An Enclosure to the North of Baldock Road, Royston, Hertfordshire

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An Enclosure to the North of Baldock Road, Royston, Hertfordshire

Archaeological Excavation Report

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Summary

Between the 11th and 21st of February 2019 Oxford Archaeology undertook an excavation north of Baldock Road, Royston. The excavation targeted an enclosure first identified by aerial photography and subsequently investigated during two phases of trial trenching. The excavation revealed a small, square enclosure defined by a fairly substantial ditch, measuring approximately 27m across with a single, west facing entranceway. Despite intensive excavation, very few finds were recovered from the enclosure ditches, but a sample bone of bone form the primary fill of the ditch has been radiocarbon dated to 670-770 cal AD, and sherds from a single Middle Saxon pottery vessel, dating to between c. 720-850 AD, were recovered from its upper fills.

Few other features were encountered during the excavation, but a group of probably contemporary pits/postholes were revealed in and around the enclosure entrance. A small group of internal pits and postholes were also revealed; several of these produced post-medieval tile, but three other features remain poorly dated and were marked by charcoal rich fills containing small quantities of iron slag and hammerscale. A post-medieval/early modern trackway also crossed the excavation area, and corresponds to a track shown on first edition OS mapping.

The function of the Middle Saxon enclosure remains uncertain and at present it seems to be essentially unparalleled, although it may be loosely related to a group of somewhat earlier, 7th century, Saxon 'shrines' known from sites elsewhere in the country, and a potential ceremonial or ritual purpose is consistent with the lack of evidence for domestic type activity.

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The project was managed for Oxford Archaeology by Liz Muldowney. The fieldwork was directed by David Browne, who was supported by Rona Booth, Alexandra Dawson, Thomas Houghton and Rebecca Pridmore. Survey and digitizing was carried out by Thomas Houghton and Gareth Rees. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell, processed the environmental remains under the management of Rachel Fosberry and prepared the archive under the supervision of Katherine Hamilton.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology East (OAE) was commissioned by RPS to undertake an archaeological excavation at the site of a proposed residential development of approximately 300 houses on land west of Royston, North of Baldock Road.

1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 16/00387/1). Following initial scoping discussions with Hertfordshire County Council, a written scheme of investigation (WSI) was produced by RPS, detailing a programme of works, beginning with trial trenching and other works if required (Flitcroft 2018). This was followed by a supplementary WSI produced in January 2019 which set out the approach and methods for the excavation (Flitcroft 2019).

1.2 Location, topography and geology

1.2.1 The wider development area, covering an area of approximately 11.4ha (centred on TL 3414 4070), lies on the western side of Royston, to the north of Baldock Road and south of the Cambridge to Hitchin railway line (Fig. 1). It is bound by the A505 to the west, to the east by recent residential development. The site slopes gently down from the south to the north running from 68.7m OD in the north to 67.5m OD in the south. The surface geology of the area is mapped as chalk belonging to the Holywell Nodular Chalk Formation, with no overlying superficial deposits.

1.2.2 The area of the excavation was approximately 800m^2, targeted on an enclosure previously identified both by aerial photography and two phases of trial trenching (Goacher 2016; Browne 2019). Prior to the archaeological works the area of the excavation, and the wider development area, was arable farmland.

1.3 Archaeological and historical background

1.3.1 The archaeological and historical background of the site was discussed in detail in an Archaeological Assessment Report, prepared in 2015 (Whiteley and Flitcroft 2015), and is summarised here, with selected Historic Environment Record (HER) entries plotted on Fig. 2.

Prehistoric

1.3.2 Royston lies on the route of the putative prehistoric route-way known as the Icknield Way (HER 4182), which to the west of Royston broadly follows the Baldock Road, passing along the southern boundary of the site. To the south of the Icknield Way the ground rises steeply onto the higher ground of Therfield Heath, where there is a nationally important group of prehistoric funerary monuments comprising a Neolithic Long Barrow (HER 40) and a Bronze Age round barrow cemetery (HER 6355). There are also a variety of other prehistoric monuments associated on the heath including a 'stockade' enclosure (HER 4446) and a bank and ditch system, known as The Mile Ditches, which are found 400m to the south-west of the site (HER 2207, not mapped).

Roman

1.3.3 One kilometre to the east of the site, lies the route of Ermine Street, a north-south aligned Roman road, which passed through Royston and is now followed approximately by the modern A1198. The Icknield Way (HER 4182; see above) also continued in use as a communication route throughout the Roman period, and the HER reports that there is evidence for an 'engineered Roman version' of the route in North Hertfordshire. There is a report of evidence for Roman settlement close to the projected crossing point of Ermine Street and the Icknield Way (around 1km east of the site), in modern Royston, in the form of finds of coins and other evidence of Roman occupation (HER 1489; not mapped), and more recent excavations within the modern town, at Green Drift, recorded a ditched boundary which produced a small assemblage of Roman pottery (HER 13761; not mapped)

1.3.4 An mid-18th century account mentions a possible "Roman camp", "a quarter of a mile from Royston on the road to Baldock" (HER 4196). The location, interpretation and existence of this monument is uncertain.

Anglo Saxon to post-medieval

1.3.5 Antiquarian evidence for Anglo-Saxon activity and burial was recorded within the Therfield Heath barrow cemetery and further finds are known from within Royston, 900m to the east of the site. There is little to no recorded evidence for the Saxon period settlement of Royston (Whiteley and Flitcroft 2015, 12-13).

1.3.6 The site lies outside of the settlement core of Royston throughout the medieval and post-medieval periods. The Baldock Road was in use as a communication route at this point and became a turnpike road in 1769. Analysis of historical mapping identified no activity apart from agricultural use on this site. The earliest map is from 1806. No structures have ever been recorded upon the site (Whiteley and Flitcroft 2015).

Previous work

1.3.7 In tandem with the desk-based Archaeological Assessment (Whiteley and Flitcroft 2015), a geophysical (gradiometer) survey of the proposed development area was carried out (see Fig. 2; Stratascan 2016). This revealed no definite archaeological features (pre-modern) but did record a number of linear anomalies probably relating to relatively recent agricultural activity, some of which could be equated to former field boundaries shown on historic OS maps.

1.3.8 In 2016 Headland Archaeology carried out a programme of trial trenching across the development area (Goacher 2016). This revealed a series of north to south/east to west aligned ditches belonging to a post-medieval strip field system, and a small number of discrete undated pits. Following outline planning consent, a second phase of trial trenching was undertaken by Oxford Archaeology East in 2019 (Browne 2019). This revealed more ditches belonging to the post-medieval field system and, more importantly, confirmed the presence of a square enclosure on the site which had been recorded as a cropmark in 2007. This small (c. 25 by 25m) enclosure was not recorded by the geophysical survey and was only recorded in one of the trenches excavated as part of the earlier, 2016, evaluation, where the enclosure ditch was assumed to belong

to the post-medieval field system. No dating evidence was recovered from the enclosure ditches exposed by the trenches, and it date and function remained uncertain.

2 EXCAVATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives, and set out in the WSI (Flitcroft 2019), were as follows:

i. Establish the nature of the "square enclosure" within the development site, as far as reasonably practicable.
ii. Record in plan the extent and relationship of surviving remains.
iii. Determine the location, extent, date, character, condition, significance and quality of any further archaeological remains that are present.
iv. Recover datable evidence from the enclosure ditch and/or associated features if present.
v. Assess the artefactual and environmental potential of any archaeological deposits encountered.
vi. Review the excavated evidence in the context of the prehistoric ritual landscape on Therfield Heath.
vii. To produce a site archive for deposition with an appropriate Museum and to provide information for accessions to the Hertfordshire HER.

2.2 Methodology

2.2.1 Service plans were consulted before any work was undertaken and the area was scanned by a qualified operator using a CAT and Genny with a valid calibration certificate

2.2.2 The excavation area was opened up by a 20 tonne 360° type excavator, assisted by a 5-tonne dumper, using a 1.8m wide toothless ditching bucket. The area covered approximately 880m^2 and, within the constraints set by access routes and shelter belt plantations, was designed to cover the enclosure and provide a significant buffer zone where any external features could be identified.

2.2.3 All machine excavation was supervised by a suitably qualified and experienced archaeologist. Spoil was stored in a designated area with topsoil and subsoil stored separately to enable sequential backfilling post excavation.

2.2.4 Surveying was carried out using a survey-grade differential GPS (Leica GS08) fitted with "smartnet" technology with an accuracy of 5mm horizontal and 10mm vertical. A photogrammetric survey has also been produced (Plate 1).

2.2.5 All archaeological features were hand-excavated and were recorded using OA's pro-forma sheets. The site location, plans and sections were recorded at appropriate scales and digital photographs were taken of all relevant features and deposits.

2.2.6 All finds were retained for inspection/analysis and a total of seven environmental samples were taken for processing at OAE's environmental facility at Bourn.

2.2.7 Site conditions were very good for the time of year, with dry weather and clear, bright skies.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the excavation are presented below and include a stratigraphic description of the archaeological remains. The full details of all contexts are tabulated in Appendix A. Where relevant, the results from the earlier OAE and Headland evaluations (Goacher 2016; Browne 2019) have been integrated into this report. Context numbers assigned during the OAE evaluation ran from 1 to 39 whilst those allocated during the excavation phase ran from 100 onwards; where features first revealed during the evaluation trenching were re-investigated during the excavation they were given a new set of context numbers.

3.1.2 An overall plan of the excavation area, showing archaeological features and excavated interventions is provided as Fig. 3, with selected section drawings presented in Fig. 4. Selected photographs, including an aerial orthophotographic view of the site are provided in Plates 1-9). A summary of the finds and environmental evidence from the site is presented in Section 3.7, with full specialist reports in Appendices B and C.

3.1.3 Given the relatively small number of archaeological features no formal phasing of the site has been undertaken, although the features encountered can very broadly be separated into those making up or probably associated with the enclosure and those relating to post-medieval/early modern land-use.

3.2 General soils and ground conditions

3.2.1 The soil sequence consisted of a grey-brown silty sand topsoil directly overlying the natural chalk bedrock.

3.2.2 Ground conditions throughout the excavation were generally good, and the area remained dry. Archaeological features, where present, were easy to identify against the underlying natural geology.

3.3 General distribution of archaeological deposits

3.3.1 As noted above, the archaeological remains revealed in the excavation area consisted of ditches belonging to the square enclosure, a number of probably contemporary discrete features in and around the enclosure's entranceway, a post-medieval trackway that cut across the enclosure, and a small cluster of pits and postholes adjacent to the trackway. Aside from this, a single tree throw feature was exposed in the eastern part of the site.

3.4 The enclosure

3.4.1 Examination of aerial photographs of the enclosure suggested that it was square, measuring approximately 25m by 25m, with a possible entranceway along its western side. It was not possible to expose the full extent of the enclosure in the excavation area, due to its eastern corner lying within a belt of trees that was to be retained during the development works and its southern side lying within a belt of trees and along the access route to the site. Consequently, the southern arm and north-eastern corner of the enclosure ditch lay beyond the limits of excavation and only one corner (the north-

western) of the enclosure ditch was exposed, although it is estimated that around 90% of the interior of the enclosure lay within the excavation area (Fig. 3; Plates 1-3).

3.4.2 Overall, the morphology of the enclosure corresponded closely with the observations made on the basis of the aerial photography, and is estimated to have been very close to square in plan, with external measurements of between 26m and 27m across, and enclosing an area slightly over 500m^2. The presence of a single entranceway on the western side of the enclosure was also confirmed, and is estimated to have lain almost exactly at the midpoint of this side of the enclosure. Within the entranceway was a centrally placed pit or large posthole, and immediately to the west, outside the entrance, was an arrangement of four small pits or postholes, all of which seem likely to be contemporary with the enclosure and which may relate to some kind of entrances structure(s) (Plate 4). Although a small cluster of discrete features were exposed within the interior of the enclosure (adjacent to the post-medieval trackway) it is tentatively suggested, on the basis of their fills and associated finds, that they are unlikely to be contemporary with the enclosure, and date instead to the post-medieval period (see below).

3.4.3 As outlined in more detail below, very few finds were recovered from the enclosure ditches or associated features and its dating rests on a radiocarbon date obtained on a sample of animal bone (sheep/goat humerus) from the lower fill of the enclosure ditches northern terminus (cut **105**, fill 106). This sample returned a date of 660-770 cal AD at 95% confidence (SUERC-90152; 1307±24 BP), covering the earlier part of the Middle Anglo-Saxon period.

Enclosure ditch

3.4.4 The northern, east-to west aligned arm of the enclosure was exposed over a length of 20m, extending beyond the eastern limit of excavation, with a projected/estimated total length of some 27m (Plate 6). A shorter length of the eastern arm of the enclosure ditch was exposed (13m; Plate 7) but this is projected to have had a similar length of around 26m. Finally, a 20m length of the western arm of the enclosure was revealed within the excavation area, broken by an entranceway 1.8m wide (Plates 3 and 5).

3.4.5 The enclosure ditch was intensively sampled, with approximately 34m of the ditch hand-excavated, accounting for around 70 per cent of the length of the enclosure ditch exposed in the excavation area, and over 30 per cent of its entire (estimated) length. The various lengths of the ditch were excavated and recorded as a series of 15 separate interventions, typically 2m or 3m long, and identified by separate cut numbers. The context numbers associated with each of these interventions, alongside dimensions of the ditch cut, summary information on the fill sequence and details of associated finds are presented in Table 1.

Intervention (Cut number)	Max. dims. (m)		Fill	Type	Finds/enviro summary
	Width	Depth			
190	2	1.25	191	Basal	-
			192	Secondary	-

Intervention (Cut number)	Max. dims. (m)		Fill	Type	Finds/enviro summary
	Width	Depth			
			193	Secondary	-
			194	Tertiary	animal bone (2g); struck flint (1)
100	1.95	0.9	101	Basal	-
			102	Secondary	-
			103	Secondary	animal bone (11g); struck flint (5)
			104	Tertiary	RB pottery (4 sherds/22g); animal bone (403g), struck flint (3); CBM (1 frag./2g)
129 (S. 24)	1.66	1	130	Basal	-
			131	Secondary	-
			132	Secondary	-
			133	Secondary	-
			134	Tertiary	struck flint (10)
186	1.5	0.8	187	Basal	hammerscale
			188	Secondary	-
			189	Tertiary	-
139	1.55	0.8	140	Basal	-
			141	Secondary	-
			142	Tertiary	-
8	1.4	0.8	9	Basal	-
			10	Secondary	-
185	2	0.9	184	Basal	-
			183	Secondary	-
			182	Secondary	-
			181	Tertiary	-
138 (S. 25 & 26)	2	0.9	137	Basal	-
			136	Secondary	-
			135	Secondary	animal bone (3g)
			128	Tertiary	Middle Saxon pottery (6 sherds/156g), prehis/E. Sax. pottery (1 sherd/1g);animal bones (29g); struck flint (3); burnt stone (1 frag./213g); hammerscale; charred barley grain (1)
176	1.8	0.85	177	Basal	-
			178	Secondary	RB pottery (1 sherd/2g); Prehist./E. Sax. pottery (1 sherd/1g); 1 struck flint
			179	Secondary	struck flint (1)
			180	Tertiary	animal bone (19g); struck flint (1)
146	1.8	0.85	147	Basal	-
			148	Secondary	-
			149	Secondary	-
			150	Tertiary	RB pottery (1 sherd/6g); struck flint (2)
171	1.7	0.85	172	Basal	-
			173	Secondary	-
			174	Secondary	RB pottery (2 sherds/21g); animal bone (2g); struck flints (1)
			175	Tertiary	-
105	1.7	0.9	106	Basal	animal bone (sheep/goat: 21g) – ^{14}C dated to 660-770 cal AD
			107	Secondary	C19/20 pottery (1 sherds/1g); hammerscale
			708	Tertiary	-
155 (=**13**)	1.4	0.8	156	Basal	-
			157	Secondary	-
			158	Secondary	-
167	1.5	0.8	168	Basal	iron slag (1 frag./6g)
			169	Secondary	-
			170	Secondary	-

Intervention (Cut number)	Max. dims. (m)		Fill	Type	Finds/enviro summary
	Width	Depth			
116 (S. 22)	2	1.1	115	Basal	-
			114	Secondary	-
			113	Secondary	-
			112	Secondary	-
			111	Secondary	-
			110	Secondary	-
			109	Tertiary	-

Table 1. Summary concordance of contexts and finds from the enclosure ditch

3.4.6 In terms of both its profile and fills, the ditch was remarkably uniform. It was typically up to 1.6 to 2m wide and 0.8 to 1m deep, reaching a maximum depth of 1.25m in intervention **190**, on the eastern arm of the enclosure. The upper part of the sides of the ditch were moderately steeply sloping, becoming steeply sloping further down the profile and breaking fairly sharply onto a relatively narrow flat or slightly concave base (see Fig. 4, Sections 22, 24, 25, 26).

3.4.7 The ditch invariably exhibited a relatively simple fill sequence (Fig. 4, Sections 25 and 26), with basal, primary, fills composed largely of small fragments of chalk in a pale silt matrix, representing rapid weathering of the ditch sides, followed by secondary fills of silt and sandy silts with frequent chalk fragments, attesting to more gradual infill. In most cases these were sealed by upper, tertiary, deposits of reddish brown silts and sandy silts which appear to represent gradual accumulation of sediment when the earthworks of the enclosure had stabilised.

3.4.8 A small number of interventions showed somewhat more complex fill sequences, and in several cases distinct deposits of chalk-rich silts were identified in the upper part of the sequence, which had clearly entered the ditch from the interior of the enclosure (e.g. fills 111 and 112, cut **116**, Fig. 4, Section 2 and fill 135, cut **138** Fig. 4, Section 25). These deposits seem very likely to be derived from the weathering/erosion of a bank originally located along the interior edge of the ditch.

3.4.9 Despite the extensive sampling of the enclosure ditch, a very small assemblage of finds was recovered (Table 2; see Fig. 5 for the distribution of pottery from the enclosure ditch). The lower fills, in particular, were almost barren of finds – with the basal fills producing only a single small fragment of weathered iron slag and the humerus of a sheep or goat – the latter returning a radiocarbon date of 660-770 cal AD (95% confidence; see above). The various secondary fills contained only three sherds of Roman pottery, and a tiny sherd of prehistoric or Early Saxon pottery, alongside small quantities of animal bone, (residual) prehistoric flintwork and an intrusive sherd of modern pottery (1g). The reddish brown silts and sandy silts which formed the uppermost (tertiary) fill of the ditch produced the vast majority of the finds. These deposits produced a single small sherd (1g) of prehistoric/Early Saxon pottery, five sherds of Roman pottery (28g), six sherds of Middle Saxon Ipswich-type ware and 450g of animal bone, including elements belonging to sheep/goat, cattle and horse, as well as a small quantity of struck flint. Whilst the Roman pottery was in a moderately to severely abraded condition, the six sherds of Middle Saxon pottery (from fill 128, cut

138) were in better condition and belong to a single vessel which may have been substantially complete when originally deposited (see Lyons, App. B.1).

3.4.10 Environmental sampling of the ditch fills produced largely negative results (App. C.2) and, aside from sparse charcoal, the only preserved plant remains from the enclosure ditch was a single charred barley grain from the upper fill of cut **138**. Small quantities of hammerscale were also recovered from several of the environmental samples (see Table 2; App. C.2), including the basal fill (187) of cut **186**.

The entranceway and associated features

3.4.11 The entranceway on the western side of the enclosure was formed by a 1.8m wide gap in the ditch (between cuts **105** and **155** - the latter previously excavated in the evaluation as **13**), which ended on either side of the entrance with a regular steep sided termination (Plate 4). Placed centrally within this gap was a substantial pit or posthole (**143**) originally excavated during the evaluation (as **18**). Oval in plan, measuring 1.05m by 0.9m across and up to 0.68m deep, this feature had very steeply sloping sides and a flat base (Fig 4, Section 7). The feature was filled by a lower deposit of dark greyish brown stony silt (145=19) and an upper mid greyish brown silt (145=20). Although the morphology of the feature and its location within the entranceway would be consistent with a substantial post-setting, there was no trace of any post-pipe or packing in the fills of the feature. No finds were recovered from this feature.

3.4.12 Directly to the west of the entranceway was a 'diamond-shaped' arrangement of smaller discrete circular to sub-circular features, with two pits or postholes (**163** (=**23**) & **165** (=**21**)), laid out directly in line with pit **143**, flanked to the south and north by two slightly larger pits (**159** and **161** (=**28**)). These features measured between 0.3m and 0.6m across and between 50mm and 0.15m deep and were filled by single deposits of greyish brown silt. The only finds recovered were a small, probably intrusive, fragment of CBM from the fill of feature **159** and a tiny sherd of flint tempered prehistoric or Early Saxon pottery from feature **165**.

3.5 The post-medieval trackway

3.5.1 A shallow linear feature representing the remains of a trackway were exposed across the full width of the excavation area, bisecting the site on a north-northwest to south-southeast alignment and cutting across the upper fills of the enclosure ditch on its northern side (Fig. 3; Plates 1-3). Where best-surviving, the trackway was up to 2.5m wide, and excavation revealed an irregular profile, with two narrow 'ruts' on the edges of the feature (123 & 127) flanking a central, broader hollow (120), which reached a maximum depth of 0.2m (Plate 9). These hollows were filled by a mid-grey brown silt which produced 19th or early 20th century pottery, ironwork (including horseshoes) and glass.

3.5.2 There is no indication of a trackway in this location on the earliest maps of the site, dating to the early 19th century (the 1806 enclosure map and an Ordnance Survey (OS) drawing of 1804), but a trackway closely matching its location is shown on the first edition OS map of 1886, running north-north west from Baldock Road, and is

shown on subsequent iterations of OS mapping up until the mid-20th century (see Whiteley and Flitcroft 2015, figs 4-6).

3.6 Pits and postholes within the enclosure

3.6.1 Close to the centre of the enclosure and immediately adjacent to the western edge of the post-medieval trackway, was a cluster of five features, several of which were first identified and investigated during the 2019 evaluation (Trench 5; Browne 2019). Although relatively tightly clustered, these features may not represent a single chronological phase and fall into two distinct groups on the basis of their fill types and associated finds.

3.6.2 The first group consisted of a pair of postholes/small pits, located immediately to the south-east of pit **16**. These two features (**151** and **153**) were both broadly sub-circular in plan, measuring 0.6m in diameter and 0.49m deep and 0.41m in diameter and 0.16m deep respectively. Both contained single deposits of brown silts with frequent chalk inclusions. Two fragments of post-medieval ceramic tile were recovered from the fill of **151**.

3.6.3 The second group of features consisted of a pair of sub-square postholes, **11** and **29**, both around 0.45m wide and 0.32 and 0.45m deep respectively, with vertical sides and flat bases, and a sub-circular pit (**16**), 1m in diameter and up to 0.28m deep. All three of these features contained similar charcoal rich fills of extremely loose and friable dark grey brown silty sand. Postholes **11** and **29** both produced small quantities of iron slag (32 and 14g respectively) and a small fragment of ceramic building material (2g) was recovered from the fill of **29**, whilst samples of the fills of both features yielded small amounts of hammerscale. These three features are not well-dated and their location and layout in the centre of the enclosure, in line with its western entranceway, might suggest that they represent some kind of internal post settings contemporary with the enclosure. However, the fills of these features were very different in character to those of the postholes associated with the enclosure's entranceway and was extremely loose and friable, potentially indicating a relatively recent date for these features.

3.6.4 Additionally, to the east of the trackway, a large tree throw feature (**126**) was excavated. Irregular in plan, measuring 2.4m by 3.45m, it produced one small rodent bone from its fill.

3.7 Finds and environmental summary

Pottery (App. B.1)

3.7.1 A small assemblage of 21 sherds of pottery were recovered, most of which consisted of small abraded sherds of Roman pottery from the upper fills of the enclosure ditch, alongside a little modern pottery from the trackway hollows. The most notable pottery find was six sherds from a single Middle Saxon Ipswich-type ware vessel from the upper fill of the enclosure ditch, which may have been more complete when originally deposited.

Flint (App. B2)

3.7.2 A small assemblage of 31 worked flints was recovered. The flint was thinly distributed and in a condition suggesting it represents residual prehistoric material inadvertently incorporated into the fills of later features.

Metalwork (App. B3)

3.7.3 Fragments belonging to eight modern iron artefacts were collected from the trackway hollows.

Ceramic building material (App. B4)

3.7.4 Small quantities of ceramic building material (CBM) were collected from the site, mostly from the trackway hollows and from two potentially contemporary pits/postholes (**151** and **169**). Several other contexts yielded tiny, probably intrusive, fragments of CBM.

Iron slag (App. B.5)

3.7.5 Small fragments of secondary iron slag (vitrified hearth lining) were recovered from several contexts, including the fills of two postholes within the enclosure (**11** and **29**) and from two fills of the enclosure ditch. These probably represent the residue of Roman or early medieval (Anglo-Saxon) metalworking, although the small quantity is not enough to definitively demonstrate on site metalworking.

Stone (App. B6)

3.7.6 A single burnt stone was recovered from the upper fill of enclosure ditch **138**.

Glass (App. B.7)

3.7.7 A small quantity of modern glass was recovered from the trackway hollows.

Clay tobacco pipe (App. B.8)

3.7.8 A fragment of clay tobacco pipe stem was collected from the topsoil.

Faunal remains (App. C.1)

3.7.9 A small assemblage of animal bone including specimens identified as belonging to sheep/goat, cattle and horse was recovered, mostly from the enclosure ditch.

Environmental samples (App. C.2)

3.7.10 The environmental samples were generally unproductive and very few charred plant remains were recovered. Small quantities of hammerscale were, however, recovered from several features, from postholes **11** and **29** and from two fills of the enclosure ditch.

4 DISCUSSION

4.1 Introduction and summary

4.1.1 In terms of the original research aims of the project (Section 2.1), the small scale open area excavation succeeded in locating and characterising the layout and morphology of the small square enclosure previously documented as a cropmark. Very few finds were recovered from the enclosure or its associated features, but, against expectations, a radiocarbon date on a sample of bone from the lower fill of the ditch produced a date covering the earlier part of the Middle Saxon period (660-770 cal AD), whilst sherds from an Ipswich Ware-type vessel recovered from its upper fill suggests, that it had largely infilled by c. 720-820 AD.

4.1.2 Alongside the enclosure, the excavation produced evidence for post-medieval land-use, in the form of the trackway and several potentially contemporary pits/postholes – results which complement the findings of the earlier evaluation fieldwork and geophysical survey.

4.2 The enclosure: morphology, date and function

4.2.1 The small square enclosure revealed by the excavations measured approximately 26-27m across, enclosing a space slightly larger than 500m square and with a single west-facing entranceway. There is clear evidence from the fill sequence of parts of the ditch that the enclosure originally had an internal bank. A striking characteristic of the enclosure is its highly regular layout, not only in terms of the straightness and regularity of the ditches but also to the character of the entranceway, which appears to have been positioned almost exactly on the mid-point of that side of the enclosure. Although the group of discrete features in and around the entranceway are essentially undated, their layout strongly suggests that they were closely associated with the enclosure. It is possible that they represent the remains of some kind of timber gateway/entrance structure, although neither the substantial pit within the entranceway (**143**) or the smaller and shallower features immediately to the west showed any clear traces of having contained posts.

4.2.2 None of the five discrete features exposed within the interior of the ditch can be demonstrated to be contemporary with the enclosure. Two of these, a pair of sub-circular pits, both filled with similar mid brown silts **151** and **153** seem very likely to be post-medieval based on the recovery of tile of this date from pit **151**, but there is more uncertainty regarding the date of the two sub-square postholes and the larger sub-circular pit (**11**, **29** and **16**), all of which shared very similar charcoal-rich fills. A fragment of CBM (2g) from posthole **29** is small enough to simply represent an intrusive find, and these features remain essentially undated, with the only other finds comprising small amounts of slag from both postholes. As set about above (Section 3), the placement of these features within the centre of the enclosure does suggest a possible association, but the extremely loose and friable fills of these features, very different to those of the 'entranceway features' suggests they may be better interpreted as much later, post-medieval/early modern features.

4.2.3 The fill sequence of the enclosure ditch itself was relatively simple and there is no evidence that it was subject to an extended history of cleaning out and/or recutting. The lower, chalk rich, fills of the ditch attest to rapid weathering of the ditch sides, followed by more gradual silting in the middle and upper part of the ditch, along with in-wash of material derived from the internal bank. The upper, practically chalk-free, upper silty fills of the ditch presumably represent the slow accumulation of sediment when the earthworks of the enclosure had stabilised and might include material washed in as a result of later cultivation of the surrounding area.

4.2.4 As emphasised above, the dating of the enclosure rests on a single radiocarbon date on a sample of bone from the lower fill of the ditch. The only other find from these basal fills was a single weathered piece of iron slag, whilst the environmental samples were virtually barren, the only results of note being the recovery of a rare pieces of hammerscale from the basal fill of ditch section **186**. These basal fills were largely composed of angular chalk fragments is a silty matrix, representing material eroded from the sides of the ditch, and are entirely consistent with the kind of primary deposits recorded during experimental monitoring of the infill of chalk-cut ditches, which has also demonstrated that the weathering of the upper part of chalk-cut ditch profiles and the accumulation of such basal fills occurs very rapidly following the features original excavation (Bell et al 1996). On this basis it seems likely that the radiocarbon determination of 660-770 cal AD on bone from this fill represents a date close to that of the original construction and use of the enclosure.

4.2.5 The small assemblage of heavily abraded Roman pottery from the enclosures secondary and tertiary fills (see Fig. 5) is entirely consistent with representing residual material, probably deriving from manuring scatters, incidentally incorporated into the ditch as it infilled. In contrast, the sherds from a single Middle Saxon Ipswich-type ware vessel, recovered from upper fill 128, were in better condition and seem likely to reflect the deposition/discard of a substantially complete pot at some time during the 8th or earlier 9th centuries – based on Blinkhorn's date range of 720-850 AD for Ipswich ware (Blinkhorn 2012, 3-8). Given that the ditch was substantially infilled by this point, it seems appropriate to regard this as a *terminus ante quem* for the main period of use of the enclosure (notwithstanding that it may have remained as a conspicuous earthwork into early modern times - see below).

4.2.6 In summary, the radiocarbon date and the pottery from the ditches upper fill strongly suggest a date for the construction and use of the enclosure in the late 7th or 8th century AD, the earlier part of the Middle Saxon period. Although ditched enclosure systems from this period are present in the wider region, they are invariably part of more extensive complexes of compounds, paddocks and fields clearly associated with contemporary settlement. Such sites are especially well documented in Cambridgeshire, including those at West Fen/Downham Road, Ely (Mudd and Webster 2011; Mortimer et al 2005; Cessford 2019); Cottenham (Mortimer 1998); Trumpington (Evans et al 2018) and Fordham (see Wright 2015); whilst an extensive multiphase 'defensive-scale' Middle Saxon enclosure has recently been excavated at Conington (MOLA Headland Infrastructure 2019). In this context, the size, morphology and 'formality' of the Baldock Road enclosure, the dearth of evidence for settlement and its apparent isolation set it apart from these broadly contemporary sites. Consultation

with period specialists (notably John Blair, Queen's College, University of Oxford) has suggested that the enclosure is without close parallel but may have some affinities with 7th century square (pagan) shrines known form elsewhere in the country (Blair 1995; J. Blair *pers comm*, Dec 2019). Certainly, the formal/precise layout of the ditch, the features in the entranceway and the dearth of evidence for domestic activity seems consistent with a ceremonial/ritual function for the enclosure, and this interpretation will be addressed in more detail in the publication of the site (see Section 5).

4.2.7 In terms of the wider landscape setting of the sites, there is very little evidence for any Anglo-Saxon settlement in Royston or the immediate environs of the site. Available documentary evidence suggests that settlement at Royston itself was not established until the 12th century (Whitely and Flitcroft 2015), although evidence of Early Saxon funerary activity (almost certainly predating the enclosure) is, however, provided by records of inhumation burials inserted into several of the round barrows on Therfield Heath (see Section 1.3). The enclosure's relationship with the Romanised route of the Icknield Way is probably significant, and it seems likely that the route remained in use in some form during the period of the enclosure's construction and use, whist the inter-visibility of the enclosure with the barrow cemetery on Therfield Heath may be of importance in the context of Anglo-Saxon funerary and ritual activity at this and other prehistoric monument sites (Semple 1998; 2013).

4.2.8 In terms of the later history of the enclosure, it seems possible that the mid-18th century mention of a possible 'Roman camp' (presumably an earthwork enclosure) on the Baldock Road just west of Royston (see Section 1.3, HER 4196) could refer to this enclosure, in which case the earthworks survived into early modern times, and may have finally been levelled during the course of the expansion of arable agriculture in the region over the late 18th and 19th centuries.

4.3 Post-medieval land-use

4.3.1 The post-medieval trackway encountered during the fieldwork can be correlated with a trackway shown on the 1st edition OS maps, and, based on its absence from earlier 19th century maps, is likely to be of mid-19th century origin (see Section 3.5), a date consistent with the various finds recovered from its fill. Two pits adjacent to the trackway produced post-medieval tile and reflect some kind of activity during this broad period, presumably associated with agricultural use of the area, taking place within the extensive post-medieval field system documented by the earlier phases of trial trenching (Goacher 2016; Browne 2019).

5 PUBLICATION

5.1.1 It is proposed that results of the excavation will be published as a paper in *Medieval Archaeology* or an equivalent specialist journal, and will be produced in collaboration with John Blair, Professor of Medieval History and Archaeology, University Oxford (and a member of OA's Research Committee). The publication will include discussion of the enclosure's potential interpretation as a very rare example of a Middle Saxon 'shrine' and will place it in its regional and national archaeological and historical context.

APPENDIX A CONTEXT INVENTORY

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
100	cut	ditch		101, 102, 103, 104		2	1.93	0.88					linear	Steep	Sharp	Concave	N-S	V-Shape
101	fill	ditch	101			2	0.99	0.34	Mid Brown	Silt	Frequent moderately-sorted chalk, rare moderately-sorted flint	Lowest fill						
102	fill	ditch	101			2	0.74	0.12	Light Whiteish Brown	Silt	Frequent moderately-sorted chalk, rare moderately sorted Flint, occasional snail shells	Middle Fill						
103	fill	ditch	101			2	1.93	0.56	Mid Brown	Silt	Frequent moderately-sorted chalk, rare moderately sorted flint, occasional snail shells	Middle Fill						
104	fill	ditch	101			2	1.3	0.28	Mid Brown	Silt	Occasional well-sorted chalk, rare moderately sorted flint, occasional snail shells	Upper fill, centre fill does not extend to edges						
105	cut	ditch	0	106, 107, 108		2	1.7	0.88					linear	Gradual	Sharp	V-Shape	SW-NE	V-Shape

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
106	fill	ditch	105			2		0.48	Light Greyish White	Silt Clay	Abundant Chalk	Lower Fill						
107	fill	ditch	105			2		0.4	Mid Greyish Brown	Silty Clay	Frequent chalk, rare small sub-angular flint	Upper right fill						
108	fill	ditch	105			2		0.33	Dark Greyish Brown	Silt Clay	Frequent Chalk	Left Upper Fill						
109	fill	ditch	116			2	1.5	0.28	Reddish Brown	Sandy Silt	Occasional angular chalk	Upper Fill, Western Edge						
110	fill	ditch	116			2	1.36	0.3	Dark Reddish Brown	Silt Sand	Frequent sub-angular pea grit	Middle Fill, Eastern Edge, sloping in						
111	fill	ditch	116			2	1.66	0.4	Light Reddish Brown	Sandy Loam	Very Frequent chalk	Middle Fill, Eastern Edge						
112	fill	ditch	116			2	0.7	0.5	Light Reddish Brown	Clay Loam	Frequent sub-angular chalk	Middle fill, Western Edge						
113	fill	ditch	116			2	0.9	0.5	White	Silt	Abundant small/medium sub-angular chalk	Middle Fill						
114	fill	ditch	116			2	0.5	0.26	Light Grey	Chalk	Frequent small/medium sub-angular chalk	Middle Fill						
115	fill	ditch	116			2	0.26	0.06	Dark Brown	Silt Sand	Occasional Chalk	Basal Fill						
116	cut	ditch	0	109, 110, 111, 112, 113,		2	2	1.1					linear	Sharp	Sharp	Flat	NW-SE	Flat bottom V-Shape

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
				114, 115														
117	cut	hollow	0	118, 119		2	0.32	0.17					linear	Steep	Sharp	Concave	N-S	Rounded Square
118	fill	hollow	117			2	0.25	0.17	Light Greyish Brown	Silt	Occasional, moderately-sorted chalk	Lower Fill						
119	fill	hollow	117			2	0.32	0.08	Mid Greyish Brown	Silt	Occasional moderately-sorted chalk	Upper Fill						
120	cut	hollow	0	121, 122		2	1.04	0.19					linear	concave	Sharp	Moderate	N-S	U-Shape
121	fill	hollow	120			2	0.96	0.19	Mid Greyish Brown	Silt	Occasional moderately-sorted chalk	Lower Fill						
122	fill	hollow	120			2	1.04	0.16	Mid Greyish Brown	Silt	occasional moderately-sorted chalk	Upper Fill						
123	cut	hollow	0	124, 125		2	0.68	0.16					linear	Steep	Sharp	Flat	N-S	U-Shape
124	fill	hollow	123			2	0.68	0.16	Mid Greyish Brown	Silt	Occasional moderately-sorted chalk	Lower Fill						
125	fill	hollow	123			2	0.52	0.03	Mid Greyish Brown	Silt	Occasional moderately-sorted chalk	Upper Fill						
126	cut	natural	0	127		2.4	3.45	0.29					amorphous	Moderate	Gradual	Irregular		Irregular
127	fill	natural	126			2.4	3.45	0.29	Mid Brown	Silt	Occasional moderately-sorted chalk, occasional snail shells	Sole Fill						
128	fill	ditch	138			2.2	1.7	0.4	Reddish Brown	Silt Sand	Occasional Chalk	Upper Fill, Sloping to North in west facing section						

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
129	cut	ditch	0	130, 131, 132, 133, 134		2	1.66	0.96					linear	Steep	Sharp	V-Shape (Slight concavity)	NW_SE	V-Shape
130	fill	ditch	129			2		0.24	:ight Grey	Silt	Abundant small broken up chalk	Lower Fill						
131	fill	ditch	129			2		0.2	Light Brown	Silt	Abundant Chalk	Second Fill						
132	fill	ditch	129			2		0.2	Light Greyish Brown	Sand Silt	Frequent Chalk	Third Fill						
133	fill	ditch	129			2		0.28	Light Greyish Brown	Frequent Chalk	Sand Silt	Fourth Fill						
134	fill	ditch	129			2		0.2	Light Reddish Brown	Sand Silt	Occasional chalk pieces	Upper fill, Tertiary Silting						
135	fill	ditch	138			2.2	1.8	0.6	Pale Orangey Brown	Silt Sand	Occasional pea grit, moderate chalk	Slumps to Northern edge						
136	fill	ditch	138			2.2	1.1	0.5	Light Orangey Brown	Silt Sand	Abundant small/medium chalk	Middle Fill						
137	fill	ditch	138			2.2	0.7	0.35	Light Grey	Silt	Frequent Chalk	Lower Fill						
138	cut	ditch	0	128, 135, 136, 137		2.2	2.1	1					curvilinear	Steep	Gentle	Flat	S-N	Flat bottom Sharp-V
139	cut	ditch	0	140, 141, 142		2	1.54	0.8					linear	Moderate	Moderate	Concave	E-W	Rounded V-Shape
140	fill	ditch	139			2	0.8	0.48	Light Brownish Grey	Silt	Very Frequent moderately-	Lower Fill						

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
											sorted chalk, rare snail shells							
141	fill	ditch	139			2	1.4	0.4	Mid Whiteish Brown	Silt	Frequent moderately-sorted chalk, rare snail shells	Middle Fill						
142	fill	ditch	139			2	0.9	0.2	Mid Brown	Silt	Occasional moderately-sorted chalk, rare snail shells	Upper Fill, Southern Edge						
143	cut	pit	0	144, 145		0.9	0.7	0.55					rectangular	Steep	Sharp	Flat	E-W	Square
144	fill	pit	143			0.7	0.7	0.4	Light Grey	Sand Silt	Abundant small/large chalk	Lower Fill						
145	fill	pit	143			0.7	0.7	0.1	Light Orangey Brown	Silt Sand	Moderate chalk	Upper Fill						
146	cut	ditch	0	147, 148, 149, 150		2							linear	Steep	Sharp	Flat	SW-NE	Flat Bottom V-Shape
147	fill	ditch	146			2	0.6	0.25	Mid Grey	Silt	Abundant Chalk	Upper Fill						
148	fill	ditch	146			2	1	0.3	Pale Orangey Brown	Silt	Abundant small/medium chalk	Middle Fill						
149	fill	ditch	146			2	1.7	0.5	Light Orangey Brown	Sand Silt	Frequent small/medium sub-angular chalk	Middle Fill, Sloping to Western Edge						
150	fill	ditch	146			2	0.8	0.1	Reddish Brown	Sand Silt	Occasional sub-angular chalk	Middle Fill						

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
151	cut	post hole	0	152		0.58	0.65	0.49					circular	Steep	Moderate	Concave		U-Shape
152	fill	post hole	151			0.58	0.65	0.49	Light Brown	Silt	Frequent moderately-sorted Chalk	Sole Fill						
153	cut	post hole	0	154		0.41	0.4	0.16					circular	Gentle	Gradual	Concave		U-Shape
154	fill	post hole	153			0.41	0.4	0.16	Mid Orangey Brown	Silt	Frequent moderately-sorted chalk	Sole Fill						
155	cut	ditch	0	156, 157, 158		2	1.4	0.81					linear	Sharp	Sharp	Flat	N-S	Flat Base V-Shape
156	fill	ditch	155			2	0.75	0.37	Light Grey	Sand Silt	Abundant small/medium chalk stones	Basal Fill						
157	fill	ditch	155			2	1.22	0.28	Light Brownish Grey	Sand Silt	Frequent small/medium chalk stones, Very rare charcoal	Middle Fill						
158	fill	ditch	155			2	1.4	0.2	Mid Brown	Sand Silt	Moderate small chalk stones	Upper Fill						
159	cut	post hole	0	160		0.39	0.63	0.14					sub-circular	Sharp	Sharp	Irregular Concave		Irregular
160	fill	post hole	159			0.39	0.63	0.14	Mid Brown	Silt	Occasional moderately-sorted chalk, rare charcoal	Sole Fill						
161	cut	post hole	0	162		0.46	0.5	0.15					circular	Steep	Sharp	Concave		U-Shape
162	fill	post hole	161			0.46	0.5	0.15	Mid Orangey Brown	Silt	Occasional moderately sorted chalk	Sole Fill						

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
163	cut	post hole	0	164		0.28	0.32	0.05					circular	Gentle	Moderate	Concave		U-Shape
164	fill	post hole	163			0.28	0.32	0.05	Mid Orangey Brown	Silt	Occasional moderately-sorted chalk	Soel Fill						
165	cut	post hole	0	166		0.24	0.33	0.03					circular	Gentle	Gradual	Concave		U-Shape
166	fill	post hole	165			0.24	0.33	0.03	Mid Orangey Brown	Silt	Occasional moderately-sorted chalk	Sole Fill						
167	cut	ditch	0	168, 169, 170	155	0							linear	Sharp	Sharp	Flat	N-S	Flat Base V-Shape
168	fill	ditch	167		156	0			Light Grey	Sand Silt	Abundant small/medium chalk stones	Basal Fill						
169	fill	ditch	167		157	0			Light Brownish Grey	Sand Silt	Frequent small/medium chalk stones	Middle Fill						
170	fill	ditch	167		158	0			Mid Brown	Sand Silt	Moderate small chalk stones	Upper Fill						
171	cut	ditch	0	172, 173, 174, 175	146	0							linear	Steep	Sharp	Flat	SW-NE	Flat Bottom V-Shape
172	fill	ditch	171		147	0			Mid Grey	Silt	Abundant chalk	Basal Fill						
173	fill	ditch	171		148	0			Light Orangey Brown	Silt	Abundant small/medium chalk	Middle Fill						
174	fill	ditch	171			0			Light Orangey Brown	Sand Silt	Frequent small/medium sub-	Middle Fill						

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
											angular chalk							
175	fill	ditch	171		150	0			Reddish brown	Sand Silt	Occasional sub-angular chalk	Upper Fill						
176	cut	ditch	0	177, 178, 179, 180	146	0							linear	Steep	Sharp	Flat	SW-NE	Flat bottom V-Shape
177	fill	ditch	176		147	0			Mid Grey	Silt	Abundant chalk	Basal Fill						
178	fill	ditch	176		148	0			Light Orangey Brown	Silt	Abundant small/medium chalk	Middle Fill						
179	fill	ditch	176		149	0			Light Orangey Brown	Sand Silt	Frequent sub-angular chalk	Middle Fill						
180	fill	ditch	176		150	0			Reddish Brown	Sand Silt	Occasional sub-angular chalk	Upper Fill						
181	fill	ditch	185		128	0			Reddish Brown	Silt Sand	Occasional Chalk	Upper Fill						
182	fill	ditch	185		135	0			Light Orangey Brown	Silt Sand	Moderate small/medium chalk	Middle Fill						
183	fill	ditch	185			0			Light Orangey Brown	Silt Sand	Abundant small/medium chalk stones	Middle Fill						
184	fill	ditch	185		137	0			Light Grey	Silt	Chalk	Middle Fill						
185	cut	ditch	0	181, 182, 183, 184	138	0							linear	Steep	Gentle	Flat	N-S	

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
186	cut	ditch	0	187, 188, 189	139	0							linear	Moderate	Moderate	Cocave	E-W	Rounded V-Shape
187	fill	ditch	186		140	0			Light Brownish White	Silt	Very Frequent moderately-sorted chalk, rare snail shells	Basal Fill						
188	fill	ditch	186		141	0			Mid Whiteish Brown	Silt	Frequent moderately-sorted chalk, rare snail shells	Middle Fill						
189	fill	ditch	186		142	0			Mid Brown	Silt	Occasional moderately-sorted chalk, rare snail shells	Upper Fill						
190	cut	ditch	0	191, 192, 193, 194	100	0	1.98	1.26					linear	Moderate to Steep	Moderate	Concave	NNW-SSE	U-Shape
191	fill	Slumping	190			2	0.44	1.26	Mid Brown	Silt	Very Frequent moderately sorted chalk	Basal Fill						
192	fill	ditch	190			2	0.75	1.09	Light Brownish White	Silt	Very Frequent moderately-sorted stones, rare snail shells	Middle Fill						
193	fill	ditch	190			2	1.8	0.84	Mid Brown	Silt	Frequent poorly-sorted chalk, rare snail shells	Middle Fill, WSW Edge						

Context	Category	Feature Type	Cut	Filled By	Same as	Length	Breadth	Depth	Colour	Fine component	Coarse component	Thickness/Extent	Shape in Plan	Side	Break of Slope	Base	Orientation	Profile
194	fill	ditch	190			2	1.32	0.5	Mid Brown	Silt	Occasional moderately-sorted chalk	Upper Fill, Eastern Edge						

APPENDIX B FINDS REPORTS

B.1 Pottery

By Alice Lyons with Carole Fletcher

Introduction

B.1.1 A small multi-period assemblage of pottery, totaling 21 sherds weighing 231g, were during the excavation (Table 2). Almost all of the pottery was retrieved from the enclosure ditch, with three early modern sherds recovered from trackway hollow **120**. The pottery varies from moderately-to-severely abraded and has an average sherd weight of 11g.

Era	Sherd Count	Weight (g)	Weight (%)
Prehistoric	3	3	1.30
Late Roman	8	51	22.08
Middle Saxon	6	166	71.86
Early Modern	4	11	4.76
Total	**21**	**231**	**100.00**

Table 2. The pottery quantified by period

Methodology

B.1.2 The pottery was evaluated following the national guidelines (Barclay et al 2016). The total assemblage was studied, and a catalogue was prepared (appended to this report). The sherds were examined using a hand lens (x10 magnification) and were divided into fabric groups defined based on inclusion types present. Vessel forms (jar, bowl) were also recorded. The sherds were counted and weighed to the nearest whole gram and recorded by context. Decoration, residues and abrasion were also noted.

Prehistoric

B.1.3 Three small pieces of handmade flint tempered bowl fragments, weighing only 3g, was recovered. This material is not closely datable and could be either of Early Saxon or prehistoric date; on balance it is considered to be severely abraded, residual, prehistoric pottery.

Romano-British

B.1.4 Eight fragments of Roman pottery, weighing 51g, were found (Table 3). Where the sherds could be closely dated they can be seen to be characteristic of the Late Roman era.

Fabric: (abbreviation)	Vessel	Sherd Count	Weight (g)
Nene Valley colour coat: (LNV CC)	Beaker	1	18
Shelly ware: (STW)	Jar/bowl	2	16
Sandy grey ware: (SGW)	Jar, dish	4	15
Sandy white ware: (SOW)	Jar	1	2
Total		**8**	**51**

Table 3. The Roman pottery

B.1.5 The coarse ware assemblage consists of small amounts of locally produced, but unsourced, fabrics. Two fragments of South Midland shelly ware jar/bowl body and base sherds were found (Tyers 1996, 192-193), also four Sandy grey ware jar and dish body sherds one of which was finished with an external white slip. Also found was a very small Sandy white ware sherd from a jar.

B.1.6 The only non-local product is a Nene Valley colour coat rouletted body fragment from a substantial beaker (Tyers 1996, 173-175). This vessel was produced in the Lower Nene Valley, centred around Water Newton near modern Peterborough and was a common product in the 3rd and 4th centuries when it was marketed across eastern England.

Middle Saxon

B.1.7 A total of six sherds, weighing 166g, from a single vessel were recovered from the upper fill (128) of enclosure ditch **138**. These fragments are from a thick sandy grey jar with an upstanding slightly everted rim, globular body and rounded base, probably produced on a slow wheel. The vessel is diagnostic of a smooth Ipswich-type ware, manufactured between c. 720 and 850 AD and is widespread within East Anglia (Blinkhorn 2012).

Early modern

B.1.8 Three sherds from three separate early modern stoneware vessels were recovered from feature **120**. A fragment, weighing 1g, from a post-medieval black glazed ware vessel was recovered from sample 16 from ditch **105**.

Summary

B.1.9 This is a small multi-period assemblage of pottery including prehistoric, Roman, Saxon and Early Modern material. The pottery is fragmentary and has been exposed to significant post-depositional disturbance leading to high levels of abrasion, possibly as the result of ploughing.

B.1.10 The most well-preserved pottery is the Middle Saxon jar, which may have been more complete at time of deposition. Generally, however, the pottery is fragmentary and was deposited as part of the rubbish disposal systems of near-by communities.

The Pottery Catalogue

Key: B = base, C = century, EMOD, Early Modern, ESAX = Early Saxon, D = decorated body sherd, HM = handmade, MSAX = Middle Saxon, PRE = prehistoric, RB = Romano-British, R = rim, SW = slow wheel, U = undecorated body sherd, WM = wheelmade,

*For full fabric names see pottery tables in text

Con-text	Cut	Feature	Era	WM/HM	Fabric*	Dsc	Vessel	Count	Weight (g)	Pot Date
166	165	POSTHOLE/PIT	PRE/ESAX	HM	RW(FLINT)	U	BOWL	1	1	PRE/ESAX
100	100	DITCH	RB	WM	LNV CC	D	BEAKER	1	18	C3-C4
104	101	DITCH	RB	WM	STW	U	JAR/BOWL	1	1	C3-C4
104	101	DITCH	RB	WM	SOW	U	JAR	1	2	C2-C4
104	101	DITCH	RB	WM	SGW	U	JAR	1	1	C1-C4
107	105	DITCH	EMOD	WM	PMR	U	FRAGMENT	1	1	C19/C20
122	120	HOLLOW	EMOD	WM	STONE	U	FRAGMENT	3	10	C19/C20
128	138	DITCH	MSAX	HM/SW	SGW	RU	JAR	5	139	C8-C9
128	138	DITCH	PRE/ESAX	HM	RW(FLINT)	U	BOWL	1	1	PRE/ESAX
128	138	DITCH	MSAX	HM/SW	SGW	U	JAR	1	27	C7-C9
150	146	DITCH	RB	WM	SGW	D	JAR	1	6	C3-C4
174	171	DITCH	RB	WM	SGW	U	JAR	1	6	C3-C4
174	171	DITCH	RB	WM	STW	U	JAR/BOWL	1	15	C4/EC5
178	176	DITCH	PRE/ESAX	HM	RW(FLINT)	U	BOWL	1	1	PRE/ESAX
178	176	DITCH	RB	WM	SGW	B	DISH	1	2	MC1-C4

B.2 Flint

By Lawrence Billington

Introduction

B.2.1 A small assemblage of 31 struck flints was recovered during the excavation. The flint has been fully catalogued and a basic quantification of the assemblage by context is provided in Table 4. The flint was recovered in low densities from twelve individual contexts; most of the assemblage derived from the fills of the enclosure ditch, with two pieces coming from deposits associated with the post-medieval trackway which crossed the site. Most contexts produced only very small quantities of flint, the most substantial individual assemblage, ten pieces, came from the upper fill (134) of enclosure ditch 129. The condition of the assemblage, with frequent edge damage and rounding, suggests that all of the flint represents residual material inadvertently incorporated into the fills of later features.

Context	Cut	Context type	Chip	Irregular waste	Primary flake	Secondary flake	Tertiary flake	Secondary bladelet	Core	Scraper	Totals
103	100	Enclosure ditch	1			2	1		1		**5**
104	100	Enclosure ditch				1	2				**3**
122	120	Trackway hollow				1					**1**
125	123	Trackway hollow				1					**1**
128	138	Enclosure ditch				2	1				**3**
134	129	Enclosure ditch		4	1	2	1	1	1		**10**
150	146	Enclosure ditch					1		1		**2**
174	171	Enclosure ditch					1			1	**2**
178	176	Enclosure ditch				1					**1**
179	176	Enclosure ditch				1					**1**
180	176	Enclosure ditch					1				**1**
194	190	Enclosure ditch				1					**1**
Totals			**1**	**4**	**1**	**12**	**8**	**1**	**3**	**1**	**31**

Table 4. Basic quantification of the flint by context

Condition and raw materials

B.2.2 With the exception of two pieces, all of the flintwork is heavily recorticated ('patinated') an opaque white colour. Significantly, the two unrecorticated pieces both derive from hollows associated with the post-medieval trackway, and whilst technically 'struck/worked' it is strongly suspected these pieces are of recent date, perhaps deriving from attrition/damage sustained to a track surface incorporating flint nodules/cobbles. As noted above, individual pieces invariably show at least some minor edge damage, suggestive of a complex post-depositional history.

B.2.3 Surviving cortical surfaces are thick and unweathered and reflect the exploitation of nodules of flint recovered from sources closely associated with the parent chalk – such material would have been widely available in surface deposits in the local area.

Characterisation

B.2.4 The assemblage is made up entirely of relatively undiagnostic, unretouched material. There is a lack of demonstrably 'early' Mesolithic/earlier Neolithic blade-based material – the single blade from enclosure ditch **129** is somewhat irregular and could represent a fortuitous removal made during more generalised flake production. The assemblage includes a few minimally worked cores, some shattered fragments of cores/nodules and a series of flakes. The technological attributes of the flakes suggest that most derive from a simple flake-based core reductions strategy, with unprepared striking platforms and use of direct hard hammer percussion to reduce simple single or multiple platform cores. None of this material is strongly diagnostic but the inclusion of competently worked, if simple, removals suggests that much of it is probably of a broad Later Neolithic to Early Bronze Age date.

B.2.5 The presence of minimally worked cores, shattered pieces and high proportion of cortical flakes (including decortication flakes) suggests that the initial/early stages of core reduction are particularly well-represented in the assemblage, and this probably reflects the abundance of good quality flint in the area. Any detailed assessment of the character of the flint is hampered, however, by the small size of the assemblage.

Discussion

B.2.6 The small assemblage of struck flint recovered during the excavations attests to some prehistoric activity at the site, probably during the later Neolithic and Early Bronze Age. There is no convincing evidence for earlier activity during the Mesolithic or earlier Neolithic. None of the flint can be closely associated with the feature/context from which it derives and is likely to have been incorporated into the fills of later features, deriving ultimately from potentially extensive surface scatters of flintwork in the area.

B.3 Metalwork

By Denis Sami

B.3.1 Eight iron artefacts were recovered from trackway hollows **119** and **122** (Table 5). Finds were quantified and assessed according to the Oxford Archaeology East finds standard. The catalogue is organised by small find number (SF). Features, identification and description of finds are also included in the catalogue together with spot-dates.

B.3.2 The metalwork is a heterogeneous assemblage consisting of fragments of horseshoes, nails, two loops and shapeless debris, all of modern date. The metalwork is most likely the result of agricultural activity in the area. The finds are incomplete and poorly preserved with thick encrustation and rust.

SF	Context	Feature	Description	Spot-date
1	119	hollow	-Two very large incomplete horseshoes (Fe) -Bent large hoop, possibly part of a plough (Fe) -Incomplete tapering shaft of a nail (Fe)	Modern
2	122	hollow	-Horseshoe fragment (Fe) -Two bent incomplete nails (Fe) -Small loop (Fe)	Modern

Table 5. Metalwork catalogue

B.4 Ceramic building material

By Ted Levermore

Introduction

B.4.1 Archaeological work recovered 25 fragments, 142g, of ceramic building material (CBM). This assemblage comprised Late Medieval to Post-medieval (22 fragments, 136g) flat tile and undiagnostic fragments (3, 6g). The assemblage was abraded and uninformative (average weight 5.8g). The assemblage is quantified by context in Table 6.

Context	Cut	Feature	Form	Date	Count	Weight (g)	Comment
30	29	Posthole	Undiag	Undiag	1	2	Undiag nugget
104	100	Ditch	Undiag	Undiag	1	2	Undiag nugget
119	117	Hollow	Tile	Pmed	1	10	Small fragment of Pmed 1/2 inch flat tile
122	120	Hollow	Tile	Pmed	7	58	Fragments of Pmed flat tile, largest pieces show 1/2 inch thickness
125	123	Hollow	Tile	Pmed	10	37	Fragmemts of Pmed flat tile, largest pieces show 1/2 inch thickness
125	123	Hollow	Tile	Lmed-Pmed	2	7	Fragments of Lmed-Pmed material, silty fabric
152	151	Post Hole	Tile	Lmed-Pmed	1	14	Small fragment of Pmed 1/2 inch flat tile
152	151	Post Hole	Tile	Pmed	1	10	Small fragment of Pmed 1/2 inch flat tile
160	159	Post Hole	Undiag	Undiag	1	2	Undiag nugget
Totals					**24**	**140**	

Table 6. CBM catalogue

Methodology

B.4.2 The assemblage was quantified by context, fabric and form and counted and weighed to the nearest whole gram. Width, length and thickness were recorded where possible. The quantified data and fabric descriptions are presented on an Excel spreadsheet held with the site archive.

Results

B.4.3 Three fabrics were recorded from this small assemblage. The fabrics recorded were all typical CBM recipes, with preferences towards refined fabrics with gritty inclusions for the later post-medieval and early modern material. Full fabric descriptions can be found with the site archive.

B.4.4 The assemblage is largely uninformative as it is abraded and fragmentary. It was collected from ditch **100**, trackway features **117**, **120** and **123** and postholes **29**, **151** and **159**.

B.5 Iron slag

By Simon Timberlake

Introduction

B.5.1 Some 11 small fragments of iron slag weighing 55g were recovered from this site, of which 52g came from the processing of enviro samples (Table 7).

Methodology

B.5.2 The slag was identified visually using an illuminated x10 magnifying lens, and compared where necessary with an archaeological slag reference collection. A dropper bottle containing dilute hydrochloric acid was used to confirm the presence or absence of carbonate, whilst a magnet was used to estimate the wustite and/or free iron content of the pieces.

Description

B.5.3 All of the pieces examined consisted of broken-up fragments of secondary iron smithing slag, in particular pieces of vitrified heath lining (VHL) and vitrified clay associated with smithing hearths. No fragments of smithing hearth base or dense slag smithing lumps were noted.

B.5.4 Most of these fragments appear to have been recovered from the sieving environmental samples, and the volume/weight/type of slag is both low and incomplete, and certainly not representative of an immediately *in situ* smithing hearth. Nevertheless, contexts 12 and 30 both contain quite fresh-looking pieces of VHL, as opposed to context 168 which is quite weathered. The degree of magnetisation of this hearth slag is quite typical, and to be expected of relatively early iron smithing processes.

Context no.	Cut	Type	Enviro sample no. <>	Nos. of pieces	Weight (g)	Size (mm)	Magnetics (scale 0-4)	Slag material	Type	Notes
12	11	posthole	2	5	32	21-32	0 (x3)+ 2 + 1	VHL	smith	fresh
30	29	posthole	3	3	14	14 + 20 + 40	3 + 1 + 1	VHL	smith	fresh
104	100	ditch		2	3	10 + 17	2 + 0	VHL	smith	
168	167	dicth	17	1	6	23	0	VHL	smith	weathered

Table 7. Catalogue of iron slag

Conclusion

B.5.5 The recovery of small amounts of iron smithing slag of this type suggests the likelihood of very small scale Roman or early medieval iron smithing (forge work) using charcoal as a fuel.

B.6 Stone

By Simon Timberlake

B.6.1 A single fragment of burnt stone weighing 319g was recovered from the upper fill (128) of enclosure ditch **138**.

B.6.2 The stone was identified visually using an illuminated x10 magnifying lens, and compared where necessary with an archaeological worked stone reference collection. A dropper bottle containing dilute hydrochloric acid was used to confirm the presence or absence of calcite in the rock.

B.6.3 The burnt stone consisted of a single fragment of a heavily burnt and reddened cobble composed of fine-grained micaceous sandstone/ siltstone. The use of such fluvioglacial erratic cobbles of stone collected from the flint and gravel terraces as burnt stone within the domestic setting (either for cooking, bathing or simple craft activities) is very typical of and also a commonplace prehistoric activity. This particular heat-fractured cobble is strongly fired and also covered with a thin layer of tufa, implying that this may have originally been deposited within a feature cut into the chalk.

B.6.4 The single fragment of a burnt stone cobble could be an example of redeposited prehistoric burnt stone originating from a nearby feature or burnt stone association. The probable date for this activity is Bronze Age – Iron Age, but almost certainly pre-Roman.

B.7 Glass

By Carlotta Marchetto and Carole Fletcher

Introduction

B.7.1 A small assemblage of glass was recovered from trackway hollows **117** and **120** (Table 8). The glass was scanned and recorded by form, colour, count and weight and dated where possible.

B.7.2 The glass assemblage comprises of five shards (0.011kg), two from hollow **117** and three from hollow **120**. All the shards are slightly to very abraded.

B.7.3 A shard of glass in hollow **120** could be from a utility or cylindrical bottle, the other two cannot be identified. The two shards from hollow **117** are slightly curved pieces of glass, suggesting they may be from a vessel. They have been dated to the 19th century or later.

Context	Cut	Form and Colour	MNV	No. of Shards	Weight (kg)	Glass Date
119	117	Small irregular slightly curved shard with yellowish green cast. It is matte finish on the outer exterior. 6mm thick	1	1	0.003	19th century or late date.
119	117	Small irregular shard of slightly curved, thin, blue green cast glass. Very abraded, 4-5mm thick		1	0.001	19th century or late date.

Context	Cut	Form and Colour	MNV	No. of Shards	Weight (kg)	Glass Date
122	120	Small irregular shard of slightly curved, dark olive green glass, from a cylindrical bottle. 9mm thick	1	1	0.004	19th century or late date.
122	120	Basal small irregular shard of thin pale blue green cast glass from a vessel. Abraded on the inside.	1	1	0.002	19th century or late date.
122	120	Very small irregular shard of thin pale blue green cast glass from a vessel. 5-6mm thick		1	0.001	19th century or late date.

Table 8 Glass catalogue

B.8 Clay tobacco pipe

By Carlotta Marchetto and Carole Fletcher

Introduction

B.8.1 During the excavation, a single fragment of white ball clay tobacco pipe was recovered from the topsoil. Simplified recording only has been undertaken, with basic description and weight recorded in the text. Terminology used in this report is taken from Oswald's simplified general typology (Oswald 1975, 37–41), and Hind and Crummy (1988, 47-66).

B.8.2 The pipe fragment is an unabraded section of slightly tapering stem (weighing 0.001kg). The diameter is 6mm and it is 19mm in length. The stem cannot be closely dated.

B.8.3 The recovered fragment of clay tobacco pipe represents what is most likely casually discarded pipes. The pipe fragment does little, other than to indicate the consumption of tobacco on, or in the vicinity of, the site, after 1580.

APPENDIX C ENVIRONMENTAL REPORTS

C.1 Faunal remains

By Zoë Uí Choileáin

Introduction and methodology

C.1.1 A small assemblage of animal bone weighing 172g and totalling 19 countable fragments was recovered from the excavation (Table 9). The material was primarily recovered from slots through an enclosure ditch and includes specimens recovered from environmental samples. The fragmentation levels are high and only three taxa were identified; cattle (Bos taurus), sheep/goat (Ovis/Capra) and horse (Equus caballus). The remaining fragments were recorded as large or medium mammal.

C.1.2 All bone was identified using Schmid (1972). Preservation condition was evaluated using the 0-5 scale devised by Brickley and McKinley (2004 14-15).

Results

C.1.3 The surface condition of the bone on average represents a 4-5 on the scale devised by Brickley and McKinley (*ibid*). This means that all of the surface of the bone has been heavily affected by erosion; on these specimens in the form of root etching and most likely the acidity of the soil. The material is highly fragmented and no metric data is collectable. An MNI (minimum number of individuals) of one is recordable for all three taxa. The only aging data present is the distal epiphyses of a cattle metapodial (ditch **138**) and a sheep/goat humerus (ditch **105**). These suggest an age at death above 24-36 months and 3-10 months respectively.

Cut	Context	Type	Taxon	Element	Weight	Count
101	103	Ditch	Sheep/Goat	Femur	11	1
101	104	Ditch	Cattle	Incisor	7	1
101	104	Ditch	Horse	Loose mand cheek tooth	47	1
101	104	Ditch	Horse	Mandible	322	1
101	104	Ditch	Large mammal	Radius	27	1
105	106	Ditch	Sheep/Goat	Humerus	21	1
120	122	Hollow	Medium mammal	Humerus	4	1
126	127	Natural feature	Rodent	Femur	0	1
138	128	Ditch	Cattle	Metapodial	21	1
138	128	Ditch	Sheep/Goat	Femur	5	1
138	128	Ditch	Sheep/Goat	Radius	3	1
138	135	Ditch	Medium mammal	Long bone	3	1
171	174	Ditch	Medium mammal	Long bone	2	1
176	180	Ditch	Sheep/Goat	Pelvis	1	1
176	180	Ditch	Medium mammal	Pelvis	2	1
176	180	Ditch	Medium mammal	Long bone	5	1
176	180	Ditch	Sheep/Goat	Femur	3	1
176	180	Ditch	Sheep/Goat	Scapula	3	1
186	188	Ditch	Sheep/Goat	Radius	5	1
190	194	Ditch	Cattle	Metapodial	2	1
Totals					494	19

Table 9. Total weight, count and taxa present per feature.

Summary

C.1.4 This is a very small assemblage most likely representative of domestic waste. Due to the high fragmentation levels and poor preservation there is little other information that can be gleaned from the material.

C.2 Environmental samples

By Rachel Fosberry

Introduction

C.2.1 A total of fifteen bulk samples were taken from features within the excavated area with the aim 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.

Methodology

C.2.2 The samples were processed by tank flotation using modified Sīraf-type equipment for the recovery of preserved 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. A magnet was dragged through each residue fraction for the recovery of magnetic residues prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds.

C.2.3 The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 1. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers et al. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (2010) for other plants. Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

C.2.4 For the purpose of this assessment, items such as cereal grains have been scanned and recorded qualitatively according to the following categories:

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

C.2.5 Items that cannot be easily quantified such as charcoal and molluscs have been scored for abundance

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

f = fragment

Results

C.2.6 Preservation of plant remains is extremely poor (Table 10); Sample 6, from posthole 161, contained a single degraded cereal fragment and Sample 18, fill 128 of ditch **138** contains a single charred barley (Hordeum vulgare) grain. Pits **11** (Sample 2, fill 12) and **29** (Sample 3, fill 30 of pit 11) produced large quantities of charcoal, occasional metalworking debris fragments and hammerscale, possibly indicating blacksmithing activity in the near vicinity. Metalworking debris was also recovered from ditches **105**, **138** and **186**.

Sample No.	Context No.	Cut no.	Feature type	Volume processed (L)	Flot Volume (ml)	Cereals	Snails	Charcoal Volume (ml)	Pottery	Slag	Hammerscale : flake	Hammerscale : spheroid
1	10	**8**	Ditch	17	40	0	+++	<1	0	0	0	0
2	12	**11**	Pit	16	80	0	+++	70	0	#	++	+
3	30	**29**	Pit	19	400	0	++	300	0	#	+	+
4	144	**143**	Pit	18	40	0	++	5	#	0	0	0
5	145	**143**	Pit	18	60	0	+++	1	0	0	0	0
6	162	**161**	Post-hole	9	20	#f	++	<1	#	0	0	0
7	163	**163**	Post-hole	2	5	0	++	<1	0	0	0	0
8	164	**165**	Post-hole	2	5	0	++	<1	0	0	0	0
15	106	**105**	Ditch	17	20	0	+++	0	0	0	0	0
16	107	**105**	Ditch	14	50	0	+++	<1	#	0	+	+
17	108	**105**	Ditch	16	50	0	+++	<1	0	#	0	0
18	128	**138**	Ditch	18	50	#	++++	<1	#	0	++	0
19	187	**186**	Ditch	17	30	0	++	<1	0	0	+	0
20	168	**167**	Ditch	17	30	0	++	0	0	0	0	0
21	191	**190**	Ditch	20	30	0	++	0	0	0	0	0

Table 10. Environmental samples.

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Electronic Sources

Geology of Britain Viewer British Geological Survey http://mapapps.bgs.ac.uk/geologyofbritain/home.html, consulted 14/1/2019

APPENDIX E RADIOCARBON DATING CERTIFICATE

Scottish Universities Environmental Research Centre
Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor F M Stuart Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE
20 November 2019

Laboratory Code	SUERC-90152 (GU53537)
Submitter	Zoe Ui Choileain Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambridgeshire CB23 8SQ
Site Reference	XHTBKR19
Context Reference	106
Material	Bone : Sheep/Goat
$\delta^{13}C$ relative to VPDB	-21.8 ‰
$\delta^{15}N$ relative to air	6.1 ‰
C/N ratio (Molar)	3.4
Radiocarbon Age BP	1307 ± 24

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, 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.

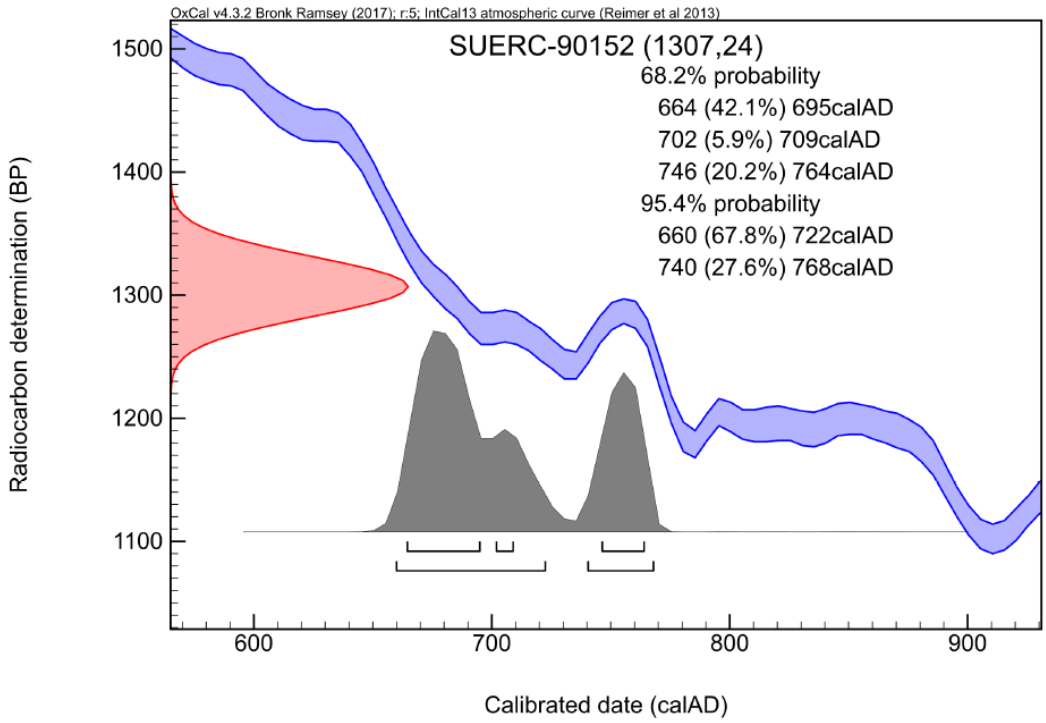
Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon 58(1) pp.9-23.*

For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

Checked and signed off by : E. Dunbar



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon 51(1) pp.337-60*
† Reimer et al. (2013) *Radiocarbon 55(4) pp.1869-87*

APPENDIX F OASIS REPORT FORM

Project Details

OASIS Number	oxfordar3-356873
Project Name	An Enclosure to the North of Baldock Road, Royston

Start of Fieldwork	11/02/2019	End of Fieldwork	21/02/2019
Previous Work	Yes	Future Work	No

Project Reference Codes

Site Code	XHTBKR19	Planning App. No.	16/00387/1
HER Number		Related Numbers	

Prompt	National Planning Policy Framework (NPPF)
Development Type	Not Recorded

Techniques used (tick all that apply)

☐	Aerial Photography – interpretation	☒	Open-area excavation	☐	Salvage Record
☐	Aerial Photography - new	☐	Part Excavation	☐	Systematic Field Walking
☐	Field Observation	☐	Part Survey	☐	Systematic Metal Detector Survey
☐	Full Excavation	☐	Recorded Observation	☐	Test-pit Survey
☐	Full Survey	☐	Remote Operated Vehicle Survey	☐	Watching Brief
☐	Geophysical Survey	☐	Salvage Excavation		

Monument	Period
Enclosure	Uncertain
Trackway	Post Medieval (1540 to 1901)
Pit	Uncertain
Pit	Post Medieval (1540 to 1901)

Object	Period
Pottery	Roman (43 to 410)
Pottery	Early Medieval (410 to 1066)
Lithic implement	Late Prehistoric (- 4000 to 43)
Slag	Uncertain
Animal bone	Uncertain
Horse shoe	Post Medieval (1540 to 1901)
Pottery & CBM	Post Medieval (1540 to 1901)

Insert more lines as appropriate.

Project Location

County	Hertfordshire
District	North Hertfordshire
Parish	Royston
HER office	Hertfordshire
Size of Study Area	880m^2
National Grid Ref	TL 3414 4070

Address (including Postcode)

Project Originators

Organisation	Oxford Archaeology East (OAE)
Project Brief Originator	Simon Wood (North Herts District Council)
Project Design Originator	Myk Flitcroft (RPS)
Project Manager	Liz Muldowney (OAE)
Project Supervisor	David Browne (OAE)

Project Archives

	Location	ID
Physical Archive (Finds)	NHDCMS/Royston Museum	TBC
Digital Archive	OA East	XHTBKR19
Paper Archive	NHDCMS/Royston Museum	TBC

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated with Finds
Animal Bones	☒	☒	☐
Ceramics	☒	☒	☐
Environmental	☒	☒	☐
Glass	☐	☐	☐
Human Remains	☐	☐	☐
Industrial	☒	☒	☐
Leather	☐	☐	☐
Metal	☒	☒	☐
Stratigraphic		☐	☐
Survey		☐	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☒	☒	☐
None	☐	☐	☒
Other	☐	☐	☐

Digital Media		Paper Media	
Database	☒	Aerial Photos	☐
GIS	☐	Context Sheets	☒
Geophysics	☐	Correspondence	☐
Images (Digital photos)	☒	Diary	☐
Illustrations (Figures/Plates)	☒	Drawing	☐
Moving Image	☐	Manuscript	☐
Spreadsheets	☐	Map	☐
Survey	☒	Matrices	☐
Text	☒	Microfiche	☐
Virtual Reality	☐	Miscellaneous	☒
		Research/Notes	☐
		Photos (negatives/prints/slides)	☐

Plans	☐
Report	☒
Sections	☒
Survey	☒

Further Comments

Museum accession number to be acquired

APPENDIX G HERTFORDSHIRE HISTORIC ENVIRONMENT RECORD SUMMARY SHEET

Site name and address: Land North of Baldock Road, Royston Hertfordshire, SG8 9FL		
County:Hertfordshire	District: North Hertfordshire	
Village/Town: Royston	Parish: Royston	
Planning application reference: 16/00387/1		
HER Enquiry reference: 136/15		
Funding source: Redrow Homes Ltd (via RPS)		
Nature of application: Residential development		
Present land use: Fallow arable farmland		
Size of application area:	Size of area investigated: 800m2	
NGR (to 8 figures minimum): TL 3414 4070		
Site code (if applicable): XHTBKR19		
Site director/Organization: David Browne/Oxford Archaeology		
Type of work Archaeological mitigation excavation		
Date of work:	Start: 11 Feb 19	Finish: 21 Feb 19
Location of finds & site archive/Curating museum: NHDCMS/Royston Museum		
Related HER Nos: HER 4196; HER 2903	Periods represented: Undated	

Relevant previous summaries/reports

Browne, D. 2019 Land north of Baldock Road, Royston, Hertfordshire. Oxford Archaeology East Rep. No. 2282

Goacher, H. 2016 “Land North of Baldock Road, West of Royston. Archaeological Evaluation”. Headland Arxchaeology

Stratascan 2016, “Land West of Ivy House Farm, Royston, Hertfordshire – Geophysical Survey Report. Stratascan Ltd.

Whiteley, S. 2016, “Heritage Statement for Land west of Royston and north of Baldock Road, Royston. CgMs Consulting

Summary of fieldwork results:

Between the 11th and 21st of February 2019 Oxford Archaeology undertook an excavation north of Baldock Road, Royston. The excavation targeted an enclosure first identified by aerial photography and subsequently investigated during two phases of trial trenching. The excavation revealed a small, square enclosure defined by a fairly substantial ditch, measuring approximately 27m across with a single, west facing entranceway. Despite intensive excavation, very few finds were recovered from the enclosure ditches, but a sample bone of bone form the primary fill of the ditch has been radiocarbon dated to 670 to 770 cal AD, and sherds from a single Middle Saxon pottery vessel, dating to between c. 720-850 AD, were recovered from its upper fills.

Few other features were encountered during the excavation, but a group of probably contemporary pits/postholes were revealed in and around the

enclosure entrance. A small group of internal pits and postholes were also revealed; several of these produced post-medieval tile, but three other features remain poorly dated and were marked by charcoal rich fills containing small quantities of iron slag and hammerscale. A post-medieval/early modern trackway also crossed the excavation area, and corresponds to a track shown on first edition OS mapping.

The function of the Middle Saxon enclosure remains uncertain and at present it seems to be essentially unparalled, although it may be loosely related to a group of somewhat earlier, 7th century, Saxon 'shrines' known from sites elsewhere in the country, and a potential ceremonial or ritual purpose is consistent with the lack of evidence for domestic type activity.

Author of summary: Lawrence Billington and David Browne	Date of summary: Jun 2019

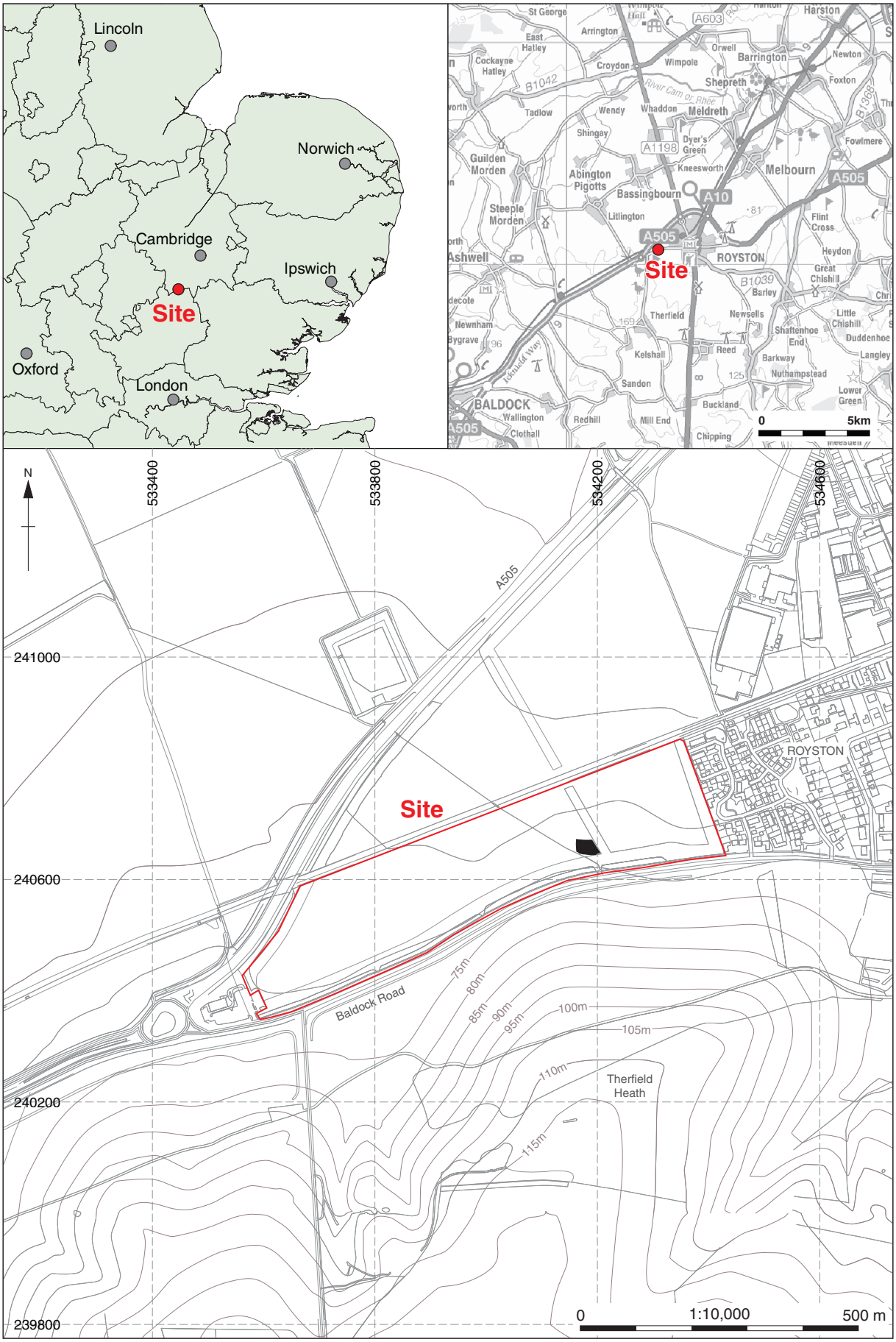


Figure 1: Site location showing excavation area (black) in development area (red)

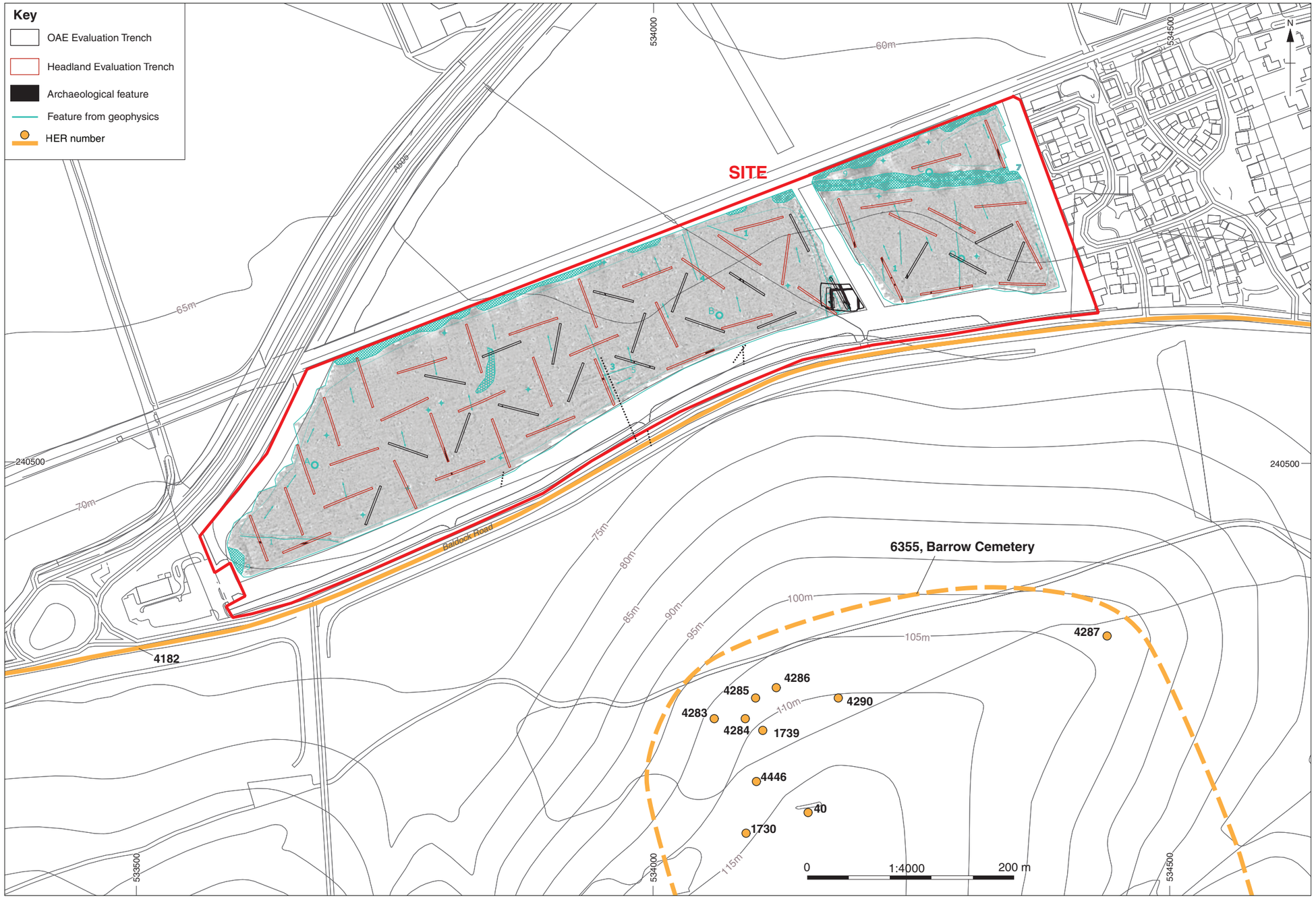


Figure 2: Site location with selected HER entries, geophysical survey results (Stratascan 2016) and trial trenching (Goacher 2016; Browne 2019)

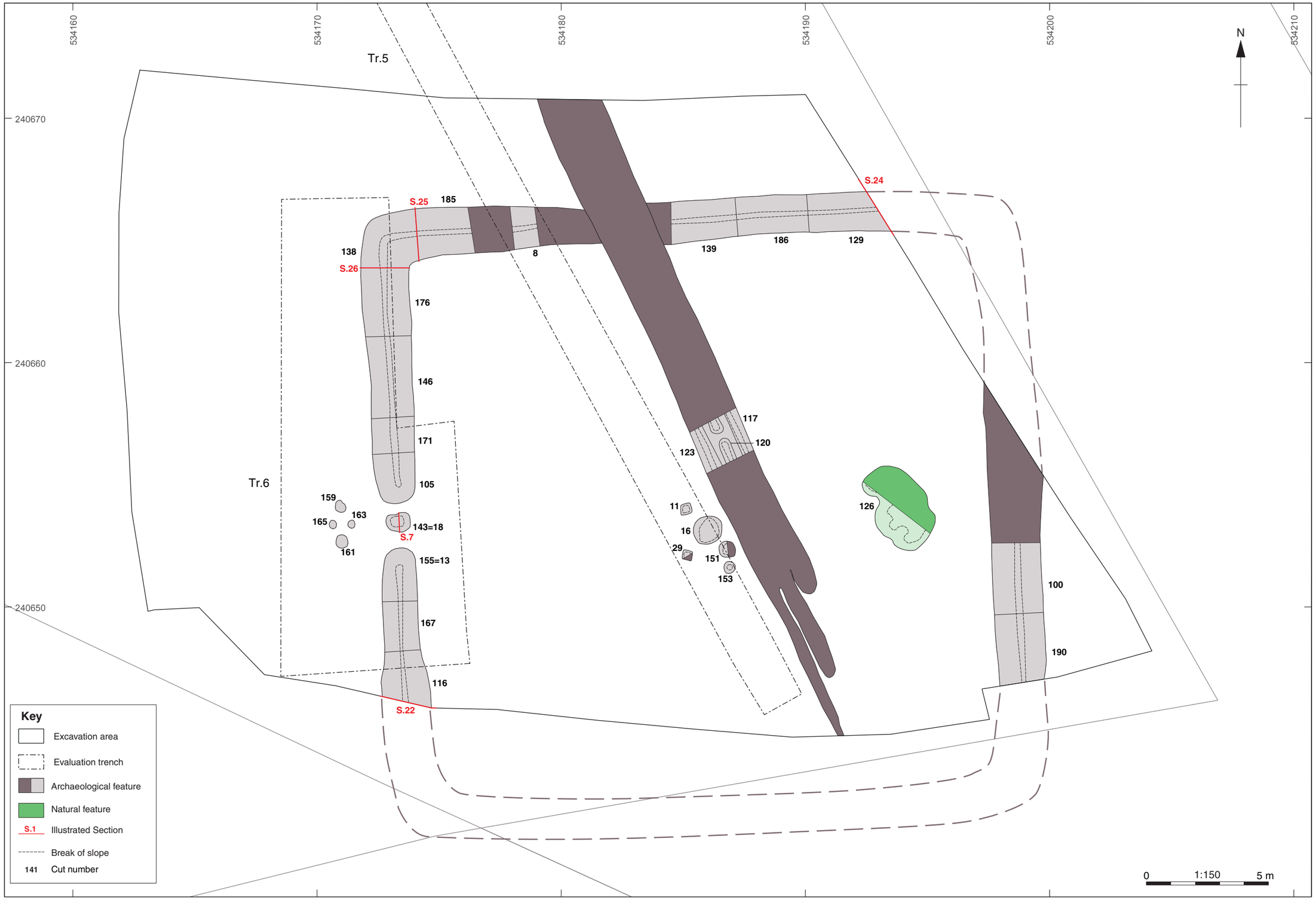


Figure 3: All features plan

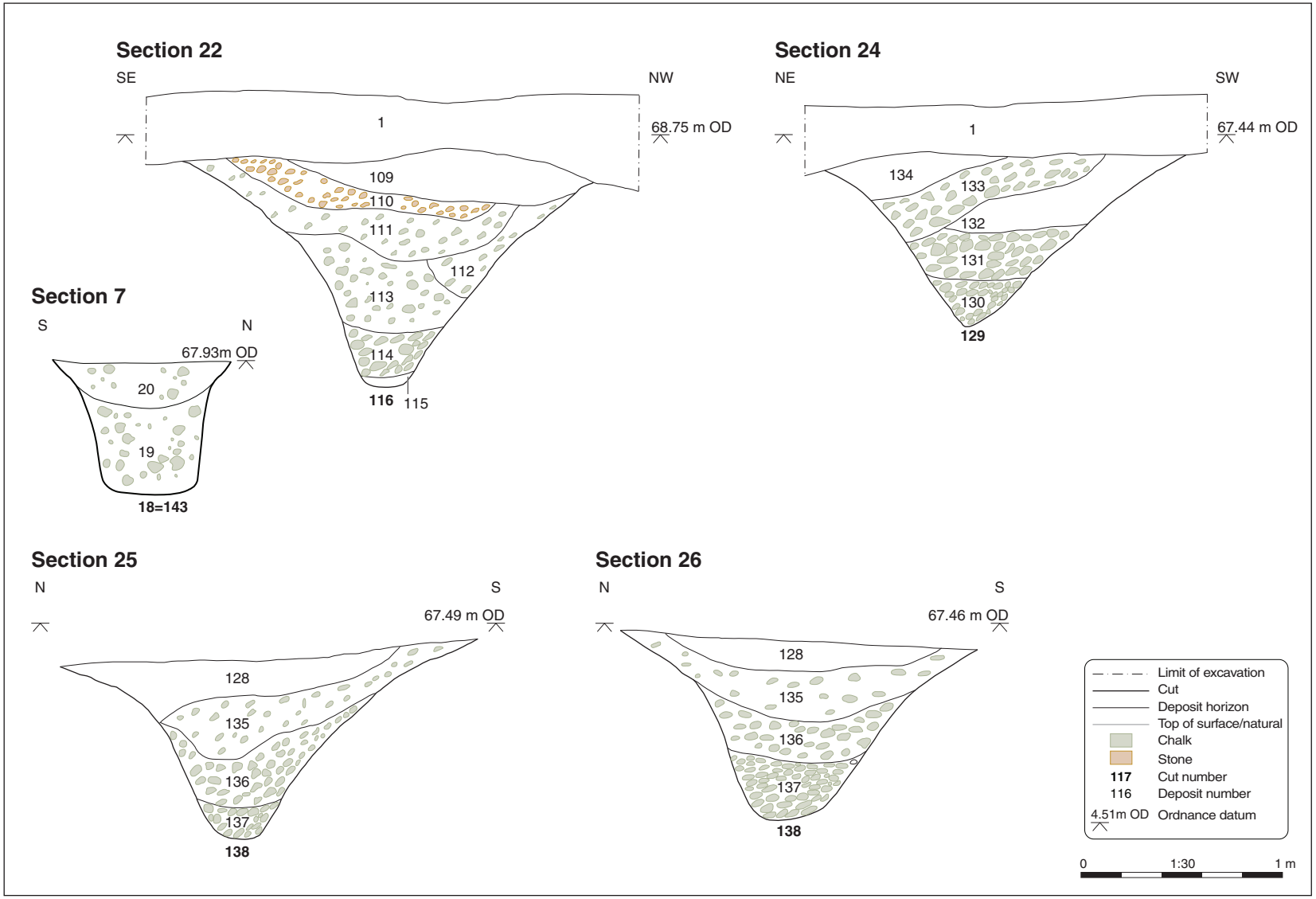


Figure 4: Selected sections

Figure 5: Distribution and date of pottery recovered from the enclosure ditch

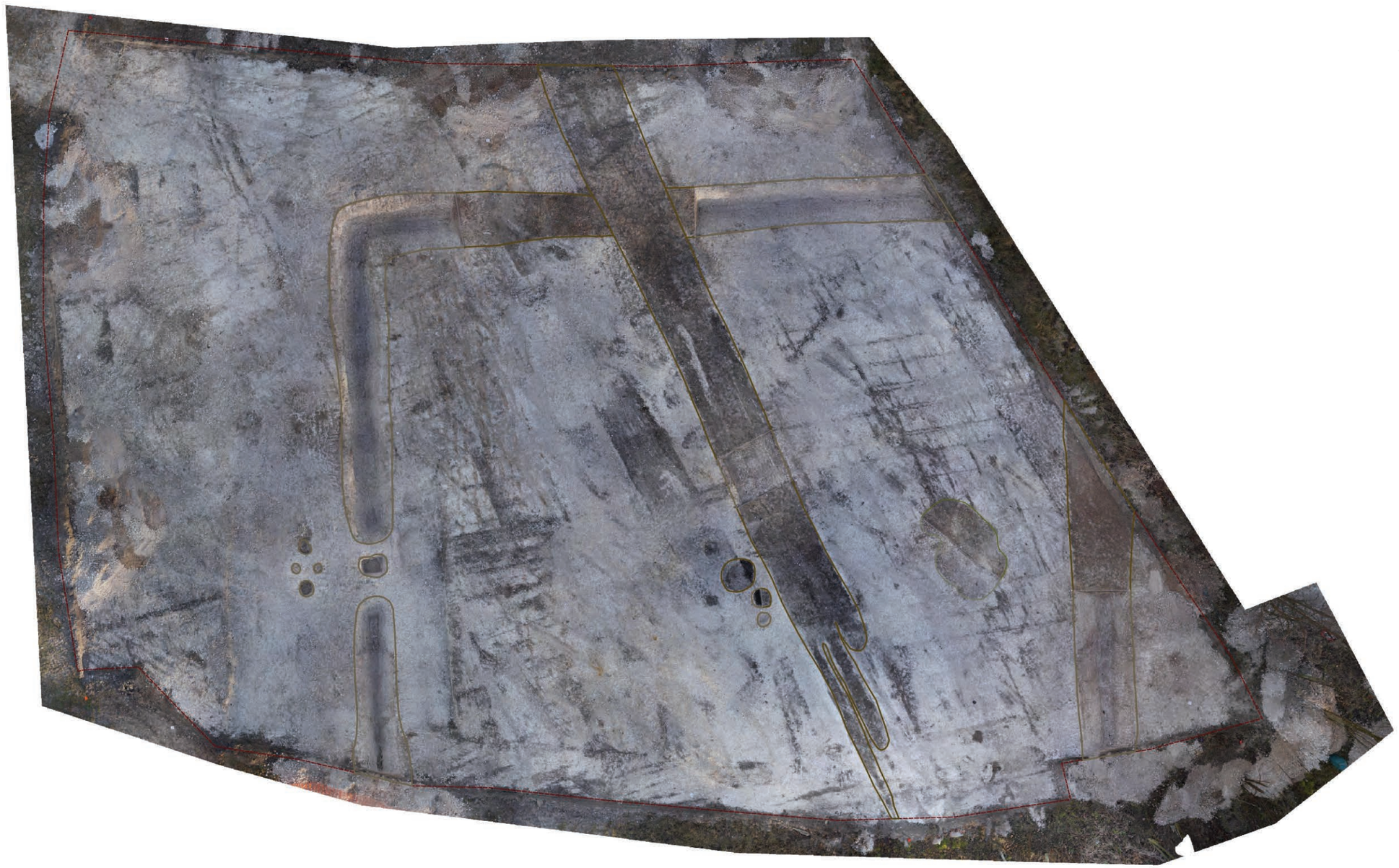


Plate 1: Photogrammetric image of the Site

Plate 2: Mid-excavation shot of the site from the north

Plate 3: Post-excavation shot of the site from the north

Plate 8: Ditch **116**, facing south. 2m scale

Plate 9: North facing section of post-medieval trackway (**117**, **120** and **123**)

Plate 4: Overview of the enclosure entrance, facing east

Plate 5: Looking south along the western side of the enclosure

Plate 6: Looking east along the northern side of the enclosure

Plate 7: Looking north along the eastern side of the enclosure

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