



# Late Iron Age occupation on land at West End, Raunds, Northamptonshire September 2014 to June 2015

Report No. 16/136

Author: Carol Simmonds

Illustrators: Olly Dindol and Carol Simmonds



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**OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		<b>molanort1-283934</b>
Project name	Late Iron Age occupation on land at West End, Raunds, Northamptonshire September 2014 to June 2015	
Short description	<p>Between September 2014 and June 2015 MOLA (Museum of London Archaeology) carried out an archaeological excavation on land north of Brick Kiln Lane, West End, Raunds, Northamptonshire. There were two periods of activity comprising a late Iron Age to early Roman farmstead and enclosures and a medieval windmill mound and ditch. The site occupied the higher ground overlooking the River Nene valley. The late Iron Age activity comprises a small unenclosed farmstead with clearly defined domestic and livestock management zones. The domestic area included a roundhouse eavesdrip gully and two ancillary ring ditches comprised working areas. The livestock zone consisted of a much maintained rectangular enclosure and field system. The ring ditches and enclosure went out of use sometime before AD 100 and were replaced by a boundary ditch which respected the alignment and position of the enclosure and field system.</p> <p>In the medieval period the site was under plough and was located near the parish boundary of Raunds and Ringstead. The position of the late Iron Age boundary ditch continued to be respected into the medieval period, with a headland in roughly the same location. The high ground was considered to be advantageous, with a medieval post mill located on the headland. This post mill ceased to be used before the 18th century as it does not appear on the historic maps.</p>	
Project type	Archaeological excavation	
Site status	None	
Previous work	Desk-based assessment for environmental impact assessment, geophysical survey and trial trenching	
Current Land use	Agricultural	
Future work	None known	
Monument type/ period	Late Iron Age and early Roman unenclosed farmstead, livestock management enclosures and ditches. Medieval windmill ditch and mound.	
Significant finds	Late Iron Age pottery, antler, fuel ash slag and a fragment of Eifal lava millstone	
<b>PROJECT LOCATION</b>		
County	Northamptonshire	
Site address	Brick Kiln Lane, Raunds	
Study area		
OS Easting & Northing	499400 273800	
Height OD	65m to 70m aOD	
<b>PROJECT CREATORS</b>		
Organisation	MOLA Northampton	
Project brief originator	Lesley-Ann Mather (NCC)	
Project Design originator	MOLA Northampton	
Director/Supervisor	Carol Simmonds (MOLA)	
Project Manager	Liz Muldowney (MOLA)	
Sponsor or funding body	Bellway Homes (Northern Home Counties)	
<b>PROJECT DATE</b>		
Start date	September 2014	
End date	July 2015	

RAUNDS, WEST END

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ARCHIVES	Location	Content
Physical	MOLA code: RWE14 NHER: ENN107505	Pottery, animal bone, millstone, fired clay, worked flint, metal finds, fuel ash slag
Paper		Site context records and registers.
Digital		Photographs, report and dxf files.
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Late Iron Age occupation on land at West End, Raunds, Northamptonshire September 2014 to June 2015	
Serial title & volume	Report 16/136	
Author(s)	Carol Simmonds	
Page numbers	73 pages of text and illustration plus appendix	
Date	December 2016	

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# **Late Iron Age occupation on land at West End, Raunds, Northamptonshire September 2014 to June 2015**

## **Abstract**

*Between September 2014 and June 2015 MOLA (Museum of London Archaeology) carried out an archaeological excavation on land north of Brick Kiln Lane, West End, Raunds, Northamptonshire. There were two periods of activity comprising a late Iron Age to early Roman farmstead and enclosures and a medieval windmill mound and ditch. The site occupied the higher ground overlooking the River Nene valley.*

*The late Iron Age activity comprises a small unenclosed farmstead with clearly defined domestic and livestock management zones. The domestic area included a roundhouse eavesdrip gully and two ancillary ring ditches comprised working areas. The livestock zone consisted of a much maintained rectangular enclosure and field system. The ring ditches and enclosure went out of use sometime before AD 100 and were replaced by a boundary ditch which respected the alignment and position of the enclosure and field system.*

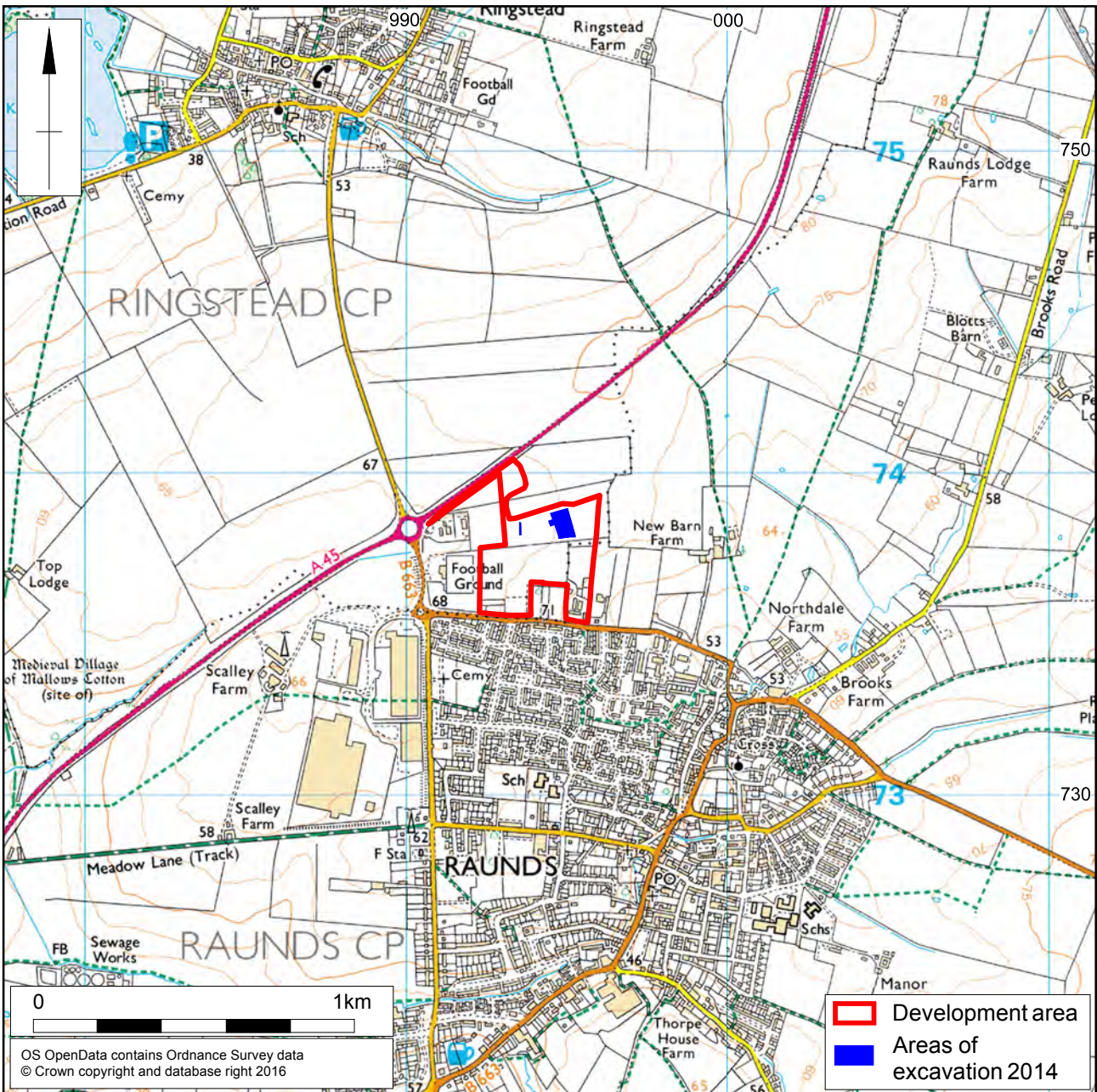
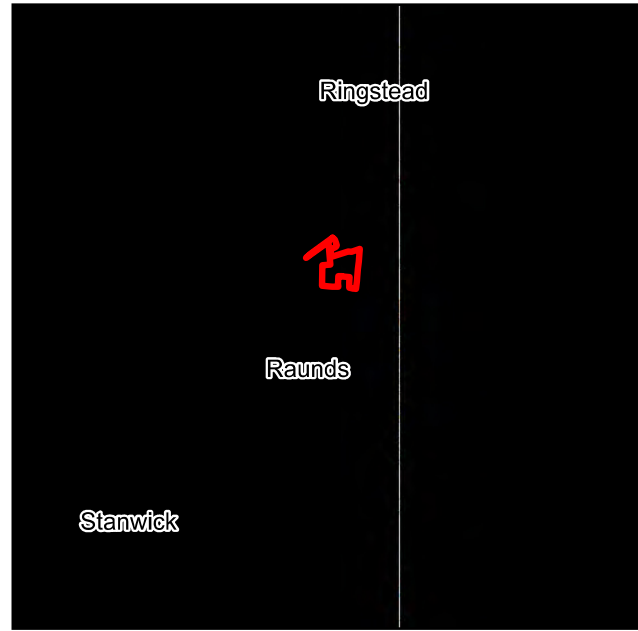
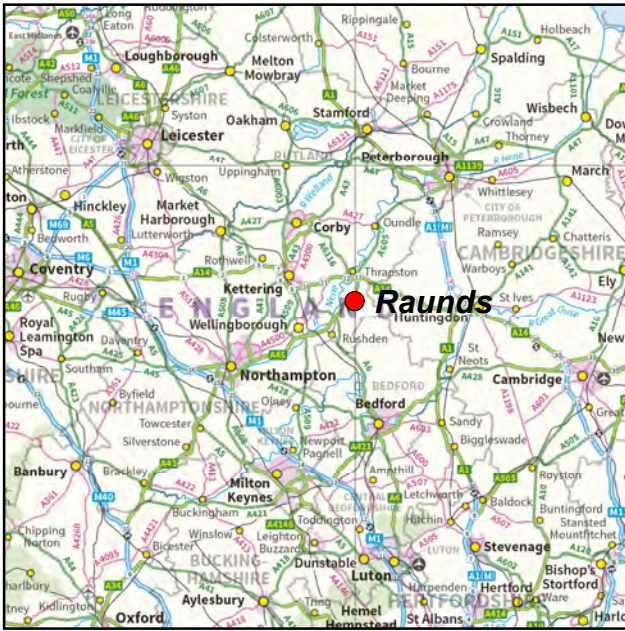
*In the medieval period the site was under plough and was located near the parish boundary of Raunds and Ringstead. The position of the late Iron Age boundary ditch continued to be respected into the medieval period, with a headland in roughly the same location. The high ground was considered to be advantageous, with a medieval post mill located on the headland. This post mill ceased to be used before the 18th century as it does not appear on the historic maps.*

## **1 INTRODUCTION**

MOLA (Museum of London Archaeology) were commissioned by Bellway Homes Ltd – Northern Home Counties to undertake a programme of archaeological mitigation works at West End, Raunds, Northamptonshire (NGR 499400 273800, Fig 1). The works were required as a condition on planning consent for residential development and are being undertaken in accordance with Paragraph 141 of the National Planning Policy Framework (DCLG 2012). Other parcels of land lie within the overall development (Outline Planning reference: 11/01747/OUT) but are to be subject to a separate mitigation programme. This report solely covers the archaeological mitigation works of the Bellway development.

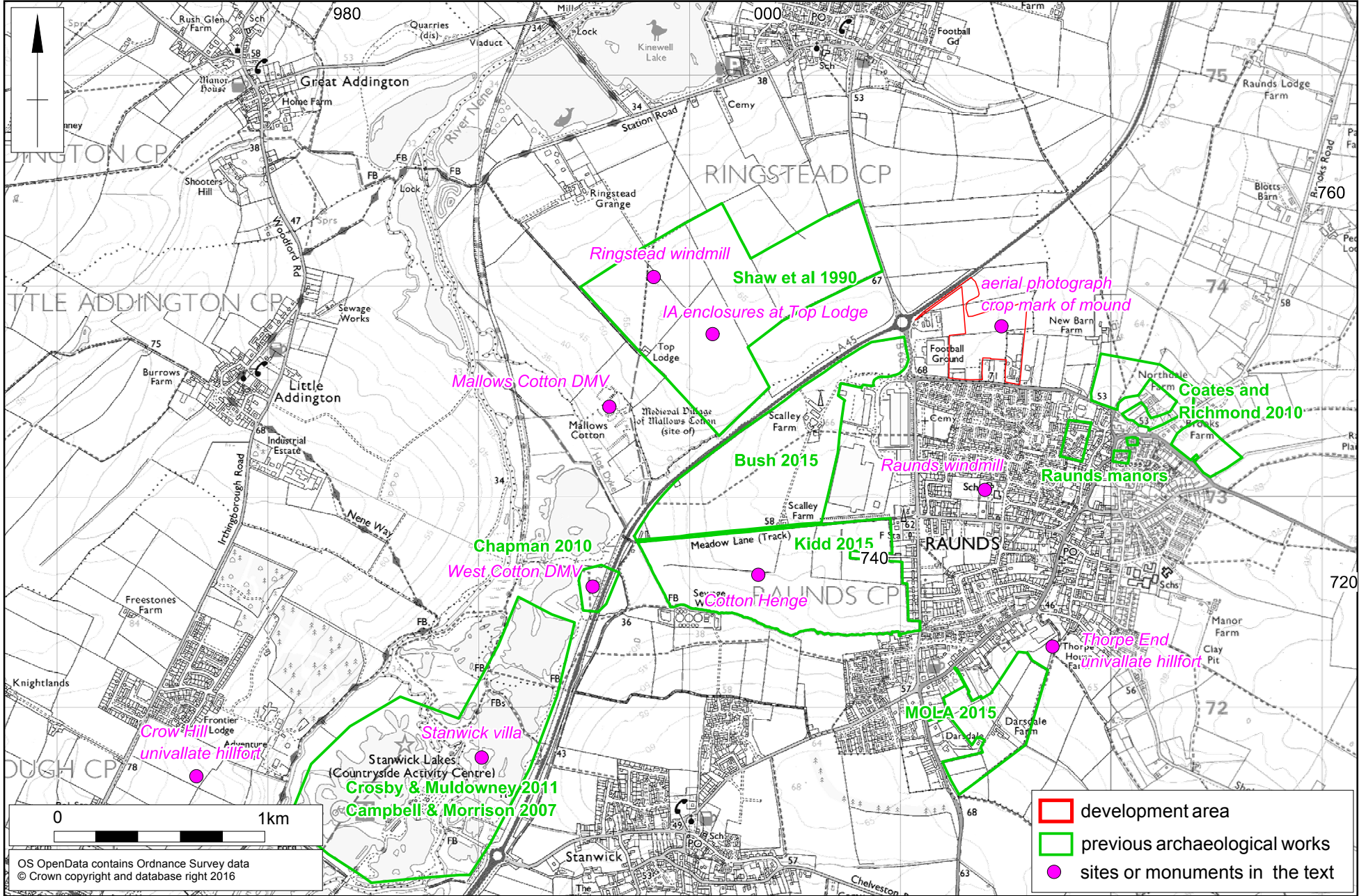
Previous archaeological works comprise desk-based assessment (PCA 2011), geophysical survey (Bartlett and Coates 2011) and trial trench evaluation (Coates and Richmond 2011). These works resulted in the identification of two areas of archaeological interest within the Bellway Homes development area.





Scale 1:20,000

Site location Fig 1



OS OpenData contains Ordnance Survey data  
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- development area
- previous archaeological works
- sites or monuments in the text

## 2 BACKGROUND

### 2.1 Location, topography and geology

The development area is located on the northern side of Raunds. The northern boundary of the site is defined by the A45 trunk road whilst the western side is defined by a service station fronting onto the A45 as well as the grounds associated with Raunds Town Football Club. Brick Kiln Lane and the modern edges of Raunds form the southern boundary with agricultural land to the east. Prior to the excavation the development area comprised five arable fields defined by hedges and ditches. The site straddles the parish boundary between Ringstead and Raunds, with both excavation areas sited within Ringstead parish.

Topographically the site sits on a gentle south facing slope overlooking the River Nene valley. The development area sits at between 65m aOD and 70m aOD with Area 1 on the crest of higher ground at the 70m aOD mark. A low ridge line orientated roughly north to south in the western portion of Area 1 may have been a relict headland.

The underlying bedrock comprises Upper Jurassic mudstones of the Oxford Clay formation. This was overlain with superficial deposits of Oadby member, Diamiction glacial till (BGS 2016).

### 2.2 Historical and archaeological background

The area to the north and west of Raunds has been subject to a considerable amount to archaeological study (Fig 2). In part this has been as a result of residential and commercial development in the late 20th century and in advance of aggregate extraction in the Nene valley (Meadows *et al* 2008; Crosby and Muldowney 2011). The corpus of commercial work should also be put into the context provided by larger scale landscape projects such as the Raunds Area Survey (Parry 2006) and the medieval *Open Fields of Northamptonshire* (Hall 1995).

The development area itself was the subject of a desk-based assessment which formed part of the Environmental Statement (PCA 2011). Following this a geophysical survey (Bartlett and Coates 2011) and an archaeological trial trenching (Coates and Richmond 2011) exercise were undertaken across the site. The survey recorded an area of archaeological potential in the northern portion of the development area. The subsequent trial trenching identified at least three ring ditches, thought to be middle to late Iron Age round houses, and a number of undated ditches.

#### ***The prehistoric landscape***

The majority of recorded prehistoric remains suggest that occupation was situated in the valley bottom and on the lower slopes (PCA 2011). Woodland clearance in the valley bottom may have started during the Neolithic when the first monuments were constructed (Campbell and Robinson 2007). The process of refurbishment of existing monuments and the construction of new monuments in the valley bottom continued into the Bronze Age. The monuments included a Neolithic causewayed ring ditch at Stanwick, the Long Mound and Long Enclosure at West Cotton, as well as a number of mounds and ring ditches all on elevated gravel terraces across the valley base (Harding and Healy 2007). Also of note, as it sits on higher ground (c 50m aOD), is the monument called 'Cotton Henge' comprising two ring ditches (Humble 1994; Kidd 2015).

The most notable valley site in the area was at Stanwick Lakes where there was continuity of use and settlement from the Neolithic onwards (Crosby and Muldowney 2011). Here during the late Bronze Age and early Iron Age there was a clear shift away from the construction of monuments to utilisation of farmland by means of a system of

rectilinear fields and connecting driveways (Harding and Healy 2007). The inhabitants of the area occupied the valley bottom in an unenclosed settlement comprising roundhouses and associated four-post structures. Settlement continued to be unenclosed into the Late Iron Age and early Roman period.

Although there was some activity on the higher ground from the late Neolithic as evidenced by three isolated late Neolithic cremation burials at Warth Park (Bush 2015), it was not until the Bronze Age that the upper slopes and higher ground began to be utilised intensively. A putative cremation, Bronze Age in date, was recorded during evaluation works, c 950m east of the site (Coates and Richmond 2011; PCA 2011). Later mitigation works (as yet unpublished) undertaken by MOLA in 2016 revealed five additional cremations in this area (J Elston, *pers. comm.*). Bronze Age and early Iron Age settlement comprising pits and post-built structures were also recorded at Warth Park, Phase 2 (Bush 2015).

A ring ditch was identified from aerial photographs within the boundaries of the development area at West End (PCA 2011). Initial interpretation of this feature was cautious, with the suggestion that it could be either a round barrow, owing to its size, or a natural feature.

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

During the Iron Age and Roman periods the lower slopes and terrace gravels of the Nene valley continued to be the focus for settlement with a clear bias of small towns and villa sites in these areas. The higher ground had smaller scale occupation such as farmsteads. At Stanwick the unenclosed settlement of the late Iron Age gradually became enclosed and incorporated stone buildings. By the 3rd-century AD a substantial Roman villa formed a local estate centre. A similar pattern of continuity of Iron Age and Roman settlement was recorded at Wollaston c 14km to the south-west (Meadows et al 2008).

Occupation of the higher ground tended to be smaller scale comprising enclosures and scattered settlement. Iron Age settlement comprising around 10 enclosures and at least one ring ditch of Iron Age date were recorded at Ringstead Grange (Shaw 1992).

At Warth Park a large multi-recut ditch of probable Iron Age date bounds the northern central area and follows the natural topography of the site, either on or just below the natural ridgeline. However, Iron Age and Roman features were identified in the immediate vicinity and the presence of Iron Age ditches and pits, some including possible industrial/hearth debris within the bounded area (Kidd 2015); along with early Iron Age features identified to the north of the site (Warth Park, Phase 2; Bush 2015) suggest that the ditch is of Iron Age origin and formed a boundary to an area of early to early middle Iron Age occupation. Compared with the sites in the valley floor the site at Warth Park is not as densely occupied although there was a similar pattern of successive utilisation.

An Iron Age hill fort was situated 4km to the west at Crow Hill, Irthlingborough (Scheduled Monument 1013267). One kilometre to the south of West End, a Scheduled Monument notice (1013134) described the enclosure as a univallate Iron Age hillfort, although this suggestion is unlikely. An evaluation trench through this monument as part of the Raunds Area Survey project in the 1980s found its enclosure ditch was less than 2m wide and 1m deep (Parry 2006, fig 6.50). The Crow Hill hillfort may have continued from the late Iron Age into the medieval period. The Thorpe End site seems to have been abandoned and saw limited use during the Roman period but was reoccupied in the early to middle Saxon period.

### ***Saxon and later***

Current evidence identifies the development area as lying within a landscape that was both settled and utilised throughout the Saxon and post-Conquest period. Early to middle Saxon occupation was dispersed in nature and liable to shift over time, although by the middle or late Saxon period is likely to have become more stable with major centres established at West Cotton, Raunds and Thorpe End.

Intermittent episodes of early and middle Saxon activity were recorded on lower ground at West Cotton, with limited activity in the 6th century, comprising two sunken-featured buildings (Chapman 2010). The foundation of a major new settlement occurred in the early 10th century AD, comprising a high status complex of timber buildings with a small watermill. This settlement in its original form was contained within a partially enclosing defensive ditch and timber palisade; this was removed by the mid-late 10th century AD when a new courtyard arrangement was developed. West Cotton was a rural hamlet by the later 13th century AD but was gradually deserted through the 14th and 15th centuries. A physical link between West Cotton and the deserted hamlet of Mallows Cotton was provided by Cotton Lane (Windell 1990 and Parry 2006).

Occupation of the higher ground seems to have continued to have been dispersed in the early and middle Saxon periods. Recent excavations undertaken in advance of the Warth Park, Phase 2 development to the west of Raunds have recorded a sunken-featured building (Bush 2015). It was in the late Saxon period that the higher ground began to be settled in a more organised fashion with a major local centre established at Raunds which included an early church and cemetery.

Through the medieval period, current evidence suggests that the development area is likely to have formed part of open cultivated land that surrounded adjacent settlement. The excavation areas lay within Ringstead parish and Area 1 straddled the headland between two furlongs. The geophysical survey recorded faint traces of ploughed out furrows across the development area (Bartlett and Coates 2011).

The parishes of Ringstead and Raunds were enclosed in 1839 (Salzmann 1937a and b) and 1798 (PCA 2011) respectively. The resulting arrangement of fields generally comprised rectangular portions of land often defined by hedgerows.

### **3 AIMS, OBJECTIVES AND METHODOLOGY**

#### **3.1 Project Aims**

The purpose of the work was to determine and understand the nature, function and character of the archaeological site in its cultural and environmental setting. It aimed to provide further information on the settlement activity within the development area and a greater understanding of activity to the north of Raunds (Mather 2013).

The general aims of the investigation were to:

- Mitigate the potential impacts from the proposed development of the site through archaeological recording, analysis and dissemination.
- Refining the date, nature, character and extent of the activity on the development site
- Recovering artefacts to assist in the development of type series within the region
- Recovering palaeo-environmental remains to determine past local environmental conditions
- Creating an organised and indexed site archive
- Analyse, interpret and report on the findings from the field work

#### **3.2 Research objectives**

Specific research objectives were drawn from national and regional research frameworks documents (English Heritage 1991 and Knight *et al* 2012, replacing Cooper 2006) to be used to enhance our understanding of the activity on the site.

Prior to the start of works, specific research objectives covering the Iron Age taken from Knight *et al* were considered. They comprised:-

- Understanding the emergence of settlement
- Understanding the development of field systems and how this relates to changes in the agrarian landscape
- Whether there is any evidence for agricultural intensification
- Contribute to understanding the relationship between settlement patterns and agricultural changes
- Contribute to the understanding of the rural economy and diet.

### 3.3 Excavation and recording methodology

The mitigation works comprised an area of Open Area Investigation (Area 1) and an area of Archaeological Investigation and Recording (Area 2) (Fig 3). Topsoil and subsoil were removed under archaeological supervision by mechanical excavator, fitted with a toothless ditching bucket. Recording followed standard MOLA (Northampton) recording procedures (MOLA 2014).

The two areas of excavation, totalling just over 0.6ha, were as follows:

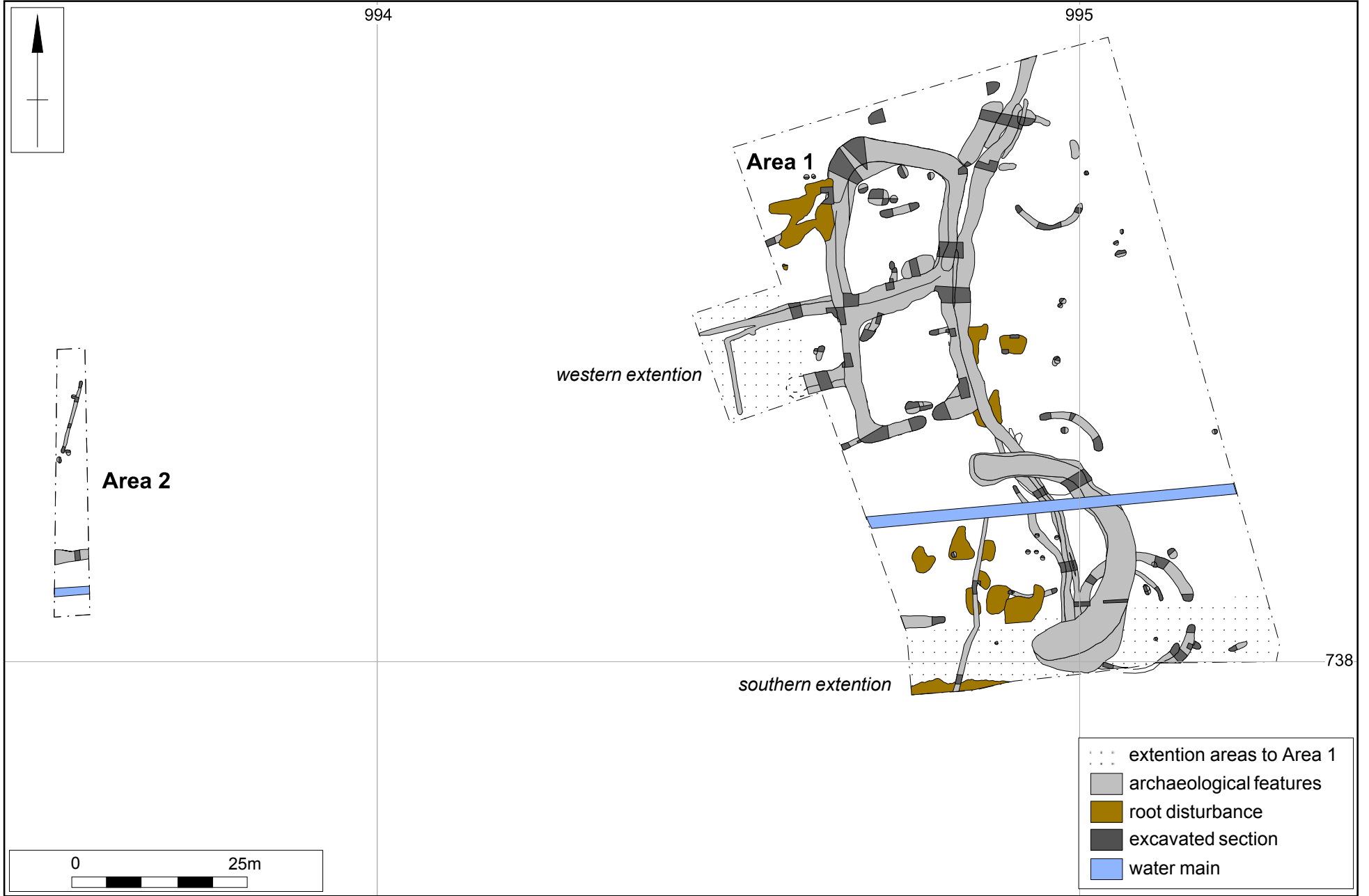
Area 1 (0.6ha; Figs 2 and 3): A group of geophysical anomalies in the central part of the site confirmed by trial trenching to be an area of mid-late Iron Age settlement. The area was divided by a baulk left proud over the line of a water main.

Area 2 (50m x 5m; Figs 2 and 4): centred on Trench 20 and targeted a ditch, a gully and a pit, all undated.

Site constraints encountered during the works included a modern water main which crossed the southern parts of the excavation areas, overhead electric cables and reptile habitat.

The archaeological works took place over a number of phases (Fig 3), in part due to the presence of overhead cables and possible reptile habitat along the hedgeline south of Area 1. The first phase of works took place between September and December 2014 and comprised the excavation of the bulk of Area 1 (Figs 3 & 4) and also Area 2. The western extension of Area 1 was excavated in wet conditions during February 2015 (Figs 3 & 5) in order to define features extent within the development area. The southern extension (Figs 3 & 6), adjacent to the overhead power lines, was investigated in June 2015.

Where relevant the results of the trial trenching are discussed to put the features recorded during the excavation into context.







Excavation of Area 1 in progress, September 2014, looking north-west Fig 4



The western extension of Area 1, February 2015, looking north Fig 5



The southern extension of Area 1, June 2015, looking west Fig 6

## 5 THE EXCAVATED EVIDENCE

### 5.1 Summary of site chronology

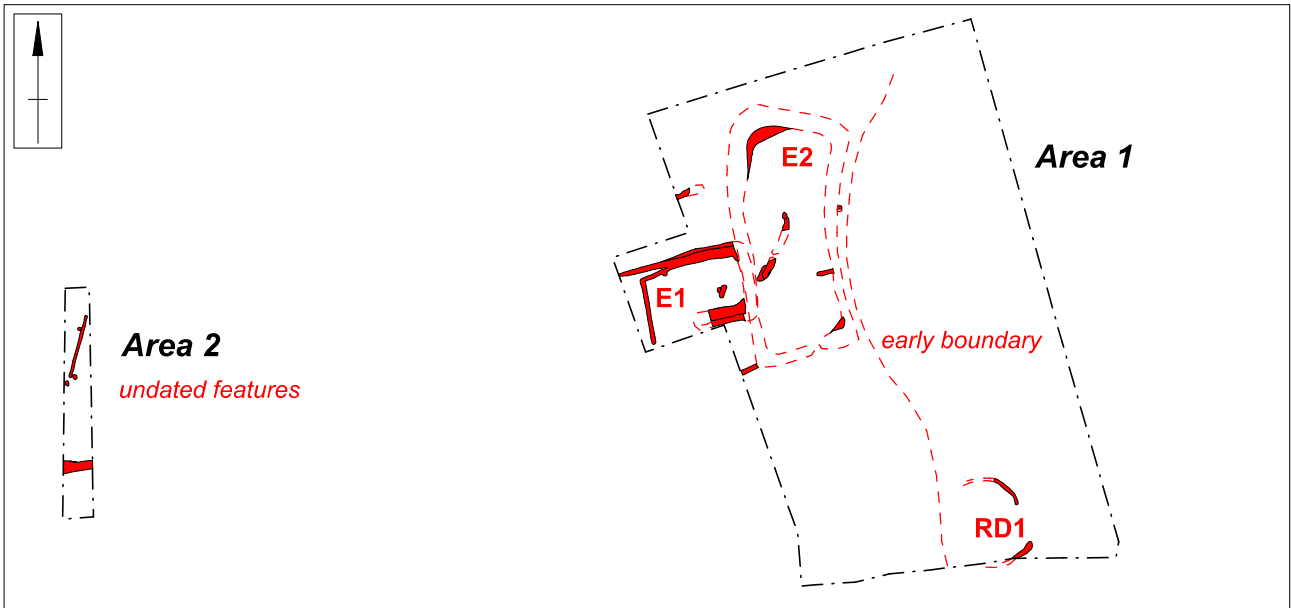
There were two periods of activity comprising Iron Age settlement and a medieval windmill ditch and mound. Table 1 summarises the phasing and is accompanied by figure 7.

*Table 1: Summary of chronology*

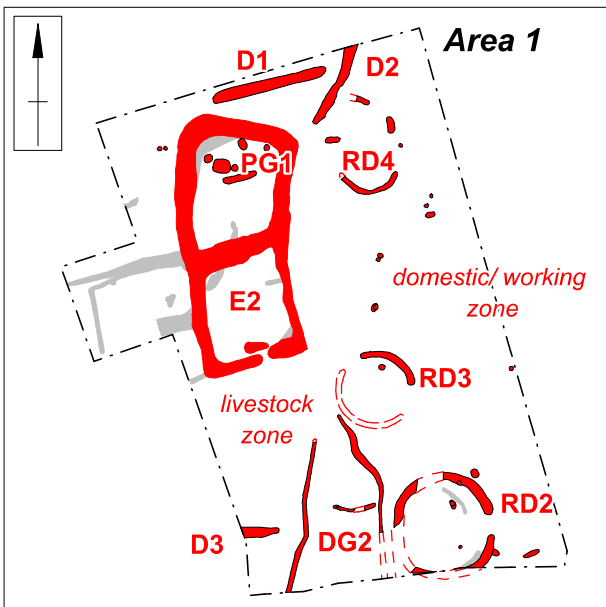
Period	Phase	Date	Key features
1.1	Late Iron Age farmstead	1st C BC to 1st C AD	Enclosure E1, Enclosure E2, D4 and RD1 (Fig 7a)
1.2			Division- D2, eastern arm E2 and DG2 Domestic zone- ring ditches RD2, RD3 and RD4 (Fig 7b), two ovens/hearths Livestock zone- Enclosure E2, Ditch group DG2, ditches D1, D3
1.3			Continued use of part of E2, D4, D5 (Fig 7c)
	Abandonment	After 1st C AD	
2	Medieval to post-medieval	c 1400 AD	Open field system and windmill mound and ditch D6 located on a headland (Fig 7d). Associated pit [4261] and postholes (PHG1)
		before 18th century AD	Windmill abandoned

The late Iron Age farmstead, which was the focus of management for livestock enclosures, was situated on the higher ground overlooking the Nene Valley. There was a clear division of landscape use with a boundary defining the living and livestock zones. Activity commenced with enclosures (E1 and E2), a boundary and a building (RD1) (Period 1.1; Fig 7.a). The principal period of occupation (Period 1.2; Fig 7b) comprised a domestic area defined by RD2, which replaced RD1, and by two partial ring ditches (RD3 and RD4) which were either domestic and/or working areas. On the western side of the ditch was livestock management zone (E2) and associated ditches (DG2, D1 D2, D3). By the early Roman period the settlement had been abandoned and had shifted elsewhere. For a time the site continued to be used for livestock management with the boundary becoming clearly defined (Period 1.3; Fig 7.c; D4). This portion of the higher ground likely either continued to be grazed or was under plough.

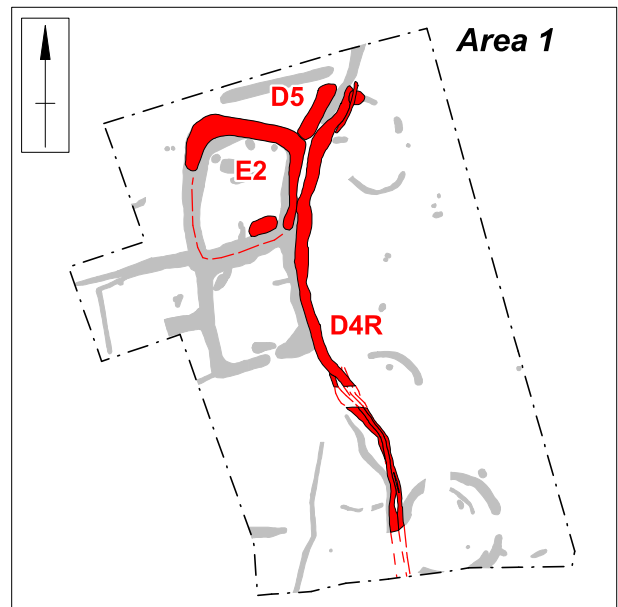
Into the medieval period the site was part of the open field landscape away from occupation. The remnants of an early medieval (Period 2) post-mill defined by large C-shaped ditch (D6) open on the western side, together with a mound (Fig 7d) were found. This ceased to be used before the 18th century.



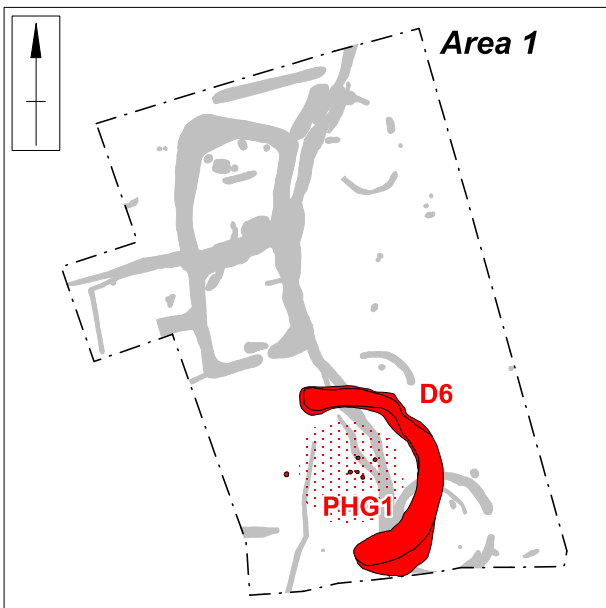
1.1 Initial layout of the late Iron Age farmstead (a)



1.2 Continued use of the farmstead (b)

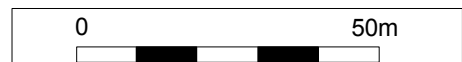


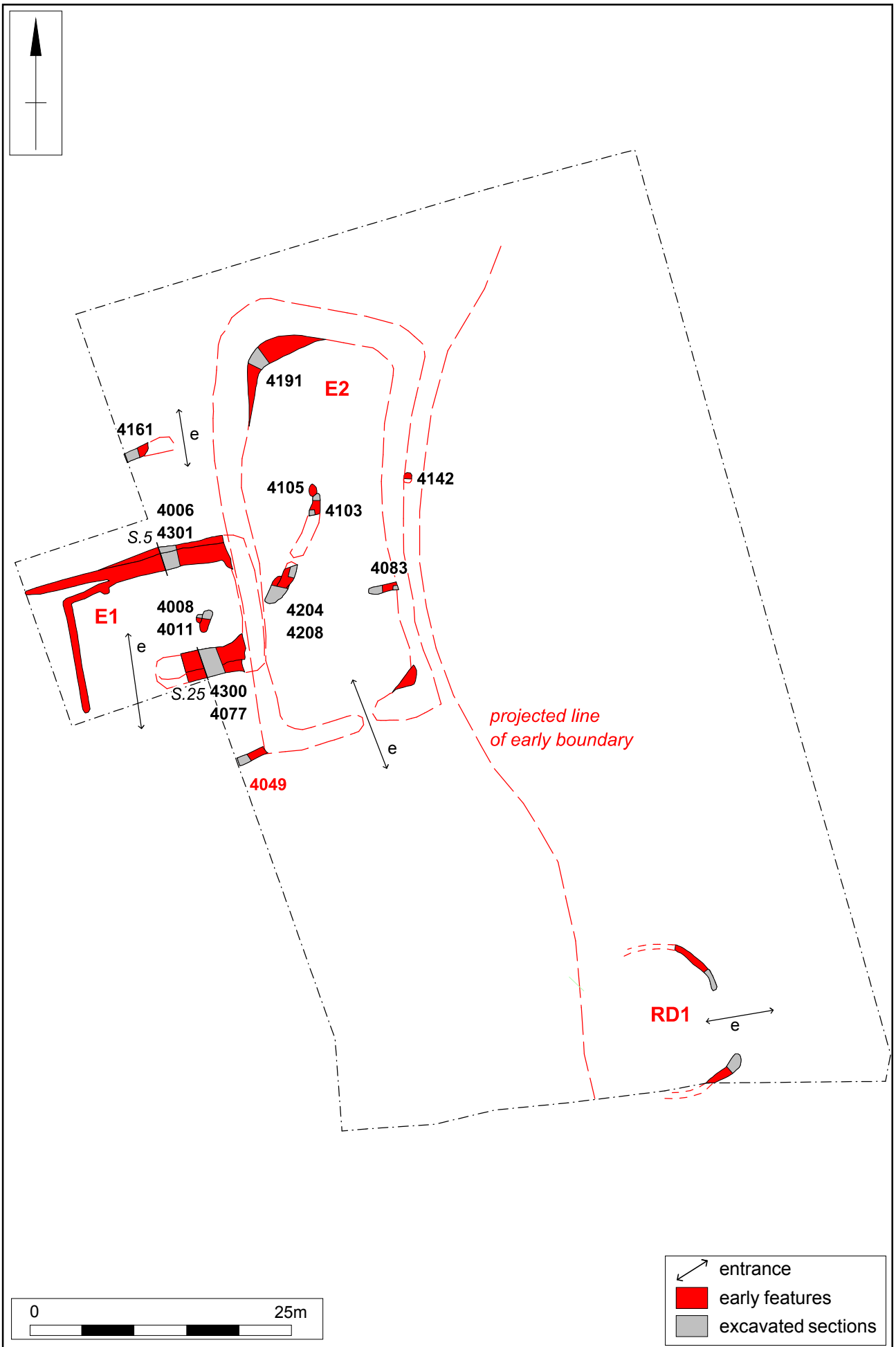
1.3 redefinition of the livestock management zone (c)



2.0 Medieval windmill (d)

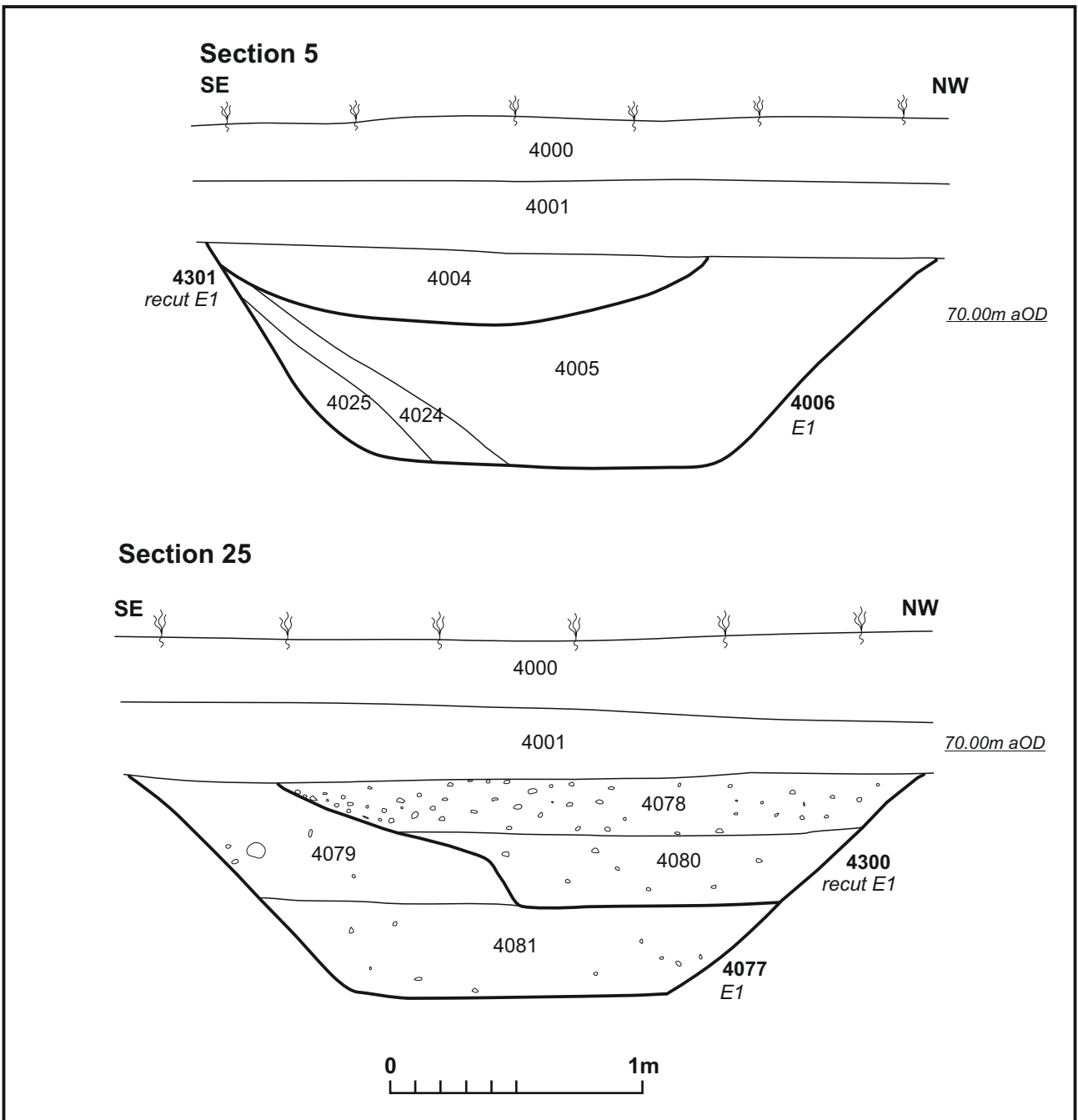
- features
- extent of windmill mound
- earlier features





Scale 1:500

The early enclosures Fig 8



Scale 1:25



Enclosure E1, sections 5 and 25 Fig 9

## 5.2 Period 1: the Late Iron Age farmstead

### *Phase 1.1: Initial layout* (Figs 8 and 9)

The initial layout of the farmstead comprised a house and a boundary which separated the house from the livestock enclosures to the west. Traces of two rectilinear enclosures (E1 and E2), much removed by later enclosures, formed the initial Iron Age pattern of activity. The enclosures were situated on the higher ground overlooking the Nene valley and were utilised for livestock control and management. To the south-east of the enclosures was a ring ditch (RD1) which probably functioned as a eavesdrip gully for a structure. It may have been separated from the livestock area by a ditch or hedgerow which had been removed by later activity. There were a few small pits, one [4142] of which was clearly utilised for waste disposal. Pottery of Iron Age date was scarce with the pottery totalling 387g being derived from pit [4142] and also a small amount (30g) from enclosure E1 (4081)/ [4077].

#### *Enclosure 1*

This phase comprised a small sub-rectangular enclosure (E1) defined by ditches [4077] and [4006] in the western side of the Area 1 (Figs 3 and 6). In its original form Enclosure E1 measured at least 19m east to west and was c 8m wide internally, was defined by a substantial ditch open on its south- and western sides. The ditches were later recut ([4300] and [4301]) defining a smaller enclosure c 15.5m long and 8m wide with a south facing entrance, 6.5m wide. The eastern side was almost entirely truncated by later phases of enclosure E2.

The initial enclosure ditches were between 2.9m and 3.2m wide by 0.9m deep with flat bases and moderate sloping sides (Fig 9, Sections 5 and 25). The lower fills of the ditches generally comprised material very similar to the surrounding natural glacial clays, being brown-orange or brown-grey silty clays with occasional chalk flecking in character, derived from erosion and episodic flooding. The recut ditches were shallower, averaging 2.60m wide and 0.54m deep, with flat bases and eroded sloping sides. A single sherd of pottery and a flint flake were recovered from the basal fill (4081) of ditch [4077]. A fragment of fired clay, weighing 19g, was recovered from fill (4005) of ditch [4006].

#### *Enclosure E2*

Enclosure E2 is likely to have been sub-rectangular in plan and aligned north to south. It measured internally c 33m north to south and c 13m east to west. The earliest form of rectangular enclosure E2 may have shared part of its western boundary with enclosure E1. Only the north-western corner [4191] and a small portion of the south-eastern corner were defined and suggest that the enclosure ditch was substantial, being 2.54m wide and 0.80m deep with a flattish base and steep concave sides. Its fill (4190), a compact mid grey with orange mottling silty clay was very similar to the natural to the extent it was difficult to ascertain the edges (Fig 10). It is possible that this represents the erosion of the corner of the enclosure caused by trampling of livestock. The size of the ditch defining enclosures E1 and E2 are similar, as are their fills, and perhaps suggest that they were contemporary.



The north-western corner of enclosure E1, looking south-west Fig 10

### *Ditches*

There were also four separate lengths of shallow, narrow ditches ([4049], [4083], [4161] and [4103]; Fig 8), which were unrelated to each other but two ([4049] and [4083]) predate enclosure E2. Ditches [4049], [4083] and [4161] aligned east to west mirror the orientation of enclosure E1. Ditch [4103] was aligned roughly north-east to south-west and much of the length of ditch [4103] had been truncated by pits [4204] and [4208]. All four ditches average 0.85m wide by 0.25m deep with U-shaped profiles.

### *Ring ditch RD1*

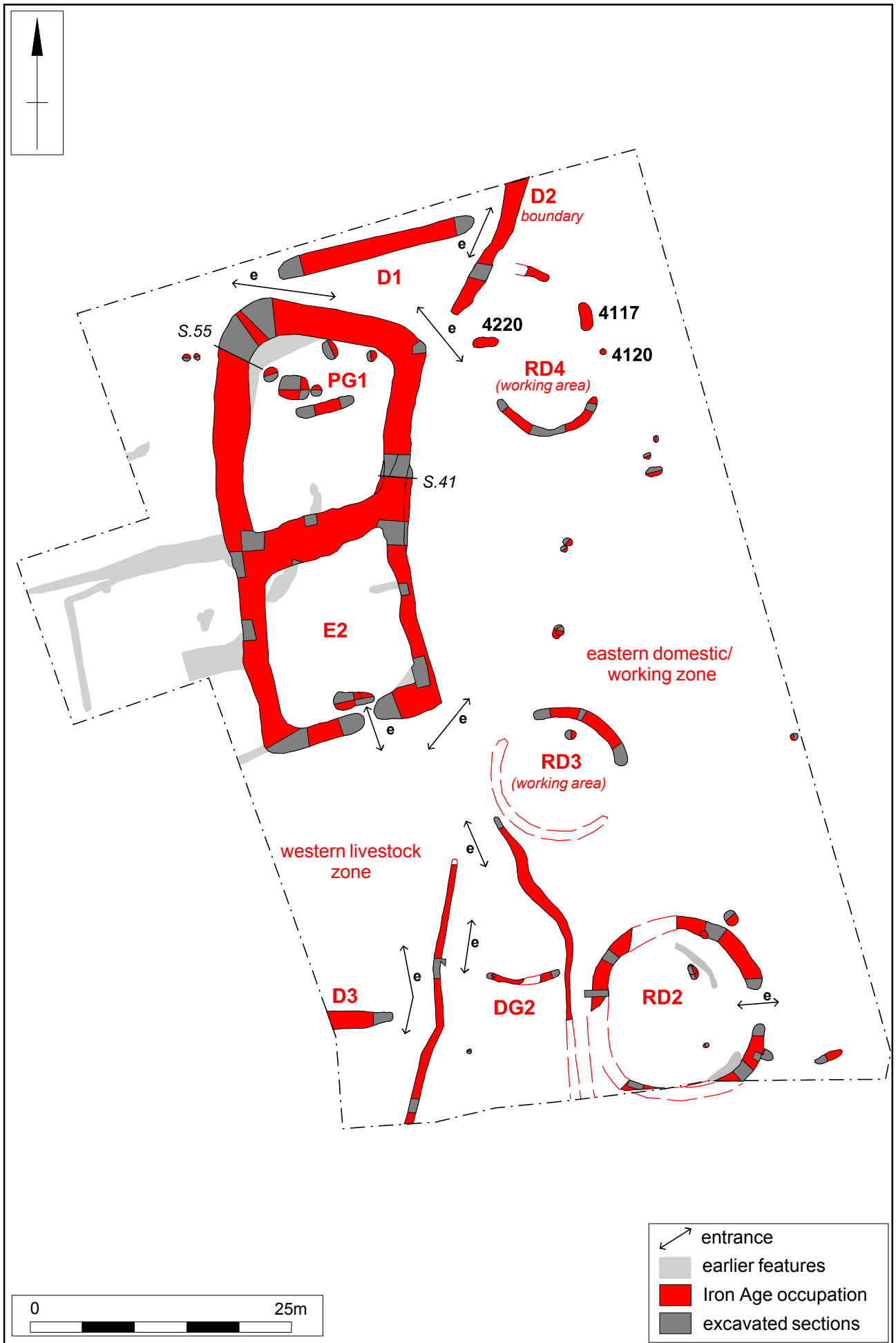
Ring ditch RD1 (Figs 8 and 13) was located c 28m to the south-east of enclosure E2 and is likely to have been an eavesdrop gully for a non-surviving structure. It had an external diameter of 13m with a c 6m wide east facing entrance, defined by two opposing terminals [4254] and [4336]. The northern terminal [4254], 0.46m wide and 0.15m deep, had a U-shaped profile and a fill (4253) of firm, dark grey-brown silty clay (Fig 13, Section 74). The opposing southern terminal [4336] was broader at 0.90m wide and 0.27m deep with a flattish base and steep concave sides (Fig 13, Section 92). A primary silting fill (4335) of firm mixed yellow-brown clay tipped in from the north-eastern edge was overlain with firm dark, yellow-brown clay (4334).

### *Pits*

There were five pits ([4008], [4011], [4204/ recut [4208], [4105] and [4142] that may be associated with this phase owing to spatial and stratigraphic relationships (Fig 8). Pits [4105] [4008] and [4011] were sub-oval or sub-rectangular, between 0.59m to 0.72m wide and up to 0.24m deep.

Pit [4142], located east of E1 was 1.15m diameter and up to 0.84m deep with an asymmetrical bowl shaped profile (Figs 8 and 12, Section 41). The basal fill (4143) was a firm light blue-grey silty clay which was overlain with a sequence of brown-grey silty clays. The three lower fills of the pit (4143, (4144) and (4145) had late Iron Age pottery sherds, as well as bones from large and medium sized mammals such as cattle, pig, sheep/goat. This is perhaps suggestive that this pit was later used as a rubbish pit. The upper edges of the pit were cut by ditches D4 [4140] to the east and enclosure ditch E2 [4135].

Within enclosure E2 were pits [4204] and also [4105]. Sub-oval pit [4204], aligned north-east to south-west, 1.15m wide and 0.75m deep with a bowl shaped profile. This was later recut by [4208], c 1.0m long, 0.8m wide and 0.5m deep with a steep sided asymmetrical profile. In turn it was truncated by the sub-division of enclosure E2.



Scale 1:500

The Late Iron Age farmstead Fig 11



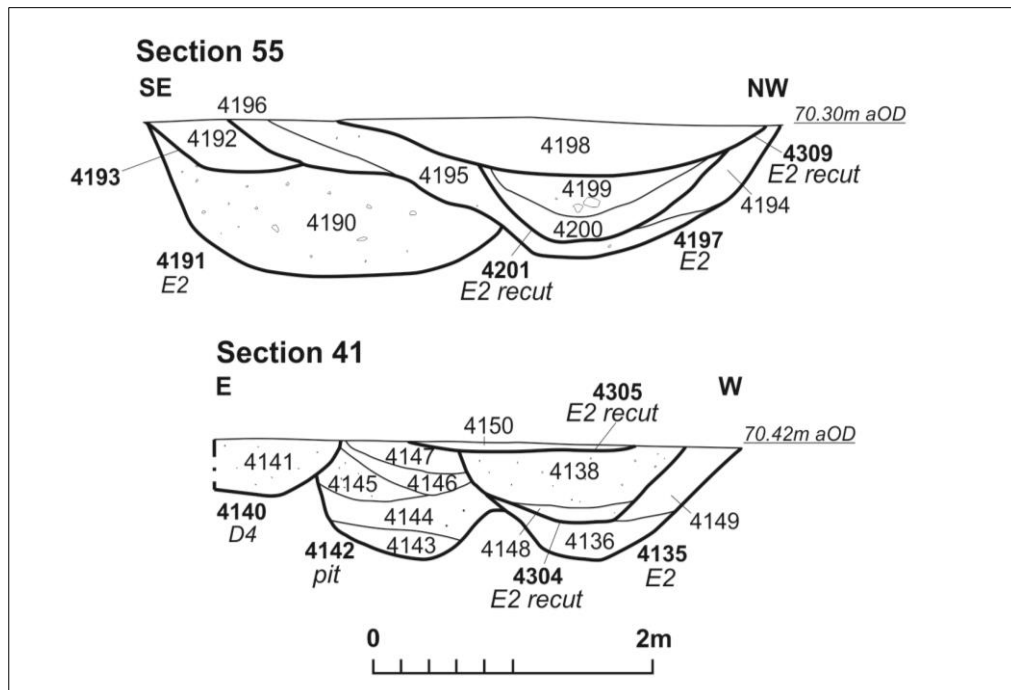
**Phase 1.2: Continued use of the farmstead** (Fig 11)

From the late Iron Age the area of occupation was more formalised with clearly defined livestock and domestic areas (Figs 7 and 11). The domestic/ working area was to the east of the north to south aligned boundary D2 and ditches DG2 and the livestock are to the west. The focus of the livestock zone to the west of the ditch was the redefinition of rectangular enclosure E2 set within a field system (DG2, D1 and D3). The area of occupation was defined by three ring ditches (RD2, RD3 and RD4), with RD2 being the domestic area and RD3 and RD4 domestic and/or working areas.

*The livestock zone- Enclosure E2*

The enclosure was redefined by a ditch with a 1.10m wide south facing entrance. The ditch enclosed a total area 462 square metres (33m north to south and 13m east to west). It was sub-divided into two parts, roughly equal in size accessed from the south. The entrance into the southern part of the enclosure was defined by two opposing terminals, 1.0m apart. At some point the entrance was restricted or blocked by a large pit. There was no visible indication of an access point between the northern and southern parts of the enclosure although the ditch was recut at least twice which may have removed indications of early access/egress points.

In general the enclosure ditch was c 2.6m wide and up to 0.80m deep apart from its north-western corner. Here (Fig 12, Section 55), the profile of this north-western corner was 4.0m wide and 1.0m deep, with a broad U-shape with eroded upper inside edge. A sequence of fills, probably the result of silting and erosion of the edges were present. Elsewhere on the circuit of the ditch the profile was a narrower U-shape (Fig 12, Section 44).



Scale 1:50

Enclosure E2, sections 55 and 41 Fig 12

The enclosure had clearly been maintained as evidenced by at least two stages of recutting (Fig 14, Sections 55 and 41). The first stage of maintenance was represented by recut ditch of the full circuit of the ditch. The recut ditch ([4304] and [4201]) was generally shallower than the original ditch, between 1.50 and 3.0m wide and 0.6m deep.

The disuse of the enclosure ditch can be securely dated to the Late Iron Age; 48% of the total weight of the pottery assemblage came from the enclosure ditch, with the majority of that from the eastern side.

Within the northern part of the enclosure E1 was a cluster of five pits (PG1) and a short length of gully [4097]/ [4099]. Their location suggests likely association with the enclosure, but their purpose is unknown.

#### *Field system around enclosure E2*

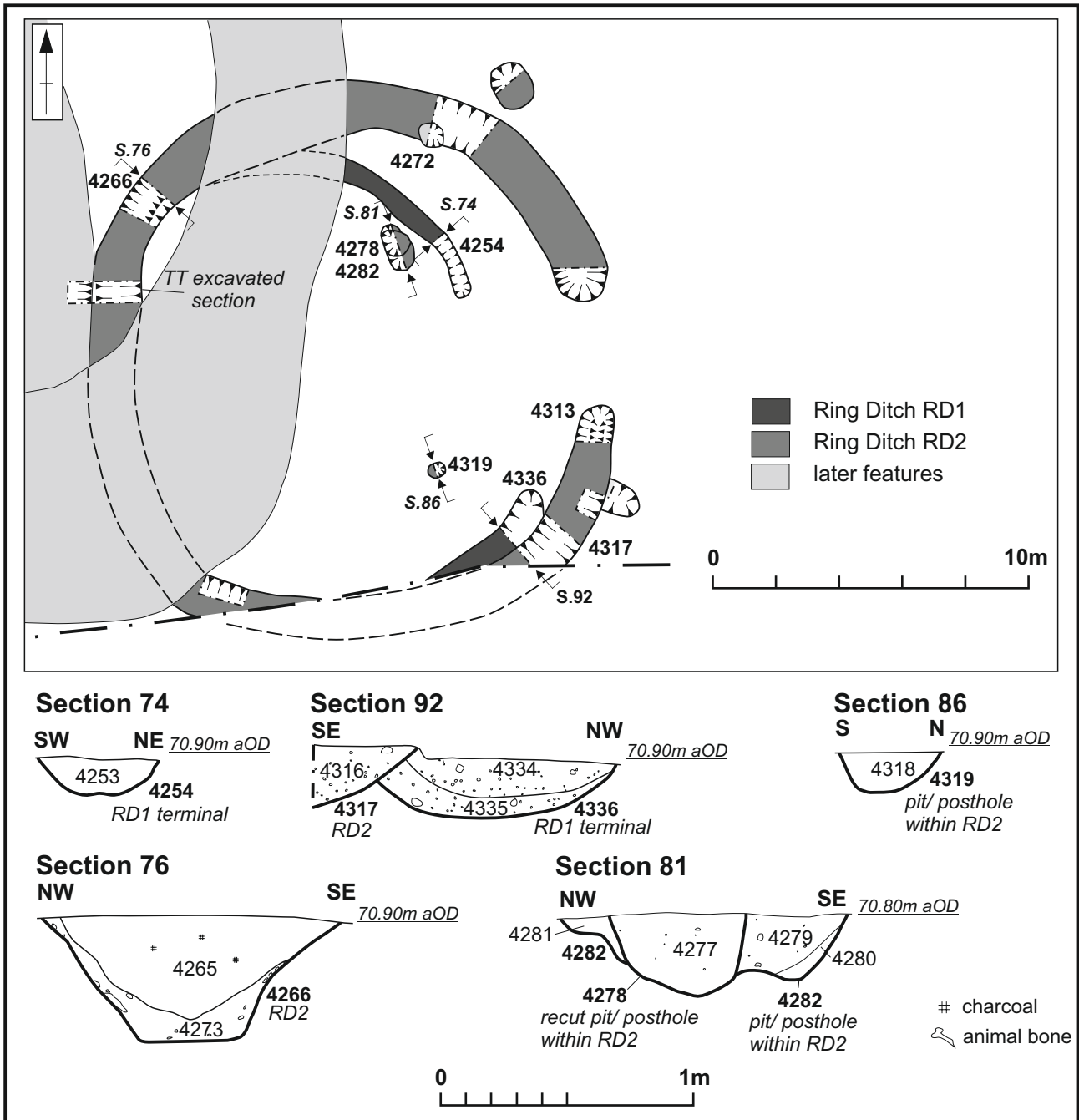
The field system in which the enclosure E2 lay was defined by a series of ditches (DG2, D1, D2 and D3) which respected the position of the enclosure. The earlier boundary to the east of the enclosure was now solidified by the eastern arm of the enclosure and by ditches D2 and by DG2. The livestock zone was clearly separate from the domestic area and access between the two zones was controlled at the north-east corner of the enclosure by ditches D1 and D2 and at the south-east by DG2. Ditch D3 extended westwards downslope and may have defined a field boundary.

Ditch D2 (Figs 11, 15 and 16, Sections 82 and 83) was c 4.0m from the north-eastern corner of the enclosure E2 and the resulting gap may have formed an access point from the north into the working area. The ditch was at least 14m long, 1.56m wide and up to 0.52m deep with an asymmetrical U-shaped profile.

To the south of the enclosure were ditches DG2 which funnelled the movement of livestock from fields to the south into the working area of enclosure E2. It comprised two roughly parallel ditches aligned north to south, the eastern ditch matching the position of ditch D2 to the north. The western-most ditch was relatively straight in contrast to the eastern ditch which curved to the north-west at its northern end, respecting the position of ring ditch RD3. Where the ditches funnelled at the northern end of the group, the gap was c 5.0m, in contrast to a gap of c 14m where the ditches extend southwards beyond the area of excavation. A second control point was at a short curvilinear gully aligned east to west.

To the north of the enclosure and was ditch D1 (Fig 11) aligned south-west to north-east was 19.3m long, 2.08m wide and up to 0.40m deep with a flat base and eroded sloping. Its single fill (4031) was firm grey-brown clay.

To the west of this was ditch D3 which extended westwards beyond the edge of excavation. It was 1.0m wide and 0.17m deep; the eastern terminal was blunt and rounded with a shallow U-shaped profile. Its single fill was a firm, sticky orange-brown silty clay.



Plan at Scale 1:200, sections 1:25



Ring ditches RD1 and RD2, plan and sections Fig 13

*The domestic and working zone- Ring ditches (RD2, RD3 and RD4)*

Respecting the position of the enclosure and arranged in a linear band from south to north were three ring ditches, between 11m and 14m in diameter (Figs 7, 11 and 13). The southern ring ditch (RD2) was the best defined and probably the focus for occupation with RD3 and RD4 the subsidiary working areas. Small quantities of charred seeds including wheat grains were present in the fills of the ring ditches (Section 7.2).

Ring ditch RD2, directly replaced ring ditch RD1, was a slightly larger, more substantial outer ditch. No trace of the internal structure remained apart from two postholes [4319] and [4282]. It had an 18m diameter and a 3.2m wide east facing entrance. The ditch averaged 1.2m wide and 0.64m deep had a deep U-shaped profile and eroded upper edges (Fig 13, Section 76). It had a basal fill of compact light-grey clay overlain with a very dark grey silty clay and charcoal flecking indicate domestic refuse. There was a later pit/posthole [4272] cutting the northern arm of ring ditch RD2.

There were two postholes [4319] and [4282] (Fig 13) within the interior, one of which had been recut [4278]. However they equally could have been associated with ring ditch RD1. Posthole [4319] was 0.4m diameter and 0.15m deep with a bowl shaped profile (Fig 13 Section 86). Located 6m to the north was oval shaped posthole/pit [4282], 1.45m north-west to south-east, 0.85m wide and 0.33m deep with an asymmetrical profile. This was superseded by posthole/pit [4278], 0.69m diameter and 0.41m deep with a steep sided bowl shaped profile (Fig 15, Section 81).

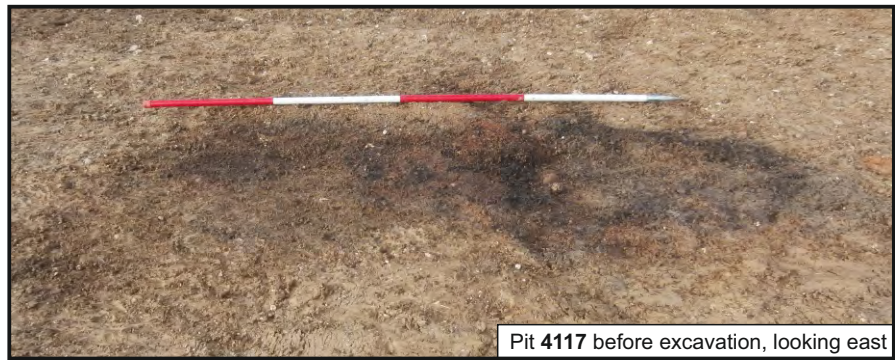
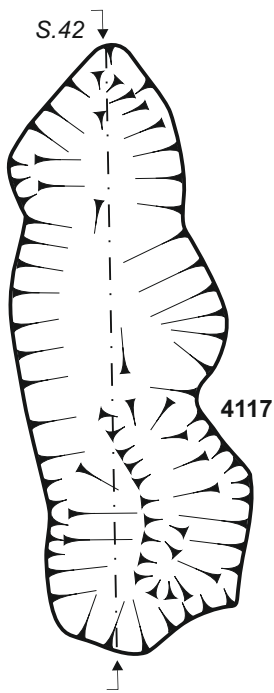
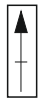
Ring ditch (RD3; Fig 11), located c 12m to the north of RD1/2, was defined by a partial curvi-linear ditch with an estimated external diameter of 11m. Only the northern arc of the ditch survived, its southern arm was cut away by later features. The ditch was between 0.50 and 1.13m wide and up to 0.35m deep with a U-shaped profile and eroded upper edges. The eastern terminal, [4218], had a primary silting fill (4217) of grey clay with chalk flecking. The upper fill comprising dark grey silty – clay with frequent charcoal flecking, was consistent along the line of the ditch.

Within the ring ditch was a circular pit [4275], 0.78m diameter and 0.27m deep with a steep sided bowl-shaped profile. It had a primary fill (4274) of firm dark red-brown silty clay overlain with firm brown-yellow clay (4276). It is likely to have been associated with the ring ditch as there were few other pits in this area.

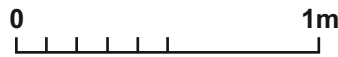
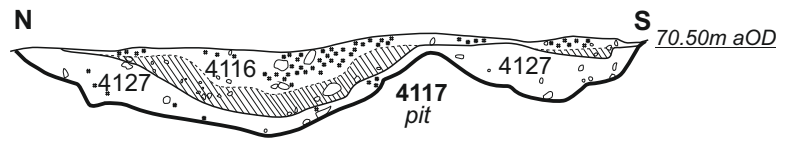
The northernmost ring ditch (RD4; Fig 11) was located c 25m to the north of ring ditch RD3 and away from the main core of occupation. It was c 11m in diameter defined by a shallow ditch (forming its southern arm) and a posthole [4120] at the location of where the northern arm may have been. The ditch, 0.46m wide and 0.05m deep had a flat base and shallow, concave sloping sides, with a fill of compact mid grey with mottled light grey-orange clay. However the northern arm, if there was one, was not visible during the excavation perhaps due to truncated after later ploughing. During the evaluation a large pottery jar, mid to late Iron Age in date, was recovered from the ring ditch (Coates and Richmond 2011).

Possibly associated with this, and located c 3.9m to the north of the southern arm of the ring ditch was a circular posthole [4120] (Fig 11), 0.37m diameter and 0.37m deep with an asymmetrical U-shaped profile.

**Pit 4117**

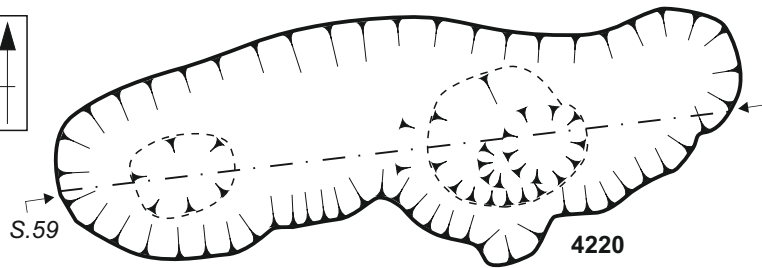


**Section 42**

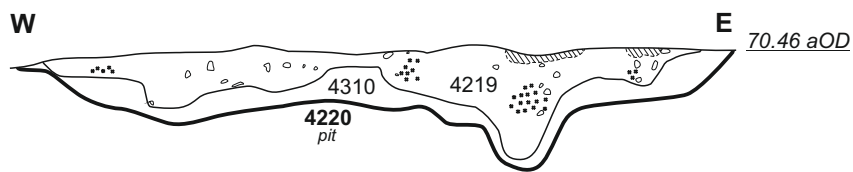


# charcoal  
▨ burnt clay

**Pit 4120**



**Section 59**



### *Ovens*

Two pits [4117] and [4220] (Figs 11 and 14), sub-rectangular in plan, were located to the north of ring ditch RD4. The western most pit, [4220] (Fig 14, Section 59), aligned east to west, was 2.39m long, 0.92m wide and up to 0.40m deep with an irregular profile. The eastern most pit, [4117] (Fig 16, Section 42), was aligned north to south, 2.45m long, 0.9m wide and up to 0.33m deep. Both profiles were irregular and comprised two adjoining bowl shaped hollows.

The basal fill of both pits comprised heat affected clay and overlying this were charcoal rich fills. The upper fill (4116) of pit [4117] had a high quantity, 1,625g, of fired clay (Chapman, Section 6.6 below). This material is not structural but is likely to represent the clay lining of the pit. A small amount of charcoal and a fragment of a hazelnut shell were recovered from the pit (sample 2; Section 7.2).

They probably represent small hearths of ovens with conjoined fire pit and oven bowl. Their function is uncertain but small scale domestic productivity is likely. Ring ditch RD4 may have provided a wind break or shelter around the ovens.

### *Pits*

In Area 1 there were c 12 small pits (Fig 11) which were unrelated to one another and were non-structural. The majority were scattered in the domestic zone. They were mainly circular in plan between 0.50m and 1.05m diameter. They ranged in depth from 0.08m up to 0.50m with the deeper pits having steep, near vertical sides. It is likely that they are associated with this phase of occupation.

**Phase 1.3: Redefinition of the livestock management zone** (Fig 15)

The final phase of late Iron Age and early Roman activity was the reworking of enclosure E2 and the continuation of the boundary that had previously defined the working zones. The domestic zone had ceased to be active by the end of the 1st century AD with occupation shifting elsewhere. The livestock management zone continued to comprise enclosure E2, but the field system was likely more defined by hedgerows which do not survive into the archaeological record.

*Enclosure E2*

The final stage of redefinition of enclosure E2 was a broad, shallow ditch, up to 2.50m wide and 0.40m deep that was only visible on the northern and part of the eastern edge. It is likely that had the ditch been present elsewhere along the circuit it had been truncated by later ploughing.

*The later boundary ditch (D4)*

The principal change was the establishment of a sinuous ditch D4 on the line of ditch D2 but which respected the position of enclosure E2. It was c 80m long, 0.85m wide and 0.62m deep with a U-shaped profile (Fig 18, Sections 41 and 77) and had been maintained on at least two occasions. In general it had a fill comprising grey-brown silty clay with charcoal flecking. Small quantity of fuel ash slag (35g) was recovered from the fill along with a relatively small amount of pottery in comparison to the fills of the enclosure ditch. A copper alloy rumbler bell (SF3) was recovered from the upper portion of the ditch fill; perhaps suggesting that final disuse silting of the ditch took place from the medieval period.

*Later ditch (D5) and pits*

Also cutting the southern end of ditch D2 and parallel with ditch D4 was a short length of ditch, D5, 10m long by 2.60m wide and 1.20m deep. It had an asymmetrical U-shaped profile with eroded upper edges (Fig 16, Section 82) before shallowing out sharply at its northern terminal (Fig 16, Section 83).

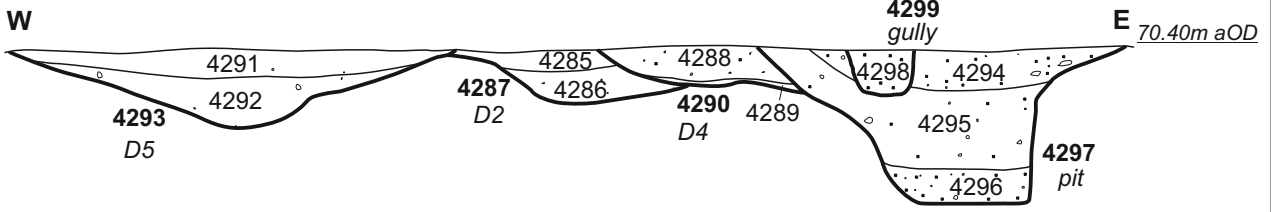
Following the silting up of the northern terminal of ditch D4 a pit [4297] probably for the disposal of waste was cut (Fig 16, Sections 82 and 83). The pit was 2.5m diameter and up to 1.0m deep with a flat base rising to steep, near vertical sides and eroded upper edges. It had a basal fill (4294) of firm dark grey silty clay overlain with a firm mixed dark brown/light grey clay (4295). The final sealing fill was a firm, very dark grey silty clay with frequent charcoal. Sherds of a thick walled globular jar were recovered from fill (4295) and bones from sheep or goat were also recovered. The pit was in turn cut by gully [4299], 9.75m long (north-east to south-west), 0.44m wide and 0.30m deep.

In contrast to the clearly dated pit [4297], pit [4168] was not so clearly dated, only its relationship to enclosure E2 defined its sequence. It was a large oval shaped pit cutting the northern half of the enclosure ditch. It measured 5.0m east to west; 2.63m north to south and 0.60m deep with a bowl shaped profile and eroded upper northern edge. The fills had silted in from the northern edge of the pit, probably as a result of erosion.



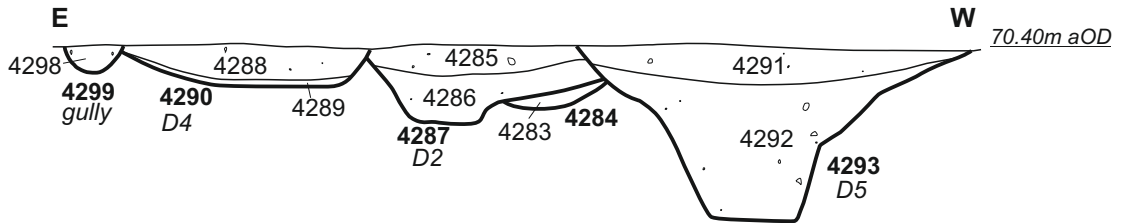


**Section 83**

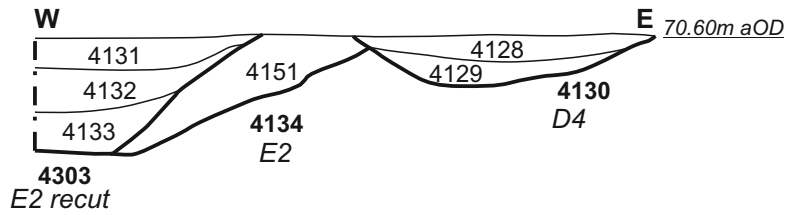


Pit 4297 and gully 4299, looking north

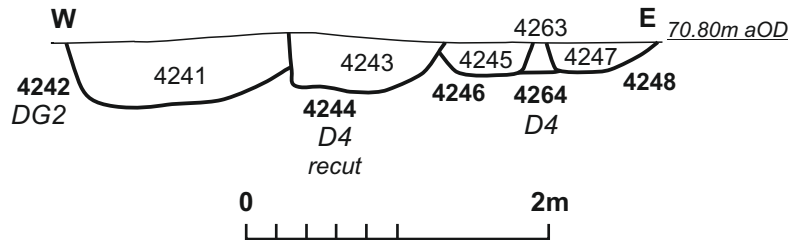
**Section 82**



**Section 43**



**Section 77**



Scale 1:50

The Late Iron Age ditches, sections 83, 82, 43 and 77 Fig 16

**Undated features in Area 2**

There was a collection of undated ditches and pits in Area 2 (Fig 17) which comprised a ditch, a gully and three pits, all undated (Figs 3, 7, 18 and 19). The gully and the ditch corresponded with features recorded in Trench 20 during the trial trenching (Coates and Richmond 2011). The ditches are likely the continuation of field boundaries down-slope of the occupation in Area 1



General view of Area 2, looking north Fig 17

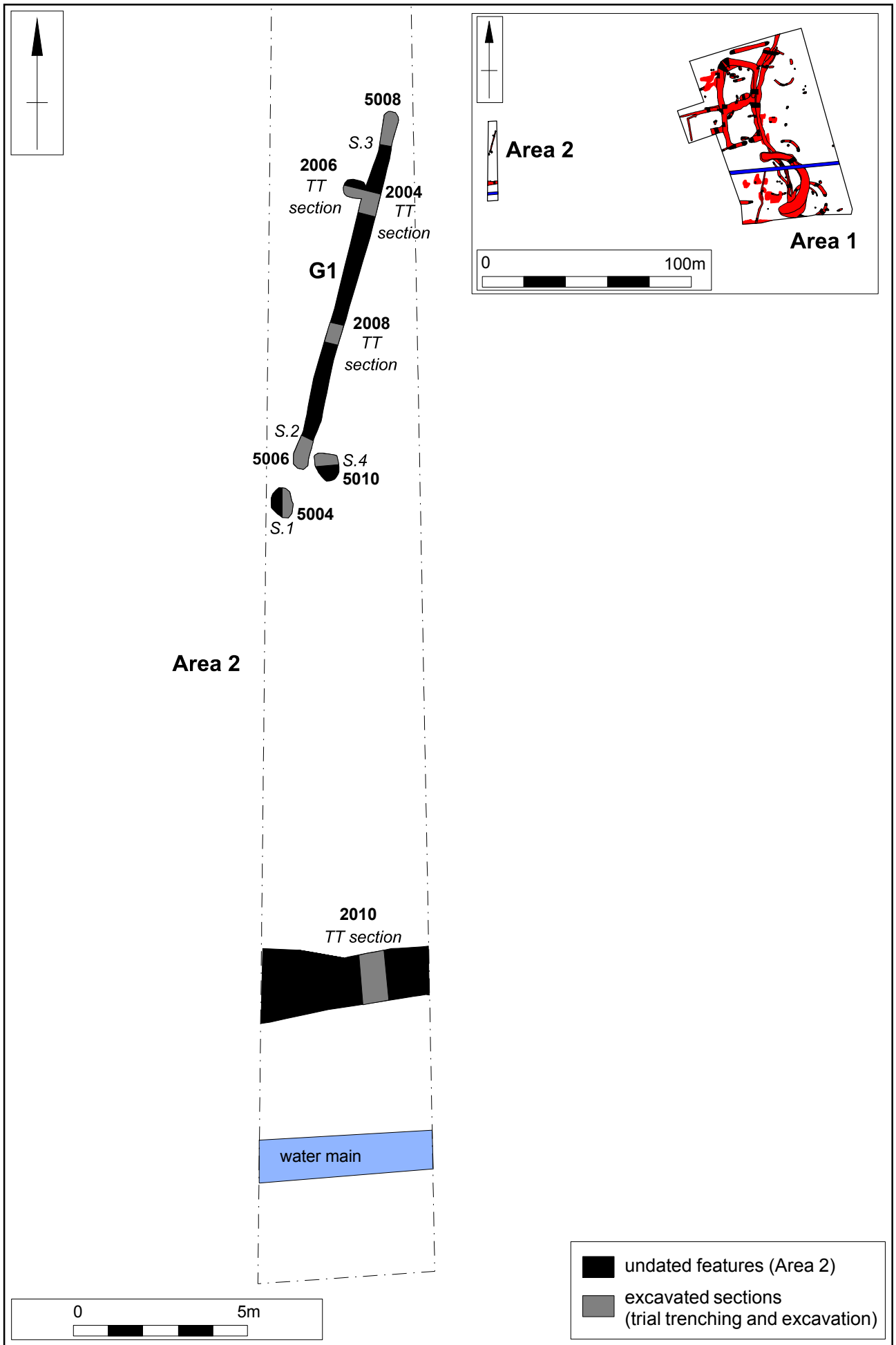
At the southern end of Area 2 there was an east to west aligned ditch [2010] aligned east to west, 1.88m wide and 0.88m deep which had an asymmetrical U-shaped profile. The ditch had a fill (2009) of grey-brown silty clay. It is likely that ditch [2010] was an extension of one of the ditches in Area 1, probably part of DG1.

Lying c 14m to the north of the ditch was a shallow gully, G1, aligned south-west to north-east, 10.50m long 0.64m wide and between 0.03m and 0.21m deep (Fig 19 Sections 2 & 3). The gully had a shallow dish shaped profile with a fill comprising either yellow-brown sandy clay or a grey-brown silty clay.

Two oval, shallow pits with dish-shaped profiles [5004] and [5010] (Figs 18 and 19, Sections 1 and 4) were located at the southern end of gully G1. Both pits were of a similar size, c 0.80m north to south, 0.64m wide and 0.13m deep, with a fill of firm dark orange-brown or dark yellow-brown clay and few small flint and chalk nodules. A third pit [2006] was recorded during the evaluation and this was cut by gully G1 [2004].

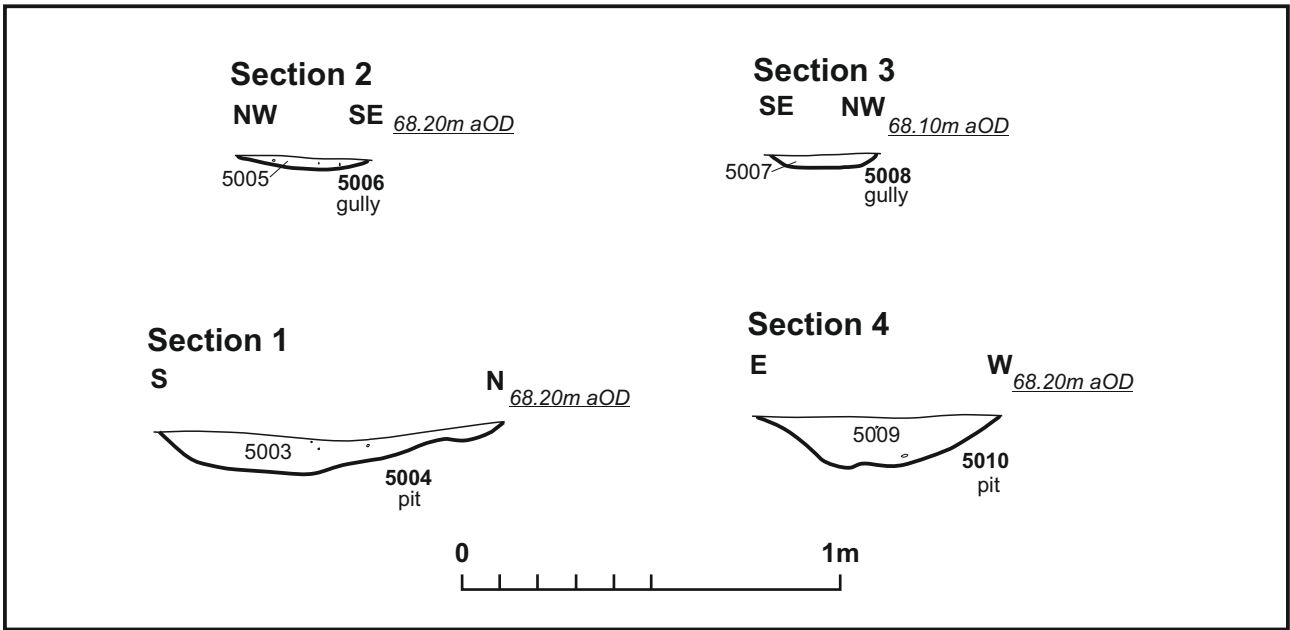
Posthole group PHG1 (Figs 20 and 22) comprised five circular postholes clustered at the approximate centre of the arc of D6. They were sealed with the mound material (4003) but could not be directly related to the late Iron Age/ Roman occupation. One of the postholes clearly post-dated the eastern ditch of ditch D2. The postholes were between 0.36m and 0.63m diameter and up to 0.15m deep with bowl shaped profiles. There was no surviving evidence for post pipes, with the fills of the postholes generally comprising brown-grey clay indicative of erosion rather than packing.

There were two areas of tree root disturbance which post-date the late Iron Age features. The north-most area of root disturbance truncated the upper edge of the north-western corner of enclosure E1 and the southern area overlay part of the Late Iron Age field system (ditch group DG2).



Scale 1:150 (inset 1:2,500)

Excavated features in Area 2 Fig 18





Scale 1:500

Medieval windmill ditch Fig 20

### 5.3 Period 2: Medieval windmill ditch (D6) and mound

In the southern part of Area 1 and adjacent to the hedgeline was a low relief earthwork mound on top of a ridgeline, measuring c 15m diameter. The mound material (4003), up to 0.32m high, comprised firm mixed dark orange-brown and brown-yellow clays with frequent patches of chalk, occasional charcoal. Four large fragments of roughly dressed limestone (c 1.0m x 0.40m x 0.30m in size) were loose within the deposit.

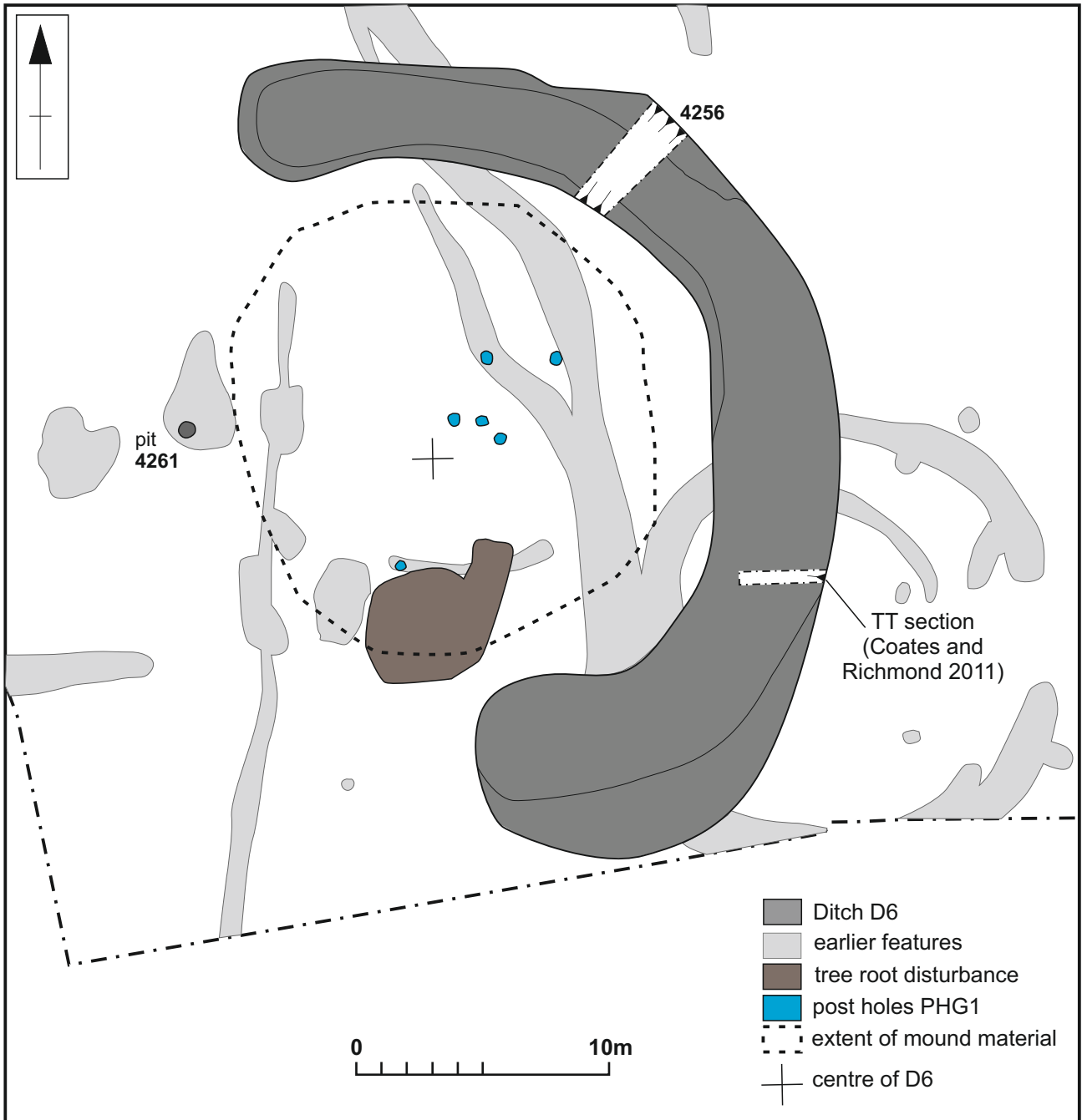
Enclosing the mound was a substantial ring ditch, D6 (Figs 19, 20 and 21), open on its western side. The external diameter of the ditch was 35m and internal diameter of 21.50m; was between 4m and 8m wide and at least 0.35m deep, with a broad dish-shaped profile [4256]. The southern terminal of the ditch was wider and more splayed whereas the opposing terminal was blunt. The ditch clearly cut through the subsoil which overlay earlier features.



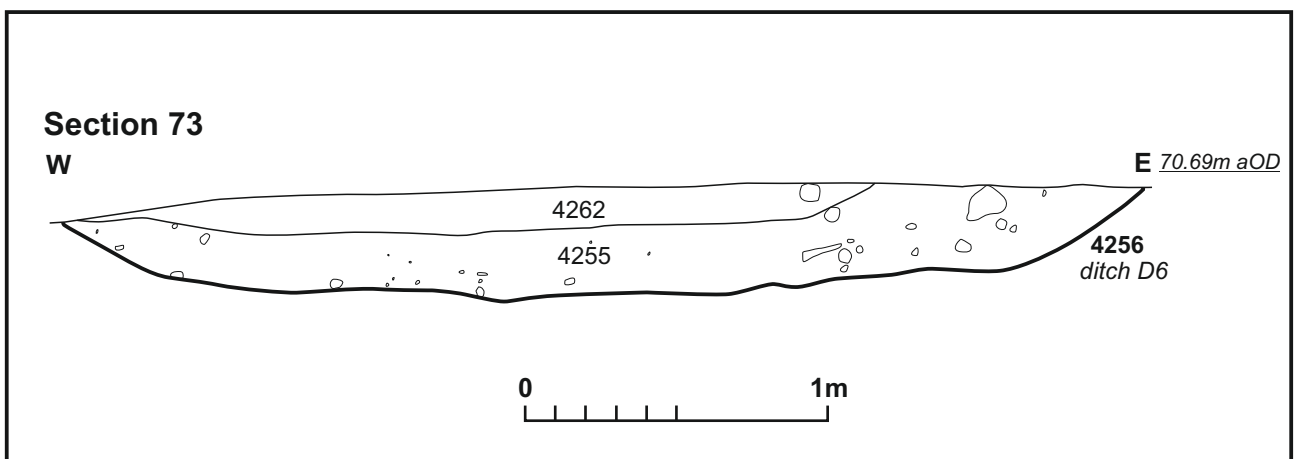
General view of the windmill ditch D6, looking east Fig 21

The lower fill (4255) comprised a firm, sticky mid orange-brown clay and was overlain with a firm mid red-brown clay (4262). The upper fill had been disturbed by a number of ceramic field drains which followed the orientation of the ditch. From its upper fill (4262) a musket ball and a fragment of a cast copper-alloy vessel (Hylton this report) as well as a fragment of a lava Eifal millstone (Chapman this report) were recovered.

Located c 10m to the west of the centre of ditch D6 was an oval shaped pit [4261], 0.65m long, 0.58m wide and 0.15m deep with an asymmetrical bowl shaped profile. It had a fill (9260) of soft dark grey silty clay with frequent charcoal fragments, including elm and oak (Stewart, Section 7.2).



Scale 1:250



Scale 1:25

The windmill ditch D6, plan and section Fig 22

## 6 THE FINDS

### 6.1 The worked flint by Yvonne Wolfram-Murray

#### *Introduction*

In total six pieces of worked flint were recovered as residual finds from late Iron Age features. The flint comprised six flakes.

#### *Method*

The lithics were collected by hand during the excavation or later during the environmental sampling process. Each object was macroscopically assessed and recorded onto an MS Access spreadsheet by type, condition, possible raw material and tool form.

#### *Raw material and condition*

The condition of the artefacts was moderate with post-depositional damage consisting of nicks and crushing of the edges. One flake was patinated white. The raw quality of raw material was moderate, which was a white or grey-brown granular flint and mid brown or grey-brown vitreous flint. The cortex was white or light to mid brown coloured. The raw material was likely to have originated from local river gravel deposits to the west of the site.

#### *Assemblage composition*

The assemblage consists of three flakes, of which three were broken. One flake was squat and two other flakes were relatively small having been retrieved through the processing of environmental samples. The artefacts are catalogued in Table 2.

Table 2: Catalogue of flint

<b>Context/ cut/ feature</b>	<b>Flake/ blade</b>	<b>Portion</b>	<b>Raw material/cortex</b>	<b>Comments</b>
4077/	Flake	Whole	light granular flint/white	-
4122/ 4123/ D4R	Flake	Distal	white granular flint/light brown	-
4128/ 4130/ D4R	Flake	Proximal	light grey-brown granular flint	Sample 14
4143/ 4142/ Pit	Flake	Proximal	dark grey-brown vitreous flint	-
4203/ 4204	Flake	Whole	mid brown vitreous flint/mid brown	sample 7; squat flake
4311/ 4313/ RD2	Flake	Whole	flint	White patination; sample 18

#### *Discussion*

The worked flints are not directly dateable. The technological characteristics suggest a broadly Neolithic to early Bronze Age date. A small number of artefacts were found during the mitigation works, this is consistent with the fieldwalking survey. The Raunds Area Survey recorded a low density of worked flint recovered during the fieldwalking survey around the location of the site (Parry 2006).



**6.2 Burnt flint** by Yvonne Wolframm-Murray

During the environmental sampling process natural burnt flint was collected. From 17 samples a total of 294.4g were recovered, catalogued in Table 3. Samples 2, 5 and 6 were associated with late Iron Age industrial or domestic hearth activity that also contained fired clay. The other samples came from ring ditches, ditches and pits dated to the late Iron Age. The flint is in itself not datable, but is likely to be of the same date as the feature.

Table 3: Recovered natural burnt flint

<b>Context/ Cut/ feature</b>	<b>Weight/sample</b>
4116/ 4117/ Pit	9.6g; Sample 2
4183/ 4218/ RD3	33.6g; Sample 3
4216/ 4215/ RD3	0.8g; Sample 4
4219/ 4220/ Pit	8.4g; Sample 5
4206/ 4208/ Pit	7.7g; Sample 6
4221/ 4222/ RD2	14.8g; Sample 8
4253/ 4254/ RD1 terminal	2.0g; Sample 9
4260/ 4261/ Pit	8.4g; sample 10
4294/ 4297/ Pit	10.6g; Sample 11
4295/ 4297/ Pit	11.0g; Sample 12
4296/ 4297/ Pit	8.5g; Sample 13
4128/ 4130/ D4R	3.3g; Sample 14
4131/ 4303/ E2	6.1g; Sample 15
4132/ 4303/ E2	20.6g; Sample 16
4133/ 4303/ E2	22.5g; sample 17
4311/ 4313/ RD2	58.4g; Sample 18
4331/ 4332/ Posthole	68.1g; Sample 19

### 6.3 The Iron Age pottery by Andy Chapman

A total of 264 sherds of pottery weighing 5.08kg was recovered from 43 contexts, with an average of 118g per context and an average sherd weight of 19.2g. The average sherd weight is high for a Northamptonshire assemblage and reflects the good preservation of the pottery, with no evident leaching of the shelly fabrics, and the presence of some partial vessel profiles, although most of these were fragmented. There are, however, no particularly large groups of material, with 25 context groups weighing less than 100g while 18 groups are between 100g and the largest group of 413g, most of which comprised the thick base probably from a large storage jar (Table 4).

#### ***Fabrics***

1 Coarse shelly, containing dense coarse shell, with pieces up to 5mm diameter. 212 sherds (80.3%), 3723g (73.3%), average sherd weight 17.6g.

2 Medium to fine shelly, containing a lower density of more finely crushed shell, no more than 1-2mm diameter. 36 sherds (13.6%), 593g (11.7%), average sherd weight 16.5g.

3 Shell and grog, containing medium density of crushed shell, but also containing small rounded pellets of grog, typically 1mm diameter and red-brown in colour. 16 sherds (6.1%), 761g (15.0%), average sherd weight 47.6g.

The assemblage is dominated by vessels containing dense shell inclusions, which make up 73.3% of the assemblage by weight. This fabric typically appears as larger, thick-walled storage jars, but there are even some smaller globular bowls, including a decorated example, in this fabric. Vessels containing less finely crushed shell make up 11.7% of the assemblage by weight, and largely comprise thinner-walled globular jars, often uniformly grey-black throughout with burnished surfaces. There are also a number of vessels, mainly thick-walled storage jars with oxidised red to orange-red surfaces but also including a thin-walled globular jar containing grog (Fig 23, 1), which are in shelly fabrics that also contain some grog, making up 15.0% of the assemblage by weight. This fabric and the vessel forms using it are particularly characteristic of late Iron Age assemblages.

#### ***Feature groups***

While most of the smaller groups comprise only small body sherds, many of these contain characteristic sherds from thick-walled jars, 10-16mm thick, often with grey-black cores but red oxidised surfaces, well smoothed. These sherds are likely to be from large thick-walled storage jars that are characteristic of the later Iron Age, along with burnished globular bowls.

A small group from the fill (4221) of the southern ring ditch [4222] (RD2) is a good example, in containing a thick base sherd, 17mm thick at the centre in a coarse shelly fabric as well as the bead rim, with shallow fingertip impressions on the neck, from a burnished bowl in a grey-black fabric containing finely-crushed shell and grog (Fig 23, 1).

From the fill (4045) of ditch [4044] (E2) there is a sherd from a globular bowl, grey-black throughout, containing sparse finely-crushed shell, with a smoothed surface. There is an incised line around the diameter and above this there are more faintly incised diagonals to form a cross lattice (Fig 23, 2).

There is an interesting collection of decorated pottery from the fills (4136) and (4138) of enclosure ditch [4135] (E2). From fill (4138) there is the upper body and rim from a globular bowl, thin-walled but containing dense shell, with multiple rosettes of alternating

three and six impressed dots, “berried” rosettes, set within curvilinear loops above and below pairs of impressed lines (Fig 24, 1). The upper lines lie immediately below the thickened flat rim, 150mm diameter, and there is a drilled hole just below the rim. Part of the base also survives, 80mm diameter, with an impressed ring on the base inside the circumference, creating the impression of a foot ring (Fig 24, 3), and a pair of impressed grooves just above the base (Fig 24, 4). Further sherds of this vessel came from fill (4136) of the same ditch and there are three sherds from the fill (4143) of pit [4142], which was cut by the ditch. This might suggest that the globular bowl had been deposited in pit [4142], perhaps largely intact and was largely residual in ditch [4135]. The globular bowl sherds from fill (4136) come from the lower part of the body with a second band of decoration comprising a diagonal lattice between pairs of impressed lines (Fig 24, 2). Sufficient survives for the vessel profile and decorative scheme to be reconstructed.

Also from fill (4136) of ditch [4135] (E2), there is also a rounded rim from a vessel containing dense shell but with a smoothed surface, decorated with diagonal fingernail impressions. The only other decorated rim from the site is a thickened, flat-topped rim from the fill (4054) of ditch [4055], which has deep fingertip impressions along the flat top.

There is a frequent occurrence of globular bowls with high shoulders and upright rounded rims, with these varying from thin-walled and decorated bowls, as already discussed and illustrated, but also including some thick-walled examples, less well finished but generally with smoothed surfaces even when containing dense shell, as in the bowl from the fill (4295) from pit [4297] (Fig 23, 3).

### ***Chronology***

The assemblage as a whole can be assigned to the late Iron Age, encompassing the 1st century BC into the early decades of the 1st century AD. The characteristic vessel forms are globular jars, often grey-black throughout with burnished surfaces and bead rims. There are number of decorated bowls including a classic Hunsbury-style bowl with a band of curvilinear decoration with “berried” rosettes set within the loops, while a second band of decoration below this comprises a cross-hatched lattice. A similar cross-hatched lattice appears on a grey-black burnished bowl, but with finely-incised, rather than grooved, lines.

The “berried” rosette is a relatively uncommon form of decoration, but it does occur on Hunsbury-style globular bowls from several sites in the Northampton Area: Hunsbury Hill, Blackthorn, Moulton Park, Hardingstone (Elsdon 1976) and Briar Hill (Bamford 1985, 121, fig 58, IAP17). The use of this impressed dot motif also occurs at sites away from Northampton, with examples at DIRFT (Davenport International Rail Freight Terminal) in the west of the county (Chapman 2016, 46-47, figs 2.30-2.31) and at Barton Seagrave, near Kettering (Chapman 2013, fig 28).

There are a few vessels of classic scored ware, with this technique spanning the middle to late Iron Age, but there is also a thick-walled jar with crudely cross-hatched scoring from the fill (4034) of ditch [4095], which is more likely to be a specifically late example, although examples of more complex scoring in the late Iron Age are usually more finely executed than this (Fig 23, 4).

Also characteristic of late assemblages, particularly those continuing into the 1st century AD, is the presence of even larger, thick-walled storage jars, and there are body sherds in the assemblage up 16mm thick, with oxidised surfaces and harder fabrics, sometimes containing grog, becoming dominant. The rims are also much heavier, although there are no particularly heavy rolled rims in this group.

***Catalogue of illustrated pottery***

Fig 23

- 1 Globular bowl with bead rim, fabric 3, from ditch [4222]
- 2 Globular bowl with incised cross-lattice decoration, fabric 2, from ditch [4044]
- 3 Thick-walled globular bowl, fabric 1, from pit [4297]
- 4 Thick-walled scored ware jar, fabric 1, from ditch [4095]

Fig 24

- 1 Globular bowl with impressed curvilinear decoration and “berried” rosettes on the upper body, fabric 1, from fill (4138) of ditch [4135]
- 2 Globular bowl with impressed lattice decoration on the lower body, fabric 1, from fill (4136) of ditch [4135]
- 3 and 4 The base of the globular bowl, showing the impressed groove creating the impression of a footring.

***Distribution of Iron Age pottery*** by Carol Simmonds

The majority of pot sherds came from contexts associated with the domestic and working area on the eastern side of the excavation area (Fig 25). The largest group was derived from the eastern arm and the entrance of enclosure E2 (48%). The second and third largest groupings (15% each) were from pits and from Ring Ditch RD2.



1



2



3



4

Iron Age pottery, 1-4 (Scale 10mm)

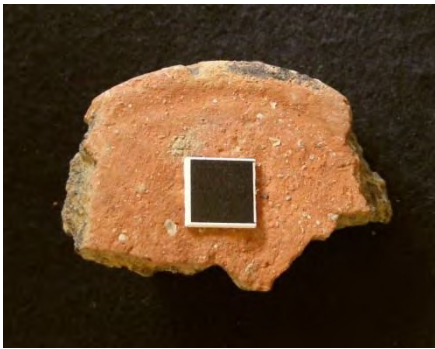
Fig 23



1



2



3

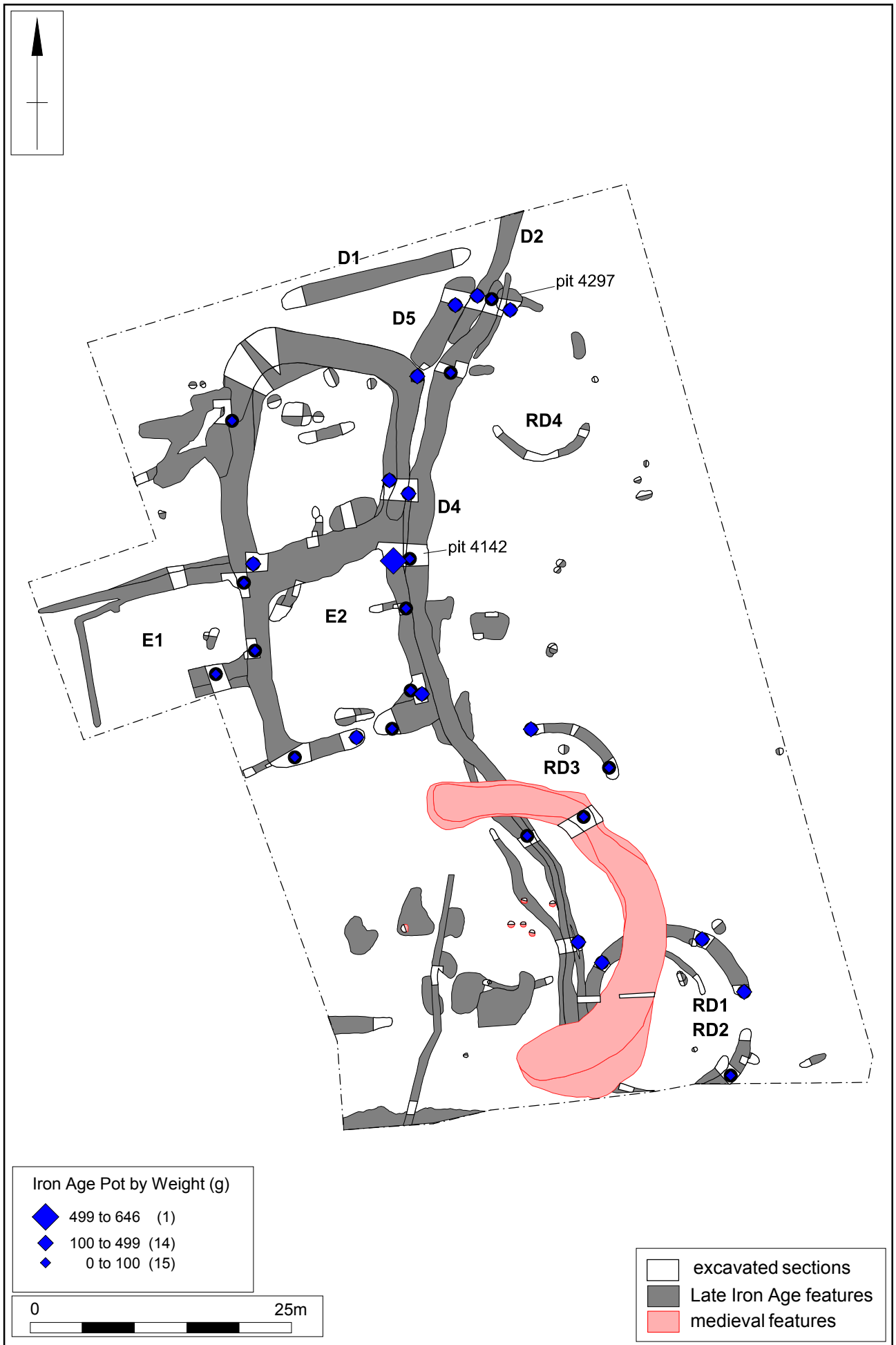


4

A globular bowl with curvilinear decoration from ditch [4135] (Scale 10mm) Fig 24

Table 4: Quantification of Iron Age pottery

Context/ Cut	Feature	Weight (g)	sherds
4001	Subsoil	30	1
4003	Layer	62	1
4012/ 4016	E2	88	10
4033/ 4095	E2	31	1
4034/4095	E2	298	6
4045/ 4044	E2	36	4
4054/ 4055	E2	73	5
4065/ 4066	E2	19	1
4069/ 4072	E2 terminal	82	3
4074/ 4076	E2 terminal	175	2
4081/ 4077	E1	30	1
4084/ 4302	E2	261	28
4086/ 4086	E2	16	3
4113/ 4111	E2	42	4
4114/ 4111	E2	53	8
4122/ 4123	D4R	13	4
4128/ 4130	D4R	38	3
4131/ 4303	E2	52	1
4132/ 4303	E2	413	12
4133/ 4303	E2	181	6
4136/ 4135	E2	131	16
4138/ 4135	E2	245	22
4143/ 4142	Pit	165	9
4144/ 4142	Pit	75	2
4145/ 4142	Pit	147	2
4182/ 4184	D4R	35	1
4183/ 4218	RD3	85	6
4188/ 4189	E2	261	4
4216/ 4215	RD3	217	3
4221/ 4222	RD2	255	23
4247/ 4248	D4R	121	6
4255/ 4256	D6	28	2
4265/ 4266	RD2	264	17
4269/ 4270	RD2	178	3
4285/ 4287	D2	43	2
4286/ 4287	D2	220	12
4288/ 4290	D4R	45	1
4291/ 4293	D5	117	7
4292/ 4293	D5	3	1
4294/ 4297	Pit	86	9
4295/ 4297	Pit	285	4
4296/ 4297	Pit	13	1
4315/ 4317	RD2	65	7
<b>Total</b>		<b>5077</b>	<b>264</b>



Distribution of Iron Age pottery Fig 25



**6.4 The slag** by Andy Chapman

A total of 21 fills from 17 ditches, a layer and four fills of two pits, produced a total of 3.97kg of slag (Table 5). Nineteen of these contexts produced less than 100g of slag, as single small lumps or multiple small fragments, while six contexts produced, between 106g and 432g as either single larger fragments or multiple smaller fragments. A single context, the fill 4133 of ditch 4303 (enclosure E2) produced 1.95kg (49% of the total assemblage) in the form of numerous fragments varying between 50mm and 130mm in diameter (Fig 25). The material typically occurs as irregular lumps varying in size from 50m diameter up to lumps 130mm in diameter throughout all groups.



Fuel ash slag from the fill of ditch [4303] (Scale 50mm)

Fig 26

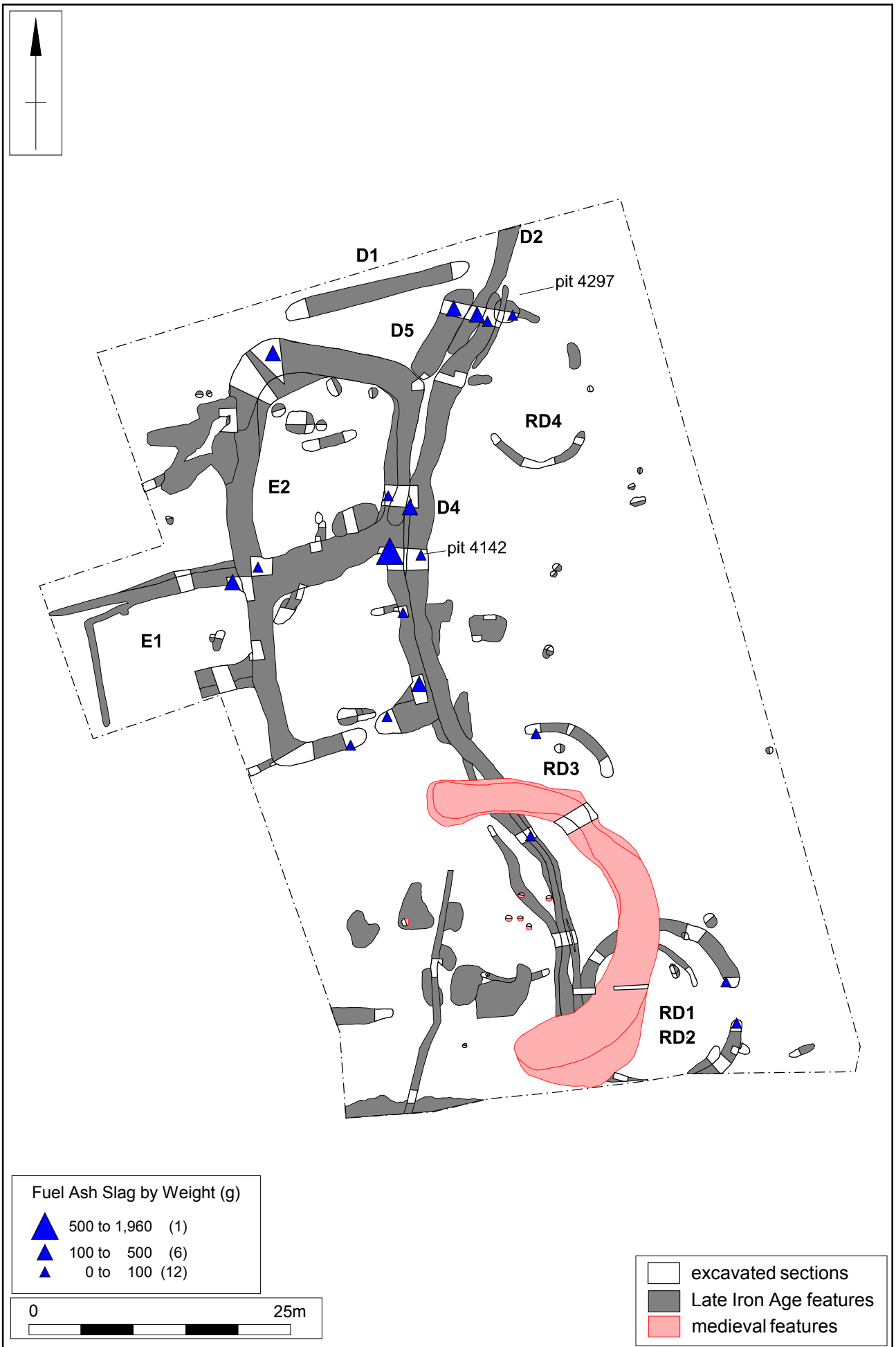
The entire assemblage is of consistent appearance comprising light vesicular slag with a light grey surface colour with occasional brown-red patches, while freshly broken surfaces are medium grey in colour. The material is all fuel ash slag that has come from high-temperature burning, but there is indication that this was associated with ironworking.

*Table 5: Quantification of the slag*

<b>Context/ cut</b>	<b>Feature</b>	<b>Weight (g)</b>	<b>Comments</b>
4003	Layer associated with D6	30	FAS
4017/ 4019	E1	106	FAS
4021/ 4023	E2, north-western corner	210	FAS
4034/ 4095	E2, western side	48	FAS
4069/ 4072	E2, terminal	19	FAS
4073/ 4076	E2, terminal	57	FAS
4084/ 4302	E2, south- eastern corner	407	FAS
4114/ 4111	E2, eastern side	26	FAS
4115/ 4111	E2, eastern side	28	FAS
4128/ 4130	D4R	14	FAS
4131/ 4303	E2, eastern side, recut	13	FAS
4132/ 4303	E2, eastern side, recut	65	FAS
4133/ 4303	E2, eastern side, recut	1951	FAS
4138/ 4135	E2, eastern side	24	FAS
4144/ 4142	Pit, cut by 4135 E2 (Fig 14)	260	FAS
4183/ 4184	D4R	5	FAS; sample 3
4216/ 4215	RD3	6	FAS; sample 4
4221/ 4222	RD2	6	FAS; sample 8
4285/ 4287	D2	39	FAS
4286/ 4287	D2	183	FAS
4288/ 4290	D4R	19	FAS
4291/ 4293	D5	432	FAS
4294/ 4297	Pit	10	FAS; sample 11
4295/ 4297	Pit	4	FAS; sample 12
4296/ 4297	Pit	10	FAS; sample 13
4311/ 4313	RD2	2	FAS; sample 18
<b>Total</b>		<b>3974</b>	

***Distribution of fuel ash slag*** by Carol Simmonds

The majority (87.70%) of the fuel ash slag came from contexts on the eastern side of the excavation area, close to the domestic and working areas. A distribution plot of the fuel ash slag (Fig 27) illustrates two main clusters; one cluster to the north of RD4 and the second but more dispersed on the eastern side of the enclosure E1 and D4R. The northern cluster lies adjacent to RD4, a possible working area with a high quantity of fired clay (Section 6.7 below).



Scale 1:500

Distribution of fuel ash slag Fig 27

**6.5 The millstone** by Andy Chapman

From fill (4262) of ditch [4256] (D6) there is a large fragment from the lower stone of a millstone (SF5) in lava from the Eifel hills of western Germany. Lava querns and millstones were being imported into Britain from at least the early Roman period and are common finds on sites of Roman and Anglo-Saxon date. They are less common in the post-Conquest period, as other stone types then dominated the industry, but they were still being imported. In this instance, as windmills do not appear in Britain before the late 12th century, this example is most likely to date to the 13th century.

It is difficult to determine an accurate value for the diameter of the stone with only c 4% of the circumference surviving, but it is estimated at 0.7-0.8m. The stone is 55mm thick at the circumference, thickening to 70mm at 240mm in from the edge, with the central area missing: the thickening towards the centre indicates that it was a bottom stone. The grinding surface has been dressed with a pattern of linear furrows to aid the movement of grain/flour from the centre to the circumference during milling. These had been quite freshly made with a pointed mill pick, with the individual hollows quite clearly defined (Fig 28).



The grinding surface of the millstone, showing the cut furrows  
(scale 20mm) Fig 28

The underside has a mixture of dimpled and elongated tool marks from rough levelling of the undulating surface.

Other local finds of lava stone include 55 fragments of millstone in use in the pre-Conquest watermill at the deserted medieval hamlet of Raunds, West Cotton (Chapman 2010, 395-405). This site also produced an example of a probable mill pick (Hylton 2010, 384, fig 11.24).

**6.6 Fired clay** by Pat Chapman

This assemblage of 557 fragments of fired clay, weighing 2324g, includes a few pieces with structural features from ditch [4287] (Table 6).

The material from fill (4285) in ditch [4287] comprises two types of fired clay. Seven small and medium-sized fragments are made with hard fired orange-brown fine sandy clay with frequent tiny and small gravel inclusions. One fragment has a wattle impression c 20mm in diameter, another piece is 20mm thick with the fragmentary remains of a broad impression that could be c 50mm in diameter, a post perhaps, and there are some uneven but smooth surfaces. The other seven fragments are small hard, cindery black and dark red that have been subject to high, and possibly prolonged, temperatures. These fragments come from structural remains and heat-associated activity.

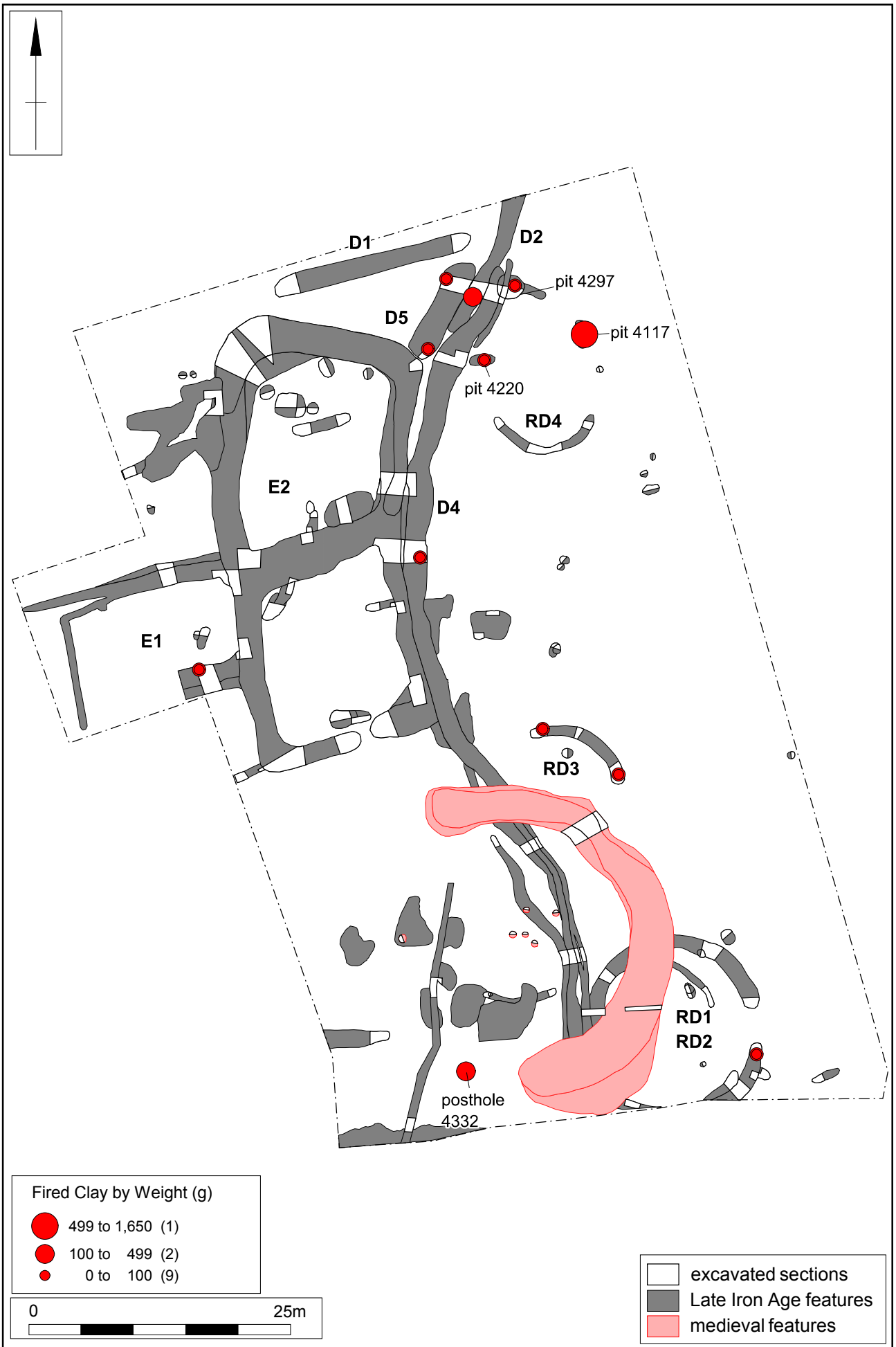
Many irregularly-shaped hard rough lumps of orange-brown to grey-black silty clay come from fill (4116) in pit [4117]. One large lump is 75x55x45mm in size, the remainder range from 55x35x25mm to 15x10x8mm in size. There are no diagnostic features on any of the pieces so these are unlikely to be structural in origin, rather the remains of rough lining for a pit perhaps, but not one associated with high temperatures. Very similar material, but all small in size, comes from fill (4331) in posthole [4332].

The remaining sparse scattered fragments have been made from a similar clay fabric to those from ditch [4287] and most have been heated to varying degrees.

Two odd fragments comprise a piece of silty smooth grey clay, laminating in layers 3mm thick similar to alluvial clays, from fill (4005) in ditch [4006] (E1) and a small lump from fill (4128) in ditch [4130] of smooth buff and pale orange fine silty sandy clay.

*Table 6: Quantification of fired clay*

<b>Fill/cut/ type</b>	<b>No</b>	<b>Wt (g)</b>	<b>Description</b>
4005 / 4006/ E1	1	19	18mm thick, dark silty grey clay
4116 / 4117/ Pit	362	1625	Irregular rough, hard grey-black to pale orange
4128 / 4130/ D4R	1	13	Smooth rounded, buff and pale orange
4183 / 4218/ RD3	7	20	Smooth small irregular hard, mainly black
4186 / 4187/ D5	1	17	Hard black and orange-brown, frequent gravel
4216 / 4215/ RD3	3	5	Hard black and orange sub-rounded
4219 / 4220/ Pit	13	40	Fine sandy orange-brown, sub-rounded
4285 / 4287/ D2	14	205	7 small cindery black and dark red-brown 7 smoothed fine sandy orange-brown, wattle impressions 22mm and 50mm
4291 / 4293/ D5	16	50	Highly fired small friable orange-brown
4295 / 4297/ Pit	3	25	Black grey traces buff, frequent gravel
4311 / 4313/ RD2	3	5	Black grey traces buff, frequent gravel
4331 / 4332/ Posthole	133	300	Irregular rough, hard grey-black to pale orange
<b>Totals</b>	<b>557</b>	<b>2324</b>	



Scale 1:500

Distribution of fired clay Fig 29

***Distribution of fired clay*** by Carol Simmonds

There is a distinct cluster of fired clay (Fig 29) with and near to pits [4117] and [4220], located to the east of the enclosure E2, and account for c 84% of the total amount of fired clay. This cluster corresponds with a significant cluster of fuel ash slag (Section 6.5 above; Fig 26).

**6.7 The metalwork** by Tora Hylton

Three small finds were recovered from stratified deposits in Area 1. A copper alloy rumbler bell was recovered from the upper fill (4128) of Ditch D4R/ [4130]. Although incomplete, enough survives to indicate that it represents the upper section of a small bell. The bell represents a type which comprises four component parts, a suspension loop and two hemispheres manufactured from sheet metal that would have been soldered together and an iron 'sounding' pea which would have been placed in the central cavity. Bells of this type were used for dress and animals from the early medieval period onwards.

The remaining two objects were recovered from the fill of Ditch D6/ [4262] and they include a rim fragment (37 x 21mm) from a cast copper alloy flatware vessel and a piece of lead shot. Dimensions of the latter (Dia: 14mm) suggest that this shot may have been for use with a pistol rather than a musket (Egan 2005, 202). Possible impact marks are visible on the exterior surface, these may have been caused by firing or having been dropped.

***Catalogue***

SF 1 Shot, lead. Spherical ball with possible impact marks. Diameter: 14mm  
Context 4262, Ditch D6, Post-medieval

SF 2 Vessel fragment, copper alloy. Rim flange from cast flatware vessel. Context 4262, Ditch D6, Post-medieval

SF 3 Rumbler bell, copper alloy. Incomplete, lower half missing, ferrous corrosion deposits within central cavity of bell and on exterior surface. Manufactured from sheet metal, made in two hemispheres that would have been soldered together, corroded remains of iron 'sounding' pellet in the central cavity. Suspension loop (?strap-type) survives in the form of a protrusion covered in corrosion deposits. Diameter: 17mm  
Context 4128, Ditch D4R/ [4130]

## 7 THE FAUNAL AND ENVIRONMENTAL REMAINS

### 7.1 The animal bone by Adam Reid

A total of 1,042 animal bone fragments were hand collected from 57 different contexts during the course of excavation and an additional 902 fragments were recovered from the environmental samples via wet-sieving. This material was assessed to determine the level of preservation, the taxa present and to inform on the potential for further work.

All material was washed prior to analysis. Identifiable bones were noted, and were examined for signs of butchery and the state of epiphyseal fusion. The state of preservation of each bone fragment was rated on a scale of 1 to 5, where 1 is equivalent to excellent preservation and 5 very poor (Lyman 1994). Identifications took place with the aid of the MOLA Northampton reference collection and Hillson (1992). Toothwear data was collected using the methodology of Grant (1982) and the state epiphyseal fusion was used to estimate age at death following guidelines set out by Silver (1969).

Due to the anatomical similarities between the two species, all ovicaprid specimens were grouped as sheep/goat, unless possible to differentiate between the two using Boessneck *et al* (1964) and Payne's (1985) criteria. Specimens that could not be positively identified were attributed, where possible, to categories including large mammal (cattle, horse), medium mammal (sheep/goat, pig, large dog), and small mammal (small dog, cat, rabbit).

#### ***Identification and quantification***

Positive identification to genus level was possible for 168 (16%) of the fragments. The results of the identifications are presented below (Table 7). The majority of identified remains (78%) were recovered from contexts relating to the late Iron Age phase. The amount of identified specimens from non-late Iron Age features is too small to make any statistically viable comparisons between phases.

A small quantity of horse and dog remains were present but the most frequently occurring taxa were the three main domestic animals (cattle, sheep/goat and pig), which accounted for 80% of the identified species. Among the fragments identified to species, cattle and sheep/goat were the most abundant (35% each), followed by pig (10%), roe deer (10%), horse (6%) and dog (4%).

16 fragments of roe deer antler, and a small amount of fragments of uncertain deer species were recovered, suggesting that wild animals were utilised to a lesser degree. All fragments of deer bone were recovered from contexts dating to the late Iron Age phase.

There was very little diversity in the assemblage and no fish, bird or amphibian remains were present, although three vole bones were recovered from fill (4296) of an unphased ditch.



Table 7: Identified taxa by phase (numbers in brackets denote additional material recovered via wet-sieving)

Taxon	MIA/ LIA Phase	LIA Phase	Med/ post-med phase	Unphased	Total
Cattle	6	45 (1)	2	6 (1)	59 (2)
Sheep/goat	2	39 (8)	10	8 (6)	59 (14)
Pig	1	14 (1)	0	2	17 (1)
Horse	0	8 (1)	2	0	10 (1)
Dog	0	7	0	0	7
Roe Deer	0	16	0	0	16
Cervid sp.	0	13	0	0	13
Vole	0	0	0	0 (3)	0 (3)
Small Mam	0	9 (1)	0	2 (10)	11 (11)
Med. Mam	4	144 (1)	0	29 (5)	177 (6)
Large Mam	12	212 (3)	3	25	252 (3)
Indeterminate	28	335 (569)	5	53 (292)	421 (861)
Total	53	842 (586)	22	125 (317)	1042 (902)

**Preservation and taphonomy**

The general state of preservation of the material was moderate to poor and the assemblage was highly fragmented (Table 8). Much of the material demonstrated evidence of weathering and surface abrasion, which would suggest that some specimens may have remained exposed, or partially exposed, for some time prior to burial.

Table 8: Preservation rating for identified specimens (all phases, hand collected)

State of preservation	1	2	3	4	5
	Excellent	Good	Moderate	Poor	Very Poor
No. of specimens	-	25	84	45	14

Canid toothmarks were noted on long bone fragments recovered from fills of late Iron Age ditches E1 and RD3. Fragments of canid bone were also recovered from the fills of E1 and this evidence of gnawing provides further indications of the presence of dogs on site, possibly suggesting that the remains were exposed prior to burial.

Butchery marks were noted on a total of 17 specimens from 8 different contexts. 8 instances of butchery were recorded on fragments of roe deer antler recovered from E2. A minimum of 16 fragments of antler were recovered from the context (including an antler base) with no repeated elements noted, suggesting that the butchery may represent the separation of different parts of a single shed antler. Evidence of butchery was noted on a horse metacarpal fragment recovered from medieval or post-medieval ditch D6, which took the form of a severe longitudinal cleave mark that would have divided the bone into two, probably for marrow extraction. The other instances of butchery comprised small cut or chop marks on long bone fragments recovered from the fills of E2.

Three fragments of burnt bone were observed in the hand collected material: a medium sized mammal vertebral fragment from RD2, a large sized mammal long bone fragment from the re-cut of D4 and a small fragment of calcined indeterminate mammal bone from RD2, which appears to have been heated to a high temperature. A further 184 fragments of burnt bone were recovered from the environmental samples, 55 of which were calcined and 129 which appeared to have been heated to a lower temperature.

**Body part representation**

Although the sample size is low, the representation of body parts indicates a low frequency of identifiable long bones, which comprised only 12% of identified specimens (Table 9). Instead there seems to have been a trend towards cranial and lower limb elements, although this may be a reflection of the fragmented state of the assemblage, as teeth are often easier to identify than long bone fragments.

*Table 9: Identified fragments by element (all phases, hand collected)*

<b>Taxon/ element</b>	<b>Cattle</b>	<b>Sheep/goat</b>	<b>Pig</b>	<b>Horse</b>	<b>Dog</b>	<b>Roe Deer</b>	<b>Total</b>
Antler	-	-	-	-	-	16	16
Astragalus	2	-	-	-	-	-	2
Calcaneus	1	-	-	-	-	-	1
Femur	-	-	-	-	1	-	1
Horncore	-	5	-	-	-	-	5
Humerus	2	-	1	-	-	-	3
Mandible	2	10	4	-	3	-	19
Maxilla	1	1	4	-	1	-	7
Metacarpal	10	-	-	2	-	-	12
Metapodial	1	1	-	3	-	-	5
Metatarsal	2	1	-	1	-	-	4
Pelvis	2	-	1	-	-	-	3
Phalanx	6	-	-	2	-	-	8
Radius	4	2	-	-	-	-	6
Scapula	1	-	1	-	1	-	3
Talus	2	-	-	-	-	-	2
Tibia	3	4	1	-	-	-	8
Tooth (loose)	20	33	3	2	1	-	59
Ulna	-	-	2	-	-	-	2
<b>Total</b>	<b>59</b>	<b>59</b>	<b>17</b>	<b>10</b>	<b>7</b>	<b>16</b>	<b>168</b>

**Ageing and fusion**

Only one mandible contained enough erupted teeth to analyse: a cattle mandible recovered from RD2. The state of toothwear suggested that the animal was mature at time of death.

Epiphyseal fusion data was available for six fragments recovered from features relating to the late Iron Age phase. The remains of a juvenile dog and juvenile cattle were

identified from material recovered from E2 in addition to a mature sheep/goat and a mature cattle specimen. Two further examples of mature cattle were identified in remains recovered from RD1 and RD2.

The ageing data provides no clear indications that a specific animal husbandry practice was utilised at the site during the late Iron Age.

### **Discussion**

The relatively small assemblage from the site at Raunds, West End derives largely from late Iron Age features and is typical of rural assemblages that have been recorded for other sites of the period in Northamptonshire (Orr 1974, Jones 1978 and Maltby 2003). Cattle and sheep or goat remains make up the majority of the assemblage and would probably have been utilised primarily for food, although cattle could also have been used as draught animals (Groot 2005).

Small quantities of dog and horse bones were recovered from the late Iron Age features E1 and RD2; there is no evidence to suggest that these animals were exploited for food and all bones appear to have been disarticulated, so there are no indications of ritual activity. Butchery marks on a horse bone recovered from the medieval or post-medieval ditch D6 suggest that horses were viewed differently in later periods. Butchery marks were also recorded on horse bones from medieval contexts at Burystead and Langham Road, Raunds (Davis 1992).

Finds of antler and horncore fragments from E2 may indicate that small-scale horn and antler working took place at the site during the late Iron Age phase, and other finds of deer bone may provide limited evidence of hunting activity, but the general composition of the assemblage provides no suggestions that the site fulfilled any specific function.

## **7.2 The plant macrofossils** by Karen Stewart

### **Introduction**

Samples were taken during excavation of the site at Raunds, West End, in order to recover any artefacts or ecofacts that might aid in the interpretation of the archaeology at the site. The samples came from a selection of features, including pits, ditches and industrial features. Details of sample types and size can be found in Table 10. All analysed samples date to the Iron Age.

### **Methods**

Samples were processed by flotation, using a flotation tank with meshes of 0.25mm and 1.00mm to catch the flot and residue respectively. Flots were dried and observed with a low-powered microscope. The residue was dried and sorted by eye for artefacts and environmental material.

### **Macroplant remains**

Identifications were carried out using standard reference texts (Cappers *et al* 2006), and modern reference material. Plant names follow Stace (1991). Charred seeds and fruits were quantified, while less quantifiable material such as charcoal was recorded using the following scale of abundance - + = rare, ++ = occasional, +++ = common, ++++ = abundant.

### *Charcoal*

All of the charcoal fragments of a size suitable for identification was identified from sample 10 (4260). These fragments were fractured along the transverse, tangential and radial planes in order to observe the microscopic characteristics required for taxonomic identification of wood. The fragments were mounted on a glass slide and observed using reflected light at magnifications up to x400. Identifications were made using standard techniques by Schoch *et al* (1978), Hather (2000) and the International Association of Wood Anatomist (IAWA) InsideWood database. The taxa, fragment size, strength of ring curvature and any other interesting characteristics were recorded for each fragment.

### **Results**

#### *Macroplant remains*

All plant remains were preserved by charring. Charring occurs when organic material is exposed to high heats in a low oxygen environment – too much oxygen and the material turns to ash. Wood charcoal and charred cereal grains were the most commonly recorded constituents. In most samples some modern seeds and leaves were also recorded. Seven of the samples were found to contain material other than charcoal and these have been quantified and the results are tabulated below in Table 10. Samples 5, 6 7, 9, 11, 12, 14, 15, 17 and 19 were found to contain no environmental material of archaeological significance beyond very low volumes of small charcoal fragments and will not be discussed further here.

Sample 2 from (4116), industrial feature, contained low levels of charcoal and a single fragment of charred hazelnut shell. The assemblage is unfortunately too small to draw any conclusions about its use or the depositional environment.

Sample 3 from ring ditch (RD3) fill (4183) contained small charred grain assemblage. Unfortunately the grains were quite vesicular and abraded and the majority could only be identified as 'cereal' type. However 2 were identified as emmer wheats (*Triticum dicoccum*), with a further 3 as 'wheat' type (*Triticum spp.*). Three wheat glume bases made up the chaff portion of the assemblage.

Sample 4 from ring ditch (RD3) fill (4216) contained a very small assemblage with one wheat (*Triticum sp.*) grain, and a single example each of black bindweed (*Fallopia convolvulus*) and goosefoot (*Chenopodium sp.*). Both wild seeds are common contaminant of cereal crops and may have become charred alongside the wheat grain.

Sample 8 represents ring ditch (RD2) fill (4221) and contained a small charred grain assemblage, The majority of the grains were quite abraded and could only be identified as cereal types, but four wheat (*Triticum spp.*) and a single barley (*Hordeum vulgare*) grain were identified. A single wild grass (*Poaceae*) seed was also recorded.

Sample 13 was taken from pit fill (4296) and was again dominated by abraded cereal grains, though eight emmer wheat (*Triticum dicoccum*) grains were recorded, as well as three barley (*Hordeum vulgare*) grains.

Sample 16 represents enclosure ditch (E2) fill (4132) and contained a small charred grain assemblage including six unidentified cereal types, two barley (*Hordeum vulgare*) grains, and a single emmer (*Triticum dicoccum*) grain.

Sample 18 represents a fill (4311) of a ring ditch (RD2) terminal. It contained small charred assemblage, with wheat chaff, in this case glume bases, the most numerous

component. Other evidence of cereals comprised five unidentified cereal grains and two emmer wheat (*Triticum dicoccum*) grains. Eight grass (*Poaceae*) seeds, three vetch/wild pea (*Vicia/Lathyrus spp.*) and single example each of sedge (*Carex sp.*) and bedstraw (*Galium sp.*) made up the wild plant assemblage.

#### *Charcoal*

A small charcoal assemblage was recovered from sample 10. Fourteen fragments were of a size suitable for taxonomic identification. Of these, 11 were identified as elm (*Ulmus spp.*) wood, two of oak (*Quercus spp.*) and one could not be identified as it was knotwood, though it was observed to be of a diffuse porous type, and thus represents neither oak nor elm. Most of the fragments were found to have very weak ring curvature and are thus likely to represent mature wood, rather than branch or brush wood, though the fragments were small, with at most eight rings represented, so this conclusion is tentative at best. All of the fragments were quite abraded which suggests movement after burning, perhaps gathering for dumping, or being scattered about on the surface.

#### **Discussion**

The macroplant remains represent a small assemblage of cereal grains, dominated by emmer wheat (*Triticum dicoccum*) with a smaller proportion of hulled barley (*Hordeum vulgare*) also present. The proportions of grain to chaff in all but sample 18 suggests that a clean and processed crop is represented (van der Veen 1992) This pattern holds true across the feature types from the site, and is generally typical of an assemblage of this date. In all cases the assemblages tended to be small and very abraded. This can be taken as evidence that the material does not represented in situ activity and is likely to represent secondary deposition, whether as dumping beyond the original area of activity, or perhaps as part of a natural silting up process.

The charcoal assemblage analysed from sample 10 suggests that mature wood was being selected for burning, and that elm (*Ulmus sp.*) was the preferred timber, though the low number of surviving fragments unfortunately precludes any real conclusions on timber selection. Elm has a high calorific value and thus makes good fuel wood. The abraded character of the fragments does however suggest that the assemblage does not represent in situ activity.

Table 10: Composition of samples

	<b>Volume</b>	<b>50</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>20</b>	<b>40</b>	<b>40</b>	<b>40</b>
	<b>Feature:</b>	<b>Industrial</b>	<b>RD3</b>	<b>RD3</b>	<b>RD2</b>	<b>Pit</b>	<b>Pit</b>	<b>Ditch E2</b>	<b>RD2 terminal</b>
	<b>Fill/ Cut:</b>	<b>4116/ 4117</b>	<b>4183/ 4218</b>	<b>4216/ 4215</b>	<b>4221/ 4222</b>	<b>4260/ 4261</b>	<b>4296/ 4297</b>	<b>4132/ 4303</b>	<b>4311/ 4313</b>
	<b>Sample:</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>8</b>	<b>10</b>	<b>13</b>	<b>16</b>	<b>18</b>
<b>Scientific name</b>	<b>Common name</b>	<b>Plant part</b>							
<i>Triticum dicoccum</i> Schubl.	Emmer		2				8	1	2
<i>Triticum</i> spp.	wheat		3	1	4				
<i>Triticum</i> spp.	wheat		3						10
<i>Hordeum vulgare</i> L.	6-row barley (hulled)					1	3	2	1
Cerealia	cereal indeterminate		11		9		11	6	5
<i>Chenopodium</i> spp.	goosefoot etc			1					
<i>Galium</i> spp.	bedstraws								1
<i>Vicia/Lathyrus</i> spp.	vetch/wild pea								3
<i>Fallopia convolvulus</i> (L.) A. Love	black bindweed			1					
<i>Carex</i> spp.	Sedge								1
Poaceae	grass family				1		1		8
<i>Corylus avellana</i> indeterminate	hazelnut -	1 ++		+	+	+	++	+	+

## 8 DISCUSSION

### 8.1 Late Iron Age occupation

The excavation identified the remains of a small late Iron Age farmstead with domestic and working zones supporting a pastoral economy. It was situated on higher ground above the Nene Valley and less than 500m to the east of a stream. This watercourse was possibly a reason for the placement of the settlement.

The settlement has zoned areas divided by a sinuous boundary ditch likely to have been present in one form or another for the period of its use. To the east of the boundary is the settlement focus with a single main round house defined by a recut eavesdrop gully (RD1, RD2) and two further less well defined ancillary structures (RD3 and RD4) surviving as partial ring ditches. To the west of the boundary were small interconnected enclosures (E1 and E2). Both had evidence for maintenance and modification and were associated with funnelled boundaries providing stock management routes to the enclosures from meadow land in the valley. It is possible that arable fields lay beyond the areas of pasture.

#### ***Settlement morphology and landscape***

The late Iron Age settlement at West End was previously unknown as it had not been recorded in aerial crop mark surveys or during field walking as part of the Raunds Area Survey Project (Parry 2006). It was first recorded during the geophysical survey (Bartlett and Coates 2011) which defined the core of major features comprising the enclosures and the ring ditches. The subsequent trial trenching (Coates and Richmond 2011) established that there were ditches, probably defining out field boundaries, to the north and west of the enclosures. The excavation was targeted on the main focus of the settlement as defined by the geophysical survey and trial trenching.

The linear layout of the settlement at West End, comprising enclosures and ring ditches respecting the position of boundaries is similar to Iron Age enclosures at Top Lodge (Shaw 1992) and at Raunds Road (Parry 2006, 243). There are variations in the orientation of the settlements perhaps respecting changes in topography (Fig 30). West End is parallel to the 70m aOD on a west facing slope, Top Lodge sits just above the 60m line on a south facing slope and Raunds Road, and also on the 70m aOD line is perpendicular to the contour. Compared with the sites at Top Lodge and Raunds Road, the site at West End is not as complex or as extensive, and was perhaps a subsidiary settlement to sites either at Top Lodge or Raunds Road.

#### ***Definition of zones***

The boundary that defined the settlement area from the livestock management zone likely began as a shallow ditch which was entirely cut away by a later more substantial ditch. The boundary was modified on at least one occasion, firstly as three segments of a ditch allowing controlled access between zones and later, when there was no requirement for a domestic zone, as a sinuous, continuous ditch.

#### ***Domestic zone***

The domestic zone to the east of the boundary initially comprised ring ditch RD1. This was later superseded by ring ditch RD2 which was a larger structure. This would have been the domestic focus, although no traces of the structure itself comprising a timber, wattle walled round house survived. The function of the middle ring ditch, RD3, is uncertain but it may have been an eavesdrip gully for a structure which may have been domestic or craftwork in focus.

The majority of pits were also located in the domestic zone and generally had vertical sides and no or few artefacts. This suggests that the pits were used for storage. Although there was a clear domestic focus there was no well, possibly due to the site's close proximity to a stream (c 500m to the west), or that a well was situated elsewhere possibly within an adjacent field system.

The tight date range of the pottery assemblage and the relatively simple stratigraphy of the ring ditches suggest that the farmstead was in use for a short period of time between 1st century BC and into the early decades of the 1st century AD, so probably only 100 years at the most.

The inhabitants of the site did not use the area for significant industry; instead the evidence suggests that the focus was very much domestic. The type of fuel ash slag, the charred plant remains all suggest domestic activity such as hearths and ovens. Although the enclosures were used to manage livestock, the site was not used for butchery activities other than small scale domestic butchery and horn working. There was also clear evidence that the inhabitants augmented their diet by hunting for roe deer.

The combined pottery, fuel ash slag and fired clay distribution plot (Fig 31) all clearly show a bias to the domestic zone, especially the upper fills of the enclosure ditch E2 as well as the ring ditches. This is in marked contrast to the western livestock management zone where the amount of pottery deposition especially is considerably smaller. It is important to note that during the excavation of other settlements of the same period, industrial activity occurred in the outer fields of the settlement and the lack of industrial evidence found may therefore not be significant.

### ***Livestock management zone***

The primary focus for the livestock management was enclosures E1 and E2 with the other ditches (DG2, D1, D2 and D3) providing out field boundaries or barriers to aid effective livestock movement. The enclosures and ditches were likely augmented with fences or hedgerows although no trace of the latter survives.

The enclosures were situated on higher ground and were too small to have been used as fields or enclosures for grazing. They were far more likely to have been used for the corralling and controlling of livestock such as cattle and sheep, with the animals being herded from the meadows in the valley up through a system of gated funnels into the enclosures. The ditches defining the enclosures and funnels were variable in size with the most substantial ditches defining the enclosures or corrals and the smaller ditches such as DG2 and ditch D3 forming the funnels of outfield boundaries.

Both of the enclosures were clearly maintained with enclosure E1 having been modified at least once and enclosure E2 maintained on at least two occasions. The modifications and maintenance clearly suggest that the enclosures were in continuous use during the late Iron Age and in the case of enclosure E2 into the early Roman period.

The general orientation of the enclosure and field system was maintained after both fell out of use. Ditch D4 clearly respected the position of the enclosure and earlier field system and perhaps formed a ditched boundary which may have continued to be visible in the landscape into the medieval period.

### ***Status***

The evidence suggests that the settlement was probably self-sufficient and low status with no evidence for imports, luxury or even industrial and craft activities. It is likely the occupants may have specialised in pastoral activities, presumably selling excess to markets. Such activities did not seem to produce evidence for any conspicuous wealth.



with only basic utilitarian artefacts recovered and the absence of any metal artefacts is also likely to be significant.

## 8.2 Medieval and post-medieval land use

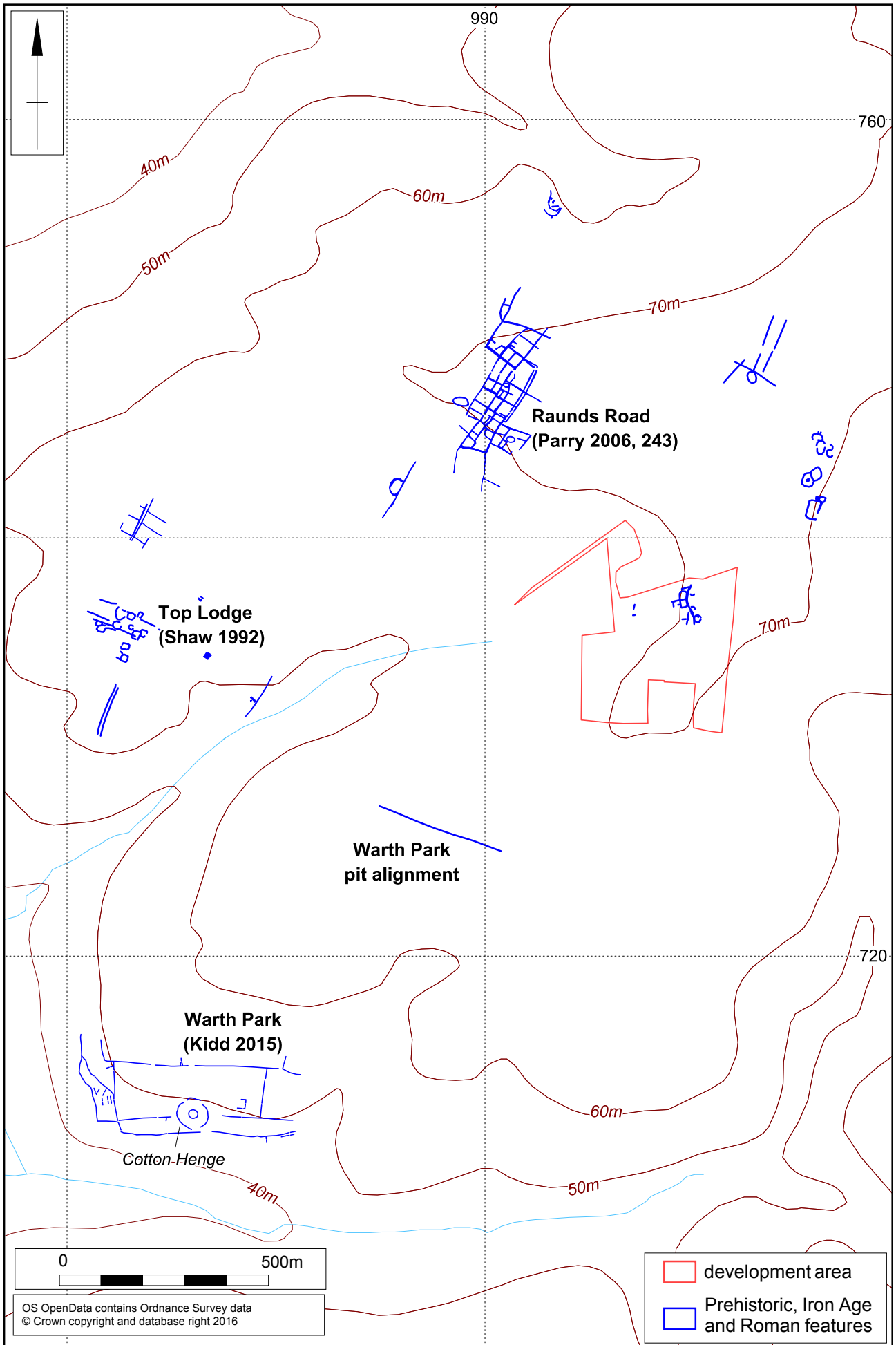
During the medieval period the site lay in open fields covering the parishes of Ringstead and Raunds. An assessment of the available historic maps and a synthesis of medieval land use (Partida *et al* 2013) indicate that Area 1 straddled a headland between furlongs. The Environmental Impact Assessment (EIA) recorded that a mound, interpreted as a barrow or other feature, was visible on the extant aerial photographs. The excavation results have ascertained that the mound was more likely to have been the ploughed-out remains of a medieval post mill.

The majority of known examples of post mills were situated on the headland between fields, on high ground and generally away from settlement. The earliest windmills in England date from the late 12th century, and comprised a shelter built around a central post sat on a frame on top of the mound or on a cross-shaped base with the mound material built-up around it. The ditch would have allowed the rotation of the sails to match the wind direction.

A windmill mound of similar size and character to the windmill at Raunds was located in open country at Dogsthorpe, Peterborough (Pearce 1966). Here a windmill was defined by the mound, enclosed on three sides by a ditch. It was thought that the mill structure was on top of the mound rather than the mound built around it. The earliest recorded date for this windmill was early 15th century. Other medieval examples excavated across the midlands tended to be earlier, dating from the 13th century. They include examples at Great Linford, Bedfordshire (Mynard and Zeepvat 1991), at Tansor, Northamptonshire (Chapman 1996-7) and at Strixton, Bedfordshire (Hall 1973) and they tended to have been constructed on a cross-shaped frame with the mound built around the central post. The Strixton windmill is thought to be the earliest archaeological example in the country.

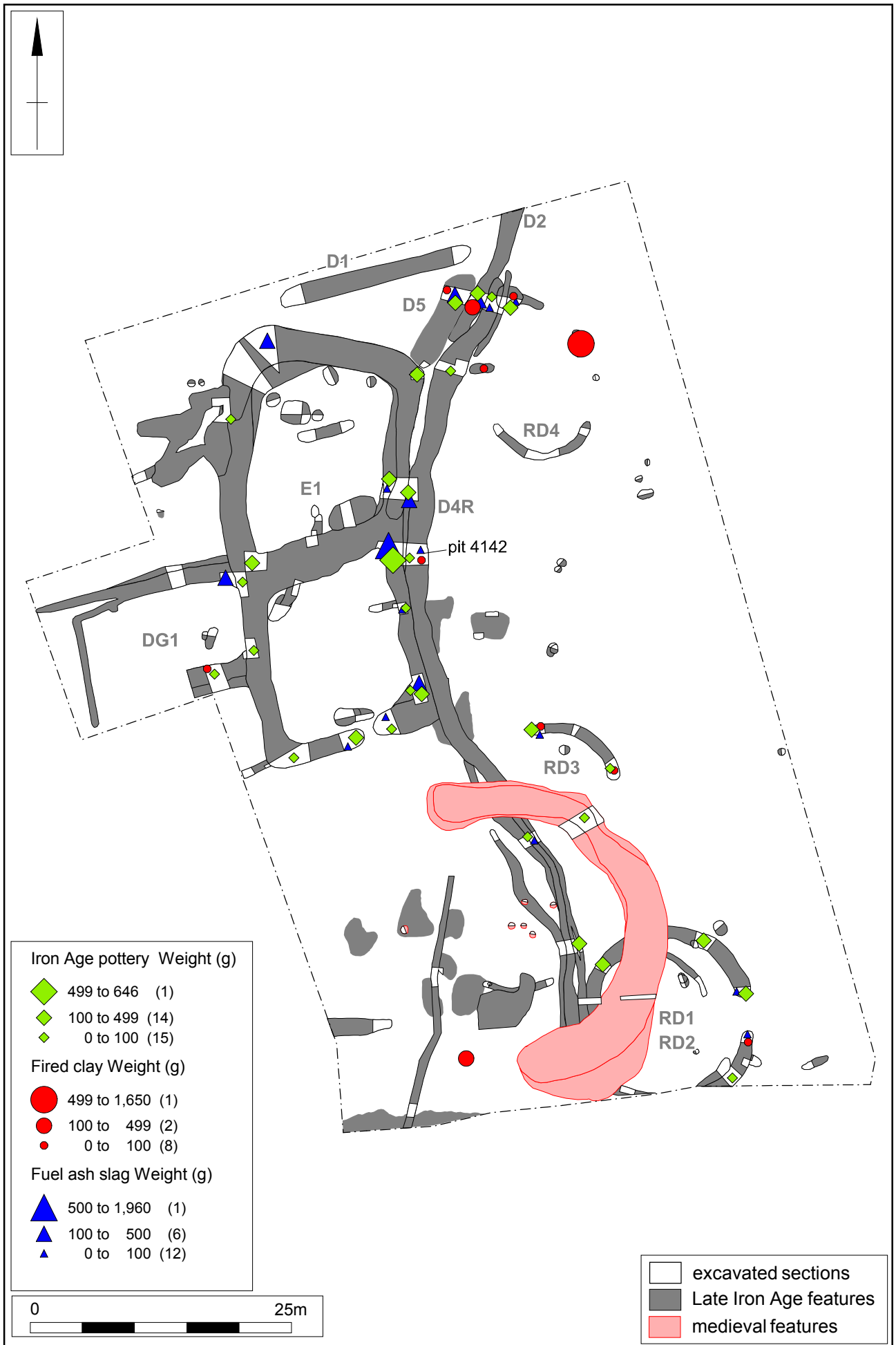
The example at Raunds, West End was located in the south-eastern corner of Ringstead parish and comprised a ditch, open on the western side. The upcast material from the ditch was deposited to form a mound within the space enclosed by the ditch. The mound material had sherds of Iron Age pottery, unsurprising given the ditch cut through Iron Age features. No obvious remains of the central post or cross tree survived suggesting that the structure was situated on top of the mound. The presence of the large limestone blocks may have been supports for a superstructure. When the windmill was not in use it would have been tethered to a post supported in pit [4261]. The presence of a group of postholes, roughly in the centre of the ditch, was coincidental as the postholes were sealed by subsoil and the mound material.

A windmill in this location does not appear on any of the known historic maps for the parishes of Raunds or Ringstead, suggesting that it had certainly been demolished prior to the late 18th century. Both the enclosure map for Raunds (1798) and the 1840 Tithe map for Ringstead (PCA 2011, figure Arch.06) do not record a windmill in this location. This is in contrast to the known windmills near the centre of Raunds and at Ringstead Grange (Shaw 1990; Fig 2) which are recorded on Bryants 1827 Map of the County of Northamptonshire and the 1835 Ordnance Surveyors map (Fig 32). This suggests that the windmill is of medieval and/ or early post-medieval date and was not visible in the landscape around the time of enclosure. In terms of its origin the presence of Eifal lava millstone may indicate that there was a windmill on the site as early as the 13th century.

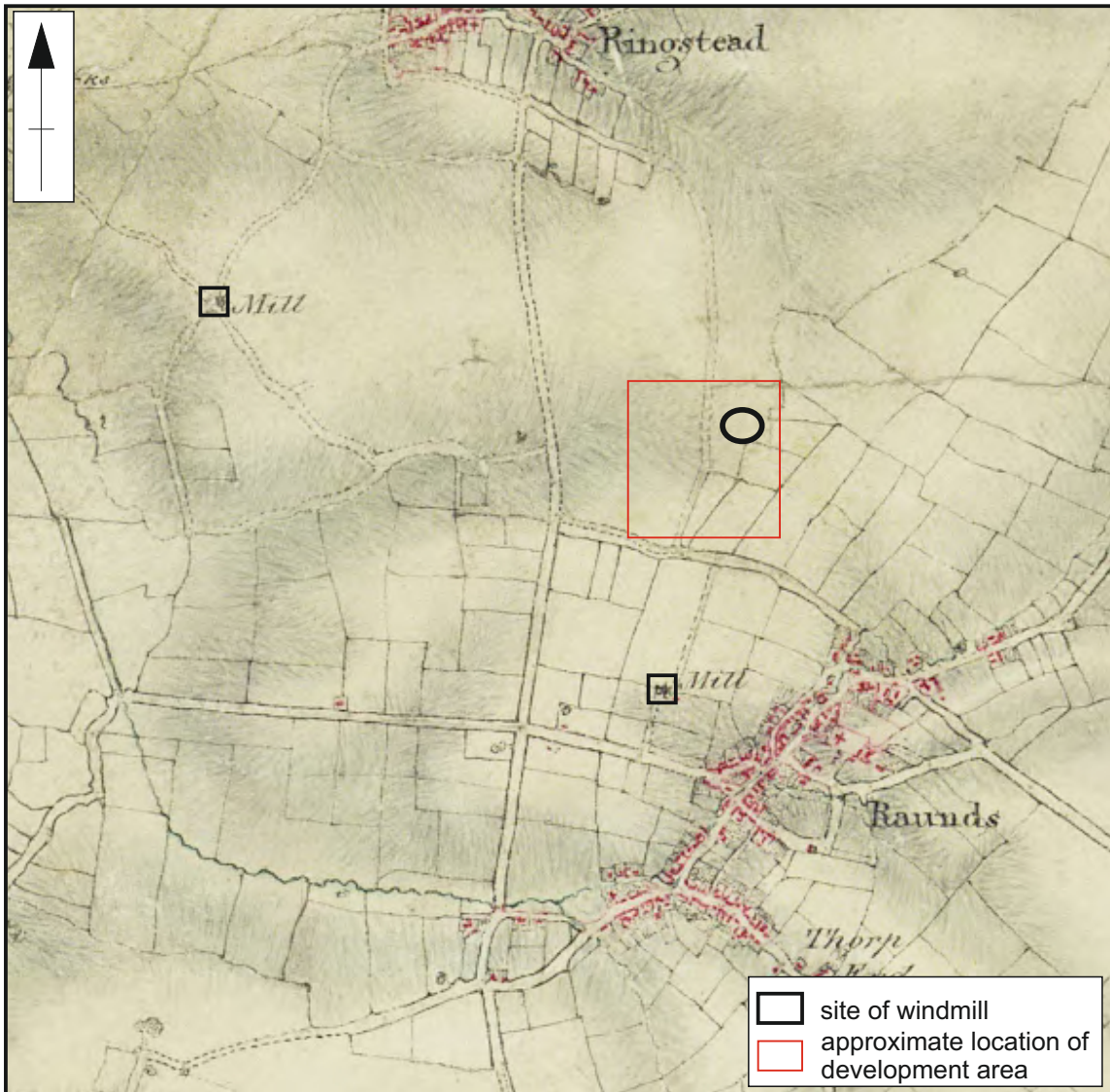


Scale 1:12,500

Prehistoric, Iron Age and Roman features in the landscape Fig 30



Scale 1:500 Combined distribution of Iron Age pottery, fired clay and fuel ash slag Fig 31



Excerpt of the 1835 Ordnance Surveyors map with the location of windmills Fig 32

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