
**ARCHAEOLOGICAL EXCAVATION
ON LAND AT COATES ROAD,
EASTREA, WHITTLESEY,
CAMBRIDGESHIRE
(EACR 10)**

ANALYTICAL REPORT

Work Undertaken For
Rose Homes (EA) Ltd

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Report Compiled by
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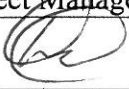
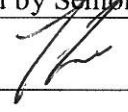


Quality Control

Archaeological Excavation at Coates Road, Eastrea, Whittlesea, Cambridgeshire (EACR10)

FINAL ANALYTICAL REPORT

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1. SUMMARY

A programme of archaeological excavation was undertaken on land at Coates Road, Eastrea, Whittlesey, Cambridgeshire. The work was initiated in response to proposed housing development at the site.

The site lies in an area of archaeological potential with much evidence of Roman settlement and prehistoric ceremonial activity. A previous investigation at the site revealed a number of ditches, several of which contained prehistoric pottery. These ditches were considered to represent a field system and trackway and appear to correlate with features identified on aerial photographs.

The excavation revealed a well/waterhole containing waterlogged remains, including the lower part of a wooden ladder which was dated by radiocarbon analysis to 980-800BC, the Late Bronze Age. This, however, appeared to be isolated and there were no other Bronze Age remains revealed. A sequence of Iron Age (c. 700BC-AD50) field systems was subsequently established across the area. The alignments of these field systems were altered and adapted throughout the Iron Age. Part of a probable field/enclosure of Iron Age date containing a small sub-rectangular 'ring ditch'-like enclosure was revealed. The function of this smaller ring-ditch was not established though similar features elsewhere often define the positions of houses. A human burial within a coffin was also discovered and dated by radiocarbon analysis to 20BC-AD130, the Late Iron Age-Early Roman period.

2. INTRODUCTION

2.1 Definition of an Excavation

An archaeological excavation is defined

as: "a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits. Features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during the fieldwork are studied and the results of that study published in detail appropriate to the project design" (IfA 2008).

2.2 Planning Background

Fenland District Council has placed a condition requiring a scheme of archaeological works on planning consent (Application number F/YR08/1068/F) for residential development of the site. In the first instance this was to comprise evaluation of the site through a programme of archaeological works involving geophysical survey, aerial photographic assessment and trial trenching to determine the location and character of any archaeological deposits which may be buried on the site.

The trial trench evaluation revealed evidence of prehistoric activity. As a result, Cambridgeshire Archaeology Planning and Countryside Advice (CAPCA) recommended that an archaeological excavation be undertaken at the site. An area for the excavation, taking into account the location of archaeological remains revealed by the earlier evaluation and the nature and extent of the development, was agreed with CAPCA. The excavation was carried out between the 18th June and 6th July 2010 in accordance with a specification prepared by APS and approved by CAPCA (Appendix 1).

2.3 Topography and Geology

Eastrea is located 2km east of Whittlesey

in the Fenland district of Cambridgeshire (Fig 1). Situated on the eastern edge of the village, the site lies on the south side of Coates Road at TL 2969 9725 (Fig 2). Eastrea occupies a slight ridge to the south of the River Nene. The site lies at about 5m OD on the north side of the slight eminence. Soils of the area are Waterstock Association fine loams over river terrace drift (Hodge *et al.* 1984).

2.4 Archaeological Setting

The Fenland has long been recognised as an important archaeological landscape, containing superimposed evidence of settlement, ritual and agricultural remains dating from the prehistoric period onwards. Whittlesey and Eastrea occupy former islands within the fenland. Whittlesey is on the western island and the area of proposed development at Eastrea lies in the western part of the eastern island, with the fen edge located about 2km to the north (Hall 1987).

Extensive evidence of Roman and prehistoric settlement and ceremonial activity has been identified in the Eastrea area. The site lies within an area of known Roman settlement (CHER MCB12570) with Roman pottery found just to the southwest (CHER MCB5091). Field systems and trackways have been identified in the area, together with probable Bronze Age round barrows evident as ring ditches (CHER MCB5090). About 250m to the north is a Scheduled Ancient Monument (CHER DCB28) consisting of a Saxon settlement of sunken floored structures (HER MCB3544) and a further probable prehistoric ring ditch (CHER MCB3543). A previous archaeological investigation immediately to the north of the current site did not, however, reveal any archaeological remains or artefacts (Upson-Smith 2006).

Cropmarks of these remains, and also natural features, have been identified and mapped. Geological features occur

extensively in the area and on the site. Archaeological remains at the site are represented by cropmarks of ditches including a pair that perhaps define a trackway, and others that probably delineate fields (Malone 2009b).

Geophysical survey was also undertaken at the site but did not identify any clear archaeological remains. A series of parallel linear features were thought possibly to represent medieval ridge and furrow ploughing (Malone 2009a).

Previous evaluation of the site revealed a number of ditches, mostly located in the eastern part of the area. Several of these ditches contained artefacts of Iron Age or possibly Bronze Age date. Some of these ditches correlated with cropmarks and appeared to define the corner of an enclosure and a possible trackway (Peachey 2009b).

3. AIMS AND OBJECTIVES

The aim of the work was to preserve by record all archaeological remains that will be affected by development in the defined area of the site. This was in order to recover as much information as possible on the origins, date, development, phasing, spatial organisation, character, function, status, significance and nature of social, economic and industrial activities on the site.

The objectives were to establish the date, extent, spatial arrangement and character of archaeological remains present within the site, to identify the extent to which surrounding archaeological remains extend into the site, and to establish the way in which the identified archaeological remains fit into the pattern of occupation and land-use in the surrounding landscape.

4. METHODS

Topsoil and other recent deposits were removed by a 360 degree mechanical excavator fitted with a toothless (ditching) bucket (Plate 1). Upon the completion of topsoil stripping, potentially significant archaeological deposits identified across the stripped surface were mapped by instrument survey (Fig. 3) and a programme of excavation was agreed with the archaeological curator.

The strategy of sample-excavation was defined so that linear features were excavated at selected locations, sufficient to determine feature characteristics and to explore key stratigraphic relationships, while discrete features (mostly pits) were half-sectioned. A grave was encountered and was completely excavated.

All excavated features were hand-drawn in plan at scale 1:20 and in section at scale 1:10; a photographic record was also compiled. Deposits were each allocated a unique reference number (context number) and were recorded through individual written descriptions; a list of all contexts and their descriptions appears as Appendix 2. Recording was undertaken according to standard Archaeological Project Services' practice.

Subsequent to the completion of fieldwork, all artefactual and environmental material from the site was examined and catalogued by appropriate specialists, with period dates assigned where possible (Appendices 3-6). Site records from both the excavation and earlier evaluation were checked to ensure consistency and a stratigraphic matrix was produced.

A MAP2 Assessment (English Heritage 1991) was undertaken and an updated project design prepared (Taylor 2010). This defined several research aspects and objectives which are addressed by the

present report.

The research aims were derived from the regional research priorities (Glazebrook 1997; Brown & Glazebrook 2000).

These specific priorities were:

- i. to determine past environmental conditions in the area
- ii. to establish the date of the burial

5. RESULTS

5.1 Description of the results

Following post-excavation analysis, six broad phases of activity were identified:

Phase 1	Natural deposits
Phase 2	Bronze Age deposits
Phase 3	Undated deposits
Phase 4	Iron Age deposits
Phase 5	Late Iron Age-Early Roman deposits
Phase 6	Recent deposits

5.2 Natural Deposits

Yellowish brown sandy gravel (003) was the natural at the site. Truncating this in the western part of the site was an irregular ovoid feature (071) with two brownish silt fills (072, 073). This was thought to be natural in origin.

5.3 Bronze Age Deposits (Figs. 3-5, 8)

Cut into the natural in the western part of the site was a wide shallow cut, at least 5.2m across and 0.68m deep [114/058/116]. In the base of this, and probably part of the same feature, was a sub-circular cut [115] (Fig. 8, Section 49; Plate 2). This was 0.66m in diameter, 0.58m deep with vertical sides and was filled with waterlogged dark grey silty peat

(131). This feature was probably a well or waterhole. Within the peaty fill was the lower part of a log ladder formed from a small oak tree trunk (Appendix 4; Fig. 12; Plates 8-10). Log ladders occur most frequently in the Late Bronze Age but also occur earlier and continue in use into the Iron Age. Radiocarbon dating of the sapwood of this ladder produced a date of BC 840 (980-800BC) with a 95% probability, (Appendix 7) giving a Late Bronze Age date for the artefact and deposit (131).

Environmental sampling of this same peaty deposit (131) yielded elder (*Sambucus*) seeds, hazelnut shells, sloe (*Prunus spinosa*) stones, and seeds of orache (*Atriplex* sp.), mint (Lamiaceae, *Mentha* sp.), buttercup (*Ranunculus acris/repens/barbosa*), selfheal (*Prunella vulgaris*) and goosefoot (Chenopodiaceae). Bones of wood mouse, field vole and indeterminate large mammal were also present, as were occasional insect fragments, including dung beetle. Pollen analysis of the deposit indicated the presence of hazel (*Corylus avellana* type) and willow (*Salix*) trees/shrubs. Pollen of grasses (Poaceae), ribwort plantain (*Plantago lanceolata*) and Lactucoideae (dandelion types) also occurred commonly. Sedges (Cyperaceae) were the only marshland/aquatic species identified and bracken spores (*Pteridium aquilinum*) were common. Cumulatively, this suggested that the locality had been largely cleared of woodland but hazel, probably scrub that perhaps served as field boundaries, remained within a largely grassland/pasture habitat, with no evidence for arable cultivation in proximity to the site. The well/waterhole was probably surrounded by willows and a sedge dominated fen herb community, with bracken indicating waste ground or areas colonised after fire (Appendix 6).

Pottery (5 sherds) of uncertain Bronze

Age-Iron Age date was recovered from several later features in the vicinity of the well/waterhole.

A broken flint probable side scraper of Early Bronze Age date was recovered from the topsoil (600) during the previous evaluation.

5.4 Undated Deposits (Figs 3-8)

A number of features and deposits could not be allocated to a specific phase on site.

Two probable pits, [134] and [137], were located 5m and 15m respectively west of the Bronze Age well/waterhole [115]. Pit [134] was semi-circular, 0.58m across and 0.1m deep (Fig. 8, Sections 47 and 48), while [137] was ovoid, 1.75m across and 0.46m deep (Fig. 8, Sections 50 and 51; Plate 3). Pit [137] was filled with brownish clayey sands (145, 144) which contained a charred barley grain, an intrusive copper alloy pinhead of 16th-17th century date, and shells of snails of open grassland (Appendices 3 and 6).

Pit [137] was cut by a semi-circular posthole [143] measuring 0.5m across and 0.29m deep (Fig. 8, Section 50). These features were all truncated by Iron Age ditch [120/054]. A further ovoid pit [093], at least 0.38m wide and 0.49m deep (Fig. 7, Section 33), was located about 5m south of the Bronze Age well/waterhole [115].

In the northern part of the site was an oval pit [041], 0.9m across and 0.22m deep (Fig. 6, Section 14).

In the northeastern part of the investigation area was a sub-oval pit [106/36]. This was c. 1m across and 0.45m deep (Fig. 8, Section 38) and was filled with grey-brown sands (107, 037, 108, 038, 109). This pit was on the course of Iron Age enclosure ditch [022, 033 etc] but both features had been truncated by a Late Iron

Age-Early Roman grave which severed any relationship between them (see below).

5.5 Iron Age Deposits (Figs 3-8)

Above the Bronze Age well/waterhole [115], and filling the upper part of the shallow basin [058/114/116] that contained it, was a series of grey-brown clayey sands and silts (059, 117, 118, 119) (Fig. 8, Sections 42, 49). The lowest fill (117) contained a single piece of Iron Age pottery, a quantity of animal bone, including sheep/goat, and shells of terrestrial snails reflecting an open grassland habitat, but also some that live in marshy areas, including the liver fluke snail, *Lymnaea truncatula*. A small fragment of intrusive 15th-16th century pottery was also recovered (Appendices 3 and 6).

Thereafter, a sequence of linear ditches and gullies divided up the area into several phases of enclosures and field systems (Fig. 9).

The Bronze Age well/waterhole, and the undated pits and posthole, were truncated by a substantial east-west ditch [128, 136, 132, 054, 085, 120, also recorded in the evaluation as 305]. This was apparently the first boundary in the sequence and was over 30m long, about 2m wide and up to 0.9m deep (Fig. 6, Sections 17, 18; Fig. 7, Sections 30, 31; Fig. 8, Sections 44, 47, 48, 50; Plates 3 and 4). It was filled with brown clayey sandy silts (127, 126, 125, 141, 140, 133, 053, 055, 050, 060, 086, 087, 088, 121, 122, 303, 302) that yielded a quantity of pottery spanning the Iron Age, including a piece of probable 1st century AD, Late Iron Age-Early Roman date. Additionally, a moderate quantity of animal bone, including cattle, sheep/goat, and possibly bird was recovered, together with charred wheat and barley grains and shells of snails predominantly of open

grassland but also liver fluke snail, a specie of marshy areas (Appendices 3 and 6).

This ditch was recut on the same alignment by [052], which was 2.2m wide and 0.24m deep (Fig. 6, Sections 17, 18). It was filled with brownish grey sandy silts (049, 051) that yielded a single fragment of Iron Age pottery.

The substantial east-west Iron Age ditch [128 etc.] was truncated by a north-south shallow gully [124], at least 20m long (Fig. 8, Sections 43, 44). This measured up to 1.1m wide and 90mm deep and was filled with yellow-brown clayey sandy silt (123). No artefacts were recovered from this feature though several other linear gullies on the identical north-south alignment were revealed between 15m and 25m to the east. These [061, 081, 079, 077, 103] were all narrow, between 0.4m and 1.15m wide, and shallow, no more than 0.2m deep (Fig. 7, Sections 20, 29; Fig. 8, Section 36). No artefacts were recovered from any of these north-south gullies, which may be plough furrows.

Truncating one of these gullies was a northwest-southeast aligned gully [075, 101] which was 7m long, 0.5m wide and 0.35m deep (Fig. 7, Section 28, 35; Fig. 8, Section 36). Parallel and 10m to the southwest of this were two further gullies [130 and 138], with [130] also cutting the north-south gully [124]. Gullies [130 and 138] were on the same alignment and may be parts of the same feature (Fig. 8, Sections 45, 52). This feature had been identified in the earlier evaluation (as [408]) and also the cropmark plotting and was considered possibly to define one side of a trackway. A parallel gully, recorded 4m to the southwest in the evaluation and cropmark transcription and considered to be the other side of the trackway, was not observed in the excavation. No artefacts were recovered from these gullies, though

a small amount of animal bone was retrieved from a fill (406) of [408]. Parallel and *c.* 10m northeast of the northern trackway gully [138] was a 7m long gully [075, 101] (Fig. 7, Sections 28, 35; Fig. 8, Section 36). This was truncated by a short northeast-southwest aligned ditch [095, 099]. This ditch, which also cut the undated pit [093], was about 7.5m long and up to 1.2m wide and 0.6m deep (Fig. 7, Sections 33, 34).

Parallel and 27m to the northeast of the northern trackway gully [075, 101] was a further gully [090, 027]. This was 18m long, up to 1m wide and 0.33m deep (Fig. 6, Sections 9, 10; Fig. 7, Section 32). This was also recorded, as [505], during the evaluation when its fills (506) yielded fragments of Bronze Age-Iron Age pottery (Appendix 3).

At the northern end of this gully [090, 027], and square to it, aligned northeast-southwest, was a similar gully [020, 047] (Fig. 6, Sections 6, 16). The termini of the two gullies were only 1m apart, and [020, 047] extended 15m to the northeast. These two gullies are thought to possibly represent two sides of a rectilinear enclosure. A short, 7.6m, length of northeast-southwest gully or ditch [064, 068] on an identical alignment to [020, 047] was recorded crossing the course of the northwest-southeast trackway 30m to the southwest (Fig. 7, Sections 22-5).

Cutting the northwest-southeast gully [090, 027] was an approximately east-west gully that survived intermittently for about 27m [112, 063, 104, 026, 043] (Fig. 6, Sections 9, 11, 15; Fig. 7, Section 21; Fig. 8, Sections 37, 40). This feature was probably also observed a further 15m to the east during the evaluation when it was recorded as [603]. This gully was filled with brown silty sands (113, 015, 105, 147, 044, 602) from which fragments of pottery, most of it Early-Middle Iron Age

but ranging from Bronze Age-Iron Age to Late Iron Age-Early Roman, was recovered. In addition, pieces of cattle bone and small mammal were retrieved, together with shells of terrestrial snails.

Truncating the northeast-southwest gully [020, 047] was an approximately east-west ditch which survived intermittently [010, 018, 022, 033], also being present in the evaluation [504]. The ditch extended for at least 25m and was up to 3m wide and 0.65m deep (Fig. 6, Sections 3, 6, 7). It was filled with brown clayey or silty sands (011, 014, 019, 023, 503) from which was recovered a moderate quantity of Iron Age pottery, some of it late. In addition, the fills contained a prehistoric flint flake, animal bone, charred wheat and terrestrial snail shells.

About 4m to the east of ditch [010 etc], and on the same alignment and possibly an extension of it, was a 3.6m length of linear ditch [004] (Fig. 6, Section 1). Approximately 5m to the north of this and aligned north-south was another length of ditch [012, 016]. This was over 3.2m long, and up to 1.5m wide and 0.48m deep (Fig. 6, Sections 4, 5). These ditches, together with ditch [010 etc] are thought to represent two sides and a corner of a rectilinear enclosure.

Within this apparent enclosure was a sub-rectangular ditch [007, 024, 030] (Fig. 6, Sections 2, 8, 12; Plate 5). Three sides of this were revealed and it had straight sides with rounded corners. The ditch itself was up to 1.2m wide and 0.55m deep and it enclosed an area 8m by at least 2m in extent. It was filled with grey-brown sandy silt (008, 009, 025, 031) from which a small amount of animal bone was retrieved. There were no evident features within the enclosed area exposed.

5.6 Late Iron Age-Early Roman Deposits (Figs 3-5, 7 and 8)

Truncating the undated pit [106/036] and also Iron Age enclosure ditch [022, 033 etc] was a burial. This comprised a large shallow oval pit [110] with east-west aligned grave [083] in its base (Plates 6, 7). The oval pit was *c.* 2.5m wide and 0.2m deep (Fig. 7, Section 27; Fig. 8, Sections 38, 39). The grave pit [083] was directly on the line of the earlier enclosure ditch [022, 033 etc] and contained the skeleton of a possible male aged at least 35 years who had suffered from severe osteoarthritis of the spine and poor dental health (Appendix 5). Nails around the skeleton indicated the individual was buried in a coffin. Radiocarbon dating of a bone from the skeleton produced a date of 5AD (BC20-130AD) at 95% probability, indicating a very Late Iron Age or Early Roman date for the individual (Appendix 7). A single, redeposited and very abraded sherd of pottery of Bronze Age to Middle Iron Age date was recovered from the grave, in addition to two animal bones, one of them possibly chicken.

Overlying the grave, and filling pit [110], was grey-yellow silty sand (111) from which an Iron Age-Roman spindle whorl and a few pieces of Iron Age pottery were recovered. Additionally, pieces of fired clay that may be fragments of Roman or later brick/tile and a few animal bones, including cattle and sheep/goat, were retrieved. Charred wheat and barley grains and shells of open grassland snails were also recovered (Appendices 3 and 6).

Pieces of two Roman pottery vessels of mid 2nd-3rd century AD date were recovered as unstratified artefacts (146).

5.7 Recent Deposits (Figs 3 and 4)

Sealing all the archaeological remains was a subsoil of greyish brown silty sand (002,

101, 201, 301, 401, 501, 601). Overlying this was grey sandy silt topsoil (001, 100, 200, 300, 400, 500, 600).

6. DISCUSSION

The earliest archaeological feature revealed on site was the Late Bronze Age well/waterhole. The wider shallow basin around the deeper sump may have functioned as a watering hole for livestock. Dating of this feature was provided by part of a log ladder, an artefact type most commonly found in Late Bronze Age contexts, which also provided a radiocarbon date of 980-800BC. Environmental evidence from the well indicates it was located in an area of grassland, possibly pasture, that had been largely cleared of woodland but hazel scrub remained, possibly as field boundaries, and willow and sedges grew in or on the fringes of the waterhole. There was no evidence for arable cultivation in the immediate vicinity of the waterhole, but bracken was growing nearby, possibly on waste ground.

Similar features, some in the corners of Late Bronze Age fields, were examined at Welland Bank Quarry in south Lincolnshire (Dymond *et al.* 1998). A large Middle Bronze Age well or watering hole was excavated on another Fen edge site at Tye's Drove, Deeping St James, south Lincolnshire (Lane and Trimble 2010, 216). Nearby pits were thought to be quarries or wells and settlement remains of Middle Iron Age date were also found (Crowson *et al.* 2000, 93-4). At Eye, Peterborough, a pit of very similar size to the Eastrea example was interpreted as a probable animal watering hole and contained ceramics dating it to the Late Bronze Age. This waterhole at Eye was in close proximity to settlement remains of Middle Iron Age date (Peachey 2009a). Further Late Bronze Age pit-wells were

found at Langtoft, south Lincolnshire, and were presumed to lie close to domestic settlement. The Langtoft pit-wells were replaced by ponds in the Iron Age (Dickens 2006). Substantial waterholes up to 6m across and dating to the Late Bronze Age have also been identified at Reading Business Park (Brossler *et al.* 2004, 123-4).

At Eye, the watering hole alone contained 45 fragments of Late Bronze Age pottery, while that entire site, only 40m x 10m in area, yielded 90 sherds of identifiable Bronze Age pottery, together with an appreciable amount of indeterminate prehistoric pottery (Peachey 2009a). Similarly, the Reading waterholes generally contained large numbers of artefacts, usually several hundred sherds of pottery (Brossler *et al.* 2004, 123-4). This contrasts significantly with the Eastrea site where only five pieces of possible Bronze Age pottery were found. Moreover, there are no other clear remains of Bronze Age date at the current investigation site, though several undated pits of obscure function may be of this period.

Funerary activity of Bronze Age date in the Eastrea area is suggested by cropmarks of ring ditches that probably define the locations of burials. However, settlement evidence of the period has not been identified in the locality. The dearth of Bronze Age artefacts and remains at the present site indicates the well/waterhole was probably located away from main settlement activity, and perhaps served as a stock pond in fields attached to settlement located elsewhere in the general Eastrea area.

The waterhole basin seems to have remained open into the Iron Age, as a single piece of pottery of the period was found in its fills. Environmental evidence indicates the area remained as open grassland while animal bones perhaps

suggest that sheep/goat were pastured in the area.

However, probably soon thereafter, the waterhole basin was infilled and a large ditch, perhaps a field boundary, was dug across the area. This appeared to be the first element of a sequence of field/enclosure boundaries that were revised and re-oriented through the Iron Age (Fig. 9).

A moderate quantity of Iron Age pottery was recovered from this ditch and probably implies occupation of the period nearby. However, the pottery is from the full duration of the period and may suggest the ditch was gradually silting up. Environmental evidence indicates the area continued to be open grassland, with faunal remains suggesting the pasturing of cattle and sheep/goat. There was also evidence of arable nearby, with wheat and barley both being grown and processed.

A new field pattern, based on a north-south boundary which crossed the east-west ditch, was then established. Parallel gullies, perhaps plough furrows, may indicate the land was then given over to arable usage. Moreover, an absence of artefacts from any of these gullies possibly suggests that settlement was relocated further away. Although the creation and use of this new field pattern was not of itself dated, it was in turn replaced by a revised field parcelling system in the Iron Age.

This new pattern was based on gullies aligned northwest-southeast and northeast-southwest. A ditched trackway running northwest-southeast was established across the area and a rectilinear enclosure defined by gullies, probably a field, was laid out about 30m from the trackway. Pottery of Bronze Age-Iron Age date was recovered from the field boundary gullies.

This pattern was itself soon replaced by a system based on gullies and ditches aligned approximately east-west. One of these east-west gullies contained a range of Iron Age pottery which terminated with material of the Late Iron Age-Early Roman period. About 15m to the north of this gully were ditches that appear to define a rectilinear enclosure at least 25m wide. This also contained Iron Age pottery, some of it late, though the fairly small amounts perhaps indicate it was not used for human occupation. There was also evidence of the growing and processing of wheat nearby.

Within the enclosure was a sub-rectangular ditch, 8m across. The function of this is unclear, though the lack of any artefacts may indicate it was not used for occupation. A near-identical arrangement of a small sub-rectangular enclosure in a larger compound has been identified on the west side of Whittlesey (Fig. 10). Dated to the Iron Age, this small enclosure was larger, at 26m across, than the Eastrea example, but similarly did not enclose any evident postholes and was of obscure function (Murphy 2008). Small ring ditch enclosures with larger compounds occur commonly on Iron Age sites, and are characteristic of settlement of the period. However, the small enclosures usually are interpreted as defining houses, or encircle posthole arrays of buildings, for example, at St. Osyth, Essex (Germany 2007, fig 30), at Hardwick, Cambridgeshire (Abrams and Ingham 2008, fig 2.1), and elsewhere.

The main enclosure ditch was subsequently truncated by a grave. This would tend to suggest that the enclosure ditch, although partially infilled and redundant, still survived as an evident earthwork and was chosen deliberately for the placing of the grave. Inhumation in a nailed coffin would tend to suggest a probable Roman date for the grave and radiocarbon analysis of the skeleton

provided a date of BC20 to 130AD confirming the burial to be very Late Iron Age or Early Roman. The grave was isolated and there was no evidence that it was an outlier from a nearby cemetery. However, isolated burials of Roman date are not unknown. Thus, for example, a single burial was found in an enclosure ditch near Bourne, Lincolnshire (Herbert 1999).

Unstratified Roman pottery found at the site indicates the proximity of occupation of the period.

An extended period of later agricultural use of the land was indicated by the subsoil and topsoil which overlay the archaeological remains.

7. CONCLUSIONS

Archaeological investigations were undertaken at Coates Road, Eastrea, Whittlesey, as a proposal had been made to develop the site, which was known to be located in an area of prehistoric and later remains.

Excavations revealed remains of Late Bronze Age to Late Iron Age-Early Roman date. A well/waterhole of Late Bronze Age date was the earliest feature identified but this appeared to be isolated, located in pasture fields away from settlement. Ditched enclosures and field systems were established in the Iron Age and their arrangement altered several times through the period. The latest enclosure in the sequence, probably dating to the Late Iron Age, contained a smaller ditched compound. This was of uncertain function, though similar ring ditches elsewhere often define the positions of houses. An isolated human burial of very Late Iron Age-Early Roman date was subsequently dug on the line of one of the enclosure ditches.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Mr R. Gregory of Rose Homes (EA) Ltd who commissioned the project and provided facilities and plant. Thanks are also due to Lewis Smith of Robert Doughty Consultancy. The work was coordinated by Gary Taylor and this report was edited by Dale Trimble and Tom Lane.

9. PERSONNEL

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 Surveying: Andrew Failes
 Finds processing: Denise Buckley
 Finds illustration: David Hopkins
 Photographic reproduction: Sue Unsworth
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11. ABBREVIATIONS

APS Archaeological Project Services

IfA Institute for Archaeologists



Figure 1 General Location Plan

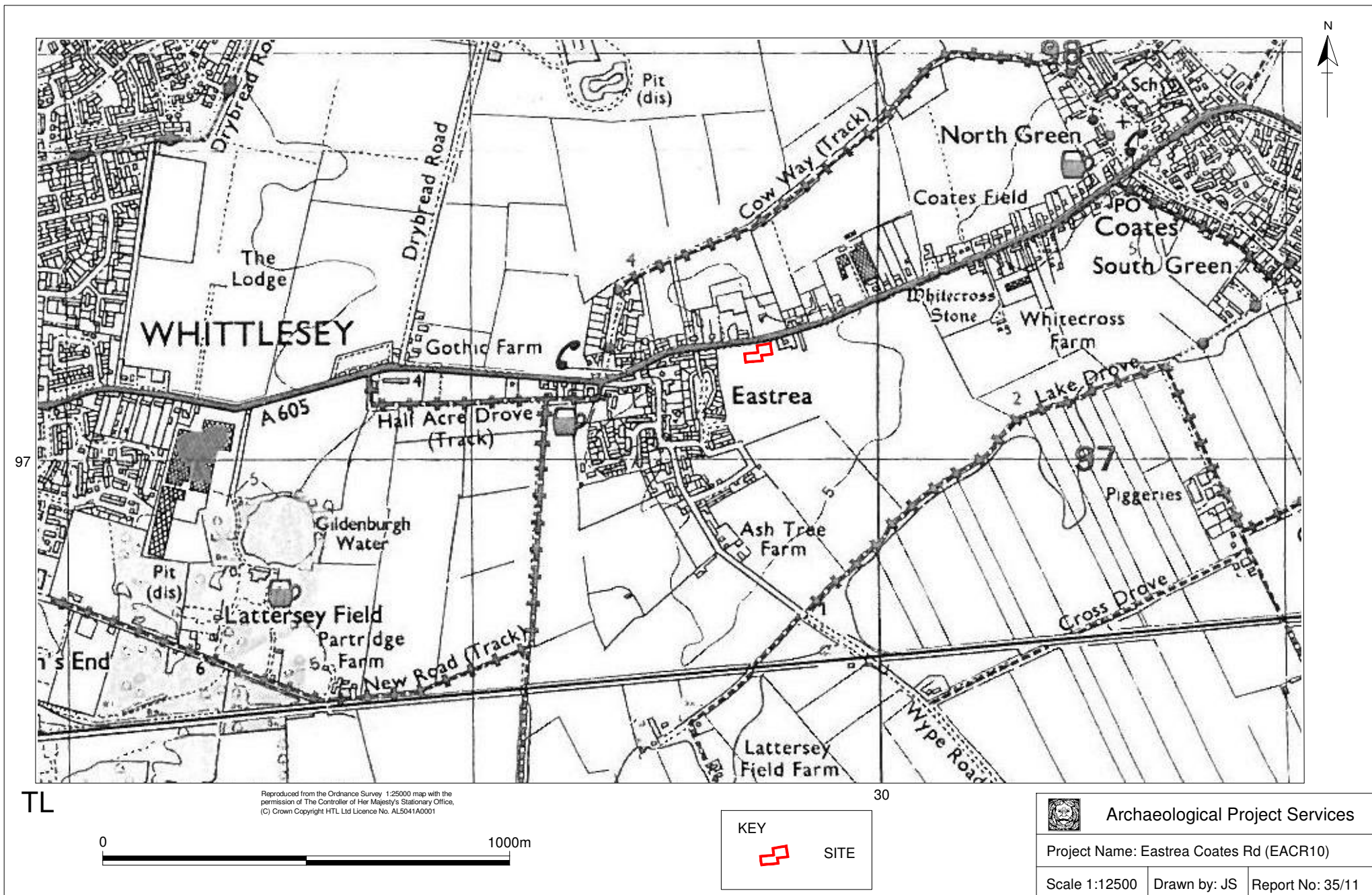


Figure 2 Site Location Map

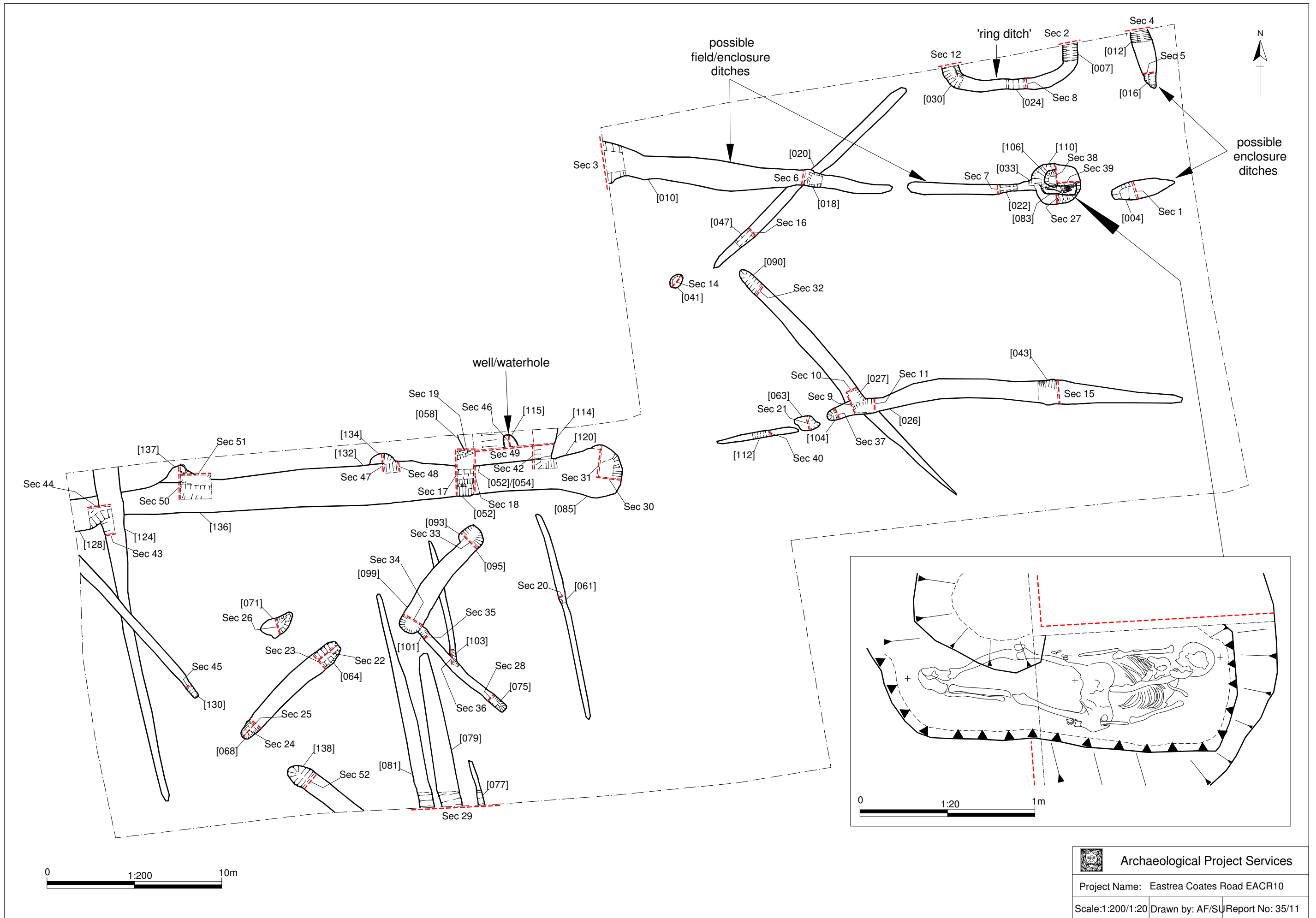


Figure 3 Excavation Area Plan

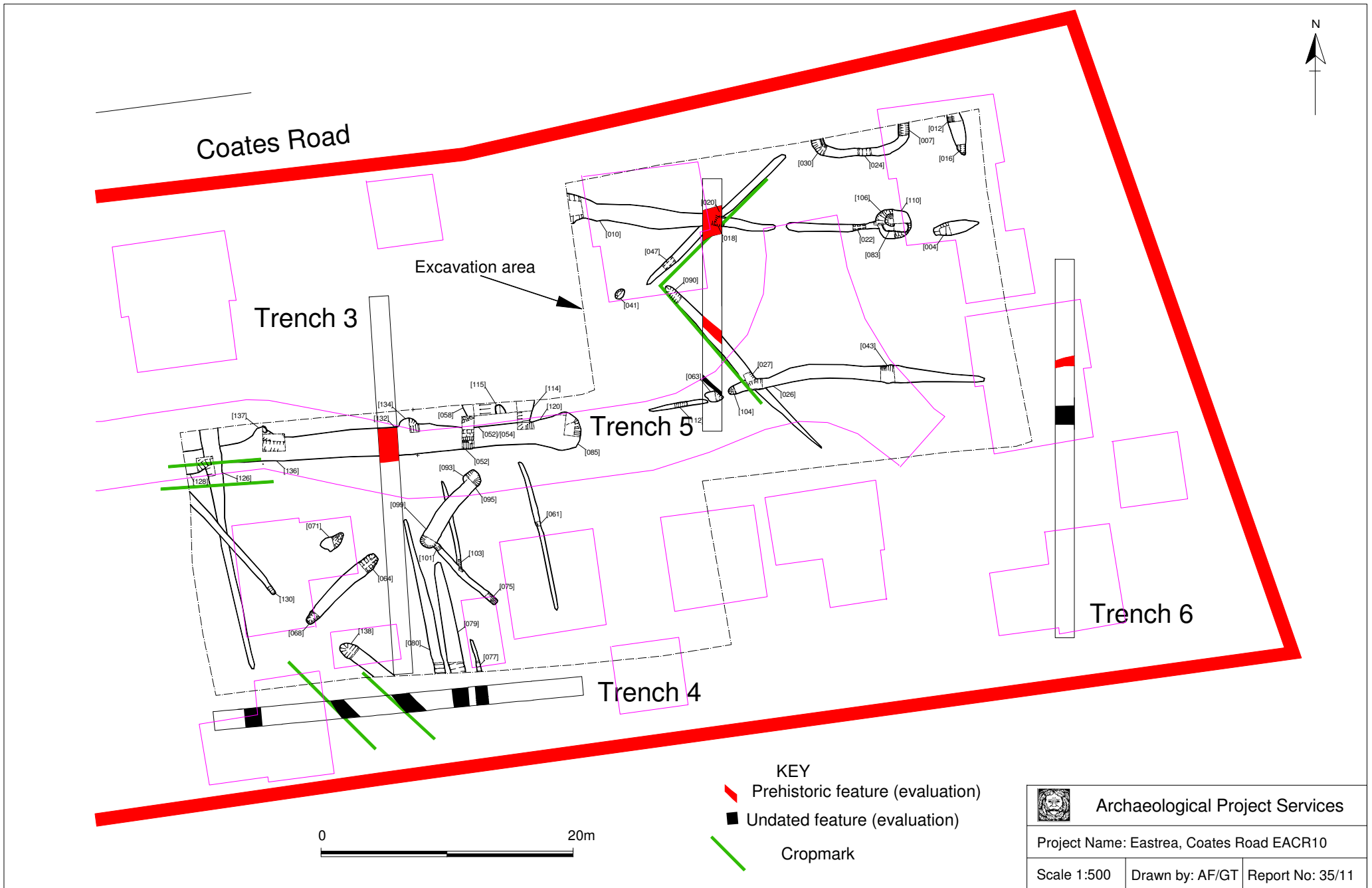


Figure 4 Site Layout, showing amalgamated results of evaluation and excavation

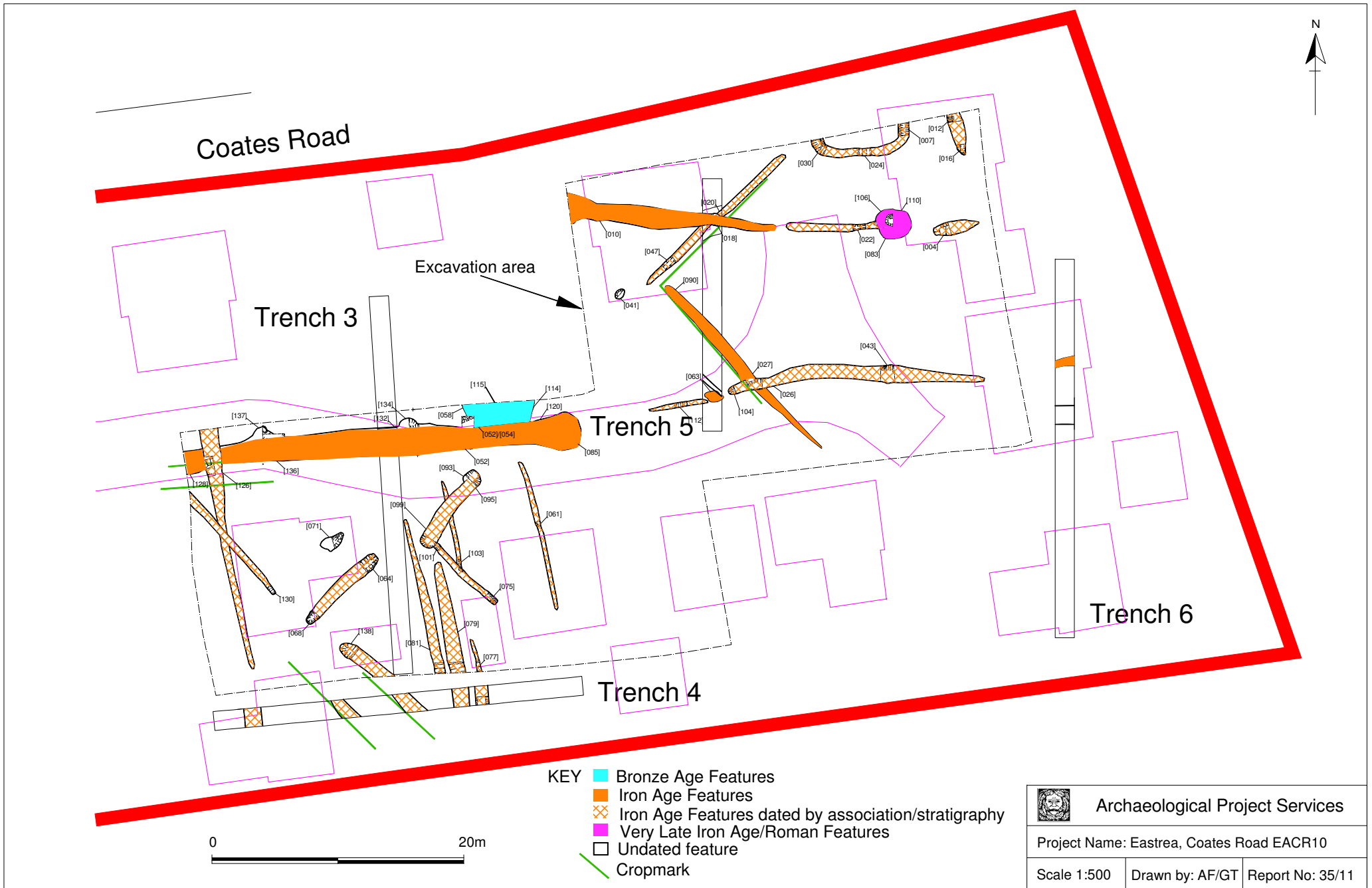


Figure 5 Site Layout, showing dated remains

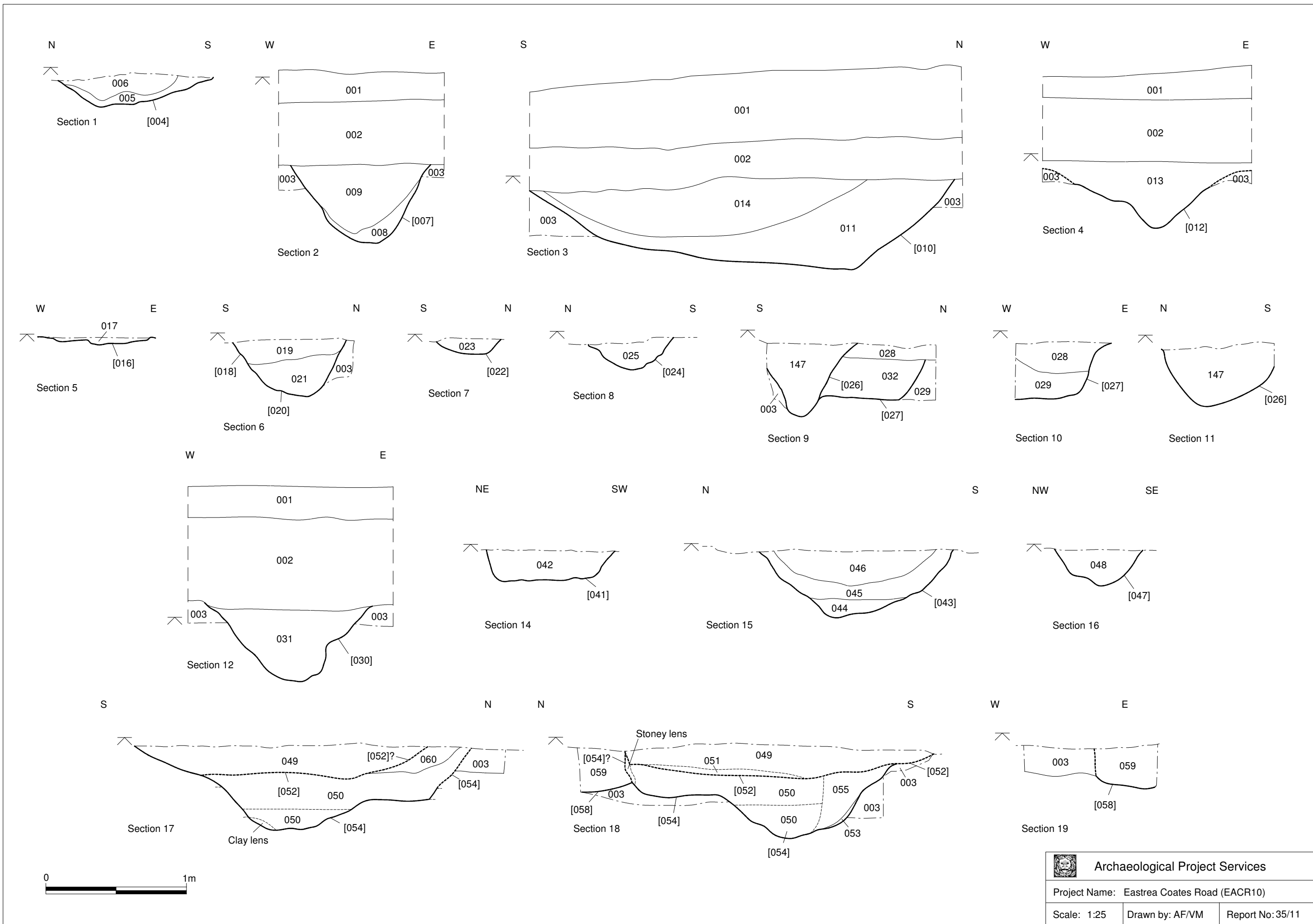
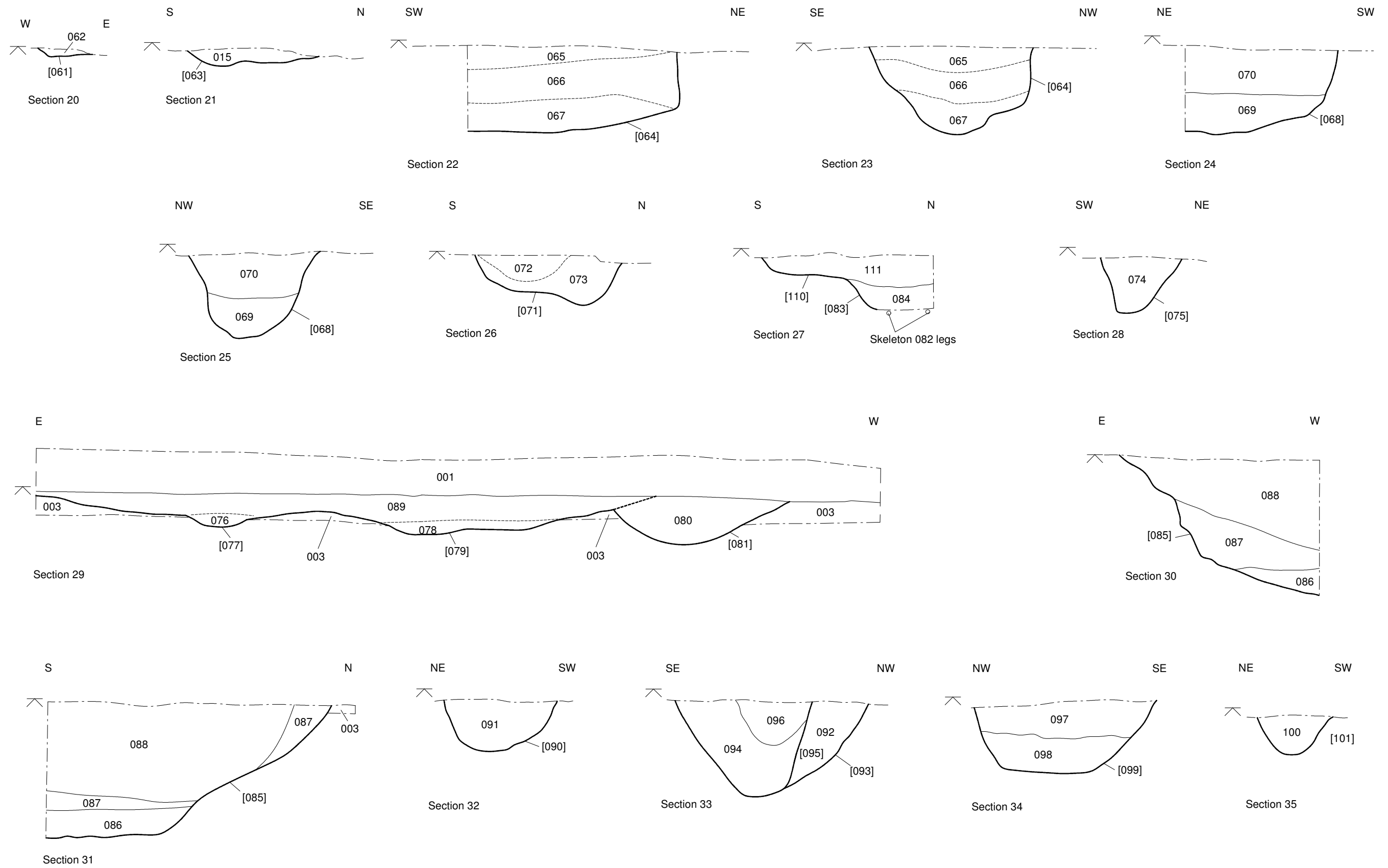


Figure 6 Sections 1-19




 Archaeological Project Services		
Project Name: Eastrea Coates Road (EACR10)		
Scale: 1:25	Drawn by: AF/VM	Report No: 35/11



Figure 7 Sections 20-35

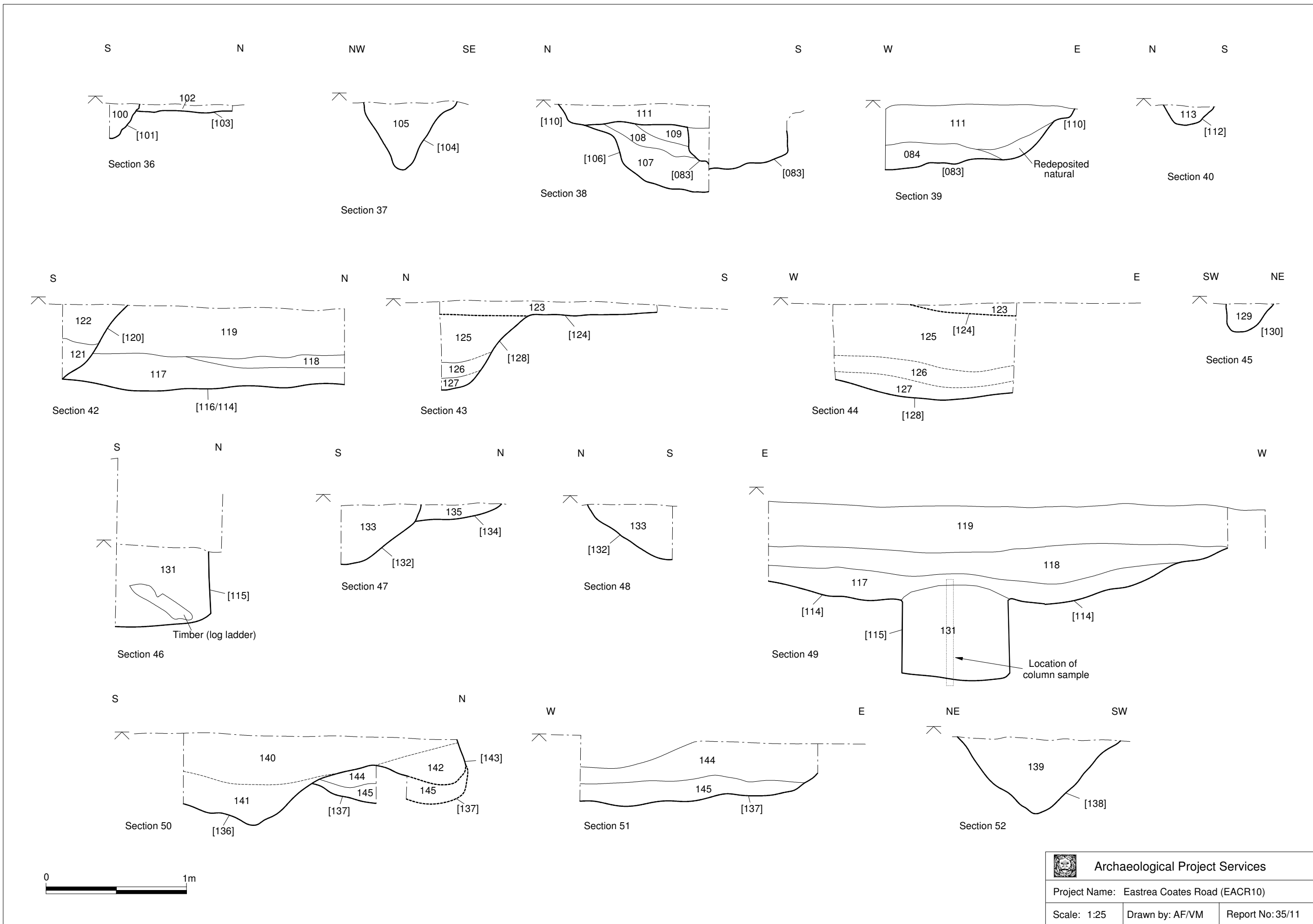


Figure 8 Sections 36-52

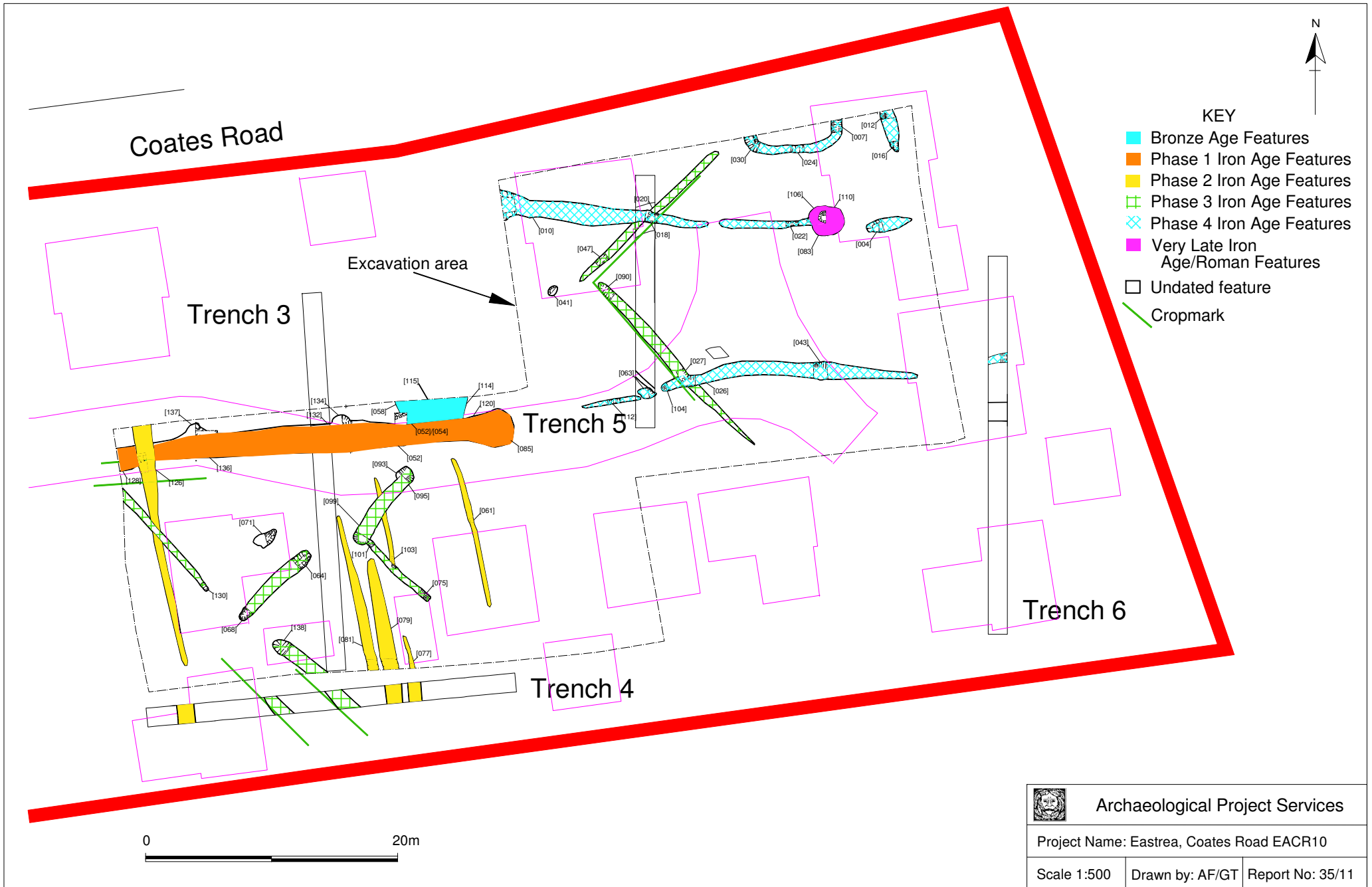


Figure 9 Site Layout, showing phased remains

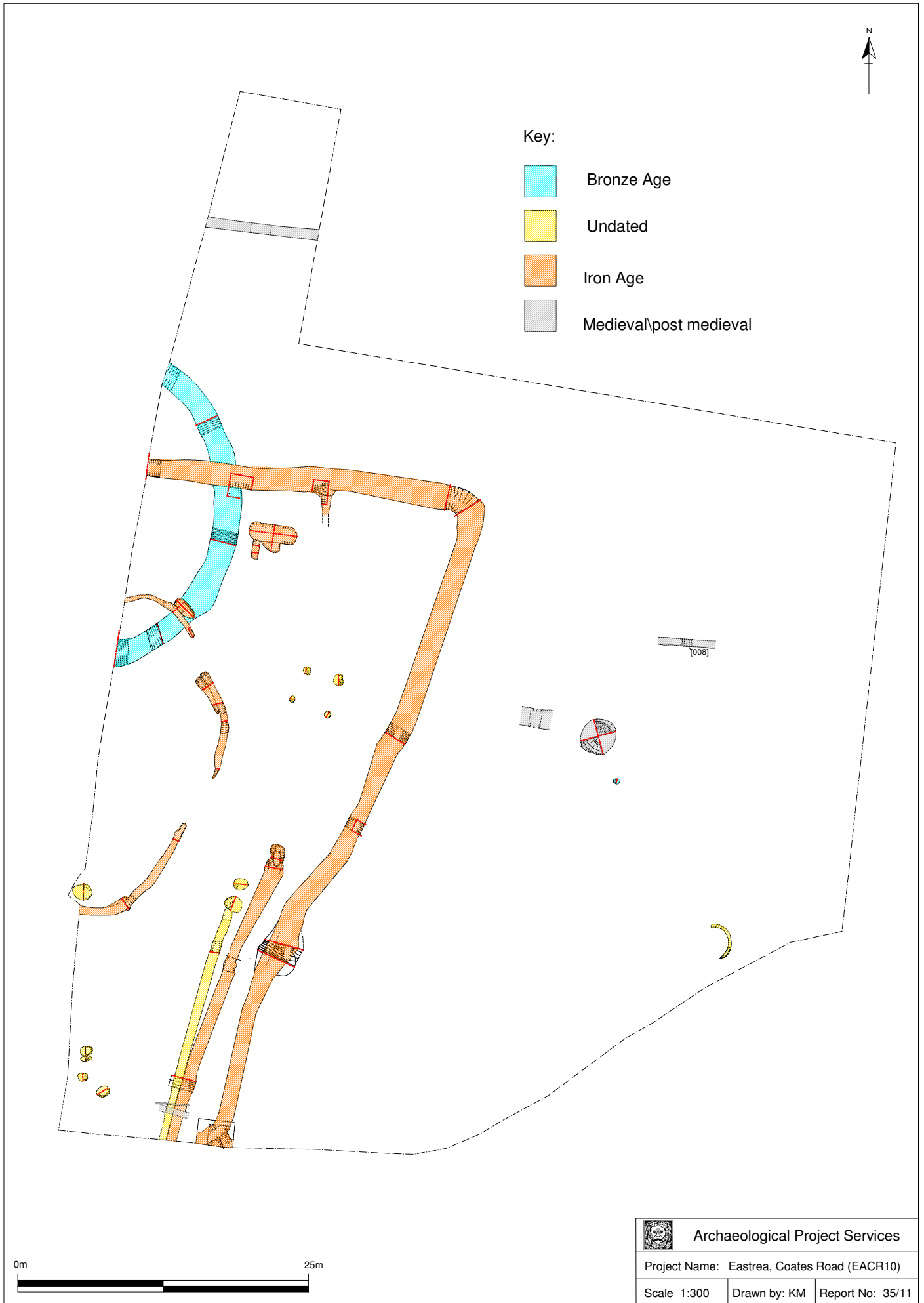
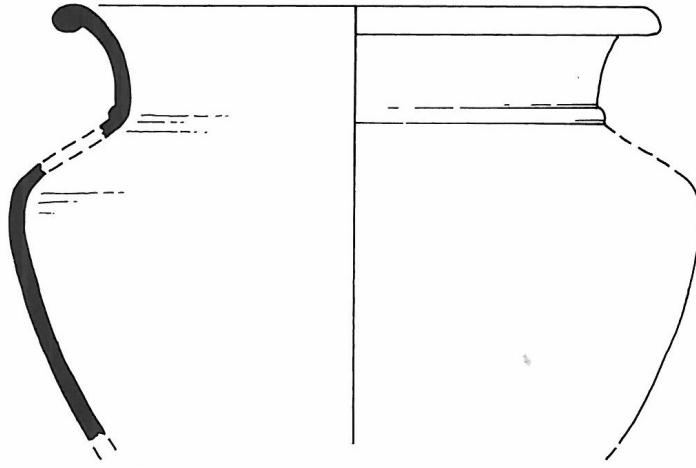
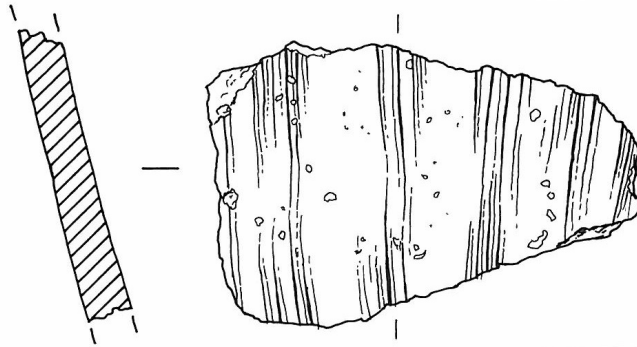


Figure 10 Excavation Site at Stonald Field, Whittlesey, showing Iron Age enclosure and inner compound

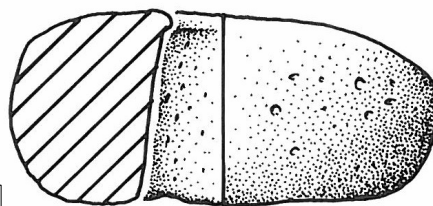
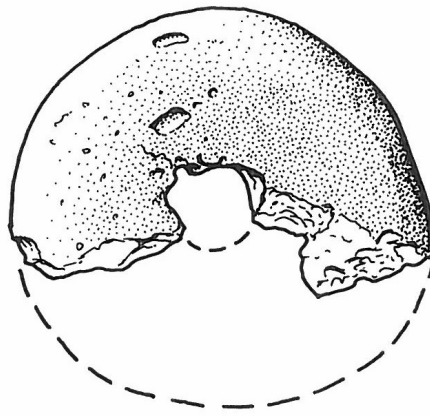


Dr. 1 Roman pot
(146)



Dr. 2 Iron Age pot
(303)

Scale 1:2



Ceramic Spindle whorl

(111)

Scale 1:1

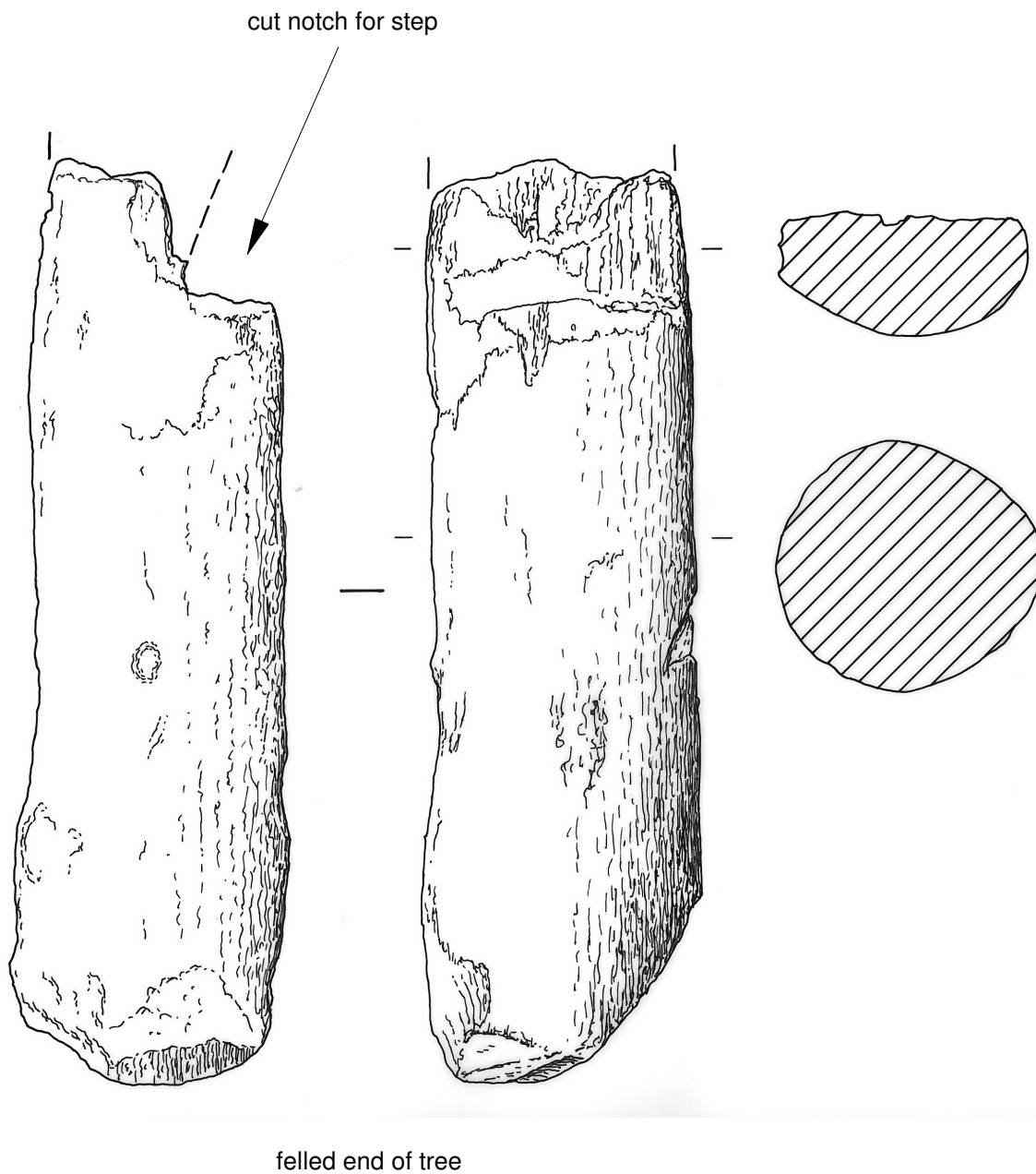


Archaeological Project Services

Project Name: Eastrea, Coates Road (EACR10)

Scale 1:2/1:1 Drawn by: DH Report No: 35/11

Figure 11 The Finds



0 0.2m



Archaeological Project Services

Project Name: Eastrea, Coates Road (EACR10)

Scale 1:4

Drawn by: DH

Report No: 35/11

Figure 12 Bronze Age Log Ladder



Plate 1 General site view, commencement of machine stripping, looking west



Plate 2 Waterhole/well [115], looking southwest

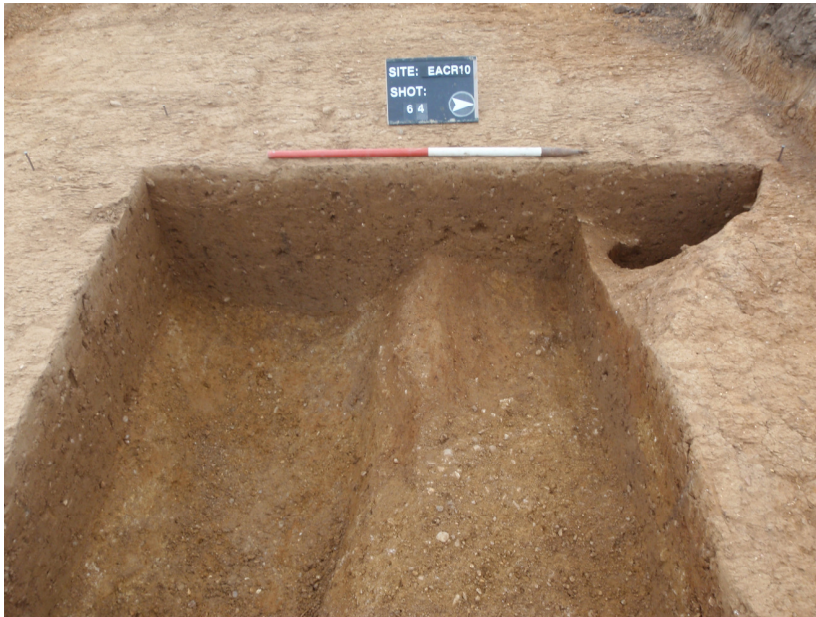


Plate 3 Ditch [136]
and pit [137],
looking west

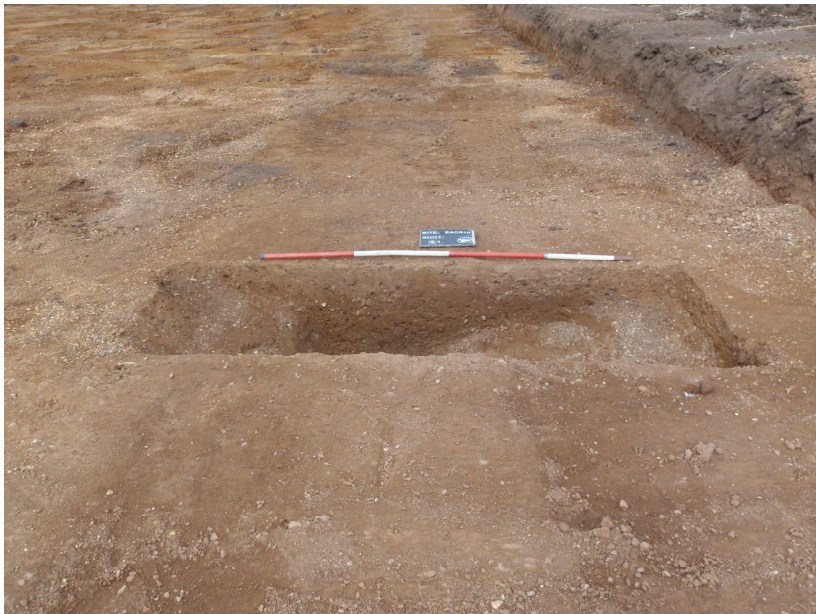


Plate 4 General view,
showing section across
ditch [054], looking
west



Plate 5 Section
across ring gully
[007], looking north



Plate 6 Excavation of skeleton in progress

Plate 7 Skeleton (082) fully excavated, looking east





Plate 8 Late Bronze Age log ladder from (131), fill of well/waterhole [115]



Plate 9 Late Bronze Age log ladder, rotated to show pointed base from felling and trimming



Plate 10 Late Bronze Age log ladder, detail of notch cut for step

APPENDIX 1

**LAND AT
COATES ROAD,
EASTREA,
CAMBRIDGESHIRE**

**SPECIFICATION FOR
ARCHAEOLOGICAL EXCAVATION**

**PREPARED FOR
ROSE HOMES (EA) LTD**

**BY
ARCHAEOLOGICAL PROJECT SERVICES
Institute for Archaeologists'
Registered Archaeological Organisation No. 21**

JUNE 2010

**ARCHAEOLOGICAL
PROJECT
SERVICES**



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1 SUMMARY

- 1.1 *This document comprises a specification for the archaeological excavation of land at Coates Road, Eastrea, Whittlesey, Cambridgeshire.*
- 1.2 *The site lies in an area of archaeological potential with evidence of Roman settlement and prehistoric ceremonial activity. The site is within the extents of a Roman settlement and field system, with pottery of the period found very close by. A ring ditch, probably defining a prehistoric burial mound, is located just to the south and there is a second a short distance to the north. This second ring ditch is in the same location as a Saxon settlement of sunken-floored huts and together these are protected as a Scheduled Ancient Monument.*
- 1.3 *Previous investigations at the site comprised geophysical survey, aerial photographic assessment and trial trenching. Perhaps due to the soil conditions the geophysical survey was essentially blank. Examination of aerial photographs of the area confirmed the presence of the probable prehistoric ring ditches nearby and indicated they were located in a landscape interlaced by natural feature, probably periglacial ice-cracks. On and in the immediate proximity of the site were a number of linear cropmarks, thought to define a field system and trackway. Subsequent trial trenching revealed some of these linear features and recovered a small amount of prehistoric pottery from them. Most of these ditches were located in the eastern part of the site and were thought to be part of a field system. The parallel ditches of the probable trackway observed on the aerial photographs were also examined but were undated. Remnants of probable medieval agricultural furrows were also recorded.*
- 1.4 *An archaeological excavation is now required in order to preserve by record the archaeological remains that would be affected by the development of the site. The archaeological curator, Cambridgeshire County Council Archaeology Office, has proposed an area to be excavated. This present document is in response to that and proposes an alternative appropriate scheme of investigation.*
- 1.5 *Archaeological remains exposed will be recorded in writing, graphically and photographically.*
- 1.6 *On completion of the fieldwork a report will be prepared detailing the findings of the investigation. The report will consist of a text describing the nature of the archaeological deposits located and will be supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a proposed specification for an archaeological excavation of land at Coates Road, Eastrea, Whittlesey, Cambridgeshire.
 - 2.1.1 The document contains the following parts:

- 2.1.2 Overview
- 2.1.3 The archaeological and natural setting
- 2.1.4 Stages of work and methodologies to be used
- 2.1.5 List of specialists
- 2.1.6 Programme of works and staffing structure of the project

3 SITE LOCATION

- 3.1 Eastrea is located 2km east of Whittlesey in the Fenland district of Cambridgeshire. Situated on the eastern edge of the village, the site is on the south side of Coates Road at TF 2969 9725.

4 PLANNING BACKGROUND

- 4.1 Fenland District Council has placed a condition requiring a scheme of archaeological works on planning consent (Application number F/YR08/1068/F) for residential development and the provision of a village hall (to be paid for by the development) for the use of Eastrea Village Hall Trust, a registered charity (no. 1040578). This is a long-awaited and much-needed facility which when open will be run by and for the purposes of the registered charity. There are no public funds available for this scheme and all monies are raised by the villagers and with a contribution of £250,000 arising from the development of only 14 new dwellings.
- 4.2 In the first instance, the archaeological planning condition comprised evaluation of the site through a programme involving geophysical survey, aerial photographic assessment and trial trenching to determine the location and character of any archaeological deposits which may be buried on the site. The planning condition also stated that should the evaluation reveal significant archaeological remains then further investigation or mitigation measures may be necessary.
- 4.3 The geophysical survey, aerial photographic assessment and trial trenching have been undertaken. A number of prehistoric ditches were revealed and as a result Cambridgeshire Archaeology Office, as archaeological curators, have advised that part of the development site is excavated to preserve by record the archaeological remains in that area.

5 SOILS AND TOPOGRAPHY

- 5.1 Eastrea occupies a slight ridge to the south of the River Nene. The site lies at about 5m OD on the north side of the slight eminence. Soils of the area are Waterstock Association fine loams over river terrace drift (Hodge *et al.* 1984).

6 ARCHAEOLOGICAL OVERVIEW

- 6.1 Extensive evidence of Roman and prehistoric settlement and ceremonial activity has been identified in the Eastrea area. The site lies within an area of known Roman settlement (CHER MCB12570), with Roman pottery found just to the southwest (CHER MCB5091). Field systems and trackways have been identified in the area, together with probable Bronze Age round barrows evident as ring ditches (CHER MCB5090). About 250m to the north is a Scheduled Ancient Monument (CHER DCB28) consisting of a Saxon settlement of sunken floored structures (HER MCB3544) and a further probable prehistoric ring ditch (CHER MCB3543).
- 6.2 Geophysical survey, aerial photographic assessment and trial trenching have been undertaken at the site. Probably due to ground conditions, the geophysical survey was essentially blank (Malone 2009a). Aerial photographic assessment revealed various features on and near the site, though these are mostly natural periglacial features, and there were a few linear ditches that perhaps represent field boundaries and a trackway (Malone 2009b). Subsequent trial trenching identified a number of linear ditches, some of which correlate with the aerial photographic evidence. Four of these ditches contained prehistoric, probably Iron Age, pottery. These were thought to represent ditches of a field system. A pair of parallel gullies, which equated with the cropmarks interpreted as a trackway, were also identified but were undated. Several other linear features, probably furrows of the medieval or later field system, were also recorded. A small amount of prehistoric pottery, 15 fragments representing about 4 separate vessels, was recovered during the investigation (Peachey 2009).

7 AIMS AND OBJECTIVES

- 7.1 The aim of the work will be to preserve archaeological remains by record and recover as much information as possible on the origins, date, development, phasing, spatial organisation, character, function, status, significance and nature of social, economic and industrial activities on the site.
- 7.2 The objectives of the investigation will be to:
- Determine the date of the archaeological remains present on the site.
 - Determine the extent and spatial arrangement of the archaeological remains encountered;
 - Identify the character of archaeological remains present within the site.
 - Establish the extent to which surrounding archaeological remains extend into the site.
 - Identify the way in which the archaeological remains identified fit into the pattern of occupation and land-use in the surrounding landscape.
- 7.3 The specific research objectives of the investigation will be to investigate

evidence of prehistoric settlement, agricultural systems and possibly ritual activity.

8 EXCAVATION

8.1 General Considerations

- 8.1.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the investigation.
- 8.1.2 The work will be undertaken according to the relevant codes of practice issued by the Institute for Archaeologists (IfA). *Archaeological Project Services* is an IfA Registered Archaeological Organisation (No. 21). Additionally, all work will be carried out in accordance with *Standards for Field Archaeology in the East of England* (Gurney 2003)
- 8.1.3 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996 or subsequent revisions, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.
- 8.1.4 Excavation of the archaeological features exposed will only be undertaken as far as is required to determine their date, sequence, density and nature. All archaeological features exposed will be excavated and recorded unless otherwise agreed with the Cambridgeshire Archaeology Office.
- 8.1.5 If necessary, the open excavation area will be marked by hazard tape attached to road irons or similar poles.

8.2 Proposals

- 8.2.1 Cambridgeshire Archaeology Office has advised that the entire eastern two-thirds of the site be excavated.
- 8.2.2 In consideration of the results recorded and analysed thus far, an appropriate area of excavation is proposed here. This proposed investigation area would be a block comprising two attached rectangles, as shown on the accompanying plan. The southern edge to of the western block would run along the northern side of evaluation Trench 4 and taking in most of the three blocks of house south of the access road (see plan). The northern edge of this block would be broadly on the line of the northern edge of the road. The connected block to the east would cover the hammerhead of the access road and most of the three houses in the northeastern part of the site, up to the western edge of evaluation Trench 6. If prehistoric remains are revealed extending eastwards from the western excavation block, or southward from the eastern excavation, the the excavation areas with be extended to cover the house plot located in the

southern angle between the two blocks.

8.2.3 The rationale for this reduced area is as follows:

- Geophysical survey: did not identify archaeological remains. This suggests that the soils in the archaeological features are not magnetically-enhanced significantly. This, in turn, would imply that the features are not directly associated with settlement (which usually results in magnetically-enhanced soils), and the remains are more likely to be related to field systems.
- Aerial photographic assessment: did not identify many archaeological remains in the site area, though cropmark production is very good at the site and nearby. This perhaps suggests that archaeological remains are not numerous at the site. This is supported by the results of the trial trenching (see below) which identified few features that were not visible on aerial photographs.
- Trial trenching: as noted above, the trial trenching only identified a few features that were not evident on aerial photographs. Moreover, probably all of the features evident as cropmarks on aerial photographs were identified by the trial trenching. Prehistoric artefacts occurred in restricted quantities, with only 15 fragments of pottery, representing about 4 separate vessels, being recovered during the investigation. As a result of their morphology, arrangement and contents, the archaeological remains were interpreted as parts of a field system and ditched trackway. No archaeological remains were revealed in the southern half of Trench 6, in the southeastern corner of the site.
- Development proposal: the development proposal contains large areas of green space. This should not be impacted by the development, but protection of these areas could perhaps be ensured through having them demarcated with temporary fencing to ensure there is no topsoil removal or other invasive groundwork.

8.2.4 In light of the foregoing it is thought that the archaeological remains at the site represent part of a prehistoric agricultural system, probably associated with settlement that was located nearby but not in the proposed development area. Moreover, it appears that parts of the development site will not be impacted by development groundwork. Therefore, it is considered that excavation in the proposed area of investigation would be a more appropriate response to the potential development impact on the archaeology.

8.2.5 It is acknowledged that if, during the excavation, archaeological remains associated with prehistoric settlement or ceremonial activities are encountered,

then excavations may need to be extended into parts of the site that cannot be protected from development impact.

8.3 Methodology

- 8.3.1 Removal of the topsoil and any other overburden will be undertaken by mechanical excavator using a toothless ditching bucket. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation before any further mechanical excavation that may be required. Thereafter, the excavation area will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.
- 8.3.2 Following the site stripping, areas will be cleaned if necessary and a pre-excavation plan of the entire area of investigation will be compiled using a survey grade GPS. A plan will then be available for the first monitoring meeting with the CAPCA archaeological curator, the client and APS.
- 8.3.3 Where safe to do so, all discrete features will be subject to a minimum of half-sectioning, so that 50% of the feature is excavated.
- 8.3.4 Linear features not directly associated with settlement will be sampled at 10m intervals in 1m wide sections to allow an informed interpretation of their date and function. Junctions of linears and other features will also be excavated to determine stratigraphic relationships.
- 8.3.5 A minimum of 25% of linear features associated with settlement will be excavated, though this may increase depending on the nature of the evidence. Structural remains such as eaves drip gullies, beam slots and post-holes demonstrated to be part of a buildings construction will be totally excavated.
- 8.3.6 All industrial features including "domestic" ovens and hearths will be 100% excavated and sampled for analysis.
- 8.3.7 The archaeological features encountered will be recorded on Archaeological Project Services pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.
- 8.3.8 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at other, more appropriate, scales.
- 8.3.9 Throughout the duration of the investigation a photographic record consisting of black and white prints (reproduced as contact sheets), colour slides and digital

images will be compiled. The photographic record will consist of:

- the site before the commencement of field operations.
- the site during work to show specific stages of work, and the layout of the archaeology within the area.
- individual features and, where appropriate, their sections.
- groups of features where their relationship is important.
- the site on completion of field work

8.4 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. Should removal be required the appropriate Ministry of Justice license will be obtained before the exhumation of the remains. If necessary the local environmental health department, the coroner and the police will be notified.

8.5 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis.

8.6 The spoil generated during the investigation will be mounded along the edges of the excavation area with the topsoil being kept separate from the other material excavated for subsequent backfilling.

8.7 The precise location of the excavation area within the site and the location of site recording grid will be established by EDM or GPS survey.

9 ENVIRONMENTAL ASSESSMENT

9.1 During the investigation specialist advice will be obtained from an environmental archaeologist. If necessary the specialist will visit the site and will prepare a report detailing the nature of the environmental material present on the site and its potential for additional analysis should further stages of archaeological work be required. The results of the specialist's assessment will be incorporated into the final report.

10 POST-EXCAVATION AND REPORT

10.1 Stage 1

10.1.1 The site will be subject to a full Archaeological Assessment as set out in *Management of Archaeological Projects II*. On completion of site operations, the records and schedules produced during the investigation will be checked

and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared to enable the determination of the various phases of activity on the site. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.

10.1.2 All finds recovered during the investigation will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

10.1.3 Finds will be sent to specialists for identification and dating.

10.2 Stage 2

10.2.1 A full Assessment Report will be prepared and will consist of statements setting out the following:-

- *Factual Data* ie quantity of material and records; the provenance of the material; the range and variety of material; the condition of the material and the existence of primary sources or relevant documentation which may enhance the study of the site data.
- *Statement of Potential* for each material category including a review of the research questions posed in the Project Design which the data has the potential to answer, new research questions resulting from the data gathering and the potential for the data to enhance local, regional and national research
- *Storage and Curation* – recommendations on the discard of material and long-term storage requirements.

10.3 Stage 3

10.3.1 On completion of Stage 2, an Updated Project Design will be prepared (as set out in MAP II). This will include site background, summary statement of potential, revised aims and objectives, methods statement and a detailed update that sets out a revised programme to complete the project.

10.4 Stage 4

10.4.1 On completion of Stage 3, an analytical report will be prepared. This will be produced with consideration of the regional research guidelines (Glazebrook 1997; Brown and Glazebrook 2000) and will consist of:

- A non-technical summary of the results of the investigation.

- A description of the archaeological setting of the site.
- Description of the topography and geology of the investigation area.
- Description of the methodologies used during the investigation and discussion of their effectiveness in the light of the results
- A text describing the findings of the investigation.
- Interpretation of the archaeological features exposed and their context within the surrounding landscape.
- Specialist reports on the finds from the site.
- Illustrations including plans, sections, and artefacts. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
- Appropriate photographs of the site and specific archaeological features or groups of features.

11 ARCHIVE

- 11.1 The documentation, finds, photographs and other records and materials generated during the investigation will be sorted and ordered in accordance with the procedures in the Society of Museum Archaeologists' document *Transfer of Archaeological Archives to Museums* (1994), and any additional local requirements, for long term storage and curation. This work will be undertaken by the Finds Supervisor, an Archaeological Assistant and the Conservator (if relevant). The archive will be deposited within an approved County store under the Cambridgeshire event number (to be obtained) as soon as possible after completion of the post-excavation and analysis.
- 11.2 If required, microfilming of the archive will be carried out. The silver master will be transferred to the RCHME and a diazo copy will be deposited with the Cambridgeshire County Council Archaeology Service Historic Environment Record.
- 11.3 Prior to the project commencing, the Cambridgeshire County Archaeological Office will be contacted to obtain their agreement to receipt of the project archive and to establish their requirements with regards to labelling, ordering, storage, conservation and organisation of the archive.
- 11.4 Upon completion and submission of the excavation report, the landowner will be contacted to arrange legal transfer of title to the archaeological objects retained during the investigation from themselves to the receiving museum. The transfer of title will

be effected by a standard letter supplied to the landowner for signature.

12 REPORT DEPOSITION

- 12.1 An unbound draft copy of the report will be supplied initially to the County Archaeological Office for comment. Copies of the final report will be sent to: the client; the Cambridgeshire County Council Archaeology Office (2 copies); and the Cambridgeshire County Historic Environment Record.

13 PUBLICATION

- 13.1 A report of the findings of the investigation will be submitted for inclusion in the appropriate local journal. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* for medieval and later remains, and *Britannia* for discoveries of Roman date.
- 13.2 Details of the investigation will also be input to the Online Access to the Index of Archaeological Investigations (OASIS).

14 CURATORIAL MONITORING

- 14.1 Curatorial responsibility for the project lies with Cambridgeshire County Council Archaeology Office. As much notice as possible will be given in writing to the curator prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

15 VARIATIONS TO THE PROPOSED SCHEME OF WORKS

- 15.1 Variations to the scheme of works will only be made following written confirmation from the archaeological curator.
- 15.2 Should the archaeological curator require any additional investigation beyond the scope of the brief for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

16 SPECIALISTS TO BE USED DURING THE PROJECT

- 16.1 The following organisations/persons will, in principle and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County

	Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr F Pryor, Soke Archaeological Services Ltd or Dr C Allen, independent specialist Roman: B Precious, independent specialist/A Beeby, APS Anglo-Saxon-later: Dr A Boyle, APS
Other Artefacts	G Taylor, APS/J Cowgill, independent specialist
Human Remains Analysis	Dr R Gowland, independent specialist
Animal Remains Analysis	P Cope-Faulkner, APS/M Holmes, independent specialist
Environmental Analysis	V Fryer, independent specialist
Soil Assessment	Dr C French, independent specialist
Pollen Assessment	P Wiltshire, independent specialist
Radiocarbon dating	Beta Analytic Inc., Florida, USA
Dendrochronology dating	University of Sheffield Dendrochronology Laboratory

17 PROGRAMME OF WORKS AND STAFFING LEVELS

- 17.1 The Senior Archaeologist, Archaeological Project Services, Tom Lane, MifA, will have overall responsibility and control of all aspects of the work.
- 17.2 Site work will be undertaken by a Project Officer with experience of archaeological investigations of this type, assisted by appropriately experienced archaeological technicians. After machine stripping, the archaeological works are programmed to take about 12 days.
- 17.3 Post-excavation Assessment report production is expected to take up to 20 days. The programme for the analysis is dependent on the results of the assessment. Post-excavation works will be undertaken by the Project Officer, or post-excavation analyst as appropriate, with assistance from a finds supervisor, illustrator and external specialists.

18 INSURANCES

- 18.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability insurance to £10,000,000. Additionally, the company maintains Public and Products Liability insurances, each with indemnity of £5,000,000. Copies of insurance documentation can be supplied on request.

19 COPYRIGHT

- 19.1 Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.
- 19.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.
- 19.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act 1988* for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said Planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act 1988* and may result in legal action.
- 19.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

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Specification: Version 1, 10th June 2010

Appendix 2

CONTEXT DESCRIPTIONS

Table 1: Excavation

Context No.	Description	Evaluation equivalent	Interpretation
001	Friable mid grey sandy silt with occasional angular pebbles, 0.35m thick	100, 200, 300, 400, 500, 600	Topsoil
002	Soft mid greyish brown silty sand with occasional angular pebbles, 0.45m thick	101, 201, 301, 401, 501, 601	Subsoil
003	Loose mixture of mid brownish red and light yellowish brown sand and gravel (mainly flint)	103, 204, 306, 402, 502, 604	Natural sand and gravel
004	Linear cut, oriented east-west with concave sides breaking imperceptibly to a concave base, measuring 3.60m long x 1.10m wide x 0.26m deep		Ditch
005	Soft light brown sandy silt with frequent angular pebbles, 0.15m thick		Fill of [004]
006	Soft light greyish brown sandy silt with occasional sub-angular pebbles, 0.17m thick		Fill of [004]
007	Semi-circular ring shaped ditch cut, at least 0.98m wide x 0.56m deep x at least 8m in diameter, with steep sides breaking gradually to a narrow concave base		Ring ditch, same as [024]/[030]
008	Loose mid brownish orange silty sand, 0.15m thick, containing frequent angular to rounded gravel and small stones		Primary fill of [007]
009	Loose mid greyish brown sandy silt, up to 0.48m thick, containing angular stones up to 30mm wide		Fill of [007]
010	Linear cut, oriented east-west and running across the width of the site possibly for at least c. 25m measuring 3.05m wide x 0.65m deep with irregular sides breaking gradually and often imperceptibly to a flat base, the depth and width is irregular in many places	504	Ditch cut, possibly same as [004]
011	Soft light greyish brown clayey sand and silt with moderate angular pebbles, 0.65m thick	503	Fill of [010]
012	Linear cut, 0.48m deep x 1.5m wide x at least 3.22m long with moderate sloping sides breaking gradually to a concave base		Ditch
013	Friable light to mid brown sandy silt with moderate gravel and occasional dark brown staining		Fill of [012]
014	Soft mid brown clayey sandy silt with occasional angular pebbles, 0.35m thick		Fill of [010]
015	Friable light grey brown silty gravelly sand with abundant angular stones mostly of flint, up to 0.11m thick		Fill of [063]
016	Rounded terminal end of a north-south oriented linear cut at least 40mm deep by up to 0.75m wide with gently sloping sides braking gradually to a flat, slightly undulating base		Terminal end of ditch, same as [012]
017	Friable light to mid brown sandy silt containing frequent angular stones, mostly flint, filling [016]		Fill of [016]
018	Linear cut, oriented northwest-southeast, measuring 0.16m deep x 0.81m wide x at least 25m in length with shallow concave sides breaking gradually to a concave base	504	Ditch, same as [010]
019	Loose light greyish brown silty sand with frequent small natural flints and sub-rounded pebbles, rare mollusc shell flecks and occasional charcoal flecks, 0.16m thick	503	Fill of [018]
020	Linear cut, oriented southwest-northeast, measuring 0.60m wide x c. 1.6m long x 0.28m deep with concave sides and base	504	Ditch
021	Soft to loose, light yellowish brown sandy silt, 0.28m thick, containing moderate sub-rounded pebbles and rare charcoal and mollusc shell flecks	503	Fill of [020]
022	Liner cut, oriented east-west, measuring 0.45m wide x at least 25m long x 0.10m deep with shallow concave sides breaking gradually to a concave base		Ditch, same as [033], also probably the same as [010]/[018]
023	Loose light greyish brown silty sand containing frequent small flints, sub-rounded pebbles and rare charcoal flecks, 0.10m thick		Fill of [022]
024	Semi-circular ring shaped ditch cut, 0.60m wide x 0.19m deep x at least 8m in diameter, with steep sides breaking gradually to a concave base		Ring ditch, same as [007]/[030]

025	Friable to loose light greyish brown silty sand with frequent gravel and small stones		Fill of [024]
026	Linear cut, oriented east-west, measuring 0.68m wide x at least 23m long x 0.45m deep, with steeply sloping sides breaking gradually to a concave base	603?	Ditch, same as [043]/[104]
027	Linear cut, oriented northwest-southeast, measuring 1.10m wide x 18m long x 0.40m deep with steep sides breaking gradually to a flat base	505	Ditch, same as [090]
028	Friable orangey brown sandy silt with frequent gravel, 0.20m thick	506	Fill of [027]
029	Friable orangey brown sandy silt with frequent gravel, 0.25m thick	506	Fill of [027]
030	Semi-circular ring shaped ditch cut, 1.20m wide x 0.55m deep x at least 8m in diameter, with steep sides breaking gradually to a concave base		Ring ditch, same as [007]/[024]
031	Friable light greyish brown sandy silt with moderate gravel and small rounded stones, 0.55m thick		Fill of [030]
032	Loose to friable mix of gravel in a light brown sandy matrix with frequent sub-rounded to sub-angular stones	506	Fill of [027]
033	Linear cut, oriented east-west, measuring 0.50m wide x at least 25m long x 0.17m deep with concave sides breaking gradually to a concave base	504	Ditch cut, same as [022], probably same as [010]/[018]
034	Loose yellowish brown silty sand with moderate small sub-rectangular stones, 0.05m thick		Fill of [033]
035	Same as (023)		Same as (023)
036	Same as [106]		Same as [106]
037	Same as (107)		Same as (107)
038	Same as (108)		Same as (108)
039	VOID		VOID
040	VOID		VOID
041	Oval shaped cut, measuring 0.90m long x 0.65m wide x 0.22m deep, with straight sides at a 70 to 45 degree angle breaking gradually to a flat base		Pit
042	Firm mid brown clayey silt with occasional angular pebbles, 0.22m thick		Fill of [041]
043	Linear cut, oriented east-southeast to west-northwest, measuring 10m long x 1.26m wide x 0.50m deep, breaking gradually to an uneven base	603?	Ditch, same as [026]/[104]
044	Loose mid orangey brown silty sand, 0.13m thick, containing moderate gravel and small rounded stones	602?	Fill of [043]
045	Friable light orangey brown sandy silt containing moderate small rounded stones, 0.17 thick	602?	Fill of [043]
046	Friable light greyish brown sandy silt, 0.25m thick with moderate gravel and small rounded stones	602?	Fill of [043]
047	Linear cut, oriented northeast-southwest, measuring c. 16m long x 0.65m wide x 0.35m deep with straight 45 degree angle sides breaking irregularly to an irregular base	503	Ditch, same as [020]
048	Soft mid brown sandy clay with occasional angular pebbles, 0.35m thick	504	Fill of [047]
049	Soft mid brownish grey sandy silt with reddish yellow mottle and occasional moderate pebbles, 0.24m thick		Fill of [052]
050	Soft mid brownish grey silty sand with frequent pebbles and rare charcoal flecks, 0.44m thick		Fill of [054]
051	Loose mid brownish grey silty sand and gravel, 50mm thick		Fill of [052]
052	Linear cut, oriented east-west, measuring 2.2m wide x 0.24m deep, breaking imperceptibly to a flat but slightly concave base		Ditch, possible re-cut of [054], same as [085]/[120]/[128]/[136]
053	Soft mid reddish brown sand with occasional gravel, 20mm thick		Fill of ditch [054]
054	Linear cut, oriented east-west, measuring at least 31m long x 1.90m wide x 0.44m deep with moderately steep to slightly irregular sides due to possible re-cutting breaking imperceptibly to a concave base		Ditch, possible original cut of [052]/[085]/[120]/[128]/[136]
055	Soft mid reddish greyish brown silty sand, 0.35m thick, containing moderate to frequent gravel		Fill of [054]
056	VOID		VOID
057	VOID		VOID
058	Truncated cut of uncertain shape. Same as [114]		Same as [114]
059	Soft mid brownish grey silty sand with a small amount of clay, 0.31m thick, containing frequent pebbles		Fill of [058]
060	Soft mid brownish grey silty sand and gravel, 0.15m thick		Fill of [054]
061	Linear cut, oriented north-south, measuring at least 14m long x 0.40m		Base of a shallow ditch

	wide x 50mm deep with irregular shaped sides and base		
062	Soft mid grey silt with occasional angular pebbles, 50mm thick		Fill of [061]
063	Irregular ovoid shaped feature measuring 1.28m long x 0.84m wide x 0.11m deep with shallow irregular sides breaking gradually to an uneven base		Ditch/pit, perhaps disturbed by root action
064	Terminal end of a linear cut, oriented northeast-southwest, measuring 7.60m long x 1.10m wide x 0.54m deep with steep sides breaking gradually to a gently concave base		Terminus of linear ditch (looks like a ditch segment), same as [068]
065	Firm mid greyish brown clayey sandy silt, 0.16m thick, containing frequent pebbles, angular and sub-rounded flints and occasional charcoal flecks		Fill of [064]
066	Firm mid greyish olive brown clayey sandy silt, 0.24m thick, containing frequent pebbles and small sub-angular and sub-rounded flints and occasional charcoal flecks		Fill of [064]
067	Firm mid brownish orange mix of pebbles and sub-angular to sub-rounded stones and clayey sandy silt, 0.20m thick		Fill of [064]
068	Terminal end of a linear cut, oriented northeast-southwest, measuring 7.60m long x 0.83m wide x 0.55m deep with steep sides breaking gradually to a gently concave base		Terminus of linear ditch (looks like a ditch segment), same as [064]
069	Loose mid orangey brown silty sand with patches of silt, containing frequent gravel and unsorted rounded and angular stones (mostly flint), up to 0.26m thick		Fill of [068]
070	Friable mid greyish brown sandy silt containing moderate small rounded stones up to 0.30m thick		Fill of [068]
071	Irregular ovoid shaped cut, measuring 0.96m wide x 2m long x 0.31m deep, with generally steep sides breaking gradually to a concave base		Probable natural feature
072	Firm light brownish grey sandy silt, 0.16m thick, with frequent Fe staining, moderate small pebbles and sub-angular to sub-rounded stones		Fill of [071]
073	Firm light brownish yellow sandy silt with moderate light Fe flecking, 0.32m thick, containing frequent pebbles and small sub-rounded to sub-angular stones.		Fill of [071]
074	Friable mid greyish brown silty sand, containing frequent charcoal flecks and frequent sub-angular pebbles		Fill of [075]
075	Terminus of linear (possibly curvilinear) cut, oriented northwest-southeast, measuring 0.50m wide x 0.35m deep x approximately 7m long with steep sides breaking shortly to a flat base		Terminal end of linear ditch
076	Firm mid greyish brown clayey sandy silt, 90mm thick, containing frequent small pebbles and sub-angular to sub-rounded stones and occasional charcoal flecks	414?	Fill of [077]
077	Linear cut, oriented roughly north-south, measuring 0.30m wide x c. 2.20m long x 90mm deep, with gently sloping sides breaking gradually to a concave base	413?	Ditch
078	Firm mid greyish brown clayey sandy silt, containing frequent pebbles and small sub-angular to sub-rounded stones and occasional charcoal flecks	412?	Fill of [079]
079	Linear cut, oriented roughly north-south, measuring 1.15m wide x at least 5m long x 0.12m deep with gently sloping sides breaking gradually to a broad concave base	411?	Ditch
080	Firm light yellowish brown sandy silt, 0.20m thick, containing moderate pebbles and small sub-angular to sub-rounded stones		Fill of [081]
081	Linear cut, oriented north-south, measuring 0.75m wide x at least 8m long x 0.20m deep with gently sloping sides breaking gradually to a gentle concave base		Ditch
082	East-west oriented supine inhumation, moderately well preserved		Burial (Skeleton)
083	Rectangular cut with vertical sides breaking sharply to a mainly flat base, measuring 2m long x at least 0.70m wide x approximately 0.20m deep		Grave cut for skeleton (082)
084	Loose light brownish grey sand, 0.20m thick, containing moderate small to mid size sub-rounded stones and occasional chalk flecks		Grave fill
085	Terminal end of linear cut, oriented east-west, measuring at least 30m x 3.20m wide x 0.90m deep, with a stepped side to the east and a concave side to the west, both of which break gradually to a concave base	305	Ditch, same as [052]/[120]/[128]/[136]
086	Soft mid grey sandy clay, 0.17m thick with frequent angular pebbles	304	Fill of [085]
087	Soft mid greyish brown sandy clay, 0.30m thick, with frequent angular pebbles	303	Fill of [085]
088	Soft mid greyish brown clayey sandy silt, 0.65m thick, with	302	Fill of [085]

	occasional rounded pebbles		
089	Firm mid to dark greyish brown clayey sandy silt with an olive hue, 0.12m thick, containing frequent pebbles and sub-angular to sub-rounded stones		Fill of [077] and [079]
090	Terminal end of a linear cut measuring 0.75m wide x approximately 18m long x 0.33m deep with steep concave sides breaking gradually to a concave base	505	Ditch, same as [027]
091	Friable orangey brown silty sand and gravel with some dark brown silt content, 0.33m thick	506	Fill of [090]
092	Firm, yet slightly friable, light greyish reddish brown clayey silt, 0.49m thick, containing moderate sub-angular pebbles		Fill of [093]
093	Possibly ovoid truncated cut, measuring at least 0.38m wide x 0.49m deep, with steep concave sides braking gradually to a base that cannot be observed due to truncation		Possible ovoid pit
094	Firm mid greyish brown clayey sand, 0.54m thick, with frequent sub-angular to sub-rounded pebbles and moderate charcoal flecks`		Fill of [095]
095	Terminal end of a linear cut, oriented southwest-northeast, measuring 7.56m long x 0.88m wide x 0.60m deep, with steep concave sides braking gradually to a concave base		Terminal end of linear ditch, same as [099]
096	Friable mid greyish reddish brown silty sand, 0.28m thick, with moderate charcoal flecks and frequent sub-angular pebbles		Fill of [095]
097	Friable light reddish greyish brown sandy silt, 0.24m thick, containing frequent sub-angular pebbles and moderate charcoal flecks		Fill of [099]
098	Firm mid reddish greyish brown clayey sand, 0.22m thick, containing moderate sub-angular pebbles and occasional charcoal flecks		Fill of [099]
099	Terminal end of linear cut, oriented northeast-southwest, measuring 7.56m long x 1.18m wide x 0.45m deep, with concave sides breaking gradually to a slightly concave base		Terminal end of a ditch, same as [095]
100	Friable mid greyish brown silty sand filling narrow linear [101] and containing moderate pebbles and frequent charcoal flecks		Fill of [101]
101	Linear cut, oriented northwest-southeast, measuring 7m long x 0.49m wide x 0.25m deep with steep concave sides breaking gradually to a concave base, truncated by [099]		Ditch, same as [075]
102	Friable mid greyish brown silty sand filling [103] and containing frequent sub-angular pebbles		Fill of [103]
103	Linear cut, oriented north-south, measuring 0.40m wide x 50mm deep x 10.80m long with shallow concave sides breaking imperceptibly to a concave base		Ditch
104	Terminal cone-shaped end of a 0.65m wide x approximately 23m long x 0.48m deep ditch with steep sides breaking gradually to a concave base	603?	Ditch, same as [026]/[043]
105	Friable orangey brown silty sand and gravel containing dark brown patches, 0.48m thick	602?	Fill of [104]
106	Roughly circular cut measuring 0.45m in diameter with concave sides breaking gradually to a concave base and truncated by grave cut [083]		Small pit
107	Soft to loose mottled light grey and orange sand, 0.22m thick, containing occasional small to medium sub-rounded stones and Fe staining		Fill of [106]
108	Loose mid yellowish grey sand, 0.13m thick, containing occasional Fe staining and rare small to medium sub-rounded stones		Fill of [106]
109	Loose mid reddish brown sand, 0.13m thick, containing occasional chalk flecks ad sub-rounded stones		Fill of [106]
110	Sub-oval cut, c.2.5m across, 0.20m deep, with shallow concave sides breaking gradually to a flat base		Shallow pit?
111	Loose light greyish yellow silty sand, 0.20m thick, with occasional small sub-rounded stones		Fill of [110]
112	Linear cut, oriented east-west, measuring 0.12m deep x 0.35m wide x approximately 5m long with moderately steep slightly concave sides breaking gradually to a concave base		Narrow ditch
113	Friable mix of orangey brown and dark brown silty sand and gravel filling [112]		Fill of [112]
114	Semi-circular cut emerging from the north end of the site with shallow to moderately sloped sides breaking gradually to a flat base, truncated and partially hidden but measuring at least 5.20m x 1.50m x 0.68m deep		Possible pit? Watering hole? Same as [058]
115	Sub-circular cut only partially exposed measuring 0.66m in diameter x 0.58m deep with vertical sides breaking to a base beneath the water table that is probably fairly flat but difficult to say with certainty		Pit/ Well?

116	Probable linear cut of which little is visible, oriented east-west and measuring at least 5m long x 2.10m wide x 0.64m deep, with convex sides breaking gradually to a flat base		Ditch or possible pit
117	Loose mid brownish grey clayey sand, 0.25m thick with frequent angular pebbles		Fill of [116]
118	Loose mid orangey brown sand, 0.10m thick with frequent angular pebbles		Fill of [116]
119	Soft mid greyish brown clayey silt, 0.35m thick with occasional angular pebbles		Fill of [116]
120	E-W ditch, same as [085] etc	305	Ditch, same as [052]/[085]/[128]/[136]
121	Same as (087)	303?	Same as (087)
122	Same as (088)	302?	Same as (088)
123	Firm mid to light yellowish brown clayey sandy silt with darker grey brown mottle, 90mm thick with frequent small pebbles, sub-angular and sub-rounded stones and occasional charcoal flecks	404?	Fill in [124]
124	Linear cut, oriented roughly north-south, measuring 1.10m wide x 90mm deep with intermittent traces that suggest it may have run across the length of the site, breaking gradually to a gently concave base	403?	Ditch or possible furrow
125	Firm mid slightly yellowish brown clayey sandy silt, 0.42m thick with frequent pebbles, sub-angular and sub-rounded stones and occasional charcoal flecks	302	Fill of [128]
126	Firm mid greyish yellowish brown clayey sandy silt, 0.12m thick with occasional pebbles and sub-angular to sub-rounded stones	303	Fill of [128]
127	Firm mid brown clayey sandy silt, up to 0.13m thick with frequent pebbles and small sub-angular to sub-rounded stones	304	Fill of [128]
128	Linear cut, oriented roughly east-west and appears to turn towards the southwest, measuring 1.50m wide x at least 20m long x 0.67m deep with steep sides breaking gradually to a concave base	305	Ditch, same as [052]/[085]/[120]/[132]/[136]
129	Friable light greyish brown silty sand with moderate pebbles and occasional charcoal flecks, filling [130]	409?	Fill of [130]
130	Squared off terminal end of a linear cut, oriented northwest-southeast, measuring 10.40m long x 0.36m wide x 0.20m deep with a vertical side and a moderately steep concave side breaking gradually to a concave base	408?	Ditch, possibly same as [138]
131	Loose, waterlogged dark grey with brown mottle silty peat, 0.58m thick, containing frequent angular gravel		Fill of [115]
132	Linear cut, oriented east-west	305	Ditch, same as [052]/[085]/[120]/[128]/[136]
133	Friable mid brown, silty sand and gravel with orange hue and occasional Fe staining	303?	Fill of [132]
134	Semi-circular cut with a radius of approximately 0.58m and a depth of 0.10m with a gently sloping side breaking very gradually to a base of which not much was observed but was possibly flat		Possible pit cut
135	Friable mid brown silty sand and gravel with an orangey brown hue, 0.10m thick		Fill of [134]
136	Linear cut, oriented east-west measuring 1.90m wide x at least 20m long with variable but slightly steep sides breaking gradually to a concave and somewhat uneven base	305	Ditch, same as [052]/[085]/[120]/[128]/[132]
137	Short linear cut, or possible ovoid pit, measuring 1.75m x 1m x 0.46m deep with steep sides breaking gradually to an uneven base		Ditch or pit
138	Terminal end of linear ditch, oriented northwest-southeast, measuring 1.15m wide x at least 3.80m long x 0.51m deep with steeply sloping sides breaking gradually to a concave v shaped point	408?	Terminal end of linear ditch, possibly same as [130]
139	Friable mid brown sandy silt and gravel with an orange hue, filling [138]	409?	Fill of [138]
140	Firm olivey mid brown clayey sandy silt with moderate pebbles and small sub-angular to sub-rounded stones, 0.37m thick	304?	Fill of [136]
141	Firm mid greyish brown clayey sandy silt, 0.28m thick with moderate small pebbles, sub-angular to sub-rounded stones and occasional charcoal flecks	305?	Fill of [136]
142	Firm mid greyish brown clayey sandy silt with reddish patches and moderate small pebbles and sub-angular to sub-rounded stones		Fill of [143]
143	Sub-circular cut measuring 0.38m x 0.50m x 0.29m deep with steep undercut sides breaking gradually to a concave base		Possible post-hole
144	Firm dark brownish orange sandy clay with occasional light brownish yellow patches with frequent pebbles and sub-angular to sub-rounded pebbles, 0.24m thick		Fill of [137]

145	Firm mid greyish brown clayey sandy silt, 0.15m thick with moderate small pebbles and sub-angular to sub-rounded stones		Fill of [137]
146	Unstratified finds		Unstratified finds
147	Friable dark brown silty sand with orangey hue, 0.50m thick with sub-rounded to sub-angular pebbles	602?	Fill of [026], same as 015, 044/045/046, 105

Table 2: Evaluation

Context No.	Trench	Description	Excavation equivalent	Interpretation
(100)	1	Friable dark brown slightly sandy clayey silt with occasional CBM flecks, 0.50m thick	001	Plough soil
(101)	1	Firm mid orangey greyish brown clayey sand, 0.20m thick	002	Subsoil
(102)	1	Firm to loose mid yellowish red clayey sand and gravel	003	Natural
(103)	1	Friable mottled light yellow and mid yellowish brown clayey sand		Fill of [104]
[104]	1	Linear cut, 1.7m wide. Not excavated		Ice crack or palaeochannel
(200)	2	Friable dark greyish brown clayey silt, 0.38m thick	001	Topsoil
(201)	2	Soft mid greyish brown sandy silt, 0.55m thick	002	Subsoil
(202)	2	Soft light yellowish brown silty sand, 0.60m thick		Fill of feature [203]
[203]	2	Cut of probable NW-SE linear, >1.3m long, >1m wide and 0.60m deep		Paleochannel?
(204)	2	Soft mottled mid reddish brown and light yellowish brown sand and gravel	003	Natural
(300)	3	Friable dark greyish brown sandy silt, 0.30m thick	001	Plough soil
(301)	3	Friable pale brown sandy silt, 0.20m thick	002	Subsoil
(302)	3	Loose light greyish brown, 0.26m deep		Tertiary fill of ditch [305]
(303)	3	Loose light greyish brown sandy silt, 0.38m thick		Secondary fill of ditch [305]
(304)	3	Loose mid brownish grey sand clay silt, 0.23m thick		Primary fill of ditch [305]
[305]	3	Cut of E-W linear, >1.5m long, 3.55m wide and 0.9m deep	132 etc	Possible Iron Age drainage ditch
(306)	3	Friable yellowish brown sand and gravel, >0.90m thick	003	Natural
(400)	4	Soft dark grey silt, 0.32m thick	001	Topsoil
(401)	4	Soft mid reddish grey clayey silt, 0.20m thick	002	Subsoil
(402)	4	Firm mid greyish red sandy silt	003	Natural
[403]	4	Cut of N-S linear, >1.50m long, 1.30m wide and 0.08m deep	124?	Gully within field system?
(404)	4	Soft mid grey clayey silt, 0.08m thick	123?	Fill of gully [403]
[405]	4	Cut of NW-SE linear, >1.50m long, 1.10m wide and 0.48m deep		Field Boundary?
(406)	4	Loose light reddish grey silty sand, 0.26m thick		Lower fill of ditch [405]
(407)	4	Soft mid brownish grey clayey Silt, 0.26m thick		Upper fill of ditch [405]
[408]	4	Cut of NW-SE linear, >1.50m long, 1.35m wide and 0.54m deep	138	Drainage ditch?
(409)	4	Soft mid reddish grey clayey silt, 0.43m thick	139	Lower fill of ditch [409]
(410)	4	Soft mid yellowish grey silt, 0.25m thick	139	Upper fill of ditch [408]
[411]	4	Cut of N-S linear, >1.50m long, 1.35m wide and 0.19m deep	079?	Furrow
(412)	4	Soft mid reddish grey silt, 0.19m thick	078?	Fill of furrow [411]
[413]	4	Cut of N-S linear, >1.50m long, 0.85m wide and 0.05m deep	077?	Furrow
(414)	4	Soft mid reddish grey silt, 0.05m thick	076?	Fill of furrow [413]
(500)	5	Friable dark greyish brown clayey silt, 0.30m thick	001	Topsoil
(501)	5	Soft mid greyish brown sandy silt, 0.30m thick	002	Subsoil
(502)	5	Loose mottled mid reddish brown and light yellowish brown sand and gravel	003	Natural
(503)	5	Soft mid yellowish brown sandy silt, 0.60m thick	021, 048 and 011,	Fill of ditch [504]

			014, 019	
[504]	5	Cut of E-W linear, >1.50m long, 3m wide and 0.60m deep	020, 047 and 010, 018	Prehistoric Ditch
[505]	5	Cut of NW-SE linear, >1.50m, 0.70m wide and 0.16m deep	027, 090	Prehistoric Ditch
(506)	5	Soft mid reddish grey silt, 0.16m thick	028, 029, 032, 091	Fill of ditch [505]
[507]	5	Cut of NW-SE linear, >2.20m long, 0.55m wide, 0.23m deep		Modern service ditch
(508)	5	Soft dark greyish brown sandy silt, 0.23m thick		Fill of modern ditch [507]
(600)	6	Friable dark greyish brown sandy silt, 0.37m thick	001	Plough soil
(601)	6	Loose light yellowish brown silty sand, 0.11m thick	002	Subsoil
(602)	6	Soft light yellowish brown silty sand, 0.08m thick	044?, 045,? 046?	Fill of furrow [603]
[603]	6	Cut of irregular E-W linear, >1.50m long, 0.75m wide and 0.08m deep	043?	Furrow
(604)	6	Firm to friable to soft light yellowish brown mixture of coarse gravel with sand and silty sand	003	Natural
(605)	6	Loose light yellowish brown silty sand, 0.04m thick		Fill of furrow [606]
[606]	6	Cut of E-W linear, >1.50m long, 1.20m wide and 0.04m deep		Furrow

Abbreviation

CBM = Ceramic Building Material

Appendix 3

THE FINDS

PREHISTORIC POTTERY

By Alex Beeby and Dale Trimble with Anne Boyle and Barbara Precious

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out by the P.C.R.G. (1997) and Knight (1998). A total of 116 sherds from a minimum of 18 vessels, weighing 391 grams was recovered from the site.

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This information was then added to an Access database. An archive list of the pottery is included in Archive Catalogue 1 with a summary in Table 1 below.

Condition

All of the pottery is in a fragmentary condition and sherds from 9 vessels (50% of the total) are classed as abraded or very abraded. Many of the sherds are just flakes and most of the fabrics here are very friable and extremely fragile. The poor state of the material is reflected by the very low average sherd weight of just 3.4 grams, although 36 sherds (mainly tiny fragments) were recovered from an environmental sample, somewhat reducing the overall average. A total of five vessels have totally or largely leached out shell inclusion hollows, although these are probably caused by acidic soil conditions rather than ancient usage. Residues are apparent on three vessels, two have internal sooting and a third a thick black internal deposit, perhaps carbonised fat or some other organic residue. These effects are suggestive of domestic use over a hearth or fire. An additional vessel has a thick internal scale or cress deposit.

Results

Table 1, Summary of the Prehistoric Pottery

Category	Cname	Full Name	NoS	NoV	W(g)
Flint Tempered	FLSC?	Sparse Coarse Flint Temper?	1	1	1
Grog Tempered	GRCM	Common Medium Grog Temper	1	1	3
Quartz Tempered	QUSM	Sparse Medium Quartz Temper	1	1	2
Shell Tempered	SHCAF	Common to Abundant Fine Shell Temper	8	2	8
	SHCC	Common Coarse Shell Temper	2	1	5
	SHCF/SHCF?	Common Fine Shell Temper/Common Fine Shell Temper?	43	5	61
	SHCM	Common Medium Shell Temper	3	2	7
	SHCM/SHCC	Common Medium to Coarse Shell Temper	40	2	290
	SHSF/IOAF	Sparse Fine Shell Temper with Abundant Fine Iron	3	1	2
Unclassified	MISC	Miscellaneous (Unclassified) Prehistoric Fabrics	14	2	12
Total			116	18	391

Provenance

Prehistoric pottery was recovered during both the evaluation and excavation phases of the project.

Evaluation (EACR09)

Sherds from just three vessels were retrieved, these came from ditches [504] and [505] within Trench 5 and [603] within Trench 6. Cuts [504] and [505] are equal to excavation contexts [010/018] or [020/047] and [090/027]. Ditch [603] is equal to [043/026].

Excavation (EACR10)

Ditches [010], [043] and [090], as well as equivalent ditch features [120], [128] and [136], and its recut [052], all

produced material during the excavation phase. Additionally pottery was recovered from pit [110], pits or ditches [063], [116], and grave cut [083].

Range

There is a relatively broad range of fabrics within this small assemblage, especially given that only 18 vessels are represented in total. However, the extremely fragmented nature of the material makes dating and vessel form recognition difficult. There are few sherds with any clearly diagnostic attributes and any dating can only be tentative at best. Most of the forms cannot be ascertained, although there is at least one jar as well as a large storage jar. The remainder are probably jar or bowl forms. There is just one piece present with decoration, this, in an unclassified calcareous tempered fabric (MISC) from (015), appears to have external scoring consistent with vessels manufactured in the 'Scored Ware' tradition. In Cambridgeshire, pottery of this type is generally thought to have a middle Iron Age date, although there is evidence for later production at nearby Fengate (Pryor, 1984, 155).

The majority of the fabrics are shell tempered types, with a wide variety of shell densities and sizes observed. The shell is probably naturally occurring fossil shell and the fabric of at least four vessels contains punctate brachiopod fossil types. Outcrops of clay containing these elements are found relatively close to the site making it likely that these items are locally produced. Using Knight's recording system (1998), these fabrics range from shell tempered common coarse (SHCC) to sparse fine (SHSF). A total of five vessels have fine shell tempering, whilst four more have medium or medium to coarse shell inclusions. There is just one vessel in a purely coarse tempered shell fabric. Other inclusions within this group include sparse quartz, flint and fine grains of Iron oxide. Three sherds from a single vessel have abundant Iron tempering as well as fine shelling (SHSF/IOAF).

Based on the fabric and finish much of the pottery is probably of Iron Age date, although sherds from at least four vessels could well be Bronze Age. A fine walled vessel in a common medium grog tempered fabric (GRCM) from [603] is perhaps the most likely to fall into this earlier dated category.

Potential

Given the very poor condition of the assemblage there is limited potential for further work to be carried out. The pottery should be retained as part of the site archive and should be appropriately packaged and stored in a controlled environment in order to prevent further degradation. There are no vessels suitable for illustration.

Summary

A very abraded assemblage of prehistoric pottery was recovered from EACR09/EACR10. Although the majority of this material probably dates to the Iron Age, some may well be earlier.

ROMAN POTTERY

By Alex Beeby

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out by Darling (2004). A total of 16 sherds from 3 vessels, weighing 195 grams was recovered from the site.

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This information was then added to an Access database. An archive list of the pottery is included in Table 2 below.

Condition

A single sherd from ditch [305] (EACR09) is abraded internally, this effect was probably caused by acidic contents attacking the calcareous internal lining of the pot during use. The remaining pottery is very abraded both internally and externally probably due to hostile soil conditions. The average sherd weigh is relatively low at just 12.2 grams, although this includes 14 fragments from a single vessel.

Results

Table 2, Roman Pottery Archive

Site code	Cxt	Cname	Form	Dec	Alter	Dr	Comments	NoV	NoS	W(g)
EACR10	146	NVGW	F		ABR INT		BS; FINE WHITE FAB WITH FUMED OR WASHED EXT SURFACE; EARLY NVGW?; FS	1	1	34
EACR10	146	BUFFIN	JBCAR	NECK COR	V ABR	1	RIMS; BSS; FRAGS; J; CARINATED VESS; SIMILAR TO WERRINGTON FIG 29#101 BUT WITH SHARPER CARINATION; CA	1	14	42
EACR10	146	ZDATE					M2-3C			
EACR09	303	SHEL	JS	COL	ABR INT	2	BS; SIMILAR OCCURS AT WERR FIG 29#109 AND HADDON FIG 65#81; DATED M1-L1C AT WERRINGTON	1	1	119
EACR09	303	ZDATE					LIA - EROM (AD 1C?)			
Total								3	16	195

Provenance

A single sherd was recovered during the evaluation phase (EACR09) and came from ditch [305] within Trench 3. The remainder of the pottery is unstratified and was retrieved during the excavation (EACR10); this material was given finds number (146).

Range

Sherds from just three vessels were recovered during both phases of work, these include a shell tempered storage jar (JS), a carinated jar or bowl (JBCAR) in a fine buff gritty fabric (BUFFIN) and a flagon in Nene Valley greyware (NVGW). The shell tempered storage jar has regularly spaced, external vertically combed decoration. A similar vessel from nearby Werrington is dated to that site's phase 2, belonging to the mid to late 1st century AD (Perrin, 1988, Fig 29; 101). The carinated jar or bowl from EACR10 is in the late Iron Age Belgic ceramic tradition and probably has a similar date. A vessel with an almost identical neck cordon and curved rim was also recovered from Werrington where it was also placed in Phase 2 (Perrin, 1988, Fig 29; 101). The vessel from EACR10 does however have a sharper, more carinated wall profile.

The presence of pottery of probable 1st century AD date is of particular interest given that so much Iron Age and possibly Bronze Age material was also recovered. This suggests some level of continuity here from at least the middle Iron Age up until the Roman conquest period and perhaps even later.

Potential

The pottery should be retained as part of the site archive and should pose no problems for long term storage. Two vessels are suitable for illustration.

Summary

Sherds from three Late Iron Age or Roman vessels were recovered during investigations at Eastrea Coates Road. Two are probably best dated to the 1st century AD, whilst the third is Nene Valley Greyware belonging to the 2nd or third centuries.

POST ROMAN POTTERY

By Alex Beeby and Anne Boyle

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out in Slowikowski *et al.* (2001). The pottery codenames (Cname) are in accordance with the Post Roman pottery type series for Lincolnshire, as published in Young *et al.* (2005). A single sherd from one vessel, weighing 1 grams was recovered from the site.

Methodology

The material was laid out, viewed and weighed. The pottery was examined visually and using x20 magnification. This

information was then added to an Access database. An archive list of the pottery is included in Table 1. The sherd dates to the late medieval period.

Condition

There is a single tiny fragment of pottery recovered from a sample.

Results

Table 3, Post Roman Pottery Archive

Cxt	Cname	Full Name	Form	NoS	NoV	W (g)	Part	Comment	Date
117	CIST	Cistercian Ware	Drinking Vessel	1	1	1	BS	Tiny Frag; sample 3	M15th-16th

Provenance

The pottery came from fill (117) within ditch or possible pit [116].

Range

There is a single piece of Cistercian ware dating from the mid 15th to 16th centuries.

Potential

There is little potential for further work. The pottery should be retained as part of the site archive.

Summary

One piece of pottery, from a single pit or ditch feature, was recovered during the evaluation. This sherd dates to the late medieval period

FIRED CLAY

By Alex Beeby

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out by the ACBMG (2001). A total of 16 fragments of fired clay, weighing 48 grams was recovered from the site.

Methodology

The material was laid out and viewed in context order. Fragments of fired clay were counted and weighed within each context. This information was then added to an Access database. An archive list of the fired clay is included in Table 3 below.

Condition

All of the material comprises small, formless and abraded flakes and pieces. The average weight is low at just 3 grams.

Results

Table 4, Fired Clay Archive

Cxt	Classification	Fabric	Comment	Frag	W(g)
006	FCLAY	Oxid; fine sandy	Surfaceless; abraded; CBM?; flint and ironstone grits up to 1 mm	1	14
015	FCLAY	Oxid/ Dull oxid/ Oxid; fine	Surfaceless; low fired; abraded; veg hollows and Calcareous concretions; v rare coarse Q	12	17
111	FCLAY	Oxid; fine sandy	Surfaceless; abraded; CBM?	2	5
111	FCLAY	Red; fine-medium sandy	Surfaceless; abraded; fine q up to 0.3mm; Ironstone grits;	1	12
Total				16	48

Provenance

All of the fired clay was recovered during the excavation phase (EACR10). Ditch [004], as well as possible pits [063] and [110] yielded fired clay.

Range

There are 16 pieces of fired clay, all are surfaceless and abraded flakes. Two pieces from (111) within pit [110] are quite highly fired and may be fragments of Roman or Post Roman ceramic building material, although this is only speculation.

Potential

There is little potential for further work. The material should be retained as part of the site archive and should cause no problems for long term storage.

Summary

A small number of fragments of fired clay were recovered during the excavation. There are no diagnostic features to allow further pertinent comment.

WORKED FLINT

By Tom Lane

Introduction

Two flints weighing a total of 15g were recovered during the investigations.

Condition

The flint is in good condition.

Results

Table 5, Worked Flint Archive

Cxt	Description	No	Wt (g)	Date
EACR10 011 <2>	Small broken flake, bulb of percussion	1	1	prehistoric
EACR09 600	Broken probable side scraper, relatively steep retouch along 1 side	1	14	Early Bronze Age

Provenance

The flints were recovered from a ditch fill (011) during the excavation and the ploughsoil (600) during the evaluation.

Range

A probable Bronze Age scraper and an indeterminate prehistoric flake, perhaps waste, were the only flints recovered.

Potential

The flints have low potential but indicate earlier prehistoric activity, perhaps transient, in the area.

FAUNAL REMAINS

By James Rackham and Paul Cope-Faulkner

Introduction

A total of 111 (1086g) fragments of faunal remains were recovered from stratified contexts. Six bones were retrieved during the initial evaluation of the site and are recorded in the table with the affixation EACR09.

Provenance

The animal bone was retrieved mainly from the fills of ditches with the exception of a ring ditch fill (025), from a grave (082 and 084), a pit fill (111), and the fill of a pit or well (131)

Condition

The overall condition of the remains was moderate to poor with many bones appearing chalky and highly fragmented. Fragmentation appears to be mainly post-deposition, though some bones have broken/split since their recovery.

Results

Table 6, Fragments Identified to Taxa

Cxt	Taxon	Element	Number	W (g)	Comments
021	unknown	unidentified	1	1	
025	large mammal	humerus	1	19	chalky
	unknown	unidentified	6	5	fragments, poss of above
029	cattle	radius	6	179	chalky; all join
046	cattle	radius	15	144	chalky; all join
050	cattle	radius	8	185	all join, poor
	sheep/goat	mandible	3	10	incl 3 molars
060	sheep/goat	maxilla	2	4	incl 2 molars
070	cattle	molar	2	22	
	cattle	mandible	4	3	Chalky
082	bird	metatarsus	1	<1	poss chicken
084	large mammal	mandible	1	20	
086	cattle	scapula	15	109	
	bird?	long bone	1	1	poss duck
088	cattle	metatarsus	2	74	both join
	large mammal	mandible	4	26	all join
111	cattle	Calcaneus	1	45	
	sheep/goat	molar	1	5	
	unknown	unidentified	2	1	
117	sheep/goat	maxilla	22	24	incl teeth
	large mammal	scapula	1	26	chalky
	small mammal	ribs	2	2	
125	cattle	molar	1	13	
	large mammal	tibia	1	81	
	medium mammal	tibia	1	15	
131	unknown	unidentified	1	<1	
406	large mammal	humerus	1	40	chalky
EACR09	large mammal	rib	3	24	very chalky
	sheep/goat	phalange	1	3	
409	cattle	horn core	1	5	
EACR09					

Summary

The assemblage is dominated by large mammals which in the absence of identifiable horse are likely to be cattle. Sheep/goat are present and there is also possible birds.

OTHER FINDS

By Gary Taylor

Introduction

Twenty other finds weighing a total of 93g were recovered.

Condition

All of the other finds are in good condition, though all of the metal items are corroded.

Results

Table 7, Other Materials

Cxt	Material	Description	NoF	W (g)	Date
084	Iron	Probable coffin nails – s.f.'s /2\ - /9\, 2 with traces of mineralised wood attached	16	60	Roman-later
111 /1\	Ceramic	Doughnut-shaped spindlewhorl, asymmetrical, 55mm long axis, max thickness 24mm, perforation 12mm	3 (link)	33	Iron Age-

		diameter			Roman
145<10>	Copper alloy	Pin head, wire-wound head	1	<1	16 th - 17 th century

Provenance

The other finds were retrieved from a grave (084), a pit fill (111), and the fill of a ditch/pit (145).

Range

Most of the other finds are of metal. There is a group of coffin nails, some with wood attached, from a grave. Additionally, there is a pin with a wire-wound head. The fashion for creating pins heads in this manner seems to have commenced when brass pins were introduced in the mid 16th century, and the tradition continued until the end of the 18th century, with a tendency for greater numbers of twists with later examples (Dunn 2001, 42). This example appears to have only a couple of twists, so is likely to be earlier in the overall date range for the type.

There is also a ceramic spindle whorl. This is similar to previously-discovered examples of Iron Age-Roman date (eg, Barford 1996, figs 13.4-13.6).

Potential

In general, the other finds have limited potential, though the spindle whorl indicates spinning at the site during the Iron Age-Roman period. The spindle whorl has been drawn.

SPOT DATING

The dating in Table 8 is based on the evidence provided by the finds detailed above.

Table 8, Spot dates

Phase	Cxt	Date	Comments
EACR10	011	LIA	
EACR10	015	MIA?	Contains possible scored ware
EACR10	049	IA	Based on a single sherd
EACR10	084	BA-MIA, or Roman+	Earlier date based on a single sherd; later date based on metals
EACR10	111	IA-RB	
EACR10	117	M15 th -16 th or IA	Later date based on tiny fragment from sample; also contains prehistoric material
EACR10	121	LIA	
EACR10	125	BA-IA	
EACR10	126	MLIA	
EACR10	140	IA?	Based on a single sherd
EACR10	141	EMIA?	
EACR10	145	16 th -17 th century	Based on 1 small metal item – possibly intrusive
EACR10	146	M2-3C	Unstratified context
EACR09	503	IA	
EACR09	506	BA-IA	
EACR09	602	BA-MIA	Based on a single sherd
EACR09	603	LIA-EROM	Prob 1C AD; Based on a single sherd

ABBREVIATIONS

ACBMG	Archaeological Ceramic Building Materials Group
BS	Body sherd
CBM	Ceramic Building Material
CXT	Context
NoF	Number of Fragments
NoS	Number of sherds
NoV	Number of vessels
PCRG	Prehistoric Ceramic Research Group

TR Trench
W (g) Weight (grams)

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ARCHIVE CATALOGUES

Archive catalogue 1, Prehistoric Pottery

Site Code/Phase	Cxt	Cname	Form	Part	NoS	NoV	W	Comments	Samp	Date
EACR10	11	SHCF	J OR B	BSS	2	1	22	BLACK INT DEP; OX		LIA
EACR10	15	MISC	J?	BS; FLAKES	12	1	9	LEACH; VEG INCL; FEINT EXT SCORING; SOFT; OX SURF R CORE; CALCAREOUS CLAY PELLETS?		EMIA?
EACR10	49	SHCM		BS	1	1	1	PB; SOOT INT; V ABR' R FAB; OX EX		IA
EACR10	84	FLSC?		BS	1	1	1	V ABR; FLINT TEMPERED; R FAB OX EX	4	BA-MIA
EACR10	111	SHCC		BSS	2	1	5	V ABR; R	5	IA?
EACR10	111	SHSF/IOAF		BSS	3	1	2	V ABR; R		IA
EACR10	117	SHCF?		BS	1	1	3	TOTALLY LEACHED; JUST SHELL; OX		IA
EACR10	121	SHCM		BS	2	1	6	FLAKES; SURFACELESS; OX/R MIX		IA?
EACR10	121	SHCF		BSS	3	1	4	FLAKES; V FINE; SOOT INT; ABUN PB		IA
EACR10	121	SHCAF		BS	7	1	6	FLAKES; R; ABUN PB; ECH SPINE; FLINT; ABR		LIA
EACR10	125	QUSM	B?	BS	1	1	2	LEACHED FAB - VEG OR SHELL?; R FAB OX EX; CURVED; SPARSE RND FE		BA-IA
EACR10	126	SHCF	J OR B	BASE; BSS	37	1	33	SOME LRGER SHELL; SMOOTH FINISH; R; PB; 45 DEGREE ANG FROM BASE	6	MLIA
EACR10	140	SHCAF		BS	1	1	2	V ABR; R FAB OX EX		IA?

EACR 10 Finds Appendix

Site Code/Phase	Cxt	Cname	Form	Part	NoS	NoV	W	Comments	Samp	Date
EACR10	141	SHCM/SHCC	JS	BASES; FLAKES	28	1	221	ABR; SOFT FAB; V LARGE VESS; SPARSE FL; Q AND FE; BA?		EMIA?
EACR09	503	SHCM/SHCC	J	BSS	12	1	69	ABR;ILL SORTED SHELL; R FAB OX EX SURF; SCALE OR CESS INT; PB; RARE Q		IA
EACR09	506	MISC		BSS	2	1	3	LEACH ED SHELL+; VEG INCL; SOFT; OX SURF R CORE; FLINT; V ABR INT		BA-IA
EACR09	602	GRCM	J OR B	BS	1	1	3	SILTY BACKGROUND; R; FINE WALLED VESS; BA?		BA- MIA

A p p e n d i x 4
W A T E R L O G G E D W O O D F R O M E A S T R E A
EACR10

BY MAISIE TAYLOR

THE WATERLOGGED WOOD

There is one piece of wood from the site. It comes from Context 131. It is the remains of a log ladder formed from a small tree trunk. The lower end is the felled end, and although they are not sharp, the marks of the felling axe are preserved. This end is otherwise unmodified and the tree trunk retains its bark. The top end is broken on the first step. The angle of the cut for the step suggests that the ladder was originally designed to be use more or less in a vertical position.

All log ladders are made in similar ways using simple wood working skills. Roundwood ladders have notches cut as steps, the angle of the steps varying depending on the angle at which the ladder is to be used. These steps are a good source of toolmarks because the risers are not subject to much wear. Log ladders have become a relatively common find, especially in wells on gravel sites and are obviously the normal way to gain access in these sometimes deep pits. There is, however, no standard design and they come in many shapes and forms. They are obviously made *ad hoc* from available materials.

The bulk of the log ladders which have been dated appear to be (often Late) Bronze Age although the first ones are much earlier and they continue in use into the Iron Age. The different styles and forms appear to relate to function and the availability of raw material rather than date.

The toolmarks are probably incomplete and have been made by an axe which is at least 35mm wide with a shallow curve. There is not sufficient data for any further interpretation of the marks.

There are too few rings for dendrochronological dating. However, radiocarbon dating is possible, using the sapwood alone, trying to keep the sample within the last 10 rings of the tree.

CONDITION OF MATERIAL

Using the scoring scale developed by the Humber Wetlands Project (Van de Noort, Ellis, Taylor and Weir 1995 Table 15.1) the material scores 4.

	MUSEUM CONSERVATION	TECHNLOGY ANALYSIS	WOODLAND MANAGEMENT	DENDRO- CHRONOLOGY	SPECIES IDENTIFICATION
5	+	+	+	+	+
4	-	+	+	+	+
3	-	+/-	+	+	+
2	-	+/-	+/-	+/-	+
1	-	-	-	-	+/-
0	-	-	-	-	-

This condition scale is based primarily on examination of the surface of the wood and the data which was recorded from that examination. The condition score reflects whether each type of analysis might be profitably applied, it is not intended as a recommendation for various analyses or treatment. A score of 5 would mean that all or any of the processes detailed from museum conservation to species identification might be worth applying to the material. A score of 0, on the other hand would mean that the material was a right-off as far as any of the listed analysis were concerned. A score of 4 indicates that the material would stand up to most forms of analysis but is probably not worth conserving.

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Van de Noort, R., Ellis, S., Taylor, M. and Weir, D. Preservation of archeological sites in
 Van de Noort, R. and Ellis, S. 1995 *Wetland Heritage of Holderness – an archaeological survey* Humber Wetlands Project

CATALOGUE

Context 131 <10>

Log ladder, roundwood, trimmed 1 end/2 directions, broken on first step, oak L.520+ D.130mm

Appendix 5

Coates Road, Eastrea (EACR10)

The Human Remains

*by Ross Kendall BA (Hons), MA, PIFA
Archaeological Project Services*

1. Contents

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2. Introduction

The aim of this report is to present the data collected from the osteological analysis of human skeletal remains recovered from the archaeological evaluation at Coates Road, Eastrea, Cambridgeshire (EACR10). The evaluation was carried out by Archaeological Project Services from June to July 2010.

3. Methodology

The human remains were catalogued on a database, with all available scores for sex, age, pathology, metric and non-metric traits noted in accordance with the guidelines specified by the British Association of Biological Anthropology and Osteoarchaeology (BABAO) and the Institute for Archaeologists (Brinkley and McKinley 2004). Methods for the individual scoring traits are outlined below.

3.1 Completeness

Completeness of the human remains was recorded through an assessment of the amount of material representing different areas of the body. Each area of the skeleton was assessed and then placed into the following four categories of completeness: 75%+, 50-75%, 25-50%, <25% (Buikstra and Ubelaker 1994). An overall completeness was then assigned following the same categories.

3.2 Sex Estimation

The determination of biological sex was based upon macroscopically observable morphological traits of the cranium and pelvis (Bass 1987; Buikstra and Ubelaker 1994) and by observation of the sexually dimorphic metrics of the post-cranial skeleton where available (Bass 1987). Sex was categorised as Female, Possible Female, Indeterminate, Possible Male, or Male.

3.3 Age Estimation

The determination of the age at death was assessed employing several techniques on the extant skeletal elements. Dental wear (Miles 1963; Brothwell 1981), dental development (Gustafson and Koch 1974), epiphyseal fusion (Schaefer *et al.* 2009), pubic symphyseal modification phase (Brooks and Suchey 1990), auricular surface modification phase (Buikstra and Ubelaker 1994), ectocranial suture closure (*ibid*) and modification phase of the sternal ends of ribs (Bass 1987) were recorded.

As a multi-factorial approach produces a range of ages, age categories are used for generalisation and comparison purposes. These age categories are listed below (Table 1).

Table 1: Summary of Age Categories

Category	Age Range
Foetal	8 - 39 week gestation
Neonate	Birth - 5 months
Infant	6 months - 2 years
Child	3 - 6 years
Older Child	7 - 15 years
Juvenile	Below 15 years
Adolescent	16 - 20 years
Young Adult	21 - 35 years
Middle Adult	36 - 44 years
Old Adult	45 years - 60 years
Senile	61+ years
Adult	Over 25 years

3.4 Metric traits

Measurements were taken from the extant cranial and post-cranial elements, where completeness allowed. Measurements were recorded using the criteria outlines by Brothwell (1981) and Howells (1973). Stature estimations are based upon the equations by Trotter and Gleser (1958). These measurements were taken from fused long bones, dependent on preservation.

3.5 Non-metric traits

Non-metric traits are morphological features that occur both in bone and dentition. These features have no specific functional purpose and occur in some individuals and not in others. The origins of non-metric traits are complex, each having its own etiology and each being influenced to differing extents by genetics, the environment and by physical activity.

The purpose of analysing and recording non-metric traits is to assess the prevalence rates of expression within a small group or entire population. The presence of non-metric traits may demonstrate individual, idiosyncratic variation. However, they may also be used to discern genetic relationships within a group (White 2000). Cranial non-metric traits were scored using the system outlined by Berry and Berry (1967), while post-cranial traits were scored according to the descriptions by Finnegan (1976). Due to the small size of this assemblage, non-metric traits have been recorded in order to allow future comparisons with other populations.

3.6 Dentition and Dental Pathology

Tooth representation was recorded based on presence/absence of teeth. Carious lesions (cavities) and enamel hypoplasia were recorded according to Lukacs (1989). Calculus (calcified plaque) build-up and periodontal disease were recorded as described by Brothwell (1981).

3.7 Pathology

Pathological changes in human bone reflect an imbalance in the normal biological processes of bone growth and repair. Such an imbalance may be caused by external trauma, infectious disease, metabolic stress, or tumours (White 2000). All pathological lesions, trauma and gross morphological abnormalities were described using standard clinical terminology. The specific pathologies and anatomical locations were recorded photographically with accompanying description in an attempt to provide a diagnosis. Specific pathologies and their significance to the population in question are examined in the discussion section.

4. Results

Skeleton (082): possible male adult aged at least 35 years

Skeleton (082) was recovered from sub-rectangular grave cut [083], aligned west to east (head to the west). The individual was supine with the hand placed to each side of the pelvis (plate 1). Numerous nails recovered from around the skeleton indicate that the individual was coffined. These nails date the burial to the Roman period or later. Residual Iron Age pottery and an Iron Age/Romano-British style spindle whorl were recovered from the grave fill. The skeleton was in generally poor condition and was less than 50% complete.



Plate 1: Burial position of skeleton (082).

Completeness

Individual (082) was assessed as being 25-50% complete.

Sexing

Pelvic sexual morphological characteristics were not observable due to lack of these elements. Extant morphological characteristics of the partially reconstructed skull included male traits exhibited by the supra-orbital ridges and nuchal crest area. Possible male sex was suggested by the posterior zygomatic area and orbital rims. Metric analysis of the humeri, radii and clavicles were not possible due to extensive post-depositional damage to these elements.

Age

All surviving undamaged epiphyses were fully fused, indicating an age at death of at least 21 years. Attrition of the one extant mandibular 2nd molar suggested an age of 38-42 years. Cranial suture closure/obliteration likely places this individual in the middle-old adult categories.

Stature

It was not possible to calculate the stature of this individual due to post-depositional damage to measurable elements.

Non-metric traits

One post-cranial non-metric trait was observed in this fragmentary individual. This consisted of double facetting of the right superior calcaneal facet.

Dentition

Presence and absence of maxillary and mandibular teeth along with presence of carious lesions (cavities) and enamel hypoplasia is recorded in Table 1. The top two lines represent the maxillary teeth and pathologies, the bottom two mandibular teeth and pathologies.

Table 1: Summary of dentition and dental pathology for skeleton (082)

R8	R7	R6	R5	R4	R3	R2	R1	L1	L2	L3	L4	L5	L6	L7	L8
-	-	-	-	0	/	X	X	/	/	/	X	-	-	-	-
A?															
X	0	X	0	0	0	/	X	X	0	0	/	/	X	X	X

Key:

- = Jaw missing X = Lost antemortem B = Broken
A = Abscess C = Caries L = Hypoplasia Line
/ = Lost postmortem NP = Not Present G = Hypoplasia Groove
RO = Root only O = Present P = Hypoplasia Pit
U = Unerupted

The mandible was complete, while the maxilla was partially complete. Skeleton (082) displayed numerous incidences of ante-mortem tooth loss, most often with marked alveolar resorption. This indicates that many of these teeth were lost quite some time before death. There was a possible healed abscess present in the alveolar bone immediately above the lost right maxillary lateral incisor. All extant teeth displayed slight to moderate concretions of calculus (calcified plaque). No caries (cavities) were identified and no enamel hypoplasia was noted.

Pathology

Ossification was recorded affecting the posterior superior surfaces of the olecranon processes of both ulnae (insertion point for the triceps brachii muscle). Both patellae also displayed ossification exostoses at the insertion sites for the quadriceps muscle and patella ligaments. Such ossification is frequently encountered in skeletal material and may be caused of repeated biomechanical micro-trauma to the attachment sites, possibly indicating frequent participation in strenuous labour.

The most common pathology observed in individual (082) was osteoarthritis. Minor osteoarthritis was noted as a thickening the left pelvic acetabular rim. The condition was exhibited in the form of subchondral porosity and minor eburnation affecting the articulator surfaces between the left triquetral and hamate bones (left wrist) and also the medial border of the medial distal condyle of the left femur.

Severe vertebral osteoarthritis resulted in fusion of the second, third and fourth cervical vertebrae (C2-C4). Macroporosity and eburnation was recorded affecting the right inferior articular facet of C4 with corresponding pathology noted on the right superior articular facet of C5. The remaining vertebrae were highly fragmentary, precluding further pathological analysis of the spine.

The extant left scapular glenoid fossa exhibited two unusual foramina, which may have been vascular or non-metric in nature, or possibly resultant from a shoulder injury or instability of the shoulder joint. Unfortunately the right glenoid fossa or humeral heads did not survive, making comparison with the right shoulder impossible.

5. Discussion

5.1 The Burial

The isolated nature of the grave precluded comparative population analysis and poor preservation of the skeleton severely limited the quality of data available. Dating of the burial was based upon the presence of coffin nails. This likely places it the Roman period or later, since inhumation began to replace cremation as the dominant burial type during the second century AD (Roberts and Cox 2003).

5.2 Pathology

The pathologies recorded fell into the following aetiological categories: Trauma, Joint Disease, and Dental Disease.

5.2.1 Trauma

Evidence for traumatic injury in skeleton (082) is tenuous. It is possible that the superfluous foramina recorded on the left scapular glenoid fossa resulted from injury of the left shoulder. However, the lack of surrounding elements means that this diagnosis must remain unsubstantiated.



Plate 2: Superfluous foramina on the left scapular glenoid fossa.

5.2.2 Joint disease

Primary osteoarthritis is an inevitable consequence of old age, when the body's tissues are unable to repair themselves adequately (Salter 1999). The condition occurs in 80% of women and men over the age of 75 years (*ibid*). Osteoarthritis is diagnosed

through increased porosity of articular surfaces of the appendicular and vertebral joints and the appearance of osteophytes around the periphery the margins of vertebral bodies (osteophytosis) and appendicular articular surfaces.

In the most severe cases, eburnation of the articulating surfaces is present. Eburnation is characterised by polishing of the affected articular surfaces, resulting from complete destruction of cartilage lining the joint and subsequent direct abrasion of bone surfaces. This may eventually lead to complete destruction of the joint surface, or the fusion (or ankylosis) of elements. The latter occurs most commonly in the vertebral column. Individual (082) suffered severe vertebral osteoarthritis, evidenced by fusion of three cervical vertebrae and eburnation of articular facets (plates 3 and 4). Skeleton (082) also displayed eburnation affecting the left wrist and left knee.

The cervical vertebrae produce the greatest range of motion of all the regions of the spine (Hamill and Knutzen 1995) and are therefore susceptible to activity and age-related development of osteoarthritis. Although likely influenced by advancing age, the extensive cervical arthritis exhibited by skeleton (082) may well be indicative of the occupational practices of the individual.

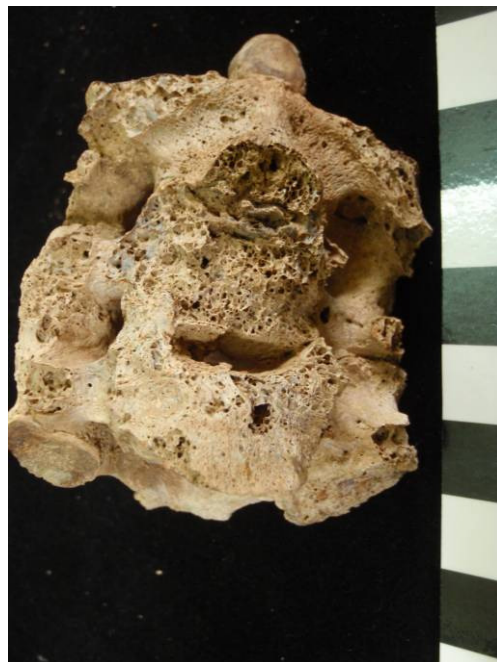


Plate 3 - fusion of cervical vertebrae C2, C3, and C4



Plate 4 - Macroporosity and eburnation affecting a superior cervical articular facet.

5.2.3 Dental disease

Dental disease includes conditions that can affect the teeth, the surrounding soft tissues, and alveolar bone. Each condition can give an indication of different aspects of lifestyle, health and dietary quality of an individual. Caries (cavities), for example, is associated with diets high in sucrose and carbohydrates. The presence of calculus (calcified plaque) can inform us about dental hygiene, while enamel hypoplasia may indicate developmental stresses during childhood.

Calculus is the build up of calcified plaque and is commonly encountered in archaeological populations. Calculus is composed of mineralised micro-organisms and proteins and its presence may reflect a diet high in protein and carbohydrates and/or lack of dental hygiene. Calculus deposits can lead to periodontal disease, caries and abscesses. All of individual (082)'s extant teeth displayed slight to moderate calculus concretions. Roberts and Cox (2003:132) record a calculus prevalence rate of 26% among the Romano-British.

Skeleton (082) displayed a strikingly high incidence of ante-mortem tooth loss, a major cause of which is periodontal disease. The condition is associated with inflammation of the gums as a result of the formation of periodontal pockets (Roberts and Manchester 2005). These pockets are created by the accumulation of calculus on the teeth which traps food particles between the teeth and the gum. Bacteria on the food particles cause inflammation and, if left unchecked may enter the tooth pulp cavity, especially if there is coexistent nearby caries. In skeleton (082), this had likely resulted in resorption of the alveolar bone and ante-mortem tooth loss, as well as the formation of a possible abscess.

6. Conclusions

The excavations by Archaeological Project Services at Coates Road, Eastrea, recovered the isolated burial of one inhumed individual in generally poor condition. The individual was a possible male aged at least 35 years, who was likely buried sometime during the Roman period or slightly later. Although poor preservation precluded detailed analysis, extant pathologies suggest that the individual probably led a hard life, participating in activities that placed repetitive biomechanical demands upon numerous joints, particularly the upper back. This is supported by the presence of numerous ossified muscle insertion sites. The individual also suffered from poor dental health, evidenced by the high incidence of ante-mortem tooth loss and presence of a possible abscess.

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Appendix 6
Environmental Archaeology Assessment
Eastrea Coates Road – EACR10
 By James Rackham, Catherine Langdon and Rob Scaife

The flots and a few finds of snail and bone fragment were submitted from eight samples for analysis. A ninth sample (S4) did not yield any flots or finds. Sample volumes were between 10lts and 40lts and each context was fully processed for examination. Samples were bulk floated and the flots were collected in a 300 micron mesh sieve. The flots and residues were examined under a binocular microscope at magnifications up to x 16. The samples derive from features and dates as shown in Table 1.

Table 1. Description and possible date of the sample flots submitted for analysis

Sample	Context	Sample volume (ltrs)	% of sample examined	description
1	015	10	100	fill of pit/ditch, contains Middle IA pot
2	011	20	100	fill of ditch (enclosure/field system?), contains Late IA pot and animal bone
3	117	10	100	fill of pit, contains IA and 15th-16th century pot (latter intrusive?) + animal bone
4	084	10	100	stomach area of burial; bone dated to 20BC-130AD by C14
5	111	20	100	pit fill (above grave S4), contains IA pot, probably redeposited, + animal bone
6	126	20	100	ditch fill (enclosure/field system? - part of same ditch as S9), contains M-L IA pot
7	131	40	100	fill of well/waterhole; contains wood dated to 980-800BC by C14
9	141	20	100	ditch fill (enclosure/field system? - part of same ditch as S6), contains M-L IA pot
10	145	20	100	fill of probable pit, contains no finds but truncated by ditch represented by S6 and S9

The small flots from all samples, nowhere more than 5ml except for the waterlogged sample <7>, were scanned and identifications made of the plant and animal remains present. The fragments of bone, shell and seed sorted from the sample residues by APS were similarly identified.

Sample sizes in all categories of finds are very small, and most samples included recent uncharred seed remains, particularly seeds of Chenopodiaceae, shells of the blind burrowing snail *Cecilioides acicula* and occasional beetles.

In addition to the bulk samples a monolith sample was taken through some waterlogged deposits in a well or waterhole feature. A wood sample from this feature, context 131, has been radiocarbon dated to 800-980 BC, the late Bronze Age. Three samples were taken from this monolith and assessed for pollen.

Results

Bulk samples

The finds from each bulk sample are listed:

<1>- 015. Small mammal caudal vertebra; indeterminate. Charred cereal grain fragment; a little small charcoal and a charred culm base; and shells of *Cecilioides acicula* and *Vallonia*

excentrica.

<2> - 011. Sheep size rib fragment and indeterminate small vertebrate long bone; charred wheat cf *Triticum* sp. grain, indeterminate charred grain fragment, indeterminate charred seed and a little small charcoal; shells of *C. acicula* and *Vertigo* sp.

<3> - 117. Indeterminate small vertebrate fragment and a little charcoal; shells of *Trichia hispida*, *Vallonia costata*, *Nesovitreia hammonis*, *Lymnaea truncatula* and *Vertigo pygmaea*.

<4> - 084. No finds/flot.

<5> - 111. Charred wheat, cf *Triticum aestivum* grain, charred barley, *Hordeum/Triticum* sp. grain, indeterminate charred grain and a little charcoal; shells of *C. acicula*, *Carychium* sp. and *V. excentrica*.

<6> - 126. Indeterminate animal bone; charred wheat *Triticum aestivum* grain and barley *Hordeum vulgare* grain, and a little charcoal; shells of *V. excentrica*, *L. truncatula* and *Trichia hispida*; and three modern beetles.

<7> - 131. Indeterminate animal bone; a small waterlogged flot with abundant rootlets, occasional small roundwood and wood fragments, some preserved vegetable matter and occasional insect fragments and seeds, including elder, *Sambucus*, hazelnut shells, *Prunus spinosa* stones (Sloe), *Atriplex* sp., Lamiaceae, *Prunella vulgaris*, *Mentha* sp., *Ranunculus acris/repens/barbosa* and Chenopodiaceae. Bone finds included wood mouse, field vole and indeterminate large mammal bone.

<9> - 141. Indeterminate animal bone; one fragment of charcoal; shells of *Pupilla muscorum*, *V. excentrica*, *V. pulchella*, *T. hispida*, *V. pygmaea* and *L. truncatula*.

<10> - 145. A charred barley *Hordeum vulgare* grain and a little charcoal; shells of *T. hispida*, *V. excentrica*, *Discus rotundatus*, *Carychium* sp. and *Vertigo* sp.

Monolith sample <8> - 131

A monolith of approximately 0.75m length was taken in two channel samples from the late Bronze Age well/waterhole fills (Fig.1) by the site team. Unfortunately the samples were poorly wrapped and had dried out although the soil characteristics suggested that preservation may not have been very good anyway. The sequence included waterlogged deposits which had produced a wooden ladder fragment and other wood fragments. The sampled sediments are primarily silty sands, although a relatively thin horizon included dark grey organic silts. A wood sample from context 131 in the fills was dated to 980-800BC by radiocarbon analysis.

In order to evaluate the potential of these sediments for palaeoenvironmental study three samples were taken for pollen analysis from 28cm below the top of the monolith, 46 and 61 cms. The upper of these three samples was taken from the organic silts, while the lower two sampled silty sands in the lower half of the monolith (Fig. 1).

Pollen analysis of the late Bronze Age well/waterhole fills

Catherine Langdon and Rob Scaife

Introduction

Three samples for pollen analysis were taken from a monolith from a possible well or waterhole feature to assess the palaeoenvironmental potential of the deposits. Although these

sediments are predominantly minerogenic there appeared to be potential for pollen preservation and thus reconstruction of the local vegetation and environment of the site.

Pollen method

Samples for analysis were taken from a box monolith profile taken on site by the excavation team. Standard pollen extraction techniques were used on sub-samples of 1.5ml volume (Moore and Webb 1978; Moore *et al.* 1992). Pollen was identified and counted using Nikon and Olympus biological research microscopes, the latter fitted with Leitz optics. Assessment pollen counts of between 43 and 217 grains were made according to preservation (predominantly poor). Data are given in Table 2 (below). These procedures were carried out in the Palaeoecology Laboratory of the School of Geography, University of Southampton.

Fig. 1 Monolith sample collected as two samples from the fills of the late Bronze Age well/waterhole, with the location of the pollen samples assessed.



Organic silts
28 – pollen sample

46 – pollen sample

Silty sands

61 – pollen sample

The pollen data

Although pollen was recovered from all of the three samples examined, only the upper level (28cm) had sufficient numbers to obtain an adequate count to be made. In lower samples (46cm and 61cm) pollen is very poorly preserved and as such, less than satisfactory counts were obtained. The raw pollen data are given in Table 2 below. Percentages, where used, are given in brackets and are calculated as a percentage of total pollen and for spores as a percentage of total pollen plus spores for that level.

<i>Depth cm</i>	<i>28cm</i>	<i>46cm</i>	<i>61cm</i>
<i>Trees & Shrubs</i>			
<i>Betula</i>	4		1
<i>Pinus</i>	3	2	2
<i>Ulmus</i>	4		
<i>Quercus</i>	6 (3)		1
<i>Tilia</i> (degraded)		1	
<i>Alnus</i>	13 (6)	4	
<i>Corylus avellana</i> type	67 (31)	23 (34)	5 (12)
<i>Salix</i>	22 (10)		
<i>Herbs</i>			
Chenopodiaceae		2	1
Caryophyllaceae	4	1	1
<i>Filipendula</i>		1	
<i>Plantago major</i> type	2		
<i>Plantago lanceolata</i>		2	
<i>Bidens</i> type	1	1	
<i>Artemisia</i>			
Lactucoideae	16 (7)	8 (12)	3 (7)
Poaceae	51 (24)	22 (32)	21 (49)
<i>Wetland</i>			
Cyperaceae	9 (4)	4 (6)	
Unidentified/degraded		1	
<i>Spores</i>			
<i>Dryopteris</i> type	8	6	7
<i>Pteridium aquilinum</i>	23 (9)	23 (22)	32 (39)
<i>Polypodium</i>	2	2	
cf. <i>Lycopodium</i>	1		
<i>Sphagnum</i>	3	3	
<i>Total pollen counts</i>	217	68	43
<i>Total spores</i>	37	34	39

Table 2: Raw pollen data for EACR10. (Bracketed numbers = %)

The uppermost sample at 28cm has the best pollen preservation. *Corylus avellana* type (31%) (hazel but may include bog myrtle in some areas) and *Salix* (willow; 10%) are the dominant trees/shrubs. The small numbers of pollen from other arboreal and shrub taxa are not regarded as of local significance. (nb. alder is a large producer of anemophilous pollen). Herbs are also important with Poaceae (grasses; 24%), *Plantago lanceolata* (ribwort plantain; 15%) and Lactucoideae (dandelion types). These are indicative of grassland, possibly pasture in proximity to the site. Cyperaceae (sedges 4%) is the only marsh/aquatic taxon recovered and along with willow, was probably growing in or on the fringes of this wet depression.

Pteridium aquilinum (bracken) is the most common fern spore and may be indicative of waste ground or areas colonised after fire.

The lower levels at 46cm and 61cm have poor pollen preservation and only small pollen totals were achieved. The flora is, however, broadly similar with the exception of *Salix* which is absent. *Corylus avellana* type with small numbers of other trees and herbs of grassland are most important and it is likely that overall, the profile is homogeneous.

From the limited pollen data, it appears that the local region had been largely cleared of woodland but hazel, probably scrub (? field boundaries), remained within a largely grassland/pasture habitat. There is no evidence for arable cultivation although of course, this could have been taking place at distance from the site (outside of the pollen catchment). The feature was probably surrounded by willows and a sedge dominated fen herb community.

Summary

The following main points have been made in this pollen assessment study.

- * Pollen appears to be more abundant in the upper levels (28cm) but is very poorly preserved in the lower and more oxidised sediments.
- * Although in two of the three samples pollen numbers are small, there is perhaps sufficient to conclude that overall, the profile is largely homogeneous.
- * The pollen assemblages show that the habitat local to the site had been cleared of dominant woodland but hazel scrub or field boundaries remained.
- * The well/waterhole feature contained/was surrounded by willow and a sedges flora.
- * There is evidence for grassland, probably pastoral economy.

Comments

The samples have no potential for further analysis. Charcoal is not abundant in the flots supplied, and charred cereal grains occur sporadically as single grains or no more than two or three grains per sample. An absence of chaff and relative absence of charred seeds is not significant at these sample sizes. The bread wheat identifications from middle to late Iron Age deposits are interesting because this species is uncommon in deposits of this date (Greig 1991), but the barley is more typical.

None of the animal bone fragments from the samples can be identified to species, except single teeth of wood mouse and field vole from the late Bronze Age well or waterhole.

The most abundant remains are terrestrial snail shells. These generally reflect an open grassland habitat but numbers are small and sample <10> includes some taxa characteristic of woodland or shaded environments as well. The presence of *Carychium* sp. and *L. truncatula* suggests some marshy environments and perhaps occasional flooding.

The waterlogged sample, <7>, from the well or waterhole, although containing some preserved insect and seed remains is likely to be heavily biased towards robust remains and may not be a good reflection of the contemporary environment around the feature although the presence of dung beetles might be a useful support for an interpretation of the features as a waterhole, and may therefore warrant more detailed study. The identification of the waterlogged seeds that have survived from this context suggests grassland habitats, perhaps

damp, with perhaps some scrub vegetation nearby, occasioning the finds of elder berry, hazelnut and sloe stones. This is consistent with the pollen evidence from the feature, which apart from the hazel and willow pollen, is dominated by taxa more at home in grassland than other habitats. The scrub elements of both these data sets could derive from hedgerows or growth around the feature.

The bulk of the samples derive from features preliminarily assigned to the mid-late Iron Age (Table 1) and may therefore collectively contribute to an interpretation of the site at this period.

The late Bronze Age radiocarbon date for the deposits in the well or waterhole affords a chronological context for the sequence and some additional pollen work might be attempted although typical full counts of 500 or more would not be feasible. The poor preservation in most of the sequence, barring the organic silt horizon, in the monolith, and the relatively high counts of Lactuoidae and Poaceae pollen, both groups that have better survival potential in poorer deposits, suggests that further work would be inappropriate.

Acknowledgements

We would like to thank John Giorgi for the identification of the charred and waterlogged seeds from the bulk samples.

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Revised 13 March 2011

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-25.2:lab, mult=1)

Laboratory number: **Beta-290870**

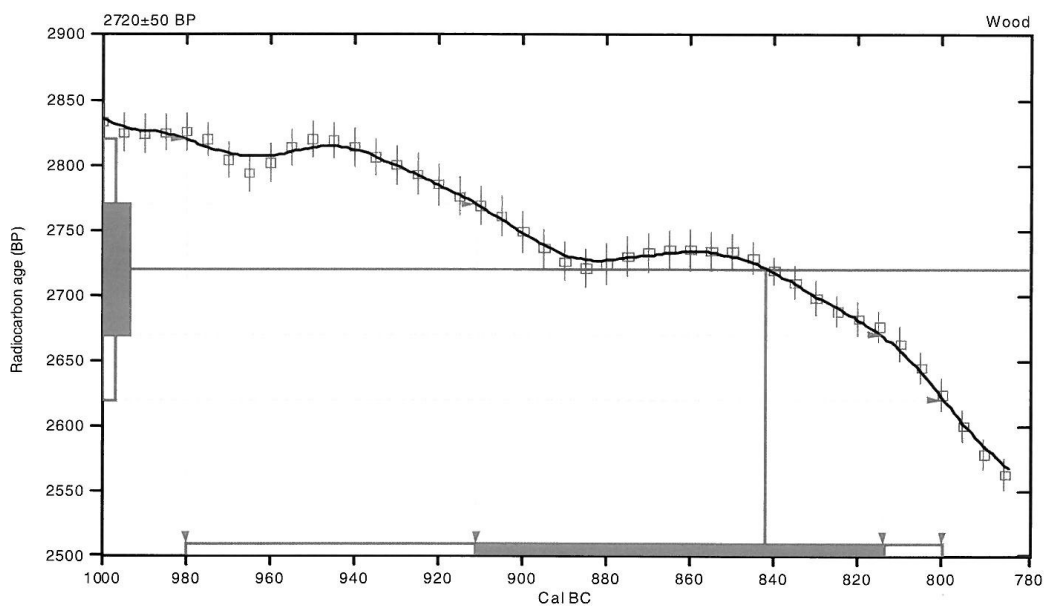
Conventional radiocarbon age: **2720±50 BP**

2 Sigma calibrated result: Cal BC 980 to 800 (Cal BP 2930 to 2750)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal BC 840 (Cal BP 2790)

1 Sigma calibrated result: Cal BC 910 to 810 (Cal BP 2860 to 2760)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • E-Mail: beta@radiocarbon.com

Date 2: Bone from human skeleton (082) in grave [083]



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RADIOCARBON DATING CERTIFICATE

31 January 2011

Laboratory Code	SUERC-32937 (GU-23198)
Submitter	Gary Taylor Archaeological Project Services The Old School, Cameron Street Heckington, Sleaford Lincolnshire NG34 9RW
Site Reference	Eastrea, Coates Road (EACR10)
Sample Reference	EACR10 (082)
Material	Human bone : Right foot
$\delta^{13}\text{C}$ relative to VPDB	-20.3 ‰
$\delta^{15}\text{N}$ relative to air	11.7 ‰
C/N ratio(Molar)	3.3
Radiocarbon Age BP	1945 ± 30

- N.B.**
1. 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.
 2. The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal3).
 3. 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 g.cook@suerc.gla.ac.uk or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

P. Naysmith

Date :- 1/2/11

Checked and signed off by :-

E. Dunbar

Date :- 1/2/11

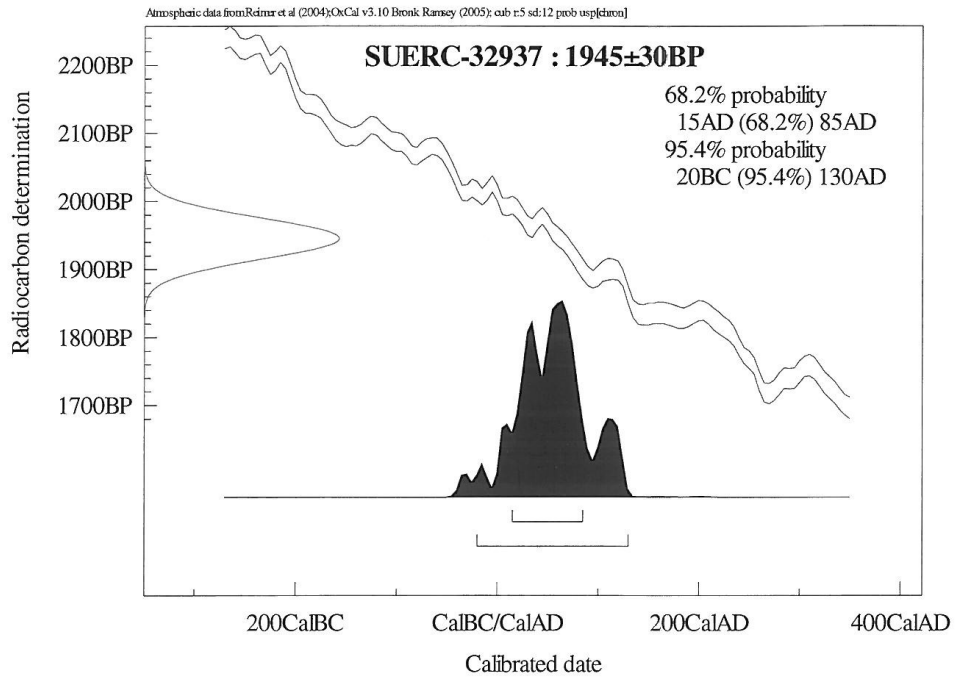


The University of Glasgow, charity number SC004401



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Calibration Plot



Appendix 8

GLOSSARY

Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, e.g. [004].
Cropmark	A mark that is produced by the effect of underlying archaeological or geological features influencing the growth of a particular crop.
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, etc. Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
Geophysical Survey	Essentially non-invasive methods of examining below the ground surface by measuring deviations in the physical properties and characteristics of the earth. Techniques include magnetometry and resistivity survey.
Intrusive	Artefacts of later date found in deposits that must pre-date them are said to be intrusive. Such intrusive artefacts will usually be small and have worked down in the soil through cracks, or by root, worm or rodent action. Intrusive artefacts will generally be isolated and be distinctively later than a larger assemblage of earlier artefacts, for example, a single 19 th century pottery fragment found in a large collection of medieval ceramics in a refuse pit.
Iron Age	A period characterised by the introduction of iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Redeposited	An artefact that is redeposited is one that has been removed in the past from its original place of deposition. Redeposition can introduce earlier artefacts into later deposits, ie. medieval or post-medieval ditch or pit digging may have invaded Roman levels, bringing Roman artefacts to the surface. When the medieval/post-medieval features are infilled the Roman artefacts become incorporated with those deposits; these Roman artefacts are said to be redeposited. If the age differences within an assemblage are not great it is sometimes difficult to determine if an artefact is redeposited or residual.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany and adjacent areas.

Appendix 9

THE ARCHIVE

The excavation archive consists of:

147	Context records
7	Context record sheets
2	Photographic record sheets
2	Section record sheet
2	Plan record sheet
13	Daily record sheets
61	Sheets of scale drawings
1	Stratigraphic matrix
2	Boxes of finds

All primary records are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Cambridgeshire County Council
Castle Court
Shire Hall
Cambridge
CB3 0AP

Accession Number: ECB3404

Archaeological Project Services Site Code: EACR 10

OASIS Record No: archaeol1-81954

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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