



# Northamptonshire Archaeology

Archaeological investigations along the route of the  
Empingham to Hannington (Wing Extension) pipeline  
Rutland and Northamptonshire  
January 2008 to July 2009



## Northamptonshire Archaeology

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Northamptonshire  
County Council

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**OASIS REPORT**

<b>PROJECT DETAILS</b>	
Project name	Anglian Water Services' Empingham to Hannington (Wing Extension) Pipeline
Short description (250 words maximum)	Nineteen sites were investigated, dating primarily to the Iron Age, Roman and Anglo-Saxon periods. The earliest remains encountered were a late Bronze Age/early Iron Age pit alignment near Seaton, Rutland. The Iron Age and Roman sites were small rural settlements comprising ditched enclosures, the remains of roundhouses and pits. Settlements were located near Seaton and Caldecott in Rutland, and Swinawe Barn, near Corby, Thorpe Malsor, White Hill Lodge, Great Cransley and Willows Nursery in Northamptonshire. A Roman site near Rushton may be associated with a villa estate. Other sites included part of a Roman field system at Violet Lane, near Corby, and Roman cremation burials near Gretton, Northamptonshire. The settlements mainly date from the later middle Iron Age (2nd century BC) through to the 4th century AD, although there was little evidence for direct continuity of settlement between the Iron Age and Roman periods. An Anglo-Saxon cremation cemetery at Glaston, Rutland is dated to the late 5th century to mid 7th century AD. The remains of 16 individuals, deposited in decorated and plain urns, were recovered, along with a small assemblage of grave goods including a brooch, glass beads, and fragments of a bone comb and mount. Later features generally comprised medieval and post-medieval furrows from ridge and furrow field systems and field boundary ditches.
Project type	Excavation, trial trenches and watching brief
Site status	None
Previous work (SMR numbers etc)	Environmental Statement (Lunt 2006); desk-based assessment (Westgarth 2006); geophysical survey (Butler and Mudd 2006; Butler 2007); trial trench evaluation and test pits (Clarke 2007a and b)
Current land use	Farmland
Future work	No
Monument type/period	Iron Age pit alignment, Iron Age and Roman settlement, Anglo-Saxon cremation cemetery
Significant finds	Iron Age and Roman pottery, Anglo-Saxon cremation urns and grave goods
<b>PROJECT LOCATION</b>	
County	Rutland and Northamptonshire
Site address	-
OS Easting & Northing	4947 3081 to 4826 2712
Height OD	40m to 120m
Area	
<b>PROJECT CREATORS</b>	
Organisation	Northamptonshire Archaeology (NA)
Project brief originator	-
Project Design originator	Andy Mudd and Simon Carlyle (NA)
Director/Supervisor	Jason Clarke (NA)
Project Managers	Andy Mudd and Simon Carlyle (NA)
Sponsor or funding body	Mott MacDonald Ltd
<b>PROJECT DATE</b>	
Start date	January 2008
End date	July 2009
<b>ARCHIVES</b>	
Archive location: Rutland Museum and NA stores	Accession no: OAKFM:2009.14 (Rutland only)
Archive content	Human and animal bone, pottery, flint, metal objects (inc coins), glass. Site records, including photographs Digital photos and report

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**ARCHAEOLOGICAL INVESTIGATIONS ALONG THE ROUTE OF THE  
EMPINGHAM TO HANNINGTON (WING EXTENSION) PIPELINE  
RUTLAND AND NORTHAMPTONSHIRE  
JANUARY 2008 TO JULY 2009**

**Abstract**

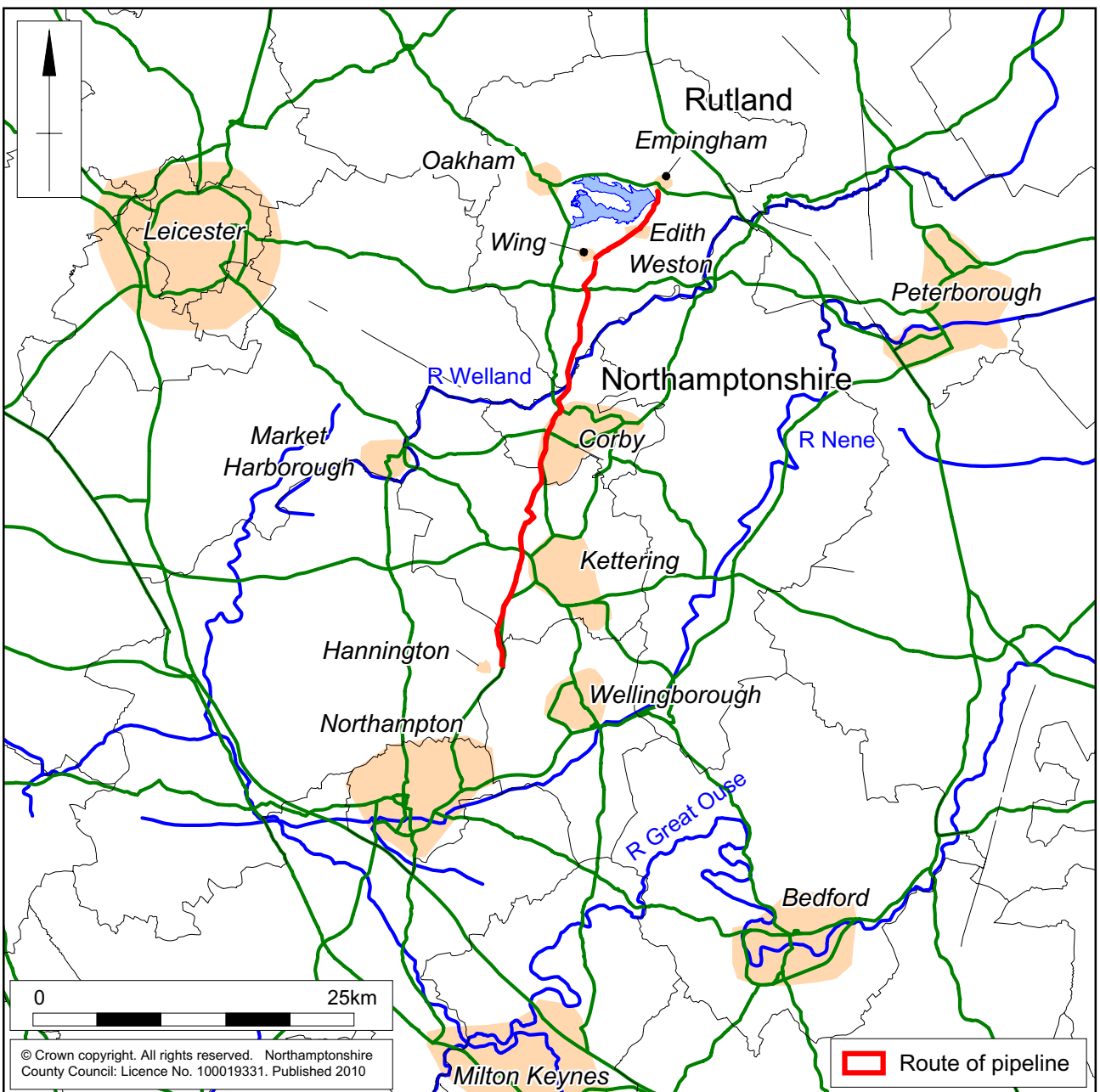
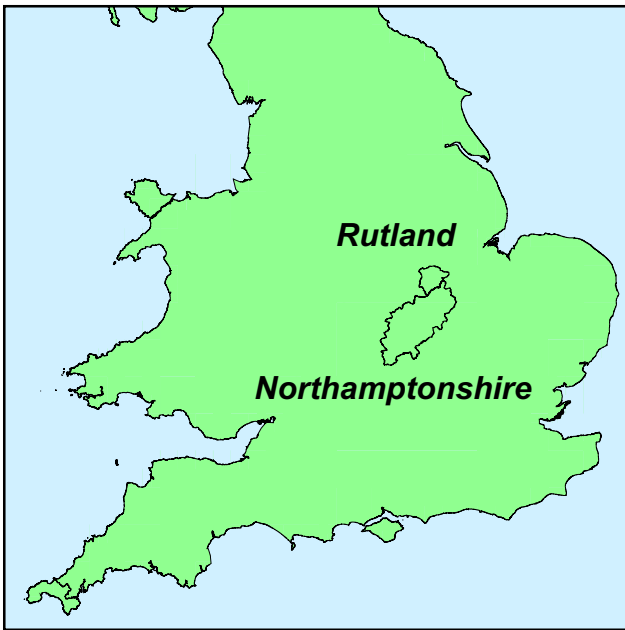
*Between January 2008 and July 2009, Northamptonshire Archaeology carried out a series of excavations along the route of a new water pipeline, being constructed by Anglian Water Services as part of a major project to increase the supply of water to new homes and businesses in the south-east Midlands region. Nineteen sites were investigated, dating primarily to the Iron Age, Roman and Anglo-Saxon periods. The earliest remains encountered were a late Bronze Age/early Iron Age pit alignment near Seaton, Rutland. The Iron Age and Roman sites were small rural settlements comprising ditched enclosures, the remains of roundhouses and pits. Settlements were located near Seaton and Caldecott in Rutland, and Swinawe Barn, near Corby, Thorpe Malsor, White Hill Lodge, Great Cransley and Willows Nursery in Northamptonshire. A Roman site near Rushton, Northamptonshire may be associated with a villa estate. Other sites included part of a Roman field system at Violet Lane, near Corby, and Roman cremation burials near Gretton, Northamptonshire. The settlements mainly date from the later middle Iron Age, 2nd century BC, through to the 4th century AD, although there was little evidence for direct continuity of settlement sites between the Iron Age and Roman periods. An Anglo-Saxon cremation cemetery dated to the late 5th century to mid-7th century AD, was revealed at Glaston, Rutland. The cremated remains of 16 individuals had been deposited in decorated and plain urns, along with small assemblages of grave goods, often also burnt on the pyre and including a brooch, glass beads, and fragments of a bone comb and mount. Later features generally comprised medieval and post-medieval furrows from ridge and furrow field systems and field boundary ditches.*

**1 INTRODUCTION**

**1.1 Site location and project background**

Anglian Water Services (AWS) have constructed a new pipeline, approximately 41km in length, between Empingham, Rutland and Hannington, Northamptonshire as part of a major infrastructure project to increase the supply of water to homes and businesses in the south-east Midlands region (NGR: SK947081 to SP826712; Fig 1.1). The pipeline links the abstraction site at Rutland Water, where a new pumping station has been built at Empingham, with Wing Water Treatment Works, which has been upgraded. From Wing, the pipeline extends southwards, to the west of Corby and Kettering, and terminates at the reservoir complex at Hannington.

In line with national and European legislation concerning the impact of capital schemes on the environment, Mott MacDonald, in their role as environmental consultants on the project, prepared an Environmental Statement (ES) to assess the environmental impact of the scheme (Lunt 2006). A material consideration of the assessment was the impact of the development on buried and upstanding archaeological remains along the route of the pipeline, so a cultural heritage assessment, commissioned from Northamptonshire Archaeology (NA), was included in the ES.



Scale 1:500,000

Project location Fig 1.1

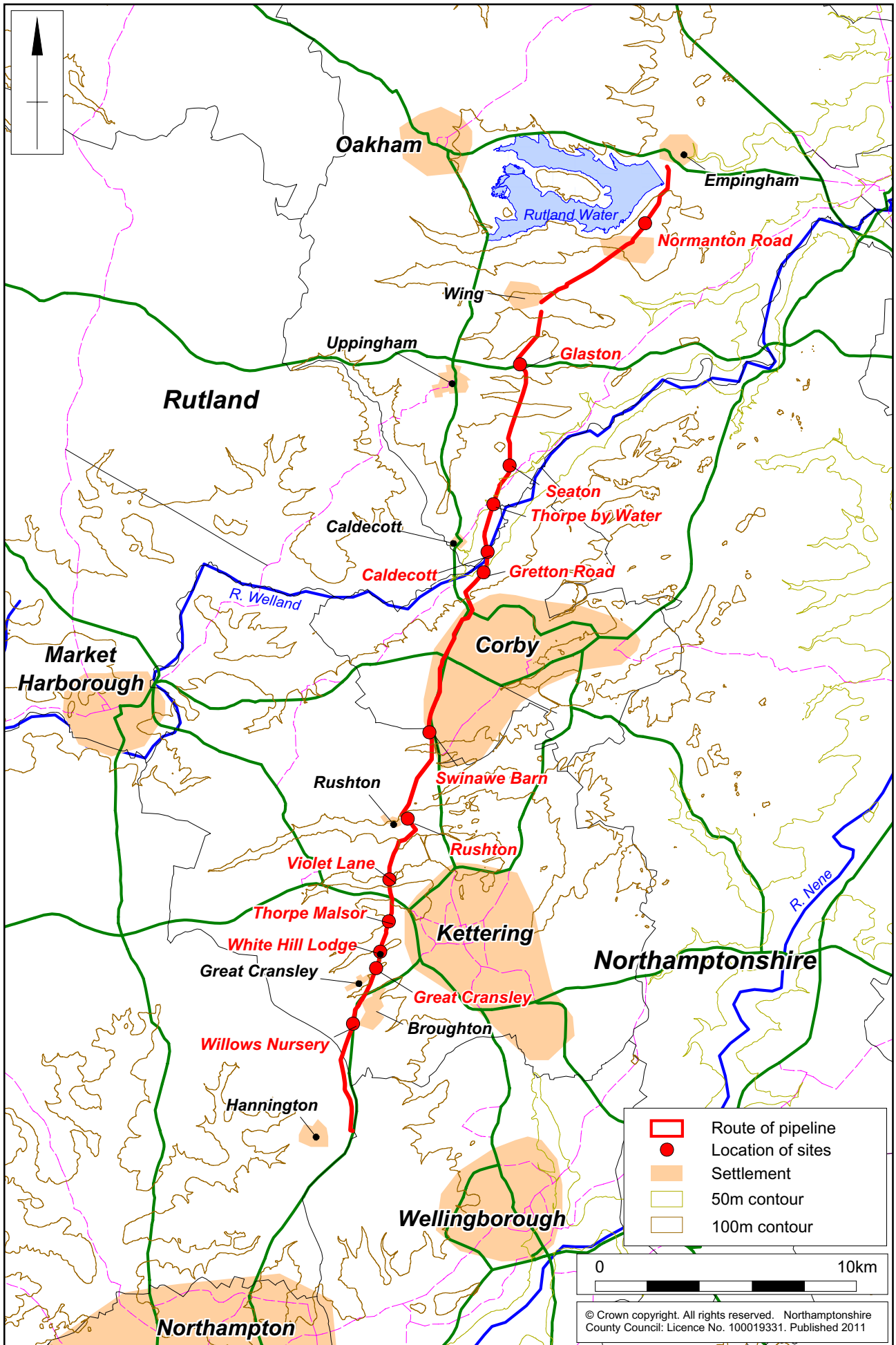
The cultural heritage assessment noted that the potential impact of the pipeline on archaeological sites along the route was, at that time, largely unknown due to a lack of archaeological prospection. To gather further information, NA were commissioned by Mott MacDonald to carry out a programme of archaeological evaluation. The first stage was a desk-based assessment (Westgarth 2006a and b), presenting the archaeological and historical background of a defined study area along the route of the proposed pipeline corridor. This was followed by fieldwork, comprising geophysical survey (Butler and Mudd 2006; Butler 2007; Butler *et al* 2008), trial trench excavation (Clarke 2007a; Upson-Smith 2007) and test pit excavation (Clarke 2007b).

The evaluation identified a number of sites of archaeological significance along the route of the pipeline, which were designated for strip and map excavation. It was also proposed that a watching brief should be carried out during the removal of topsoil along the pipeline easement and the cutting of the pipe trench. This report presents the results of these works carried out by NA between January 2008 and July 2009.

On completion of the fieldwork, an assessment report and updated project design (UPD) was prepared, presenting a summary and assessment of the investigated sites, a programme of further work and revised research objectives to bring the project to publication (Clarke and Carlyle 2010). The final report has been prepared in accordance with Appendix 7 of the English Heritage procedural document *Management of Archaeological Projects 2* (EH 1991), relevant sections of *Management of Research Projects in the Historic Environment* (EH 2006), and appropriate national standards and guidelines, as recommended by the Institute for Archaeologists (IfA).

## 1.2 Topography and geology

The route of the pipeline extends from Empingham, Rutland to Hannington, Northamptonshire, a distance of approximately 41km (Fig 1.1). From the pumping station in the valley of the River Gwash at Empingham, it heads south-westwards, crosses the valley of the River Chater near Lyndon and then ascends the southern slope of the river valley to reach the water treatment works at Wing, a total distance of c 8km. From Wing the pipeline heads south-south-west, crosses the valley of the River Welland near Caldecott and skirts the western edge of Corby. From Corby it continues on its course, crosses the River Ise at Rushton, passes to the west of Kettering and terminates at the Hannington reservoir complex, a distance of c 33km from Wing. The terrain varies from undulating ground or plateaux on the hill-tops between the river and tributary valleys, to steeply sloping ground on the valley sides and level ground on the floodplains of the major rivers. The height above sea-level ranges between 40m and 120m above Ordnance Datum (Fig 1.2).



Scale 1:200,000

Land relief and site locations Fig 1.2

The pipeline crosses a landscape composed entirely of Jurassic rocks, occasionally overlain by Quaternary drift and alluvial deposits (Fig 1.3). The main rocks and drift deposits encountered on the hill-tops were Northamptonshire Sands and Ironstone, Lower Lincolnshire Limestone and Boulder Clay, and in the river valleys Upper, Middle and Lower Lias clays and alluvium (BGS 1976; 1978). Details of the geology encountered at each excavation site are provided in the site narratives.

### 1.3 Research objectives

The general, scheme-wide aim of the archaeological investigations, as stated in the Environmental Statement (Lunt 2006), had been to investigate all deposits of archaeological significance within the easement of the pipeline and to preserve them either *in situ* or by record. Following the archaeological evaluation of the pipeline route, nineteen sites were investigated as part of the mitigation measures; two of these were identified during the watching brief. The major sites comprised a late Bronze Age/early Iron Age pit alignment, five middle to late Iron Age rural settlements, five Roman settlements, including one associated with a villa, and an Anglo-Saxon cremation cemetery. Two of the minor sites reported on in the UPD, those of Hockley Lodge and Great Cransley South, have not been included in this report as they only contained modern field boundaries or furrows.

On the completion of the fieldwork and in the light of the results of the post-excavation assessment, site and period specific research objectives were formulated, with reference to the regional research agenda for the East Midlands (Cooper 2006). These research objectives, which were presented in the UPD (Clarke and Carlyle 2010) and have been followed in the preparation of this report, are summarized below.

#### ***Late Bronze Age/early Iron Age***

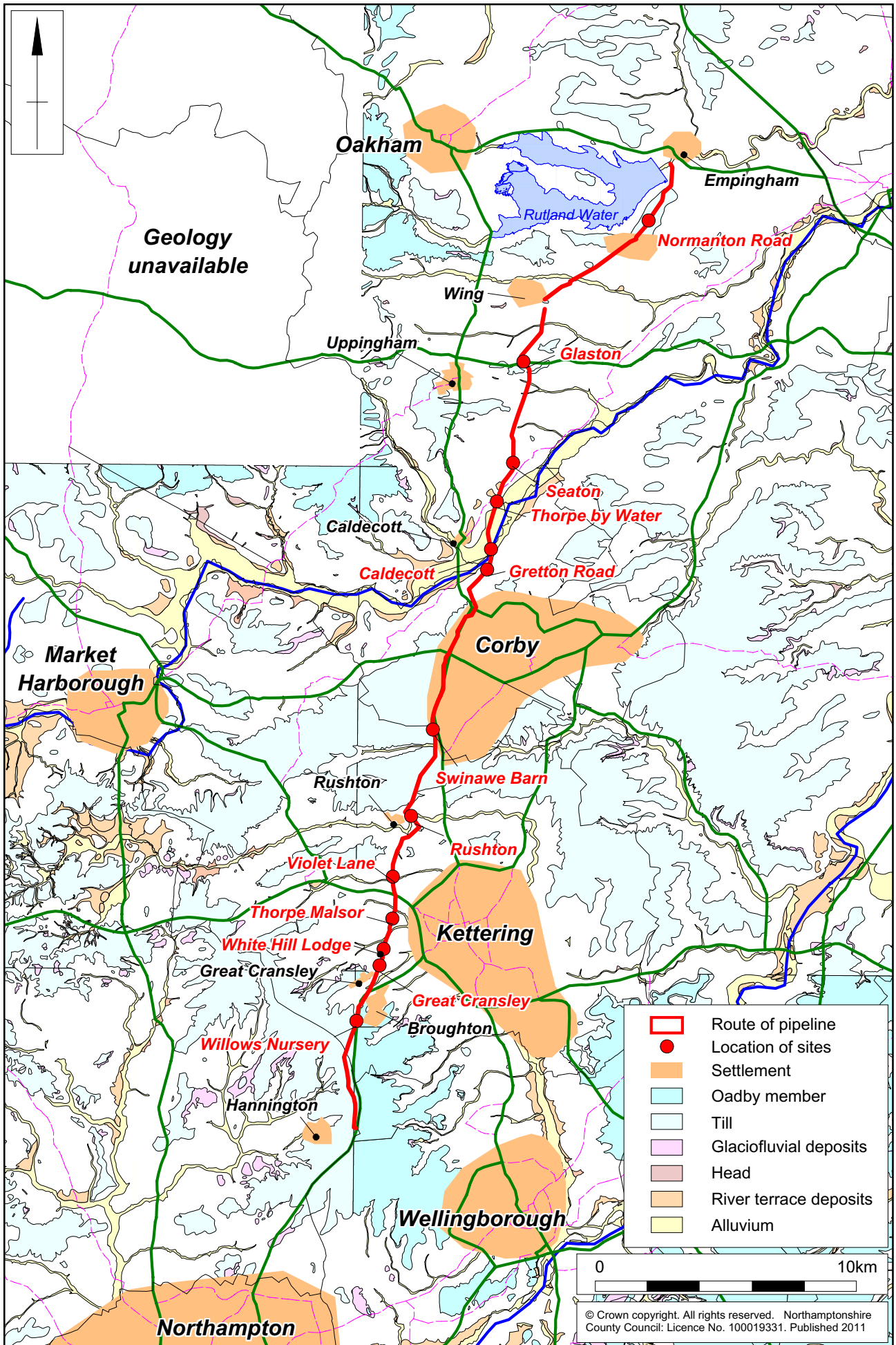
To relate the late Bronze Age/early Iron Age pit alignment near Seaton to the surrounding contemporary landscape and explore its relationship with the local topography and its wider regional setting.

#### ***Iron Age and Roman***

To carry out further analysis of the Iron Age and Roman settlements at Seaton, Caldecott, Swinawe Barn, Thorpe Malsor, White Hill Lodge, Great Cransley, Rushton and Willows Nursery so as to gain a better understanding of how the settlements developed over time and investigate how they functioned and related to the wider landscape. The specific research objectives were as follows:

- To use the results of the geophysical survey and information from aerial photographs (where available), to attempt to determine the full extent and character of the settlements (ie villa estate, farmstead, pastoral/ agrarian/mixed economy etc);
- To relate the settlements to the wider Iron Age and Roman landscape and contemporary sites in the locality, so as to contribute to an understanding of settlement patterns and former land use in the region;
- To carry out further analysis on the Iron Age and Roman pottery, and use the results to identify phases of settlement development;
- To undertake further analysis on the animal bone from selected sites, so as to provide a more detailed picture of animal husbandry practices and the consumption of animal products at the settlements;
- To submit the charred cereal grains and processing waste from Thorpe Malsor for further analysis, with the aim of gaining an insight into the stages of crop processing being carried out at the settlement.





Scale 1:200,000

Geology and site locations Fig 1.3

**Anglo-Saxon**

To undertake further analysis of the Anglo-Saxon cremation cemetery and other contemporary features investigated at Glaston so as to contribute to the understanding of Anglo-Saxon settlement in the region. The specific research objectives were as follows:

- To carry out further research to set the cremation cemetery within its wider context and examine its relationship with the pattern of Anglo-Saxon settlement in the area and with other cremation cemeteries;
- To undertake further analysis of the pottery and human bone from the cemetery and combine this with an analysis of the distribution of finds to identify if there is any significant pattern or correlation in the distribution of burials and artefacts.

**1.4 Structure of the report**

The original intention, as outlined in the updated project design (Clarke and Carlyle 2010), had been to present the final report as a series of individual site reports in geographical order, so that the Rutland sites could be easily separated from the Northamptonshire sites, if required, and individual 'county' reports submitted. This was considered necessary at the time as there were uncertainties over the reporting requirements for Northamptonshire due to there being having been no county archaeological officer in post for several years, a situation that has now been remedied. With the change in the provision of local government archaeological advice, the format of the report has also been changed. The sites by are listed below by county and in order from north to south:

**Rutland**

Normanton Road  
Glaston (and Bisbrooke)  
Seaton  
Thorpe by Water  
Caldecott

**Northamptonshire**

Gretton Road  
Swinawe Barn  
Rushton  
Violet Lane  
Thorpe Malsor  
White Hill Lodge  
Great Cransley  
Willows Nursery

The revised report format provides a single, chronologically and geographically structured report that presents the archaeological sites investigated along the route of the pipeline by period, and within each period by their position on the pipeline, starting from its northern end at Empingham, Rutland. Finds and environmental reports have also been grouped by period, which has facilitated reporting by increasing the cumulative value of the assemblages. Reflecting the age range of the archaeological sites and artefacts, the periods have been presented in this report as follows:

- Neolithic and early Bronze Age (c 4000-1450 BC)
- Middle Bronze Age to early Iron Age (c 1450-400 BC)
- Middle to late Iron Age (c 400 BC-43 AD)
- Roman (43 AD-450 AD)
- Early Anglo-Saxon (c 450-650 AD)
- Medieval and post-medieval

Archaeological investigations along pipeline routes are often constrained by the narrow confines of the pipeline easement. As a result only thin strips through the individual sites, often no more than 20m wide, could be examined by excavation. Although geophysical survey and cropmark evidence have assisted in establishing the possible

extent and general layout of the settlements, it has not been possible to gain a clear understanding of the development and use of the settlements. Individual discussions on each site would therefore be somewhat limited, so a more thematic approach has been adopted for the discussion, whereby the sites dating to each period have been grouped together and considered in relation to each other and the wider archaeological landscape.

The individual discussion sections are as follows:

- The late Bronze Age/early Iron Age pit alignment near Seaton
- The Iron Age landscape
- The Roman rural landscape
- The Anglo-Saxon cremation cemetery at Glaston
- Medieval and post-medieval remains

## 1.5 Excavation strategy

The sites were marked out by NA using Leica System 1200 GPS surveying equipment, using data supplied by Mott MacDonald. The areas were stripped under archaeological supervision using 360° tracked mechanical excavators fitted with toothless ditching buckets. The topsoil and subsoil were removed in separate operations and stored in temporary bunds at the edges of the sites.

Once each individual area had been opened and the archaeological surface cleaned sufficiently to enhance the features, a grid was established and a digital base plan was produced using GPS, with the grid and site datum related to the Ordnance Survey National Grid and Datum. The general site plan was hand drawn at a scale of 1:50 or 1:100.

Discrete features were half-sectioned, and only fully excavated if features were part of recognisable structures, contained deposits or artefacts of particular value or were likely to hold significant artefact or environmental assemblages. Intersections were investigated to establish stratigraphic relationships. Representative sections of linear and curvilinear features were excavated away from intersections with other features or deposits, to obtain unmixed samples of material. Sections were drawn at a scale of 1:10 or 1:20, as appropriate. Recording followed the procedures outlined in the Northamptonshire Archaeology's *Fieldwork Manual* (NA 2006).

Artefacts and ecofacts were collected by hand and retained, receiving appropriate care prior to removal from site (Watkinson and Neal 1998). The stripped areas and spoil heaps were scanned with a metal detector to ensure maximum finds retrieval. All finds have been catalogued and boxed by material type.

Soil samples of up to 40 litres (volume dependant on deposit size) were taken for flotation from dateable contexts with the potential for the recovery of charcoal and charred plant remains. The sampling strategy followed the guidelines set out in the English Heritage document *Environmental Archaeology: A Guide to Theory and Practice for Methods, from sampling to post-excavation* (EH 2002).

A photographic record of the project was maintained using 35mm black and white negative and colour transparency film, supplemented with digital images. All records were compiled during fieldwork into a comprehensive and fully cross-referenced site archive.

All works were conducted in accordance with the method statement prepared by NA (2008) and the Institute for Archaeologists' (IfA) *Standard and Guidance for Archaeological Excavation* (2008a), *Standard and Guidance for Archaeological Watching Briefs* (2008b) and *Code of Conduct* (2008c). Health and Safety considerations complied with the Health and Safety Policy of Northamptonshire County Council.

## **1.6 Archive**

A microfilm copy of the paper archive and narrative will be made to EH standards and submitted to the National Archaeological Record. The site archive will comprise all written, drawn, photographic and digital records, all material finds and processed sample flots recovered from the excavation. The site archive will be accompanied by the research archive which will comprise the text, tabulated data, original drawings and all other records generated in the analysis of the site archive. The archive for the Rutland sites will be fully catalogued and deposited with Rutland County Museum with the Accession Number OAKRM.2009.14. The archive for the Northamptonshire sites will be housed in NA stores until a dedicated county archive store becomes available.



## 2 NEOLITHIC AND EARLY BRONZE AGE (c 4000-1450BC)

### 2.1 Neolithic and early Bronze Age activity

No features dating to this period were encountered along the route of the pipeline, although a small assemblage of worked flint was recovered from the topsoil and subsoil, or as residual finds in later features. The quantity and concentration of worked flint from the individual sites was low and the assemblage can only be regarded as background material resulting from the casual loss of flint tools or the discard of flint waste associated with the transient activities of peoples living in the general area in the Neolithic and early Bronze Age.

### 2.2 Worked flint by Yvonne Wolframm-Murray

Fifty-three pieces of worked flint, broadly dating from the Neolithic period to the early Bronze Age, were recovered during the watching brief and from excavations along the route of the pipeline. The assemblage is summarized in Table 2.1 below. The assemblage comprises 34 flakes, 12 blades, two flake cores, four scrapers and one miscellaneous retouched flint.

They were recovered from the topsoil and subsoil or as residual finds in Iron Age, Roman and medieval features. The condition of the flints is generally good, showing little post-depositional edge damage; 11 pieces show slight to heavy patination. One flint is burnt and one flint is frost damaged.

The raw material is similar across all sites, mostly a vitreous flint of mid to dark greyish-brown colour, with some a light greyish-brown, mid grey or a mid brown colour. Also, there are two pieces of an opaque light and mid grey coloured flint. The cortex present on the dorsal surfaces of 19 of the flints is a white or a light to dark brown colour. The raw material is probably local gravel flint.

*Table 2.1: Summary of flint assemblage by site*

Site	Number of flints	Description
Glaston	1	Proximal end of a blade from Roman ditch 10
Seaton 2	1	Unstratified, relatively large flake
Thorpe by Water 1	1	Distal end of a frost damaged blade from medieval ditch 5
Caldecott	17	One core, ten flakes and six blades (of which four were broken), u/s or from Iron Age contexts
Gretton Road	6	Five flakes (three broken) and one medial section of a broken blade
Rushton	2	Two worked flint flakes from Roman contexts
Thorpe Malsor	6	Five flakes (two broken) and the medial section of a broken blade from Roman features
White Hill Lodge	10	Seven flakes (five broken), two scrapers and a tool fragment from the subsoil and Roman features
Willows Nursery	1	A thermal flake with miscellaneous, semi-abrupt retouch from the subsoil
Watching brief	8	Two scrapers, two blades, one blade core and three flakes recovered from ploughsoil and subsoil deposits at four locations



### **3 MIDDLE BRONZE AGE TO EARLY IRON AGE (c 1450-400BC)**

#### **3.1 A late Bronze Age/early Iron Age pit alignment near Seaton**

A prehistoric pit alignment was located to the north and south of Seaton Road, approximately 1.3km to the north-west of Seaton village, Rutland (Seaton 1, NGR: SP89049895; Fig 3.1). The geophysical survey recorded a length of 190m, but at either end it reached the limit of the pipeline easement and was still continuing (Butler 2007, fig 36).

The geophysical survey results show that the pit alignment followed a linear course but with abrupt, if slight, changes of angle at intervals of perhaps 50-60m. The direction of angle change alternates within the survey area, so that the overall course is approximately linear. Such abrupt but slight changes in alignment have been seen at other pit alignments in the region, as at Gayhurst Quarry, Buckinghamshire (Chapman 2007, 180-190).

Within the excavated site, to the north of Seaton Road, the pit alignment was situated on a relatively steep, north-facing slope overlooking a small stream, and was aligned north-east to south-west (Fig 3.2). The ground level descends from c110m aOD at the southern end of the site by the road to c102m aOD at the lower end of the site to the north. The pits were cut into the underlying ironstone of the Upper Lias Clay formation (BGS 1978).

Within the excavated area there were twenty-one roughly circular or sub-angular pits, spaced c 1.5m apart (Figs 3.2 and 3.3). Of these, eighteen were excavated, one was almost entirely truncated by a furrow and the remaining two were only partly exposed within the excavation area. One of the slight changes in angle lay within the excavated area, and this point was marked by a pit offset 1.0m to the west of its neighbours (Fig 3.2, pit 21).

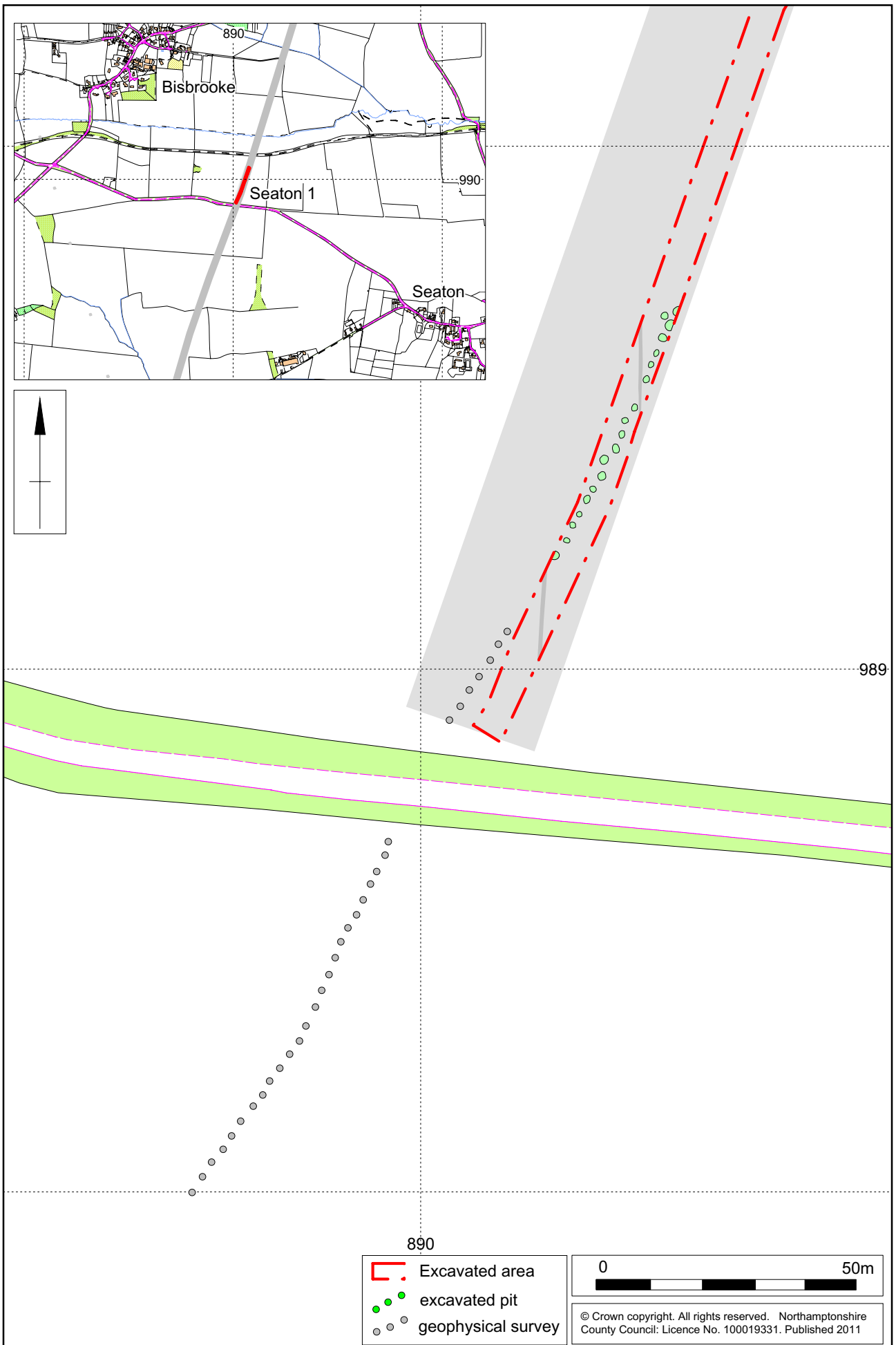
The pits were all of circular plan but they varied from 0.6-1.6m in diameter, with shallow, U-shaped profiles, 0.35-0.55m deep (Fig 3.4). They had fills of orangey-brown silty clay with occasional to moderate ironstone pebbles and appear to have silted due to natural weathering, with no evidence of deliberate in-filling or re-cutting. One pit, 19, contained several ironstone cobbles, which may have been used as post-packing, although there was no other evidence for a post in this or any of the other pits. It is possible that the vagaries of natural silting have broadened that range of diameters, and that the pits may have shown greater uniformity when originally excavated

As already noted, pit 21 was noticeably offset to the west of the other pits, and was at a possible point of change in the alignment of the pit alignment. It may also indicate a division between the work of separate gangs during the construction of the monument.

Unfortunately, not enough of the pit alignment was exposed within the pipeline easement to explore these patterns of layout any further, although to the north, there was an extra pit, 42, set to the immediate west of the alignment, perhaps marking a further point of change.

No dateable artefacts were recovered, and there was no animal bone or charcoal that could have provided a radiocarbon date. The pit alignment can therefore be only broadly placed within the late Bronze Age/early Iron Age context that has been demonstrated elsewhere in the region through radiocarbon dating.





Scale 1:1000  
(inset 1:25,000)

Seaton, the pit alignment in excavation and geophysical survey Fig 3.1





The pit alignment near Seaton, looking north-east Fig 3.3



Pit 13 in the pit alignment, looking north-west Fig 3.4

**3.2 Middle Bronze Age to early Iron Age activity at Glaston** by Andy Chapman

Sherds from the rim and upper body of a hand-built vessel that probably dates to somewhere between the early/middle Bronze Age and the late Bronze Age/early Iron Age were recovered from the area of an Anglo-Saxon cremation cemetery at Glaston, Rutland. The sherds were found in close association with a spread of cremated human bone (cremation burial 13) and fragments of an Anglo-Saxon bone comb, in a localised spread of mid orangey-brown silty clay, 31. The group comprises two joining sherds that make up part of the rim and body and a further 12 smaller non-joining sherds from the rim and body of the same vessel, which together represent perhaps 10% of the whole vessel.

The soft fabric contains voids, possibly from the leaching of sparse large shell inclusions, and it has a dark grey core and inner surface and a light orange-brown external surface. The vessel is a near cylindrical jar, c 150mm in diameter, with a simple rounded rim. At 20-30mm below the rim there is a single row of deep fingertip impressions, some showing a fingernail impression in the base (Fig 7).



Bronze Age jar from Anglo-Saxon cremation burial 13 (scale 20mm) Fig 3.5

The style of decoration is similar to that on rusticated Beakers of the latter part of the early Bronze Age, the early 2nd millennium BC, although fingertip impressions are a common form of decoration through to the late Bronze Age/early Iron Age, in the mid 1st millennium BC.

There are no contemporary features or other prehistoric pottery from this site, but it seems unlikely that the presence of this vessel was fortuitous, especially given the large size of the sherds. Its presence may suggest that a nearby Bronze Age burial or at least a pit deposit, had been disturbed and the pottery collected and later reinterred with an Anglo-Saxon burial.

This might suggest that the Glaston cremation cemetery had been located on and around a Bronze Age round barrow; a practice recognised at many sites in the region. A barrow mound might, therefore, lie unrecognised, closely adjacent to the excavated area. The presence of round barrows in the vicinity has been shown by cropmark evidence for a ring ditch, possibly a Bronze Age barrow, in a field to the south of Uppingham Road, c 200m to the south of the cremation cemetery.



## 4 MIDDLE TO LATE IRON AGE (400 BC – 43 AD)

Six sites produced significant settlement activity dating to the middle Iron Age: Seaton, Thorpe by Water and Caldecott in Rutland and Swinawe Barn, Thorpe Malsor and Willows Nursery in Northamptonshire.

### 4.1 Middle to late Iron Age settlement near Seaton

The site was situated near the top of a south-facing slope, at a height of c105m aOD, overlooking a small tributary valley on the north side of the Welland Valley (centred at NGR: SP 8884 9841; Fig 4.1). The underlying geology was Upper Lias Clay (BGS 1978). The site largely comprised a cluster of intercutting pits. They were probably associated with a nearby settlement, although the geophysical survey and aerial photographs provide no indication as to where the focus of the settlement may lie.

The main concentration of features extended along the easement for a distance of c15m and comprised at least ten large pits, measuring up to 3.2m across and 0.6m deep, and a gully terminal. It is possible that two small ditches terminated within the pit group, but geophysical survey and excavation within the narrow confines of the easement was inconclusive in determining their exact nature and extent.

Many of the pits contained sherds of pottery, but the majority were undiagnostic body sherds. The presence of combed decoration and a footring base suggests that they date to the late 1st century BC into the first decades of the 1st century AD.

#### ***Possible ditches 75 and 84***

Two features may have been the western terminals of two ditches. They could not be traced on the surface as they were both overcut by later disturbance and masked by a soil layer 73. Features 75 and 84 were located close to the eastern edge of the geophysical survey area, so it was not possible to determine if they were ditches extending further to the east, or were merely elongated pits.

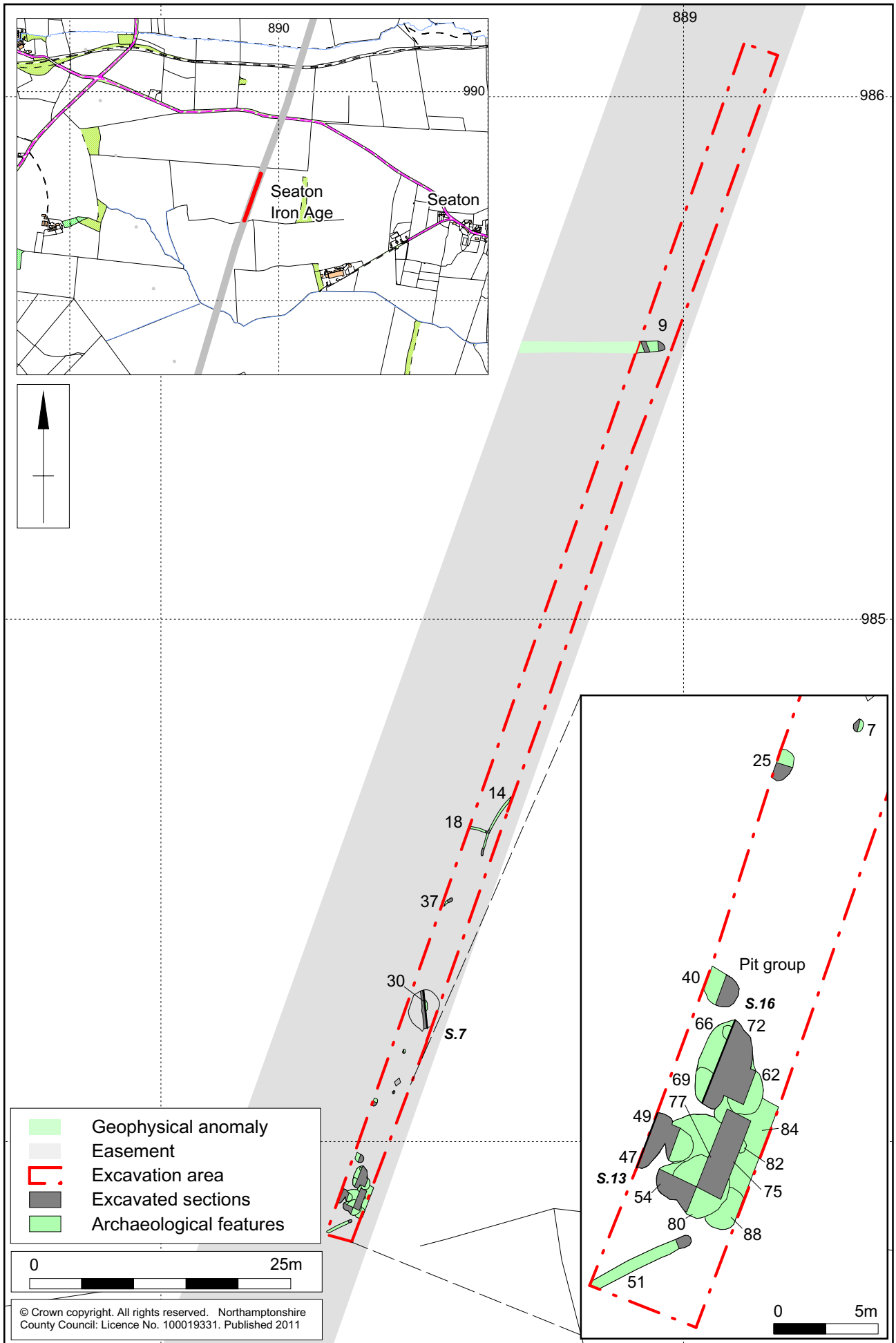
Ditch/pit 84, which was aligned west-north-west to east-south-east, was 0.8m wide by 0.22m deep, and appeared to have a narrow pointed terminal (Fig 4.3). Ditch/pit 75, aligned east to west, was 1.5m wide by 0.25m deep, and appeared to have a slightly squared terminal. The relationship between the two features could not be determined due to truncation by a later pit, 77. Both features were filled with mid brown silty clay, containing sherds of late Iron Age pottery, fragments of animal bone, burnt cobbles and charcoal.

#### ***Gully 51***

Gully 51 was located at the southernmost end of the site, immediately to the south of the pit cluster (Fig 4.1). It was aligned north-east to south-west, and was 0.4m wide by 0.09m deep. It extended for a distance of 5m from its north-eastern terminal to the point where it passed beyond the limits of the easement. It was filled with orangey-brown silty clay (50) and contained occasional charcoal flecks.

#### ***Gullies 14, 18 and 37***

A curvilinear gully, 14, lay 70m to the north of the pit cluster (Fig 4.1). It was 0.4m wide by 0.12m deep, with a fill of light greyish-brown sandy clay with charcoal flecks (13). A contemporary gully, 18, with a similar fill (17), branched off to the west, at a right angle from gully 14, and extended beyond the easement. The north-east terminal of gully 37, which lay c 9m to the south of the terminal of gully 18, was 0.6m wide by 0.22m deep. No artefacts were recovered to provide dating evidence, but they probably formed part of a system of gullies associated with the Iron Age settlement.



Scale 1:1000 (insets 1:25,000 & 1:250)

Iron Age settlement near Seaton Fig 4.1

***Pit group (pits 47, 54, 72, 82 and 88)***

Amongst the earliest features in the pit group were pits 47, 54, 72, 82 and 88, all of which were cut by later pits. Pit 47, was roughly oval in plan, 1.8m long by over 1.0m wide and 0.66m deep, with a fill of mid to dark brown silty clay (46) (Fig 4.2, Section 13). It lay 0.45m to the west of pit 54, which was similar in size but shallower, at 0.38m deep. This pit had a basal fill of mid orangey-brown sandy clay (53) derived from weathering of the pit sides, overlain by mid to dark greyish-brown silty clay (52). Sherds from a single pottery vessel, dated to c 0-20AD, were recovered from both pits, suggesting that they are contemporary features.

Pit 72 was a large circular pit with a flat base, c 2.5m in diameter and 0.79m deep, located approximately 3m to the north of pits 47 and 54. The basal fill was 'sterile' mid orangey-brown sandy clay (71), overlain by orangey-brown silty clay containing domestic debris, including pottery sherds, animal bone and quantities of charcoal (Fig 4.2, Section 16).

Pit 82 was largely truncated by later features, with only part of its base remaining, 0.5m wide and 0.23m deep (Fig 4.3). Sherds of Iron Age pottery and fragments of animal bone were recovered from its mid orangey-brown sandy clay fill (81).

Pit 88 was not excavated, but was roughly circular in plan, c 1.0m diameter, with a fill of mid greyish-brown silty clay (87). Part of its western half was truncated by pit 80.

***Pits 40, 49, 62, 66 and 69***

Pit 72 was cut by three pits, 62, 66 and 69 (Fig 4.2, Section 16). Pit 62 cut the east side and was roughly circular, 1.2m diameter and 0.41m deep. Against the steep southern slope of the pit and overlying the basal fill (58) of weathered material from the pit sides, there was a tip deposit of brownish-orange sandy clay (59). This was succeeded by a layer of grey, orange-mottled sandy clay (60) and an upper layer of mid to dark greyish-brown sandy clay (61).

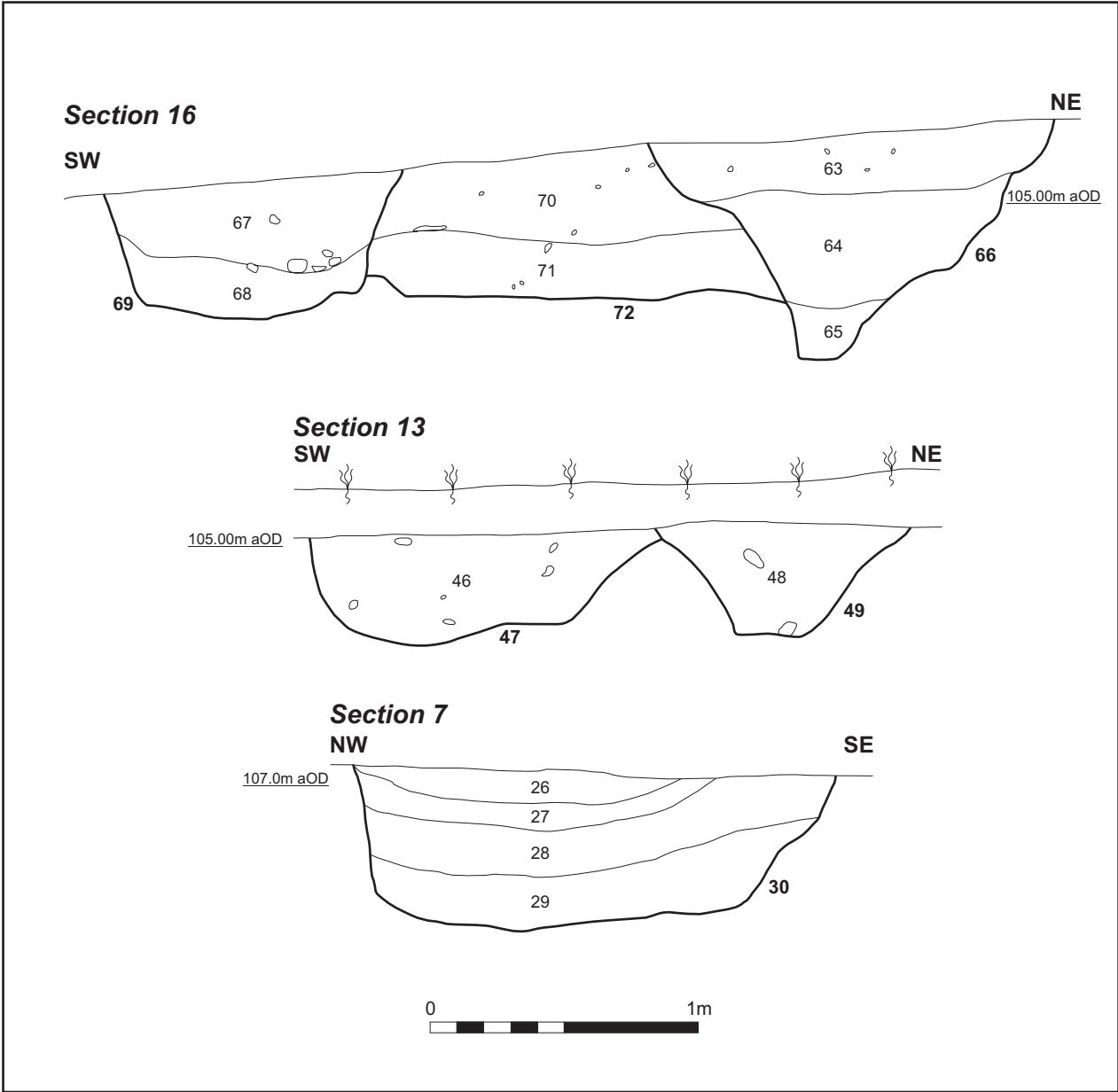
Pit 66, located to the north, was roughly oval in plan with very steep sides and a narrow, concave base, 2.2m long by 1.5m wide by 0.82m deep (Fig 4.2, Section 16). The fills comprised orangey-brown silty/sandy clays, with the upper two deposits, (63) and (64), containing fragments of animal bone and fired clay.

Pit 69, which cut the south-west side of pit 72, was oval in plan with a slightly tapered western side, and a steep, near vertical slope and a flat base, 2.0m long by 1.1m wide and 0.51m deep (Fig 4.2, Section 16). The fills comprised orangey-brown silty clays, although the upper fill (67) was slightly darker and contained more charcoal.

Pit 49, which cut the northern side of pit 47, was sub-rectangular in plan and had steeply sloping sides and a flat base (Fig 4.2, Section 13). It measured over 1.0m long by 0.9m wide by 0.42m deep, with a fill of mid to dark brown silty clay (48) containing charcoal and animal bone.

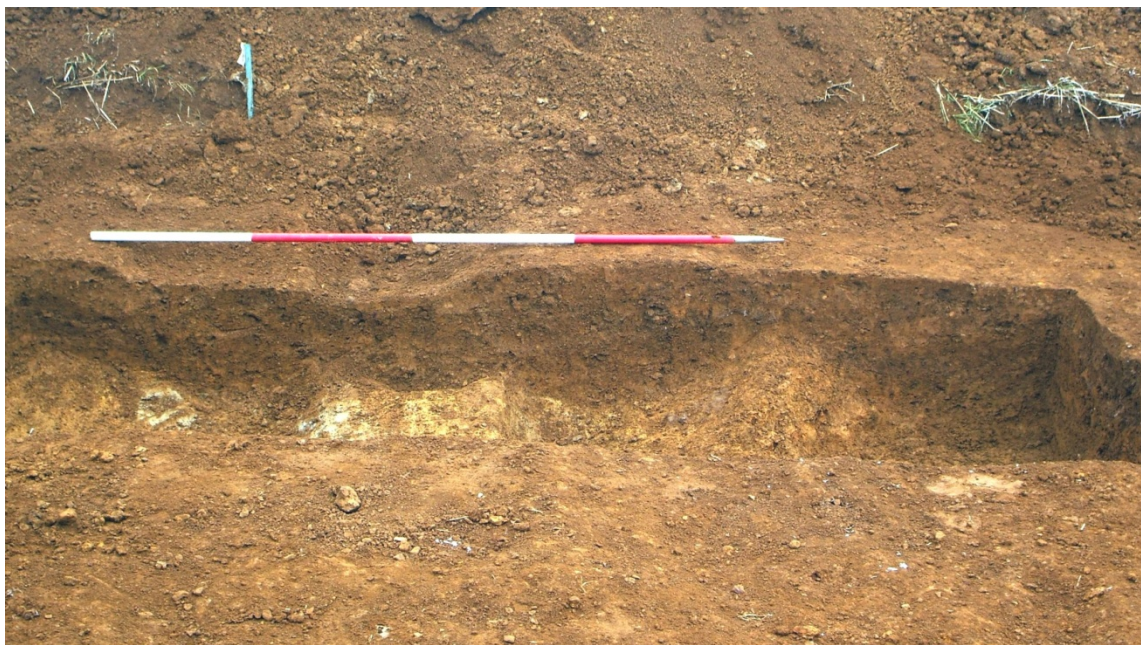
Pit 40, lying close to the northern edge of the pit group, was oval in plan, 1.9m long by 1.2m wide and 0.31m deep. The fills comprised orangey-brown clayey silts, with the upper deposit (38) slightly darker. Late Iron Age pottery and animal bone was recovered from both fills.





Scale 1:25

Sections of Iron Age pits at Seaton Fig 4.2



Seaton, ditch 84, and pits 82 and 80, looking east Fig 4.3

#### ***Pits 77 and 80***

These were the latest two features in the pit cluster. Pit 77 was 1.2m in diameter and 0.33m deep, with a fill of charcoal-flecked brown silty clay (76). Pit 80, which lay immediately to the south, was the largest pit in the group, at 3.2m long by 2.2m wide and 0.43m deep. The fill of mid orangey-brown sandy clay (79) contained several sherds of late Iron Age pottery, iron working slag and fragments of animal bone.

#### ***Pits 5, 7, 25 and 30***

Four isolated pits lay to the north of the pit group. The northernmost pit, 30, was some 60m to the north of the main concentration of features and was cut into a large periglacial feature. It was roughly oval in plan, measured 1.8m long by 1.1m wide by 0.60m deep (Fig 4.2, Section 7). The basal fill was mid grey silty clay (29), overlain in sequence by mid orangey-brown sandy clay (28), mid grey silty clay (27) and mid yellowish-brown silty clay (26).

Pit 5, which lay 7m to the south of pit 30, was a small truncated feature, 0.66m diameter and 0.08m deep. The fill of charcoal-flecked mid brownish-blue clay (4), may have been the remnant of a clay lining, and several burnt, rounded cobbles were embedded in the clay.

Pit 25, which was partly exposed at the western edge of the easement, was 0.9m wide and 0.49m deep. The basal fill (24) of 'sterile' orangey-brown silty clay was overlain by a similar but slightly darker deposit (23), containing charcoal, late Iron Age pottery and animal bone. Pit 7, c 2.5m to the north-west, was smaller than the other pits in the group, at 0.5m diameter and 0.16m deep, with a fill of dark greyish-brown silty clay (6).

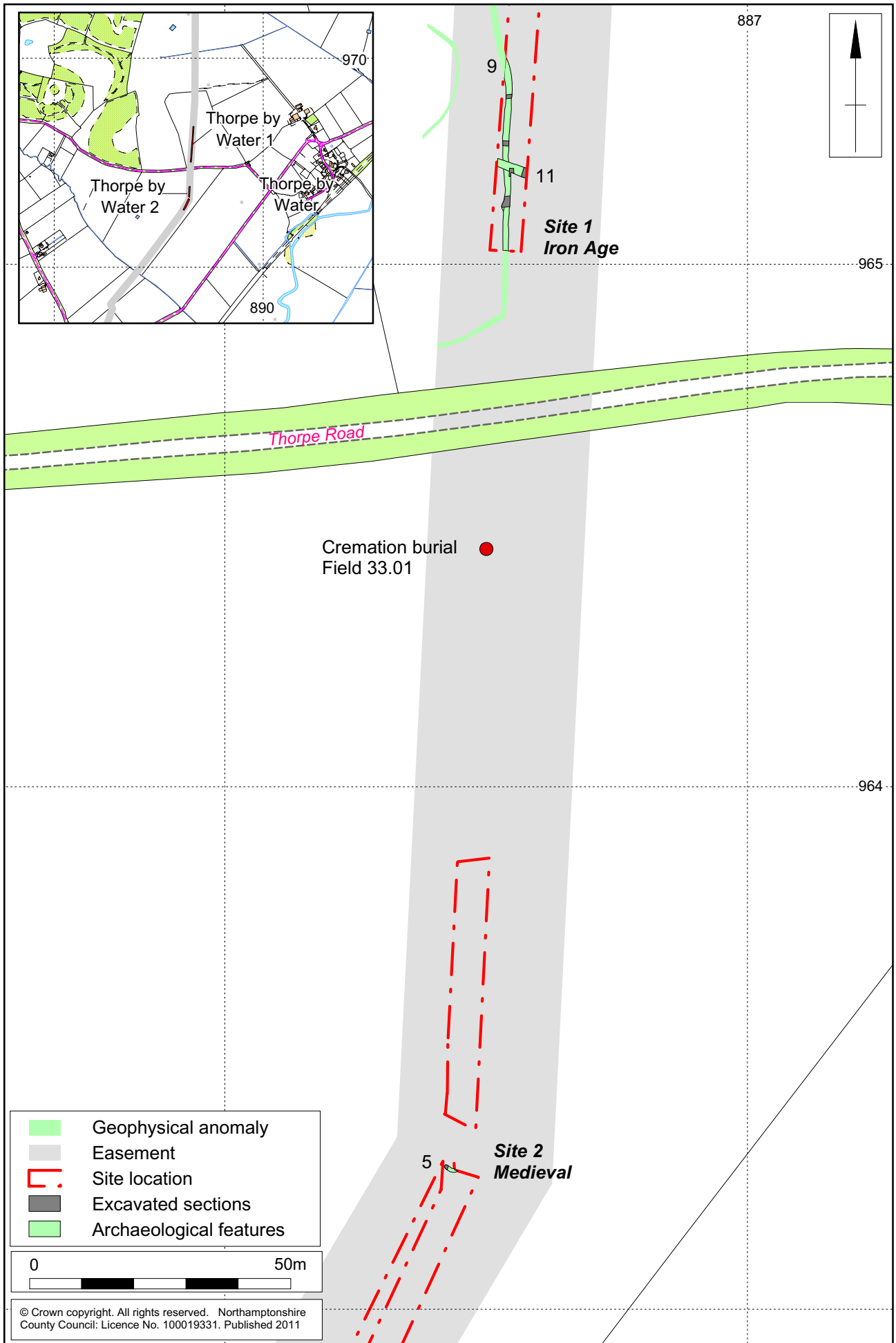
## 4.2 Iron Age ditches and a cremation burial near Thorpe by Water

The site was situated to the north of Thorpe Road, approximately 0.6km to the west of Thorpe by Water, Rutland, on a south-east-facing slope, at c 64m aOD, overlooking the River Welland (NGR: SP 8866 9659; Fig 4.4). The underlying geology is Middle Lias silt and silty clay.

The excavation was targeted upon the junction between two ditches identified from the geophysical survey as part of a more extensive ditch system (Butler 2007, fig 42). The earlier of the two ditches, 9, was 1.2m wide by 0.39m deep, with a mixed fill of mid yellowish-brown and grey silty clay (8), suggesting that it may have been deliberately backfilled. The ditch produced a single undiagnostic sherd of Iron Age pottery. The geophysical survey shows a length of 90m of ditch aligned north-south, with an abrupt turn westward to the south of the excavated area, onto an east-west alignment.

The later ditch, 11, which was aligned near east-west, was wider but shallower, at 1.8m wide by 0.26m deep, with a fill of mottled mid brown silty clay (10). An abraded sherd of Roman grey ware was recovered from the surface of the ditch, but its worn condition suggests that it may be intrusive, so the date of the ditch is uncertain.

Nearby, the remains of a cremation burial were unearthed by a mechanical digger during construction works to the south of Thorpe Road, in Field 33:01. The context of the burial was destroyed by the machine, but it was clear that the burial was sealed by a layer of alluvium up to 1.0m thick. Cremated bone, probably that of an adult, was spread over an area of approximately 1.0m<sup>2</sup> and there were traces of associated scorched soils, but no charcoal. No artefacts were recovered with the remains, but it is probably prehistoric or Roman in date.



Scale 1:1000 (inset 1:25,000)

Thorpe by Water, Iron Age and later features Fig 4.4

### 4.3 Middle to late Iron Age settlement near Caldecott

The site was situated close to the northern edge of the River Welland floodplain, at the northern end of Lyddington Road, approximately 2km to the north-east of Caldecott (NGR: SP 8805 9512; Figs 4.5 and 4.6). The ground, which sloped imperceptibly to the south-east, lay at c45m aOD. The underlying geology is Lower Lias Clay (BGS 1976).

The excavation was targeted on a substantial enclosure identified by the geophysical survey (Butler 2007, fig 44). The north-western corner of this sub-rectangular enclosure measured over 50m north to south and over 30m east to west. There was a probable entrance in the western arm which, if central, would suggest that the enclosure was at least 60m long, and more than 0.25ha in extent. To minimise the impact of the pipeline on the archaeological remains, the pipe trench was positioned along the western edge of the easement to avoid the enclosure, but excavation was required to investigate other remains in this area associated with the settlement (Fig 4.5).

#### ***Ditches 73 and 38***

Ditch 73 ran south-westwards from the north-west corner of the enclosure, perhaps forming an annexe lying to the west of the main enclosure. The southern boundary may have been a much slighter ditch, 38, lying 40m to the south (Fig 4.5).

Ditch 73 had a V-shaped profile, 6.0m wide by 0.86m deep, with steep sides and a narrow, 'ankle-breaker'-type base (Fig 4.7, Section 24). The primary fills were dark brownish-grey silty clay (72) with blue-grey mottles, overlain by mid blue-grey silty clay (70) with orangey-brown mottles; with the mottling indicative of seasonal waterlogging. The ditch had almost entirely silted before it was recut, 80, to a little over half, 0.53m, of its original depth. The fill of the recut was charcoal-flecked, mid greyish-brown silty clay (69). A single small sherd of Roman pottery was recovered from the top of this deposit, but it is likely that both the ditch and recut are late Iron Age in date.

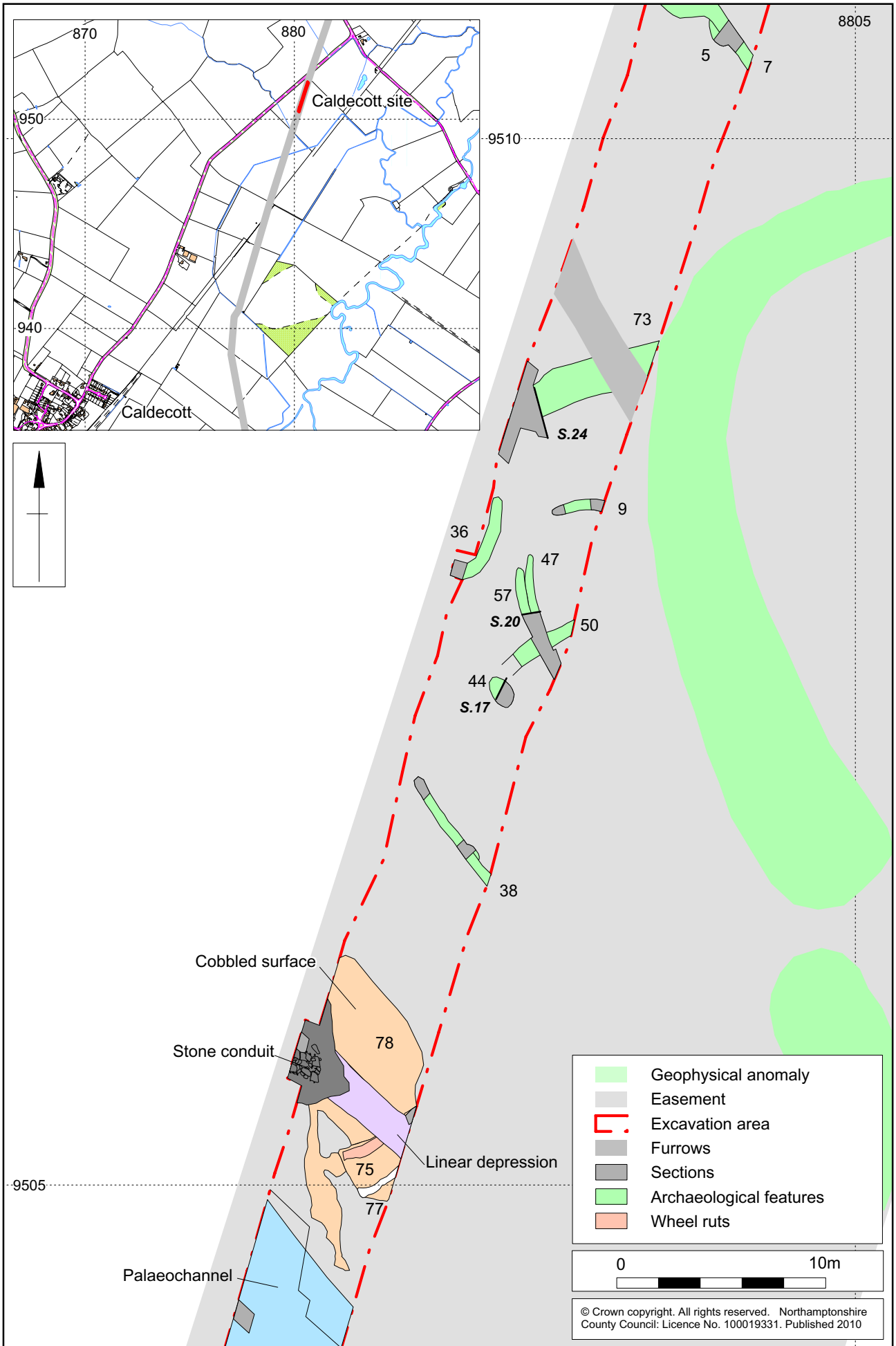
Ditch 38 to the south was much less substantial, at 0.45m wide by 0.06m deep, with a fill of mid greyish-brown sandy clay (37).

#### ***Features to the south of ditch 73***

Ditch 50 was 0.43m deep with a basal fill of mid brownish-grey clay (49) under a thin layer of mid brownish-orange silty clay (48). The full extent of this ditch to the south-west was not determined.

Two curvilinear gullies, 9 to the north and 47/57 to the south, may have formed the western side of a small enclosure at least 7m wide, with a north-western entrance and perhaps abutting the enclosure ditch to the east. Gully 9 was 0.7m wide by up to 0.42m deep, with a narrow, slightly pointed western terminal. It had a fill of mid grey silty sandy clay (8) with orangey-brown mottles, and to the east an upper fill of mid grey sandy silt (58) containing burnt pebbles and charcoal.

Gullies, 47 and 57, were probably successive cuts, but due to the similarity of the fills it was not possible to determine the sequence. Gully 47 had a steep-sided, U-shaped profile, 0.4m wide by up to 0.34m deep, while gully, 57, was 0.5m wide by 0.16m deep (Fig 4.7, Section 20). They had fills of mid orangey-brown silty clay, with the fill (56) of gully 57 containing more stones. Sherds of late Iron Age pottery were recovered from gully 47.



Scale 1:250 (inset 1:25,000)

Caldecott, plan of Iron Age settlement (south) Fig 4.5

Gully 36, which lay to the west, was 0.8m wide by 0.04m deep, with a rounded northern terminal, and a fill of mid greyish-brown silty clay (35) containing sherds of middle to late Iron Age scored ware pottery. The ditch was 4.5m long, and to the south it turned westward perhaps forming the eastern arm of a small enclosure.

#### ***Pit 44 and posthole 63***

Pit 44 was oval, up to 1.2m diameter and 0.35m deep, with a fill of 'sterile' orangey-grey sandy clay (43) (Fig 4.7, Section 17).

Posthole 63, which lay immediately to the south of gully 9, was 0.3m in diameter and 0.42m deep. It had a fill of grey-black sandy silt (62) containing charcoal and burnt pebbles, with an upper fill of black, charcoal-rich silt (61). Pebbles and small cobbles around the edge of the cut may have been used for post-packing.

#### ***Ditches to the north of ditch 73***

A single ditch, 7, lay less than 10m to the north of the enclosure, while four ditches all on similar north-west to south-east alignments lay a further 30-60m to the north (Fig 4.6).

Ditch 7 was aligned north-west to south-east, with an abrupt 'dog-leg' near the centre of the site, where it cut pit 5. It was up to 1.1m wide and 0.1m deep, with a fill of mid orangey-brown sandy silt (6).

To the north, ditches 13 and 15 were on similar alignments and lay 18m apart. They were up to 0.8m wide by 0.34m deep, and ditch 13 had a rounded south-eastern terminal. Ditch 13 had a fill of dark grey sandy silt (12), whereas ditch 15 had a paler fill of mid orangey-brown sandy silt (14) (Fig 4.7, Section 12).

Ditch 19 was 0.7m wide by 0.31m deep. Ditch 26 was on a similar alignment to ditch 19 to the west, but to the east it 'dog-legged' sharply to the north. Both features had fills of brownish-grey sandy clay.

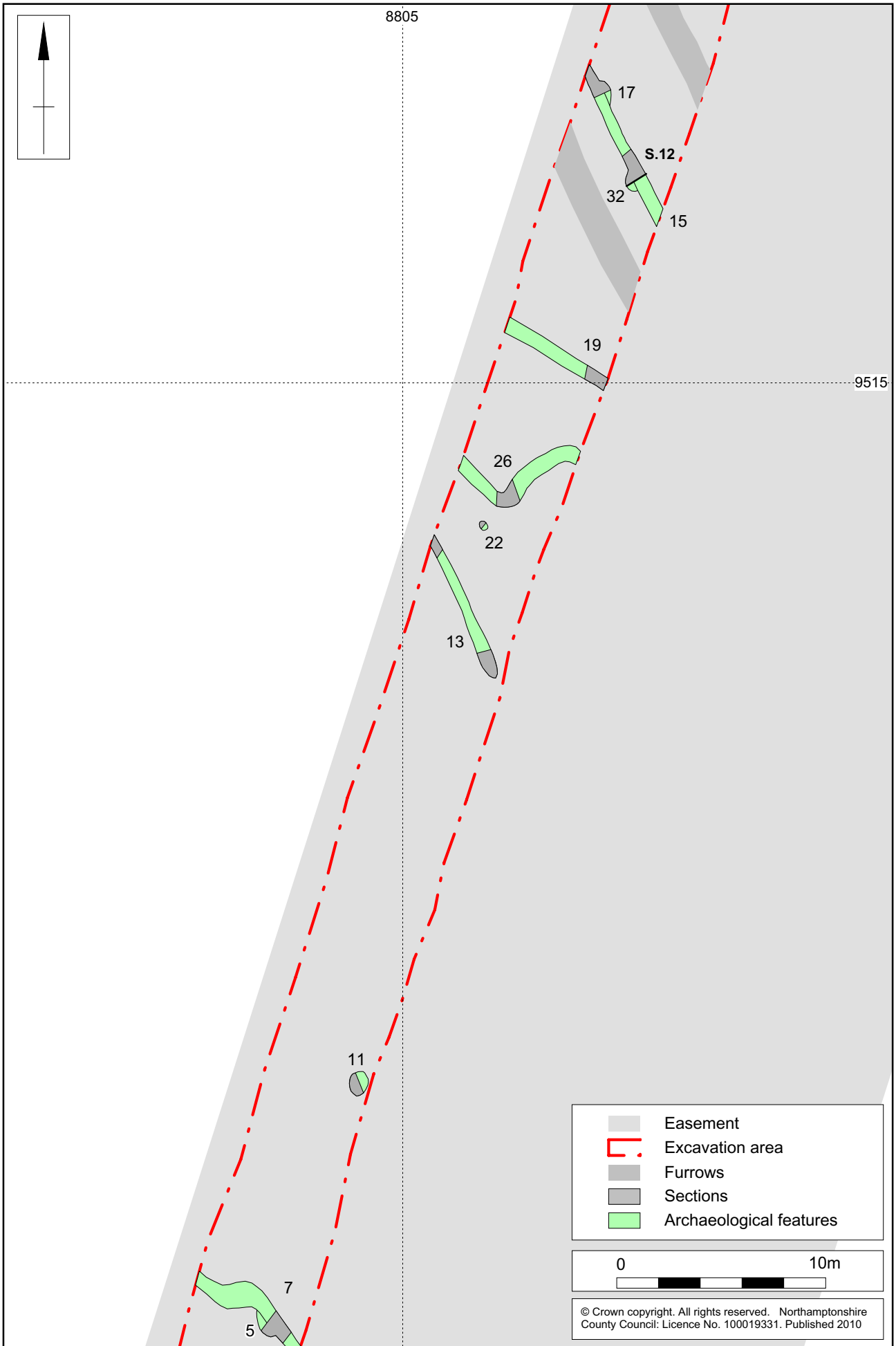
#### ***Pits and postholes to the north of ditch 73***

Four features interpreted as pits, and one posthole, lay to the north of ditch 73. Three of the pit-like features were cut by the ditches in this area, perhaps suggesting that the pits were the truncated bases of post-pits forming timber fences that predated the ditches.

Pit 5, c 0.7m wide by 0.11m deep, was cut by ditch 7. Pits 17 and 32, which were of a similar size, were cut by ditch 15 (Fig 4.7, Section 12). All three had fills of orangey-brown, stony sandy silt.

Posthole 22, 0.5m diameter and 0.22m deep, lay 0.9m to the south of the 'dog-leg' of ditch 26. It had a primary fill of orangey-grey sandy clay (21), overlain by mid to dark bluish-grey sandy clay (20).

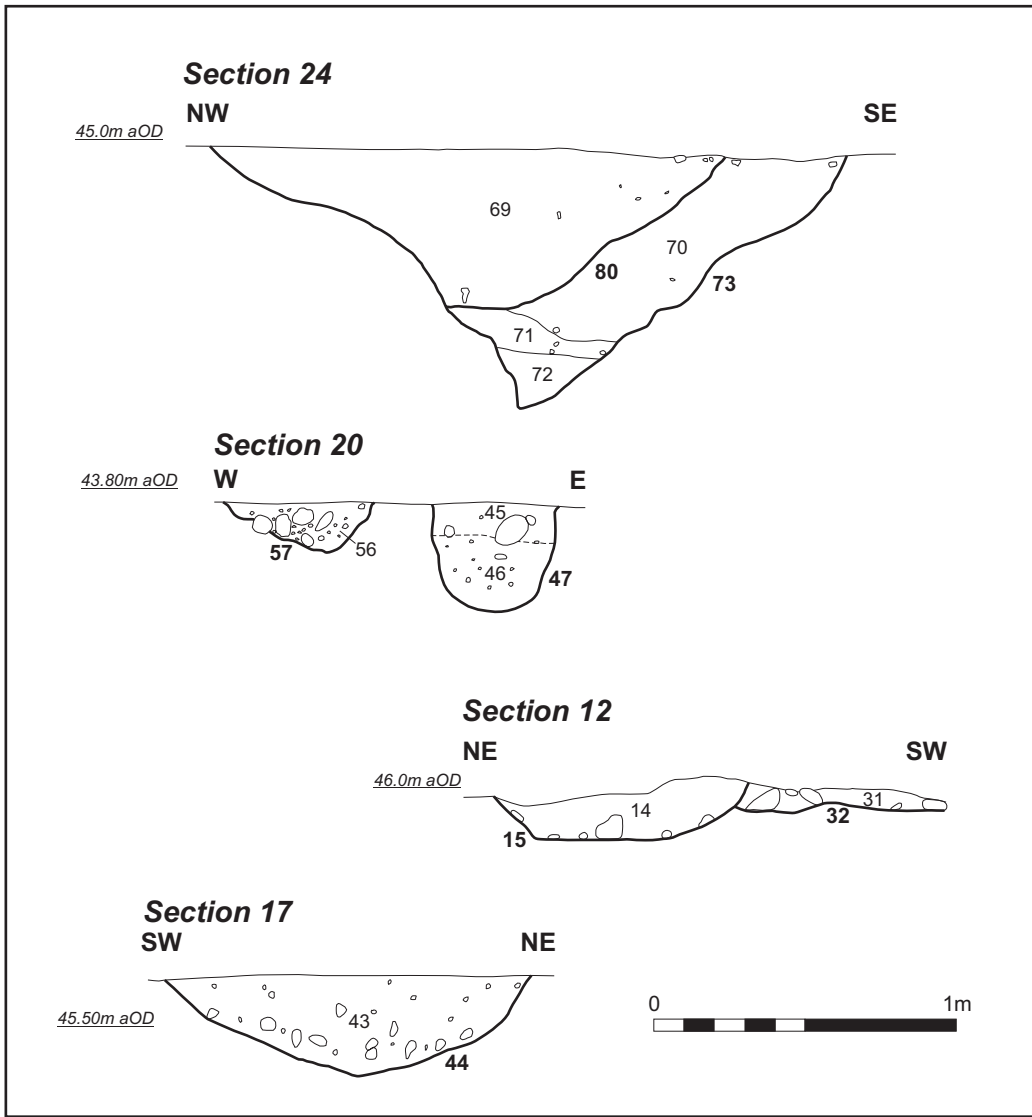
Pit 11, was an isolated feature, c 13m to the north of ditch 7. It was oval, 1.3m long by 0.9m wide and 0.19m deep, with a fill of orangey-brown sandy silt (10).



Scale 1:250

Caldecott, plan of Iron Age settlement (north) Fig 4.6





Scale 1:25

Caldecott, Sections of ditches and pit 44 Fig 4.7



Caldecott, Iron Age settlement, looking north-east Fig 4.8

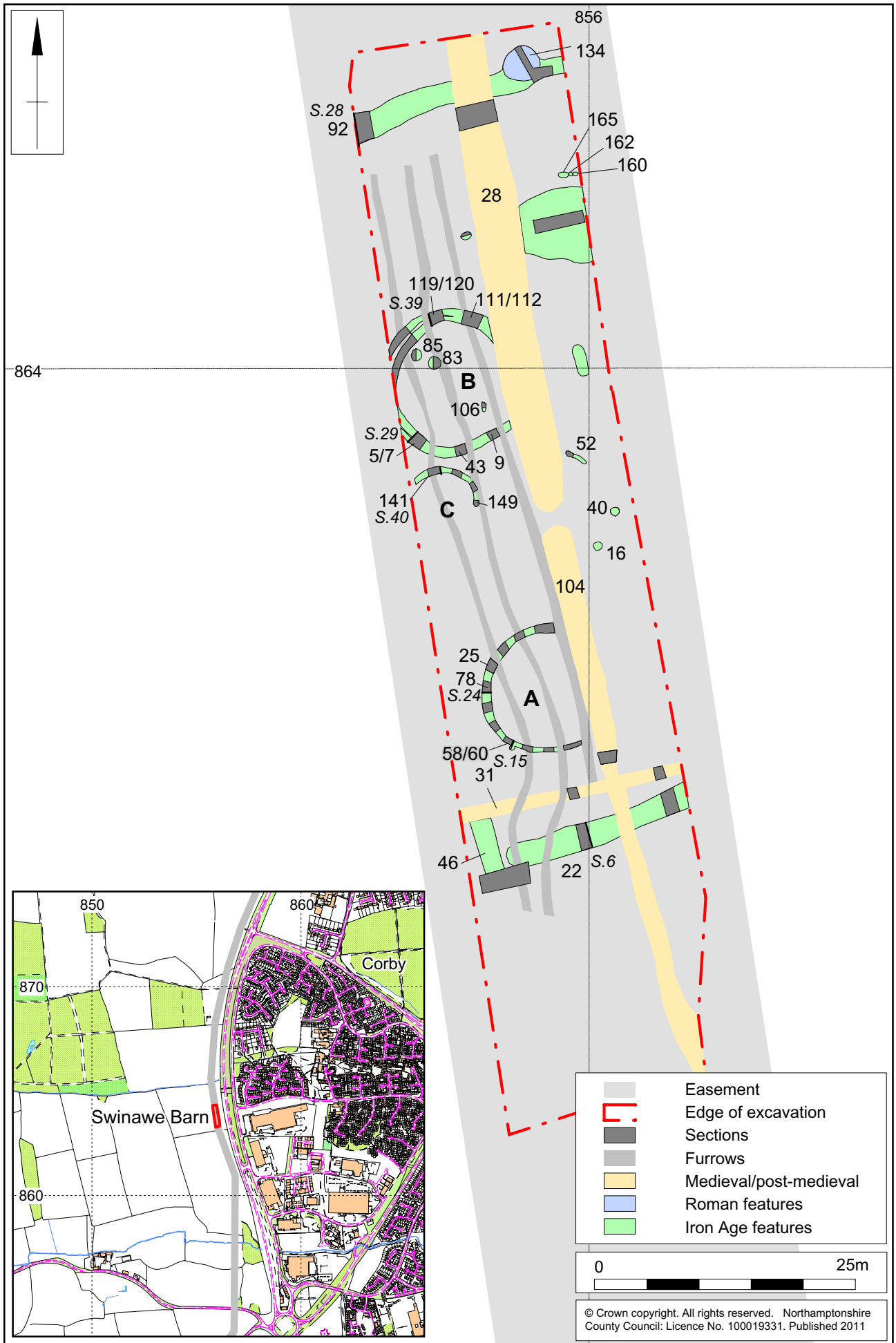
#### ***Cobbled surface 78***

Towards the southern end of the site, beneath a layer of alluvium (64), a cobbled surface, 78, lay to the north of an old stream bed, a palaeochannel, which skirted the southern edge of the settlement (Fig 4.5 and 4.8). The cobbled surface covered an area of over 60m<sup>2</sup> and was formed from river pebbles and cobbles embedded in the underlying natural clay. It may have associated with the access to the western entrance of the unexcavated enclosure, which lay immediately to the north-east. Impressed into the surface, and spaced c1.3m apart, were linear wheel ruts, 75 and 77. A small sherd of Roman grog-tempered ware was recovered from the surface of the cobbled area.

#### **4.4 Middle to late Iron Age settlement at Swinawe Barn, Corby**

During the watching brief a significant number of Iron Age features were identified during topsoil stripping immediately to the west of the A6003, Corby. Due to the extent of the remains, an excavation area was established, measuring 100m long by 20m wide. The site was located on a gentle, north-east facing slope, at 117m aOD, approximately 0.7km to the north-east of Swinawe Wood (NGR: SP 8559 8638; Fig 4.9). The underlying geology is Boulder Clay (BGS 1976).

The Iron Age features identified by the watching brief formed part of a small enclosed farming settlement. Within the excavation area this comprised substantial enclosure ditches to the north and south, the remains of three roundhouses and a number of pits and postholes. The settlement was probably occupied from the 1st century BC into the early decades of the 1st century AD.



Scale 1:500 (inset 1:25,000)

Swinawe Barn, Iron Age enclosure and roundhouses Fig 4.9

***The enclosure (ditches 22, 46 and 92)***

The enclosure measured up to 68m north to south, but the width has not been established. If square, it would have enclosed some 0.46ha, and probably formed a small family farmstead.

The southern enclosure ditch, 22, aligned east to west, had a V-shaped profile, 1.6m to 2.3m wide and up to 1.0m deep (Fig 4.10, Section 6). It terminated to the west, where there may have been an entrance. The primary and secondary fills were light greyish-brown clay (21), overlain by a similar, though slightly browner upper fill (20). Iron Age pottery and fragments of animal bone were recovered from both deposits. The slope of the ditch sides indicated that they had eroded as the ditch slowly silted, with little differentiation in the naturally accumulating silts.

Within the probable entrance there was a separate length of ditch, 46, which was 8m long, with a rounded terminal to the south, which turned sharply to the south-east as if forming a funnelled entrance passage. The northern terminal was truncated by a post-medieval/modern ditch. This ditch was 1.8m wide by 0.5m deep. The fill of orange-mottled mid to dark grey silty clay (45), was overlain by a more extensive deposit of dark grey silty clay (44), which merged with the upper fill of ditch 22. Iron Age pottery and fragments of animal bone were recovered from both deposits.

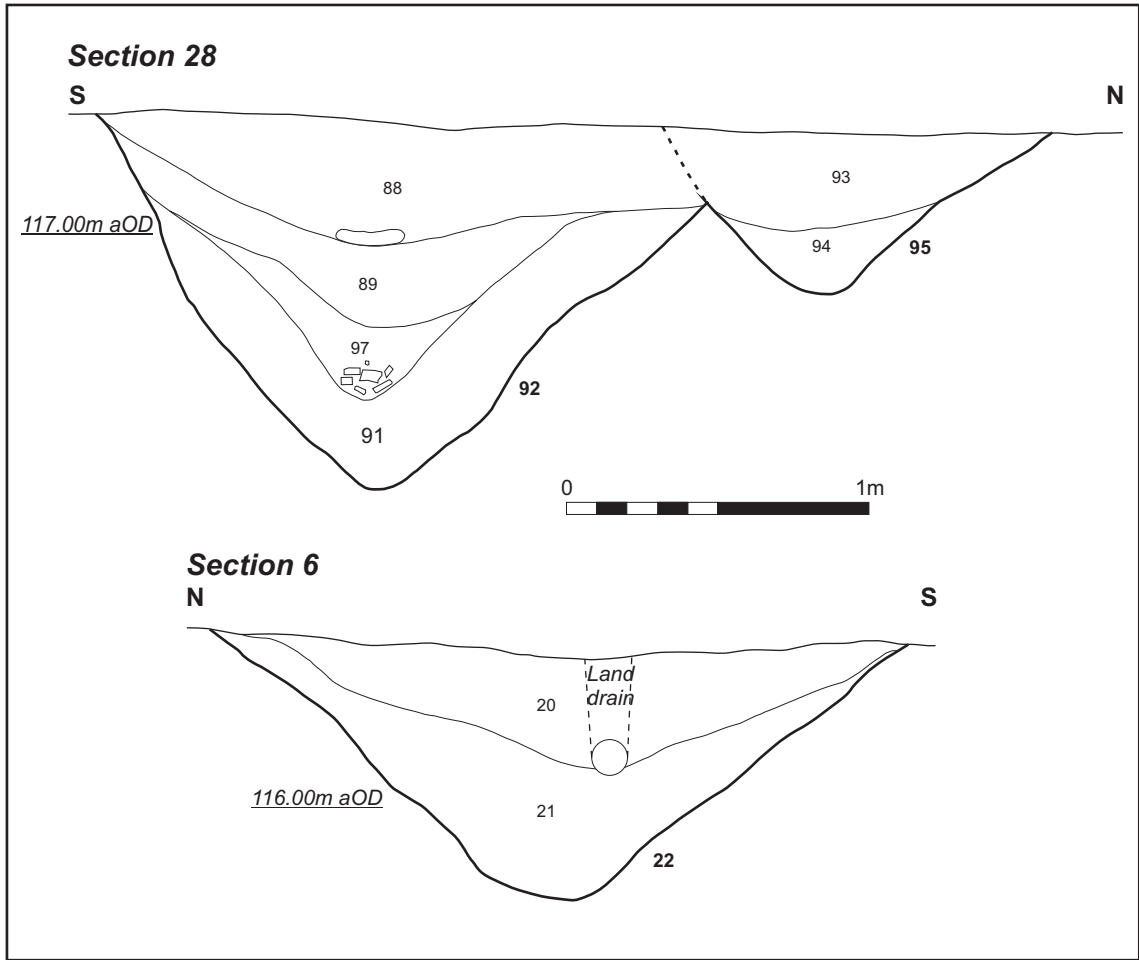
The northern enclosure ditch, 92, was similar to the southern ditch, but was slightly deeper, at 2.0m wide by 1.2m deep (Fig 4.10, Section 28). The steeper sides suggest that this ditch had silted more rapidly, and this is confirmed by the more complex sequence of fills that include the deposition of a range of domestic debris. The initial silting comprised light brownish-yellow silty clay (91), largely derived from weathering of the ditch sides, but this was overlain by an accumulation of light brown silty clay (97), mid brown clay (89) and mid greyish-brown clay (88), which contained sherds of Iron Age pottery and fragments of animal bone, including a horse skull.

The cutting of a new ditch, 95, along the northern edge of ditch 92, may have been necessitated by the rapid filling of the ditch. The new ditch also had a V-shaped profile but was shallower, at 1.3m wide by 0.53m deep, with fills with light brownish-grey clay (94), overlain by mid greyish-brown clay (93), containing Iron Age pottery and animal bone.

***The roundhouses***

Within the enclosure there were three ring ditches that all probably enclosed roundhouses. Two were in excess of 10m diameter, Roundhouse A to the south and Roundhouse B to the north. Roundhouse B produced a wide range of finds, animal bone and environmental evidence, and can be interpreted as the principal house, while to its immediate south there was a small ancillary building, Roundhouse C.

Roundhouse A was defined by a ring ditch with an internal diameter of 11m; the eastern half, including the probable entrance, had been truncated by a late medieval or post-medieval ditch, 104. The ring ditch was 0.45-0.88m wide and up to 0.88m deep, with a variable profile (Figs 4.11 and 4.12, Sections 15 and 24). The fill of the ring ditch was generally charcoal-flecked mid brown or brownish-grey silty clay, although on the western side, where the ditch was at its widest and deepest, there was an upper deposit of charcoal-flecked dark grey silty clay (76) (Fig 4.12, Section 24). The fills contained pottery and animal bone.



Scale 1:25

Swinawe Barn, Sections of enclosure ditch Fig 4.10



Swinawe Barn, Roundhouse A, looking east Fig 4.11

To the south-west, the ring ditch cut a small pit, 60, which was 0.9m in diameter by 0.21m deep, with steep, near vertical sides and a slightly concave base. The fill was charcoal-flecked mid to dark brownish-grey silty clay (59), containing numerous burnt, rounded cobbles (Fig 4.12, Section 15).

Roundhouse B was defined by a ring ditch with an internal diameter of 12m; the eastern part including the probable entrance had been removed by a medieval/post-medieval ditch. The original ring ditch, 7, had a steep-sided, V-shaped profile, c 0.8m wide by up to 0.55m deep (Fig 4.12, Section 29). The fill was generally of mid greyish-brown clay (11), overlain by mid to dark grey silty clay (6), but there was a more complex sequence of deposits to the north, where ditch segment 120 contained a primary fill of mottled mid brown silty clay (116), overlain by deposits of darker mid brown silty clay, (117) and (118), the lower of which contained large quantities of charcoal (Fig 4.12, Section 39). Further west there was an additional upper fill of relatively 'clean' mid to dark brown silty clay, which may have been deliberate backfilling into the ditch when the adjacent recut was dug.

The recut ditch, 5, lay just beyond the original ditch around the western half of the ring ditch circuit. It had a similar V-shaped profile, 0.7m wide by up to 0.43m deep, but was shallower on the northern side. To the north, ditch 119 contained a primary fill of mid to light brown silty clay (115), largely eroded from the ditch sides, overlain by charcoal-flecked, mottled mid to dark grey silty clay (114) containing middle Iron Age pottery and animal bone, and an upper deposit of charcoal-flecked dark grey silty clay (113) (Fig 4.12, Section 39).

Approximately 70% of the pottery from the site came from this building, along with animal bone and the only occurrences of charred cereal grains.

A fragment of animal bone from the fill of the ditch has provided a date of 40 Cal BC-80 Cal AD (95% confidence, 1980+/-30 BP, Beta-293241), suggesting that the roundhouse was still in use into the 1st century AD, although the pottery assemblage would suggest that the main usage was no later than the 1st century BC.

Two circular pits, 83 and 85, and a smaller, sub-rectangular pit/posthole, 106, lay within Roundhouse B. Pit 83 had near vertical sides and a flat base, 1.2m diameter by 0.39m deep (Fig 4.12, Section 30). An initial mixed fill of orange and greyish-brown silty clay (100), was overlain by successive dumped layers of greyish-brown silty clay (99), dark brown-black silty clay (98) and mottled dark greyish-brown silty clay (82), containing burnt pebbles, small cobbles and charcoal flecks, along with Iron Age pottery and a deposit of animal bone (Fig 4.13). Pit 85 lay 0.7m to the north-west of pit 83, and was 0.9m in diameter and 0.16m deep, with a fill of mottled greyish-brown silty clay (84), containing Iron Age pottery and bone. An elongated pit/posthole, 106, was 0.81m long by 0.23m wide and 0.14m deep, and had a fill of mid greyish-brown silty grey fill (105).

Roundhouse C, with an internal diameter of 6.0m, was defined by an arc of ditch to the north, 141, while any ditch to the south may have been truncated by a modern farm track. Ditch 141 was up to 0.70m wide by 0.16-0.30m deep, with fills of orange-mottled mid brown silty clay (140), containing sherds of Iron Age pottery and fragments of animal bone, overlain by mid brownish-grey silty clay (139) (Fig 4.12, Section 40). To the east the ditch terminal probably defined the original entrance, and a steep-sided posthole, 149, in the base of the ditch at the terminal, was 0.33m in diameter by 0.27m deep, with a fill of light brown clay (148) overlain by greyish-brown silty clay (147). It may have held a gatepost.

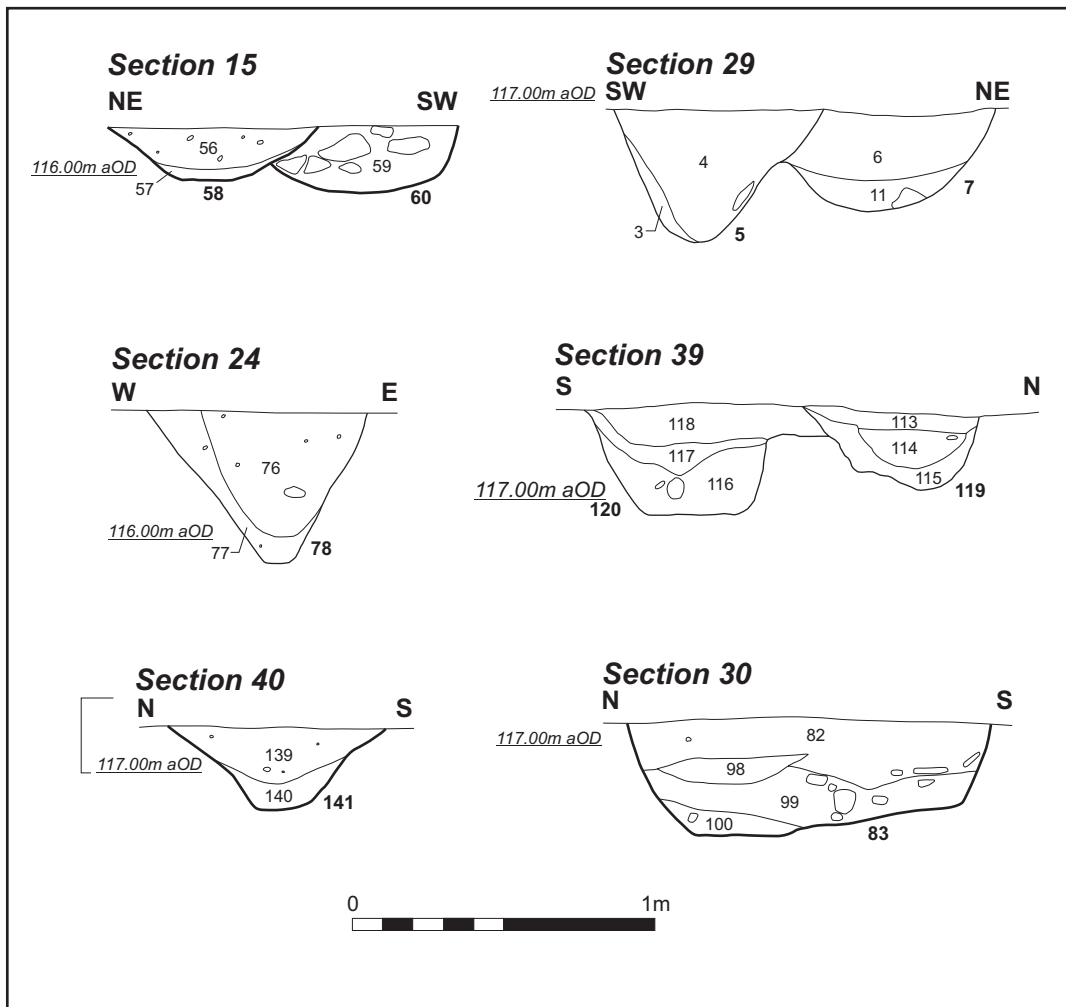
**Other features**

Slot 52, which lay 6m to the south-east of Roundhouse B, was 2.0m long with a steep-sided, U-shaped profile, 0.5m wide by 0.40m deep. The fill of dark greyish-brown silty clay (51) contained Iron Age pottery, animal bone and large fragments of charcoal.

A small circular pit, 16, lying to the north-east of Roundhouse A, had steep sides and a flat base, 0.8m in diameter and 0.36m deep. A layer of burnt, rounded cobbles lay on the base of the pit, overlain by dark grey to black silty clay (15), which contained fragments of animal bone, some of which were burnt, and sherds of Iron Age pottery.

Pit 40, lying 3m to the north-east of pit 16, was almost identical in shape, with a primary fill of mid greyish-brown silty clay (39), overlain by dark grey to black silty clay (38), with both deposits charcoal flecked and containing fragments of animal bone, some of which were burnt, and sherds of Iron Age pottery.

To the north-east there was a row of three closely set pits/postholes. Postholes 160 and 162 were very similar, at 0.35m diameter and 0.17m deep, with fills of mid brownish-grey clay. Pit 165, was oval, 1.1m long by 0.5m wide and 0.36m deep, with a fill of clean light grey silty clay (164), overlain by charcoal-flecked mid brownish-grey clay (163), containing sherds of Iron Age pottery and fragments of animal bone.



Scale 1:25 Swinawe Barn, Sections of ring ditches and pits Fig 4.12



Swinawe Barn, Pit 83, animal bone deposit, looking west Fig 4.13



#### 4.5 Late Iron Age ditches near Thorpe Malsor

The site lay 0.6km to the north-east of the village of Thorpe Malsor, situated on a spur of high ground between two small streams that flow to the north and south of the village, reaching their confluence near Brooklands Farm to the east (NGR: SP 8407 7924; Fig 4.14). The Iron Age ditches lay on a relatively steep, north-east facing slope, 99.5-97.5m aOD, which descended into the valley of the northern stream. A Roman settlement was located at the top of the slope, c 50m to the south. The underlying geology is Northampton Sand and Ironstone of the Inferior Oolite Series (BGS 1976).

The two ditches, 18 and 52, may have formed the north-western corner of a large rectangular enclosure, as located by geophysical survey (Butler 2007, fig 78). However, as the junction of the ditches lay at the margin of the survey area it is also possible that the ditches were two elements of a boundary system meeting at a near right angle.

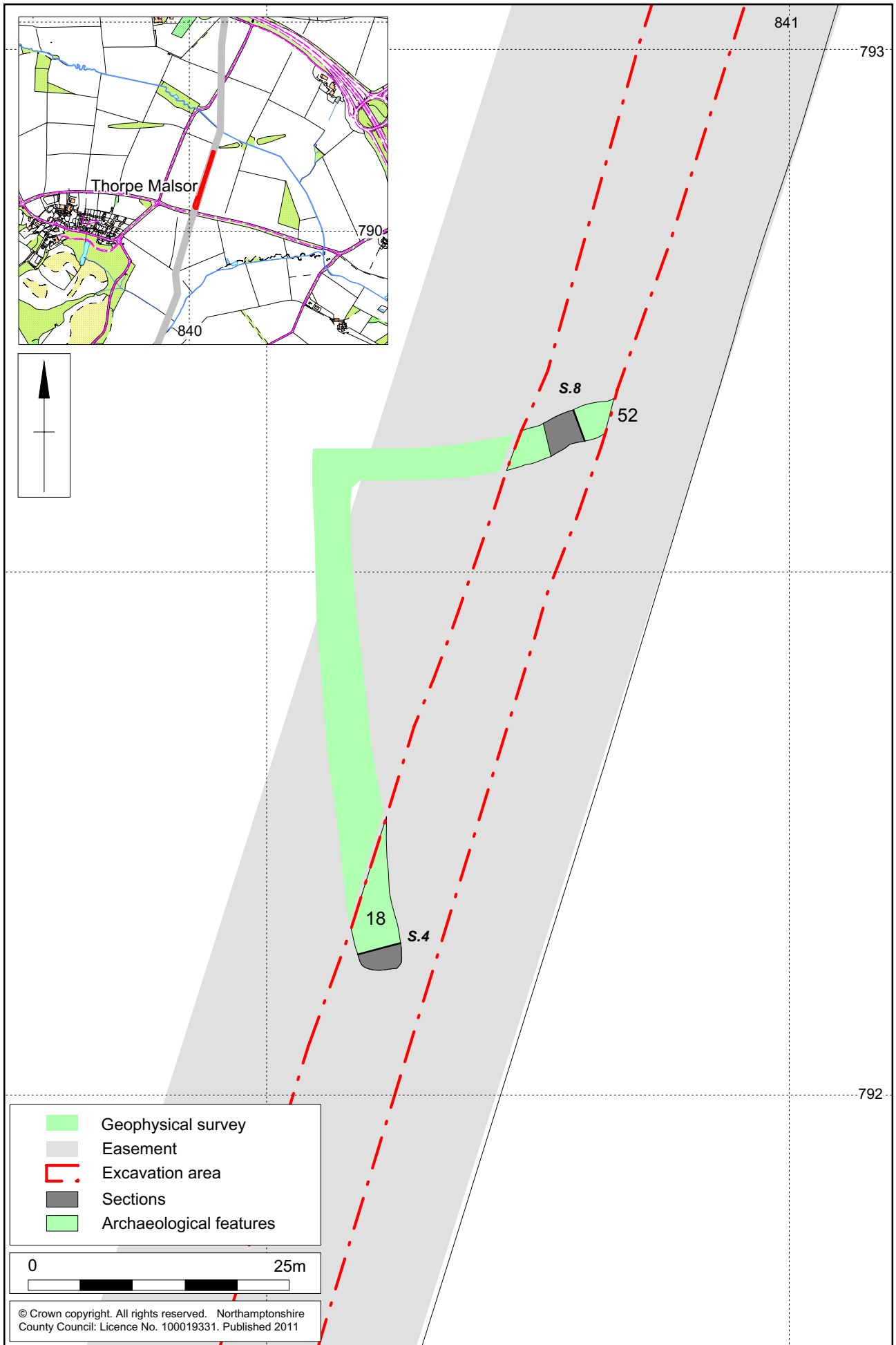
##### ***Ditch 18***

The ditch at the squared southern terminal was 4.5m wide by 1.8m deep, with steep sides and a broad base (Fig 4.15, Section 4).

Primary silts (87, 88, 86 and 85) of relatively stone-free sandy silts, derived from weathering of the ditch sides, was overlain by a more extensive deposit (84) containing ironstone pebbles and cobbles. This had accumulated against the eastern side of the ditch, perhaps suggesting that the material had slumped from an adjacent bank. This episode was followed by a period of gradual natural silting of mid greyish-brown (82) and mid orangey-brown (81) sandy silt. A layer of charcoal-flecked, mid orangey-brown sandy silt (80), containing sherds of late Iron Age pottery and fragments of animal bone, had been deposited from the east, the potential interior of the enclosure. It was the only deposit containing a quantity of domestic debris, although an upper fill, 16, also deposited from the east produced a few sherds of pottery including a sherd possibly from an unused triangular crucible of the type used in copper alloy casting.

##### ***Ditch 52***

The northern ditch, 52, was 2.7m wide by 1.65m deep, with a steep-sided, V-shaped profile and a narrow concave base (Figs 4.14 and 4.15, 21, Section 8). The primary fills had accumulated rapidly and comprised light brown silty clay (51), mid brown silty clay (50) and mid to dark brown silty clay containing some small stones (49). A layer of light brown silty clay (48), had come in from the southern side. The upper fills showed little differentiation, comprising mid to dark brown silty sandy clay (47). A few sherds of late Iron Age pottery were recovered from this upper fill.



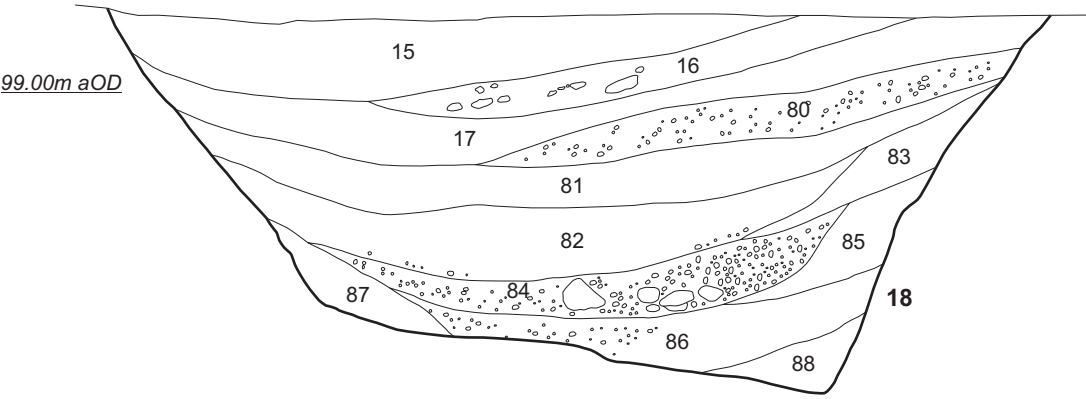
1:500 (inset 1:25,000)

Thorpe Malsor, Iron Age settlement Fig 4.14

**Section 4**

**W**

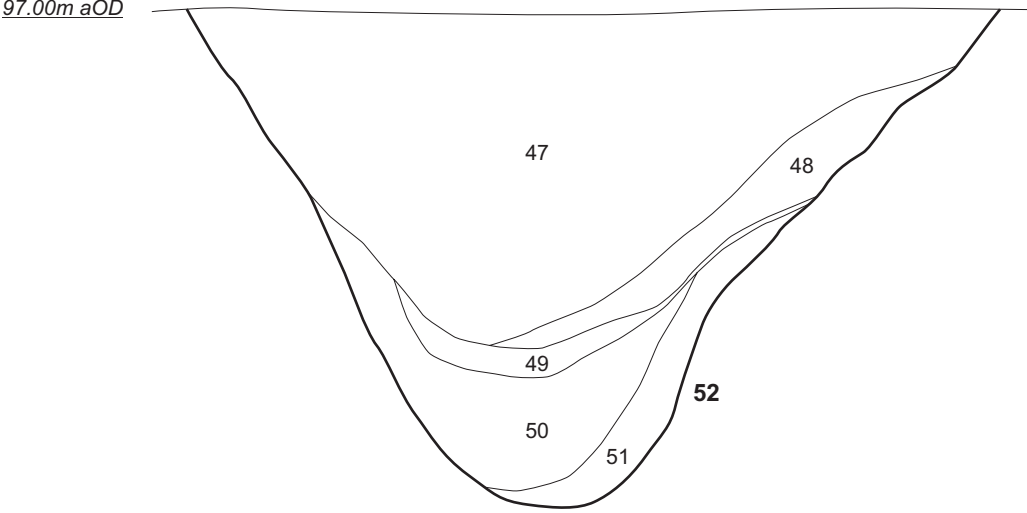
**E**



**Section 8**

**NW**

**SE**



Scale 1:40 & 1:25

Thorpe Malsor, Sections of enclosure ditch Fig 4.15

#### 4.6 Middle to late Iron Age settlement at Willows Nursery

Willows Nursery, which lay approximately 1km to the south-west of Broughton, to the west of the A43, was situated on a low-relief spur at 129m aOD (NGR: SP 8267 7524; Fig 4.16). The underlying geology is Boulder Clay.

The excavation, an area 80m long by 20m wide, was targeted on a sub-rectangular enclosure identified by geophysical survey (Butler 2007, fig 88). To minimise the impact of the pipeline on the archaeological remains, the pipe trench was positioned towards the western edge of the easement to avoid the majority of the enclosure, but excavation was required to investigate its north-western corner and other associated remains (Fig 4.16).

The eastern corner of the enclosure lay beyond the surveyed area, but it measured at least 40m long by 27m wide, perhaps enclosing an area of some 0.1ha. The geophysical survey shows an abrupt narrowing at the centre of the western arm which is likely to be an entrance, perhaps incorporated a timber gateway set between the ditch terminals.

##### ***The enclosure ditches, 15 and 39***

Ditch 39, the western arm of the enclosure, had a broad U-shaped profile, 2.0m wide by 0.8m deep (Fig 4.17, Section 10). The fill of dark brownish-grey silty clay (36) contained some late Iron Age pottery, and had a higher stone content, of chalk pebbles and occasional small cobbles, (38), against the western edge of the ditch. This ditch appeared to have a rounded terminal to the north at its junction with ditch 15.

Ditch 15, the northern arm of the enclosure, had a similar profile but was less substantial, at 1.5m wide by 0.38m deep. On the northern side of the ditch there was a shallow step, 0.4m wide, near the top of the slope, with an overlying fill of mid brown sandy clay (14). Overlying this and filling the main body of the ditch was dark greyish-brown silty clay (13).

##### ***Other linear ditches***

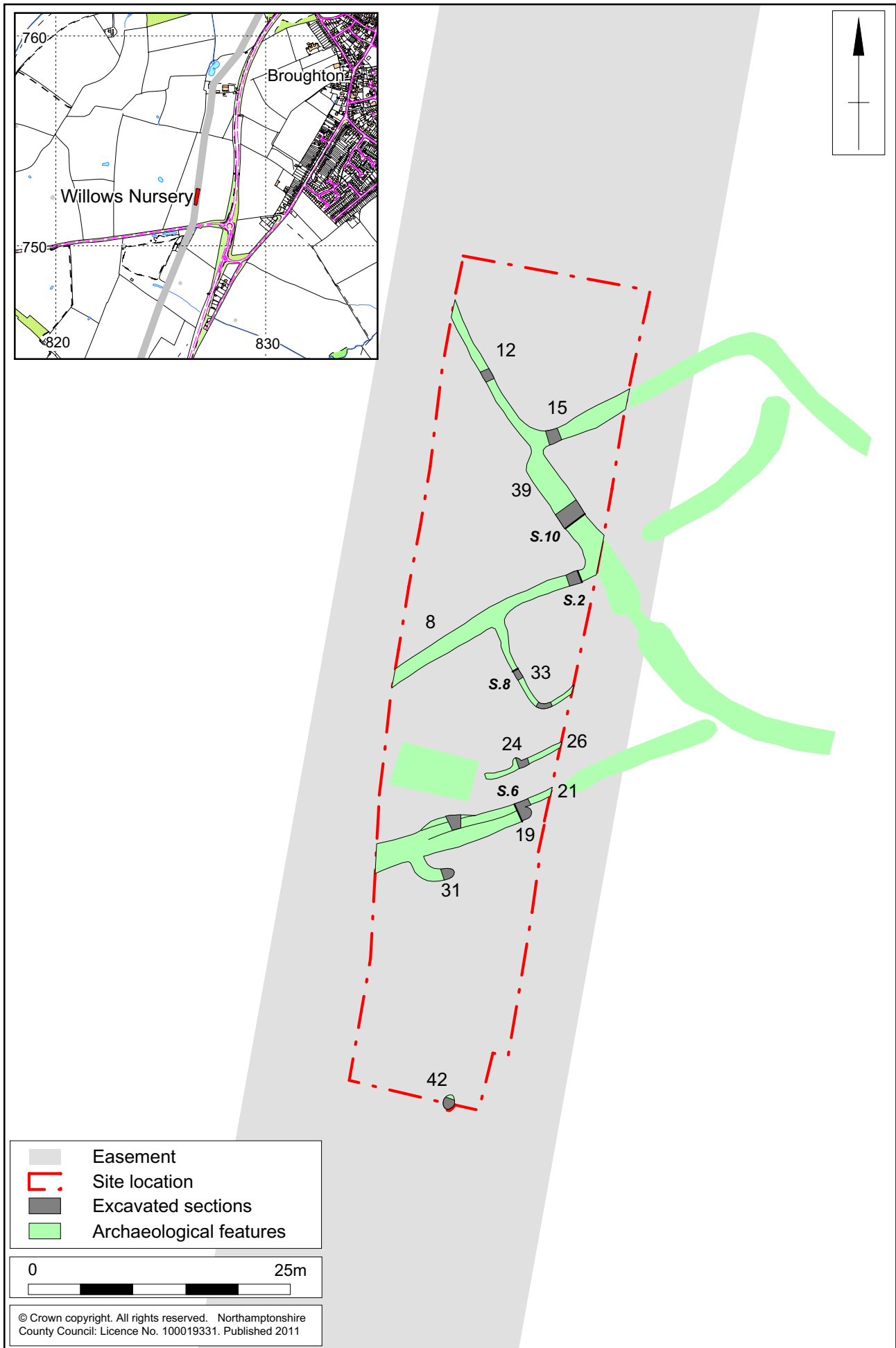
A series of linear ditches, sharing the same alignments as the enclosure, appear to define a series of rectangular plots or paddocks lying the west of the enclosure.

Ditch 12, continued the line of the western arm of the enclosure northwards. It was a narrow, U-shaped ditch, 0.9m wide by 0.32m deep, with a fill of mid greyish-brown silty clay (11), containing sherds of late Iron Age pottery.

Ditches 8 and 19, spaced 15m apart, ran westwards from the enclosure, defining an elongated plot, with the enclosure entrance at the eastern end.

Ditch 8 had a steep, V-shaped profile, 1.25m wide by 0.65m deep (Fig 4.17, Section 2). The primary silting, from erosion of the sides, was mid bluish-grey silty clay (7). The secondary fill of charcoal-flecked brownish-grey silty clay (6), contained several burnt cobbles, middle to late Iron Age pottery and animal bone. Several of the sherds came from the same vessel as sherds from pit 24, some 18m to the south. The upper layer (5) was similar, though less clayey and did not contain any finds.

A short, curving length of ditch, 31, was cut by the boundary ditch, 19, indicating that the boundary was a later addition. Ditch 19 had steep sides and a broad, flat base, 1.2m wide by 0.47m deep, with a sequence of fills similar to ditch 8 (Fig 4.17, Section 6; Fig 4.18). Ditch 19 terminated to the east, suggesting that there may have been an entrance that was later removed when the boundary was recut. The recut, ditch 21, was shallower, at 0.18m deep, with a fill of mid brownish-grey silty clay (20), which contained Iron Age pottery and animal bone (Fig 4.17, Section 6).



Scale 1:500 (inset 1:25,000)

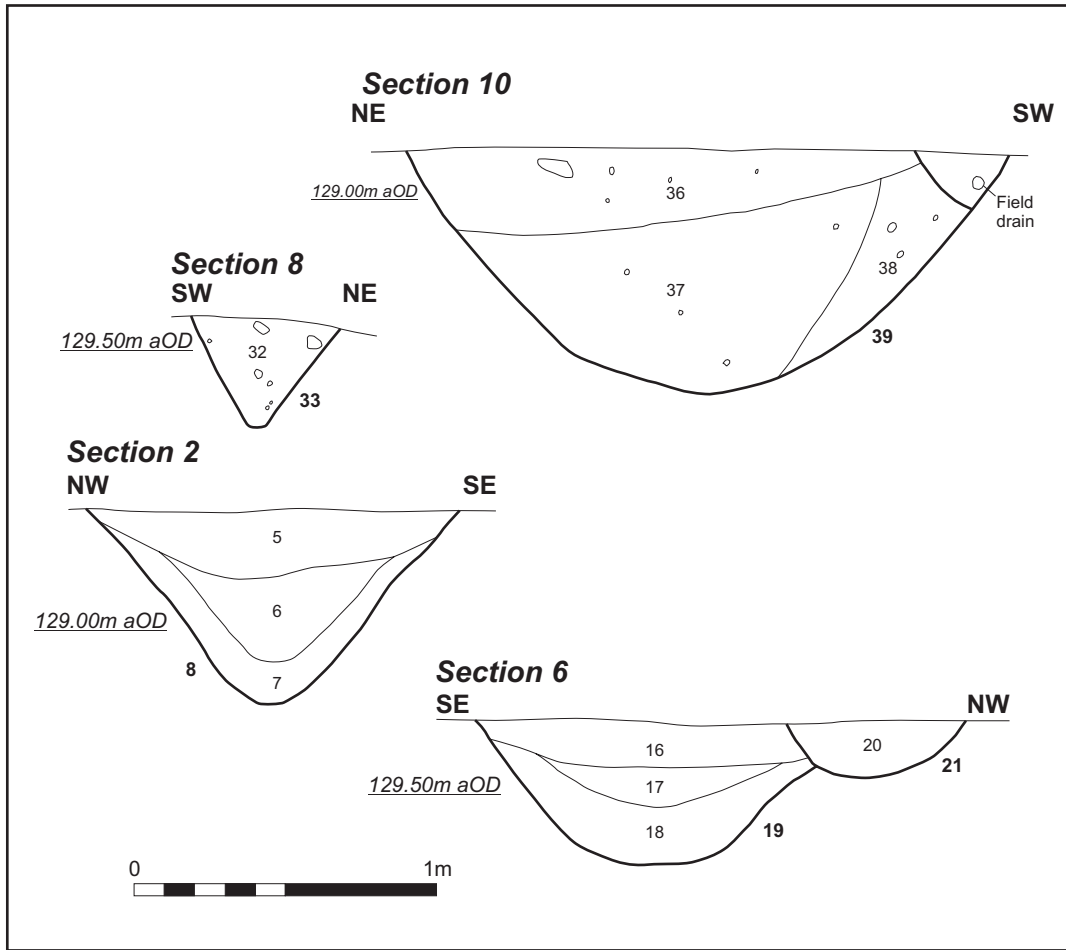
Willows Nursery, Iron Age settlement Fig 4.16

**Other features**

An L-shaped gully, 33, formed a small rectangular sub-enclosure, 11m long by 9m wide, in the angle between ditch 8 and the main enclosure ditch. The gully was 0.5m wide by 0.36m deep (Fig 4.17, Section 8). The fill of dark grey, almost black silty clay (32), was considerably darker than the fills of the other ditches, and contained small amounts of middle to late Iron Age pottery, charcoal, animal bone and burnt stones, suggesting occupation within and around the sub-enclosure.

To the south, a length of gully, 26, may have flanked the original entrance through the southern boundary, ditch 19. A pit, 24, cut into the edge of gully 26, was steep-sided with an almost flat base, 0.8m diameter by 0.37m deep. The primary fill of mid brownish-grey silty clay, (23), was overlain by a darker brown, charcoal-flecked silty clay, (22), containing small burnt cobbles, sherds of Iron Age pottery and fragments of animal bone, again indicative of nearby occupation.

Pit 42, which lay at the southern end of the site, was oval and bowl-shaped, 1.4m long by 1.1m wide and 0.24m deep. The primary fill of mid greyish-brown silty clay (41) was overlain by a deposit of dark grey, almost black silty clay (40), containing flecks of charcoal, fragments of fired clay and small sherds of degraded pottery, which disintegrated when lifted. The debris within the pit may have come from a clay-domed oven or kiln.



Scale 1:25

Willows Nursery, Sections of enclosure ditches Fig 4.17



Willows Nursery, ditch 19 and gully 21, looking south-west Fig 4.18

## 4.7 Finds from the Iron Age settlements

### 4.7.1 Iron Age pottery by Andy Chapman

#### Seaton

A total of 204 sherds, weighing 756g, of hand-built pottery was recovered (Table 4.1). The majority of the context groups comprise less than 10 sherds, and the degree of fragmentation is indicated by the average sherd weight of only 3.7g. Only two groups exceed 100g in weight.

Table 4.1: Quantification of Iron Age pottery from Seaton

Context/feature	sherds	weight (g)	sherd families	Sherds/fabric	Comments
2	42	170	2	42 sandy	Thick flat base
6/7	6	23	1	6 shelly	Fine rounded rim
				2 grog	Plain body
13/14	6	30	3	4 shelly	Plain body
23/25	8	8	1	8 shelly	fragments
				1 sandy	Lightly scored
27/30	5	15	2	4 shelly	Plain body
				1 grog	
29/30	17	81	4	16 shelly	
38/40	1	2	1	--	fragment
39/40	1	3	1	1 shelly	fragment
41/45	10	18	2	10 shelly	Plain body
				4 grog	Comb decorated
46/47	26	56	6	22 shelly	(1st century AD)
				5 shelly	Comb decorated
52/54	5	10	1		(1st century AD)
55/57	2	17	2	2 grog	Base and body
63/66	6	19	2	6 grog	Body and flat rim
64/66	1	5	1	1 grog	Body
				2 grog	Body
70/72	10	30	3	8 shelly	
				8 sandy	Body
73/75	26	133	5	18 shelly	
74/75	1	3	1	--	Small fragment
				2 sandy	Small bowl,
78/80	2	18	1		fine everted rim
				1 grog	Thickened
79/80	14	69	1	13 shelly	rounded rim
				2 grog	Footring base
				1 sandy	(1st century AD)
85/86	15	46	4	12 shelly	
				<b>127 shelly</b>	<b>(63%)</b>
				<b>54 sandy</b>	<b>(27%)</b>
<b>Totals</b>	<b>204</b>	<b>756</b>	<b>44</b>	<b>21 grog</b>	<b>(10%)</b>

Shelly fabrics are dominant, at 63%, although in many cases the shell has been lost to leaching. Sandy fabrics, typically with very fine and sparse rounded quartz inclusions, make up 27% of the assemblage, and fabrics containing small rounded pellets of grog form 10% of the group. The vessels typically have grey-black cores and inner surfaces. The outer surfaces vary from orange-brown to grey, but with the oxidised colours slightly dominating. The surfaces of the shelly sherds are pitted with voids, where the shell has



been lost, but the sandy and grog tempered wares are typically hard with smoothed surfaces.

The majority of the sherds are undiagnostic plain body sherds. The few rim sherds are mainly from small, thin-walled vessels, and include simple flat and rounded rims. A single vessel, from the fill (79) of pit 80, has a thickened rounded rim, although too thick and poorly executed to be called a bead rim. A single small sherd from the fill (27) of pit 30 has lightly scored decoration, typical of middle to late Iron Age assemblages. Sherds from the fill (46) of pit 47 and the fill (52) of pit 54, are probably from the same vessel, which is thin-walled and decorated with fine, shallow comb impressions. This would date no earlier than the early decades of the 1st century AD. Many contexts also contain sherds from small, thin-walled vessels, which are characteristically in a shelly fabric that is dark grey throughout. This material includes a footring base, 70mm diameter, from a small, thin-walled vessel in a shelly fabric from the fill (85) of pit 86, which would also date no earlier than the early decades of the 1st century AD.

While an origin in the middle Iron Age cannot be ruled out, it would seem most likely that this assemblage dates to the late Iron Age, perhaps spanning the 1st century BC to the early decades of the 1st century AD.

### **Caldecott**

Three contexts produced 54 sherds, weighing 667g (average sherd weight 12.4g), of hand-built pottery dated to the middle to late Iron Age.

The entire assemblage is in a fabric with a slightly soapy texture that contains frequent small rounded pellets of red-brown grog, typically c 1-2mm in diameter but with sparser pieces of up to 3-4mm diameter.



Caldecott, rim and base of scored ware jar from gully 36 (Scales 20mm) Fig 4.19

The fill (16) of pit 17 and the fill (45) of gully 47 both contained small assemblages of body sherds lacking diagnostic features. The fill (35) of gully 36, contained a large group of diagnostic material comprising large sherds, some joining, from either one or two scored ware storage jars, with walls 8-9mm thick. The flat base of one jar is 110mm in diameter, with sharply defined scored decoration running to the base of the vessel, while the scored sherds from the upper body have been eroded, so that the scoring has been partly lost (Fig 4.19). This may suggest that they derive from a single vessel that had been partially buried in the floor of a roundhouse, resulting in differential wear between the exposed upper body and the protected base. The upper part of the vessel is rounded, and has a simple upright rounded rim, 250mm in diameter, above a short slightly concave neck (Fig 4.19).

Scored ware is characteristic of middle Iron Age assemblages in Northamptonshire and the adjacent areas of the surrounding counties, but grog tends to occur only in later Iron Age assemblages. It is therefore suggested that the assemblage, which is all grog tempered, dates to the late middle to late Iron Age, perhaps the 2nd into 1st centuries BC.

### ***Swinawe Barn, Corby***

This site produced a large and well-preserved assemblage of 1,809 sherds (weighing 13.9kg) of hand-built pottery, of the middle Iron Age. Pottery was recovered from 56 contexts, but only 16 of these produced totals in excess of 100g, and just six contexts produced more than 500g of pottery. The average sherd weight is 8g. This is above average for Northamptonshire sites, where the assemblages usually contain a substantial proportion of shelly ware, which often loses much of the shell to leaching and tends to fragment and laminate. In this assemblage the higher than average sherd size reflects the presence of many larger sherds that provide clear indications of vessel form, although no full profiles could be reconstructed.

#### **Fabric**

Four fabric groups have been identified by simple visual inspection:

- 1 Coarse shelly: containing dense coarse shell, often 5mm or more across. A soft fabric, often with abraded surfaces and a corky texture due to leaching of the shell. 1392 sherds, 77%
- 2 Fine shelly: a hard fabric containing finely crushed shell (c 1mm), typically used in smaller thinner-walled vessels with smoothed surfaces. 162 sherds, 9%
- 3 Sandy: a hard fabric containing fine sand giving a coarse surface texture, but without quartz inclusions larger than 1mm. 219 sherds, 12%
- 4 Grog and fine shell: a hard fabric containing dense small pellets (1-2mm) of rounded red-brown grog together with sparse finely crushed shell (1-2mm). 36 sherds, 2%

The predominant fabric, which makes up three-quarters of the assemblage, contains quantities of large crushed shell, with these vessels often larger, thick-walled (8-12mm thick) storage jars, both plain and scored.

There is a smaller quantity containing sparse finely crushed shell, and these sherds are almost exclusively from smaller, thin-walled vessels (5-7mm), often well-made with smoothed/burnished surfaces. Many of these have grey-black cores and surfaces, but finer vessels with orange-red surfaces are also present.

Sherds in a fine sandy fabric occur occasionally, but the proportion of the assemblage is perhaps exaggerated by the presence of multiple small sherds from single vessels in Roundhouse B (45 sherds from ditch 112) and the northern boundary ditch (102 sherds from ditch 90).

The smallest group is a distinctive fabric containing quantities of grog and some finely crushed shell. This is a hard fabric, and the majority of the sherds come from two ditch sections in Roundhouse B, indicating that the sherds are from only a couple of vessels, both large, thick-walled (10mm) plain jars, with flat bases.

#### Forms and decoration

From the surviving base, body and rim sherds, it is clear that the assemblage comprises a mixture of bowls and jars, with the jars ranging from medium-sized vessels (ie Fig 4.20, 1, 3 & 4) up to larger thick-walled storage jars perhaps around 500mm high (non illustrated); all with simple flat bases.

The majority of the body sherds come from plain vessels, but scored ware comprises 10% of the assemblage by sherd count; a higher than usual proportion. The site mean is boosted by the large proportion of scored ware, 17%, in the assemblage from Roundhouse B.

*Table 4.2: Swinawe Barn, rim form quantification*

Rim form	Number	Percentage
Rounded	17	45%
Flat-topped	11	29%
Fingertip/fingernail decoration	7	18%
Expanded and grooved	3	8%
<b>Totals</b>	<b>38</b>	

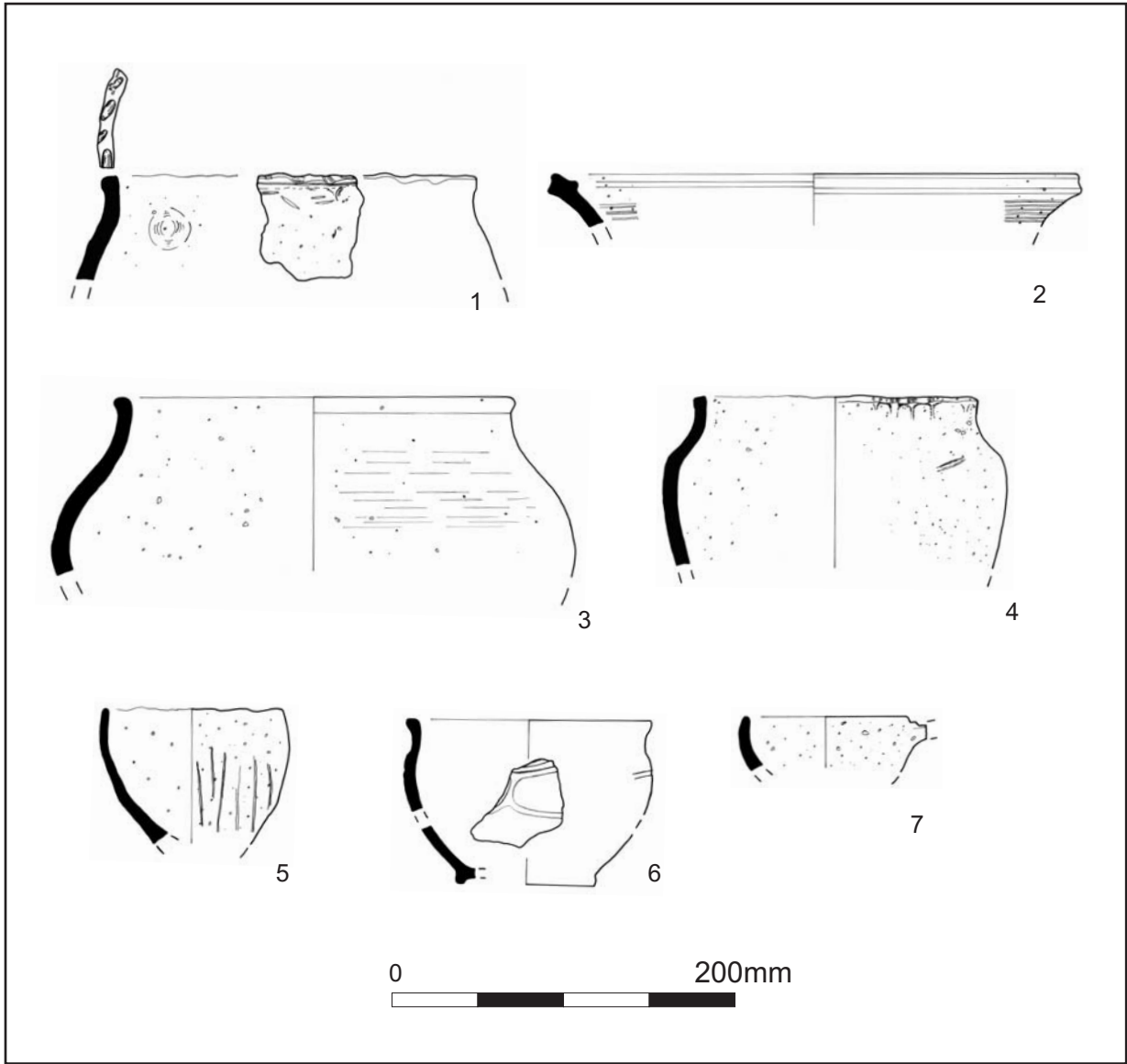
The rims (Table 4.2) are usually simple upright and rounded (17, 45%) or flat-topped (11, 29%). In addition, seven rims (18%) are decorated with fingertip indentations along the top of the rim or oblique fingernail impressions either on the top or the outer edge of the rim (Fig 4.20, 1).

Of particular interest are three squared rims with a shallow groove along the upper surface. In one instance there are grooves along both the upper surface and the outer edge of an exceptionally thick rim from a vessel 310mm in diameter (Fig 4.20, 2). At the base of the surviving sherd the sides are steep, indicating that the flaring rim stood above steep to near vertical sides. This vessel also has horizontal scoring on both the external and internal surfaces.

Examples of similar flared rims, also squared and grooved, have been seen from sites at Great Houghton, Northampton (Chapman 2001, 23, fig 13, 15), Tattenhoe, Milton Keynes (Chapman 2010a, fig 28, 8) and Coton Park, Rugby, Warwickshire (Chapman forthcoming). It appears that this rim form is associated with a particular vessel type, a large diameter bowl with steep sides and a flaring squared rim with at least a grooved upper surface. While these vessels are present at a number of Midland sites, they only occur in small quantities, usually no more than one vessel per assemblage. It may be tentatively suggested that this vessel form is associated with dairying, perhaps similar to the open and even larger diameter bowls, or pancheons, of the medieval and post-medieval periods.

The profiles of the jars range from slack-shouldered examples (Fig 4.20, 1 & 3) where there is little distinction between the body and the neck, to jars with pronounced shoulders and a well-defined neck (Fig 4.20, 4).

The majority of the scored ware comprises thick-walled sherds that are probably from large storage jars, but there is also at least one small bowl with scored decoration, and this example was particularly poorly made, with a very uneven surface and rim (Fig 4.20, 5).



Scale 1:4

Swinawe Barn Iron Age pottery Fig 4.20

A rare occurrence are sherds from a small bowl with a flat rim, a concave neck, smoothed/burnished surfaces and a footring base (Fig 4.20, 6) The body has impressed curvilinear decoration but, unfortunately, too little survives to reconstruct the full decorative pattern. There is a shallow groove at the base of the neck, and there may have been a chain of ovals running around the body.

There are also sherds from a small, shallow bowl, 90mm diameter and perhaps 40mm deep (Fig 4.20, 7). This is perhaps better described as a ladle, as a remnant of a 'handle', 15mm in diameter, is attached immediately below the rim, although a non-joining fragment of handle is curved, suggesting this may have been a thin lug also attached to the lost lower body.

#### Pottery distribution

A majority of the larger pottery groups, totalling 70% of the site assemblage, came from Roundhouse B, and some of these groups comprise multiple sherds from single vessels, but with few joins. This material was concentrated in the ditches towards the east, nearest the presumed entrance, but the actual ditch terminals, where pottery tends to occur in the greatest quantity had been lost beneath a later ditch. A further 13% of site assemblage came from the pits, particularly pit 83, lying within this ring ditch (Table 4.3).

In contrast, Roundhouse A, which was similar in size to Roundhouse B, produced only 335g of pottery (2% of the assemblage), and Roundhouse C, a small ancillary building, produced only 10 small sherds.

The rest of the assemblage comprised small groups of pottery from the boundary/enclosure ditches at the northern and southern ends of the site and from the scatter of pits and other features.

*Table 4.3: Quantification of Iron Age pottery from Swinawe Barn by feature group*

Feature Group	Sherds	%	Weight (g)	%	Scored ware (sherds)	%	Scored ware % of assemblage
Roundhouse A	85	5%	335	2%	4	2%	5%
Roundhouse B	966	53%	9657	70%	166	89%	17%
Roundhouse B internal pits 85 (& 83)	316	17%	1787	13%	12	6%	4%
Roundhouse C	10	1%	41	0.3%	0	0	0
Northern enclosure ditch (92 & 95)	143	8%	483	3%	0	0	0
Southern enclosure ditches (46 & 22/48)	38	2%	120	1%	4	2%	11%
Slot 52	125	7%	544	4%	0	0	0
Other features	126	7%	917	7%	1	1%	1%
<b>Totals</b>	<b>1809</b>		<b>13884</b>		<b>187</b>		<b>10%</b>

#### The assemblage from Roundhouse B

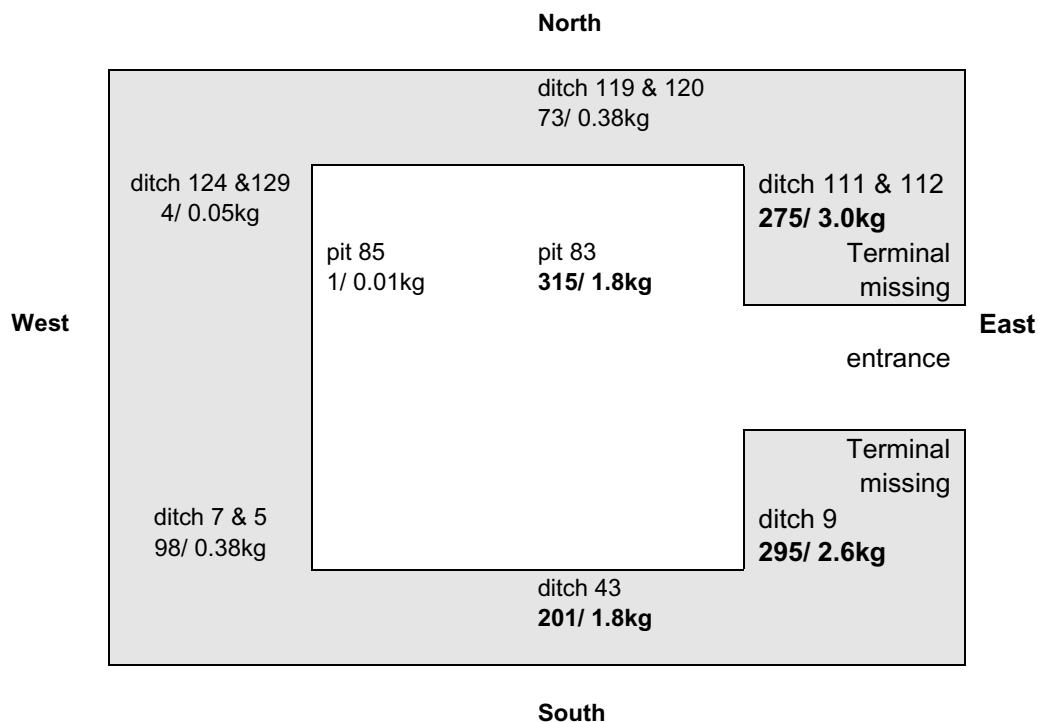
The fill near the southern ditch terminal, 9, produced 2.6kg of pottery, which comprises the partial remains of at least 15 vessels (Table 4.4). A large part of the assemblage is thick-walled shelly body sherds from both plain and scored ware jars. However, there were small numbers of sherds from several smaller bowls or jars. The ten rim sherds include six rounded, three flat-topped and one decorated with closely spaced fingertip impressions. Of particular interest are the sherds from a small bowl with impressed curvilinear decoration (Fig 4.20, 6). The group also includes several sherds from flat bases. The largest of these is 150mm diameter, while the base from a particularly thick-walled jar containing dense large shell is 110mm diameter.

From the southern arm of the ditch, 43, there is another substantial group, weighing 1.8kg. While this contains sherds from perhaps ten vessels, the majority of the sherds are from only two vessels. There is the entire flat base, 130mm diameter with a domed internal surface, 10-15mm thick, and the lower body of a thick-walled plain jar in a fabric containing dense large shell. In contrast, there is 80% of the rim and upper body of a small jar, 110mm diameter (Fig 4.20, 5). The rim is very uneven and irregular, varying from flat to rounded. The body is similarly rough and uneven and has lost part of the original surface, which was scored. The assemblage also includes small numbers of sherds from other vessels, including part of a large lug, and a rim with fingertip impressions.

The later cut west of the northern terminal, 112, produced 3kg of pottery comprising a wide range of vessels. Of the nine rims five have a range of finger-impressed decoration, and all of these are vessels with deep concave necks. The distinctive open bowl with a broad, grooved rim (Fig 4.20, 2) also came from this deposit. There are also numerous sherds from scored ware vessels. The fabrics are typically shelly, but there are also coarse sandy fabrics and a hard fabric contained grog and fine shell.

The fills of pit 83 within Roundhouse B produced nearly 2kg of pottery. The lower fill contained sherds from one or two large thick-walled, flat-based scored ware jars, although many of the sherds were heavily abraded leaving little or no trace of the scoring. There were also sherds from a small, shallow vessel with a remnant of either a handle or a lug, with may have been a ladle or spoon (Fig 4.20, 7). Nearly 1kg of pottery in the upper fill largely came from the body of a thick-walled, poorly preserved scored ware jar in a distinctive fabric containing shell and large rounded pellets of limestone, often 5-8mm in diameter.

Table 4.4: Diagrammatic illustration of the pottery distribution in Roundhouse B (sherds/weight)



Chronology

This group of pottery is a classic Midlands scored ware assemblage of the middle Iron Age, exhibiting all the characteristics of the type. Indeed, it is rare to see such a display of characteristics on the often poorly-preserved assemblages that come from so many

Northamptonshire sites. The group includes a high proportion of rims with fingertip and fingernail decoration and a high proportion of shouldered jars with long concave necks, characteristics, and these are considered to be typical of earlier assemblages, 4th-3rd centuries BC (Jackson 2010, ). However, the presence of a majority of darker coloured vessels, many without distinct necks, as well as vessels with smoothed surfaces and a curvilinear bowl with a footring base, is more suggestive of a date between the 1st century BC and the early 1st century AD. This date is also consistent with the radiocarbon date obtained from Roundhouse B, which spans the late Iron Age to early Roman periods (Table 4.19). The combined evidence indicates a period of occupation from the late 1st century BC into the early decades of the 1st century AD.

Illustrated Iron Age pottery from Swinawe Barn (Fig 4.20)

- 1 Jar; with upright flattened rim decorated with alternating fingernail and fingertip impressions. Fabric 4, dark grey core and mottled grey and brown surfaces. Fill (121) of ditch 112, Roundhouse B
- 2 Open bowl; steep-walled flared rim is thickened and grooved; decorated below the rim with horizontal scoring on both surfaces. Fabric 2, grey-black with grey-black surfaces. Fill (121) of ditch 112, Roundhouse B
- 3 Rounded bowl, Fabric 1, grey core and brown to grey-brown surfaces. Fill (6) of ditch 7, Roundhouse B
- 4 Shouldered jar, rounded rim, Fabric 1, dark grey core and mottled grey-brown surfaces. Fill (121) of ditch 112, Roundhouse B
- 5 Scored ware bowl, Fabric 1, grey core with orange-brown surfaces. Fill (42) of ditch 43, Roundhouse B
- 6 Bowl with flattened rim, footring base, smoothed/burnished surface and curvilinear decoration. Fabric 2, dark grey core, grey to grey-brown surfaces. Fill (8) of ditch 9, Roundhouse B
- 7 Bowl with handle/lug, rounded rim. Fabric 2, grey core and orange-brown surfaces. Fill (99) of pit 83 within Roundhouse B

### ***Thorpe Malsor***

Two of the upper fills of a large ditch [18] produced small quantities of hand-built pottery, a total of only 18 sherds and some crumbs, weighing 42g.

Fill (80) contained 14 sherds and a mass of small crumbs, weighing 30g, from a single vessel. The sherds are thin walled, 4-5mm thick, with a light grey core and mottled grey to brown surfaces. The fabric had contained quantities of crushed shell, but this had been lost to leaching, leaving the sherds friable and crumbling. The majority of the sherds are plain body sherds, but a single angled sherd may be from a thickened inturned rim of unusual form.

From fill (16) there are four sherds and some crumbs, weighing 12g. Three of the sherds and the crumbs are very similar to the material from fill (80), but from a thicker-walled vessel, 7-8mm thick.

In addition, there is a single small sherd that is uniformly dark grey and containing only sparse small voids from the loss of fine shell inclusions. The uniform fabric, the small diameter of the internal surface and a distinct vertical angle on the external surface suggest that this sherd has come from a crucible, probably of the characteristic triangular form used in the Iron Age for copper alloy casting. If so, the state of the fabric suggests that it had fashioned as a crucible but had not been used.

This very small group offers few diagnostic features, but the general characteristics are broadly appropriate for the early-middle and middle to late Iron Age, anywhere between 400BC and the early decades of the 1st century AD.

### **Willows Nursery**

There is a small assemblage of 39 sherds, weighing 221g, with an average sherd weight of 5.7g, which can be broadly dated to the middle/late Iron Age.

Most context groups comprise only two or three small sherds of hand-built pottery in shelly fabrics, with no diagnostic features. However, a small group of eight sherds from the fill (6) of ditch 8, included a simple rounded rim, while the fill (22) of pit 24, contained joining sherds from a plain jar with no defined neck and a flat-topped rim weighing 100g (nearly half of the total assemblage) (Fig 4.21). The vessel has a rim diameter of c 300mm, indicating that it was a large storage jar, with walls 10mm thick. The fabric is devoid of mineral inclusions, and is dark grey with an oxidised, brown, external surface. The form is typical of the later middle Iron Age. Two joining sherds from the fill (30) of gully 31 come from the concave neck of a thinner-walled and better finished, perhaps wheel-finished jar, in a fabric containing angular flint inclusions, with orange, oxidised surfaces.

The assemblage may date to the later middle Iron Age (2nd to 1st centuries BC), with a possibly continuation into the 1st century AD, but a definitive conclusion is hindered by the small size of the group.



Willows Nursery, rim of a large storage jar from pit 24 (Scale 20mm)

Fig 4.21

#### **4.7.2 Fired clay** by Pat Chapman

##### **Seaton**

Just five fragments of fired clay, weighing 33g, were recovered from four late Iron Age contexts at Seaton 2. They are irregular, composed of fine silty clay with occasional calcareous inclusions, ranging from soft pink to hard grey.

##### **Swinawe Barn**

An assemblage of 92 fragments of fired clay, weighing 964g, came from nine contexts (Table 4.5). The fabrics are typically sandy orange or reddish clay or fine orange clay, with flint and other calcareous inclusions, and can be very hard or slightly soft.



Two hard irregular black fragments, from Roundhouse B and pit 154, each have a wattle impression, 20mm and 13mm in diameter. A heavy curved wrinkled lump exposed to high temperatures, was also from Roundhouse B. Some fragments have quite smooth, though slightly uneven, surfaces on one side, perhaps from the surface of a superstructure.

Table 4.5: Quantification of the fired clay from Swinawe Barn

Context/ Feature	Feature group/type	No	Weight (g)	Comment
4/5	Roundhouse B	2	14	
8/9	Roundhouse B	11	100	7 smooth brown flattish surfaces
73/75	Roundhouse A	11	21	
76/78	Roundhouse A	1	4	
114/119	Roundhouse B	3	140	1 c 70x60x20mm thick
121/112	Roundhouse B	36	370	80x40x30 rounded, heavy, smooth and wrinkled; wattle imp 20mm diam
152/154	Pit	19	217	Wattle imp 13mm diam
152/154	Pit	8	70	
153/154	Pit	1	28	
<b>Totals</b>		<b>92</b>	<b>964</b>	

These small fragments are scattered debris derived from various activities and structures, such as open hearths or closed oven, with a particular concentration in the ditch of Roundhouse B.

## 4.8 Faunal and environmental remains from the Iron Age settlements

### 4.8.1 Human bone by Sarah Inskip

An undated cremation burial was discovered during the watching brief in Field 33:01, to the south of Thorpe Road. The recovered bone is underweight, at 102g (Table 4.6), since adult cremations weigh 1-3kg and juveniles around 0.5kg (Trotter and Hixon 1974), but as a proportion of the bone was most probably lost during machining the recovered quantity does not reflect the original deposition.

Table 4.6: Weight of cremated bone deposits by fragment size from Thorpe by Water

Total weight	>10mm	>5mm	>2mm	>1mm	<1mm
102g	32g	31g	25g	8g	<1g

The bone consists entirely of white fragments, which indicates a pyre temperature exceeding 600°C (Brickley and McKinley 2004). Observable bones include skull and mandible in addition to phalanges, long bone fragments and the atlas. Fused phalanges indicate an individual over 14 years of age (Scheuer and Black 2000, 466), and some apophyseal facet remodelling and pronounced palmer flexor attachments on the phalanges, indicate a more mature adulthood. It is unlikely that more concise estimates can be found as the major indicators of age (pubis, auricular surface and the occlusal surfaces of teeth) are not present. No information is observable for sex. There are no notable pathologies except for the minor apophyseal remodelling of bone.

#### 4.8.2 *The animal bone* by Matilda Holmes and Karen Deighton

Animal bone was recovered from several Iron Age settlements (Tables 4.7 and 4.8, after Deighton 2010), but only the assemblage from Swinawe Barn, Corby was sufficiently large to permit further analysis beyond the assessment stage. This assemblage has been fully recorded and analysed to provide an indication of the animal husbandry practices adopted at the settlement.

Table 4.7: Presence of major domesticates and ungulates (hoofed animals) for Iron Age sites

Site	Cattle ( <i>Bos</i> )	Sheep/goat ( <i>Ovicaprid</i> )	Pig ( <i>Sus</i> )	Horse ( <i>Equus</i> )	Small ungulate	Large ungulate
Seaton 2	18	33	1	1	7	3
Caldecott	2	1	-	-	-	1
Swinawe Barn	244	141	65	28	28	31
Thorpe Malsor	133	96	11	19	25	13
<b>Total</b>	<b>397</b>	<b>271</b>	<b>77</b>	<b>48</b>	<b>60</b>	<b>48</b>

Table 4.8: Presence of minor domesticates and wild species for Iron Age sites

Site	Dog ( <i>Canis</i> )	Domestic fowl	Bird	Small mammal	Amphibian	Water vole
Seaton 2	-	-	-	-	-	1
Thorpe Malsor	19	3	1	1	1	-
<b>Total</b>	<b>21</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>1</b>

#### **Methodology**

The following methodology was followed in the analysis and recording of the animal bone assemblages of all periods recovered from settlements along the pipeline. Bones were identified using the author's reference collection. Due to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/goat', unless a definite identification (Prummel and Frisch 1986; Payne 1985) could be made.

Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (small: rodent/rabbit sized; medium: sheep/pig/dog size; or large: cattle/horse size). Ribs and skull fragments were not identified to species with the exception of the maxilla, zygomatic arch and occipital areas of the skull.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Silver (1969), as were bone fusion (Amorosi 1989; Silver 1969), metrical data (von den Driesch 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery (Lauwerier 1988) and working. The condition of bones was noted on a scale of 1-5, where 1 is perfectly preserved and 5 the bone is so badly degraded to be almost unrecognisable (Lyman 1994). Other taphonomic factors were also recorded, including the incidence of burning, gnawing, recent breakage and refitted fragments.

The animal bone recovered from bulk soil samples was also examined, but because of the highly fragmentary nature of such material a selective process was undertaken, whereby fragments were recorded only if they could be identified to species and/or element, or showed signs of taphonomic effects. All fragments were recorded, although articulated or associated fragments were entered as a count of 1, so they did not bias the relative frequency of species present. Details of such associated bone groups were recorded in a separate table. The bones of small species largely belonged to amphibians or rodents that have a tendency to burrow, so are probably intrusive.

Bones from all sites were in fair to good condition, although they were extremely fragmentary; nearly half of all assemblages consisted of fragments identifiable as 1 or

fewer zones (Table 4.9). This is perhaps not surprising, given that a high proportion showed signs of fresh breakage from excavation from a stiff clay matrix, and a large number of fragments could be refitted, indicating that burial conditions rendered the bones friable, causing them to fragment.

Taphonomic factors affecting the bones were also similar from all sites. A high proportion showed signs of gnawing, mostly by dogs, but also rodents, which may explain the low numbers of butchery marks observed, given the obliteration of many of the ends of bones. Additionally, over five times as many loose teeth were recovered to those that remained within the mandibles, and this, coupled with the high number of gnawed bones indicates that many of the bones were not buried immediately after use. Instead, they were available for dogs to chew, and the mandible's connective tissue surrounding the teeth had enough time to decay, and the teeth to fall out of the jaw. Very few fragments showed signs of burning, indicating that they were not routinely exposed to fire, either through processing or as a means of disposal.

*Table 4.9: Swinawe Barn: Animal bone condition and taphonomy*

<b>Condition</b>	<b>No of bones</b>	<b>Taphonomy</b>	<b>Percentage</b>
Excellent 1	1	Butchery	9
Good 2	122	Gnawing	23
Fair 3	190	Fresh break	30
Poor 4	35	Burning	3
Bad 5	3	Refit	48 (184)
Total	351	loose teeth: mandibles*	55:13

\* mandibles with 2 or more molars

### ***Swinawe Barn, Corby***

The majority of animal bone was recorded from Roundhouse B, although numerous fragments also came from other ditch, pit, slot and posthole features (Table 4.10). All were dated to the period of the Iron Age settlement. Preservation was poor, but the identified assemblage was considerable and worth comparing with other sites in the region.

*Table 4.10: Swinawe Barn, number of identified bones fragments by feature*

<b>Feature</b>	<b>No</b>
Ditch	91
Pit	74
Postholes	15
Ring Ditch A	19
Ring Ditch B	874
Ring Ditch C	1
Slot	32
Tree Bole	5
Total	1111

### **Carcass representation and butchery**

All parts of the carcass were represented, although they were not present in proportions that would be expected if complete carcasses had been deposited. Statistically, the percentage similarity with a standard given for the likely recovery of elements from a complete carcass was very low, between 22% and 27% for cattle, sheep and pigs (Brain

1981). This implies that some redistribution of carcass parts occurred, and the elements deposited in the ring ditch of Roundhouse B were not the result of the processing and deposition of complete carcasses. When the proportions of parts of the carcass present are analysed (Table 4.11), it is evident that for all three of the major species, there are greater numbers of the higher meat bearing bones (skull and upper limbs for all species, and lower cattle limbs), and fewer of the lower meat bearing bones (lower limbs, vertebrae and feet).

As noted above, butchery marks were infrequent, the majority (81%) were made by a chopper-type implement to disarticulate, joint and fillet the carcass. The rest were knife marks often recorded around joints such as the hock (on astragali and calcanei) and shoulder (humerus) indicative of disarticulation, but also on metapodials, which is more consistent with removal of the skin. The majority were observed on cattle bones, but pig and sheep bones were also affected. Several vertebrae had been chopped bilaterally, ie one or both sides had been chopped through, leaving the body intact.

The evidence points to this being an assemblage of domestic origin, that is, one resulting from food preparation and mealtime refuse. Both in the nature of the bones present, coming from high meat bearing elements, and bearing butchery marks, as well as a relative absence of horn cores and sheep and pig lower limb bones, which are often removed from these species with the skin, which seems to have been taken elsewhere for processing.

#### Species representation and diet

Only a limited range of domestic species were recovered, which is surprising given the reasonable size of the assemblage, and suggests a real dearth of wild species from the diet of the inhabitants. Cattle were present in almost half the assemblage, then sheep and pigs. Horse and dog were also present, but in far smaller numbers (Table 4.12). Few samples were available, and again were devoid of wild species, with only two pig bones (phalange and maxilla fragment) recovered.

*Table 4.11: Swinawe Barn, representation of the main domesticates (epiphysis only)*

<b>Element</b>	<b>Cattle</b>	<b>Sheep</b>	<b>Pig</b>
Horn Core	6	1	--
Occipitale	3	3	1
Zygomaticus	2	--	2
Mandible	11	3	5
Scapula	14	3	6
Humerus P	3	--	--
Humerus D	6	3	2
Radius P	10	3	6
Radius D	7	--	--
Ulna	5	2	3
3rd Carpal	1	--	--
Pelvis	8	3	2
Femur P	6	2	1
Femur D	4	3	2
Tibia P	8	4	3
Tibia D	11	6	4
Calcaneum	6	1	2
Metatarsal D	3	1	--

Element	Cattle	Sheep	Pig
Metacarpal D	6	--	1
Metacarpal P	8	2	1
Metatarsal P	9	--	1
1st phalange	2	1	1
2nd phalange	3	--	1
3rd Phalange	1	--	--
Atlas	2	--	--
Axis	2	2	1
Cervical	--	3	--
Thoracic	2	4	--
Lumber	--	7	--
Sacrum	1	1	2
Caudal	4	--	--
Total	154	58	47

Table 4.12: Swinawe Barn, animal bone species representation (NISP)

Species	n	%
Cattle	404	49
Sheep/ Goat	207	26
Sheep	4	
Goat	1	
Pig	150	18
Horse	58	7
Dog	2	-
Total Identified	826	
Unidentified Mammal	639	
Large Mammal	704	
Medium Mammal	528	
Total	2697	

This site falls within the parameters recorded for the region by Hambleton in her review of Iron Age sites in Britain. The proportion of cattle is towards the higher end of those observed, but this is also consistent with the underlying boulder clay geology, which appears to have been related to the preferential keeping of cattle over sheep (Hambleton 1999, 46-48).

#### Animal husbandry

Most ageing data came from the fusion of long bones. The majority of cattle had been culled at prime meat age, before reaching 3 years of age. This was reflected by the tooth wear data, which came from mandibles at wear stages D/E, E and two at G (after Hambleton 1999). The remainder were probably kept alive for secondary production such as milk, traction or breeding. The fusion data indicate that a high proportion of the sheep/goat population were mature at death, however, the tooth wear data was slightly different to this, coming from animals at stages D, F and G, those at stages D and F were from juvenile animals presumably slaughtered for meat. This contrast between fusion and tooth wear data may be due to the small sample size, or poor preservation of more porous bones from younger animals, combined with the destruction of the ends of the

bones by dogs. Pigs had generally not reached maturity, which is a common strategy for culling animals for meat which are of limited use for secondary products.

All horse bones were fused, indicating that they were important for transport or draught purposes.

#### Discussion

The animal economy of the Iron Age settlement at Swinawe Barn is consistent with findings of other sites in the region, one based on cattle husbandry, and the keeping of cattle, sheep and pigs for meat production, although a number of older cattle and sheep implied their use for breeding or small-scale secondary products such as traction and wool production. These patterns are consistent with a subsistence-based economy (Bogaard 2005, 187).

### 4.8.3 *Charred plant remains* by Val Fryer

Excavations along the route of the pipeline investigated nineteen sites of all periods, from which 115 bulk soil samples were taken for the retrieval of plant macrofossils and other ecofacts. Of this number, 52 samples were taken from Iron Age contexts at five sites. The aim of the sampling strategy was to recover palaeo-environmental information that could be used to assist in the modelling of past landscapes, so as to gain a better understanding of prehistoric land use and settlement activities. In addition, the soil samples also contained small fragments of animal bone and the bones of small species, which have been reported on separately. All of the bulk samples were processed by NA and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope, at magnifications of up to x16, and those that contained plant macrofossils were sent for assessment.

The plant macrofossils and other remains from Swinawe Barn was the only Iron Age site to produce viable results. All plant remains were charred. Modern contaminants, including fibrous roots, chaff, seeds and arthropod remains, were present throughout. Nomenclature within the tables follows Stace (1997).

#### ***Swinawe Barn***

Thirty-eight samples were taken from fills within three ring ditches, from pit and ditch fills and from a small number of other contexts.

The assemblages from Roundhouse A (Table 4.13) are all very small (ie considerably less than 0.1 litres in volume), with charcoal/charred wood fragments being the principal component throughout. Only three cereal grains are recorded along with a very low density of other remains.

In contrast, although still small, the assemblages from the fills within Roundhouse B (Table 4.14) contain cereals, seeds, nut shell/fruit stone fragments and high densities of charcoal/charred wood, particularly from the sections to the east, ditches [9] and [112]. The composition of these assemblages is consistent with their being derived from small quantities of domestic refuse. It was Roundhouse B that also produced other domestic debris, including quantities of pottery and the majority of the animal bone from the site.

Only four samples were taken from the much smaller structure, Roundhouse C (Table 4.15) and of these, only one (context 142) contains material of note, namely cereal grains/chaff, a moderate density of charcoal/charred wood and a high density of minute pellets of burnt or fired clay. The origin of this material is currently unclear, although the composition of the assemblage would be consistent with a small deposit of hearth waste.

Of the four pit fill assemblages (Table 4.16), only that from pit 83 is of possible note as it contains a moderate density of cereal grains, weed seeds and charcoal/charred wood fragments. As with the above material from Roundhouse B, it would appear most likely that these remains are derived from a small, discrete deposit of domestic refuse. The other pit assemblages contain little, other than charcoal/charred wood fragments.

The six Iron Age ditch assemblages (Table 4.17) are extremely sparse although two, from ditches 19 and 31, do contain individual cereal grains/chaff elements. It would appear most likely that all the remains within the ditch assemblages are derived from scattered or wind-blown refuse, much of which was probably accidentally incorporated within the fills of the features.

The four posthole assemblages and the fill of slot 52 (Table 4.18) are small and almost entirely composed of charcoal/charred wood fragments. As with the ditch assemblages, it

would appear most likely that these remains were accidentally included within the feature fills.

Cereal grains/chaff, seeds of common weeds and wetland plants, and tree/shrub macrofossils were present, mostly at a low density, within fourteen of the assemblages studied. Preservation was variable; the grains/seeds within some assemblages were severely puffed and distorted, probably as a result of combustion at very high temperatures, whilst other remains were very well preserved.

Barley (*Hordeum* sp), wheat (*Triticum* sp) and oat (*Avena* sp) grains were recorded, with barley and wheat occurring most frequently. The wheat grains were mostly of an elongated 'drop' form typical of emmer (*T. dicoccum*) or spelt (*T. spelta*), although a small number of more rounded hexaploid type forms were also noted. Spelt chaff was predominant but bread wheat (*T. aestivum/compactum*) type rachis nodes were also recovered from ditch 19. Asymmetrical lateral grains of six-row barley (*H. vulgare*) were noted within a single sample from pit 83. Oat grains occurred infrequently and most were probably present as contaminants of the main barley/wheat crops.

Weed seeds were generally scarce, with most occurring as single specimens within an assemblage. Seeds of common segetal weeds were predominant, with taxa noted including broom (*Bromus* sp), grass (Poaceae), knotgrass (*Polygonum aviculare*), dock (*Rumex* sp) and vetch/vetchling (*Vicia/Lathyrus* sp). Nutlets/fruits of wetland plants, namely sedge (*Carex* sp) and water chickweed (*Montia fontana*) were also recorded along with occasional fragments of hazel (*Corylus avellana*) nutshell and damson/bullace (*Prunus domestica* ssp *insititia*) type fruit stones. Charcoal/charred wood fragments were present and were frequently the major component of the assemblage.

The fragments of black porous and tarry material, which were present with a number of the assemblages studied, were almost certainly residues of the combustion of organic remains at very high temperatures. Other remains were scarce, but did include bone fragments, some of which were burnt or calcined, possible faecal concretions, small pellets of burnt or fired clay and globules of vitreous material.

Shells of terrestrial and freshwater obligate molluscs were present with a number of the assemblages studied (not tabulated). However, as most retained delicate surface structures and excellent coloration, it was considered most likely that all were intrusive within the contexts from which the samples were taken.



Table 4.13: Swinawe Barn charred plant remains, Roundhouse A

Sample	7	10	11	12	13
<b>Context</b>	<b>49</b>	<b>56</b>	<b>67</b>	<b>69</b>	<b>71</b>
<b>Feature</b>	<b>50</b>	<b>58</b>	<b>68</b>	<b>70</b>	<b>72</b>
<b>Cereals</b>					
<i>Triticum</i> sp. (grains)	x	-	-	-	-
Cereal indet. (grains)	-	-	-	x	-
<b>Other plant macrofossils</b>					
Charcoal <2mm	xxx	xxx	xx	xxxx	xxx
Charcoal >2mm	xxx	xx	x	xxx	xx
Charcoal >5mm	-	xx	-	xx	x
Charcoal >10mm	-	-	-	x	-
Charred root/stem	x	-	-	x	-
<b>Other remains</b>					
Black porous 'cokey' material	-	-	-	-	-
Bone	-	-	-	-	-
Burnt/fired clay	-	-	-	-	-
Small mammal/amphibian bone	-	-	xpmc	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Sample	14	15	16	17	20
<b>Context</b>	<b>73</b>	<b>76</b>	<b>79</b>	<b>61</b>	<b>86</b>
<b>Cereals</b>					
<i>Triticum</i> sp. (grains)	-	-	-	-	-
Cereal indet. (grains)	-	-	-	x	-
<b>Other plant macrofossils</b>					
Charcoal <2mm	xx	xx	xx	xx	xx
Charcoal >2mm	xx	xx	x	xx	x
Charcoal >5mm	xx	x	x	x	x
Charcoal >10mm	x	-	-	-	x
Charred root/stem	-	-	-	x	-
<b>Other remains</b>					
Black porous 'cokey' material	-	-	-	x	-
Bone	-	xb	-	-	-
Burnt/fired clay	x	-	-	-	-
Small mammal/amphibian bone	-	-	-	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## Key to Table

x = 1 – 10; xx = 11 – 50; xxx = 51 – 100 specimens and xxxx = 100+ specimens; cf = compare; fg = fragment; tf = testa fragment; m = mineral replaced; coty = cotyledon; b = burnt

Table 4.14: Swinawe Barn charred plant remains, Roundhouse B

Sample	1	19	23	24
<b>Context</b>	<b>04</b>	<b>42</b>	<b>121</b>	<b>122</b>
<b>Feature</b>	<b>05</b>	<b>43</b>	<b>112</b>	<b>124</b>
<b>Cereals</b>				
<i>Hordeum</i> sp. (grains)	-	-	xcf	-
<i>Triticum</i> sp. (grains)	-	-	x	-
Cereal indet. (grains)	x	x	xx	-
<b>Herbs</b>				
<i>Bromus</i> sp.	-	-	x	-
Small Poaceae indet.	-	x	x	-
<i>Polygonum aviculare</i> L.	-	-	-	-
Polygonaceae indet.	-	-	-	-
<i>Rumex</i> sp.	-	-	x	-
<i>Vicia/Lathyrus</i> sp.	-	-	xcf	-
<b>Wetland plants</b>				
<i>Carex</i> sp.	x	-	-	-
<i>Montia fontana</i> L.	-	-	x	-
<b>Tree/shrub macrofossils</b>				
<i>Corylus avellana</i> L.			x	
<b>Other plant macrofossils</b>				
Charcoal <2mm	xxxx	xxxx	xxxx	xx
Charcoal >2mm	xxxx	xxx	xxx	xx
Charcoal >5mm	-	x	xx	xx
Charcoal >10mm	-	xx	xx	-
Charred root/stem	x	x	x	-
Indet.fruit stone/nut shell frag.	-	x	x	-
Indet.thorn ( <i>Rosa</i> type)	-	x	-	-
<b>Other remains</b>				
Black porous 'cokey' material	x	-	-	-
Bone	x xb	x	xb	-
Burnt/fired clay	x	-	-	x
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.14: Swinawe Barn charred plant remains, Roundhouse B (continued)

Sample	25	26	35
<b>Context</b>	<b>126</b>	<b>114</b>	<b>08</b>
<b>Feature</b>	<b>129</b>	<b>119</b>	<b>09</b>
<b>Cereals</b>			
<i>Hordeum</i> sp. (grains)	-	-	x
<i>Triticum</i> sp. (grains)	-	-	-
Cereal indet. (grains)	-	x	x
<b>Herbs</b>			
<i>Bromus</i> sp.	-	-	-
Small Poaceae indet.	-	-	-
<i>Polygonum aviculare</i> L.	-	x	-
Polygonaceae indet.	-	x	-
<i>Rumex</i> sp.	-	-	-
<i>Vicia/Lathyrus</i> sp.	-	-	-
<b>Wetland plants</b>			
<i>Carex</i> sp.	-	-	-
<i>Montia fontana</i> L.	-	-	-
<b>Tree/shrub macrofossils</b>			
<i>Corylus avellana</i> L.	-	-	-
<b>Other plant macrofossils</b>			
Charcoal <2mm	xxx	xxxx	xxxx
Charcoal >2mm	xx	xxx	xxxx
Charcoal >5mm	xx	xx	xxxx
Charcoal >10mm	x	xx	xx
Charred root/stem	x	x	xx
Indet.fruit stone/nut shell frag.	-	-	-
Indet.thorn ( <i>Rosa</i> type)	-	-	-
<b>Other remains</b>			
Black porous 'cokey' material	-	x	-
Bone	xb	xb	x
Burnt/fired clay	-	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.15: Swinawe Barn charred plant remains, Roundhouse C

Sample	28	29	30	31
<b>Context</b>	<b>139</b>	<b>142</b>	<b>144</b>	<b>150</b>
<b>Feature</b>	<b>141</b>	<b>143</b>	<b>146</b>	<b>151</b>
<b>Cereals</b>				
<i>Triticum</i> sp.(rachis internode)	-	x	-	-
Cereal indet. (grains)	-	x	-	-
<b>Other plant macrofossils</b>				
Charcoal <2mm	x	xx	x	x
Charcoal >2mm	x	xx	-	x
Charcoal >5mm	x	x	-	-
<b>Other remains</b>				
Burnt/fired clay	-	xxx	-	-
<b>Sample volume (litres)</b>	-	-	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.16: Swinawe Barn charred plant remains, pits

<b>Sample</b>	<b>2</b>	<b>9</b>	<b>27</b>	<b>38</b>
<b>Context</b>	<b>15</b>	<b>65</b>	<b>99</b>	<b>163</b>
<b>Feature</b>	<b>16</b>	<b>66</b>	<b>83</b>	<b>165</b>
<b>Cereals</b>				
<i>Avena</i> sp. (grains)	-	-	xcf	-
<i>Hordeum</i> sp. (grains)	-	-	xx	-
<i>H. vulgare</i> L.(grains)	-	-	x	-
<i>Triticum</i> sp. (grains)	x	-	-	-
(glume bases)	x	-	-	-
Cereal indet. (grains)	-	-	xx	-
<b>Herbs</b>				
<i>Bromus</i> sp.	-	-	x	-
Small Poaceae indet.	-	-	xx	-
Polygonaceae indet.	-	-	x	-
<i>Ranunculus</i> sp.	-	-	xcf	-
<i>Rumex</i> sp.	x	-	x	-
<b>Wetland plants</b>				
<i>Carex</i> sp.	-	-	xcf	-
<b>Tree/shrub macrofossils</b>				
<i>Prunus domestica</i> ssp. <i>insititia</i> (L.) Bonnier & Layens	-	-	x	-
<b>Other plant macrofossils</b>				
Charcoal <2mm	xxxx	x	xxxx	xxx
Charcoal >2mm	xxxx	-	xxxx	x
Charcoal >5mm	xx	-	xx	x
Charcoal >10mm	xx	-	xx	xx
Charred root/stem	-	-	xx	x
Indet.fruit stone/nut shell frag.	-	-	x	-
Indet.seeds	-	-	x	-
<b>Other remains</b>				
Black porous 'cokey' material	x	-	-	-
Bone	x	-	xx xb	xb
Burnt/fired clay	-	x	x	-
Vitrified material	-	-	x	-
<b>Sample volume (litres)</b>	-	-	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.17: Swinawe Barn charred plant remains, ditches

Sample	3	4	21	22	32	33	34
<b>Context</b>	<b>18</b>	<b>30</b>	<b>91</b>	<b>103</b>	<b>34</b>	<b>133</b>	<b>135</b>
<b>Feature</b>	<b>19</b>	<b>31</b>		<b>104</b>	<b>28</b>		
<b>Cereals</b>							
<i>Triticum</i> sp. (grains)	x	x	-	x	-	-	-
<i>T. aestivum/compactum</i> type (rachis node)	x	-	-	-	-	-	-
Cereal indet. (grains)	x		-	x	-	-	-
<b>Other plant macrofossils</b>							
Charcoal <2mm	x	xx	xx	x	x	x	xx
Charcoal >2mm	-	x	-	-	-	-	x
Charcoal >5mm	-	-	-	-	-	-	x
Indet.seeds	-	-	-	-	-	-	x
<b>Other remains</b>							
Black porous 'cokey' material	-	-	-	-	-	x	-
Mineralised soil concretions	-	-	-	-	-	x	-
Small mammal/amphibian bone	-	xpmc	-	-	-	xpmc	-
Vitrified material	-	-	-	-	-	-	x
<b>Sample volume (litres)</b>	-	-	-	-	-	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 4.18: Swinawe Barn charred plant remains, postholes and slot

Sample	5	6	36	37	8
<b>Context</b>	<b>038</b>	<b>039</b>	<b>159</b>	<b>161</b>	<b>051</b>
<b>Feature</b>	<b>40</b>	<b>40</b>	<b>160</b>	<b>162</b>	<b>52</b>
<b>Feature type</b>	<b>ph</b>	<b>ph</b>	<b>ph</b>	<b>ph</b>	<b>Slot</b>
<b>Other plant macrofossils</b>					
Charcoal <2mm	xxxx	xx	x	xx	xxxx
Charcoal >2mm	xxxx	x	-	x	xxx
Charcoal >5mm	xx	x	x	x	xx
Charcoal >10mm	x	x	-	xx	x
Charred root/stem	x	-	x	-	-
<b>Other remains</b>					
Black porous 'cokey' material	-	-	-	-	x
Bone	x	-	-	-	x
Burnt/fired clay	-	-	-	-	x
Mineralised soil concretions	-	-	-	-	xxxx
Vitrified material	-	-	-	-	x
<b>Sample volume (litres)</b>	-	-	-	-	-
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

#### 4.9 Radiocarbon dating

A fragment of animal bone from the fill (8) of ring ditch segment 9 (Roundhouse B) at Swinawe Barn was submitted for radiocarbon dating, returning a date in the late Iron Age/early Roman period (40 Cal BC-80 Cal AD, 95% confidence, 1980+/-30 BP, Beta-293241; Table 4.19).

*Table 4.19: Radiocarbon dating of bone carbonates from Roundhouse B*

Lab no. & sample no.	Origin of sample	Sample details	<sup>13</sup> C/ <sup>12</sup> C ratio	Conventional radiocarbon age BP	Cal BC/AD 68% confidence 95% confidence
Beta-293241 SWB08/8	Fill 8, gully 9	Animal bone	-21.6	1920+/- 30	Cal BC 10-Cal AD 60 Cal BC 40-Cal AD 80

Radiocarbon dating laboratory: Beta Analytic, University of Florida, Miami, USA

Method of analysis: AMS-standard delivery

Material pre-treatment: Bone carbonate extraction (cremated human bone)

Calibration: INTCAL04 (IntCal: 04 Calibration Issue, *Radiocarbon*, 2004, **46/3**)

## 5 ROMAN SETTLEMENT (AD43 – AD450)

Nine sites along the pipeline produced settlement activity dated to the Roman period, with some having origins in the late Iron Age.

### 5.1 Late Roman ditches at Glaston

To the west of Glaston, Rutland, excavation revealed parts of a Roman ditch system that are probably associated with a settlement lying to the south of the A47 (Uppingham Road), near Wellesley Spinney, known from cropmarks on aerial photographs and from the geophysical survey (Butler 2007, figs 32-33) (NGR: SK 8929 0022; Fig 5.1). The small pottery assemblage includes Lower Nene Valley colour coat dated to the 4th century.

On the slope to the south of the A47 the underlying geology comprises beds of Northampton Sand, with fine sands and clays, with low-grade ironstone, of the Grantham Formation (Middle Jurassic) on the slope to the north of the road (BGS 1978), where there was an Anglo-Saxon cremation cemetery and a single Roman ditch.

#### ***Roman settlement***

The Roman settlement appears to comprise several large, at least partly adjoining sub-rectangular enclosures, a ladder settlement perhaps, extending over an area of c 8 hectares, but the full plan has not been defined. It lies on a gentle, south-facing slope above a spring, located in Wellesley Spinney, which feeds a stream that flows to the south in a small tributary valley. The excavated ditches lay near the top of the slope at c 117m aOD (NGR: SK 8919 0028).

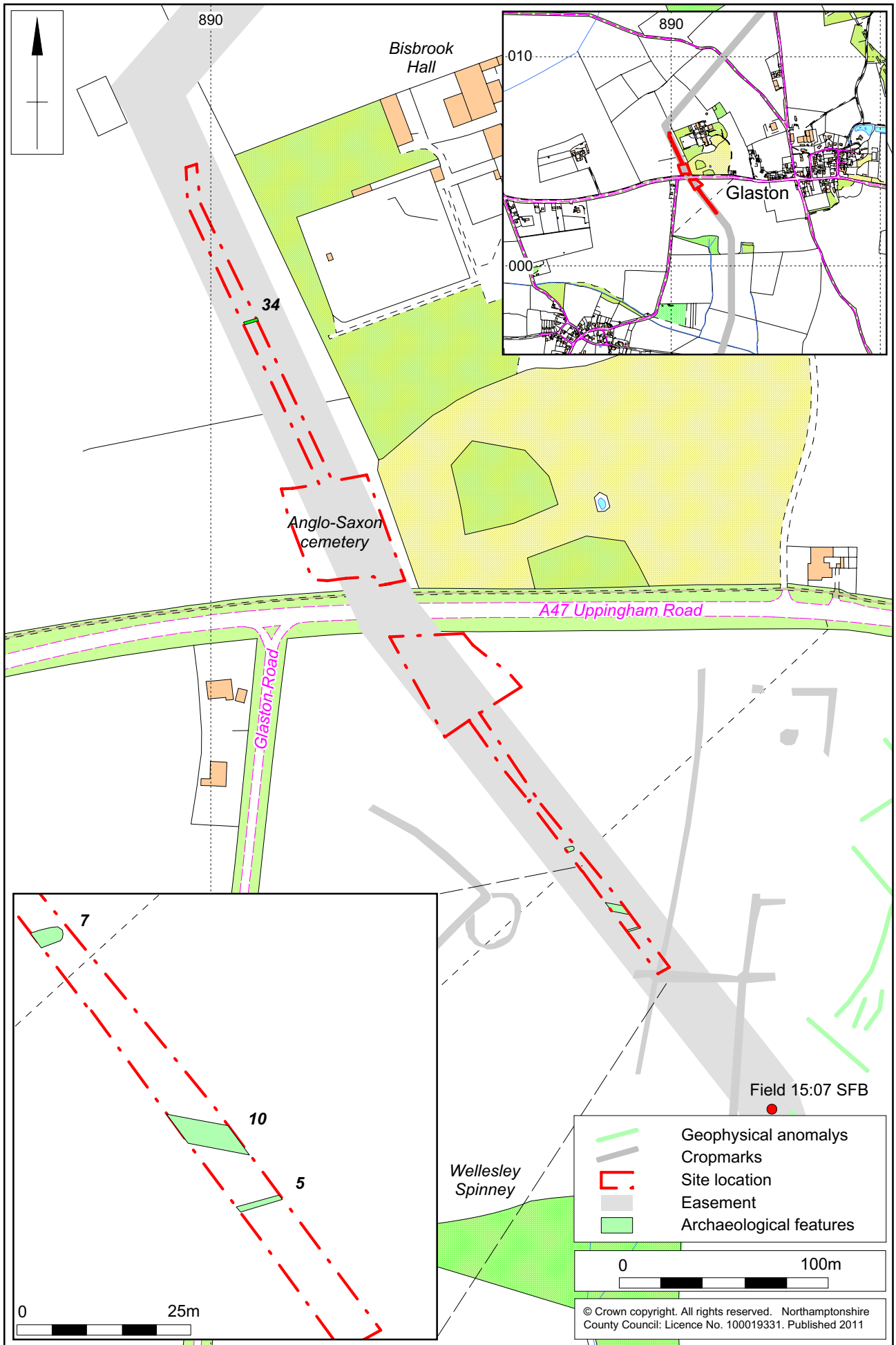
The most substantial of these was a broad, shallow ditch, 10, aligned east to west, 3.0m wide by 0.32m deep, with steep concave sides and a wide flat base. The basal fill was light brown silt (9) and the upper fill was mid reddish-brown silt (8). A small quantity of late Roman pottery was recovered from the fills, with the additional presence of Anglo-Saxon pottery suggesting that the ditch was still partially open in the sub-Roman period (see Fig 6.9, 6).

Approximately 40m to the north of ditch 10, there was the terminal of a small, shallow ditch, 7, 1.1m wide by 0.16m deep, from which sherds of Roman pottery were recovered.

Ditch 5, which lay to the immediate south of ditch 10, was 0.8m wide by 0.1m deep. The fill of orangey-brown silty clay (4), contained no dateable finds.

#### ***Ditch 34***

To the north of the Anglo-Saxon cemetery a ditch crossed the pipeline easement in the grounds of Bisbrooke Hall (Fig 5.1), lying on level ground at c 128m aOD (NGR: SK 8903 0057). Ditch 34 was 0.75m wide by 0.19m deep. The fill of orangey-brown silty clay (33) with frequent ironstone inclusions, contained Roman pottery dated to the late 4th century, fragments of animal bone and an iron nail.



Scale 1:2500 (inset 1:750 & 1:25,000)

Glaston, plan of Roman ditch system Fig 5.1

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## 5.2 Roman activity near Seaton

Situated near the foot of the slope, below an Iron Age site, at c 72m aOD, there was an irregular shallow ditch and two pits (NGR: SP 8878 9823; Fig 5.2). The small pottery assemblage of only eight sherds indicates an early date, the late 1st to 2nd centuries AD.

The ditch, 13, aligned east to west, was 1.3-2.1m wide and up to 0.44m deep. The basal fill of dark grey, charcoal-flecked silty clay (12), was overlain by a deposit of light greyish-brown clayey silt (11) that contained several burnt cobbles. The upper fill was black silty clay (10), containing charcoal, burnt pebbles and pottery.

Approximately 5m to the north of the ditch were two shallow, poorly defined pits, 7 and 9. Pit 7 was 1.05m long by 0.74m wide and 0.20m deep; while pit 9 was 0.6m in diameter by 0.08m deep. Both pits were burnt around the edges and contained burnt pebbles and pottery.

## 5.3 A Roman enclosure and cremation burials near Gretton

This site was situated close to the edge of the floodplain on the south bank of the River Welland, to the south of Rockingham Road and 1.2km to the north-east of Rockingham (NGR: SP 8767 9250; Fig 5.3). The site lay at c 54m aOD and the underlying geology is Lower Lias Clay (BGS 1976).

Evaluation of the site (Clarke 2007b) had revealed an archaeological horizon containing medieval pottery, and geophysical survey and cropmarks suggested that there may be a deserted medieval village in this location, but no evidence for this was found within the easement.

### ***The Roman enclosure***

At the northern end of the site there was a silted-up stream bed (palaeochannel), approximately 7m wide. The topography of the slope above the site suggests that it had been a small tributary stream of the River Welland and had probably been fed by a spring on the slope above. Old maps show that this stream had run northwards along a field boundary, since removed.

The geophysical survey indicated the presence of a small ditched enclosure, 30m wide, but only the ditch on the western side was located in excavation (Butler 2007, figs 50-51). Ditch 10 was 1.5m wide and up to 0.22m deep, with a fill of mottled mid to dark reddish-brown sandy clay. The shallowness of the surviving ditch may suggest that the enclosure had been almost ploughed away.

Five metres to the south there was a ditch, 5, on a slightly different alignment, but of similar dimensions and fill. Roman pottery, a total of 16 sherds, dating from the 2nd to 4th centuries AD, was recovered from both ditches.

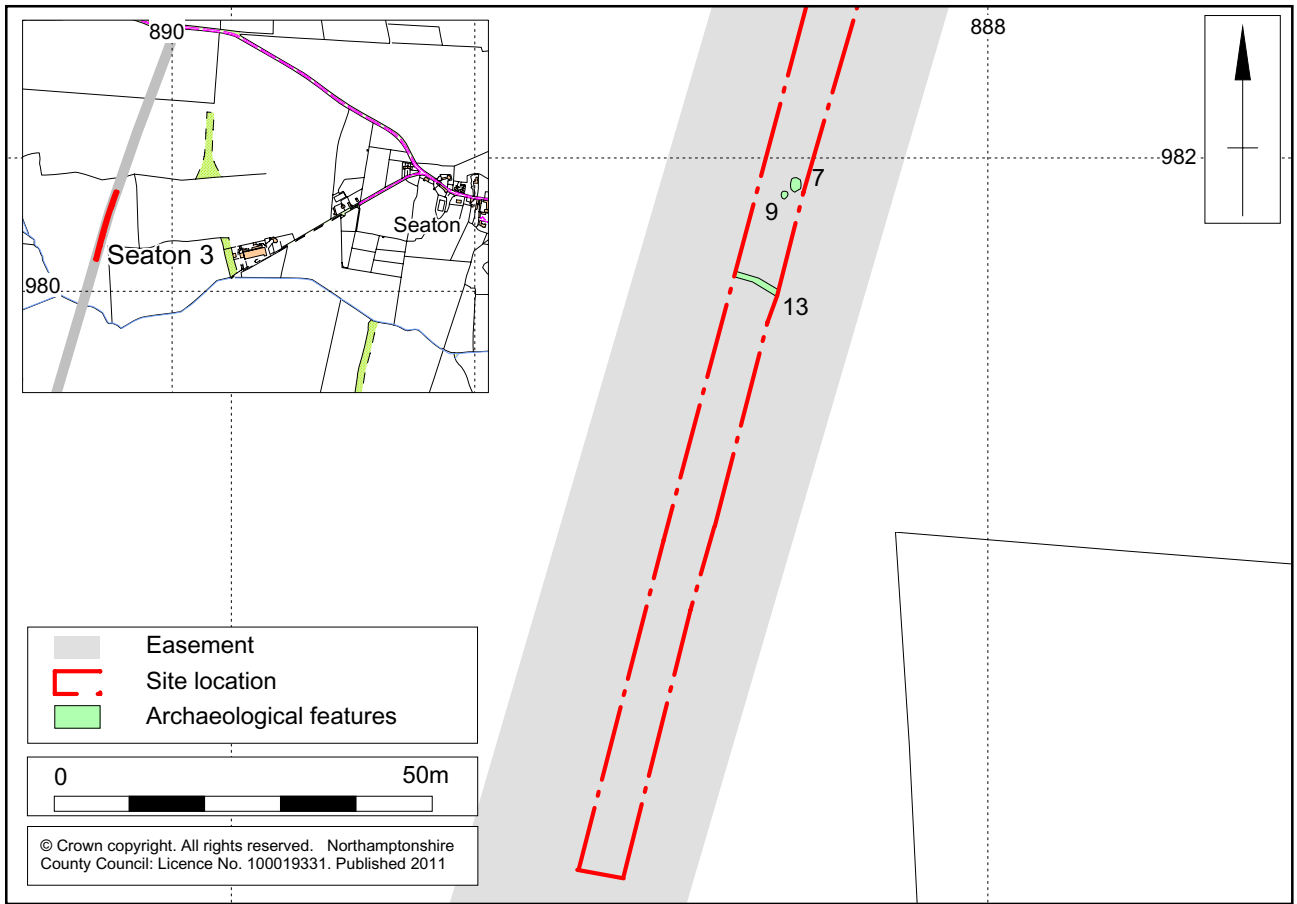
### ***Roman cremation burials***

Single cremation burials were identified to the south of ditch 5, burial 14; 5m to the north of ditch 10, burial 8. The cremation deposits were both in small pits, c 0.6m in diameter and up to 0.18m deep. Burial 14 comprised grey-black charcoal rich soil, but less than 1g of bone was present, indicating that the deposit had been heavily truncated. There were also some 70 iron nails in the deposit, but these are not hobnails from a shoe or boot. Burial 8 had a similar soil matrix, but 107g of bone was recovered, indicating that it was probably less truncated. There were also 13 iron nails. In both instances it would appear that much of the deposit comprised pyre debris, with only token bone deposits placed above this. A few small sherds of Roman pottery recovered from the soil deposits as residual finds, are dated to the 2nd century.

A further cremation burial was recovered several metres to the north of the palaeochannel, during the watching brief, Burial 55.01 (Fig 5.3). This too was in a shallow pit, c 0.5m in diameter and 0.15m deep, with a fill of pyre debris, and 40g of cremated bone.

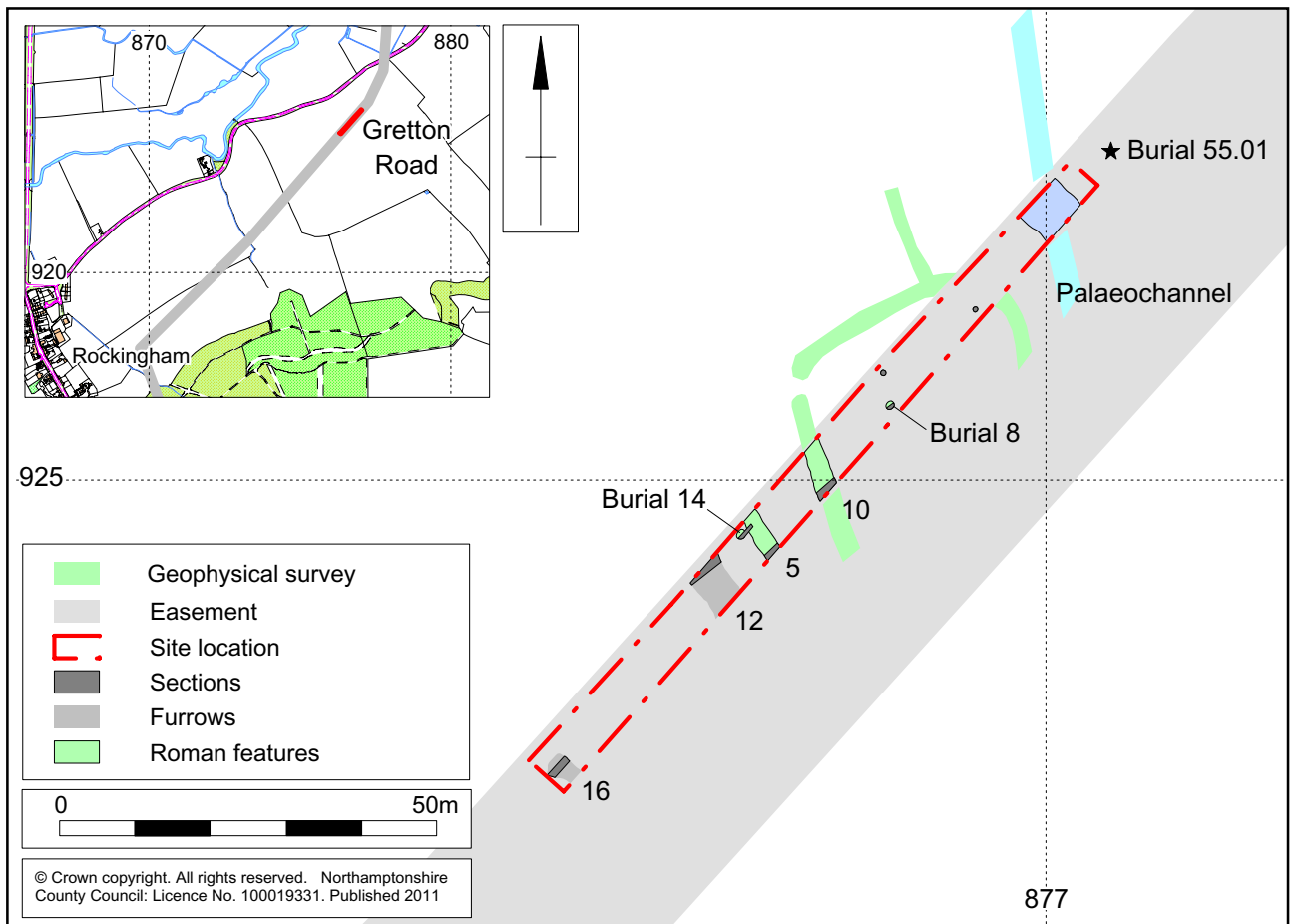
Examination of the geophysical survey for this area (Butler 2007, figs 50-51), indicates the presence of a scatter of small pits across the area to the east of the palaeochannel, one of which coincides with the cremation burial located in the watching brief. There is also a sparser scatter to the west as well, in and around the ditched enclosure. It is likely, therefore, that the three excavated burials are part of a larger more extensive cremation cemetery, but with the burials apparently quite widely spaced, with several metres between each deposit.

This cemetery perhaps served a nearby farmstead or settlement. A Roman date has been suggested on the basis of the residual pottery and the absence of any Anglo-Saxon grave goods, but the pottery dated to the 2nd century does provide only a *terminus post-quem*, and a later date, perhaps even Anglo-Saxon, is possible.



Scale 1:1000 (inset 1:25,000)

Seaton, plan of Roman features Fig 5.2



Scale 1:1000 (inset 1:25,000)

Gretton Road, plan of Roman features Fig 5.3

#### 5.4 A Roman pit at Swinawe Barn, Corby

At the northern end of the Iron Age enclosure, ditch 92 was cut by a large, sub-angular pit, 134, 3.6m in diameter and 0.84m deep (Fig 4.9). It was largely filled with a homogeneous mid greyish-brown silty clay (133), from which were recovered sherds of Roman grog-tempered ware and greyware pottery dating to the 2nd century AD (T Hylton pers comm), and fragments of animal bone. The upper fill was mid reddish-brown silty clay (132). Roman pottery was also recovered from one of the medieval furrows.

#### 5.5 Roman enclosures at Rushton

The site was situated on the north bank of the River Ise, at c89m aOD, approximately 0.5km to the north-east of the village of Rushton (NGR: SP 8476 8308; Fig 5.4). The small pottery assemblage of 40 sherds suggests a date in the late 1st to 2nd centuries.

The ground sloped gently to the south-east, levelling off at the foot of the slope onto the alluvial deposits of the floodplain. The geology on the upper slope is Northampton Sand and Ironstone, and on the lower slope Upper Lias Clay (BGS 1976).

Geophysical survey had detected a complex of enclosure and boundary ditches within the easement and in an evaluated area to the north of the easement (Butler 2007, figs 70-71). A Roman villa is known to lie to the west, and these settlement remains may be associated with the villa estate and a possible Iron Age predecessor. A pair of tweezers and part of a possible pin, provide tentative evidence for Anglo-Saxon settlement nearby.

##### ***The enclosure: ditches 12 and 21***

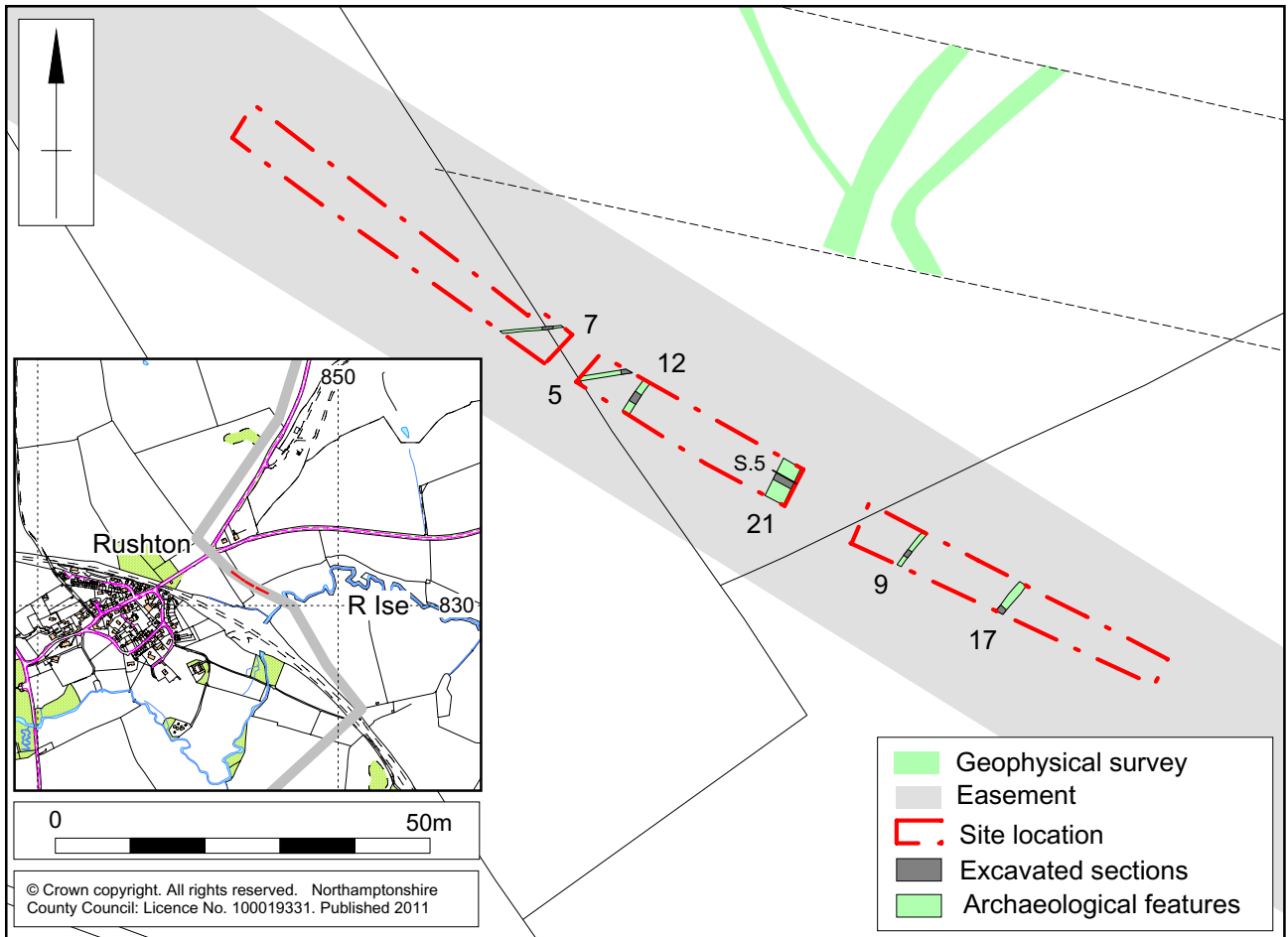
The enclosure was roughly sub-rectangular in plan and measured 21m north-west to south-east and c 16m north-east to south-west. The south-eastern arm of the enclosure, ditch 21, was 2.6m wide by 0.8m deep (Fig 5.5, Section 5); the opposing north-western arm, ditch 12, was less substantial, at 1.3m wide by 0.5m deep. The primary fill (20), which had largely accumulated against the northern slope and base of ditch 21, was light yellowish-brown mottled silty clay (20) with occasional ironstone pebbles and charcoal flecks. This deposit probably derived from the weathering of the ditch sides and a possible interior bank. The secondary fill was dark brown silty clay (19) containing occasional charcoal flecks, fragments of animal bone, including several large cattle bones, and sherds of Roman pottery. The upper fill was light brown clay (18).

##### ***The driveway: gullies 5 and 7***

From the geophysical survey, parallel ditches, perhaps flanking a driveway, lay to the north of the enclosure, running west to east and turning to the north-east at the northern corner of the enclosure. Within the easement, the two parallel gullies, 5 and 7, were spaced 6.5m apart, and measured 0.8m wide by 0.26m deep, with fills of mid brown silty clay.

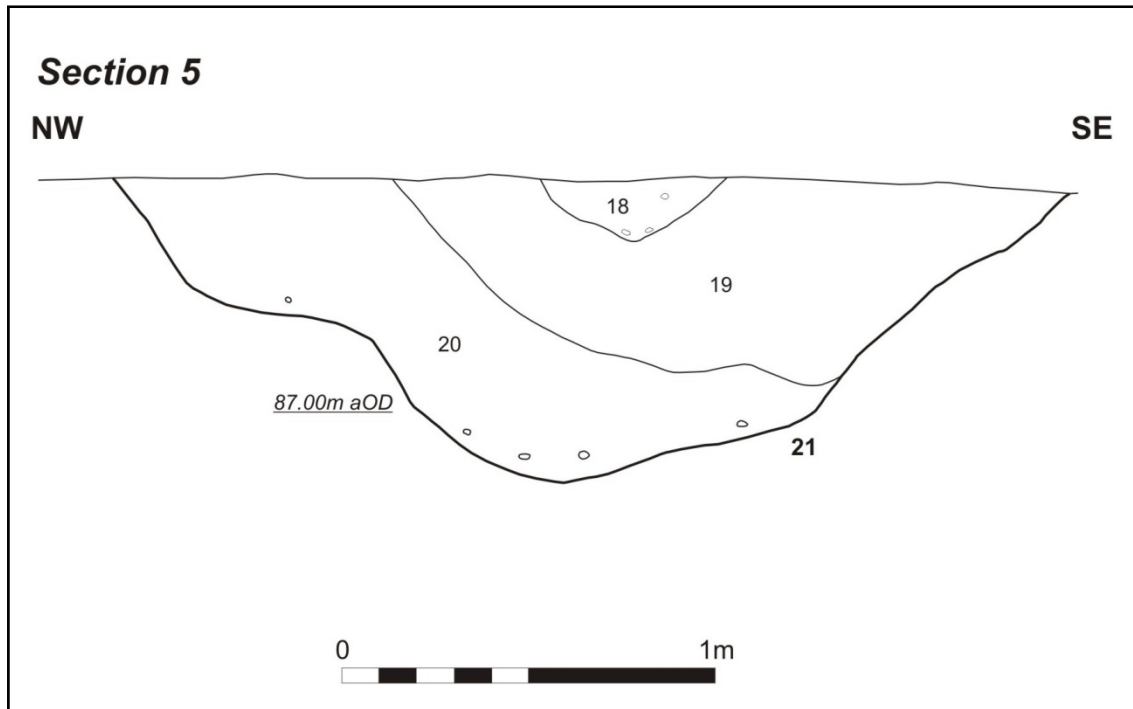
##### ***Gullies 9 and 17***

On the alluvium at the edge of the floodplain, at the southern end of the site, there were two parallel gullies, 9 and 17m, aligned north-east to south-west, and both were c 0.4m wide by 0.3m deep. Iron Age pottery (probably residual) and a fragment of copper alloy rod, possibly Anglo-Saxon in date, were recovered from gully 9, and Roman pottery and animal bone from gully 17.



Scale 1:1000 (inset 1:25,000)

Rushton, plan of Roman ditch system Fig 5.4



Rushton, Section of ditch 21 Fig 5.5

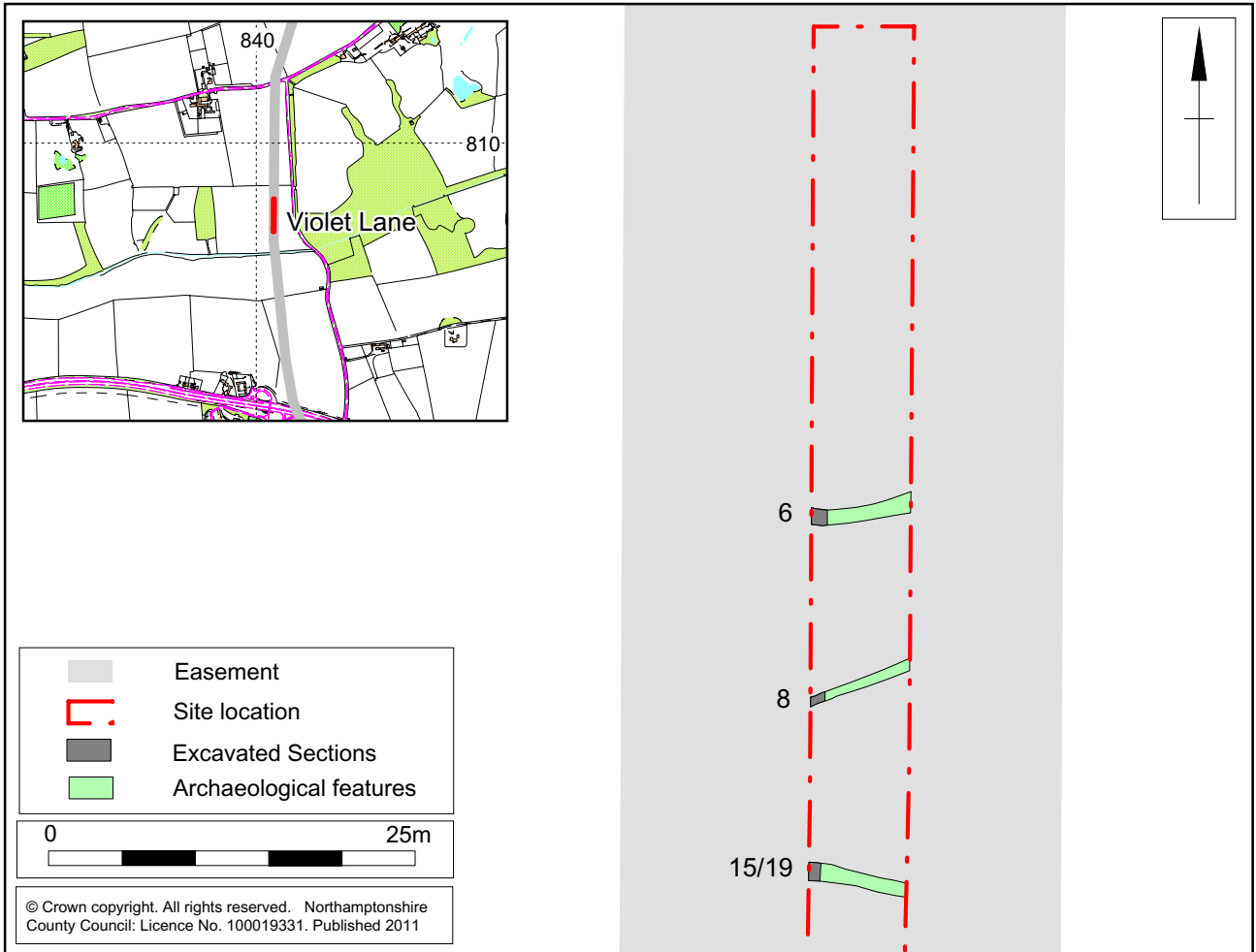
## 5.6 A Roman ditch system at Violet Lane

Approximately 2km to the south of Rushton, three small ditches roughly followed the contours of a steep, south-facing slope, between 90.8m and 89.0m aOD, overlooking Slade Brook to the west of Violet Lane (NGR: SP 8406 8076; Fig 5.6). They may be part of a small settlement or field boundary ditches.

The geology on the upper slope is Northampton Sand and Ironstone, on the lower slope Upper Lias Clay (BGS 1976); deposits of colluvium (hill-wash) were encountered near the foot of the slope.

The northernmost ditch, 6, had a steep-sided, V-shaped profile, 1.1m wide by 0.62m deep, with a fill of mottled grey silty clay (5) overlain by mid greyish-brown silty clay (4). Approximately 10m to the south, ditch 8, 0.6m wide by 0.20m deep, had steep sides and a flat base. The fill of mid greyish-brown silty clay (7) contained sherds of Roman pottery.

Ditch 19, a further 13m downslope, had a steep-sided, V-shaped profile, c 0.8m wide and 0.46m deep (Fig 5.7). A recut, ditch 15, which truncated the southern edge of ditch 19, was both wider and deeper, at 1.3m wide by 0.65m deep. Roman pottery was recovered from the upper fill of the re-cut ditch.



Scale 1:500 (inset 1:25,000)

Violet Lane, plan of Roman ditch system Fig 5.6



Violet Lane, Ditches 15 and 19, looking east

Fig 5.7



## 5.7 Roman settlement near Thorpe Malsor

The Roman settlement near Thorpe Malsor was situated at the edge of a plateau of high ground at c 99m aOD, approximately 50m to the south of Iron Age ditches on the lower slope. Within the easement, the geophysical survey shows a T-shaped arrangement of two large ditches and a cluster of large pits (Butler 2007, figs 78-79), all of which were investigated by excavation (NGR: SP 8404 7913; Figs 5.8 and 5.10). The further extent of the settlement is unknown.

The site produced a substantial assemblage of pottery, 4,200 sherds, as well as a range of other finds, with a broad date range from the early 1st century AD to the 3rd century AD. The earliest pits and minor ditches appear to have been in use in the later 1st to early 2nd century, with the main ditch system dating to the mid-2nd century and continuing in use with recutting occurring in the 3rd century.

The geology is Northampton Sand and Ironstone of the Inferior Oolite Series (BGS 1976).

### ***Ditches 61, 63 and 128 and pit 67***

Ditches 61, 63 and 128, and pit 67, preceded the establishment of the larger ditch system in the middle of the 2nd century AD. Ditches 61 and 128, spaced c 17m apart, may have formed the northern and southern arms of a small enclosure, with the western arm removed by the later ditch system.

Ditch 63 was curvilinear, with its southern terminal cut by ditch 61. A nearby pit, 67, largely truncated by ditch 61, may have been contemporary. It was 0.8m in diameter by 0.12m deep, with a fill of charcoal-flecked dark brown silty sand (66), containing sherds of possible 2nd-century Roman pottery. Ditch 61 had a shallow, concave profile, 0.7-1.0m wide by up to 0.20m deep. The fill of mid to dark brown silty sand (60), contained Roman pottery, possibly dating to the 2nd century, and animal bone.

Ditch 128 had a relatively steep-sided, V-shaped profile, 1.0-1.5m wide by 0.46m deep. The primary fill of slightly stony, dark brown silty clay (127), was overlain by a similar though less stony deposit (126) containing Roman pottery dating to 2nd century, and animal bone.

### ***The major ditch systems***

In the middle of the 2nd century AD, two large ditches were excavated, forming a T-junction. They probably formed part of an extensive enclosure complex but the full extent is unknown as they continue beyond the easement and the limits set for the geophysical survey.

The ditch aligned north-south, which has been traced for around 50m, had a central entrance, 4m wide. Ditch 12/94, to the south of the entrance, had a steep-sided, V-shaped profile with a narrow, flat base, 3.4m wide by 1.74m deep (Fig 5.11). At the base of the ditch there was a thin layer of light grey silt (93), overlain by stony mid grey mottled silty clay (92). After the stabilisation of the ditch sides, the ditch silted up almost entirely with far less stony mid grey silty clay (91), which contained sherds of Roman pottery.

Towards the end of the 3rd century AD the ditch was recut, although the new ditch did not extend as far north as the original terminal. The recut, ditch 151, c 3.0m wide by 0.68m deep, had a fill of stony mottled mid greyish-brown silty clay (90), overlain with mottled mid brownish-grey clay (89). Roman pottery and animal bone were recovered from both deposits.

Ditch 72/117, to the north of the entrance, had a steep-sided, V-shaped profile with a narrow, concave base, 3.0m wide by 1.6m deep (Fig 5.9, Section 20). There was a shallower recut, ditch 119, with a similar profile. The surviving basal fill (116) of the original ditch comprised light brown silty clay, with remnants of mid greyish-brown silty clay secondary fills (118) also surviving.

The recut, ditch 119, was 1.05m deep. The primary and secondary fills were a homogeneous deposit of mid brownish-grey silty clay (115). On the eastern side of the ditch there was a thin layer of hearth waste, comprising charcoal-rich dark grey silt (114), and the upper fill of mid greyish-brown silty clay (113) contained large quantities of limestone and ironstone rubble, probably as a deliberate dump. Similar dumps of rubble were noted in the upper fills of Roman ditches at White Hill Lodge (see below). Sherds of Roman pottery, fragments of Roman glass and animal bone were recovered from these deposits.

The northern arm of the ditch system had a misalignment, with eastern half, ditch 79, curving northwards, perhaps suggesting that they were not contemporary, although they were of similar size and profile, with similar sequences of fills to those of ditch 117 to the south. Both ditches had steep-sided, V-shaped profiles, 2.0m wide by 1.3m deep (Fig 5.9, Section 16). Primary fills of greyish- or orangey-brown silty clay (149/78), largely weathered from the exposed sides of the ditches, were succeeded by more gradual accumulations of mid brown silty clay (144/77) containing domestic refuse, including Roman pottery, animal bone, a fragment of a quern and hearth ashes.

To the west, ditch 125, was recut by a broader, shallower ditch, 150, offset slightly to the north, 2.8m wide by up to 0.87m deep with a fill of mid brown silty clay (148). The evidence for a recut to the east was less conclusive.

### ***The pit group***

To the south there was a group of five large pits, which contained quantities of domestic and industrial refuse from the settlement.

#### **Pit 46**

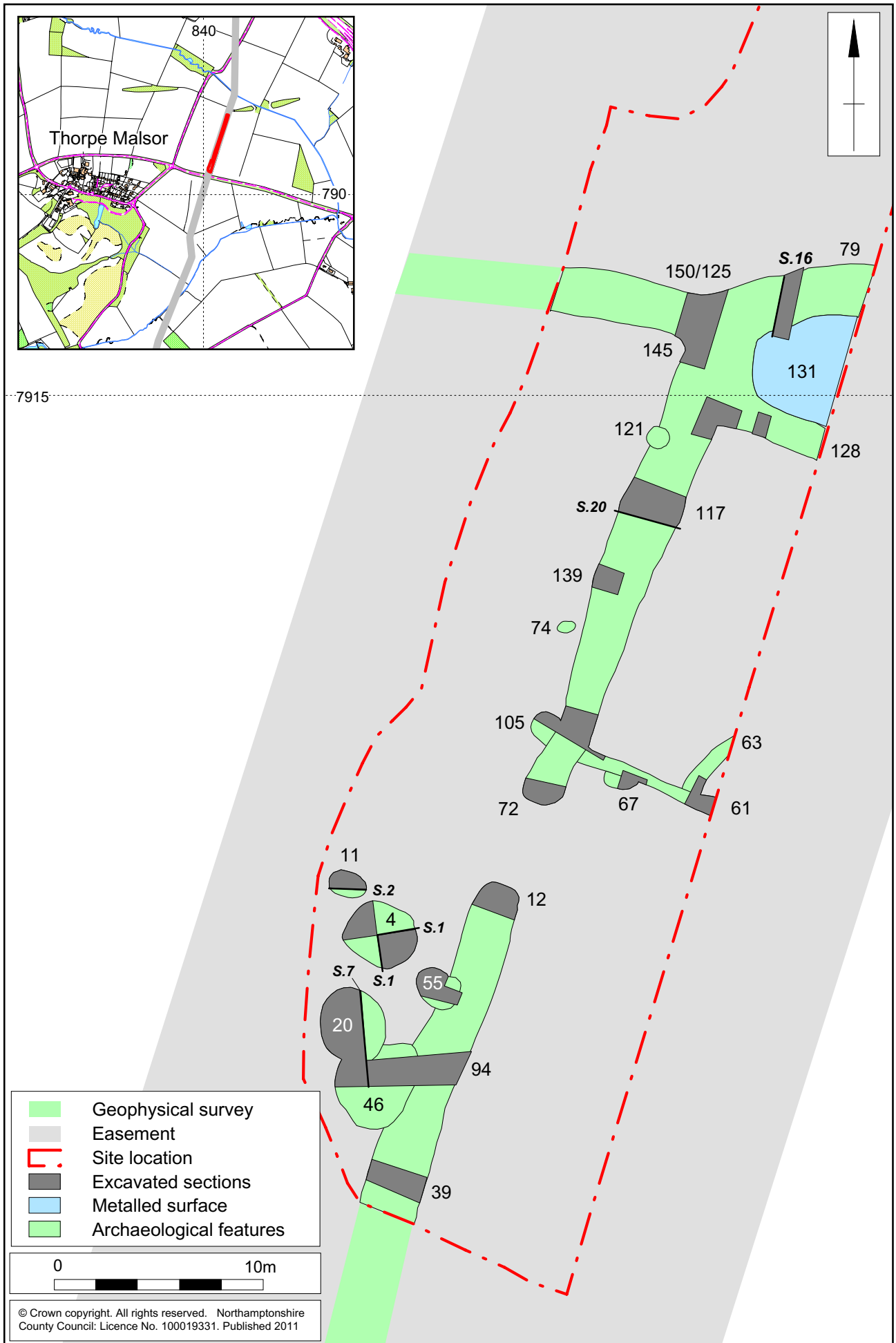
This was the largest and possibly the earliest pit in the group, with its eastern side truncated by ditch 94, and its north-western edge cut by pit, 20. It was 4.5m in diameter by 0.85m deep, with steeply-sloping sides and a broad, flat base (Fig 5.12, Section 7). The secondary fill of mid brown silty clay (44) and the final fill of mid brownish-grey silty clay (43) both produced sherds of Roman pottery, animal bone and pieces of slag, while the upper fill also contained the remains of an infant burial.

#### **Pit 20**

This pit was 2.8m in diameter and 1.3m deep, with steep sides and a narrow, pointed base (Fig 5.12, Section 7). The accumulated silts of mid brown silty clay (41), mid greyish-brown silty clay (19) and mid brownish-grey silty clay (40), contained quantities of animal bone, Roman pottery, iron-working slag and a Roman coin probably in circulation into the 3rd century.

#### **Pit 55**

This pit was 2.0m in diameter and 0.49m deep, with steep sides and a concave base. The fills of reddish-brown silty clay (54) and mid greyish-brown sandy silt (53), which contained sherds of Roman pottery, also had very high ironstone content, accounting for up to half their volume, suggesting that the pit had been deliberately backfilled. The pit cut ditch 72 but was truncated by the recut of the ditch, dating to the 3rd century.



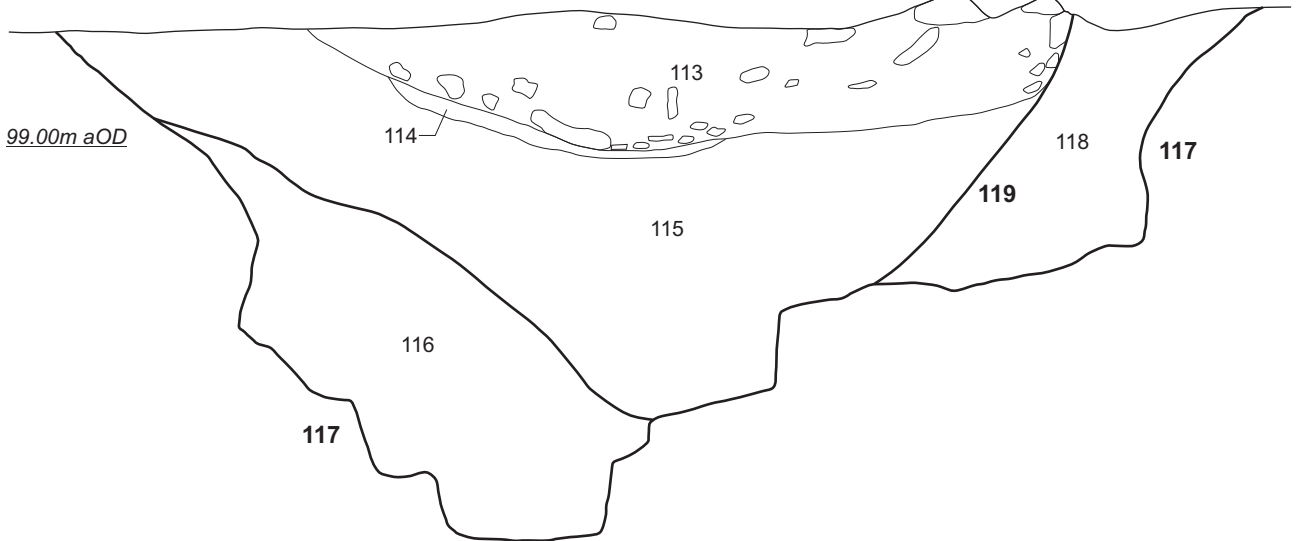
Scale 1:250 (inset 1:25,000)

Thorpe Malsor, plan of Roman settlement Fig 5.8

**Section 20**

**E**

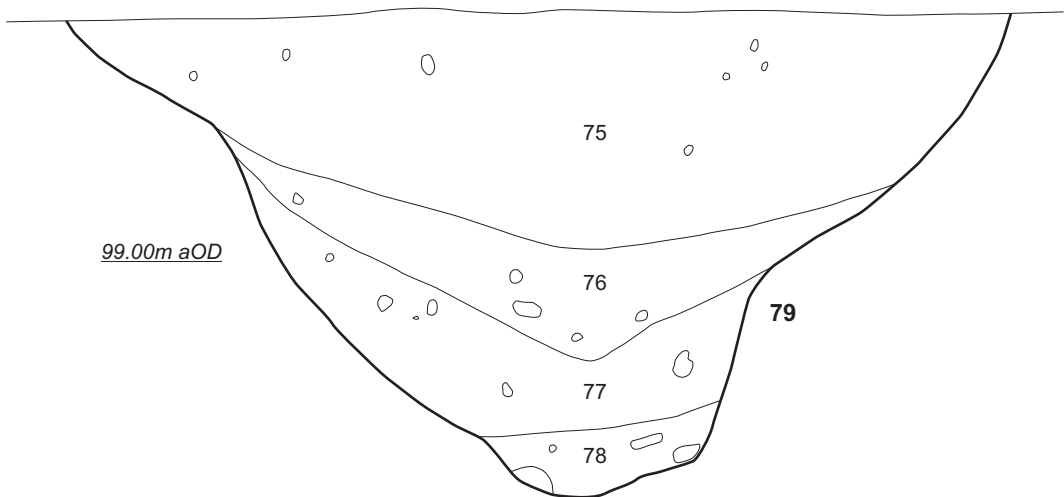
**W**



**Section 16**

**S**

**N**



#### Pit 4

This pit was 3.3m in diameter by 0.87m deep, with a near vertical slope to the north and a more gradual slope to the south (Fig 5.12, Section 1). The lower fills comprised several localised dumps of domestic debris, with the illustrated section showing only a little of the complexity of the sequence of deposition. It was one of the most productive pits in terms of pottery, other finds and charred plant remains from any of the excavated Roman sites.

Near the base of the pit there were deposits of mid greyish-brown ashy silt, (22, 27 and 28) containing sherds of pottery, fragments of burnt bone, oyster shells, charcoal lumps, a very worn Roman coin, possibly of Hadrianic date, and burnt cobbles. Against the eastern wall of the pit there were thin layers of greyish-brown clayey silt, (9 and 7), separated by a thin layer of orangey-grey clay (8), sealed by a larger dump of greyish-brown ashy silt (6), from which was recovered a quantity of Roman pottery. Overlying these deposits there was cassy, greenish-grey mottled sandy clay (21) that contained further domestic waste, including pottery, animal bone, burnt cobbles and hearth ashes. The lower layers of domestic waste were sealed by a dumped layer comprising greyish-brown and orangey-brown silty clay and ironstone rubble (25); the only deposit in the pit to contain no cultural material. The upper fills, (24 and 23), also comprised a mixture of cess-like deposits and clayey silts containing ironstone rubble, ash, charcoal, animal bone, oyster shells, pottery, part of a quern and a fragment of human femur.

The total of nearly 18kg of pottery was the largest assemblage from the site, and included sherds from some 16 samian ware vessels (see Fig 5.22). The assemblage has a date range from the late 1st to the late 2nd/early 3rd century AD. Worked bone, fragments of glass, a bronze pin, iron nails and an iron blade were also recovered from these deposits.

The fills of this pit also produced the largest quantity and range of charred cereal and plant remains from any of the Roman sites, with the material comprising waste from a late stage of cereal processing and including a batch of burnt litter or fodder.

#### Pit 11

This was the smallest pit in the group. It was oval, 1.45m long by 1.05m wide and 0.47m deep, with near vertical sides and a flat base (Fig 5.12, Section 2). The fill of mid greyish-brown ashy clay, (10), contained several lenses of charcoal, perhaps the disposal of hearth waste. The pottery dates to the mid to late 1st to early 2nd century AD.

#### ***Other pits/postholes 74, 105 and 121***

There were three isolated pits or postholes.

Pit 105 was cut into the fills of ditch 117, but was truncated by the recut of the ditch, 119. It was 1.6m in diameter by 1.15m deep, with near vertical sides and a flat base. Against the western side of the pit was a sequence of deposits suggestive of deliberate dumping. These fills comprised reddish-brown silty sandy clay (104), a thin layer of dark grey silty clay (103), and a thicker deposit of mid brownish-grey silty clay (102) containing Roman pottery and animal bone, a layer of mid to dark brown silty clay (101) and a final stonier fill (100).

Pit 121, which also cut the fills of ditch 117, was 1.3m long, 0.6m wide and 0.18m deep. The fill of mid to dark brownish-grey silty clay (120), contained some domestic waste, including pottery sherds, animal bone and charcoal.

Posthole 74 lay close to the western edge of ditch 117. It was sub-rectangular in plan, 0.67m long by 0.41m wide and 0.09m deep, with near vertical sides and a flat base. The fill was charcoal-rich mid to dark grey silt (73) and the edges of the cut were scorched pink, suggesting that the post had been burnt *in situ*.

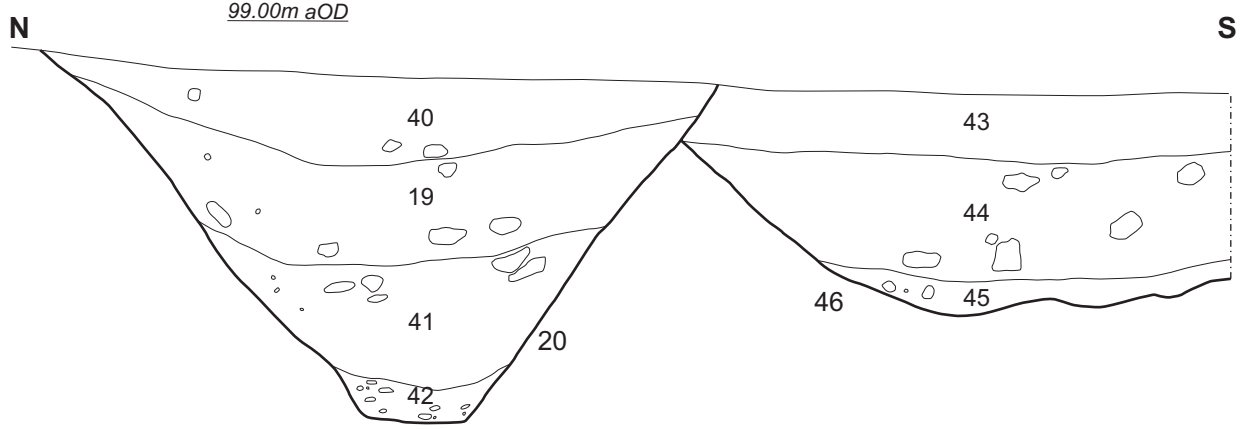


General view of the site at Thorpe Malsor, looking south Fig 5.10

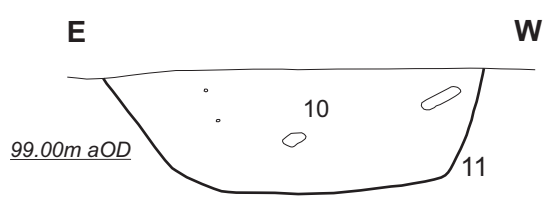


Northern terminal of ditch 12, looking south (Scale 2m) Fig 5.11

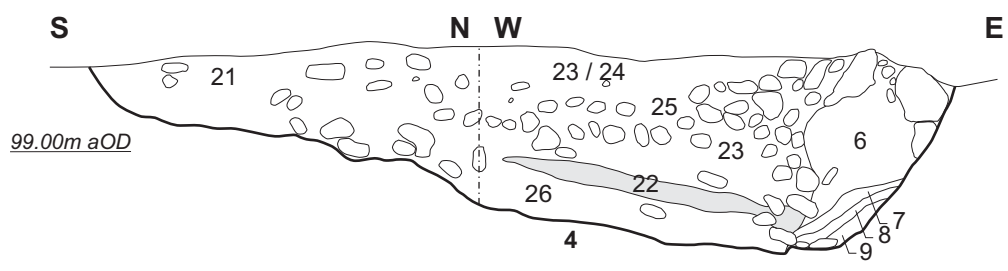
**Section 7**



**Section 2**



**Section 1**



Thorpe Malsor, ditch and pit sections Fig 5.12

***Pebbled surface 131***

In the northern corner of the enclosed area, between ditches 117 and 79, there was a spread of limestone and ironstone pebbles forming a metallated surface. It stopped abruptly at the edges of the two large ditches, 79 and 121, but was embedded into the upper fills of the earlier ditch 128.

**5.8 Roman settlement at White Hill Lodge**

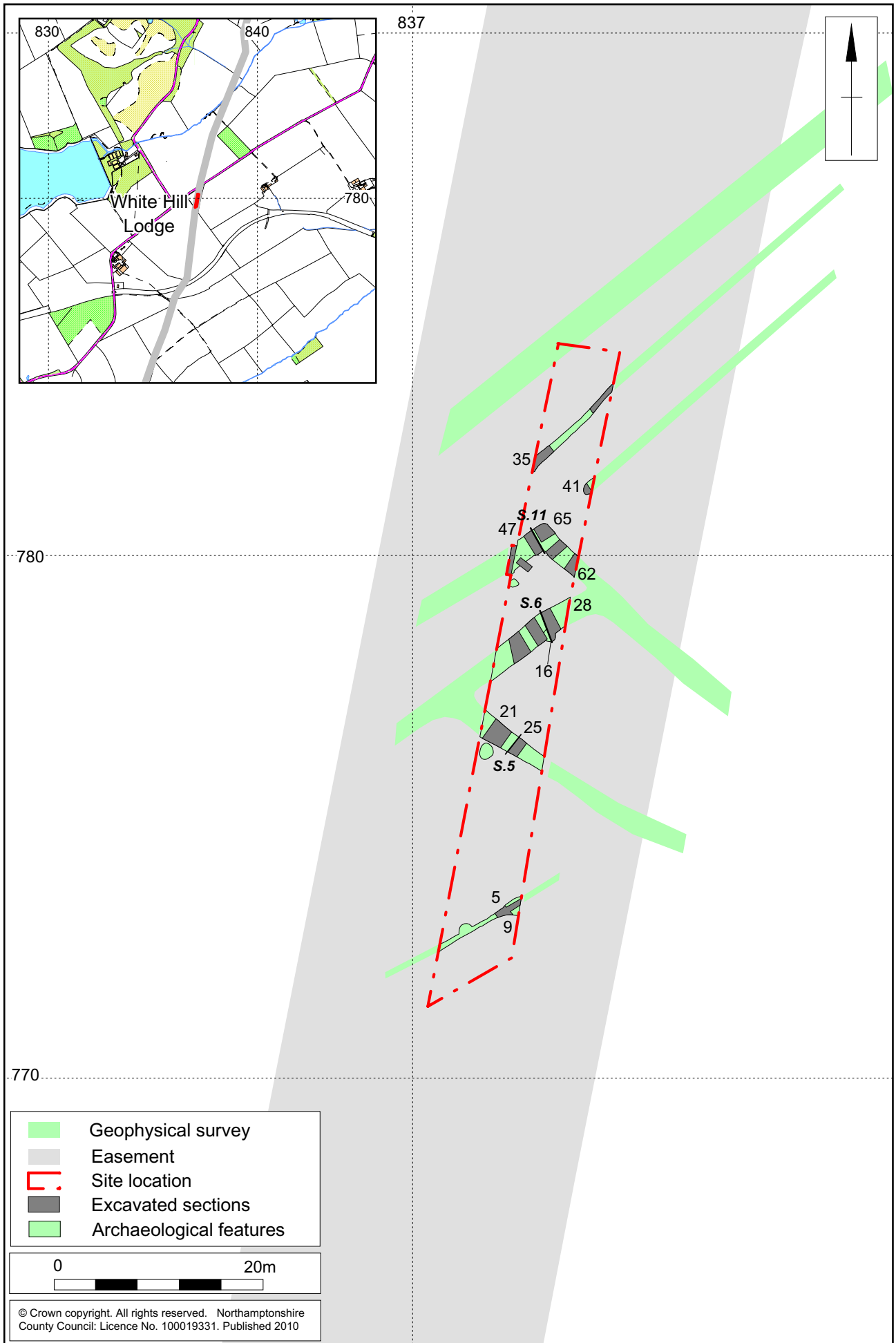
A Roman ditch system lay between the villages of Thorpe Malsor and Great Cransley, approximately 0.4km to the north-east of White Hill Lodge (NGR: SP 8371 7799; Figs 5.13 and 5.14). It was situated on a spur of high ground between two small streams, at c 107m aOD, and the underlying geology was Northamptonshire Sand and Ironstone (BGS 1976). The site of the Roman settlement near Thorpe Malsor could be seen from this location.



General view of Roman ditches at White Hill Lodge, looking south Fig 5.13

Geophysical survey had identified part of an extensive grid-like pattern of linear ditches (Butler 2007, figs 82-83), but it is not possible to determine the structure and character of the settlement due to the limits of the survey area within the pipeline easement. A moderate number of *tesserae* recovered during the watching brief on the initial topsoil strip, deposits of limestone in the enclosure ditch, and two small lumps of tufa, suggest that the remains of a Roman building, and perhaps a bathhouse may be located nearby, and a metal detector survey prior to excavation found two Roman brooches in the subsoil. The small pottery assemblage indicates activity throughout the Roman period.



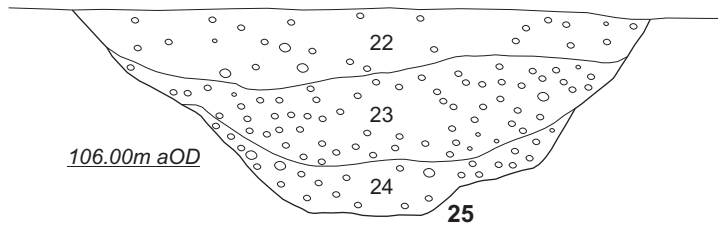


Scale 1:500 (inset 1:25,000)

White Hill Lodge, plan of Roman settlement Fig 5.14

**Section 5**  
SW

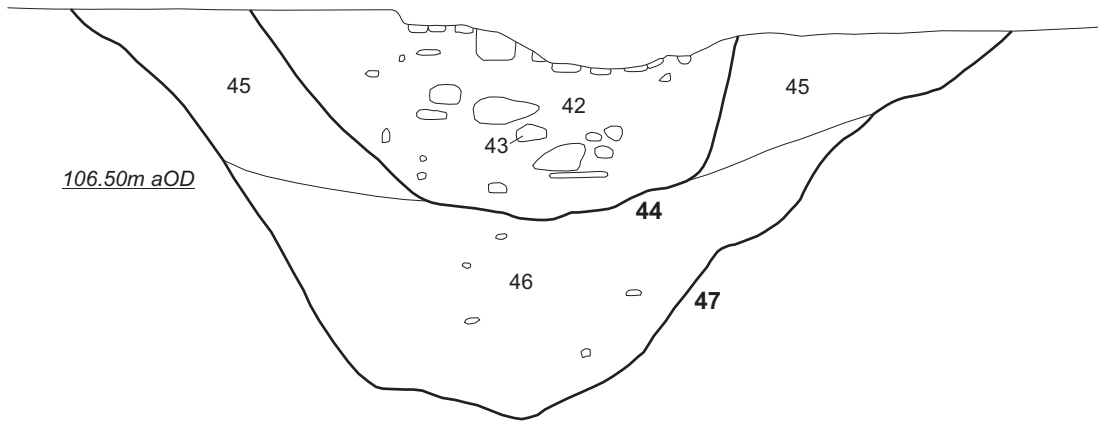
NE



**Section 11**

NW

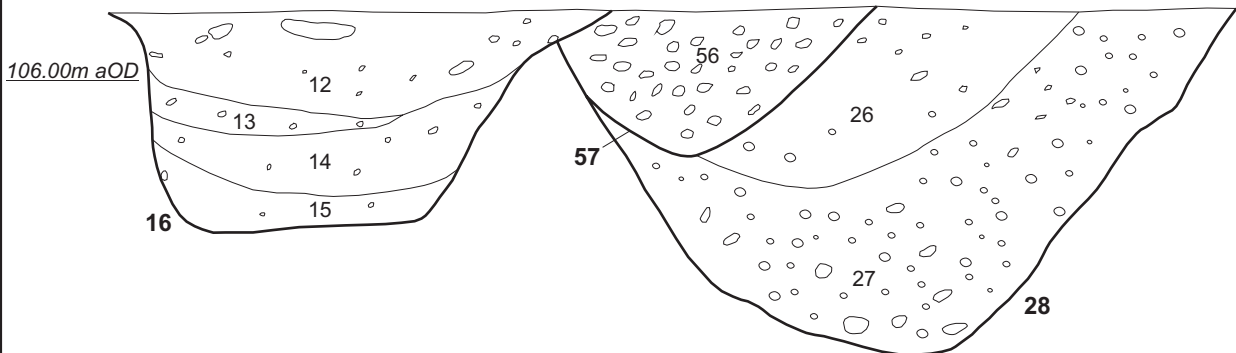
SE



**Section 6**

S

N



**A ditched enclosure system**

Within the excavated area there was the probable northern corner of a rectangular enclosure, ditch 47/62, and further similar ditches to the south, 28 and 21/25, may have formed either sub-divisions or modifications to the plan form, but too few relationships could be established to provide any sequence of development.

The north-eastern arm of the enclosure, ditch 62/65, had a steep-sided, V-shaped profile, 1.8m wide by 1.0m deep. The sequence of fills all contained quantities of small pieces of ironstone, although the upper fill also contained a number of larger limestone cobbles (measuring up to 500mm), which may have been rubble from the demolition of a nearby Roman building. The north-western arm, ditch 47, had a similar profile and a similar sequence of fills, but was wider and slightly deeper, at 2.5m wide by 1.1m deep (Fig 5.15, Section 11; Fig 5.16). There may have been a narrower and shallower recut, 44, through the relatively stone free upper fill, (45), although this impression may have been formed through the accumulation or dumping of quantities of larger limestone rubble (43) in the centre of the ditch. Sherds of Roman pottery and fragments of animal bone were recovered from the ditch.



White Hill Lodge, Roman ditch 47, looking south-west Fig 5.16

Ditch 28, the larger of the two ditches to the south, had a U-shaped profile, 1.9m wide by 0.93m deep (Fig 5.15, Section 6). The lower fill (27) was stony mid yellowish-brown silty clay (27), and the upper fill (26) of mid to dark orangey-brown silty clay, contained Roman pottery and fragments of animal bone. There was a narrow recut, 57, along the southern edge, which was 0.9m wide by 0.43m deep, with a fill of stony mid brown silty clay (56).

Ditch 21/25 was 1.0m wide by 0.50m deep (Fig 5.15, Section 5), with fills of stony mid greyish-brown silty clay, containing Roman pottery and animal bone.

There were a few pits and gullies within the enclosed area. To the south, pit 9, largely truncated by ditch 5, was 1.6m in diameter by 0.32m deep. The fill of mid to dark greyish-brown silty clay (8) contained several sherds of Roman pottery. A further pit to the west was not excavated. Ditch 5 was 0.7m wide by 0.26m deep, with a fill of charcoal-flecked mid to dark brownish-grey silty clay (4), containing sherds of Roman pottery and animal bone. This was probably a minor internal division.

Further north, the eroded upper edge of pit 16 cut the fills of ditch 28. The pit was oval with steep to near vertical sides and a flat base, 1.2m long by 1.0m wide and 0.58m deep (Fig 5.15, Section 6). The basal fill of dark greyish-green silt (15), was overlain by a similar though more extensive deposit that was more brownish-green in colour (14). The distinctive greenish appearance of these fills suggests the deposition of cess, implying that areas of habitation lay nearby. A layer of mid greyish-brown clayey silt (13) contained small pieces of burnt clay. The upper fill of charcoal flecked mid brownish-green/grey clayey silt (12) had an ashy appearance, and contained burnt pebbles, small pieces of burnt clay and sherds of Roman pottery.

#### ***Droeway: ditches 35 and 41***

Two parallel ditches, 35 and 41, to the north of the enclosure and 5m apart, may have flanked a droeway extending north-eastwards from the enclosure, although the geophysical survey records a further, broader ditch to the west also on a parallel alignment (Fig 5.13).

Ditch, 35, was up to 0.8m wide by 0.22m deep, but became narrower and shallower to the north-east. The fill of mid to dark brown silty clay (34) contained animal bone and a fragment from a copper alloy object. Only the terminal of ditch 41 was excavated. It measured 1.2m wide by 0.21m deep, with a fill of mid to dark brown silty clay (40).

## **5.9 Roman settlement near Great Cransley**

The remains of a Roman settlement were located near the top of a south-east facing slope overlooking a small tributary valley, at c 104m aOD, approximately 0.7km to the north-east of the village of Great Cransley (NGR: SP 8355 7736; Fig 5.17). The settlement had been identified from cropmarks and geophysical survey and comprised several sub-rectangular enclosures to either side of a broad ditched trackway (Butler 2007, figs 84-85). However, the cropmarks were too indistinct and the survey area was too narrow to determine the full extent and morphology of the settlement. The site lay 0.7km to the south-south-west of the Roman settlement at White Hill Lodge; the area between them had been quarried in the 19th century for ironstone.

#### ***Ditch 25***

The eastern terminal of a small ditch 25, 1.1m wide by 0.35m deep, lay to the west of the trackway on an anomalous alignment. It was cut by enclosure ditch 11, suggesting that ditch 25 may have formed part of an early phase of settlement. The excavated ditch section contained no finds.

#### ***Enclosure 1***

This lay fully outside the investigated area, but a combination of aerial survey and geophysical survey has defined a sub-rectangular enclosure 45m long by 40m wide, abutting the western side of the trackway.

#### ***Enclosure 2: ditches 13 and 17***

At the southern end of the complex, and to the west of the trackway, the northern and western arms of a rectangular enclosure, Enclosure 2, at least 30m wide and 40m long, crossed the excavated area.

Ditch 13, the northern arm of the enclosure, had a V-shaped profile, 1.6m wide by 0.80m deep (Fig 5.18, Section 5). The fill largely comprised ironstone gravel in a mid brown silty clay matrix (12), mixed with occasional lumps of clay near the base.

Ditch 17, the western arm of the enclosure, had a steep-sided, V-shaped profile, 1.9m wide by 0.86m deep (Fig 46, Section 2). The basal fill of light brown silty clay (16), largely derived from weathering, was overlain by similar deposits of mid greyish-brown silty clay (15 and 14). Roman pottery, animal bone and fired clay were recovered from the ditch. There was a U-shaped recut, 19, along its outer edge, 1.2m wide by 0.48m deep, with a fill of mid brownish-grey silty clay (Fig 46, Section 2).

Adjacent to the northern boundary of Enclosure 2, there was a small, sub-rectangular pit, 29, 1.2m wide by 0.31m deep. The fill of mid greyish-brown sandy silt (28), contained Roman pottery and debris from a pottery kiln, comprising pieces of burnt clay, possibly from the kiln's superstructure, and fragments of kiln bars.

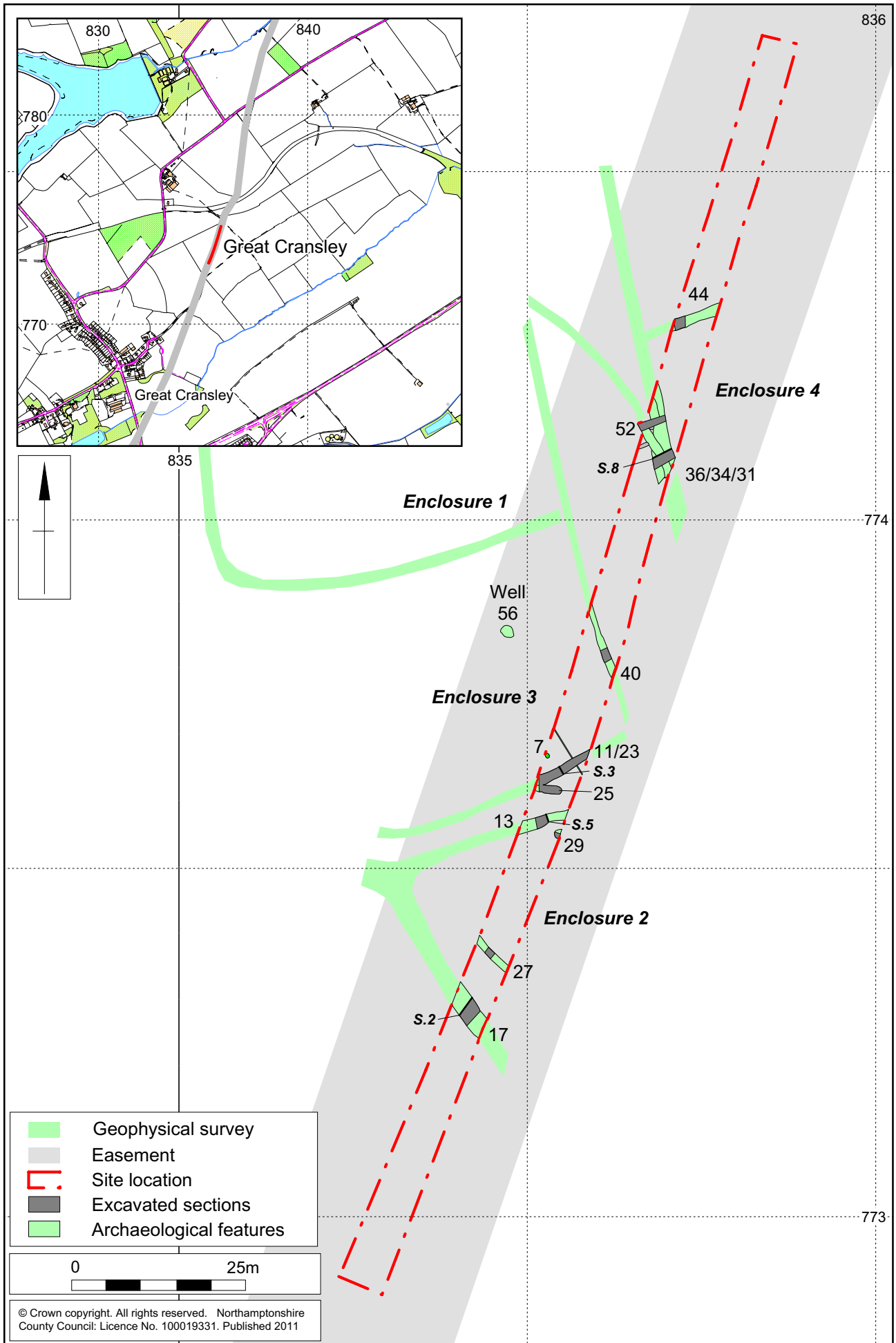
### ***Enclosure 3: ditch 11***

This area was 35m wide, lying between Enclosures 1 and 2. To the west the southern boundary, ditch 11/23, was turning northwards, perhaps to form a western arm.

Ditch 11/23, which formed the southern side of the enclosure, had a broad, V-shaped profile, 1.3m wide by 0.43m deep (Fig 5.18, Section 3). The primary fill, mid brown silty clay (10), was overlain by deposits of stony, mid orangey-brown silty clay (9) and mid to dark brown silty clay (8). Both of these contained significant quantities of Roman pottery and animal bone, as well as a hobnail and an iron nail, with this domestic refuse indicating habitation nearby.

To the north of ditch 11, there was an isolated posthole, 7, 0.55m in diameter by 0.15m deep, with a fill of dark brown sandy clayey silt (6), containing sherds of Roman pottery, burnt clay, animal bone and an iron nail.

To the west of the excavated area but within the topsoil stripped easement, and within Enclosure 3, there was a stone-lined well, 56 (Figs 5.19 and 5.20). The well was lined with limestone and ironstone rubble (54), forming a rectangular shaft, 0.55m diameter. It was not possible to determine the full depth of the well, as excavation was curtailed at a depth of c 1.5m. At a depth of 1.5m there was a deposit of mid to dark brown silty clay (59), over 0.5m thick; when this deposit was removed groundwater rapidly percolated into the well. The overlying deposit, approximately 1.0m thick, was mid yellowish-brown silty clay (53) containing domestic rubbish, comprising pottery, hearth waste, fragments of querns and animal bone, including a horse's head. A number of large limestone cobbles in the fill were probably derived from a low wall that had surrounded the well; the foundation course of this superstructure (55), including a revetment of vertically-pitched limestone slabs on the eastern side, survived. The infilled well had been capped with a layer of limestone rubble and mid brown silty clay (57) that contained further sherds of Roman pottery and quantities of charcoal, probably derived from hearth waste.



Scale 1:750 (inset 1:25,000)

Great Cransley, plan of Roman ditch system Fig 5.17

***The trackway: ditches 40 and 31/36***

A linear ditch to the west, ditch 40, and a complex of intercutting linear ditches to the east, ditches 31/34 and 36/52, defined a trackway that was 14m wide, aligned north-north-west to south-south-east.

Ditch 40, 1.2m wide by 0.85m deep, had a steep-sided, V-shaped profile. It was recut by ditch 42, which was narrower and shallower, 0.65m wide by 0.50m deep. Both were filled with mid brown silty clay, with the fill of the recut being far stonier.

The eastern side of the trackway was defined by ditch 31, which had a V-shaped profile with a narrow, concave base, c 0.9m wide by 0.41m deep (Fig 5.18, Section 8). The fill of mid brownish-grey silty clay (30), contained a large quantity of ironstone pebbles, suggesting it had been deliberately backfilled, at least in part, with previously excavated material. The recut, ditch 36, which was offset to the south-west by c 1.2m, had a similar profile but was slightly wider and deeper. Sherds of Roman pottery and fragments of animal bone were recovered from the fills of both ditches. There was limited evidence for a further cut of the ditch, 38, although this only survived as a truncated remnant at the western edge of ditch 36.

At a later date the trackway must have fallen out of use, as a curvilinear ditch, 34/52, was cut diagonally across the trackway. It had a steep-sided, V-shaped profile, 1.3m wide by 0.82m deep, with fills of mid greyish-brown silty clay (33) overlain by mid grey silty clay (32). The fills contained Roman pottery and animal bone, perhaps suggesting that the reorganisation occurred in the later Roman period.

***Enclosure 4: ditch 44***

Projecting from the north-east side of the trackway, ditch 44 may have formed an enclosure, Enclosure 4, to the east of the trackway. Ditch 44, had a steep-sided, V-shaped profile with a narrow concave base, 1.65m wide by 0.88m deep, with a fill of stony mid orangey-brown silty clay (43), containing Roman pottery.

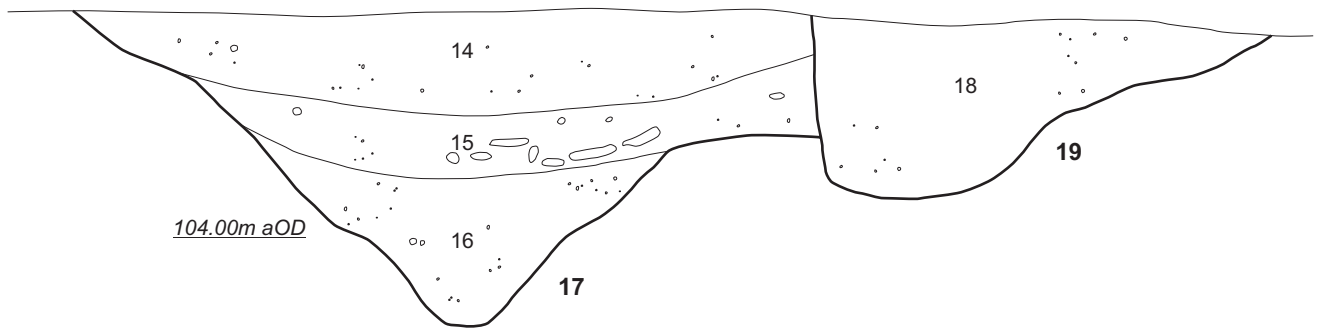
***Colluvium 58***

At the northern end of the site there was a layer of colluvium, filling a natural depression in the slope. It comprised relatively stoneless mid orangey-brown silty clay (58) and contained several sherds of Roman pottery. A machine-dug slot excavated through the deposit showed that it was over 1.0m deep.

**Section 2**

NE

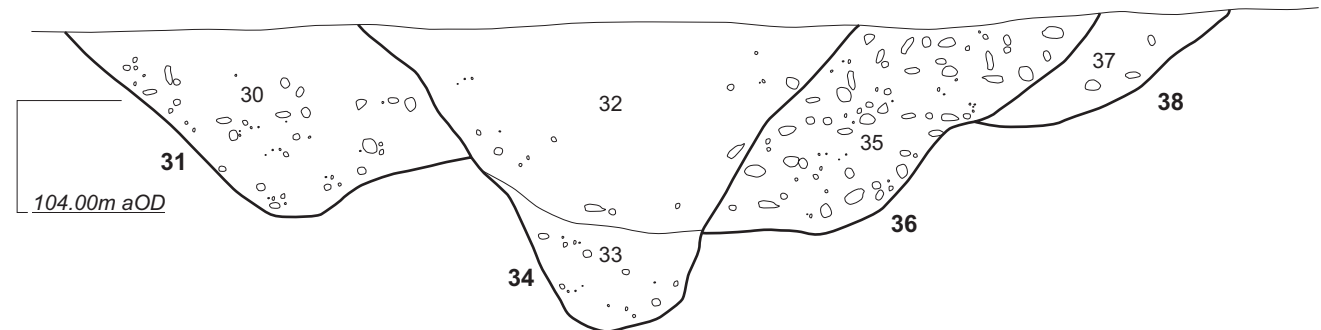
SW



**Section 8**

NE

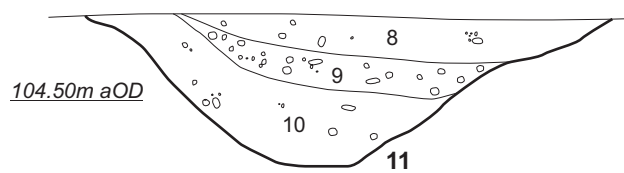
SW



**Section 3**

S

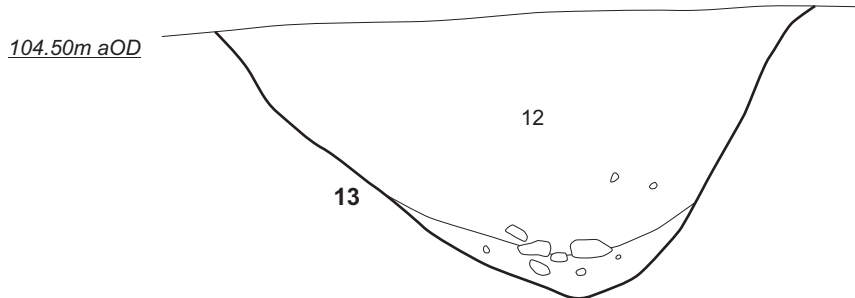
N



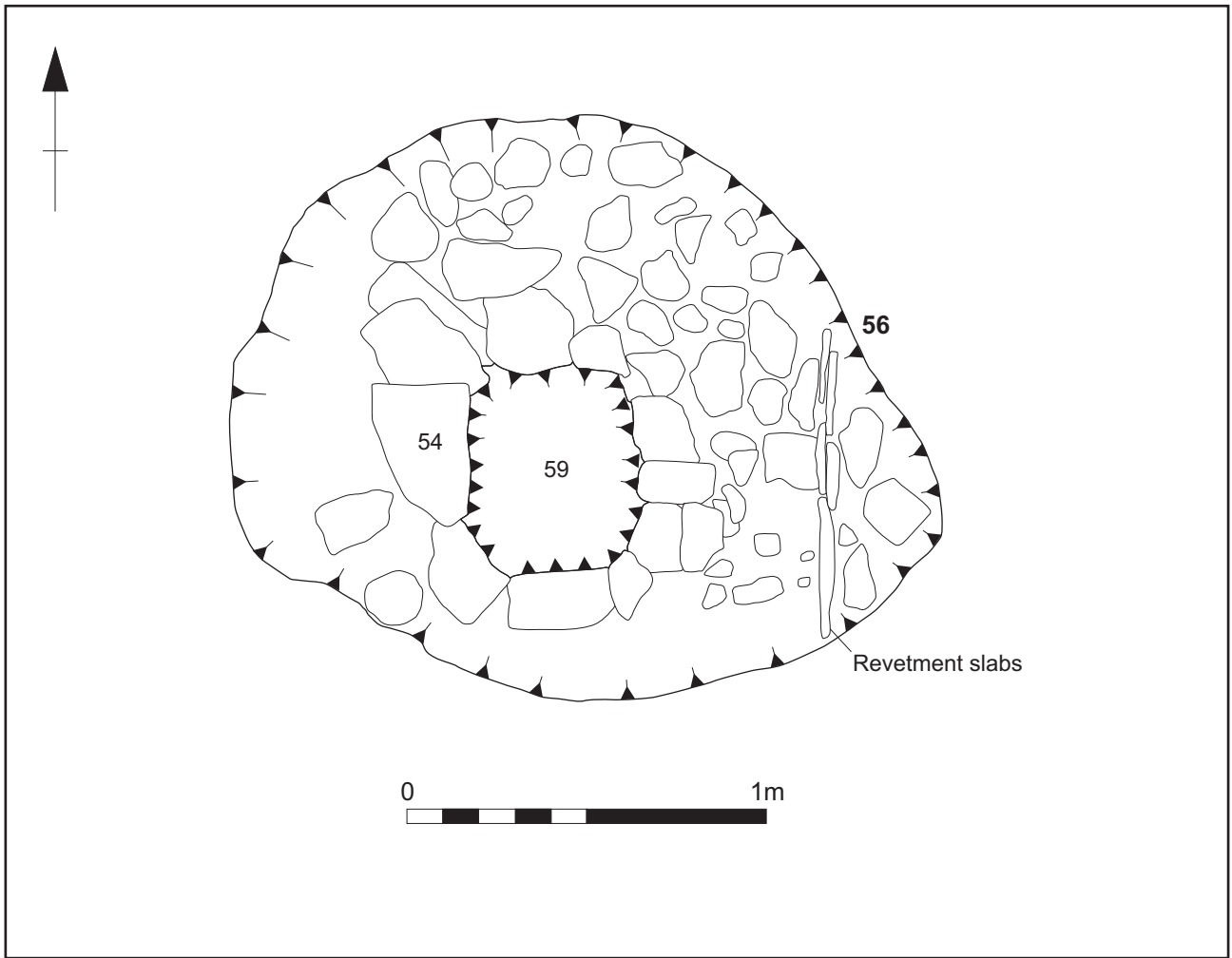
**Section 5**

NW

SE







Scale 1:20

Great Cransley, plan of Roman well 56 Fig 5.19



Great Cransley, Roman well 56, looking south Fig 5.20

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## 5.10 Finds from the Roman settlement

### 5.10.1 Roman pottery by Rob Perrin with J M Mills

Nine sites produced Roman pottery but the assemblages from only two of these, Thorpe Malsor and Great Cransley, were considered of sufficient size to warrant analysis beyond the assessment stage (Perrin 2010).

#### **Methodology**

The pottery was recorded using simple fabric classifications based on principal inclusion or firing technique, together with the identification of some known regional ware types (eg Lower Nene Valley wares) and some imported wares, for example samian ware. Comments on the samian ware have been provided by J M Mills, and comments on a mortarium stamp are by K F Hartley. At assessment stage the pottery was quantified by sherd count and weight (g) within fabrics. Rim and base percentages were later added for the groups which merited further analysis, but only the rim percentages have been used to calculate the estimated vessel equivalents (EVE) used in the report. No attempt was made to identify joins, other than where certain features of fabric, colour, decoration etc made this obvious.

The main fabrics on all the sites are grogged, shell-gritted, grey and oxidised. A number of sub-types occur in the grogged wares, some of which are likely to have been manufactured in the 1st century AD. Two distinctive grogged wares, a hard cream ware and a usually less hard pink ware, occur on most sites in the area with occupation spanning the later 1st to 2nd centuries AD. Local production is probable, although the source(s) are as yet undiscovered. Pottery in shell-gritted ware was produced locally in the Iron Age and throughout the Roman period.

The main regional and imported wares are Lower Nene Valley colour-coated (LNVCC) and cream wares (LNVCW), South and Central Gaulish samian ware, Mancetter-Hartshill (mortarium), Black burnished ware (BB1 and BB2) and Lower Rhineland (LRCC), Central Gaulish (CGCC) and, possibly, Colchester colour-coated ware. There are a few vessels in mica-dusted ware and London ware in forms imitating samian ware.

The grey wares are by far the most abundant and were used throughout the Roman period. They comprise a range of fabrics with varying visual characteristics, but these are likely, in the main, to reflect varying firing conditions and may not therefore be especially meaningful in terms of date or source. A large number of kiln sites which produced grey wares are known in Northamptonshire, including some, Kettering, Rushton, Weekley and Geddington, which are within 10km of the excavated sites. It is likely that a large proportion of the oxidized wares were also produced locally. Some oxidized ware sherds with painted and incised decoration from Thorpe Malsor are probably products of kilns at Rushden (Woods and Hastings 1984).

The vessel types were recorded using simple form codes. The vessel forms comprise various types of jars, bowls and dishes, together with a few lids, flagons, mortaria and beakers. There are no amphorae, although a large handle in oxidized ware (from Thorpe Malsor) is reminiscent of those found on amphorae and may be from one of the amphora-like vessels produced at Verulamium (Symonds 2003). Overall, and in the selected groups, jars of various types comprise at least half of the recognizable vessel forms, with bowls and dishes accounting for around another quarter.

Lid-seated jars occur in both the hard cream and pink grogged fabrics, grey ware, oxidized ware and shell-gritted ware, indicating both the popularity and longevity of this vessel type. Jars with curved rims occur mainly in grey ware, though in many different

sizes and forms. Jars with narrow mouths occur in both the hard cream and pink grogged fabrics, grey ware and oxidized ware, but are not common in shell-grittred ware. Other jar forms represented include storage jars, some very large, mainly in grogged or shell-grittred ware, jars with everted rims, mainly in grey ware and smaller jars or beakers, again mainly in grey ware. The BB1 sherds include a cooking pot.

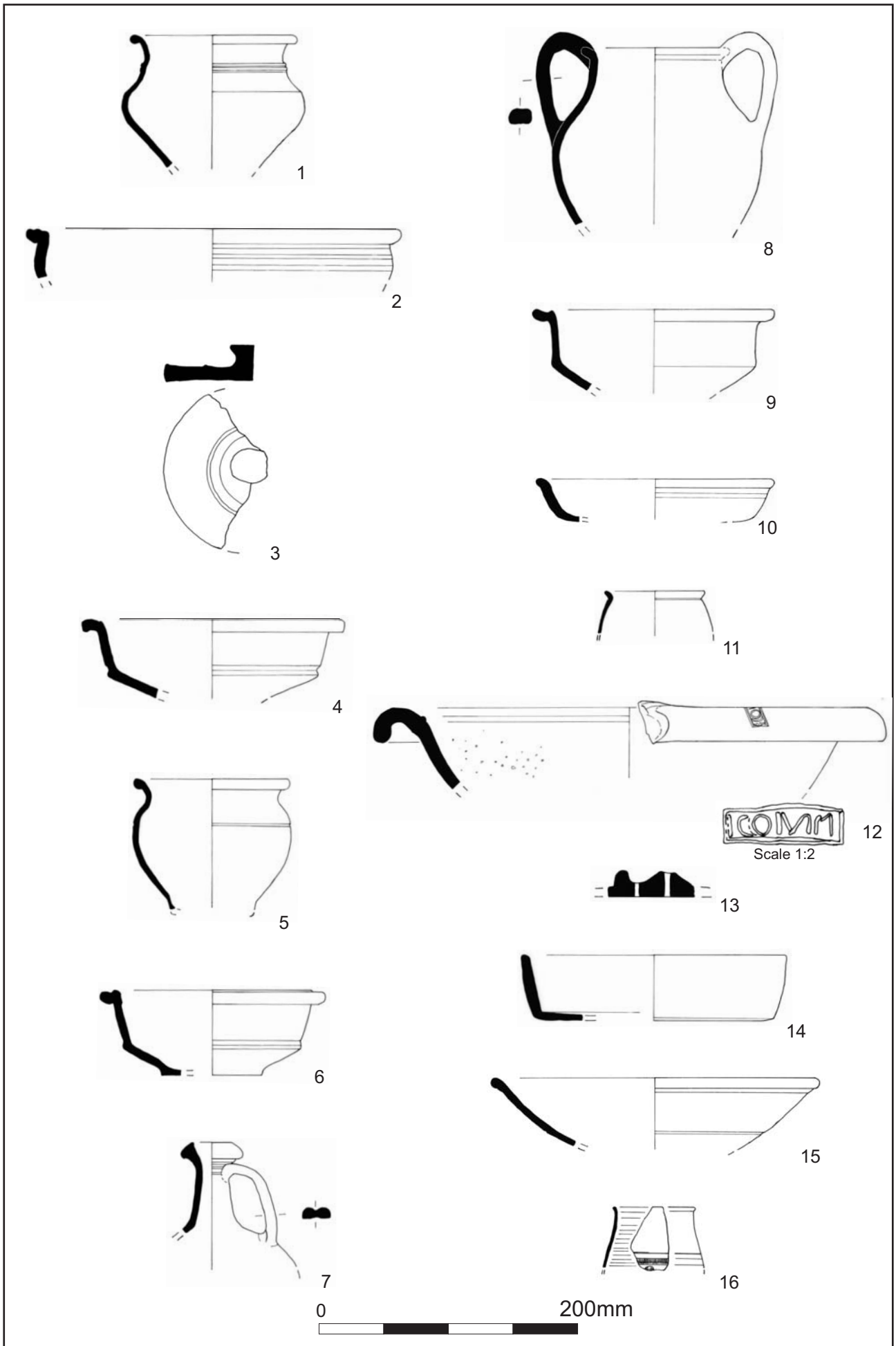
There are a number of wide bowls, with external grooves near the rim, in both hard cream and pink grogged fabrics. Grey ware bowls include carinated vessels with grooved, flat topped or flanged rims, vessels with beaded or triangular rims, flanged bowls and imitation samian ware vessels. The grey ware dishes are mainly plain, beaded or triangular rimmed and there are also a few plain or triangular rimmed dishes in oxidized ware. There are also sherds from a triangular rimmed dish in BB2 and a plain rimmed dish in BB1. The few flagons are mainly from ring necked types with a prominent top ring or bead, though there is one with more of a disc rim, where the 'rings' are vestigial. The mortaria include bead and flange and wall-sided types. The lids include one from a cheese press.

The LNVCC includes sherds from a flagon or narrow mouthed jar, a curved sided dish with a triangular rim, a plain rimmed dish, wide-mouthed jars or bowls, castor boxes, an imitation Dr 36 and funnel neck and plain rimmed beakers, including some with underslip barbotine decoration and overslip painted decoration, and a fragment of a 'Hunt cup'. The Lower Rhineland colour-coated ware and possible Colchester colour-coated ware comprise beakers with roughcast decoration and the Central Gaulish colour-coated sherds are from a beaker with underslip barbotine decoration.

Overall, the lack of fine wares and forms, of non local and imported material and the preponderance of jars could indicate a fairly utilitarian range of activities and a fairly low status. Similarly, the limited range of samian ware vessel forms, coupled with a low frequency of decorated vessels and also an absence of mortaria, is often seen as typical of Roman 'small towns' and rural settlement in general, but the assemblages are really too small to draw any firm conclusions. An essentially rural nature to the activity is also supported by the animal bone assemblages, which are largely dominated by cattle, followed by sheep/goat and by the probable cereal processing waste, with a quern found in a pit at Thorpe Malsor.

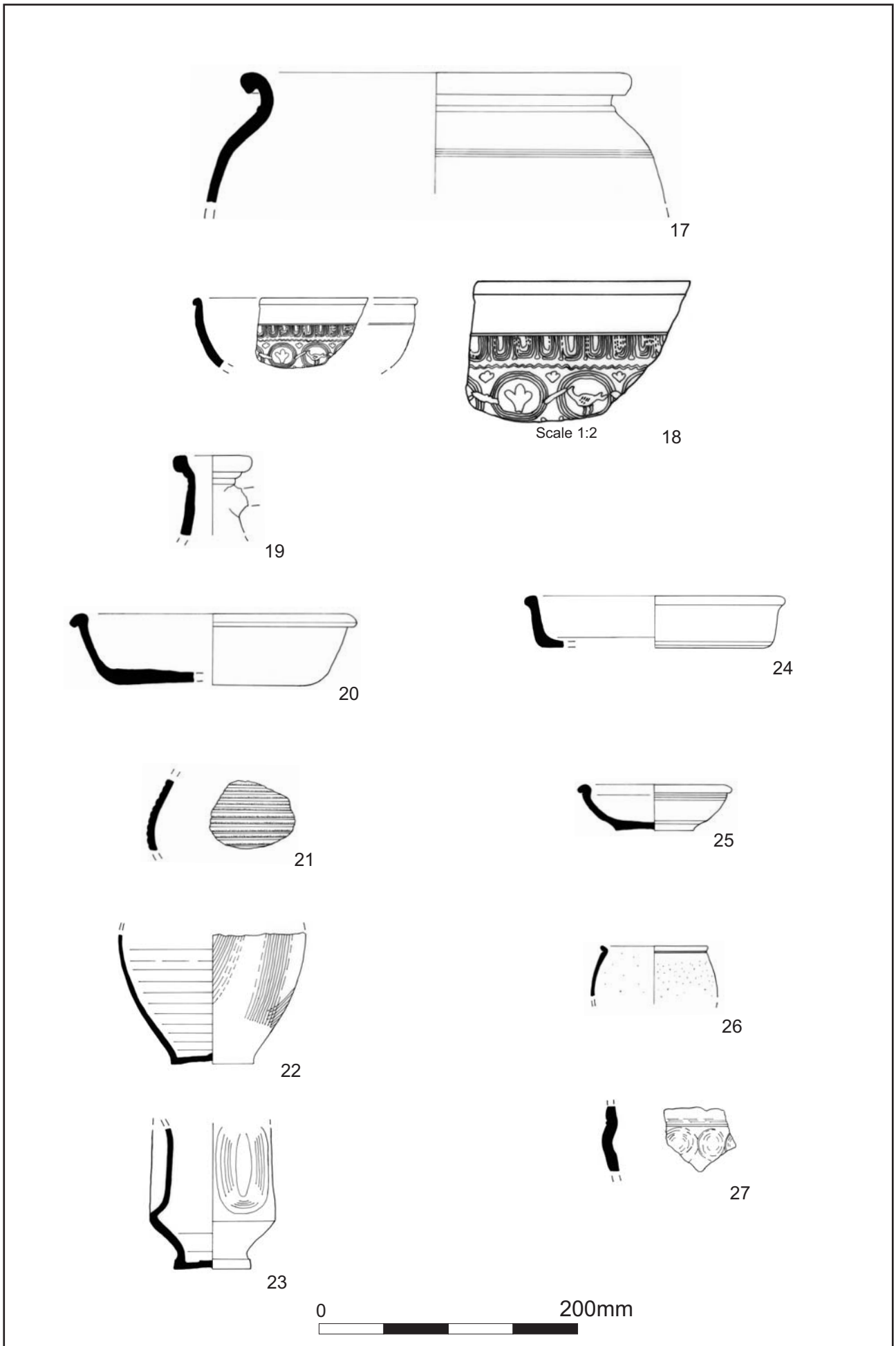
#### ***The Roman pottery from Thorpe Malsor (Figs 5.21-5.22)***

The site produced a sizeable assemblage of nearly 4,200 sherds with a combined weight of over 62.5kg, giving an average sherd weight of 15g. The features from which pottery was recovered comprised a posthole, pits, ditches and gullies. Table 5.1 shows the pottery assemblage by principal fabric type. Some of the grogged wares may belong to, or have been produced in the Iron Age and the Roman pottery appears to span the whole Roman period. The few dateable small finds are of the 2nd and 3rd centuries AD, while the glass suggests a date from the late 1st to the 3rd century AD.



Scale 1:4

Thorpe Malsor, Roman pottery (1-16) Fig 5.21



Scale 1:4

Thorpe Malsor, Roman pottery (17-27) Fig 5.22

Table 5.1: Thorpe Malsor Roman pottery assemblage by principal fabric type

Fabric	Number	%	Weight (g)	%
Hard cream grog	890	21.3	19110	30.5
Grog	233	5.6	4352	7.0
Pink grog	188	4.5	3826	6.1
Shell	404	9.7	8875	14.2
Grey	1547	37.1	18009	28.8
Oxidised	346	8.3	5628	9.0
LVCC	50	1.2	558	0.9
LRCC	12	0.3	72	0.1
Colchester?	23	0.6	52	0.1
BB1	19	0.5	408	0.7
BB2	8	0.2	70	0.1
London	21	0.5	158	0.3
Samian	48	1.2	483	0.8
<b>Total</b>	<b>4171</b>		<b>62623</b>	

The selected assemblages

Eight assemblages from Thorpe Malsor were chosen for more detailed analysis and illustration (Table 5.2). These are thought to represent specific episodes of deposition with a limited time span but, as the features are of an 'open' nature, it is not surprising that they also contain later material. The illustrated sherds have been selected to give an idea of the range of pottery fabrics and types occurring in each group and are augmented by vessels of intrinsic interest from other contexts (Fig 5.21 and 5.22). Munsell soil colour codes are used to describe the surfaces and fractures.

Table 5.2: Thorpe Malsor, quantification of selected Roman pottery assemblages

Feature	Number	Weight (g)	EVE
Ditch 39 (=12 & 94)	236	2766	1.7
Ditch 94 (=12 & 39)	135	3050	4.1
Ditch 112 (= 72, 139, 117 & 145)	216	3194	3.0
Ditch 117 (= 72, 112, 139 & 145)	199	3729	4.7
Ditch 139 (= 72, 112, 117 & 145)	530	10565	14.1
Ditch 145 (= 72, 112, 139 & 145)	198	2751	3.2
Ditch 150 (= 125)	193	2683	3.8
Pit 4	1198	22237	20.8

Ditch 39 (part of ditch system with ditches 12 and 94, see below)

The date range for the pottery from this ditch appears to be mid 1st to late 2nd century AD. The earliest material comprises a sherd from a samian form 18 dated to c AD50-100 and sherds from a globular vessel with incised and painted decoration. The fabric, form and decoration, with incised, 'basketwork' design, banding and 'horizontal ladder' painted decoration, though not the painted lattice, can be paralleled at the kilns at Rushden (Woods and Hastings 1984, 22 & 24), while vessels with panels containing painted lattice work are known from Brixworth and Bannaventa (Woods 1972, fig 39, 275-78). The main Rushden production is dated to c AD 45-60, but some of the vessel forms continued to be produced into the 2nd century AD and painted wares are known from other local kiln sites (*op cit* 36-8). The latest pottery from ditch 39 comprises grey ware dishes with a plain rim and a triangular/bead rim. The range of fabrics is expressed as a percentage of the principal fabrics by count, weight and rim EVE (Table 5.3). The jars occur with curved and lid-seated rims, in both shell-gritted and grey wares. The total rim EVE for ditch 39 is just 1.7, mostly jars, with bowls and dishes accounting for 10% and lids 5% of the vessels by rim EVE.

*Table 5.3: Ditch 39, percentage of the principal fabrics by number, weight and rim EVE*

<b>Fabric</b>	<b>No (%)</b>	<b>Weight (%)</b>	<b>EVE (%)</b>
Hard cream grog	2.1	1.2	--
Pink grog	6.4	9.7	8.8
Misc grog	4.7	3.8	--
Shell	31.4	48.6	31.2
Grey	41.1	24.2	48.8
Misc oxidised	6.4	3.8	11.2

*Illustrated vessels from ditch 39 (Fig 5.21)*

Grey

1 Jar, 10YR 4/1, N4; 7.5YR6/4 core edges (Context 38)

Shell

2 Jar, 10YR 4/1-4/2; 10YR 6/4 on rim. Large shell flecks (36)

Ditch 94 (part of ditch system with ditches 12, see above, and 39)

The total rim EVE for ditch 94 is a little over 4. Jars comprise just over three-quarters of the vessels by rim EVE with bowls and dishes, and lids around a further 10% each. The jars in grey ware are types with curved rims, everted rims and lattice decoration or with narrow mouths. Narrow mouthed jars also occur in hard cream grog and oxidised wares and lid-seated jars in hard cream grog and shell-gritted wares. The grey ware dishes and bowls include a vessel with a bead rim.

These vessel forms, together with the overall proportions of grey and hard cream grogged wares would indicate a date in the 2nd century AD for the fills of this ditch. This is supported by the presence of a samian form 18/31 of Hadrianic-Antonine date, a sherd of LRCC and a triangular-rimmed dish with lattice decoration in BB2. The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.4).

*Table 5.4: Ditch 94, percentage of the principal fabrics by number, weight and rim EVE*

<b>Fabric</b>	<b>No (%)</b>	<b>Weight (%)</b>	<b>EVE (%)</b>
Hard cream grog	25.2	31.0	34.6
Pink grog	1.6	7.5	10.7
Shell	6.0	8.7	11.4
Grey	54.0	37.4	27.6

*Illustrated vessels from ditch 94 (Fig 5.21)*

Hard cream grog

3 Lid, 7.5YR 8/2 - 8/4; 7/4 (90)

Ditch 112 (part of ditch system with ditches 72, 139, 117 and 145)

The total rim EVE for ditch 112 is around 3. The presence of a complete ring necked flagon rim accounts for the high EVE figure for oxidised ware (Table 5.5). Jars comprise 58%, and bowls and dishes a further 12%, of the vessels by rim EVE. Lid-seated jars occur in hard cream grog, pink grog and shell-gritted wares and curved rim jars in hard cream grog and grey wares.

*Table 5.5: Ditch 112, percentage of the principal fabrics by number, weight and rim EVE*

<b>Fabric</b>	<b>No (%)</b>	<b>Weight (%)</b>	<b>EVE (%)</b>
Hard cream grog	8.3	8.0	6.9
Pink grog	16.7	11.0	24.0
Shell	7.9	29.7	14.1
Grey	34.3	23.9	13.2
Oxidised	15.3	9.5	33.6

*Illustrated vessels from ditch 112 (Fig 5.21)*

*Grey*

- 4 Bowl, N4; lighter core edges (109, 110, and 100/pit 105)

The flagon has a large top ring, suggesting a date in the middle of the 2nd century AD or later, and other pottery from the feature dating to the 2nd century AD includes a grey ware carinated bowl, some sherds of BB1 and the base of a Central Gaulish samian form 27, dated c AD120-60. The curved sided flanged bowl, which probably originally had mica-dusted surfaces, may also date to the 2nd century AD. Sherds from a South Gaulish samian ware form 27, dated c AD50-70, also occur and, together with the overall fabric proportions, suggest the assemblage may have a wider date range from the mid to late 1st century AD to mid to late 2nd century AD.

*Ditch 117 (part of ditch system with ditches 72, 112, 139 and 145)*

The total rim EVE for ditch 117 is around 4.6. Jars account for three quarters of the vessels by rim EVE but bowls and dishes only 14%, owing to the presence of a beaker (2%), mortaria (4%) and a lid (5%). Lid-seated jars occur in hard cream grog, pink grog and shell-gritted wares and curved rim jars in hard cream grog, shell-gritted, oxidised and grey wares. Dishes or bowls with bead rims occur in grey and oxidised wares and the grey ware also includes a lid and a carinated bowl with a grooved rim. The mortaria comprise sherds from a Lower Nene Valley wall-sided type with ironstone grits and from a bead and flange type of Mancetter-Hartshill origin. The beaker rim is from a funnel necked type produced in the Lower Nene Valley and another beaker sherd is probably from a vessel made in Colchester.

The assemblage contains some pottery which was probably produced in the later 1st century AD but the fabric proportions suggest most dates to the 2nd century AD or later. The dishes or bowls with bead rims are likely to date to the 2nd to 3rd centuries AD and Central Gaulish samian ware dated c AD120-60 and AD120-200 also occurs. The mortaria and the funnel necked beaker date to the 3rd century AD. The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.6).

*Table 5.6: Ditch 117, percentage of the principal fabrics by number, weight and rim EVE*

<b>Fabric</b>	<b>No (%)</b>	<b>Weight (%)</b>	<b>EVE (%)</b>
Hard cream grog	35.7	42.9	33.7
Pink grog	5.5	3.2	2.6
Shell	12.1	18.2	7.5
Grey	31.2	21.6	42.1

*Illustrated vessels from ditch 117 (Fig 5.21)*

*Grey*

- 5 Jar, 10YR 6/1 – 6/2, N6; N5 core (115)  
6 Bowl, N4; N7 core (115)



Ditch 139 (part of ditch system with ditches 72, 112, 117 and 145)

Ditch 139 contained over 10kg of pottery, the second largest assemblage from the site; the total rim EVE for ditch 139 is over 14. Jars are again the predominant vessels by rim EVE (72%), but bowls and dishes (15%), flagons (7%), a mortarium (2%), lids (2%) and beakers (1.5%) are also represented. Lid-seated jars occur in hard cream grog, pink grog and shell-gritted wares and curved rim jars in hard cream grog and grey wares. Other jar forms are storage jars in hard cream grog and grog wares, narrow mouthed jars in hard cream grog and grey wares, a hard grog ware globular, neckless jar with burnished lattice decoration in zones between grooves, a small fine grey ware jar or beaker, decorated with barbotine 'lozenges' and a handled jar, also in grey ware. Other grey ware forms represented are dishes or bowls with triangular and bead rims, curved sided dishes with plain or bead rims, a plain rim dish and a carinated bowl with a grooved rim. The assemblage also includes a large wide bowl in hard cream grog ware and other fabrics occurring are LNVCW (two sherds), BB1 (one sherd) and sherds from a 'London' ware imitation samian form 30, a colour-coated roughcast ware beaker, a fine oxidised ware disc necked flagon, an oxidised ware lid and a bead and flange Mancetter-Hartshill mortarium.

Two samian ware form 18/31s, one from Les Martres de Vere, and one Central Gaulish, are dated *c* AD100-25 and *c* AD120-60, respectively. The mortarium has a potter's stamp dated *c* AD120-60 (130-50). Much of the pottery would fit a Hadrianic-Antonine date and the overall fabric proportions also point to a date in the 2nd century AD. The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.7).

*Table 5.7: Ditch 139, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	38.1	43.9	38.2
Pink grog	5.1	5.7	3.0
Shell	7.2	9.3	2.3
Grey	30.0	19.2	33.1
Oxidised	5.9	3.1	10.8

*Illustrated vessels from ditch 139 (Fig 5.21)*

Oxidised

7 Flagon, 10YR 8/2-8/4. (133; cf 69 (Ditch 72))

Grey

8 Jar, 10YR 4/1, 5/1, N4 (136)

9 Bowl, 10YR 4/1 – 5/1, 10YR 5/2; 5YR 7/6 core (133)

10 Dish, N4; N5 core (136)

Roughcast

11 Beaker, 5YR 5/4; 2.5YR 6/6 – 6/8 core (136)

Mancetter-Hartshill

12 Mortarium, 10YR 8/3 – 8/4. (132,136). Mrs K F Hartley comments, 'The right-facing stamp is virtually complete and reads ICOTASGI retrograde; it is from one of at least nine dies used by the potter Icotasgi who worked in the Mancetter-Hartshill potteries within the period AD120-160, his optimum date being perhaps AD130-150. For details of his activity see Ferris, Bevan and Cutler 2000, 33, 4'.

Ditch 145 (part of ditch system with ditches 72, 112, 139 and 117)

The total rim EVE for ditch 117 is around 3.2. Jars account for around two-thirds with bowls and dishes a further 31% of the vessels by rim EVE. There are no lid-seated jars in any fabric in this assemblage but curved rim jars occur in both grey and shell-

gritted wares. Other grey ware vessels comprise a narrow mouthed jar, a wide mouthed jar or bowl, a bowl with a flat or bead rim and part of a cheese press lid.

An indented beaker in grey colour-coated ware might be a Lower Nene Valley product. Definite colour-coated ware from these kilns includes a plain rim dish, sherds from a Castor box lid and some fragments of beakers with overslip paint and underslip barbotine scrolls and dots.

Vessels in other fabrics are a BB1 plain rim dish with burnished wavy lines on the interior and exterior of the base, a shallow dish in mica-dusted ware and a Central Gaulish samian ware cup. The latter is dated c AD120-200 and the grey colour-coated indented beaker, the Lower Nene Valley sherds and the BB1 dish all definitely date to the 3rd century AD and possibly later, though the assemblage contains earlier material.

The range of fabrics, is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.8).

*Table 5.8: Ditch 145, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	6.1	2.9	--
Grog	11.6	6.8	--
Shell	19.7	17.6	31.7
Grey	40.9	56.6	48.1
BB1	2.0	7.0	9.6
Oxidised	1.0	1.0	3.4
LVNCC	8.1	3.3	7.1
Mica dusted	3.5	1.4	--
Grey CC	6.1	1.2	--

*Illustrated vessels from ditch 145 (Fig 5.21)*

Grey

13 Cheese press, 10YR 7/1-7/2. (144)

BB1

14 Dish, 10YR 2.5/1, black. (144)

*Ditch 150 (north end of site, aligned west-east)*

The total rim EVE for ditch 150 is just under 3.8. Jars account for 70% of the vessels by rim EVE, with bowls and dishes (24%) and beakers (6%) making up the remainder. There are again no lid-seated jars in any fabric but curved rim jars occur in oxidised, grey and shell-gritted wares. Other grey ware vessels comprise a bowl with a flat or bead rim (joins 144) and a dish or bowl with a bead rim. Additional sherds of the indented beaker in grey colour-coated ware and the mica-dusted ware dish found in 144 also occur in this assemblage. A small wide mouthed jar or bowl, a beaker with a funnel neck and a beaker sherd with underslip barbotine scroll decoration are all Lower Nene Valley products.

The grey colour-coated indented beaker and the Lower Nene Valley sherds are again all definitely dated to the 3rd century AD and possibly later, though the assemblage contains earlier material, including the CGCC beaker which is of Antonine date.

The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.9).

*Table 5.9: Ditch 150, percentage of the principal fabrics by number, weight and rim EVE*

<b>Fabric</b>	<b>No (%)</b>	<b>Weight (%)</b>	<b>EVE (%)</b>
Hard cream grog	6.7	8.1	--
Shell	8.8	10.2	9.0
Grey	72.5	69.8	67.7
Mica dusted	3.6	5.6	9.5
LVCC	3.1	1.9	8.5

*Illustrated vessels from ditch 150 (Fig 5.21)*

Mica-dusted?

- 15 Bowl, 5YR 7/6, 2.5YR 6/6 (148, 144 (Ditch 145); cf 124 (Ditch 125)), CGCC  
 16 Beaker, 10R 3/1 core; very dark grey colour coat (148)

*Pit 4*

Pit 4 contained 22.2kg of pottery, the largest assemblage from the site; the total rim EVE for pit 4 is nearly 21. In analysis, layer 21 (Table 5.10), was quantified separately from the other fills (Table 5.11).

The total rim EVE for Pit 4, layer 21 is almost 2.8. Jars account for 83% of the vessels by rim EVE, with bowls and dishes making up the remainder. Lid-seated jars occur in hard cream grog, shell-gritted and grey wares and curved rim jars occur in hard cream grog and grey wares. Other vessel forms in hard cream grog ware are a narrow mouthed jar, a storage jar and a wide bowl, while there are an everted rim jar, a jar base with burnished lattice decoration and dishes with triangular rims in grey ware. A flagon, a flagon handle, a lid and a possible narrow mouthed jar occur in oxidised ware, together with another handle large enough to be from an amphora-type vessel. A rim sherd from a Central Gaulish samian ware Curle 11 also occurs. This is dated c AD120-60 and much of the other pottery would fit a date in the 2nd century AD, with little likely to be any earlier.

The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.10).

*Table 5.10: Pit 4, layer 21, percentage of the principal fabrics by number, weight and rim EVE*

<b>Fabric</b>	<b>No (%)</b>	<b>Weight (%)</b>	<b>EVE (%)</b>
Hard cream grog	42.4	61.3	57.0
Pink grog	2.5	0.6	--
Shell	9.9	9.5	8.3
Grey	31.0	13.5	25.6
Oxidised	13.3	14.2	7.6

*Illustrated vessels from pit 4, layer 21 (Fig 5.22)*

*Hard grog*

- 17 Jar, 10YR 7/2 - 7/4 (21)

For the other fills of pit 4, jars comprise 69% of the vessels by rim EVE with bowls and dishes 16.5% and flagons 5.5%; a mortarium (1%), lids (>1%) and beakers (>1%) are also represented. Lid-seated jars occur in hard cream grog, pink grog, shell-gritted, oxidised and grey wares and curved rim jars in hard cream grog, oxidised and grey wares. Other vessel forms in hard cream grog ware are large jars, narrow mouthed jars, a wide bowl and a mortarium. In grey ware there are also large jars, everted rim jars, small jars, narrow mouthed jars, jars with barbotine 'lozenge', rouletted or incised

diagonal comb decoration, a carinated bowl with a flat rim, a small bowl with a curved rim, a bowl with a flat rim, dishes with everted, flat topped, plain, flanged, bead and bead or triangular rims, lids and an indented beaker. Other vessels in oxidised ware comprise a ring-necked flagon with a large top bead, a flagon handle, a curved sided dish, a dish or bowl with a triangular rim, a dish or bowl with a flat rim, a lid, narrow mouthed jars, small jars or beakers and an unguentarium or amphora-stopper. Fragments from 16 samian ware vessels are represented. Recognisable forms are 31, 31R, 33, 37, 38 and Curle 15. Other fabrics that occur are LRCC (cornice rim, roughcast beakers), Lower Nene Valley grey colour-coated ware (imitation samian ware form 36 with barbotine leaf), Oxfordshire white ware, Mancetter-Hartshill (mortarium with red, black and grey grits) and roughcast colour-coated ware, possibly of Colchester origin.

The samian ware date ranges are AD120-40, AD120-200, AD140-200 and AD160-200 and much of the other pottery would fit a date in the 2nd century. The Lower Nene Valley grey colour-coated ware, imitation samian ware form 36, is potentially the latest vessel, being reminiscent of vessels produced in the kilns at Stanground, Peterborough, in the early to mid 3rd century AD (Dannell 1973, 140; Dannell *et al* 1993, 90-1). Pit 4 also contains a number of small finds, including a coin of possible Hadrianic date (SF37), a nail cleaner (SF1) which is dated stylistically to 2nd/3rd centuries AD, and two bone pins (SFs 21, 22) with affinities to Crummy type 2, thought to have a terminal date of c AD200 (1983, 21). The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.11).

*Table 5.11: Pit 4, other layers, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	24.8	35.5	19.6
Pink grog	5.7	7.5	0.8
Shell	7.1	13.2	6.4
Grey	40.2	25.3	39.7
Oxidised	14.2	11.7	19.7

*Illustrated vessels from pit 4 (Fig 5.22)*

Central Gaulish samian ware

- 18 A rim sherd from a small form 37 bowl in the style of Geminus of Lezoux. The motifs include Geminus' ovolo Rogers (1974) B76 and his untidy wavy line below. The design is repetitive; comprising small double medallions linked with the double astragalus (ibid) R91 used by Geminus and Drusus I, with a small trifold bud (ibid) G113 between. Of the complete medallions one contains a larger trifold leaf, the other rear-facing bird O. 2298. It is probable that these alternate. c AD120-140 (9, 26)

Oxidised

- 19 Flagon, 7.5YR 7/4, 8/4, 7/6, 8/6 (7)  
 20 Bowl, 7.5YR 7/4, 8/4, 7/6, 8/6 (22)  
 21 Unguentarium, 7.5YR 8/2; 7.5YR 8/4 slip (23)

Grey

- 22 Jar base, N5. Lighter core edges (24)  
 23 Indented jar, N5; light grey core (23)  
 24 Dish, very dark grey/black; 5YR 5/1 core (6, 23, 21 (Ironstone layer))  
 25 Small dish, very dark grey/black; N4 core; 7.5YR 6/4 core edges (26)

LRCC Roughcast

- 26 Beaker, very dark grey colour-coat; 10YR 8/3 – 8/4 (27)

Additional vessel of intrinsic interest from ditch 72:

- 27 Oxidised ware, probably mica dusted. 5YR 7/6; 10YR 6/1, N6 core; 2.5YR 7/6 core edges, similar to Timby 2004, fig 14, 24 (69)

#### Cross-feature joins

A number of joining sherds from different contexts were noted during the recording of the pottery, as follows:

- Ditch 94 with Pit 46, intercutting features
- Pit 105 with Ditch 112, adjacent sections
- Pit 4 with Ditch 79, at opposite end of site
- Ditch 117 with Ditch 139, same ditch system
- Ditch 145 with Ditch 150, adjacent ditch sections
- Ditch 145 with Ditch 125, adjacent ditch sections
- Ditch 72 with Ditch 139, same ditch system

In most cases, these can be explained by intercutting features and different sections on the same ditch system. The joining sherds from a Central Gaulish samian ware Curle 15, found in pit 4 and ditch 79, are more intriguing given the 35m distance between the two features.

The assemblages in these features are secondary, having been discarded as rubbish deriving from activity elsewhere. It is possible, therefore, that the deposit from which the broken samian vessel originated was dumped into more than one feature. If this were the case, other joins between pottery sherds from the different features might be expected, but none were noted, though the assemblages have not been examined together in detail. Interestingly, one of the joining sherds is large (pit 4) and the other is just a small piece from the rim. This raises the possibility of another scenario, one where a small piece escaped the initial collection of larger broken sherds, to become part of another rubbish deposit dumped into a different feature.

Table 5.12: Summary of Samian pottery assemblage from Thorpe Malsor

Feature	Fill	Fabric	Form	Sherd type	early date	late date	Comments
pit 4	6	CG	Dr 31R	R	160	200	
pit 4	7	CG	?	chip	140	200	pale pot as context 26
pit 4	9	CG	Dr 37	R+	120	140	GEMINUS
pit 4	22	CG	Dr 38	body	120	200	
pit 4	22	CG	Dr 37	dec body	120	200	
pit 4	22	CG	?	body	120	200	
pit 4	22	CG	dish/ Dr 31	R	140	200	
pit 4	22	CG	Curle 15	R	120	200	usually early- mid 2nd century
pit 4	24	CG	?	body	120	200	
pit 4	23	CG	Dr 33	R +	140	200	
pit 4	23	CG	Dr 33	base angle	120	200	
pit 4	23	CG	dish	body	120	200	
pit 4	23	CG	dish	R-	120	200	
pit 4	23	CG	?	chip	120	200	
pit 4	26	CG	Dr 37	R	120	140	same pot as fill 9?
pit 4	26	CG	?	body	120	200	
pit 4	21	CG	?	flange/rim	120	160	? Curle 11, sherd v small.
pit 20	19	CG	?	R-	120	200	
pit 20	41	CG	dish	R-	120	200	
pit 46	43	CG	Dr 31R	Rim	140	200	
pit 55	53	CG	Wa 79	R-	160	200	
gully 61	60	CG	bowl	Foot ring	120	200	squat footring
ditch 12	14	CG	Dr 27	body	120	160	
ditch 39	38	SG	Dr 18	B	50	100	
ditch 79	75	CG	Curle 15	R-	120	200	same pot as fill 22
ditch 79	75	CG	Dr 18/31	R+	120	160	almost a Dr 31
ditch 94	89	CG	Dr 18/31	R	120	160	
ditch 96	95	CG	bowl	R-	120	200	? Dr 37 rim, bead rim scrap
ditch 96	95	CG?	dish	body	120	200	Form prob 18/31
ditch 112	110	CG	Dr 27	B+	120	160	very flat profile
ditch 112	110	SG	Dr 18	R	50	70	
ditch 117	113	CG	Dr 18/31	R	120	160	prob same as 132
ditch 117	113	CG	Dr 31?	base angle	120	200	
ditch 117	115	CG	dish	base	120	200	poss 18/31, pale fabric , yellowish
ditch 125	122	CG	cup	foot	120	200	
ditch 125	124	CG	Dr 33	R	120	200	
ditch 139	132	CG	Dr 18/31	R	120	160	
ditch 139	135	Les M	Dr 18/31	R	100	125	prob same as 113 drilled 'rivet' hole below rim notch across
ditch 145	144	CG	cup	foot	120	200	footring

Samian ware by J M Mills

The majority of the small collection of samian from Thorpe Malsor (Table 5.12) came from Central Gaulish kilns at Lezoux dating to the 2nd century AD, with a single sherd dating to the 1st century AD from Les Martres-de-Veyre and two sherds, both of form 18, from South Gaul.

The samian is in good condition. Few, if any sherds exhibit signs of excessive wear. A single drilled repair hole was noted on a dish dated to the early 2nd century AD from Les Martres (ditch 139) and a very small footring sherd appears to have had a notch, possibly a mark of ownership, cut across it (ditch 145). Otherwise the collection is unremarkable. Many of the sherds are very small which makes identification difficult; about half of the sherds weigh less than 5g each.

The date range of these sherds, which include a pre-Flavian form 18 (ditch 112) and forms of the late 2nd century AD, such as Walters 79 and Dr 31R, suggests occupation throughout the 1st and 2nd centuries AD. In such a small collection it is not surprising that no examples from East Gaulish kilns were identified as these, like the products of Les Martres-de-Veyre, usually only form a small percentage of an assemblage. The range of forms is very limited, and only one certain decorated bowl, a form 37 in Geminus' style (pit 4), was identified.

#### ***The Roman pottery from Great Cransley (Fig 5.23)***

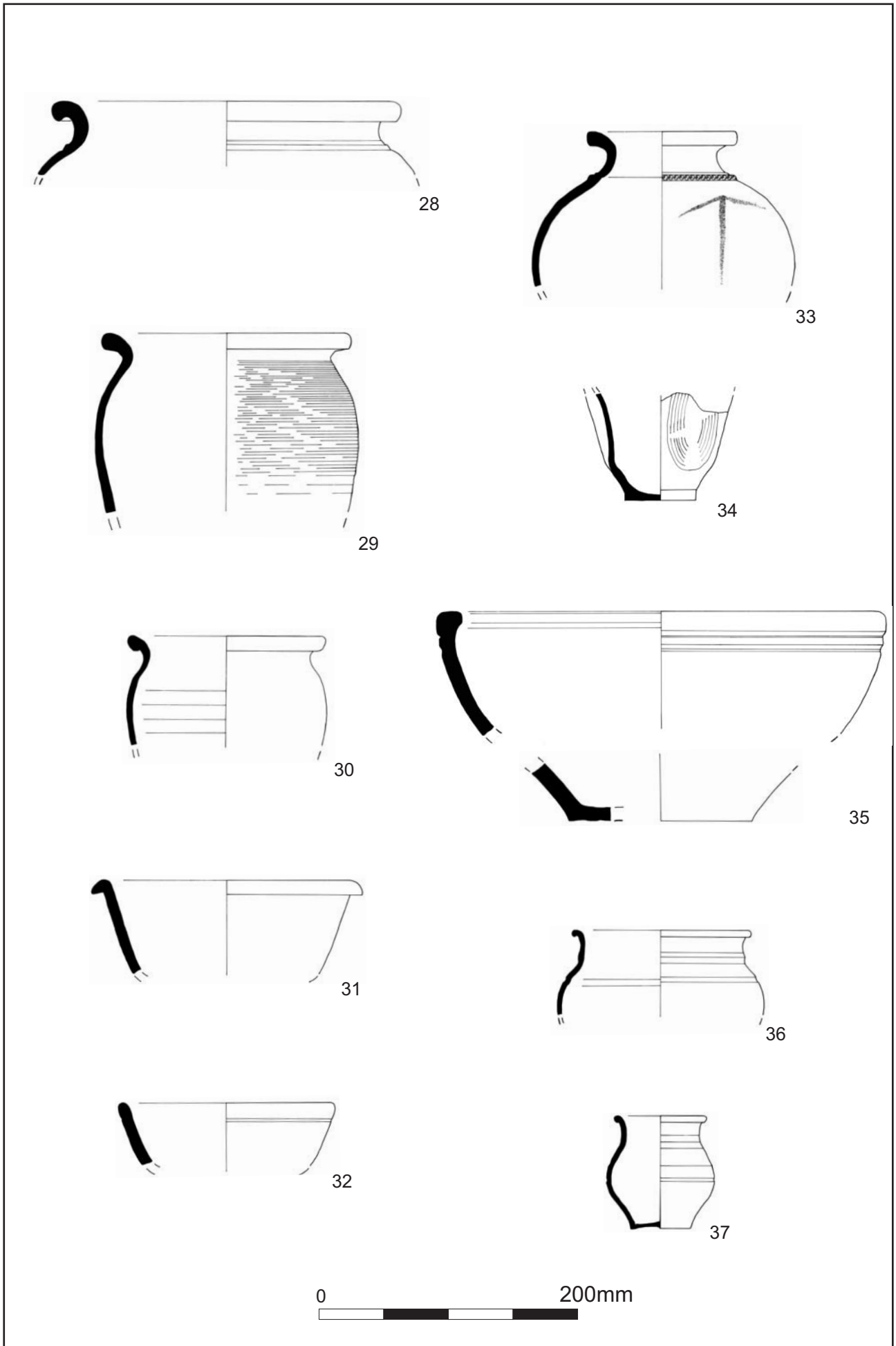
The site produced an assemblage of 1,256 sherds with a combined weight of over 17.5kg, giving an average sherd weight of 14g (Table 5.13). Some of the grogged wares may belong to, or have been produced in the Iron Age, and the Roman pottery appears to span the whole Roman period. The features from which pottery was recovered comprised a posthole, a pit, ditches, gullies and a well.

*Table 5.13: Great Cransley Roman pottery assemblage by principal fabric type*

<b>Fabric</b>	<b>No</b>	<b>%</b>	<b>Weight (g)</b>	<b>%</b>
Hard cream grog	84	6.7	1730	9.8
Misc grogs	177	14.1	3282	18.6
Shell	157	12.5	2142	12.2
Grey	634	50.5	7398	42.0
Misc oxidised	158	12.6	2608	14.8
LNVCC	37	3.0	270	1.5
<b>Total</b>	<b>1256</b>		<b>17604</b>	

The selected assemblages

Five assemblages from Cransley were selected for more detailed analysis (Table 5.14). These are thought to represent specific episodes of deposition which had a limited time span but, as the features from which they are derived are essentially of an 'open' nature, it is not surprising that they also contain later material. The illustrated sherds have been selected to give an idea of the range of pottery fabrics and types occurring in each group and are augmented by vessels of intrinsic interest from other contexts (Fig 5.22). Munsell soil colour codes are used to describe the surfaces and fractures.



Scale 1:4

Great Cransley, Roman pottery (28-37) Fig 5.23



Table 5.14: Great Cransley, quantification of selected Roman pottery assemblages

Feature	No	Weight (g)	EVE
Ditch 11, E3	675	9778	12.7
Ditch 17, E2	213	3312	2.5
Ditch 23, E3	137	1648	1.7
Ditch 52, late boundary	128	1582	1.6
Pit 29, E2	47	652	0.8

Ditch 11, Enclosure 3, southern arm (same as ditch 23)

The assemblage from ditch 11 is by far the largest from the site with, an overall weight approaching 10kg; the total rim EVE for ditch 11 is just under 13. Three-quarters of the vessels by rim EVE are jars, with bowls and dishes accounting for the rest. Lid-seated jars occur in hard cream grog, shell-gritted and oxidised wares and curved rim jars in hard cream grog, grog, shell-gritted, oxidised and grey wares. Other jar forms present are storage jars in grog and shell-gritted wares, narrow mouthed jars in grey and oxidised wares and a shell-gritted ware jar with a curved, undercut rim. The grey ware also includes bowls or dishes with bead, downturned, everted flat, triangular and flanged rims and dishes with plain, flat and flanged rims. Other vessels occurring are an imitation samian ware form 36, and curved sided dish with a triangular rim, a hunt cup and a flagon or narrow mouthed jar in LNVCC, a LNVCCW mortarium with ironstone grits and the base of an indented beaker in oxidised ware.

Four Central Gaulish samian ware vessels also occur in ditch 11. A form 31 is dated c AD140-200, a form 33, c AD120-200, a possible Déchelette 72, c AD140-200 and a bowl, c AD120-200. The low proportion of grogged wares and the amounts of grey ware and LNVCC suggest material is derived from activity in the later 2nd and 3rd centuries. The LNVCC from the ditch includes an indented beaker with barbotine scale decoration, dating to the 3rd century AD, and an imitation samian form 36, which could date to the 3rd or 4th centuries AD. A shell-gritted jar with an undercut rim and a mortarium with ironstone trituration grits also date to the 3rd or even the 4th century AD. The narrow mouthed jar with painted decoration is very similar in form and decoration to cream oxidized ware vessels made in the Lower Nene Valley (cf. Perrin, 1999, fig 49, 328), but the fabric of this example is a sandy reddish-yellow, which suggests a different, perhaps more local, origin. The range of fabrics is expressed as a percentage of the principal fabrics by number, weight and rim EVE (Table 5.15).

Table 5.15: Ditch 11, percentage of the principal fabrics by number, weight and rim EVE

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	6.2	9.2	4.9
Grog	6.8	8.0	5.1
Shell	13.8	10.3	10.9
Grey	51.0	49.3	64.8
Misc oxidised	17.8	20.6	12.0
LNVCC	3.9	2.0	1.1

*Illustrated vessels (Fig 5.23)*

Hard cream grog

28 Jar, 10YR 8/2, 8/3 (10)

29 Jar, 7.5YR 7/4. Feint external rilling (8)

Grey

30 Jar, 10YR 7/1; N7 (9)

31 Bowl, 10YR 6/1-6/2 with lighter core (8)

32 Dish, 10YR5/1;N5 (8)

## Oxidised

- 33 Narrow mouthed jar, 5YR 7/6; 7.5YR 7/4; 2.5YR 6/6 painted decoration (9)  
 34 Indented jar/beaker, 2.5YR 6/6. Possible kiln product? (8)

## Ditch 17 (Enclosure 2, southern arm)

The total rim EVE for Ditch 17 is around 2.5, of which 82% are jars and 18% bowls. The relatively few recognisable vessels are a lid-seated jar and a jar with deep external rilling in pink grogged ware, curved rim jars in grey ware, a large wide bowl in pink grogged ware and a small grey ware curved sided lid-seated dish or bowl.

The high percentage of grogged wares in ditch 17 would appear to indicate a date range of late 1st to 2nd century AD, despite the quantities of grey ware vessels, which are mainly jars with decoration typical of the later 1st or 2nd centuries AD, such as close combing, rouletting and zonal burnishing. Ditch 17 did not contain any LNVCC. The range of fabrics is expressed as a percentage of the principal fabrics by count, weight and rim EVE (Table 5.16).

*Table 5.16: Ditch 17, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	0.9	3.0	--
Grog	2.8	1.9	--
Pink Grog	33.8	57.1	1.1
Grey	59.6	35.7	1.4

*Illustrated vessels (Fig 5.23)*
*Hard cream grog*

- 35 Wide bowl, 7.5YR 8/4; N6 core (15)

## Ditch 23 (Enclosure 3, southern arm, same as ditch 7)

The total rim EVE for ditch 23 is just 1.7, of which 85% comprises jars, 10% beakers and 5% the mortarium. Lid-seated jars occur in hard cream grog and grey wares and there are also curved and everted rim jars in grey ware. The other jar form present is a large jar in grey ware. The LNVCC from ditch 23 includes a plain rimmed beaker and an indented funnel neck beaker. The layers also contain sherds from a large mica-dusted vessel, which may be either a jar or flagon and a Mancetter-Hartshill mortarium which appears to be a bead rim, grooved flange type.

The proportion of grogged wares of the late 1st to 2nd centuries AD is quite high in ditch 23, though there are none in the pink grogged fabric. The grey wares form less than half the assemblage, again perhaps indicative of an earlier date range. Both LNVCC vessels are types from the 3rd century AD, while the large mica-dusted vessel is likely to date to the 2nd century. The range of fabrics is expressed as a percentage of the principal fabrics by count, weight and rim EVE (Table 5.17).

*Table 5.17: Ditch 23, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	18.3	27.3	0.2
Grog	12.4	9.5	0.2
Shell	2.9	6.6	
Grey	43.8	37.7	1.1
Misc oxidised	16.8	15.2	
LNVCC	5.8	3.8	0.2

## Ditch 52 (late boundary, cutting trackway ditches, eastern side)

The total rim EVE for ditch 52 is just 1.6, all from jars, comprising carinated and curved rim jars in grey ware and plain jars in shell-gritted ware. The range of fabrics is expressed as a percentage of the principal fabrics by count, weight and rim EVE (Table 5.18).

*Table 5.18: Ditch 52, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Grog	2.3	0.9	
Pink Grog	3.1	8.7	
Shell	43.8	57.4	
Grey	50.8	33.0	1.6

*Illustrated vessels (Fig 5.23)*

Grey

36 Jar, N6, N4 (50)

Shell-gritted ware and grey ware dominate this assemblage, in which the amount of grogged ware is relatively low. The shell-gritted ware is almost entirely from two vessels, both of which have cut holes in their bases; however, no rims were recovered. The grey ware is all from jars, one of which is substantially complete. Ditch 52 does not contain any LNVCC and the assemblage appears to date mainly to the 2nd century AD.

Pit 29, Enclosure 2

The total rim EVE for pit 29 is less than 1 (0.8), again all from jars, comprising jars with curved or everted rims in grey ware and a grey ware jar with external burnished lattice decoration.

Pit 29 does not contain any pink grogged ware, shell-gritted ware or LNVCC and the hard cream grogged ware comprises sherds from a jar. The grey ware jar with external burnished lattice decoration appears to be imitating black burnished ware. The oxidised ware is mainly from a small jar in a cream oxidised fabric of a form which is more common in grey ware; there is also a sherd, probably from a flagon, with a cream slip over a reddish-yellow fabric. A stamped Central Gaulish samian ware form 31 base, dated c AD170-90 occurs in the pit and the assemblage as a whole appears to date mainly to the 2nd century. The range of fabrics is expressed as a percentage of the principal fabrics by count, weight and rim EVE (Table 5.19).

*Table 5.19: Pit 29, percentage of the principal fabrics by number, weight and rim EVE*

Fabric	No (%)	Weight (%)	EVE (%)
Hard cream grog	29.8	42.9	0.6
Grey	40.4	22.1	--
Misc oxidised	23.4	20.2	0.2
Misc	4.6	12.6	--

*Illustrated vessels (Fig 5.23)*

Oxidised

37 Jar, 7.5YR 8/2-8/4. Possible kiln product? (28)

Pit 29 also contained some kiln bars, associated with kilns of the 1st to 2nd centuries AD (Shaw 1979). There are no wasters or other certain indicators of possible local production amongst the pottery from Great Cransley. However, pit 29 did contain a small jar in a cream oxidised fabric which is a form that is more common in grey ware. The only other 'candidates' from Cransley for possible local production are a substantially complete reddish yellow oxidised indented beaker from ditch 11 and grey

ware jars from ditch 17 and ditch 52, both substantially complete (not illustrated), which have a mixed grey/reddish yellow colour.

Samian ware by J M Mills

Sherds from just five vessels were recovered from ditch 11 and pit 29 (Table 5.20). The sherds are in good condition and, as might be expected of sherds from pits and ditches, the sherd size is, with the exception of the body sherd from a Déchelette 72, quite large. All of the samian dates to the 2nd century, probably from the workshops at Lezoux in Central Gaul. Each feature produced part of a form 31 base, a form usually dated to the Antonine period. One of the bases bears a partial stamp of Tituro. It is not possible, or wise, to draw any conclusions from only five vessels, although their presence may help to refine the overall ceramic dating and interpretation of the site.

*Table 5.20: Summary of Samian pottery assemblage from Great Cransley*

Feature	Context	Fabric	Form	Sherd type	Stamp	early date	late date
ditch 11	8	CG	Dech 72?	body		140	200
ditch 11	9	CG	bowl	body		120	200
ditch 11	9	CG	Dr 33	R		120	200
ditch 11	9	CG	Dr 31	Base		140	200
pit 29	28	CG	Dr 31	Base +	JONISOE	170	190

#### **Other sites**

Roman pottery was recovered from a number of other sites on the route of the pipeline (Table 5.21). The totals from Caldecott and Thorpe by Water are insignificant, and are low for the others; Glaston, Bisbrooke, Gretton, Rushton, Seaton, and White Hill Lodge. Little meaningful can be said about these assemblages.

*Table 5.21: Summary of Roman pottery from other sites (no, weight (g) in brackets)*

Fabric	Caldecott	Glaston	Gretton	Rushton	Seaton	Thorpe by Water	White Hill Lodge
Hard cream	--	--	1 (16)	8 (104)	--	--	17 (330)
grog							
Grog	1 (2)	1 (8)	3 (20)	8 (40)	3 (20)	--	24 (312)
Shell	--	--	1 (4)	--	--	--	10 (276)
Grey	--	19 (104)	5 (46)	15 (120)	1 (6)	1 (2)	12 (165)
Oxidised	--	5 (36)	3 (8)	8 (60)	4 (24)	--	4 (16)
LNVCC	--	24 (341)	3 (26)	--	--	--	2 (86)
CGS	--	--	--	1 (2)	--	--	
<b>Total</b>	1 (2)	49 (489)	16 (120)	40 (326)	8 (50)	1 (2)	69 (1185)

The Glaston site was an early Anglo-Saxon cremation cemetery, and the Roman pottery came from nearby ditches. The LNVCC in this group comprises forms dating to the 4th century AD. At the Gretton ditches contained pottery spanning the 2nd to 4th centuries AD pottery, including a LNVCC form of the 4th century, and three cremation burials contained residual sherds dating to the 2nd century AD. At Rushton pottery from ditches and gullies appears to date to the 1st to 2nd centuries AD. A similar date is probable for the Roman pottery from Seaton, which came from a small ditch. At White Hill Lodge the pottery was from 17 features, each containing only a few sherds, with the group as a whole indicating activity throughout the Roman period.

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**5.10.2 Roman fired clay and ceramic building material**

by Pat Chapman

**Seaton**

There are 37 fragments of fired clay, weighing 329g, from pit 7 and ditch 13. The majority are irregular, fine silty clay, orange and buff with occasional black. The rest are either dark red, sub-rounded and slightly sandy, or soft fine pale brown.

**Gretton Road**

There are four small sherds of Roman tile from the topsoil. They are made from a fine slightly soft orange fabric with small grog or small gravel, but have no features to define the type of tile.

There are four irregular-shaped pieces of fired clay from the topsoil. They are hard, orange-brown and may be heavily worn tile fragments. A few tiny fragments were recovered from ditch 5; these are friable, hard and dark red-brown.

**Rushton**

Twelve sherds of Roman tile, weighing 740g, are unstratified, small and very abraded. Four of these are roof tile sherds, two from the flat *tegula* identified by the flange, and two from the curved *imbrex*; the remainder are undiagnostic body sherds. The fabric is a fine hard orange clay, with the *tegulae* and three other sherds having a soft orange surface. One small undiagnostic sherd is made in the local regional pink grog type.

Two tiny fragments of fired clay came from ditch 21.

**Thorpe Malsor**

One sherd of *tegula* roof tile was recovered from ditch 125; the body is 15mm thick, and the flange 45mm high from base to top and 20mm wide. The fabric is fine pinkish-orange and black clay with some shell and small gravel and voids from leached organic or calcareous material. The other *tegula*, from ditch 150, has lost most of its surface and flange, just leaving a rough hard pale orange-pink and white body, 13mm thick.

A possible tile body sherd, 15mm thick, from pit 4, is made from hard fine reddish-orange clay with occasional shell and gravel.

There is a short fragment from a kiln bar c 38mm square from ditch 112, and five oven plate fragments from pit 4. The plates are 20-35mm thick, with curved edges, made in hard fine orange clay, containing quite dense large shell, with dull grey smooth but uneven surfaces. This furniture is associated with kilns of the 1st to 2nd centuries AD (Shaw 1979).

There are a further 54 fragments, weighing 622g, from pit 4 and ditches 72 and 112. They are all in hard fine orange and reddish to black fabric, containing dense shell up to 12mm long, and have smooth uneven surfaces and could be the remains of oven plates.

There are four small fragments of fired clay from four contexts, each one slightly different.

**White Hill Lodge**

There are 33 *tesserae*, 30 are unstratified and there are three from ditch 65. They have been cut from tiles, c 20-25mm thick, made from fine sandy clay with tiny gravel inclusions, fired to bright orange-brown, sometimes with a mid grey core. Most of the edges and corners are abraded, apart from two in ditch 65. Their presence suggests there was a tessellated pavement somewhere in the vicinity.

Fourteen pieces of fired clay, weighing 225g, was recovered from pit 16. They are typically 15-20mm thick, with one smooth but uneven and slightly vitrified surface, while the rest is fine slightly soft orange with tiny grit and grog, a fabric similar to some Roman tile. These fragments are probably the debris from the lining of an oven or hearth.

There is also a large, irregular piece of fired clay from ditch 21, and an unstratified piece with one smooth surface which may be from a tile, but it is too small and broken to be certain.

There are two lumps of tufa from ditch 65, each about 90 x 50 x 40mm, which may suggest there was a bathhouse lined with tufa blocks in the neighbourhood.

### ***Great Cransley***

There are 41 fragments of kiln bar, weighing 2.1kg, from pit 29. They come from kiln bars with a rectangular section, typically 85-90mm wide and 40mm thick, tapering to 20mm thick at one end. They are in fine orange clay with few inclusions, and are either slightly soft and friable or hard. One smooth flat highly-fired piece from ditch 42 may be the flattened end of a bar.

There are similar bars from pottery kilns in Caldecotte, Milton Keynes (King 1994) and Camp Hill, Northampton (Shaw 1979). The kilns at Caldecotte were described as La Tène III-derived kilns using portable kiln furniture before and after the Roman conquest. Those kiln bars were up to 350mm long with tapering ends. The pottery from the Camp Hill kilns was dated to the mid 1st to 2nd centuries AD.

## **5.10.3 Roman querns**      by Andy Chapman

### ***Thorpe Malsor***

Fragments of five stones, with a total weight of 11.3kg, probably come from four flat-topped querns typical of the Roman period, in three distinct geologies (Table 5.22).

The smallest stone (SF25), only 300mm in diameter, is a distinctive sandstone conglomerate containing dense large quartz pebbles, Old Red Sandstone from the Forest of Dean (Shaffrey 2006). It has a small central eye, only 50mm in diameter, and the surfaces are smooth, but retain no tool marks. A thin band of surface iron-staining, 10-15mm thick, encircles the circumference of the stone, indicating the former presence of an iron band to which the turning handle was probably attached, making it easier to rotate such a small diameter stone. The stone diameter is accurate as the central eye survives, but the surviving length of circumference has a flattened curvature, suggesting that it comprised a number of flattened facets, perhaps to prevent the encircling iron band from slipping. An example of a complete upper stone with an iron band attached has been recovered from Chester's Fort on Hadrian's Wall (Watts 2002, 38 & fig 11b), and a similar quern in Old Red Sandstone also with an encircling band of iron staining, has been found at a Roman settlement at Milton Ham, near Northampton (Chapman 2010b, 26-27 & fig 20).

There is a slightly larger diameter quern (45) in fine-grained sandstone, 420mm diameter. This has a large central eye, 150mm diameter, and had been heavily used, with the stone only 26mm thick at the central eye. The upper surface and the circumference are worn smooth but retain some scattered shallow dimpled tool marks, while the grinding surface has a denser pattern of small dimpled tool marks.

The largest stone (8), in Millstone Grit, is 600mm in diameter, up to 110mm thick and 90mm thick at the circumference, with a very large central eye, 200mm in diameter.

This stone lies at the upper end of the size and weight range for hand rotation, as the complete stone would have weighed around 40kg, which suggests that this was probably a small millstone rather than a hand-turned rotary quern. The other two pieces (30 and 44), probably come from the same stone.

*Table 5.22: Quantification of querns from Thorpe Malsor*

<b>Context Feature (* small find)</b>	<b>Geology</b>	<b>Diameter/ Thickness Completeness</b>	<b>Comments</b>
76, Ditch 79 (25)	Sandstone conglomerate (dense quartz up to 35mm) Old Red Sandstone	Curvature 450mm Diameter 300mm Eye 50mm Thickness 40-65 Completeness 20%	Upper stone Plain surfaces, band of iron-staining around circumference
13, Ditch 12 (30)	Millstone Grit (Coarse, quartz 5-10mm)	Thickness 100mm	Irregular fragment, no surfaces survive
09, Pit 4 (8)	Millstone Grit	Diameter 600mm Eye 200m Thickness 65-90mm Completeness 15%	Upper stone Smooth surfaces, no tool marks
21, pit 4 (44)	Millstone Grit (Coarse, quartz 5-10mm)	Thickness 110mm	Irregular fragment, Full width survives Probably same as SF30
21, pit 4 (45)	Sandstone (fine grained)	Diameter 420mm Eye 150mm Thickness 26-42mm Completeness 10%	Upper stone Dimpled surfaces

### **Great Cransley**

There are fragments from three flat rotary querns in Millstone Grit, typical of the Roman period; two of these, along with part of a sharpening stone, came from the well, 56 (Table 5.23).

Two partial upper stones (7 and 8) are similar in form but show extreme contrasts in usage. Both are from flat-topped upper stones around 600mm in diameter, and they are plain, with no tool marks surviving. The thicker stone (7) has a central eye 100mm in diameter (Fig 5.24). However, while stone (7) is near its original thickness, at up to 88mm thick, the other (8) has been worn down to a minimum of only 19mm thick. The thicker stone has also had its outer circumference hacked away, and it is possible that this may have been a deliberate act of “killing” an almost new stone. The surviving fragment of this stone weighs 7.2kg, so the complete stone would have weighed c 36kg. A third small fragment of an upper stone (10) may be one of the fragments hacked from the circumference of stone (7) (Fig 5.24).

A grinding/sharpening stone (9) is a roughly rectangular block of fine-grained sandstone, at least 142mm long, 100mm wide and 50-85mm thick. The broad upper surface is worn to a smooth concave surface, and one adjacent side is also worn to a similarly smooth concave surface. It seems most likely that it was used as a whetstone for the honing of metal implements.

Table 5.23: Quantification of querns from Great Cransley

Context/ feature (small find)	Geology	Diameter/ Thickness Completeness	Comments
53, Well 56 (7)	Millstone Grit	Diameter >570mm Thickness 88mm Eye 100mm 20%	Upper stone Same stone as Small find (10)?
53, Well 56 (8)	Millstone Grit	Diameter c 600mm Thickness 19-34mm 5%	Well worn, upper stone
53, Well 56 (9)	Fine-grained sandstone	Length (broken) 142mm Width 100mm Thickness 50-85mm	Sharpening stone
20, Ditch 23 (10)	Millstone Grit	85mm thick	Irregular fragment Same stone as Small find (7)?



Great Cransley, a quern upper stone (7) with a fragment (10) probably hacked from the circumference (scale 50mm) Fig 5.24

#### 5.10.4 Other Roman finds by Tora Hylton

##### **Glaston**

There are four Roman small finds. An iron nail, Manning type 1B nail (1985, fig 32) and a rod fragment (possibly a nail shank) came from ditch 34. A Roman coin from the topsoil, perforated and extremely worn, is a 3rd-century radiate, c AD275 (Ian Meadows pers comm). The perforation, presumably for suspension, suggests that the coin may have been reused as a pendant during the Anglo-Saxon period. A piece of molten lead was recovered from ditch 10 in the field to the south of the A47.



**Gretton Road**

The assemblage comprises numerous nails and nail fragments from cremation burials 8 and 14. From burial 8 there are nine flat sub-circular nail heads, up to c 10mm in diameter, and four nail shank fragments. There are no complete examples. Over 70 individual fragments were recovered from burial 14, including c 29 nails with heads but not the entire shank; only one nail is complete, at 34mm long. All the nails appear to have the same sized heads; flat, sub-circular, and 11mm in diameter; similar to Manning Type 1b (1985, fig 32). None appear to be hobnails, and it is possible that they originated from the material used to construct the pyre.

**Thorpe Malsor**

The majority of artefacts date to the Roman period and form a small assemblage comparable with those from other small rural sites of a similar date. Where possible all the finds have been assigned functional groups (Table 5.24).

Table 5.24: Categorisation of other Roman finds from Thorpe Malsor

<b>Functional category</b>	<b>Number</b>
<i>Personal Possessions</i>	
Personal equipment	4
<i>Equipment and furnishings</i>	
Nails	9
<i>Household equipment</i>	
Glass	21
Coins	3
<i>Miscellaneous and unidentified</i>	
Copper alloy	3
Iron	1
Lead	1

**Coins**

A sestertius, possibly of Hadrian (AD117-138), comes from pit 20, and a possible second example is from pit 4. These two coins are both worn and the example from pit 4 is almost smooth, denoting an extended period in circulation. Coins of this period were kept in circulation, so a coin date in the early-mid 2nd century is unlikely to indicate the date of deposition, which could be in the later 2nd century or even the 3rd century AD.

A corroded coin, possibly of Magnentius, issued AD350-53, from the spoil heap and has limited value in dating the site.

**Copper alloy objects**

The five copper alloy objects comprise a nail cleaner, a pin, a rivet and two undiagnostic fragments of sheet metal. The nail cleaner, from pit 4, has a stylised blade with a broad, almost circular upper section decorated with ring and dot, which tapers to form a long, narrow, parallel-sided blade, which terminates in a double point. The suspension loop is on the same alignment as the blade and there are decorative mouldings (spool and reel) at the junction with the blade. Two of the raised ridges are decorated with opposing oblique incisions, giving a rope effect. It displays similarities to Crummy's Type 2b, which dates to the 2nd/3rd centuries AD (1983, fig 62, 1872). The pin, also from pit, 4, is complete, 106mm long, with a simple head with double groove (reel) beneath a conical/sub-oval moulding; the shank is circular-sectioned and tapers to a point. Typologically, it falls within Cools Group 2, Sub-group B (knob on cordoned head), a style of pin used throughout Roman period (1990, fig 2, 9). The remaining

pieces comprise undiagnostic fragments of sheet metal; one is pierced by a short square-sectioned rivet protruding from the underside.

#### Copper casting debris by Andy Chapman

A cylinder of copper alloy, 24mm in diameter and 10mm high, has a concave top and expands outwards at the bottom into three lobes, all fractured near the top leaving uneven surfaces. It is suggested that this piece is casting debris, probably the fill of a cylindrical sprue cup that had fed three separate runners. It was recovered from layer 31 above ditch 39, and was not securely stratified in a Roman deposit.

#### Iron

There are 11 individually or group recorded iron objects, comprising two undiagnostic fragments and nine nails. The nails comprise: four Manning (1985, fig 32) Type 1b, for light structural fixings; one Type 10, a hob nail for shoes, one Type 3 with a T-shaped head; and one Type 4 with an L-shaped head. The latter two types could have been driven into the wood to conceal the head.

#### Lead

There is one piece of lead, a waste molten fragment from pit 4.

#### Worked bone

There are three incomplete bone pins. Two are furnished with transverse grooves beneath a globular head. The head of one is ornamented with two transverse grooves, while the other has three transverse grooves; stylistically they display similarities to Crummy's Type 2 (1983, fig 18). There is also a pointed terminal from the shaft of a pin.

#### Glass

*Table 5.25: Summary of Roman glass from Thorpe Malsor*

Context/ feature	Colour	Description
9/4	Colourless	Undiagnostic body sherd, curved profile, bubbles in matrix (SF7)
	Pale green	Rim fragment, fire-rounded out turned rim, probably from small flask or unguent bottle (SF6)
22/4	Colourless	Undiagnostic, curved profile, translucent with iridescent surfaces (SF36)
	Blue-green	Undiagnostic, curved profile with iridescent surfaces (SF36)
23/4	Yellow-brown	Six fragments, undiagnostic with curved profile. Poss. shoulder from flagon (SF16)
	Blue-green	Two undiagnostic sherds with curved profile (SF16)
	Colourless	?Beaker – curved profile, vestige of trailed decoration on ext. surface (SF16)
110/112	Pale green	Six fragments (five joining) Convex cup (Dia. C.90mm), Out-turned fire-rounded rim with indentations (SF 31)
115/117	Blue-green	Undiagnostic, surface blistered/spald (SF33).
136/139	Pale green	Base sherd – faint horizontal polishing marks on surface (SF41)

Twenty-one fragments of Roman glass were recovered from stratified deposits (Table 5.25). Much of the assemblage comprises body sherds with curved profiles, too small to provide any detail of the vessel form, but the fineness of the glass suggests that they originated from fine tablewares. There are vessel fragments in blue-green, colourless

and yellow-brown glass, and decorative techniques include indents and trails. Part of convex cup in pale green glass decorated with indents, is a form of decoration occurring throughout the Roman period (Price and Cottam 1998, 32-33). A colourless undiagnostic fragment decorated with a horizontal trail, is possibly from a beaker, and a fire-rounded out turned rim fragment is probably from small flask or unguent bottle. The assemblage probably dates to late 1st to 3rd centuries AD.

### **White Hill Lodge**

Copper alloy

Parts of three Roman brooches were recovered. A hybrid Colchester type brooch (SF2), dating to AD60-90, is from the subsoil. It is a large brooch, 64mm long, with part of the spring and catchplate missing/damaged. The bow is almost round in section and tapers to a point. The catchplate, although incomplete, appears to be triangular-shaped, a British trait (MacKreth 1994, 287).

A round plate brooch (SF1), 32mm in diameter, is from the subsoil. It is divided into two zones by concentric ribs, and the inner collar secures an applied conical copper alloy boss, now loose (Fig 5.25). The outermost ring contains blue enamel and inner ring white enamel, now discoloured. The underside is furnished with a hinge mechanism, comprising a spring of three turns set between two lugs with an iron axial rod, and a catch plate; the pin is missing.



Circular copper alloy plate brooch (SF1) with a central boss and rings of white and blue enamel (Scale 10mm) Fig 5.25

A Colchester derivative brooch (Nene Valley group), dating to the 1st and 2nd centuries AD, comes ditch 35. It is incomplete, in four pieces, with the wings and part of the pin missing. There is a crest on the upper part of the bow, otherwise it is plain.

Iron

There are three nails and several corroded objects that are unidentifiable.

### **Great Cransley**

Part of a Dolphin brooch (Polden Hill type), dating to the late 1st to mid 2nd century AD, was recovered from the subsoil.

Eight iron nails were recovered from posthole 7 and ditch 11. There are four hobnails, presumably from footwear, Manning types Type 10 (1985, 134ff), and four 'structural' nails (Type 1B), with flat sub-circular heads and up to 44mm long, probably used for light structural fixings.

## 5.11 Faunal and environmental remains from the Roman settlements

### 5.11.1 Human bone by Sarah Inskip

#### ***Cremation burials from Gretton Road***

Two Roman cremation burials associated with iron nails, were recovered from the excavation at Gretton Road, and a third was recovered nearby during the watching brief in Field 55:01.

The cremated bone mainly consists of white fragments and some grey pieces, with the high quantity of white fragments indicating temperatures exceeding 600°C (Brickley and McKinley 2004). The low quantities of material in these deposits (Table 5.26) indicates that they represent very incomplete individuals, since adult cremations weigh between 1-3kg and juveniles around 0.5kg (Trotter and Hixon 1974).

*Table 5.26: Weight of cremated bone deposits by fragment size from Gretton Road*

Burial	Total weight (g)	10mm (g)	5mm (g)	2mm (g)	1mm (g)	Longest fragment (mm)
8	107	4	47	56	<1	18.1
14	<1	0	0	0	<1	7.8
55:01	40	2	17	18	-	-

The cremated bone from burial 8 contains a number of identifiable elements, including temporal, frontal and vault fragments from the skull, seven occipital tooth roots (including a lower permanent incisor and a possible premolar), cervical vertebra, a manual phalange and long bone fragments. The bone elements from Burial 55:01 include skull, long bone fragments, bones of the toe and some tooth roots. Burial 14 contained no identifiable fragments.

The bone provides little information for determining the age or sex of the individuals. Fused phalanges from Burials 55:01 and 8 indicate individuals over 14 years of age (Scheuer and Black 2000, 466) but more concise estimates cannot be provided as the major indicators of age (pubis, auricular surface and the occlusal surfaces of teeth) are missing, as are the critical sexually dimorphic regions. There are no notable pathologies.

#### ***Infant burial from Thorpe Malsor***

An infant burial was recovered from the upper fill (43) of pit 46, dated to 2nd to 3rd centuries AD. Over 90% of the cortical bone survived and the bones are in excellent condition, with the skeleton 50-75% complete. No skull bones were recovered and the hands and feet are absent. Out of the spinal column, only three lumbar vertebrae are present. Seventeen ribs are present but the scapulae are absent. Out of the long bones, only the left clavicle, ulna and fibula are absent. As no teeth were recovered, age estimates were obtained from long bone measurements (Mays 2011, 1), using data produced by Fazekas and Kosa (1978) and presented in Scheuer and Black (2000) (Table 5.27).

*Table 5.27: Human infant long bone lengths and equivalent ages*

Long bone	Maximum length (mm)	Age
Right humerus	65.8	40 weeks +
Right radius	52.8	40 weeks +
Right femur	78.6	40 weeks +

All the long bones are slightly greater than the average measurement for 40 weeks gestation, but they fall in the normal range for a full term infant. Accordingly, the evidence suggests that the infant is likely to have died around the time of birth or in the immediate post-natal period.

### ***The burial of infants during the Roman period in Britain***

Many infants appear to have been buried separately from other members of society during the Roman period where burials took place in extramural cemeteries from the 1st and 2nd centuries AD (Jupp and Gittings 1999, 51). Infant burials commonly appear in a number of different locations including under floors, in walls, in pits and near buildings. Examples can be found at Beddingham Villa, Sussex (Waldron *et al* 1999), Bozeat villa (S Carlyle, pers comm) and Silverstone Fields Farm (Mudd 2008), Northamptonshire. While it is very easy to jump to the conclusion that the burial of these tiny individuals in such unusual places suggest foul play, Mays (1993, 883) cautions that there are many examples of societies where infants are accorded different burial rites. However, documentary evidence highlighted by Taylor (2010, 94) indicates that the Romans did practice infanticide for many reasons, including limitation of family size and the birth of a daughter as opposed to a more preferred son. Although archaeologically a problematic concept, Mays (1993) does suggest that infanticide may have occurred in Britain, but without direct evidence of trauma it is impossible to pinpoint the individuals that may have been victims of the practice. As no evidence of trauma is observed on the Thorpe Malsor infant, it is not possible to say whether the infant died as a result of infanticide or simply of one of the osteologically invisible natural causes.

#### **5.11.2 Animal bone** by Matilda Holmes

Animal bone was recovered from several Roman settlements investigated along the route of the pipeline, although only three of the assemblages, from Thorpe Malsor, White Hill Lodge and Great Cransley, Northamptonshire, were sufficiently large to permit further analysis beyond the assessment stage (Deighton 2010). These assemblages have been fully recorded and analysed to provide an indication of the animal husbandry practices adopted at the settlements (Tables 5.28-5.30).

*Table 5.28: Roman animal bone assemblages by size (NISP)*

<b>Site</b>	<b>Date</b>	<b>NISP</b>
Thorpe Malsor	Late Iron Age and Roman	490
White Hill Lodge	Roman	85
Great Cransley	Roman	75

*Table 5.29: Animal bone condition by number of bones*

<b>Site/ Condition</b>	<b>Thorpe Malsor</b>	<b>White Hill Lodge</b>	<b>Great Cransley</b>
Excellent 1	1	0	0
Good 2	122	8	0
Fair 3	190	12	20
Poor 4	35	4	14
Bad 5	3	9	4
<b>Total</b>	<b>351</b>	<b>33</b>	<b>38</b>

Table 5.30: Animal bone taphonomy by percentages

Site/ Taphonomy	Thorpe Malsor	White Hill Lodge	Great Cransley
Butchery	9	6	3
Gnawing	23	12	7
Fresh break	30	27	16
Burning	3	0	0
Refit	48 (184)	7 (164)	6 (64)
loose teeth: mandibles*	55:13	5:3	16:1

\* mandibles with 2 or more molars present

### **Thorpe Malsor**

Animal bone was recovered from ditches and pits, with a few remains from smaller gullies and postholes (Table 5.31). Due to uncertainties over the nature of the sites, the potential for inter-site comparisons is limited. However, the assemblage is large enough for some idea of the nature of the deposits and animal husbandry to be gained.

Table 5.31: Thorpe Malsor animal bone, number of identified bones by feature

Feature	n
No feature	39
Ditch	325
Gully	3
Pit	270
Posthole	3
Total	640

### Carcass representation and butchery

Samples are small but, nevertheless, they are generally indicative of the deposition of all parts of cattle and sheep carcasses (Table 5.32). Butchery marks were recorded on cattle, sheep and pig bones in the form of chop and cut marks, on limb bones in areas consistent with the disarticulation of the carcass to make joints of food. Two horse metapodia had been chopped through at the proximal end, which may suggest the removal of skin or the use of bone for the manufacture of objects. In general, the assemblage is typical of the deposition of carcass parts from all stages of processing.

Table 5.32: Thorpe Malsor animal bone, fragment representation (epiphysis count)

Anatomy	Cattle	Sheep	Pig	Horse
Horn Core*	3	-	-	-
Occipitale	4	-	1	-
Zygomatic	2	-	-	-
Mandible**	6	8	3	1
Scapula	2	1	3	1
Humerus P	1	-	-	-
Humerus D	5	-	1	2
Radius P	4	2	-	1
Radius D	2	1	-	1
Ulna	1	-	-	-
3rd Carpal	1	-	-	-

<b>Anatomy</b>	<b>Cattle</b>	<b>Sheep</b>	<b>Pig</b>	<b>Horse</b>
Pelvis	6	1	1	-
Femur P	2	-	1	1
Femur D	4	1	2	
Tibia P	3	1	1	1
Tibia D	5	2		2
Calcaneum	2	2	1	1
Metacarpal P	2	1	-	2
Metacarpal D	1	-	-	1
Metatarsal P	5	1	-	-
Metatarsal D	4	1	-	-
1st phalange***	1	1	-	1
2nd phalange***	1	-	1	1
3rd Phalange***	1	-	-	-
Atlas	3	-	-	-
Axis	-	2	-	-
Cervical	3	2	-	-
Thoracic	2	-	-	-
Lumbar	10	-	-	-
Sacrum	1	-	-	-
<b>Total</b>	<b>87</b>	<b>27</b>	<b>15</b>	<b>16</b>

#### Species representation and diet

The assemblage is dominated by cattle, present in over half the assemblage (Table 5.33). Sheep/goats were the next most common species, then pig and horse bones in similar, but smaller quantities, and a few fragments of dog and domestic fowl. Within this assemblage, beef would have been the most common meat, then mutton, pork and possibly horse.

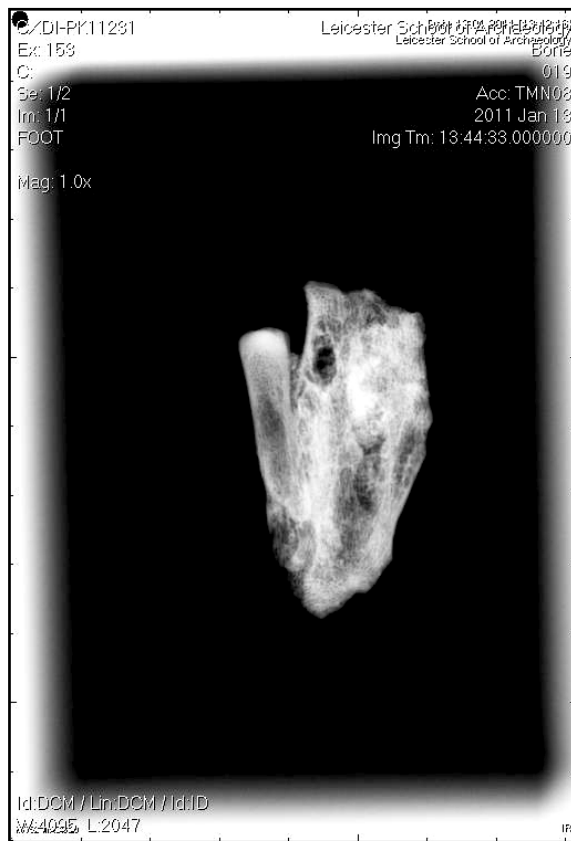
*Table 5.33: Thorpe Malsor animal bone, species representation (NISP)*

<b>Species</b>	<b>n</b>	<b>%</b>
Cattle	264	54
Sheep/ Goat	135	28
Sheep	2	-
Pig (* skeletons count as 1)	37*	7
Horse	35	7
Dog	11	2
Domestic Fowl	4	1
Human	1	-
<b>Total Identified</b>	<b>490</b>	
Unidentified mammal	551	-
Large mammal	611	-
Medium mammal	228	-
Small mammal	10	-
Bird	2	-
<b>Total</b>	<b>1892</b>	-

Animal husbandry

The majority of ageing data was recovered from the fusion of limb bones, although a few mandibles were complete enough to be used for the calculation of tooth wear data. Nearly all cattle had reached 3-4 years of age, at which point over 80% were culled; of those remaining, a small number were alive until maturity. Older animals were apparent from the tooth wear data, where the majority were alive until maturity (stage G-I). Taken together, this suggests that a large proportion of cattle were culled when they were just full grown, to give the maximum meat to cost ratio, and another group of cattle were kept alive until old age, presumably for secondary production, either milk or traction.

Both the fusion and tooth wear data for the sheep assemblage are similar, suggesting that there was a steady cull of animals from one year of age. There was also evidence for a neonatal animal, suggesting that they were bred in the vicinity. This indicates that some animals were kept for secondary products, and excess animals were culled from the flock for meat as necessary.



X-ray of infected bone surrounding a fractured pig tibia Fig 5.26

There was little evidence for pigs over one year of age from the fusion data; this was reflected in a mandible at wear stage C (after Hambleton 1999), yet the other two mandibles gave wear stages of E, indicative of older animals up to 2.5 years of age. Two nearly complete, extremely young pig skeletons were recovered from pit 20, one of which displayed evidence of a massive infection surrounding a fractured tibia prior to the animal's death (Fig 5.26).

All horse bones were fused, consistent with their importance for secondary products (ie draught and transport).



### **White Hill Lodge**

Nearly all bones were recovered from ditches dated to the Roman period (Table 5.34). The sample was very small and will only be considered in terms of the species represented, as it lies well below the minimum 300 fragments suggested by Hambleton (1999) for an assemblage to be suitable for inter-site comparisons.

*Table 5.34: White Hill Lodge animal bone, identified bone fragments by feature*

<b>Feature</b>	<b>number</b>
Ditch	93
Gully	1

Despite the small size of the assemblage, there were a surprising variety of species present both from the hand-recovered and soil sample material (Table 5.35). As well as the main domesticates (cattle, sheep/goat and pig), this included horse, dog, a pigeon or dove and the only fish bone from the entire project: two eel vertebrae. Oyster shell was also present.

*Table 5.35: White Hill Lodge animal bone, species representation (NISP)*

<b>Species</b>	<b>Hand-collected</b>
Cattle	41
Sheep/Goat	13
Pig	3
Horse	19
Dog	
(*articulated fragments count as 1	5*
Pigeon/ dove	2
Eel	1
<b>Total Identified</b>	<b>85</b>
Unidentified Mammal	66
Large Mammal	109
Medium Mammal	9
<b>Total</b>	<b>269</b>

The animal bone group from ditch 44 came from the head and vertebrae of an adult dog. There were no signs of butchery.

### **Great Cransley**

The animal bones were recovered from the enclosure ditches and the well (Table 5.36). Again, the sample was small, with fewer than 100 elements identified to species, so it will only be considered briefly.

*Table 5.36: Great Cransley animal bone, number of bones identified by feature*

<b>Feature</b>	<b>n</b>
Ditch	17
Enclosure	
Ditch	83
Well	3
Gully	1

A more restricted suite of species was recorded at this site, the assemblage being dominated by the bones of larger mammals, cattle and horse, with a few sheep/goat bones also recorded (Table 5.37).

*Table 5.37: Great Cransley animal bone, fragment count (NISP)*

<b>Species</b>	<b>Hand-collected</b>
Cattle	58
Sheep/Goat	5
Horse	10
Amphibian	2
Total Identified	75
Unidentified	
Mammal	137
Large Mammal	112
Medium Mammal	19
Total	343

Of greatest interest were the well deposits, which included a number of background species: water vole, shrew, frog (amphibian), mouse, vole and a cattle skull, without mandibles, possibly a deliberate deposition to mark the disuse of the well. The deposition of complete vessels, skulls and animals have been recorded from a number of Roman wells (Fulford 2001, 202), although these are more commonly dogs, such as at Staines, where at least 16 dogs were placed in a Roman well on top of infill material (Chapman and Smith 1988). However, the dumping of a large quantity of animal bones in a well at Oakridge, Basingstoke (Maltby 1994) included a predominance of cattle head, tail and foot bones, described as primary butchery waste, which were not considered to be of ritual nature, but merely the opportune dumping of refuse.

### **Discussion**

These sites provide an interesting view of the animal husbandry and diet of several settlements in a relatively small geographical area. The emphasis on cattle in all phases is notable, although the poor preservation of the assemblage may have biased the survival of bones towards the larger fragments of cattle and greater destruction of smaller fragments such as sheep and pigs.

Data from the Roman settlement near Thorpe Malsor indicates a similar husbandry strategy, where animals were kept for meat, but there is also an emphasis on secondary production. The two smaller assemblages from the Roman sites to the south were very different in character, despite the small size of the assemblages. White Hill Lodge had a wide variety of species that may indicate a wealthier settlement, whose inhabitants dined on wild and domestic mammals as well as birds and fish. This provides a contrast with the other assemblages, which were limited to the main domesticates, none more so than the site at Great Cransley, which was dominated by cattle and horse. A cautionary note must be sounded against making judgements on the character of a settlement from small samples. For example, it has been shown previously that the bones of larger mammals are more likely to be disposed of at the periphery of a site (Wilson 1996), and if the assemblage from Great Cransley was from boundary ditches, this could explain the predominance of cattle and horse. Nonetheless, the diversity of species at White Hill Lodge is very different to that recorded from the other, contemporary sites, and does imply that the inhabitants enjoyed a more varied diet.

### 5.11.3 Charred plant remains by Val Fryer

At five sites of Roman settlement and activity, a total of 63 bulk soil samples were taken for assessment and analysis. Only the assemblages from Thorpe Malsor, and in particular those from a single Roman pit at that site, merited further work.

#### **Thorpe Malsor**

The assemblages are from the fills of three Roman ditches, a posthole (Table 5.38) and a pit (Table 5.39). The three fills from the pit are of especial note as they all contain moderate to high densities of cereal chaff/grains and seeds of common segetal weeds. It would appear most likely that all are derived from one or more small deposits of charred cereal processing waste. Preservation was variable; the grains/seeds within some assemblages were severely puffed and distorted, probably as a result of combustion at very high temperatures, whilst other remains were very well preserved.

Occasional to moderate quantities of grains/seeds are recorded within all seven samples and include barley (*Hordeum* sp), wheat (*Triticum* sp) and oat (*Avena* sp), with wheat and barley occurring most frequently. The wheat grains were mostly of an elongated 'drop' form typical of emmer (*T. dicoccum*) or spelt (*T. spelta*), although a small number of more rounded hexaploid type forms were also noted. Spelt chaff was predominant but bread wheat (*T. aestivum/compactum*) type rachis nodes were also recovered from pit 4 (see below).

The assemblage from ditch 117 is also of note as, although small, it is almost entirely composed of silica 'skeletons' of cereal awn. Such assemblages are formed when chaff is burnt in a well aerated fire at a very high temperature, leaving only the silica skeletons of the original plant remains.

Seeds of common weeds and wetland plants, and tree/shrub macrofossils were present, mostly at a low density. Weed seeds, often occurring as single specimens within an assemblage, included: broom (*Bromus* sp), grass (Poaceae), knotgrass (*Polygonum aviculare*), dock (*Rumex* sp), goosegrass (*Galium aparine*), corn gromwell (*Lithospermum arvense*), henbane (*Hyoscyamus niger*) and vetch/vetchling (*Vicia/Lathyrus* sp). Nutlets/fruits of wetland plants, namely sedge (*Carex* sp) and spike sedges (*Eleocharis* sp) were also recorded along with single examples of hazel (*Corylus avellana*) nutshell and damson/bullace (*Prunus domestica* ssp *insititia*) type fruit stones. Charcoal/charred wood fragments were present and were frequently the major component of the assemblage.

Table 5.38: Thorpe Malsor charred plant remains from ditches and a posthole

Sample	6	7	9	10
<b>Context</b>	<b>73</b>	<b>114</b>	<b>137</b>	<b>144</b>
<b>Feature</b>	<b>74</b>	<b>117</b>	<b>139</b>	<b>150</b>
<b>Feature type</b>	<b>ph</b>	<b>Ditch</b>	<b>Ditch</b>	<b>Ditch</b>
<b>Cereals</b>				
<i>Avena</i> sp. (grains)	x	-	-	-
(floret fragment)	-	-	-	-
<i>Hordeum</i> sp. (grains)	x	-	xcf	xcf
(rachis node)	-	-	-	-
<i>Triticum</i> sp. (grains)	-	-	x	x
(glume bases)	-	x	x	-
(spikelet bases)	-	-	-	-
(rachis internode)	-	-	-	-
<i>T. spelta</i> L. (glume bases)	-	x	-	-
(spikelet forks)	-	-	-	-
<i>T. aestivum/compactum</i> L. (rachis nodes)	-	-	-	-
Cereal indet. (grains)	x	xfg	x	-
(detached sprout)	-	-	-	-
(silica skeletons)	-	xxxx	-	-
<b>Herbs</b>				
<i>Anthemis arvensis</i> L.	-	-	-	x
<i>Atriplex</i> sp.	-	-	-	-
<i>Bromus</i> sp.	-	-	-	-
<i>Chenopodium album</i> L.	-	-	-	-
Fabaceae indet.	-	-	-	-
<i>Galium aparine</i> L.	-	-	-	-
<i>Hyoscyamus niger</i> L.	xcf	-	-	-
<i>Lithospermum arvense</i> L.	-	xfg	-	-
<i>Plantago lanceolata</i> L.	-	-	-	-
Small Poaceae indet.	-	-	x	-
<i>Polygonum aviculare</i> L.	-	-	-	-
Polygonaceae indet.	-	-	-	-
<i>Raphanus raphanistrum</i> L. (siliquae)	-	-	-	xfg
Rosaceae indet.	-	x	-	-
<i>Rumex</i> sp.	-	x	-	-
<i>Stellaria media</i> (L.) Vill	-	-	-	x
<i>Tripleurospermum inodorum</i> (L.) Schultz-Bip	-	x	-	-
<i>Vicia/Lathyrus</i> sp.	-	-	x	-
<b>Wetland plants</b>				
<i>Carex</i> sp.	-	-	-	x
<i>Eleocharis</i> sp.	-	-	-	-
<b>Tree/shrub macrofossils</b>				
<i>Corylus avellana</i> L.	-	-	-	-
<i>Prunus domestica</i> ssp. <i>insititia</i> (L.) Bonnier & Layens	xfg	-	-	-
<b>Other plant macrofossils</b>				
Charcoal <2mm	xxxx	xx	xx	xx
Charcoal >2mm	xx	-	x	x
Charcoal >5mm	-	-	-	-
Charcoal >10mm	-	-	-	-
Charred root/stem	-	-	-	-
Ericaceae indet. (stem)	-	-	-	-

Sample	6	7	9	10
<b>Context</b>	<b>73</b>	<b>114</b>	<b>137</b>	<b>144</b>
<b>Feature</b>	<b>74</b>	<b>117</b>	<b>139</b>	<b>150</b>
<b>Feature type</b>	<b>ph</b>	<b>Ditch</b>	<b>Ditch</b>	<b>Ditch</b>
Indet.culm nodes	-	-	-	x
Indet.fruitstone/nut shell frags.	-	-	-	
Indet.seeds	-	-	x	x
Indet.thorn ( <i>Rosa</i> type)	-	x	-	-
<b>Other remains</b>				
Black porous 'cokey' material	-	x	x	x
Black tarry material	-	-	-	-
Bone	-	-	-	-
Eggshell	-	-	-	-
Mineralised faecal concretions	-	-	-	-
Mineralised soil concretions	-	-	xxxx	-
Small mammal/amphibian bone	-	-	-	-
Small coal frags.	x	-	-	-
Vitrified material	-	-	-	x
<b>Sample volume (litres)</b>	-	-	-	
<b>Volume of flot (litres)</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

#### Key to Tables

x = 1 – 10; xx = 11 – 50; xxx = 51 – 100 specimens and xxxx = 100+ specimens; cf = compare; fg = fragment; tf = testa fragment; m = mineral replaced; coty = cotyledon; b = burnt

#### Pit 4

Of the nine samples, only the three from the fills of pit 4 merited further analysis (Table 5.39). All three contained moderate to high densities of charred plant material, much of which appeared to be derived from either cereal processing waste or from burnt fodder or litter. It was hoped that analysis of these assemblages would provide a clearer understanding of the interaction of settlement and environment during the earlier Roman period within this area of Northamptonshire.

Cereal grains, chaff elements and seeds of common segetal weeds and grassland herbs were present at varying densities within all three assemblages. Preservation was poor to moderate, with a high density of the grains and seeds being severely puffed and distorted, probably as a result of combustion at very high temperatures.

Oat (*Avena* sp), barley (*Hordeum* sp) and wheat (*Triticum* sp) grains were present within all three assemblages. Wheat was predominant throughout (60% of the total assemblage of identifiable grains), with most specimens being of an elongated 'drop' from typical of spelt (*T. spelta*). Spelt wheat glume bases were also present within all three assemblages, being especially abundant within contexts 6-9 and 23, where they accounted for approximately 53% of all the identifiable plant remains. A small number of the wheat grains appeared to be of a rounded form more typically seen within the free-threshing hexaploid varieties, but as most specimens were poorly preserved, close identification was not possible. Barley and oat grains accounted for respectively 26% and 13% of the total assemblage of identifiable grains, but in both instances preservation was especially poor. Oat floret bases were noted within the assemblage from context 23, but as all lacked the diagnostic bases, it was not possible to ascertain whether cultivated or wild varieties were present.

Table 5.39: Thorpe Malsor, charred plant remains, pit 4

Sample		2	3	4
Fill		6-9	23	26
Cereals	Common name			
<i>Avena</i> sp. (grains)	Oat	6	6+12cf	4cf
(awn frags.)		12	8	2
(floret bases)		-	2	-
<i>Hordeum</i> sp. (grains)	Barley	8	30+2cf	12+2cf
(rachis nodes)		-	34	6
<i>Triticum</i> sp. (grains)	Wheat	44	40+6cf	30+6cf
(glume bases)		240	42	2
(spikelet bases)		140	16	4
(rachis internodes)		72	12	2
<i>T. spelta</i> L. (glume bases)	Spelt wheat	944	128	14
Cereal indet. (grains)		42	90	56
(detached sprout frags.)		12	-	2
(silica skeletons)		xx awn		
Herbs				
<i>Aphanes arvensis</i> L.	Parsley piert	-	2cf	-
Asteraceae indet.		4	4	4
Brassicaceae indet.		-	2	-
<i>Bromus</i> sp.	Brome	2cfft	4cf	4fg
Caryophyllaceae indet.		2	-	-
<i>Centaurea</i> sp.	Cornflower	-	-	2
<i>Chenopodium album</i> L.	Fat hen	2	-	-
Chenopodiaceae indet.		18	10	6
<i>Fallopia convolvulus</i> (L.)A.Love	Black bindweed	2+2tf	-	-
<i>Galium aparine</i> L.	Goosegrass	-	10+8fg	-
<i>Lithospermum arvense</i> L.	Corn gromwell	4	-	12+10fg
<i>Medicago/Trifolium/Lotus</i> sp.	Medick/clover/trefoil	16	4cf	2cf
<i>Papaver</i> sp.	Poppy	8	136+6m	2
<i>Persicaria maculosa/lapathifolia</i>	Persicaria	-	2	-
<i>Plantago lanceolata</i> L.	Ribwort plantain	4	4	-
Small Poaceae indet.	Grasses	16	102	36
Large Poaceae indet.		-	2	4
<i>Polygonum aviculare</i> L.	Knotgrass	40	2	2
Polygonaceae indet.		24	-	-
<i>Potentilla</i> sp.	Cinquefoil	-	2	-
<i>Prunella vulgaris</i> L.	Self-heal	-	2cf	-
<i>Ranunculus</i> sp.	Buttercup	-	2cf	-
<i>R. flammula</i> L.	Lesser spearwort	-	2cf	-
<i>Raphanus raphanistrum</i> L. (siliquae)	Wild radish	2+22fg	10+32fg	4fg
<i>Rumex</i> sp.	Dock	2	14	2
<i>R. acetosella</i> L.	Sheep's sorrel	-	4	8+4cf
<i>Rumex/Carex</i> sp.		4	-	-
<i>Tripleurospermum inodorum</i> (L.) Schultz-Bip	Scentless mayweed	50	14	20
<i>Urtica dioica</i> L.	Stinging nettle	2cf		

Sample		2	3	4
<b>Fill</b>		<b>6-9</b>	<b>23</b>	<b>26</b>
<i>Vicia/Lathyrus</i> sp.	Vetch/vetchling	18+22coty	10+16coty	6coty
<b>Wetland plants</b>				
<i>Carex</i> sp.	Sedge	6	6	-
<i>Eleocharis</i> sp.	Spike-rush	2	10	-
<b>Tree/shrub macrofossils</b>				
<i>Corylus avellana</i> L.	Hazel	-	2cffg	2cffg
<b>Other plant macrofossils</b>				
Charcoal <2mm		xxxx	xxxx	xx
Charcoal >2mm		xxx	xxx	xx
Charcoal >5mm		xx	xx	x
Charred root/stem		x	x	x
Indet.culm nodes		-	-	4
Indet.seeds		46	40+2m	30
Indet.thorns ( <i>Prunus</i> type)		2	-	-
<b>Other remains</b>				
Black porous 'cokey' material		xxx	xx	x
Black tarry material		-	x	x
Bone		-	xb	-
Burnt organic concretions		x	-	-
Eggshell		-	-	x
Small coal frags.		-	x	
Small mammal/amphibian bones		x	x xb	x
Vitreous material		x	x	x
<b>Sample volume (litres)</b>		<b>10</b>	<b>10</b>	<b>10</b>
<b>Volume of flot (litres)</b>		<b>0.2</b>	<b>0.1</b>	<b>&lt;0.1</b>
<b>% flot sorted</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>

Seeds of common segetal weeds and grassland herbs were present throughout, although subtle differences in composition were noted within the assemblages from the three pit fills (see discussion). Segetal taxa included brome (*Bromus* sp.), fat hen type (Chenopodiaceae), goosegrass (*Galium aparine*), corn gromwell (*Lithospermum arvense*), poppy (*Papaver* sp.), knotgrass (*Polygonum aviculare*), wild radish (*Raphanus raphanistrum*) and scentless mayweed (*Tripleurospermum inodorum*). Grass (Poaceae) fruits were moderately common within all three assemblages; other grassland herbs included medick/clover/trefoil (*Medicago/Trifolium/Lotus* sp.), ribwort plantain (*Plantago lanceolata*), dock (*Rumex* sp.), sheep's sorrel (*R. acetosella*) and vetch/vetchling (*Vicia/Lathyrus* sp.). Nutlets of sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.), both of which are commonly found in areas of damp grassland, were noted within the assemblages from pit fills 6-9 and 23, and possible hazel (*Corylus avellana*) nutshell fragments were recorded from fills 23 and 26. Charcoal/charred wood fragments were present throughout along with pieces of charred root or stem. Other plant macrofossils were scarce, but did include indeterminate culm nodes and thorns of sloe (*Prunus* sp.) type.

The fragments of black porous and tarry material noted within all three assemblages, but particularly common within fills 6-9, were all probable residues of the combustion of organic remains (including cereal grains) at very high temperatures. Other remains occurred very infrequently, but did include fragments of bone and eggshell, small mammal bones (some of which were burnt) and vitreous concretions, with the latter again possibly indicative of high temperatures of combustion.

Pit 4 from which the samples were taken was large (c 3.3m diameter and 0.87m deep) and contained a mixture of domestic waste, cess and other refuse including pottery, animal bone and several artefacts.

Although the three plant macrofossil assemblages are broadly similar in composition, there are differences, which may indicate that materials from different sources were being deposited within the pit; this would be entirely consistent with its use as a general refuse 'dump'. The assemblage from fills 6-9 is particularly chaff rich, and although cereals are present, the chaff to grain ratio is approximately 14:1. Seeds of common segetal weeds are also moderately common, probably indicating that this assemblage is primarily derived from charred cereal processing waste. Wheat grains/chaff are predominant, suggesting that this was the main crop in this instance, with the oats and barley being present as contaminants. As wheat is best suited to production on slightly heavier soils than those present around the site, it is possible that these are the remains of an imported crop, which was stored as whole ears or spikelets and then processed immediately prior to storage/consumption. This was regular practice during the Iron Age, although it became less common during the Roman period as it proved a very bulky method of storing and transporting grain. The moderate density of 'silica skeletons' within this assemblage almost certainly indicates that after processing, the waste material was burnt in a high temperature fire with a good air supply, as this results in a loss of carbon, leaving only a skeleton of silica.

Cereals and chaff are again present within the assemblage from fill 23, although here, they appear along with a very high density of grass fruits and seeds of weeds commonly seen on either cultivated soils or grassland areas (including cinquefoil (*Potentilla* sp) and buttercups (*Ranunculus* sp). It is, perhaps, most likely that this assemblage is principally derived from a small batch of burnt litter and/or fodder, although some cereal processing detritus may also be present.

Although small (at <0.1 litres in volume), the assemblage from fill 26 is relatively cereal rich, with grains accounting for approximately 70% of the total assemblage. Although weed seeds are relatively scarce, it is possibly of note that many of those present are either of a similar size to the grains (for example the corn gromwell) or would have been present within the original assemblage as intact capitulae or seed heads (for example the scentless mayweed). This may indicate that some or all of the material within this assemblage is derived from either cereal storage detritus or waste from a late stage of processing, as the larger contaminants, which were not separated out during winnowing, were frequently stored along with the grain, only being removed by hand immediately prior to consumption.

### **Conclusions**

In summary, although only three assemblages were suitable for detailed analysis, their composition would appear to indicate that a number of distinct activities were being conducted on or near the site at Thorpe Malsor during the Roman period.

Although some cereals were probably being grown locally, others were possibly being imported to the site in an unprocessed state, where they were stored and later processed as required. The processing waste was then burnt at a high temperature in well-oxygenated fires, possibly along with detritus from the stores or granaries. Such structures would have been cleaned regularly to minimise the risk of insect, rodent or fungal damage to the grain. It would appear most likely that grasses and grassland herbs were also being gathered and stored on site, where they were probably used as animal bedding or, mixed with chaff and grain, as fodder. The burnt detritus from these and other activities was then deposited in the pit along with a range of other refuse.



## 6 ANGLO-SAXON BURIAL AND SETTLEMENT (AD450-650)

For the Anglo-Saxon period the majority of the evidence relates to part of a cremation cemetery at Glaston, Rutland, which lay north of an extensive area of Roman settlement. To the south of the Roman settlement, and 300m south of the cemetery, a single sunken-featured building, seen in watching brief, may have been part of the associated settlement (see Fig 5.1). In addition, some Anglo-Saxon finds came from the upper fill of a late Roman ditch at Rushton, Northamptonshire.

### 6.1 An Anglo-Saxon cremation cemetery at Glaston

During topsoil stripping for the construction of a compound on the north side of the A47, Uppingham Road, c 0.4km to the west of Glaston, the watching brief located the remains of an Anglo-Saxon cremation cemetery (NGR: SK 8906 0046; Fig 6.1). The site lay within an arable field, at c 124m aOD, to the west of the grounds of Bisbrooke Hall; earthworks of ridge and furrow ploughing within the grounds indicate that the land there has not been subject to modern ploughing, and the cemetery may be reasonably well preserved, if it extends to the east, although still subject to medieval plough disturbance, as in the excavated area. The underlying geology comprised fine sands and clays, with low-grade ironstone, of the Grantham Formation (Middle Jurassic), with beds of Northampton Sand to the west (BGS 1978).

The Anglo-Saxon cremation cemetery extended over an area of c 0.42ha, measuring approximately 40m by 45m, and comprised a scattered group of small pits, the majority of which contained pottery urns holding cremated human bone (Fig 6.2). Many of the vessels had been truncated by medieval ploughing and fragments of pottery and cremated bone had been disturbed and scattered, although several vessels that had been buried a little deeper were almost complete (Fig 6.3). There were ten *in situ* cremation burials within the excavated area and another four were identified from disturbed remains that included bone, burials 5, 8, 13 and 20 (Table 6.1). Two *in situ* pots are identified as accessory vessels, burial 8 and pit 48, and some heavily disturbed features that produced only a few sherds of pottery, may have been burials that had lost all of the bone deposit, pits 30, 32 and 40.

The pottery assemblage is representative of styles produced in the 5th and 6th centuries AD, although the one urn dated with some certainty to the 5th century was somewhat worn, suggesting that it may have been quite old when it was buried. A radiocarbon date from the bone of burial 16 of 570-655 Cal AD (95% confidence, 1440±30 BP, Beta-293240) provides a date range from the late 5th until the early/mid 7th century AD, a little later than the range indicated by the pottery. This is broadly consistent with the dates of other Anglo-Saxon cremation cemeteries in the region.

The burial pits were approximately 0.3m in diameter and up to 0.19m deep, although many had been severely truncated, leaving only the base of the pit and the base and few other fragments of the urns. The main group lay across the eastern half of the site, with individual burials between 1m and 4m apart, but there were also more widely spaced outliers to the west and perhaps the east, continuing beyond the excavated area.

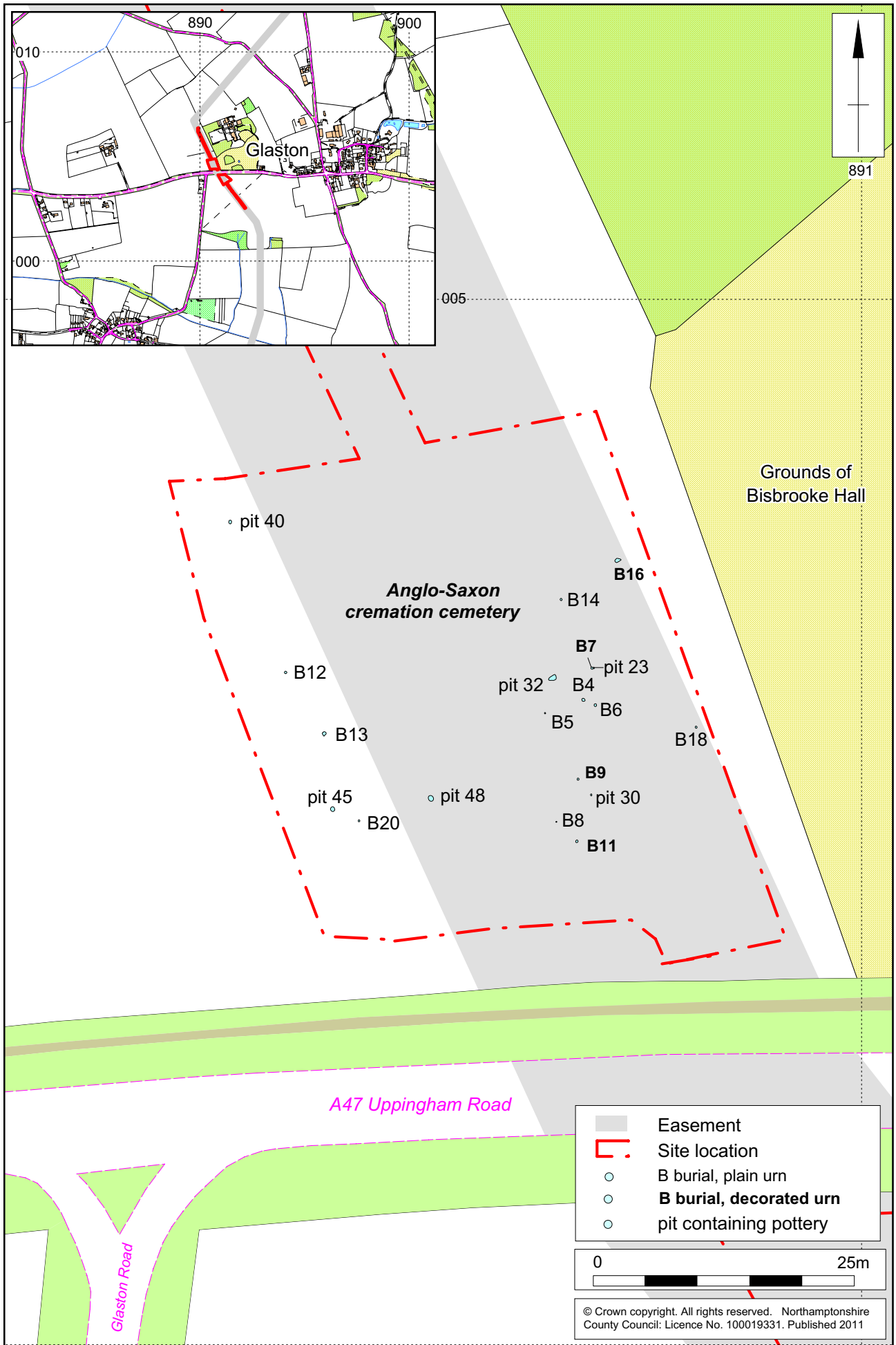
Analysis of the cremated bone suggests that the temperature of the funeral pyres was between 800-1000°C, high enough to melt glass but relatively low, compared, for example, with that of many Bronze Age cremations. There was no ash or charcoal mixed with the bones, indicating that the bone was carefully collected from the ashes of the pyre and/or cleaned after collection before deposition in the urn (Fig 6.3). The level of care and a lack of deliberate crushing is indicated by the large size of some of the bone fragments, with many long bone fragments measuring 50-100m (Fig 6.4). A few

urns were intact and therefore retained the entire bones deposit, and in these instances the weight of bone varies from 300g, burial 6, to 1kg, burial 16. Given that an adult body will produce 1-3kg of bone, it is evident that recovery of bone from the pyre was only partial, and at best perhaps around a third of the available bone was deposited in the urn for burial, probably a lower proportion on average than in early Bronze Age cremation burials. There was no evidence for funeral pyres on the site, indicating that the bodies had been cremated elsewhere.

Demographic analysis of the cremated bone shows that the sampled area contained the remains of eight adults and four juveniles (66% and 33% of the identified remains respectively). There were no young infants (less than 4 years of age), and two burials, 5 and 8 did not contained sufficient bone to determine the age of the individuals. Only two of the burials, 4 and 16, displayed sexually dimorphic features to allow the sex of the individuals to be determined; in both cases, they were possible female adults (Table 6.1).

Table 6.1: Catalogue of burials and grave goods

Burial/ feature	Context/ [feature]	Bone weight (g)	Age (years)	Urn	Grave goods
B4	4, 5 [6]	816	Adult (female?)	Large plain urn	---
B5	8	5	?	Urn (base only)	---
B6	10, 11 [12]	311	adult	Large plain urn	7 glass beads
B7	13, 14 [15]	71	Juvenile (4-5)	Decorated urn	Bone mount, bead ? Cu alloy frag
B8	16, 17 [18]	<1	?	Small accessory vessel	---
B9	19, 20 [21]	78	Juvenile (>10)	Decorated urn	c 5 glass beads
B11	24, 25 [26]	297	Juvenile + Adult	Decorated urn	Glass bead, 6 iron rivets (comb?)
B12	27, 28 [29]	614	Adult (15-18) +animal bone	Medium plain urn	Cu alloy frags
B13	31	58	Adult +animal bone	---	Bone comb frags
B14	36, 37, 51 [38]	272	adult	Small urn (early?)	Quoit brooch, Glass bead
B16	41, 42 [43]	995	Adult (female?)	Decorated urn	Glass bead
B18	49 [50]	86	adult	Urn base	---
B20	35	14	juvenile	Body sherd	---
Pit 30	30	---	---	Rim, small cup/bowl	---
Pit 32	32	---	---	Base sherd, probable urn	---
Pit 40	39	---	---	Probable urn sherds	---
Pit 48	47	---	---	Small accessory vessel	---



Scale 1:500 (inset 1:25,000)

Glaston, plan of Anglo-Saxon cremation cemetery Fig 6.1



Excavation of urn, burial 16 Fig 6.2



Processing of burial 6, showing the concentration of large bone fragments on the base of the urn, with clean soils above (scale 50mm) Fig 6.3



Decorated urn and cremated bone, burial 16 (scale 50mm) Fig 6.4



Heat distorted glass beads from burial 6 (scale 10mm) Fig 6.5



Worked bone mount from burial 7 (scale 10mm) Fig 6.6



Copper alloy quoit brooch from burial 14,  
with heat distorted glass beads obscuring the pin (scale 20mm) Fig 6.7

Four of the urns were decorated. The urn containing burial 16 was the most elaborate and the best preserved, with stamped and incised decoration on the neck and body (Fig 6.4). The vessels containing burials 7, 9 and 11 were also decorated although only small parts of these vessels survived.

Several of the urns contained personal items, including glass beads from burials 6, 7, 9, 11, 14 and 16 (Fig 6.5), a decorated bone mount from burial 7 (Fig 6.6), a copper alloy brooch from burial 14 (Fig 6.7) and a bone comb from burial 13. With the exception of the bone mount, all of these items were heat-affected, indicating that they were on the bodies when they were cremated. As the bone assemblages are all the product of only partial collection from the pyre, other objects may also not have been recovered. The distribution of finds and their association with the burials and types of urn shows no apparent pattern, and due to the lack of diagnostic bone information no correlation can be obtained for the classes of objects and the sex/age of the individuals.

Two small pots came from the cemetery area, one associated with burial 8 and the other from pit 48 (Fig 6.8, 3 & 4). These pots are both probably accessory vessels that were used in funerary rituals, perhaps to contain offerings of food or drink.

During the watching brief, tentative evidence for Anglo-Saxon settlement in the area was encountered to the south of Uppingham Road, further down the slope from the Roman remains. A shallow rectangular pit, 15:07/5, characteristic of those associated with Anglo-Saxon sunken-featured buildings, was aligned east to west, measured 4.3m long by 2.8m wide and 0.18m deep. The fill of mid to dark grey sandy silt contained animal bone, a small assemblage of Anglo-Saxon pottery, dated AD450-650, including a complete miniature pot (Fig 6.8, 5).

## 6.2 Anglo-Saxon activity at Rushton

There were no features at Rushton that could specifically be dated to the Anglo-Saxon period, but a pair of tweezers from the subsoil and a rod fragment from gully 9, indicate that there was activity in the vicinity at this time.

## 6.3 Finds from the Anglo-Saxon cemetery and other sites

### 6.3.1 *Anglo-Saxon pottery* by Paul Blinkhorn

The collection of Anglo-Saxon urns included decorated vessels that suggest that the cemetery was in use from the 5th to 6th centuries AD. The assemblage also included an unusual miniature pot and a large stamped vessel which had been decorated with both dies and the foot of a brooch, probably a small-long type. A number of the urns were also accompanied by sherds from other vessels, and while some of these are likely simply to have been 'strays' from earlier activity, at least two were heavily burnt, and may have been placed on the pyre with the body, while others were large enough to perhaps have been used as *ad hoc* lids.

#### ***Fabric***

The following fabric types were noted:

Fabric F1: Sparse sub-angular quartz and sub-angular calcareous material up to 1mm.

Fabric F2: Sparse fine sub-angular quartz < 0.5mm.

Fabric F3: Moderate to dense sub-angular quartz up to 0.5mm.

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Fabric F4: Moderate to dense sub-angular quartz up to 2mm, rare rounded ironstone of the same size.

Fabric F5: Sparse to moderate granite fragments up to 1mm, rare calcareous material of the same size, sparse free mica flakes.

The range of fabric types is fairly typical of the early Anglo-Saxon pottery of the region, and can be paralleled at a number of sites (eg Blinkhorn 2000, 98).

### ***Chronology and decorative symbolism***

The dating of early Anglo-Saxon hand-built pottery is notoriously difficult. Undecorated urns, which on average comprise less than 25% of the vessels used as cremation containers but can make up nearly two-thirds of the urns from a cemetery (Richards 1987, 157), are virtually impossible to date other than to the main period of cremation burial in England, c AD450-650. Decorated vessels have the potential to be more accurately dated, but even these are problematic. Myres' (1977) *Corpus* of most of the urns known at that time attempted to create a typology based on decoration and, to a lesser extent, vessel form, using continental parallels and associated artefacts to provide an absolute chronology, and while his scheme can perhaps be useful at a very broad level, it must be treated with extreme caution. As Richards (1987, 25) noted, '*of the 3471 vessels in the Corpus...only about 100 vessels are listed with associated 'datable' objects... Furthermore, only about half of these are decorated vessels*'.

More recently, Leahy's (2007) excavations at the Cleatham cremation cemetery in Lincolnshire produced an assemblage of urns, many of which had stratigraphic relationships, enabling him to produce a seriated system of five chronological phases which showed that rather than being a linear progression, the trends in the use of the various decorative techniques used on urns was very fluid. There are also social and cultural factors to take into account. Richards (1987) showed that it is very likely that the size, shape and decoration of urns was related to the age, gender and social identity of those contained within them. He also noted that there appeared to be a lot of localized variation in such practice, and that those cemeteries which were quite near to each other showed very different patterns. Leahy was unable to take age and gender into account at Cleatham as he was unable to obtain funding for analysis of the bone from the urns. If this crucial work is ever carried out, a clearer picture will probably emerge. Leahy also did not put an absolute chronology to his sequence, mainly due to a lack of other forms of datable cultural material associated with the cremations.

Thus any dating which is given to the vessels from this group of urns must be regarded as tentative. It will concentrate mainly on the decorated vessels, although any others which have distinctive attributes of form will also be discussed, in all cases using both Myres' and Leahy's work as the main points of reference.

### ***The undecorated urns and other vessels***

#### **Burial 4 (SF3)**

Fabric F1. Dark grey fabric with light orange-brown patches on the outer surface. Lower part of vessel (weight 880g). Very friable, somewhat under-fired fabric, meaning that much of the vessel had disintegrated. The rim is entirely missing, and there is no evidence of decoration. The few joining sherds and a large fragment of the lower body, which was reconstructed, suggest that the vessel was originally quite large, and probably shouldered. The size of the vessel corresponds with the fact that the cremated bone is from an adult, possibly a female. This context also produced a rimsherd from a different vessel, in fabric F1. Diameter 200mm, EVE = 0.07. It does not appear large enough to have functioned as a lid, and was not burnt.



**Burial 5 (SF4)**

Fabric F1. Black fabric with light orange-brown outer surface (weight 134g). Only the base of this vessel remains. There are traces on the inner surface of a burnt residue, so it appears that the pot is a reused cooking vessel.

**Burial 6 (SF7) (Figs 6.9, 12 & 6.16)**

Fabric F4. Uniform black fabric. Complete lower part of vessel. Outer surfaces evenly burnished (weight 1244g). The context also produced a few sherds from the shoulder and rim of a different vessel, but in a similar fabric (F4), weighing 138g. It was possibly used as a lid, and a further sherd in the same fabric with a single impression of a 'hot cross bun' stamp (3g) is also present. The decorated sherd is likely to be from a third vessel. Finally, a fragmented and clearly burnt sherd in fabric F5 occurred (weight 53g). This seems highly likely to have been placed on the pyre along with deceased. The urn also contained glass beads, a strongly female-linked artefact type in inhumations (Lucy 2000, 83-4), but not so in cremations (Richards 1987, 199). The remaining portion of the urn suggests that it was originally fairly large with a rounded profile; it contained the remains of an adult.

**Burial 8 (SF6) (Fig 6.8, 4)**

Fabric F1. Near-complete miniature pot. Dark grey fabric with browner, smoothed and lightly burnished outer surface. Rim diameter 80mm, EVE = 0.35, weight 182g. This is likely to be an accessory vessel rather than an urn.

**Burial 12 (SF11)**

Fabric F3. Grey fabric with light orange-brown outer surface. Lower part of vessel. Upper half and rim entirely missing. No evidence of decoration (weight 535g). It is difficult to be sure of the original form of the vessel, but there is evidence of a slight waist carination. It is not particularly large, but contained the remains of an adult, aged 15-18 years.

**Burial 14 (SF16)**

Fabric F3. Uniform grey fabric. Lower part of vessel, partially fragmented (weight 484g). Upper half and rim largely missing, apart from a single rimsherd and two from the neck. Rim diameter 224mm, EVE = 5%. The outer surface is lightly and evenly burnished, but there is no other evidence of decoration. Also present was the highly fragmented remains of a single large bodysherd in fabric F1 (weight 231g). Dark grey with a light orange-brown outer surface. It may have functioned as a lid.

This vessel appears fairly small and squat, with a relatively wide mouth for its size. It also has a noticeable waist carination, and was more likely to have been biconical or shouldered than globular. This may be early in date, perhaps 5th century rather than 6th, but this cannot be stated with a great deal of confidence. The size and shape would suggest that the urn was the repository of the remains of a juvenile or young adult female. Analysis of the bone indicates an adult, although the sex of the individual is unknown. The vessel also produced the burnt remains of a bronze quoit brooch. Richards (1987, 198) found that brooches are not correlated with any particular gender- or age-group in cremations, although they tend to occur in urns which have a shouldered profile, or have impressed dot decoration.

**Burial 18 (Fig 6.9, 11)**

Fabric F4. Dark grey fabric with variegated orange-brown and dark grey outer surface (weight 301g). Only the base of the vessel remains. There is a hole in the centre of the base which is not recent, and appears to have been made from the inside. It is possible that this is evidence of a deliberate act at the time of burial. Anglo-Saxon urns with perforations are fairly well-known; at Cleatham, where nearly 10% of the urns had been modified in this fashion, and a similar percentage of urns from Spong Hill

exhibited evidence of the same action (Leahy 2007, 82). It contained the remains of an adult.

Burial 20 (SF13)

Fabric F1. Black fabric with light orange brown outer surface (weight 132g). Appears to be a single, large fragmented bodysherd from a vessel of uncertain size and shape, associated with the cremated remains of a juvenile.

Pit 40

Fabric F1. Dark grey fabric with pale orange-brown outer lower body (weight 535g). There are two large, non-joining sherds from the rim, body and base. Rim diameter 260mm, EVE = 0.27. No evidence of decoration. The vessel is quite thick-walled, and while it is impossible to be certain, it appears fairly squat, with a wide mouth and a globular profile. Heavily disturbed, only fragments of pottery survived; no cremated bone.

Pit 48 (SF 17) (Figs 6.8, 3 and 6.10)

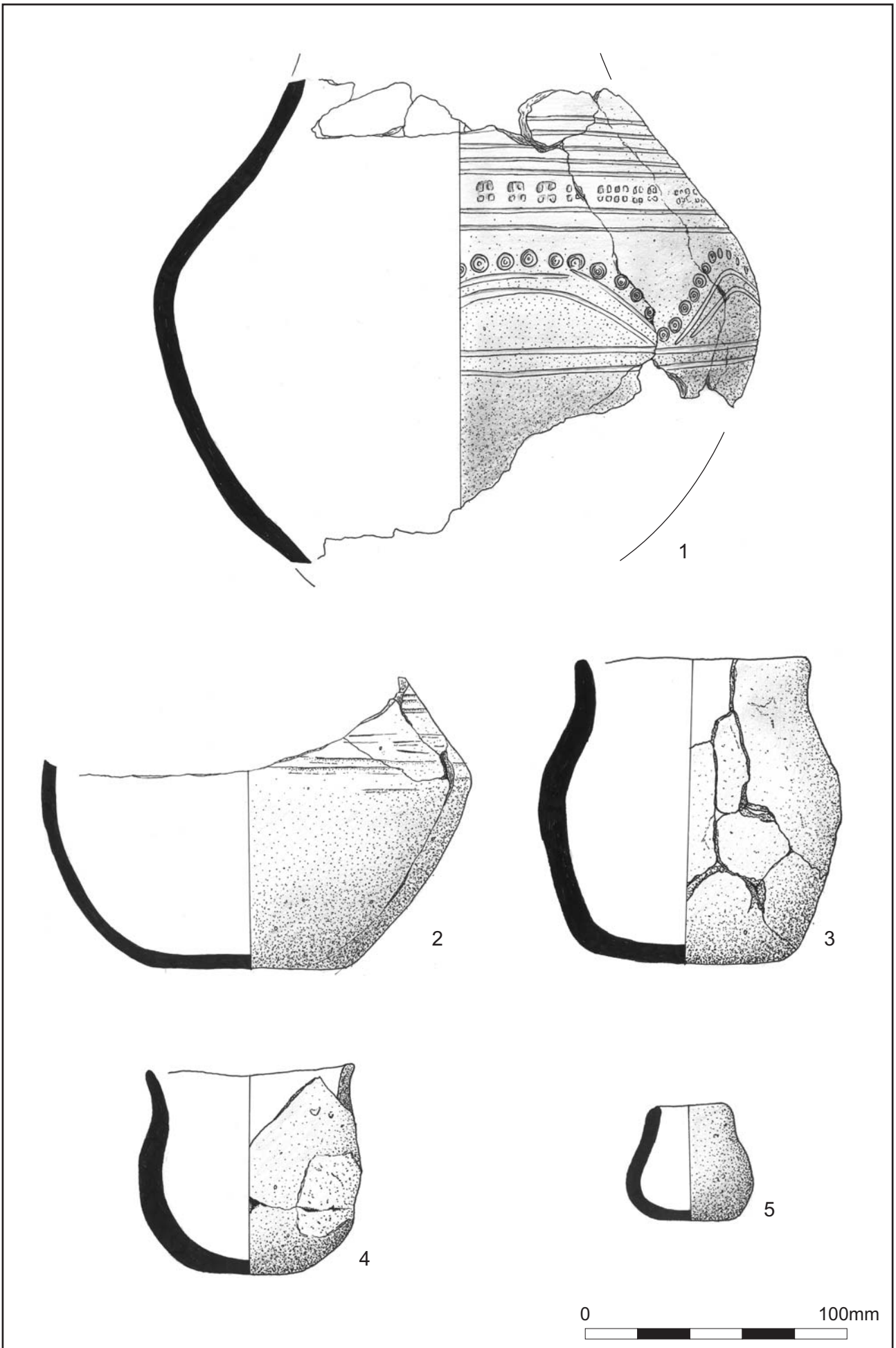
Fabric F4. Dark grey fabric with light orange-brown surfaces. Small jar with the outer surface sooted above the waist, extensive blackening on the inner surface, rim and upper body missing on one side. Rim diameter 100mm, EVE = 0.40, weight 423g. A single small sherd in fabric F1 was also present (weight 13g). This is one of the smaller vessels from the cemetery, and appears to have been an accessory vessel rather than an urn. The smoke-blackening suggests that it was originally used as a cooking vessel. Disturbed, crushed pot *in situ*; no cremated bone.

Context 1, topsoil. A single abraded bodysherd in Fabric F1 occurred (weight 7g).

Field 15:07, context 5, SFB (Figs 6.8, 5 & 6.11) Fabric F3. Grey fabric with light grey-brown surfaces. Complete miniature urn. Rim diameter 35mm, EVE = 1.00, weight 61g.

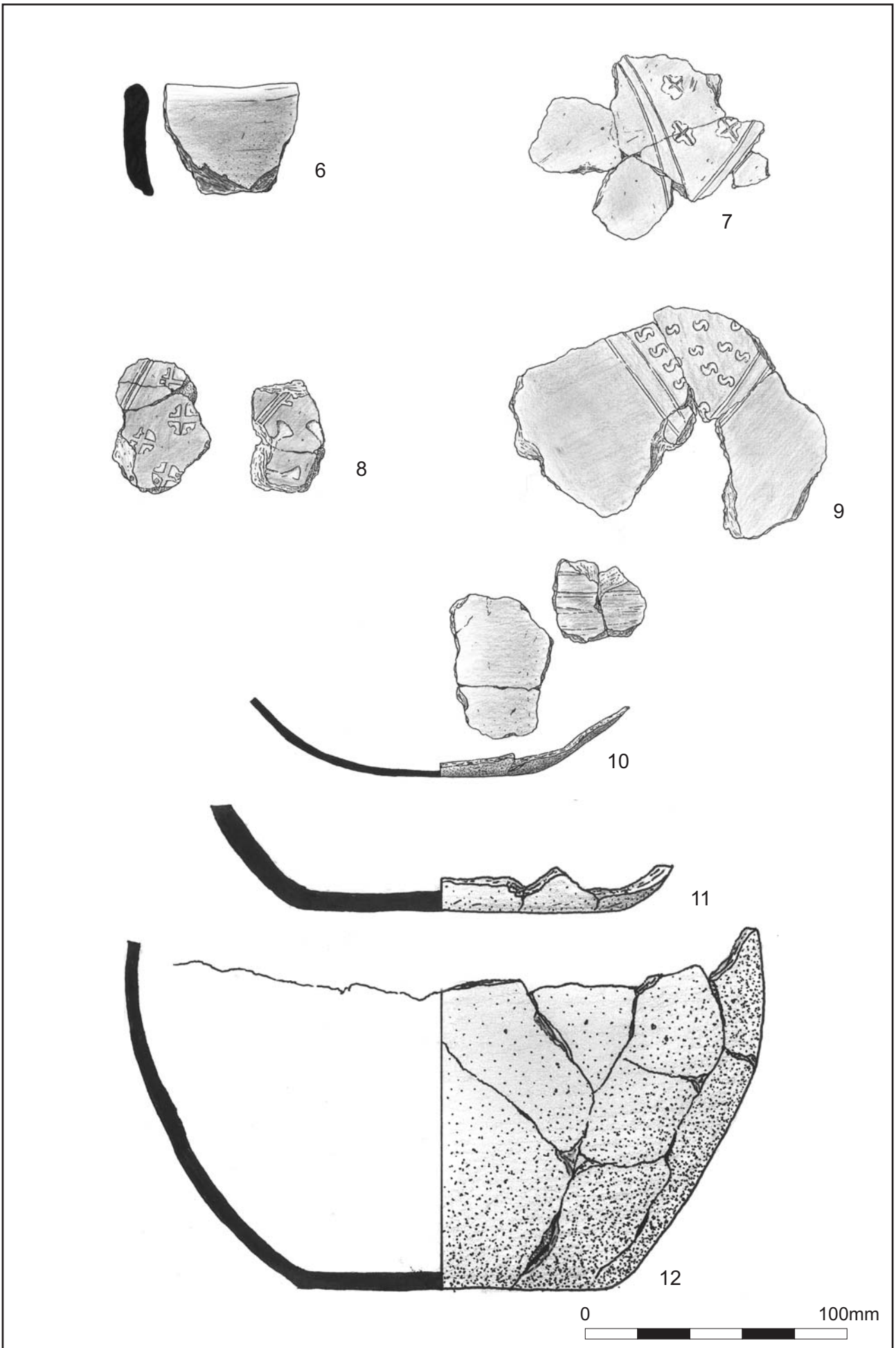
Pit 30. Fabric F4. Orange fabric. Rim from a small cup or bowl, rim diameter 80mm, 45% complete (weight 68g). Fragments of pottery found, feature not defined.

Pit 32. Fabric F4. Uniform dark grey fabric. Sherd from the base of a fairly large vessel (weight 100g). Pottery sherd found, feature not defined.



Scale 1:2

Glaston, Anglo-Saxon pottery (1-5) Fig 6.8



Scale 1:2

Glaston, Anglo-Saxon pottery (6-12) Fig 6.9



Accessory vessel from cemetery, pit 48 (Scale 10mm) Fig 6.10



Miniature pot from sunken-featured building, Field 15:07 (Scale 10mm) Fig 6.11

***The decorated urns***

Burial 7 (SF5) (Figs 6.8, 2 & 6.14)

Fabric F5. Uniform dark grey fabric. Decorated, although most of the body above the carination and the entire rim are missing (weight 475g). It has a lightly and evenly burnished outer surface, incised cordons on and above the carination, and zig-zag or chevron decoration comprising groups of four lines between the cordons. The outer surface of the vessel is fairly extensively lightly pitted, suggesting that it may have been quite old when placed in the ground.

The vessel is fairly small with a fairly sharp carination. Vessels with simple incised chevron-and-line decoration are well-represented in the Myres *corpus* (*ibid* 1977, figs 262-74), but exact parallels, where the chevrons are contained within combed bands, are rare. Vessels with a similar squat, carinated form are mainly confined to the cemeteries at Sancton in Yorkshire (*ibid* fig 263), with more recent work on the site

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producing more examples of vessels of this type (eg Timby 1993, fig 29). Myres suggested, on the grounds that there are numerous similar vessels in continental cemeteries, particularly in Schleswig and around the estuaries of the Elbe and Weser, that vessels of this type are likely to date to the 5th century (*ibid* 46 – 48).

Similar vessels occurred at Cleatham, classified by Leahy as Group 10a, and these appear, as Myres suggested, to be early and date to Leahy's Phase 1 (*ibid* 2007, 105-6). There were 49 urns of this type at Cleatham, and one of them, number 459, contained fragments of a 5th-century Frisian barred comb. Leahy also lists vessels of this type with datable artefacts from other sites, and the vast majority date to the 5th century AD (*ibid* 106). A number of such vessels also occurred at Spong Hill (Hills and Penn 1981, fig 35), one of which (*ibid* no 1743) had a fairly large group of artefacts accompanying the bones, including a double-sided bone comb. Richards (1987, 199) noted that bone combs are particularly closely correlated with vessels of this type, and a fragmented bone object did occur in this burial, although it does not appear to be a comb.

Given that Richards made a good case for the height of an urn being related to the age of the individual contained within it (*ibid* 1987, 195), it would be perhaps expected that this vessel would have been used to contain the remains of a younger individual, and the skeletal evidence shows that this was indeed the case. The style of decoration indicates that this vessel is most likely to date to the 5th century AD, but, as noted above, the outer surface is quite worn, and could have been an 'heirloom' which was quite old when placed in the ground.

#### Burial 9 (SF8) (Fig 6.9, 10)

Fabric F1. Uniform black fabric, highly fragmented (weight 255g). Little of this vessel remains, other than the base, although the few neck fragments present are decorated with horizontal incised cordons. A single bodysherd has small fragments of vertical incised lines, but no evidence of stamping, so it appears probable that the vessel originally had a purely linear decorative scheme, although the exact nature of it remains unclear. The fact that some of the upper part of the vessel fell into the urn and was preserved suggests that it originally had a lid or cover of some sort, which prevented soil entering the vessel until the weight of earth crushed the upper part of it. The urn also contained glass beads, a strongly female-linked artefact type in inhumations (Lucy 2000, 83-4), but not so in cremations (Richards 1987, 199).

It is not possible to assess the size of the vessel from what remains, although the relative thinness of the walls indicate that it was not particularly large, which, considering that the remains contained within it were of a juvenile, is perhaps to be expected given the findings of Richards (1987, 195). Dating the vessel is somewhat difficult. Myres (1977) lists numerous varieties of pots with purely linear decoration, and the dating depends very much on the overall scheme, so it is not possible to date the vessel other than to within the broad early Anglo-Saxon period, that is the 5th to 6th centuries AD. The same can be said of the urns in Leahy's sequence (*ibid* 2007, fig 116).

#### Burial 11 (SF10) (Fig 6.9, 7-9 & 6.15)

Fabric F2. Highly fragmented partial remains of a decorated urn (weight 263g). The body has the remains of at least four incised pendant triangles, each filled with the impressions of a different die. Three are fairly standard Anglo-Saxon die motifs, with one being the S-shaped 'wurm' stamp (Fig 6.9, 9) and the other two are cruciform, one in a cross-shaped field (Fig 6.9, 7), the other in a round field, with a dot in each quadrant formed by the cross (Fig 6.9, 8 left). The fourth however is filled with what appears to be impressions of the foot of a cruciform brooch (Fig 6.9, 8 right). The use of brooches and other forms of jewellery is a rare occurrence on Anglo-Saxon pottery,

but it is a technique which has been known to archaeologists for some time (Briscoe 1985), and while a direct parallel to the example from this site is not known, the use of the feet of cruciform brooches as dies is well-attested. Their main distribution seems to be in Norfolk, Lincolnshire and the Trent Valley, although a few examples are known from northern Suffolk, Cambridgeshire and south Yorkshire (*ibid*, fig 3).

The presence of a 'wyrn' stamp on this vessel would suggested that the contained individual was not a young adult, as Richards (1987, 201) noted that such stamps rarely occur on pots which contained people of that age group. However, Richards also noted that adults were usually placed in urns which, when stamped, had a fairly simple arrangement, and often, only one die was used.

Furthermore, one of the stamps on this urn is a cross in a cruciform field. Again, Richards (1987) noted that stamps with a field of this type were not often used on pots containing adults. He also noted that cruciform motifs with a raised cross are linked with young adults, and two of the four stamp motifs on this urn are of that type. The fragmentary nature of the vessel makes it difficult to ascertain the size and form of the urn, but it appears to be of fairly average size, and globular in shape.

There thus seems to be a certain amount of conflicting information in the decoration of this vessel, with the weight of evidence suggesting it would have been most appropriate on a container for the remains of a young adult, which perhaps reflects uncertain aging of the skeletal remains, which include those of a juvenile and an adult.

Myres saw globular urns with stamped pendant triangle decoration as being very typical of the 6th century (*ibid*, 1977, 53-4). Such designs are very common, and known from all over Anglo-Saxon England (eg *ibid*, figs 317-326). Very few vessels with stamped pendant triangle decoration occurred at Cleatham, with the closest parallel perhaps being Group 18s, but these were similar rather than identical (Leahy 2007, 116-7). Such pots appear to date to the later part of the Cleatham sequence (*ibid*). This vessel is therefore probably dates to the 6th century AD.

Burial 16 (SF 15) (Figs 6.2; 6.8, 1; 6.12 & 6.13)

Fabric F1. Black fabric with variegated light orange-brown outer to dark grey surface. Rim missing, base somewhat under-fired, and disintegrated after burial; it could not be reconstructed (weight 1441g). The vessel was accompanied by a sherd from another pot, probably in the same fabric (weight 38g), although the sherd has been heavily burnt, and is partially vitrified and distorted, suggesting it was almost certainly placed on the pyre with the deceased.

The upper part of vessel is decorated with incised horizontal cordons and a row of stamps, plus incised *stehende bogen* ('standing curves') above the carination, and outlined with ring-and-dot stamps. Vessels with *stehende bogen* decoration are well-represented in the Myres *Corpus*, although examples with incised curves accentuated with stamping and incised and stamped neck collars are extremely rare, and no direct parallels are present. There are a few vessels with a passing similarity; an urn from North Luffenham in Rutland (Myres 1977, fig 341, 842) has hanging curves (*hängende bogen*) outlined with dots, but no stamping on the neck collar, and others from Loveden Hill in Lincolnshire (*ibid*, fig 301 no. 540) and Caister-by-Norwich in Norfolk (*ibid*, 1843) have incised zig-zags or chevrons outlined with stamps, but again lack stamping on the neck-collar. Myres (1977, 51) saw stamped chevron pottery as largely dating to the 6th century AD. In the case of the vessel from North Luffenham, Myres implied that vessels with *hängende bogen* but without stamping were early, whereas those with it were dated to the 6th century AD, due to the lack of continental parallels and the increased use of stamping by Anglo-Saxon potters at that time (*ibid*, 58-9).



The decorated urn containing burial 16 Fig 6.12



The decoration on the urn containing burial 16 Fig 6.13



The evidence from Cleatham suggests a similar chronological picture for vessels with *stehende bogen* decoration. His Group 12s, 'standing bows with stamp decoration', comprised seven urns; one of which, on stratigraphic grounds could be placed in any of Phases 2, 3 or 4, with Leahy placing it in Phase 4 'on stylistic grounds' (*ibid* 2007, 114). Urns with 'standing bows' but no stamping (Group 12a), of which there were four examples at Cleatham, appear to date to Phase 1 (*ibid*, 109).

This vessel appears likely to have originally been somewhat squat, a form which Richards saw as more typical of the containers for female cremations (*ibid*, 1987, 196), and adult females are however more closely linked with *stehende bogen* when compared to male cremations (*ibid*, 201). He also noted when stamped, urns containing adult females are closely linked with stamp designs with a square field, and those comprising concentric circles or ring-and-dot design. The two dies used on this urn are a cross in a square field, and a ring-and-dot type. It would be expected therefore that this urn was the container for the cremated remains of an adult female, and the skeletal remains indicate that this was probably the case. Radiocarbon dating of bone from this urn has given a date of spanning the late 5th to mid 7th centuries AD.

Several sherds of Anglo-Saxon pottery were also recovered from the subsoil and Roman features in the field to the south of the A47.

*Context 2, subsoil.* One sherd, 6g, fabric F5. Plain bodysherd.

*Ditch 10* (Fig 6.9, 6). Four sherds from different vessels were noted in ditch 10, all in Fabric F1 (total weight = 62g). Three were plain bodysherds and one was from the rim of a small bowl, rim diameter = 200mm, 8% complete.

#### *Discussion*

It is unfortunate that so many of the urns from this site were damaged by past activity, presumably ploughing, as this has made any coherent overview of the urns somewhat difficult. Certainly, all the damage appears to be old, as none of the incomplete vessels have fresh breaks on their upper edges. The decorated vessels suggest that the cremation cemetery was in use for most of the early Anglo-Saxon period (ie from the 5th to the 6th century), so it is likely that it was servicing a small, local community. It should be borne in mind, however, that the only vessel which can be dated to the 5th century on the type of decoration on the pot may have been of some age when it was placed in the ground. Generally however, the range of decoration and urn size and shape, where discernable, fits well with Richards' (1987) analysis of such vessels, with the age and sex of the cremated individuals largely reflecting the nature of the pots. A few factors are worthy of further discussion, particularly the miniature pots which appear to have been deposited as grave-goods.

Miniature Anglo-Saxon pots are not unknown in a funerary context in the 5th and 6th centuries AD. The Myres *Corpus* includes a fairly large number of such pots (*ibid*, 1977, figs 10, 46, and 47), and some are as small or with the same form as the vessel from the sunken-featured building (Field 15:07). They have a fairly wide distribution, with the geographically closest to this site being two from Rothwell in Northamptonshire (*ibid*, fig 58 no. 2893; fig 73 no. 2896). Most of these are from inhumations, however, Richards (1987, 83) noted only two examples of whole miniature pots placed in urns. The small pots from burial 8 and pit 48 have far more parallels. They have a very widespread distribution, and similar vessels are known from Great Casterton, Market Overton and Cottesmore in Rutland (*ibid*, fig 27, 4014; fig 61, 834; fig 63, 1059).

The presence of burnt sherds and large body sherds which may have been used as lids is also worthy of comment. The possibility that some of the large sherds found in association with the urns at this site could have functioned as lids is a trend which has

been noted elsewhere. At Spong Hill, urn C2022 appears to have had a sherd functioning in such a manner (Hills and Penn 1981, 49).

Lucy (2000, 110) cites a number of examples where burnt sherds occur in cremation burials, such as at Portway, near Andover in Hampshire, and they were not uncommon at Spong Hill (Hills and Penn 1981, table 7). Richards (1987, 83) notes that sherds in cremations are “quite a common find” and suggests that they were not complete vessels when placed on the pyre, and functioned as representations of whole pots. Incomplete vessels are known from inhumation burials. For example, at Sewerby in Yorkshire, some of the accessory vessels were incomplete, and ‘loose’ sherds were found in the fill of some of the graves (Hirst 1985, 92). Hirst also cited earlier work which suggested that sherds were placed in graves as symbolic representations of whole pots (*ibid*, 32). A perhaps more convincing example comes from South Carlton in Lincolnshire, where a crouched inhumation occurred which had one hand placed on a large sherd from an incomplete pottery vessel (Wessex Archaeology 2004, fig 7). A number of large sherds were carefully placed in inhumations at the Berinsfield cemetery in Oxfordshire (Booth 1995, 101), and many other examples exist.

*Anglo-Saxon pottery from a watching brief, Field 15:07/4* by Andy Chapman

There is a small assemblage of pottery, 65 sherds, weighing 1.36kg, in hard and well-fired sandy fabrics, typically grey in colour, but including vessels with patchy light brown external surfaces. The group includes sherds from a thin-walled carinated bowl with burnished surfaces. It is decorated with four shallow incised grooves encircling the neck and short oblique grooved incisions on the carination. There is a coarseware vessel with a boss, a sherd with fine combed decoration and a sherd with deeply scored decoration. There are rims from at least five vessels, all are simple upright rims either rounded or flattened. This feature also contained a complete miniature urn, in a sandy fabric, grey with light grey-brown surfaces (Fig 6.8, 5 & Fig 6.11). It has a rim diameter 35mm and stands 41mm high. The decorated carinated bowl and the boss indicate an early Anglo-Saxon date, AD450-650.

**Catalogue of illustrated Anglo-Saxon pottery** (Figs 6.8 and 6.9)

- 1 Decorated urn (SF15), burial 16 (Figs 6.12 & 6.13)
- 2 Decorated urn (SF5), burial 7
- 3 Small jar (SF17), pit 48
- 4 Small accessory vessel (SF6), burial 8 (Fig 6.10)
- 5 Miniature pot from sunken-featured building in Field 15:07 (Fig 6.11)
- 6 Rim of small bowl from Roman ditch 10
- 7 Decorated urn (SF10), burial 11
- 8 Decorated urn (SF10), burial 11
- 9 Decorated urn (SF 0), burial 11
- 10 Base of decorated urn (SF8), burial 9
- 11 Base of urn, burial 18
- 12 Urn (SF7), burial 6



Decorated urn (SF7) from burial 7, with detail of the incised chevrons (right) Fig 6.14



Sherds from decorated urn (SF10), burial 11, showing the various stamped motifs Fig 6.15



Plain-bodied urn (SF7), burial 6 Fig 6.16

### 6.3.2 *Other Anglo-Saxon finds* by Tora Hylton

#### *Glaston*

The burnt remains of 15 individual or grouped finds were recovered from eight of the (burials 6, 7, 9, 11-14 and 16). The majority of the artefacts had been placed inside the urn, together with the cremated bone. The distorted nature of some of the finds, particularly the glass beads, suggests that the individuals had been dressed as for life when they were cremated. The finds comprise items for personal adornment and grooming and comprise a copper alloy brooch, a range of glass beads, and bone mount and parts of a bone comb (Table 6.1). The range represented may be paralleled by finds recovered from other Anglo-Saxon cemeteries in the south-east Midlands. Typologically the finds suggest a mid 5th to 6th-century date, which corresponds with the dating of the pottery.

#### Catalogue of finds

##### Burial 6 (adult, sex unknown)

Some seven glass beads, including two polychrome beads (Fig 6.5).

Polychrome glass bead damaged and distorted by heat. Originally it would have been cylindrical in shape with a circular section (c25mm long and 12mm diameter) and manufactured from red, yellow and green glass. Difficult to be sure of the original decorative scheme but possibly a streaked example of a 'Traffic Light' bead (cf Birta Brugmann 1996, 34). SF9.

Melted fragment, comprising two or three globular beads in blue glass, flanking an amorphous mass of brown (or red) with flecks of green and yellow. Probably the remains of a single polychrome bead (red/yellow/green). No measurements. SF24.

Amorphous, vesicular fragment of melted red and green glass bead(s), to which has adhered a small fragment of human bone. No measurements. SF25.

Complete, but broken, annular bead, possibly in dark blue glass, but difficult to tell as surfaces vitrified. Diameter: external 9mm; internal 2-3mm. Depth: 4mm. SF33.

##### Burial 7 (juvenile, 4-5 years, sex unknown)

Broken and incomplete bone mount, distorted bone by the heat and therefore difficult to reconstruct (Fig 6.6). Hollow, thin-walled cylindrical mount; the exterior surface is decorated with worn incised horizontal grooves. Two marginally placed circular perforations, both display signs of wear. The identity of this piece is undefined, but as it was recovered from a juvenile there is a possibility that it was a part of a child's toy. Height: 24mm. SF 22.

Elongated undiagnostic fragment of clear glass with curved profile and irregular sub-circular section. Nature of object impossible to determine, but possibly the remains of a melted bead. Length: 50mm; width: 7mm. SF23.

Nodule, copper alloy. Sub-circular. Diameter: 4mm. SF31.

##### Burial 9 (juvenile, greater than 10 years old, sex unknown)

Amorphous piece of melted glass, comprising approximately five individual beads fused together. Although difficult to be certain, there appears to be two red beads, two blue beads (annular) and one white bead. Measurement: 16 x 15 x 10mm. SF29.

**Burial 11 (adult and juvenile, sex unknown)**

Melted fragment of black glass, probably a globular bead, but difficult to be sure. Measurements: 10 x 9mm. SF27.

Seven small fragments of iron. The X-ray reveals that six of the fragments have circular sections (diameter: 2mm) and of those five are parallel-sided and c 10-11mm long, and one is 7mm long. Two pieces have burred terminals (both ends), like an example from Westgarth Gardens, Suffolk (West 1985, fig 58, C7) and one has a single burred terminal, suggesting that they are rivets. These would have had any number of uses, including securing the individual components of a composite bone comb. SF26.

**Burial 12 (adult, 15-18 years, sex unknown)**

Three undiagnostic fragments of copper alloy. One piece measuring no more than 17mm x 4mm, has parallel sides and a curved profile; a similar example from Portway, Andover (Cook and Dacre 1985, fig 61, 3) has been identified as a loop, possibly for suspension.

Two very small undiagnostic amorphous sheet fragments that do not appear to join. Measurements: 6 x 5mm, 5 x 3mm. SF34.

**Burial 13 (adult, sex unknown)**

Incomplete double-sided composite bone comb, extremely fragmented and calcined (white/blue grey in colour), comprising 24 pieces, including fragments of tooth-plate, end-plate and side/connecting-plates; there are no teeth. The tooth-plate fragments measure no more than 11 x 9mm and all retain vestiges of the base of the teeth; measurements indicate that both sides of the comb had the same gauge, five teeth per centimetre, and this is paralleled by the spacing of the notches cut into the outer edge of the side-plate. Corrosion deposits on two fragments indicate that the individual pieces of the comb would originally have been secured with ferrous rivets. The presence of a small corner fragment from an end-plate (9 x 6mm) reveals that the comb would have been furnished with squared terminals. The fragments of side-plate measure no more than 14 x 8mm. Three small pieces join together to form a fragment measuring 24 x 8mm and the curvature of the pieces indicates that it is manufactured from a rib (Karen Deighton pers comm). The side-plate is simply decorated with two marginally placed, faintly incised longitudinal parallel grooves, rather like an example from West Stow (cf West 1985, fig 253, 3); in profile it appears to taper slightly and the longitudinal edges are chamfered and marked with short equidistant incisions, created during the cutting of the teeth. SF21.

**Burial 14 (adult, sex unknown)**

Copper alloy quoit brooch, complete (Fig 6.7). Plain broad-banded annular brooch with flat section and V-shaped pin slot in the inner circumference ('notch and stops' fastening). The pin-notch displays similarities to Agers Type D3, where the V-shaped slot is reinforced with a cast ridge which encloses the notch (Ager 1985, 2). The iron pin survives as a corroded mass over the central hole, together with the remains of one or two glass beads distorted by the heat of the pyre. The remains of the pin are evident on the X-ray, which shows that it is attached to the brooch by a circular perforation on the opposing side to the slot; the pin survives to a length of 31mm and is 2mm in diameter.

This example may be compared to a pair of similarly plain examples from Marston St Lawrence, Northamptonshire; both have cast copper alloy bands with iron pins (Ager 1985, fig 26, a-b). Ager has indicated that Type D3 brooches are distributed mainly in the southern and eastern midlands and have 6th-century associations (*ibid*, 16-17). Small brooches of this type were generally used in pairs to fasten clothing; research has indicated that they would have been part of female dress and were often worn in

association with beads like these examples. Diameter: external 44mm, internal 20mm. SF18.

Melted fragment of opaque white glass, probably a globular bead. Measurements: 9mm, SF28.

Burial 16 (adult, probably female)

Small vesicular fragment of melted white/blue glass, probably part of a circular/globular bead, adhering to small fragment of human bone. No measurements. SF30.

The beads

The assemblage is dominated by glass beads, examples of which were recovered from five burials (6, 9, 11, 14 and 16). High temperatures during the cremation process has resulted in poor bead survival, therefore the condition of those that have survived is generally poor and it is difficult to distinguish shape and colour, therefore few types can be recognised.

*Table 6.2: Summary of Anglo-Saxon glass beads from Glaston*

Burial	Shape	Colour	Comments
6	Cylindrical	Red with yellow and green trails	Polychrome bead damaged and distorted by heat. Difficult to be sure of original decorative scheme
	Cylindrical	Red with yellow and green trails	Amorphous mass, brown in colour with flecks of yellow and green. Probably similar to SF9.
	?Globular x 2	Blue	--
	Unidentified	Red and green	Amorphous vesicular fragment adhered to fragment of human bone. Poss. monochrome beads
	Annular	?Dark blue	Complete but broken, surfaces vitrified through extensive heat.
9	Annular x 2	Blue	Amorphous lump of melted glass comprising c 5 individual beads
	Unident x 2	Red	--
	?Globular x 1	White	--
11	?Globular	?Brown/dark blue	--
14	Globular	White glass	Opaque
16	?Globular	White/blue	Vesicular fragment adhered to fragment of human bone

There appear to be c 15 individual beads; identifiable forms include cylindrical multi-coloured (polychrome) beads and monochrome annular and globular beads. Burial 6 produced the largest number of beads (seven), with five from burial 9 and single examples from burials 11, 14 and 16 (Table 6.2).

The most distinctive beads are two cylindrical polychrome beads from burial 6 (Fig 6.5). The main body of the bead is red and they are decorated with applied yellow and green trails; this type of bead has been termed a 'traffic light bead' by Brugmann in her study of Anglo-Saxon beads (2004, 34). Beads of this type are predominantly recovered from East Anglia and, like this particular burial group, they are often recovered in association with blue beads. Brugmann's analysis has indicated that a combination of both types of

bead suggests a date between the mid 5th to mid 6th centuries AD. Other bead forms represented include annular beads in blue glass, and globular beads in white and blue glass. Two burials (6 and 16) produced beads fused to small fragments of human bone. It has been suggested that for this to occur, the body remained on top of the pyre for some time before its collapse (McKinley 1994a, 83-84).

#### *Rushton*

There are two Anglo-Saxon small finds from the Roman settlement at Rushton: part of a pair of tweezers from the subsoil and a rod fragment from gully 9.

The tweezers (one arm missing) have been manufactured from a strip of sheet metal which has been folded in half widthways; the surviving arm is tapered and terminates in a flared blade, the end of which is turned in at right-angles. The arm is decorated with marginally placed opposing facets flanked by incised transverse grooves. Stylistically these tweezers may be paralleled by examples recovered from cremation burials at Spong Hill, Norfolk dated to the 5th/6th centuries AD (Hills 1977, fig 116, 1460, 1647) and Buckland Cemetery, Dover (Evison 1987, Burial 41, 5).

The iron rod fragment is incomplete, at just 16mm long. It has a circular section, diameter 2.5mm, and terminates in a simple coiled terminal. Although it is difficult to be certain as to the identification of the object, it does display similarities to a range of iron pins recovered from Anglo-Saxon graves at Portway, Andover (Cook and Dacre 1985, Grave 25, 4 and Grave 19, 4).

#### **6.4 Human bone from the Anglo-Saxon cemetery** by Sarah Inskip

There are the remains of 14 individuals from 13 bone deposits: four juveniles, eight adults and two of unknown age. They have been examined following the guidelines outlined in Brickley and McKinley (2004) and the English Heritage document *Human Bones from Archaeological Sites: A Guideline for Producing Assessment Documents and Reports* (Mays, Brickley and Dodwell 2004).

The material was received washed and dried. The bone deposits were passed through 10mm, 5mm, 2mm and 1mm sieves. Each sieved fraction was then recorded and weighed. The material was sorted into elemental groups: skull, long bones, axial skeleton and unidentifiable. Upper limb refers to the clavicle, humerus, ulna and radius. Lower limb refers to femur, tibia and fibula.

All the cremated bone deposits examined contained human remains, and burial 11 contained the remains of two individuals. Burials 12 and 13 contained some animal bone fragments, the weight of which was not included in the totals (Table 6.3)

#### ***Fragmentation, completeness and elemental representation***

The number of identifiable fragments is usually related to the general size of the fragments; larger fragments result in more identifiable elements. The majority of material from Glaston remained in the 10mm and 5mm sieves (Table 6.3), so it was possible to identify many skeletal elements; only burial 5, weighing 5g, contained no identifiable remains (Table 6.4). Burial 16 contained a large fragment of femur (120mm long), suggesting that bones were not further crushed after cremation (Fig 6.4, foreground). The larger size of the fragments meant that age estimation was possible in nine of the fourteen individuals.

Table 6.3: Total weights for the cremated bone deposits from Glaston

Burial	Weight (g)	10 mm	5mm	2 mm	1mm	<1 mm
4	816	426	248	121	5	14
5	5	4	<1	<1	<1	<1
6	311	100	130	80	<1	<1
7	71	21	27	21	2	0
8	<1	<1	<1	<1	<1	<1
9	78	10	28	36	2	<1
11*	297	30	123	139	8	6
12	614	216	228	151	9	9
13	58	14	25	19	<1	<1
14	272	65	99	99	6	3
16	995	648	242	72	10	23
18	86	28	34	23	2	<1
20	14	8	6	<1	<1	<1

\* Two individuals

Table 6.4: Summary of cremated bone deposits

Burial	MNI	Age	Sex	Colour	Other
4	1	adult	?f	mostly white	Osteochondritis patella
5	?	?	?	cream	
6	1	adult	?	cream	
7	1	juvenile	?	cream /white	Porous skull?
8	?	?	?	cream	
9	1	juvenile	?	mostly cream	
11	2	adult+ juvenile	?	mostly cream	
12	1	adult	?	mostly white	
13	1	adult	?	mostly white	
14	1	adult	?	cream /white	
16	1	adult	?f	mostly white	
18	1	adult	?	cream /white	
20	1	juvenile	?	mostly cream	

MNI = minimum number of individuals

Experimental studies and modern cremation data have demonstrated that complete cremated adults should weigh in the region of 1-3kg (McKinley 1997 and 2000, Steele and Mays 1993, 4). Juveniles should present around 500g of bone (Mays 1998). This considered, burials 12 and 16 may theoretically represent complete individuals (Table 6.3). However, most of the bone deposits appear to be incomplete. McKinley (2000) suggests that the majority of cremation burials are incomplete and it is certainly true of most Anglo-Saxon cremated deposits. At Snape (Steele and Mays 1993, 4) and Mucking (Mays 1992), Mays indicated that on average the deposits contained around 10% - 15% of that which would be expected. As cremated bone preserves extremely well in poor soil conditions, the common observation of underweight, undisturbed cremation burials is thought to reflect incomplete collection from the pyre. Unfortunately, the Glaston burial deposits were damaged by medieval ploughing, with



pottery fragments and bone found scattered around the area (Carlyle pers comm). It is therefore not possible to comment further on the completeness of individuals.

The quantification of elemental groups found in each burial (Table 6.5) shows that although all elemental groups are represented, there is a clear abundance of long bones and skull. McKinley (2000) highlights that many distinguishing skull landmarks exist, making even very small fragments identifiable. Furthermore, skull vault fragments are easily identifiable due to the presence of diploe.

Long bones consist of denser cortical bone than those of the axial skeleton, which are either thin or have higher trabecular bone content. Trabecular bone tends to disintegrate, which probably results in elements such as vertebrae, tarsals and pelvis making up a high quantity of the smaller unidentifiable fragments. Accordingly, the inflated quantity of long bones is a normal occurrence in cremated material. This trend was also seen at Westhampnett (McKinley 1997) and in the juveniles from Snape (Steele and Mays 1993).

Table 6.5: Identifiable fragments of human bone by elemental group (weight in g)

Burial	Skull	Ribs	Vertebrae	Scapula	Upper body	Hands	Pelvis	Lower limb	Feet	Long bones	Articular surfaces	Unidenti	Total
4	77	6	53	0	113	6	30	180	24	66	35	219	809
5	<1	0	0	0	0	0	0	3	0	0	0	0	5
6	13	1	2	2	26	1	5	77	0	73	0	109	309
7	27	2	0	0	5	0	0	7	0	6	0	25	72
8	0	0	0	0	0	0	0	0	0	0	0	1	1
9	17	0	0	0	5	0	0	7	0	11	2	32	74
11	54	5	1	0	0	0	0	0	3	66	0	168	297
12	84	3	17	1	64	2	48	98	4	111	29	257	718
13	16	0	0	0	0	0	3	0	1	14	0	24	58
14	74	1	1	2	12	0	2	12	0	43	0	125	272
16	130	23	62	10	155	3	34	257	25	107	16	176	998
18	7	0	0	0	8	1	0	20	0	17	1	30	86
20	8	0	0	0	0	0	0	0	0	0	0	6	14

### Pyre conditions

According to experiments carried out by Shipman *et al* (1984), the colour of bone can be used as an approximation of pyre conditions, including temperature and oxygen levels. The white to cream colouration of the Glaston material suggests high levels of oxygen and temperatures far in excess of 600°C. Further evidence of pyre temperature comes from the melted glass bead found adhering to bone originating from burial 6. Mays (2010, 322) indicates that Calvin Wells research on glass beads demonstrated that glass starts to melt at 850°C. In fact, individuals from Mucking (Mays 1992) had similarly melted beads and Mays (2010, 324) suggested that temperatures in excess of 900°C may have been achieved in the Mucking pyres.

The material from Glaston was highly uniform in colour with over 95% of bone presenting cream to white colouration (Table 6.4). There was <5% of grey material and this was usually endosteal surfaces of long bones and endocranial (inner) surfaces of skulls. Intense heat causes fragmentation of the periosteal and ectocranial (outer) surfaces which would subsequently increase exposure of the inner surfaces of bone.

Steele and Mays (1993, 5) suggests that evidence of skeletal material cremated at lower temperatures can also be related to shattering and fragmentation during cremation and fragments falling into cooler areas. Lack of colour variation between elemental groups suggests that intensive and, or even firing was achieved across the pyre. The uniformity in fragmentation and little colour variation between the elemental groups and burials, suggests that a standard method of cremation was probably used at Glaston.

Confusion with the classification of white fragments as a low temperature indicator (Williams 1983, 18) in the Thurmaston report means comparison to nearby contemporary Thurmaston is difficult. Yet, in similarity to Glaston, melted beads and metal indicate temperatures in excess of 800°C were also achieved at Thurmaston. Williams (1983) suggests that around 78% of the cremations were undertaken at a 'fairly high' temperature or above. Unfortunately, a definition of what 'fairly high' meant, was not forthcoming from the author, but one has to bear in mind that the Thurmaston report was written some 27 years ago in retrospect of work carried out in the 1950s.

### ***Demography***

In the fourteen cremated deposits examined there was evidence for fifteen individuals. Burial 11 appeared to contain mainly juvenile elements but some adult bone was identified. In total, there were eight adults and four juveniles. Burials 5, 8 and 19 could not be placed into an age category, as too little bone was recovered. Accordingly, adults made up 64% of the identifiable material and juveniles 36%.

It was possible to estimate age in twelve of the fifteen deposits (Table 6.6). Eight adults were identified; burial 16 could be aged more specifically to the middle age range (35 – 45 years) as a particularly worn molar was identified. Burial 4 is likely to be that of a young to middle aged adult based on the fact that the epiphyses are all fused but the cranial sutures remain open. Four deposits contained juvenile remains: burials 7, 9, 11 and 12. The unerupted crown of a permanent canine indicates that burial 7 is that of a 4-5 year old individual. The spinous processes in burial 12 are fusing. This, accompanied by an unfused humeral head, suggests that burial 12 is that of a 15 year old. Further evidence from an open crypt in the maxilla and an unerupted third molar suggests a teenage individual. As such, burial 12 was aged between 15-18 years. Burial 9 had unfused long bones, the dimensions of which suggest an individual younger than 10 but older than an infant.

At Snape, Suffolk, 20% of the remains were immature (Steele and Mays 1993) (Table 6.7). At Thurmaston just 12% of the material was deemed immature (Williams 1983). The number of juveniles recovered at Glaston has greater similarity to Mucking where 33% of individuals were aged as immature. Although Glaston is the only site to have no infants, they were rarely recovered at any of the other sites and this absence may reflect the small sample size at Glaston rather than a true absence.

Table 6.6: Overall age estimations from the epiphyses, dentition and other sources

Burial	MNI	Epiphysis	Dentition	Other	Overall age
4	1	F	-	AS Phase1-4	Young/middle adult
5	?	-	-	-	?
6	1	No UF found	-	Thick robust bones, pronounced flexor attachments on phalanges	adult
7	1	UF	4-5 years	-	4-5 years
8	?	-	-	-	?
9	1	UF long bones	--	Shaft size indicates a younger child but not an infant	>10 years
11	2	UF long bones	-	UF cranial sutures	Adult and juvenile
12	1	UF humeral head/ F thoracic spinous process	Unerrupted molar tooth (m3?)	UF cranial sutures	15 – 18 years
13	1	F	Adult	Vertebral rings F	adult
14	1	-	-	Evidence of suture fusion	adult
16	1	F	Adult	Worn molar	middle adult
18	1	-	-	-	adult
20	1	-	-	-	juvenile

Key = MNI = minimum number of individuals, UF = unfused, F= Fused

Table 6.7: Relative individual numbers per age group for Glaston and other contemporaneous sites

Site	Infants (0-2 years)		Children (2 – 18 years)		Adults	Total MNI
Glaston (C)	0	0%	4	33%	8	12
Snape (C)	1	5%	3	15%	16	20
Thurmaston (C)	2	3%	5	9%	51	58
Mucking (C)	32	8%	66	16%	308	406
Empingham (I)	2	1%	52	34%	98	152

C= cremation cemetery, I= Inhumation cemetery

### Sex

There is very little evidence to enable the sex of individuals to be determined. This is partially due to the destructive nature of the cremation process and also the incompleteness of most of the burials.

Only two burials provided indicators of sex. A sharp supraorbital margin indicates a possible female individual in burial 16. A small mastoid in burial 4 also indicates a female individual. It would be unwise to suggest that these individuals were definitely female from the skeletal remains alone, particularly considering the low accuracy of sexing incomplete human skeletons (Kjellström 2004). It is worthy of note however, that McKinley (1994, 68) has noted a female bias in the Anglo-Saxon cremation record. Sex estimation was not carried out on juveniles given that no macroscopic technique has, as of yet, proved accurate and reliable enough.

**Pathology**

There was very little evidence of pathology in the collection. Steele and Mays (1993, 7) suggest that pathological findings in cremated material is rare due to the fragmentation and distortion of bones during the cremation process. Only three of the burials: 4, 16 and 12, had sufficient remains to permit assessment of osteoarthritis; no evidence for this disease was evident in any of the joints that were available for analysis.

Three juvenile individuals (burials 7, 9 and 11) had evidence for porotic hyperostosis on the occipital and parietal bones of the skull. Steele and Mays (1993) identified a similar lesion on an infant from Snape and Williams (1983) on an adult from nearby Thurmaston. Porotic hyperostosis is normally seen in immature individuals (Lewis 2000, 45) but can persist into adulthood if the condition fails to heal. Furthermore, this type of lesion can be present as a result of other conditions. As it is not possible to examine the complete skeletons, a diagnosis beyond porotic hyperostosis is not recommended. The only other sign of any pathology was noted on Burial 4, which has a patella fragment that appears to have a cortical defect.

**Discussion**

Williams suggests that cremation was the predominant burial rite in the Anglo-Saxon period (2002, 48). Commonality of the cremation practice varies depending on national location. Cremation is almost exclusive in East Anglia but near absent in the North and the South-West (Williams 2002, 55). Glaston fits in a region of mixed inhumation and cremation cemeteries, making the finding of a cremation cemetery normal for the region.

There are a number of Anglo-Saxon cemeteries in the region against which comparisons can be made for the Glaston cremations. A large metropolitan cremation cemetery was found at Thurmaston (Williams 1983), just a few miles north of Leicester and west of Glaston. Other less local sites will be used in order to assess how Glaston fits into the broader context of Anglo-Saxon England. Empingham, just a few miles north of Glaston has two large inhumation cemeteries (Timby 1996). Spong Hill (McKinley 1994b), the largest Anglo-Saxon cemetery, is a good comparison due to the sheer volume of data. Smaller cemeteries at Snape, Suffolk (Steele and Mays 1993) and Mucking, Essex (Mays 1992) can also be referenced.

The number of individuals in the cemetery at Glaston is small compared to Thurmaston and Spong Hill. This is unsurprising considering that Glaston itself has never been a large town and is not directly related to a Roman town, where larger settlements were often located (Liddle n.d). This may suggest that the cemetery is related to a single Anglo-Saxon settlement, as is common in the Leicestershire region (*ibid*, 2).

In terms of demography, the numbers of adults and children were not dissimilar to other Anglo-Saxon sites. Ratios of adults to children vary in Anglo-Saxon settlements. Mays (1992) indicates that in populations without modern health care 40% or more of individuals between 0-15 years can be expected to die (Mays 1992, 8). At Glaston, albeit a small sample, levels of children are slightly higher than most Anglo-Saxon cremation cemeteries (33% could be classed as immature) yet no infant remains (below two years) were found. This 40% mark is rarely identified and the location of these missing individuals is debated. McKinley highlights that infant remains do survive cremation, but they are small and extremely fragile (1997, 64). This makes infants problematic to identify. Conversely, as identified by Mays (1992), a general under-representation of infants in most Anglo-Saxon cremation cemeteries may suggest burial elsewhere. Unfortunately, the small size of the Glaston material does not really permit further speculation. Considering this, there seems to be nothing unusual about the representation of age groups at Glaston and the cemetery fits in with what is

expected from a apparently normal population (eg it is not a battle/monastic site) during the Anglo-Saxon period.

The remains at Glaston share much in common with nearby Thurmaston, despite being far fewer in number. The white/buff colour of the bones and evidence of melted beads suggest pyre temperatures reached at least 800°C and above, with ample oxygen. The sites also shared a common trend with regards to skeletal fragments, where the inner surfaces appeared to be exposed to lower temperatures. In a similar fashion, animal bones were also recovered from cremations in both cemeteries. It is very common for animal bone to be found in Anglo-Saxon cremations (Bond 1996, table 1) and this was indeed the case at Snape (Steele and Mays 1993), Mucking (Mays 1992) and Spong Hill (McKinley 1994). It is difficult to understand exactly why animals are found in Anglo-Saxon cremations and a number of reasons have been proffered. These include straightforward explanations of provisioning for the dead or accompanying a master to the grave. Further suggestions could incorporate notions of animals taking on a symbolic role and playing a role in the identity of the individual or group. Whatever the reason, it is unlikely that whole animals were placed in with burials 12 and 13, as insufficient quantities of animal bone were recovered. The representation of animals in Anglo-Saxon cremations is an area of research that requires more attention, and cremated animal bones as a research entity, need to be reported and analysed more thoroughly.

## 6.5 Radiocarbon dating

A sample of cremated human bone from burial 16 was submitted for radiocarbon dating and returned a date in the early Anglo-Saxon period (570-655 Cal AD, 95% confidence, 1440+/-30 BP, Beta 293240; Table 6.8).

*Table 6.8: Radiocarbon dating of bone carbonates from burial 16 (context 41)*

Lab no. and sample no.	Origin of sample	Sample details	13C/12C ratio	Conventional radiocarbon age BP	Cal AD 68% confidence 95% confidence
Beta-293240 GLAS08/41	Burial 16	Human bone	-21.7 0/00	1440+/- 30	600-645 570-655

Radiocarbon dating laboratory: Beta Analytic, University of Florida, Miami, USA

Method of analysis: AMS-standard delivery

Material pre-treatment: Bone carbonate extraction (cremated human bone)

Calibration: INTCAL04 (IntCal:04 Calibration Issue, *Radiocarbon*, 2004, **46/3**)

## 7 MEDIEVAL AND POST-MEDIEVAL FIELD SYSTEMS

Evidence relating to the medieval and post-medieval field systems was recovered at Normanton Road, Seaton, Thorpe by Water and Caldecott, Rutland and at Swinawe Barn near Corby, Northamptonshire, and a small number of finds came from furrows and boundary ditches.

### 7.1 A field boundary wall and furrows at Normanton Road

The site was located close to the northern end of the pipeline route, approximately 1.1km to the north-east of Edith Weston and to the north of Normanton Road, near Oak Farm, Rutland (NGR: SK 9385 0586; see Fig 1.2). The deserted medieval village of Normanton, depopulated by Sir Gilbert Heathcote in 1764 to found Normanton Park, lies c 0.8km to the north-west of the site. The ground sloped imperceptibly to the north and lay at c 110m aOD; the underlying geology was Boulder Clay overlying Lower Lincolnshire Limestone (BGS 1978).

The excavation investigated an area immediately to the east of a right-angled geophysical anomaly, possibly part of a ditched enclosure of prehistoric date, which was located within the easement of the pipeline corridor but outside of the excavation area (Butler 2007, fig 21). The aim of the excavation was to determine if features associated with the enclosure extended into the area for the pipe trench.

No prehistoric features were encountered, although at the northern end of the site there was an undated oval pit, 4, 1.9m long by 0.73m wide by 0.64m deep, with a fill of dark greyish-brown silty clay (3).

Immediately to the east of the pit was a probable furrow, 7, c 2.0m wide by 0.22m deep. Its near north-south alignment corresponds with linear geophysical anomalies interpreted as furrows.

Towards the southern end of the site were the foundation courses of a drystone wall, 8, constructed from roughly dressed limestone blocks and limestone rubble. It was aligned north-west to south-east and was 0.7m wide; a length of 2.6m remained *in situ*. The wall is probably a former post-medieval field boundary, similar to existing field boundary walls in the surrounding area, which are constructed from locally sourced stone.

### 7.2 A boundary ditch and furrows at Seaton

Approximately 160m to the north of the Iron Age pits investigated at Seaton (NGR: SP 8884 9839), there was a strong, linear geophysical anomaly that was initially interpreted as a ditch, aligned east to west and parallel with furrows to the north and at right angles to furrows to the south (Butler 2007, fig 39). Excavation confirmed that this feature was also a furrow, measuring 3.5m wide by 0.22m deep. Approximately 20m to the south and on roughly the same alignment there was a small, undated ditch, 9, 1.85m wide by 0.71m deep, with a terminal at its eastern end. The ditch is probably the remains of a post-medieval or modern field boundary, and it appeared to have been deliberately backfilled.

### 7.3 A ditch and furrows near Thorpe by Water

The terminal of a probable post-medieval ditch was encountered to the south of Thorpe Road, approximately 0.6km to the west of Thorpe by Water (NGR: SP 8864 9632; see Fig 4.4, Site 2). The site lay on a south-east-facing slope overlooking the River Welland, at c 55m aOD. There are no known cropmarks in the vicinity to indicate the

extent of the feature or any settlement to which it may belong. The ditch, 5, which extended 2m into the excavation, was up to 0.6m wide and 0.10m deep, with a fill of with brownish-grey silty clay (4), which contained an abraded sherd of glazed medieval or post-medieval pottery.

Medieval or post-medieval furrows, spaced 7-8m apart, are evident on the geophysical survey plot on both sides of Thorpe Road (Butler 2007, fig 42): to the south they are aligned north-west to south-east, to the north, north-north-west to south-south-east.

#### 7.4 A stone drain and furrows at Caldecott

Medieval/post-medieval plough furrows, spaced 8m apart, crossed the site of the Iron Age settlement on a north-west to south-east alignment (see Fig 4.5).

Overlying an Iron Age cobbled surface at the southern end of the site, there was a 2m length of stone-lined conduit or drain, 67. It was made from two rows of worked ironstone blocks spaced 0.4m apart, with the dressed faces lining the channel. The conduit extended beyond the site to the north-west, while its south-eastern end appeared to open out into a shallow linear depression worn into the cobbled surface. A horseshoe recovered from the channel probably dates to the 16th or 17th centuries.

#### 7.5 Boundary ditches and furrows at Swinawe Barn, Corby

A series of furrows, spaced 3-4m apart, extended the length of the excavated site on a north to south alignment, truncating the Iron Age remains (see Fig 4.9). The narrow spacing between the furrows would indicate that they are post-medieval in date. An abrupt curve to the south may suggest the presence of a now vanished obstacle in the field. A sherd of Roman pottery was recovered from one of the furrows.

Running parallel to the furrows down the eastern side of the site was a large ditch, 28/104 (Fig 7.1). It cut the eastern edge of one of the furrows, indicating that it dates to the later medieval or post-medieval period. To the north it was 3.8m wide by 2.1m deep with an extended sequence of fills, some of which appeared to be deliberate dumping. To the south the ditch was reduced to 1.4m wide by 1.0m deep.

At the southern end of the site ditch 28/1004 was cut by ditch 31, which was 1.3m wide by 0.40m deep, with a fill of greyish-brown clay (30), overlain by mid brownish-grey clay (29). It is probably the remains of a post-medieval or modern field boundary.



Swinawe Barn, medieval/post-medieval ditch 104, looking north Fig 7.1

## 7.6 Furrows at other sites

At the southern end of the Roman site at Gretton there was a medieval/post-medieval furrow, 16 (see Fig 5.3). A similar wide shallow feature, 12, 15m to the north, containing several sherds of abraded Iron Age pottery, was initially interpreted as a ditch, but at 3m wide and only 0.07m deep it is more likely to be another furrow, containing residual pottery.

To the south of the Roman ditches at Violet Lane (see Fig 5.6) there were two medieval/post-medieval furrows aligned north-north-west to south-south-east, and the entire site was crossed by numerous 19th-century ceramic land drains.

At Willows Nursery the Iron Age remains (see Fig 4.16) were partly obscured by twelve post-medieval furrows, aligned east to west and spaced c 5m apart (not illustrated), and several modern land drains.

## 7.7 Finds of medieval and post-medieval date

### 7.7.1 *Medieval and post-medieval finds* by Tora Hylton

#### ***Glaston***

Part of a cast copper alloy rumbler bell and an iron nail were recovered from the topsoil. The lower half of the bell is decorated with a 'sunburst' motif, a common design in the mid 18th and 19th centuries. The base of the bell preserves the remains of a worn makers mark (SC); the initials are unknown.

#### ***Cransley***

Part of a medieval copper alloy folding clasp for securing straps was recovered from the subsoil. Just the squared frame survives; it has slightly convex sides with a small ridge at each corner and the outside edge is recessed and would have held the folding end. The corroded remains of an iron pin adhere to the narrowed offset bar. Folding clasps were in use from the 13th to 15th centuries (Egan and Pritchard 1991, fig 77, 559).

#### ***Caldecott***

A horseshoe was recovered from the fill of a stone conduit, 64. It is complete but displays signs of wear; corrosion deposits obscure the shape of the nail holes and both terminals are furnished with folded calkins. Stylistically the shoe displays similarities to Clarke's Type 4 horseshoe (1995, figs 86-89) which dates to the late medieval period. Outside London this shoe type continued in use until the 16th or early 17th centuries (Egan 2005, 179).

Nearby, an everted rim fragment and part of the curved body wall of an iron vessel was recovered from the surface of a pebble layer, 78. The form parallels tripod vessels in copper alloy (handled skillet/cauldron) which date to the medieval period. Available dimensions suggest that the vessel would have measured in excess of 260mm in diameter.

#### ***Swinawe Barn, Corby***

A copper alloy brooch and a bone tool was recovered from medieval plough soil over an Iron Age roundhouse gully. The brooch has a plain annular frame with circular section; a constriction indicates where the pin (now missing) would have been positioned. A similar example dating to AD1350-1400 has been recovered in London (Egan and Pritchard 1991, fig 160, 1307).



The bone tool is double-ended with spatulate and pointed ends; both terminals display signs of wear. Typologically it displays similarities to pin-beaters used with vertical two-beam looms, but is rather a small example of its type as it measures just 71mm in length. Brown suggests that this type would have been used for tapestry weaving rather than cloth (1990, 227).

Three iron nails were recovered from a medieval ditch; two have T-shaped heads (both are incomplete) and measure up to 40mm long. Nails with T-shaped heads would have been used in timber where they would have sat flush with the surface.

#### **7.7.2 *Post-medieval floor tiles*** by Pat Chapman

From Gretton Road there is one complete post-medieval floor tile and three sherds of probable floor tile, all from the topsoil. The complete floor tile is 223mm square and 45mm thick (8 $\frac{7}{8}$ x1 $\frac{3}{4}$  inches) with one surface worn smooth and white lime mortar on the sides and underneath. One of the sherds is 23mm thick, also with a worn surface. Three of the four tiles are made from very hard reddish-orange clay with a dark red surface. The other sherd is made from a pale orange with frequent small sub-rounded gravel and mortar along one edge.

## 8 DISCUSSION

### 8.0 Project objectives

The fieldwork carried out along the course of the pipeline, comprising a mixture of geophysical survey, area excavation and watching brief, has added numerous new sites to the archaeological record and has enhanced knowledge of a few sites previously known from aerial photography.

From the evidence gathered, it has been possible to address many of the issues raised in the research objectives (see section 1.3), while accepting the limitations imposed by the constraints of the pipeline easement and the pipeline construction corridor. The sections below summarise the main findings by period, while this introduction considers the broader issues.

The settlements examined can be only partially understood as in no instance has a complete site plan been obtained, but in some instances it is still possible to set the archaeology within defined groups. For the Iron Age enclosure and roundhouses at Swinawe Barn, near Corby, there is sufficient evidence to set this enclosure within a well known group of domestic farmsteads of rectangular form, characteristically containing a principal house and other ancillary structures. Similarly, the ditches of the Roman settlement at White Hill Lodge produced building material including tesserae and tufa, indicating that the excavated ditch systems formed enclosures relating to a domestic centre of some status, perhaps a small villa with a bath suite. At Great Cransley there was an extensive domestic settlement, with the finds indicating the presence of pottery kilns, while a well located in the watching brief produced fragments of rotary querns, otherwise scarce at all sites.

The recovery of pottery was variable. For the Iron Age only Swinawe Barn produced a substantial assemblage that was worth fully quantifying, describing and illustrating. Even with the Roman sites the pottery assemblages were typically small, with only Thorpe Malsor and Great Cransley producing substantial contemporary groups from pit or ditch fills that were worthy of full analysis and illustration.

The bone assemblages were generally poor, in many instances due to poor preservation conditions. For the Iron Age, it was again only Swinawe Barn that produced sufficient quantity to define an economy based on cattle husbandry, with some older cattle and sheep implying the retention of animals for traction, breeding stock, and wool production. For the Roman sites, Thorpe Malsor and Great Cransley produced sufficiently large assemblages to define the emphasis on cattle for meat production, while at White Hill Lodge, the possible villa estate, the status of the site was further emphasised by a diverse bone assemblage denoting access to a more varied diet.

Despite an extensive programme of soil sampling, good deposits of charred plant remains were scarce. At the Iron Age sites, yet again it was Swinawe Barn where soils from the ring ditch of the principal roundhouse produced a wide range of cereal grains, nut shell, fruit stones and weed seeds. For the Roman period a single pit at Thorpe Malsor was the only outstanding deposit, containing cereal grains, chaff and weed seeds all indicative of charred waste from cereal processing.

For the Anglo-Saxon period the only evidence of substance was the recovery of part of a cremation cemetery, although a nearby watching brief may have enhanced understanding by locating a sunken-featured building 300m to the south that was perhaps part of the accompanying settlement.

While the restrictions of a pipeline corridor impose limits on the understanding of individual sites, a major positive aspect of a pipeline is that it transects a diversity of topography and geology, extending from valley bottom across the slopes and onto

higher ground. Parts of this landscape have rarely been subject to other developments that are liable to enable any large scale fieldwork. So the pipeline from Empingham, Rutland to Hannington, Northamptonshire has broken much new ground in an archaeological sense, and the much of value of the present work lies in how it will inform future research in these little studied areas.

### **8.1 The late Bronze Age/early Iron Age pit alignment near Seaton**

Domestic settlements of the late Bronze Age/early Iron Age are elusive in the archaeological record and are significantly under-represented. By far the most numerous sites within this period are pit alignments. These poorly understood boundary monuments are fairly widespread; in Northamptonshire alone, over 130 pit alignments have been identified from aerial photographs or investigated by excavation (Kidd 2004). In recent years, pit alignments have been investigated at Raunds (McAree 2005) and Upton, Northamptonshire (Carlyle 2010; Mason 2011), and Oakham, Rutland (Mellor 2007).

Pit alignments generally date to the early/middle Iron Age, although there is evidence that some examples were constructed or maintained until as late as the late Iron Age, such as Tallington, Lincolnshire (Simpson 1966) and Langford Downs, Oxfordshire (Williams 1946-7). Unfortunately, there was no material or environmental evidence to provide a date for the Seaton pit alignment.

The length of pit alignment investigated at Seaton, Rutland adds to the increasingly detailed regional pattern of such alignments in the region. The excavated length comprised twenty-one pits in a distance of c 57m on a north-north-east to south-south-west alignment. Geophysical survey (Butler 2007) has shown that the alignment continues to the south of Seaton Road for a further distance of at least 130m, but the ends have not been established.

There was a high degree of regularity in the shape, size, depth and spacing of the pits; any variation that was evident was largely due to truncation by ploughing. They were spaced approximately 1.5m apart and were typically shallow and roughly circular in plan, with steep sides and flat bases. The pits generally contained a homogeneous fill, and appear to have silted up due to natural weathering; there was no evidence for deliberate in-filling or recutting.

The regularity of the pits is a characteristic that has been noted at many examples, including Gretton, Briar Hill, Aldwinckle, Ringstead (Jackson 1974; 1977; and 1978), Pitsford (Hallam *et al* 2003) and Harlestone Quarry (Field and Chapman 2006) in Northamptonshire, and further afield at Tusmore, Oxfordshire (Mudd 2007), St Ives, Cambridgeshire (Pollard 1996), and Gayhurst Quarry, Buckinghamshire (Chapman 2007). Aerial photographs and the excavation of other pit alignments in the region and across the country show that regular spacing of the pits is a common feature (Hollowell 1971, Pollard 1996).

As only a short length of the alignment was exposed within the easement, it is not possible to comment on the method of construction in detail. However, the plan of the excavated and surveyed length of the Seaton alignment (Fig 3.1) does show a large scale pattern of abrupt but slight changes in alignment at intervals of perhaps 50-70m. There is a clear change in alignment to the south of Seaton Road, perhaps another in the length hidden beneath the road, and a further change in alignment occurred within the excavated area and was marked by the presence of an offset pit (see Fig 3.2, pit 21). Similar subtle changes in alignment have been seen at other pit alignments, including Gayhurst Quarry, Buckinghamshire (Chapman 2007, 181, fig 36).

On a smaller scale, slight displacements in the line of the pits have been noted at Aldwincle, Briar Hill, Gretton and Pitsford, Northamptonshire. At Gretton (Jackson 1974) this occurred at intervals of every five or six pits and was taken to indicate the work of separate digging teams, as has been suggested for Tallington, Lincolnshire (Simpson 1966, Pollard 1996) and Harlestone Quarry, Northamptonshire (Field and Chapman 2006).

The regularity in the form and spacing of the pits that form the alignments suggests that they were a deliberate monumental statement, not simply quarry pits to extract material to construct a bank or a series of mounds. Indeed, there is no clear evidence to suggest that the monuments had any other component features. However, excavations at a twin pit alignment at St Ives (Pollard 1996) produced evidence of hedgerow tree species and distinctive right-angled wood remains, as found in managed and laid hedgerows, so it is possible that pit alignments may have been associated with pre-existing land divisions, or were reinforced as a landscape boundary with hedgerows or brushwood fences. A bank constructed from soil excavated from the pits would have been negligible in size, which further reinforces the view that it was the pits that were the important component of the monument and not any other associated structure.

Pit alignments, due to their very nature, have often been interpreted as symbolic landscape divisions, not as physical barriers to the movement of people or livestock. However, extensive excavations at Wollaston, Northamptonshire, revealed a network of single and double pit alignments that appear to mark out blocks of open grassland that would have been used for pasture (Meadows 1995). The uniformity in the form of pit alignments over a relatively wide geographical area suggests that the possible presence of a hedgerow or fence may have been a secondary consideration, and it was the pits that were the primary concern of the people who invested their time and labour in digging them. The purpose and meaning of the pits remains enigmatic, but they probably demarcate local territorial divisions or land-use boundaries. Indeed, they date to a period when there is evidence in the middle Nene Valley and elsewhere for the gradual expansion of settlement from the lighter, well-drained soils of the terrace gravels onto the heavier, higher ground overlying the boulder clay (Parry 2006), and the attendant social pressures that this engendered.

## **8.2 The Iron Age landscape**

The identification and study of cropmarks shown on aerial photographs, combined with the increasing number of archaeological investigations over the last two decades, has gradually contributed to an increased understanding of the pattern of middle to late Iron Age settlement and land use in the region. This understanding is far from comprehensive and the pattern is far from complete, but certain trends can be discerned.

When interpreting such trends, the generally recognised problems associated with the dating of Iron Age settlements has to be borne in mind. Obtaining precise dates is rarely possible, unless certain types of metalwork are found, which occurs very infrequently. Pottery is used as the basic means of dating features, and it can provide only a broad indication of date, but the majority of assemblages from Iron Age sites tend to be small, poorly preserved and largely comprise undiagnostic, undecorated body sherds. In addition, pottery forms tend to be long-lived and fabrics show little variation over time (Kidd 2004). Radiocarbon dating is of use, but it is unfortunate that the middle Iron Age spans a plateau on the radiocarbon calibration curve, so that

radiocarbon dates within the 4th to 1st centuries BC typically have two possible date ranges for any given sample.

There are also limits on the interpretation of archaeological sites in general on linear schemes, such as the construction of pipelines and roads, where survey and excavation areas are constrained by the width of the easement or corridor. With such excavations, discrete features such as pits and postholes can become divorced from the settlement to which they belong, and the extent of enclosures and ditch systems can only occasionally be determined when rectified cropmarks have been mapped. The dating of settlements on such schemes is also open to doubt as only thin strips through a site are excavated and only the investigated features can be dated with any accuracy; other parts of the settlement beyond the easement or corridor may differ in date by many centuries.

With only small parts of such sites available for investigation, interpretation of their type and function can only be stated in general terms. On the current project, environmental sampling has been unable to add much to this general interpretation as the occurrence and preservation of ecofacts was generally poor at all of the sites examined.

There is an inevitable bias in the distribution of settlements in favour of areas of modern development or mineral extraction where there has been attendant archaeological investigation. Historically, this has tended to indicate that middle Iron Age sites were located on the gravel terraces or adjacent limestone geologies bordering the major rivers, such as the Nene, the Witham and the Trent, or in their tributary river valleys. It was assumed that the lack of known sites on higher ground was because the soils, generally formed over Boulder Clay, are heavier and were not suited to early arable agriculture; as a consequence, the higher ground may have been used for pasture or have remained wooded until later in the Iron Age, when population pressures led to their eventual clearance. This picture has been considerably modified in recent years with new discoveries being made on higher ground, often on Boulder Clay.

In Rutland, there is little excavated evidence for middle Iron Age settlement, although this may be a reflection of less intensive development in the county compared with elsewhere. One of the few settlements to have been excavated where middle Iron Age activity has been identified is Site 4, Empingham West, which was excavated during the construction of Rutland Water (Cooper 2000). Here, several early Iron Age pits and three middle to late Iron Age roundhouses were revealed on the lower slopes of the Gwash valley. It is therefore possible that a number of the cropmarks that have been interpreted as being of Iron Age date, of which there are many in the county, were first established in the middle Iron Age, if not earlier.

In Northamptonshire the number of known settlements dating to this period is far greater. The majority of these are located along the Nene and Ise valleys, and their tributaries, where the underlying geology, mainly gravel, limestone and Northampton Sands, have created lighter soils that were suited to the mixed agricultural economies of the period. Settlements have been investigated at Wilby Way, Wellingborough (Thomas and Enright 2003), Wollaston (Meadows 1995) and Weekley (Jackson and Dix 1986-7), and an extensive area of multiple open settlements, comprising the remains of at least 100 roundhouses, has been excavated on higher ground at the Daventry International Rail Terminal (DIRFT), near Crick and Kilsby, adjacent to Roman Watling Street and modern M1 motorway (Chapman pers comm).

The results of the current project have reinforced the existing bias in the distribution of middle Iron Age sites in the region, with the investigation of a previously undiscovered

middle-late Iron Age settlement at Swinawe Barn, near Corby, Northamptonshire. The site was located on Boulder Clay, on a gentle, north-east facing slope to the north of Harpers Brook, a tributary of the River Nene. The settlement was a small enclosed farmstead, comprising a relatively large ditched enclosure. The enclosure extended beyond the pipeline easement so its full extent is unknown, but it may have enclosed an area of about 0.5ha. Within the enclosure were the remains of two roundhouses, a smaller roundhouse that may have been used as a workshop, and a number of pits and postholes. Some of the pits had profiles characteristic of storage pits and at least one of these predated one of the roundhouses.

The pottery from the site, including quantities of middle Iron Age scored ware, was generally well-preserved and was largely recovered from one of the roundhouse ditches, with smaller quantities from the enclosure ditches and the other two roundhouse ditches. Some of the pottery may have dated to the 3rd to 2nd centuries BC, but the radiocarbon date (40 Cal BC-80 Cal AD, 95% confidence, 1980+/-30 BP, Beta-293241) and the rest of the pottery would be consistent with a late Iron Age date, the 1st century BC and the opening decades of the 1st century AD. A pit containing Roman pottery and several sherds of Roman pottery from the general area suggest that there was settlement nearby in the Roman period.

Tentative evidence for middle Iron Age activity was also found near Seaton, Rutland, where there was a cluster of late Iron Age pits, broadly dating to the late 1st century BC to the early decades of the 1st century AD. To the north of this cluster was a scatter of four isolated, unassociated pits, one of which contained a sherd of pottery dating to the 3rd-2nd century BC.

In the late Iron Age there is a marked increase in the density of settlement in the region, with more settlements being established on the upland 'clay' areas (Clay 2002; Kidd 2004). The general character of many of the settlements was essentially conservative, with many of the new centres of occupation differing little in appearance from the established middle Iron Age settlements, many of which continued to be occupied until as late as the 1st century AD. However, there does appear to be a trend at this time towards a greater diversity in settlement type, possibly reflecting the settlement requirements of a more varied agricultural economy, enhanced by greater levels of trade with other regions and socio-political changes in the century or so before the Roman conquest.

The increasing utilisation of marginal land, associated with an increase in the rate of land clearance, is likely to have been brought about by a rise in population in the later Iron Age. This may have been compounded by population migration associated with political unrest in the south-eastern part of the country. A study of the distribution of Iron Age coins and coin hoards in Rutland and Northamptonshire, which date from the early to middle 1st century BC, show that the area lay within the tribal territories of the Corieltavi in the north and the Catuvellauni in the south. It is known that the Catuvellauni were actively expanding their territory at this time and it may have had an effect on local settlement patterns.

Three late Iron Age sites were investigated in the Welland Valley as part of the current project, near Seaton, Thorpe by Water and Caldecott, and in Northamptonshire settlements were investigated near Thorpe Malsor and at Willows Nursery, near Broughton.

At Seaton the site comprised a cluster of intercutting pits and four small gullies dating to the late 1st century BC to the early 1st century AD. As mentioned above, there was some evidence for middle Iron Age activity in the same area. Small assemblages of

pottery and animal bone were recovered from the pits, suggesting that they lay close to areas of habitation, but the nature of the settlement remains unknown due to the limited extent of the geophysical survey and the absence of cropmarks. There was some evidence to suggest that the pits cut the terminals of two ditches that extended to the east of the site, but the remains were severely truncated and in the absence of other evidence it is not possible to confirm their identification. Pieces of slag recovered from three of the pits indicate that iron working was being carried out at the site.

The Iron Age ditch near Thorpe by Water was situated to the north of Thorpe Road, approximately 0.6km to the west of the village. The remains, which comprised the junction between two ditches, are not easy to characterise as only short lengths of the ditches were available for investigation, and their date is somewhat tentative, given that it relies solely on a single sherd of Iron Age pottery. However, it can be seen on the geophysical survey plot that the earlier of the two ditches may form part of a more extensive landscape feature. It shows the ditch extended for a distance of c 90m from north-north-east to south-south-west, and then turning sharply to the south-west, immediately to the south of the excavation area, and continuing for a further 40m. The sherd of pottery from the ditch was relatively 'fresh', suggesting that it had entered the ditch within a relatively short period after the ditch had been dug. The later ditch, which cut the earlier ditch at right-angles, is of uncertain date; the only pottery to be recovered from this ditch was an abraded sherd of Roman greyware that was collected from the stripped surface, suggesting that it may be intrusive.

In the field on the opposite side of Thorpe Road the remains of a cremation burial were unearthed by a mechanical digger during construction works. There were no associated grave goods to date the cremation, but it lay beneath a 1.0m thick layer of alluvium, suggesting that it is probably prehistoric or Roman in date.

Near Caldecott, close to the northern edge of the floodplain of the River Welland, a substantial sub-rectangular enclosure was identified by geophysical survey (Butler and Mudd 2006). Only its eastern corner lay within the surveyed area, but it was at least 40m long by 27m wide. The route of the pipeline was redirected slightly to avoid the enclosure, but Iron Age remains associated with the enclosure were investigated in the area immediately to its west.

The remains comprised a reasonably large ditch that extended from the corner of the enclosure to the west-south-west, possibly to form an annexe between the enclosure and a small stream that may have flowed past the site to the south. The position and alignment of the enclosure in relation to the silted up stream bed (palaeochannel) suggests that they are contemporary. The geophysical survey plot indicates a possible entrance to the enclosure on its south-west side, immediately to the east of the excavation area. It seems likely that an extensive area of cobbles and pebbles bordering the northern edge of the palaeochannel formed a track leading out of the annexe towards the enclosure entrance; rut marks created by the wheels of carts were noted in the surface of the metalled area.

Within the annexe were several smaller ditches and gullies, forming possible internal partitions, and a pit. There was no clear evidence for structures within this area, although a small quantity of late Iron Age pottery, animal bone, burnt cobbles and hearth waste was recovered from these features, suggesting habitation on or near the site. The pottery, mostly grog-tempered scored ware, broadly dates the annexe to the 2nd to 1st centuries BC; the enclosure may be of a similar date or earlier. Several Roman sherds were recovered from the surface of one of the ditches and the cobbled surface, indicating some activity in the area in the Roman period.

To the north of the enclosure and annexe were a series of small, parallel ditches that appear to have had an agricultural function; it is possible that the ditches were preceded by timber fences as they cut several large postholes.

In Northamptonshire, to the north-east of the village of Thorpe Malsor, part of a late Iron Age settlement was located on a relatively steep, north-east facing slope overlooking a small stream. The site comprised two large, adjoining ditches that are clearly shown on the geophysical survey plot, although the junction between the two ditches lay at the extreme western edge of the survey area, outside of the excavation area, so it was not possible to determine if they formed the north-west corner of an enclosure or are separate elements of a more complex ditch system.

The nature of the settlement remains near Thorpe Malsor is unknown, but the scale of the ditches suggests that relatively large areas were being enclosed, either to define areas of habitation or to create livestock corrals. Soil samples taken from the ditch were almost sterile, containing only occasional flecks of charcoal, and offer almost no clue as to the practices being carried out at the settlement, but small amounts of late Iron Age pottery and animal bone were recovered from deposits in both ditches, suggesting habitation nearby.

The Iron Age settlement at Willows Nursery, which lay approximately 1km to the south-west of Broughton, was situated on Boulder Clay on a low, almost imperceptible ridge of ground. The settlement, which dates to the 2nd to 1st centuries BC, with possible continuation into the early 1st century AD, comprised a system of ditches and gullies associated with an enclosure identified by geophysical survey to the east of the eventual route of the easement. The full extent of the enclosure could not be determined as its eastern corner lay beyond the surveyed area, but it was at least 40m long by 27m wide.

The area to the west of the enclosure that was investigated contained little evidence for domestic activity, although the small assemblage of pottery and animal bone recovered from the ditches does suggest habitation nearby. It is more likely that this part of the settlement was used for agricultural activities or specific domestic activities that were best carried out away from dwellings, as is indicated by the remains of the possible hearth/oven and the dark, charcoal rich deposits in the gully of the small, square enclosed area.

### **8.3 The Roman rural landscape**

The route of the pipeline passes through a landscape that would have been densely settled in the Roman period. This landscape would have comprised a patchwork of fields, open pasture and woodland, scattered with many rural settlements, both in the valleys and on the hill-tops. From the 2nd century AD, villas became an increasingly notable feature of this landscape, particularly in the valleys of the Rivers Nene and Ise; often they were built on the sites of farming settlements that can be dated back to the Iron Age. Industrial sites, particularly those concerned with iron and pottery production, were also a component of this landscape, with concentrations around Kettering, Corby and the Lower Nene valley.

Further afield, the *civitas* capital of the *Corieltavi* at *Ratae Corieltavorum* (Leicester) lay to the west, and to the east, on Ermine Street, the main Roman road to the north, were the small towns of *Durobrivae* (Water Newton) and Great Casterton. To the south and south-east, in the Nene valley, were the Roman towns at Duston and Irchester, and further down the valley there were small Roman towns at Titchmarsh and Ashton. The



town at Titchmarsh lay on the route of the major road from Roman Leicester to the south-east, which joined Ermine Street near *Durovigutum* (Godmanchester); the route of this road crosses the pipeline at Corby, at the junction between the A426 and A6003.

Due to the constraints outlined above, it has proved problematic to characterise the settlements and attempt to reconstruct their developmental history. Although the dating evidence for the parts of the Roman settlements that were available for investigation is more precise than that for the Iron Age sites, largely due to the more detailed chronology provided by Roman pottery and other classes of finds, and the abundance of material, their morphology largely remains a matter for conjecture. This places severe limitations on the interpretation of the settlements in terms of their social, agricultural and economic role in the local and regional Roman landscape.

One aspect of the pattern of settlement that was evident in the results of the current project was the apparent lack of settlement continuity between the late Iron Age and Roman periods. The Iron Age settlements generally contained little evidence for subsequent Roman occupation, other than the occurrence of occasional abraded sherds of Roman pottery in the upper fills of ditches or an occasional isolated pit, such as at Caldecott and Swinawe Barn. In general, the Iron Age settlements appeared to have been abandoned in the 1st century AD, and if occupation was maintained in the vicinity in the Roman period, it was established at a new site nearby, as was seen at Thorpe Malsor. This is consistent with the findings from other sites in the area, like Wootton Hill (Jackson 1990), Earls Barton (Chapman and Atkins 2004) and Wollaston (Meadows 1996), where there was evidence for a substantial reorganisation of rural settlement in the 1st century AD, with a shift from small enclosed settlements towards agglomerated settlements comprising complexes of rectilinear enclosures associated with tracks or droveways. This transition appears to have been a long-term trend and was probably well under way before the Roman conquest, suggesting that the causes of change were probably associated with social and economic factors that were already manifest in the late Iron Age.

The investigations carried out as part of the current project have enhanced this picture of a predominately rural landscape between the valleys of the Rivers Nene and Welland in the Roman period. In Rutland, a settlement dating to the Roman period was investigated at Glaston and Roman cremations and a droveway were encountered near Gretton. In Northamptonshire, the remains of Roman settlements were investigated on the clay-capped hill-tops to the west of the River Ise near Thorpe Malsor, White Hill Lodge and Great Cransley, and at Rushton the remains were associated with a villa. To the north of Rushton the remains of a probable Roman field system were located to the west of Violet Lane.

The Roman settlement remains at Glaston predominately lay c 0.4km to the south-west of the modern village, on the gentle south-facing slope to the south of the A47, Uppingham Road. Here, cropmarks and geophysical survey (Butler and Mudd 2006) show a grid-like pattern of ditches extending over an area of c8 hectares, forming two or more large rectangular enclosures. Interpretation of the site is difficult as the route of the pipeline largely avoided the Roman enclosures so that only three small ditches were encountered within the easement, and the geophysical survey results appear to be at variance with the cropmarks, so it is not possible to make any meaningful statement about the settlement based on its morphology or the excavated evidence. The settlement appears to date to the late Roman period as the pottery recovered from the ditches on both sides of Uppingham Road dates to the 4th century, and one of those to the south contained late Roman and early Anglo-Saxon pottery.

At Gretton Road, the Roman remains comprised part of a track and three cremation burials placed in small pits, situated next to a small stream that was probably once fed by a spring on the slopes above. The Roman features appear to respect the course of the stream, suggesting that the stream was flowing in the Roman period. The track, which appeared to lead towards a possible sub-rectangular enclosure to the south of the easement, was formed by two parallel ditches that were aligned north-west to south-east and spaced 5m apart; a small quantity of 2nd- to 4th-century Roman pottery was recovered from the fill of the ditches. Two of the cremation burials lay close to the track, one on either side, and the third lay c 8m to the north of the stream; Roman pottery and a large number of nails were recovered from the burial deposits. The burials probably form part of a small cremation cemetery associated with a nearby farmstead; the pottery from one of the cremations indicates a 2nd-century date, which is consistent with Roman burial practices at this time.

In Northamptonshire, the remains of Roman settlement were more numerous and substantial. The Roman settlement at Rushton, which was situated on the north bank of the River Ise to the north-east of the village, probably formed part of the estate of the Roman villa currently being investigated by the Ise Archaeological Research Society. The remains of the villa's bathhouse are situated in the adjacent field to the west, and it was here that an early 4th-century decorated lead tank bearing a 'Chi Rho' symbol, was found in an associated ditch (Looker 2000). The discovery of this tank, which was probably used as a font in baptismal ceremonies, suggests that Christian rituals were being carried out at the villa.

The settlement remains identified by the geophysical survey and investigated by the current excavation may include features associated with a pre-villa farmstead; several sherds of abraded Iron Age pottery from the site suggest that the villa did have a late Iron Age predecessor. The ditches and gullies investigated within the easement were a little later in date and were probably established in the late 1st or early 2nd century AD; they may have formed small paddocks or stock pens by the side of a track at the edge of the settlement. There are no published detailed accounts of the excavations of the bathhouse, so it has not been possible to relate this part of the settlement with the excavations on the bathhouse. A pair of tweezers and part of a pin recovered from the site suggests that the area may have been settled or at least temporarily occupied in the early Anglo-Saxon period.

At Thorpe Malsor, the Roman settlement was situated at the edge of a plateau of high ground, approximately 50m to the south of the Iron Age settlement. The site comprised a T-shaped arrangement of two large ditches and a cluster of large pits; it is clear that the settlement is far more extensive, but there are no cropmarks or geophysical survey results to indicate the overall extent or morphology of the settlement.

The settlement appears to have been established in the first half of the 2nd century AD and to have been reorganised later in that century with the cutting of the two large enclosure or boundary ditches; these were subsequently recut in the 3rd century. The original purpose of the large pits clustered near the access through one of the main ditches is unknown, but they were subsequently used for the disposal of domestic rubbish, including cereal processing waste and cess. The evidence of the animal bone from this settlement, and the other Roman settlements investigated as part of this project, suggests that the rearing of cattle played an important, if not principal component of their economy. This preference for the keeping of cattle, as opposed to sheep, may be due to the more favourable conditions for cattle on the heavy clay soils.

A little over a kilometre to the south, on an adjacent hill-top, were the remains of the Roman settlement at White Hill Lodge. The geophysical survey showed a grid-like

pattern of linear ditches that appear to be part of a larger complex of features that predominantly lie to the east of the easement, but the absence of information from cropmarks and the limited survey area hinder the interpretation of the site. Several large enclosure or boundary ditches and smaller partition ditches were investigated, and there may have been a track or driveway to the north.

There was a large quantity of ironstone rubble in the upper fills of the larger ditches, as was the case at Thorpe Malsor, and it is possible that this material came from a nearby Roman building. If there had been a Roman building in the vicinity, the dressed stone and better quality rubble may have been taken for buildings or walls elsewhere, and the smaller rubble dumped in the hollows left in the top of the largely silted-up ditches. The recovery of a moderate amount of *tesserae* from the topsoil during the watching brief and the recovery of Roman tile from the ditches raises the likelihood of there having been a Roman building at White Hill Lodge. The dumping of rubble in the ditches of late Roman settlements was noted at Milton Ham, near Northampton, where a Roman building was suspected to lie near an agricultural enclosure (Carlyle 2010). The possibility of there having been a villa nearby is further supported by the animal bone evidence, which indicates that a wide range of species, including wild species such as eel and pigeon, were being consumed at the settlement.

The remains of the Roman settlement near Great Cransley, located near the top of a south-east facing slope overlooking a small tributary valley, consisted of a complex of at least four possible enclosures situated either side of a broad track. However, the cropmarks were too indistinct and the survey area was too narrow to determine the full extent and pattern of the settlement. The pottery assemblage from the site indicates a 1st- to 2nd-century date for the settlement. A stone-lined Roman well within one of the enclosures had fallen out of use and been back-filled with domestic rubbish, including hearth waste, broken pottery, fragments of querns, animal bone and a horse's head. The presence of the horse's head may indicate a 'ritual' closing of the well, as has been suggested for a number of other sites (Fulford 2001), but this interpretation can not be validated in this case.

Approximately 2km to the south of Rushton, evidence for Roman arable agriculture, consisting of the remains of a probable field system, was identified on a steep, south-facing slope overlooking Slade Brook, to the west of Violet Lane. The site comprised three small, parallel ditches that roughly followed the contours of the slope.

#### **8.4 The early Anglo-Saxon cremation cemetery at Glaston**

The discovery of the early Anglo-Saxon cremation cemetery at Glaston, Rutland, adds to the increasing number of such cemeteries that have been investigated in the East Midlands region. Nationally, over 240 cemeteries containing cremation burials have been identified to date (Lucy 2000), with the majority located in East Anglia and the eastern counties of England, between the Humber and the Great Ouse. They occur as individual or small groups of two or three cremation burials, or in larger numbers in cemeteries that may contain many hundreds, if not thousands of burials. Most occur in 'mixed' cemeteries that also contain inhumation burials; indeed, of the total number of cemeteries containing cremation burials, 175 are of the 'mixed' variety (*ibid*, 140).

Early Anglo-Saxon cemeteries, in general, are not well understood as many were discovered by quarry workers in the 19th and 20th centuries, and as a consequence they are poorly recorded (the skeletal remains were rarely retained) and the urns and accompanying grave goods have become dispersed or lost. Other, more recent

excavations may have been recorded to modern standards, but only parts of the cemeteries have been investigated.

Perhaps the largest and most well-known cemeteries are those at Spong Hill, Norfolk (Hills and Penn 1981), and Loveden Hill (Fennell 1957) and Cleatham (Leahy 2007), Lincolnshire, which contained at least 2250, 1450 and 1200 cremation burials respectively. In the valleys of the Great Ouse and Cam, mixed cemeteries containing c 130 cremations have been investigated at Girton and Little Wilbraham, Cambridgeshire. At Sandy, Bedfordshire, there are records of urns, most of which date to the late 5th to early 6th centuries AD, having been unearthed from as early the first half of the 18th century (Kennett 1973). Closer to Glaston, small cremation cemeteries have been discovered at Thurmaston, near Leicester (Williams 1983), and Kettering, Northamptonshire (Markham 1964), and at North Luffenham, Rutland, three early Anglo-Saxon cremation urns, along with a small number of inhumation burials, were discovered in 1855 (VCH 1908).

The combined evidence of the pottery and the radiocarbon date from one of the cremation burials at Glaston suggests that the cemetery probably dates from the late 5th to early/mid 7th century AD. One of the urns, containing the remains of a young child, can be dated to the mid 5th century, but its worn appearance hints at the likelihood that it may have been buried at a slightly later date. This date range is consistent with other early Anglo-Saxon cremation burials in the region.

At this time the Anglo-Saxon settlers in this part of the East Midlands region, including the community at Glaston, were pagan. Study of their material culture suggests that they entered the Rutland area from the east and south-east, through Norfolk, Cambridgeshire and Northamptonshire (Stafford 1985). Their social and political structures were built around loose federations of tribal groups and it was not until the second half of the 7th century that they were converted to Christianity, a move that corresponded with the rise of the Anglo-Saxon kingdoms and the centralisation of political power, in this case under the rule of the Mercian kings.

The cremation cemetery at Glaston was only partly excavated and it is likely that other cremation burials remain to be discovered nearby, particularly in the area to the east, in the grounds of Bisbrooke Hall. If the cemetery does extend into this area, it likely to be reasonably well-preserved as the earthworks of medieval ridge and furrow are still clearly visible here, indicating that the land has not been subjected to modern ploughing. Given the current number of cremation burials so far recovered, and their distribution, the burial ground can probably be categorized as a 'small' cremation cemetery, perhaps containing no more than 20-30 cremation burials. Early Anglo-Saxon inhumations have also been found in a sand pit approximately 450m to the east (Thurlow Leeds and Barber 1950), close to the junction between Uppingham Road and Wing Road; the cemetery contained at least eleven graves, from which were recovered a number of bronze brooches and other items of jewellery, pottery vessels and a shield boss. The evidence from the two cemeteries indicates the presence of a well-established settlement at Glaston in the 6th and 7th centuries AD.

Given that only a part of the cemetery was available for investigation, it has not been possible to identify any grouping or any other pattern in the distribution of the cremation burials. However, the cremation burials are reasonably well-spaced, suggesting that their locations may have been marked on the surface, possibly with a timber post or other marker. Similarly, the small sample size and the lack of information on the sex and age of the individuals preclude any attempt to find correlations between the individuals and the style and decoration of urns or type of grave goods.

The recovery of a small quantity of pottery from a Bronze Age jar, found in association with one of the disturbed Anglo-Saxon cremation burials and a bone comb, suggests that the fragments of vessel may have been placed with the human remains as a type of talisman. This act may have been carried out to link the deceased with the land through possession of artefacts associated with past inhabitants of the region. The presence of the Bronze Age pottery also raises the likelihood of there being one or more barrows in the vicinity, as early Anglo-Saxon cemeteries were often established on or near sacred sites such as barrow cemeteries. A circular cropmark c 200m to the south of the cemetery, just below the crest of the slope, may be a barrow and if it is, others may lie nearby.

### **8.5 Medieval and post-medieval field systems**

The remains of pre-Enclosure plough furrows were noted at the majority of the sites investigated. In most cases they were widely spaced, at c 8-9m between centres, which suggests they date from the medieval period. However, the open field system of ridge and furrow, prevalent in much of the Midland region, could have been maintained into the post-medieval period, until Enclosure in the 18th and early 19th centuries (Rackham 1986, 167-180). The very regular, narrowly spaced furrows at Willows Nursery were probably established in the post-medieval period.

A substantial boundary ditch investigated at Swinawe Barn may mark the edge of an estate or woodland. In the medieval period the area was a deer park and the feature may relate to this, but due to the lack of dateable finds this is not certain.

Another boundary feature, in this case the foundation courses of a drystone wall, was recorded at Normanton Road. Drystone walls surrounding fields are common in the Normanton area and the alignment of the stone foundations, from north-west to south-east, accorded with the alignment of the surrounding field boundaries.

The well-built stone conduit at Caldecott, which probably dates to the 16th or 17th centuries, is unlikely to be an isolated feature and may have been a drain leading away from a nearby barn or dwelling situated to the west of the easement.

## BIBLIOGRAPHY

- Ager, B M, 1985 The smaller variants of the Anglo-Saxon quoit brooch, *Anglo-Saxon Studies in Archaeology and History*, **4**, 1-58
- Amorosi, T, 1989 *A postcranial guide to domestic neo-natal and juvenile mammals*, British Archaeol Reports, Int Series, **533**
- Aufderhiede, A C, and Rodriguez-Martin, C, 1998 *The Cambridge Encyclopaedia of Human Paleopathology*, Cambridge, Cambridge University Press
- Avery, M, Sutton, J E, and Banks, J W, 1967 Rainsborough, Northants, England: Excavations 1961-5, *Proceedings of the Prehistoric Society*, **33**, 207-306
- Biddle, M, (ed) 1990 *Object and economy in Medieval Winchester; Artefacts from Medieval Winchester*, Winchester Studies, **7.2**, Oxford
- Blinkhorn, P, 2000 The Early Anglo-Saxon Pottery, in N J Cooper 2000, 98-104
- Bogaard, A, 2005 Garden agriculture and the nature of early farming in Europe and the Near East, *World Archaeology*, **37(2)**, 177-196
- Bond, J M, 1996 Burnt Offerings: Animal Bone in Anglo-Saxon Cremations, *World Archaeology*, **28**, 76-88
- Booth, P, 1995 The Anglo-Saxon pottery, in A Boyle *et al*, 1995, 101-3
- Boyle, A, Dodd, A, Miles, D, and Mudd, A, 1995 *Two Oxfordshire Anglo-Saxon cemeteries: Berinsfield and Didcot*, Oxford Archaeological Unit, Thames Valley Landscapes Monograph, **8**
- Brain, C, 1981 *The Hunters or the Hunted? An Introduction to African cave Taphonomy*, Chicago, University of Chicago Press
- Brickley, M, and McKinley, J, 2004 *Guidelines to the Standards for Recording Human Remains*, Institute for Archaeologists Paper, **7**
- Briscoe, T, 1985 The use of brooches and other jewelry as dies on pagan Anglo-Saxon pottery, *Medieval Archaeology*, **29**, 136-42
- Brothwell, D R, and Higgs, E S, (eds) 1969 *Science and Archaeology*, London, Thames and Hudson
- Brown, D, 1990 Weaving tools, in M Biddle 1990, 225-232
- Brugmann, B, 2004 *Glass beads from Early Anglo-Saxon graves*, Oxbow Books
- Buikstra, J, and Ubelaker, D, 1994 *Standards for data collection from human skeletal remains*, Proceedings of a Seminar at the Field Museum of Natural History, Fayetteville, Arkansas Archaeological Survey Research Series, **44**
- Butler, A, and Mudd, A, 2006 *AWS Empingham to Hannington Pipeline: Archaeological Geophysical and Metal Detecting Surveys, Phase 1*, Northamptonshire Archaeology report, **06/189**
- Butler, A, 2007 *AWS Empingham to Hannington Pipeline, Wing Water Treatment Works Extension, Rutland; Geophysical Survey*, Northamptonshire Archaeology report, **07/141**
- Butler, A, Fisher, I, and Mudd, A, 2008 *AWS Empingham to Hannington Pipeline Welland Temporary Lagoon Site, Rutland, Archaeological Geophysical Survey*, Northamptonshire Archaeology report, **08/66**
- Carlyle, S, 2010 A pit alignment near Upton, Northampton, *Northamptonshire Archaeology*, **36**, 75-87
- Carlyle, S, 2010 *Neolithic cremations and a Romano-British enclosure at Milton Ham, Northampton*, Northamptonshire Archaeology report, **10/109**
- CBA 2000 *South Midlands Archaeology*, Council for British Archaeology, **30**
- Chapman, A, and Atkins, R, 2004 Iron Age and Roman settlement at Mallard Close, Earls Barton, Northamptonshire, *Northamptonshire Archaeology*, **32**, 23-56
- Chapman, A, 1995 Crick, *South Midlands Archaeology*, **25**, 37-39
- Chapman, A, 2001 Excavation of an Iron Age Settlement and Middle Saxon Cemetery at Great Houghton, Northampton, *Northamptonshire Archaeology*, **29**, 1-41

- Chapman, A, 2007 A Bronze Age barrow cemetery and later boundaries, pit alignments and enclosures at Gayhurst Quarry, Newport Pagnell, Buckinghamshire, *Records of Buckinghamshire*, **47.2**, 81-211
- Chapman, A, 2010a The Iron Age pottery, in E Taylor 2010, 24-30
- Chapman, A, 2010b Querns, in S Carlyle 2010, 26-27
- Chapman, A, forthcoming An Iron Age settlement at Coton Park, Rugby, Warwickshire, Northamptonshire Archaeology and British Archaeological Reports
- Chapman, J, and Smith, S, 1988 Finds from a Roman well in Staines, *The London Archaeologist*, **6(1)**, 3-6
- Clarke, J, 1995 *The Medieval Horse and its Equipment c 1150-c 1450*, Medieval Finds from excavations in London, **5**
- Clarke, J, 2007a *AWS Empingham to Hannington Pipeline, trial trenching*, Northamptonshire Archaeology report, **07/196**
- Clarke, J, 2007b *AWS Empingham to Hannington Pipeline, archaeological strip and record works; test pit results*, Northamptonshire Archaeology report, **07/184**
- Clarke, J, and Carlyle, S, 2010 *Archaeological investigations along the route of the Empingham to Hannington (Wing Extension) pipeline, Rutland and Northamptonshire: Assessment report and updated project design*, Northamptonshire Archaeology report, **10/72**
- Clay, P, 2002 *The Prehistory of the East Midlands Claylands*, Leicester Archaeology Monog, **9**
- Cook, A M, and Dacre, M W, 1985 *Excavations at Portway, Andover 1973-1975: Anglo-Saxon Cemetery, Bronze Age Barrow and Linear Ditch*, OUCA Monog, **4**
- Cool, H E M, 1990 Roman Metal Hair Pins from Southern Britain, *Archaeol J*, **147**, 148-182
- Cooper, N J, 2000 *The Archaeology of Rutland Water*, Leicestershire Archaeology Monog, **6**
- Cooper, N J, 2006 *The archaeology of the East Midlands: an archaeological resource assessment and research agenda*, Leicester Archaeology Monog, **13**
- Crummy, N, 1983 *Colchester Archaeological Report 2: The Roman small finds from excavations in Colchester 1971-9*, Colchester Archaeological Trust
- Cunliffe, B, 1976 Danebury, Hampshire. Second interim report on the excavations 1971-5, *Antiq J*, **56**, 198-216
- Dannell, G B, 1973 The potter 'Indixivixus', in A P Detsicas (ed), 1973, 139-42
- Dannell, G B, Hartley, B R, Wild, J P, and Perrin, J R, 1993 Excavations on a Romano-British pottery production site at Park Farm, Stanground, Peterborough, 1965-7, *Journal of Roman Pottery Studies*, **6**, 51-93
- Deighton, K, 2010 The animal bone, in J Clarke and S Carlyle 2010, 60
- Detsicas, A P, (ed) 1973 *Current Research in Romano-British Pottery*, Council for British Archaeology Research Report, **10**
- Driesch, A, von den, 1976 *A guide to the measurement of animal bones from archaeological sites*, Cambridge, Massachusetts, Harvard University Press
- Egan, G E, 2005 *Material Culture in London in an age of transition: Tudor and Stuart period finds c1450-1700 from excavations at riverside sites in Southwark*, MoLAS Monog, **19**
- Egan, G, and Pritchard, F, 1991 *Dress Accessories c 1150 - c 1450*, Medieval Finds from Excavations in London, **3**
- EH 1991 *Management of Archaeological Projects 2*, English Heritage
- EH 2002 *Environmental Archaeology: A Guide to Theory and Practice for Methods, from sampling to post-excavation*, English Heritage
- EH 2006 *Management of Research Projects in the Historic Environment (MoRPHE)*, English Heritage
- Evison, V I, 1987 *Dover: The Buckland Anglo-Saxon Cemetery*, Historic Buildings and Monuments Commission for England, **3**
- Fazekas, I, and Kosa, F, 1978 *Forensic Foetal Osteology*, Budapest, Akademiai Kaido

- Fennell, K R, 1957 Excavation of an Anglo-Saxon Cemetery at Hough-on-the-Hill, Lincolnshire, *Journal of the RAF Cranwell*
- Ferris, B, Bevan, A, and Cuttler, R, 2000 *The excavation of a Romano-British shrine at Orton's Pasture, Rocester, Staffordshire*, British Archaeological Reports, British Series, **314**
- Field, L, and Chapman, A, 2006 *Archaeological Excavation at Harlestone Quarry, Northamptonshire*, Northamptonshire Archaeology report, **06/173**
- Fitzpatrick, A P, (ed) 1997 *Archaeological Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992, Vol. 2*, Wessex Archaeological report, **12**
- Fulford, M, 2001 Links with the past: pervasive 'ritual' behaviour in Roman Britain, *Britannia*, **32**, 199-218
- Grant, A, 1982 The use of toothwear as a guide to the age of domestic ungulates, in B Wilson *et al*, 91-108
- Hallam, T, Lloyd, R, and Yates, A, 2003 *Pitsford Quarry, Archaeological recording: Bottom Sheep Dale Field*, Northamptonshire Archaeology report, **3421**
- Hambleton, E, 1999 *Animal Husbandry Regimes in Iron Age Britain*, British Archaeological Report, British Series, **282**
- Hills, C, and Penn, K, 1981 *The Anglo-Saxon cemetery at Spong Hill, North Elmham, Part II: Catalogue of Cremations*, East Anglian Archaeology, **11**
- Hirst, S M, 1985 *An Anglo-Saxon inhumation cemetery at Sewerby, East Yorkshire*, York University Archaeological Publications, **4**
- Hollowell, R, 1971 *Aerial photography and field work in the Upper Nene Valley*, ed A E Brown, Bulletin of the Northamptonshire Federation of Archaeological Societies, **6**
- IfA 2008a *Standard and guidance for archaeological excavation*, Institute for Archaeologists
- IfA 2008b *Standard and guidance for archaeological watching briefs*, Institute for Archaeologists
- IfA 2008c *Code of Conduct*, Institute for Archaeologists
- Jackson, D, 1974 Two new pit alignments and a hoard of currency bars from Northamptonshire, *Northamptonshire Archaeology*, **9**, 13-45
- Jackson, D, 1977 Further excavations at Aldwincle, Northamptonshire, 1969-71, *Northamptonshire Archaeology*, **12**, 9-54
- Jackson, D, 1978 A Late Bronze-Early Iron Age vessel from a pit alignment at Ringstead, Northamptonshire, *Northamptonshire Archaeology*, **13**, 168
- Jackson, D, 1990 An Iron Age enclosure at Wootton Hill Farm, Northampton, *Northamptonshire Archaeology*, **22**, 3-21
- Jackson, D, 2010 *Dennis Jackson: A Northamptonshire Archaeologist*, Northamptonshire Archaeological Society
- Jackson, D, 2010 A proposed chronology of Iron Age ceramic assemblages, in D Jackson 2010, 147-160
- Jackson, D, and Dix, B, 1986-7 Late Iron Age and Roman settlement at Weekley, Northants, *Northamptonshire Archaeology*, **21**, 41-94
- Jeanty, P, 1983 Foetal limb biometry, *Radiology*, **147**, 601-602
- Jupp, P C, and Gittings, C, 1999 *Death in England*, Manchester, University Press
- Kennett, D H, 1973 Seventh-century cemeteries in the Ouse valley, *Bedfordshire Archaeology Journal*, **8**, 99-108
- Kidd, A, 2004 Northamptonshire in the 1st millennium BC, in M Tingle 2004, 44-62
- King, N, 1994 The pottery; pottery kilns 1 (MK44, F74) and 11 (MK357), in R J Zeepvat *et al* 1994, 79-82
- Kjellström, A, 2004 Evaluations of sex assessment using weighted traits on incomplete skeletal remains, *International Journal of Osteoarchaeology*, **14**, 360-373
- Lauwerier, R, 1988 *Animals in Roman Times in the Dutch Eastern River Area*, Amersfoort, ROB Nederlandse Oudheden, **12**



- Leahy, K, 2007 *'Interrupting the Pots'. The excavation of Cleatham Anglo-Saxon cemetery*, Council for British Archaeology Research Report, **155**
- Lewis, M E, 2000 Non-adult palaeopathology: current status and future potential, in S A Mays and M Cox (eds), 39-57
- Liddle, P, no date *An archaeological resource assessment of Anglo-Saxon Leicestershire and Rutland*, East Midlands Archaeological Research Framework
- Looker, J, 2000 The Rushton bath house, *South Midlands Archaeology*, **30**, 40
- Lucy, S, 2000 *The Anglo-Saxon Way of Death*, Sutton
- Lucy, S, and Reynolds, A, (eds) 2002 *Burial in Early Medieval England and Wales*, Society of Medieval Archaeology Monog, **17**
- Lunt, E, 2006 *Empingham to Hannington Pipeline, Environmental Statement; Volume 1, Main Document*, Mott MacDonald report, **225738/01/A**
- Lyman, R L, 1994 *Vertebrate Taphonomy*, Cambridge, Cambridge University Press
- MacKreth, D F, 1994 The brooches, in R T Williams and R J Zeepvat 1994, 285-303
- McAree, D, 2005 A pit alignment at Warth Park, Raunds, Northamptonshire, *Northamptonshire Archaeology*, **33**, 9-18
- McKinley, J, 1994a Bone fragment size in British cremation burials and its implications for pyre technology and ritual, *Journal of Archaeological Science*, **21**, 339-42
- McKinley, J, 1994b *The Anglo-Saxon Cemetery at Spong Hill, North Elmham Part VIII: The Cremations*, East Anglian Archaeology, **69**
- McKinley, J, 1997 The cremated human bone from burial and cremation-related contexts, in A P Fitzpatrick (ed) 1997, 55-72
- McKinley, J, 2000 The analysis of cremated bone, in S Mays and M Cox (eds), 439-454
- Maltby, J M, 1994 The animal bones from a Romano-British well at Oakridge II, Basingstoke, *Proceedings of the Hampshire Field Club and Archaeological Society*, **49**, 47-77
- Manning, W H, 1985 *Catalogue of the Romano-British Iron tools, fittings and weapons in the British Museum*
- Markham, C A, 1964 Anglo-Saxon cemetery at Kettering, *Northamptonshire Natural History Society and Field Club Journal*, **25**
- Mason, P, 2011 *Archaeological evaluation at Upton Park, Weedon Road, Northampton*, Northamptonshire Archaeology report, **11/72**
- Mays, S A, 1992 *Anglo-Saxon human remains from Mucking, Essex*, Ancient Monuments Laboratory report, **18/92**
- Mays, S A, 1993 Infanticide in Roman Britain, *Antiquity*, **67**, 883-888
- Mays, S A, 2010 *The Archaeology of Human Bones*, London, Routledge
- Mays, S A, 2011 Perinatal infant death at the Roman villa site at Hambleden, Buckinghamshire, England, *Journal of Archaeological Science* (early view), 1-8
- Mays, S, Brickley, M, and Dodwell, N, 2002 *Human bones from archaeological sites. Guidelines for producing assessment documents and analytical reports*, BABAO/English Heritage
- Mays, S A, and Cox, M, 2000 Sex Determination in skeletal remains, in S A Mays and M Cox (eds) 2000, 117-130
- Mays, S A, and Cox, M, (eds) 2000 *Human Osteology in Archaeology and Forensic Science*, London, GMM Press
- Meadows, I, 1995 Wollaston, *South Midlands Archaeology*, **25**, 41-45
- Meadows, I, 1996 Wollaston, *Current Archaeology*, **150**, 212-15
- Mellor, V, 2007 Prehistoric multiple linear ditches and pit alignments on the route of the Oakham Bypass, Rutland, *Transactions of the Leicestershire Archaeological and Historical Society*, **81**, 1-34
- Mudd, A, 2004 Iron Age and Roman enclosures near Higham Ferrers: the archaeology of the A6 Rushden and Higham Ferrers bypass, *Northamptonshire Archaeology*, **32**, 57-94

- 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 Oxfordshire*, Northamptonshire Archaeology Monog, **1**
- Murphy, E M, (ed) 2010 *Deviant burial in the archaeological record*, Oxford, Oxbow
- Myres, J N L, 1977 *A Corpus of Anglo-Saxon Pottery of the Pagan Period*, 2 vols, Cambridge
- NA 2006 *Archaeological Fieldwork Manual*, Northamptonshire Archaeology
- Needham, S, and Spence, T, (eds) 1996 *Refuse and disposal at area 16 East Runnymede*, Runnymede Bridge Research Excavations, **2**
- Parry, S, 2006 *Raunds Area Survey; An Archaeological Study of the Landscape of Raunds, Northamptonshire 1985-94*, Oxbow/English Heritage monog
- Payne, S, 1985 Morphological distinctions between the mandibular teeth of young sheep and goats, *Journal of Archaeological Science*, **12**, 139-147
- Perrin, J R, 1999 Roman Pottery from Excavations at and near the Roman Small Town of Durobrivae, Water Newton, Cambridgeshire, 1956-58, *Journal of Roman Pottery Studies*, **8**
- Perrin, R, 2010 Roman pottery, in J Clarke and S Carlyle 2010, 23-30
- Pollard, J, 1996 Iron Age Riverside Pit Alignments at St Ives, Cambridgeshire, *Proceedings of the Prehistoric Society*, **62**, 93-115
- Price, J, and Cottam, S, 1998 *Romano-British Glass Vessels: A handbook*, Council for British Archaeology, Practical handbook in Archaeology, **14**
- Prummel, W, and Frisch, H, 1986 A guide for the distinction of species, sex and body side in bones of sheep and goat, *Journal of Archaeological Science*, **13**, 567-577
- Rackham, O, 1986 *History of the British Countryside*, London
- Richards, J D, 1987 *The Significance of the Form and Decoration of Anglo-Saxon Cremation Urns*, British Archaeological Report, British Series, **166**
- Rogers, G B, 1974 *Poteries Sigillees de la Gaule Centrale*, Gallia Supplement, **28**
- Rogers, J, and Waldron, T, 1995 *A Field Guide to Joint Disease in Archaeology*, Chichester, Wiley
- Scheuer, L, and Black, S, 2000 *Developmental Juvenile Osteology*, London, Academic Press
- Serjeantson, D, 1996 The animal bones, in S Needham and T Spence (eds) 1996, 123-34
- Shaffrey, R, 2006 *Grinding and Milling: A study of Romano-British rotary querns and millstones made from Old Red Sandstone*, British Archaeological Reports, British Series, **409**
- Shaw, M, 1979 Romano-British pottery kilns on Camp Hill, Northampton, *Northamptonshire Archaeology*, **14**, 17-30
- Shipman, P, Foster, G, and Schoeninger, M, 1984 Burnt bones and teeth: an experimental study of colour, morphology, crystal structure and shrinkage, *Journal of Archaeological Science*, **11**, 307-325
- Silver, I A, 1969 The ageing of domestic animals, in D R Brothwell and E S Higgs 1969, 101-126
- Simpson, W G, 1966 Romano-British settlement in the Welland Valley, in A C Thomas 1966, 15-26
- Stace, C, 1997 *New Flora of the British Isles* (2nd edition), Cambridge University Press
- Stafford, P, 1985 *The East Midlands in the early Middle Ages*, Leicester University Press
- Steele, J, and Mays, S, 1993 *Cremated Anglo-Saxon human bone from Snape, Suffolk (excavated 1862-3, 1972, 1985-92)*, Ancient Monuments Laboratory report, **102/93**
- Symonds, R P, 2003 Romano-British Amphorae, *Journal of Roman Pottery Studies*, **10**, 50-9
- Taylor, A, 2010 Aspects of deviant burial in Roman Britain, in E M Murphy (ed) 2010, 45-67

- Taylor, E, 2010 *An Iron Age settlement at Tattenhoe Park, Bletchley, Milton Keynes, Buckinghamshire*, Northamptonshire Archaeology report, **10/134**
- Thomas, A, and Enright, D, 2003 Excavation of an Iron Age settlement at Wilby Way, Great Doddington, *Northamptonshire Archaeology*, **31**, 15-70
- Thomas, A C, (ed) 1966 *Rural Settlement in Roman Britain*, Council for British Archaeology Research Report, **7**
- Thurlow Leeds, E, and Barber, J L, 1950 An Anglian cemetery at Glaston, Rutland, *Antiquaries Journal*, **30**, 185-9
- Timby, J, 1993 Sancton I Anglo-Saxon Cemetery: excavations carried out between 1976 and 1980, *Archaeol J*, **150**, 243-365
- Timby, J, 1996 *The Anglo-Saxon Cemetery at Empingham II, Rutland*, Oxbow Monog, **70**
- Timby, J, 2004 The pottery from Site 3, in A Mudd 2004, 72-80
- Tingle, M, (ed) 2004 *The Archaeology of Northamptonshire*, Northamptonshire Archaeology Society
- Trotter, M, and Hixon, B B, 1974 Sequential changes in weight, density and percentage ash weight of human skeletons from an early foetal period through to old age, *Anatomical Record*, **179**, 1-18
- Ubelaker, D, 1978 *Human skeletal remains*, Washington, Taraxacum
- Upson-Smith, T, 2007 *AWS Empingham to Hannington Pipeline, Wing Water Treatment Works Extension, Rutland; Archaeological Evaluation*, Northamptonshire Archaeology report, **07/170**
- VCH 1908 *Victoria County History: Rutland*, **1**
- Waldron, T, Taylor, G M, and Rudling, D, 1999 Sexing of Romano-British baby burials from the Beddingham and Bignor villas, *Sussex Archaeological Collection*, **137**, 71-79
- Watkinson, D, and Neal, V, 1998 *First Aid for Finds*, UKIC
- Watts, M, 2002 *The Archaeology of Mills and Milling*, Tempus
- Wessex Archaeology, 2004 *South Cliff Farm, South Carlton, Lincolnshire*, Wessex Archaeology report, **52568.11**
- West, S, 1985 *West Stow: The Anglo-Saxon Village Volume 2: Figures and Plates*
- Westgarth, A, 2006a *Desk-based assessment for a proposed pipeline between Empingham and Hannington: Leicestershire and Rutland section*, Northamptonshire Archaeology report, **06/9**
- Westgarth, A, 2006b *Desk-based assessment for a proposed pipeline between Empingham and Hannington: Northamptonshire section*, Northamptonshire Archaeology report, **06/10**
- Williams, A, 1946-7 Excavations at Langford Downs near Lechlade, Oxfordshire in 1943, *Oxoniensia*, **11** and **12**, 44-64
- Williams, H, 2002 The Remains of Pagan 'Saxondom'? Studying Anglo-Saxon cremation practices, in S Lucy and A Reynolds (eds) 2002, 47-71
- Williams, P W, 1983 *An Anglo-Saxon Cemetery at Thurmaston, Leicestershire*, Leicestershire Museums, Art Galleries and Records Service report, **8**
- Williams, R J, and Zeepvat, R J, 1994 *Bancroft: A late Bronze Age/Iron Age settlement, Roman Villa and Temple Mausoleum*, Buckinghamshire Archaeological Society Monog, **7**
- Wilson, B, 1996 *Spatial patterning among animal bones in settlement archaeology*, London, British Archaeological Report, British Series, **251**
- Woods, P J, 1972 The Romano-British Coarse Pottery and Decorated Samian Ware, in *Brixworth Excavations: Excavations at Brixworth, Northants, 1965-70. The Romano-British Villa. Part 1*, reprint from Journal of Northampton Museum and Art Gallery 8 (1970), 3-102
- Woods, P J, and Hastings, B C, 1984 *Rushden: The Early Fine Wares*, Northamptonshire County Council

Zeepvat, R J, Roberts, J S, and King, N A, 1994 *Caldecotte, Milton Keynes, Excavation and Fieldwork 1966-91*, Buckinghamshire Archaeol Society Monog, **9**

**Maps**

BGS 1976 *Kettering, Solid and Drift Geology*, British Geological Survey (England and Wales), Sheet 171, 1:50,000

BGS 1978 *Stamford, Solid and Drift Geology*, British Geological Survey (England and Wales), Sheet 157, 1:50,000

## APPENDIX: SUMMARY OF CONTEXTS AND FEATURES

The following summary lists the archaeological features identified at each site, their date and associated finds. The site names are given with their respective site codes (in brackets).

### Abbreviations

B bone; F flint; P pottery; Fc fired clay; G glass; Sg slag; r recut

Context numbers in italics refer to other sections excavated in the same feature, those in bold to human skeletal remains.

### RUTLAND SITES

#### Normanton Road (NORM 08)

Context	Feature type	Comments	Date of feature	Finds
1	Topsoil			-
2	Natural			-
3, [4]	Pit		Undated	-
5, 6, [7]	Furrow		Medieval/post-med	-
8	Drystone wall		Post-medieval	-

#### Glaston (GLAS 08)

Context	Feature type	Comments	Date of feature	Finds	
1	Topsoil			P	
2	Subsoil			-	
3	Natural			-	
5, 4, [6]	Pit	Burial 4	Saxon, late 5th to early/mid 7th century	P	
7, 8, [9]	Pit	Burial 5, base of urn only		P -	
11, 10, [12]	Pit	Burial 6, with glass bead		P sf -	
14, 13, [15]	Pit	Burial 7		P	
17, 16, [18]	Pit	Burial 8		P	
20, 19, [21]	Pit	Burial 9		P	
22, [23]	Pit	Burial 10		P	
25, 24, [26]	Pit	Burial 11		P B	
28, 27, [29]	Pit	Burial 12		Saxon, late 5th to early/mid 7th century, 5th -6th century	P
30	Pit/layer	Truncated pit?			P
31	Pit/ layer	Burial 13 (truncated) bone comb			P B sf
32	Pit/ layer	Truncated pit?		P	
33, [34]	Ditch	Fe nail	Roman	P B sf	
35	Pit	Burial 20 Fragments of urn and bone	Saxon, late 5th to early/mid 7th century, 5th -6th century	P B	
37, 36 51, [38]	Pit	Burial 14, bronze brooch		P sf	
39, [40]	Pit	Burial 15		P	
42, 41, [43]	Pit	Burial 16		P	
44, [45]	Pit			Fc	
47, 46, [48]	Pit	Burial 17		P	
49, [50]	Pit	Burial 18		P	

**Bisbrooke (BISB 08)(incorporated into Glaston in report)**

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			P
3	Natural			-
4, [5]	Ditch		Roman?	-
6, [7]	Ditch terminal		Roman	-
8, 9, [10]	Ditch	Lead droplet	Roman	P B F sf

**Seaton 1 (SEAT 08)**

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			-
3	Natural			-
4, [5]	Furrow		Medieval/post- med	-
6, [7]	Pit		Late Bronze Age/ early Iron Age	-
8, [9]	Pit			-
10, [11]	Pit			-
12, [13]	Pit			-
14, [15]	Pit			-
16, [17]	Pit			-
18, [19]	Pit			-
20, [21]	Pit			-
22, [23]	Pit			-
24, [25]	Pit			-
26, [27]	Pit			-
28, [29]	Pit			-
30, [31]	Pit			-
32, [33]	Pit			-
34, [35]	Pit			-
36, 37, [38]	Pit			-
39, [40]	Pit			-
41, [42]	Pit		-	
43, [44]	Pit		-	
45, [46]	Pit		-	
47, [48]	Pit		-	
49, [50]	Furrow		Medieval/post-med	-

**Seaton 2 (SEA2 08)**

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			B P Fc
3	Natural			-
4, [5]	Pit		Iron Age	-
6, [7]	Pit			P
8, [9] 19, 20, 21, [22]	Ditch			-
10, 11, [12]	Furrow	Cu alloy	Medieval/post-med	F sf
13, [14]	Gully		Iron Age	P
15, [16]	Gully			-
17, [18]	Gully			-
23, 24, [25]	Posthole			B P

Context	Feature type	Comments	Date of feature	Findings	
26, 27, 28, 29, [30]	Pit			P P B Fc	
31, [32]	Pit			-	
33, 34, [35]	Pit			-	
36, [37]	Gully			-	
38, 39, [40]	Pit			B P	
41, 42, 43, 44, [45]	Pit			B P -	
46, [47]	Pit			B P	
48, [49]	Pit			B	
50, [51]	Gully			-	
52, 53, [54]	Pit	Quern?		B P St sf	
55, 5, [57]	Pit			B P	
58, 59, 60, 61, [62]	Pit			- -	
63, 64, 65, [66]	Pit			B P Fc	
67, 68, [69]	Pit			B Sg	
70, 71, [72]	Pit			F B P	
73, 74, [75]	Pit			B P	
76, [77]	Pit			-	
78, 79, [80]	Pit			B P Sg	
81, [82]	Pit			Iron Age	-
83, [84]	Pit			-	
85, [86]	Pit		F B P		

### Seaton 3 (SEAT3 08)

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			F
3	Natural			-
4, 5, 6, [7]	Pit/hollow		Iron Age	P
8, [9]	Pit/hollow			Fc
10, 11, 12, [13] 14, 15, [16] 17, 18, 29, [20]	Ditch			Fc - P - -

### Thorpe-by-Water 1 (THOR1 08)

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			-
3	Natural			-
4, [5] 8, [9] 15, [16] 17, [18]	Ditch	Cut by ditch [7]  Cut by pit [14]	Iron Age	- - P Sg P
6, [7] 10, [11]	Ditch	Cuts ditch [5]		Roman
13, [14]	Pit	Cuts ditch [16]	Undated	Sg

### Thorpe-by-Water 2 (THOR2 08)

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			-
3	Natural			-
4, [5]	Ditch		Medieval or post-med'l	P

### Caldecott Road (CALD 08)

Context	Feature type	Comments	Date of feature	Findings	
1	Topsoil			F	
2	Subsoil			F P	
3	Natural			-	
4, [5]	Posthole		Late Iron Age	-	
6, [7]	Ditch			-	
8, [9] 58, 59, [60]	Ring ditch	Possible roundhouse, north side		- F	
10, [11]	Pit			-	
12, [13] 23, [24]	Ditch			- F	
14, [15] 27, [28] 29, [30]	Ditch			- - -	
16, [17]	Pit			P	
18, [19]	Ditch			-	
20, 21, [22]	Posthole			-	
25, [26]	Ditch			-	
31, [32]	Pit			-	
33, [34]	Furrow			P	
35, [36]	Gully			2nd-1st century BC	F P B
37, [38] 39, [40]	Ditch			Late Iron Age	- F
41, [42]	Pit				-
43, [44]	Pit		F		
45, 46, [47]	Ring ditch	Roundhouse ?, S side	P F		
48, 49, [50]	Gully		F		
51	Alluvium		-		
53	Alluvium		P		
54	Layer		-		
56, [57]	Ring ditch	Roundhouse ?, recut S side	-		
61, 62, [63]	Posthole		-		
64, 65 66, 67	Stone conduit or drain	Fe knife blade	Medieval/post-med	sf P	
68	Alluvium			-	
69, 70 71, 72 [73]	Ditch		Late Iron Age	F P - -	
74, [75]	Wheel rut			P	
76, [77]	Wheel rut			-	
78	Road surface	Fe object		B P Fc Sg T sf	
79	Alluvium			-	



**Watching brief (EMP 08)**

Field	Context	Feature type	Comments	Date of feature	Finds
2:05	1	Topsoil			-
	2	Natural			-
	3, [4]	Ditch			-
15:07	1	Topsoil			-
	2	Subsoil			-
	3	Natural			-
	4, [5]	Pit	Sunken-featured building	Early Anglo-Saxon	P B
33:01	5	Cremation		Iron Age/Roman?	-
47:01	6	Layer	Palaeo-channel deposit		-
	7	Layer	Palaeo-channel deposit		-
55:01	4, [5]	Cremation		Roman	-

**NORTHAMPTONSHIRE SITES**

**Gretton Road (GRET1 08)**

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil	Thimble		F sf
2	Subsoil			-
3	Natural			-
4, [5]	Gully		Roman	Fc
6, 7, [8]	Cremation 1	Burial 18. Nails		P sf
9, [10]	Ditch			P
11, [12]	Furrow		Medieval/post-med	P
13, [14]	Cremation 2	Burial 19. Cut by gully [5]. Fe nail	Roman	P B sf
15, [16]	Furrow		Medieval/post-med	P T

**Swinawe Barn (SWB 08)**

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			-
3	Natural			-
4, 10, [5]r 6, 11, [7] 8, [9] 12, 13, [14] 42, 96, [43] 107, 108, 109, 110, [111] 121, [112]r 114, 115, [119]r 116, 117, [120] 122, 123, [124]r 125, 126, 127, 128, [129]	Ring ditch B	Quern	Middle Iron Age	P B Fc P B P B Fc - P B - - P B Fc sf P B Fc P B P B P -
23, 24, 25, 26 27, 32, 33, 34 [28]	Ditch	Cuts furrow, cut by [31]	Late medieval/post-medieval	- B -
29, 30, [31] 35, 36, [37]	Ditch	Cuts [28]	Post-medieval/modern	F F
15, [16]	Pit		Middle Iron Age	P B
17, 18, [19] 20, 21, [22] 47, [48]	Ditch			P B F P B P B
38, 39, [40]	Posthole			F P B
41	Tree bole			F P B
44, 45, [46]	Ditch			P B
49, [50] 53, 54, [55] 56, 57, [58] 61, 62, [63] 67, [68] 69, [70] 71, [72] 73, 74, [75] 76, 77, [78]	Ring ditch A			P B P B P P P B P B P B P Fc P B Fc

Context	Feature type	Comments	Date of feature	Findings	
79, 80, [81] 86, [87]				P B -	
51, [52]	Slot		Middle Iron Age	P B	
59, [60]	Pit	Cut by [58]/[50]		-	
64, 65, [66]	Pit			-	
82, 98, 99, 100 [83]	Pit			P B -	
84, [85]	Pit			F P B	
93, 94, [95]r 88, 89, 97, [90]r 91, [92] 135, 136, 137, [138]	Ditch	Cut by [28]		P B P B P B P B S -	
101, 102, 103, [104]	Ditch			F B -	
105, [106]	Pit			-	
113	Furrow			Medieval/post-medl	P
132, 133, [134]	Pit			Roman 1st/2nd century	F P B
130, [131] 139, 140, [141] 142, [143] 144, 145, [146] 150, [151]	Ring ditch C		Middle Iron Age	P P - P B -	
147, 148, [149]	Posthole			-	
152, 153, [154]	Pit			P B Fc	
155, 156, 157, [158]	Pit			P B -	
159, [160]	Posthole			-	
161, [162]	Posthole			-	
163, 164, [165]	Pit			P B	
166, [167]	Ditch			B	

### Rushton (RUSH 08)

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil	Saxon tweezer		sf
3	Natural			-
4, [5]	Gully	South side of droveway	Roman	-
6, [7]	Gully	North side of droveway		-
8, [9]	Gully	Cu alloy rod		sf
10, 11, [12]	Enclosure ditch	North-west side		B -
13	Layer			-
14	Colluvium			-
15	Colluvium		-	
16, [17]	Gully		Roman	P B
18, 19, 20, [21]	Enclosure ditch	South-east side		Fc F -
22	Layer			-

### Violet Lane (VIOLA 08)

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil			-
3	Natural			-
4, 5, [6] 9, 10, [11]	Ditch		Roman	-
7, [8]	Gully			P
12, 13, 14, [15]	Ditch	Probable recut of ditch [19]		P
16, 17, 18, [19]	Ditch	Cut by ditch [15]		-
20, [21]	Furrow		Medieval/post-med	-
22, [23]	Furrow		Medieval/post-med	-

### Thorpe Malsor (TMN 08)

Context	Feature type	Comments	Date of feature	Findings	
1	Topsoil			-	
2	Subsoil			P	
3	Natural			-	
9, 8, 7, 6, 5, 28, 27, 26, 25, 24, 23, 22, [4]	Pit	Quern, Nail cleaner Oven plate fragments Roman coin and lead droplet	Late Iron Age/Roman	P B T G sf P B T G P B T G	
10, [11]	Pit			P B Fc	
14, 13, 29, 30, [12]	Ditch	Quern		F P B sf -	
15, 16, 17, 80, 81, 82, 83, 84, 85, 86, 87, 88 [18]	Ditch			P F B - - -	
19, 40, 41, 42, [20]	Pit	Roman coin		F P B sf -	
21	Ironstone	Quern		P B sf	
31, 32, 33, 34, 35, 36, 37, 38, [39]	Ditch			P B P B -	
43, 44, 45, [46]	Pit	Infant burial		P B Sg	
47, 48, 49, 50, 51, [52]	Enclosure ditch			Late Iron Age/Roman	P -
53, 54, [55]	Pit				P B
56, 57, 58, [59]	Ditch		P B		
60, [61]	Gully		P B		
62, [63]	Gully		B		
64, [65]	Gully		P		
66, [67]	Pit		P		
68, 69, 70, 71, [72]	Ditch		P B -		
73, [74]	Posthole		B		
75, 76, 77, 78, [79]	Ditch	Quern	P B Sg St =		
89, 90, 91, 92, 93, [94]	Ditch		P B -		
95, [96]	Ditch		P B Sg		

Context	Feature type	Comments	Date of feature	Finds
97, 98, 99, 100, 101, 102, 103, 104, [105]	Pit			P B P B -
106, 107, [108]	Gully			P B
109, 110, 111, [112]	Ditch	Kiln bar		P B T G Fc Sg sf
113, 114, 115, 116, [117]	Ditch			F P B G P B
118, [119]	Gully		Late Iron Age/Roman	P
120, [121]	Pit			P B
122, 123, 124, [125]	Ditch	Roman tile		P B -
126, 127, [128]	Ditch			P B
129, [130]	Ditch			-
131	Surface			-
132, 133, 134, 135, 136, 137 138, [139]	Ditch			P B F P B G -
140, [141]	Ditch			P B
142, [143]	Ditch			-
144, [145]	Ditch			P B
148, 149, [150]	Ditch			P B T

### White Hill Lodge (WHL 08)

Context	Feature type	Comments	Date of feature	Finds
1	Topsoil			-
2	Subsoil			-
3	Natural			-
4, [5] 10, [11]	Ditch	Cuts pit [9]	Roman	P B -
6, 7, 8, [9]	Pit	Cut by ditch [5]		P
12, 13, 14, 15, [16] 53, [54]	Pit	Cuts ditch [57]		P F Fc Fc -
18, [19]r 20, [21]	Ditch			P P B Fc
22, 23, 24, [25]	Ditch			-
56, [57]r 26, 27, [28]	Ditch	[57] cut by pit [16]	Roman	- P B
29, 30, 31, 32, [33]	Ditch			P F -
34, [35] 36, [37]	Gully	Cu alloy object		B sf P
38, [39]	Ditch			P
40, [41]	Ditch			B
42, 43, [44]r 45, 46, [47]	Ditch			P B P B
48, 49, 50, 51 [52]	Ditch	Brooch and spindle whorl. Cut by pit [54]/[16]		P B sf -
58	Layer	Probably natural		-
63, 64, [65]	Ditch	Tesserae		P B sf
60, 61, [62] 66, 67, [68]	Ditch	Probably recut.		P B -

**Cransley (CRAN 08)**

Context	Feature type	Comments	Date of feature	Findings
1	Topsoil			-
2	Subsoil	Buckle and RB brooch		sf
3	Natural			-
4, [5]	Posthole		Roman	-
6, [7]	Posthole	Fe nail		B sf
8, 9, 10, [11] 20, 21, 22, [23]	Enclosure ditch	Hob nail and Fe nail Quern		P sf P sf
12, [13]	Gully			B
14, 15, 16 [17]	Enclosure ditch			P B -
18, [19]	Gully		P	
24, [25]	Ditch		-	
26, [27]	Furrow?		P	
28, [29]	Pit	Kiln furniture	P	
32, 33, [34] <i>r</i> 35, [36] <i>r</i> 37, [38] <i>r</i> 30, [31]	Ditch	North-east side of track	P B P - P F	
41, [42] <i>r</i> 39, [40]	Ditch	South-west side of track	- -	
43, [44]	Ditch		P F	
45, [46]	Gully		-	
47, 48, [49]	Ditch		-	
50, 51, [52]	Ditch		-	
57, 53, 54, 55 59, [56]	Well	Quern fragments and sharpening stone	P B sf -	
58	Colluvium		P	

**Willow's Nursery (WN 09)**

Context	Feature type	Comments	Date of feature	Findings	
1	Topsoil			-	
2	Subsoil			-	
3	Natural			-	
4, [43]	Furrow		Medieval/post-medieval	P	
5, 6, 7, [8]	Ditch		Late Iron Age	P B	
9, [10] 32, [33]	Gully			- P B	
11, [12]	Ditch			P	
13, 14, [15]	Ditch			-	
16, 17, 18 [19]	Ditch			B -	
20, [21]	Gully			P B	
22, 23 [24]	Pit			2nd to 1st century BC	P B -
25, [26]	Gully			Late Iron Age	P
27, 28 [29]	Ditch				P B -
30, [31]	Gully		P		
34, [35]	Ditch		B		
36, 37, 38 [39]	Ditch		Late Iron Age	B -	
40, 41 [42]	Pit			- -	

**Watching brief (EMP2 08)**

Due to the extent of the features identified during the watching brief in Field 67:07, the site was designated for strip and map excavation and appears above as Swinawe Barn, Corby. No other significant features were encountered within the watching brief areas in Northamptonshire.



Northamptonshire County Council

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