

# Late Iron Age settlement and a medieval windmill north of Brick Kiln Road, Raunds

by

Carol Simmonds

with contributions from Andy Chapman, Pat Chapman, Olly Dindol, Tora Hylton,  
Adam Reid and Karen Stewart

## Summary

*Excavation on land north of Brick Kiln Road, Raunds uncovered a late Iron Age unenclosed farmstead. The domestic area included a roundhouse ring ditch and two ancillary ring ditches. A separate livestock zone comprised a much maintained rectangular enclosure and field system. The ring ditches and enclosure went out of use sometime before AD 100 although a linear boundary ditch survived longer. In the medieval period the site was under plough and lay near the parish boundary of Raunds and Ringstead. The late Iron Age boundary was respected into the medieval period, with a headland in roughly the same location, 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. Another nearby post mill trial trenched in the 1990s is also described.*

## Introduction

MOLA (Museum of London Archaeology) were commissioned by Bellway Northern Home Counties to undertake a programme of archaeological mitigation works on land north of Brick Kiln Road, Raunds, Northamptonshire, which forms the West End of an extensive housing development around the northern and north-eastern margins of the present town (NGR SP 9940 7380, Fig 1). Previous archaeological works comprise Environmental Impact 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 development area. A full client report has been prepared (Simmonds 2016) and the present report is a condensed version, but with additional material on the subject of windmills. The archive will be deposited in the proposed county store under accession number ENN107505.

The northernmost 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 and the grounds of Raunds Town Football Club. Brick Kiln Road 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.

The site is on a gentle south-facing slope, with the valley of the River Nene to the west. The development area sits at between 65m aOD and 70m aOD with the Iron Age settlement on the crest of higher ground at the 70m aOD mark. A low ridge aligned roughly north to south in the western portion of this area 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).

The main excavation area lay in the north-eastern part of the development site, Area 1, focussed on a group of geophysical anomalies confirmed by trial trenching to be an area of mid-late Iron Age settlement (Fig 1). The area was divided by a baulk left over the line of a water main. It measured 87m by 83m, an area of 0.6ha

To the west an area measuring 50m by 5m, Area 2, was centred on evaluation Trench 20 (Coates and Richmond 2011) to target a ditch, a gully and a pit, all undated.

## Acknowledgements

The excavation was funded by Bellway Homes (Northern Home Counties) and was managed for MOLA by Liz Muldowney. The excavation was directed by Carol Simmonds assisted by Emma Bayley, Ben Bazeley, Matthew Bosomworth, Jim Burke, Chris Clarke, Laura Cogley, Adam Douthwaite, Hayley Ellis, George Everest-Dine, David Haynes, Gemma Hewitt, Piotr Kieca, Małgorzata Krawczyk, Cordelia Lacock, Rachel Legge, Karen McCusker, William Morris, Stephen Morris, Thomas Revell, Andrew Smith, Rob Smith, Adam Starachowski, Paulina Starachowska, Piotr Szczepanik and James West. Steve Critchley undertook the metal detecting survey. The works were monitored by Lesley-Ann Mather for Northamptonshire County Council. The report was prepared by Carol Simmonds who also produced the illustrations along with Olly Dindol. The specialist reporting was provided by Yvonne Wolfram-Murray, Andy Chapman, Pat Chapman, Adam Reid, Tora Hylton and Karen Stewart. Andy Chapman has also provided the text and illustrations for the section on Northamptonshire windmill sites.

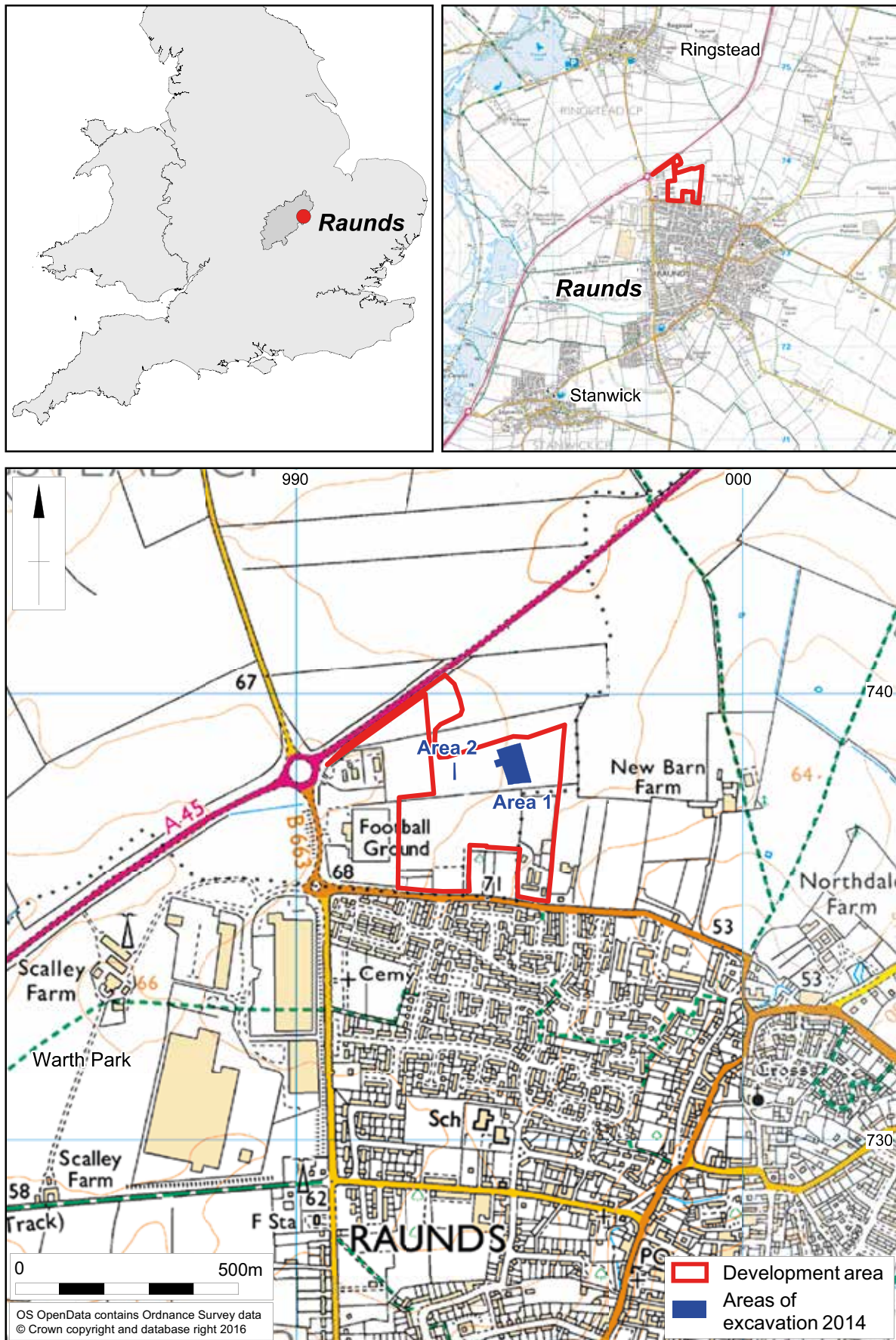


Fig 1: Site location

## Background

The area to the north and west of Raunds has been subject to a considerable amount to archaeological study. 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 (Crosby *et al* 2011a and 2011b). 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 has been recorded at Wollaston 14km to the south-west (Meadows *et al* 2008).

On the higher ground an Iron Age settlement comprising around 10 enclosures and at least one ring ditch of Iron Age date were recorded at Top Lodge/ Ringstead Grange (Shaw *et al* 1990 and Shaw 1992) and a larger settlement was noted during survey work at Raunds Road (Parry 2006). At Warth Park a large multi-recut ditch of probable Iron Age date follows the natural topography (Kidd 2015). Early Iron Age features were identified to the north of the site (Bush 2015) as well as a length of a pit alignment (McAree 2005).

Through the medieval period, the development area formed part of open field system that surrounded the adjacent settlements of Raunds and Ringstead.

## The Late Iron Age farmstead

### Initial layout

The initial layout of the farmstead comprised a roundhouse (RD1) to the south and probable livestock enclosures to the north-west (E1 and E2), and it is likely that the sinuous ditched boundary which separated the house from the enclosures was part of this primary arrangement, with the early ditch lost to later recutting.

### Enclosures

A small sub-rectangular enclosure (E1) measured at least 19m east-west and was *c.*8m wide internally, defined by a substantial ditch apparently open to the south-west and west. The ditches were later recut defining a smaller enclosure 15.5m long and 8.0m wide with a southern entrance, 6.5m wide.

Enclosure E2 is likely to have been sub-rectangular in plan and aligned north to south. It measured *c.*33m north to south by *c.*13m wide, sharing part of its western boundary with enclosure E1. The enclosure ditch was substantial, at 2.54m wide and 0.80m deep with a flattish base and steep concave sides.

### Ring ditch RD1

Ring ditch RD1 was up to 14m in diameter, north-south, but perhaps only 12m diameter east-west, backing on to the linear boundary ditch, with a *c.*6m wide eastern entrance. The ditch was up to 0.90m wide and 0.27m deep (Fig 4, S74 & S92). A central roundhouse may have been

up to 10m in diameter, forming the domestic focus of this small farmstead.

### Continued use

The basic structure of the settlement remained unchanged, although Enclosure E1 was abandoned and Enclosure E2 was recut. The main boundary ditch, D2, was also recut. The provision of other ditch systems, D1, D3, DG2, indicate the provision of a more complex infield system. In the domestic area, the roundhouse was provided with a more substantial ring ditch RD2, and the house itself may have been rebuilt at this time. A second smaller roundhouse was added, RD3, closely to the north, and there may have been a further structure, RD4.

### Enclosure E2

The enclosure was redefined, with a ditch 2.6m wide and up to 0.80m deep. There was a 1.10m wide entrance in the southern arm, and a central ditch sub-divided the enclosure into two parts. At some point the entrance was restricted or blocked by a large pit, unless this feature held a timber gateway. There was no visible indication of access between the northern and southern parts of the enclosure, although as the ditch was recut at least twice this may have removed an entrance. Within the northern part of the enclosure there was a cluster of five pits (PG1) and a short length of gully.

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

### Field system around enclosure E2

The existence of a more extensive field system around enclosure E2 was defined by a series of ditches (DG2, D1, D2 and D3) which respected the position of the enclosure, and which extend beyond the limits of excavation.

To the south of the enclosure, the main boundary ditch and a ditch converging with it from the west, DG2, may have been used to channel the movement of livestock being brought in from the fields to the working area of enclosure E2. The northern end of the funnel was 5.0m wide.

### Ring ditches RD2, RD3 and RD4

The early roundhouse, RD1, was refurbished with a larger ring ditch, RD2, up to 14m in diameter, with an eastern entrance 3.2m wide. The ditch was up to 1.2m wide by 0.50m deep, with a broad flat bottom (Fig 4, S76 & S92). This ring ditch could have enclosed a roundhouse 11–12m in diameter, although no doorway postholes or wall slot had survive, which is at the high end of the diameters for domestic roundhouses (Fig 4).

Only the northern arc of ring ditch RD3 survived, with a projected diameter of *c.*10.5m, suggesting that an enclosed roundhouse would have been no more than *c.*8.5m in diameter. In ring ditch RD4 only a southern arc survived; and any internal structure would have been no more than 7–8m in diameter.

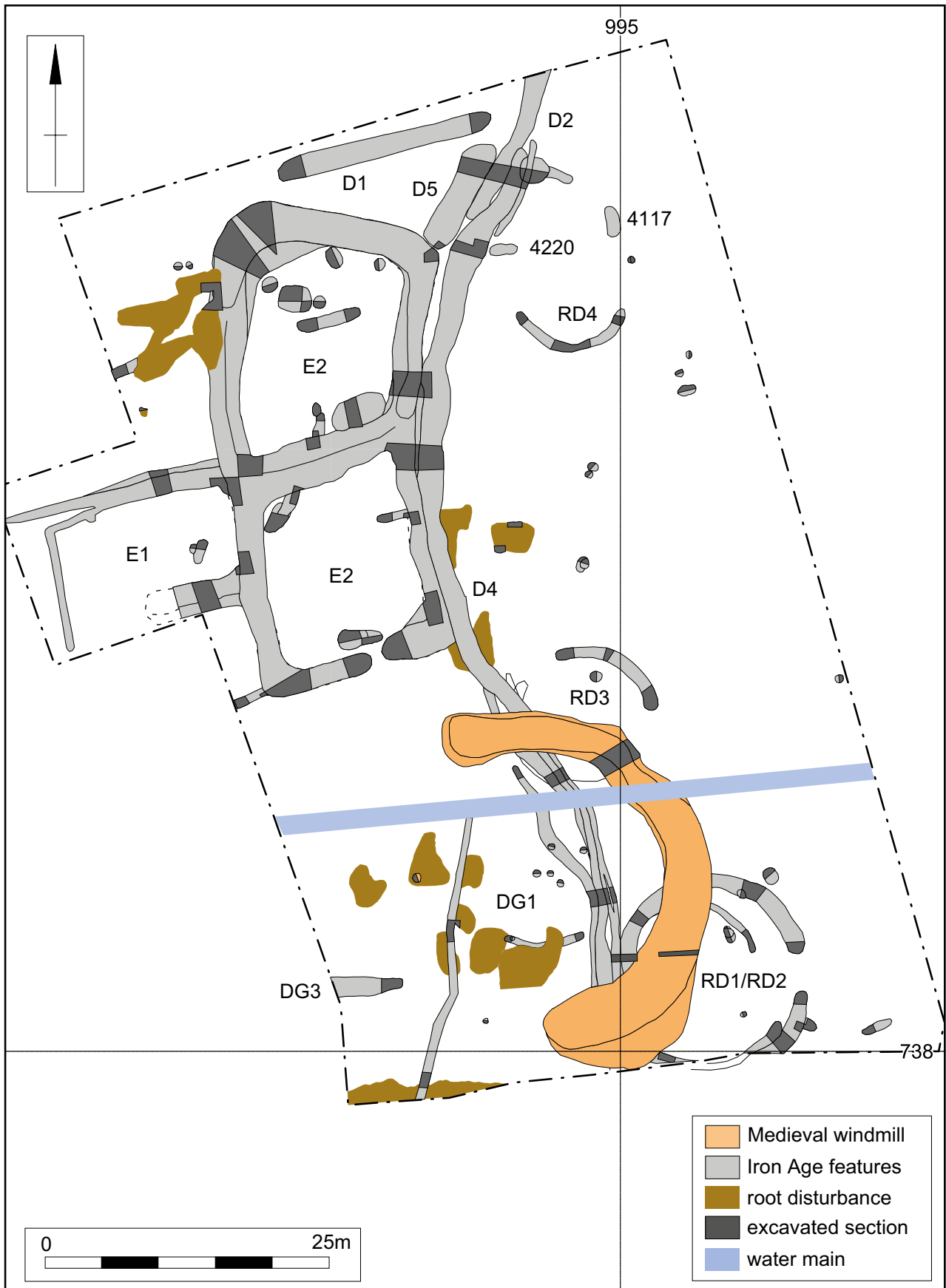


Fig 2: General site plan



Fig 3: The development of the Iron Age settlement

### Ovens

Ring ditch RD4 was associated with two elongated pits 4117 and 4220, both of which contained burnt debris and had probably acted as ovens (Figs 5 & 6). Oven 4117 was the better preserved, 2.45m long, 0.9m wide and up to 0.33m deep, with an irregular profile but basically comprising two adjoining bowl-shaped hollows. Within the larger, bowl-shaped hollow, to the north, there was a thick layer of heat reddened, but not fired, clay, and above this the fill (4116) was dark and charcoal-rich but also contained much burnt clay, possibly from a former clay superstructure (Fig 6). Oven 4220 was of similar size and

had probably functioned similarly, but the fills were more mixed as a result of later disturbance.

They probably represent small ovens with conjoined fire pit and oven bowl, but the absence of fired clay suggests they functioned at a low temperature, perhaps as grain dryers/malt ovens.

### Pits

There was a scatter of some 12 small pits, which were unrelated to one another and were non-structural. They were mainly circular, 0.50–1.05m in diameter and 0.08–0.50m deep.

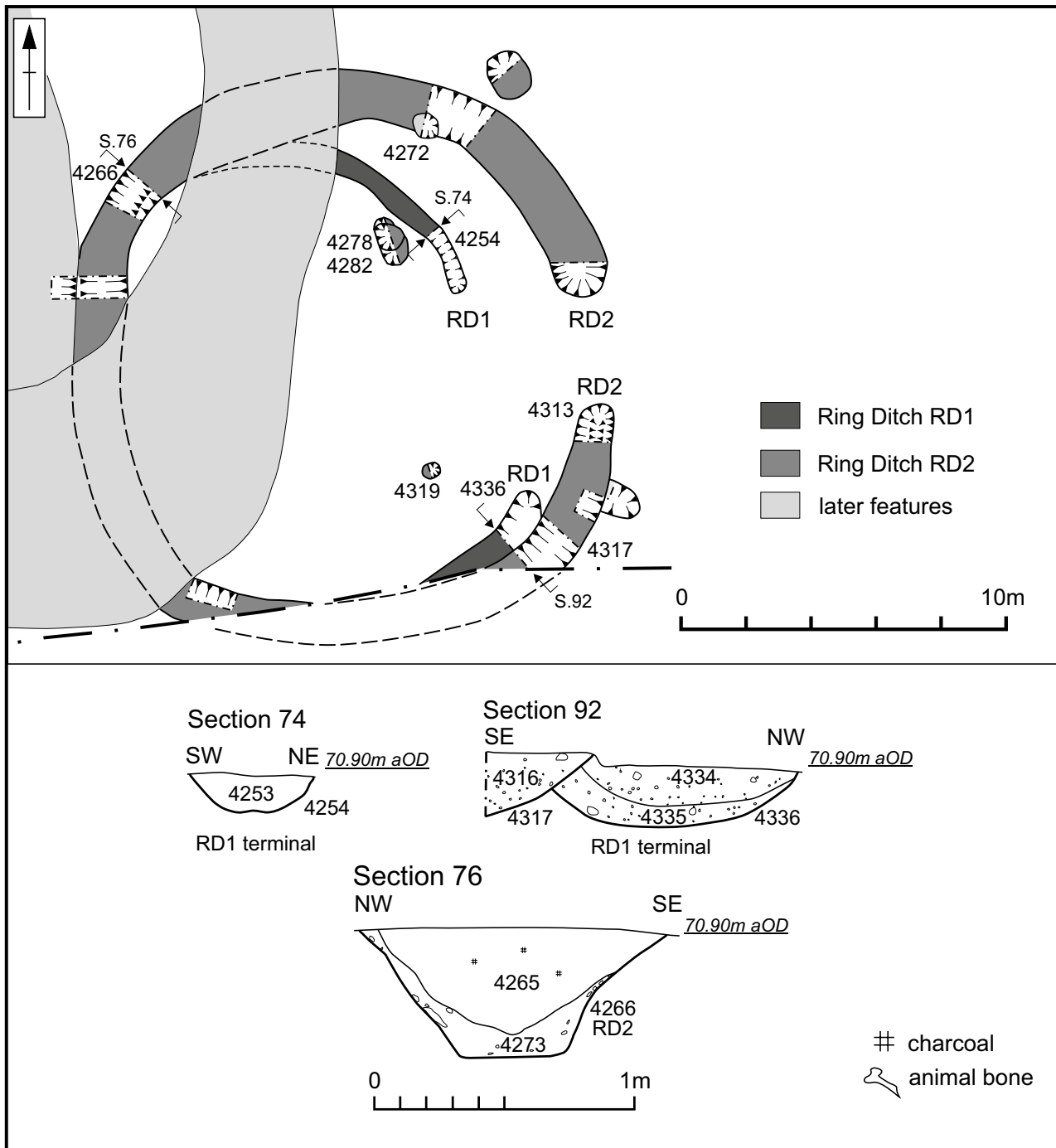


Fig 4: Roundhouses RD1 and RD2

### Redefinition of the livestock zone

The final phase of late Iron Age and early Roman activity was the reworking of enclosure E2 and the redefinition of the curvilinear boundary ditch D4. The domestic zone had ceased to be active by the end of the 1st century AD with occupation shifting elsewhere. The livestock zone continued to comprise at least part of enclosure E2, and perhaps the field system was defined by hedgerows, which do not survive in the archaeological record. Parallel with

ditch D4 to the north of enclosure E2 was a short length of ditch, D5, 10m long by 2.60m wide and 1.20m deep.

In its final form the boundary ditch, D4, was 0.85m wide and 0.62m. At the northern terminal, adjacent to ditch D5, a pit 4297 cut into the ditch fills was 2.5m diameter and up to 1.0m deep. The fills contained sherds of a thick-walled globular jar as well as bones from sheep or goat.

A copper alloy rumbler bell (SF3) recovered from the subsidence fill of ditch D4 indicates that the ditch survived as an earthwork into the medieval period.

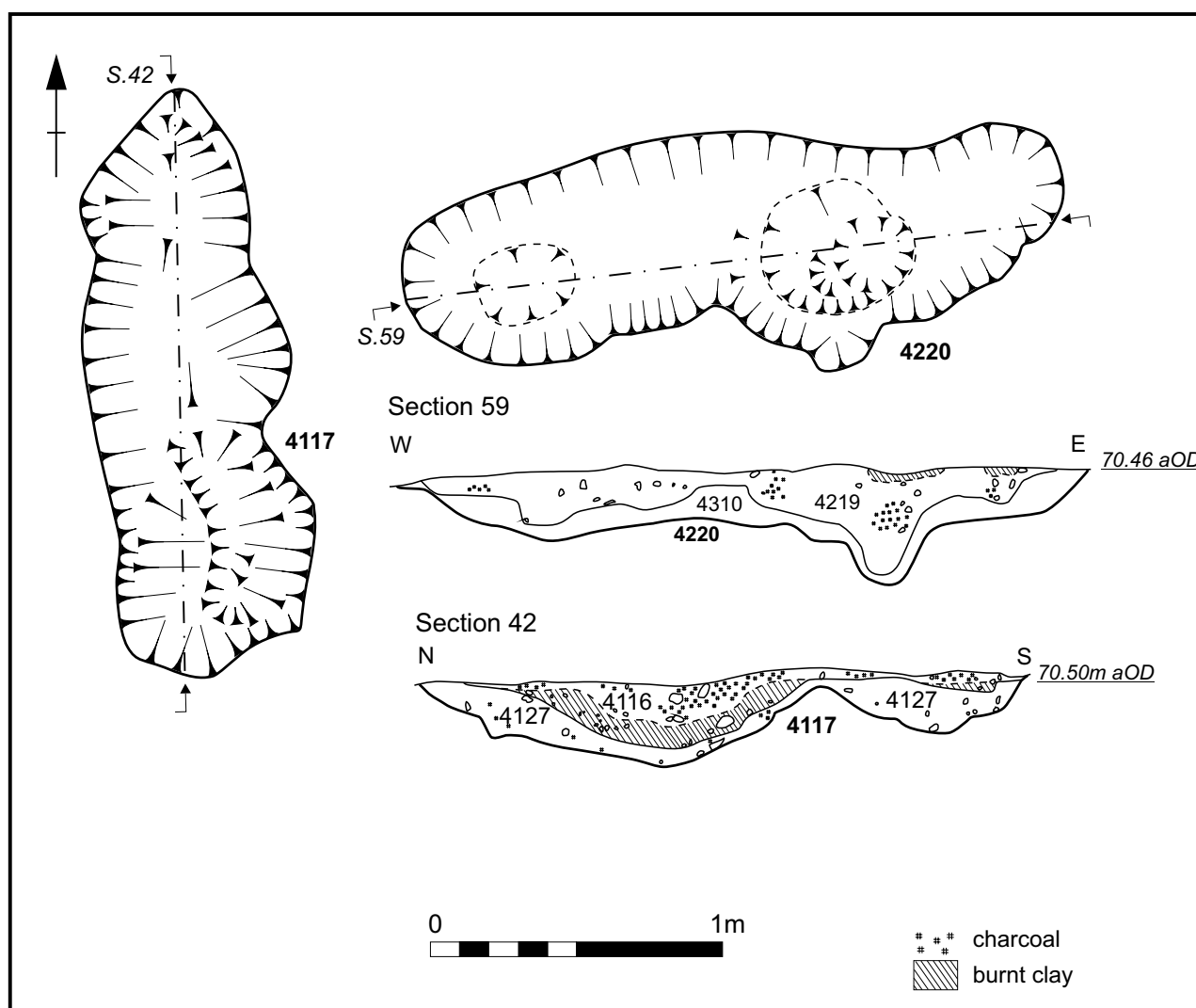


Fig 5: Pits 4117 and 4220



Fig 6: Pit 4117, showing heat reddened clay and charcoal-rich fill

## Area 2

There was an undated ditch, gully and three pits in Area 2. The ditches are likely the continuation of field boundaries down-slope of the occupation in Area 1 (Fig 3).

## Iron Age finds and environmental evidence

### 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.

## 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, 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.

## 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 (Fig 7.1).

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 (Figs 7.4 and 8). A similar cross-hatched lattice appears on a grey-black burnished bowl, but with finely-incised, rather than grooved, lines (Fig 7.2).

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 2015, 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 enclosure E2, which is more likely to be a specifically late example (Fig 7.3), although examples of more complex scoring in the late Iron Age are usually more finely executed than this.

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 to 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 7)

1. Globular bowl with bead rim, fabric 3, from RD 2
2. Globular bowl with incised cross-lattice decoration, fabric 2, from enclosure E2
3. Thick-walled scored ware jar, fabric 1, from enclosure E2
4. Globular bowl with impressed curvilinear decoration and “berried” rosettes on the upper body, fabric 1, from enclosure E2

## The slag by Andy Chapman

Seventeen ditch sections, a layer and four fills of two pits, produced a total of 3.97kg of slag. A single context in enclosure E2 produced 1.95kg, 49% of the total assemblage.

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 no indication that this was associated with ironworking.

## Fired clay by Pat Chapman

A total of 557 fragments of fired clay, weighing 2324g were recovered from the site.

Material from ditch D2 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 and another piece has the fragmentary remains of a broad impression that could be a post. The other seven fragments are small hard, cindery

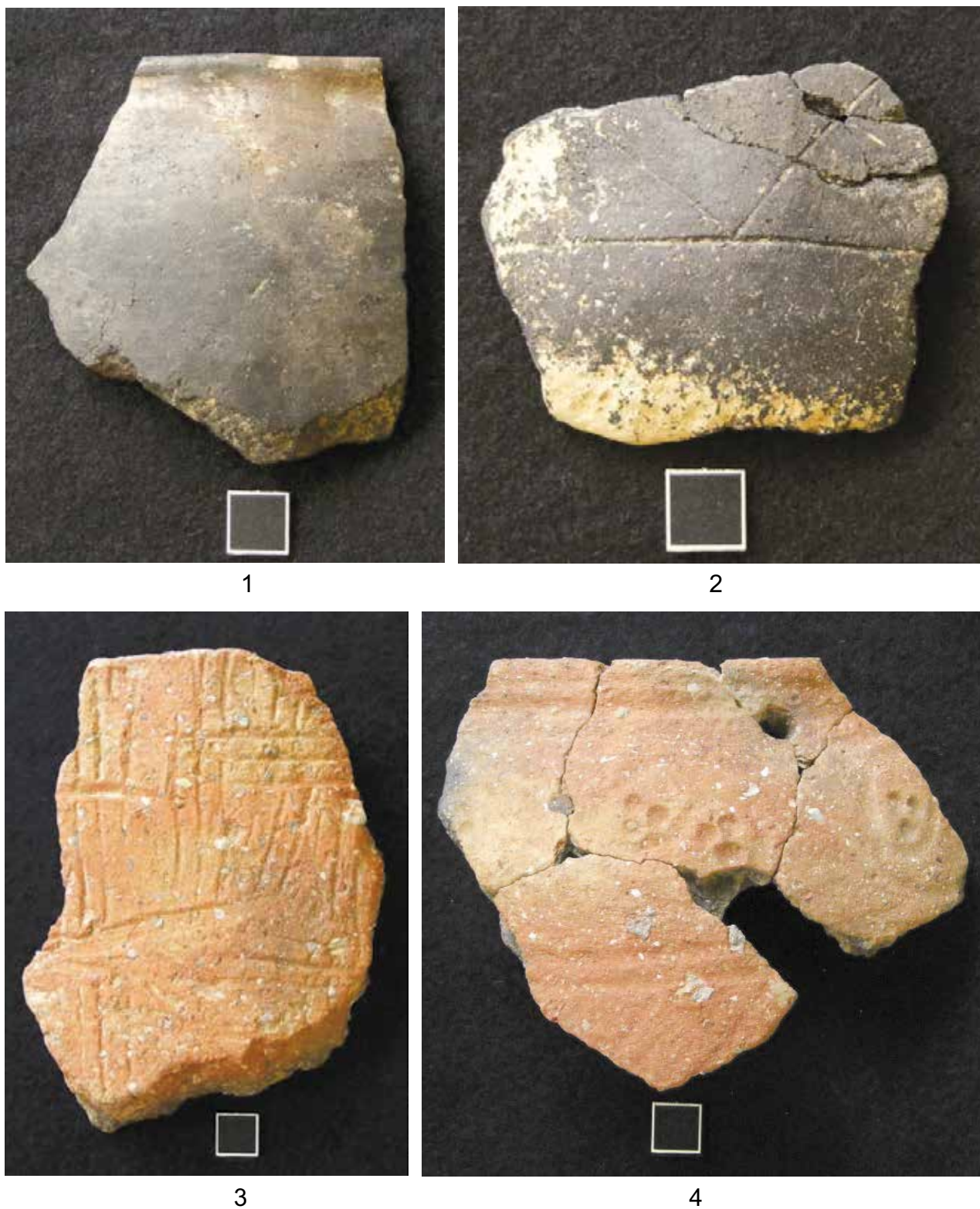


Fig 7: The Iron Age pottery, 1-4 (Scale 10mm)

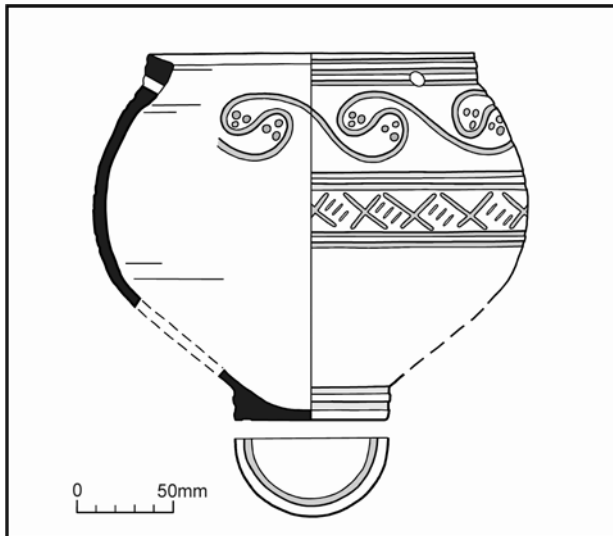


Fig 8: The Hunsbury curvilinear bowl

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 oven 4117. There are no diagnostic features on any of the pieces so these may be the remains of rough lining for a pit, but not one associated with high temperatures.

#### Iron Age animal bone by Adam Reid

A total of 1,042 animal bone fragments were hand collected from 57 different contexts and an additional 902 fragments were recovered from the environmental samples via wet-sieving. The majority of this material can be dated to the Iron Age settlement (Table 1). Positive identification to genus level was possible for 168 (16%) of the fragments.

The most frequently occurring taxa were the three main domestic animals (cattle, sheep/goat and pig), which

Table 1: Animal bone from Iron Age deposits

Taxon	Totals
Cattle	51 (1)
Sheep/goat	41 (8)
Pig	15 (1)
Horse	8 (1)
Dog	7
Roe Deer	16
Cervid sp	13
Small Mam	9 (1)
Med. Mammal	148 (1)
Large Mammal	224 (3)
Indeterminate	363 (569)
Total	895 (586)

Numbers in brackets denote material recovered from wet-sieving

accounted for 80% of the identified species. A small quantity of horse and dog remains were also present. 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%).

Sixteen 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, but mainly as antler recovered for craft manufacturing.

Eight instances of butchery were recorded on fragments of roe deer antler recovered from enclosure E2. A minimum of 16 fragments of antler were recovered (including an antler pedicle) with no repeated elements noted, suggesting that the butchery may represent the separation of different parts of a single shed antler for craft working.

#### Discussion

The relatively small assemblage from the late Iron Age features 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 enclosure E1 and ring ditch RD2; there is no evidence to suggest that these animals were exploited for food.

Finds of antler and horncore fragments from enclosure E2 may indicate that small-scale horn and antler working took place at the site during the late Iron Age, but the general composition of the assemblage provides no suggestions that the site fulfilled any specific function.

#### Plant macrofossils by Karen Stewart

Only eight of the soil samples contained charred plant or charcoal remains and all of these had less than 30 charred seeds.

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 one sample 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 represent 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.

### Discussion

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.

The settlement has zoned areas divided by a sinuous boundary ditch likely to have been present in one form or another throughout the life of the settlement. To the east of the boundary is the settlement focus with a single main roundhouse of two phases, RD1 and RD2, and two ancillary structures (RD3 and RD4) surviving as partial ring ditches. To the west of the boundary were small interconnected enclosures, E1 and E2, which had been maintained

and modified, and a funnelled ditch system to the south was probably related to stock management.

The late Iron Age settlement was previously unknown as it had not been recorded in aerial cropmark surveys or during fieldwalking as part of the Raunds Area Survey Project (Parry 2006).

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 the 1st century BC and into the early decades of the 1st century AD, probably only 100 years at the most.

The linear layout of the settlement, comprising enclosures and ring ditches respecting the position of longer boundaries is similar to Iron Age enclosures at Top Lodge (Shaw 1992) and at Raunds Road (Parry 2006, 243).

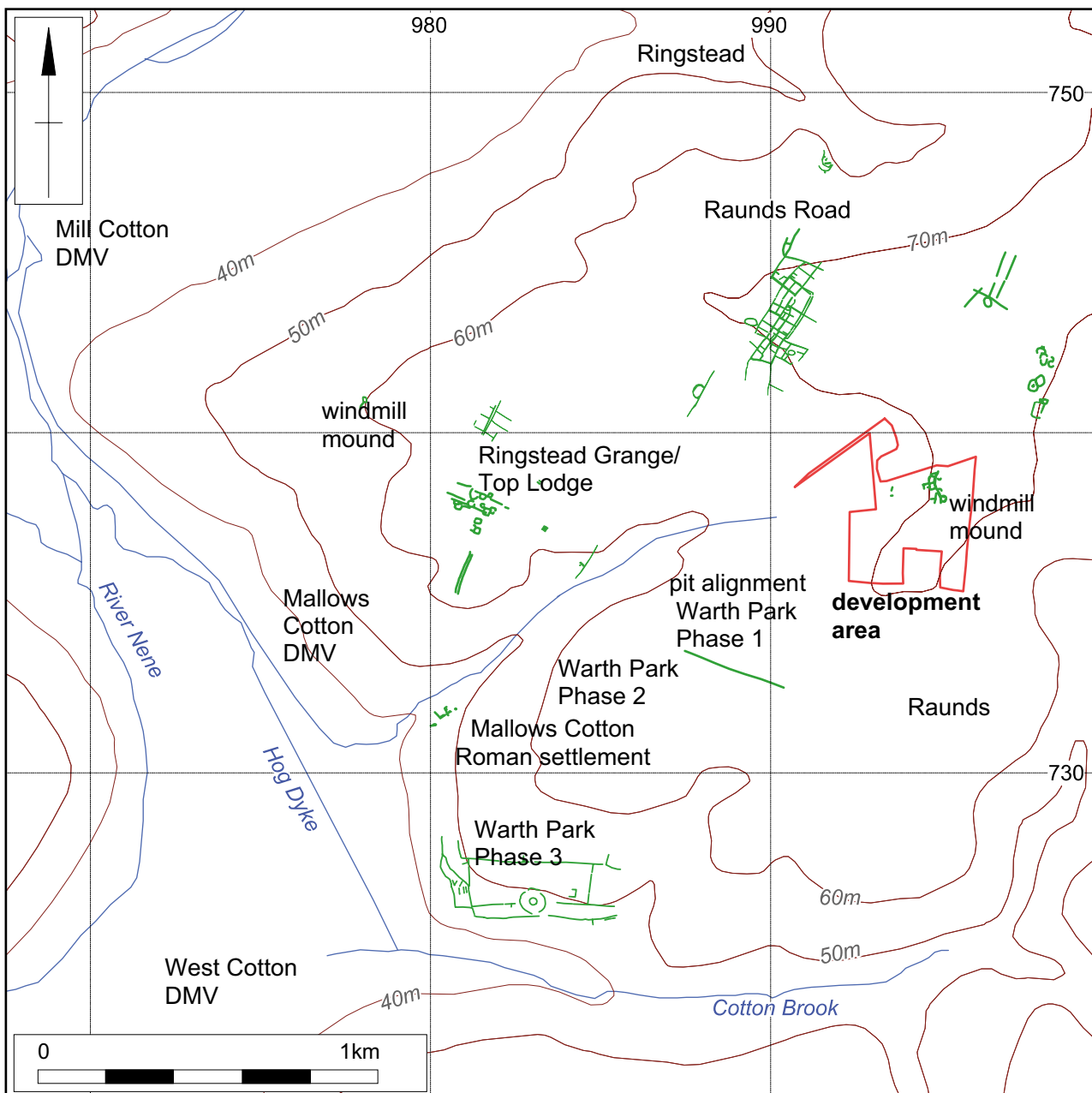


Fig 9: Iron Age, Roman and medieval features in the local landscape

There are variations in the orientation of the settlements perhaps respecting changes in topography (Fig 15). This settlement 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, this settlement is not as complex or as extensive, and was perhaps a subsidiary settlement to sites either at Top Lodge, Raunds Road or elsewhere.

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 other than small scale domestic butchery and horn working.

The distribution of pottery, fuel ash slag and fired clay all 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 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 away from the domestic focus of the settlement and the lack of industrial evidence found may therefore not be significant.

The enclosures were situated on higher ground and were used for the corralling and controlling of livestock such as cattle and sheep, with the animals being herded

into the enclosures, when necessary through a system of funnelling ditches.

The evidence suggests that the settlement was probably self-sufficient and low status with no evidence for imports, luxury or industrial activities, beyond some horn and antler working. It is likely the occupants may have specialised in pastoral activities, presumably selling excess to markets. The only sign of extravagance was the possession of a globular bowl with curvilinear decoration.

### The medieval windmill

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 (Fig 10). The mound material, up to 0.32m thick, comprised firm mixed dark orange-brown and brown-yellow clays with frequent patches of chalk and 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, open on its western side. The external diameter was 35m, with an internal diameter of 21.50m. The ditch was 4–8m wide and at least 0.35m deep, with a broad dish-shaped profile (Fig 11). 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.

The lower fill comprised firm, sticky mid orange-brown clay and was overlain with firm mid red-brown

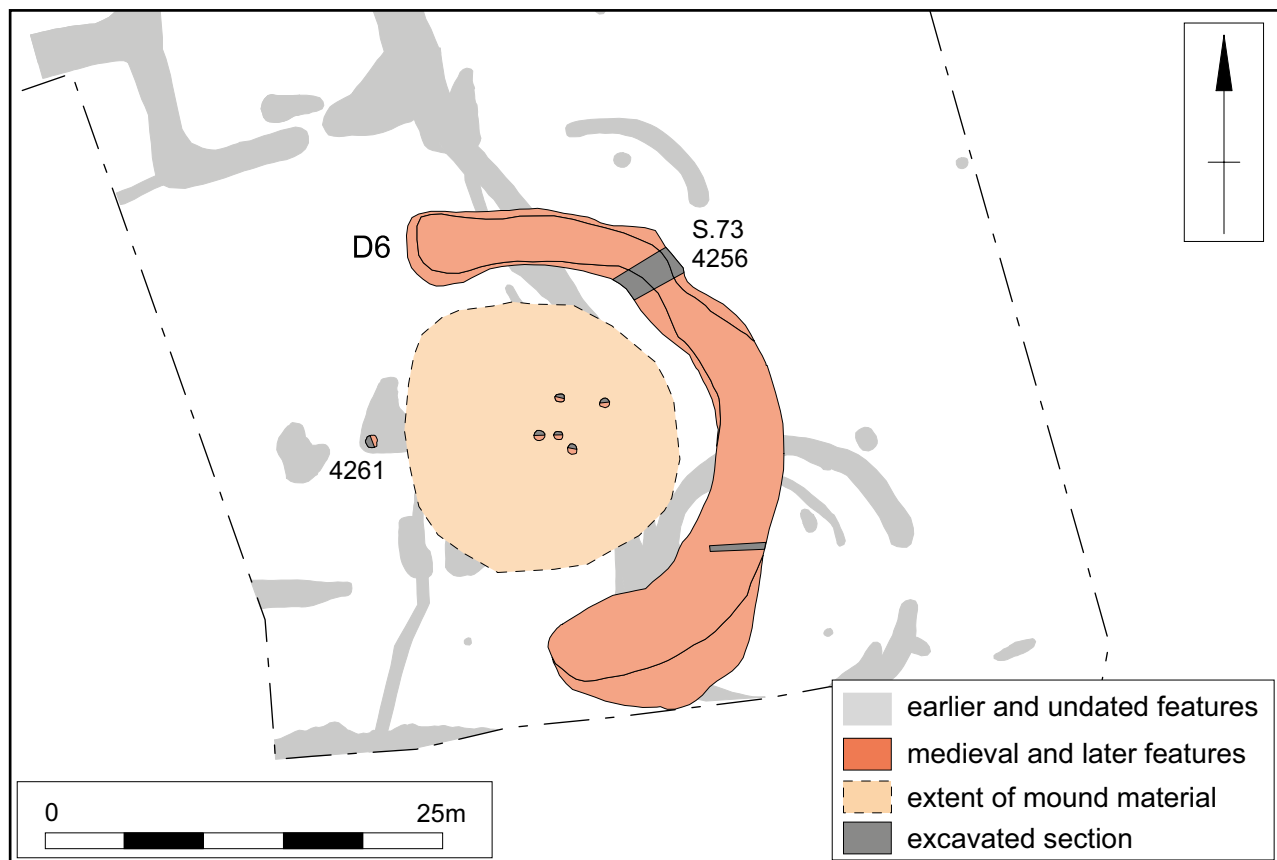


Fig 10: The medieval windmill mound

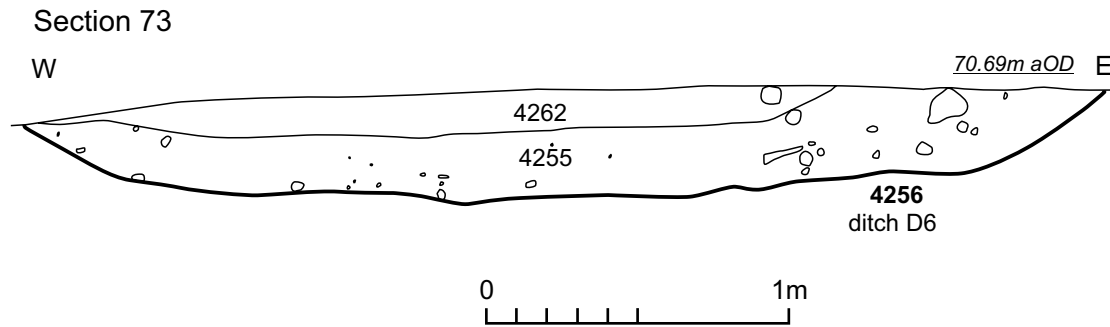


Fig 11: Section of the windmill mound ditch

clay. The upper fill had been disturbed by a number of ceramic field drains which followed the orientation of the ditch. Recovered from its upper fill was a musket ball, a fragment of a cast copper-alloy vessel and part of a fragment of lava millstone (Fig 12).

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. The fill of soft dark grey silty clay contained frequent charcoal fragments, including mature elm and oak, perhaps from burnt timbers of the mill structure.

#### The millstone by Andy Chapman

From ditch D6 there is a large fragment from the lower stone of a millstone (SF5) in lava from the Eifel hills on the western borders of Germany. 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 0.7m-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 (Fig 12).



Fig 12: The grinding surface of the millstone, showing the cut furrows (scale 20mm)

#### Other finds by Tora Hylton

Two objects were recovered from the fill of ditch D6, enclosing the windmill.

A rim fragment from a cast copper alloy flatware vessel, measures 37mm by 21mm. A piece of lead shot, 14mm diameter, was probably for use with a pistol rather than a musket. Possible impact marks on the exterior surface may have been caused by firing or having been dropped.

#### Medieval animal bone by Adam Reid

Butchery marks were recorded on a horse bone recovered from the medieval/post-medieval ditch, D6, but are absent on horse bones from Iron Age deposits, suggesting 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).

#### Plant macrofossils by Karen Stewart

The charcoal assemblage from pit 4261 contained 14 fragments of a size suitable for taxonomic identification. Of these, 11 were identified as elm (*Ulmus* spp.), two of oak (*Quercus* spp.) and one could not be identified as it was knotwood, though it was a diffuse porous type, and thus represents neither oak nor elm. Most of the fragments have a 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.

Elm has a high calorific value and thus makes good fuel wood, although in this instance perhaps both the elm and the oak may have originated as mature wood from timbers within the structure of the windmill.

### 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 the site straddled a headland between furlongs.

The Environmental Impact Assessment (PCA 2011) 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 Iron Age boundary ditch, D4, may have continued to be visible as an eroded earthwork into the medieval period, and may have influenced the setting out medieval field system, with a headland aligned roughly north-south along the line of the Iron Age ditch. The majority of known examples of post mills were situated on the headland between fields, on high ground and generally away from settlement.

### The post mill in Northamptonshire and the Nene valley by Andy Chapman

The earliest windmills in England date from the late 12th century, and comprised a central post sitting on a cross-shaped base, with diagonal bracing. These were either

set into deep construction slots, cross trees, as at Strixton and Tansor, Northamptonshire (see Fig 17) or on the old ground surface, as appears to be the case at Raunds, with the mound material built-up above them to provide a secure base. The enclosing ditch, which was usually broad but shallow, provided material for the building of a mound. The entire body of the mill could rotate about the central post, to enable the sails to be set to match the wind direction, and this was achieved using a long tail pole, probably reaching as far as the berm between mound and ditch, as shown in this reconstruction of an excavated mill at Great Linford, Milton Keynes (Fig 13).

In the post-medieval period it became common to enclose the lower part of the central post within a ground floor room in timber or stone, providing valuable storage space, and it was only in the 19th century that tower mills largely replaced post mills.

The known historic maps for the parishes of Raunds or Ringstead, the 1798 enclosure map for Raunds and the 1840 Tithe map for Ringstead, do not show a windmill at this northern end of Raunds, which indicates that it had been demolished prior to the late 18th century. The windmill was therefore of medieval or early post-medieval date.

This would be consistent with the use of lava from the Eifel region of Germany for the millstone, as this trade was at its peak from the Roman to late Saxon periods, while following the Norman Conquest other stone types, such as Millstone Grit and French Burr, became more

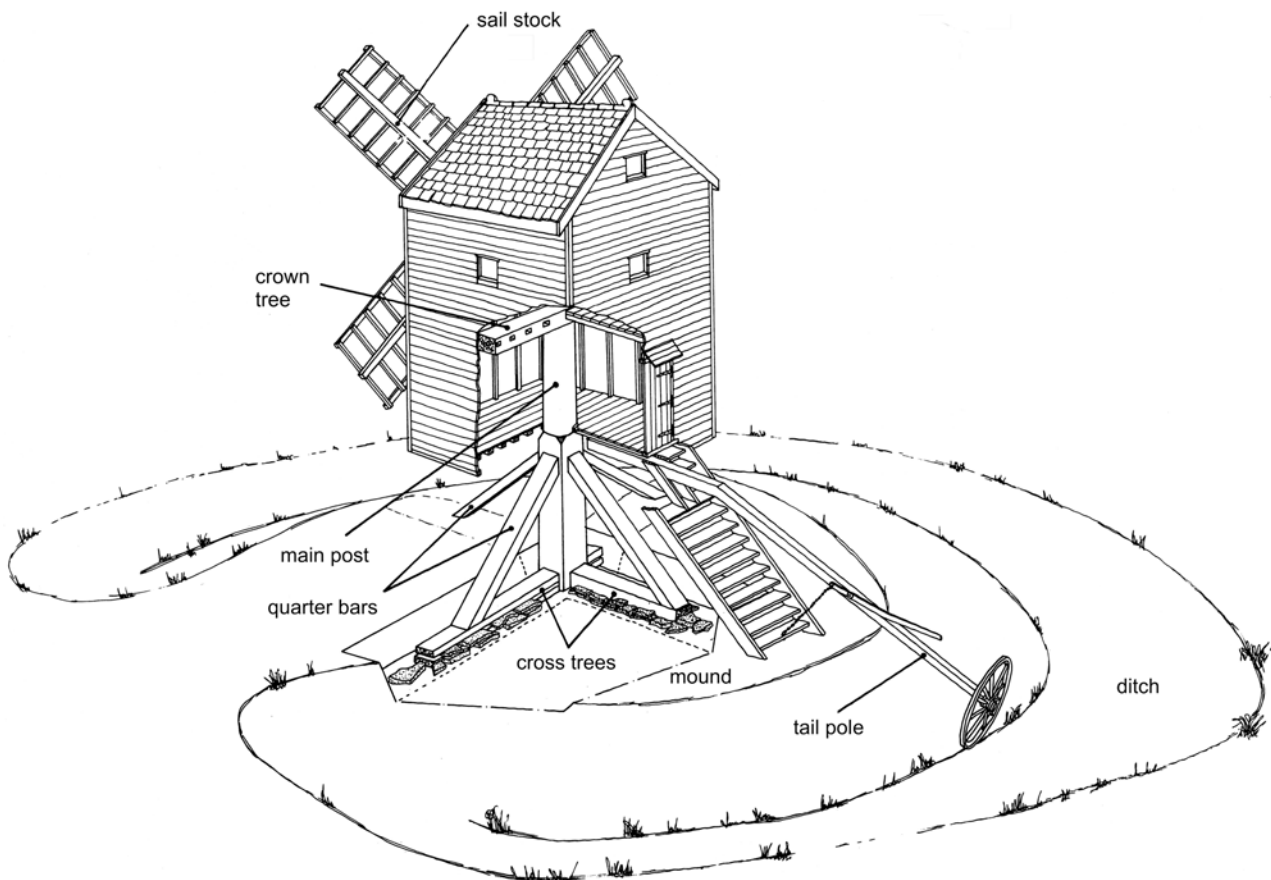


Fig 13: Reconstruction of the post mill at Great Linford, Milton Keynes (from Mynard and Zeepvat 1992, fig 44)

common. Stones in lava had been used in the pre-Conquest watermill at West Cotton, Raunds, but not in the post-Conquest mill (Chapman 2010).

### The post-medieval windmill at Ringstead Grange

Windmills near the centre of Raunds and at Ringstead Grange (Shaw 1990, fig 2) are recorded on Bryant's 1827 Map of the County of Northamptonshire and the 1835 Ordnance Surveyors map (Fig 14). The Ringstead mill is also missing on Eyre's map of 1779 and Cary's map of 1801, both of which show windmill sites. The Ringstead Grange mill does not appear on the Ordnance Survey 2nd edition of 1900, suggesting that it had fallen out of use before the end of the 19th century, no doubt a victim of the rise of the modern roller mill from the 1860s onward.

The mill at Ringstead Grange was examined during trial trenching in 1990 (Shaw 1990). From the record of the trial trenching and the cropmarks, it is possible to provide

an outline reconstruction of the plan (Fig 15). The mound was perhaps around 15m in diameter, and stood to a height of *c.*0.25m above the surrounding ground. It survived as a layer of very stony brown-yellow sandy clay with patches of grey clay. Two features cut through the mound. A circular foundation trench, 4.3m in diameter, 1.1m wide and 0.4m deep, had a flat base and straight sides. The fill was small pieces of ironstone and limestone in a matrix of sandy mortar. This would have been the foundation for a stone-built room, the 'roundhouse', enclosing the base of the mill. Within the central area there was a roughly cross-shaped pit, up to 2.6m long by 0.30m wide, with gently sloping sides. This is far too small and shallow to be a full cross-tree slot, and it is suggested that the excavated feature was probably just a subsidence hollow, with a darker fill, over the centre of the central post, with the cross shape providing a ghostly impression of the actually cross-tree slots below. At Tansor, for instance (see Fig 17), the cross-tree slots measured 6.0m across, but there was also a distinct central depression within the fills *c.*2.0m in diameter. If the cross trees at Ringstead Grange were of

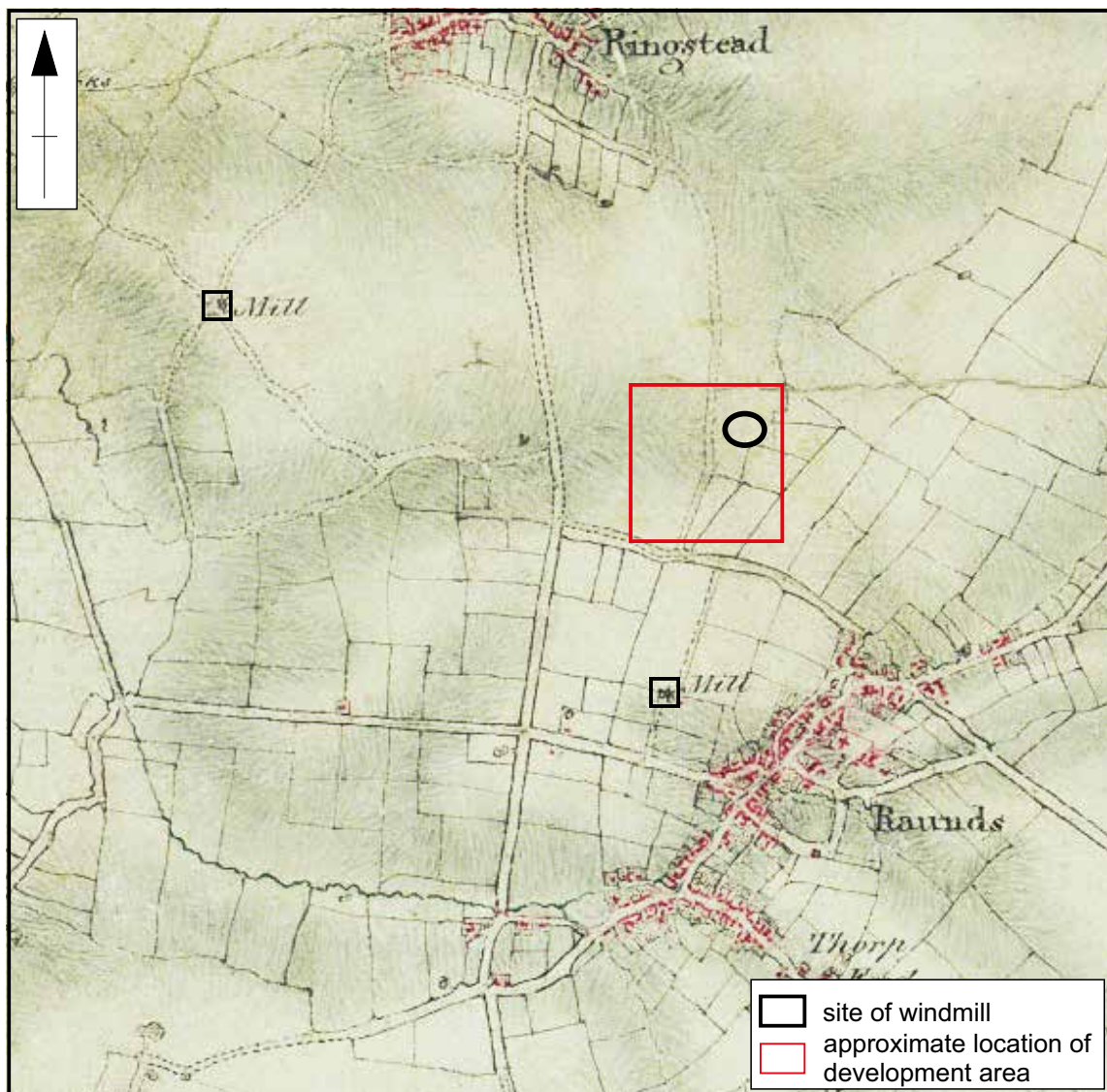


Fig 14: Excerpt from 1835 Ordnance Surveyors map, showing the location of windmills

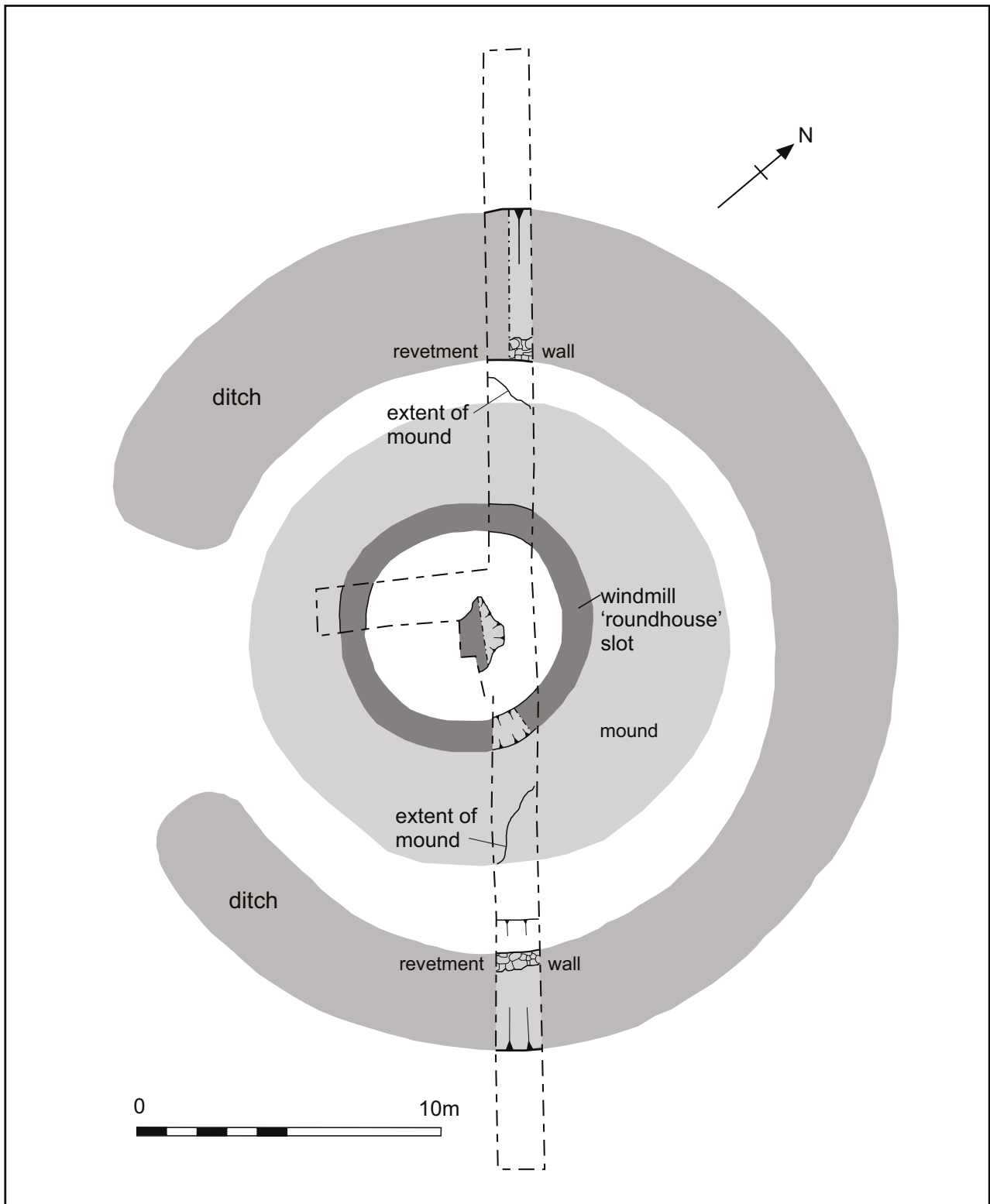


Fig 15: A medieval to post-medieval windmill mound at Ringstead Grange

a similar length the ends would have lain just within the extent of the 'roundhouse' encircling the mill.

The ditch was horseshoe-shaped, with a broad opening to the south-west recorded as the cropmark. The ditch was 5.0m wide and up to 1.25m deep (Fig 16). A limestone revetment wall, 0.6m wide and standing 0.7m wide, had

been constructed against the inner edge of the ditch, while the outer edge had suffered erosion over a long period, indicating that the ditch was originally only 3m to 4m wide. The primary fill was of tumbled limestone from the upper levels of the revetment. The section above this showed that the infilling of the ditch had occurred

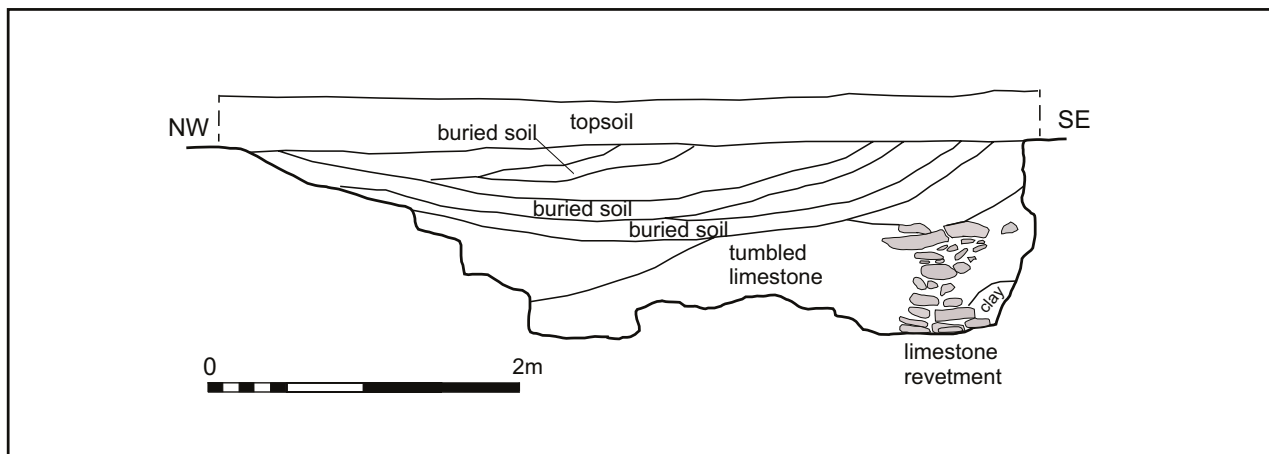


Fig 16: Section of the enclosing ditch at Ringstead Grange

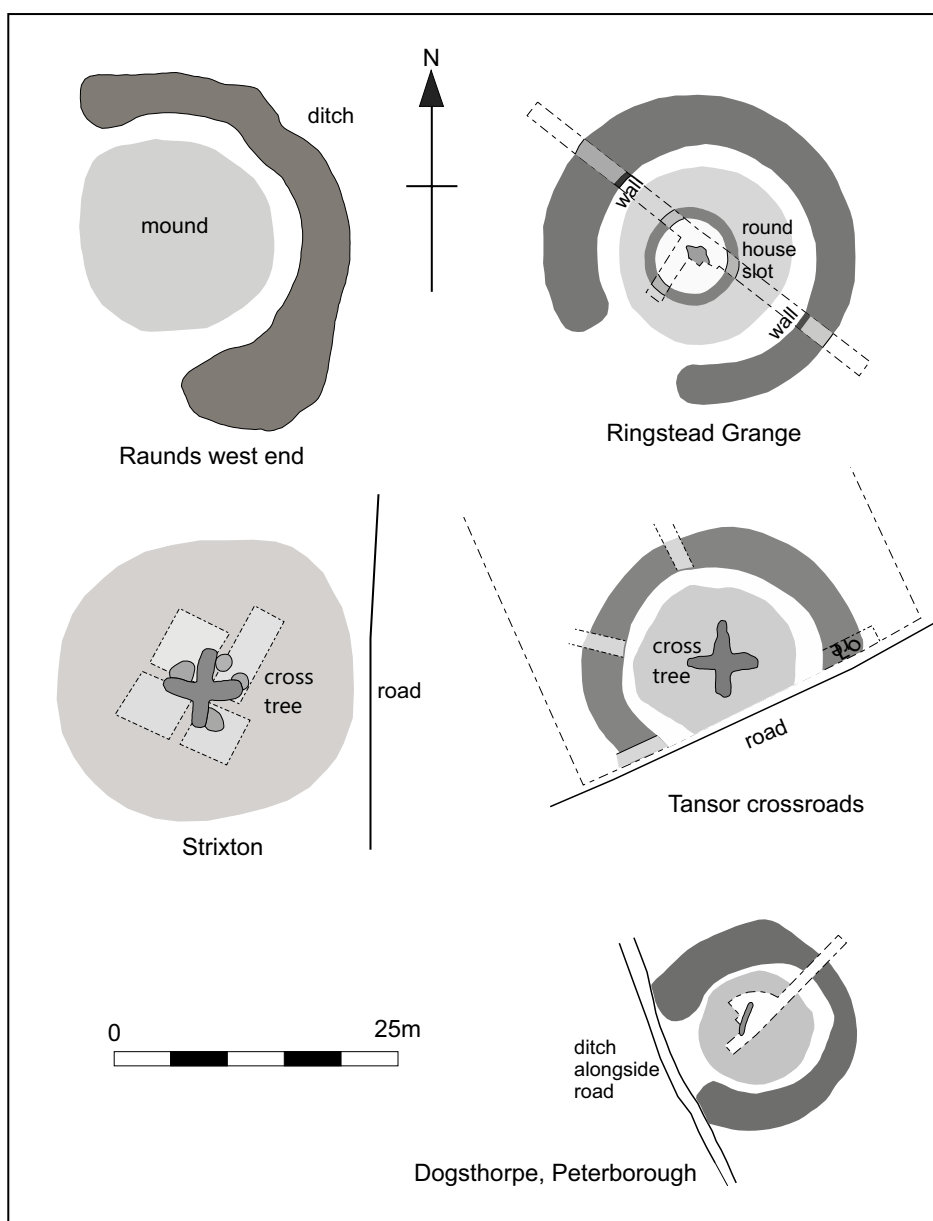


Fig 17: Comparative plans of windmill mounds in Northamptonshire and the Nene valley

as a number of separate episodes, with three buried soil horizons evident within the upper fills, all most steeply inclined on the inner side. This suggests that periodically material was brought into the ditch from the mound, perhaps through deliberate over ploughing of the mound, but with sufficient intervals between for a turf line to develop.

Forty-seven sherds of pottery were recovered from this area: seven Roman; 26 medieval from the topsoil (8 sherds), mound material (4 sherds), cross tree (7 sherds) and quarry ditch (7 sherds from one vessel) and 14 post-medieval from the cross tree (1 sherd) and the quarry ditch (13 sherds). It was suggested that the Roman and medieval material was residual, while the post-medieval pottery dated the usage of the mill. However, another possibility, which would account for the quantity of medieval pottery, is that this was the site of a medieval mill that fell into disuse and was then reused for a new windmill built sometime in the early 19th century.

### Other excavated windmills in Northamptonshire and the Nene valley

A windmill mound of similar form 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, and open onto a road or track to the south-west. It was thought that the mill structure had been on top of the mound rather than the mound built around it, as the only feature recognised in the central area was an arc of gully. The earliest recorded date for this windmill was early 15th century.

Other medieval examples excavated across the midlands tend to be earlier, dating from the 13th century. They include the windmills at Great Linford, Bedfordshire (Mynard and Zeepvat 1991), and Tansor (Chapman 1997) and Strixton, Northamptonshire (Hall 1973) (Fig 17). At all three of these sites there were deep cross-tree slots cut into the ground beneath the mound. At Strixton, there may have been an earlier mill with the central post supported by angled posts set in four large, but not very evenly spaced, post-pits.

At Strixton no encircling ditch was recorded, but the mill sat beside the modern road. At Tansor, the modern road lay immediately to the south-east, and it is likely that the ditch was open on this side, as at Dogsthorpe. We can assume, therefore, that the openings to the south-west at Ringstead Grange and to the west to south-west at Raunds indicate the location of the access road or track, as given the nature of the structure and its business good access would have been essential.

At Raunds there were no obvious remains of the central post or a cross-tree slot. However, it seems unlikely that the structure was situated entirely on top of the mound, as this would have provided little support for such a top-heavy structure. It seems more likely that given the systematic dismantling of such a structure and the backfilling of the slots with material very similar to the rest of the mound, the cross-tree slots would have been almost invisible, as was certainly the case at Tansor, where initially only the central hollow with its darker fill was evident to the

excavators. The excavation of the slots themselves was largely by feel, with the fill slightly less compact than the surrounding deposits.

### Bibliography

- Bamford, H, 1985 *Briar Hill: Excavation 1974–1978*, Northampton Development Corporation monog, **3**
- Bartlett, A, and Coates, G, 2011 *Site at West End Raunds, Northamptonshire, report on Archaeological Geophysical Survey*, PCAL report, **PC377b**
- Bush, L, 2015 *Neolithic and Iron Age to Saxon activity at Warth Park, Raunds, Northamptonshire*, Oxford Archaeology East, **1572**
- Chapman, A, 1997 *The Excavation of Neolithic and Medieval Mounds at Tansor Crossroads, Northamptonshire 1995*, *Northamptonshire Archaeol*, **27**, 3–50
- Chapman, A, 2010 *West Cotton, Raunds: A study of medieval settlement dynamics AD450–1450, Excavation of a deserted medieval hamlet in Northamptonshire 1985–89*, Oxbow Books
- Chapman, A, 2013 *The Iron Age pottery*, in C Simmonds and C Walker 2013, 41–44, fig 28
- Chapman, A, 2015 *Iron Age settlement at the Long Dole*, in R Masefield *et al* 2015, 13–60
- Coates, G, and Richmond, A, 2011 *Archaeological Evaluation Trial Trenching, West End, Raunds, Northamptonshire*, PCAL report, **PC377c**
- Crosby, V, Muldowney, L, and Lyons, E, 2011a *Stanwick Quarry, Northamptonshire. Raunds Area Project: Phasing the Iron Age and Romano-British settlement at Stanwick, Northamptonshire (excavations 1984–1992), Archaeological report: volume 1*, English Heritage Research Department Report, **54–2011**
- Crosby, V, Muldowney, L, and Lyons, E, 2011b *Stanwick Quarry, Northamptonshire. Raunds Area Project: Phasing the Iron Age and Romano-British settlement at Stanwick, Northamptonshire (excavations 1984–1992), Archaeological report: volume 2*, English Heritage Research Department Report, **54–2011**
- Davies, J, Fabis, M, Mainland, I, Richards, M, and Thomas, R, 2005 (eds) *Diet and health in past animal populations: current research and future directions*, Proceedings of the 9th Conference of the International Council of Archaeozoology, Durham, August 2002
- Davis, S J, 1992 *Saxon and medieval animal bones from Burystead and Langham Road, Northants: 1984–1987 Excavations*, AML Report New Series, **71/92**
- Elsdon, S, 1976 *The Influence of Iron Age metalworking techniques as seen on the decoration of a pottery bowl from Hunsbury, Northants*, *Northamptonshire Archaeol*, **11**, 163–166
- Groot, M, 2005 *Palaeopathological evidence for draught cattle on a Roman site in the Netherlands*, in J Davies *et al* (eds), 52–57
- Hall, D N, 1973 *A Thirteenth Century Windmill site at Strixton, Northamptonshire*, *Bedfordshire Archaeol*, **8**, 109–118
- Jackson, J, and Ambrose, T M, 1978 *Excavations at Wakerley, Northants, 1972–1975*, *Britannia*, **9**, 115–242
- Jones, R, 1978 *Appendix II: The animal bones*, in D Jackson and T M Ambrose, 324–342
- Kidd, B, 2015 *Trial trench evaluation on land at Warth Park, Phase 3 Raunds, Northamptonshire September – November 2015*, MOLA Northampton report, **15/217**
- Maltby, M, 2003 *Animal bone*, in A Thomas and D Enright 2003, *The excavation of an Iron Age settlement at Wilby Way, Great Doddington, Northamptonshire Archaeology* **31**, 15–69

- Masefield, R, (ed) Chapman, A, Ellis, P, Hart, J, King, R, and Mudd, A, 2015 *Origins, Development and Abandonment of an Iron Age village: Further Archaeological Investigations for the Daventry International Rail Freight Terminal, Crick and Kilsby, Northamptonshire 1993–2013* (DIRFT Volume II), Archaeopress Archaeology
- McAree, D, 2005 A pit alignment at Warth Park, Raunds, *Northamptonshire Archaeology*, **33**, 9–18
- Meadows, I, Boismier, W A, and Chapman, A, 2008 *Synthetic Survey of the Environmental, Archaeological and Hydrological record for the River Nene from its source to Peterborough; Part 1: The Archaeological and Hydrological Record*, Northamptonshire Archaeology report [available online Archaeology Data Service (ADS); [http://archaeology-dataservice.ac.uk/archives/view/nenevalley\\_eh\\_2009/](http://archaeology-dataservice.ac.uk/archives/view/nenevalley_eh_2009/)]
- Mynard, D C, and Zeepvat, R J, 1991 *Excavations at Great Linford, 1974–80*, The Buckinghamshire Archaeological Society Monog, **3**
- Orr, C, 1974 The animal bones, in J H Williams 1974, 43
- Partida, T, Hall, D, and Foard, G, 2013 *An Atlas of Northamptonshire: The Medieval and Early-Modern Landscape*, Oxbow Books
- Parry, S, 2006 *Raunds Area Survey: An archaeological study of the Landscape of Raunds, Northants 1985–1994*, Oxbow Books
- PCA 2011 *West End Raunds Archaeology and Cultural Heritage, contribution to an Environmental Statement*, Pre-Construct Archaeology
- Pearce, S V, 1966 A medieval windmill, Honey Hill, Dogsthorpe, *Proceedings of the Cambridge Antiquarian Soc* 1966, **59**, 95–104
- Shaw, M, Sharman, T and O'Hara, P, 1990 *Archaeological Evaluation at Ringstead Grange, Northants*, Northamptonshire Archaeology Unit report, **749**
- Shaw, M 1992 Iron Age Settlement Evidence at Top Lodge, near Ringstead Grange, Northamptonshire, *Northamptonshire Archaeol*, **24**, 3–12
- Simmonds, C, 2016 *Late Iron Age occupation on land at West End, Raunds, Northamptonshire, September 2014 to June 2015*, MOLA Northampton report, **16/136**
- Simmonds, C, and Walker, C, 2013 *Archaeological Excavation on land at Polwell Lane, Barton Seagrave, Northamptonshire, August to December 2012: Assessment Report and Updated Project Design*, MOLA Northampton report, **14/113**
- Veen, van der, M, 1992 *Crop Husbandry Regimes*, Sheffield Archaeol Monog, **3**
- Williams, J H, 1974 *Two Iron Age sites in Northampton*, Northampton Development Corporation Archaeol Monog, **1**

### Online

British Geological Survey Geo Index, accessed 2016: <http://mapapps2.bgs.ac.uk/geoindex/home.html>,

