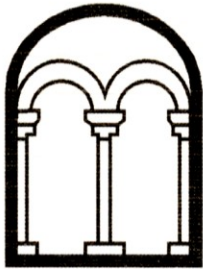


**BANBURY LANE  
KING'S SUTTON  
NORTHAMPTONSHIRE**

**ARCHAEOLOGICAL AREA EXCAVATION**

**Albion**  
archaeology



**BANBURY LANE  
KING'S SUTTON  
NORTHAMPTONSHIRE**

**ARCHAEOLOGICAL AREA EXCAVATION**

Project: BK1982

OASIS ID: albionar1-153647

Document: 2016/69

Version: 1.1

7th December 2016

Compiled by	Approved by
David Ingham	Drew Shotliff

Produced for:  
CgMs Consulting Ltd

On behalf of:  
CALA Homes (Midlands) Ltd



---

## ***Contents***

---

<b>Preface</b>	Error! Bookmark not defined.
<b>Acknowledgements</b>	<b>4</b>
<b>Version History</b>	<b>4</b>
<b>Structure of this Document</b>	<b>4</b>
<b>Key Terms</b>	<b>5</b>
<b>Non-technical Summary</b>	<b>6</b>
<b>1. INTRODUCTION</b>	<b>7</b>
1.1 Project Background	7
1.2 Site Location and Geology	7
1.3 Archaeological Background	7
1.4 Project Objectives	7
1.5 Archive	8
<b>2. CONTEXTUAL RESULTS</b>	<b>9</b>
2.1 Phase 1: Pre-Iron Age (Fig. 4)	9
2.2 Phase 2: Middle Iron Age (Figs 5 and 6)	9
2.3 Phase 3: Medieval (Fig. 2)	12
2.4 Phase 4: Undated (Fig. 7)	12
2.5 Phase 5: Modern	13
<b>3. POTTERY</b>	<b>14</b>
3.1 Introduction	14
3.2 Phase 1: Pre-Iron Age	14
3.3 Phase 2: Middle Iron Age	14
3.4 Phase 4: Undated	15
3.5 Type Series	15
<b>4. ANIMAL BONE</b>	<b>17</b>
4.1 Introduction	17
4.2 Results	18
4.3 Discussion	21



<b>5. CHARRED PLANT REMAINS</b>	<b>27</b>
5.1 Introduction	27
5.2 Methodology	27
5.3 Results	27
5.4 Summary	31
<b>6. DISCUSSION</b>	<b>32</b>
6.1 Settlement morphology and chronology	32
6.2 Economy and environment	33
6.1 Ritual activity	34
<b>7. BIBLIOGRAPHY</b>	<b>35</b>

### ***List of Tables***

<b>Table 1:</b> Summary of fabric types	<b>14</b>
<b>Table 2:</b> Phase 2 pottery quantification	<b>15</b>
<b>Table 3:</b> Animal bone preservation by Phase	<b>17</b>
<b>Table 4:</b> Animal bone species counts by Phase	<b>17</b>
<b>Table 5:</b> Phase 2 animal bone species counts by Group	<b>18</b>
<b>Table 6:</b> Phase 2 element counts (NISP)	<b>22</b>
<b>Table 7:</b> Phase 2 element counts (MNE)	<b>23</b>
<b>Table 8:</b> Cattle and sheep/goat mandibular tooth ageing data	<b>23</b>
<b>Table 9:</b> Phase 2 cattle and sheep/goat epiphyseal fusion data	<b>24</b>
<b>Table 10:</b> Common measurements of cattle and horse	<b>25</b>
<b>Table 11:</b> Charred plants remains	<b>28</b>

### ***List of Figures***

<b>Figure 1:</b> Site location	<b>39</b>
<b>Figure 2:</b> Phased all-features plan	<b>40</b>
<b>Figure 3:</b> Plan of excavated features in relation to adjacent watching brief (ASC Ltd 2004) and geophysical survey (Malone 2013)	<b>41</b>
<b>Figure 4:</b> Phase 1 (Pre-Iron Age) — plan and selected section drawings	<b>42</b>
<b>Figure 5:</b> Phase 2 (middle Iron Age) — plan of all features	<b>43</b>
<b>Figure 6:</b> Phase 2 (middle Iron Age) — selected section drawings	<b>44</b>
<b>Figure 7:</b> Phase 4 (undated but probably post-medieval) — plan of all features	<b>45</b>
<b>Figure 8:</b> Illustrated pottery. Scale 1:4	<b>46</b>

### ***List of Plates***

<b>Plate 1:</b> General photograph of site looking north, with roundhouse G6 in foreground	<b>47</b>
<b>Plate 2:</b> Dog skeleton in the base of ditch G14. Scale 0.4m	<b>47</b>
<b>Plate 3:</b> View of hearth G33, looking north-west. Scale 1m	<b>48</b>



## Preface

*Every effort has been made in the preparation and submission of this document, and all statements are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.*

*Albion Archaeology*

*St Mary's Church*

*St Mary's Street*

*Bedford*

*MK42 0AS*

*☎: 0300 300 8141*

*Fax: 0300 300 8209*

*E-mail: [office@albion-arch.com](mailto:office@albion-arch.com)*

*Website: [www.albion-arch.com](http://www.albion-arch.com)*

## Acknowledgements

*Albion Archaeology is grateful to CgMs Consulting Ltd, who commissioned the work on behalf of Banner Homes Ltd (subsequently CALA Homes (Midlands) Ltd). The site was monitored on behalf of the Local Planning Authority by Lesley-Ann Mather (Archaeological Officer, Northamptonshire County Council).*

*This report has been prepared by David Ingham (Albion Archaeology), with contributions by Jackie Wells (Albion Archaeology: pottery and fired clay), Emily Edwards (freelance: early prehistoric pottery), John Giorgi (freelance: charred plant remains) and Mark Maltby (Bournemouth University: animal bone). The structural illustrations were created by David Ingham, with finds illustrations by Mike Trevarthen (freelance).*

*Fieldwork was managed by Rob Wardill (Project Manager) and supervised by Kathy Pilkinton (Archaeological Supervisor), with investigation and recording carried out by Ben Carroll, Gary Manning, Slavomir Utrata, Allan King, Adam Williams and Adrian Woolmer. Processing of the ecofact samples was undertaken by Slavomir Utrata and Ben Carroll, with initial processing of the finds carried out by Jackie Wells. Site drawings were digitised by Joan Lightning (Albion Archaeology). All Albion Archaeology projects are under the overall management of Drew Shotliff.*

## Version History

<i>Version</i>	<i>Issue date</i>	<i>Reason for re-issue</i>
<i>1.0</i>	<i>31/3/2016</i>	<i>n/a</i>
<i>1.1</i>	<i>7/12/2016</i>	<i>revised following comments from NCCAA</i>

## Structure of this Document

Section 1 details the background to the project and outlines its objectives. Sections 2 to 5 provide the results of the fieldwork and subsequent analysis, while Section 6 offers a broader discussion of what was found. Section 7 is a bibliography.



## **Key Terms**

The following terms or abbreviations are used throughout this document:

Client	CgMs Ltd on behalf of CALA Homes (Midlands) Ltd
HER	Historic Environment Record
NCCAA	Northamptonshire County Council's Archaeological Advisor



## **Non-technical Summary**

*Albion Archaeology carried out a c. 1.2ha excavation in May–July 2013 on behalf of CgMs Consulting Ltd, prior to residential development by Banner Homes Ltd (subsequently CALA Homes (Midlands) Ltd). This followed the discovery of Iron Age enclosures and possible roundhouses during evaluation of the site, and adds to the pattern of Iron Age settlement originally identified during salvage excavation immediately to the south-west.*

*The earliest activity identified dates back possibly as far as the late Neolithic, with two large boundary ditches, but the earliest definitive evidence of settlement comes from a series of square and penannular early–middle Iron Age enclosures, whose boundary ditches had repeatedly been adapted or re-dug. The largest of these enclosures measured 20m square internally, and the general lack of internal features suggests that they were used for corralling livestock. Human habitation is represented by at least two roundhouses, measuring 13–14m in diameter and facing south-east. The distribution of pottery and animal bones, as well as the physical relationships between the recorded features, suggests that the focus of activity shifted gradually westwards over the course of perhaps a century or more.*

*Several lines of post-holes, the longest running for c. 50m, are likely to be agricultural in origin, perhaps forming fence lines. Their date is unknown, but they may have been contemporary with a timber building at the opposite end of the site, which contained a stone-built hearth. The date of this is also unknown, but plant remains found in the hearth indicate at least a post-Roman date.*



## 1. INTRODUCTION

---

### 1.1 *Project Background*

Planning permission was granted for a housing development at Banbury Lane, Kings Sutton, Northamptonshire (NGR SP 496 364). The development comprised the construction of new buildings and provision of services on former pasture west of Banbury Lane. As the development area lay within an archaeologically sensitive area, a condition was attached to the planning permission requiring the implementation of a scheme of archaeological investigation as a consequence of the development.

Following an evaluation of the development area that comprised geophysical survey and trial trenching (Clark and Walford 2009), Northamptonshire County Council's Archaeological Advisor (NCCAA) recommended that archaeological excavation and recording of the area should take place prior to development. This was undertaken by Albion Archaeology on behalf of CgMs Consulting Ltd, who were acting for Banner Homes Ltd (subsequently CALA Homes (Midlands) Ltd). The works complied with the standards and methods prescribed in a Written Scheme of Investigation (Albion Archaeology 2012), and were monitored by the NCCAA. The results of the archaeological fieldwork were preliminarily assessed in order to determine their significance and potential for further analysis (Albion Archaeology 2014), leading ultimately to this report.

### 1.2 *Site Location and Geology*

The site lies to the east of the River Cherwell (Fig. 1) on the slightly higher ground of the first gravel terrace at approximately 85m OD. To the north it is bounded by hedges and agricultural land, while to the south is a hedged boundary along the rear of back plots of properties on Wales Street. The eastern boundary is formed by Banbury Lane, where a variety of 20th-century properties lie along the east side of the road facing the development area.

In terms of solid geology, the site lies close to the boundary between outcropping Marlstone of the Middle Lias series and the Lower Lias sands and clays of Lower Jurassic date exposed by the River Cherwell. Soil types are generally clayey loams.

### 1.3 *Archaeological Background*

The full archaeological background to the site has been set out in a desk-based assessment (Dawson 2009).

Archaeological evaluation of the development area (Clark and Walford 2009) identified a settlement comprising a number of ditched enclosures and possible roundhouses, which appeared to date to the middle to late Iron Age. Similar remains, as well as a droveway and hearth or kiln, were recorded during a salvage excavation immediately south-west of the development area (ASC Ltd 2004; Fig. 2).

### 1.4 *Project Objectives*

The overall purpose of the archaeological works was to determine and understand the nature, function and character of the site in its cultural and environmental setting, and to prepare and disseminate a report that fully describes the findings.





Following assessment of the results of the open-area excavation, a series of specific questions were formulated to be addressed by the analysis programme:

- What are the date, nature and extent of settlement activity identified within the development area? (Haselgrove *et al.* 2001, 10)
- How is the transition from the late Bronze Age / early Iron Age to early–middle Iron Age represented? (Knight *et al.* 2012, 58; Palmer 2002, 2–3)
- How does the site at King’s Sutton relate to, and compare with, contemporary sites in the surrounding area? (Haselgrove *et al.* 2001, 11–12; Palmer 2002, 10–11; Knight *et al.* 2012, 63)
- What was the settlement’s social and economic basis, including its arable/pastoral balance? (Cooper 2006, 106–7; Palmer 2002, 6–7)
- What information does the faunal assemblage reveal about husbandry practices, diet, and the utilisation of wild species? (Cooper 2006, 106–7)
- What indicators survive for burial ritual, and how does the evidence relate to national and regional patterns? (Haselgrove *et al.* 2001, 12; Palmer 2002, 8)
- Can scientific dating be used to refine the chronological sequence of the Early–Middle Iron Age remains? (Palmer 2002, 10; Cooper 2006, 129–9)
- Can the development of local early–middle Iron Age ceramics be refined or augmented? (Knight *et al.* 2012, 58–61)

### 1.5 **Archive**

The archive generated by the open-area excavation and subsequent post-excavation analysis will be deposited at the proposed new Northamptonshire Archaeological Resource Centre.



## 2. CONTEXTUAL RESULTS

---

The excavation at Banbury Lane, King's Sutton primarily revealed part of a middle Iron Age settlement (Phase 2; Fig. 2). There were also two earlier ditches (Phase 1), as well as evidence of medieval ploughing (Phase 3), and a range of features that are essentially undated but which probably relate to post-medieval activity (Phase 4). More of the Iron Age settlement was revealed to the west during a watching brief and by a geophysical survey (Fig. 3).

### 2.1 Phase 1: Pre-Iron Age (Fig. 4)

Two ditches were revealed that belonged to a significantly earlier phase of activity than the Phase 2 middle Iron Age settlement, although their precise date is uncertain. East–west ditch G1 contained seven sherds of late Neolithic Grooved Ware pottery, though all seven sherds came from a single segment, and the possibility that they were residual cannot be ruled out. North–south ditch G9 was stratigraphically earlier than the Iron Age settlement of Phase 2, but the only artefact recovered from it was a single abraded sherd of middle Iron Age pottery that is likely to have been residual. It is unclear whether these two ditches were contemporaneous, as the junction between them lay beyond the excavated area.

G1 had a distinctive V-shaped profile, measuring 1.6–2.3m wide and 1–1.3m deep (Fig. 3: a). The concentration of redeposited natural clay in the upper fill and the absence of later pottery suggest that it was deliberately backfilled prior to the Iron Age occupation of the site. G9 was re-cut at least twice along its length, with a profile that varied from a shallow U-shape that was 0.35m deep near the centre of its length (Fig. 3: c), to having steep, convex sides and measuring up to 1.2m or more deep at the northern and southern extents (Fig. 3: b). The boundary also increased in width from a minimum of 0.9m in the south to 2.1m at the north end.

### 2.2 Phase 2: Middle Iron Age (Figs 5 and 6)

This phase represents the main period of occupation at the Banbury Lane site. The remains of at least two roundhouses were replaced by a sequence of square and penannular enclosures, characterised by heavy re-cutting of the original enclosure form. The entrances to both the enclosures and the roundhouses predominantly faced south-east. The finds assemblage suggests that the main occupation of the site was limited to the middle Iron Age, with a gradual shift in the focus of activity from east to west.

#### 2.2.1 Roundhouses

The remains of up to four roundhouses were present. G6 represents the most complete circle, despite being truncated by G11–13 and G19. It measured *c.* 14m in diameter with a south-east facing entrance 3.6m wide. The gully itself was up to 0.3m deep, reaching its greatest depth on the south-west side and at the terminals. A similar gully situated on the north-east side (G22) was possibly also associated with the roundhouse, perhaps representing a fence or windbreak. There is no evidence to indicate whether any of the features within the area defined by the roundhouse gully were contemporary with it.

To the south-west of G6, the heavily truncated remains of a possible second roundhouse (G7) were revealed, measuring *c.* 13m in diameter. The entrance appears to have faced eastwards, although only the northern terminus survived intact. In fact, there were three adjacent terminals measuring up to 0.8m wide and 0.3m deep, suggesting re-cutting at this



point. The gully remains on the south side were no more than 0.1m in depth. Two shallow circular pits and a post-hole may have been associated with the roundhouse.

A group of oval post-holes, on average 0.4m wide, 0.5m long and up to 0.3m deep, may have formed a third roundhouse (G8). The distinctive pairs of post-holes on the north side appeared to form a curve, although they cannot conclusively be distinguished from the lines of undated post-holes in Phase 4.

A shallow curving gully G23, no more than 0.1m deep, was revealed to the south of the other roundhouses and may represent the heavily truncated remains of a fourth roundhouse.

### 2.2.2 Four-post structures

A structure comprising four U-shaped post-holes (G2), 0.3–0.4m in diameter and up to 0.45m deep, lay to the south-east of the main area of Iron Age settlement. The easternmost post-hole contained a large amount of pottery dated to the middle Iron Age. The post-holes formed a square *c.* 2.8m across.

A second four-post structure (G3) was revealed to the south west. The post-holes themselves were less substantial, at up to 0.2m in depth. The square measures *c.* 2.4m across. Four similar post-holes (G4) located directly to the south-west did not form an obvious structure. Although it contained no finds, the four-post structure and adjacent post-holes match typologically the dated structure G2.

### 2.2.3 Square/rectangular enclosures

Three small, square enclosures (G13–15) occupied the central part of the stratigraphic sequence in Phase 2.

The ditch that formed enclosure G13 was re-cut at least six times, following a slightly different route on each occasion. It was mostly small, measuring no more than 0.4m deep; however, in the south corner and to a lesser extent the east, the ditch became significantly wider, acquiring a V-shape and measuring up to 0.9m deep. This deepening of the ditch may have been designed to allow it to act as a sump on the downslope side of the enclosure. Several terminals to the ditch and its re-cuts were observed, but no consistent entrance was apparent. It is likely that there was originally an entrance on the south-east side, in common with most of the surrounding enclosures, but any evidence for this was destroyed by ditch G19. Internally, the enclosure measured *c.* 19m x 14m. Its ditch was generally filled with a dark silty material, and re-cuts were often difficult to distinguish in section, suggesting rapid infilling.

A sub-square enclosure G15 was located directly to the west of G13. It measured *c.* 18m x 18m internally, with a south-east facing entrance that was 3.2m wide. It was made up of a shallow concave gully up to 0.2m in depth and possibly represents an earlier phase of G16.

A similar sub-square enclosure G14 was partially revealed to the west, the remainder of which was revealed in the geophysical survey carried out prior to trial trenching (Clark and Walford 2009). The ditch had a maximum width of 1m and measured 0.3–0.5m in depth, becoming deeper and more prominently V-shaped at the terminals. The enclosure had an internal measurement of *c.* 14 x 13m, with a *c.* 4m wide entrance which, in contrast to most of the other enclosures, faced south-west.



A final sub-square enclosure G20 appears stratigraphically to have been the latest in the series of enclosures in this phase. There was evidence of continued clearing-out and re-cutting similar to G13, yet the ditches themselves were significantly more substantial, the deeper re-cuts reaching a depth of 0.9m along their entire length. The fill of the ditches frequently contained large fragments of ironstone, particularly the latest deep re-cut, with a greater concentration at the terminals. An abraded left humerus shaft from a sub-adult human was also recovered from the enclosure ditch. Three shallow gullies (G21) appeared to close off the entrance to the enclosure towards the end of its use.

#### 2.2.4 Penannular enclosures

Two penannular enclosures lay on either side of G13. The most substantial of these (G16) was essentially a re-cut of sub-square enclosure G15 and was defined by a V-shaped ditch with a flat base, measuring up to 0.6m deep and 1.75m wide. It was heavily re-cut along its eastern arm, with four visible terminals and an entrance facing south-east. Two shallow, concave ditches (G43) formed auxiliary enclosures surrounding G16; these may have been later extensions, but were probably contemporary and worked in conjunction with G16. Similarly, two sets of ditches (G44) branched off the south-west side of enclosure G16. They appeared stratigraphically to predate the final re-cut of G16, but they probably worked as part of the same enclosure system, perhaps linking G16 with enclosure G20.

A shallow gully and pit (G17) were revealed within enclosure G16. They contained no dating evidence, but are likely to have been associated with this series of ditches.

At what appears to have been the eastern boundary of occupation, marked by G10, was a small D-shaped enclosure. An initial shallower gully (G11) measured 0.25–0.5m deep, with an entrance to the north-west. An internal gully, 0.5m deep, may also have been associated with this phase of use. Gully G11 was later replaced by a more substantial ditch (G12), up to 1.4m wide and 0.35–0.55m deep. The deeper south and south-east sides of the enclosure contained a high concentration of closely packed ironstone. Given their closely packed nature and the steep sides of the ditch at this point, they may have served as a causeway into the enclosure, as no entrance was visible elsewhere. Internally, the enclosure measured *c.* 11m across.

#### 2.2.5 Boundary ditches

The stratigraphically earliest boundary in this phase, G42, was aligned NW–SE and crossed the full length of the site. The ditch was generally V-shaped and increased in depth from *c.* 0.4m at the northern end to *c.* 1.1m to the south. Evidence of an earlier phase of the ditch was uncovered at the southern edge of site, where the later ditch began to turn eastward.

Boundary G42 was replaced at its northern end by a larger ditch (G10) that turned through 90 degrees and appears to have formed a southern boundary to the settlement area in this phase. The NW–SE section, generally V-shaped with a flat base, decreased from *c.* 3.3m wide and at least 1.2m deep at the northern end of site, to 1.2m in width and 0.5m deep before its turn. The NE–SW section primarily consisted of a smaller V-shaped ditch and its re-cut, 0.2–0.5m deep, although there was also evidence of small gullies running parallel to the two main ditches, perhaps marking an earlier phase of boundary.



A further NW–SE aligned ditch (G19) was stratigraphically later than many of the enclosures in this phase. It had a wide but shallow profile that was 0.5m deep and 2.5m wide in the east, increasing to 0.9m deep and 5m wide at the western end. The upper fill consistently contained a large amount of redeposited clay, in contrast to the largely dark, silty deposits representing the disuse of many of the ditches on site, which is suggestive of deliberate backfilling. The comparative lack of artefacts recovered and its stratigraphic position within this phase all suggest a short period of use.

### 2.2.6 Isolated ditches, pits and post-holes

The remains of a series of small curving ditches were evident in the north corner of the site (G24), which generally proved to have shallow V-shaped profiles between 0.2m and 0.5m deep. The geophysical survey suggests that this pattern of ditches continues to the north-west. This corner of site also contained small sections of isolated shallow gullies (G25), probably truncated, which tended to be orientated broadly either north–south or east–west.

A number of shallow circular pits were revealed (G26), typically 0.8m in diameter and 0.2m deep. They were filled with dark silty material and flecks of charcoal. A small area of shallow pitting G31 south of the centre of occupation also produced a small amount of pottery dating to this period, while a similar pit to the west (G18) produced a small amount of burnt animal bone. Larger volumes of pottery were recovered from pits G5, which constituted a group of four shallow, oval pits in the centre of the site.

A number of shallow post-holes and pits containing no dating evidence were scattered across the site (G30). These were probably associated with the Iron Age enclosures; however, there is no obvious association with any one enclosure and their function is unclear.

## 2.3 Phase 3: Medieval (Fig. 2)

Medieval ridge and furrow ploughing was evident prior to machining of the site, aligned NE–SW in the north half of site and NW–SE in the south. However, the depth of subsoil, up to 0.6m in places, meant that very few furrows remained after machining. The shallow remains in the south corner of site (G39) were where the subsoil was thinnest; this suggests that the furrows had been dug through the subsoil, indicating a pre-medieval date for its formation.

## 2.4 Phase 4: Undated (Fig. 7)

A number of artefactually undated features were present, the majority of which are thought to date to the post-medieval period. This is due partly to their stratigraphic relationships, partly to their typological form, and partly to their lack of datable pottery: the more recognisably post-medieval features such as stone-built hearth G33 contained no datable pottery, whereas the more typologically Iron Age features tended to contain at least a small amount.

The remains of a building and associated enclosures (G34) included the remnants of a stone-built hearth G33 within the probable timber-framed building, and a number of irregularly distributed post-holes (G35). Burnt clay and daub were recovered from the enclosure and the building. The remains of a further possible building (G36) and scattered post-holes (G37) were located further west. Although no datable artefacts were recovered from any of these features, the charred plant assemblage from hearth G33 is at least indicative of a post-Roman date (see Appendix 5).



A series of intercutting shallow ditches (G32) aligned NW–SE were present in the eastern corner of site. These probably related to a post-medieval field system, and their alignment suggests an association with G33–34.

Several lines of post-holes G29 were revealed in the northern corner of site, the longest of these running *c.* 50m on a NW–SE alignment. Although they contained a few small sherds of Iron Age pottery, these are thought to be residual. The post-holes are believed to be agricultural in origin, explaining partially the lack of contemporary dating evidence; they may have formed fence lines, but their precise nature is uncertain. A more amorphous group of pits on the same alignment (G28) may have been associated with tree planting or cultivation. Two further pits on the same alignment were significantly larger (G27), with the largest producing three sherds of middle Iron Age pottery. However, their alignment with post-holes G29 suggests that they were contemporary.

Three NE–SW gullies G38 produced no finds. They were shallow and showed signs of truncation across the site, and are thought to have been associated with field drainage. Two shallow ditches G45, aligned NW–SE, may have had a similar function.

## **2.5 Phase 5: Modern**

There were a number of modern features across the site (G40), including a six-post building, geological test pits and land drains.



### 3. POTTERY

#### 3.1 Introduction

The assemblage totals 367 sherds from approximately 202 different vessels (4.4kg), the majority deriving from Phase 2 settlement features. Iron Age pottery and a small quantity of late Neolithic ware are present. Although no pottery was collected from medieval agricultural deposits, a sand-tempered body sherd of probable medieval date occurred intrusively in an Iron Age boundary ditch.

#### 3.2 Phase 1: Pre-Iron Age

Ditch G1 produced seven abraded sherds (144g) of Durrington Walls-style Grooved Ware, representing a single vessel. These include two refitting sherds and are decorated with the vertical, raised cordons typical of this ware type, which have been moulded from the body of the sherds rather than applied. The fabric is a well fired, well wedged clay containing rare to sparse flint and ferruginous pellet inclusions. The external faces appear to have been given a sparse sand coating.

#### 3.3 Phase 2: Middle Iron Age

Phase 2 settlement features yielded 350 sherds (4.3kg). A mean sherd weight of 12g slightly exceeds the typical mean sherd weight of less than 10g for Iron Age assemblages in the region (Chapman 2010, 12). Single sherds range in weight between 1g and 128g. Few vessels are represented by more than one sherd, and there are no complete profiles.

##### 3.3.1 Fabrics

In common with many Iron Age sites in the county, shelly wares are dominant (*cf.* Kidd 2004, 49), totalling 85% of the assemblage by sherd count and 88% by weight. They comprise a number of variants containing combinations of fine or coarse shell, sand or grog inclusions. Coarse shelly fabrics, characteristic of thicker-walled vessels, are prevalent within this group. More delicate sherds representing smaller, finer vessels contain sparser, well sorted shell inclusions. The remaining wares contain quartz sand, organic matter and grog (Table 1). While the latter represents a deliberate inclusion, the quartz and organic material may have occurred naturally in the clay. Vessels are generally well made and occur in both oxidised and reduced examples.

Fabric Code*	Description	% Sherd	%Wt.
SHCC	Coarse shell	32.0	23.9
SHCF	Fine shell	5.5	3.6
SHCF/QUMF	Sandy fine shell	15.8	12.8
SHCC/QUMM	Sandy coarse shell	14.6	29.0
SHMF/GRMF/QUSF	Shell, grog and sand	16.8	18.8
GRSM	Grog	4.9	3.2
GRSM/QUSF	Grog and sand	4.0	5.4
QUMF	Sand	3.7	2.6
QUMF/VEMM	Sand and organic	2.7	0.7

\* Recorded in accordance with PCRG Guidelines (2011)

**Table 1:** Summary of fabric types

##### 3.3.2 Forms (Fig. 8)

Diagnostic forms are poorly represented, with only a small number of vessels retaining rim to shoulder profiles. Most are variants of slack- or round-shouldered, fairly open vessels



with either ovoid or globular profiles. Feature sherds comprise simple upright, rounded or flat rims, some with internal bevelling; one T-shaped rim; and single examples of a flat base and a small lug or handle. Vessel wall thickness varies between 6mm and 18mm. Rim diameters typically span 120–220mm, with a coarse shelly outlier at 360mm. Although the assemblage is dominated by plain body sherds, three fine ware examples have a burnished finish. Seven vessels are scored, and two have impressed fingernail and fingertip decoration restricted to rim tops and neck. One vessel (Fig. 8: P3) has a tooled curvilinear and dot decoration (*cf.* Knight 2002, 131) and probably represents one of the latest vessels in the assemblage.

### 3.3.3 Deposition

Pottery was collected from ninety-five ditch segments and/or discrete features, 90% of which yielded less than 100g. Enclosure and boundary ditches represent the main focus of deposition, containing 67% of the assemblage (by sherd count): pits contained 24%, and structural deposits associated with the roundhouses the remainder. Pottery concentrations weighing over 500g derived from enclosures G12 and G20, and from pit group G5 (Table 2).

Group	Sherd No.	Wt (g)
G2 Four-post structure	28	139
G4 Four-post structure	4	7
G5 Pit group	58	669
G6 Roundhouse gully	20	235
G7 Possible roundhouse gully	8	58
G10 Ditch	7	70
G11 Enclosure ditch	2	16
G12 Enclosure ditch	12	682
G13 Enclosure ditch and re-cuts	35	322
G14 Enclosure ditch	5	42
G15 Enclosure ditch	4	7
G16 Enclosure ditch and re-cut	22	221
G18 Pit	10	87
G19 Ditch and re-cuts	20	153
G20 Enclosure ditch	46	962
G21 Gullies	1	28
G22 Possible roundhouse gully	8	45
G23 Possible roundhouse gully	8	46
G24 Curvilinear gullies	5	59
G26 Pit group	11	41
G31 Pit group	3	10
G42 Ditch	5	43
G43 Enclosure ditches	17	176
G44 Ditches	11	133
<b>Total</b>	<b>350</b>	<b>4,251</b>

**Table 2:** Phase 2 pottery quantification

### 3.4 Phase 4: Undated

Nine abraded body sherds (54g) were collected from post-hole alignments G27, G29 and pit group G28. They occur in predominantly shell-tempered fabric types, comparable with the middle Iron Age pottery associated with Phase 2. Their poor and fragmented condition (mean sherd weight 6g) suggests that they may be residual.

### 3.5 Type Series





Fabrics are summarised below in accordance with PCRG Guidelines (2011). Detailed descriptions are available in the archive. Due to their similarity, the divisions between some wares must be considered a little arbitrary.

### 3.5.1 Late Neolithic

**FPfe1:** Well fired, well wedged clay containing rare to sparse flint and ferruginous pellet inclusions, ranging in size from under 1mm to 2mm. External faces appear to be given a sparse sand coating.

### 3.5.2 Iron Age

**SHCC:** Coarse shell. Moderate to dense temper of angular coarse shell fragments, up to 10mm, with rare quartzite, grog, flint, organic material or ironstone.

**SHCF:** Fine shell. Sparse to moderate angular shell fragments, up to 5mm, although most are usually below 2mm. Other material occurs as SHCC.

**SHCF/QUMF:** Sandy fine shell. As SHCF, but with moderate sub-rounded quartz up to 0.5mm, giving sherds a sandy texture.

**SHCC/QUMM:** Sandy coarse shell. As SHCC, but with moderate sub-rounded quartz, up to 1mm, giving sherds a sandy texture.

**SHMF/GRMF/QUSF:** Mixed shell, grog and sand. Variant of SHCC, with grog and sand occurring in greater quantities, and, less commonly, flint.

**GRSM:** Grog. Abundant grog, up to 2mm with rare sand.

**GRSM/QUSF:** Grog and sand. Abundant grog, up to 2mm, and moderate sub-rounded quartz up to 0.5mm, giving sherds a sandy texture.

**QUMF:** Sand. Abundant sub-rounded quartz, up to 1.5mm.

**QUMF/VEMM:** Sand and organic. As QUMF, but with frequent elongated voids, where organic matter has burnt out.



## 4. ANIMAL BONE

### 4.1 Introduction

#### 4.1.1 Methods of Analysis

All the animal bones recovered from both hand-collected and sieved samples were recorded on an Access database, which forms part of the site archive. The following information was recorded where appropriate for each specimen: context; species; anatomical element; **zones** of element present; approximate percentage of element present; gnawing damage; erosion; weathering; burning; concretions; fusion data; associated bone group number; sieved sample number; and other comments. Separate tables linked to the main table were created for the metrical, butchery and tooth ageing data. Mandibular tooth eruption and wear descriptions for cattle, sheep/goat and pig follow the method of Grant (1982). Measurements are those described by von den Driesch (1976).

#### 4.1.2 Sample Size and Preservation

Animal bones were recovered from 161 contexts. Preservation of the assemblages from each context ranged from quite poor to quite good (Table 3). The twenty-five that were quite well preserved had good surface preservation, but showed evidence of gnawing or other damage on some of the bones. Individual bones in those assemblages that were graded as ‘moderate’ generally had fair surface preservation, but significant numbers were also gnawed and/or slightly weathered. The seventeen quite poorly preserved assemblages typically contained higher proportions of burnt, weathered or eroded specimens. Gnawing damage was observed on seventy-three of the identified domestic mammal elements, and 138 were recorded as weathered.

Phase	Very Good	Quite Good	Moderate	Quite Poor	Very Poor	Total
1			2	2		4
2		23	106	14		143
4		2	11	1		14
<b>Total</b>	<b>0</b>	<b>25</b>	<b>119</b>	<b>17</b>	<b>0</b>	<b>161</b>

**Table 3:** Animal bone preservation by Phase

	Phase				Sieved	%	Phase 2	
	1	2	4	Total			Mammal	Cow:S/G:Pig
Cattle	3	170	11	184	1	45	56	73
Sheep/Goat		117	6	123	10	32	39	
Pig		16	2	18	2	4	5	
Horse		60	6	66		16		27
Dog		104		104	1	3		
Hare			1	1				
Heron		1		1				
Total Identified	3	468	26	497	14	370	299	246
Unid. Mammal	17	383	32	432	205			
Unid. Bird		1		1	1			
Total Unidentified	17	384	32	433	206			
<b>Total</b>	<b>20</b>	<b>852</b>	<b>58</b>	<b>930</b>	<b>220</b>			

Counts are of numbers of individual specimens (NISP). Phase totals include 93 dog and 4 cattle bones in associated bone groups and bones from sieved samples. Total % excludes associated bone groups.

**Table 4:** Animal bone species counts by Phase



A total of 930 animal bone fragments were recorded (Table 4), including 468 specimens identified to species. Sieved samples produced 220 fragments, but only fourteen of these were identified.

## 4.2 Results

### 4.2.1 Phase 1: Pre-Iron Age

Animal bones were recorded from ditches G1 and G9. Twenty fragments were recovered, of which only three were identified: G1 produced a cattle humerus fragment, while G9 produced a fused cattle distal tibia and an associated astragalus.

### 4.2.2 Phase 2: Middle Iron Age

Table 5 shows the distribution of animal bones in Phase 2 features.

Group	Type	Cattle	Sheep/goat	Pig	Horse	Dog	Heron	Mammal	Bird	Total
2	Four-post structure							2		2
5	Cluster of four pits							1		1
6	Roundhouse gully	11	17	1	3	6		58		96
7	Possible roundhouse gully	11	5	1	3			12		32
10	Ditch	4	7	3				24		47
11	Enclosure ditch	7	4		1			7		19
12	Enclosure ditch	6	5		1			23		35
13	Enclosure ditch and re-cuts	44	20	3	10	1		50		128
14	Enclosure ditch	3	3		1	88		17		112
15	Enclosure ditch		1		1			3		5
16	Enclosure ditch and re-cut	11	10	2	5		1	13		42
17	Pit and gully							3		3
18	Pit	1	5	1	2			32		41
19	Ditch and re-cuts	3	2	2		1		8	1	17
20	Enclosure ditch	47	22	1	16	4		56		146
21	Three gullies	1								1
22	Possible roundhouse gully	1	1		2			2		6
23	Possible roundhouse gully		4			3		5		12
24	Two curvilinear gullies	4	3					3		10
25	Short dispersed gullies	1						2		3
26	Nine pits	2	2			1		42		47
31	Two pits	2						1		3
42	Ditch	6	1		4			4		15
43	Curving enclosure ditches	2	4	2	2			8		18
44	Ditches	3	1					7		11
<b>Total</b>		<b>170</b>	<b>117</b>	<b>16</b>	<b>60</b>	<b>104</b>	<b>1</b>	<b>383</b>	<b>1</b>	<b>852</b>

Counts are of numbers of individual specimens (NISP).

Totals include bones in associated bone groups and sieved samples.

**Table 5:** Phase 2 animal bone species counts by Group

#### 4.2.2.1 G6: Roundhouse gully

The gully produced 96 animal bone fragments, of which 38 were identified to sheep/goat, cattle, dog, horse and pig. Fragments of three different sheep/goat mandibles were recovered. At least five of the six dog bones belonged to the same animal. This group is comprised of a complete tibia, fibula and three metatarsals of an adult animal with an estimated shoulder height of 51.8cm. A calcaneus recovered from a sieved sample may also have belonged to this hind limb.



#### **4.2.2.2 G7: Possible roundhouse gully**

Thirty-two animal bone fragments were recovered, 20 of which were identified as cattle, sheep/goat, horse and pig. Most of the bones were weathered. The 11 cattle bones included four metatarsal fragments, three of which were damaged by canid gnawing.

#### **4.2.2.3 G10: Ditch**

Forty-seven animal bone fragments were recovered, including 23 identified specimens. Horse elements were the most commonly recorded. These included a first and second phalanx from the same foot and a fairly complete radius and scapula. A horse pelvis fragment was damaged both by gnawing and butchery. Bones of sheep/goat, cattle and pig were also identified. The pig bones consisted of a humerus from a neonatal animal and a pair of mandibles.

#### **4.2.2.4 G11: Enclosure ditch**

Nineteen animal bone fragments were recorded, of which 12 were identified as cattle, sheep/goat and horse.

#### **4.2.2.5 G12: Enclosure ditch**

Thirty-five animal bones were recovered but only 12 of these were identified as cattle, sheep/goat and horse. Two mandibles of sheep/goat were recorded.

#### **4.2.2.6 G13: Enclosure ditch and re-cuts**

A total of 128 animal bone fragments were recorded, of which 50 remain unidentified. Bones of sheep/goat, horse, pig and dog were also identified, with cattle dominant. The cattle elements included the left pelvis, femur, tibia and astragalus of a young adult animal, which were slightly damaged by gnawing. Eight fragments from at least five cattle radii were recovered, including one from a neonatal mortality. The cattle assemblage also incorporated five mandible fragments from at least four jaws, including one from another neonatal calf, as well as a complete metacarpal and metatarsal. The sheep/goat assemblage included ten fragments from at least five tibiae, most of which were weathered. The horse elements included complete or substantial portions of two humeri, two third metatarsals, a tibia and cervical vertebra. However, most of these have suffered gnawing damage. A fairly complete dog mandible was also found.

#### **4.2.2.7 G14: Enclosure ditch**

This group produced 112 animal bone fragments, of which 95 were identified. Most of these (88) belonged to a dog skeleton. Although badly fragmented and eroded, all parts of the skeleton were represented, and it seems likely that this represents the burial of a complete body. All epiphyses have fused, indicating that this was an adult animal. The absence of a baculum (os penis) could suggest that this was a bitch. However, other bones from that region (some of the lumbar vertebrae and sacrum) were also absent, which makes sex determination inconclusive. Other species identified in this group were cattle, sheep/goat and horse.

#### **4.2.2.8 G15: Enclosure ditch**

Only five animal bone fragments were recovered, of which only a complete horse third metatarsal and a sheep/goat tooth were identified.

#### **4.2.2.9 G16: Enclosure ditch and re-cuts**



Forty-two animal bone fragments were recovered, of which 13 were unidentified. The 11 cattle bones include two from neonatal calves and a fairly complete butchered metatarsal. Six of the ten sheep/goat elements were tibiae. Horse (including a complete third metatarsal) and pig were also identified. The proximal end of a heron ulna was also recovered.

#### **4.2.2.10 G17: Pit and gully**

Only three unidentified animal bone fragments were recovered.

#### **4.2.2.11 G18: Pit**

The pit produced 41 animal bone fragments, but 32 of these, mainly from sieved samples, were unidentified. Sheep/goat, horse, cattle and pig were all represented, including a complete horse third metatarsal.

#### **4.2.2.12 G19: Enclosure ditch and re-cuts**

Seventeen animal bone fragments were recovered, including eight identified as cattle, sheep/goat, pig and dog. A bird vertebra was recovered from a sieved sample.

#### **4.2.2.13 G20: Enclosure ditch**

A substantial assemblage of 146 animal bone fragments was recovered, of which 90 were identified. Many of the bones were weathered. Over half of the identified specimens were identified as cattle, including several substantial portions of major bones. Eight fragments from at least six metacarpals were recovered, and nine tibiae and seven mandible fragments were also identified. Sheep/goat elements included seven fragments from at least four mandibles and six tibiae fragments. Horse was also quite well represented, but only a single bone of pig was identified. A fairly complete dog skull was recovered, including its maxillae.

#### **4.2.2.14 G21: Three gullies**

A cattle scapula was the only animal bone recovered.

#### **4.2.2.15 G22: Possible roundhouse gully**

Only six animal bone fragments were recorded. Elements of horse, sheep/goat and cattle were identified.

#### **4.2.2.16 G23: Possible roundhouse gully**

Twelve animal bone fragments were retrieved, but only sheep/goat and dog were identified. Fragments of a dog skull and maxilla were recovered.

#### **4.2.2.17 G24: Two curvilinear gullies**

Twelve animal bone fragments were recovered, but only cattle and sheep/goat were identified.

#### **4.2.2.18 G25: Short dispersed gullies**

Three animal bones were recovered, including a cattle radius fragment.



#### 4.2.2.19 G26: Nine pits

Although 47 animal bone fragments were recorded, all but five of these were unidentified mammal fragments mainly recovered from sieved samples. Cattle, sheep/goat and dog were identified.

#### 4.2.2.20 G31: Two pits

Only three animal bone fragments were recovered, including two identified as cattle.

#### 4.2.2.21 G42: Ditch

Fifteen animal bone fragments were recorded, including 11 identified as cattle, sheep/goat and horse. Parts of a pair of horse pelves were recovered.

#### 4.2.2.22 G43: Curving enclosure ditches

Eighteen animal bone fragments were recovered, including ten identified as sheep/goat, cattle, pig and horse.

#### 4.2.2.23 G44: Ditches

Eleven animal bone fragments were recovered, but only four were identified to cattle and sheep/goat.

### 4.2.3 Phase 4: Undated

Table 4 shows the distribution of animal bones from features whose date is uncertain, but probably post-medieval. A single fragment of hare represents the only species not found in Phases 1–2.

## 4.3 Discussion

The following discussion considers only the assemblage from Phase 2.

### 4.3.1 Cattle

Cattle provided 45% of the identified mammal fragments, excluding bones from associated groups, and 56% of the total NISP counts of cattle, sheep/goat and pig (Table 4). Cattle and sheep/goat have been the main species represented in Iron Age assemblages examined from the East Midlands, although their relative abundance has varied on different sites (Hambleton 1999; Maltby 2008). Most of the assemblage was obtained from enclosure ditches, in which cattle were consistently well represented (Table 5). Preservation conditions and retrieval biases favoured the recovery of cattle bones, and they were outnumbered by sheep/goat in sieved-sample NISP counts (Table 6) and minimum-number counts (Table 7). However, given their carcass size, it is likely that cattle would have provided by far the most meat to the diet of the site's inhabitants.

	Cow	Sheep/goat	Pig	Horse	Dog
Horncore	1				
Maxilla			2	1	5
Skull	10	2	2	1	3
Mandible	21	21	6	3	4
Loose Teeth	6	10		2	
Scapula	12	5	5	2	2
Humerus	9	8	1	10	2
Radius	18	10		5	2
Ulna	3	4		1	2
Pelvis	8	2		8	2



Femur	11	5	3	3	
Fibula				1	
Tibia	20	34	5	3	
Carpals				1	
Astragalus	4		1		
Calcaneus	3			1	
Centroquartal	1				
Metacarpal	17	5	1	10	
Metatarsal	16	8	8	7	
Peripheral Mp			2		
Phalanx 1	3	1	4	7	
Phalanx 2			1	2	
Phalanx 3	1		1	1	
Atlas (VC1)				1	
Axis (VC2)	1			1	
Cervical V	1		1	5	
Thoracic V	2			10	
Lumbar V				3	
Sacral V	1				
Caudal V				3	
Sternebrae				2	
Ribs	1	2		20	
Costal cart				1	
<b>Total</b>	<b>170</b>	<b>117</b>	<b>16</b>	<b>60</b>	<b>104</b>

Total counts include elements in associated groups and sieved samples

**Table 6:** Phase 2 element counts (NISP)

Metapodials, mandibles, tibiae and radii were well represented in the cattle assemblage (Tables 6–7), suggesting perhaps a bias towards the deposition of bones of low-meat quality from primary butchery in peripheral areas of the settlement. However, element counts can be affected by other factors such as differential preservation and recovery.

	Cow	S/G	Pig	Horse	Dog
Horncore	1				
Maxilla			2	1	4
Skull	3	1	1	1	3
Mandible	10	12	3	1	4
Scapula	5	4	4	2	2
Humerus	5	7	1	8	2
Radius	9	5		2	2
Ulna	2	3		1	2
Pelvis	7	2		5	2
Femur	5	4		1	3
Tibia	8	14		3	3
Carpals					0.17
Astragalus	4			1	
Calcaneus	3				1
Centroquartal	1				
Metacarpal	9	2		1	2.25
Metatarsal	11	4		6	1.5
Phalanx 1	0.75	0.25		2.5	0.88
Phalanx 2					0.25
Phalanx 3	0.25				0.13
Highest MNE	11	14	4	8	4
MNI	5.5	7	2	4	2



MNE = minimum number of elements represented. MNE counts based on the best represented zone, and adjusted for number of elements in skeleton. MNI = minimum number of individuals (= MNE/2)

**Table 7:** Phase 2 element counts (MNE)

Butchery marks were observed on fifteen cattle elements. Nine of these consisted of fine incisions, while the remainder consisted of deeper blade cuts or chop marks. Incisions associated with dismemberment were observed on an astragalus, a mandibular ramus, the distal end of a humerus, an acetabulum, and the proximal and distal ends of metatarsals. The use of fine-bladed knives for such processing was common on Iron Age sites (Maltby 2007). Other fine cuts on the shafts of a humerus and tibia and on the lateral surface of a mandible are likely to have been made during filleting. The proximal edge of the blade of a scapula had been chopped through when the shoulder was detached from the trunk. A cervical vertebra had been chopped across transversely during segmentation of the spine. The medial epicondyle and lower part of the shaft of an otherwise complete metatarsal had been chopped through, again probably during dismemberment. Other superficial chop or deep blade marks were observed on a cattle ramus, zygomatic and tibia shaft.

Cattle	Phase 2	Sheep/goat	Phase 2	%	Cumulative %
Stage 1		Stage 1	0	0.0	0.0
Stage 2	1	Stage 2	1	6.7	6.7
Stage 3	1	Stage 2-3	2	13.3	20.0
Stage 4	1	Stage 3	3	20.0	40.0
Stage 5		Stage 4	1	6.7	46.7
Stage 6	3	Stage 4-5	1	6.7	53.4
Stage 6-7		Stage 5	2	13.3	66.7
Stage 7		Stage 6	3	20.0	86.7
Total	6	Stage 6-7	2	13.3	100.0
		Stage 7	0	0.0	100.0
<b>Total</b>			<b>15</b>		

- Stage 1 = 4th deciduous premolars (dp4) not in wear
- Stage 2 = dp4 in wear; 1st molar (M1) not in wear
- Stage 3 = M1 in wear; 2nd molar (M2) not in wear
- Stage 4 = M2 in wear; 3rd molar (M3) and permanent premolars not in wear
- Stage 5 = M3 in wear; 4th permanent premolar (P4) not in wear (cattle)
- Stage 5 = M3 in wear; M1 at Grant (1982) wear stage g (sheep/goat)
- Stage 6 = P4 in wear; M3 < Grant wear stage k (cattle)
- Stage 6 = M1 at Grant wear stages h-m; M2 at Grant wear stage g (sheep/goat)
- Stage 7 = M3 at Grant wear stages k-m (cattle)
- Stage 7 = M1 and M2 at Grant wear stages h-m (sheep/goat)

**Table 8:** Cattle and sheep/goat mandibular tooth ageing data

Only six cattle mandibles provided ageing evidence. Three belonged to adults, and three to animals of three years or less (Table 8). Similarly, the limited epiphyseal fusion evidence revealed that 58% of the surviving latest-fusing epiphyses have fused and belonged to fully grown adults (Table 9). Porous bones from young calves formed only around 5% of the cattle assemblage. Although porous bones would have been subject to a greater level of destruction than the bones of older animals, the proportion of such bones would be expected to be higher in husbandry regimes in which dairying was important. Based on this evidence, cattle were raised mainly for meat and possibly as working animals, but the sample is too small to place great confidence in this conclusion.





Cattle				Sheep/Goat			
Early Fusing	U	F	%F	Early Fusing	U	F	%F
Radius P	1	10		Radius P		2	
Scapula D		3		Scapula D		1	
Acetabulum		6		Acetabulum		1	
Humerus D		5		Humerus D	1		
1st Phalanx P		2		1st Phalanx P		1	
<b>Total</b>	<b>1</b>	<b>26</b>	<b>96.3</b>	<b>Total</b>	<b>1</b>	<b>5</b>	<b>83.3</b>
Later Fusing				Later Fusing	U	F	%F
Tibia D		5		Tibia D		2	
Metacarpal D		5		Metacarpal D	1		
Metatarsal D	1	3		Metatarsal D	1		
<b>Total</b>	<b>1</b>	<b>13</b>	<b>92.9</b>	<b>Total</b>	<b>2</b>	<b>2</b>	<b>50.0</b>
Latest Fusing				Latest Fusing	U	F	%F
Ulna P				Ulna P	1	1	
Femur D	1			Femur D			
Radius D	2	3		Radius D			
Humerus P		1		Humerus P	1		
Femur P	1	1		Femur P			
Calcaneus P				Calcaneus P			
Tibia P	1	2		Tibia P	1		
<b>Total</b>	<b>5</b>	<b>7</b>	<b>58.3</b>	<b>Total</b>	<b>3</b>	<b>1</b>	<b>25.0</b>
Vertebrae Cn	1						
Vertebrae Cd	2	1					
Rib							

**Table 9:** Phase 2 cattle and sheep/goat epiphyseal fusion data

The estimated withers height of cattle, based on lengths of complete limb bones, ranged between 99cm and 117cm, with a mean of 110cm (Table 10). These were animals typical of the small stock found elsewhere in Iron Age Britain. Therefore, there is no evidence for the introduction of the larger cattle that have been found on Roman sites in the East Midlands and elsewhere in the South and East of England (Albarella *et al.* 2008). For example, the average size of cattle in the assemblage from the Roman site at Burton Latimer in Northamptonshire was 120cm (Maltby 2013a).

Cattle	Measurements (mm)	Mean
Astragalus Bd	36.6 39.5 39.9 <b>40.2</b> 40.4	39.3
Astragalus GLl	57.8 58.0 58.6 <b>62.9</b>	59.3
Metacarpal Bd	52.3 53.3 60.5 65.6	57.9
Metatarsal Bp	41.4 42.7 42.9 43.6 47.8	43.7
Radius Bp	69.6 70.3 70.8 71.2 74.9	71.4
Tibia Bd	49.7 53.7 55.0 56.5 <b>57.7</b> 59.8	55.4
Withers Ht (cm)	99.4 109.7 110.6 110.9 113.3 117.0	110.1
Horse		
Metatarsal Bp	44.7 47.4 48.0 49.1	47.3
Tibia Bd	61.4 63.4 65.7	63.5
Withers Ht (cm)	134.1 134.6 136.2	135.0

**Bold = Phase 1;** all others Phase 2

Bp = proximal breadth; Bd = distal breadth; GLl = greatest lateral length

Withers height estimated from length measurements of complete limb bones

Cattle withers heights based on Fock (1966); horse withers heights based on Vitt (1952)

**Table 10:** Common measurements of cattle and horse

#### 4.3.2 Sheep/Goat

Eleven elements were identified specifically as sheep, but there were no positive identifications of goat. Most, if not all, of the sheep/goat assemblage is therefore likely to have consisted of sheep, as is typical of British Iron Age sites. No associated groups of sheep bones were encountered.

Despite slightly adverse preservation conditions and their small size comparative to cattle and horse, sheep/goat elements were well represented, providing 32% of the identified mammal NISP counts and 39% of the total cattle, sheep/goat and pig assemblage (Table 4). They outnumbered cattle in minimum number calculations, although they were probably much less important in terms of their contribution to the diet (Table 7).

Fifteen mandibles provided tooth ageing evidence. There were no marked peaks in slaughter, with the sheep represented ranging from lambs of a few weeks old to mature adults (Table 8). No mandibles of neonatal or very old animals were recovered, however. Fusion data were extremely limited (Table 9). In the absence of complete limb bones, no sheep withers heights could be calculated. A sheep skull had evidence that it was horned. Hornless sheep have been encountered only very rarely on British Iron Age sites and many are likely to have been Roman introductions (Maltby 2010, 181–3).

#### 4.3.3 Pig

Pig elements were very poorly represented, providing only 4% of the identified mammal fragments (excluding associated groups) and 5% of the total cattle, sheep/goat and pig elements. Pigs have sometimes provided less than 10% of the cattle, sheep/goat and pig counts on Iron Age and Roman sites from Bedfordshire (Maltby 2011), but this is at the bottom end of the scale. Several other sites in Northamptonshire have produced around 10% pig, for example at Rainsborough, Wakerley, Hardingstone and Wilby Way (Great Doddington) (Banks 1967; Hambleton 1999; Maltby 2003). The presence of a humerus from a neonatal piglet and a pair of pig mandibles from an animal of under six months old suggests that pigs might have been kept at the settlement, but probably only in small numbers. Apart from the humerus, all the identified pig elements came from the cranium or scapula (Table 6). Tooth ageing evidence from five other jaws indicated that two belonged to pigs killed in their second year and three probably to pigs slaughtered in their third year. Some of the scapulae could have been from preserved joints imported to the settlement.

#### 4.3.4 Horse

The equid bones are all assumed to have been from horse, although the presence of mules cannot be ruled out. Horse elements were well represented in the assemblage, providing 16% of the identified mammal fragments and 27% of the total cattle and horse fragments (Table 4). This is an unusually high proportion of horse: for example, at Marston Moretaine in Bedfordshire, horse never provided more than 9% of the identified elements in any of the Iron Age phases, although they were found in quite large percentages in some individual deposits (Maltby 2013b). Similarly, at Wilby Way, Great Doddington, Northamptonshire, horse bones were deposited in quite large numbers in some areas of the site (Maltby 2003).

Horse humeri were unusually abundant at King's Sutton, with portions of at least eight different bones represented. Metatarsals and pelves were also well represented. In contrast,



there were very few cranial elements or metacarpals (Tables 6–7). This imbalance in element representation suggests that horse carcasses must have been processed or manipulated in some way, resulting in imbalances in deposition. Fine incisions, very similar to those found on cattle bones, were observed at the distal end of a horse humerus, and deep cut marks were recorded on an ischium near the acetabulum of a pelvis. These marks indicate dismemberment, and although horse carcasses were not exploited as intensively as cattle, it appears that horsemeat was consumed at the settlement, possibly more regularly than pork. There are also no significant groups of associated bones of horse that are so characteristic of deposition practices in some areas of Iron Age Britain (Grant 1984; Morris 2011), but the variations in element representation cannot be explained simply in terms of natural taphonomic or retrieval biases. Some of the horse phalanges may have been associated with skins brought to the site or processed there, but no cut marks were observed on them.

The epiphyses of a distal radius and a proximal humerus were only just fusing, indicating that they belonged to relatively young horses, possibly under five years of age. The crown heights of two mandibular premolars measured around 50mm, indicating that they came from horses of around six years old (Levine 1982). Neither of these premolars had been damaged by bit wear. This may imply that some horses were culled for meat at a relatively young age. However, all other epiphyses had fused, and it is likely that many horses were more highly valued for their working qualities than for their flesh.

Withers height estimates were obtained from three horse limb bones, averaging 135cm (Table 10). Although these were relatively small horses, they were larger than all six specimens recorded from Iron Age levels at Marston Moretaine (Maltby 2013b). This raises the possibility that different types of horses were being bred in the region, but this requires further research.

#### 4.3.5 Dog

In contrast to the other species, most of the dog bones formed associated groups (Tables 4 and 6), indicating that their carcasses were not usually processed. Most of the bones came from the adult skeleton, possibly of a female, deposited in ditch G14, probably as a complete burial. This specimen had an estimated shoulder height of *c.* 50 cm and was similar in height to the dog represented by six bones in roundhouse gully G6 (*c.* 52cm). These were both medium-sized dogs similar to many found on British Iron Age sites (Harcourt 1974; Clark 1995), where dogs were commonly buried as complete skeletons (Morris 2011). There is no evidence for carcass processing on any of the dog bones.

#### 4.3.6 Other Species

No bones of wild mammals were positively identified in the Phase 2 deposits. Wild mammals usually form only a small proportion of most British Iron Age assemblages. The only identified bird bone belonged to heron (*Ardea cinerea*), and domestic fowl bones are notably absent. Although these have now been found in small numbers on several Midland (mainly Late) Iron Age sites, they are absent from many assemblages, and their absence from this site is therefore not unusual. Similarly, despite the sieving programme, no bones of fish were identified. There is therefore very little evidence for the exploitation of wild species at this site.



## 5. CHARRED PLANT REMAINS

### 5.1 Introduction

Twenty-two environmental soil samples were taken for the potential recovery of charred plant remains, to provide information on the agricultural economy of the settlement and possible changes in crop husbandry and site activity over time.

### 5.2 Methodology

The soil samples were collected mainly from ditch and pit fills (twelve and six samples respectively), with three samples taken from post-hole fills and single samples from the fills of a roundhouse gully and an oven/hearth. Seventeen of the samples were from the middle Iron Age settlement (Phase 2), with two samples from earlier prehistoric features (Phase 1) and four from undated, probably post-medieval contexts (Phase 4). Sample sizes ranged from 9 to 30 litres (mainly at the upper end of this scale), with part of each sample (mainly 10 litres) initially processed using a Siraf-style type flotation tank and meshes of 0.25mm and 0.5mm for the recovery of the flot and residue respectively. Following a cursory examination of the flots, the remaining soil was processed from Iron Age pit G18.

The flots were dried and divided into fractions using a stack of sieves for ease of sorting. All potentially identifiable and quantifiable plant remains were extracted and counted except for fragmented grain (<2mm), stem/straw fragments, charcoal and indeterminate items, estimates of which were recorded using the following scale: + = <5 items; ++ = 5–25 items; +++ = 26–100 items; ++++ = 101–300 items; and +++++ = >300 items. This scale was also used for the very rich charred plant assemblage from hearth/oven G33, which merited only scanning because of the uncertain, but probably post-medieval date of this feature. The dried residues from the samples were sorted for environmental remains and other artefactual data.

Identification of the charred remains was carried out using a stereo-binocular microscope (magnification up to x40) together with modern and charred reference material and reference manuals (Cappers *et al.* 2006; Jacomet 2006). Nomenclature used for the wild species follows Stace (2005), which also provided habitat and ecological data along with Hanf (1983) and Wilson and King (2003).

### 5.3 Results

Eighteen of the twenty-three samples, all but one from middle Iron Age deposits, produced identifiable charred plant remains, although the whole assemblage consisted of only 300 quantified items, with most of the individual assemblages containing fewer than twenty items and low densities of less than one item per litre of processed soil. The two exceptions were middle Iron Age pit G18, which accounted for over 70% of all the quantified remains from the site, and the undated, but probably post-medieval hearth/oven fill G33. The latter contained thousands of grains, but these were only scanned and not quantified.

The charred plant remains consisted largely of cereal grains, present in all the samples and accounting for almost 50% of the quantified remains; this percentage would have been greater had it been possible to quantify the variable amounts of small grain

Phase	2													
Group	4	5	6	12	13	14	15	16	18	19	20	26	26	26
Sample number	21	18	2	4	8	12	17	16	14	19	10	3	5	6
Vol sample (l)	10	10	27	20	10	10	10	10	30	10	10	10	20	9



Vol flot (ml)		1	1	<1	<1	<1	<1	<1	<1	20	<1	<1	2	1	<1
<b>Cereal grains</b>															
<i>Triticum spelta</i> L.	spelt wheat									1					
<i>T. cf. spelta</i>	?spelt wheat									2					
<i>T. dicoccum/spelta</i>	emmer/spelt wheat				1					2					
<i>T. cf. dicoccum/spelta</i>	?emmer/spelt wheat								1						1
<i>T. aestivum/spelta</i>	free-threshing/spelt wheat									1					
<i>T. aestivum</i> type	free-threshing wheat		1			1	1								1
<i>T. cf. aestivum</i> type	?free-threshing wheat					2					1		1	2	
<i>Triticum</i> sp(p).	wheat									1				1	
cf. <i>Triticum</i> sp.	?wheat			1		1		1		1				1	
<i>Triticum/Secale cereale</i> L.	wheat/rye														
<i>Secale cereale</i> L.	rye														
<i>Hordeum vulgare</i> L.	barley, hulled twisted									2					1
<i>H. vulgare</i> L.	barley, hulled indet		1		1					1					
<i>H. vulgare</i> L.	barley, indet		2							3				3	
cf. <i>H. vulgare</i>	?barley							1	1	2					
<i>Avena</i> spp.	oat														
Cerealia	indet. cereal	3	3		1	2	2	1	3	61		1	2	10	7
Cerealia	indet cereal fragments <2mm	+		++	+	+		+	+	+++	+	++	+	++	+
<b>Cereal chaff</b>															
<i>Triticum spelta</i> L.	spelt glume bases									14					
<i>T. cf. spelta</i>	?spelt glume bases									2					
<i>T. spelta</i> L.	spelt spikelet bases									2					
<i>T. spelta</i> L.	spelt rachis									1					
<i>Triticum</i> sp(p).	wheat glume bases		1							36		4			
<i>Triticum</i> sp.	wheat spikelet forks/bases									1					
<i>T. aestivum</i> type	hexaploid wheat rachis														
<i>T. aestivum/turgidum</i> type	free-threshing wheat rachis														
<i>Triticum</i> sp(p).	wheat rachis									1					
<i>Secale cereale</i> L.	rye rachis														
<i>Hordeum vulgare</i> L.	barley rachis														
<b>Other plant/weed seeds</b>															
<i>Ranunculus</i>	buttercups									1					
<i>acris/repens/bulbosus</i>															
<i>Stellaria media</i> (L.) Vill.	common chickweed									1					
<i>Agrostemma githago</i> L.	corncockle														
<i>Persicaria lapathifolia</i> (L.) Gray	pale persicaria									1					
<i>Polygonum</i> sp.	knotgrass														1
<i>Fallopia convulvulus</i> (L.) A Love	black bindweed														
<i>Rumex</i> spp.	dock									36					
<i>Vicia/Lathyrus</i> sp(p).	vetch/tare/vetchling									1					
<i>Vicia/Lathyrus/Pisum</i> spp.	vetch/tare/vetchling/pea														
Fabaceae indet.	small rounded legumes												1		
Apiaceae indet.															
<i>Euphrasia/Odontites</i> spp.	eyebrights/bartsias														
<i>Galium aparine</i> L.	cleavers									17					
cf. <i>G. aparine</i>	?cleavers									5					
<i>Anthemis cotula</i> L.	stinking chamomile														
<i>Tripleurospermum inodorum</i> (L.) Sch. Bip.	scentless mayweed														
<i>Eleocharis</i> sp.	spike-rush												1		
<i>Festuca/Lolium</i> spp.	fescue/rye-grass														
<i>Poa</i> spp.	meadow grasses														
<i>Bromus</i> spp.	bromes									8					
cf. <i>Bromus</i> sp(p).	?brome									3					1
Poaceae indet.	grasses (large seeds)					1			1	4					2
Poaceae indet.	grasses (small seeds)									5				2	
Poaceae indet.	grass/cereal node/internode														
indeterminate	stem fragments (thin ribbed)														
indeterminate										+					
<b>Total</b>		<b>6</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>216</b>	<b>1</b>	<b>7</b>	<b>3</b>	<b>19</b>	<b>14</b>
<i>item density (per litre of processed soil)</i>		<i>0.6</i>	<i>0.5</i>	<i>0.1</i>	<i>0.2</i>	<i>0.6</i>	<i>0.4</i>	<i>0.3</i>	<i>0.6</i>	<i>7.2</i>	<i>0.1</i>	<i>0.7</i>	<i>0.3</i>	<i>0.9</i>	<i>1.6</i>

**Table 11:** Charred plants remains from Phase 2 (middle Iron Age) fragments in most of the assemblages. Poor preservation, however, meant that almost 68% of the grains could not be identified further. Cereal chaff fragments (in three samples) and weed seeds (in seven samples) made up 20% and 30% respectively of the quantified remains. The results are discussed below by period.



### 5.3.1 Phase 1: Pre-Iron Age

Indeterminate cereal remains were recovered from possible late Neolithic ditch G1, as well as a large grass (Poaceae) seed. The paucity of the assemblage precludes further comment.

### 5.3.2 Phase 2: Middle Iron Age

Fourteen of the fifteen samples which contained identifiable charred plant remains date to the middle Iron Age, accounting for 98% of the quantified material from the site (Table 11). Most of this was from pit G18, the other eleven samples consisting mainly of small amounts of cereal grains.

Most of the cereal grains could not be identified, although wheat was present in eleven samples. These included occasional hulled grains of *T. spelta* (spelt), as well as emmer/spelt in four samples, free-threshing wheat grains in six samples, and a few barley grains (including evidence for six-row hulled barley) in seven samples. Hulled wheat chaff consisted of glume bases and rachis fragments, virtually all from pit G18, although there were a few glume bases in ditch G20. All the chaff identifiable to species was from spelt, suggesting that this was the main hulled wheat on the site. Two legume seeds, one identified as *Vicia/Lathyrus* (vetch/tare/vetchling), could be from either cultivated and/or wild species.

A similar range of cereals has been identified from other Iron Age sites in Northamptonshire. Spelt wheat was the main hulled wheat grain in middle to late Iron Age deposits at Drift East, Covert Farm, Crick, with occasional evidence for emmer and free-threshing wheat and six-row hulled barley (Monckton 2000), while spelt wheat and six-row hulled barley were found in middle Iron Age pits at Twywell (Jackson 1975, 90–1). In a wider context, charred cereal remains from other Iron Age sites in southern England shows that spelt wheat and hulled barley are usually the main cereals recovered, with occasional finds of emmer and free-threshing wheat (Greig 1991, 306). Hulled grains may have been used for making unleavened bread, porridge or gruel, or in stews or soups (Renfrew 1985, 15), and barley for animal feed and beer, although none of the grains from King's Sutton had sprouted to suggest that brewing was being carried out there in the Iron Age.

A small range of potential arable weeds, largely from pit G18, provides some additional information on crop husbandry during this period. Seeds of *Galium aparine* (cleavers) may suggest the use of loams and clay soils for cultivation, while *Persicaria lapathifolia* (pale persicaria), represented by a single seed, is also found mainly in loam soils. This evidence, albeit limited, corresponds well with the nature of the soils around the site, which consist mainly of wet, slightly acid but base-rich loamy and clayey soils in the immediate vicinity of the settlement, and freely draining, slightly acid but base-rich loamy soils to the east and south. Spelt wheat can be grown on both heavy soils (also preferred by free-threshing bread wheat) and drier and lighter soils, the latter of which are favoured by barley (Jones 1981, 105–7). Very occasional records for wetland plants including *Eleocharis* (spike-rush) may possibly point to the cultivation of damper soils towards the River Cherwell. *Galium aparine* could indicate the winter sowing of cereals, including spelt, while *Stellaria media* (common chickweed), represented by a single seed, may tentatively point to the spring sowing of crops, barley usually being sown at this time.

The bulk of the charred plant remains from the Iron Age samples derive from the final stages of crop cleaning and food preparation. Virtually all the assemblages contained only



occasional or small numbers of grains, with a very low density ranging from 0.1 to 1.6 items per litre of processed soil; they are likely to have been accidentally burnt while being dried, or during the cooking of whole grains or the de-husking of hulled wheat, usually carried out immediately before grain use.

Only pit G18 contained a large botanical assemblage (with a density of 7.2 items per litre of processed soil), consisting of cereal grains (36% of the quantified remains), hulled (spelt) wheat chaff (26%) and weed seeds (38%). The chaff may have been accidentally burnt during de-husking, or through its subsequent use as fuel along with the weed seeds in this sample. The large weed seeds including *Galium aparine*, *Bromus* (brome) and other large grass seeds (also present in several other samples) are indicative of virtually cleaned cereals because they are of a similar size to grains and therefore can only be removed by hand-sorting, which usually takes place immediately before grain use. There is very little botanical evidence for the earlier stages of crop-processing, although the smaller weed seeds, for example *Rumex* (docks), may represent by-products following separation from the grains using the 'wheat' sieve (Hillman 1984: fig. 2, stage 7, 4). This assemblage, however, mainly contains the residues from the final stages of crop-processing and food preparation, suggesting small-scale domestic activities taking place nearby.

### 5.3.3 Phase 4: Undated

Three samples from undated (but probably post-medieval) features contained charred plant remains. A few cereal grain fragments came from a post-hole in G27, and several grains, including possibly free-threshing wheat, *Secale cereale* (rye) and hulled barley, came from a pit in G28. In addition, a very rich charred botanical assemblage was recovered from hearth/oven G33, consisting of thousands of cereal grains dominated by free-threshing wheat, but also including hundreds of grains of six-row hulled barley, rye and *Avena* (oat). Modest amounts of cereal chaff included free-threshing wheat rachis fragments with evidence for hexaploid bread wheat (*Triticum aestivum*), and large numbers of rye and occasional barley rachis fragments. Free-threshing (including hexaploid) wheat, hulled barley, rye and oats are the main cereals found in archaeobotanical assemblages in southern Britain from the post-Roman period onwards and therefore would not be out of character in a post-medieval context.

A large number of weed seeds were also recovered from the oven/hearth, particularly from *Anthemis cotula* (stinking chamomile), a weed of loams and clay soils, and to a lesser extent from *Agrostemma githago* (corn cockle), a plant frequently found in sandy loams, especially in rye crops. There were also occasional records for *Tripleurospermum inodorum* (scentless mayweed) and *Fallopia convolvulus* (black bindweed), both of which often grow in sandy soils and clay. This evidence could suggest the continued use of the damper loams and clayey soils around the site and towards the river, which would have been particularly well suited to the cultivation of bread wheat and oats, as well as the more freely draining loamy soils towards the east and south, preferable for growing barley and rye.

Most of the charred plant remains from G33 consist of grains that may have been accidentally burnt in the oven/hearth before storage and/or milling (if the feature was being used for drying grain), or possibly during the cooking of whole grains. There were also hundreds of large grass seeds including *Bromus*, which, along with the large *Agrostemma githago* seeds, are indicative of a virtually cleaned grain deposit. The cereal rachis fragments, however, would have been mainly separated from the grains following



threshing, although some may have persisted and only been separated by sieving at a later stage of crop-processing along with the smaller weed seeds, for example *Anthemis cotula* and the small grass seeds. This material may have subsequently been used as fuel for the oven/hearth. Whether the oven/hearth was used for drying grain and/or cooking, it is likely that the mixed assemblage of grains, chaff, weed seeds, and charcoal derives from the backfilling of this feature together with the burnt bone, burnt stone and burnt clay recovered from the sample.

#### 5.4 Summary

The general paucity of charred plant remains from Banbury Lane, King's Sutton, does not allow a detailed investigation into the agricultural economy of the settlement and site activities over time, although the limited evidence does provide some information on crop husbandry. Thus, there is evidence to suggest that both hulled and free-threshing wheat, together with hulled barley, were being used during the middle Iron Age, although spelt was the main hulled wheat at this time. The weed seeds from the Iron Age samples suggest that cultivation may have been carried out on the local loam and clay soils around the site, possibly with hulled and free-threshing wheat being grown on the heavier and damper soils towards the River Cherwell, and barley on the better drained soils to the east and south. The rich grain deposit from the possible post-medieval hearth/oven G33 contained a range of cereals — free-threshing (including bread) wheat, rye, hulled barley and oats, all of which are typical of post-Roman cereal assemblages. The weed seeds from this assemblage suggest continued use of the surrounding soils, bread wheat and oats being better suited to the heavier clay soils, and barley and rye to the better drained loamy soils away from the river.

Most of the individual assemblages were very small, consisting of only occasional or low numbers of grains accidentally burnt during activities associated with the final cleaning and preparation/cooking of food. Apart from the possible post-medieval hearth/oven G33, the only other exception was the relatively large plant assemblage from Iron Age pit G18, which, in addition to cereal grains, contained hulled (spelt) wheat chaff from the de-husking of hulled wheat, as well as large weed seeds, which may have been debris from the final cleaning of grains nearby. The smaller weed seeds in this sample could, however, represent by-products from sieving of the grain from an earlier stage of cleaning. The very rich deposit of grain from oven/hearth G33, together with some cereal chaff and weed seeds, probably represents backfilling of this feature once it went out of use.





## 6. DISCUSSION

The excavations at Banbury Lane, King's Sutton revealed evidence of human activity spanning a period of perhaps 4,000 years, but with a lack of chronological continuity, and also with rather uncertain dating evidence for many of the excavated remains. The only evidence of prolonged settlement comes from the middle Iron Age, during which a sequence of roundhouses and enclosures were constructed, used and abandoned over the course of perhaps two or three centuries. The following discussion examines how the use of the land changed over the course of the site's history, and considers in particular what the middle Iron Age remains represent.

### 6.1 *Settlement morphology and chronology*

Aside from building G33 (Phase 4), which is essentially undated but whose stone-built hearth and archaeobotanical assemblage suggest that it was post-medieval, definite evidence of occupation within the excavated area is limited to the middle Iron Age. Earlier use of the land is demonstrated by the presence of the two Phase 1 ditches, but very few contemporary artefacts were recovered from them, and it is unlikely that they were associated with domestic activity.

The precise date and function of the Phase 1 ditches is unknown. Seven sherds of late Neolithic Grooved Ware were recovered from ditch G1; they were abraded and may have derived from late Neolithic activity beyond the excavated area, although the balance of probability is that they were broadly contemporaneous with the ditch. No reliable dating evidence was recovered from ditch G9, and its different character to that of G1 — its profile was much shallower in places, and there was evidence of re-cutting and/or extensions — perhaps suggests a different date, but this could have been at any time before the middle Iron Age settlement began. Both ditches are likely to represent prehistoric boundaries; the more substantial ditch G1 may even have formed part of a late Neolithic monument, but too little was revealed within the excavated area to determine whether this was the case, and there are question marks over its westward continuation: Figure 3 shows that it was located during geophysical survey, but only Iron Age ditches were encountered in the adjacent watching brief (ASC Ltd 2004).

Two of the demonstrably earliest elements of the middle Iron Age settlement, as shown by their stratigraphic relationship with the later enclosures, were roundhouse gully G6 and enclosure G14 (Fig. 5). Samples for radiocarbon analysis from, respectively, a partial and a largely complete dog skeleton in the two gullies gave dates of 381–197 cal. BC ( $2214 \pm 35$  bp GU35656) and 381–201 cal. BC ( $2220 \pm 35$  bp GU35657) for the roundhouse gully, and 394–342 or 326–204 cal. BC ( $2243 \pm 35$  bp GU35658) and 389–337 or 329–204 cal. BC ( $2235 \pm 35$  bp GU35659) for the enclosure. These date ranges are broad, but, in view of the lack of closely datable pottery from the site, at least serve to confirm that the settlement began in the middle Iron Age. No diagnostically late Iron Age pottery was recovered, suggesting that the settlement was no longer in use beyond the 1st century AD, but greater precision with its lifespan is not possible.

Few Iron Age sites have been excavated within the area around King's Sutton, but the chronology of the Banbury Lane site fits in with its few contemporaries in the surrounding region. Middle Iron Age settlement (or at least activity) was recorded at Whitelands Farm in Bicester (Martin 2011), Jugglers Close in Banbury (Stevens 2004) and at Slade Farm,



Bicester (Ellis *et al.* 2000); all of these were at least fundamentally middle Iron Age in origin, and were abandoned either during or before the late Iron Age.

The nature of the middle Iron Age settlement at King's Sutton seems to have remained broadly constant over time, albeit with frequent reworking and renewal. Roundhouse G6 points towards an element of domestic occupation at the start of the settlement's lifespan, but this quickly appears to have fallen out of use and been demolished, being replaced geographically by enclosures G12 and G13, which themselves occupy an early position within the site's Iron Age stratigraphic sequence. Probable roundhouse G7 and possible roundhouses G8 and G23 may have been contemporary with some of the later enclosures, but G7 at least was no longer in use by the time that ditch G19 was dug through the middle of the area. However, the fragmentary remains in the northern corner of the site, together with evidence from the geophysical survey beyond this area (Clark and Walford 2009), make it possible that there were still contemporary buildings lying to the north.

Despite the presence of at least two roundhouses and possibly several more, it is unlikely that the settlement was ever intensively occupied, probably being used by no more than one family at a time. Although at least five separate enclosures were recorded, it is by no means certain that more than one was in use at any given time, although there does seem to have been some articulation between G20 and G16 to its north. The frequent re-cutting of enclosure ditches and the pattern of silting within them suggests that they silted up rapidly, and it perhaps became as easy after a few years to create a new enclosure as it was to maintain an old one. There were no indications in the ditches' deposits of large-scale flooding, but localised flooding associated with the River Cherwell may have been a factor. It is even possible that the settlement was only ever occupied seasonally, perhaps for this reason — each re-cut of an enclosure ditch may represent the start of a new season's occupation, with the formation of new enclosures perhaps indicating a lengthier period of absence from the site. The creation of ditch G19 certainly suggests that the settlement was out of use for more than just one winter, and appears to suggest a reconfiguration of the landscape following the disuse of the enclosures originally formed by ditches G10 and G42.

## 6.2 *Economy and environment*

There was little evidence to indicate the character of the surrounding environment, but it is likely that there was a combination of pasture and arable land in the vicinity. Few charred plant remains were recovered, but the presence of weed seeds in the Iron Age samples suggests that cereals were grown locally — the settlement's inhabitants may have taken advantage of the heavier and damper soils towards the River Cherwell to grow hulled and free-threshing wheat, with barley grown on the better drained soils to the east and south.

Despite the evidence that crops were probably grown nearby, however, it is likely that the settlement had a primarily pastoral economy. This is partly suggested by the number of enclosures that were constructed, even if they were only used one at a time — their function is uncertain, but the lack of internal features and their spatial relationship to the adjacent roundhouses makes it likely that they were not for human occupation, and may well have been for livestock.

Even though cattle bones were outnumbered by sheep/goat, it is likely that cattle contributed most to the population's diet. Marks on fifteen cattle elements show that butchery was practised on site, and the low percentage of porous bones indicative of calves suggests that cattle were raised mainly for meat and possibly as working animals. The



sheep/goat assemblage, however, includes bones from lambs of a few weeks old to mature adults, and even though no evidence of neonatal or very old animals was recovered, this may well have been a factor of the bones' frequently poor preservation.

Pigs seem to have played an unusually small part in the site's economy, although the presence of a humerus from a neonatal piglet and a pair of mandibles from a pig of under six months old at least suggests that pigs were kept at the settlement. In contrast, horse elements were unusually well represented in the assemblage, providing 16% of the identified mammal fragments and 27% of the total cattle and horse fragments. Metatarsals and pelves were well represented, yet there were very few cranial elements or metacarpals, suggesting that horse carcasses must have been processed or manipulated in some way in order to result in this imbalance in deposition. Fine incisions, very similar to those found on cattle bones, were observed at the distal end of a horse humerus, and deep cut marks were recorded on an ischium near the acetabulum of a pelvis, suggesting that horsemeat was consumed at the settlement, possibly more regularly than pork. As commonly occurs on Iron Age sites, there is therefore very little evidence for the exploitation of wild species.

### **6.1 Ritual activity**

The only fragment of human bone recovered was an abraded left humerus shaft from a sub-adult, from middle Iron Age enclosure ditch G20. This may be an indication that excarnation was practised, evidence for which is found relatively often on Iron Age sites. In addition to this, however, a largely complete dog skeleton was recovered from enclosure ditch G14. It was a medium-sized dog similar to many found on British Iron Age sites (Harcourt 1974; Clark 1995), where dogs were commonly buried as complete skeletons (Morris 2011).



## 7. BIBLIOGRAPHY

---

- Albarella, U., Johnstone, C. and Vickers, K. 2008: 'The development of animal husbandry from the Late Iron Age to the end of the Roman period: a case study from South-East Britain', *Journal of Archaeological Science* 35, 1828–48
- Albion Archaeology 2012: *Banbury Lane, King's Sutton, Northamptonshire: Written Scheme of Investigation for Archaeological Excavation* (unpublished report no. 2012/157)
- Albion Archaeology 2014: *Banbury Lane, King's Sutton, Northamptonshire: Assessment of Archaeological Potential and Updated Project Design* (unpublished report no. 2013/172)
- ASC Ltd 2004: *16–18 Wales Street, Kings Sutton, Northamptonshire: Archaeological Watching Brief & Salvage Excavation* (unpublished report)
- Avery, M., Sutton, J.E. and Banks, J.W. 1967: 'Rainsborough, Northants, England: excavations 1961–5', *Proceedings of the Prehistoric Society* 33, 207–306
- Banks, J. 1967: 'Human and animal bones', in M. Avery *et al.*, 302–4
- Cappers, R.T.J., Bekker, R.M., and Jans, J.E.A. 2006: *Digitale Zadenatlas Van Nederland. Digital Seed Atlas of the Netherlands* (Groningen)
- Chapman, A. 2010: 'The Iron Age Pottery,' in T. Upson-Smith, *An archaeological evaluation of land off Station Road, Higham Ferrers, Northamptonshire* (Northamptonshire Archaeology unpublished report 10/170), 12–16.
- Clark, K. 1995: 'The later prehistoric and protohistoric dog: the emergence of canine diversity', *Archaeozoologia* 7, 9–32
- Clark, J. and Walford, J. 2009: *Geophysical Survey and Archaeological Trial Excavation at Land off Banbury Lane, Kings Sutton, Northamptonshire* (unpublished Northamptonshire Archaeology report no. 09/161)
- Cooper, N. (ed.) 2006: *The archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda*, Leicester Archaeology Monograph 13 (Leicester)
- Dawson, M. 2009: *Archaeological Desk Based Assessment, Land off Banbury Lane, Kings Sutton, Northamptonshire*, CgMs
- von den Driesch, A. 1976: *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Monograph 1 (Harvard)
- Ellis, P., Hughes, G. and Jones, L. 2000: 'An Iron Age boundary and settlement features at Slade Farm, Bicester, Oxfordshire', *Oxoniensia* 65, 211–265
- Giorgi, J. 2011: *The Plant Remains from Bedford Western Bypass and Land West of Bedford (BWB1124 and LWB1289)* (Albion Archaeology archive report)



- Grant, A. 1982: 'The use of toothwear as a guide to the age of domestic ungulates', in R. Wilson *et al.* (eds), 91–108
- Grant, A. 1984: 'Survival or sacrifice? A critical appraisal of animal burials in the Iron Age', in C. Grigson and J. Clutton-Brock (eds), *Animals and Archaeology 4: Husbandry in Europe*, BAR International Series 227 (Oxford), 221–8
- Greig, J. 1991: 'The British Isles', in W. van Zeist, K. Wasylikowa and K. Behre (eds), *Progress in Old World Palaeoethnobotany* (Rotterdam), 299–334
- Hambleton, E. 1999: *Animal Husbandry Regimes in Iron Age Britain*, BAR British Series 282 (Oxford)
- Hanf, M. 1983: *The Arable Weeds of Europe* (Ludwigshafen)
- Harcourt, R. 1974: 'The dog in prehistoric and early historic Britain', *Journal of Archaeological Science* 1, 151–76
- Haselgrove, C., Armit, I., Champion, T., Creighton, J., Gwilt, A., Hill, J.D., Hunter, F. and Woodward, A. (eds.) 2001: *Understanding the British Iron Age: An agenda for Action* (Salisbury)
- Hillman, G. 1984: 'Interpretation of archaeological plant remains: the application of ethnographic models from Turkey', in W. van Zeist and W.A. Casparie (eds), *Plants and Ancient Man. Studies in Palaeoethnobotany* (Rotterdam), 1–41
- Jackson, D.A. 1975: 'An Iron Age Site at Twywell, Northamptonshire', *Northamptonshire Archaeology* 10, 31–93
- Jacomet, S. 2006: *Identification of cereal remains from archaeological sites*. 2nd edition (Basel)
- Jones, G. 2006: 'Tooth eruption and wear observed in live sheep from Butser Hill, the Cotswold Farm Park and five farms in the Pentland Hills, UK', in D. Ruscillo (ed.), *Recent Advances in Ageing and Sexing Animal Bones* (Oxford), 155–78
- Jones, M. 1981: 'The Development of Crop Husbandry', in M. Jones and G. Dimbleby (eds), *The Environment of Man: the Iron Age to the Anglo-Saxon Period*, BAR British Series 87 (Oxford), 95–127
- Kidd, A. 2004: 'Northamptonshire in the First Millennium BC', in Tingle 2004, *The Archaeology of Northamptonshire* (Northampton), 44–62
- Knight, D. 2002: 'A Regional Ceramic Sequence: Pottery of the First Millennium BC between the Humber and the Nene', in A. Woodward and J.D. Hill (eds), *Prehistoric Britain: The Ceramic Basis*, Prehistoric Ceramics Research Group Occasional Publication 3 (Oxford), 119–42
- Knight D., Vyner B. and Allen C. 2012: *East Midlands Heritage: An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands*, Nottingham Archaeological Monographs 6



- Levine, M. 1982: 'The use of crown height measurements and eruption-wear sequences to age horse teeth', in R. Wilson *et al.* (eds), 223–50
- Malone, S. 2013: *Land at Banbury Lane, Kings Sutton, Northamptonshire: Geophysical Survey* (unpublished Archaeological Project Services report no. 126/13)
- Maltby, M. 2003: 'The animal bone', in A. Thomas and D. Enright, 'Excavation of an Iron Age settlement at Wilby Way, Great Doddington', *Northamptonshire Archaeology* 31, 48–56
- Maltby, M. 2007: 'Chop and change: specialist cattle carcass processing in Roman Britain', in B. Croxford, N. Ray, R. Roth and N. White (eds), *TRAC 2006: Proceedings of the Sixteenth Annual Theoretical Roman Archaeology Conference, Cambridge 2006* (Oxford), 59–76
- Maltby, M. 2008: 'Animal bones' in M. Luke, *Life in the Loop: Investigation of a Prehistoric and Romano-British Landscape at Biddenham Loop, Bedfordshire*, *East Anglian Archaeology* 125 (Bedford), 16, 92, 118–9, 152–4, 189–92, 238–40, 283–4
- Maltby, M. 2010: *Feeding a Roman Town: Environmental Evidence from Excavations in Winchester 1972–1985* (Winchester)
- Maltby, M. 2011: *Animal Bones from Combined Bedford Western Bypass and Land West of Bedford Project* (unpublished report for Albion Archaeology)
- Maltby, M. 2013a: *Animal Bones from Land off Higham Road, Burton Latimer, Northamptonshire* (unpublished report for Albion Archaeology)
- Maltby, M. 2013b: *Animal Bones from Marston Park, Marston Moretaine, Bedfordshire* (unpublished report for Albion Archaeology)
- Martin, J. 2013: 'Prehistoric, Romano-British and Anglo-Saxon activity at Whitelands Farm, Bicester', *Oxoniensia* 76, 173–240
- Monckton, A. 2000: *Charred Plant Remains from an Iron Age Settlement Site at Drift East, Covert Farm, Crick, Northamptonshire (DRE97)* (ULAS Report No. 2000/107)
- Morris, J. 2011: *Investigating Animal Burials: Ritual, Mundane and Beyond*, BAR British Series 535 (Oxford)
- Palmer, S. 2002: 'An Archaeological Resource Assessment for the Middle Bronze Age to Iron Age in Warwickshire and Solihull', in D. Hurst and R. Jackson (eds), *West Midlands Regional Research Framework for Archaeology: Seminar 2* (published online)
- PCRG 2011: *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*, Prehistoric Ceramics Research Group Occasional Papers 1 and 2, 3rd edition revised
- Renfrew, J. 1985: *Food and Cooking in Prehistoric Britain. History and Recipes* (London)



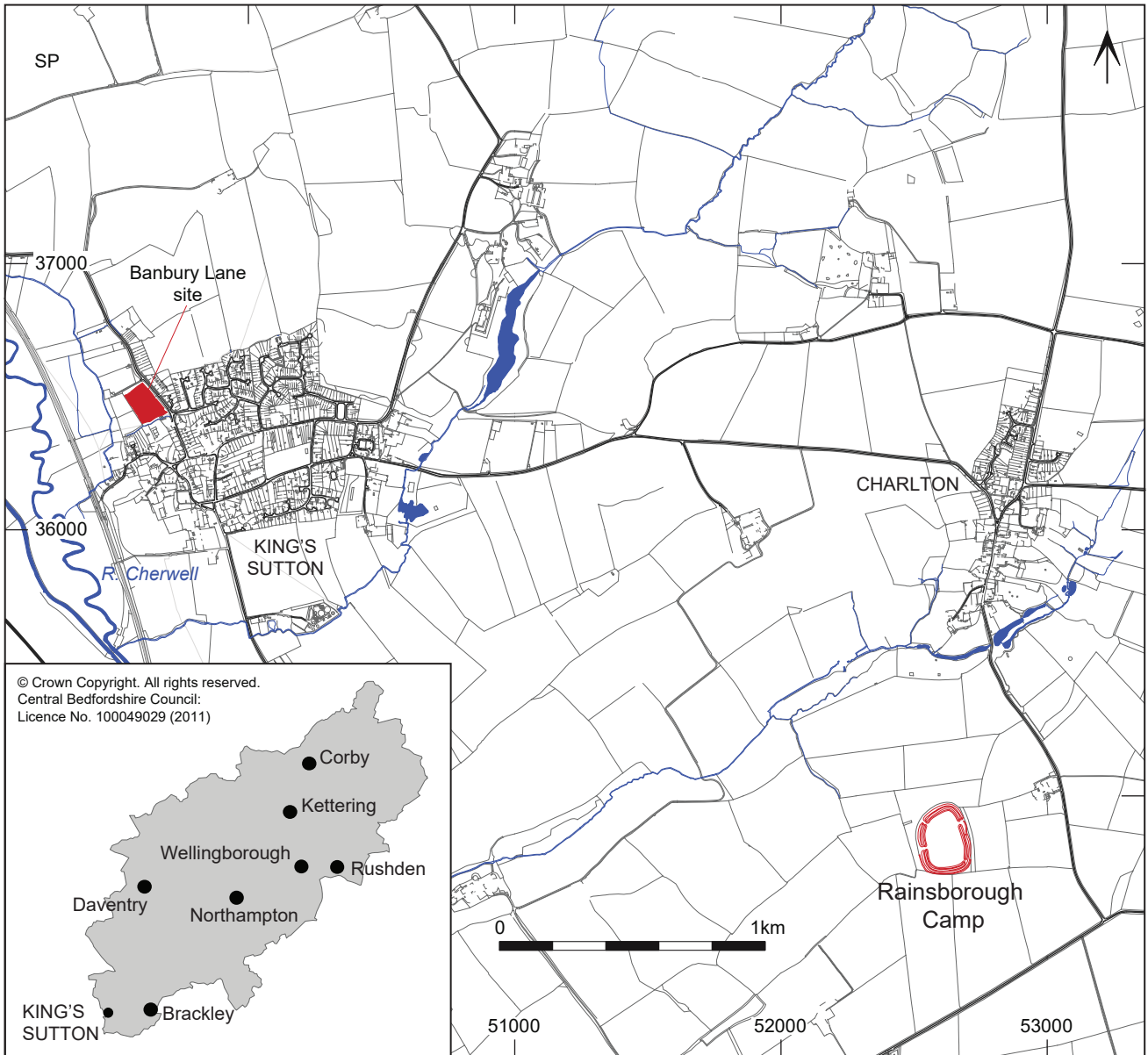
---

Stace, C. 2005: *New Flora of the British Isles*. 2nd edition (Cambridge)

Stevens, C. 2004: 'Iron Age and Saxon settlement at Jugglers Close, Banbury, Oxfordshire',  
*Oxoniensia* 69, 385–416

Wilson, P. and King, M. 2003: *Arable Plants – a field guide*

Wilson, R., Grigson C. and Payne, S. (eds), *Ageing and Sexing Animal Bones from Archaeological Sites*, BAR British Series 109



**Figure 1: Site location**

Base map reproduced from the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office, by Albion Archaeology, Central Bedfordshire Council, OS Licence No. 100017358(LA). Crown Copyright.



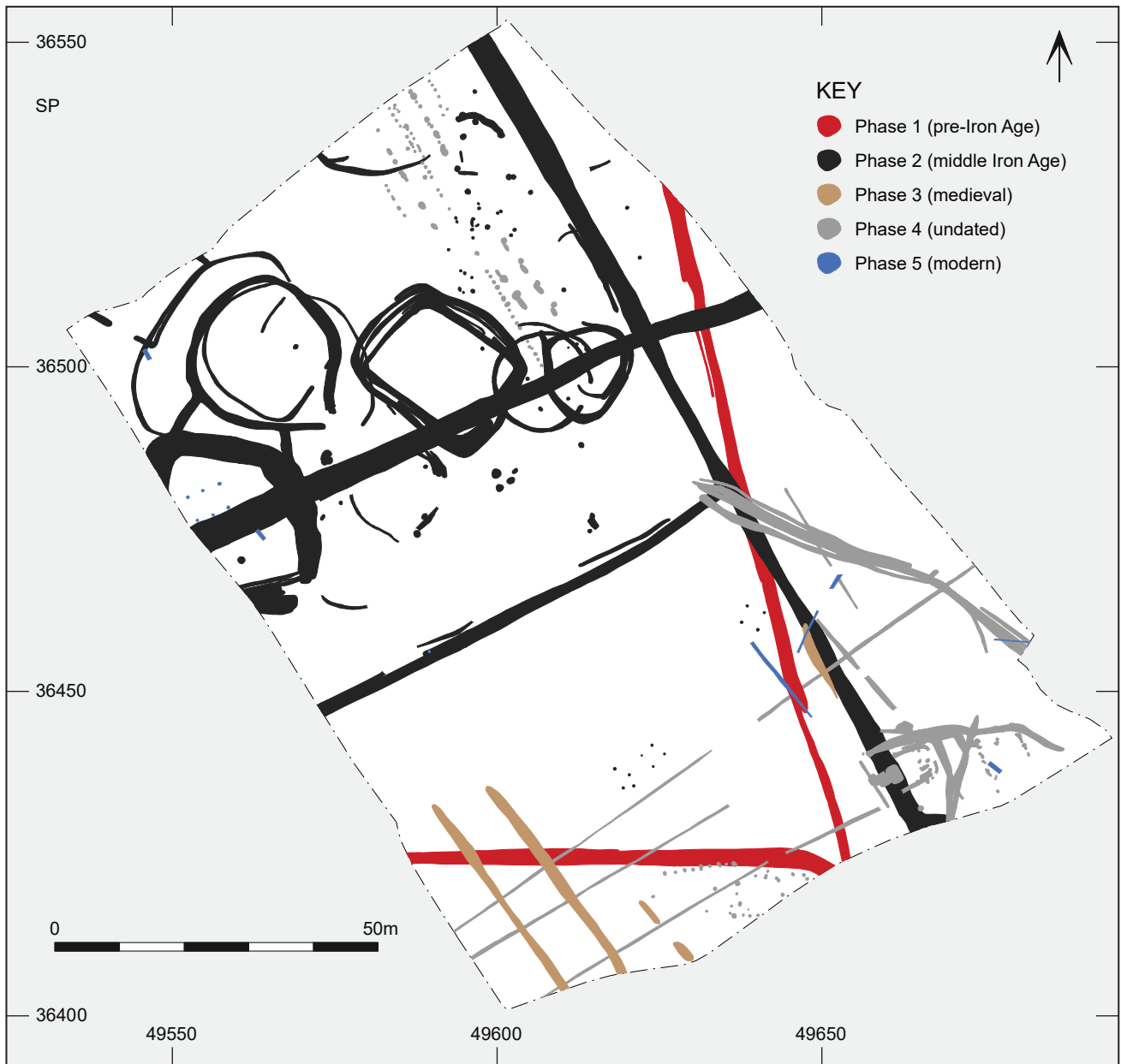
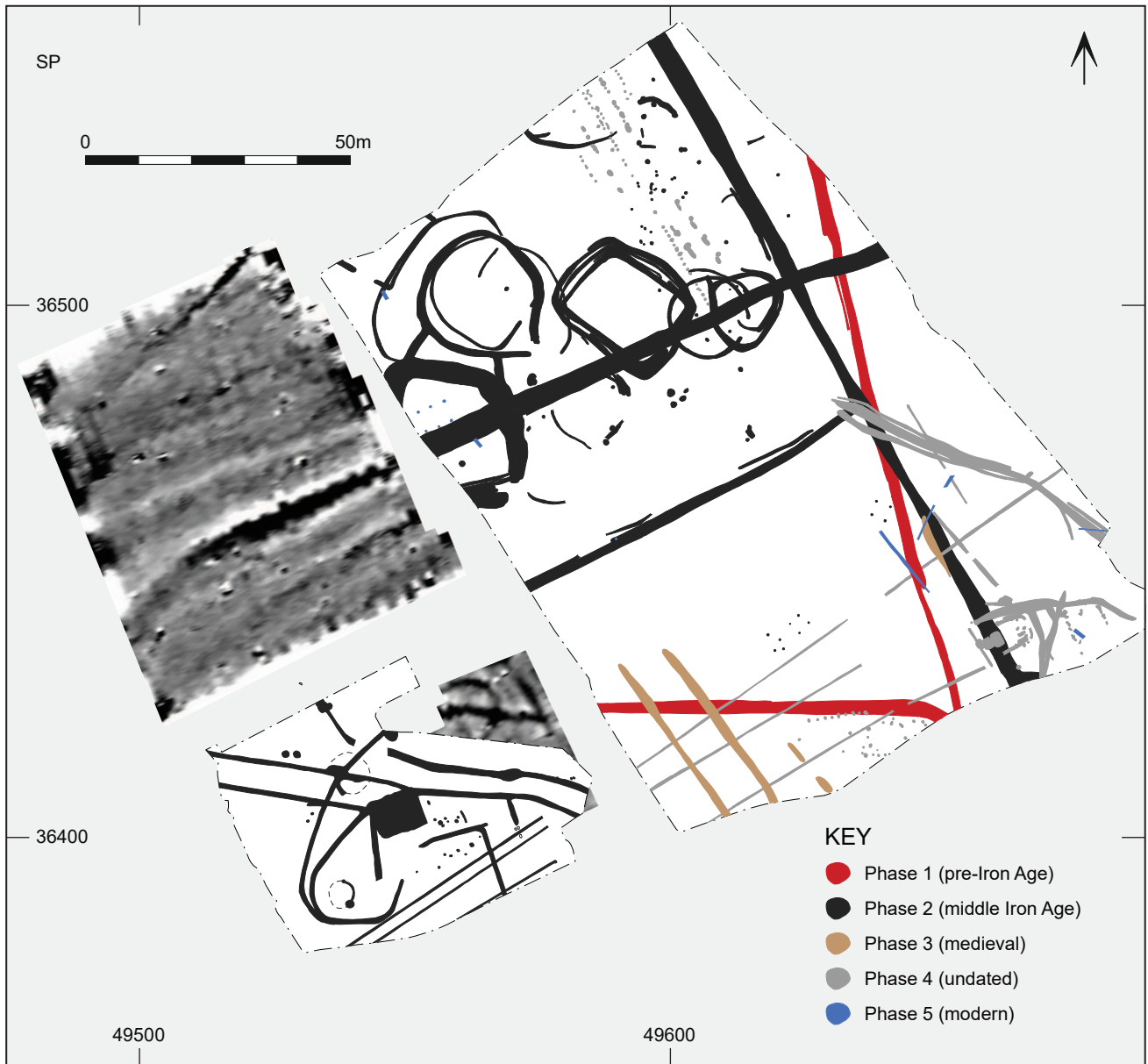


Figure 2: Phased all-features plan



**Figure 3:** Plan of excavated features in relation to adjacent watching brief (ASC Ltd 2004) and geophysical survey (Malone 2013)

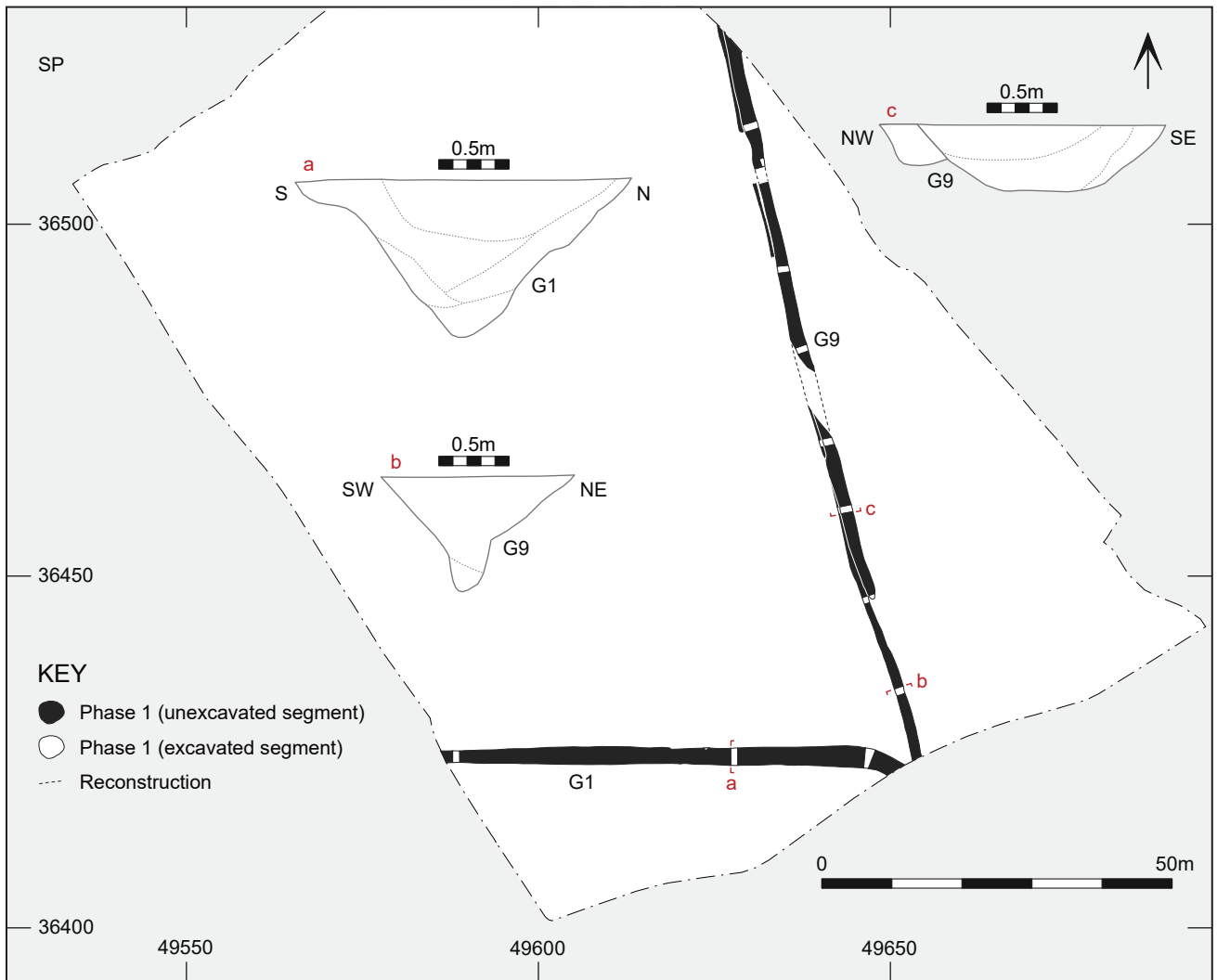
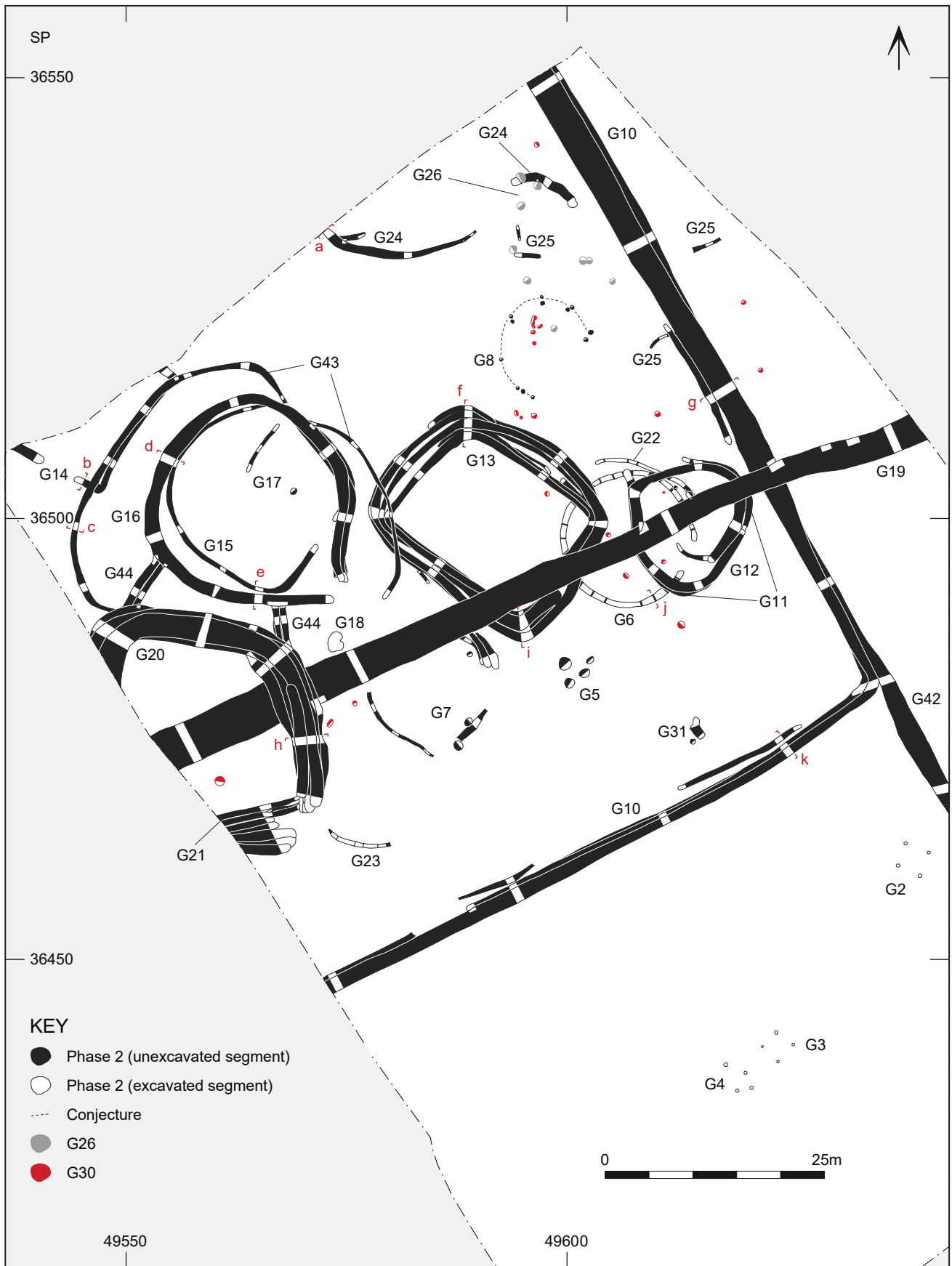
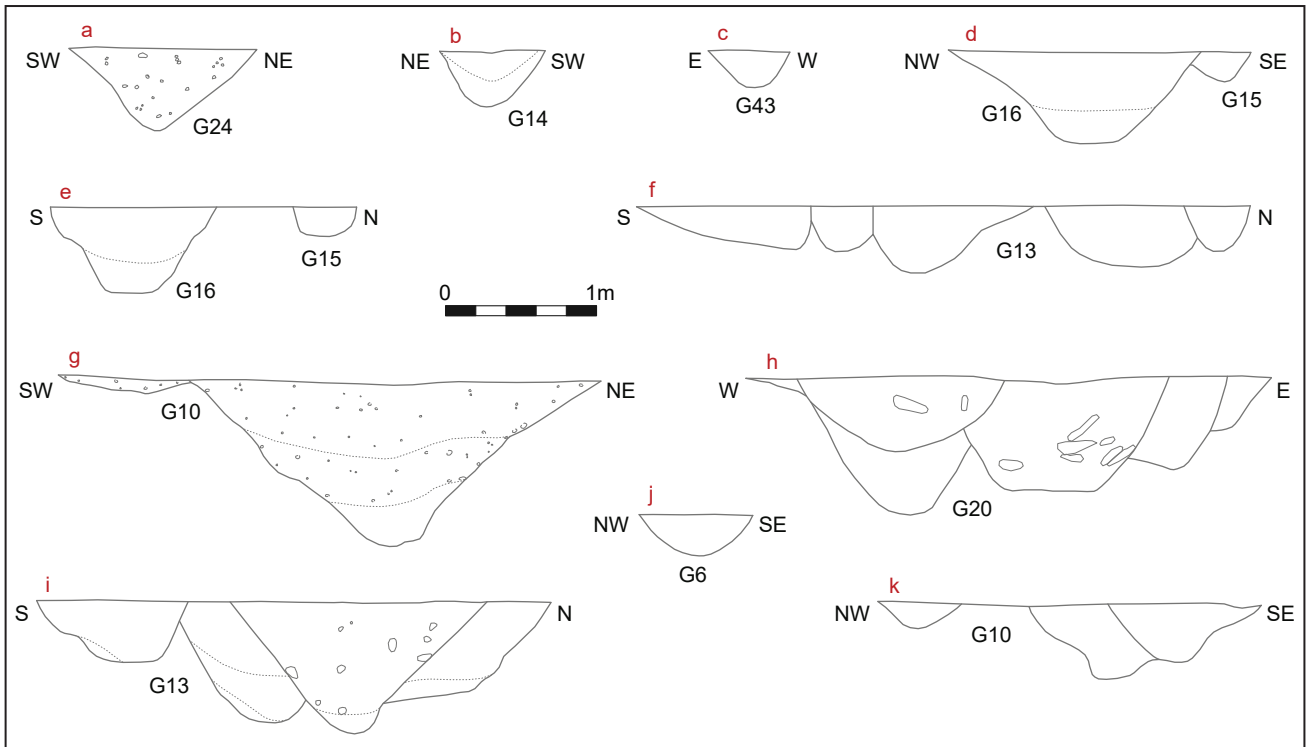


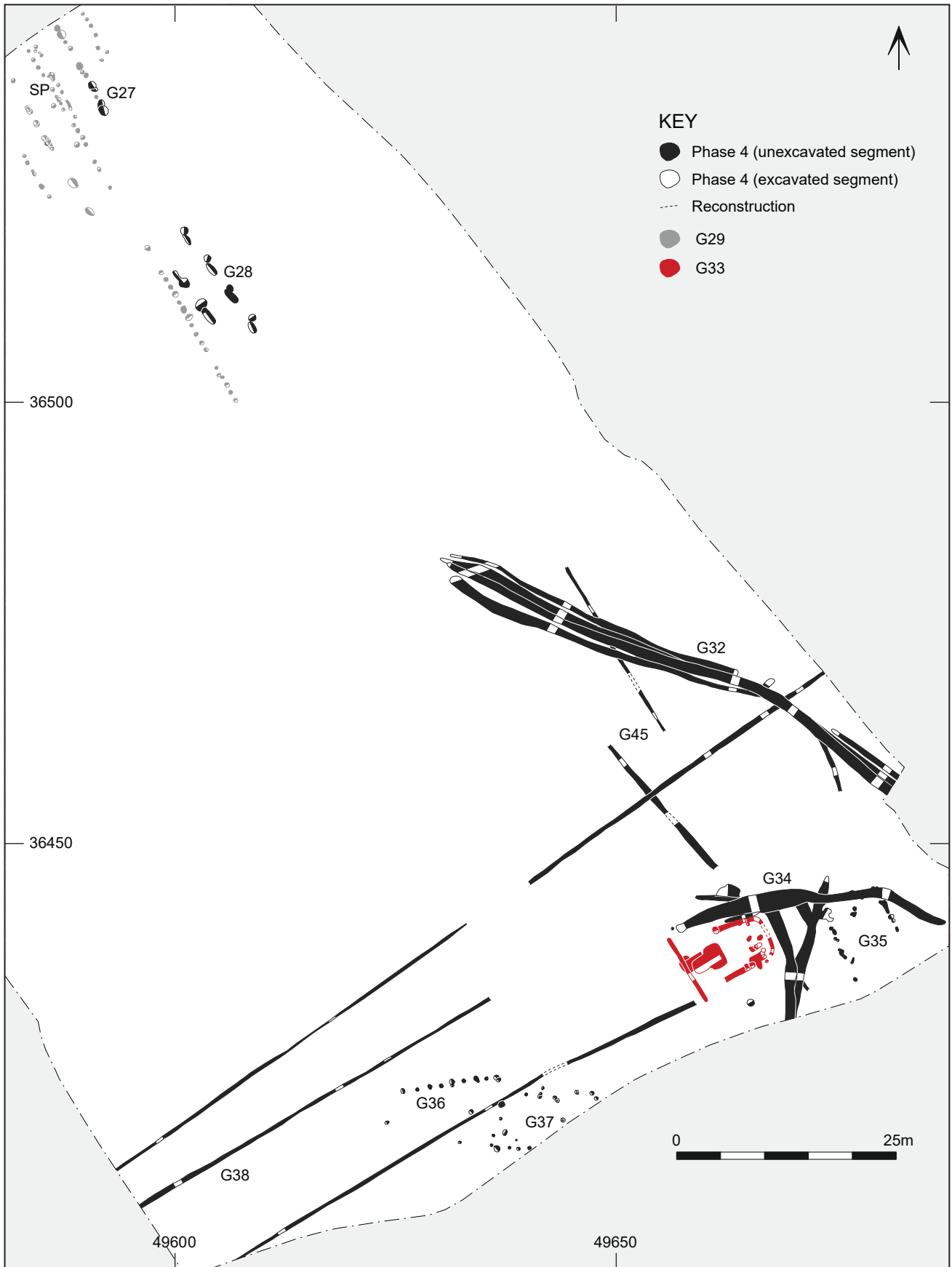
Figure 4: Phase 1 (Pre-Iron Age) — plan and selected section drawings



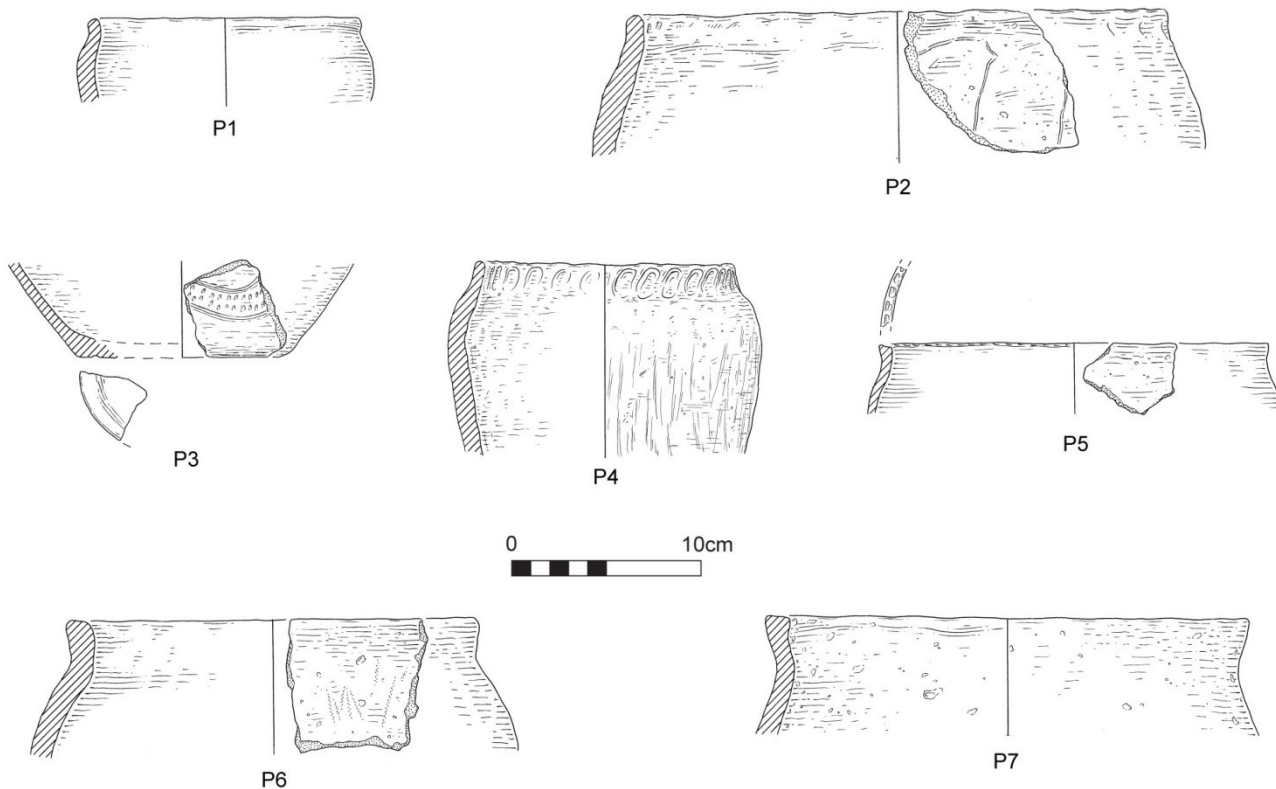
**Figure 5:** Phase 2 (middle Iron Age) — plan of all features



**Figure 6:** Phase 2 (middle Iron Age) — selected section drawings



**Figure 7:** Phase 4 (undated but probably post-medieval) — plan of all features



Illust.	Fabric	Description	Group
1	GRSM / QUSF	Vessel with beaded rim	G10: Ditch
2	SHCC / QUMM	Large vessel with upright rounded rim; faint fingertip impressions at the neck and shallow scoring on the body	G12: Enclosure ditch
3	SHCF	Vessel base angle with curvilinear tooled lines infilled with double row of dots	G20: Enclosure ditch
4	SHMF / GRMF / QUSF	Vessel with upright rounded rim, fingertip impressed decoration and faint brushing/scoring	G20: Enclosure ditch
5	SHMF / GRMF / QUSF	Fine-walled vessel with flattened rim decorated with delicate fingertip impressions	G14: Enclosure ditch
6	SHCC	Vessel with flattened rim	G16: Enclosure ditch and re-cut
7	SHCC	Vessel with flattened rim and slight internal ledge	G5: Pit group

Pottery illustration catalogue



**Plate 1:** General photograph of site looking north, with roundhouse G6 in foreground



**Plate 2:** Dog skeleton in the base of ditch G14. Scale 0.4m





**Plate 3:** View of hearth G33, looking north-west. Scale 1m

Central  
Bedfordshire

Albion  
archaeology



Albion Archaeology  
St Mary's Church  
St Mary's Street  
Bedford  
MK42 0AS

**Telephone** 01234 294000  
**Email** [office@albion-arch.com](mailto:office@albion-arch.com)  
[www.albion-arch.com](http://www.albion-arch.com)

