

Northamptonshire Archaeology

Archaeological excavation at School Lane, Hartwell Northamptonshire Assessment report and updated project design



Northamptonshire Archaeology

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OASIS REPORT FORM

Short description Archaeological excavation was carried out by Northampton. Archaeology between November 2010 and April 2011, on behalf of Be Homes. An area of late Iron Age/early Roman settlement was occupied short period, perhaps the late 1st century BC to the middle of the 1st ce AD, with abandonment occurring shortly after the Conquest. There was adjacent partial enclosures, one of which was flanked by a ditch nearl deep, with either open sides or boundaries that had left no below grevidence. Within the enclosures and between them, there es subsidiary linear and curvilinear guilles, and a few pits. The fea produced a small assemblage of late Iron Age hand-built wares and a group of wheel-finished vessels dating to the early to mid 1st century. The deposition of two complete upper stones from rotary querns may the abandonment of Iron Age customs and the adoption of a Roman lifestyle. Other features including a truncated paved area, remains of fur and three ditches associated with medieval and post-medieval land were also noted. Project type Excavation Site status Arable Previous work Archaeological appraisal (Gifford 2009) Geophysical Survey and trial trench evaluation (NA 2010). Current land use Future work Monument type/period Significant finds Mid Iron Age and Roman settlement Significant finds Mid Iron Age and Roman settlement Significant finds Mid Iron Age and Roman settlement Site address Land off School Lane, Hartwell, Northamptonshire Study area 1.48 ha OS Easting & Northing SP 78835 50290 Height OD Project Design originator Northamptonshire Archaeology Director/Supervisor Jim Burke Project Manager Adam Yates Sponsor or funding body Bellway Homes Ltd PROJECT DATE Start date 15 November 2010 End date 15 November 2010 End date 16 Northamptonshire Archaeology Project Date Start date 17 Northamptonshire Archaeology Director/Supervisor Jim Burke Project Coepinator Northamptonshire Archaeology Director/Supervisor Jim Burke Project Coepinator Northamptonshir	PROJECT DETAILS	OASIS No: 134178									
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Northamptonshire: assessment and UPD	Title	An archaeological excavation on land off School Lane, Hartwell, Northamptonshire: assessment and UPD									
Serial title & volume 12/91	Serial title & volume										
Author(s) Jim Burke and Charlotte Walker											
Page numbers 40											
Date August 2012		August 2012									

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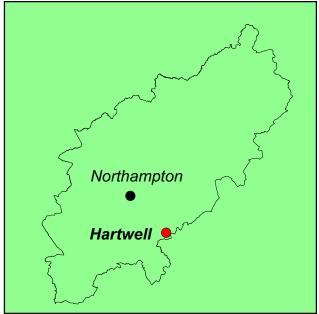
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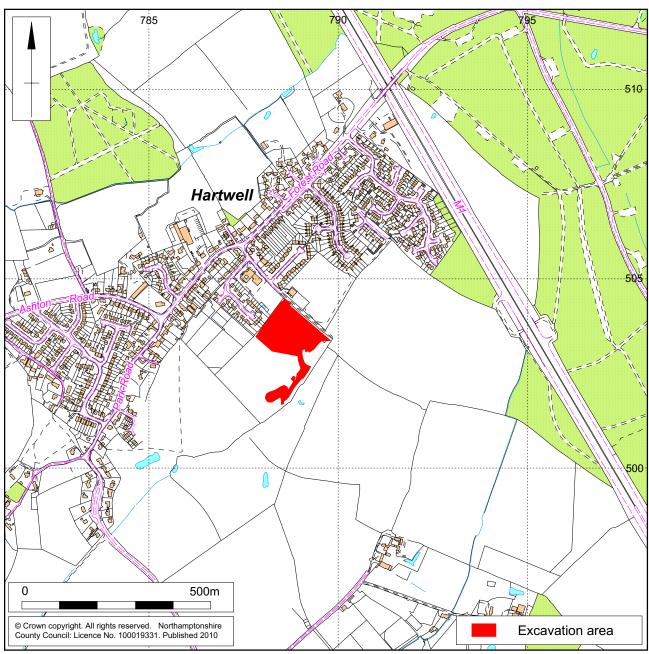
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Scale 1:10,000 Site location Fig 1

ARCHAEOLOGICAL EXCAVATION AT SCHOOL LANE, HARTWELL, NORTHAMPTONSHIRE: ASSESSMENT REPORT AND UPDATED PROJECT DESIGN

Abstract

Archaeological excavation was carried out by Northamptonshire Archaeology between November 2010 and April 2011, on behalf of Bellway Homes. An area of late Iron Age/early Roman settlement was occupied for a short period, perhaps the late 1st century BC to the middle of the 1st century AD, with abandonment occurring shortly after the Conquest. There were two adjacent partial enclosures, one of which was flanked by a ditch nearly 2m deep, with either open sides or boundaries that had left no below ground evidence. Within the enclosures and between them, there were some subsidiary linear and curvilinear gullies, and a few pits. The features produced a small assemblage of late Iron Age hand-built wares and a larger group of wheel-finished vessels dating to the early to mid 1st century AD. The deposition of two complete upper stones from rotary querns may define the abandonment of Iron Age customs and the adoption of a Romanised lifestyle. Other features including a truncated paved area, remains of furrows and three ditches associated with medieval and post-medieval land use, were also noted.

1 INTRODUCTION

1.1 Site location and topography and geology

Bellway Homes Ltd commissioned Northamptonshire Archaeology to undertake archaeological mitigation work on the proposed development site on land off School Lane, Hartwell, Northamptonshire (NGR 478835 250290, Fig 1). The works were required following the previous geophysical survey and trial trench evaluation (Burke *et al* 2010) in response to a reserved matter application submitted by Bellway Homes for new housing (S/2010/1131/MAR) and an application to construct a balancing pond in order to secure discharge on one of the conditions of a previous consent (S/2010/1135/FUL).

The development area is located within the northern half of an arable field and the balancing pond on the lower southern half of an arable field on the eastern edge of Hartwell village. The area designated for housing occupies an area of approximately 2.2ha and the balancing pond 0.15ha. The northern-western boundary of the site is formed by the Hartwell Church of England Primary School, and dwellings. To the north-east is the Community centre and playing fields. To the south-east and south-west are fields.

The geology on the site is Mid Pleistocene glacial till, sticky brown to grey clays with lots of rounded to irregular clasts of sandstone, ironstone, quartzite and flint. The underlying solid geology is composed of limestone belonging to the Middle Jurassic. Great Oolite group Blisworth limestone formation, but is not exposed in the development area. The fine iron-stained network of cracks in the tills on several parts of the site may be associated with the remains of drying/shrinkage cracks at the base of a seasonally waterlogged soil type.

1.2 Historical and archaeological background

Prehistoric and Roman

There are a number of possible Bronze Age barrows in the wider vicinity of the site, including one almost 1km to the west (HER 4793) and possibly within Salcey Forest to the east. There is fairly limited evidence for Iron Age and Roman activity in the area. An oval earthwork enclosure survives within Salcey Forest known as the Egg Rings and is thought to be the remains of a defended Iron Age enclosure (Woodfield 1980; HER 5414). The presence of this earthwork suggests that the forest is not ancient (Hall 1995). Further possible enclosures in the area have been identified by aerial photography or other survey methods and may also date to this period.

Roman coarsewares and part of a quern have been found at Bozenham in the south-west of the parish. A possible Roman road (HER 4826/1) lies 1.3km to the east of the site and is thought to have led to the villa at Piddington, some 4.5km to the north-east.

Medieval/post-medieval

The parish of Hartwell lies on the western edge of Salcey Forest and was composed of a number of small dispersed settlements. While this dispersed pattern of settlement is typical of medieval settlement found in areas of historic woodland, this settlement pattern is unique within Northamptonshire having a total of six deserted settlement sites. The present village is also thought to have medieval origins. This settlement pattern is perhaps more characteristic of the those found in the claylands of north Buckinghamshire (Hall 1995).

In the medieval period, the main settlement in the parish seems to have been located to the south at Chapel Farm. A medieval chapel dedicated to St John the Baptist lay within this former settlement. By the mid-16th century it seems to have been entirely abandoned (VCH 2002). A number of other dispersed settlements have also been recorded, some little more than farmsteads, but others more extensive. The earliest medieval pottery from any of these hamlets dates to the 12th or 13th century, but it is possible earlier evidence may remain undiscovered (Lewis *et al* 1997). There were four fields in 1727, with Town Field being divided into two parts. The site lay within the eastern part of Town Field within *Tom Stockin* furlong (Hall 1995). The *Stockin* name indicates that it was an assart, or clearance, from the forest. Hartwell was enclosed by Act of Parliament in 1825.

Earthworks identified from aerial photography are aligned along the south-eastern edge of the development area (HER 4732/0/7). These have been identified as part of the medieval field system in the HER but are in fact the remains of a north-east to south-west aligned hollow-way, with associated co-axial plot boundaries (RCHME 1982; Fig 2).



Settlement remains near Hartwell Green, showing site location (from RCHME 1982) Fig 2

A number of properties were also present along the hollow-way, these are present on the Grafton Estate map of 1727 and form one of the dispersed settlements within the parish. The Ordnance Survey surveyors map produced in the early 19th century still shows the hollow-way, but only two properties survive at this date. By the late 19th century, the hollow-way and one of the properties had disappeared.



Grafton Estate map, *c* 1727, showing approximate site location Fig 3

The remains of a Second World War military site incorporating a blast shelter are present 30m to the north-east of the site.

A geophysical survey was undertaken by Northamptonshire Archaeology (NA) across the development area and balancing pond, this identified several anomalies of possible archaeological origin. Trial trenching confirmed these as representing midlate Iron Age and early Roman enclosures, and features associated with medieval and post-medieval land use (Burke *et al* 2010).

1.3 Scope of mitigation works

The mitigation strategy was designed following discussions between Bellway Homes, Liz Mordue, Assistant County Archaeological Officer and Northamptonshire Archaeology.

A total of 1.48ha was designated for set piece open area excavation; this comprised three separate phases. This method was adopted in order to stage release of areas back to the developer in order to allow development to proceed. It was anticipated that necessary alterations of the phasing boundaries within the overall mitigation area be altered to allow archaeological excavation or operational requirements. This was undertaken in agreement with the Assistant County Archaeological Officer.

The works within each area comprised:

- Removal of topsoil and subsoil under archaeological supervision in order to reveal the underlying natural substrate and archaeological features;
- Identification and segregation of areas of archaeological interest;
- Excavation and recording of archaeological features;
- Signing off each area on completion of archaeological works in order to allow construction to commence;
- Establish the date, nature and extent of activity or occupation on the development site;
- Recover artefacts to assist in the development of type series within the region;
- Recover palaeo-environmental remains to determine local environmental conditions.

1.4 Methodology

Removal of the topsoil and other overburden was carried out by a tracked 360-degree mechanical excavator, fitted with a toothless ditching bucket, operating under archaeological supervision. Mechanical excavation proceeded to the natural substrate or the first significant archaeological horizon.

All features were hand excavated and recorded. Standard Northamptonshire Archaeology recording procedures were employed (NA 2011). All works were conducted in accordance with IfA Standard and Guidance for Archaeological Excavations (2008) and the Code of Conduct of the Institute for Archaeologists (1985, revised 2010). The project was undertaken in accordance with the provisions set out in the English Heritage procedural documents Management of Archaeological Projects 2 (EH 1991) and Management of Research Projects in the Historic Environment (EH 2006). All work was carried out in accordance with the requirements of the Specification for archaeological excavation (NA 2010).

2 RESEARCH OBJECTIVES

The programme of archaeological works was designed to mitigate the impact of the development upon the archaeological resource. This fulfilled conditions on the planning consent enabling development to proceed. The approach taken was to excavate and record the archaeological remains to allow 'preservation by record', prior to development impact.

The broad archaeological objectives for the archaeological works were defined in the Written Scheme of Investigation (NA 2010) as follows:

- To investigate the origin and development of domestic occupation by:
 - 1. analysing the distribution of material culture;
 - 2. investigating the form and function of structural features;
 - 3. comparing the assemblages of rubbish disposal deposits by period.
- To investigate palaeo-economy and industry through time by:
 - 1. examination and comparison of faunal remains;
 - 2. analysis and comparison of soil samples from industrial contexts;
 - 3. to identify possible crop regimes and staple food stuffs from environmental sampling.
- To investigate the origin and development of the agricultural landscape by:
 - 1. determining the phasing of any extant field systems by excavation;
 - 2. investigate the changes in landscape flora by environmental sampling:
 - 3. consideration of the wider geological/hydrological landscape as a mechanism for catalyzing settlement.

It was anticipated that as the nature of the archaeological remains became apparent during the excavation, a series of site specific research aims would be identified. These were to be based on the research frameworks set out in Cooper (2006) and Knight *et al* (2012) and formulated during discussions between the Assistant County Archaeological Officer and Northamptonshire Archaeology in consultation with relevant specialists. The following broad themes were addressed:

Iron Age (Willis 2006)

- Settlement archaeology
- Settlement and landscape
- Linear monuments and other land divisions
- Ritual, structured deposition and religion
- Agricultural economy
- Finds: Craft industry and exchange
- Social relations and society in the first millennium BC
- Economic and social change during the Late Iron Age / Roman transition.

Roman (Taylor 2006)

- Chronology
- The late Iron Age landscape and the strategy and consequences of conquest
- Rural settlement, landscape and society

- Artefact production, exchange and consumption
- Ritual, religion and identity.

In addition the programme of works provided the opportunity to examine the relationship between Iron Age and Roman settlement patterns. Specific questions included:

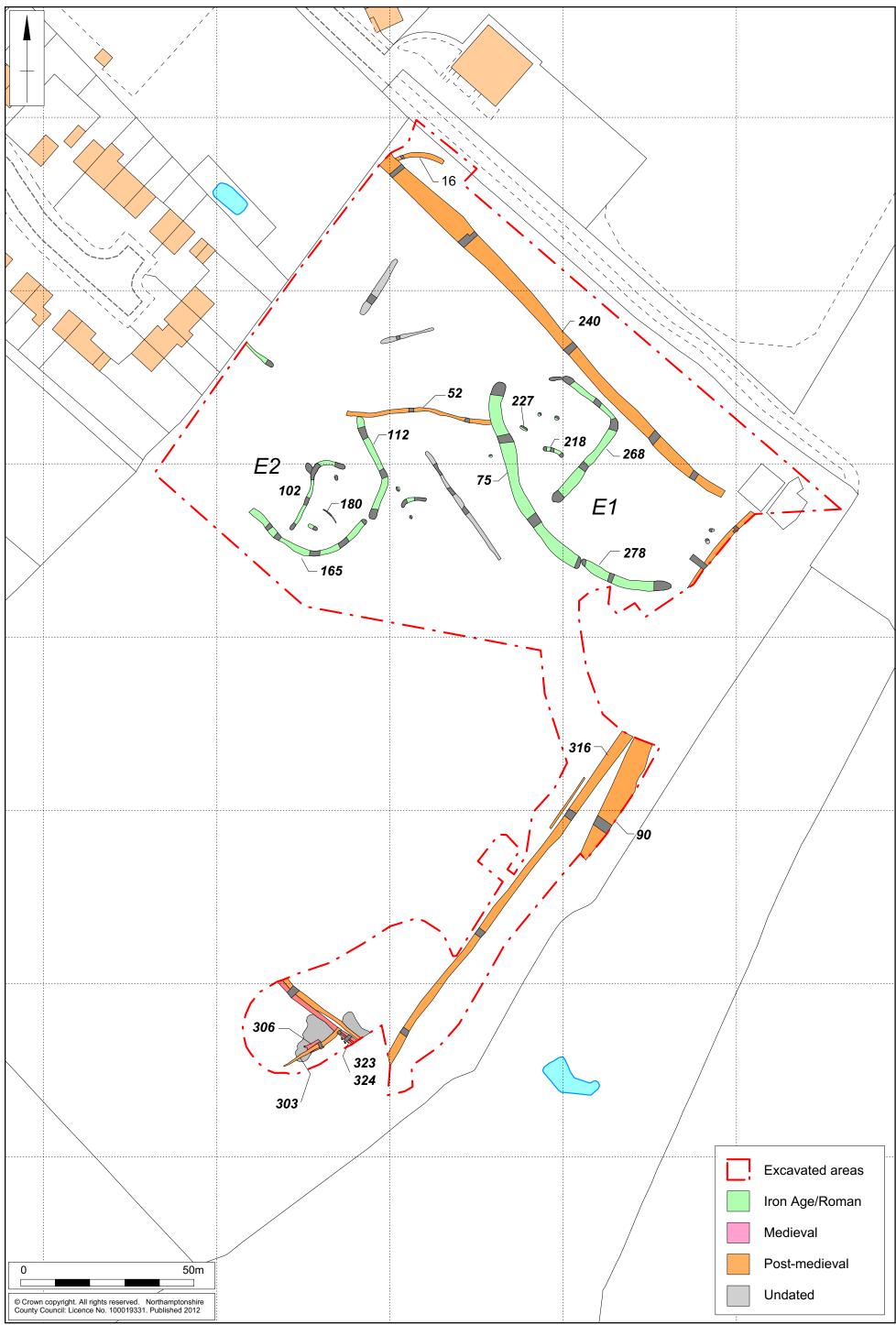
- The differences in the form of settlement between the late Iron Age and early Roman periods; are they typical of regional and national trends?
- Is there evidence for settlement shift in the different periods? Why and when did it occur?
- How does the material culture of the settlements change between the Iron Age and Roman periods? Is there evidence of different attitudes to artefacts and can the presence of structured deposits be detected (eg deliberate artefact deposition in Iron Age pits)?
- Can evidence of changing economic and social opportunity be detected between the Iron Age and later Roman period?
- Is there evidence of different architectural traditions between the Iron Age and Roman periods? Can different uses of space be detected between the sites?
- Is there any evidence of craft activity or industry, does this change through time?
- Is there any evidence for the Iron Age and Roman settlements position within the local and regional social structure, relating them to larger settlements, villas or towns?

The presence of any field systems would allow some of the issues raised by Willis (2006) to be addressed:

- Evidence of agricultural specialism and changes in practices through time, (e.g. changes in field size and layout);
- Evidence of change or continuity in the form and arrangements of field systems;
- Can our understanding of how field systems were used be improved by studying the artefactual and palaeo-environmental evidence from field systems?

Evidence derived from the dating and palaeo-environmental programmes, with regular specialist input, will be integrated into the overall research objectives to produce a flexible strategy to contribute to increasing understanding and reconstruction of past environments, agricultural regimes, economy, social status and religious beliefs (English Heritage 2002, 19). Sampling conformed to English Heritage guidelines (2002). The environmental evidence will be considered with particular reference to the Iron Age / Roman transition, contrasting the small rural with larger settlements and changing agricultural specialisation (Monckton 2006, 272-7). A number of specific issues were to be addressed by the palaeo-environmental programme (Monckton 2006, 277):

- Evidence of arable farming methods derived from charred plant remains: Increase
 in disposal of spelt wheat chaff and the introduction of corn driers are indicative of
 changes in cereal production and bulk processing, (analysis can provide evidence
 of changes in corn drier function);
- Evidence of arable expansion from pollen bearing deposits to complement the cereal remains;
- Evidence for use of fodder;
- Analysis of weed floras and weed ecology to provide evidence of expansion of agriculture and source of cereals;
- Investigate the timing of the increase in the variety of foods available, including imports and introduced plant foods.



3 THE LATE IRON AGE/EARLY ROMAN ACTIVITY

There were two adjacent areas of activity, both in part defined by curvilinear ditches notable for their depth. Both ditches only partially enclosed areas and it is possible that other, non-archaeologically visible, means were employed to form complete enclosures. Within the area defined by each ditch were less substantial gullies that may have served to sub-divide the enclosed areas. Scattered pits and short lengths of gully were concentrated within the enclosure areas. There was no definitive evidence of settlement, although the finds certainly suggest that it was located nearby. There was some evidence of light industrial/craft activities taking place nearby with the recovery of an iron block anvil and loomweight. A group of rotary querns indicate crop processing was also being undertaken. Activity began in the late 1st century BC and continued until the mid 1st century AD, shortly after the conquest.

3.1 Enclosure 1

Enclosure 1 was located in the eastern part of the site (Fig 4). Only its western edge was fully defined, comprising a curvilinear ditch constructed in two parts, ditches [75] and [278], and extending for a length of 80m north to south. The two sections abutted each other and it is likely that ditch [278] was a southern extension of the enclosure, perhaps contemporary with the recutting of the central part of ditch [75]. It is unclear whether other parts of the enclosure were defined by ditches.

Within Enclosure E1 a smaller sub-enclosure was defined by an L-shaped ditch, [268]. Inside this area were three small pits or postholes and a short stretch of gully. Gaps between either end of ditch [268] and enclosure ditch [75] would have provided access.

Ditch [75]

Ditch [75] measured 60m long with an average width of 4.5m and up to 1.98m deep. It was generally U-shaped in profile, although the sides were stepped in places, with rounded terminals. Basal fills were overlain by slump deposits which in turn were overlain by a series of episodes of silting interspersed with occasional dumps containing domestic material. The central part of the ditch appeared to have been

Evidence from the sequence of ditch fills suggested that slumping commenced fairly rapidly after the ditch first opened. The ditch may then have infilled quite rapidly, despite its size, both through natural processes and some dumping of waste material. Although recuts in the central part of the ditch showed an attempt was made to maintain this portion of the ditch, this did not extend for its full length.

Ditch [278]

Ditch [278] was 26.7m long and about 1.5m wide and up to 1.2m deep. It was U-shaped in profile with steep sides and rounded terminals. The clay fills derived from natural silting and slumping. Two upper stones from beehive querns were found in the upper fill of the northern terminal.

Ditch [268]

This L-shaped ditch created a sub-division within the northern part of Enclosure E1. This was 52m long and was up to 1.6m wide and 1.3m deep (Fig 5). The steeply sloping sides were generally straight and near vertical, even undercut in places, probably as a result of the erosion of the edges after the ditch was dug, and slightly splayed at the top. The base was concave. The primary fills comprised a layer of silting overlain by slump deposits from either side. The ditch was then infilled by further silting with a second series of slump deposits towards the top of the fill sequence, perhaps accounting for the splayed edges at the top of this feature. Again it is likely that this ditch filled up rapidly, as more evidence of slumping from the

steeply cut sides cut through inherently unstable gravel deposits may have been expected for a feature left open for a long time.



Ditch [268], looking south-west Fig 5

A small gully extended beyond the northern terminal of [268] for a further 3.5m. It is likely that this was a secondary development, as the upper fill of the ditch extended to fill the gully. It may have been intended to narrow the large gap between the end of [268] and enclosure ditch [75].

Features within the northern part of Enclosure E1

In an area delineated by the enclosure ditch and internal, L-shaped ditch, was a small group of features comprising two shallow scoops and two short stretches of deep steep-sided gullies [227] and [218].

The two scoops were circular in plan up to 1m across, but no more than 0.2m deep. The fills comprised dark silty clay.

Feature [227] was 2.12m long, 0.60m wide and 0.64m deep. The sides were steep, nearly vertical, with a concave base. The basal fill was silty clay overlain by dumped charcoal-rich silty clays containing pottery and bone.

Gully [218] was 6.6m long, 0.32m wide and 0.3m deep, with steeply sloping sides and a flat base (Fig 6). The basal fill was mottled silty clay overlain by a dump of charcoal rich clay. A dump of cobbles and pieces of limestone lay in the base of the western end of the gully.



Gully [218], looking north-west Fig 6

Both the gullies seem unlikely to be drainage features, and may be structural in nature, perhaps forming parts of temporary structures or fencelines. The upper fills of both gullies included burnt material, perhaps deriving from domestic or occupation activity.

3.2 Enclosure 2

Enclosure 2 comprised a curvilinear ditch with a narrow, south-easterly facing entrance just over 1m wide. A cobble surface had been laid over the entrance causeway. The area enclosed by the ditches was 41m long by 26m wide. As with Enclosure 1, to the north-west the enclosure had apparently been left open. The depth of the excavated ditches makes it unlikely that the remainder had been destroyed by ploughing and it therefore seems likely that the enclosed area was partly defined by hedging, banks or some other method that left no archaeological trace.

Inside lay a further ditch which may have served to sub-divide the enclosure.

Enclosure ditches

The eastern enclosure ditch [112], was 32m long forming a reverse L-shape in plan. The south part of the ditch was between 2.10-2.40m wide and 1.12-1.27m deep with steep sides and a narrow base, while to the north the ditch became much shallower with very different fills. It is considered likely, therefore, that the original ditch did not extend this far north and was later extended (Fig 2).

The fills of the original ditch had largely derived from natural silting and slumping from the sides and comprised firm brown-grey to orange-brown clays, with few inclusions. There were no finds from this ditch.

The ditch was subsequently re-cut and extended north. It was between 1.30-2.10m wide and 0.6-0.90m deep with fairly steep edges and a flat base. The fills were dark grey clay silts with orange mottling and manganese staining, containing a much greater density of occupation debris including pottery and animal bone.

The western ditch [165] was 40m long, up to 2.10m wide and 1.25m deep (Fig 7). It had steep, slightly stepped edges and a narrow, concave base, although at the

eastern terminal it had a wide U-shaped profile. The fills appeared to largely be the result of natural silting. A later ditch [171], more or less following the same alignment as the earlier ditch, was up to 1.28m wide and 0.78m deep with a wide U-shaped profile. To the east it became deeper and more V-shaped. More evidence of domestic refuse was apparent in the fills of the re-cut.



Ditch [165], looking south-east Fig 7

The narrow south-easterly facing entrance into the enclosure was just over 1m wide and was defined by a surface of compacted stone including pieces of limestone and chalk.

Internal ditch [102]

The sinuous ditch was over 28m long and up to 0.78m wide and 0.60m deep. It had a wide U-shaped profile. The north-eastern end of the ditch curved to the east, but there was evidence that an earlier ditch had curved to the west [106].

There were large quantities of pottery, charcoal, animal bone and burnt clay in the fills of the ditch, particularly at the southern end. Other finds also included the block anvil and iron bar.

Features inside Enclosure E2

Within the area defined by the enclosure and internal ditch were a small number of other features. There was a short length of gully [180], 6m long, 0.54m wide and 0.18m deep, with steep edges and flat base. The upper fill contained moderate amounts of charcoal and burnt stone as well as some pottery. There were a small number of other shallow features, though none apparently structural.

3.3 The Iron Age pottery by Andy Chapman

Twenty-eight contexts produced 290 sherds of hand-built Iron Age pottery, weighing 4.15kg. Much of this material can be attributed to the 1st century BC, but the group also includes large thick-walled storage jars dating to the early 1st century AD, contemporary with a range of wheel-finished vessels that have been reported on separately. Some of the smaller vessels are also likely to date to the 1st century AD. There is no doubt that the site was occupied throughout this period, showing a transition from hand-built wares in traditional shelly fabrics to the wheel-finished forms of the early 1st century AD, although in some cases including the new forms manufactured in the old shelly fabrics.

Fabrics

Fine shell: containing sparse finely crushed shell, measuring no more than 1mm, and used for small jars and bowls, usually thin-walled and well finished, often with smoothed to burnished surfaces.

86 sherds, 29.7%

Medium to coarse shell: containing dense medium to coarse shell, measuring 2-7mm, and used for a wide range of jars, with the coarser shelly wares usually thicker-walled storage jars.

98 sherds, 33.8%

Grog: containing pellets of grog, sometimes combined with finely-crushed shell. Occurs in some smaller jar and bowl forms and particularly distinctive in thick-walled, well finished storage jars that date to the 1st century AD. 86 sherds. 29.7%

Sandy: containing sand, with inclusions of small quartz grains. two contexts produced sherds from a couple of thick walled, well-finished storage jars. 8 sherds, 2.8%

Calcareous and flint: containing small rounded pellets of chalk and some angular flint. A single vessel. 12 sherds, 4.1%.

As would be expected of a Northamptonshire assemblage, nearly two thirds of the material, 63.5%, was in shelly fabrics, covering the usual range from sparse finely crushed shell in the smaller thin-walled jars, up dense inclusions of large shell fragments in the thicker-walled storage jars. Also, it should be noted that the proportion of shelly wares would have been even higher if it hadn't been for the presence of many grog tempered storage jars, and also in two instances in a sandy fabric, all dating to the 1st century AD. The calcareous and flint tempered fabric appears in a single vessel, see below.

Forms and chronology

The single calcareous and flint tempered vessel, from gully [180], is unlike any of the other material from the site. The fabric has a grey core and interior and an outer surface that is mottled light grey to light brown with fine impressions of grass or other vegetable matter. The vessel is crudely-made and thick-walled, 10-13mm thick, with straight sides and a rounded and uneven rim, giving a cylindrical profile, perhaps some 200mm in diameter. This vessel is unique in the assemblage and the nature of the fabric indicates that is has been imported. One possibility is that this is a cylindrical container for transporting salt, briquetage, although the sherds show no sign of bleaching from the chlorine in the salt. The fabric would be closest to the

shelly limestone-gritted Fenland fabric, which was in use during the Iron Age (Morris 1999, 351-375).

The vessel forms, when evident, include a significant proportion of smaller jars and distinctive thin-walled rounded bowls, with simple rounded or beaded rims, generally is a fabric containing sparse finely-crushed shell. A majority of these smaller vessels are dark grey-black throughout, usually with smoothed to burnished surfaces. Unusually, on one vessel, from the re-cut of [165], the body has been deliberately roughened or rusticated with dense near vertical scoring beneath a plain upright rim. This vessel might be a hand-built bowl dating to the early 1st century AD.

The smaller vessels with smoothed/burnished surfaces do also include a number in fabrics with oxidised external surfaces, including a closed globular bowl, with a simple rounded rim. The assemblage also contains a range of jars, less well finished, in fabrics containing coarser shell inclusions, such as the shouldered jar from the re-cut of [278]. These also have simple rounded or flattened rims, and flat bases.

A large mixed group from pit [227] comprised several vessels displaying a range of forms from the late Iron Age, 1st century BC, such as thin-walled globular bowls with everted rims in a grey-black fabric and smoother surfaces and some thick-walled jar sherds with scored decoration, and also vessels containing grog and a well-finished, thick-walled storage jar, which probably runs into the early 1st century AD.

The thicker-walled sherds from larger storage jars fall into two distinct groups. There are body sherds and a few rim and base sherds from coarse storage jars containing dense large shell inclusions, with walls up to 12mm thick, and pieces of shell erupting through the surfaces, typical of middle to late Iron Age assemblages. These contrast with even larger jars, such as those from pit [227]. These are all very thick-walled, with body sherds 15-20mm thick, and are usually in a variation of the grog fabric, although other examples are still in shelly fabrics. While hand-built they are better finished, perhaps wheel finished, than the earlier storage jars, and often have uniform oxidised external surfaces, bright orange-brown in colour, which contrast with the mottled uneven surfaces of the earlier storage jars. These larger storage jars date to the early 1st century AD, and are contemporary with the smaller wheel-turned vessels, reported separately.

A small bowl, from layer [175] is in a late Iron Age fabric and bowl form, but the rim has a shallow channel and fine oblique incisions around the outer edge of the rim, placing it as an early example of a channel rim jar from the mid-1st century AD but manufactured using the old technology.

3.4 The Roman pottery by Rob Perrin

An assemblage of some 1426 sherds was produced, weighing just over 21.5kg and with an estimated vessel equivalent, based on rims, of just under eight.

Fabrics

The fabrics represented are various grogged, shell-gritted, reduced and oxidised wares. No regionally-traded wares or imports from continental sources are present (Table 1). At least ninety percent of the pottery comprises grogged wares, shell gritted wares and fabrics with a combination of both tempers. Similar fabrics occur in the Iron Age (see Chapman, this report) and it is possible that some of the pottery discussed here is of Iron Age rather than later date.

Table 1: Summary of the Roman pottery

Fabric	No	%site	Wt (g)	%site	Rim%	%site	Base%	%site
Grogs	597	41.87	11378	52.78	309	39.36	434	58.41
Shell	388	27.21	5028	23.32	264	33.63	169	22.75
Grog + Shell	313	21.95	4492	20.84	145	18.47	107	14.4
Oxidised	118	8.27	575	2.67	59	7.52	33	4.44
Reduced	4	0.28	28	0.13	8	1.02		
Reduced + grog	6	0.42	58	0.27				
Total	1426		21559	·	785	•	743	

A number of sub-types occur in the grogged wares (Table 2), defined by colour rather than noticeable variations in the grog temper. A dark brown grogged ware and a reddish-yellow ware with a grey core are the two most common fabrics.

Table 2: Summary of the grogged wares

Fabric	No	%site	Wt (g)	%site	Rim%	%site	Base%	%site
Buff grog	32	5.36	798	7.01	24	7.77	37	8.53
Dark brown grog	342	57.29	6900	60.64	136	44.01	313	72.12
Red-yellow grog	178	29.82	2360	20.74	115	37.22	84	19.35

Three varieties of shell-gritted ware occur (Table 3), based on the size of the shell inclusions. The colour of the fabrics is predominately dark brown or black, though some vessels have oxidised surfaces and, occasionally, different fabric core colours. Most of the fabrics a mixture of grog and shell temper are also dark brown in colour, though a reddish-yellow fabric with a grey core also occurs. The ratio of grog to shell temper varies and one fabric contains very large shell.

Table 3: Summary of the shell-gritted wares

Fabric	No	%site	Wt (g)	%site	Rim%	%site	Base%	%site
Fine shell	6	1.55	96	1.91	0		100	59.17
Small shell	151	38.92	2130	42.36	187	70.83	37	21.89
Large shell	133	34.28	1734	34.49	70	26.52	32	18.93

The oxidised wares comprise a range of buff, pink, reddish-yellow and red-brown fabrics (Table 4). A lot of the oxidised wares have a reduced grey core. The reduced wares include sherds in a grey micaceous fabric and a coarse dark brown fabric.

Table 4: Summary of the oxidised wares

Fabric	No	%site	Wt (g)	%site	Rim%	%site	Base%	%site
Buff	7		54	9.39	10	16.95		
Pink	94	79.66	384	66.78	37	62.71	8	24.24
Red-yellow	6		23		8	13.56		
Red-brown	11	9.32	114	19.83	4		25	75.76

Forms

The vessel forms were recorded using simple form codes. Approximately 62 vessels were noted, based on a count of separate rims, comprising 44 jars, 11 jars or bowls, five bowls, one beaker and one dish. Twenty-eight occur in grogged wares, 22 in shell-gritted wares, six in mixed grog and shell wares and six in oxidised wares.

Within the grogged wares, many of the 20 jars and four jars or bowls are noticeably globular in shape. Some of these have no neck and a simple bead rim and one vessel has diagonal notches on the rim. Other jars have either short or long necks with more definite curved rims and neck or shoulder cordons. Some sherds have vertical scored or combed decoration, sometimes within panels. The grogged ware jars also include three large storage vessels, some only represented by bases. The remaining grogged ware vessels comprise a sherd from a possible butt-beaker, a dish and a bowl with plain rims and a bowl with a plain rim, reminiscent of a samian ware form 30, but having a cordon in place of an ovolo.

Most of the 17 jars and four jars or bowls in the shell-gritted wares are also globular in shape and neckless. Twelve have a slight lid-seating and five have diagonal notches on the rim; one has a rim with impressed finger-tipped decoration. Two of the jars are of storage vessel size and the other shell-gritted ware vessel is a bowl with a bead rim. A few shell-gritted ware sherds have scored decoration or panels of diagonal close rilling between horizontal grooves and one sherd has a horizontal row of finger impressions around the girth.

The vessels in fabrics with a mixture of shell and grog temper comprise two jars and a jar or bowl with slight lid-seating, a storage jar, a curved-sided bowl and a jar or bowl with a flat-top rim. All of the jars and jars or bowls are globular in shape and two have diagonal notches on the rim; one of the latter was used as a cremation urn. A base sherd is from a vessel with a defimite footring.

Two of the four jars in oxidised wares have triangular or slightly undercut rims and a slight lid-seating; the other two have simple plain or bead rims. Two of the jars and a jar or bowl have neck cordons. The remaining oxidised ware vessel is a possible bowl with a flat-topped rim. There were no rims in the reduced ware fabrics, but one sherd had a cordon and traces of decoration comprising barbotine vertical lines.

Sources

It is likely that most of the pottery was locally produced. There are a large number of known kiln sites within a 15km radius of Hartwell, in the vicinity of modern-day Northampton, including Hardingstone, Hackleton, Little Houghton and Quinton (Swan 1984, 144-6) which together produced a range of wares and vessel types. Some of the pottery may not have been fired in kilns, however, and their production may therefore have left little obvious or permanent traces.

Date

The globular vessels with simple plain or bead rims are essentially Iron Age in form and some of the fabrics appear similar to those described in the report on the Iron Age pottery (Chapman, this report). Numerous parallels from local sites can be cited for the jars with diagonal notches on the rim, eg Weekley (Jackson and Dix 1986-7, fig. 39, 139), Quinton (Friendship-Taylor 1974, fig. 10. 26-33; Friendship-Taylor 1979, fig. 82, 44-7), and Wootton Hill Farm (Jackson 1988-9, fig. 13, 18-19). Vessels with impressed finger-tipped decoration also occur at many local sites, such as Twywell (Jackson 1975, fig. 24, 12 and 17), and Hardwick Park (Foster *et al* 1977, fig. 12, 40). Vessels with a horizontal row of finger impressions around the girth also occur at Hardwick Park (Foster *et al* 1977, fig. 15, 20) and Moulton Park (Williams 1974, fig. 16, 78), though these vessels also have scoring below. All of the above parallels are from contexts spanning the 'conquest' period. The curved rim vessels with neck and shoulder cordons conform to types commonly called 'belgic' and, together with the

possible butt-beaker and possible imitation samian form 30, suggest at least some Roman influence.

Overall, the range of fabrics, the predominance of grogged and shell-gritted wares and the predominant vessel forms, together with the absence of regional and continental imports, suggest an early to mid 1st century date range for most of the assemblage.

Site function and status

The pottery has an average sherd weight of around 15g, though this may partly be due to the presence of the lower parts of a number of vessels. The figure does suggest, however, that the assemblage does not just comprise material that had been lying around for some time before it was deposited. The range of wares and vessel form range, together with the lack of traded wares, suggests that most of this activity was basic utilitarian domestic and agricultural. The lack of traded wares also suggests little contact outside of the local area.

Selected group and pottery of intrinsic interest

Only one deposit warrants further discussion, though there are some other vessels of intrinsic interest. The fill (73) of ditch [70], part of the northern arm [75] of Enclosure 1. It contains around a third of the pottery and half of the vessels, based on the count of separate rims, of the site assemblage as a whole.

Table 5: Quantification of the pottery from Enclosure ditch [75]

Fabric	No	%	Wt (g)	%	R%	%	В%	%
Reddish-yellow grog	62	14.69	1304	18.53	83	18.68	40	22.35
Dark brown grog	71	16.82	776	11.03	99	22.30		
Buff grog	22	5.21	708	10.06	24	5.41	37	20.67
Other grog	7	1.66	736	10.46				
Grog and Shell	7	1.66	158	2.24	21	4.73		
Small shell	82	19.43	1550	22.02	126	28.38	37	20.67
Large shell	54	12.8	952	13.53	55	12.39	32	17.88
Oxidised	86	20.38	294	4.18	30	6.76		
Other	31	7.35	560	7.96	6	1.35	33	18.44
Total	422		7038		444		179	

Shell-gritted wares account for around a third of the deposit by sherd count and weight, while grogged wares comprise a further third by sherd count but a half by weight. All of the vessels are jars excepting a buff grogged ware possible butt-beaker and a dark brown grogged ware dish or lid. Seven of the jars are in the reddish-yellow grogged ware and include two storage jars, a lid-seated jar with diagonal notches on the rim and a narrow-mouthed jar. Six more jars are in the dark brown grogged ware and another vessel in buff grogged ware has a horizontal row of finger impressions around the girth with a cordon above. The shell-gritted ware includes a storage jar and seven lid-seated jars, three with diagonal notches on the rim. Another shell-gritted jar has no neck and a simple bead rim. There is one vessel with a triangular rim and short neck, possibly a beaker, in an oxidised reddish yellow ware. It is decorated with zones of close vertical lines or combing, separated by horizontal grooves or cordons.

3.5 The other finds by Tora Hylton

There were a variety of finds from the settlement, but only a small number of objects are closely dateable. Those that are indicate a date in the 1st century AD.

Three large fragments of a triangular fired clay loomweight with perforations through each corner were found in the fill of the re-cut of ditch [165]. The fabric of the weight contained crushed burnt flint along with some flint pebbles, there were also several small vesicles which were possibly where organic material had burnt out during firing. Weights of this form are generally interpreted as loomweights and are assigned an Iron Age date.

An iron block anvil with a slightly concave upper surface 90mm across and thinning from 80-65mm wide was found in the primary fill of ditch [102], within E2. The anvil tapered down from this face and three of the sides appeared concave. At its base the piece measured 60mm long and about 20-22mm wide with a slight waist. There is a substantial concretion of corrosion products low down the anvil and in similar examples at this point there would often be a large hole through the metal (Manning 1985).

An iron bar, 0.425m long with a rectangular cross section $10 \times 5mm$, was found in the upper fill of E2 ditch, [165]. At one end the bar has been beaten and bent back on itself and preserves part of a hook, at the opposite end the bar had been similarly beaten and bent down although that portion is now entirely missing. The original form or function of the piece is uncertain and whilst a steelyard has been suggested this piece differs from all the published examples in the British Museum catalogue by the lack of a suspension point for the weight and a pivot point.

An unstratified Colchester brooch, comprising the bow and head with fragments of catch plate and pit dated to the mid first century AD. A complete Colchester derivative brooch comprising a plain bow, catch plate and wings was found in the re-cut of [75]. The piece was 55mm long, and the spring was held in position by an axis bar. The piece is dateable to the third quarter of first century. Two highly corroded and non-joining fragments of a copper alloy brooch were also recovered from the re-cut of [75]. The larger piece 29 x 8mm appears to be part of a flat foot with traces of the catch plate, it could be derived from a Hod Hill type brooch or a plate brooch. The remaining piece is part of a hook fixing for the spring of a brooch. Neither piece is sufficiently diagnostic to be closely dateable.

A number of iron objects were recovered from layer [175], including a 'fiddle key' nail and a possible fragment of blade.

3.6 Querns by Andy Chapman

There is a group of rotary querns that are exceptional due to being complete or near complete.

From the fill (281) near the terminal of the C-shaped enclosure ditch E1, ditch [278], there are two near complete upper stones from Iron Age beehive querns. One is in Spilsby sandstone from Lincolnshire. This stone is notable for being both heavily worn and extremely asymmetrical, with the hopper at 30° to the grinding surface. As a result of these two factors, it had been necessary to add a second handle socket, as the first was becoming unusable. In the handle socket there was an iron spike, which may have reinforced the wooden handle.

The other complete upper stone is in a dense, hard quartzite and has a collar encircling the hopper. In the base of the stone the central feeder hole retains an iron fitting that is probably the pivot broken off from the lower stone.

From the fill (158) of the internal ditch [102], there was exactly half of a lower stone in Millstone Grit. This is 330mm in diameter and 140mm thick, with a flat grinding surface. The small diameter would suggest that it was used with a beehive upper stone.

The two complete upper stones are classic Iron Age beehive querns and the half lower stone was probably also used with a beehive upper stone. Beehive querns appear to have been rapidly replaced by flat rotary querns following the Roman Conquest, and this process is perhaps being seen at Hartwell in the deposition of these stones. Rather than signifying the abandonment of the settlement in the later 1st century AD, they may perhaps mark the social transition of the inhabitants from the Iron Age to being subjects of Rome and Roman customs shortly after the Conquest.

4 THE LATE MEDIEVAL AND POST-MEDIEVAL SETTLEMENT

4.1 The late medieval activity (14th-16th centuries)

The earliest evidence of medieval activity dated to the 14th-16th centuries and was associated with a possible plot boundary. The remains of a small building were also found south of the boundary, probably part of the small dispersed settlement located along the length of the hollow-way. It is possible that it was the northernmost element of a small group of buildings present on the 1727 map.

The hollow-way

A former hollow-way [90] was aligned north-east to south-west and was up to 7m wide and 0.73m deep, with a very shallow concave profile (Fig 4). The earliest fill was hard greyish-brown clay, which was overlaid by a layer of gravel in a sandy clay matrix; both these fills may have served as make-up or levelling layers. The upper surface of the trackway had been laid with angular pieces of limestone, some of which appeared to have been burnt. Overlying the stone were disuse layers of silt and clay.

No dating evidence was found in the fills, but it is likely to have been in existence from at least the medieval period. The layers of make-up and hard-core probably dated to the post-medieval period, having been laid down to provide a firmer surface.

The hollow-way is depicted in the map of 1727, but had fallen out of use by the late 19th century. At its south-west end it met up with the road from Hartwell Green to Hanslope and at its north-east end it joined another former road which linked Hartwell to Elms Farm.

Possible settlement remains

Late medieval activity dating to the 14th and 16th centuries was concentrated at the south-eastern corner of the site, adjacent to the trackway. There were two parallel ditches, aligned north-west to south-east and perpendicular to the trackway, although there was no relationship between them. Only the southern ditch [324] contained any pottery. It was 1.68m wide and 0.45m deep with steep edges and flat base. In the centre of the ditch were the remains of a dry-stone wall, 0.43m wide and 0.48m high (Fig 9). The wall sat on the base of the ditch and was constructed from roughly coursed limestone and sandstone. The wall and ditch were truncated by ditch [303],

but while the ditch continued beyond to the north the wall did not, indicating it had originally finished near this point. Both the ditches and the wall probably functioned as property boundaries.

Located c 6m to the south, was a rectangular stone-flagged surface, [306], 4.90m long and 2.70m wide (Fig 8). It lay at an oblique angle to the ditch and wall, but was similarly truncated by ditch [303], indicating it pre-dated the 18th/19th century and may have been contemporary to the ditch/wall. No pottery was found in association. The limestone flags were irregularly shaped, but with a flat upper surface and tightly fitted together.



The flagstone surface [306] and ditch [303], looking south-west Fig 8

Medieval remains of ridge and furrow were noted across the site and sampled in the northern part. Each was filled with a single mid grey-brown silty clay and both furrows had a shallow U-shaped profile.



Ditch [324] with wall [323] Fig 9

4.2 Post-medieval/modern activity (18th-19th centuries)

A ditch, [316], aligned north-east to south-west was 1.90m wide and 0.60m deep with a wide V-shaped profile. The compact dark brown silty clay fills contained pottery dating to the 18th/19th centuries, as well as claypipe and brick/tile. The ditch was aligned parallel to the trackway and was probably a boundary. The trackway continued in use until at least 1835 (RCHME 1982), although many of the buildings that had stood along it had disappeared by this date.

Some 15m to the east, ditch [303] was situated on the same alignment and was 1.40m wide and 0.30m deep. It truncated the remains of the earlier building. The upper fill of the ditch contained large quantities of demolition material, including stone and mortar, testifying to the continuing abandonment and demolition of the buildings during the 19th century.

At the north of the site, ditch [240] was aligned north-west to south-east, 3.08m wide and 0.76m deep with a wide U-shaped profile. This ditch may have been a boundary ditch running parallel to the trackway from Hartwell to Elms Farm.

4.3 Medieval and post-medieval pottery by lain Soden

A total of 82 sherds of pottery were recovered from 12 contexts, 14 of the sherds were unstratified/in modern contexts and have not been included in the table below. They comprise fourteen types or fabrics and weigh 3.324kg. The pottery is summarised in Table 6, correlation, where possible, to the Northamptonshire County Type series (CTS):

Table 6: Medieval and post-medieval pottery by type and context

			Fill/cut						
Туре	CTS	17/ 16	53/52	304/303	305/303	317/316	321/316	323	325/324
		Gully	Gully	Ditch	Ditch	Ditch	Ditch	Wall	Ditch
	329	-	-	-	-	-	-	1/6g	12/224g
ware									
	324	-	-	-	-	-	-	-	-
Boarstall									
ware	000							4.0	
	360	-	-	-	-	-	-	1/2g	-
coarseware	107							4/00=	
	407	-	-	-	-	-	-	1/23g	-
earthenware	444		4/0			4/4=			
Midland A	411		1/9g	-	-	1/1g	-	-	-
	432				_	1/44g	1/11g		
	432 419	-	-	-	-	1/44g 1/13g		-	-
edged	419	-	-	-	-	1/139	1/7g	-	-
pearlware									
	415	_		7/170g		1/2g	1/1g	_	_
	431	_	_	2/5g	_	1/2g -	1/ 1g -	_	_
ware	701	_	_	2/09	_	_	_	_	_
	416	_	_	5/46g	_	3/29g	_	_	_
transfer				o, .og		0,209			
printed									
earthenware									
Church	1000	1/11g	-	4/66g	-	-	-	-	_
Gresley-type		. 3							
stoneware									
English	1000	-	-	-	-	-	-	-	-
Stoneware									
flask									
White	1000	1/3g	-	-	-	-	1/1g	-	-
glazed		-					•		
earthenware									
Pancheon 4	426	-	-	20/2362g	1/18g	-	-	-	-
Total		2/14g	1/9g	38/2649g	1/18g	7/89g	4/20g	3/31g	12/224g

The assemblage is clearly split between a small concentration of medieval wares, probably of the 14th-16th centuries with wall [323] and ditch [324], with most of the rest being of 18th-19th-century date. The weights are dominated by the very large sherds from a pancheon, a robust (Staffordshire) vessel-type which often breaks easily into large, durable pieces.

The medieval and early post-medieval material is generally sparse but ditch [325] suggests that there is occupation nearby. The sherds are clean, of moderate size and weight and relatively unabraded. Their origin in the influential Potterspury industry is as might be expected in this area.

The post-medieval, late 18th and 19th-century material, suggests that there is contemporary domestic occupation very close by. The material includes a large pancheon from ditch [303] which might be described as at home in either a dairy or kitchen (in a farm setting) or in a pantry or kitchen (in a domestic home). Also present is the majority of a creamware bedpan from ditch [303], a common enough form in this fabric, but indicating that the home lies nearby. The occurrence of Black Basalt and Blue shell edged pearlwares in small quantities might suggest a family with an awareness of fashion in the late 18th century as both were distinctive and sought after in their own day, the 1770s and 1780s.

4.4 Medieval /post-medieval building material by Pat Chapman

Roof tile

There are twelve sherds of roof tile, weighing 700g. These are 12-15mm thick and made from very hard slightly coarse red-brown to orange-brown clay. Three come from furrows, the other six from the fill of land-drains and gully [52]. One sherd, from the topsoil has a remnant peghole 11mm square.

Brick

Eight brick fragments, weighing 3.1kg, come from four contexts. Approximately half a brick from the fill of ditch [240], 110mm wide and 65mm thick ($4\frac{3}{8}$ x $2\frac{1}{2}$ inches), is made from hard coarse red-brown clay. The header has been highly vitrified to a glassy surface from exposure to very high or prolonged high temperatures. Four fragments come from the fill of ditch [316]: two are 60mm thick ($2\frac{3}{8}$ inches), one is a sandy dark orange, the other is hard fine orange-brown; the two fragments are fine sandy red-brown and orange-brown. A brick with close spaced rough diagonal scoring on the header and one stretcher, from the fill of ditch [316], is 100mm wide and 63mm thick ($4 \times 2\frac{1}{2}$ inches). It is made with sandy dark red-brown clay and has the remnants of a wide frog. A very small sandy orange fragment comes from the fill of a land-drain. These brick fragments are generally 18th to 20th century in date.

Plaster

Two fragments of quite soft fine white lime plaster, from the primary fill of ditch [303], weigh 158g. One piece, 32mm thick, has a smoothed flat surface. The other piece is irregular in shape 60x55x40mm with one area of flat surface to a possible right-angled corner.

Fired clay

The 87 fragments weigh 872g and come from 21 contexts of all periods. They are usually small, with a few larger fragments up to 70mm long, often irregular in shape, although some fragments have smooth, though not flat surfaces. The fragments are hard and made from either fine sandy red-brown clay with frequent calcareous inclusions, or from fine silty brown clay with a black core. A few of these might be the fragmentary remains of Roman tiles. Otherwise they are probably widely scattered structural debris, as indicated by the smooth surfaces of some fragments, there are no wattle impressions.

4.5 Other post-medieval finds by Tora Hylton

This group of finds is dominated by not closely dateable objects such as nails or fragments of carpenter's dogs and consequently it informs us little about the character of the site. The occurrence of several fragments of post-medieval date indicates recent agricultural activity and associated dumping.

5 THE ENVIRONMENTAL EVIDENCE

5.1 Animal bone by Karen Deighton

Introduction

A total of 11.6kg of animal bone was collected by hand from contexts during the course of excavation. This material was analysed to determine the level of preservation, the taxa present and to aid the understanding of the site. Phasing follows J Burke (pers com) and consists of Iron age/Roman, medieval and post-medieval to modern phase.

Method

The material was firstly sorted into recordable and non-recordable fragments then quantified. Quantification follows Halstead after Watson (1979) and uses minimum anatomical element (Min AU). The following were recorded for each element: context, anatomical element, taxa, proximal and distal fusion, side, preservation, fragmentation, modification, butchery evidence and sex (where appropriate). Vertebra and ribs (with articulating ends) were counted and noted as small or large ungulate but not included in quantification. Partial skeletons are not included in quantification in order to avoid over representation. Epiphyseal fusion follows Silver (1969). Ovicaprid teeth were aged after Payne (1973), cattle after Halstead (1985) and pigs after Payne and Bull (1982). Recognition of butchery is after Binford (1981). Material from sieved samples was included (mesh sizes 1mm, 2mm and 3.4mm).

Results

Fragmentation was moderate and largely the result of old breaks and is possibly the result of trampling or compaction in the soil following burial. Bone surface abrasion was also moderate. Thirty-five examples (17.5%) of canid gnawing were noted, which could attest to the presence of dogs/foxes at the site. This level of canid gnawing is high enough to result in preservation bias against smaller bone elements (i.e. completely destroyed by canids). Six possible examples of butchery were noted (including evidence of sawing). Evidence for burning was noted from three contexts which suggest this was not a preferred method of disposal.

The taxa present

Table 7: Taxa by context (Iron Age/Roman)

Table 7: Cut/fill	Taxa by co					D	Desi			D;4	Tetal
	Feature	Cattle	Sheep/ goat	Pig	Horse	Dog	Deer	L. ung	S. ung	Bird	Total
22/23	Gully	1	-	-	-	-	-	-	-	-	2
36/37	Ditch	1	-	-	-	-	-	-	-	-	1
44/46	E1	1	-	-	-	-	-	-	-	-	1
50/51	E1	3	3	-	-	-	-	1	-	-	7
54/59	E1	1	1	-	1	-	_	_	-	-	3
70/73	E1	9	6	1	2	-	-	-	-	-	18
80/82	E1	2	-	-	2	_	_	1	_	_	5
80/83	E1					-	-	'	-	-	1
		1	-	-	-	-	-	-	-	-	
80/85	E1	2	-	1	2	-	-	-	-	-	5
96/98	Gully in E2	1	2	-	1	-	-	-	-	-	4
96/100	Gully in E2	1	-	1	1	-	-	-	-	-	3
102	Gully in E2	-	1*	-	-	-	-	-	-	-	1
102/103*	Gully in E2	3	2	-	1	-	-	-	-	-	6
106/107	Gully in E2	1	-	-	-	-	-	-	-	-	1
109/111	Gully in E2	2	-	-	-	-	-	-	-	-	2
117/119	E2	_	_	-	2	_	_	_	_	_	2
117/119	E2	1	- 4	-	_	-	-	-	_	-	5
			4		-	-	-	-	-	-	
117/121	E2	2		1	-	-	-	-	-	1	4
127/129	E2	1	1		-	-	-	-	-	-	2
127/130	E2	-	-	1	-	-	-	1	-	-	2
131/132	Cobbled surface E2	-	•	-	1	-	-	-	-	-	1
133/134	E2	1	-	-	-	-	-	-	-	-	1
133/135	E2	1	1	-	1	-	-	-	-	-	3
138/139	E2	4	_	-		-	-	_	_	_	4
152/154	E2	5	-	_	1	_	_	_		_	6
152/155	E2	1	1	_	1	_	_	1	_	_	4
162/164	Gully in E2	2	3	-	-	-	-	1	-	-	6
474/479	E2		1								4
171/172		-	1	-	-	-	-	-	-	-	1
171/173 210/211	E2 L-shaped	<u>-</u> 2	1	-	-	-	-	-	-	_	1 2
	gully, E1		_	-	-	-	-	-	-	-	
210/212	L-shaped gully, E1	1	1	•	1	-	-	-	-	-	3
216/217	Tree throw	-	-	-	1	-	-	-	-	-	1
227/229	Pit, E1	2	3	-	-	-	-	-	1		6
227/230	Pit, E1		3	-	-	-	-	-	-	-	3
231/232	Pit, E1	1	2	-	-	-	-	1	-	-	4
235/234	L-shaped gully, E1	1	1	-	-	-	-	-	-	-	2
248/250	Ĕ1 Î	_	-	-	2	-	-	-	-	-	2
248/259	E1	6	2	_	-	_	_	1	_	_	9
261/262	E1	1	2	_	_	_	_		_	_	3
263/264	E1	2	2	*	-	-	-		_	-	4
268/272	L-shaped gully, E1	6	3	-	-	-	-	1	-	-	10
270/202		4									4
278/280	E1	1	-	-	-	-	-	-	-	-	1
285/286	L-shaped gully, E1	1	-	-	-	-	-	-	-	-	1
285/287	L-shaped gully, E1	3	9	-	1	1	1	-	-	-	15
289/290	L-shaped	-	-	1	-	-	-	-	-	-	1

Cut/fill	Feature	Cattle	Sheep/ goat	Pig	Horse	Dog	Deer	L. ung	S. ung	Bird	Total
	gully, E1										
289/291	L-shaped gully, E1	1	-	-	-	-	-	-	-	-	1
289/293	L-shaped gully, E1	-	1	-	-	-	-	-	-	-	1
289/294	L-shaped gully, E1	1	-	-	-	-	-	-	-	-	1
289/297	L-shaped gully, E1	1	-	-	-	-	-	1	-	-	2
299/301	L-shaped gully, E1	1	-	-	-	-	-	-	-	-	1
299/302	L-shaped gully, E1	1	2	-	-	-	-	1	-	-	4
Total	J ,,	79	57	6	22	1	1	10	1	1	178

Contexts 002, 19, 35, 192, 205, 275 and 321 produced indeterminate bone fragments only

Table 8: Taxa by context (medieval)

Cut/fill	Feature	Cattle	Sheep/goat	Horse	Total
312/313	Ditch	2	1	-	3
316/317	Ditch	1	-	1	2
Total		3	1	1	5

Table 9: Taxa present (post-medieval to modern)

Cut/fill	Feature	Cattle	Sheep/goat	Pig	Horse	L.ung	Total
240/26	Ditch	1	-	1	1		3
240/30	Ditch	1	-	-	-	-	1
31/32	Ditch	5	1	-	-	1	7
243/244	Ditch	1	-	-	-	-	1
283/284	Ditch	-	-	-	1	1	2
303/305	Ditch	1	-	-	-	-	1
316/308	Ditch	1	1	-	-	-	2
316/310	Ditch	-	1	-	-	-	1
324/325	Ditch	-	-	1	-	-	1
333/339	Layer	-	1		-	-	1
Total		10	4	2	2	2	20

Table 10: Taxa present (undated)

Cut/fill	Feature	Cattle	Total
156/159	Ditch	2	2
206/207	Pit	2	2
Total		4	4

^{*} Partial skeleton consisting of pelvis, vertebra, radii, humerii, metacarpals and phalanges.

Ageing and metrical data

Table 11: Ageing and metrical data

Context	Taxa	Element	Side	Wear stage	Age class
51	Sheep/ goat	3rd molar	Right	Н	6-8years
85	cattle	3rd molar	Right	J	Old adult
98	Sheep/ goat	Mandible	Left	Е	2-3years
135	Sheep/ goat	3rd molar	Right	Н	6-8years
229	Sheep/ goat	Mandible	Left	C+	6-12month+
259	Cattle	Deciduous 4th premolar	Left	Α	0-1months
287	Cattle	Mandible	Right	1	senile
293	Sheep/ goat	Mandible	Right	I	8-10years
308	Sheep/ goat	Mandible	Left	Е	2-3years
317	Cattle	Deciduous 4th premolar	Left	B+	1-8months
325	Pig	mandible	Left	D	13-22months

Insufficient was present to allow a study of age at death patterns. Very little metrical data (4 measurements from a single bone) were available due to the nature of fragmentation and canid gnawing.

Sieved material

Table 12: Sieved material

Context	Sample	Weight(g)	Cattle	S/G	Pig	Total
73	8	5	1	1		2
155	18	29		1		1
Total	-	-	1	2		3

Sample 16 produced indeterminate fragments only.

Discussion

In all phases, cattle were the dominant taxa, followed by sheep/goat, then horse. Cattle was utilised from meat, traction and milk. Sheep/goat provided meat, milk and wool. Horse was used for transport and meat as well as acting as a status symbol.

Material from Iron Age/Roman contexts is the most plentiful and the most diverse. Deer are also present in this period. The taxa is represented by antler fragments only, these could the suggest collection of shed antlers as opposed to hunting, particularly as a burr was present. This material had been chopped and smoothed suggesting preparation for craft activities. Dog was also noted. Apart from uses such as hunting and guarding, dog meat was also eaten at this time. Although the assemblage is too small for body part analysis to be undertaken, the mixed nature of the assemblage both in terms of taxa and anatomical parts suggests the origin to have been kitchen waste.

Unfortunately little can be said for the medieval and post-medieval to modern phases due to insufficient data.

5.2 The ecofactual evidence by Mike Allen

Introduction

The extant flots and material picked from the residues (charcoal, and mollusc shells) of 21 samples were presented for assessment of the charred plants and charcoal remains and the land and fresh-water molluscs (Tables 13 and 14). The selected samples were from four main ditch features.

Bulk samples were processed by Northamptonshire Archaeology by standard flotation methods where flots and residues were retained on at least 0.5mm mesh. Unsorted flots were provided together with charcoal and shells recovered from the residues.

Aims and requirements

Each sample flot was assessed for charcoal and charred plant remains (Table 13), and land and fresh-water molluscs (Table 14). The aims of assessment were to determine the presence, quantity, quality and diversity of palaeo-environmental remains to aid in the understanding and interpreting the features, the activity and economy of the site, and to determine samples suitable for analysis of charred plant remains and charcoal analysis. The overall assessment aids in indicating the nature and significance of the data, and of the site's importance in its local, regional and national setting. Full proposals for analysis are suggested.

Assessment Methods

All flots, together with charcoal and snail shells recovered from the residues by the processors, were scanned under a ×10 - ×30 stereo-binocular microscope and the presence of charred plant and charcoal remains recorded in Table 13, and land and fresh-water snails in Table 14. The flots were sieved through 4mm sieves and all charcoal >4mm was added to charcoal retrieved from the residues. The volume of flot is the charred remains plus modern rooty material. Notes were made of the presence of charred remains and charcoal, but none were sorted. The tabulated results (Tables 13 and 14) are organised by feature, and sequentially along each feature.

Charred plant remains

Many of the unsorted flots contained a considerable proportion of modern uncharred roots which indicates the potential for biotic reworking and instruction of material from higher strata. The sorted flots were sparse in charred remains; little grain and charred weed seeds were present and no chaff was recognised. The only samples with charred grain were from the smaller curvilinear enclosure ditch.

Enclosure E1 main curvilinear ditch

The ten samples from seven sections were generally very sparse in charred remains of which many contained none. No charred grain, chaff or weed seeds were present. Where charcoal was present it was consistent large woody elements; no roundwood or twiggy elements were noted. Four samples contained charcoal >4mm, of which one sample (from re-cut of ditch group G2) contained large numbers (*c* 35 pieces) indicating discard and disposal in this ditch or *in situ* burning.

Enclosure E1 L-shaped enclosure ditch

The four samples from this feature were again sparse in charred remains. Only one sample from a primary fill (ditch group G3) contained very large numbers of charcoal (*c* 450 pieces) clearly indicating disposal of presumably domestic burnt material or burning *in situ*.

Enclosure E2 curvilinear enclosure ditch

Unlike other sampled features the smaller curvilinear enclosure ditch produced grain and weed seeds in two samples (from ditch group G2) indicating the presence of more domestic activities, crop processing and consumption, in this area. No chaff was recognised in the rapid assessment scan.

Enclosure E2 linear gully and ditch

The shallow linear gully produced few charcoal fragments.

Land and freshwater snails

Snails were preserved in most samples, and in analysable quantities (i.e. > c. 100 shells; Evans 1972) in a number of samples, and from every one of the four main features. Many assemblages contains the aquatic or amphibious (sensu Robinson 1988) species such as *Anisus leucostoma* and *Galba (Lymnaea) truncatula*. The terrestrial assemblages contains a mixture of marsh and open country species, with shade-loving and woodland species

Enclosure E1 main curvilinear ditch

Samples from the main curvilinear ditch included two short sections (section 70, context 71 and 73, and section 338, context 229, 230 and 341). Although some samples were sparse, most contained moderate to high numbers of shells. Virtually all assemblages indicated damp floodplain conditions, possibly seasonal from flooding, in a generally open landscape but with mesic (shady conditions) the detail of which require analysis to determine. The presence of more obligate woodland species (*Acanthinula, Clausilia, Cochlodina*) are hard to interpret from assessment.

Enclosure E1 L-shaped enclosure ditch

Most samples from this ditch contained very few shells (Table 14), but one sample (from context 236) contained high numbers. The assemblage, like that from the main curvilinear ditch, contained amphibious species (*Anisus* and *Lymnaea/Galba*) and species of mesic long herbaceous environs and those more typical in shadier even woodland conditions (*Clausilia*).

Enclosure E2 curvilinear enclosure ditch

As with the L-shaped enclosure ditch only one sample produced enough shells for statistically viable analysis (from context 119). The assemblage here differs from others in although indicating damp conditions (*Anisus*) most of the assemblage is suggestive of more open conditions rather than those of local shade seen in other features.

Enclosure E2 linear gully and ditch

No statistically viable samples were produced.

Table 13: Assessment of charred plant and charcoal remains from the processed bulk samples

F1 Main curvilinear ditch 259 32 n/r 0 / 15 - - - 4 Only charcoal	Analysis
75 Ditch 76 (1ry 9 n/r 0 / 3 - -/- 0 No charred remains 70	
75 Ditch 76 (1ry 9 n/r 0 / 3 - -/- 0 No charred remains 70 Ditch 73 8 n/r 0.5 / 150 - -/- 0 Only v fine charcoal 71 (1ry 7 n/r 0 / 80 - -/- 0 No charred remains 54 Ditch 59 5 n/r 2 / 20 - -/- 2 Few larger wood charcoal - or v 47 Ditch 48 6 n/r 5 / 30 - -/- 35 Charcoal all non-roundwood, so 278 Ditch 280 31 n/r 0 / 30 - -/- 0 No charred remains 338 Ditch 341 41 n/r 5 / 60 - -/- 8 Mainly large wood charcoal, son 340 40 n/r 0.5 / 3 - -/- 0 Some fine charcoal 339 (1ry 39 n/r 0.5 / 2 - -/- 3 Some v fine charcoal	
70 Ditch 73 8 n/r 0.5 / 150/- 0 Only v fine charcoal 71 (1ry 7 n/r 0 / 80/- 0 No charred remains fill) 54 Ditch 59 5 n/r 2 / 20/- 2 Few larger wood charcoal - or v 47 Ditch 48 6 n/r 5 / 30/- 35 Charcoal all non-roundwood, so >4mm 278 Ditch 280 31 n/r 0 / 30/- 0 No charred remains 338 Ditch 341 41 n/r 5 / 60/- 8 Mainly large wood charcoal, son 340 40 n/r 0.5 / 3/- 0 Some fine charcoal 339 (1ry 39 n/r 0.5 / 2/- 3 Some v fine charcoal fill)	
71 (1ry 7	
54 Ditch 59 5 n/r 2 / 20 - - / - 2 Few larger wood charcoal - or vood charcoal all non-roundwood, so represent the provided in the provided remains - or vood charcoal - or vood ch	
47 Ditch 48 6 n/r 5 / 30 / - 35 Charcoal all non-roundwood, so >4mm 278 Ditch 280 31 n/r 0 / 30 / - 0 No charred remains 338 Ditch 341 41 n/r 5 / 60 / - 8 Mainly large wood charcoal, son 340 40 n/r 0.5 / 3 / - 0 Some fine charcoal 339 (1ry 39 n/r 0.5 / 2 / - 3 Some v fine charcoal fill)	fine charcoal
338 Ditch 341 41 n/r 5 / 60 / - 8 Mainly large wood charcoal, son 340 40 n/r 0.5 / 3 / - 0 Some fine charcoal 339 (1ry 39 n/r 0.5 / 2 / - 3 Some v fine charcoal fill)	
340 40 n/r 0.5 / 3 / - 0 Some fine charcoal 339 (1ry 39 n/r 0.5 /2 / - 3 Some v fine charcoal fill)	
339 (1ry 39 n/r 0.5 /2 / - 3 Some v fine charcoal fill)	ne very fine charcoal
fill)	•
E1 L-shaped enclosure ditch	
210 Ditch 212 (1ry 26 n/r 3 / 15 / - 4 Very fine comminuted charcoal fill)	
268 Ditch 269 (1ry 35 n/r 5 / 125 / - 450 Much charcoal, mainly large working fill) roundwood and no twiggy elements	
234 Ditch 236 30 n/r 0 / 20 / - 0 No charred remains	
289 Ditch 293 36 n/r 1 / 5 / - 8 Mainly large wood charcoal, son	ne very fine charcoal
E2 Curvilinear enclosure ditch	•
152 Ditch 155 18 n/r 0.5 / 40 5 C / - 4 Many fine charcoal, some twigg	y elements P
96 Ditch 100 12 n/r 0.5 / 100 / - 2 Only v fine charcoal	
117 Ditch 119 15 n/r 3 / 20 / - 5 Some fine charcoal	
121 14 n/r 10 / 150 4 C / - 20 Larger wood charcoal, much fine elements	e charcoal inc twiggy P C
141 Ditch 144 16 n/r 2 / 30 / - 10 Mainly large wood charcoal frag	ments
156 Ditch 159 19 n/r 2 / 60 / - 3 Very few small pieces large woo	
E2 Linear gully and ditch	
106 Gully 107 13 n/r 0.5 / 30 / - 2 Many fine <4mm charcoal	

Table 14. Assessment of molluscs

Feature	Type	Context	Sample	Vol	Approx number	Molluscs	interpretation	analysis
E1 Main o	curvilinear	ditch						
246	Ditch	259	32	n/r	125	Aegopnella, Carychium, Vallonia, Discus, Cepaea	Locally mesic and shady	×
75	Ditch	76 (1ry fill)	9	n/r	30	Anisus, Carcyium, Lymnaea, Aegopinella, Vallonia, Cochlicopa, Acanthinula, Cepaea		×
70	Ditch	73	8	n/r	5	Cepaea, Vallonia		×
		71 (1ry fill)	7	n/r	250	Anisus, Carcyium, Aegopinella, Acanthinula, Lymnaea, Cochlodina, Clausilia, Cochlicopa, Cepaea	Wet floodplain, rich mesic vegetation, ?some woods	✓
54	Ditch	59	5	n/r	90	Vallonia, Pupilla, Vertigo, Helicella, Lymnaea	Damp conditions	✓
47	Ditch	48	6	n/r	30	Vallonia, Anisus, Trochulus, Lymnaea, Aegopinella, Punctum, Clausilia	Damp and possibly mescic conditions	×
278	Ditch	280	31	n/r	150	Vallonia pulchella, Vallonia, Aegopinella, Anisus, Lymnaea, Carychium, Cochlicopa, Punctum	Damp ground/floodplain meadow, local mixed shade	×
338	Ditch	341	41	n/r	100	Anisus, Lymnaea, Vallonia, Cochlicopa, Trochulus, Aegopinella, Cepaea frags		✓
		340	40	n/r	5	Anisus, Vallonia, Aegopinella, Lymnaea	Damp floodplain	✓
		339 (1ry fill)	39	n/r	30	Anisus, Carychium, Vertigo, Vallonia, Succinia/Oxyloma, Trochulus		✓
F1 L-shar	ped enclos					Troundid		
210	Ditch	212 (1ry fill)	26	n/r	0	-	-	×
268	Ditch	269 (1ry fill)	35	n/r	1	Aegopinella/Zonitoides		×
234	Ditch	236	30	n/r	250	Anisus, Carychium, Vallonia, Aegopienlla, Clausilia, Lymnaea, Vitrea, Cepaea	Wet floodplain, local shady vegetation environments	✓
289	Ditch	293	36	n/r	5	Pupilla, Vallonia, Aegopinella,	3	×
		osure ditch				, , , , , , , , , , , , , , , , , , ,		
152	Ditch	155	18	n/r	6	Vallonia, Clausialia, Lymnaea, Carychium, Cochlodina		×
96	Ditch	100	12	n/r	100	Anisus, Vallonia, Carychium, Helicella, Trochulus	Moist open seasonally dry floodplain	✓
117	Ditch	119	15	n/r	150	Anisus, Cepaea, Carychum, Trochulus, Cochliopa, Lymnaea, Aeopinella	Open moist mesic floodplain	✓
		121	14	n/r	4	Vallonia		×
141	Ditch	144	16	n/r	10	Trochulus, Vallonia, Lymnaea, Vitrina		×
156	Ditch	159	19	n/r	2	Discus (modern), Candidula	Modern and introduced (medieval and later snails)	×
E2 Linear	r gully and	ditch					,	
106	Gully	107	13	n/r	5	Vallonia, Punctum, Aegopinella	Dry long grassland	×

Summary

The charred plant assemblages are negligible and of limited palaeo-environmental significance or potential. The presence of charred grain and weeds seeds only occur in the smaller curvilinear ditch from Enclosure E2 (Table 13) suggesting domestic activity and occupation was centred there. Identification of these remains would provide some information about the nature of that activity and food resources.

The charcoal has the potential provide information about the fuel, the nature of the timbers and local woodland and of woodland management. However, the limited nature of the archaeological evidence for other activities might negate the value of analysis. The lack or sparse nature of charcoal in the remaining features suggests that all sampled features lay away from the main focus of burning activities, discard and settlement areas. The enclosures may, therefore, represent stock rather than settlement activity.

6 SUMMARY OF POTENTIAL AND RECOMMENDATIONS FOR FUTURE WORK

6.1 Archaeological features

The information from the site will add to the wider corpus of knowledge regarding Iron Age/Roman and medieval/post-medieval settlement around Hartwell and Salcey Forest. Although a number of non-intrusive surveys have been undertaken in the area, few archaeological excavations have previously been carried out.

6.2 Iron Age and Roman pottery

The dating of this assemblage of pottery should be, if possible, refined. A selection of sherds will be photographed/illustrated for the main report.

6.3 Medieval and post-medieval pottery

No further works are proposed and a report on the assemblage will be included in the final publication.

6.4 Ceramic building material

No further works are proposed and a report on the assemblage will be included in the final publication.

6.5 Querns

This group should be fully described and illustrated as they included complete items with a well defined chronology

6.6 Other finds

The large anvil and iron bar may merit being x-rayed in order to further characterise them, and in the case of the latter piece it might help in its identification. The anvil will be illustrated. The triangular clay weight is typical of its type and owing to its fragility is unlikely to have moved far so is perhaps an indication of settled activity on the site in the Iron Age including weaving. There is little merit in further work on the group.

6.7 Animal bone

Analysis has shown a small assemblage of common domesticates which is broadly compatible with other local Iron Age sites. For the later phases all that can be confirmed with any certainty is that the major domesticates were utilised at the site.

Inter phase comparisons cannot be made due to the small amount of material within each phase. Inter-site comparisons can only be made for the Iron Age and these are tentative due to the small size of the assemblage, but do suggest that the current site fits a local pattern for the taxa present and that the dominance of cattle is not unknown. The A43 (Deighton 2007) sites show a similar range of taxa, although sheep/goat was the dominant taxa. Again a similar taxonomic range and dominance of cattle seen at Mallard Close, Earls Barton (Deighton 2004). Finally a similar range of taxa is seen at Higham Ferrers (2004) and Newton Bromswold (2006).

No further works are proposed and a report on the assemblage will be included in the final publication. Where possible inter-site comparisons will be made.

6.8 Charred plant remains

The sampled ditches were sparse in charred plant remains; little charred grain and weed seeds and no chaff were present. This low level of cultural remains (grain etc.) tends to tends to suggest that most features lay away from the focus of any settlement activity and away from any areas of burning and discard of fire and domestic refuse. The curvilinear enclosure ditch, however, did indicate domestic activity with grain being recovered from two samples towards the northern end of the ditch, and suggesting this might have enclosed domestic buildings. Only these two samples provide any potential to examine the domestic activities, the crops harvested, processed and consumed on site. The fact that no chaff was noted, may suggest the presence of prepared grain for consumption rather than processing or storage.

Charcoal was present in moderate to large quantities in two or three samples. Where present though most was 4-<10mm and largely fragments branch, trunk and none roundwood elements. This suggests localised burning of small fires and bonfires, and the weathering of the charcoal before its discard, or disposal in the sampled features. The general lack of roundwood and twiggy elements precludes the acquisition of radiocarbon dates with short age-offsets. There is, however, the potential to identify the wood species used as firewood and timber to aid in providing the nature of the local woodland, and possibly to identify management (pollarding coppicing) as well as selection for burning.

A series of samples are suggested for analysis and these are identified on Tables 13 and 14. These include the identification of charred plant remains from the curvilinear ditch (samples 14 and 18), and of charcoal in the main dumps in each ditch (samples 6, 14 and 35).

6.9 Land and fresh-water molluscs

The terrestrial assemblages were far from clear-cut in that they contained an admixture of typical open country (*Vallonia*, *Vertigo*, *Pupilla*, *Helicella*) and marsh species (*Vallonia pulchella*, *Succinea/Oxyloma*) and possibly the obligatory marsh species (*Zonitoides nitidus*), but also species of mesic and woodland conditions, some of which are rupestral (*Discus rotundatus*, *Acanthinula acuuleata*, *Clauslia bibdenta*, *Cochlodina laminate* and *Aegopinella* cf. *nitidula*). These with *Carychium* spp. might suggest damp floodplain meadows but with either long herbaceous growth or even woody growth which might have been restricted to the sampled ditches, but

may have been a feature of the wider landscape. To determine whether the ditches contained standing water requires analysis.

Although there seems to be no phasing differences between the sampled ditches which provide an opportunity to examine changes over time, two sequences of spot samples were taken through the main curvilinear ditch. These provide some limited potential to examine changes in landscape and land-use over its period infilling. Section 338 provides the greatest potential to examine or detect any such changes.

The variations between more open and drier and woodier environments, may be a function of time, or local ditch environments. Analysis has, therefore, the potential to examine the intensive of human activity associated with each of the sampled ditches.

A selected analysis programme has the potential to examine, identify and define the variations between the wetter and drier areas, the open and more shady (?woody) areas, variations in local environments between four ditches which may relate to their use and function, and some limited examination of change through time.

The selection of seven samples for analysis of the land snails is given in Table 14, which potentially allow the identification of wetter *vs* drier areas, open *vs* more shady areas. The selection of these samples may be modified by further archaeological or phasing information.

7 REVIEW OF RESEARCH OBJECTIVES

7.1 General objectives

To mitigate the effect of the development on the existing archaeology, through preservation by record and publication of the results in a suitable academic journal

The archaeological works have succeeded in recording the archaeological remains on site. The programme of assessment works already undertaken and the proposed programme of further works and publication will enable the full realisation of this objective.

7.2 Specific objectives

To investigate the origin and development of domestic occupation

The artefactual assemblage derives from cut features, principally enclosure ditches. Assuming that the patterns of deposition reflect nearby activity within the enclosures then analysis of the distribution pattern has the potential to inform on the nature of occupation and whether any variation is apparent spatially and chronologically.

To investigate paleo-economy and industry through time

The palaeo-environmental information from the site is relatively poor. There is not enough animal bone to make inter-phase comparisons and there was very little charred grain. The small quantities that were found originated from E2, perhaps suggesting any crop processing was focussed in this area. No chaff was recovered, suggesting that the grain may have already been semi-processed off site.

To investigate the origin and development of the agricultural landscape

There was no evidence for any old field systems within the excavated areas.

The differences in the form of settlement between the late Iron Age and early Roman periods; are they typical of regional and national trends?

There is little apparent change in the settlement morphology subsequent to the conquest and activity declines rapidly after the mid 1st century, probably very quickly after the conquest. It is unlikely that further analysis of the material evidence will further refine the understanding of the settlement's evolution.

Is there evidence for settlement shift in the different periods? Why and when did it occur?

The activity appears to be relatively short-lived and the settlement was abandoned soon after the conquest, presumably with the former inhabitants moving elsewhere.

How does the material culture of the settlements change between the Iron Age and Roman periods? Is there evidence of different attitudes to artefacts and can the presence of structured deposits be detected (eg deliberate artefact deposition in Iron Age pits)?

There is little change in material culture. The beehive querns found near the terminal of one of the ditches of E1, may be suggestive of deliberate artefact deposition, indicating a move away from traditional Iron Age technologies towards more Romanized methods.

Can evidence of changing economic and social opportunity be detected between the Iron Age and later Roman period?

The disposal of the traditional Iron Age beehive querns may be indicative. The eventual abandonment of the settlement itself may itself be indicative of changing economic or social circumstances.

Is there evidence of different architectural traditions between the Iron Age and Roman periods? Can different uses of space be detected between the sites?

The above objective is difficult to address since the settlement did not continue much into the Roman period, certainly not for a significant enough amount of time for such a rural, utilitarian settlement to significantly adapt to such changes as were taking place. There was no definitive structural evidence found on site.

Is there any evidence of craft activity or industry, does this change through time?

A number of finds point to various craft/industrial activities being undertaken on or close to the site. The iron block anvil indicates that smithing was being undertaken in the vicinity, although little other evidence (such as the presence of hammerscale) was found for this. Block anvils were in use from the late Iron Age through into the Roman period. An unidentified iron bar may be related.

A triangular loomweight is probably Iron Age rather than Roman. The fragile nature of the clay loomweight probably indicates that weaving was being undertaken close by.

Is there any evidence for the Iron Age and Roman settlements position within the local and regional social structure, relating them to larger settlements, villas or towns?

The apparent density of Iron Age and Roman settlement in this area is somewhat more sparse than elsewhere in the county, in particular in the Nene Valley. However, this may in part be due to the wooded landscapes nearby, which preclude the use of aerial photography to identify sites.

The settlement is about equidistant from the large Roman settlements at Duston and Towcester (12km and 10km respectively), both of which had Iron Age antecedents. The settlement lies about 1.3km from a possible road, although its route is not really understood.

The presence of any field systems may allow some of the issues raised by Willis (2006) to be addressed: Evidence of agricultural specialism and changes in practices through time, (eg changes in field size and layout); evidence of change or continuity in the form and arrangements of field systems; can our understanding of how field systems were used be improved by studying the artefactual and paleoenvironmental evidence from field systems?

The absence of field systems within the excavated areas precludes addressing these aims.

7.3 Palaeo-environmental objectives

Evidence of arable farming methods derived from charred plant remains: Increase in disposal of spelt wheat chaff and the introduction of corn driers are indicative of changes in cereal production and bulk processing, (analysis can provide evidence of changes in corn drier function).

Evidence of arable expansion from pollen bearing deposits to complement the cereal remains.

Evidence for use of fodder.

Analysis of weed floras and weed ecology to provide evidence of expansion of agriculture and source of cereals.

Investigate the timing of the increase in the variety of foods available, including imports and introduced plant foods.

There were sparse charred seeds and no chaff present within any of the samples and therefore the above objectives have not been resolved from the palaeo-environmental remains found during this excavation.

8 RESOURCES AND PROGRAMME

8.1 Work completed

All work on the consolidation of the site achieve, artefactual and ecofactual processing, basic site phasing, the assessment evaluation of finds and ecofacts, preparation of assessment reports and updated project design have been completed.

8.2 Future works

In order to fulfil the potential of the archaeological features and the artefactual and ecofactual assemblages a programme of future works will be undertaken. This will maximise the potential of the archaeological resource to fulfil the research objectives, and will lead to the production of a final report that will form the basis of the publication.

Table 15: Post-excavation analysis task list

Tasks	•	Personnel
1.	Introduction and background	Charlotte Walker
2.	Structural site narrative	Charlotte Walker
3.	Iron Age and Roman pottery	Andy Chapman
4.	The querns	Andy Chapman
5.	Other finds	Tora Hylton
6.	Charred plant and molluscan remains	Mike Allen
7.	Illustrations	NA drawing office
8.	Integration of specialist reports	Charlotte Walker
9.	Report digest and discussion	Charlotte Walker
10.	Editing	Andy Chapman
11.	Preparation of research archive	Theodora Anastasiadou-Leigh

8.3 Programme

The programme will commence once the Assessment Report and UPD has been approved by the Assistant County Archaeological Officer.

Table 16: Post-excavation analysis programme

Task / month	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

9 REPORTING, PUBLICATION AND ARCHIVE

9.1 Reporting

A full site report will be prepared by Northamptonshire Archaeology. This will form the basis of a short article to be submitted to the journal of the Northamptonshire Archaeological Society. The proposed structure of the report is as follows:

1 INTRODUCTION

2 THE LATE IRON AGE/EARLY ROMAN ACTIVITY

2.1	Enclosure	1
2.2	Enclosure	2

2.3	The Iron Age pottery	by Andy Chapman
2.4	The Roman pottery	by Rob Perrin
2.5	The other finds	by Tora Hylton
2.6	Querns	by Andy Chapman
2.7	Animal bone	by Karen Deighton
2.8	The ecofactual evidence	by Mike Allen

3 THE LATE MEDIEVAL AND POST-MEDIEVAL SETTLEMENT

- 3.1 The late medieval activity (14th-16th centuries)
- 3.2 Post-medieval/modern activity (18th-19th centuries)
- 3.3 Medieval and post-medieval pottery by lain Soden
- **3.4** Medieval/post-medieval building material by Pat Chapman
- 3.5 Other post-medieval finds by Tora Hylton
- **3.6** Animal bone by Karen Deighton
- 3.7 The ecofactual evidence by Mike Allen

4 DISCUSSION

Each section will be accompanied by appropriate illustrations. The introductory sections will include figures showing the location of the site and its topographic and geological context. Within the narrative text illustrations will include overall phase plans, detailed drawings of individual features or feature groups, photographs and finds illustrations. The discussion will include figures showing the archaeological context of the works in relation to other archaeological investigations discussed in the text and other figures as necessary

9.2 Archive

A microfilm copy of the site archive and the site narrative will be made to RCHME standards and submitted to the National Archaeological Record. The archive will comprise all written, drawn and photographic records, and all material finds and processed sample residues recovered from the watching brief, trial trench evaluation and excavation phases. All records and finds generated by the excavation will be compiled in a structured archive in accordance with the guidelines of Appendix 3 in the English Heritage procedural documents, *Management of Archaeological Projects* (EH 1991) and *MoRPHE* (EH 2006). Site details will be entered onto the OASIS online database

9.3 Site records

Table 17: Site records

Туре	Quantity Area 5
Plans	2
Sections	68
Contexts	348
Colour Slides	3.5 x 36 exp. films
Monochrome negatives	3.5 x 36 exp. films
Digital format	133

9.4 The finds

Table 18: Finds

Material	Quantity A5
Iron Age pottery	290 sherds
Roman pottery	1426 sherds
Medieval/post-	82 sherds
medieval pottery	
Worked flint	4 items
Brick	3.1kg
Burnt clay	872g
Tile	700g
Small finds	32 items
Animal bone	11.6kg
Flots, charcoal	21 flots

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