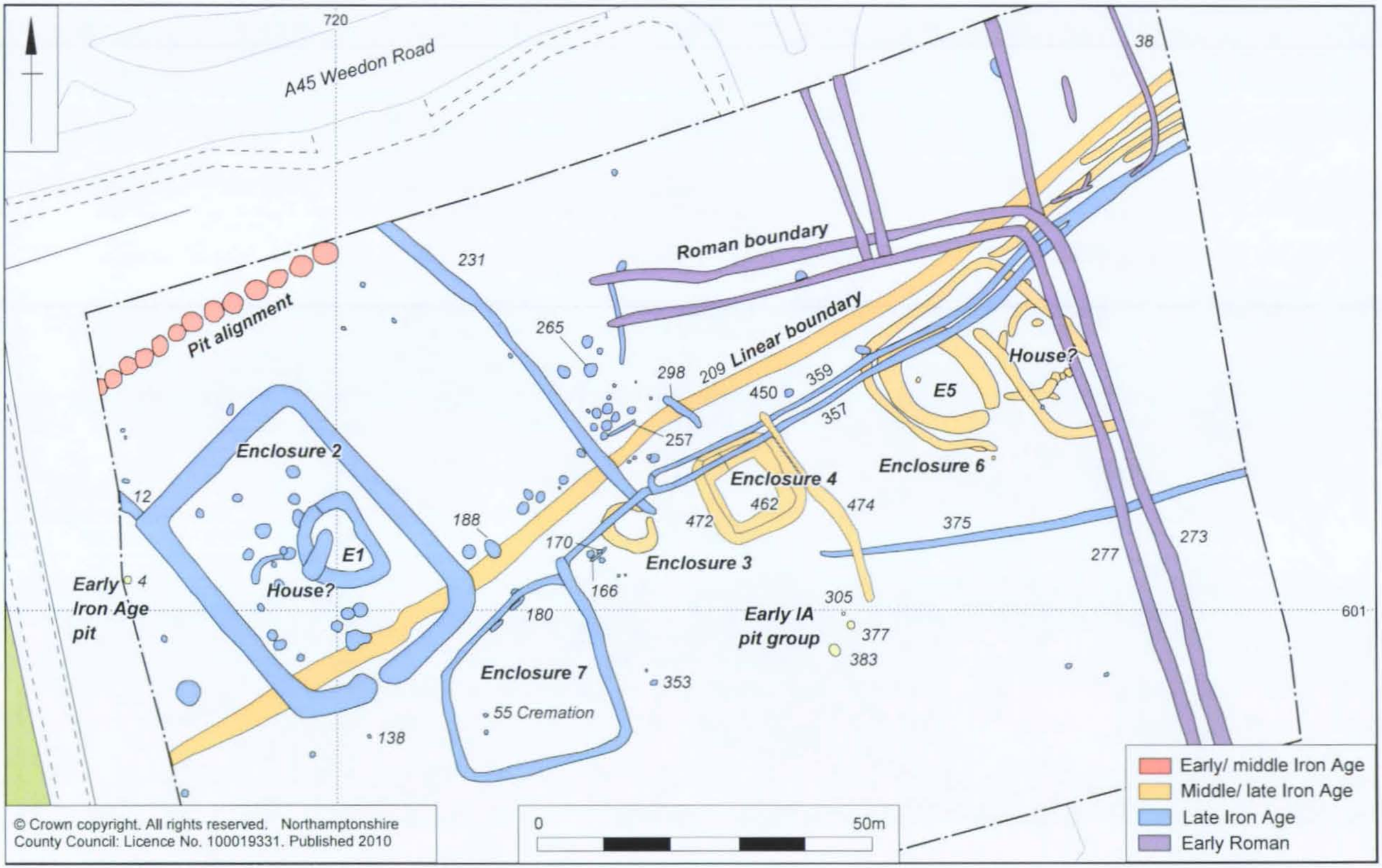
Scale 1:2500

General plan showing geophysical survey Fig 3

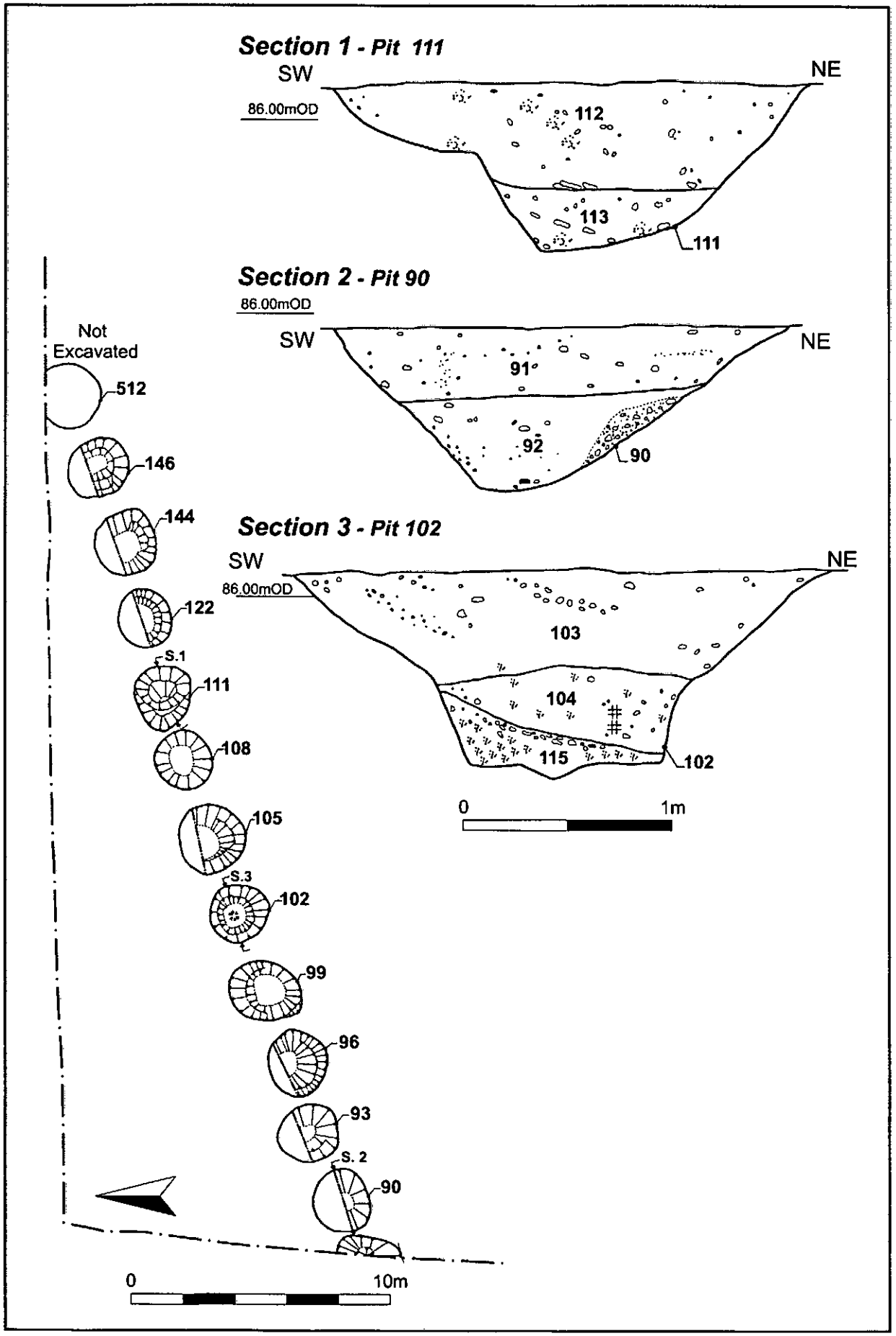
Scale 1:2500



General plan showing geophysical survey and excavated features Fig 4



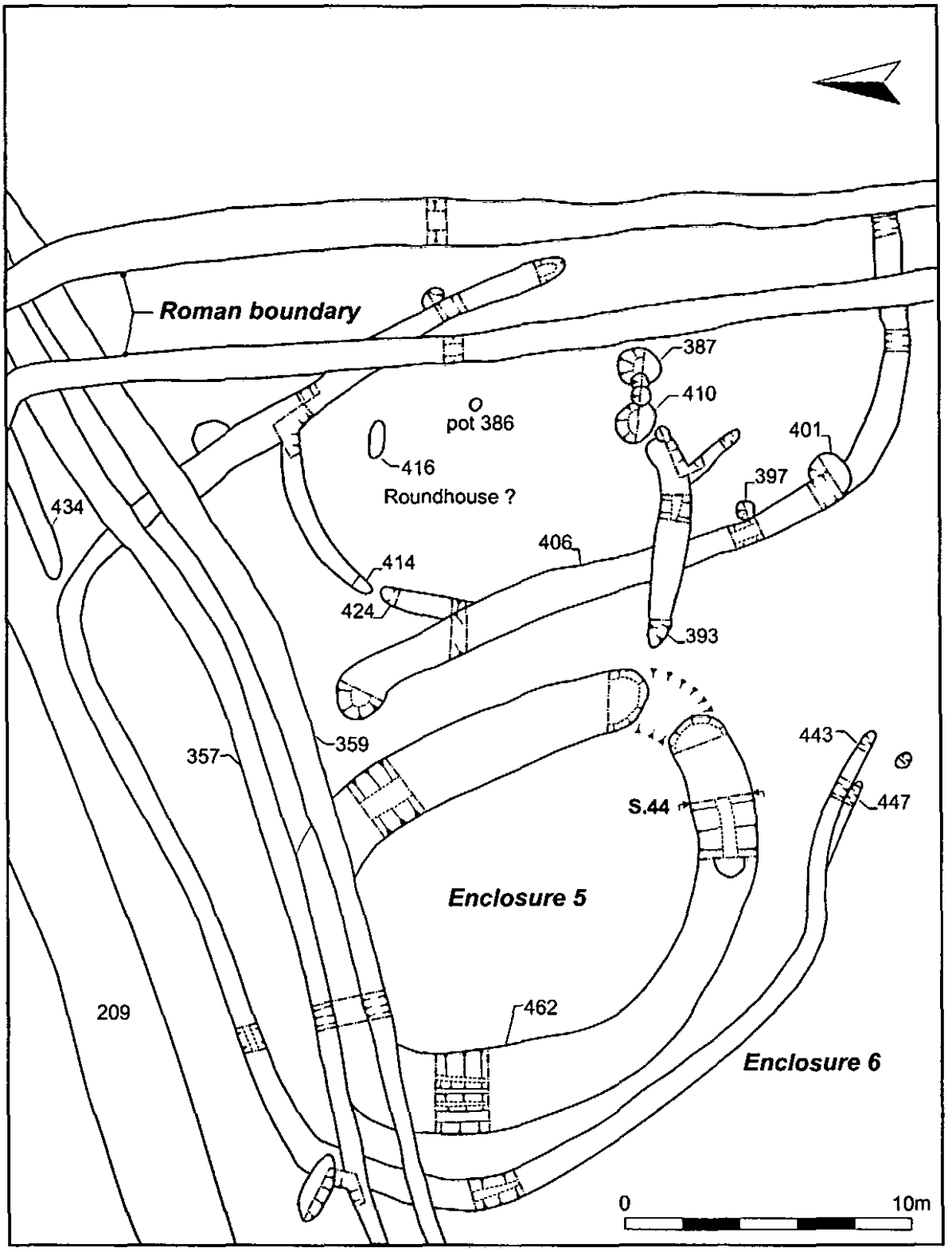
The Iron Age settlement Fig 5



The pit alignment, plan and sections Fig 6

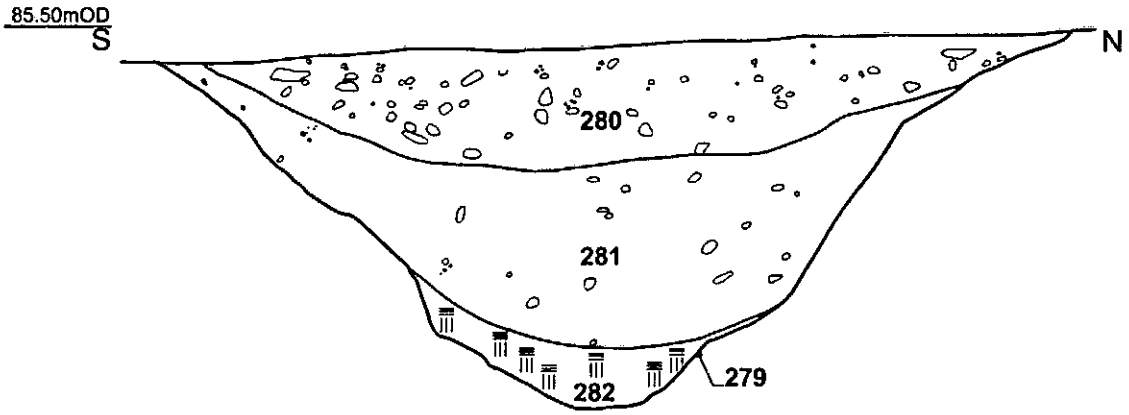
The pit alignment, looking north-east Fig 7

Enclosure 3, looking north-east Fig 8

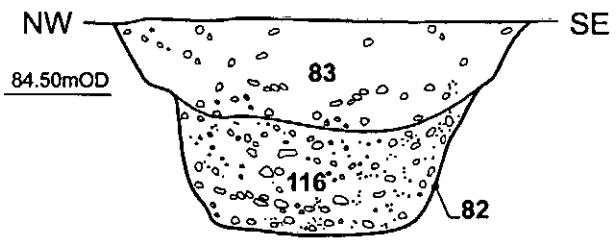


Iron Age enclosures 5 and 6 Fig 9

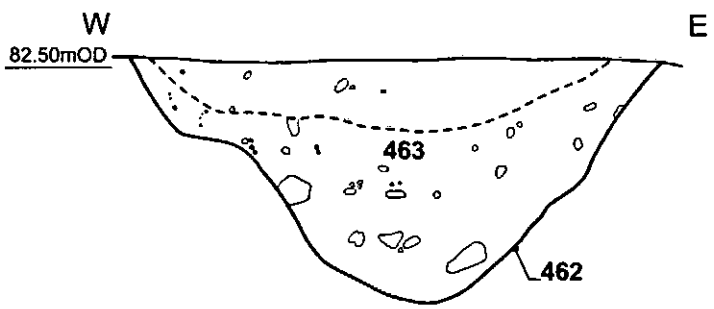
Section 5 - Enclosure 2



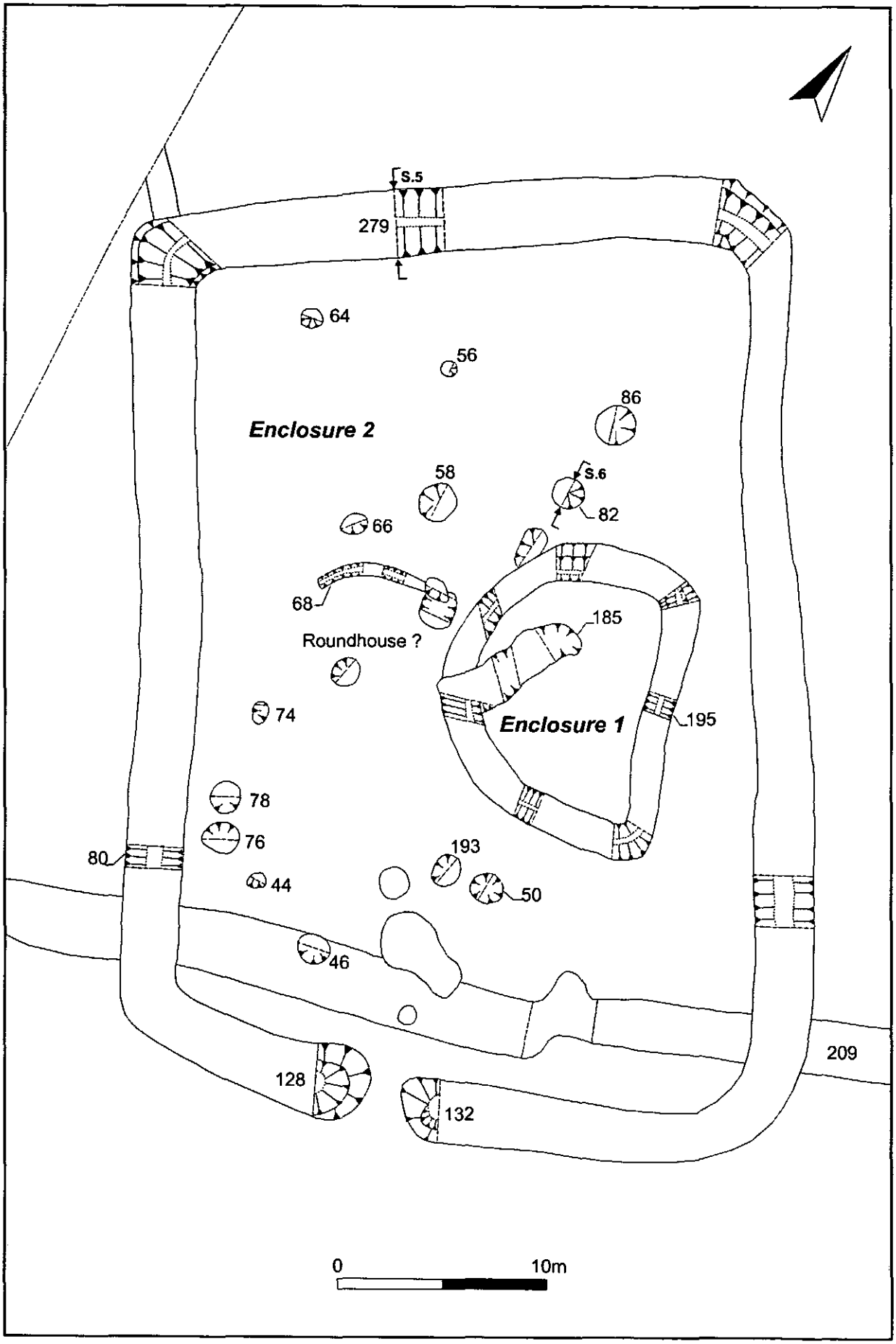
Section 6 - Pit in Enclosure 2



Section 4 - Enclosure 5

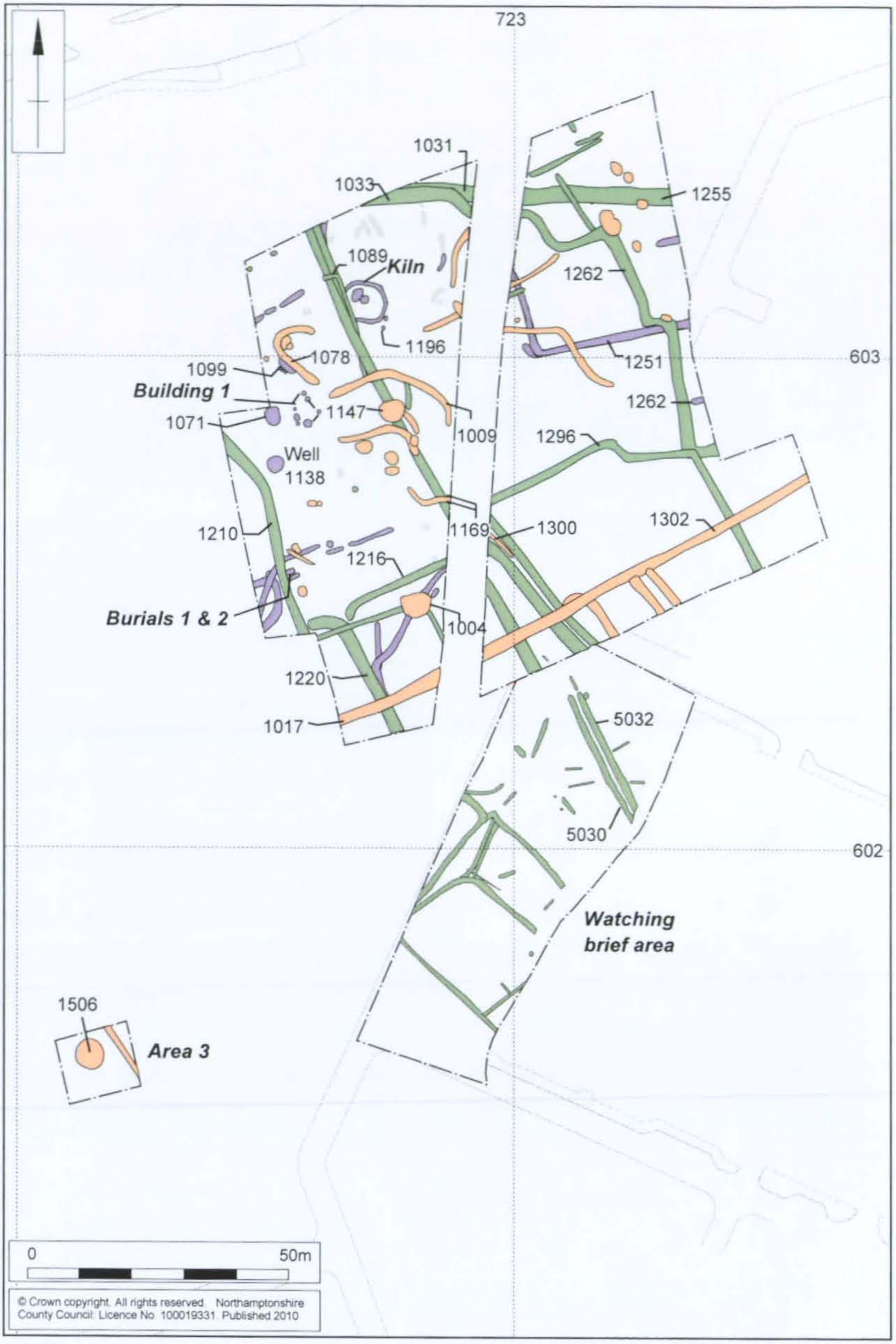


Sections of middle and late Iron Age features Fig 10



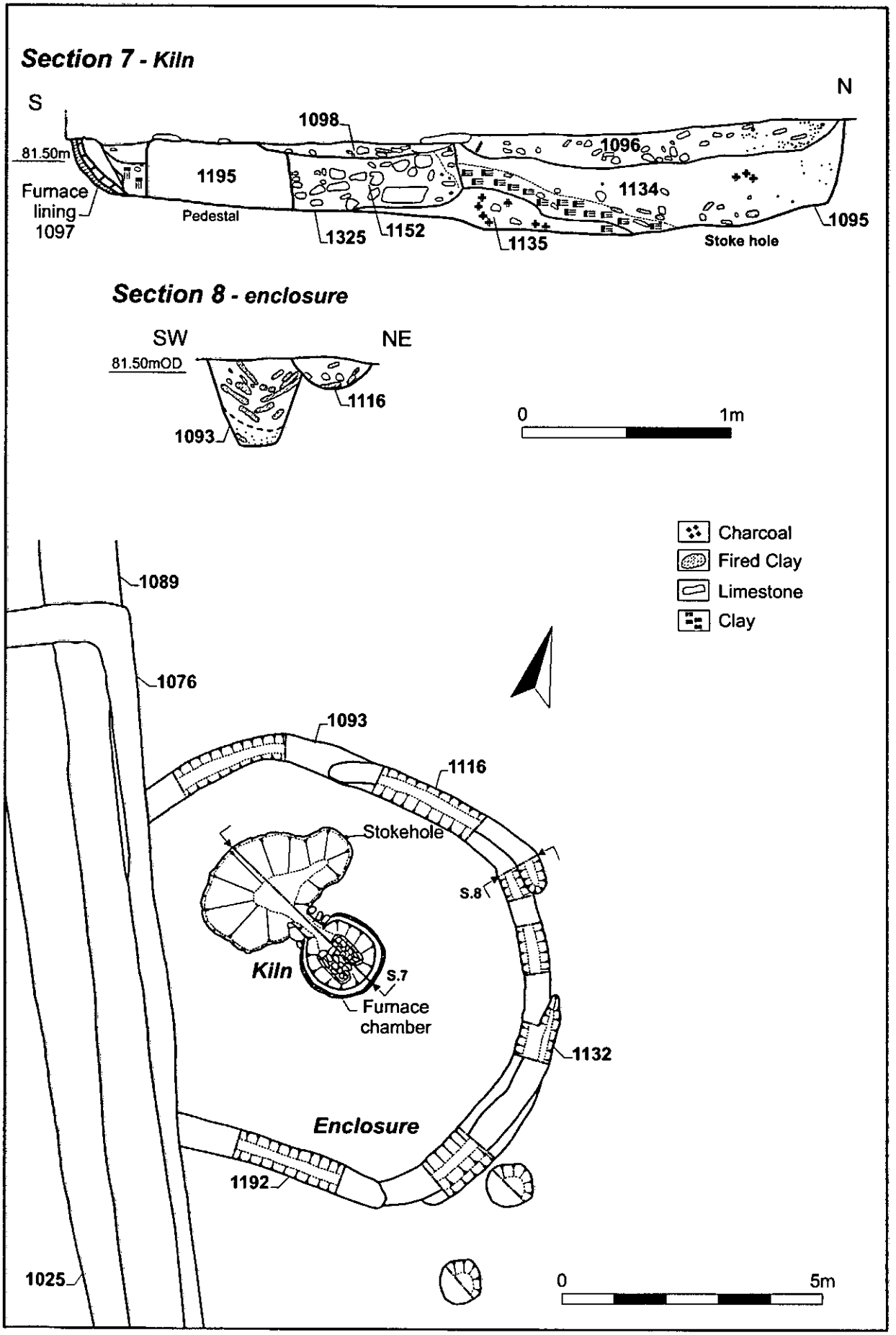
Iron Age Enclosures 1 and 2 Fig 11

Enclosure 2, looking south towards Hunsbury Hill, pit alignment in foreground Fig 12



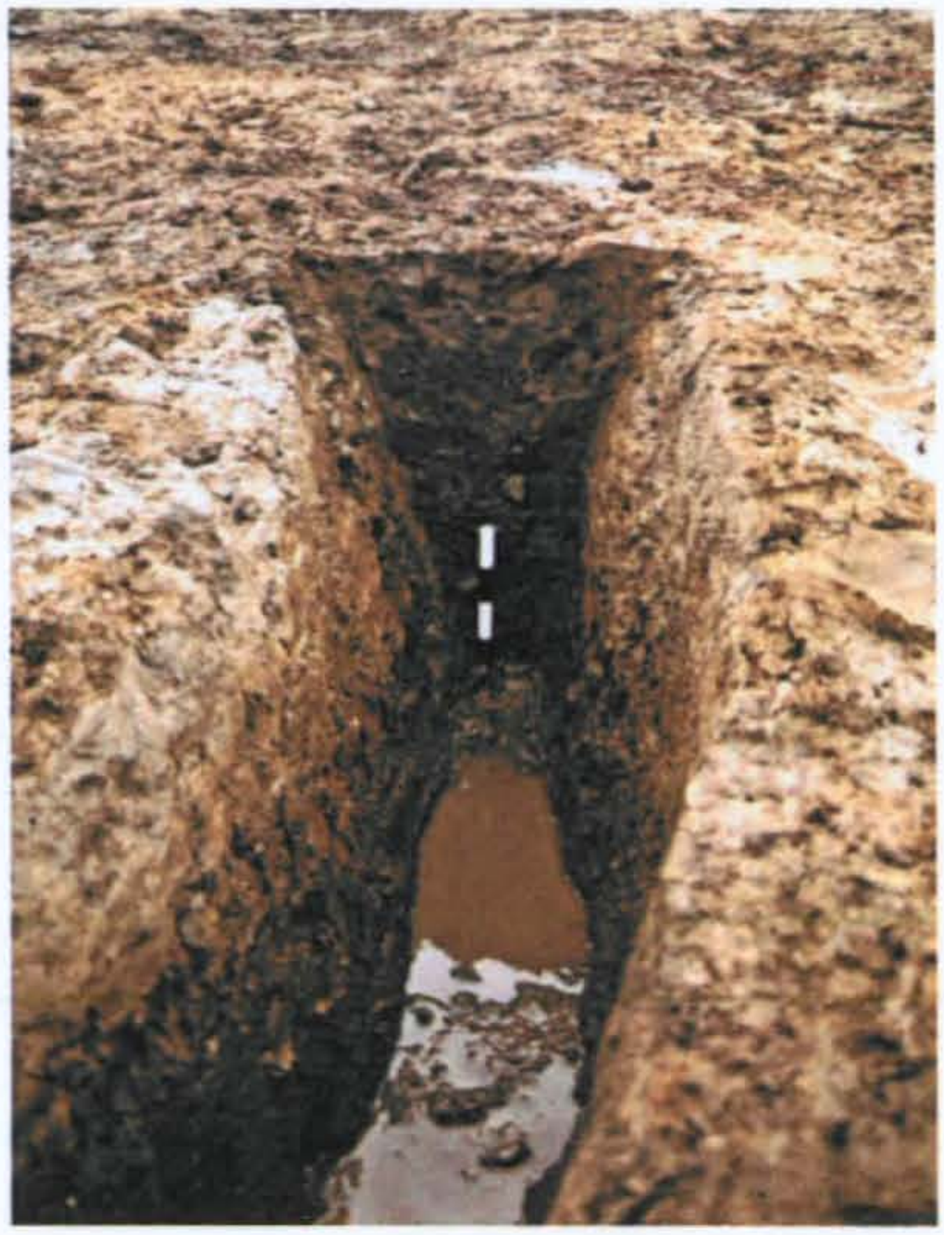
1:1000

The Roman settlement Fig 13

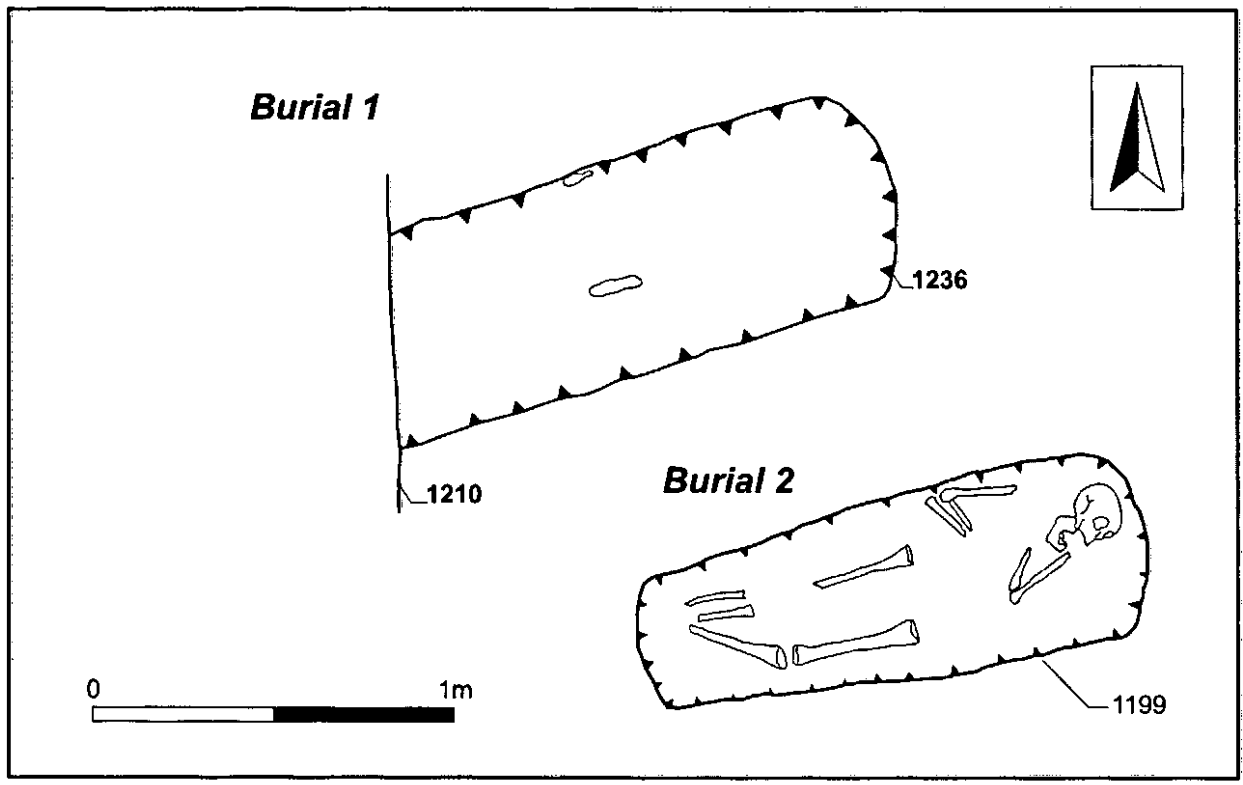


Plan and sections of the kiln and enclosure Fig 14

The Roman kiln, looking north-west Fig 15



The kiln enclosure ditch [1093] Fig 16



Roman burials Fig 17

The southern Roman burial [1199] Fig 18

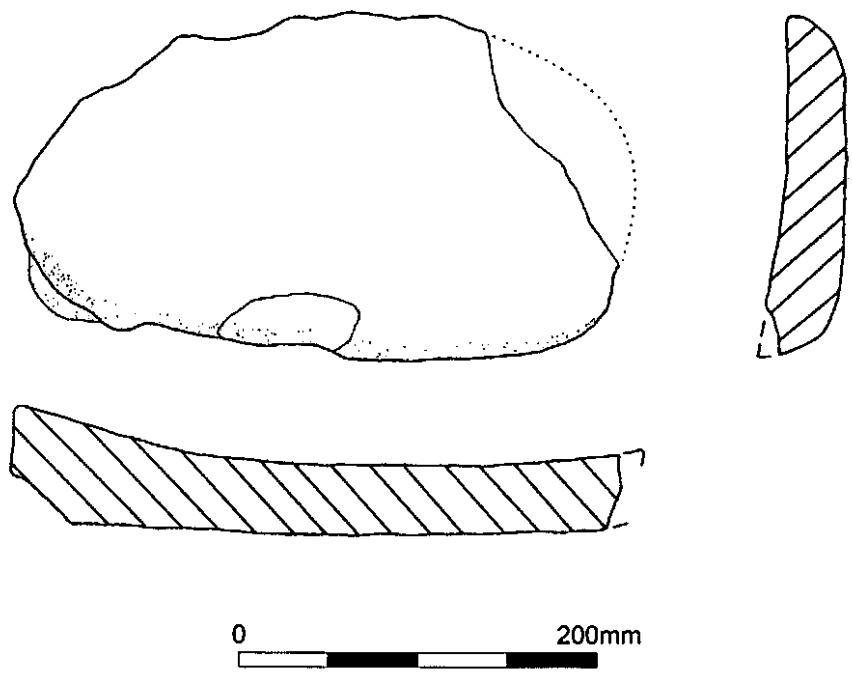
The stone-lined well [1138] Fig 19

Late Bronze Age/early Iron Age pottery (1-4) Fig 20

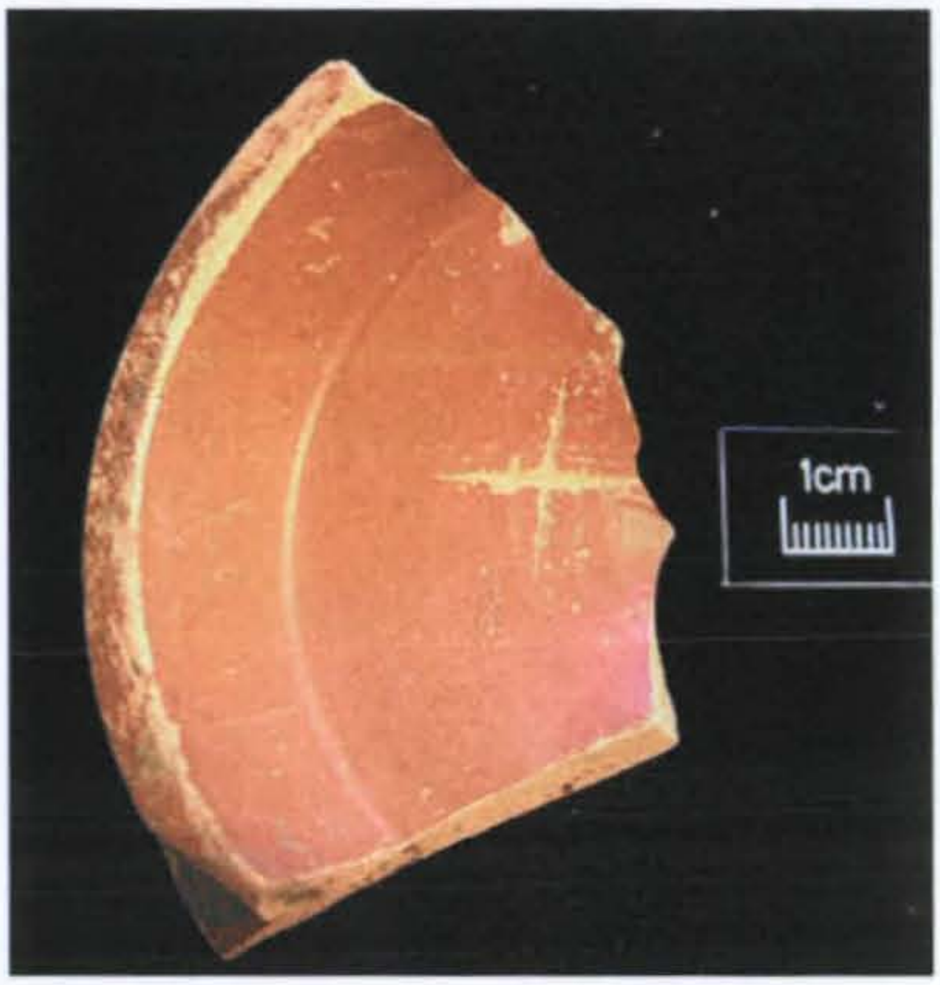
Iron Age pottery from the pit alignment (5-8) Fig 21

Middle/late Iron Age pottery (9-12) Fig 22

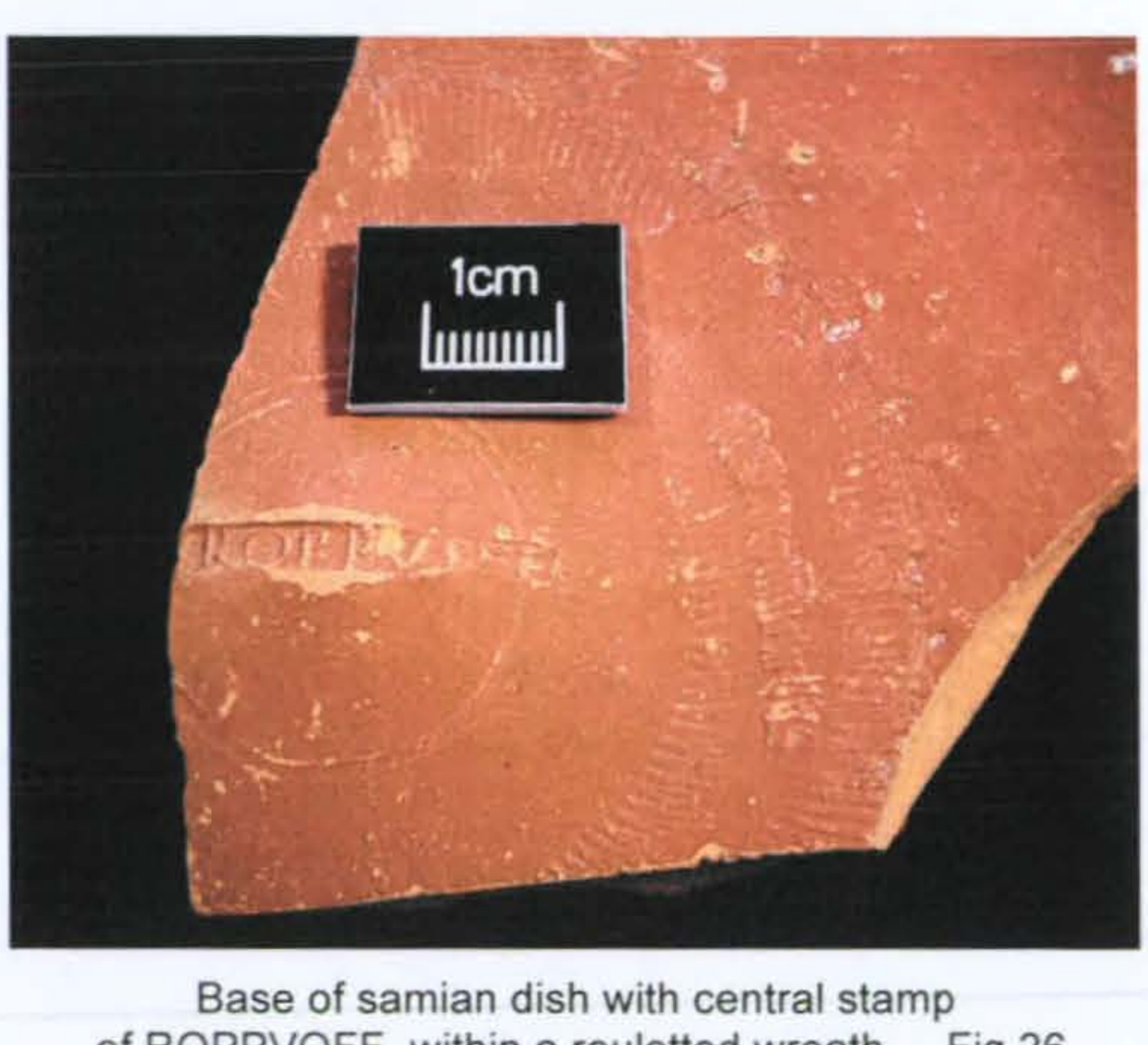
Middle/late Iron Age pottery (13) Fig 23



The late Bronze Age/early Iron Age saddle quern Fig 24

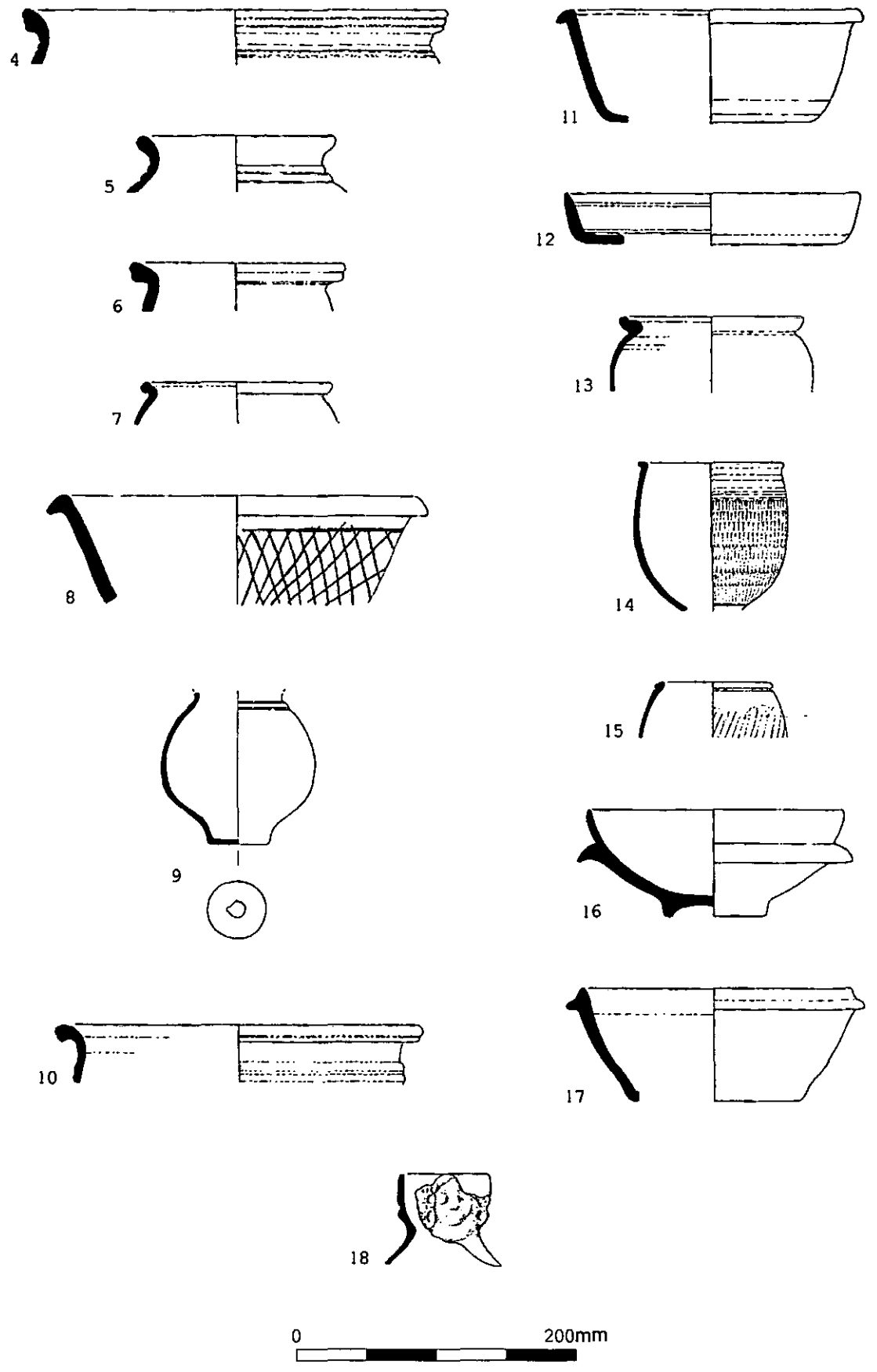


Base of central Gaulish samian dish with incised X Fig 25

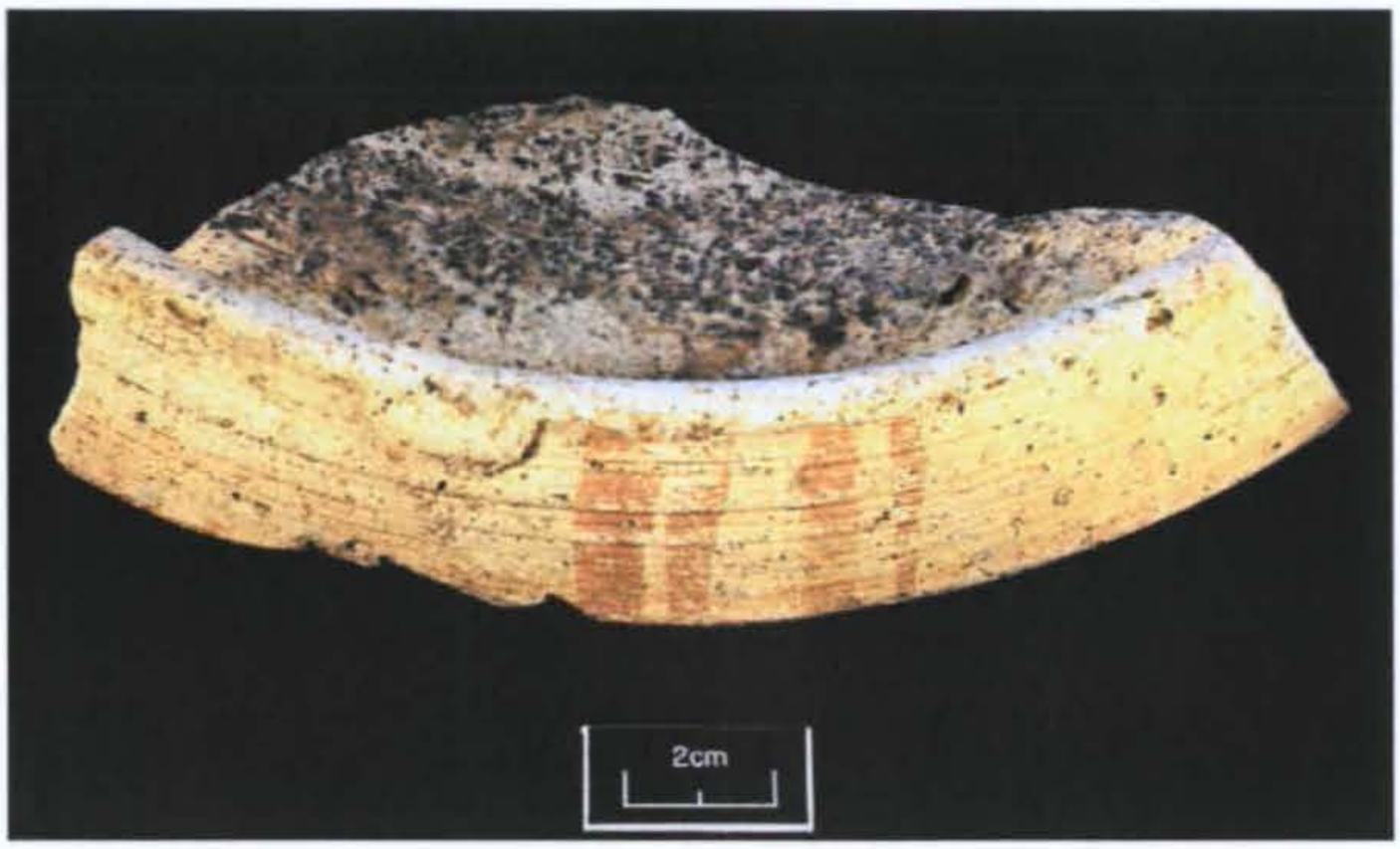


Base of samian dish with central stamp
of ROPPVOFF, within a rouletted wreath Fig 26

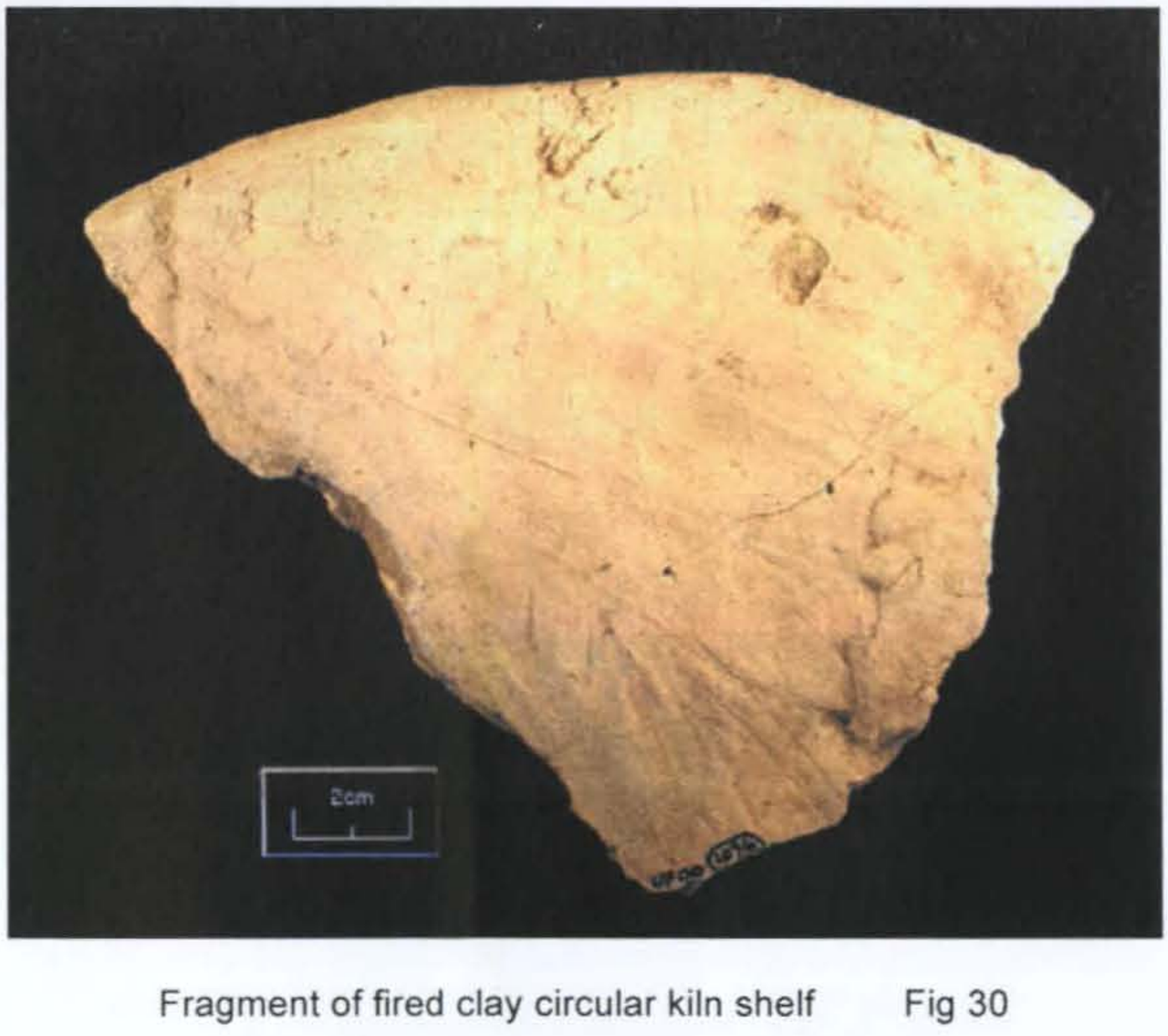
Decorated samian bowl,
marked by the mould maker ADVOCISI Fig 27



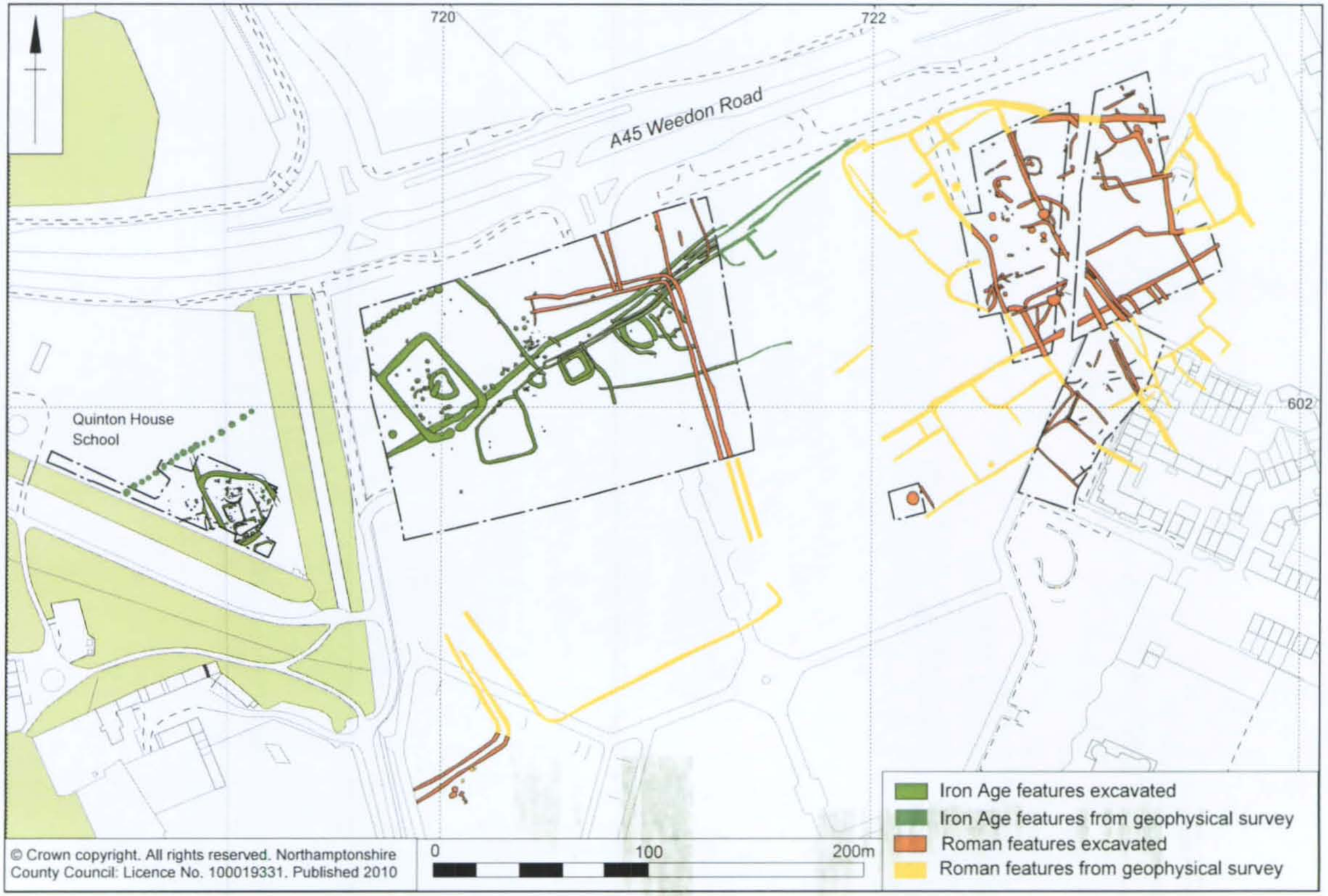
Roman pottery (4-18) Fig 28



Roman mortaria with red painted decoration Fig 29



Fragment of fired clay circular kiln shelf Fig 30



The Iron Age and Roman settlements at Upton Fig 31

APPENDIX 1: POTTERY QUANTIFICATION

Table 1: Quantified summary of pottery fabrics (weight in g)

Fabric	Description	No	% No	Wt (g)	% Wt	EVE	% EVE
Imports							
CGSAM	Central Gaulish samian	160	4.6	2509	3.5	463	8.5
CNG BS	Central Gaulish black slip	1	0.0	8	0.0	0	0.0
BATAM	Dressel 20 amphora	10	0.3	389	0.5	0	0.0
Regional							
DOR BB1	Dorset black burnished ware	90	2.6	1213	1.7	162	3.0
HAD OX	Hadham ware	1	0.0	14	0.0	0	0.0
OXF RS	Oxon red slip	28	0.8	500	0.7	7	0.1
OXF RSM	Oxon red slip mortaria	4	0.1	104	0.1	7	0.1
OXF WHM	Oxon whiteware mortaria	10	0.3	540	0.7	31	0.6
VER WH	?Verulamium type whiteware	5	0.1	206	0.3	37	0.7
Local: grog							
BOXGR	burnt oxidised grog-tempered	13	0.4	247	0.3	75	1.4
BWHGR	burnt whiteware grog-tempered	22	0.6	717	1.0	9	0.2
BWGR	black sandy with grog (+/- sand)	1	0.0	12	0.0	7	0.1
GYGR	grey sandy with grog (+/- sand)	47	1.4	2247	3.1	124	2.3
OXGR	oxidised with grog (+/- sand)	198	5.7	5534	7.6	154	2.8
WWGR	whiteware grog (+/- sand)	84	2.4	3399	4.7	73	1.3
PNK GT	Midlands grog-tempered	182	5.2	11811	16.3	185	3.4
GROG	LIA-ERO type grog-tempered	18	0.5	151	0.2	0	0.0
GRSA	sandy with grog LIA-ERO	1	0.0	23	0.0	0	0.0
GRSH	grog and shell-tempered	19	0.5	114	0.2	8	0.1
Local: sand							
BOXSY	burnt oxidised sandy	2	0.1	64	0.1	25	0.5
BPNKSY	black pink sandy ware	42	1.2	1127	1.6	72	1.3
BWHSY	black whiteware sandy	27	0.8	554	0.8	37	0.7
BW	black sandy ware	154	4.4	2747	3.8	410	7.6
BWMIC	micaceous black ware	1	0.0	10	0.0	0	0.0
BB1 imit	BB1 black sandy imitation	6	0.2	70	0.1	12	0.2
BUFF	brown/ buff sandy	13	0.4	275	0.4	15	0.3
CREAM	cream sandy ware	5	0.1	23	0.0	0	0.0
GREY	grey sandy wares	19	0.5	376	0.5	20	0.4
GYF	fine grey sandy ware	7	0.2	69	0.1	36	0.7
GYPKMIC	pinklish grey micaceous	21	0.6	226	0.3	40	0.7
OXID	oxidised sandy wares	142	4.1	3260	4.5	207	3.8
OXIDF	fine oxidised sandy ware	51	1.5	401	0.6	24	0.4
OXIDMIC	micaceous oxidised ware	6	0.2	253	0.3	15	0.3
PNKSY	pink sandy	4	0.1	35	0.0	0	0.0
WSGREY	white-slipped grey ware	1	0.0	13	0.0	0	0.0
WW	white ware	47	1.4	802	1.1	28	0.5
LNV RE	Lower Nene Valley grey ware	1210	34.8	20887	28.8	2063	38.0
LNV OX	Lower Nene Valley oxidisied	14	0.4	73	0.1	0	0.0

Fabric	Description	No	% No	Wt (g)	% Wt	EVE	% EVE
	ware						
LNV PA	Lower Nene Valley parchment	2	0.1	8	0.0	0	0.0
LNV WH	Lower Nene Valley white ware	101	2.9	1798	2.5	85	1.6
LNV WHM	LNV white ware mortaria	18	0.5	1297	1.8	83	1.5
LNV CC	LNV colour-coated ware	198	5.7	2946	4.1	482	8.9
Local: shell							
SHELL 1-2	shell wares (hm/wm)	467	13.4	5288	7.3	397	7.3
SHELL3	sparse shelly ware	23	0.7	270	0.4	25	0.5
GYLI	grey sandy with limestone	1	0.0	33	0.0	5	0.1
TOTAL		**3476**	100.0	**72643**	100.0	**5423**	100.0

Table 2: Pottery fabric quantification by phase (weight in g)

Fabric	Later Iron Age		Phase 3		Phase 3?		Phase 4		Phase 4a		Phase 4b	
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
Imports												
CGSAM	0	0	28	402	2	14	31	637	4	130	93	1256
CNG BS	0	0	0	0	0	0	0	0	0	0	1	8
BATAM	0	0	1	154	0	0	0	0	0	0	9	235
Regional												
DOR BB1	0	0	10	103	0	0	46	554	2	18	32	538
HAD OX	0	0	0	0	0	0	0	0	0	0	1	14
OXF RS	0	0	0	0	0	0	13	308	2	17	13	175
OXF RSM	0	0	0	0	0	0	3	78	0	0	1	26
OXF WH?	0	0	0	0	0	0	1	27	0	0	0	0
OXF WHM	0	0	2	46	0	0	1	125	1	47	6	322
VER WH	0	0	0	0	0	0	2	124	1	31	7	393
Local: grog												
BOXGR	0	0	1	20	0	0	0	0	9	187	2	30
BWHGR	0	0	8	299	0	0	0	0	1	94	13	324
BWGR	0	0	1	83	0	0	0	0	0	0	1	12
GYGR	0	0	19	906	0	0	3	54	1	68	20	909
OXGR	0	0	50	1425	0	0	51	1463	5	971	56	1495
WWGR	0	0	58	2054	0	0	5	117	0	0	20	1202
PNK GT	0	0	18	715	63	4220	34	2003	1	13	66	4860
GROG	11	79	2	16	0	0	0	0	0	0	3	39
GRSA	0	0	1	23	0	0	0	0	0	0	0	0
GRSH	0	0	18	105	0	0	0	0	0	0	1	9
Local: sand												
BOXSY	0	0	1	59	0	0	4	44	0	0	1	5
BPNKSY	0	0	2	40	0	0	0	0	33	972	3	71
BWHSY	0	0	5	100	0	0	4	50	8	103	10	301
BW	0	0	41	1070	0	0	34	621	8	187	64	744
BWMIC	0	0	0	0	0	0	1	10	0	0	0	0
BB1 imit	0	0	0	0	0	0	2	27	1	12	3	31
BUFF	0	0	3	81	0	0	2	88	0	0	7	74
CREAM	0	0	1	14	0	0	0	0	0	0	4	9
GREY	0	0	9	267	1	8	2	47	0	0	7	54
GYF	0	0	2	26	0	0	3	23	0	0	2	20
GYPKMIC	0	0	0	0	0	0	21	226	0	0	0	0
OXID	0	0	59	1787	1	8	38	590	4	68	48	832
OXIDF	0	0	2	19	0	0	5	53	3	19	21	132
OXIDMIC	0	0	0	0	0	0	1	61	4	162	1	30
PNKSY	0	0	1	10	0	0	0	0	0	0	0	0
WSGREY	0	0	0	0	0	0	0	0	1	13	0	0
WW	0	0	19	467	0	0	21	205	0	0	7	130
LNV RE	0	0	267	4768	3	33	369	6610	77	1169	499	8049
LNV OX	0	0	0	0	0	0	33	244	0	0	1	7
LNV PA	0	0	1	6	0	0	0	0	0	0	1	2
LNV WH	0	0	5	34	0	0	65	1379	4	60	26	298
LNV WHM	0	0	2	74	0	0	3	153	1	25	11	889
LNV CC	0	0	30	316	2	12	71	974	6	125	87	1501

Fabric	Later Iron Age		Phase 3		Phase 3?		Phase 4		Phase 4a		Phase 4b	
Local: shell												
SHELL 1-2	67	284	61	1011	2	17	165	1894	51	353	128	1749
SHELL3	1	32	11	22	0	0	0	0	0	0	11	216
GYLI	0	0	0	0	0	0	1	33	0	0	0	0
TOTAL	79	395	396	6698	7	62	728	11492	228	4844	1287	26991

Table 3: Main pottery fabrics by phase and weight (as percentages)

Fabric	Later Iron Age		Kiln and associated features (& possibly associated)		Phase 4		Phase 4a		Phase 4b	
	No%	Wt%	No%	Wt%	No%	Wt%	No%	Wt%	No%	Wt%
Imports										
fineware	0.0	0.0	6.6 (2.9)	3.6 (0.3)	3.0	3.4	1.8	2.7	7.3	4.7
amphora	0.0	0.0	0.2 (0.0)	1.4 (0.0)	0.0	0.0	0.0	0.0	0.7	0.9
Regional	0.0	0.0	1.6 (0.0)	0.9 (0.0)	6.4	6.5	2.6	2.3	4.7	5.4
Local										
All grog	13.9	20.0	41.7 (91.3)	50.5 (98.9)	9.0	19.4	7.5	27.6	14.2	32.9
sandy wares	0.0	0.0	34.4 (2.9)	35.3 (0.4)	13.4	10.9	27.3	31.8	13.8	9.0
Lower Nene	0.0	0.0	29.5 (6.3)	24.1 (1.0)	52.3	49.8	38.3	28.2	48.5	39.8
shelly	86.1	80.0	17.1 (2.9)	9.2 (0.4)	16.0	10.1	22.5	7.3	10.8	7.3
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

APPENDIX 2: TABULATED DATA FOR PLANT MACROFOSSILS

Table 1: Charred plant remains from the pit alignment

Sample No.		**17**	**15**	**16**	**11**	**13**	**14**	**12**
Context No.		**101**	**115**	**103**	**106**	**107**	**114**	**109**
Feature No.		**99**	**102**	**102**	**105**	**105**	**105**	**108**
Cereals	**Common name**							
Avena sp. (grains)	Oat	xcf						
Hordeum sp. (grains)	Barley	xcf		x				
Triticum sp. (grains)	Wheat	x			x			x
(glume bases)		x			x	x		x
T. spelta L. (glume bases)	Spelt	x			x			
Cereal indet. (grains)		x			x		x	x
Herbs								
Bromus sp.	Brome				xcf			x
Galium aparine L.	Goosegrass	x						x
Small Poaceae indet.	Grasses	x						x
Large Poaceae indet.		x						
Other plant macrofossils								
Charcoal <2mm		xxx	x	x	x	x	x	xx
Charcoal >2mm			x	x				
Charred root/stem								x
Other materials								
Black porous 'cokey' material		x	x				x	xx
Bone								xb
Sample volume (litres)								
Volume of flot (litres)		**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Table 2: Charred plant remains from pits within Enclosure 2, and pit 188

Sample No.		**2**	**5**	**26**	**28**	**30**
Context No.		**51**	**189**	**60**	**75**	**67**
Feature No.		**50**	**188**	**58**	**74**	**66**
Cereals	**Common name**					
Avena sp. (awn)	Oat					x
Hordeum sp. (grains)	Barley	xcf	xcf	x		x
(rachis node)				x		xcf
Triticum sp. (grains)	Wheat	xcf	x		x	x
(glume bases)			x	x	x	x
(spikelet bases)			x		x	x
(rachis internodes)						x
T. dicoccum Schubl. (glume base)	Emmer					x
T. spelta L. (glume bases)	Spelt		x			xx
Cereal indet. (grains)		x	x		x	
Herbs						
Anisantha sterilis L.	Barren brome					x
Brassicaceae indet.						x
Bromus sp.	Brome		xcf			xx
Caryophyllaceae indet.					x	
Chenopodium album L.	Fat hen		x			x
Chenopodiaceae indet.						x
Euphraisa/Odontites sp.	Eyebright	xcf				
Fabaceae indet.						xcf
Fallopia convolvulus (L.)A.Love	Black bindweed		x			
Galium sp.					x	
G. aparine L.	Goosegrass		x			x
Medicago/Trifolium/Lotus sp.	Medick/ clover/trefoil				x	
Plantago lanceolata L.	Ribwort plantain	x				

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Table 3: Charred plant remains from other Iron Age pit fills

Sample No.		**7**	**21**	**23**	**41**
Context No.		**306**	**352**	**367**	**385**
Feature No.		**305**	**351**	**265**	**383**
Cereals	**Common name**				
Hordeum sp. (grains)	Barley	x			xcf
Triticum sp. (grains)	Wheat	x			x
Cereal indet. (grains)			x		x
Herbs					
Arrhenatherum sp. (tuber)	Onion-couch				x
Chenopodium album L.	Fat-hen				x
Fallopia convolvulus (L.)A.Love	Black bindweed	x			
Large Poaceae indet.	Grasses			x	
Wetland plants					
Montia fontana L.	Blinks			x	
Other plant macrofossils					
Charcoal <2mm		xx	xx	x	xxx
Charcoal >2mm		x	x		x
Charred root/stem				x	
Other materials					
Black porous 'cokey' material				x	
Sample volume (litres)					
Volume of flot (litres)		**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**	**100%**

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Table 4a: Charred plant remains from Iron Age ditch fills

Sample No.		**18**	**19**	**31**	**32**
Context No.		**196**	**197**	**121**	**120**
Feature No.		**195**	**195**	**119**	**119**
Encl. No.		**1**	**1**	**2**	**2**
Cereals	**Common name**				
Hordeum sp. (grains)	Barley	x			
Triticum sp. (grains)	Wheat	x			
(glume bases)			x		
(spikelet bases)					
T. spelta L. (glume bases)	Spelt	x			
Cereal indet. (grains)		x	x	x	x
Herbs					
Aphanes arvensis L.	Parsely piert	x			
Bromus sp.	Brome	x	x		
Chenopodium album L.	Fat hen				
Galium sp.					
G. aparine L.	Goosegrass				
Malva sp.	Mallow				
Small Poaceae indet.	Grasses	x			
Large Poaceae indet.					
Rumex acetosella L.	Sheep's sorrel				
Stellaria sp.					
S. media (L.)Vill.	Chickweed				
Wetland plants					
Montia fontana L.	Blinks				

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Table 4b: Charred plant remains from Iron Age ditch fills

Sample No.		**33**	**34**	**38**	**40**
Context No.		**81**	**62**	**394**	**449**
Feature No.		**80**	**61**	**393**	**443**
Encl. No.		**2**	**2**	**6**	**6**
Cereals	**Common name**				
Hordeum sp. (grains)	Barley	x			x
Triticum sp. (grains)	Wheat	x			
(glume bases)					
(spikelet bases)		x			
T. spelta L. (glume bases)	Spelt				x
Cereal indet. (grains)		x			
Herbs					
Aphanes arvensis L.	Parsely piert				
Bromus sp.	Brome				
Chenopodium album L.	Fat hen	x			
Galium sp.					x
G. aparine L.	Goosegrass				x
Malva sp.	Mallow			x	
Small Poaceae indet.	Grasses	xx	x		
Large Poaceae indet.		x			
Rumex acetosella L.	Sheep's sorrel	x			
Stellaria sp.				x	
S. media (L.)Vill.	Chickweed				x
Wetland plants					
Montia fontana L.	Blinks	x			

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Table 5a: Charred plant remains from earlier Roman samples

Sample No.		**42**	**43**	**45**	**46**
Context No.		**1096**	**1134**	**1151**	**1192**
Feature No.		**1095**	**1095**	**1096**	
Feature type		**Kiln stoke**	**Kiln stoke**	**Kiln stoke**	**Kiln ditch**
Cereals	**Common name**				
Avena sp. (awn)	Oat				
Hordeum sp.	Barley	x			
Triticum sp. (grains)	Wheat				x
(glume bases)		x			
(spikelet bases)		x			
(rachis internodes)					
T. spelta L. (glume bases)	Spelt	x			
Cereal indet. (grains)		x			
Herbs					
Anthemis cotula L.	Stinking mayweed				
Bromus sp.	Brome			xcf	
Medicago/Trifolium/ Lotus sp.	Medick/clover/ trefoil			x	
Plantago lanceolata L.	Ribwort plantain			x	
Small Poaceae indet.	Grasses			x	x
Polygonum aviculare L.	Knotgrass	x			
Ranunculus acris/repens/bulbosus	Buttercup			x	
Rumex sp.	Dock	x	x	x	
Stellaria graminea L.	Stitchwort	x			
Vicia/Lathyrus sp.	Vetch/vetchling	x		x	
Other plant macrofossils					
Charcoal <2mm		xx	xx	xx	xxx
Charcoal >2mm					
Charred root/stem		x	x		xx
Ericaceae indet. (stem)	Heather				xcf
(florets)					x
Indet.seeds			x	x	
Other materials					
Black porous 'cokey' material		x			
Black tarry material					
Sample volume (litres)					
Volume of flot (litres)		**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**	**100%**

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Table 5b: Charred plant remains from earlier Roman samples

Sample No.		**47**	**48**	**62**	**71**
Context No.		**1094**	**1197**	**1200**	**1174**
Feature No.		**1093**	**1196**	**1199**	**1173**
Feature type		**Kiln ditch**	**p.hole**	**grave**	**well**
Cereals	**Common name**				
Avena sp. (awn)	Oat			x	
Hordeum sp.	Barley				
Triticum sp. (grains)	Wheat	x		x	
(glume bases)				xx	
(spikelet bases)				x	
(rachis internodes)				x	
T. spelta L. (glume bases)	Spelt			x	x
Cereal indet. (grains)		x		x	x
Herbs					
Anthemis cotula L.	Stinking mayweed		x		
Bromus sp.	Brome			xcf	
Medicago/Trifolium/Lotus sp.	Medick/clover/trefoil				
Plantago lanceolata L.	Ribwort plantain				
Small Poaceae indet.	Grasses	x	x		x
Polygonum aviculare L.	Knotgrass				
Ranunculus acris/repens/bulbosus	Buttercup				
Rumex sp.	Dock			x	
Stellaria graminea L.	Stitchwort				
Vicia/Lathyrus sp.	Vetch/vetchling				
Other plant macrofossils					
Charcoal <2mm		x	x	x	xx
Charcoal >2mm					x
Charred root/stem		x			
Ericaceae indet. (stem)	Heather				
(florets)					
Indet.seeds					
Other materials					
Black porous 'cokey' material					x
Black tarry material					x
Sample volume (litres)					
Volume of flot (litres)		**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**	**100%**

Table 6: Charred plant remains from later Roman features

Sample No.		**35**	**36**	**78**
Context No.		**1507**	**1508**	**1263**
Feature No.		**1506**	**1506**	**1262**
Feature type		**Pit/ Water hole**	**Pit/ Water hole**	**Boundary ditch**
Cereals	**Common name**			
Triticum sp. (grains)	Wheat		xcf	
Cereal indet. (grains)		x		
Herbs				
Chenopodiaceae indet.			x	
Medicago/Trifolium/Lotus sp.	Medick/clover/ trefoil		x	
Plantago lanceolata L.	Ribwort planatin		x	
Small Poaceae indet.	Grasses		xx	
Ranunculus sp.	Buttercup		x	
Rumex sp.	Dock		x	
Stellaria sp.			x	
S. media (L.)Vill.	Chickweed		x	
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless mayweed		x	
Vicia/Lathyrus sp.	Vetch/vetchling		x	
Wetland plants				
Carex sp.	Sedge		x	
Other plant macrofossils				
Charcoal <2mm		x	xxx	x
Charcoal >2mm			x	
Charred root/stem			xx	
Ericaceae indet. (stem)	Heather		xx	
Indet.seeds		x	xx	
Other materials				
Black porous 'cokey' material			x	
Black tarry material			x	
Sample volume (litres)				
Volume of flot (litres)		**<0.1**	**<0.1**	**<0.1**
% flot sorted		**100%**	**100%**	**100%**

x = 1 – 10 specimens, xx = 10 – 50 specimens and xxx = 50+ specimens

Northamptonshire County Council

Northamptonshire Archaeology

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

Accredited Contractor
www.chas.gov.uk

Registered Organisation IfA

Northamptonshire County Council