Excavation Report

Two Early Iron Age enclosures at Elton Solar Farm Elton-on-the-Hill Nottinghamshire

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Two Early Iron Age enclosures at Elton Solar Farm, Elton-on-the-Hill, Nottinghamshire

Archaeological Excavation

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Table of Contents

List of Figures

List of Plates

List of Tables

Summary

During September and October 2015 Oxford Archaeology East undertook an excavation at a proposed solar farm at land off Station Road, Elton-on-the-Hill, Nottinghamshire. The two separate excavation areas uncovered Early Iron Age enclosures.

The most complete enclosure plan was uncovered in Area 1 where excavation revealed a sub-circular ditched feature with a c.23m internal diameter. The earliest phase of the enclosure consisted of several long curvilinear ditches, with three entrance ways between, linked to a north-south aligned routeway or entranceway which was c.8m wide. The enclosure was subsequently modified with ditches re-cut and a single entrance defined on its northern side. The second enclosure was revealed in Area 2, 0.5km to the north-east of Area 1. This comprised a small sub-rectangular enclosure with an internal diameter of just 9m and a south-east facing entrance. Further ditches abutted the enclosure at both north and south.

Combined, the sites yielded a fairly substantial assemblage of Early Iron Age pottery, animal bone and fired clay, with personal items comprising a ring-headed swan-neck pin and an antler hammer head from Area 1. In general, the material assemblages were very similar from both sites, and were largely recovered from the enclosure ditches. The composition and condition of artefacts was fairly typical of that from domestic settlements in the Early Iron Age, with the faunal record suggesting an agrarian economy largely based on the husbandry of cattle and sheep. Fragments of two human bones were also recovered from separate parts of the enclosure ditch in Area 2.

1 Introduction

1.1 Location and scope of work

1.1.1 Archaeological excavations were conducted on two small open areas within *c.*33ha of land off Station Road, Elton-on-the-Hill, Nottinghamshire, prior to the construction of a proposed solar farm (Fig 1). The work followed on from a desk-based assessment (Adam and Bashford 2014), a geophysical survey (Richardson 2014) and an evaluation (Atkins 2015a).

1.1.2 This archaeological excavation was undertaken in accordance with a Specification prepared by OA East (Atkins 2015b).

1.1.3 The site archive is currently held by OA East and will be deposited with the appropriate county stores following final publication.

1.2 Geology and topography

1.2.1 The proposed development is situated within the Vale of Belvoir and straddles the parish boundary between Elton-on-the-Hill to the south and east and Orston to the north and west. The site lies on the eastern flank of a low ridge within the surrounding vale, at approximately 30m above Ordnance Datum (OD).

1.2.2 The solid geology is Barnstone Member Interbeded Mudstone and Limestone, and there are no recorded superficial or drift deposits (http://mapapps.bgs.ac.uk/geologyofbritain/home.html). The site currently consists of two arable fields surrounded by modern hedgerows, crossed by the ditch of a former parish boundary. The overlying soils are known as Evesham 1 which are typical calcareous pelosols. These consist of calcareous clayey soils associated with shallow brashy calcareous soils over limestone (Soil Survey of England and Wales 1993). In Area 1 the natural varied from yellow clay to limestone (iron stone bands) bedrock.

1.2.3 A high pressure gas main crosses the development, on its eastern side, on a north to south alignment but lay at least 100m from the two excavation areas.

1.3 Archaeological and historical background (Fig 2)

1.3.1 A cultural heritage desk-based assessment (DBA) of the site was carried out in 2014 and the following section has been taken from this report (Adam and Bashford 2014). Both the National Monuments Record (NMR) and the Nottinghamshire Historic Environment Record (NHER) supplied data of known heritage assets within the site and for a 1km radius from its boundaries.

1.3.2 No Palaeolithic, Mesolithic or Neolithic assets have been recorded within the site or the wider study area. A linear group of four Bronze Age (2200BC – 700 BC) ring ditches (OA 59) have been recorded as cropmarks in a valley which is to the south-west of Orston village and *c.*930m to the north-west of the site. A number of other unidentified cropmark features were noted in the same area. Some of these may have been enclosures. Bronze Age pottery (OA 55) has also been recovered during pipeline construction *c.* 820m to the north-west of the site.

1.3.3 Middle or Late Iron Age scored ware pottery (OA 50) was found during pipeline works to the south-west of Orston, 830m to the north-west of the site. A field system dating to between the Iron Age (800 BC – AD 43) and the Roman period (AD 43 – AD 410) (OA 83) has also been identified from cropmark evidence. This asset is located 770m to the

south-west of the site and consists of rectilinear enclosures and trackways. The form of this settlement suggests a Mid or Late Iron Age date

1.3.4 The village of Elton-on-the-Hill, located just over 500m to the south of the site, appears to be Saxon in origin (Throsby 1790). The village was originally called 'Aylton' by the Saxons and was already a well established settlement by the time it was listed in the Domesday Survey of 1086 as a village of 14 households with a church. The village passed into the ownership of the Priory of Blyth and at the Dissolution it was granted to the family of York. The parish was enclosed in 1808, when land was allotted in lieu of all tithes. The village of Orston, located 470m to the north of the site, is also Saxon in origin (Throsby 1790) and was held by Edward The Confessor (1042-1066) in the mid-11th century. Various listed buildings and other features in Elton-on-the-Hill and Orston were recorded in the DBA but have not been included in this report.

1.3.5 The parish boundary between these two early medieval settlements (OA 71) passes through the western third of the site on a roughly south-west to north-east axis. The site itself is likely to have been occupied by open fields between the two villages at this time. The remains of ridge and furrow earthworks (OA 72 and 78) have been identified within the site from GoogleEarth© images.

1.3.6 Historic maps covering the site show little change across it and the immediately surrounding area over the past 200 years. At first the majority of the site itself appears to be under ridge and furrow cultivation, presumably dating from the early medieval period. The open fields with which this was associated were enclosed at some point in the post-medieval period and these enclosure boundaries are shown on 19th century and later mapping, with some still being extant. An Ordnance Survey (OS) surveyor's drawing dated 1814 shows Occupation Road (OA 70) and most of the same field divisions that currently cross the site. The land appears to have been enclosed by this time, which is normal for this part of southern England. The OS First Edition map of the area, published in 1883, shows the same field layout, with Oldfield Plantation immediately to the south-east of the site. This map also shows a series of small quarries (at least 10).

1.3.7 Within the site itself, the following historic assets have been recorded:

OA 69; A well noted from historic mapping.

OA 70; A trackway, known as Occupation Lane, along the north-eastern boundary of the site on historic mapping.

OA 71; A former field boundary, visible on aerial photographs.

OA 72; An area of ridge and furrow cultivation, visible on aerial photographs from cropmarks of the former ditches.

OA 73; A pond or extraction pit marked on the first edition map of 1887.

OA 74; An area of quarrying / extraction recorded on historic maps from 1883 to 1921.

OA 76; A roofed structure recorded on historic maps from 1883 to 1921.

OA 77; The parish boundary, shown on the historic mapping.

OA 78; An area of ridge and furrow cultivation, visible on aerial photographs.

OA 109; A lynchet bank.

1.4 Geophysical survey (Fig.3)

1.4.1 The detailed magnetic gradiometer survey using a dual sensor Grad601-2 Magnetic Gradiometer was carried out. The survey identified a number of anomalies that have been characterised as being either of a probable or possible archaeological origin (Richardson 2014).

1.4.2 The five probable archaeological features comprised:

1. A weak positive sub-circular anomaly with a discrete positive anomaly at its centre. This is likely to be a ditched enclosure with an associated pit. There appears to be an opening in the southern side of the enclosure. This feature was targeted by Evaluation Trenches 32 and 33 and shown to be an oval ditched enclosure. The possible central pit was not present in the trench as a visible feature.

2 to 4. A number of linear anomalies relating to former field boundaries present on mapping dating to 1884-1956.

5. Areas of widely spaced curving parallel linear anomalies in the east of the site which are indicative of ridge and furrow cultivation. These were shown by the evaluation to be heavily plough-truncated remnant ridge and furrow.

1.4.3 The possible archaeology comprised seven features:

6. A sub-circular positive anomaly in the north of the site. This was targeted by Evaluation Trench 8 and proved to be a ring-ditch.

7. Three positive linear anomalies in the east of the site. These were targeted in Evaluation Trenches 20, 21 and 22 but no corresponding archaeological features were recorded.

8. A high amplitude bipolar linear anomaly in the east of the site which is indicative of an underground service. This is the high pressure gas main.

9. Areas of closely spaced parallel linear anomalies across the site. These are indicative of modern agricultural activity, such as ploughing.

10. Areas of magnetic variation in the east of the site. These are likely to be of natural origin, relating to the change in geology and alluvial deposits in this area.

11. Areas of magnetic disturbance which are the result of substantial nearby ferrous metal objects such as fences and underground services. These can mask weaker archaeological anomalies, but on this site have not affected a significant proportion of the area.

12. A number of magnetic ‘spikes’ (strong focussed values with associated antipolar response) indicate ferrous metal objects. These are likely to be modern waste.

1.5 Archaeological Evaluation

1.5.1 Thirty-seven evaluation trenches were excavated across the site with three targeted over two sub-circular geophysical anomalies *c*.500m apart (Atkins 2015a). These anomalies were found to be two separate Early Iron Age settlement sites. In Evaluation Trench 8, at the north of the site, was a single isolated ring ditch with a 13m diameter drip gully and an internal post hole. Two iron objects (possibly small parts of harness fittings) were recovered from the ring ditch along with 33 Early Iron Age pottery sherds (188g) and cattle and sheep bone. In Trenches 32 and 33, in the south-western part of the site, was a ditched sub-circular enclosure measuring *c*.35m (north to south) by *c*.20m (east to west). No internal features were recorded within the enclosure. Artefacts recovered from it consisted of 22 sherds (119g) of Early Iron Age pottery along with a

small assemblage of animal bone, mostly from the eastern part of the enclosure. An animal bone from each of the settlement sites was sent for radiocarbon dating (Appendix D).

1.5.2 No other pre-medieval features were found during the evaluation and the site has continued in agricultural use until the present day.

1.6 Acknowledgements

1.6.1 The author would like to thank SunEdison and VALFORTEC/Prosolia Energy for funding the work in particular Robert Stockford for his initial input into the project and later to Elena Burguet and Juridico Valfortec who took over the development. Richard Mortimer of OA East managed the project and edited this report. Drone photography was carried out by Lindsey Kemp. The site was monitored by Ursilla Spence, Nottinghamshire County Archaeologist. Steve Critchley metal detected both areas. Dr David Knight visited the site and offered some useful advice. The fieldwork was carried out by Mary Andrews, Rob Atkins, Nick Cox, John Diffey, Toby Knight, Ted Levermore and Rebecca Pridmore.

2 Aims and Methodology

2.1 Aims

2.1.1 The original aims of the project, set out in the Specification, were to preserve the archaeological remains within the proposed development area by record (Atkins 2015b).

2.1.2 The objectives of the excavation were also recorded within the Specification, with reference to Regional and Local Research Agendas. These comprised the Nottinghamshire County Report for the East Midlands Regional Frameworks (Bishop 2000), the former East Midlands Frameworks report (Willis 2006) and the Updated Regional Frameworks (Knight *et al* 2012).

2.1.3 It was thought that the excavation would contribute to the following objectives:

1) The Elton settlement remains should be put into the context of occupation dating to the Early Iron Age which is not common for Nottinghamshire and for much of the East Midlands area during this period (Willis 2006, fig. 27, 91 and 97; Knight *et al* 2012, 58).

2) The need for comparison of settlement morphologies including spatial extent and functions (Bishop 2000, 3; Willis 2006, 94 and 99; Knight *et al* 2012, 58).

3) The need to refine the ceramic chronology of the region and the fact that there have been few Late Bronze Age-Early Iron Age pottery assemblages found in the county (Bishop 2000, 2; Knight et al 2012, 58).

4) The need for absolute dates on LBA-Early Iron Age sites as the fact that there is a vagueness in the present regional record for sites/evidence of this period (Willis 2006, 91; Knight et al 2012, 58).

5) Addressing of the paucity of Early Iron Age metalwork so far found in the region (Willis 2006, 89).

6) Addressing the lack of evidence for farming and its by-products in the county (Bishop 2000, 4).

2.2 Methodology

2.2.1 The methodology used followed that outlined in the Specification (Atkins 2015b). Two excavation areas were earmarked over the two Early Iron Age settlement areas found in the geophysical survey and trial trench evaluation (Richardson 2014; Atkins 2015a). This comprised an area 50m by 40m over a ditched enclosure in the south-western part of the site (Area 1) and a 30m by 30m area over the ring-ditch in the north (Area 2). These excavations were located to the Ordnance Survey national grid using a Leica GPS 1200 and *smartnet*.

2.2.2 Machine excavation was carried out by a tracked 360º type excavator using a 2m wide flat bladed ditching bucket under constant supervision of a suitably qualified and experienced archaeologist.

2.2.3 Medieval furrows heavily truncated both excavation areas and this affected the way the site was excavated. Hand dug interventions, mostly 2m in width, were predominantly positioned between the furrows. The interventions were fairly evenly spaced across the features within the two sites in order to gauge the quantity and distribution of artefacts and ecofacts.

2.2.4 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.2.5 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Plans and sections were recorded at appropriate scales and colour and digital photographs were taken of all relevant features and deposits. A drone was used for overhead photographs at the end of the excavations.

2.2.6 Following on from the poor results from environmental sampling at evaluation stage, nine targeted bulk environmental samples were taken during the excavation.

2.2.7 The excavation took place during September to October 2015 under mostly good weather conditions.

3 Results

3.1 Introduction

3.1.1 This report has incorporated the evaluation data into the excavation records, although only those features within the excavation area are discussed in detail. The results section (below) should be read in conjunction with Appendix A, which is a context summary.

3.1.2 The excavation took place within two separate excavation Areas (1 and 2), which were located *c*.0.5km apart. These represented two separate single period farmsteads which were (later) Early Iron Age in date, with no evidence of prior or subsequent use. The results (below) are recorded by excavation area.

3.1.3 Where ditches were given multiple cut numbers during the excavation the lowest of these has been used in the text.

3.2 Area 1

Figs 4 and 5

Early Iron Age (Period 1)

Introduction

3.2.1 Area 1 comprised a sub-rectangular excavation area measuring *c*.50m by 40m. This area targeted a weak sub-circular anomaly recorded in the geophysical survey and excavated in Evaluation Trenches 32 and 33 (Fig. 3; Richardson 2014; Atkins 2015a). This anomaly was found to represent the remains of an Early Iron Age farmstead in the form of a sub-circular ditched enclosure with an internal diameter of *c*.23m and exhibiting at least two phases of construction (Phases 1.1 and 1.2) (Plate 1). The earliest phase of the enclosure consisted of several long curvilinear ditches, with three entrance ways between, linked to a north-south aligned routeway or entranceway. In the second phase a sub-circular enclosure was constructed with an entrance only on its northern side, at the original entranceway. The eastern side of the original enclosure was also re-cut on its outer edge and while this could have taken place significantly earlier, or later, neither finds nor stratigraphic evidence separate it from Phase 1.2.

3.2.2 No internal features survived within the enclosure, suggesting that later ploughing may have removed archaeological deposits to a considerable depth. As moderately large quantities of pottery and animal bone were recovered from the fills of the ditches the existence of internal domestic occupation is highly likely. After the enclosure went out of use (around the end of the Early Iron Age) there was no re-occupation of the site, with the only evidence for later activity comprising medieval and late medieval furrows, a well and a ditch (Period 2).

Phase 1.1

3.2.3 The main enclosure area during this phase comprised at least two ditches. The western ditch was clear (**130**), whereas the southern ditch (**145**) was cut by the Phase 1.2 enclose ditch and a later furrow. The internal measurements of the enclosure were *c*.26m north to south and *c*.25m east to west (*c*.0.2ha in area).

*Western ditch **130***

3.2.4 Slightly curvilinear ditch (**130**) was aligned roughly north to south for *c.*15m with its northern and southern termini slightly curving to the west. The ditch was 0.5m to 0.64m wide and 0.17m to 0.3m deep, with steep sides and a flat or slightly concave base. The

fill of this feature was a mid grey brown silty clay which contained fragments of limestone, rare charcoal flecks and 99 sherds (680g) of Early Iron Age pottery. A copper alloy swan-necked and ring-headed pin (SF11) was found *c*.0.2m below excavated ground level in the northern terminal (**130**). Cattle and sheep/goat bones were also recovered from the fill of this ditch terminal.

3.2.5 There was an 11.6m gap in this feature which probably represents an entranceway between it and the southern ditch (**145**), with the terminals of both ditches seemingly complementing each other and leading to the south-west. There was a second smaller gap between the northern terminal of the western ditch and the southern terminal of western routeway ditch (**141**).

*Southern ditch (**145**) (Plate 2)*

3.2.6 The southern ditch (**145**) was aligned north-east to south-west and had a surviving length of just over 5m. It was 0.49m to 0.87m wide and 0.16m to 0.17m deep with moderate to steep sides and a flat to slightly concave base. The initial fill of this feature was a mid grey brown silty clay with frequent small stones. The upper fill was a mid orangey brown clay silt. These fills contained cattle bones and 10 sherds (33g) of Early Iron Age pottery.

*Eastern enclosure ditch (**110**)*

3.2.7 It is likely that southern ditch (**145**) originally conjoined enclosure ditch (**110**) but has been removed by the Phase 1.2 re-cut. The ditch was at least 0.78m wide and survived to a depth of 0.2m to 0.39m with fairly steep sides and a largely flat base. Its fill comprised a mid to dark grey brown silty clay with occasional small limestone pieces and rare sandstone and charcoal flecks. This fill contained 55 sherds (461g) of Early Iron Age pottery and cattle, sheep/goat and pig bone fragments. Also recovered from this fill was a possibly curated fossil of a fish vertebra. The northern terminus of this ditch appeared to form a *c*.3m wide entranceway with the terminus of the eastern routeway ditch (**140**) (see below).

*Routeway ditches (**141**) and (**140**)*

3.2.8 The two routeway ditches (**141**) and (**140**) were both aligned roughly north-east to south-west. The length of the ditches is uncertain as they extended beyond the excavation area. The width of the routeway tapered, being *c*.8m at its southern end and 6.6m at the site's northern baulk. Both ditches became increasingly shallower to the north, presumably through truncation.

3.2.9 The eastern ditch (**140**) was 0.8m to 1.1m wide and 0.19m to 0.32m deep with sides varying from moderate to steep and a predominantly flat base. It was filled with a brown silty clay which had moderate quantities of limestone pieces. Cattle and sheep/goat bones were recovered from this fill along with 12 sherds (54g) of Early Iron Age pottery. The western ditch (**141**) was 0.5m to 0.6m wide and 0.25m to 0.35m deep with a fill which consisted of mid brown and grey silty clays. This fill contained charcoal flecks, cattle and sheep/goat bones and 13 sherds (64g) of Early Iron Age pottery.

Phase 1.2

3.2.10 Eastern enclosure ditch **110** was cut on its internal side by a later enclosure ditch (**112**) (Plate 3). Ditch **112** formed a sub-circular enclosure which measured up to 24m (north to south) by 23m (east to west) and was 0.5m to 1.2m wide and 0.35m to 0.5m deep. The profile of the ditch sections were similar across the area mostly being slack sided 'U' shapes with steep sides and a flat base. The ditch was filled with mid to dark grey brown silty clays with occasional limestone pieces and small quantities of burnt stone.

Finds recovered from this fill included sherds of Early Iron Age pottery, cattle, sheep/goat and pig bone and part of a worked antler hammer head (SF7). A sample from this antler hammer head produced a radiocarbon date at 95.4% probability of 761-414calBC (SUERC-67335 (GU40898)) (See Appendix D).

3.2.11 The two northern terminals of the enclosure ditch formed an entranceway *c*.9m wide. It is likely however that the actual entranceway was smaller as a post hole (**171**) and two shallow hollows/linear features (**175**, **177**) were located between them. The posthole was 0.4m in diameter and 0.16m deep with moderate sides and a concave base. Its fill consisted of a mid-brownish grey clayey silt which included occasional limestone chunks and a single Early Iron Age pottery sherd. Around 2m to the east of post hole **171**, was hollow **175**, whose edges were unclear. This was *c*.1m long, *c*.0.8 wide, 0.06m deep and was filled with a mid brownish grey clayey silt from which a single sherd of Early Iron Age pottery was recovered. A linear hollow (**177**) lay *c*.1m to the east of **175** and measured 1.8m, 0.5m wide and 0.1m. It was filled with mid brownish grey clayey silt which contained two sherds of Early Iron Age pottery. It is possible that **175** and **177** represent truncated, shallower segmented ditch sections as they align with the western enclosure terminal and post hole **171**.

3.2.12 On its eastern side the enclosure had a separate re-cut (**108**) (Plate 4), to the east side of the initial enclosure ditch. This curvilinear re-cut varied from 0.49m to 1.18m in width and 0.21m to 0.54m in depth with it being at its shallowest at both terminals. It had steep sides and a largely flat base. For the main part the fill of this re-cut consisted of a single deposit of mid yellow brown silty clay which was in places overlain by a mid grey brown to dark grey brown silty clay. A few burnt stones were recorded in this fill along with 49 sherds (286g) of Early Iron Age pottery. A radiocarbon date from a cattle femur in ditch **108** produced a date at 95.4% probability of 761-429calBC (SUERC-61192 (GU37962)) (See Appendix D).

Late medieval and post-medieval (Period 2)

Furrows

3.2.13 Six separate furrows including a double furrow (**225**/**227**) were recorded in the excavation and these were aligned west-north-west to east-south-east. They were fairly evenly spaced at between 5m and 8m apart. The furrows were between 1.6m to *c*.3m wide and 0.16m to 0.28m deep. They were filled with a mid greyish brown silty clay. They had removed the truncated remains of the earlier enclosure ditches sufficiently to make excavation here unnecessary, and they themselves had been heavily truncated by modern ploughing.

*Ditch (**104**) and Well (**184**)*

3.2.14 A short ditch (**180**) aligned east to west was found in the northern part of the site and must represent a remnant of later field ditch. This feature was *c*.13m long, 2.75m wide and 0.46m deep with steep sides and a flat base. It was filled with a mid orangey brown silty clay which contained 6 sherds 98g of pottery which dated to the 16th century.

3.2.15 A late- or post-medieval watering hole/well (**184**) cut ditch **104**. It was sub-circular in plan, *c*.3.2m diameter and 1.2m deep. The well cut into natural clay and had vertical sides with a flat base. The water table lay at 1.1m below the excavated surface level. The primary fill of the well comprised a 0.35m thick sterile mid bluey brown clay (183) within which was a moderate quantity of small stone inclusions. This layer was sealed by a mid brown silty clay (182) which in turn was sealed by a light yellow clay (181).

3.3 Area 2

(Figs 6 and 7)

Introduction

3.3.1 Area 2 was located roughly 0.5km to the north-east of Area 1 and comprised a *c*.25m by 24m excavation area. This excavation was targeted on a sub-circular or 'C' shape anomaly, recorded in the geophysical survey, which was investigated in Evaluation Trench 8 (Richardson 2014; see Section 1.4.3 above; Atkins 2015a). In the subsequent excavation, the site proved to have two main ditches (**253** and **269**), which may have formed three sides of a small sub-rectangular enclosure with at least one further ditch (**277**) abutting it to the south (Plate 5). Within this enclosure was possibly the remains of a contemporary post hole structure (**31**, **302** and **304**). To the north-west, intercutting curvilinear ditches **295**, **264** and **293** were uncovered.

3.3.2 Five furrows and modern drains were also found in this excavation area. The surface of the area appeared even more badly truncated by modern ploughing than Area 1.

Early Iron Age (Period 1)

Sub-rectangular enclosure

3.3.3 The sub-rectangular enclosure comprised a curvilinear ditch and would have been internally *c*.18m long by up to *c*.8m wide in its western part, narrowing to 3m wide to the south-east. The south-eastern extent of the enclosure appears to have been open. At the widest part of the enclosure there were three post holes (**31**, **302** and **304**) which may have been part of a structure, most of the evidence for which has been truncated.

3.3.4 The northern ditch of the enclosure (**253**) (Plate 6) was aligned north-west to south-east. This ditch was 1.08m wide, up to 0.47m deep and had gradual sides with a slightly concave base. Its fill consisted of dark brown clayey silts from which 12 sherds (83g) of Early Iron Age pottery and a fragment of human bone were recovered. The western side of the enclosure was heavily truncated by a furrow. However, part of this feature did survive as ditch **276** which was 1.4m wide and 0.76m deep. The fill of this steep sided and flat based ditch comprised mid brown clayey silts. On its southern edge the enclosure consisted of a steep sided and flat based ditch **269** (Plate 7). This ditch was 1.8m wide, 0.7m deep and was filled with greyish brown silty clays which contained cattle, sheep/goat and human bone with the uppermost fill (272)=(299) yielding 20 sherds (90g) of Early Iron Age pottery. Ditch **269** is the same feature as ditch **29** in Evaluation Trench 8 from which animal bone produced a radiocarbon date of BP 2307 ± 32 giving at 95.4% probability the date 411-231calBC (SUERC-61191 (GU37961)).

3.3.5 The southern edge of ditch **269** was conjoined with a north-east to south-west aligned ditch **277**, which was 1m wide and 0.40m deep. Ditch **277** was steep sided and flat based with a fill which consisted of mid yellowish brown silty clay.

3.3.6 Three internal, undated postholes (**31**, **302** and **304**) formed a slightly curvilinear arc over a 1.5m distance within the western part of the enclosure. The postholes were between 0.25m and 0.45m in diameter and 0.06m and 0.2m deep and they had moderate or steep sides with irregular or rounded bases. Their fills comprised either a light yellowish brown silty clay or a mid greyish brown sandy clay.

Curvilinear ditches

3.3.7 Curvilinear ditch **295** was aligned roughly north to south and was associated with later parallel ditches **264** and **293** (Plate 8). Ditch **295** was fairly small, surviving to between 0.5m and 0.8m wide and 0.16 and 0.22m deep, with gentle to moderate sloping sides and a concave base. It was filled with a light yellowish brown or a light greyish brown clay silt from which a single sherd (5g) of Early Iron Age pottery was recovered. To the east of ditch **295**, and aligned parallel to it, lay a further curvilinear ditch **264** which was 1m wide and 0.67m deep. This more easterly ditch had steep sides, a concave base and was filled with brown clayey silt.

3.3.8 Ditches **295** and **264** were both cut by ditch **293** which followed the same curve as these earlier ditches. This later ditch was 1.2m wide, 0.6m deep and had steep sides and a concave base. It's fill was a mid greyish brown silty clay which contained cattle, sheep/goat and pig bones along with 31 sherds (121g) of Early Iron Age pottery. It is likely that ditches **295**, **264** and **293** represent the remains of different phases of the north-eastern corner of an enclosure.

*Post hole **262***

3.3.9 Post hole **262** cut the top of curvilinear ditch **293** in the north-western part of the site. It was 0.5m in diameter and 0.15m deep with moderate sides and a rounded base. It was undated.

Post-medieval (Period 2)

Furrows, field boundary and stone drains

3.3.10 Four north-east to south-west aligned furrows and a parallel field boundary (**92**) were recorded in this area. The furrows were between 2.1m and 6m apart and *c*.1.5m to *c*.2.5m wide. Stone drains cut into the tops of, and ran along the middle of, two of the furrows. Field boundary **92** was 1.5m wide and 0.12m deep. It was recorded in the geophysical survey (no.3; Richardson 2014; see Section 1.4.3 above) and represents a post-medieval and/or modern field boundary.

3.4 Finds Summary

Prehistoric Pottery

3.4.1 A total of 1109 sherds (5684g) of handmade prehistoric pottery were recovered from the excavations. The material dates to the closing stages of the Early Iron Age, c. 500-350 BC, and broadly belongs to the Decorated ware phase (c. 800-350 BC) of the Post Deverel-Rimbury (PDR) ceramic tradition (Barrett 1980).

Post-medieval pottery

3.4.2 The post-medieval pottery assemblage comprised 18 sherds with a total weight of 205g.

Metalwork

3.4.3 A swan-necked, ring-headed copper alloy pin (SF 11) was recovered from ditch terminal **130**. This dated to the Early Iron Age and will be illustrated for publication.

Worked bone

3.4.4 A red deer antler hammer head (SF 7) was found in ditch **112** and will be illustrated for publication.

Fired clay

3.4.5 The excavations yielded 167 fragments of fired clay (509g). The assemblage comprises largely amorphous pieces with no discernible features and 17 structural fragments.

3.5 Environmental Summary

Environmental Samples

3.5.1 Following on from poor results at evaluation stage, just nine bulk environmental samples were taken from Early Iron Age ditches and a posthole. Three of the samples produced single charred cereal grains and sparse charcoal (see Fosberry, Appendix C.1). The results are almost identical to the analysis of five bulk samples taken in the evaluation (Fosberry 2015).

Faunal Remains

3.5.2 Through hand collection, Area 1 yielded 507 mammal remains and Area 2 only sixty-six. Moreover, both areas yielded traces of faunal material in the residue of flotation samples.

Human Skeletal Remains

3.5.3 Two disarticulated elements of human bone were recovered from ditches in Area 2.

3.6 Scientific Dating Summary

Radiocarbon Samples

3.6.1 Two animal bones were sent at evaluation stage to the radiocarbon dating laboratory at the Scottish Universities Environmental Research Centre AMS Facility (SUERC). These comprised a cattle femur from fill 109 (Area 1; ditch **108**) and a cattle tibia from fill 27 (Area 2; ditch **29**).

3.6.2 The result from ditch **108** produced a radiocarbon age of BP 2462 ± 32 giving at 95.4% probability a date of 761-429calBC (SUERC-61192 (GU37962)). From ditch **29** the animal bone produced a radiocarbon age BP 2307 ± 32 giving at 95.4% probability a date of 411-231calBC (SUERC-61191 (GU37961)).

3.6.3 A sample from the worked antler hammer head (SF 7) produced a radiocarbon date at 95.4% probability of 761-414calBC (SUERC-67335 (GU40898)) (See Appendix D).

3.6.4 All three radiocarbon dates fall within the date range of the pottery assemblage of 500-350BC.

4 Discussion and Conclusions

4.1.1 Despite significant truncation from ploughing since at least the medieval period, the targeted excavations at Elton-on-the-Hill have revealed the remnants of two rare, but securely dated, Early Iron Age settlement enclosures of a type previously unrecorded in the region.

4.1.2 The most complete enclosure plan was uncovered in Area 1 where excavation revealed a sub-circular ditched feature which was *c.23*-25m in diameter. The earliest phase of the enclosure consisted of several long curvilinear ditches, with three entrance ways between, linked to a north to south aligned routeway or entranceway which was *c.*8m wide. The enclosure was subsequently modified, with ditches re-cut and a single entrance defined on its northern side. The second enclosure was revealed in Area 2, 0.5km to the north-east of Area 1. This comprised a small sub-rectangular compound with a south-east facing entrance, and at least one further ditch abutting the enclosure to the south.

4.1.3 Combined, the sites yielded a fairly substantial assemblage of Early Iron Age pottery, animal bone and fired clay, with individual stand-out finds being personal items comprising a ring-headed swan-neck pin and an antler hammer head from Area 1. In general, the material assemblages were very similar from both sites, and were largely recovered from the enclosure ditches. The composition and condition of artefacts was fairly typical of that from domestic settlements in the Early Iron Age, with the faunal record suggesting an agrarian economy largely based on the husbandry of cattle and sheep.

4.1.4 Given the restricted scale of the excavations, and the spacing of the sites themselves, it is difficult to draw any firm conclusions about the status of these settlement or their relationship to one another. Certainly, the pottery dating and radiocarbon results indicate, unequivocally, that the two are broadly contemporary, and therefore may have been occupied at the same time toward the close of the Early Iron Age. Equally, they are both fairly small, and have yielded a similar mixed repertoire of domestic refuse, making it difficult to envisage them as being anything but simple farmstead-type occupations, perhaps inhabited by extended family groups. Distance wise, they are certainly far enough apart to be considered as separate settlements, and indeed, their spacing hints at the existing of a developed/dense settlement landscape; one which is more commonly associated with the Later Iron Age where sites can be as little as 350-500m apart.

4.1.5 Where the sites differ is in the form of their enclosure; that in Area 1 being ‘banjo’-like, whilst that in Area 2 is more rectilinear. This may underlie functional distinction between the sites, or a distinction in the nature of activities conducted at them. That being said, there is nothing which points at such differences in the material record, it may be unwise to assume that variation in ditch layout reflects categories of site in this way. Perhaps more telling is the fact that both enclosure are small, with internal space for a single building/roundhouse of *c.*8-12m in diameter. Of course, no compete structures survive, but aspects of both sites suggests a former presence. In the case of Area 1, it is the sub-circular form so the enclosure, particularly in Period 1.2, that suggests the presence of an internal roundhouse. In Area 2, the western rear of the enclosure, which is slightly curved, may indicate that the ditch here skirted the back of a roundhouse; the surviving internal postholes potentially are a remnant of the wall line toward the front of the building. Given the size of this enclosure, the ditch at this point may have served like an eaves-gully to the building, which could not have been more than *c.*8m in

diameter. If this was the case, then the doorway would have faced south-east (which would be the norm in Iron Age roundhouses), meaning the ditches to the east formed a funnel-like entrance, not then entirely different to that in Area 1. As such, the form of the two enclosures may have more in common than is first apparent; both having exaggerated funnel-like entrances leading to internal structures.

4.1.6 This observation raises the question of whether these enclosures should be classed as 'proto-banjo' enclosures. On morphological grounds, the case for this being true for Area 1 certainly has some weight. However, leaving aside the issue that these settlements are not characteristic of this region, this would be an exceptionally early example, as banjo enclosures tend to belong to the Middle to Late Iron Age (Perry 1966; 1970; Cunliffe 1978; Hingley 1984). It would also have the unusual characteristic of being very small, though still just about within the range of settlements in this class. Finally, there is the suggestion that most, if not all banjo enclosures were high status (McOmish 2011, 1). Of course, status is difficult to read from the archaeological record (and may not be reflected in such simple terms), but there are no hints in the material from Elton that the inhabitants were of a high social standing: there is little to suggest wealth apart from the swan neck copper alloy pin.

4.1.7 In some respects the issues of whether or not these monuments may be classed as banjo-enclosures is somewhat irrelevant, and may not take our understanding of these sites very far. It may well be the case that these exaggerated funnel-like entrances are framing devices for the roundhouse doorways/porch structures, which were a general focus of architectural elaboration in the Early Iron Age in southern Britain (Haslegrove and Pope 2007, 10).

4.1.8 However, the issue that is more important than their classification is the fact that two settlements of this date *were* enclosed in the first place. It should be stressed that this is extremely unusual, as most known Early Iron Age sites form the region consist of 'open'/unenclosed scatters of pits, post-holes and structural remains indicative of small-scale settlement (Kidd 2000). Across the East Midlands, the trend toward enclosure is almost exclusively a Middle/Later Iron Age phenomenon (Bishop 2000, 3), but here this process was clearly underway before the end of the Early Iron Age. This alone makes Elton-on-the Hill a very significant site for regional settlement studies, but one which is currently difficult to find a direct parallel for. Indeed, sites securely dated to this period are fairly rare in themselves (Willis 2006, 91), though the wider area now boasts published Late Bronze Age and Early Iron Age examples at Gamston (Knight 1992), Dorket Head (Turner and Swarbrick 1978) and Epperstone (Challis and Harding 1975).

4.2 Conclusions

4.2.1 Overall, setting the Elton-on-the-Hill enclosures in a wider settlement landscape will only be possible once further sites of a similar date are located and excavated in the region. Until then it will be difficult to know how common place such enclosures are in the Early Iron Age. It is clear on the basis of these results, however, that archaeologists can no longer assume that enclosures revealed by aerial photography or geophysical survey in the area are necessarily of middle or late Iron Age origin.

4.3 Proposed Publication

4.3.1 The site is of regional significance and as such should be published as an article in the local archaeological journal The Transactions of the Thoroton Society of Nottinghamshire. Publication will include illustration of c. 20 sherds of Early Iron Age pottery, the swan-necked, ring-headed pin and antler hammer head.

Appendix A. Trench Descriptions and Context Inventory

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
1		2	3	fill	furrow			0.7	0.16	2
2		2	3	cut	furrow			0.7	0.16	2
3		4	3	fill	furrow			0.75	0.25	2
4		4	3	cut	furrow			0.75	0.25	2
5		6	3	fill	furrow			2	0.2	2
6		6	3	cut	furrow			2	0.2	2
7		8	3	fill	stone drain					2
8		8	3	cut	stone drain					2
9		0		layer	topsoil					2
10		0		layer	subsoil					2
11		12	4	fill	furrow			1.9	0.16	2
12		12	4	cut	furrow			1.9	0.16	2
13		14	4	fill	furrow			1.8		2
14		14	4	cut	furrow			1.8		2
15		15	2	cut	furrow			1		2
16		15	2	fill	furrow			1		2
17		17	5	cut	furrow					2
18		17	5	fill	furrow					2
19		19	5	cut	furrow					2
20		19	5	fill	furrow					2
21		21	5	cut	furrow					2
22		21	5	fill	furrow					2
23		23	7	fill	ditch or natural			0.6	0.3	2
24		24	7	cut	ditch or natural			0.6	0.3	2
25		0		layer	natural					0
26		26	1	cut	natural	tree throw		2	0.2	0
27		29	8/ Area 2	fill	ditch					1
28		29	8/ Area 2	fill	ditch					1
29	269 273 276 279 288 291 293	29	8/ Area 2	cut	ditch			1.5	0.6	1
30	253 266 275 278	30	8/Area 2	cut	ditch			0.4	0.2	1
31		31	8/ Area 2	cut and fill	post hole		0.25	0.25	0.2	1
32		32	11	cut	furrow					2
33		32	11	fill	furrow					2
34		34	11	cut	furrow					2
35		34	11	fill	furrow					2
36		36	11	cut	furrow					2
37		36	11	fill	furrow					2
38		38	11	cut	furrow					2
39		38	11	fill	furrow					2
40		40	11	cut	furrow					2
41		40	11	fill	furrow					2
42		42	11	cut	furrow					2

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
43		42	11	fill	furrow					2
44		44	11	cut	furrow					2
45		44	11	fill	furrow					2
46		46	12	cut	furrow					2
47		46	12	fill	furrow					2
48		48	12	cut	furrow					2
49		48	12	fill	furrow					2
50		50	12	cut	furrow					2
51		50	12	fill	furrow					2
52		52	12	cut	furrow					2
53		52	12	fill	furrow					2
54		54	10	cut	furrow					2
55		54	10	fill	furrow					2
56		56	10	cut	furrow			1.4	0.16	2
57		56	10	fill	furrow			1.4	0.16	2
58		58	10	cut	furrow					2
59		58	10	fill	furrow					2
60		60	10	cut	furrow					2
61		60	10	fill	furrow					2
62		62	14	cut	furrow					2
63		62	14	fill	furrow					2
64		64	15	cut	furrow					2
65		64	15	fill	furrow					2
66		66	15	cut	furrow					2
67		66	15	fill	furrow					2
68		68	15	cut	furrow					2
69		68	15	fill	furrow					2
70		70	15	cut	furrow					2
71		70	15	fill	furrow					2
72		72	15	cut	furrow					2
73		72	15	fill	furrow					2
74		74	15	cut	furrow					2
75		74	15	fill	furrow					2
76		76	16	cut	natural	?	0.5	0.3	0.2	0
77		76	16	fill	natural	?	0.5	0.3	0.2	0
78		78	16	cut	natural	?	0.25	0.25	0.2	0
79		78	16	fill	natural	?	0.25	0.25	0.2	0
80		80	22	cut	natural		0.5	1.8	0.1	0
81		80	22	fill	natural		0.5	1.8	0.1	0
82		82	22	cut	natural	tree throw	0.6	0.5	0.35	0
83		82	22	fill	natural	tree throw	0.6	0.5	0.35	0
84		84	18	cut	furrow					2
85		84	18	fill	furrow					2
86		86	18	cut	furrow					2
87		86	18	fill	furrow					2
88		88	18	cut	furrow					2
89		88	18	fill	furrow					2
90		90	18	cut	furrow					2
91		90	18	fill	furrow					2

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
92		92	8	cut	ditch	modern field boundary		1.5	0.12	2
93		92	8	fill	ditch	modern field boundary		1.5	0.12	2
94		95	23	fill	natural	hedgerow?		0.94	0.15	0
95		95	23	cut	natural	hedgerow?		0.94	0.15	0
96		97	23	fill	furrow			4.8		2
97		97	23	cut	furrow			4.8		2
98		99	23	fill	furrow			3.6		2
99		99	23	cut	furrow			3.6		2
100		101	23	fill	furrow					2
101		101	23	cut	furrow					2
102		104	33/Area 1	fill	?ditch			1.4	0.35	2
103		104	33/Area 1	fill	?ditch			1.4	0.35	2
104		104	33/Area 1	cut	?ditch			2.5	0.8	2
105		0				VOID				0
106		107	33/Area 1	fill	?ditch			2.2	0.6	2
107		107	33/Area 1	cut	?ditch			2.2	0.6	2
108	160 190 210 224 244 248 257	108	32/Area 1	cut	ditch	enclosure		1.18	0.54	1.2
109		108	32/Area 1	fill	ditch	enclosure		1.18	0.54	1.2
110	158 192 212 221 234 242 250 259	110	32/Area 1	cut	ditch	enclosure		0.78	0.3	1.1
111		110	32/Area 1	fill	ditch	enclosure		0.78	0.3	1.1
112	116 152 154 166 169 174 194 195 197 199 202 207 214 215 219 229 236 240 252 261	112	32/Area 1	cut	ditch	enclosure		0.86	0.48	1.2
113		112	32/Area 1	fill	ditch	enclosure		0.86	0.24	1.2
114		112	32/Area 1	fill	ditch	enclosure			0.2	1.2
115		116	32/Area 1	fill	ditch	enclosure		0.89	0.36	1.2
116	112 152 154 166 169 174 194 195 197 199 202 207 214 215 219 229 236 240 252 261	116	32/Area 1	cut	ditch	enclosure		0.89	0.36	1.2
117		117	32	cut	furrow			1.8		2
118		117	32	fill	furrow			1.8		2
119		119	32	cut	furrow			1.9		2
120		119	32	fill	furrow			1.9		2
121	205	121	33/Area 1	cut	furrow			0.55	0.16	2
122		121	33	fill	furrow			0.55	0.16	2
123		123	33/Area 1	cut	furrow			0.65	0.18	2
124		123	33	fill	furrow			0.65	0.18	2
125	140 186 188	125	33/Area 1	cut	ditch	routeway		0.8	0.19	1.1
126		125	33	fill	ditch	routeway		0.8	0.19	1.1
127		127	33	cut	furrow			0.6		2
128		127	33	fill	furrow			0.6		2
129		130	Area 1	fill	ditch			0.6	0.3	1.1
130	132 134 136 138	130	Area 1	cut	ditch			0.6	0.3	1.1
131		132	Area 1	fill	ditch			0.6	0.22	1.1
132	130 134 136 138	132	Area 1	cut	ditch			0.6	0.22	1.1
133		134	Area 1	fill	ditch			0.5	0.17	1.1
134	130 132 136 138	134	Area 1	cut	ditch			0.5	0.17	1.1

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
135		136	Area 1	fill	ditch			0.56	0.3	1.1
136	130 132 134 138	136	Area 1	cut	ditch			0.56	0.3	1.1
137		138	Area 1	fill	ditch			0.64	0.3	1.1
138	130 132 134 136	138	Area 1	cut	ditch			0.64	0.3	1.1
139		140	Area 1	fill	ditch	routeway		1.1	0.3	1.1
140	125 186 188	140	Area 1	fill	ditch	routeway		1.1	0.3	1.1
141	143 148 150	141	Area 1	cut	ditch	routeway		0.6	0.25	1.1
142		141	Area 1	fill	ditch	routeway		0.6	0.25	1.1
143	141 148 150	143	Area 1	cut	ditch	routeway		0.5	0.3	1.1
144		143	Area 1	fill	ditch	routeway		0.5	0.3	1.1
145	163 231	145	Area 1	cut	ditch			0.87	0.16	1.1
146		145	Area 1	fill	ditch			0.66	0.16	1.1
147		145	Area 1	fill	ditch			0.66	0.1	1.1
148	141 143 150	148	Area 1	cut	ditch	enclosure		0.6	0.25	1.1
149		148	Area 1	fill	ditch	enclosure		0.6	0.25	1.1
150	141 143 148	150	Area 1	cut	ditch	enclosure		0.4	0.35	1.1
151		150	Area 1	fill	ditch	enclosure		0.4	0.35	1.1
152	112 116 154 166 169 174 194 195 197 199 202 207 214 215 219 229 236 240 252 261	152	Area 1	cut	ditch	enclosure		0.5	0.35	1.2
153		152	Area 1	fill	ditch	enclosure		0.5	0.35	1.2
154	112 116 152 166 169 174 194 195 197 199 202 207 214 215 219 229 236 240 252 261	154	Area 1	cut	ditch	enclosure		1.1	0.3	1.2
155		154	Area 1	fill	ditch	enclosure		0.3	0.1	1.2
156		154	Area 1	fill	ditch	enclosure		0.3	0.2	1.2
157		158	Area 1	fill	ditch	enclosure		0.6	0.29	1.1
158	110 192 212 221 234 242 250 259	158	Area 1	cut	ditch	enclosure		0.6	0.29	1.1
159		160	Area 1	fill	ditch	enclosure		0.65	0.24	1.2
160	108 190 210 224 244 248 257	160	Area 1	cut	ditch	enclosure		0.65	0.24	1.2
161		152	Area 1	fill	ditch	enclosure		0.45	0.1	1.2
162		154	Area 1	fill	ditch	enclosure		0.8	0.3	1.2
163	145 231	163	Area 1	cut	ditch				0.17	1.1
164		163	Area 1	fill	ditch				0.17	1.1
165		163	Area 1	fill	ditch				0.08	1.1
166	112 116 152 154 169 174 194 195 197 199 202 207 214 215 219 229 236 240 252 261	166	Area 1	cut	ditch	enclosure		1.15	0.42	1.2
167		166	Area 1	fill	ditch	enclosure		0.88	0.48	1.2
168		166	Area 1	fill	ditch	enclosure		1.09	0.3	1.2
169	112 116 152 154 166 174 194 195 197 199 202 207 214 215 219 229 236 240 252 261	169	Area 1	cut	ditch	enclosure		0.4	0.16	1.2
170		169	Area 1	fill	ditch	enclosure		0.4	0.16	1.2
171		171	Area 1	cut	?post hole	enclosure	0.4	0.4	0.16	1.2
172		171	Area 1	fill	?post hole	enclosure	0.4	0.4	0.16	1.2
173		174	Area 1	fill	ditch	enclosure		0.75	0.29	1.2
174	112 116 152 154 166 169 194 195 197 199 202 207 214 215 219 229 236 240 252 261	174	Area 1	cut	ditch	enclosure		0.75	0.29	1.2

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
175		175	Area 1	cut	?post hole ?pit		1	0.8	0.06	1.2
176		175	Area 1	fill	?post hole ?pit		1	0.8	0.06	1.2
177		177	Area 1	cut	?ditch	enclosure	1.8	0.5	0.1	1.2
178		177	Area 1	fill	?ditch	enclosure	1.8	0.5	0.1	1.2
179		180	Area 1	fill	?ditch				0.46	2
180		180	Area 1	cut	?ditch			2.75	0.46	2
181		184	Area 1	fill	well				0.36	2
182		184	Area 1	fill	well				0.41	2
183		184	Area 1	fill	well				0.35	2
184		184	Area 1	cut	well		3.2		1.2	2
185		186	Area 1	fill	ditch	routeway			0.32	1.1
186	125 140 188	186	Area 1	cut	ditch	routeway		0.98	0.32	1.1
187		188	Area 1	fill	ditch	routeway			0.24	1.1
188	125 140 186	188	Area 1	cut	ditch	routeway		0.9	0.24	1.1
189		190	Area 1	fill	ditch	enclosure		0.82	0.23	1.2
190	108 160 210 224 244 248 257	190	Area 1	cut	ditch	enclosure		0.82	0.23	1.2
191		192	Area 1	fill	ditch	enclosure		0.51	0.2	1.1
192	110 158 212 221 234 242 250 259	192	Area 1	cut	ditch	enclosure		0.51	0.2	1.1
193		194	Area 1	fill	ditch	enclosure		0.72	0.31	1.2
194	112 116 152 154 166 169 174 195 197 199 202 207 214 215 219 229 236 240 252 261	194	Area 1	cut	ditch	enclosure		0.72	0.31	1.2
195	112 116 152 154 166 169 174 194 197 199 202 207 214 215 219 229 236 240 252 261	195	Area 1	cut	ditch	enclosure		0.7	0.33	1.2
196		195	Area 1	fill	ditch	enclosure		0.7	0.33	1.2
197	112 116 152 154 166 169 174 194 195 199 202 207 214 215 219 229 236 240 252 261	197	Area 1	cut	ditch	enclosure		0.5	0.3	1.2
198		197	Area 1	fill	ditch	enclosure		0.5	0.3	1.2
199	112 116 152 154 166 169 174 194 195 197 202 207 214 215 219 229 236 240 252 261	199	Area 1	cut	ditch	enclosure		1.2	0.5	1.2
200		199	Area 1	fill	ditch	enclosure		1.2	0.44	1.2
201		199	Area 1	fill	ditch	enclosure		0.96	0.16	1.2
202	112 116 152 154 166 169 174 194 195 197 199 207 214 215 219 229 236 240 252 261	202	Area 1	cut	ditch	enclosure		0.69	0.46	1.2
203		202	Area 1	fill	ditch	enclosure		0.69	0.46	1.2
204		199	Area 1	fill	ditch	enclosure		0.49	0.5	1.2
205	121	205	Area 1	cut	furrow			2.5	0.25	2
206		205	Area 1	fill	furrow			2.5	0.25	2
207	112 116 152 154 166 169 174 194 195 197 199 202 214 215 219 229 236 240 252 261	207	Area 1	cut	ditch	enclosure		0.85	0.35	1.2
208		207	Area 1	fill	ditch	enclosure		0.85	0.35	1.2
209		210	Area 1	fill	ditch	enclosure		0.6	0.31	1.2
210	108 160 190 224 244 248 257	210	Area 1	cut	ditch	enclosure		0.6	0.31	1.2
211		212	Area 1	fill	ditch	enclosure		0.7	0.33	1.1
212	110 158 192 221 234 242 250 259	212	Area 1	cut	ditch	enclosure		0.7	0.33	1.1

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
213		214	Area 1	fill	ditch	enclosure		0.82	0.4	1.2
214	112 116 152 154 166 169 174 194 195 197 199 202 207 215 219 229 236 240 252 261	214	Area 1	cut	ditch	enclosure		0.82	0.4	1.2
215	112 116 152 154 166 169 174 194 195 197 199 202 207 214 219 229 236 240 252 261	215	Area 1	cut	ditch	enclosure		0.75	0.41	1.2
216		215	Area 1	fill	ditch	enclosure		0.75	0.41	1.2
217		219	Area 1	fill	ditch	enclosure			0.32	1.2
218		219	Area 1	fill	ditch	enclosure			0.19	1.2
219	112 116 152 154 166 169 174 194 195 197 199 202 207 214 215 229 236 240 252 261	219	Area 1	cut	ditch	enclosure		0.9	0.51	1.2
220		221	Area 1	fill	ditch	enclosure			0.39	1.1
221	110 158 192 212 234 242 250 259	221	Area 1	cut	ditch	enclosure		0.6	0.39	1.1
222		224	Area 1	fill	ditch	enclosure			0.38	1.2
223		224	Area 1	fill	ditch	enclosure			0.11	1.2
224	108 160 190 210 244 248 257	224	Area 1	cut	ditch	enclosure		0.9	0.46	1.2
225		225	Area 1	cut	furrow			1.6	0.18	2
226		225	Area 1	fill	furrow			1.6	0.18	2
227		227	Area 1	cut	furrow				0.28	2
228		227	Area 1	fill	furrow				0.28	2
229	112 116 152 154 166 169 174 194 195 197 199 202 207 214 215 219 236 240 252 261	229	Area 1	cut	ditch	enclosure		0.7	0.35	1.2
230		229	Area 1	fill	ditch	enclosure		0.7	0.35	1.2
231	145 163	231	Area 1	cut	ditch			0.49	0.17	1.1
232		231	Area 1	fill	ditch			0.44	0.17	1.1
233		231	Area 1	fill	ditch			0.46	0.1	1.1
234	110 158 192 212 221 242 250 259	234	Area 1	cut	ditch	enclosure		0.55	0.26	1.1
235		234	Area 1	fill	ditch	enclosure		0.55	0.26	1.1
236	112 116 152 154 166 169 174 194 195 197 199 202 207 214 215 219 229 240 252 261	236	Area 1	cut	ditch	enclosure		0.44	0.1	1.2
237		236	Area 1	fill	ditch	enclosure		0.44	0.1	1.2
238		238	Area 1	cut	furrow					2
239		238	Area 1	fill	furrow					2
240	112 116 152 154 166 169 174 194 195 197 199 202 207 214 215 219 229 236 252 261	240	Area 1	cut	ditch	enclosure		1.45	0.34	1.2
241		240	Area 1	fill	ditch	enclosure		1.45	0.34	1.2
242	110 158 192 212 221 234 250 259	242	Area 1	cut	ditch	enclosure		0.4+	0.2+	1.1
243		242	Area 1	fill	ditch	enclosure		0.4+	0.2+	1.1
244	108 160 190 210 224 244 248 257	244	Area 1	cut	ditch	enclosure		0.8	0.21	1.2
245		244	Area 1	fill	ditch	enclosure		0.8	0.21	1.2
246		248	Area 1	fill	ditch	enclosure		0.87	0.35	1.2
247		248	Area 1	fill	ditch	enclosure		0.58	0.16	1.2
248	108 160 190 210 224 244 257	248	Area 1	cut	ditch	enclosure		0.87	0.43	1.2
249		250	Area 1	fill	ditch	enclosure		0.49	0.31	1.1
250	110 158 192 212 221 234 242 250 259	250	Area 1	cut	ditch	enclosure		0.49	0.31	1.1
251		252	Area 1	fill	ditch	enclosure		0.86	0.42	1.2

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
252	112 116 152 154 166 169 174 194 195 197 199 202 207 214 215 219 229 236 240 261	252	Area 1	cut	ditch	enclosure		0.86	0.42	1.2
253	30 266 275 278	253	Area 2	cut	ditch			0.58	0.3	1
254		253	Area 2	fill	ditch				0.3	1
255		253	Area 2	fill	ditch				0.23	1
256		257	Area 1	fill	ditch	enclosure		0.9	0.54	1.2
257	108 160 190 210 224 244 248	257	Area 1	cut	ditch	enclosure		0.9	0.54	1.2
258		259	Area 1	fill	ditch	enclosure		0.65	0.34	1.1
259	110 158 192 212 221 234 242 250	259	Area 1	cut	ditch	enclosure		0.65	0.34	1.1
260		261	Area 1	fill	ditch	enclosure		1.05	0.48	1.2
261	112 116 152 154 166 169 174 194 195 197 199 202 207 214 215 219 229 236 240 252	261	Area 1	cut	ditch	enclosure		1.05	0.48	1.2
262		262	Area 2	cut	post hole		0.5	0.5	0.15	1
263		262	Area 2	fill	post hole		0.5	0.5	0.15	1
264	274	264	Area 2	cut	ditch			0.8+	0.6	1
265		264	Area 2	fill	ditch			0.8+	0.6	1
266	30 253 275 278	266	Area 2	cut	ditch			1.12	0.45	1
267		266	Area 2	fill	ditch			1.12	0.38	1
268		266	Area 2	fill	ditch			0.3	0.12	1
269	29 273 276 279 288 291 293	269	Area 2	cut	ditch			1.8	0.7	1
270		269	Area 2	fill	ditch			0.8	0.2	1
271		269	Area 2	fill	ditch			1.1	0.3	1
272		269	Area 2	fill	ditch			1.8	0.3	1
273	29 269 276 279 288 291 293	273	Area 2	cut	ditch			1.35	0.4	1
274	264	274	Area 2	cut	ditch			1+	0.67	1
275	30 253 266 278	275	Area 2	cut	ditch			1.08	0.47	1
276	29 269 273 279 288 291 293	276	Area 2	cut	ditch			1.4	0.76	1
277		277	Area 2	cut	ditch			1	0.4	1
278	30 253 266 275	278	Area 2	cut	ditch			0.5	0.11	1
279	29 269 273 276 288 291 293	279	Area 2	cut	ditch			1.15	0.7	1
280		275	Area 2	fill	ditch			1.1	0.47	1
281		275	Area 2	fill	ditch			0.33	0.27	1
282		275	Area 2	fill	ditch			1.01	0.26	1
283		276	Area 2	fill	ditch			1.4	0.76	1
284		276	Area 2	fill	ditch				0.12	1
285		278	Area 2	fill	ditch			0.5	0.11	1
286		273	Area 2	fill	ditch			1.35	0.4	1
287		277	Area 2	fill	ditch			1	0.4	1
288	29 269 273 276 279 291 293	288	Area 2	cut	ditch			1.3	0.4	1
289		288	Area 2	fill	ditch			1.3	0.4	1
290		274	Area 2	fill	ditch			1+	0.67	1
291	29 269 273 276 279 288 293	291	Area 2	cut	ditch			1.12	0.45	1
292		291	Area 2	fill	ditch			1.12	0.45	1
293	29 269 273 276 279 288 291	293	Area 2	cut	ditch			1.2	0.6	1
294		293	Area 2	fill	ditch			1.2	0.6	1
295	300 307	295	Area 2	cut	ditch			0.6	0.2	1
296		295	Area 2	fill	ditch			0.6	0.2	1
297		279	Area 2	fill	ditch			0.5	0.1	1

Ctxt	Same as	Cut	Tr /Area	Category	Feature	Function	Length	Breadth	Depth	Ph
298		279	Area 2	fill	ditch			1	0.5	1
299		279	Area 2	fill	ditch			1.15	0.15	1
300	295 307	300	Area 2	cut	ditch			0.5	0.16	1
301		300	Area 2	fill	ditch			0.5	0.16	1
302		302	Area 2	cut	post hole		0.45	0.45	0.15	1
303		302	Area 2	fill	post hole		0.45	0.45	0.15	1
304		304	Area 2	cut	post hole		0.4	0.4	0.06	1
305		304	Area 2	fill	post hole		0.4	0.4	0.06	1
306		307	Area 2	fill	ditch			0.8	0.22	1
307	295 300	307	Area 2	cut	ditch			0.8	0.22	1
308		309	Area 2	fill	ditch			0.68	0.49	1
309		309	Area 2	cut	ditch			0.68	0.49	1

Appendix B. Finds Reports

B.1 Prehistoric Pottery

By Matt Brudenell

Introduction

B.1.1 A total of 1109 sherds (5684g) of handmade prehistoric pottery were recovered from the excavations. The material dates to the closing stages of the Early Iron Age, c. 500-350 BC, and broadly belongs to the Decorated ware phase (c. 800-350 BC) of the Post Deverel-Rimbury (PDR) ceramic tradition (Barrett 1980). This report provides a quantified characterisation of the pottery with recommendations for publication.

Methodology

B.1.2 All the pottery has been fully recorded following the recommendations laid out by the Prehistoric Ceramic Research Group (PRCG 2010). After a full inspection of the assemblage, fabric groups were devised on the basis of dominant inclusion types, their density and modal size. Sherds were counted, weighed (to the nearest whole gram) and assigned to a fabric group (sherds broken in excavation were counted as single entities). Sherd type was recorded along with technology (wheel-made or handmade), evidence for surface treatment, decoration, and the presence of soot and/or residue. Rim and base forms were described using a codified system recorded in the catalogue, and were assigned vessel numbers. Where possible, rim and base diameters were measured, and surviving percentages noted. In cases where a sherd or groups of refitting sherds retained portions of the rim and shoulder, the vessel was also categorised by form and class. The Late Bronze Age and Early Iron Age vessels were classified using a form series devised by the author (Brudenell 2011; 2012), and the class scheme created by John Barrett (1980). All pottery was subject to sherd size analysis. Sherds less than 4cm in diameter were classified as 'small' (958 in total); sherds measuring 4–8cm were classified as 'medium' (145 in total), and sherds over 8cm in diameter were classified as 'large' (6). Crumbs – fragments weighing less than 1g - were not counted by weighed by context and recorded on the data sheet (65g). A programme of refitting was also conducted, and sherd joins were noted within and between contexts. The quantified data is presented on an Excel data sheet held in the site archive.

Condition, distribution and residuality

B.1.3 The assemblage is in a stable condition, though sherd sizes are predominantly small, and many shows signs of moderate abrasion. The fragmented condition of the pottery is reflected by the low means sherd weight (MSW) of 5.1g, and the fact that 86% of sherd are classified as small, with only 13% medium and 1% large.

B.1.4 The material was recovered from a total of 65 contexts relating to 58 separate interventions, mainly ditches associated with the enclosure in Area 1 (Table 1). In total, 995 sherds derived from features in Area 1 (5147g; 90.6% of the assemblage by weight; 89.7% by sherd count), with 144 recovered from Area 2 (537g; 9.4% of the assemblage by weight; 10.3% by sherd count). Of the pottery from Area 1, 25 sherds (130g) were residual; the material deriving from well **184** and furrow **238**.

Area	Context	Cut	Feature	Group	No. sherds	Weight (g)	Comment
1	129	130	Ditch	-	99	680	-
1	131	132	Ditch	-	33	152	-
1	133	134	Ditch	-	5	17	-
1	135	136	Ditch	-	64	304	-
1	137	138	Ditch	-	7	16	-
1	139	140	Ditch	Routeway	12	83	-
1	142	141	Ditch	Routeway	6	10	-
1	144	143	Ditch	Routeway	6	49	-
1	146	145	Ditch	-	1	5	-
1	149	148	Ditch	Enclosure	8	34	-
1	153	152	Ditch	Enclosure	10	54	-
1	156	154	Ditch	Enclosure	42	173	-
1	157	158	Ditch	Enclosure	11	72	-
1	159	160	Ditch	Enclosure	4	14	-
1	165	163	Ditch	-	3	6	-
1	167	166	Ditch	Enclosure	1	3	-
1	168	166	Ditch	Enclosure	15	44	-
1	170	169	Ditch	Enclosure	15	50	-
1	172	171	Posthole	Enclosure	1	7	-
1	176	175	Posthole/ pit	-	1	2	-
1	178	177	Ditch	Enclosure	2	6	-
1	182	184	Well	-	17	110	Residual
1	183	184	Well	-	4	10	Residual
1	185	186	Ditch	Routeway	12	54	-
1	189	190	Ditch	Enclosure	8	32	-
1	191	192	Ditch	Enclosure	33	326	-
1	193	194	Ditch	Enclosure	3	10	-
1	196	195	Ditch	Enclosure	44	256	-
1	198	197	Ditch	Enclosure	7	16	-
1	200	199	Ditch	Enclosure	4	5	-
1	201	199	Ditch	Enclosure	57	230	-
1	203	202	Ditch	Enclosure	29	84	-
1	208	207	Ditch	Enclosure	162	783	-
1	209	210	Ditch	Enclosure	5	41	-
1	211	212	Ditch	Enclosure	17	200	-
1	213	214	Ditch	Enclosure	17	111	-
1	216	215	Ditch	Enclosure	42	187	-
1	217	219	Ditch	Enclosure	28	93	-
1	218	218	Ditch	Enclosure	5	41	-
1	220	221	Ditch	Enclosure	20	84	-
1	222	224	Ditch	Enclosure	20	80	-
1	223	223	Ditch	Enclosure	7	77	-
1	229	230	Ditch	Enclosure	7	32	-
1	233	231	Ditch	-	6	21	-
1	235	234	Ditch	Enclosure	10	55	-
1	239	238	Furrow	-	4	10	Residual
1	241	240	Ditch	Enclosure	4	33	-
1	246	248	Ditch	Enclosure	8	39	-
1	249	250	Ditch	Enclosure	1	7	-
1	251	252	Ditch	Enclosure	16	113	-
1	256	257	Ditch	Enclosure	14	90	-
1	258	259	Ditch	Enclosure	4	34	-
1	260	261	Ditch	Enclosure	34	102	-
2	254	253	Ditch	-	26	99	-
2	255	253	Ditch	-	6	43	-
2	263	262	Posthole	-	1	6	-
2	268	266	Ditch	-	5	8	-
2	272	269	Ditch	-	15	68	-

2	280	275	Ditch	-	1	3	-
2	282	275	Ditch	-	5	35	-
2	283	276	Ditch	-	4	37	-
2	292	291	Ditch	-	15	79	-
2	294	293	Ditch	-	26	121	-
2	296	295	Ditch	-	5	16	-
2	299	279	Ditch	-	5	22	-
TOTAL	-	-	-	-	*1109*	*5684*	-

Table 1: Prehistoric Pottery Quantification by Area and context

Assemblage characteristics

B.1.5 With exception of two grog tempered sherds (fabric GQ1; 56g), and three quartz sand tempered sherds (Q1; 11g), all the pottery in the assemblage has crushed shell as the principle inclusion (Table 2). These shelly wares account for 99% of the pottery by weight, with sherds of fabrics S1 constituting 83% of the assemblage alone. By weight, fabric S2 forms 8% of the pottery, and is distinguished by crushed shell that was fine, and generally better sorted within the clay matrix when compared with S1. Although the distinction between S1 and S2 was not always clear cut (especially with small sherds), S2 may constitute the fineware fabric of the assemblage. Other minor fabrics included SQ1, which has some quartz sand in the clay matrix (3% of the assemblage by weight), and SV1, which had voids, possibly from dissolved calcareous inclusions (limestone?).

B.1.6 It is likely that the shelly clays used to make the pots were derived from local Jurassic clay deposits which naturally contain fossiliferous shell and shelly limestone. Shell fabrics are found widely across Lincolnshire and Nottinghamshire being present in contemporary and slightly later assemblages from Fiskerton and Billingborough Lincolnshire and Gamston, Red Hill Ratcliffe-on-Soar and Clifton Park and Ride Nottinghamshire (Elsdon and Knight 2003; Chowne *et al*. 2001; Knight 1992; Elsdon 1982, Percival 2014).

Fabric Type	Fabric Group	No./Wt. (g) sherds	% fabric by Wt.	No./Wt. (g) burnished	% fabric burnished	MNV	MNV burnished
GQ1	Grog and sand	2/56	1.0	-/-	-	-	-
Q1	Sand	3/11	0.2	-/-	-	-	-
S	Shell	154/188	3.3	-/-	-	2	-
S1	Shell	768//4695	82.6	27/161	3.4	59	-
S2	Shell	142/470	8.3	8/34	7.2	6	1
SQ1	Shell and sand	34/146	2.6	-/-	-	-	-
SV1	Shell and voids	6/118	2.1	-/-	-	-	-
TOTAL	-	*1109/5684*	*100.1*	*35/195*	*3.4*	*67*	*1*

Table 2: Assemblage quantification. MNV= minimum number of vessels calculated as the total number of different rims and bases identified (49 different vessel rims, 18 bases).

Fabric series

Grog and sand fabrics:
GQ1. Moderate medium grog (1-2mm in size) and moderate quartz sand

Sand fabrics:

Q1. Moderate, fine quartz sand. Powdery texture.

Shell fabrics:
S1. Common to abundant coarse to very coarse shell (mainly 2-5mm in size), moderate to poorly sorted
S2. Common to abundant fine to medium shell (mainly <2mm in size), moderate to well sorted

Shell and sand fabrics:
SQ1. Common to abundant coarse to very coarse shell (mainly 2-5mm in size), and moderate quartz sand. Shell in moderate to poorly sorted

Shell and voids:
SV1. Common to abundant coarse to very coarse shell (mainly 2-5mm in size), and moderate coarse voids (1-3mm), possibly dissolved limestone (?).

B.1.7 Based on the total number of different rims and bases identified, the assemblage is estimated to include fragments of at least 67 different vessels. Of these, only four were sufficiently intact to assign to form (6 sherds, 92g). These included three ovoid or barrel shaped jars with short upright or out-turned rims (Form D; 4 sherds, 72g) – one with fingertip decoration on the rim-top – and a plain slack-shouldered jar with an everted rounded rim (Form G; 2 sherds, 20g). The low number of form assigned vessels reflects the fragmented condition of the assemblage, and the fact that many vessels appear to have broken at the rim. The difficulties in establishing vessel shape is also a product of there being few distinct shoulder sherds in the assemblages – just 13 sherds (171g) in total. However, this in itself suggests that most pots were likely to be either barrel shaped, lacking a distinct shoulder zone, or had very weakly marked shoulders which are difficult to identify from small sherds. What are notably absent are sharply angled shoulder sherds or pronounced/deeply rounded shoulder sherds. These are shoulder shapes one normally associates with the Early Iron Age, and their absence points towards a late date within this period.

B.1.8 Indeed, diagnostic sherds of Early Iron Age are really restricted to the rims forms and their associated decorative treatments. Most rims have flattened rim-tops, but 24% (12 in total) are lipped internally and externally to create T-shaped forms. This was deliberate, and the flange is sometimes exaggerated on examples, or moulded into a triangular profiled rim. Other flat-topped rims are thickened internal or externally. A further 27% of rims (13 in total) are everted, terminating in rounded or tapered tips. At least four of the examples have sharp internal neck bevels, and may have been mounded to support lids, one of which is tentatively identified in the assemblage.

B.1.9 Decoration is restricted to the rims, with single rows of fingertip impressions adorning the rim-top or rim-exterior of ten of the 49 different vessel rims in the assemblage, i.e. 20% of rims, or one in five pots decorated (12 sherds, 134g). This frequency of rim decorated is characteristic of the Early Iron Age (Brudenell 2012), and is much higher than that recorded in assemblages pre- or post-date the period. The only unusual feature is the lack of shoulder decoration, which is entirely absent from the assemblage. Similarly, there are no tooled applications or incised fineware decoration.

B.1.10 Evidence for useware in the assemblage is confined to sherds with carbonised residues. In total nine sherds (129g) have carbonised residues; four sherds (86g) with sooting on exterior, five sherds (43g) with residue on the interior. All bar one of the sherds are body fragments, and the residues are mainly patchy and thin.

Deposition

B.1.11 As noted above, the vast majority of the pottery derived from Area 1, where the plan of the site is more complete/comprehensible. Comment on deposition is therefore limited to this Area, and here, pottery was recovered from nearly every slot excavated through the enclosure and its associated ditches: 358 sherds deriving from phase 1.1 features (2209g); 548 sherds from phase 1.2 (2435g) and 66 sherds from phase 1.3 (373g).

B.1.12 However, in terms of the content, composition and general character of the material from the various phases and slots on this site, there is very little difference between context assemblages. Most are characterised by small, mixed groups of sherds derived from different vessels in varying states of fragmentation and abrasion, suggestive of intensive reworking. Pottery groups with these characteristics are likely to have derived from pre-depositional contexts such as surface rubbish heaps/middens - contexts where repeated episodes of discard from a range of refuse-management practices generated mixed pottery compositions. This material evidently became dispersed over time, with small amounts of pottery entering most parts of the enclosure circuit. Spatially, there are few clear cut patterns in the distribution of the pottery, with the only notable concentration in the west of the site in enclosure ditch **207** and ditches **130** and **136**. Combined, these yielded 325 sherds (1767g), which is 33% of the Area 1 assemblage by sherd count, or 34% by weight. Sherds from the same vessel were identified between ditches **207** and **130**, suggesting the material likely derived from the same midden pile even through the ditches are assigned to different phases. Elsewhere, most interventions yielded less than 100g of pottery, and no other cross-context sherd joins were identified (in all only 20 refits within identified in the assemblage as a whole).

Discussion

B.1.13 Even in the absence of large numbers of diagnostic sherds or partial vessel profiles, the assemblages from Areas 1 and 2 are of sufficient size and character to suggest they date to the to the Early Iron Age – an attribution supported by the radiocarbon determinations (see App D). On typological ground alone, attributes such as rim form and the frequency of rim-decoration point very clearly to the Early Iron Age ancestry of these groups, which had their origins in the Decorated Ware phase of Post Deverel-Rimbury (PDR) ceramic tradition (Barrett 1980), c. 800-350 BC. Another lynch pin to the typo-chronological dating is the absence of Scored Wares; the principal ceramic type-fossil of the region's Middle Iron Age potting tradition (Elsdon 1992; Knight 2002). Still, the Early Iron Age spans the best part of four centuries, and whilst it is often difficult to refine dating further within this bracket (even using radiocarbon dating), there are good grounds here for thinking that this material is very late in Early Iron Age sequence.

B.1.14 Crucially, we can note the absence of angular vessel forms in the assemblage, or even any sherds with very pronounced shoulders, decorated shoulders or forms recognisable as bowls. In fact, the assemblage appears to comprise fragments of vessels that were largely barrel-shaped or ovoid in body morphology, foreshadowing vessel forms characteristic of the Middle Iron Age. Indeed, the hallmarks of the PDR tradition, namely a marked visual, tactile and functional distinction between jars, bowls and cups, and the categories of coarseware and fineware, were scarcely present/identifiable. This suggests that these normally recognisable distinctions had begun to breakdown by the time this pottery was in made, used and circulated. Combined such attributes hint that the assemblage falls within a timeframe at the end of the Early Iron Age/the end of the currency of PDR ceramics. On balance then, it seems appropriate to place this material in a bracket between c. 500-350 BC – a bracket which is certainly not in conflict with the radiocarbon dates achieved.

B.1.15 Significantly, pottery of this specific period – which may be classed as 'late' Early Iron Age or 'late/mature' Decorated Ware (Brudenell 2011; 2012) – is rarely distinguished, and is still poorly understood in the East Midlands (Knight 2002). The best published parallels are arguably select sherds from, or broader affinities to, material from Gamston (Group 1 pottery; Knight 1992), Red Hill, Ratcliff-on-Soar (Elsdon 1982), Gretton (Jackson and Knight 1985) and Fiskerton (Elsdon and Knight 2003). The Elton pottery, with its radiocarbon dates, is therefore important to regional ceramic studies, and should help refine understandings of the nature of ceramic change in the centuries around the middle of the first millennium BC.

B.2 Late medieval and post-medieval Pottery

By Paul Blinkhorn

B.2.1 The pottery assemblage comprised 18 sherds with a total weight of 205g. It was all late medieval/early post-medieval or later. The following ware types were noted.

GRE: Glazed Red Earthenware, 16th – 19th century. (Brears 1969). 2 sherds, 9g.

IGW: Iron-glazed Earthenware, late 17th – 18th century (ibid.). 1 sherd, 48g.

MOD: Miscellaneous 19th and 20th century wares. 1 sherd, 11g.

MP: Midland Purple Ware, 15th – mid 17th century. (McCarthy and Brooks 1988, 427). 6 sherds, 94g.

MY: Midland Yellow Ware, 1550-1700 (ibid. 474). 3 sherds, 28g.

SMW: Staffordshire Manganese Mottled Ware, late 17th – 18th century Brears 1969). 1 sherd, 6g.

B.2.2 The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 3. Each date should be regarded as a *terminus post quem*. All the wares are common finds in the region. The assemblage consisted entirely of bodysherds.

	IA		MP		GRE		MY		SMW		IGW		MOD		
Cntxt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	Date
179			5	91	1	7									16thC
226							3	28							M16thC
228					1	2			1	6			1	11	MOD
239	4	9									1	48			18thC

267			1	3											15thC
Total	**4**	**9**	**6**	**94**	**2**	**9**	**3**	**28**	**1**	**6**	**1**	**48**	**1**	**11**	

Table 3: Late medieval and post-medieval pottery occurrence by number and weight (in g) of sherds per context by fabric type

B.3 Metalwork

By Stephen Morgan

Introduction and methodology

B.3.1 A copper alloy swan-necked and loop headed pin (SF11) was recovered from ditch terminal **130** and is similar to an Early Iron Age example found at Woodeaton, Oxfordshire (Dunning 1934). The pin is 62mm in length and the ring has an external diameter of 13mm.

B.3.2 Loop headed pins are common during the British Iron Age, in both bronze an iron (Coombs 2001). They are likely to have been used for fasteners for clothing.

B.4 Worked Bone

By Ian Riddler

B.4.1 The object (SF 7) consists of the lower section of a red deer antler including a part of the burr, the stub of the brow tine and a small section of the beam. The natural surface of the antler has been retained but the object has been extensively modified. Most of the beam has been removed, alongside the brow tine, and the coronet of the burr has also been cut away. The brow tine was removed by incising into the antler surface from several directions, before snapping the cortile tissue at the centre. A rectangular slot, 35mm in depth, has been cut into the cortile tissue at the middle of the tine stub. The beam was probably removed by incising it radially in a similar manner to the brow tine. Above the burr the surviving portion of the beam has been pierced laterally by a circular perforation 29mm in diameter. The coronet surrounding the burr has been completely removed and the surface of the burr itself has been flattened to such an extent that cortile tissue lying below the outer surface is now visible across it. The extent of this modification is such that it is no longer possible to determine whether the burr was naturally shed, or whether it came from a deceased animal.

B.4.2 Objects of this type have been extensively discussed by Simpson (1996) and defined as antler maceheads. He provided a catalogue of 58 known examples and examined their technology, distribution and dating, as well as possible analogies with maceheads of stone. The terminology of the object type had previously been a little confusing. Smith (1920, 7) had referred erroneously to the ‘crown or burr of the antler’ in describing them, when the crown actually lies at the opposite end of the antler to the burr. Whilst previously described as ‘crown antler maceheads’, Simpson accordingly revised their description to ‘antler maceheads’ (Simpson 1996, 293).

B.4.3 The morphology of the object type is consistent across the corpus of examples. They have all been cut from the burr and the accompanying lower part of the red deer antler, with the brow and bez tines removed, alongside most of the beam. In each case a

single large lateral perforation lies above the burr, cut to a diameter of between 18mm and 36mm. The burr itself has often been modified, with the coronet either trimmed or entirely removed, as is the case here. In a few cases, it has been retained (Simpson 1996, figs 6.20-1, 7.22 and 27, 8.33 and 36 and 10.51). The majority of examples come from naturally shed antlers although this is not always easy to determine, due to the extensive treatment of the burr area. Although many of them have been extensively worked to create their final shape, there is no evidence of wear and they do not appear to have been hafted or utilised.

B.4.4 These objects are essentially finds of the Middle Thames and its tributaries, with small numbers distributed across the midlands and northern England, and a single outlier at Northton on the Isle of Harris (Simpson 1996, 295-8 and figs 3-4; Simpson *et al* 2006). Five examples have come from funerary contexts, at Crosby Garrett (Cumbria), Liffs Low (Derbyshire), Ayton East Burial 4 and Duggleby Howe (Yorkshire) and Cop Heap Hill (Wiltshire), and these can be attributed to late Neolithic and early Bronze Age burials (Piggott 1954, 357; Annable and Simpson 1964, 51 n◦ 278; Kinnes and Longworth 1985, 98 n◦ 174 and 147-8; Simpson 1996, 297-8). Where analysis of the human remains has been undertaken, the burials appear to be those of adult males. The precise dates of some of these burials, which were excavated in the 18th and 19th centuries, are not known, however. Thus, for example, the Cop Heap Hill burial was a secondary inhumation in a bowl barrow, containing pieces of flint and fragments of antler, as well as the antler implement; but all of these objects, apart from the antler implement, are now lost, alongside the human remains (Thurnam 1871, 438; Annable and Simpson 1964, 51). In effect, the antler implement could belong to the Neolithic period, but it could equally well be later in date.

B.4.5 Aside from burials, there are a few examples of these antler implements from settlement contexts, but unfortunately most of them are not from stratified contexts. As Simpson has noted, 'the great majority of antler maceheads has been recovered from riverine sources and are therefore without context or association' (Simpson 1996, 298). Amongst them are two antler implements from Nottinghamshire, one from Attenborough and the other from Watnall (Posnansky 1958, 88 and fig 1; Simpson 1996, 301). Both are unstratified finds.

B.4.6 By far the largest number of these implements comes from the river Thames and its tributaries, from Bethnal Green to Windsor (Simpson 1996, fig 3). These are largely nineteenth-century discoveries recovered from dredging activity (Lawrence 1929; Simpson 1996, 295). The lack of dating evidence for the object type should be stressed. A radiocarbon date obtained from animal bone associated with the antler implement from Northton in northern Scotland provided a Neolithic date and that led Simpson to suggest that, as a whole, they were a late Neolithic implement type (Simpson 1996, 298). At the same time, it was obvious that this dating is at this variance with the riverine material from the Middle Thames, and particularly the human remains (Bradley and Gordon 1988; Edwards *et al* 2009). The increasing number of radiocarbon dates for human skulls found in riverine deposits along the Thames show that a majority belong to the Bronze Age or later and only a few can be placed in the Neolithic period. Bronze Age dates are centred on material found between Mortlake and Kew, an area that includes a number of these antler implements. Dredging of the river between Richmond and Mortlake has also yielded large quantities of Bronze Age and Iron Age metalwork (Edwards *et al* 2009, 44 and 46; Simpson 1996, fig 3). These are dates for human skulls and not for antler implements, but they do raise questions about the dating of the series as a whole. Even in the 19th century, Thurnam was aware of the significance of this later dating: 'with these hammer-heads from the barrows [ie the implements noted

above from burial contexts] should be compared…those from the bed of the Thames, found in proximity with objects of the late bronze, or early iron, period' (Thurnam 1871, 438 note e).

B.4.7 Viewed against this background, it is no particular surprise that the Elton antler implement has provided an Early Iron Age date. Moreover, this is a date obtained from a part of the object itself and not from any associated material. It strongly suggests that these implements are not solely of late Neolithic date and it also weakens the association made previously with maceheads of stone. The similarity between some antler implements and stone maceheads had been made by Lawrence and was noted by Roe (Lawrence 1929, pl VIII; Roe 1968, 160-1; Simpson 1996, 298). In terms of some of the antler implements, there is undoubtedly a strong and convincing similarity. It would be quite wrong, however, to suggest that all of these antler implements closely resemble stone maceheads. Where the burr has been trimmed and rounded and the brow tine has been entirely obliterated, the end result is an implement that resembles a stone macehead (Simpson 1996, fig 9.45 and 47). Where, however, the tine stubs are retained and the object has a broad, oval section, then the similarity is much diminished (*ibid*, fig 5.1-2). Indeed, the objects look rather more like antler hammerheads, with the burr intended to be the hammer surface. The burr surface is denser than the beam and would be the most appropriate part to use as the hammer head. This point was noted a long time ago in the discussion of antler implements from Glastonbury Lake Village (Bulleid and St. George Gray 1917, 435-40). Amongst the assemblage of antler implements from that settlement are antler hammers with rectangular slots for a shaft, cut through the beam to the stubs of the brow and bez tines. Intriguingly, the Elton implement has a rectangular slot cut into the brow tine stub, as if there may have been an intention originally to perforate the antler along this axis. This is the standard form of antler hammer head of the late Iron Age. Equally, there is at least one example of an implement with a circular perforation cut through the beam, with the burr largely removed (*ibid*, 466, H60). It is possible, therefore, to identify two forms of Iron Age antler hammer head. The conventional and more common type has a rectangular perforation passing through the brow and bez tine stubs. The second type is represented by the Elton implement and includes a circular perforation that passes through the beam surface close to the burr and perpendicular to the brow and bez tine stubs. The burr is often (but not invariably) heavily modified, with the coronet removed. As noted previously, both forms of antler hammer head could only have been used for gentle or 'soft' hammering, because the burr formed the hammer surface.

B.5 Fired Clay

By Ted Levermore

Introduction

B.5.1 The excavations yielded 167 fragments of fired clay (509g). The assemblage comprises largely amorphous pieces with no discernible features and 17 structural fragments. The fragments all originate from Early Iron Age contexts or are residual in the furrows present on the site. This report provides a quantified characterisation of the material.

Methodology

B.5.2 After a full inspection of the assemblage, fabric groups were devised on the basis of dominant inclusion types, their density and modal size. Fragments from all contexts

were counted, weighed (to the nearest whole gram) and assigned to a fabric group. Any structural features were recorded.

Fabrics

B.5.3 Most of the fired clay fragments contain calcareous inclusions (shell and chalk) or voids from dissolved calcareous inclusions, quartz sand and fragments of flint. Although the exact source of the clays and tempering ingredients has not been proven for this assemblage these are likely to have been naturally occurring in the clays used.

B.5.4 The poor sorting of the inclusions suggests minimal paste preparation, although organic matter (chaff?) and crushed stone seem likely to have been added to some of the clay recipes.

B.5.5 The fabrics devised are listed below.

1: common fine to medium (<1-2mm) flint inclusions, rare coarse (2-4mm) flint inclusions, and moderate fine (<1 mm) sub-rounded voids in a dense quartz sand clay.

2: moderate fine to medium (<1-2mm) calcareous or shelly inclusions and sparse fine to medium sub-rounded voids (likely leached calcareous inclusions) in a dense micaceous highly quartz sand clay.

2b: Fabric 2 but not micaceous

2c: Fabric 2 with medium (1-2mm) crushed stone inclusions

3: sparse course and moderate fine to medium (<1-2mm) calcareous or shelly inclusions with common fine to medium sub-rounded voids in a powdery quartz sand clay (a bit like plaster).

4. common poorly sorted sub-angular medium to course and common sorted very coarse sub-rectangular crushed stone inclusions in a dense quartz sand clay

5. common fine to medium (<1-2mm) sub-rounded voids in a quartz sand clay

6. rare to no inclusions in a dense micaceous quartz sand clay.

7. rare to no inclusions in a dense sandy clay

Assemblage Characteristics

B.5.6 A total of 150 (458g) fragments of amorphous fired clay were recovered, representing 90% of the assemblages by weight or 89% by count. The fragments are found in all fabrics (Table 4), principally 1, 6 and 7. These have no discernible features.

B.5.7 Seventeen fragments (51g, Table 4) were classified as 'structural', and comprise pieces with flattened or domed surfaces. The fragments are found in fabrics 1, 4, 6 and 2c. These fragments were recovered from the ditches that made up the route-way and enclosure in Area 1. One fragment showed evidence of a sanded surface similar to the preparation of tiles and bricks.

Fragment type	Fabric group	No. Fragments	Weight (g)
Amorphous	1	45	0.142
	2	16	0.062
	3	17	0.052
	4	6	0.041
	5	3	0.016
	6	24	0.051

	7	34	0.088
	2b	1	0.001
	2c	4	0.005
Total		150	0.458
Structural	1	11	0.025
	4	4	0.019
	6	1	0.006
	2c	1	0.001
Total		17	0.051
Grand Total		167	0.509

Table 4: Quantification of fired clay fragments by fabric

Discussion

B.5.8 The assemblage of fired clay assessed for this site consists almost entirely of amorphous fragments. These had no discernible form or function but most likely derive from ovens and hearths. Most, if not all of this material is fired a reddish-brown colour. The 17 structural fragments come in the form of flattened surfaces but are too small and few to identify beyond their assessment here. This fired clay is likely the faces of surfaces in hearths or ovens or part of kiln furniture.

B.5.9 Of note is fabric type 4, of which there are 10 fragments. The matrix of this fabric is largely similar to the rest of the assemblage but has been mixed with coarse crushed stone as a temper – notably the fragment from context 211. Fabric 4 only appears in contexts in Area 1 and does not appear in Area 2. Fabric 2c, a subset of Fabric 2, contains the same stone temper and is also only found on Area 1 (Table 5).

B.5.10 Given the greater proportion of Fabric 1, a flint tempered clay mixture, it would seem as though there has been greater thought given to the clay recipes here. As such it may be suggested that Area 1 is more closely associated with occupation. The tempers within Fabrics 1 and 4 suggest that the clay structures they came from were intended to be more permanent than the other fabrics with less evidence of paste preparation may suggest.

	Area		
Fabric Group	1	2	Grand Total
1	45	11	56
2	13	3	16
3	6	11	17
4	10	0	10
5	1	2	3
6	12	13	25
7	18	16	34
2b	1	0	1
2c	5	0	5
Grand Total	111	56	167

Table 5: Fabric type by excavation area

Appendix C. Environmental Reports

C.1 Environmental samples

By Rachel Fosberry

Introduction

C.1.1 Nine bulk samples were taken from features within the excavated areas at Elton Solar Farm, Northamptonshire. The purpose of this report is to determine whether plant remains are present, their mode of preservation and whether they are of interpretable value with regard to domestic, agricultural and industrial activities, diet, economy and rubbish disposal.

C.1.2 The features sampled were predominantly gullies and ditches that have been provisionally dated to the Early Iron Age period. Five samples taken during the evaluation indicated that preservation of plant remains was poor (Fosberry 2015).

Methodology

C.1.3 The total volume (up to 19 litres) of each bulk sample was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and a list of the recorded remains are presented in Table 6.

Quantification

C.1.4 For the purpose of this initial assessment, items such as seeds, cereal grains and artefacts have been scanned and recorded qualitatively according to the following categories

= 1-5, ## = 6-10, ### = 11-50, #### = 51+ specimens

Items that cannot be easily quantified such as charcoal has been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

Results

C.1.5 The samples taken from features within Area 1 are devoid of preserved plant remains other than sparse charcoal. Three of the four samples taken from Area 2 features contain charred cereal grains; Ditches **253** (fill 254) and **269** (fill 272) and post hole **262** (fill 263). Only single specimens of grain were recovered.

Sample No.	Ctxt	Cut No.	Feature Type	Sample size (L)	% context sampled	Area	Volume processed (L)	Flot Volume (ml)	Cereals	Charcoal <2mm	Charcoal > 2mm	Pottery	Large mammal bones	Burnt mammal bones	Fired clay	Burnt flint
6	131	**132**	Gully	40	5	Area 1	17	40	0	+	+	##	#	#	0	0
7	129	**130**	Gully	40	<5	Area 1	18	35	0	+	0	##	##	#	0	0
8	144	**143**	Gully	40	<5	Area 1	17	20	0	+	+	#	##	#	0	0
9	203	**202**	Ditch	40	5	Area 1	16	15	0	+	0	##	##	##	0	0
10	213	**214**	Ditch	40	3	Area 1	17	60	0	+	+	#	###	#	0	0

11	254	**253**	Ditch	20	10	Area 2	19	35	#	+	++	##	0	##	0	#
12	263	**262**	Post hole	10	~50	Area 2	10	5	#	+	0	0	#	0	0	0
13	272	**269**	Ditch	30	<10	Area 2	15	50	#	+	0	#	#	#	0	0
14	299	**279**	Ditch	10	<10	Area 2	9	30	0	+	0	0	#	0	#	0

Table 6: Environmental samples

Discussion

C.1.6 The samples taken from the ditch fills at the site of Elton Solar Farm were unproductive in terms of preserved plant remains as could be expected of an Early Iron Age pastoral site. The few cereal grains recovered from Area 2 cannot be considered significant and may even be intrusive. The fragments of pottery and bone possibly indicate that domestic refuse has been discarded in the ditch fills or they may be the result of accumulation through the use of midden material on agricultural fields.

C.2 Faunal Remains

By Angelos Hadjikoumis

Introduction

C.2.1 The faunal assemblage recovered at Elton-on-the-Hill derives from two Early Iron Age (EIA) settlement enclosure. Despite the fact that they were in close proximity and both dated in the EIA, they represent distinct sites. These characteristics justify the study of their faunal samples separately. Through hand collection, Area 1 yielded 507 mammal remains and Area 2 only sixty-six. Moreover, both areas yielded traces of faunal material in the residue of flotation samples. Despite the relatively small size of the assemblages involved, their study and analysis have the potential to address a series of archaeological questions, such as the composition of the area's animal economy and the relative importance of each animal species. Additional issues addressed, albeit with a higher degree of caution due to the small sample sizes, include the animal husbandry strategies employed, the processing of animal carcasses by humans and the processes that affected the formation of the faunal samples.

Methodology

C.2.2 The faunal material has been processed at the facilities of Oxford Archaeology East in Bar Hill. Prior to data recording, an attempt was made to refit as many new breaks as possible in order to enhance the identifiability and volume of data extracted by each specimen studied. Identification of anatomical element and species (or more general taxonomic category) was attempted on every specimen with the aid of published osteological atlases for mammals (*e.g.* Barone 1976; Pales and Garcia 1981; Schmid 1972). The distinction between sheep and goat was attempted on postcranial remains mainly based on Boessneck *et al.* (1964) and mandibular cheek teeth based on Halstead *et al.* (2002) and Payne (1985). The most generic level of identification used was a three-size scheme; large (*e.g.* cattle, equids, red deer), medium (*e.g.* sheep/goat, pig) and small (*e.g.* cat or smaller) mammal.

C.2.3 Besides anatomical and taxonomic identification, age-at-death was estimated based on dental eruption and wear, as well as the epiphyseal fusion state of postcranial anatomical elements. Eruption and wear of mandibular dental remains were recorded following Payne (1973; 1987) for sheep and goats, Grigson (1982) and

Halstead's (1985) adaptation of Payne for cattle, and Grant (1982) and Bull & Payne (1982) for pig. Age-at-death based on epiphyseal fusion follows Silver (1969) for sheep, goat, cattle and pig. Pelves of sheep and goat were attributed to male or female based on their morphology, whenever possible, following Boessneck *et al.* (1964) and those of cattle following Grigson (1982). Permanent pig canines were also attributed to male or female animals based on their sexually dimorphic morphology (Mayer & Brisbin 1988). Fragmentation, taphonomy and butchery were recorded as described in Halstead (2011). Biometric measurements were taken following von den Driesch (1976), unless otherwise stated. The extent of erosion/abrasion on bone surfaces was graded from 0 (unaffected) to 5 (heavy erosion across whole surface) using a simplified version (see caption of Table 11) of Brickley & McKinley's scheme for human remains (2004, 14-15).

Quantification

C.2.4 Due to the small sample sizes involved, the material was studied as two samples (i.e. Area 1 and Area 2), rather than sub-dividing it into phases within each area. All identifiable specimens contributed to the Number of Identified Specimens (NISP), which is the main quantification unit for analyses on species abundance. Minimum Number of Individuals (MNI) was calculated based on the most abundant anatomical element, taking into account the side of the body. Beyond NISP, specific anatomical elements were also recorded in terms of Minimum Anatomical Units (MinAU) and Maximum Anatomical Units (MaxAU) (Halstead 2011). The units systematically recorded with this method were: horncore/antler bases; mandible/loose cheek teeth; atlas; axis; scapula; proximal and distal halves of humerus, radius, femur, tibia, metapodia (only III and IV in pigs); proximal half of ulna; pelvis; astragalus; calcaneum and phalanges 1-3 (excluding lateral phalanges of pigs). These anatomical elements have been selected for their durability and identifiability. MinAU and MaxAU are more suitable units to explore age-at-death, fragmentation of long bones, butchery marks, taphonomy, as well as acting as a check on NISP, in cases of heavily fragmented assemblages or cases where the remains of different animal species were fragmented with different intensity.

Results

Taxonomic Composition

C.2.5 As mentioned in the introduction, the faunal samples recovered from the two EIA enclosures were studied separately. Due to its size, the most reliable sample is that of Area 1, which is clearly dominated by sheep/goat and cattle (Table 7). Sheep/goat is the most abundant taxonomic category and represents almost half of the assemblage. This taxonomic category almost exclusively consists of sheep remains but the presence of goats at the site is definitely confirmed. Cattle percentages approach those of sheep/goat, while pigs played a secondary role. As expected, the numbers of remains generically attributed to either large- or medium-sized mammals closely reflects those of cattle and sheep/goat respectively. The suite of domestic animals at EIA Elton-on-the-Hill is completed by an equid (horse). The few identified red and roe deer remains indicate only scarce interaction between the site's occupants and wild animals.

Area 1				
Taxon	NISP	%NISP	MNI	%MNI

Cattle	118	42.9	5	31.3
Sheep/goat (combined)	128	46.5	5	31.3
Sheep/goat	101	36.7	N/A	N/A
Sheep	24	8.7	N/A	N/A
Goat	3	1.1	N/A	N/A
Pig	25	9.1	3	18.8
Red deer	2	0.7	1	6.3
Equid	1	0.4	1	6.3
Roe deer	1	0.4	1	6.3
Total	275	100.0	16	100.0
Large mammal	102			
Medium mammal	128			
Small mammal	2			

Table 7: Taxonomic composition of the faunal assemblage from Area 1

C.2.6 Despite its small size, the sample from Area 2 produced a broadly similar taxonomic composition to Area 1 with the vast majority of identified remains belonging to cattle and sheep (Table 8). An equid (horse) was also present in Area 2, while the absence of pig, goat and wild animals can be attributed to the small sample size.

Area 2				
Taxon	NISP	%NISP	MNI	%MNI
Cattle	21	51.2%	2	40.0%
Sheep/goat (combined)	19	46.3%	2	40.0%
Sheep/goat	17	41.5%		0.0%
Sheep	2	4.9%		0.0%
Equid	1	2.4%	1	20.0%
Total	41	100.0 %	5	100.0 %
Large mammal	14			
Medium mammal	11			

Table 8: Taxonomic composition of the faunal assemblage from Area 2

C.2.7 Besides the hand-collected faunal samples presented above, faunal material was recovered from the residues (combined >2 mm fractions) of bulk samples collected from both areas and processed by water flotation. Three samples from Area 2 yielded only unidentifiable material, generically attributed to mammals. The five samples analysed from Area 1, besides material generically attributed to mammals, yielded two sheep/goat and two medium-sized mammal remains. Interestingly, despite the near-absence of burnt material amongst the hand-collected samples (see 'Taphonomy'

below), burnt and calcined specimens were relatively common in the flotation samples both from Area 1 and Area 2.

Mortality

C.2.8 Age-at-death has been determined through two complementary lines of evidence, epiphyseal fusion and dental eruption and wear. In general, epiphyseal fusion data are scarce probably because the ends of bones have been damaged through gnawing and diagenetic processes in the soil (see sections 'Preservation Condition' and 'Taphonomy' below). For this reason, only the larger sample from Area 1 has been considered in the mortality analyses. The results should be considered as tentative until larger datasets from Nottinghamshire become available. The same holds true for mortality profiles based on mandibular data.

C.2.9 The scarce sheep/goat epiphyseal fusion data (Table 9) hint towards some mortality in the first year and about 70-75% survival into the second year of age. In addition to the data presented here, there are four MinAU belonging to newborn animals, which suggest sheep breeding locally and highlight the potential for dairying. Mortality data based on dental eruption and wear strengthen this pattern. Figure 8 shows some mortality later in the first year, while most animals were culled between two and three years of age as suggested by the mortality peak in the graph.

Area 1	Fused		Fusing/unfused	
Sheep/goat	MinAU	MinAU%	MinAU	%MinAU
6-10 months	2	66.7%	1	33.3%
13-16 months	0	N/A	0	N/A
18-28 months	3	75.0%	1	25.0%
30-42 months	0	N/A	0	N/A

Table 9: Mortality for sheep/goat based on epiphyseal fusion data from Area 1

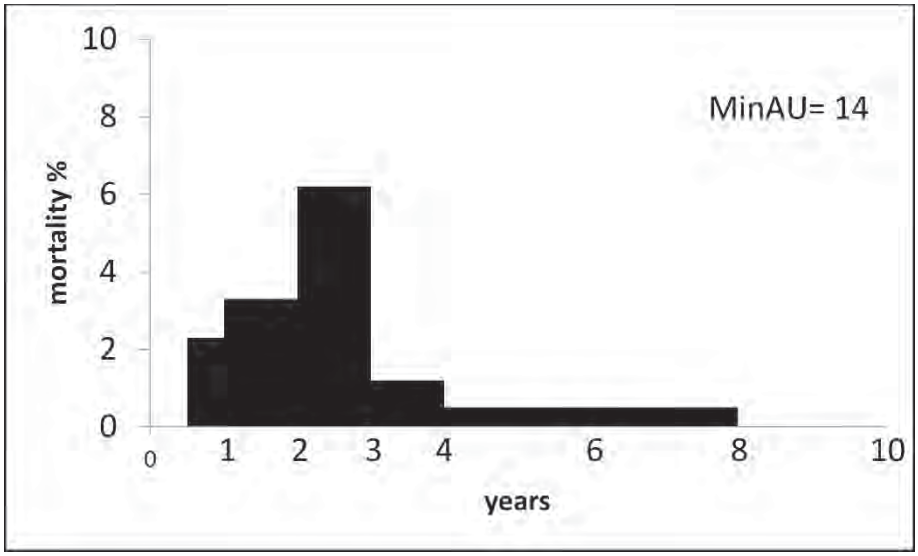

Fig. 8: Mortality profile for sheep/goat based on dental eruption and wear data from Area 1

C.2.10 Epiphyseal fusion data for cattle suggest low mortality at 0-2 years with an increase in the 3rd and 4th years (Table 10). Dental eruption and wear data are also scarce (MinAU= 7) but suggest a younger age-at-death with four anatomical units aged at 6-18 months, one at 18-30, one at 30-60, while another belonged to a senile animal.

Area 1	Fused		Fusing/unfused	
Cattle	MinAU	MinAU%	MinAU	%MinAU
7-10 months	1	100.0%	0	0.0%
18 months	8	88.9%	1	11.1%
24-36 months	2	66.7%	1	33.3%
36-48 months	3	75.0%	1	25.0%

Table 10: Mortality for cattle based on epiphyseal fusion data from Area 1

C.2.11 Only three pig specimens yielded age-at-death information. Despite belonging to anatomical units that fuse within the first twelve months, they were all unfused or fusing. The sample is too small for reliable interpretation, especially in the absence of dental eruption/wear data, but this result probably suggests that a significant percentage of the domestic pigs reared at Elton-on-the-Hill were slaughtered within their first year of age.

Male-Female Ratios

C.2.12 Very few remains, all from Area 1, could be reliably attributed to male or female animals. One sheep and another sheep/goat pelvis belonged to female animals. Two cattle pelves also belonged to female animals, while a pig mandibular canine belonged to a female and another to a male animal.

Preservation Condition

C.2.13 Before proceeding to the interpretation of any zooarchaeological analyses, it is important to assess the preservation condition of the material. The overall condition of the material is poor, mainly due to extensive erosion of bone surfaces. In order to quantify the effect of erosion, the condition of all postcranial elements has been analysed for the most common taxonomic categories, on the basis of a 0-5 scale (see 'Methods' and caption of Table 11). A comparison between Area1 (Table 11) and Area 2 (Table 12) is of limited reliability due to small sample size in the case of Area 2, although overall the condition of the material is similar. Comparisons between the different taxa included in the analysis suggest that size is the main factor in the extent of erosion. The remains of larger animals (*i.e.* cattle and 'large mammals') are in a less eroded condition than those of medium-sized mammals such as sheep/goat and pig. Based on this result, it can be reasonably assumed that also within each taxonomic group, the remains of younger animals suffered more extensive damage than those of fully mature animals. This result should be taken into account in the interpretation of taxonomic compositions and mortality profiles. Consequently, it cannot be safely assumed that smaller animals (*e.g.* small mammals, birds, fish and reptiles) were entirely absent from EIA Elton-on-the-Hill because their remains may have been completely destroyed due to erosion, but also gnawing (see 'Taphonomy' section below). These factors can also explain the near-absence of the smaller anatomical elements such as the astragalus, calcaneus and the phalanges.

Area 1							
	Erosion grade (%)						
Taxon	0	1	2	3	4	5	NISP
Cattle	0.0	0.0	9.5	24.3	47.3	18.9	74
Sheep/goat (combined)	0.0	2.5	1.2	12.3	43.2	40.7	81
Pig	0.0	0.0	0.0	21.1	47.4	31.6	19
Large mammal	0.0	0.0	3.2	7.4	68.1	21.3	94
Medium mammal	0.0	0.8	2.5	9.8	32.8	54.1	122

Table 11: Preservation condition of postcranial elements, in terms of erosion, from Area 1. Erosion grades (simplified version of Brickley & McKinley 2004, 14-15): **0** (surface morphology clearly visible, fresh appearance), **1** (light and patchy surface erosion), **2** (more extensive surface erosion than grade 1), **3** (most of bone surface affected by some degree of erosion, **4** (all of bone surface affected by erosive action), **5** (heavy erosion across whole surface, completely masking normal surface morphology).

Area 2							
	Erosion grade (%)						
Taxon	0	1	2	3	4	5	NISP
Cattle	0.0	0.0	6.7	46.7	13.3	33.3	15
Sheep/goat (combined)	8.3	0.0	0.0	16.7	25.0	50.0	12
Large mammal	0.0	0.0	0.0	7.1	42.9	50.0	14
Medium mammal	0.0	10.0	0.0	10.0	70.0	10.0	10

Table 12: Preservation condition of postcranial elements, in terms of erosion, from Area 2. For erosion grades, see caption of Table 11.

Taphonomy

C.2.14 Besides the extent of erosion, other taphonomic processes have affected the condition of the faunal samples from Elton-on-the-Hill. Despite its overall eroded state, in many cases it is clear that the assemblage has suffered attrition from gnawing. The domestic dog is assumed to have been the main agent causing this kind of attrition, although other animals (*e.g.* pigs and foxes) cannot be excluded as they could have also had access to animal bones discarded by humans. Only postcranial material attributed to the three most abundant taxa (*i.e.* cattle, sheep/goat and pig) was included in the analysis and the material from Area 2 was not analysed due to its very small size. The results are interesting in that they reveal differences between taxa in the occurrence of gnawing marks on their remains. Sheep/goat exhibit the lowest, pig the highest and cattle an intermediate frequency of gnawed remains (Table 13). Sheep/goat bones are the more gracile than those of cattle and pig. This renders them more prone to complete destruction through gnawing rather than partly damaged, which would allow the retrieval of that information. Moreover, the difference between cattle and pig can be partly attributed to the large size of cattle bones, which does not allow dogs (or other animals) to gnaw on them. Nevertheless, the extent of the difference between sheep/goat and pig is so extensive that it cannot be solely attributed to differences in bone density and

structure. It is thus more likely that pig remains were for some reason more accessible than those sheep/goat to gnawing agents. Both assemblages were almost devoid of evidence indicating other taphonomic factors such as burning and rodent gnawing, although erosion may have played a significant role in erasing any such evidence.

Area 1					
Cattle		Sheep/goat		Pig	
NISP	Gnawed %	NISP	Gnawed %	NISP	Gnawed %
72	18.1%	77	2.6%	19	31.6%

Table 13: Occurrence of gnawing marks on the faunal assemblage from Area 1. Only postcranial remains attributed to the three most common taxa are included.

C.2.15 Beyond butchered remains, only one worked specimen has been recorded and it was made of a red deer antler (see Riddler, App B.4).

Discussion

C.2.16 The faunal assemblages from Elton-on-the-Hill are of considerable importance in contributing to a better understanding of the EIA, which is zooarchaeologically poorly known in Nottinghamshire and even more broadly. Elton-on-the-Hill assumes even greater importance when viewed in conjunction with our knowledge of human-animal interactions in first millennium BC Nottinghamshire. Such knowledge is limited due to the scarcity and, usually, small size of relevant faunal samples recovered. The most recent regional review of faunal evidence from central England (Albarella & Pirnie 2008) indicates that Gamston (Levitan 1992) and Aslockton (Hamshaw-Thomas 1992) are the only Iron Age sites with studied and published faunal assemblages in Nottinghamshire. Besides small sample sizes, another problem with these geographically most relevant assemblages is their chronological difference with Elton. Elton's assemblage can be safely assigned to the EIA, while the two sites mentioned above are of broader, and possibly later, chronology. Elton's finer chronological resolution and the overall scarcity of EIA faunal assemblages in Nottinghamshire further enhance its potential to shed light into previously unknown aspects of human-animal interaction in the county.

C.2.17 It is only by broadening the geographical scope to include the adjacent East Midlands counties (*i.e.* Lincolnshire, Leicestershire and Derbyshire), that a few substantial Bronze/Iron Age transition and Iron Age assemblages become available (Table 14). The general picture is one of relative uniformity, with few exceptions. All assemblages are dominated by cattle and sheep/goat (mostly sheep, although the goat is present at several sites). Taking into account body size, it becomes clear that cattle were the principal source of meat throughout the Iron Age, followed by sheep. It is quite probable, however, that cattle and sheep played complementary roles in Iron Age animal husbandry in Nottinghamshire and adjacent areas. The pig was of marginal economic importance, except at few sites. Dogs and equids also appear to have been consistently present in the area during the Iron Age. The scarcity of wild animal remains suggests that Iron Age people either lived in areas depleted in wild fauna or that they did not have an interest in hunting, possibly due to commitments arising from their agro-pastoral activities.

Nottinghamshire							
Site name	**Site type**	**Period**	**Cattle**	**Sheep/goat**	**Pig**	**Equid**	**Other**
Aslockton	Defended settlement	Iron (general)	156	227 (sheep & goat present)	12	16	Dog:1
Gamston	Open settlement	Iron (general)	44	15	1	1	
Dunston's Clump	Enclosures	Iron (general)	√	√	√	√	
Lincolnshire							
Site name	**Site type**	**Period**	**Cattle**	**Sheep/goat**	**Pig**	**Equid**	**Other**
Billingborough - Phase 2	Industrial	Bronze/Iron transition	201	205	86	x	Dog :41 Roe deer: 2
Brigg	N/A	Bronze/Iron transition	2	2	2	2	Red deer: 37 Dog: 1
Tallington	Enclosure	Early Iron	63	37	13	13	Dog: 3
Billingborough - Phase 3	Enclosure	Middle-Late Iron	964	757	102	252	Dog: 292 Red deer: 7 Roe deer: 6 Cat: 1
Outgang Road - Langtoft	Industrial	Middle Iron	24	9	2	4	Red deer: 1
Outgang Road - Market Deeping	Open settlement	Middle-Late Iron	131	161 (sheep & goat present)	22	42	Dog: 5 Beaver: 2
Dragonby(pre-conquest)	Open settlement	Late Iron	1415	2922	658	124	Dog: 58 Roe deer: 3 Red deer: 2 Hare: 2 Cat: 1
Barholm	Open settlement	Iron (general)	17	16	2	x	
Cowbit Wash	Industrial	Iron (general)	94	28	2	2	Dog: 5 Cat: 2 Red deer: 1 Badger: 1
Leicestershire							
Site name	**Site type**	**Period**	**Cattle**	**Sheep/goat**	**Pig**	**Equid**	**Other**
Elms Farm	Enclosure	Middle-Late Iron	803	366 (sheep & goat present)	56	87	Dog: 14 Red deer: 6 Roe deer: 1
Grove Farm	Farm	Middle-Late Iron	476	251	173	18	Dog: 3 Canid: 2 Fox: 1 Red deer: 1 Roe deer: 1 Badger: 1
Breedon-on-the-Hill	Hillfort	Iron (general)	√	√	√	√	Dog present
Stamford Road	Cluster of pits and ditches	Iron (general)	48	29	5	5	Dog: 1
Whitwell	Open settlement	Iron (general)	16	18	3	2	
Derbyshire							
Harborough Rocks	Open settlement	Early Iron	30	26	8	x	

Table 14: Overview of published faunal assemblages with geographical and chronological relevance to Elton-on-the-Hill, shown in broad chronological order within county. All data, were taken from Albarella & Pirnie 2008 with the exception of Dunston's Clump (inferred from Bishop 2000). All numbers indicate Number of Identified Specimens (NISP) of hand-collected remains macromammals (i.e. >cat or hare size). N/A= no information available,

√= present, x= absent.

C.2.18 At Elton-on-the-Hill, the more substantial sample from Area 1 provides interesting insights into many aspects of human-animal interaction in the area during the EIA. As far as the taxonomic composition is concerned, it does not deviate from the overall Iron Age pattern (Table 14), which is one of heavy reliance on cattle and sheep, low numbers of pig, the presence of horse and very limited interaction with wild fauna. Although dog is usually present in most Iron Age assemblages, it has not been identified at Elton-on-the-Hill. Its presence, however, is indirectly confirmed through the extensive gnawing marks. The relative balance in numbers of cattle and sheep/goat remains can be misleading if their body size is not taken into account. Cattle are several times heavier than sheep, which indicates that reliance on beef at Elton-on-the-Hill must have been heavy, as it was the case for most Iron Age assemblages. It has to be taken into account however, that sheep/goat numbers may have been slightly underestimated due to erosion that has damaged their remains to a greater degree than those of cattle. This aspect is worth evaluating in the future through comparisons with better-preserved material. The same holds true for smaller mammals, as well as bird, fish, reptile and amphibian species.

C.2.19 In terms of mode of exploitation of domestic animals, it is difficult to approach this aspect with great accuracy due to the high probability of disproportionate destruction of the remains of immature animals. The mortality profiles for both cattle and sheep/goat suggest that meat was among the priorities of the cattle and sheep herders of EIA Elton-on-the-Hill, as indicated by the mortality peak of sheep/goat at two to three years (Fig. 8) while for cattle data are contradictory and open to various interpretations. Despite the effects of erosion, there are several hints that keep the possibility of dairying open, both for sheep/goat and cattle. The presence of newborn sheep/goat remains, as well as evidence of some cattle and sheep/goat slaughtered below one year, highlight the potential for milking. This evidence is strengthened by the identification of only female cattle and sheep/goat, although the numbers are too low to be considered reliable. The scarcity of information on pigs does not allow elaborate discussions on their husbandry regime, but the fact that scarce epiphyseal fusion evidence suggests that they were slaughtered within or near the end of their first year. If confirmed in the future, such a pattern is more compatible with household-based rearing of pigs than a free-range regime. Overall, the inhabitants of both enclosures (Areas 1 and 2) were occupied with animal herding, and possibly agriculture, to such a degree that they only occasionally hunted wild animals. Alternatively, this can be seen as indicating an increasingly anthropogenic agricultural landscape depleted of substantial wild animal populations, at least in the vicinity of settlements. Unfortunately, the preservation of archaeobotanical material does not allow an attempt to integrate the animal and plant husbandry systems at the two sites.

C.2.20 The availability of published zooarchaeological data is not such that would allow chronological and geographical patterning in Nottinghamshire and adjacent East Midlands counties. The main obstacle, beyond lack of more and larger published assemblages, is the attribution of most assemblages generically to the Iron Age. Nevertheless, some tentative trends can be put forward to be confirmed or refuted by future research. Independent of intra-Iron Age chronological sub-divisions, Elton-on-the-Hill is more similar to the assemblage of Aslockton in the same county, as well as most of the assemblages in Lincolnshire in that they exhibit a balance between cattle and sheep, usually with slightly more sheep in terms of absolute numbers (Table 14). Iron

Age assemblages from Leicestershire tend to produce a reverse pattern with more cattle. Besides local adaptations of animal husbandry systems, site type might also prove to be a crucial factor in explaining these differences. Moreover, there seems to be an overall chronological tendency for an increase in horse numbers. It is merely present in Bronze/Iron Age transition and EIA sites, while it becomes common later on.

C.2.21 Bringing all the zooarchaeological evidence from EIA Elton-on-the-Hill together and placing it in its regional context, has revealed new insights on human-animal interactions in a previously, and still, poorly known period and area. It has shed light into the animal husbandry system during the EIA, the relationship between people and wild animal populations, and has highlighted possible chronological and geographical patterns in Nottinghamshire and the wider region. This zooarchaeological study adds to the corpus of relevant available data collected in a systematic way and contributes towards the feasibility of a synthetic approach in the future feasible.

C.3 Human Skeletal Remains

By Natasha Dodwell

C.3.1 Three disarticulated elements of human bone were recovered from ditches in Area 2.

C.3.2 Refitting fragments of a proximal and mid shaft of an adult left femur and a small fragment of tibia mid shaft were recovered from context [280] in Ditch **253** and an unsided tibia shaft was recovered from [272] in Ditch **269**. The surface preservation of both is extremely poor, with the cortical bone being deeply etched, probably by rootlets.

Appendix D. Scientific Dating

D.1 Radiocarbon Dating

Introduction and Methodology

D.1.1 Two animal bones were sent at evaluation stage to the radiocarbon dating laboratory at the Scottish Universities Environmental Research Centre AMS Facility (SUERC). This comprised a Bos femur from context 109 (Area 1; ditch **108**) and a Bos tibia from context 27 (Area 2; ditch **29**). The calibrated age ranges were determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OXCal4.2.4 Bronk Ramsey (2013); IntCal13 atmospheric curve (Reimer *et al* 2013)). A sample from the worked antler hammer head (SF 7) provided a third radiocarbon date.

Results

D.1.2 The result from ditch **108** (SUERC-61192 (GU37962)) produced a radiocarbon age BP 2462 ± 32 giving at 95.4% probability the date 761-429calBC. From ditch **29** (SUERC-61191 (GU37961)) the animal bone produced a radiocarbon age BP 2307 ± 32 giving at 95.4% probability the date 411-231calBC (81%). A sample from the worked antler hammer head (SF 7) produced a radiocarbon date at 95.4% probability of 761-414calBC (SUERC-67335 (GU40898)).

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RADIOCARBON DATING CERTIFICATE

30 July 2015

Laboratory Code	SUERC-61191 (GU37961)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	XNTESF14
Context Reference	27
Material	Animal bone : Bos, tibia
$\delta^{13}C$ relative to VPDB	-22.0 ‰
$\delta^{15}N$ relative to air	6.2 ‰
C/N ratio (Molar)	3.2
Radiocarbon Age BP	2307 ± 32

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

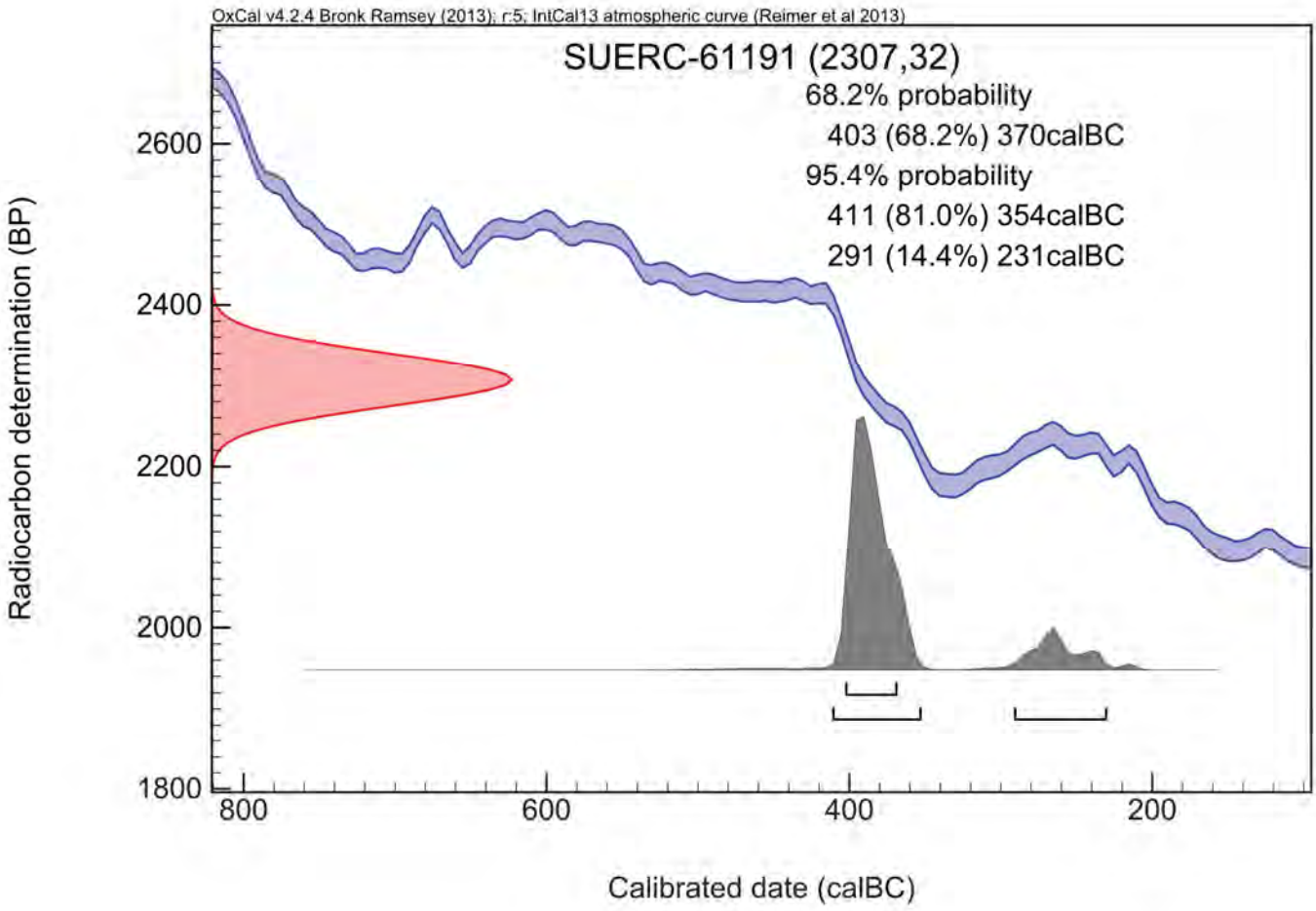
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 30/07/2015

Checked and signed off by :- P. Naysmith Date :- 30/07/2015

Calibration Plot



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RADIOCARBON DATING CERTIFICATE

30 July 2015

Laboratory Code	SUERC-61192 (GU37962)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	XNTESF14
Context Reference	109
Material	Animal bone : Bos, femur
δ^{13}C relative to VPDB	-22.2 ‰
δ^{15}N relative to air	5.9 ‰
C/N ratio (Molar)	3.2
Radiocarbon Age BP	2462 ± 32

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

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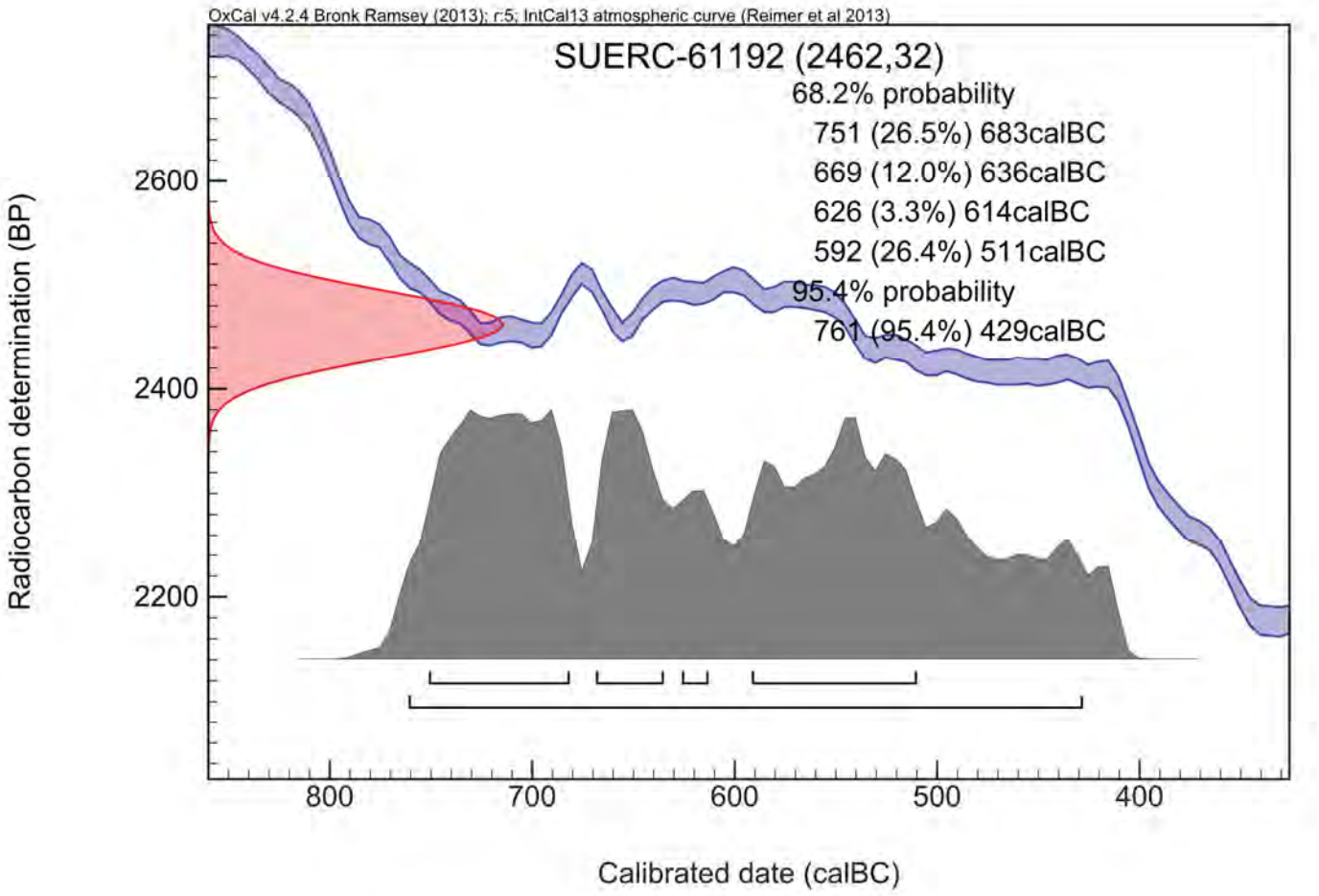
Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 30/07/2015

Checked and signed off by :- P. Naysmith Date :- 30/07/2015

Calibration Plot



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RADIOCARBON DATING CERTIFICATE

26 May 2016

Laboratory Code	SUERC-67335 (GU40898)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	XNTESF14
Context Reference	208
Material	Antler : Cervus
$\delta^{13}C$ relative to VPDB	-21.2 ‰
$\delta^{15}N$ relative to air	5.8 ‰
C/N ratio (Molar)	3.2
Radiocarbon Age BP	2456 ± 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

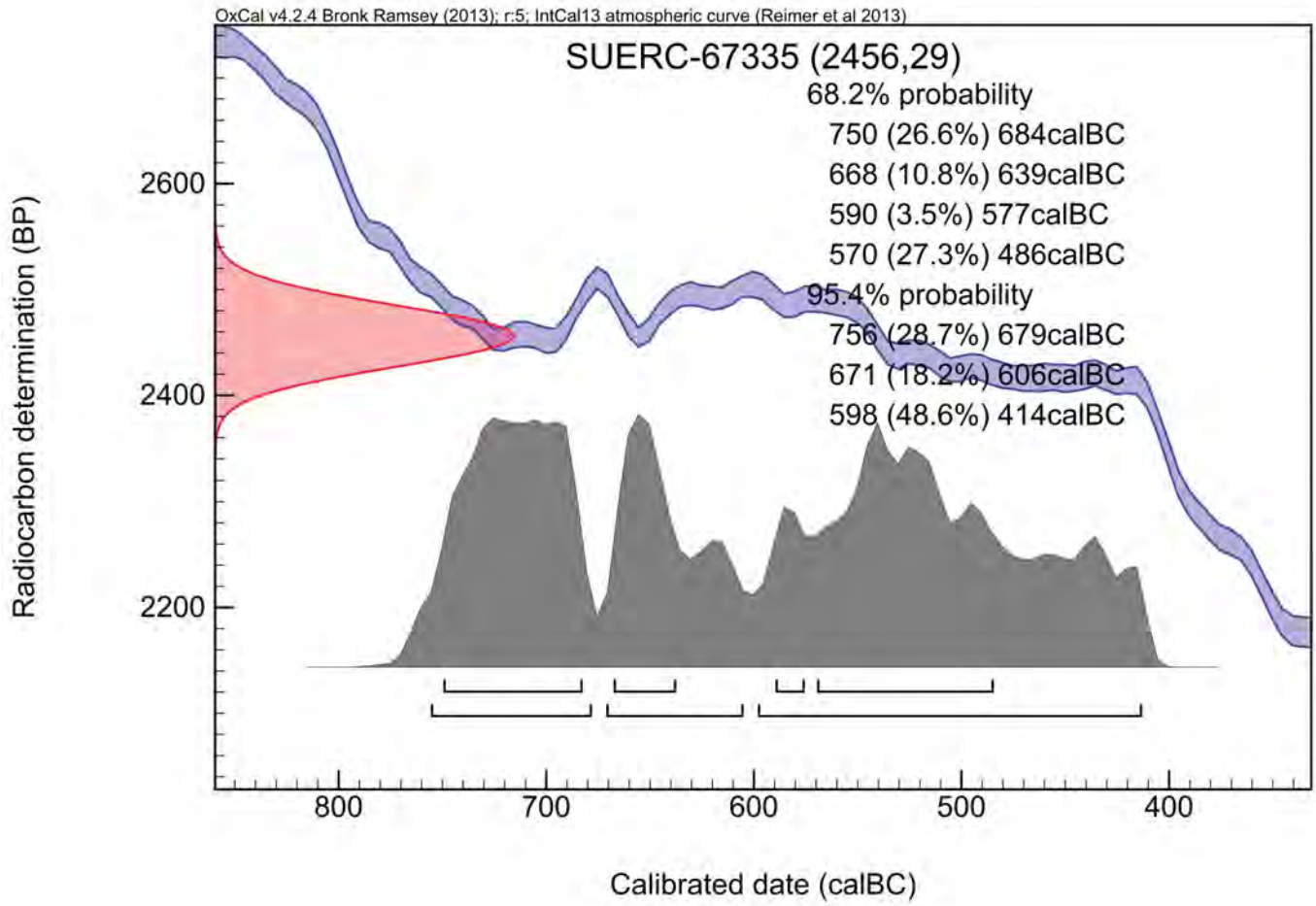
The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E Dunbar Date :- 26/05/2016

Checked and signed off by :- P. Naysmith Date :- 26/05/2016

Calibration Plot



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Appendix F. OASIS Report Form

All fields are required unless they are not applicable.

Project Details

OASIS Number	Oxfordar3-235980		
Project Name	Two Early Iron Age settlements at Elton Solar Farm, off Station Road, Elton-on-the-Hill, Nottinghamshire		
Project Dates (fieldwork) Start	18-09-2015	Finish	09-10-2015
Previous Work (by OA East)	Yes	Future Work	No

Project Reference Codes

Site Code	XNTESF14	Planning App. No.	N/A
HER No.	N/A	Related HER/OASIS No.	oxfordar3-216056

Type of Project/Techniques Used

Prompt: Voluntary/self-interest

Please select all techniques used:

☐ Field Observation (periodic visits)	☐ Part Excavation	☐ Salvage Record
☐ Full Excavation (100%)	☐ Part Survey	☐ Systematic Field Walking
☐ Full Survey	☐ Recorded Observation	☐ Systematic Metal Detector Survey
☐ Geophysical Survey	☐ Remote Operated Vehicle Survey	☐ Test Pit Survey
☒ Open-Area Excavation	☐ Salvage Excavation	☐ Watching Brief

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Settlement	Iron Age -800 to 43	Pottery	Iron Age -800 to 43
Settlement	Iron Age -800 to 43	Animal bone	Iron Age -800 to 43
Agriculture	Post Medieval 1540 to 1901	Iron	Iron Age -800 to 43

Project Location

County	Nottinghamshire	Site Address (including postcode if possible)	
District	Rushcliffe Borough Counci	Elton Solar Farm, off Station Road, Elton-on-the-Hill	
Parish	Elton-onthe-Hill + Orston		
HER	Nottinghamshire		
Study Area	33ha	National Grid Reference	SK 770 395

Project Originators

Organisation	OA EAST
Project Brief Originator	N/A
Project Design Originator	Rob Atkins, OA East
Project Manager	Richard Mortimer, OA East
Supervisor	Rob Atkins

Project Archives

Physical Archive	Digital Archive	Paper Archive
XNTESF14	XNTESF14	XNTESF14
TBC	OA East	TBC

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☒	☒
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☐	☐	☐
Human Bones	☐	☐	☐
Industrial	☐	☐	☐
Leather	☐	☐	☐
Metal	☒	☒	☒
Stratigraphic		☐	☐
Survey		☐	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☒	☒	☒
Worked Stone/Lithic	☐	☐	☐
None	☐	☐	☐
Other	☐	☐	☐

Digital Media	Paper Media
☒ Database	☐ Aerial Photos
☒ GIS	☒ Context Sheet
☐ Geophysics	☒ Correspondence
☒ Images	☐ Diary
☒ Illustrations	☒ Drawing
☐ Moving Image	☐ Manuscript
☐ Spreadsheets	☒ Map
☒ Survey	☐ Matrices
☒ Text	☐ Microfilm
☐ Virtual Reality	☐ Misc.
	☐ Research/Notes
	☒ Photos
	☒ Plans
	☒ Report
	☒ Sections
	☒ Survey

Notes:

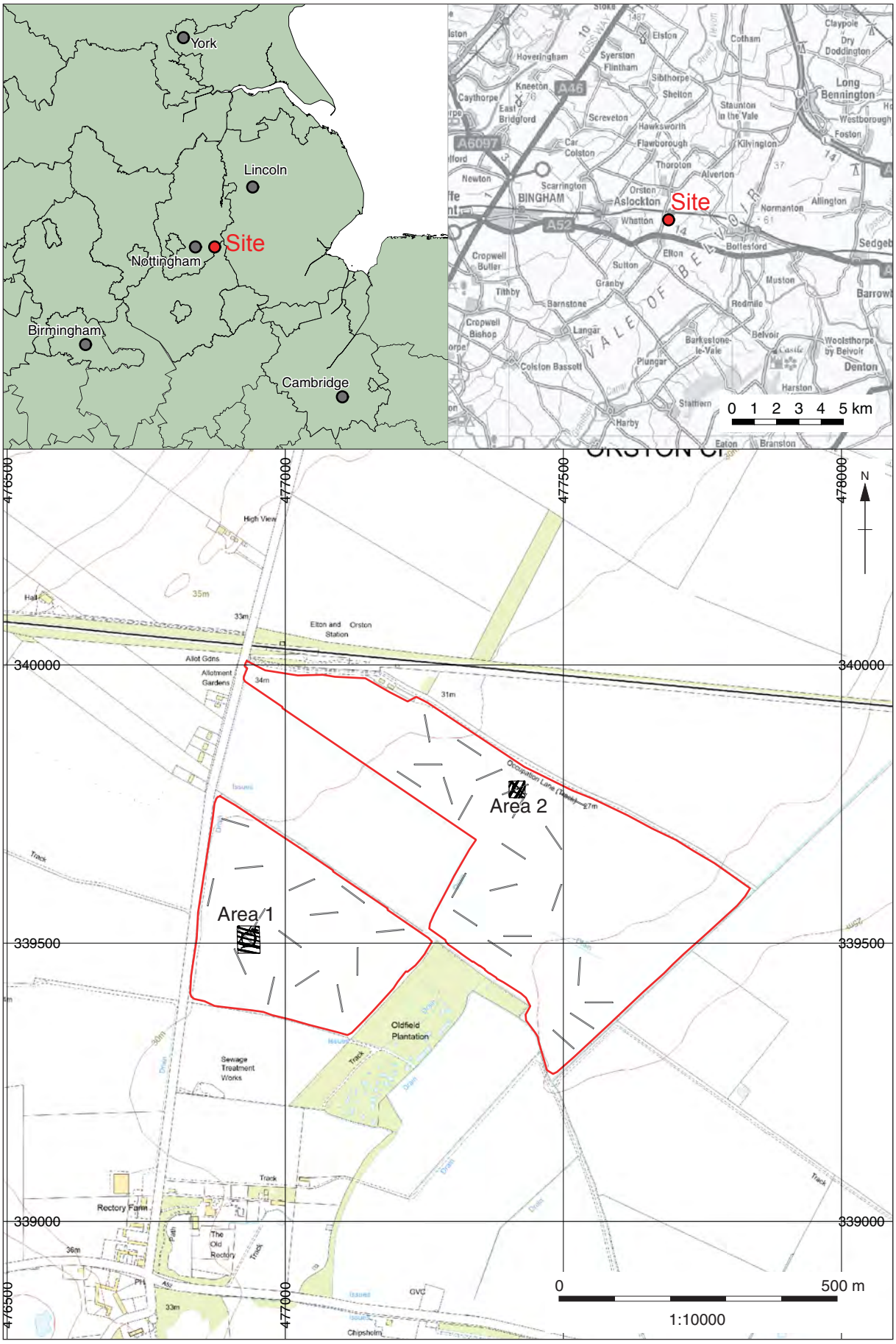

Figure 1: Site location showing excavation areas (black) in development area (red)

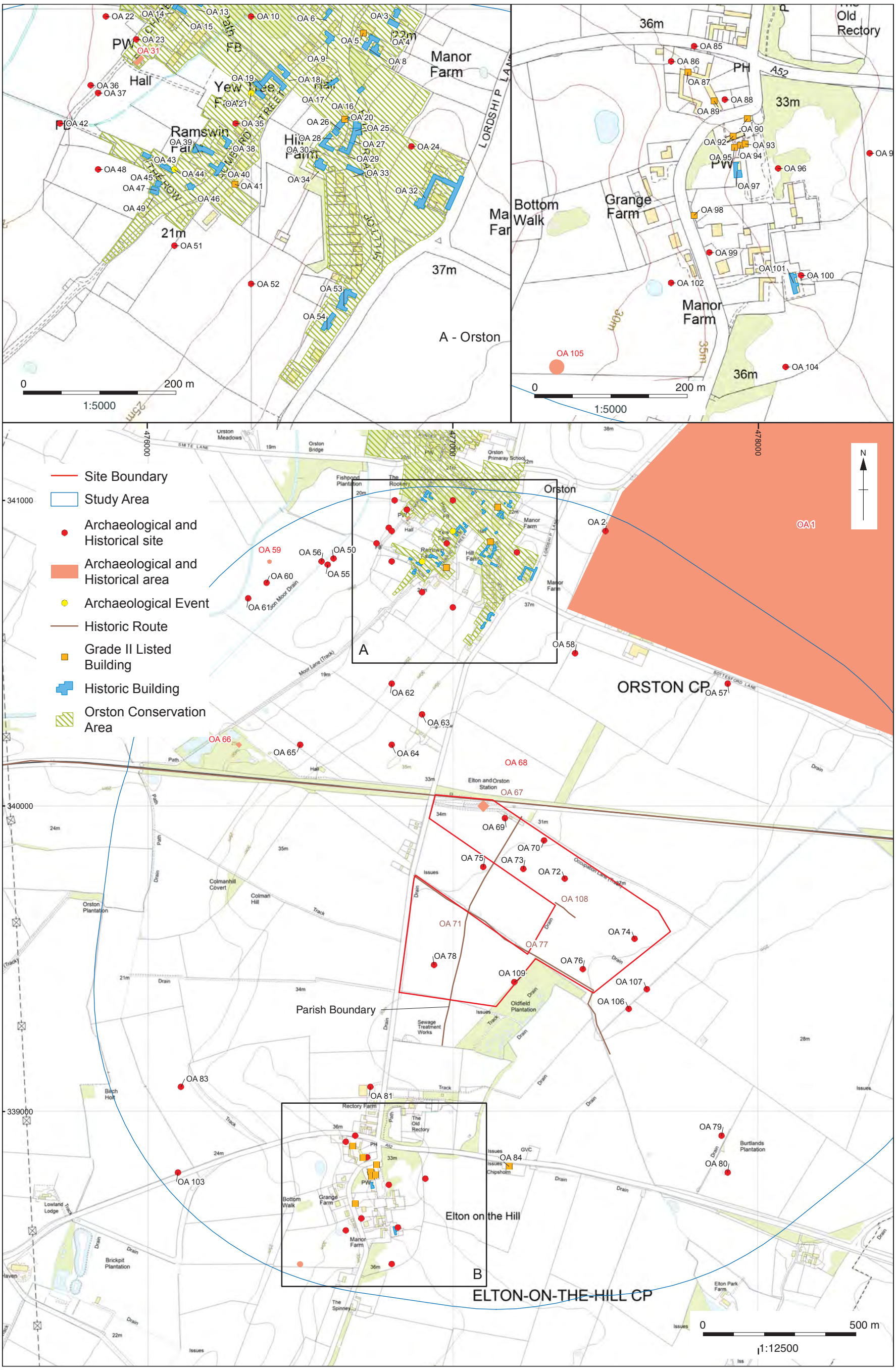

Figure 2: Heritage assets within study area

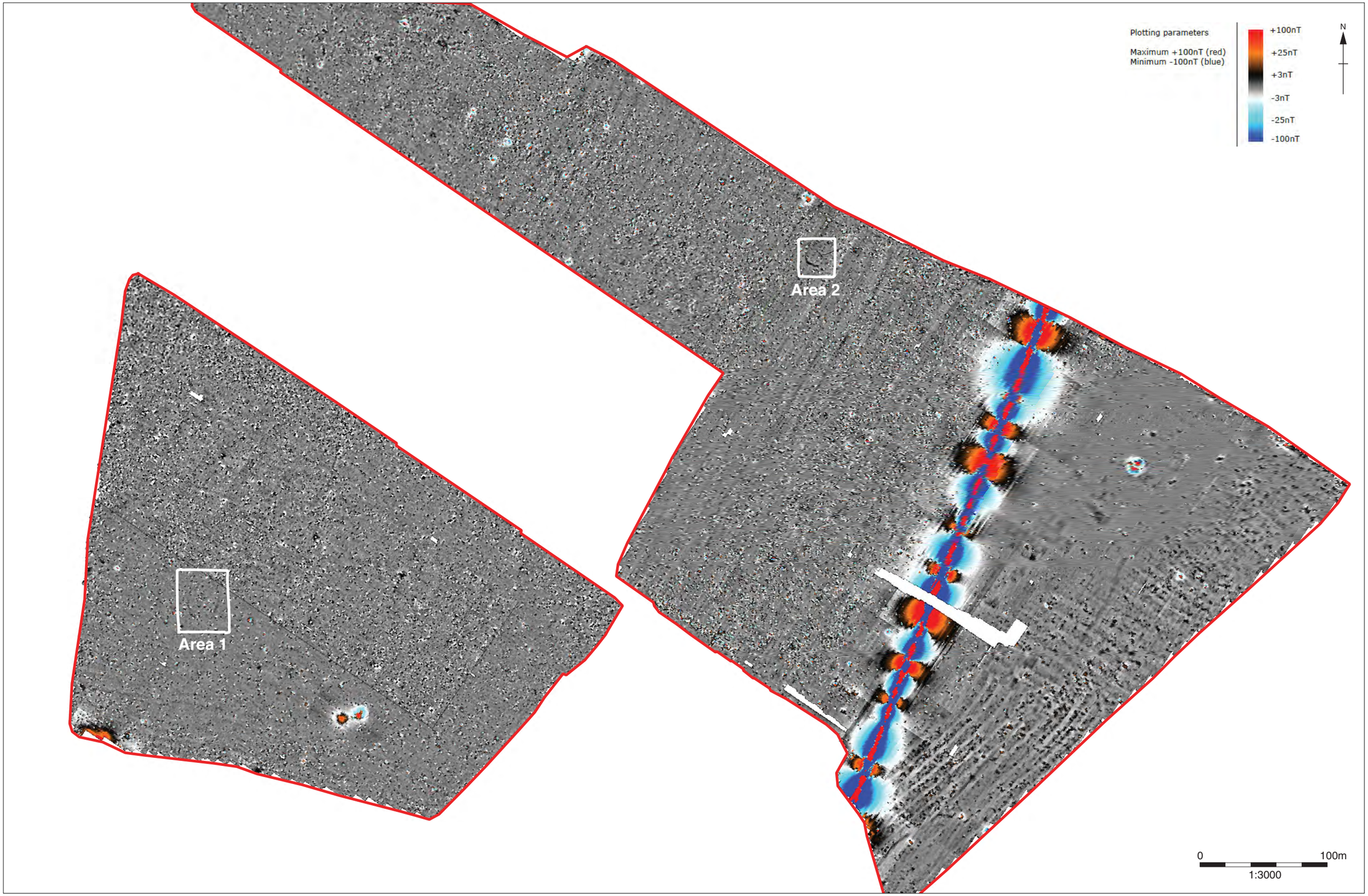

Figure 3: Geophysics gradiometer of the site (data supplied by the client)

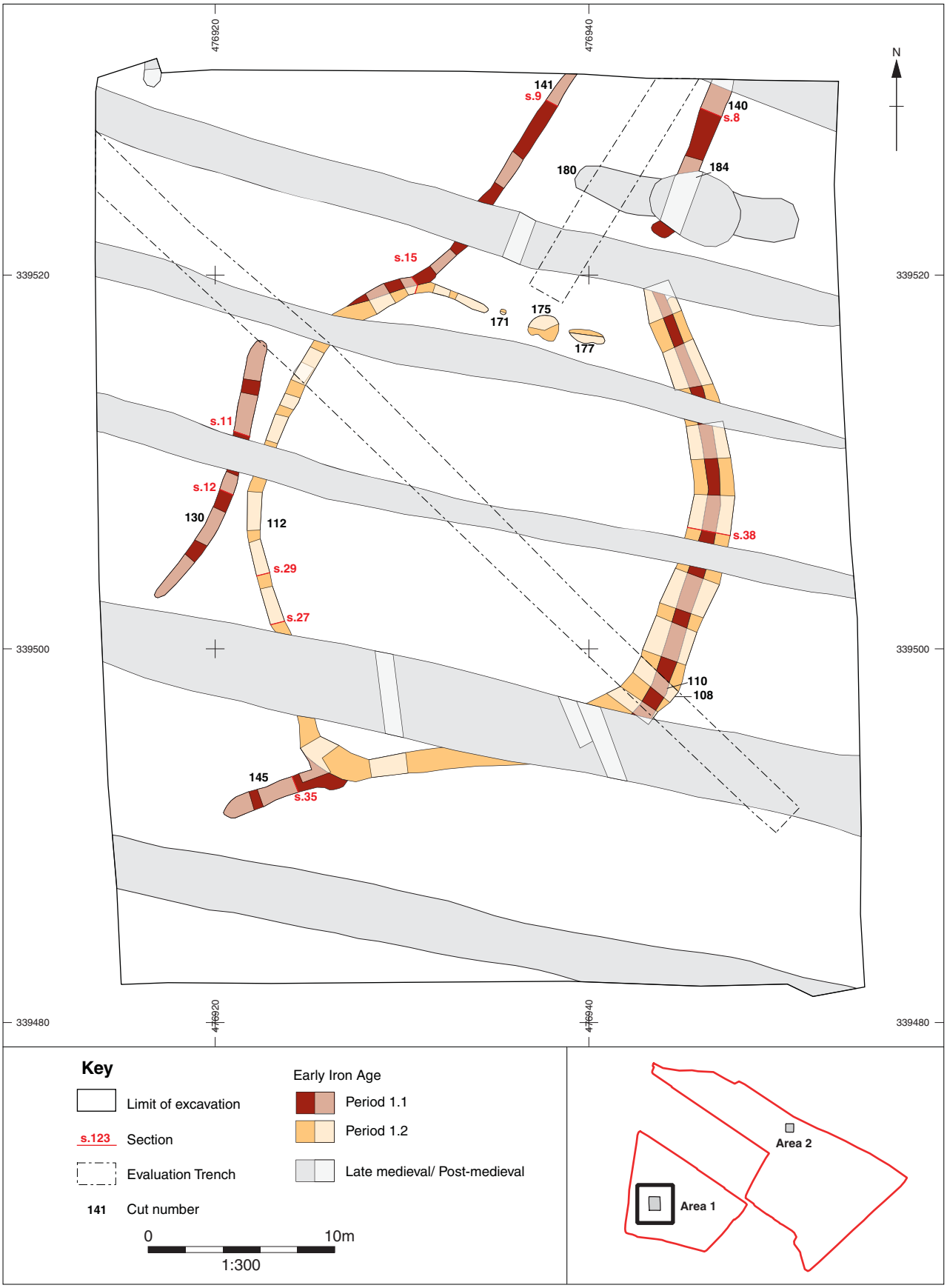

Figure 4: Phased plan of Area 1

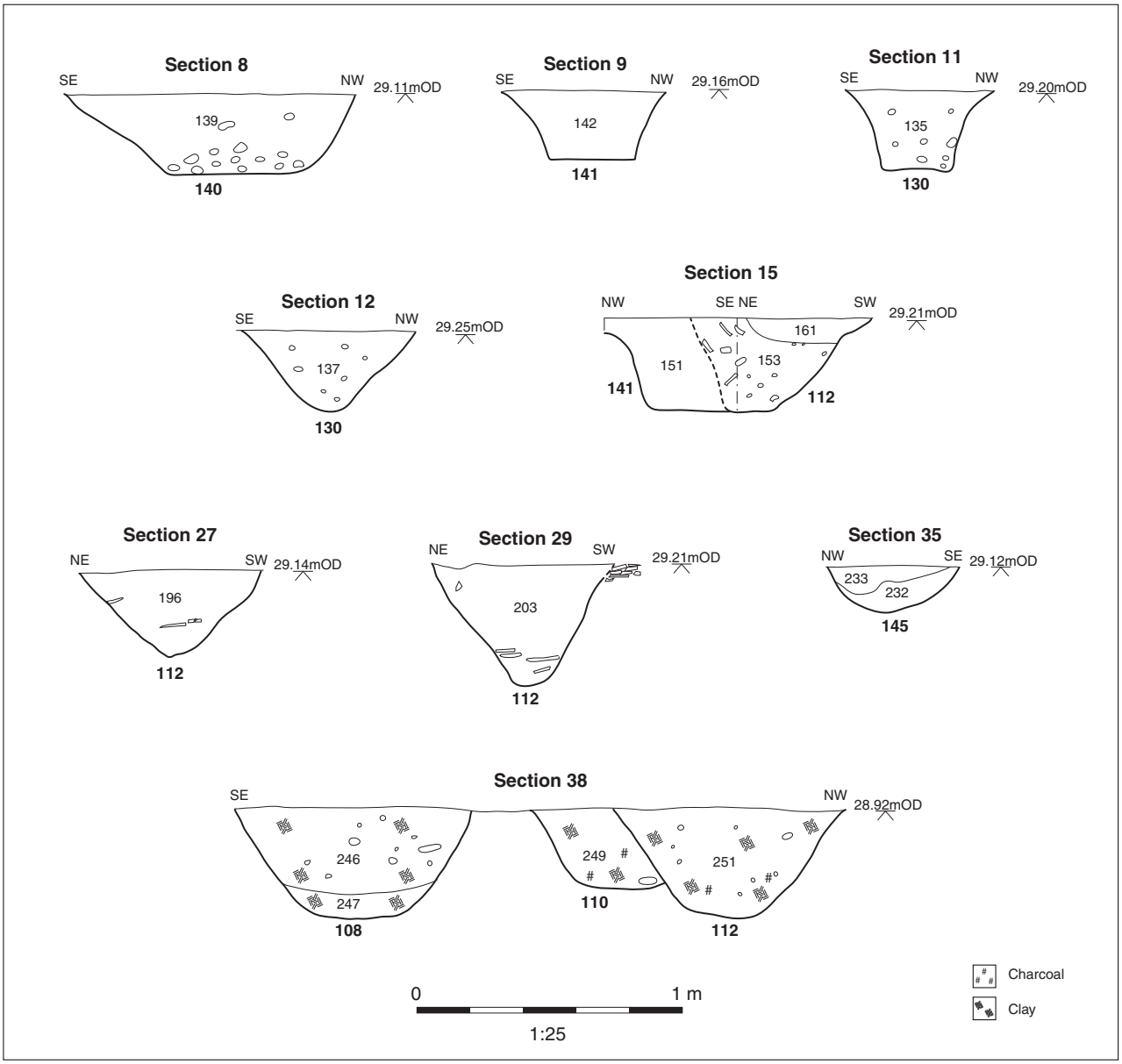

Figure 5: Area 1 selected sections

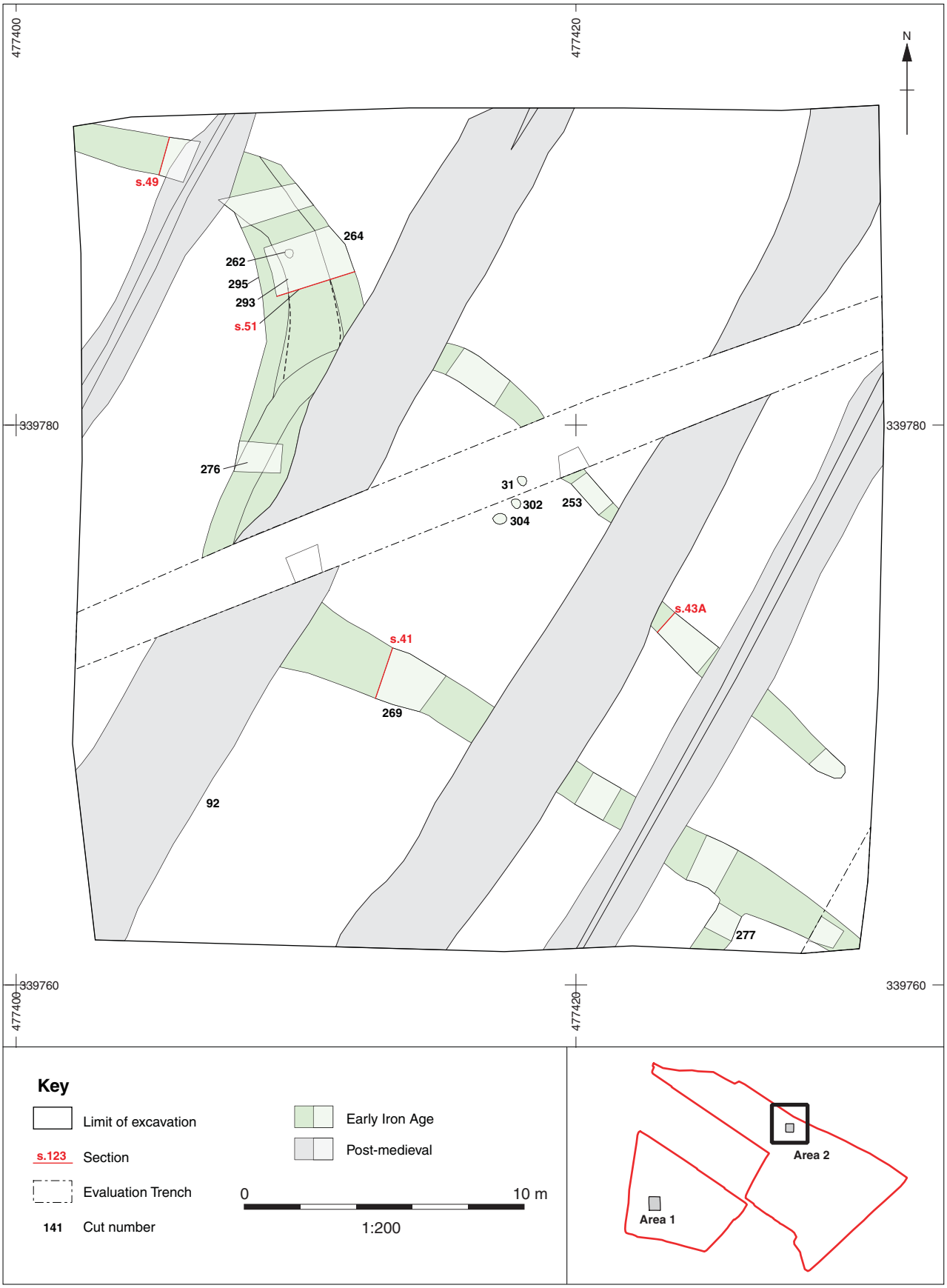

Figure 6: Phased plan of Area 2

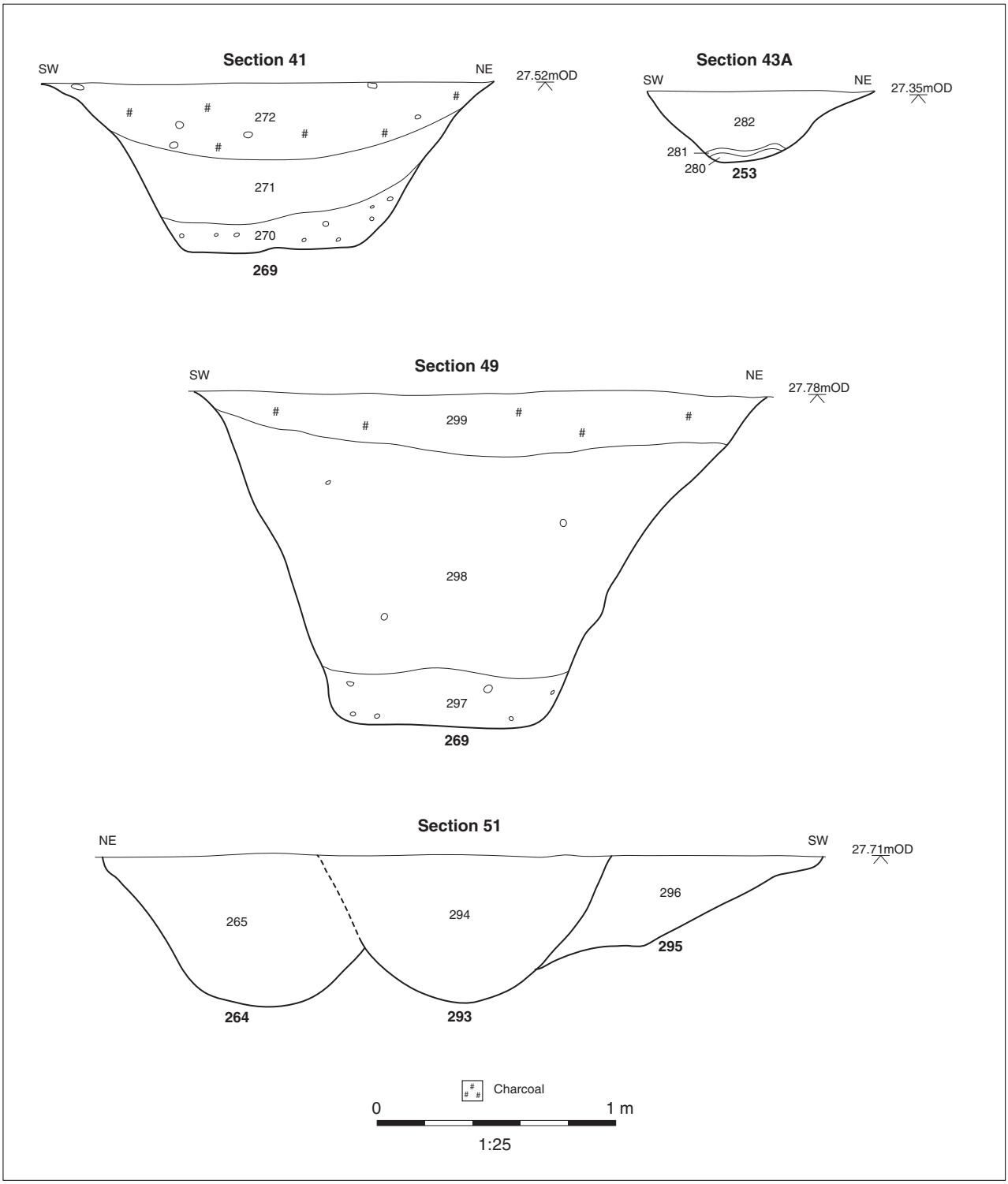

Figure 7: Area 2 selected sections

Plate 1: Aerial photograph of Area 1

Plate 2: Ditch **145**, looking north-east

Plate 3: Ditch **112**, looking south-east

Plate 4: Ditch **108**, looking south

Plate 5: Aerial photograph of Area 2

Plate 6: Ditch **253**, looking north

Plate 7: Ditch **269**, looking north

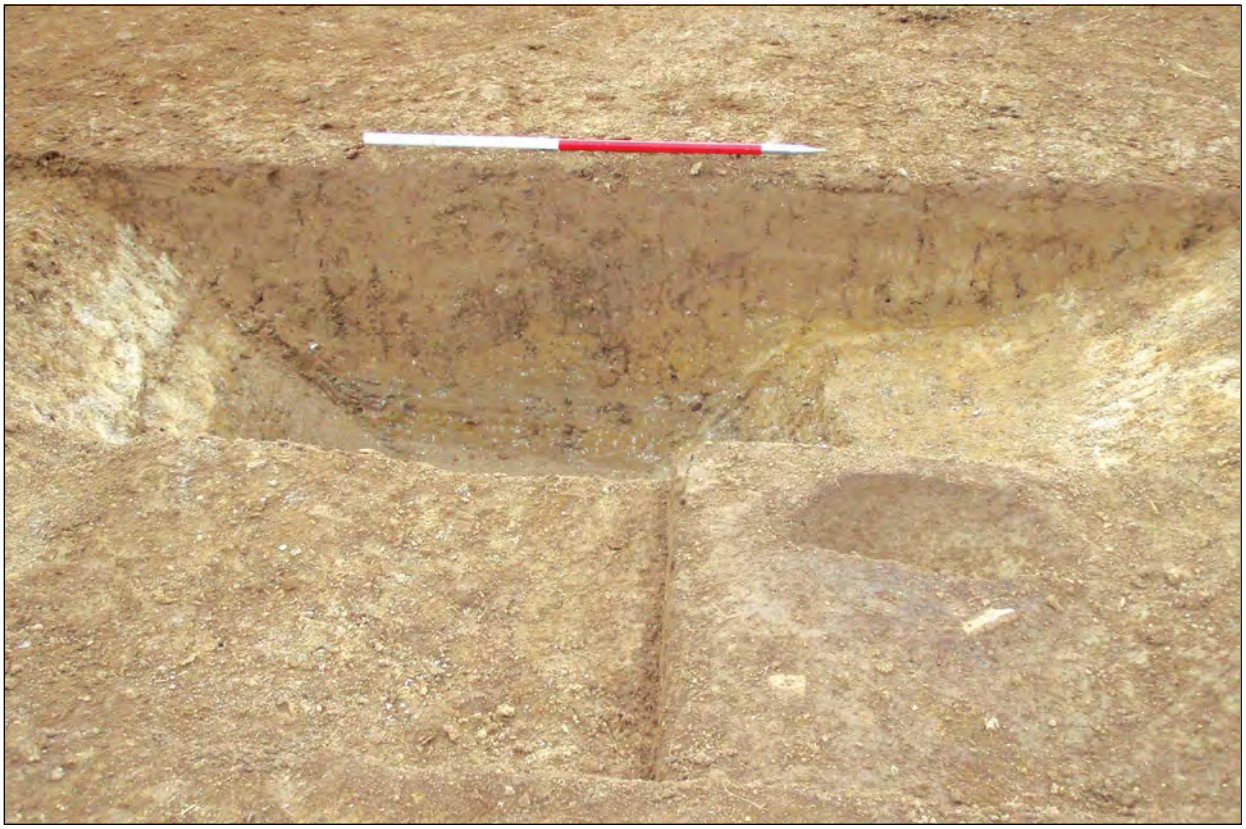

Plate 8: Ditches **264**, **293** and **295**, looking south

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