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LAND EAST OF CARSONS DRIVE, GREAT CORNARD, SUFFOLK

AN ARCHAEOLOGICAL EXCAVATION: RESEARCH ARCHIVE REPORT

Authors:	Antony R.R. Mustchin (Report) Kerrie Bull (Fieldwork and report)
Illustrations:	Thomas Light

NGR: TL 8969 4037	Report No: 5508
District: Babergh	Site Code: COG 029
Approved: Claire Halpin Signed:	Project No: 6688
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ARCHAEOLOGICAL SOLUTIONS LTD

Unit 6, Brunel Business Court, Eastern Way,
Bury St Edmunds IP32 7AJ
Tel 01284 765210

P I House, Rear of 23 Clifton Road, Shefford,
Bedfordshire, SG17 5AF
Tel: 01462 850483

e-mail: info@ascontracts.co.uk
www.archaeologicalsolutions.co.uk

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OASIS SUMMARY

Project details			
Project name	*Land East of Carsons Drive, Great Cornard, Suffolk*		
This report comprises the research archive for an archaeological excavation at land to the east of Carsons Drive, Great Cornard, Suffolk, carried out by Archaeological Solutions Ltd (AS) between January and March 2017. It follows a desk-based assessment (Rolfe 2007) and an archaeological trial trench evaluation (Muldowney 2009), both conducted by Suffolk County Council Archaeological Service, and a geophysical survey by GSB Prospection Ltd (2009). The results of the excavation have also been subject to post-excavation assessment (Bull and Mustchin 2017). *The site was considered to have considerable archaeological potential, particularly for evidence of prehistoric, Romano-British and Anglo-Saxon activity, including a possible pond barrow within the northern part of the excavation area.* *In keeping with earlier findings from the site and surrounding area, the project principally encountered evidence of Romano-British and Anglo-Saxon activity. The Romano-British site was most probably peripheral to a settlement of some description, while Anglo-Saxon features included a pit containing a large assemblage of iron slag and furnace material associated with local industry at this time. Charcoal from this feature was dominated by ash with lesser quantities of oak and other species; a sample of roundwood charcoal returned a calibrated radiocarbon date of 406-544 calAD at 95.4% confidence.* *The suspected pond barrow in the northern site area was found to be a natural hollow, although formed a focus of Romano-British and later activity. Layers within this hollow (including a possible plough soil or midden deposit) yielded material dating between the 1st and 8th centuries AD. Recovered environmental remains attest to a mixed agricultural economy in both the Romano-British and Anglo-Saxon periods, while the animal bone assemblage, almost all of which derives from Natural Hollow L1135, contains the usual suite of domestic ungulates. Finds of note include a clay spindle whorl from early Romano-British Ditch F1003 and a crucible fragment from Layer L1137.*		
Project dates (fieldwork)	*23/01/2017 – 02/03/2017*		
Previous work (Y/N/?)	*Y*	Future work	*N*
P. number	*6688*	Site code	*COG 029*
Type of project	*Archaeological Excavation*		
Site status	-		
Current land use	*Agricultural*		
Planned development	*Residential*		
Main features (+dates)	*Early Roman* *Late Roman* *Anglo-Saxon*	*Ditches; pits; postholes* *Pit* *Pits; posthole*	
Significant finds (+dates)	*Mesolithic to early Bronze Age:* *Early and late Roman* *Early Anglo-Saxon* *Medieval*	*Struck flint* *Pottery; CBM* *Pottery; spindle whorl* *Pottery*	
Project location			
County/ District/ Parish	*Suffolk*	*Babergh*	*Great Cornard*
HER/ SMR for area	*Suffolk Historic Environment Record*		
Post code (if known)	-		
Area of site	*12.71ha (excavated area = 1.39ha)*		
NGR	*TL 6604 5954*		
Height AOD (max/ min)	*c. 35-62m*		
Project creators			
Brief issued by	*Suffolk County Council Archaeological Service Conservation Team*		
Project supervisor/s (PO)	*Kerrie Bull and Antony RR Mustchin*		
Funded by	*Persimmons Homes*		
Full title	*Land East of Carsons Drive, Great Cornard, Suffolk. An Archaeological Excavation: Research Archive Report*		
Authors	*Mustchin, A.R.R. and Bull, K.*		
Report no.	*5508*		
Date (of report)	*18 December 2017; revised 11 October 2018*		

LAND EAST OF CARSONS DRIVE, GREAT CORNARD, SUFFOLK

AN ARCHAEOLOGICAL EXCAVATION:
RESEARCH ARCHIVE REPORT

1 INTRODUCTION

1.1 This report comprises the research archive for an archaeological excavation at land to the east of Carsons Drive, Great Cornard, Suffolk (centred on NGR TL 8969 4037; Figs. 1-2), carried out by Archaeological Solutions Ltd (AS) between January and March 2017. It follows a desk-based assessment (Rolfe 2007) and an archaeological trial trench evaluation (Muldowney 2009), both conducted by Suffolk County Council Archaeological Service, and a geophysical survey by GSB Prospection Ltd (2009). The results of the excavation have also been subject to post-excavation assessment (Bull and Mustchin 2017).

1.2 In keeping with earlier findings from the site and surrounding area, the project principally encountered evidence of Romano-British and Anglo-Saxon activity. The Roman site was most probably peripheral to a settlement of some description, while Anglo-Saxon features included a pit containing a large assemblage of iron slag and furnace material associated with local industry at this time. Charcoal from this feature was dominated by ash with lesser quantities of oak and other species. A suspected pond barrow in the northern site area was found to be a natural hollow, although formed a focus of Romano-British and later activity. Layers within this hollow (including a possible plough soil) yielded material dating between the 1st and 8th centuries AD. Recovered environmental remains attest to a mixed agricultural economy in both the Romano-British and Anglo-Saxon periods, while the animal bone assemblage, almost all of which derives from Natural Hollow L1135, contains the usual suite of domestic ungulates.

2 SITE NARRATIVE

Overview

2.1 Between January and March 2017 Archaeological Solutions Ltd (AS) conducted an archaeological excavation to the east of Carsons Drive, Great Cornard, Suffolk (NGR TL 8969 4037; Figs. 1-2). The project was undertaken in compliance with an archaeological condition attached to planning permission for the residential development of the site (Babergh District Council Planning Ref. B/14/00804/Ful). The excavation was preceded by a desk-based assessment (Rolfe 2007) and an archaeological trial trench evaluation (Muldowney 2009), both conducted by Suffolk County Council Archaeological Service, and a geophysical survey by GSB Prospection Ltd (2009). The results of the excavation have also been subject to post-excavation assessment (Bull and Mustchin 2017).

2.2 The Project was carried out in accordance with a brief issued by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT) (dated 12/04/2016) and a written scheme of investigation (specification) compiled by AS

(dated 29/04/2016) and approved by SCC AS-CT. It followed procedures outlined in the Chartered Institute for Archaeologist's *Standard and Guidance for Archaeological Excavation* (2014), the SCC AS-CT document *Requirements for Archaeological Excavation* (2012) and Gurney's (2003) *Standards for Field Archaeology in the East of England*.

Background

Site Description

2.3 Great Cornard is a large village on the south-western edge of Sudbury in Suffolk (Fig. 1). The development site, comprising an area of agricultural land (measuring 12.71ha), is located on the eastern edge of the village, to the east of Carsons Drive (Fig. 2). The site is bounded by existing development to the south and further agricultural land to the north (beyond a minor road) and east. A bridleway traverses the north-eastern quadrant of the site, to the south and west of the exaction area (Fig. 2), while the north to south route of the River Stour passes some 1.5km to the west; the river flows into the North Sea at Harwich, some 38km to the east-south-east. A minor stream flows north to south through the site, just to the east of the excavation area (Fig. 2). The county town of Ipswich is located *c.* 27km to the east, while Colchester, the onetime capital of Roman Britain, is located 18km to the south-east.

Topography, Geology and Soils

2.4 The site is located on an undulating topography between *c.* 35m AOD in the south-west, rising to a maximum of *c.* 62m AOD in its north-west corner. The development area occupies a ridge of high ground, running north to south and dropping away sharply to the east, south and west (Plates 1-3; Fig. 3).

2.5 The local geology comprises clays, silts and sands from the London Clay Formation (http://mapapps.bgs.ac.uk/geologyofbritain/home.html). The overlying soils are those of the Ludford Association, comprising 'Deep well drained fine loamy, coarse loamy and sandy soils, locally flinty and in places over gravel' (Soil Survey of England and Wales (SSEW) 1983, 12). These soils are at slight risk of water erosion and are well suited to cereal agriculture and a range of other arable and horticultural crops (*ibid.*). Immediately to the east of the site are the deep, clayey soils of the HORNBEAM 3 Association (*ibid.* 14). These soils are prone to waterlogging and are well suited to the cultivation of cereals and other crops (*ibid*.).

Archaeological and Historical Background[1]

2.6 The development site has been subject to an archaeological desk-based assessment (Rolfe 2007). The following summary of local archaeological sites and findspots is based on the outcomes of this assessment. Locations are shown on Figure 1.

[1] Historic Environment Records cited in the text are shown on Figure 1

Prehistoric

2.7 Within the confines of the site, evidence of prehistoric activity largely constitutes struck flints, with clear concentrations located in the central and eastern areas (probably relating to principal areas of activity) (SHER COG 011). The flints – which include numerous tools – span the Mesolithic to early Bronze Age, although the majority date to the latter part of this timeframe. Approximately 25 sherds of probable late Bronze Age/ Iron Age pottery were found close to the site's highest point, and probably relate to activity of this date in the immediate vicinity.

2.8 Within a 1km radius of the site, prehistoric evidence includes a cordate hand-axe of Palaeolithic date found at the local school (Suffolk Historic Environment Record (SHER) COG 008), some 800m to the south-west. A single gold coin of Iron Age date (a Gallo-Belgic E uniface stater) was also found *c.* 1km to the north-east (SHER COG 001).

Romano-British

2.9 The north-eastern area of the site has yielded a reasonably dense scatter of Romano-British material (SHER COG 011), the earliest elements of which comprise late Iron Age/ Early Roman brooches and a coin of Nero (dated AD 45-68). Other coins from the site span the entire occupation, culminating with a silver coin of Honorius. A Roman coin was also found by metal detecting in fields to the north-east of Great Cornard (SHER COG Misc), and surface scatters of Roman building material have been observed further to the south. Roman pottery from the site also attests to an extended occupation of this landscape.

Anglo-Saxon

2.10 Material of this date from within the site is largely confined to the north-eastern area, at the highest point of the slope. Finds including pottery indicate a focus of activity at this time, with a particular emphasis on the 5th century AD (SHER COG 011). Finds of this date include a belt buckle set, an amphora type strap end and brooches (a later Roman style). These have the potential to inform regarding settlement and cultural continuity between the Romano-British and Anglo-Saxon periods and are significant occurrences within a single assemblage (cf. Brown and Glazebrook 2000 (after Rolfe 2007, 6)). A 6th century cruciform brooch and pottery of the same date is also known from the site. The trial trench evaluation recovered a socketed iron spearhead of possible Saxon date (Muldowney 2009, 37).

2.11 Three Saxon coins (sceattas) are recorded to the south of Great Cornard, in the area of Blackhouse Farm, and may be part of a hoard or associated with a nearby barrow burial.

Medieval

2.12 Known medieval finds are scarce within the site and their distribution appears random. Medieval sites in the surrounding area include Abbas Hall, a late 13th century aisled hall (SHER COG 020) and a moat located close to the parish

boundary (SHER COG 002). Pottery and artefact scatters are also recorded within a 1km radius (SHERs COG 003 and COG 019).

Post-Medieval

2.13 A significant quantity of post-medieval material is known from the site, including 30 coins in both silver and bronze, and various other small metal items thought to derive from episodes of manuring. An absence of post-medieval finds in the south-western corner of the site may result from historical clay extraction associated with adjacent 'Kiln Farm' (cf. Rolfe 2007, 6).

2.14 Beyond the site, post-medieval evidence includes the sites of a windmill and two brickworks/ lime kilns (SHERs COG 009, COG 015 and COG 021), while 'Mill Tyre', depicted on Hodskinson's map of 1783 suggests the original presence of a green and watermill (SHER COG 018). Local artefact scatters are also recorded.

Previous Archaeological Investigation

2.15 Prior to excavation by Archaeological Solutions Ltd, the current site was subject to geophysical survey by GSB Prospection Ltd (2009) and trial trench evaluation, conducted by Suffolk County Council Archaeological Service (Muldowney 2009). The findings of these investigations are summarised below.

Geophysical survey

> In August 2009, a 3.5ha area of the site, including the subsequently excavated area, was subject to magnetometer survey by GSB Prospection Ltd (2009). The results of this survey indicated a lack of significant archaeological remains, although possible pits and short ditch sections were interpreted.

Trial trench evaluation

> '79 linear trenches were excavated across the [proposed] development area. A small number of archaeological features were encountered including 4 pits, a large hollow possibly forming the remnant of a prehistoric pond barrow, post-medieval boundary features and debris associated with post-medieval tile production.'
>
> 'Although there is some evidence to suggest that the highest areas of the undulating site had suffered erosion of the land surface due to ploughing, most of the site was under sufficient topsoil and or subsoil coverage to prevent significant medieval or later plough damage.' (Muldowney 2009, summary).

Results

Chronological Phasing

2.16 Based on the recovered finds assemblage (pottery and CBM), stratigraphic sequence and a targeted programme of radiocarbon dating, three phases of past

activity were interpreted at the site (Table 1; Fig. 5). This represents a refinement of preliminary phasing (see Bull and Mustchin 2017). Some features that did not yield diagnostic material were phased based on their stratigraphic or spatial relationships with dated features. Only three features were undated. A modest assemblage of struck flint, spanning the Mesolithic to early Bronze Age, and trace medieval pottery was also recovered, although no features of these dates were present. However, a series of undated ard marks encountered within the base of a natural hollow (F1135), is thought to indicate limited prehistoric activity.

Phase	Period	Date
Phase 1	Early Romano-British	1st to 2nd Century AD
Phase 2	Late Romano-British	3rd/ 4th century AD
Phase 3	Anglo-Saxon	Late 4th to mid 8th Century AD

Table 1: Chronological phasing

2.17 The early-Romano-British period (Phase 1) was the best represented phase of past activity and was characterised by a series of boundary ditches, many displaying a spatial relationship to natural hollow (F1135) in the north of the excavation area. Phase 1 activity within and around this hollow is difficult to determine. Only a single Phase 2 (late Romano-British) feature was encountered (Pit F1115), although pottery of this date was present within other features/ contexts. The Anglo-Saxon period (Phase 3) included three discrete features, one of which (Pit F1121) yielded a significant concentration of slag and furnace material. Anglo-Saxon pottery was also recovered from the uppermost fill of Natural Hollow F1135.

Phase 1: Early Romano-British (1st to 2nd Century AD)

Summary

2.18 The Phase 1 landscape was characterised by a series of ditches – including possible boundary ditches – with a clear concentration associated with Natural Hollow F1125, in the north-east of the excavation area (Figs. 5-6). Several ditches had been cut into the base of the hollow, while others appeared to demarcate its north-western edge; the recutting of two of these marginal ditches suggests a degree of maintenance or development of boundaries over time. The basal layer within Hollow F1135 (L1136) yielded a significant quantity of early Roman pottery and was stratigraphically later than the majority of Phase 1 features in this part of the site. A small number of possible boundary ditches were present to the south of Hollow F1135 and are thought to represent the remains of a system of ditched agricultural enclosures. Other early Romano-British features comprised pits and postholes – including one intercutting feature group – distributed across the excavation area.

The Phase 1 Ditches

2.19 The early Romano-British ditches, numbering 17 in total (Table 2), were confined to the central and north-eastern area of the excavation where they displayed clear associations with Natural Hollow F1135 (Plates 4-6; Fig. 5). To the south of the hollow, six linear ditches appeared to form remnant boundary features, thought to be elements of a ditched enclosure system. These may have been related to linear ditches cut into the base of F1135 (F1196 and F1194; Fig. 6), although overall the Phase 1 ditches displayed little in the way of coherent spatial

patterning. One clear boundary alignment was, however, formed by parallel Ditches F1003, F1077 and F1142, which ran *c.* north-west to south-east from the area of F1135 (Plates 7-9; Figs. 5-7). Ditch F1003 recut the north-eastern edge of Ditch F1077 – suggesting some degree of maintenance/ development of boundaries over time – while its northernmost end turned sharply to the north-east, towards the area of F1135 and Phase 1 Ditch F1196. An approximately 3.3m wide gap between the termini of these ditches may have represented an 'entrance' or access point, possibly between enclosures (Fig. 6), although this cannot be proven. The *c.* 27.5m long boundary represented by Ditches F1003, F1077 and F1142 appears to have been related to other ditches in the near vicinity, e.g. F1005, which followed an approximately perpendicular alignment (Plate 10; Fig. 6), as well as possible fencelines (see below).

Feature	Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1003	1028 (primary)	Linear/ gently sloping sides, concave base (54.00 x 1.35 x 0.59)	Friable, mid yellow grey silty sand with occasional small sub-rounded gravel	Ditch; cut L1078 and L1147; sealed by L1001	-
	1013		Friable, dark grey brown silty sand with moderate charcoal flecks. Environmental sample 15 taken		Pottery (1473g); animal bone (19g); fired clay (85g)
	1004 (uppermost)		Friable, mid yellow grey/ mid grey brown silty sand with occasional small sub-rounded gravel. Environmental samples 1 and 14 taken		Pottery (394g); SF1 spindle whorl (26g); CBM (10g); animal bone (2g); fired clay (10g)
1005	1006	Linear/ moderately sloping sides, flat base (7.50 x 0.76 x 0.26m)	Friable, mid grey brown silty sand with occasional small sub-angular gravel	Ditch; cut L1002; cut by L1007	Pottery (3g)
1014	1015	Linear/ moderately sloping to steep sides, concave base (5.70 x 0.60 x 0.27m)	Friable, pale to mid grey brown silty sand with occasional small sub-angular to sub-rounded flint/ gravel and charcoal flecks. Environmental sample 5 taken	Ditch; cut L1002; sealed by L1001	Pottery (194g); fired clay (43g)
1077	1079 (primary)	Linear/ moderately sloping sides, concave base (8.00+ x 0.90 x 0.40m)	Friable, mid orange brown silty sand with occasional small to medium sub-angular gravel. Environmental sample 18 taken	Ditch; cut L1002; cut by F1003	-
	1078 (uppermost)		Friable, mid orange brown, sandy silt with occasional medium gravel		Pottery (155g); CBM (41g)
1086	1087	Linear/ moderately sloping sides, concave base (2.70+ x 0.93 x 0.19m)	Friable, dark grey brown silty sand with occasional small sub-rounded gravel	Ditch; cut L1002; sealed by L1001	Pottery (8g); CBM (15g)
1129	1130	Linear/ gently sloping sides, concave base (3.10+ x 0.58 x 0.07m)	Friable, mid to dark brown grey silty sand with occasional small sub-angular gravel, moderate and charcoal flecks. Environmental samples 30 and 50 taken	Ditch; cut L1132; sealed by L1001	Pottery (348g)
1131	1132	Linear/ moderately sloping sides, flattish base (1.40+ x 0.52+ x 0.16m)	Friable, mid grey brown silty sand with moderate small sub-rounded gravel. Environmental sample 31 taken	Ditch; cut 1002; cut by F1129	-
1142	1143	Linear/ moderately sloping sides, concave base (5.00 x 0.70 x 0.32m)	Friable, mid grey brown silty sand with occasional small to medium sub-rounded gravel. Environmental sample 23 taken	Ditch; cut L1002; sealed by L1001	Animal bone (23g)
1156	1157	Curvilinear/ steep sides, concave base (13.50 x 0.78 x 0.21m)	Firm to friable, mid to dark brown grey sandy silt with moderate sub-angular gravel and occasional charcoal flecks/	Ditch; cut L1136 and L1161; sealed by L1137	Pottery (470g); CBM (1g); animal bone (56g); struck flint (38g)

			lumps and fired clay Environmental samples 37, 38, 39 and 56 taken		
1158	1159	Curvilinear/ steep sides, flat base (4.10 x 0.68 x 0.20m)	Friable, mid yellow grey silty sand and with moderate small sub-rounded gravel. Environmental samples 40 and 46 taken	Ditch; cut L1195; sealed by L1001	Pottery (336g); animal bone (35g); struck flint (16g)
1160	1161	Linear/ gently sloping sides, flat base (3.98 x 0.78+ x 0.15m)	Friable, pale grey brown silty sand. Environmental samples 41 and 42 taken	Ditch; cut L1002; cut by F1156	-
1162	1163	Linear/ gently sloping sides, concave base (3.50m+ x 0.39 x 0.14m)	Firm, mid to dark brown grey sandy silt with occasional small sub-angular gravel and charcoal flecks. Environmental sample 55 taken	Ditch; cut L1176; cut by F1164	Pottery (19g); CBM (9g); animal bone (5g)
1164	1165	Linear/ moderately sloping sides, concave base (9.50 x 0.62+ x 0.26m)	Friable, pale to mid grey brown silty sand with occasional small sub-rounded gravel. Environmental sample 48 taken	Ditch; cut L1163; cut by F1169	Pottery (116g); animal bone (9g); struck flint (6g)
1169	1170	Linear/ moderately sloping sides, concave base (5.50 x 0.60 x 0.34m)	Friable to loose, mid brown grey silty sand with frequent medium sub-rounded gravel	Ditch; cut L1165; L172 and L1174; sealed by L1136	Pottery (75g); animal bone (20g)
1171	1172	Linear/ moderately sloping sides, concave base (1.30 x 0.47 x 0.20m)	Friable, mid to dark brown grey sandy silt with moderate charcoal flecks and occasional fired clay. Environmental sample 57 taken	Ditch; cut L1209; cut by F1169	Pottery (45g); CBM (89g)
1177	1178	Linear/ moderately sloping sides, concave base (1.85+ x 0.44 x 0.18m)	Friable, mid grey brown silty sand with occasional small sub-rounded gravel. Environmental sample 59 taken	Ditch; cut L1002; sealed by L1136	Pottery (2g)
1194	1195	Linear/ moderately sloping sides, concave base (14.00+ x 0.90 x 0.30m)	Friable, mid yellow grey silty sand with occasional small sub-angular to sub-rounded gravel. Environmental samples 72 and 82 taken	Ditch; cut L1204 and L1209; cut by F1158; sealed by L1136	Pottery (398g); CBM (226g); animal bone (7g); struck flint (1g)
1196	1197	Linear/ gently sloping sides, concave base (4.80+ x 0.50 x 0.11m)	Friable, mid grey brown silty sand with occasional small sub-angular gravel. Environmental sample 74 taken	Ditch; cut L1002; sealed by L1136	Pottery (186g)

Table 2: The Phase 1 ditches

2.20 A concentration of Phase 1 ditches was encountered in the northern part of the excavation, around and within the area defined by Natural Hollow F1135 (Figs. 5-6), and no doubt related to a focus of early Romano-British activity in this part of the site. Ditches F1129, F1131, F1156, F1158 and F1160 appeared to demarcate the edge of the hollow, while others had been cut into its base (e.g. F1162, F1177 and F1196). Where stratigraphic relationships existed, the ditches on the edge of F1135 were later than those within the hollow, all of which were either stratigraphically or physically sealed by L1136, the basal layer within L1135. This layer was also of early Romano-British date (see below). Ditch F1156 truncated L1136 and appeared to spatially relate to Ditches F1129 and F1158 (Figs. 4-5). F1156 and F1129 were recuts of earlier ditches around the edge of Hollow F1135 and contained comparable fills (Table 2). It is possible that ditches cut into the base of F1135 represented boundaries or drainage features. However, the site's soils are free-draining (SSEW 1983, 12) and the cutting of boundaries through the hollow makes little practical sense.

2.21 Finds from the Phase 1 ditches generally comprise modest groups of pottery and CBM with lesser amounts of animal bone and other material, and reflect low

level of refuse disposal, likely from a nearby settlement. Overall, the early Roman pottery assemblage is only lightly abraded and most probably represents primary deposition (see *The Roman Pottery*). One notable pottery group was present within Segment B of Phase 1 Ditch F1003 (Plate 7). Also of interest is a fired clay spindle whorl (Small Find (SF) 1) from the uppermost fill of Ditch F1003 (L1004A). However, the spindle whorl appears to be of Anglo-Saxon date and, therefore, intrusive within this feature (see *The Small Finds and Other Metalwork*). Environmental sampling of the Phase 1 ditches yielded cereal grains, dominated by glume wheat, although barley was the dominant taxa in samples from Ditches F1077 (L1079) and F1156 (L1157B) (see *The Environmental Samples*). Equal portions of wheat and barley were present from Fill L1013 of Ditch F1003, while free-threshing type wheat rachis was recovered from Ditch F1162 (L1163) (*ibid*.).

The Phase 1 Pits/ Postholes

2.22 Seventy-two Phase 1 pits and postholes were encountered across the excavated area (Tables 3-4; Figs. 5-7). Twelve of these formed a distinct cluster of intercutting features, while a number of feature alignments were also present. Within the area of Hollow F1135, the majority of postholes (13) truncated layer L1136 and were sealed by uppermost Layer L1137. The distribution of these postholes, although spatially confined within an area of some 80m^2, did not form any coherent pattern. Nonetheless, their stratigraphic position suggests a relationship with ditches around the edge of the hollow, which may have defined a working area of some description (see above).

<u>The clustered Phase 1 pits</u>

2.23 Twelve intercutting Phase 1 pits were encountered in the southern part of the excavation (Table 3; Plates 11-12; Figs. 5 and 7). These included at least five pits displaying indistinct stratigraphic relationships (collectively numbered F1057 A-E) (Fig. 7). The constituent (fully excavated) features were all relatively large in plan, ranging between 1.50+m and 2.80m in maximum diameter (mean = 2.15m), and displayed uniform depths of between 0.36m and 0.50m (mean = 0.42m). Their individual fills were also closely comparable, although only those of F1157 A-C and E yielded finds of any description. These include 14 sherds (185g) of mid to late 1st century AD pottery from L1158 A and B. Environmental sampling of the clustered pits yielded nothing of note. Despite this general dearth of evidence, the consistency in size and shape displayed by these features would tend to suggest that they were dug within a limited space of time and/ or for a similar purpose.

2.24 One possible interpretation of these features is that they represent low level quarrying activity. Romano-British quarries have been recorded on a number of regional sites, targeting a range of geological resources; chalk/ marl extraction has been recorded at Wooddditton and Childerley Gate in Cambridgeshire (Abrams and Ingham 2008, 68, 77; Mustchin *et al.* 2016, 11 and 19-20); flint and carstone quarries were excavated at East Winch, Norfolk (Lally *et al.* forthcoming); and a possible roadside gravel quarry was excavated in the Waveney Valley, on the Norfolk/ Suffolk boarder (Ashwin and Tester 2014, 176 and 193). The geology of the current site comprises a mix of silts, sands and clays, and it is thought that the intercutting Phase 1 pits may have targeted sandier deposits within the excavated area. Sand had

numerous applications in the Roman era, including in the production of concrete and mortar (Humphrey *et al.* 1998, 229-30 and 235), and in the manufacturing of ceramics (e.g. Jackson and Greene 2008, 503). It is, however, difficult to confirm what use quarried sand was being put to in this instance.

Feature	Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1057	1058	Sub-circular/ not fully excavated	Loose, mid grey brown silty sand with moderate medium sub-angular gravel. Environmental samples 16 and 17 taken	*c.* 5 pits; indistinct stratigraphic relationships	Pottery (185g); CBM (23g); struck flint (10g); burnt flint (21g)
1099	1100	Sub-circular/ steep sides, flat base (1.50+ x 1.30 x 0.50m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel	Pit; cuts L1002; cut by F1101	-
1101	1102	Sub-circular/ moderately sloping sides, flat base (2.00 x 1.62+ x 0.42m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel	Pit; cuts L1100; cut by F1103	-
1103	1104	Sub-circular/ moderately sloping sides, flat base (2.28+ x 1.40+ x 0.38m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel. Environmental sample 80 taken	Pit; cuts L1102; cut by F1105, F1109 and F1111	-
1105	1106	Sub-circular/ moderately sloping sides, flat base (2.20 x 1.70 x 0.40m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel	Pit; cuts L1104 and L1108; sealed by L1001	-
1107	1108	Sub-circular/ moderately sloping sides, flat base (2.05 x 1.42+ x 0.42m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel. Environmental sample 81 taken	Pit; cuts L1002; cut by F1105	-
1109	1110	Sub-circular/ moderately sloping sides, flat base (2.20 x 1.72 x 0.46m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel. Environmental sample 79 taken	Pit; cuts L1104; sealed by L1001	-
1111	1112	Sub-circular/ steep sides, flat base (2.80 x 1.92 x 0.36m)	Loose, mid grey brown silty sand with moderate medium sub-angular gravel	Pit; cuts L1104; sealed by L1001	-

Table 3: The clustered Phase 1 pits

The dispersed Phase 1 pits and postholes

2.25 Sixty dispersed Phase 1 pits and postholes were identified (Table 4). These were largely distributed across the central and southern areas of excavation, and included three possible feature alignments. A fourth, doglegged alignment of two pits and three postholes was also originally interpreted (Bull and Mustchin 2017), but has since been dismissed based on the considerable variance in form displayed by the constituent features (F1033, F1035, F1037, F1088 and F1144). The remaining dispersed pits and postholes appeared randomly distributed and produced little in the way of finds. The greatest weight of pottery from any one feature comprises a single sherd (83g) from the uppermost fill of Posthole F1018 (L1019) (Table 4). Fill L1168 of Pit F1166 (Plate 13) yielded the highest density of environmental remains (Sample 83), with hulled barley dominating the cereal assemblage (see *The Environmental Samples*). Glume wheat was present in lesser numbers, although still comprising over 35% (ubiquity) of identified taxa, while a small amount of probable oat (almost 6%) was also recovered. This assemblage may represent kiln waste (*ibid.*). Free-threshing type wheat rachis was identified from Pit F1051 (L1052; Plate 14).

Possible feature alignments

2.26 The dispersed Phase 1 pits and postholes included three possible feature alignments located towards the centre of the excavation (Figs. 5-7). The

northernmost of these alignments, comprising Postholes F1009, F1011, F1020, F1022 and F1026, may have formed a fenceline or similar running parallel to Boundary Ditches F1003 and F1007 (located *c.* 1.5m to the north-east). A less coherent alignment of eight postholes, again including F1026, ran approximately east to west from the southern terminus of Ditch F1077 (Figs. 4 and 6). In contrast to the first alignment, the features in this case included at least three possible outliers (F1016, F1029 and F1049) and were more closely spaced. It is possible that they formed part of a second fenceline or pen, only part of which survived.

Feature	Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1007	1008	Sub-circular/ steep sides, concave base (0.28 x 0.32 x 0.12m)	Friable, mid to dark grey brown silty sand with occasional charcoal flecks. Environmental sample 2 taken	Posthole; cut L1006; sealed by L1001	-
1009*	1010	Sub-circular/ steep sides, concave base (0.30 x 0.33 x 0.21m)	Friable, mid grey brown silty sand with occasional small rounded gravel. Environmental sample 3 taken	Posthole; cut L1002, sealed by L1001	-
1011*	1012	Sub-circular/ steep sides, concave base (0.26 x 0.23 x 0.22m)	Firm, mid grey brown silty sand with occasional small rounded gravel. Environmental sample 4 taken	Posthole; cut L1002, sealed by L1001	-
1016*	1040 (primary)	Sub-circular/ steep sides, concave base (0.30 x 0.30 x 0.55m)	Loose, mid grey brown silty sand with frequent medium to large sub-angular and sub-rounded flint	Posthole; cut L1002; sealed by L1001	-
	1017 (uppermost)		Friable, mid grey brown silty sand with occasional small rounded gravel. Environmental sample 6 taken		-
1018*	1041 (primary)	Sub-circular/ steep sides, concave base (0.35 x 0.30 x 0.55m)	Loose, mid grey brown silty sand with frequent small to medium sub-angular and sub-rounded flint	Posthole; cut L1002; sealed by L1001	-
	1019 (uppermost)		Friable, mid grey brown silty sand with occasional small rounded gravel. Environmental sample 7 taken		Pottery (83g)
1020*	1021	Sub-circular/ steep sides, concave base (0.42 x 0.40 x 0.24m)	Firm, mid grey brown clay sand with occasional rounded gravel	Posthole; cut L1002; sealed by L1001	-
1022*	1023	Sub-circular/ steep sides, concave base (0.46 x 0.42 x 0.33m)	Firm, mid grey brown clay sand with occasional rounded gravel	Posthole; cut L1002; sealed by L1001	-
1024*	1024	Sub-circular/ steep sides, concave base (0.37 x 0.29 x 0.16m)	Firm, mid grey brown clay sand with occasional rounded gravel	Posthole; cut L1002; sealed by L1001	-
1026*	1027	Sub-circular/ steep sides, concave base (0.35 x 0.23 x 0.14m)	Firm, mid grey brown clay sand with occasional rounded gravel	Posthole; cut L1002; sealed by L1001	-
1029*	1030 (primary)	Sub-circular/ steep sides, flat base (0.35 x 0.25 x 0.35m)	Loose, mid grey brown silty sand with frequent small to medium sub-angular and sub-rounded flint. Environmental sample 10 taken	Posthole; cut L1002; sealed by L1001	Pottery (8g)
	1042 (uppermost)		Friable, mid grey brown silty sand with occasional small rounded gravel		-
1031**	1032	Circular/ gently sloping sides, flat base (1.26 x 1.26 x 0.28m)	Loose, pale grey brown silty sand with moderate medium to large sub-angular gravel	Pit; cut L1002; sealed by L1001	-
1033	1034	Circular/ steep sides, concave base (0.31 x 0.32 x 0.30m)	Friable, mid grey brown silty sand with occasional small sub-angular and sub-rounded flint	Posthole; cut L1002; sealed by L1001	-
1035	1039 (primary)	Circular/ steep sides, concave base (0.31 x 0.32 x 0.30m)	Loose, mid grey brown silty sand with frequent small to large sub-angular and sub-rounded flint	Posthole; cut L1002; sealed by L1001	-
	1036		Friable, mid grey brown silty		-

	(uppermost)		sand with occasional small sub-angular and sub-rounded gravel		
1037	1038	Circular/ steep sides, concave base (0.32 x 0.38 x 0.20m)	Friable, mid grey brown silty sand with moderate small sub-angular and sub-rounded gravel	Posthole; cut L1002; sealed by L1001	-
1043	1044	Sub-oval/ moderately sloping sides, concave base (1.00 x 0.44 x 0.15m)	Friable, dark grey brown silty sand with occasional small sub-rounded flint. Environmental sample 8 taken	Posthole; cut L1002; sealed by L1001	SF2 Cu fragment (1g)
1045	1046	Sub-circular/ moderately sloping sides, concave base (0.94 x 0.97 x 0.23m)	Friable, mid grey brown silty sand with occasional small to large sub-rounded gravel	Pit; cut L1002; sealed by L1001	Pottery (10g); animal bone (15g); burnt flint (202g)
1047*	1048	Sub-circular/ steep sides, irregular base (0.40 x 0.35 x 0.40m)	Friable, mid grey brown silty sand with moderate small sub-rounded gravel. Environmental sample 11 taken	Posthole; cut L1002; sealed by L1001	-
1049*	1050	Circular/ steep sides, flat base (0.30 x 0.30 x 0.35m)	Friable, mid grey brown silty sand with occasional small sub-angular to sub-rounded gravel. Environmental sample 12 taken	Posthole; cut L1002; sealed by L1001	-
1051	1052	Sub-oval/ gently sloping sides, flat base (1.55 x 0.75 x 0.08m)	Friable, dark grey brown silty sand with occasional small sub-rounded gravel. Environmental sample 9 taken	Pit; cut L1002; sealed by L1001	Pottery (29g); fired clay (35g)
1053	1054	Sub-oval/ steep sides, concave base (2.28 x 1.79+ x 0.43m)	Friable, dark grey brown silty sand with occasional small sub-rounded gravel	Pit; cut L1002; cut by F1055	Pottery (37g)
1055	1056	Sub-oval/ moderately sloping sides, concave base (0.46 x 0.36 x 0.08m)	Friable, dark grey brown silty sand with occasional small sub-rounded gravel	Posthole; cut L1054; sealed by L1001	-
1059	1060	Sub-circular/ gently sloping sides, concave base (0.37 x 0.31 x 0.07m)	Friable, pale to mid grey brown silty sand with occasional small rounded gravel	Posthole; cut L1002; cut by F1061	-
1061	1062	Sub-circular/ steep sides, V-shaped base (0.36 x 0.39 x 0.20m)	Friable, dark grey brown silty sand with occasional small rounded gravel and charcoal flecks. Environmental sample 13 taken	Posthole; cut L1060 and L1064; sealed by L1001	Pottery (56g)
1063	1064	Sub-circular/ gently sloping sides, concave base (0.44 x 0.43 x 0.22m)	Friable, mid grey brown silty sand with occasional small rounded gravel	Posthole; cut L1002; cut by F1061	-
1065**	1066	Sub-circular/ moderately sloping sides, concave base (0.89 x 0.92 x 0.27m)	Friable, mid grey brown silty sand with occasional small to medium sub-angular gravel	Pit; cut L1068; sealed by L1001	-
1067**	1068	Sub-circular/ moderately sloping sides, concave base (1.54+ x 1.46+ x 0.43m)	Friable, dark grey brown silty sand with occasional small sub-angular gravel	Pit; cut L1002; cut by F1065 and F1069	-
1069**	1070	Sub-oval/ moderately sloping sides, concave base (1.16 x 2.63 x 0.41m)	Friable, mid grey brown silty sand with occasional small sub-angular gravel	Pit; cut L1068 sealed by L1001	-
1080	1081	Sub-oval; moderately sloping sides, concave base (0.22 x 0.20 x 0.10m)	Friable, mid grey brown sandy silt with occasional small sub-rounded gravel	Posthole; cut L1004; sealed by L1001	-
1082	1083	Sub-oval; moderately sloping sides, concave base (0.30 x 0.35 x 0.20m)	Friable, mid grey brown sandy silt	Posthole; cut L1002; sealed by L1001	Pottery (2g)
1084	1085	Sub-oval; moderately sloping sides, concave base (0.35 x 0.32 x 0.21m)	Friable, mid grey brown sandy silt	Posthole; cut L1002; sealed by L1001	
1088	1089 (primary)	Sub-oval/ steep sides, flat base (2.26 x 1.96 x 0.42m)	Friable, pale brown grey silty sand with occasional small sub-rounded gravel	Pit; cut L1002; sealed by L1001	-

	1090 (uppermost)		Friable, dark brown grey silty sand		Burnt flint (172g)
1091	1092	Circular/ steep sides, concave base (0.12 x 0.08 x 0.10m)	Friable, mid grey brown sandy silt with occasional charcoal flecks. Environmental sample 19 taken	Posthole: cut L1002; sealed by L1001	-
1093**	1094	Circular/ moderately sloping sides, concave base (1.70+ x 1.34+ x 0.34m)	Friable, mid grey brown silty sand with occasional small sub-angular gravel	Pit; cut L1002; cut by F1095	-
1095**	1096	Sub-circular/ steep sides, concave base (0.74 x 0.68 x 0.23m)	Loose, dark grey brown vitrified silty sand with moderate burnt clay flecks. Environmental sample 20 taken	Pit; cut L1094; sealed by L1001	Pottery (2g); burnt flint (131g)
1097	1098	Sub-circular/ steep sides, concave base (1.30+ x 1.40 x 0.34m)	Firm, mid grey brown clay sand with occasional small sub-rounded gravel. Environmental sample 21 taken	Pit; cut L1002; sealed by L1001	Pottery (23g)
1117	1118	Circular/ steep sides, concave base (0.34 x 0.34 x 0.18m)	Firm, mid grey brown silty sand with occasional small rounded gravel. Environmental sample 24 taken	Posthole; cut L1002; sealed by L1001	Pottery (40g); CBM (212g)
1119	1120	Circular/ steep sides, concave base (0.21 x 0.24 x 0.20m)	Firm, mid grey brown silty sand with occasional small sub-rounded gravel	Posthole; cut L1002; sealed by L1001	Struck flint (1g)
1125	1126	Sub-circular/ steep sides, flat base (0.55 x 0.45 x 0.28m)	Friable, dark grey/ black sandy silt with moderate charcoal flecks and occasional small sub-angular gravel. Environmental sample 28 taken	Posthole; cut L1136; sealed by L1001	-
1138	1139	Circular/ moderately sloping sides, flat base (0.80 x 0.75 x 0.21m)	Loose, mid grey brown silty sand with moderate medium sub-rounded gravel	Pit; cut L1002; sealed by L1001	Pottery (58g)
1140	1141	Oval/ moderately sloping sides, concave base (0.47 x 0.39 x 0.18m)	Friable, mid grey brown silty sand with occasional small sub-rounded gravel and charcoal flecks	Posthole; cut L1002; sealed by L1101	-
1144	1145	Sub-oval/ steep sides, concave base (1.20 x 0.92 x 0.40m)	Friable, mid grey brown silty sand with occasional small to medium sub-angular gravel. Environmental sample 32 taken	Pit; cut L1002; sealed by L1001	-
1146	1147	Sub-oval/ gently sloping sides, flat base (1.10 x 0.75+ x 0.15m)	Friable, mid grey brown silty sand with occasional small to medium sub-rounded gravel	Pit; cut L1002; cut by F1003	-
1148	1149	Sub-circular/ steep sides, concave base (0.24 x 0.26 x 0.16m)	Friable, mid grey brown humic sandy silt. Environmental sample 53 taken	Posthole; cut L1136; sealed by L1137	-
1150	1151	Sub-circular/ steep sides, concave base (0.26 x 0.26 x 0.16m)	Friable, mid grey brown humic sandy silt. Environmental sample 54 taken	Posthole; cut L1136; sealed by L1137	-
1152	1153	Sub-circular/ steep sides, concave base (0.25 x 0.25 x 0.09m)	Friable, mid grey brown humic sandy silt. Environmental sample 51 taken	Posthole; cut L1136; sealed by L1137	-
1154	1155	Sub-circular/ steep sides, concave base (0.20 x 0.20 x 0.22m)	Friable, mid grey brown humic sandy silt. Environmental sample 52 taken	Posthole; cut L1136; sealed by L1137	-
1166	1168 (primary)	Sub-oval; gently sloping sides, flat base (0.48 x 1.08 x 0.09m)	Friable, dark grey/ black silt with frequent charcoal flecks and lumps. Environmental sample 83 taken	Pit; cut L1209; sealed by L1136	Pottery (12g)
	1167 (uppermost)		Friable, mid grey brown silty sand		Pottery (20g); fired clay (18g)
1173	1174	Circular/ gently sloping sides, flat base (0.30 x 0.41+ x 0.12m)	Loose, mid brown grey silty sand. Environmental sample 58 taken	Pit; cut L1002; cut by F1169	Pottery (13g); animal bone (4g)
1175	1176	Sub-oval/ moderately sloping to steep sides, concave base (1.20 x 0.42+ x 0.40m)	Friable, pale to mid grey brown silty sand with occasional small sub-angular gravel	Pit; cut L1002; cut by F1164	Animal bone (8g)
1179	1180	Circular/ steep sides, concave base (0.30 x 0.30 x 0.11m)	Friable, mid brown grey silty sand	Posthole; cut L1136; sealed by L1137	Pottery (4g)

1181	1182	Circular/ steep sides, concave base (0.25 x 0.25 x 0.06m)	Friable, mid brown grey silty sand	Posthole; cut L1136; sealed by L1137	-
1183	1184	Circular/ steep sides, concave base (0.30 x 0.25 x 0.10m)	Friable, mid brown grey silty sand	Posthole; cut L1136; sealed by L1137	-
1185	1186	Circular/ steep sides, concave base (0.16 x 0.15 x 0.16m)	Friable, mid brown grey silty sand	Posthole; cut L1136; sealed by L1137	Pottery (7g)
1187	1188	Sub-oval/ steep sides, concave (0.21 x 0.20 x 0.11m)	Friable, mid grey brown silty sand	Posthole; cut L1136; sealed by L1137	Pottery (3g); animal bone (3g)
1189	1190	Sub-oval/ moderately sloping sides, concave base (0.20 x 0.16 x 0.05m)	Friable, mid grey brown silty sand	Posthole; cut L1136; sealed by L1137	-
1191	1192	Sub-oval/ steep sides, concave base (0.25 x 0.40 x 0.17m)	Loose, pale grey/ white calcareous clay with frequent limestone flecks	Posthole; cut L1136; sealed by L1137	-
	1193		Friable, mid grey brown silty sand with occasional limestone flecks		Pottery (19g)
1198	1200 (primary)	Circular/ steep sides, flat base (0.65 x 0.65 x 0.21m)	Firm, dark grey/ black silty sand with frequent charcoal flecks and lumps. Environmental sample 71 taken	Pit; cut L1209; sealed by L1136	-
	1199 (uppermost)		Loose, mid yellow brown silty sand with frequent fired clay and occasional charcoal flecks. Environmental sample 70 taken		Pottery (6g)
1201	1202	Oval/ gently sloping sides, concave base (1.07 x 0.60 x 0.23m)	Friable, dark brown grey silty sand with occasional small charcoal flecks. Environmental sample 73 taken	Pit; cut L1002; sealed by L1136	-
1203	1205 (primary)	Circular/ moderately sloping sides, concave base (0.35 x 0.27+ x 0.09m)	Compact, dark grey/ black charcoal	Posthole; cut L1002; cut by F1194	-
	1204 (uppermost)		Friable, mid grey brown silty sand with occasional charcoal flecks		-
1206	1207	Sub-circular/ steep sides, concave base (0.20 x 0.21 x 0.37m)	Friable, mid to dark grey brown silty sand with occasional small sub-rounded gravel	Posthole; cut L1136; sealed by L1137	-

*Table 4: The dispersed Phase 1 pits and postholes; * = aligned postholes; ** = aligned/ intercutting pits*

2.27 Further to the south, a possible alignment of six pits (F1031, F1065, F1067, F1069, F1093 and F1095) was encountered (Figs. 5 and 7). These features were varied in form and, unlike the more northerly feature alignments, displayed a degree of intercutting. Their association and function are uncertain.

2.28 Fencelines are a commonly occurring feature of rural and urban Romano-British sites. Various phases of rural Roman enclosure/ droveway ditches and fencelines have been excavated at RAF Lakenheath (Martin and Plouviez 2012, 103), while a similar middle Roman landscape of enclosures and fencelines was excavated at Cedars Park, Stowmarket (Nicholson and Woolhouse 2016). A possible fenceline or palisade has also been reported from St John's House Hospital, Palgrave (Craven 2008), while regional examples of urban fences include 2nd to 3rd century and later alignments at Wixoe Roman Town, in the upper part of the Stour Valley (Atkins 2012, 29-30 and 47). At Great Cornard, the possible fencelines appear to have existed in unison with enclosure ditches, helping to sub-divide the local landscape.

Natural Hollow F1135

2.29 The basal layer within Hollow F1135 (L1136) yielded a significant concentration of early Roman pottery and is thought to represent a primary midden deposit (see below). This deposit also contained 68 bone fragments belonging to cattle, sheep/goat, horse, pig, deer and badger (in order of abundance). No pathological traits were visible on the bone fragments and the only butchered element was a sheep/ goat metatarsal with possible skinning marks (see *The Animal Bone*). L1136 was the most heavily sampled of the Phase 1 contexts and yielded clear evidence of cereal cultivation and use during the early Romano-British period (see *The Environmental Samples*). Identified taxa (in order of ubiquity) comprise wheat (*Triticum* sp.), barley (Hordeum sp.) and oat (Avena sp.). Glume wheat (*Triticum dicoccum/ spelta*) was most frequently recorded wheat species, while the occurrence of asymmetric barley grains indicates the primary cultivation of hulled, six-row barley (*Hordeum vulgare* var. *vulgare.* Flax (*Linum usitatissimum*) was also present within L1136.

Phase 2: Late Romano-British (3rd/ 4th Century AD)

2.30 Only a single feature (Pit F1115) was securely dated to the latter part of the Roman occupation (Table 5; Plate 15; Figs. 4-5). F1115 was located towards the central area of the excavation, just to the east of Phase 1 Boundary Ditches F1003 and F1077. The pit was irregular in plan with gently sloping sides and a flat base; its shape in plan might suggest that it originally comprised three separate features containing undifferentiated fills. Fill L1116 yielded just one sherd (40g) of Hadham oxidised ware mortaria (see *The Roman Pottery*).

Feature	Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1115	1116	Irregular/ gently sloping sides, flat base (1.03 x 0.36 x 0.04m)	Friable, mid yellow brown silty sand	Pit; cut L1002; sealed by L1001	Pottery (40g)

Table 5: Pit F1115

2.31 The dearth of later Romano-British features within the excavation is not thought to reflect any particular scaling back of activity by this time. However, it does appear that the nature of activity within the site, including methods of refuse disposal, underwent a significant change. Rather than deriving from discrete features, the bulk of the later Roman assemblage, including pottery and CBM (mostly tegula roof tile) is from the uppermost layer within Natural Hollow F1135 (L1137). One again, the pottery is only lightly abraded and is thought to represent primary deposition from a nearby settlement. Of particular note from L1137 is a fragment of crucible (from Grid Square A6; Fig. 8), possibly of Romano-British date. However, similar 10th-13th century examples exist (see *The Roman Pottery*) and, given on the mixed nature of L1136 (see below), no firm date can be assigned to the current example.

Phase 3: Anglo-Saxon (Late 4th to Mid 8th Century AD)

2.32 Two pits and one posthole were assigned to Phase 3 (Table 6; Fig. 4). Of these, only Posthole F1113 (Plate 16) yielded post-Roman pottery, comprising a single sherd (25g) of early Saxon grass and sand tempered ware (see *The Post-Roman Pottery*). Pit F1127 contained a small quantity of residual early Roman

pottery; however, this feature was cut into Layer L1137, which contained the bulk of the late Roman and Saxon assemblage. Nine residual 1st century AD sherds (62g) were also present in Phase 3 Pit F1121 (Plates 17-18), in addition to a large and significant assemblage of iron slag and furnace material.

Pit F1121

2.33 The slag from Pit F1121 is dominated by tap slag. This type of slag is associated with a (pre-industrial) smelting technology most common between the late Iron Age and medieval period (Paynter 2011, 3). The sequence of material from F1121 is thought to reflect the final cleaning out and subsequent demolition of an iron smelting furnace (see *The Slag*), and is unlikely to have been transported far prior to deposition. The co-occurrence of slag and furnace material/ charcoal also suggests that the material was not originally transported for a secondary purpose, e.g. construction. Charcoal from F1121 was dominated by ash with lesser quantities of oak and other species (see *The Environmental Samples*). This abundance of ash might suggest that oak – the traditionally preferred fuel wood for industrial processes – was not readily available within the surrounding landscape (*ibid.*). However, the densities of oak and ash wood are identical, at 550kg per cubic meter, making both species highly desirable as fuel (Mytting 2015, 58 and 62). A sample of roundwood charcoal from primary Fill L1122 produced a calibrated radiocarbon date range of 406-544 calAD at 95.4% confidence (see *Radiocarbon Dating Determinations*).

Feature	Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1113	1114	Circular/ steep sides, concave base (0.50 x 0.50 x 0.24m)	Firm, mid grey brown clay sand with occasional small sub-rounded gravel. Environmental sample 22 taken	Posthole; cut L1002; sealed by L1001	Pottery (41g)
1121	1122 (primary)	Circular/ steep sides, flat base (0.76 x 0.70 x 0.40m)	Friable, dark grey/ black silty sand with frequent charcoal flecks/ lumps. Environmental sample 25 taken	Pit; cut L1002; sealed by L1001	Slag (17863g)
	1123		Friable, mid yellow grey silty sand with moderate charcoal flecks. Environmental sample 26 taken		Slag (1114g)
	1124 (uppermost)		Firm, mid yellow brown and mid brown red clay with occasional charcoal flecks. Environmental sample 27 taken		Pottery (58g); slag (3278g); fired clay (1674g)
1127	1128	Sub-oval/ moderately sloping sides, concave base(0.60 x 0.80 x 0.18m)	Friable, mottled dark grey/ black and dark yellow grey sandy silt with moderate charcoal flecks/ lumps. Environmental sample 29 taken	Pit; cut L1137; sealed by L1001	Pottery (121g); CBM (33g); animal bone (26g)

Table 6: The Phase 3 features

Material from Layer L1137

2.34 Material from L1137, the uppermost layer within Hollow F1135, is mixed. Nonetheless, this context yielded the bulk of the Saxon pottery from the site (see below). The assemblage is heavily abraded (see *The Post-Roman Pottery*), implying continued re-deposition and reworking related to agricultural activity. The dark, humic appearance and mixed nature of L1137 (Table 7) suggests that it may have been a ploughsoil, continually enhanced and reworked over the course of several centuries (see below). However, animal bone from this layer displayed a clear pattern of distribution, with cattle dominating the bone from the southern part of L1137, and horse being most abundant to the north-west (see *The Animal Bone*). A

significant concentration of bone (mixed species) was also present towards the centre of this context. This clear spatial patterning is thought to represent separate episodes of dumping, probably in quick succession, with only minimal disturbance (post-deposition). This would tend to suggest that L1137 actually represents a midden deposit, similar to L1136, with the abraded Saxon pottery having been introduced from elsewhere.

Natural Hollow F1135

2.35 A large natural hollow (F1135) was partially exposed on the north-eastern edge of the excavation (Table 7; Plates 3-6; Figs. 5-6 and 8). The investigated part was irregular/ sub-circular in plan with gently sloping sides and a flattish/ concave base. Its base was truncated by a series of undated, linear ard marks (collectively numbered F1208 (L1209)), which were in turn cut by Phase 1 (early Romano-British) features; mostly ditches. Although the purpose of these features remains uncertain, their presence – coupled with the free-draining nature of the site's soils (SSEW 1983, 12) – clearly indicates that Hollow F1135 did not hold water; waterholes are a common feature on many Romano-British rural sites (e.g. Medlycott and Atkinson 2012, 91). The basal fill of F1135 (Layer L1136) sealed the majority of Phase 1 ditches in this area and was also of early-Romano-British date. L1136 was cut by Phase 1 Ditch F1156 and yielded a sizable assemblage of pottery (see *The Roman Pottery*). Overall, F1135 contained *c.* 90% of the Phase 1 pottery assemblage (329 sherds), including five sherds (70g) of South Gaulish Samian (*ibid.*). The Roman assemblage is only lightly abraded and it is thought that L1136 represents the primary dumping of largely domestic refuse during the 1st to 2nd centuries AD.

2.36 Following the deposition of L1136, the hollow appears to have become the focus of renewed early Romano-British activity, defined by 13 postholes and a series of short, curvilinear ditches (see above). The ditches flanked the eastern and north-eastern edges of F1135, possibly defining it as a 'working' hollow, within which specific activities took place. However, the nature of this activity is unknown.

Context	Plan/ profile (dimensions)	Context description	Finds
1136	Sub-circular/ gently sloping sides, flattish/ concave base (22.90 x 12.30+ x 0.72m)	Friable to compact, pale to mid grey brown silty sand with occasional small sub-angular to sub-rounded gravel and charcoal flecks. Environmental samples 43, 44, 45, 47, 49, 65, 66, 67a, 67b and 69 taken	Pottery(1663g); CBM (119g); animal bone (277g); burnt bone (1g); struck flint (40g); fired clay (84g)
1137		Friable, mid to dark grey brown sandy silt with occasional small to medium sub-rounded gravel and charcoal flecks. Environmental samples 33, 34, 35, 36, 60, 61, 62, 63 and 64 taken	Pottery (1995g); SF4 Fe (5g); SF5 Fe (2g); SF6 Fe (2g); SF7 Fe (6g); SF8 Fe (12g); crucible fragment (389g); CBM (3970g); animal bone (3710g); struck flint (37g); burnt flint (214g); fired clay (291g); lava stone (100g); slag (1337g)

Table 7: Summary of Hollow F1125; stratigraphic data are presented within phase descriptions (above)

2.37 The uppermost layer within F1135 (L1137; Table 6) also included a sizable early-Romano-British assemblage, although this is thought to be residual from underlying deposits. In addition, L1137 yielded the bulk of the late Roman and Saxon pottery assemblages, along with notable quantities of CBM, animal bone and other finds. The Roman CBM from the site occurs in a single orange fabric and includes pieces of tegula roof tile (see *The Ceramic Building Materials*). The mixed

nature of material from L1137, largely spanning the 3rd/ 4th to 8th centuries AD implies that this layer was continually worked and added to over a prolonged period. It was more humic in composition and appearance than underlying Layer L1136 and may have constituted a plough soil, possibly dating from as early as the late Romano-British period and preserved within the confines of Hollow F1135. However, a clear bias in the distribution of animal bone within L1137 is thought to suggest only minimal disturbance of this context, post-deposition (see *The Animal Bone*). It is equally possible therefore, that L1137 represents a midden-type deposit. The absence of similar deposits across the remainder of the excavation probably reflects both modern truncation by ploughing (cf. Muldowney 2009, 11) and the specific topography associated with Hollow F1135 (Fig. 3).

Undated Features

2.38 A series of linear ard marks (F1208 (L1209)) was present within the base of Hollow F1135, truncating Natural L1002 (Table 8; Fig. 8). These were in turn cut by Phase 1 features and are suggestive of prehistoric agriculture. This type of shallow mark is synonymous with a simple form of ploughing, whereby the share or 'ard' is dragged through the soil (Darvill 2003, 23). Regional examples of ard marks include two probable ard marks encountered during an evaluation at Spencer Road, Rainham (Essex), while examples from further afield include Bronze Age ard marks excavated at Ashcombe Bottom, near Lewes (East Sussex) (Allen 2005, 7; O'Donoghue 2015, 11). Two sherds (14g) of early Roman pottery from Fill L1209 at the current site are not thought to reliably date this feature group. It is more probable that they are contemporary with finds of prehistoric flintwork and/ or Bronze Age/ Iron Age pottery from the site (Rolfe 2007, 5; see *The Struck Flint*).

Feature	Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1071	1072	Sub-circular/ moderately sloping sides, flat base (0.80 x 0.85 x 0.22m)	Friable, mid grey brown silty sand with moderate small sub-rounded gravel	Pit; cut L1074; sealed by L1001	-
1073	1074	Sub-circular/ steep sides, flat base (0.50 x 0.35 x 0.30m)	Friable, mid grey brown silty sand with moderate small sub-rounded gravel	Pit; cut L1076; cut by F1071	-
1075	1076	Sub-oval/ steep sides, flat base (0.45 x 0.37 x 0.29m)	Friable, mid grey brown silty sand with moderate small sub-rounded gravel	Posthole; cut L1002; sealed by L1001	Animal bone (4g); burnt flint (12g)
1208	1209	Linear/ steep sides, concave base (0.60-5.50 x 0.02-0.06 x 0.01-0.04m)	Firm, mid brown grey sandy silt	Possible ard marks; cut L1002; cut by F1166, F1171, F1194 and F1198	Pottery (14g)

Table 8: Undated features

2.39 Two intercutting pits (F1071 and F1073) and a single posthole (F1075) were also undated (Table 8; Fig. 4). All lacked diagnostic material and could not be dated on stratigraphic grounds. The features were located within the southern part of the excavated area close to its eastern edge. They were all sub-circular/ oval in plan with moderately sloping or steep sides and flat bases. Their fills comprised homogenous silty sands, suggesting that these features were dug and backfilled within a short period of time, using material from a single source. Their function is not known.

3 SPECIALIST FINDS AND ENVIRONMENTAL REPORTS

The Struck Flint

Andrew Peachey

Excavations recovered a total of 23 pieces (134g) of struck flint in an un-patinated, fresh condition, as residual material in Roman features. The technological traits of the struck flint indicate mixed prehistoric origins, spanning the Mesolithic to Early Bronze Age (Table 9), with a focus on blade-based technology, including a single core. The struck flint includes 17 pieces contained in the accumulation of material in Hollow F1135, with only rare pieces in ditches and a posthole elsewhere.

Date	Struck Flint Type	Frequency	Weight (g)
Mesolithic (to early Neolithic?)	Blade	3	27
	Debitage	3	8
(Late Mesolithic? to) early Neolithic	Core	1	15
	Blade	1	7
	Scraper	2	22
	Debitage	5	13
Late Neolithic to Early Bronze Age	Debitage	8	42
Total		*23*	*134*

Table 9: Quantification of Struck Flint

Methodology and Terminology

The flint was quantified by fragment count and weight (g), with all data entered into a Microsoft Excel spreadsheet that will be deposited as part of the archive. Flake type (see 'Dorsal cortex,' below) or implement type, patination, colour and condition were also recorded as part of this data set, along with free-text comments. Terms used to describe implement and core types follow the system adopted by Healy (1988, 48-9). The term 'cortex' refers to the natural weathered exterior surface of a piece of flint, and the term 'patination' to the colouration of a flaked surface exposed by human or natural agency. Dorsal cortex is categorised after Andrefsky (2005, 104 and 115) with 'primary flake' referring to those with cortex covering 100% of the dorsal face; 'secondary flake' with 50-99%; 'tertiary' with 1-49% and 'un-corticated' to those with no dorsal cortex.

Discussion

The very precise production of blades in the Mesolithic period, utilizing carefully maintained bi-polar cores is represented by blades in Hollow F1135 (L1136 Grid Squares D7 and E3); both with dorsal scars reflecting the use of opposed platforms, and with butts that exhibit evidence for abrasion combined with very small bulbs of percussion. The former exhibits traces of wear on one lateral edge, while the latter is a long blade (85mm) that exhibit no evidence of use or modification. A further very narrow blade from Posthole F1119 with traces of wear on both lateral edge probably belongs to this group, while debitage flakes with either crested profiles or very neat parallel dorsal scars combined with small bulb, abraded butts in Hollow F1135 (L1136 Grid Squares B6 and F4) are also likely of Mesolithic origin.

The distinction between the blade technology in this assemblage that is of Mesolithic origin, and that produced in the early Neolithic is blurred, and may be arbitrary, based on a distinction between the presence of abraded platform edges, evidence for single-platform cores and slightly large bulbs of percussion; therefore it is a conceivable that the blade-based technology derives from a single phase of late Mesolithic/early Neolithic in the 7th to 4th millennia BC, or at least continuous landscape activity therein. A small (15g), heavily-reduced blade core was contained in Hollow F1135 (L1136), and exhibited a single platform with extensive removals all around (type A1), that by the final stages of reduction would have constituted bladelets or micro-blades, possibly favoring a Mesolithic date and the use of composite tools/ points. However; a blade from Hollow F1135 (L1137 Grid Squares A5), and scrapers in Topsoil L1000 and Hollow F1135 (L1137 Grid Squares A5) were manufactured on slightly large blades and are characteristic if types recorded in early Neolithic assemblages in the region. The former (end) scraper has abrupt retouch across the square distal end, while the latter (side) scraper has very fine pressure-flaked retouch along the length of one lateral edge. The debitage flakes assigned to this group also conform to blade-like proportions with relatively small bulbs of percussion, and notably include as un-stratified material (Tr.33) two flakes possibly produced by the platform trimming of a blade core. Examples of Mesolithic flintwork in Suffolk are more common on the Breckland to the north and the river valleys to the east around Ipswich (Bonsall and Wymer 1977, 258-266), although river valleys, including that of the Stour would have been conducive to Mesolithic and early Neolithic activity; but without greater diagnostic material (i.e. axes/microliths) and a secure context the chronology of this small group must remain tentative.

Flakes were produced and utilized in the Mesolithic and Neolithic periods, but several in this assemblage are sufficiently divergent in technological traits to indicate they were produced late, in the late Neolithic to early Bronze Age. These tertiary and un-corticated flakes have slightly irregular to broad-squat proportions and were contained in Hollow F1135 (L1136 Grid Squares B4, C4; L1137 Grid Squares A8 and C5) and Ditch F1156. The flakes are not dissimilar in size to the blades but show no greater incidence of cortex, therefore do not appear to represent nodule trimming or preparation. They are characterized by the presence of prominent, wide bulbs of percussion, wide platforms, hinged terminations and multi-directional dorsal (flake) scars; all consistent with the hard-hammer flake technology that prevails in the late Neolithic to early Bronze Age. There are also single examples of a facetted butt and a corticated butt, indicative of the utilization of un-systematic rotated cores or discoidal cores; however none of these flakes exhibit any evidence of re-touch or modification.

The Roman Pottery
Andrew Peachey

Excavations recovered a total of 658 sherds (10924g) of Roman pottery in a slightly abraded condition (Table 10). The bulk of the assemblage is comprised of early Roman fabric types and although diagnostic form types are limited, they do include a south Gaulish mould-decorated bowl and an ink well, as well as storage jars, jars and bowls in locally-produced coarse wares, notably Belgic and Romanising fabrics with varying densities of grog temper. A large group of pottery was recovered from two layers within a Hollow: F1135 (Table 10), with form and fabric types reflecting a

generally early Roman date around the late 1st century AD, however these extensive deposits also contain sparse sherds of late Roman and post-Roman pottery, suggesting the group may be derived from material re-deposited from nearby early Roman occupation.

Phase/Group	Sherd Count	Weight (g)	R.EVE
Phase 1: Early Roman pits, postholes & ditches	267	5566	1.97
Phase 1: (principally) Early Roman Hollow F1135	365	4915	2.35
Phase 2: Late Roman pits, postholes & ditches	1	40	-
Phase 3: Anglo-Saxon	15	190	-
Topsoil & Un-stratified material	10	213	0
Total	*658*	*10924*	*4.32*

Table 10: Quantification of Roman Pottery in Phase Groups

The sparse sherds of late Roman pottery include bowls in Oxfordshire red-slipped ware, locally-produced grey mortaria and shell-tempered jars that are consistent with consumption in the 4th century AD.

Methodology

The pottery was quantified by sherd count and weight (g), with fabrics analysed at x20 magnification, and all data entered into a Microsoft Excel spreadsheet that forms part of the site archive; in accordance with the *Standard for Pottery Studies in Archaeology* (Barclay *et al* 2016), which complement the guidelines of the Study Group for Roman Pottery (Darling 1994; Willis 2004). Fabrics were cross-referenced with the National Roman Fabric Reference Collection (Tomber & Dore 1998); and samian ware forms reference Webster (1996). The pottery fabrics are described (Table 11) and quantified (Table 12).

Fabric Code	Fabric Description
LGF SA	La Graufesenque samian ware (Tomber & Dore 1998, 28)
LEZ SA2	Lezoux samian ware 2 (Tomber & Dore 1998, 32)
GRF1	Fine Grey ware. Mid grey with inclusions of common moderately sorted quartz (0.1-0.25mm), sparse fine mica, dark grey/black iron ore or iron rich pellets and white (?limestone) (both 0.2-0.5mm). Similar fabrics were produced at Wherstead *c*.25km to the east (Symonds 2002, 13), as well as Colchester and likely other local kilns.
OXF RS	Oxfordshire red-slipped ware (Tomber & Dore 1998, 177)
LNV CC	Lower Nene Valley colour-coated ware (Tomber & Dore 1998, 118)
HAD OX	Hadham oxidised ware (Tomber & Dore 1998, 151)
UNS WH1	White ware 1. Cream to pale-brown surfaces over a cream to pale orange core. Inclusions comprises moderately-sorted common quartz , sparse iron rich grains (both 0.25mm), sparse fine mica and sparse rounded quartzite (0.25-1mm). A hard, slightly gritty fabric, possibly a product of kilns at Two Mile Bottom, Norfolk (Bates & Lyons 2003, 99: fabric PWW)
UNS WH2	White ware 2. Cream to pale brown surfaces over a dark grey core. Inclusions comprise common fine silty quartz (<0.1mm) and black iron oxides (0.1-0.25mm). A hard smooth fabric. An imitation of imported Gallo-Belgic white wares.
COL WH	Colchester white ware (Tomber & Dore 1998, 133).
SOB GT	Southern British ('Belgic') grog-tempered ware (Tomber & Dore 1998, 214), wheel-made, black with a dark grey core. Many sherds are very similar to BSW1, with divisions based on proportions of sand and grog.
BSW1	Black-surfaced/Romanizing reduced ware 1. Black/dark grey surfaces, thin red margins and a dark grey-brown core. Inclusions comprise common quartz and sparse iron ore (0.1-0.25mm) sparse fine mica and sparse grog (0.25-1.5mm). A hard fabric with a slightly abrasive to soapy feel.
GRS1	Sandy grey ware 1. Mid grey surfaces over a lighter/pale grey core. Inclusions comprise common quartz (0.1-0.25mm), sparse fine mica and sparse black iron rich grains (0.25-1.5mm). A hard fabric with a slightly abrasive to smooth feel. Produced locally.
OXS1	Sandy oxidised ware 1. As GRS1 but oxidised pale to mid orange. Tends to a smooth to slightly powdery feel.
WAT RE	Wattisfield/Waveney Valley reduced ware (Tomber & Dore 1998, 184).
HAD RE1	Hadham reduced ware (Tomber & Dore 1998, 152)
ROB SH	Romano-British shell-tempered ware (Tomber & Dore 1998, 212), wheel-made with common, moderately sorted shell or voids (0.5-3mm, occasionally larger)
EAA RE (M)	East Anglian reduced ware mortaria (Tomber & Dore 1998, 130). A dark to mid grey fabric. Inclusions comprise common moderately sorted quartz (0.1-0.5mm), occasional red-brown clay pellets (0.25-0.5mm) and sparse fine mica. Trituration grits comprise a well-sorted mix of common flint and quartzite (1-3mm)
HAD OX (M)	Hadham oxidised ware mortaria (Tomber & Dore 1998, 151)
BAT AM2	Baetican (Late) amphorae 2 (Tomber & Dore 1998, 85)
CRUC	Crucible fabric. Surfaces are dark red-brown over thick red margins and a mid-dark grey core. Inclusions comprise common-abundant quartz (generally 0.1-0.25mm, with sparse poly-crystalline grains to 2.5mm) and sparse red iron oxide grains (<0.5mm). This fabric is exceptionally hard to the point of vitrification, with lumpy slightly abrasive surfaces (in part due to crude hand-formed manufacture)

Table 11: Roman pottery fabric descriptions

Fabric	Sherd Count	Weight (g)	R.EVE
LGF SA	7	74	0.65
LEZ SA2	1	11	0.05
GRF1	2	7	0
OXF RS	3	152	0.1
LNV CC	1	4	0
HAD OX	16	173	0.2
UNS WH1	1	21	0.1
UNS WH2	3	47	0.25
COL WH	31	282	0.05
SOB GT	223	5977	0.75
BSW1	221	1508	0.35
GRS1	95	1393	0.87
OXS1	22	114	0.05
WAT RE	6	68	0
HAD RE1	2	82	0.15
ROB SH	20	344	0.55
EAA RE (M)	1	71	0.1
HAD OX (M)	1	40	0
BAT AM2	1	84	0
CRUC	1	472	0.1
Total	*658*	*10924*	*1.82*

Table 12: Quantification of Roman pottery

Discussion by Fabric Group

Early Roman

Samian ware accounts for just eight sherds in the assemblage (Table 11), was predominantly imported from south Gaul (LGF SA), and with the exception of a small body sherd from a mould-decorated bowl in Ditch F1156, was entirely contained in the varying fills of Hollow F1135. Form types in Hollow F1135 include single examples of a mould decorated bowl (Dr.37), a platter (Dr.15/17), cups (Dr.27 & 33), and a rare ink-pot (Ritterling 13) that collectively appear consistent with consumption in the final quarter of the 1st century AD, possibly extending into the first decades of the 2nd century AD. The Dr.37 mould decorated bowl (Fig. 18.1), from L1136 (GS: 6E), exhibits a panelled design below a double-bordered ovolo with a (split?) tongue to left, a hollow rosette tip, and beaded border. One panel includes the figure of Oedipus (*O.837/D.488A*), unfortunately with the face chipped, which is probably incidental damage, but as the damage appears only to this figure and not to the slip elsewhere on the fragment may not be coincidental. The figure-type and decorative scheme suggest this bowl was made by Amandus iii of La Graufesenque, or possibly the connected Mas-iv (similar to designs on the RGMZ database: 2000820 & 2002525 respectively); both of whom operated *c*.AD100-120; although there is a degree of caution as the ovolo is perhaps more typical to the contemporary and related potters Mercator I and Calvinus. This Dr.37 bowl is a different vessel to that in Ditch F1156, with the latter of insufficient size for the medallion and border to be assigned to a potter. Conversely; a small basal stamp with a partial maker's stamp (Fig. 18.2) in L1137 (GS: 3B) may be from the same Dr.27 cup recovered from L1136 (GS: 5C). The stamp reads …**RTVS]**, part of die 4a of Libertus I of La Graufesenque, dated *c*.AD50-75 (Hartley & Dickinson 2010).

An intrinsically interesting piece of LGF SA was recovered from L1136 (GS: 6F) and comprises the top of a Ritterling 13 ink pot (or ink well). It is a near flat disc, rising slightly towards a central circular aperture (Fig. 18.3), which exhibits the fractured edge of a down-turned non-spill lip, comparable to examples recorded by Oswald & Pryce (1920: plate LXX.6). In Britain, ink wells such as this are far more common on military sites, although a single mid 1st century AD example was recorded in the early Colonia at Colchester, while one of the only examples from a 'smaller centre' was recorded at Elms Farm, Heybridge, with the form apparently absent on rural sites (Willis 2005: 8.22-6 & database). Colchester is situated *c*.17km to the south-east of the site, while there were Roman forts at *Combretovium* (Baylham House, near Coddenham) *c*.27km to the east, and Ixworth *c*.30km to the north, with Great Cornard close to roads that connect with all three; but this ink well likely relates to a more substantive Roman presence in the environs of modern Sudbury, as previously indicated by the discovery of the only intact example in Britain of a Roman bronze lantern. It may also potentially complement the range of evidence for Roman military activity at Long Melford, to the north. At Heybridge; Willis (2015) noted that ink wells are "very functionally specific and rare, and almost invariably associated with military sites and major civil centres, where they occur at or near fora and other sites of business. They have a highly structured distribution, and imply the documentation of

information for keeping over the long term (or long transit), and an investment of some wealth, owing to the relative expense of ink and the receiving medium, either vellum or papyrus."

With the exception of samian ware, early Roman fine wares are limited to very rare sherds of GRF1 and UNS WH2; the former limited to small plain sherds almost certainly from beakers, and the latter including a butt beaker in Ditch F1003 (Fig. 18.4) that imitates Gallo-Belgic types imported to the region. It has an out-turned bead rim with an internal offset on a tall neck, with non-cross-joining body sherds suggesting it had roulette-decorated cordons. The UNS WH2 beaker is comparable to (post-Conquest) mid 1st century AD vessels at Sheepen, Colchester (Niblett 1985, 62: figs.23.28 & 33), around where it may have been produced. Colchester was also the source of low quantities of white ware (COL WH) in the early Roman period, including a flagon and bowl in Hollow F1135. The flagon was represented by a base and the stump of a 2-rib strap handle in L1136 (GS: 4B); while the fragmentary remains of a hemispherical flanged bowl (Symonds & Wade 1999: Cam.46/311) were present in L1136 (GS: 4C), with production of both types likely to have declined during the early 2nd AD. Potentially connected to the use of flagons, and representing a continental import, the early Roman pottery also includes a single body sherd of Baetican amphorae (BAT AM2) in Ditch F1156, which is almost certainly derived from a Dressel 20 amphorae used to transport olive oil from southern Spain.

The bulk of the post-Conquest, early Roman pottery is comprised of coarse wares with black to dark grey surfaces and varying densities of grog temper, split between wheel-made Belgic fabrics (SOB GT) and Romanising fabrics (BSW1) (Table 11), although the fabrics can be very similar and with thinner-walled or finer/coarser variants of either the distinction can appear blurred. The SOB GT does appear to include some utilitarian necked bowls or jars with everted bead rims, with small rim sherds contained in Ditch F1077, F1171 and Hollow F1135 (L1136 GS: 5F); but there does appear to be a strong focus of SOB GT towards large jars and storage jars, probably a direct chronological trend related to the ascendancy of the Romanising fabrics (BSW1) as they supersede Belgic wares in the mid/late 1st century AD. Nonetheless, the SOB GT includes large, wide mouthed jars with shoulder cordons (Thompson 1982, 183: type B3-10) in Ditches F1003 (Fig. 18.5) and F1158 (Fig. 18.6), which are paralleled in Claudian/Neronian (mid/late 1st century AD) groups at Sheepen, Colchester (Niblett 1985: figs.24.51, 26.100 & 19.178). These large jars are approximately matched in quantity (R.EVE) by storage jars with rim diameters of *c*.35cm; however these vessels appear very fragmentary with only small fragments from the robust rounded bead rims of these vessels contained in Ditches F1003, F1077, Posthole F1018 and Hollow F1135 (L1136 GS: 7E), though non-cross-joining thick-walled body sherds are also present, notably in Ditch F1003.

The Romanising grey wares (BSW1) present a contrasting picture, corresponding with their ascendancy as utilitarian coarse wares, although diagnostic sherds are limited. Vessels include necked, cordoned bowls in Ditch F1014 and Hollow F1135 (L1137 GS: 9B), with the latter example exhibiting a cordon decorated with oblique burnished lines. This type of bowl is a common 1st century AD variant in the region, including at Hacheston and Colchester (Arthur & Plouviez 2004, 165-6: type 19).

Also in BSW1 are small fragments of BSW1 everted bead rims, potentially from bowls or jars, in Ditch F1156 and Hollow F1135 (L1136 GS: 6C & L1137 GS: 7A). The Romanising grey wares are supplemented in the early Roman period by limited quantities of ubiquitous Roman sandy grey ware (GRS1) almost certainly produced locally, with isolated kilns known at Sible Hedingham and Halstead to the south and Somerton to the north, with a dense concentration around Colchester; while occasional sherds of micaceous reduced wares from north Suffolk (WAT RE) are also present (Table 11). Similar to the BSW1, diagnostic vessels in GRS1 are very limited, but do include a necked bowl with a plain shoulder cordon and angular girth in Ditch F1003 (Fig. 18.7) that is a common component of mid-late 1st century AD groups in the region (Symonds & Wade 1999: type 218B/C; Arthur & Plouviez 2004: type 22A). The remaining GRS1 vessels are represented only be small fragments of everted bead rims, potentially from this type of bowl or a cooking pot-type jar, and were present in Ditches F1003, F1156, F1164, Postholes F1117, F1191 and Hollow F1135 (L1136 GS: 5A).

Late Roman

The limited quantity of late Roman pottery mitigates against a valid statistical model of supply to the site, but it is clear that the suite of fabrics is focussed around the products of the major industries at Hadham (HAD OX, HAD RE1), Oxfordshire (OXF RS), the Lower Nene Valley (LNV CC) and probably Harrold, Bedfordshire (ROB SH). The relative absence of local coarse wares, with no diagnostic sherds and only rare potentially undifferentiated GRS1 body sherds is also notable. Broadly this supply pattern is consistent with that which develops in Colchester in the mid 3rd to mid 4th centuries AD, with shell-tempered (ROB SH) jars becoming particularly prominent in the mid 4th century AD (Symonds & Wade 1999, 496-7). A date in the mid/late 4th century AD would also be consistent with the developing stranglehold the industry at Hadham begins to exert on East Anglian markets, supplemented by the fine wares LNV CC and OXF RS, as characterised in groups at the town of Great Chesterford to the west (Martin 2011, 305), and the fort at Burgh Castle on the coast (Johnson 1983, 92-4). Significant stratified groups containing these products were are also recorded associated with smaller settlements and buildings at Icklingham to the north (Plouviez 1976, 88-90) and Gestingthorpe c.7km to the west (Toller 1985, 86-7). The form types from the late Roman industries described below are extensively paralleled in the groups from the urban centres of Colchester and Great Chesterford, as well as the smaller settlements at Icklingham and Gestingthorpe, and the fort at Burgh.

The shell-tempered (ROB SH) vessels appear limited to jars with slightly drooping or hooked everted triangular bead rims, but these are limited to small rim fragments in Ditch F1194 and Hollow F1135 (L1137 GS: 4B, 5A, 5B & 6C). Similarly the oxidised Hadham wares (HAD OX) are primarily limited to everted triangular bead rims with facet-burnished exteriors, probably from wide-mouthed jars or bowl-jars, with fragments in Hollow F1135 (L1137 GS: 4B, 5A, 5B & 8A), possibly from only one or two vessels although they are not cross-joining. However, the HAD OX also includes part of a hemispherical flanged bowl in Ditch F1134, and the 2-rib handle of a flagon in Hollow F1135 (L1137 GS: 9C). The reduced wares from Hadham (HAD RE1) are equally highly burnished (inside and out), and are limited to bead-and-flange rim dish fragments in Hollow F1135 (L1137 GS: 5A & 5B), also potentially

from a single vessel. There are no diagnostic sherds of LNV CC, while the OXF RS includes a hemispherical flanged bowl, imitating samian form Dr.38 (Young 2000, 160: type C51) in Hollow F1135 (L1137 GS: 4A), in the same manner as the HAD OX bowl.

The late Roman pottery also includes two intrinsically interesting vessels of more local origin. The first, in Hollow F1135 (L1136 GS: 8A) is a small jar in the relatively sandy UNS WH1, which has a plain everted rim and oblique lines of applied rusticated decoration on the shoulder, suggesting it may have been produced in 4th century AD kilns at Two Mile Bottom, Norfolk c.45km to the north (Bates & Lyons 2003, 86: vessel 4.10.1), which is connected to the area of the site by a road via the late Roman settlement (possible small town) at Ixworth. The second vessel belongs to the enigmatic class of reduced ware mortaria (EAA RE (M)) that were produced in several centres in East Anglia, and contrast with the more common cream or slipped mortaria in Roman Britain, including those from Colchester. The mortar in Hollow F1135 (L1137 GS: 8A) has an upright grooved bead with a slightly bulbous drooping flange, probably imitating types produced in the Oxfordshire kilns, and is comparable to an example recorded at the shore fort at Caister-on-Sea (Darling & Gurney 1993, 199: fig.160.756). The mortar exhibits lightly to moderately worn trituration grits, therefore while used, it was very much still a functioning processing vessel when it was broken and discarded.

The Crucible

A single fragment of crucible (CRUC) was recovered from Hollow F1135 (L1137 GS: 6A) as part of a mixed deposit, but potentially related to a high concentration of iron slag contained in Pit F1121 associated with a low quantity of early Roman pottery. Crucibles are problematic for dating; with this example (Fig. 18.8) being a handmade, hemispherical bowl, with a slightly in-sloping, approximately squared rim. The crucible is relatively large with an outer rim diameter of *c*.32cm and walls 30-35mm thick. Large crucibles such as this were used in the Roman period with similar baggy examples associated with iron working at the villa at Little Oakley (Barford 2002, 91: MD1-2) and settlement complex at Elms Farm, Heybridge (Major 2015: fig.555.3); however comparable examples were also utilised in the 10th-13th centuries (Bayley 1992, 4-5), while Iron Age, Saxon and later medieval examples tend to have contrasting shapes/sizes.

Distribution and Conclusions

The early Roman pottery contained in Phase 1 features (excluding Hollow F1135) accounts for a modest total of 248 sherds (5037g), but is relatively sparsely distributed. Small groups of 69 sherds in Ditch F1003 and 29 sherds in Ditch F1156 appear characteristic of the mid/late 1st century AD, with a range of coarse wares associated with an UNS WH2 butt beaker and an LGF SA bowl respectively. Limited quantities of 10-20 sherds of comparable coarse wares were also contained in Ditches F1014, F1129, F1158, F1164, F1169 and F1196; with the remaining Phase 1 pottery distributed very sparsely and in low quantities, principally in pots and postholes. However, the Phase 1 pottery group is significantly bolstered when it is taken into account that 329 sherds, or *c*.90% of the Roman pottery in Hollow F1135 (L1136 & L1137) appears to be of early Roman date. This group includes five vessels in south Gaulish samian ware (LGF SA), single cup from central Gaul (LEZ

SA2), that suggest the early Roman pottery may span the late 1st to early 2nd centuries, potentially *c*.AD75-120. The LGF SA vessels include a mould-decorated bowl, an ink well, platter and cup; while the LEZ SA2 comprises a single cup. Also present are fragments from a flagon and bowl in Colchester white ware (COL WH), a variety of local coarse wares, and a potentially early Roman crucible.

The deposition of this group as well-preserved, un-abraded sherds must have arisen from significant activity in the very close vicinity of the site, potentially incorporating the smelting that employed the crucible present. The association of the south Gaulish samian ware, with sparse flagons and amphorae, and a suite of local coarse wares appears indicative of occupation of some significant status or focus. The unexpected presence of a samian ware ink well offers further credence to this, being hitherto normally associated with military sites, and major civil centres in Britain. The pattern of early Roman supply is certainly supported by the relative proximity of the major urban centre of Colchester, and the pottery industries associated with it, but the nature of the occupation that consumed the vessels in this assemblage remains enigmatic. The small town at Long Melford, which has primarily produced mid 1st to 2nd century AD pottery (i.e. Fawcett & Benfield 2015, 65; Peachey 2013, 15) is situated 6.5km to the north-west, with a villa and bath house 500m closer on Liston Lane (Suffolk HER: LMD017 & LMD153). The Roman roads in the area and the course of the Stour Valley may suggest an economy that looked south towards to the major urban centres of Colchester and Chelmsford, providing economic impetus for a buoyant consumption pattern; however there remains a relative paucity of recorded Roman archaeological evidence in the environs of Great Cornard and Sudbury, with scatters of early Roman (Claudio-Neronian) pottery adjacent to the east of the site and close to the south (Suffolk HER: COG11 & COG056) and a cemetery *c*.1.25km to the west (COG023). A tile kiln *c*.2.3km to the south-west at Little Cornard (COL004) suggests the presence of industry supplying an unknown component of Roman occupation in the local landscape, potentially including buildings of sufficient stature to have contained occupants capable of consuming the vessels in the early Roman pottery group.

Late Roman pottery includes low quantities of sherds contained in Phase 2 Pit F1115, potentially intrusive/mixed material Ditch F1194, and residual material in Posthole F1127; principally sherds of ROB SH and HAD OX, and including in Pit F1115 (L1116) a heavily worn body sherd of Hadham mortaria (HAD OX (M)). However; the bulk of the late Roman pottery: just 36 sherds, was contained in Hollow F1135 (mainly L1137, but also L1136), principally also ROB SH and HAD OX jars and bowls, supplemented by OXF RS, LNV CC, HAD RE1, UNS WH1 and EAA RE (M). The late Roman pottery appears consistent with modest domestic occupation, and is not significantly abraded therefore has not been subject to a high degree of re-deposition, suggesting the site may have remained on the periphery of a focal point of occupation in the mid/late 4th century AD, more likely akin to consumption associated with settlements at Icklingham (Plouviez 1976) and Gestingthorpe (Toller 1985) than a more substantial centre.

The Post-Roman Pottery
Peter Thompson

Introduction

The excavation recovered 31 Post-Roman sherds weighing 347g from four features and a natural hollow containing plough soil. All bar two sherds are early to middle Saxon in date; the latter two are early medieval sandy wares. The assemblage can be described overall as quite heavily abraded.

Methodology

The pottery was examined under x35 binocular microscope to establish fabric type and characterization, and has been quantified by sherd number and weight per context (Table 13). The recording was carried out in keeping with the Medieval Pottery Research Group (MPRG) Guidelines (MPRG 1998; Slowikowski *et al.* 2001). Fabric codes were assigned from the Suffolk post-Roman fabric series (Anderson *unpub*.), and form terminology is based on the MPRG and on the Suffolk type series.

Fabrics

The early Saxon Sherds were made up of four main fabric groups of which 17 (58.6%) are coarse quartz tempered (ESCQ). The early medieval sherds comprised two sand tempered fabrics (Table 13). Quantification of sherds by feature is presented in Table 14.

Code	Fabric No.	Description	Date	Sherd No.	Fabric Weight (g)
ESO1	2.01	Early Saxon Grass Tempered	Late 4th-mid 8th	1	6
ESO2	2.02	Early Saxon Grass and Sand Tempered	Late 4th-mid 8th	4	105
ESCQ	2.03	Early Saxon Coarse Quartz	Late 4th-mid 8th	17	143
ESFS	2.04	Early Saxon Fine Sand	Late 4th-mid 8th	7	75
MCW1	3.20	Medieval Coarse Ware1 *(fine sandy fabric with rare red rounded iron mineral and fine white calcareous, and occasional mainly small voids. Pale grey core with orange surfaces)*	11th-13th	1	13
MCW2	3.20	Medieval Coarse Ware2 (*fine to medium sub-rounded to rounded clear, grey and milky quartz. Grey core with mottled orange-brown and brown surfaces)*	11th-13th	1	5
Total				*31*	*347*

Table 13: Quantification of post-Roman fabrics

The Pottery

The handmade sherds all in coarse quartz, fine sand or grass temper are typical of the early Saxon period. Likewise are the five simple upright or slightly outturned rim sherds which were all recovered from Hollow F1135 (L1137). Two rims could be approximately measured, both coming from fairly small vessels between approximately 16 and 22cm diameter. The evidence for vessel forms is also limited; L1137 GS 5A contained a simple upright rim to a globular or ovoid pot, and L1137 GS 5B contained a similar form with a slightly outurned rim. A sagging base/body angle sherd was also present in L1137 GS 5A. The presence of sooting or charcoal residue on several sherds indicates the assemblage is of a domestic nature including cooking pots.

Decoration is limited. Three burnished sherds were present, two recovered from L1137 and one from Pit F1139. Another sherd appears to have part burnishing at the edge of the break. The only decorated sherd is a coarse quartz tempered body sherd

from L1137 GS 5A comprising a horizontal applied cordon decorated with dispersed diagonal incised decoration. The applied cordon is bordered on each side by a horizontal incised line. Such decoration is also a feature of the late Iron Age, but as the sherd is handmade and associated with early Saxon sherds, it has been assigned a similar date.

Type	Feature	Context	Grid	Quantity	Date	Comment
Posthole	1113	1114	-	1x25g ESO2	5th-mid 8th	-
Ditch	1129	1130	-	1x6g ESO1	5th-mid 8th	-
Hollow	1135	1136	5D	1x6g ESFS	5th-mid 8th	ESFS: Patch of charcoal. And possible partial burnishing
		1137	4A	1x22g ESFS 2x76g ESO2 2x11g ESCQ 1x13g MCW1	11th-13th	ESO2: simple slightly everted jar rim 16-20cm diam ESFS2: x1 burnished body sherd
			4B	3x12g ESCQ	5th-mid 8th	-
			5A	2x19g ESFS 3x35g ESCQ	5th-mid 8th	ESFS1: upper profile to an ?ovoid/globular jar with simple upright rim. ESCQ: sagging base ESCQ: x1 cordon defined by grooves/ incised lines, with incised deco along top
			5B	1x4g ESO2 4x49g ESCQ	5th-mid 8th	ESCQ: simple slightly outurned long necked jar rim, smooth surfaces
			6A	1x8g ESCQ	5th-mid 8th	ESCQ: black burnished neck sherd inside and out ESCQ: charcoal on inner surface
			6B	1x4g ESCQ	5th-mid 8th	ESCQ: charcoal on inner surface
			6C	1x5g ESCQ	5th-mid 8th	-
			7B	1x6g ESFS	5th-mid 8th	-
			7C	1x6g ESCQ	5th-mid 8th	ESCQ: black burnished neck sherd inside and out
			8A	1x13g ESCQ	5th-mid 8th	ESCQ: simple slightly outurned rim approx 18-22cm
Pit	1138	1139	-	1x5g MCW2	11th-13th	-
			-	1x16g ESFS	5th-mid 8th	ESFS: x1 burnished
			-	1x6g ESFS	5th-mid 8th	-

Table 14: Quantification of post-Roman pottery by context

The majority of the early Saxon pottery (25 sherds), was recovered from Natural Hollow L1135. A single body sherd of early Saxon pottery was also present within Posthole L1113 and is thought to date this feature. Intrusive body sherds of early Saxon date were also present within Phase 1 Ditch F1129 and Pits F1138 and F1198. The sherd from Ditch F1129 was the only grass tempered sherd (ESO1); analysis from other sites in the East of England has suggested that this tempering was at its commonest in the 6th and 7th centuries (Hamerow 1993, 14 and 31, Tipper 2009, 329). Burnishing is also better represented in the early Saxon period than in later periods.

The two medieval sherds both comprise early medieval sandy coarseware body sherds in different fabrics. One sherd came from Pit F1138, the second was from Hollow F1135 (L1137 GS 4A) but is probably intrusive in light of the associated pottery assemblage.

The Ceramic Building Materials
Andrew Peachey

Excavations recovered a total of 158 fragments (6373g) of CBM comprised of moderately abraded and fragmented Roman tile, and 8 small fragments (185g) of fired clay, including daub and hearth lining (Table 15). The bulk of the Roman CBM was contained in Hollow F1135: 102 fragments (5191g), predominantly comprising

tegulae roof tile as well as sparse box flue tile; with further low quantities distributed in ditch and pit features. Collectively the Roman CBM appears consistent with the presence of a substantive building in the local area, though the lack of denser dump deposits or spreads suggest the site isn't immediately adjacent to a large building.

Period	CBM type	Frequency	Weight (g)
Roman	Tegulae roof tile (flanged fragment)	18	1906
	Tegulae roof tile (flat fragment)	67	3372
	Box flue tile	5	403
	Miscellaneous tile/rubble	68	692
Roman-Medieval?	Daub	7	122
Saxon?	Hearth Lining	1	63
Total		*166*	*6558*

Table 15: Quantification of CBM

Methodology

The CBM was quantified by fragment count and weight with fabrics examined at x20 magnification and all data entered into a Microsoft Excel spreadsheet that will be deposited as part of the archive. Roman CBM forms were identified using the conventions defined by Brodribb (1987). All data was entered into a Microsoft Excel spread sheet that forms part of the site archive.

Discussion

The Roman CBM occurs in a single red-orange fabric, almost certainly made locally, probably to directly supply the construction of a specific building (s). The hard, abrasive fabric has inclusions of common quartz (0.25-0.75mm), sparse fine mica and sparse to occasional flint (generally <2mm, rarely to 15mm). The bulk of the Roman CBM, including the miscellaneous fragments, appears to be derived from tegulae roof tile with an approximate thickness of 20mm and a slightly rough (un-sanded) base. Only a low proportion of fragments exhibit a flange, typically double the height of the body, with a finger groove accentuating the curving slope where the flange meets the body. Notable flanged fragments were contained in Hollow F1135 (L1137 Grid Square C6) and L1195; with other smaller flanged fragments recovered from Hollow F1135 (L1137 Grid Squares B4, B6 and B7). The former fragments were interesting because they both exhibit upper cutaways, which would have facilitated the interlocking of overlaid tiles. On both examples the cutaway comprises a fairly long square removal of the flange using knife-trimming when the tile was leather hard, almost flush with the body but leaving a slight ledge, while also leaving thumb-impressions on the extant flange where the tile was gripped. The box flue tile in the assemblage appears of similar construction to the tegulae, with tile pressed into formers to produce right-angled edges for the square-tubular tiles; however the box flue tile appears to have a slightly thinner body, typically 12-15mm thick. Box flue tiles typically have key or comb marks on two opposing faces to aid the adherence of mortar/ plaster, and fragments in Posthole F1117 and Hollow F1135 (L1137 Grid Square B5) exhibit partial key marks incised with a comb of at least 5-6 teeth in a straight length-ways line, parallel and close to the corner of the tile, though any pattern further in on the face does not remain extant. Although the Roman CBM comprises a relatively limited concentration, it is of sufficient quantity to suggest the site is not too distant from the location of a substantive Roman building with a tiled roof and probably hypocaust heating system (or bathhouse); and while the CBM is

not part of a dump or demolition deposit immediately adjacent to a building, it is unlikely to have been carried a great distance from its source structures.

Small fragments of soft-fired clay were contained in Ditch F1003 (Seg. H), Hollow F1135 (L1136 Grid Square A5 and L1137 Grid Square B6), and Pit F1166. The fragments were manufactured in a pale brown fabric with inclusions of poorly-sorted, common rounded chalk (1-7mm). This clay was probably applied to a structure wet and allowed to sun-dry; forming a type of daub relatively common in the region, although no surfaces or impressions have been preserved. Daub such as this was utilised as a building material in the region from the middle Iron Age to the medieval period, though a general association with early Roman pottery provides circumstantial evidence for its origin.

A single fragment of harder fired clay was contained in L1199, and represents the clay lining of a hearth or oven chamber. The upper surface of the fragment is orange, fading to a dark grey and rough underside, suggesting this clay was applied as a lining of a chamber and then exposed to a high temperature, as it has effectively become fired into a ceramic. Prior to being applied, this clay lining had been tempered with abundant organic material, probably chaff and chopped grass, now represented by burnt out voids (0.5-5mm); possibly with the intention of stiffening the clay and/ or improving its firing and thermal resistance.

The Small Finds and Other Metalwork
Rebecca Sillwood

Introduction

A total of eight finds were recovered from excavations near Carsons Drive, Great Cornard; this breaks down as six of iron, one of copper alloy, and one ceramic. All of these finds had been allocated small find numbers, and these are referenced in the text below, where relevant. The iron was recovered from a single context, the upper fill (L1137) of a natural hollow (F1135). The ceramic object came from a ditch and the copper alloy from a pit.

The Iron

The six iron finds from the site (Table 16) are mainly undiagnostic fragments, and this identification is unlikely to be aided by x-radiography of the material as it is so fragmentary.

As stated above the ironwork all came from a single layer (L1137) within Natural Hollow F1135.

SF No.	Context	Object Type
3	1137	Rectangular fragment
4		?Nail fragment
5		Nail/Rivet
6		Fragment
7		Nail
8		Object

Table 16: Iron finds by SF number

One definite nail (SF7), one possible nail fragment (SF4), and a nail or rivet (SF5) were recovered. Nails are not easy to date, given their ubiquitous nature in all periods of history. The small possible rivet (SF5), as it does not have a tapering shank, is rather like the rivets found on bone or antler combs, though it is likely too long for this purpose. It may, however, be associated with a small item of furniture or personal accessory. The nails, therefore, do not aid in the closer dating of this context, nor help to identify the types of activity being carried out on the site.

The remaining iron finds are all of a similar ilk, and cannot be identified nor dated. A flat rectangular fragment (SF3) was recovered, along with a shaft-like fragment (SF6), which could also be a nail. A lozengiform piece, with a concave base and domed top (SF8) appears to be a tool-like object, possibly a gouge, but is too fragmented and encrusted to be certain.

The context in which the ironwork was recovered appears to contain mainly Roman material, but also a small amount of Anglo-Saxon and medieval pottery. It may be a rather mixed feature, and the ironwork reflects this mixed nature.

The Copper Alloy

A single piece of copper wire (SF2) was found in a pit (F1043 (L1044)). The piece is circular sectioned at one end, and more triangular at the other. This may be due to being flattened slightly at the triangular end, though this is not certain. The piece is slightly bent and is likely to be broken at either end. It is, again, difficult to identify such a fragmentary piece, however it could simply be a piece of wire, the date and use of which cannot be discerned. A possibility is that this was part of a post-medieval fastener, but there are no definitive features to make this certain. Examples of wire fasteners have been illustrated by Margeson (1993, 18, fig. 9, nos. 82-9).

The Ceramic Object

A ceramic spindle whorl (SF1) was recovered from Ditch F1003. The piece is circular, with a central perforation and rounded profile (Plate 19). The fabric of the clay is pink in colour with frequent inclusions of quartz and mica granules. There is some blackening to part of the lower half of the object, likely due to burning or heat effects. The piece measures 36mm in diameter, with a thickness of 19mm and the central hole measures 7mm across.

This little spindle whorl was found in association with Roman pottery but would appear to be Anglo-Saxon in date, due to the fabric of the piece, and its' affinity with Early Anglo-Saxon pottery. This may seem unusual; however, the object has been compared to both Iron Age and Roman spindle whorls, and does not appear to correlate with the kinds of objects found in those periods.

Conclusions

The small finds from this site in Great Cornard do not aid in the interpretation of the site. The ironwork is all undated, and mainly undiagnostic. The copper alloy piece is also difficult to classify or date, but could even be post-medieval. The ceramic

spindle whorl is more interesting, as it provides some indication of the presence of cloth-working on or near the site. The dating of this object is problematic, although it would appear to be Anglo-Saxon in date; this does not appear to fit with the more Roman character of the rest of the material.

The Slag

Andrew A. S. Newton

Introduction

In excess of 4256 pieces (30659g) of slag and furnace lining, originating from 5 contexts, were recovered during archaeological work at land east of Carsons Drive, Great Cornard. The slag was identified on morphological grounds by visual examination.

Visual examination of metalworking residues allows them to be categorised according to morphology, colour, density, and vesicularity. It should be noted, however, that not all slags are diagnostic of a particular metalworking process or part of that process. Slags are also particularly susceptible to morphological and composition alteration by secondary corrosion products.

Reference was made to the National Slag Reference Collection (Dungworth *et al.* 2009) where appropriate and to the relevant subject-specific (Bayley *et al.* 2008) and regional (Medlycott 2011) research framework.

Results

Pit F1121 (L1122) *2846 frags. 21538g*

11 frags. Dark orange brown fired ceramic, generally rough, powdery surfaces. Some fragments, however, display black to very light grey vitrified surfaces suggesting that this material may represent small fragments of furnace lining.

38 frags. Dark grey but with frequent dark orange-brown patches. Varies from pumice-like to quite dense but all of this material has substantial internal porosity/ vesicularity. Surfaces tend to be rough. Material gives a variable response to the magnet although this is often strong. Some fragments display pieces of ceramic material fused to the slag. This material could, therefore, be described as furnace slag or may represent small fragments broken from a larger accumulation of furnace bottom slag (Crew 1995).

2797 frags. Very dark grey in colour with a 'gun-metal' sheen, although occasional fragments were a paler grey and had a more glassy appearance. Dense material but with occasional internal air pockets. Smaller pieces tend to display greater internal porosity, perhaps explaining to some extent the greater fragmentation of the more vesicular elements of the assemblage. Weak response to magnet with most fragments not being magnetic at all, suggesting efficient extraction of the Fe content. This material displayed the characteristic rippled or 'rope-like' morphology typical of tap slag (perhaps a more accurate description of the morphology of this material would liken it to the wax which drips from a particularly dribbly candle). Occasional linear impressions are suggestive of an object over which the slag has flowed whilst molten or could represent manipulation of the slag with some kind of elongated clamp or tongs after it had partially cooled but was still relatively pliable. Tap slag.

In addition, a bag containing mixed material, recovered from environmental samples, constituting fragments smaller than *c*. 3mm in diameter, was also submitted for analysis. The bulk of this material

comprised slag similar in colour and density to the tap slag described above (some pieces could be recognised as droplets) but also present was a significant number of small fragments of fired ceramic.

Pit F1121 (L1123) *943 frags. 2738g*.

1 frag. Consists of a light grey layer, the edges of which are glassy and vitrified, sandwiched between a layer of dark grey to black fired ceramic and a layer of orange-brown fired ceramic. This appears to constitute a fragment of vitrified furnace lining.

4 frags. Four very small fragments of light orange-brown or sandy-brown fired ceramic was present amongst slag recovered from environmental samples taken from this context. It is likely that this material constitutes part of the furnace lining or superstructure.

9 frags. Nine fragments of charcoal were present amongst slag recovered from environmental samples taken from this context. It appears likely that this material represents the remnants of fuel used in the furnace.

6 frags. Light grey pumice-like material. Hard but displaying considerable internal porosity/ vesicularity. Dull, rough, matte surfaces. Variable response to magnet but some pieces strongly magnetic. Occasional fired clay adheres to these fragments.

923 frags. Very dark grey in colour with a 'gun-metal' sheen. Occasional fragments are paler grey with a more glassy appearance. Dense material but with occasional internal air pockets. Weak response to magnet with most fragments not being magnetic at all, suggesting efficient extraction of the Fe content. Morphology is characteristic of tap slag. This material is directly comparable to the tap slag recovered from L1122 and would appear to have derived from the same source.

Pit F1121 (L1124) *170 frags. 2859g*

12 frags. Mid-light grey to very dark grey dense material with moderate internal air pockets (less than 5mm diam.). Some surfaces displaying rippling similar to tap slag but this is more contorted and/or flattened than that observed in the tap slag within this assemblage. Apart from those fragments that represent runs or prills, this is blocky material with an angular fracture. The material displays occasional charcoal impressions and moderate ceramic furnace lining adheres to some of the material. This material may represent an accumulation of slag within the base of the furnace, described by Crew (1995) as a *furnace slag.*

7 frags. Dark grey pumice-like material with dull surfaces with occasional glittery patches (but not glossy like the tap slag in this assemblage or vitrified like the furnace lining). Moderate response to magnet. Non-diagnostic Fe slag.

151 frags. Very dark grey in colour with a 'gun-metal' sheen. Dense material but with occasional internal air pockets. Little to no response to magnet indicating efficient smelting process. Morphology indicates that this is tap slag, consistent in character with the other tap slag recovered from F1121. The majority of these pieces were very small fragments recovered from this context within environmental samples taken from it.

Pit F1121 (L1124) *293+ frags. 2093g*. In excess of 293 fragments of baked/ fired clay were recovered from L1124; due to the fragmentary nature of the material, and the proliferation of very small fragments, only fragments greater than *c.* 1mm in diameter were counted. The majority of this material consisted of fragments of orange-brown baked clay, some displaying impressions which may be representative of wooden struts forming the superstructure of the furnace. Several very large pieces consisting of black, glossy vitrified furnace lining were present, mostly these had a backing of oxidised dark red-brown clay. Crew (1995) indicates that it is usually only a small area above the blowing hole that becomes vitrified suggesting that the other, non-vitrified, material represents parts of the furnace lining from elsewhere within the structure.

Pit F1127 (L1128) *1 frag, 3g.* Very dark grey, hard, dense material with no indication of internal porosity. One (broken) surface has a small piece of burnt ?flint embedded in it. The morphology of this small fragment suggests that it is broken from a larger piece of tap slag.

Hollow F1135 (L1137; GS A4) *1 fragment, 1101g*. Very dark grey in colour with a 'gun-metal' sheen on upper surface. Lower surface displays extensive red-brown mottling. Upper-surface is smooth and rippled with wide undulations. Lower surface bears numerous very small ripples or mammilations. Dense material but with occasional internal air pockets. Little to no response to magnet indicating efficient smelting process. This is similar material to the tap slag recovered from elsewhere in this assemblage and may represent a large accumulation of this material.

Hollow F1135 (L1137; GS B4) *1 fragment, 258g*. Dark grey to black, hard, dense material with no indication of internal porosity. Dull, rough surfaces. Strong response to magnet. Occasional pale concretion adheres to surface. No diagnostic morphological traits. Fe slag.

Hollow F1135 (L1137; GS A5) *1 frag, 69g.* Very dark grey, hard, dense material with no indication of internal porosity. Dull surfaces with occasional glittery patches at broken edges. No response to magnet. Morphology of one surface suggests possible tap slag but is not similar to the other tap slag in the assemblage.

Discussion

The majority of slag in this assemblage was recovered from Phase 3 Pit F1121 (Figs. 8 and 11) which has been dated to the Anglo-Saxon period. The shape and form of this feature suggests that it did not function as a smelting furnace, or any other feature or apparatus associated with the production of iron. Its pattern of infill, however, suggests that it was used to receive the remnants of a dismantled smelting furnace following its decommissioning. Whether or not containing the remains of this furnace was the primary function of F1121 is uncertain; it could have been used for another purpose prior to this.

Metal working debris appears to have been dumped into this pit in a particular order. The basal fill (L1122) contained primarily tap slag, alongside what appears to be *furnace slag*; an accumulation of slag in the base of the furnace (Crew 1995). Cleere (1971, 215) noted that during experiments conducted using a reconstructed Roman shaft furnace, two distinct materials were produced. The first of these was a coarsely crystalline material, enclosing much charcoal and with pores encrusted with fayalite; the second was tap slag. Despite the date of L1122, this description appears broadly consistent with the slag from this context. In addition to this was a small quantity of orange-brown fired clay that is most likely to be derived from the lining or superstructure of the furnace within which the slag was produced.

The secondary fill (L1123) contained considerably less slag than the basal fill but what was present consisted of tap slag, of consistent appearance with that present in L1122, and a small quantity or hard, porous slag. In addition to the slag were four very small fragments of fired clay and a fragment of vitrified clay, possibly representing part of the furnace lining.

A slightly smaller quantity of slag although consisting of larger fragments and therefore weighing almost as much as that from L1123, was present in the uppermost fill (L1124). This consisted of tap slag, a slag very similar in colour, vesicularity, and density to the other tap slag from L1121 but with a slightly different appearance, and a dark grey pumice-like material. Also comprising a significant quantity of material present in this fill was slightly over 2kg of baked clay; this is evident as the orange-brown material visible in the upper fill of F1121 (Fig. 11). Several large pieces of this material displayed black, glossy, vitrified surfaces with a

backing of oxidised dark red-brown clay. This represents furnace lining; Crew (1995) states that vitrification usually only occurs in the area above the blowing hole and so this material may be identified as having come from that area of the furnace. The remaining fired clay may, therefore, be considered to represent other elements of the furnace superstructure. Although some linear impressions were identified within this material, which may represent parts of a wooden framework or something similar to the finger grooves made by the furnaceman when forming used for stopping up the furnace arch identified during experimental work conducted by Cleere (1971), the fragments are highly abraded and very fragmentary, making it impossible to identify them as particular elements of the furnace structure.

The clear pattern of infill in Pit F1121 is interesting. Clearly the first material to be deposited consisted of a large quantity of slag, the majority of which was tap slag. This was followed by a second dump of material but seemingly containing slightly less slag. Alternatively, the small fragments of slag that were present in this fill could have arrived here through taphonomic processes, perhaps filtering down from the layer above. The final fill, although it did contain a significant quantity of slag, contained what would appear to be the remains of the furnace superstructure. This suggests that the furnace was cleaned out after its last firing, with the tap slag cleared away and any slag that remained inside the furnace removed, before examination of the furnace structure itself was carried out and the decision made that it was beyond repair, at which point it was dismantled and the material deposited into the same pit as the slag. Broken fragments of furnaces are often found in secondary contexts (Dungworth *et al.* 2012). Furnace fragments are often fragile, as is the case here, so larger pieces are usually only found close to the original site of the furnace, in part explaining why the material from L1124 is so fragmentary.

Crew (1995) notes that the amount of slag which can be expected at a primary iron production site varies considerably by period; at prehistoric sites even a few tens of kilograms is significant, whereas Roman and Medieval sites can produce quantities varying from approximately one tonne to hundreds of tonnes. Slag assemblages from tapped furnaces are often large, with vast slag heaps reported at some sites (Paynter 2007, 202). The slightly more than 30kg that was recovered from Pit F1121 represents only small-scale iron production or, given the pattern of deposition, the product (or part thereof) of a single smelt. Shaft furnaces could be used for an average of 12 smelts, producing an estimated 80 tons of iron in their lifetimes (Cleere 1971, 216) and therefore a comparable quantity of slag, dependant on the richness of the ore. Unless the furnace from which this material came was only used once, and the ironworking undertaken in this area was of particularly small-scale, further evidence for iron production may be present in the surrounding area.

Slag was also recovered from Layer L1137 within Hollow F1135 and a small quantity was present in Pit F1127. Beyond this there is little evidence for iron working at the site and no feature representing was present. Although the slag assemblage is quite small, and probably only represents a single smelt, the character of the assemblage, incorporating elements of the furnace, suggests that a smelting furnace was present in the near vicinity and, therefore, presumably beyond the limits of excavation.

The Animal Bone
Dr Julia E.M. Cussans

Introduction

A moderately sized animal bone assemblage was recovered from the excavation at Great Cornard. Preservation of bone was variable, but largely not good. The majority of bone derived from fills of hollow feature F1135. The assemblage is described in detail and the potential ploughsoil interpretation is discussed in light of the animal bone evidence.

Methods

The entire animal bone assemblage was scanned one context or context grid square at a time and the results recorded on a bone scan pro-forma. The pro-forma took into account observations on bone condition including general preservation, colour, abrasion, fresh breaks and gnawing. Bone identifications were made using the in house reference collection and with the aid of reference manuals (e.g. Schmid 1972, Pales & Lambert 1971 a & b, Pales & Garcia 1981 a & b, Hillson 1992, Cohen & Serjeantson 1996). Mammal bones were quantified by species where possible or where this was not possible by size category, where large indicates cattle or horse sized, medium is sheep/ goat, pig or large dog sized and small mammal is cat or hare sized. The presence of bird, fish and other small fauna could also be noted. For the identified mammal species the dominance of particular body parts was noted as was the presence of butchery, ageable mandibles and teeth, unfused epiphyses, measurable bones and those displaying pathologies. The presence of such features was noted in a semi-quantitative manner (none, few, some, many). Further to this, notes were made on any particular points of interest. Once recorded, data from the scan were entered into an MS Excel spreadsheet along with context descriptions, spot dates and phasing.

Following the initial scan little further recording took place except for the recording of specific butchery marks and age at death evidence. Butchery marks were described in terms of their placement (element and position) and nature (cut, chop etc.). Data on bone fusion and tooth wear was also collected. Bone fusion data were not assigned to specific ages due to differences in maturation between modern and ancient populations but were rather assigned to fusion groups (early, intermediate, late, final) following O'Connor (1989, 162, 174, 181) to allow relative age to be assessed. Tooth eruption and wear was recorded following Grant (1982). Tooth eruption and wear age stages were assigned following the methods of Halstead (1985) for cattle, Payne (1973) for sheep/goat and Hambleton (1999, Table 4) for pig. Spatial analysis was made by quantifying the animal bone data by grid square and plotting it onto the site plan.

Results

<u>Taphonomy</u>

Animal bone preservation ranged from very poor through to ok but was largely rated as poor or ok. The preservation of the bone from L1137 was somewhat better than in the other contexts (Chart 1). Overall, bone was fairly abraded and fresh breaks were common. Canid gnawing was rare and only observed on a small number of bones from L1136 and L1137. A single scorched bone fragment was noted from L1170; no other burnt bones were present.

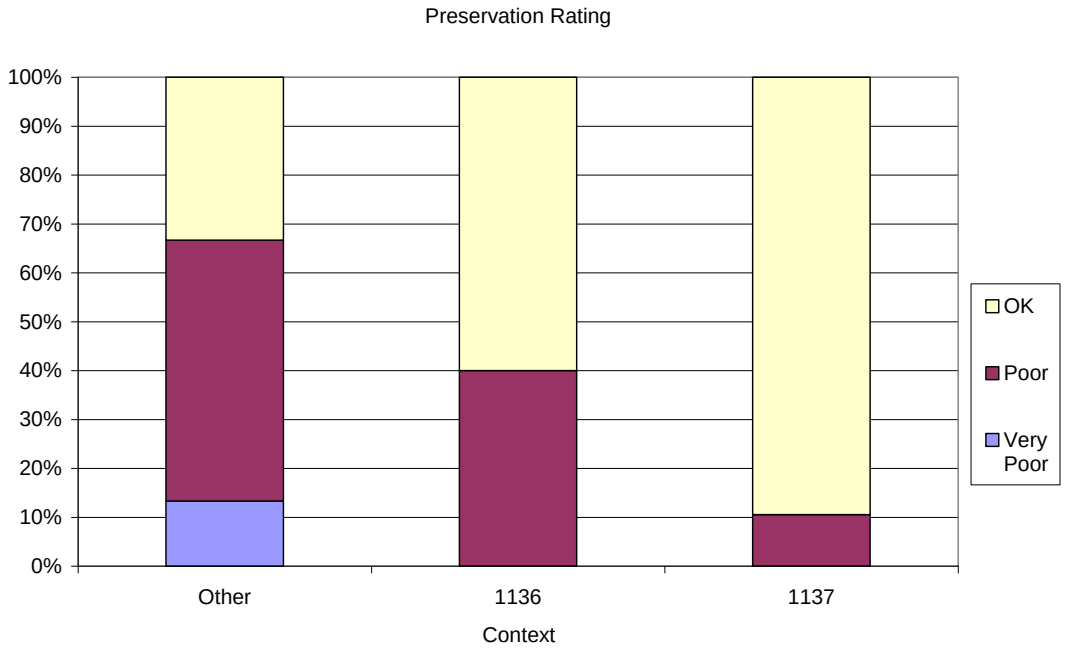

Chart 1: Bone preservation ratings at Great Cornard. Preservation was rated for each grid square for L1136 and L1137 and for individual contexts for 'other'

Quantification

The quantified animal bone fragments are displayed in Table 17 and Chart 2. In total just over 500 bone fragments were recorded, the majority of these came from Phase 2, almost all of which derived from L1137. Phase 1 bones were dominated by the assemblage from L1136, which accounts for approximately half of the Phase 1 bone count. Overall approximately 70% of bone fragments could only be identified as large or medium mammal. Identified domestic mammal taxa present in order of overall abundance were cattle, sheep/goat, pig and horse; a single deer bone and a single badger bone were also present, see below for further information.

	Phase 1			**Phase 2/3**			***Total***
	L1136	**Other**	**Total**	**L1137**	**Other**	**Total**	
Cattle	4	24	28	57	2	59	*87*
Sheep/goat	4		4	26		26	*30*
Pig	1		1	18		18	*19*
Horse	2		2	12		12	*14*
Deer	1		1			0	*1*
Badger	1		1			0	*1*
Large Mammal	52	35	87	229		229	*316*
Medium mammal	3	8	11	33		33	*44*

Total	*68*	*67*	*135*	*375*	*2*	*377*	*512*

Table 17: Quantification of animal bone from Great Cornard

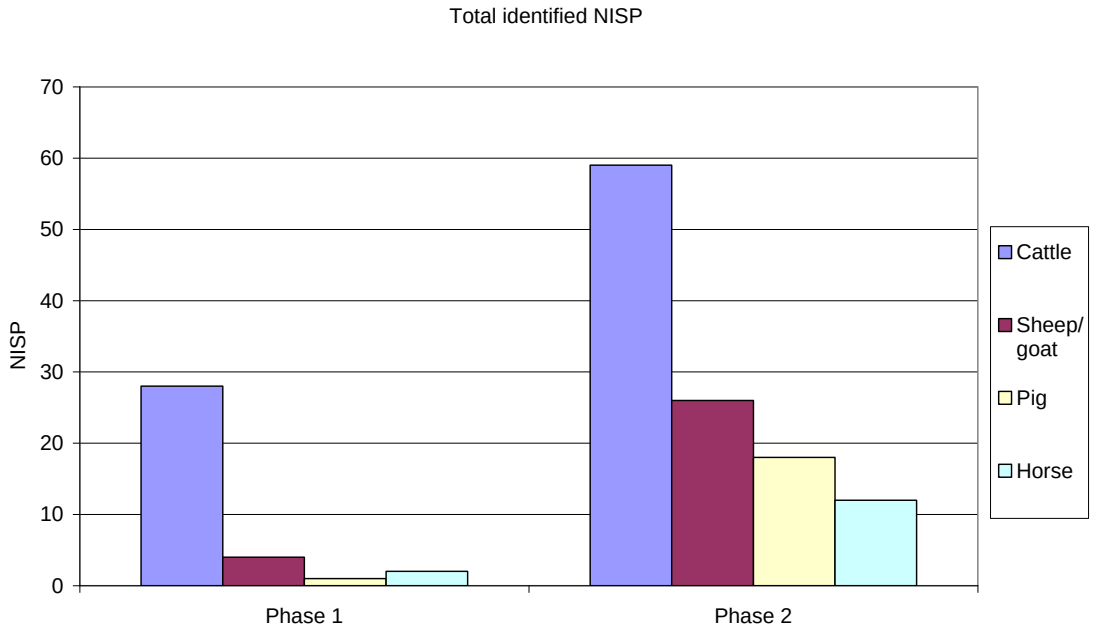

Chart 2: Quantification of identified domestic mammal taxa by number of identified specimens (NISP)

Phase 1

Approximately half of the bone fragments from Phase 1 derived from L1136. Other bone fragments were sparsely dispersed among Phase 1 contexts. Outside of L1136 cattle was the only identified taxa and was represented by teeth and tooth fragments only. It should be noted that the NISP quoted in Table 17 for Phase 1 cattle is likely considerably over inflated as the 20 cattle tooth fragments from L1013 were thought likely to only represent two to three actual teeth. The representation of only teeth and no other body parts is likely due to their better survival in conditions of poor preservation rather than any selection of particular body parts for deposition.

L1136

A total of 68 bone fragments were recorded from L1136 of these only twelve could be identified to specific taxa. Identified taxa in order of abundance were cattle, sheep/goat, horse, pig and deer. A small mammal mandible fragment was identified as badger.

The majority of bones collected from L1136 were assigned to a grid square across feature L1135. Bone distribution is shown in Figure 19. A small number of bones were not assigned to a grid square and these included a cattle bone, the only pig bones from L1136 and the badger mandible mentioned above. As can be seen from the figure the bones were fairly sparsely spread, but were generally concentrated in rows 4, 5 and 6. There does not appear to be any clustering of individual taxa. Where bone was present the majority of grid squares contained ten or fewer fragments. For all identified taxa body parts represented were limited to head (including teeth) and foot elements. Given the small sample size it is difficult to determine if this is due to issues of bone preservation, where teeth and relatively

sturdy foot bones have been preferentially preserved or if this is a result of selective deposition of these elements, for example as butchery waste. However, as noted above, bone was not particularly well preserved.

No butchered, ageable or pathological cattle bones were present. The sheep/goat assemblage included the only butchered bone from L1136 which was a metatarsal fragment with possible skinning marks. Two mandibular third molars were also present and are detailed in Table 18.

Context	Grid Square	Tooth	Wear Stage (Grant 1982)	Age Stage (Payne 1973)	Suggested Age (Payne 1973)
1136	5F	M3	e	F	3-4yrs
1136	6B	M3	b	E	2-3yrs
1137	5A	M3	g	G/H	4-6/6-8yrs
1137	5A	M3	f	F	3-4yrs
1137	6B	M3	d	E	2-3yrs
1137	6C	M3	g	G/H	4-6/6-8yrs
1137	9C	M3	e	F	3-4yrs

Table X.2. Sheep/goat tooth wear data from Great Cornard

No butchered, ageable or pathological bones were available for pig or horse. The single deer bone present was a metapodial fragment which may have belonged to red or fallow deer; no cuts or other modifications were noted on this bone. Likewise the badger mandible bore no signs of modification.

Phase 2/3

The vast majority of the Phase 2/3 bone came from L1137, by far the largest animal bone deposit on site. Aside from this, two fragments of cattle bone were recovered from Phase 3 Posthole Fill L1128 (F1127). Distribution of animal bones from L1137 can be seen in Figure 20. A small collection of bones was not assigned to a grid square, these included four cattle bone fragments and a sheep/ goat tooth.

In total the L1137 assemblage contained 374 bone fragments. Of these 112 could be identified to specific taxa. Cattle were the most abundant accounting for half of the assemblage (Chart 3), approximately one quarter of the assemblage was sheep/goat and of the remaining quarter, two thirds belonged to pig and one third to horse.

The distribution of animal bones across the grid squares is quite distinctive with bones clearly concentrated towards the centre of spread L1137. The majority of bones come from grid squares A4, A5, B4 and B5, where a good mix of taxa appears to be present. To the south the grid squares appear to be dominated by cattle bones, whereas the majority of horse bones are confined to the north-west portion of the bone spread. This apparent grouping of the bones of particular taxa would seem to indicate that bones were deposited in several different groups as a series of closely spaced deposition events and that since deposition they had been subject to minimal disturbance.

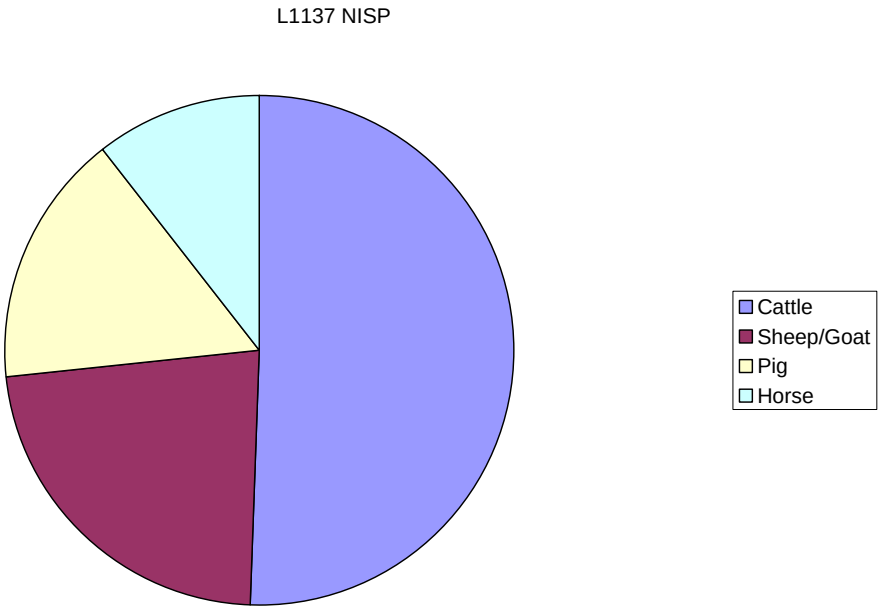

Chart 3: Quantification of identified domestic mammal bone from L1137 by NISP

L1137 cattle

Cattle were represented by a good mix of anatomical elements attesting to the presence of complete animals or carcasses at the site. Two elements were noted as having butchery marks, these were a metacarpal with possible skinning marks and an astragalus with marks indicative of carcass dismemberment. These butchery marks and the body parts present would indicate that primary butchery processes were being carried out in the vicinity.

A small quantity of ageable material was present. This included an M3 at Grant's (1982) wear stage j indicating an animal at Halstead's (1985) age stage H with an indicative age of old adult. Other ageable elements were three unfused long bone diaphyses which were a distal radius, a distal tibia and a proximal calcaneus. The latter two are intermediate fusing bones (O'Connor 1989) and would suggest an animal killed at a relatively young age; the distal radius is later fusing and may have come from an older animal. As for sheep/goat animals of a variety of ages are suggested.

No pathological elements were noted.

A small quantity of articulating cattle bone was present in grid square A8; these were a naviculocuboid, a metatarsal and a first phalange. Although it is not known if these were articulated in situ in the deposit (they do not appear to have been recognised as such during excavation) their presence within a single grid square would indicate minimal disturbance of the deposit in this area.

L1137 sheep/goat

The sheep/goat assemblage was dominated by head and foot elements; teeth were particularly prominent, with limb bones having minimal representation. A single

butchered bone was noted, this was a metatarsal with diagonal cuts on the posterior of the shaft.

A number of ageable teeth were present; these are detailed in Table 18. These indicate that animals of a range of adult ages were present.

No pathological elements were present.

L1137 pig

The majority of the pig assemblage was made up of head elements and some teeth; a couple of limb bones were also present. No butchered elements were noted but the body parts present (mainly head) may again indicate primary butchery waste.

A couple of ageable elements were present. A single lower M3 tooth was present with a Grant's (1982) wear stage of b relating to Hambleton's (1999, Table 4) age stage E with a suggested age of 21-27 months. An unfused distal femur (late fusing) was also present.

Remains of at least two male canines were present; no female canines were present. No pathologies were noted.

L1137 horse

Horse elements were also dominated by head and foot elements with teeth being most numerous; a single limb bone was also present. No butchered, ageable or pathological elements were present.

Summary and Discussion

The animal bone assemblage from Great Cornard is fairly small and is generally in a poor state of preservation. The usual suit of domestic mammals (Holmes 2014) was present, with some evidence of butchery and age at death; however this evidence is extremely sparse so no firm interpretations can be made on site economy, particularly for Phase 1. For Phases 2 and 3 there appears to be some evidence of primary butchery being carried out at or near the site. It cannot be determined however if further butchery was being carried out here or if the animals present were being put to any other use other than meat production. Due to the small sample size little can be said about the relative frequencies of the different domestic taxa.

The majority of bone came from two main contexts: L1136 and L1137, both of which derive from the same feature, L1135. These two contexts were fairly different in their presentation. Bones from L1136 (Phase 2) were relatively poorly preserved compared to those from L1137 and were more dispersed and fragmented, with a higher proportion of unidentified material. The bones from L1137 (Phase 2/3) were better preserved and the bone deposition appeared more discreet/ contained. L1137 seems to be made up of several different deposition events where certain taxa appear to be concentrated in certain areas. The bone appears to be much less disturbed/ dispersed than L1136, with the inclusion of some articulating remains and a generally better state of preservation. The evidence from the animal remains from

L1137, in particular the bone condition and the spread and distribution of the identified taxa would suggest that this material did not derive from a layer that had been subject to ploughing for any significant amount of time. The bone from L1136 was however much more mixed, dispersed and in a poorer condition and may well have been subject to ploughing activity. Serjeantson (2009) compared animal bone from a ploughsoil assemblage with that from a midden assemblage at the site of Rosinish, Benbecula and found that the ploughsoil assemblage was in a much poorer state of preservation than the midden assemblage; three specific differences were noted. The ploughsoil assemblage had a higher proportion of teeth relative to other elements, a higher proportion of unidentified remains and a smaller average fragment size than the midden assemblage. As noted above teeth were particularly prominent in the L1136 assemblage whereas a better mix of elements was present in the L1137 assemblage, there was also a slightly higher proportion of unidentified remains in L1136 compared to L1137. Fragment size was not quantified for the current assemblage. At Rosinish approximately 15% of the bones from the ploughsoil could be identified to specific taxa, for the midden the figure was approximately 25%. At Great Cornard, the same figures for L1136 and L1137 were 17% and 30% respectively. This would tend to lend weight to the suggestion that L1137 was not a ploughsoil.

The Environmental Samples
Dr John Summers

Introduction

During excavations at Great Cornard, Suffolk, 78 bulk soil samples for environmental archaeological investigation were taken and processed. The site comprises three phases of past activity dating to the early Romano-British (Phase 1), late Romano-British (Phase 2) and Anglo-Saxon (Phase 3) periods with the bulk of material coming from the earliest phase. No samples were taken from Phase 2 Pit F1115. The sampling strategy was designed to gather a representative sample of carbonised plant remains from deposits on the site which could be used to investigate diet and economy during both phases of activity. The key aim of the investigation was to gain an understanding of the nature and intensity of cereal use and processing, and other plant use at the site, between the two phases, which were quite distinct in terms of their physical evidence of occupation.

This report presents the results from the full analysis of the bulk sample light fractions recovered from the site. This data is used in the discussion of the site's arable economy and how it varied between Phases 1 and 2/3. Where relevant, references will be drawn to other assemblages of comparable age in the region in order to better understand the site in its wider context.

Methods

Samples were processed at the Archaeological Solutions Ltd facilities in Bury St. Edmunds using standard flotation methods. The light fractions were washed onto a mesh of 500µm (microns), while the heavy fractions were sieved to 1mm. The dried light fractions were sorted under a low power stereomicroscope (x10-x30 magnification). Botanical remains were identified and recorded using reference

literature (Cappers *et al.* 2006; Jacomet 2006) and a reference collection of modern seeds. Potential contaminants, such as modern roots, seeds and invertebrate fauna were also recorded in order to gain an insight into possible disturbance of the deposits.

All bulk samples >10 litres were 50% sub-sampled prior to an initial assessment. These were scanned and all those with a potential to produce >30 identifiable items or abundant charcoal remains were fully processed.

Results

The data from the bulk sample light fractions are presented in Table 19. The discussion of the results that follows will divide the assemblage between Phase 1 and 3 deposits in an attempt to examine variations in the deposition of carbonised remains between the earlier and later Romano-British periods.

Phase 1 - Early Romano-British

A total of 64 samples were processed and examined from 40 Phase 1 features. Most heavily sampled was layer L1136 within natural hollow F1135, which was excavated and sampled on a grid pattern due to is originally hypothesised prehistoric significance (Fig. 5a). Ubiquity (percentage presence) calculations using the Phase 1 dataset showed that cereal remains were recovered from 68.75% of samples, which indicates that cereals were in frequent use and becoming regularly carbonised in routine and accidental burning events. Breaking this down further, wheat (*Triticum* sp.) was the most ubiquitous in 46.88% of samples, followed by barley (Hordeum sp.; 35.94%) and oat (Avena sp.; 9.38%). Amongst the wheat remains, glume wheat (*Triticum dicoccum/ spelta*) was most frequently recorded (in 25% of samples) over free-threshing type wheat (*T. aestivum/ turgidum* type), which was present in 6.25% of samples. Hulled barley grains were recorded in 14.06% of samples, with a small number of asymmetric grains also recorded, indicating the primary cultivation of hulled, six-row barley (*H. vulgare* var. *vulgare*). In addition to cereals, remains of flax (*Linum usitatissimum*) were also identified, being recorded in 3.13% of samples. This is a low ubiquity but the nature of flax and its processing for oil or fibre means that it rarely comes into contact with fire and is often under-represented in assemblages of carbonised plant macrofossils.

Among the Phase 1 samples were five producing >30 identifiable specimens that are displayed in Table 20 and shall be considered in more detail below. The sample with the highest density of remains was Sample 83 of Pit Fill L1168 (F1166). This sample produced 492 identifiable specimens from 40 litres of sediment (12.3 items per litre). Cereal grains present were hulled barley (58.82%), glume wheat (35.29%) and probable oat (5.88%).

A large volume of chaff elements were also present in the form of 404 glume bases and spikelet forks. Where identifiable, the majority were spelt wheat (*T. spelta*), although a single emmer wheat (*T. dicoccum*) glume base was recognised. A ratio of glume wheat grains to glume bases was calculated as 0.03:1, considerably below the 1:1 ratio expected for intact spikelets, which is a clear indication that the deposit was largely constituted of spelt wheat de-husking waste. Such material is a by-

product of the bulk processing of spelt wheat and is a frequent occurrence on Romano-British sites. It is frequently preserved due to its regular use to fuel a range of agricultural and industrial kilns (e.g. Carruthers 2008, 34.9-34.10; Fryer 2004; Mustchin *et al.* 2016, 28; Summers 2013; 2014; 2015; van der Veen 1989). It is possible, therefore, that the material from L1168 represents a dump of primarily spent fuel debris from a nearby hearth or kiln. It is not unlikely that a proportion of the cereal grains recovered represent elements of crops being dried in the kiln which became intermixed with the fuel debris.

A small proportion (15%) of the wheat grains showed evidence of germination in the form of a scar on the dorsal surface, and signs of pitting and collapse of the grain. In addition were five detached coleoptiles (sprouts) and a detached embryo. Although the number of obviously germinated grains was low, the preservation was relatively poor, which could have obscured the relevant characteristics on a number of grains, the presence of numerous detached coleoptiles suggests the original presence of greater numbers of germinated grains. This may be indicative of deliberately malted grain as a kiln product, although other possibilities also exist. The presence of a high proportion of barley may indicate the mixing of products from multiple kiln firings or that barley was the primary kiln product, with spoiled wheat grains accompanying the chaff fuel used. Malted spelt wheat was a common product, sometimes associated with specialised buildings interpreted as maltings, such as at Beck Row (Bales 2004) and Darley Stud, Woodditton (Mustchin *et. al.* 2016), although these examples are later in date than the remains from Great Cornard.

The other four samples with >30 specimens were of a much lower density (1-2.35 items per litre), which is likely to reflect the deposition of mixed debris from numerous sources rather than discrete dumps of carbonised remains. Cereal grains were predominantly of glume wheat and hulled barley, with a single probable oat grain in L1013. In L1079 and L1157B, barley grains outnumbered wheat, while wheat was dominant in L1172. There were equal proportions of wheat and barley in L1013. This is interesting since, despite the higher ubiquity values of wheat overall, barley grains were dominant in three of the five richer samples.

Wheat processing by-products were identified in all of the samples in the form of glume bases, a small proportion of which could be positively identified as spelt. Other than in L1172, glume bases outnumbered glume wheat grains and it is likely that crop processing by-products made a contribution to the carbonised remains in the deposits. This complements the impression from L1168 that cereal processing activities were being undertaken in the vicinity of the site, although outside the present excavation area.

A single specimen of free-threshing type wheat rachis was identified in L1013, although it was not possible to accurately identify the species present. Further specimens of free-threshing type wheat rachis were recorded in L1052 and L1163. Together these suggest that free-threshing type wheat may have been cultivated and processed by the site's inhabitants, rather than simply representing a minor weed contaminant of other cereals. However, it is clear that spelt wheat was the dominant cultivar during Phase 1. A small number of barley rachis segments were identified in L1157B and are an indication of local processing of barley crops as well as the bulk processing of spelt wheat.

The non-cereal taxa recorded were fairly consistent across all samples. Large grasses, including brome grass (*Bromus* sp.) and chess (*Bromus secalinus* type) were generally dominant, which may in part relate to the comparative size of the seeds to cereal grains, leading to their retention with processed cereal crops. The same is also likely to be the case for medium legume seeds, which included vetch/ wild pea (*Vicia/ Lathyrus* sp.). Amongst the other likely arable weed taxa, goosefoot (*Chenopodium* sp.), oraches (*Atriplex* sp.), knotgrass (*Polygonum aviculare*) and dock (*Rumex* sp.) tend to reflect soils with higher levels of nitrogen. These imply the cultivation of fertile soils, which are likely to have been subject to amendment through manuring. However, wild radish (*Raphanus raphanistrum*) is more common in light sandy soils and sheep's sorrel (*Rumex acetosella*) is tolerant of quite low soil fertility (Hill *et al.* 2004). It is possible that the nature of the arable weed community reflects the apparently mixed cereal assemblage, with the weeds of fertile soils perhaps most strongly linked to wheat cultivation, while those of poorer soils may be representative of the cultivation of hardier crops, such as barley and oat. Flax also has a preference for light sandy soils, although it is difficult to draw a clear link between the small number of flax seeds and the arable weed taxa recovered.

Phase 2/3 – Late Romano-British/Anglo-Saxon

The Phase 2/3 activity was more limited, being represented by 14 samples from four features. Nine of these represent samples from L1137, the upper fill of Natural Hollow F1135, taken in a grid system. Carbonised plant macrofossils were present in low concentrations in the Phase 2/3 samples, most likely representing dispersed carbonised debris incorporated into the deposits rather than any discrete dumps of material.

Overall, cereal remains were recorded in 71.43% of the samples, with wheat most ubiquitous in 42.86% of deposits, followed by barley (28.57%), oat (7.14%) and rye (7.14%). Glume wheat was less ubiquitous than in Phase 1 (14.29%), while free-threshing type wheat was slightly more ubiquitous (also 14.29%). Due to the significant difference in the number of samples and, in particular, sampled deposits between Phases 1 and 2/3, it is difficult to be certain whether this reflects a genuine difference between agricultural products in Phases 1 and 2/3 or is a product of sample density. Flax, which was present in Phase 1 samples, was absent from Phase 2/3 deposits. Again, this could be a result of a smaller sample size from Phase 2/3 rather than a genuine absence.

None of the samples produced a concentration of >30 identifiable specimens, which means that no further quantification and analysis was undertaken. It is likely that the remains were deposited as background scatters of carbonised remains on the periphery to primary areas of cereal use and processing. The possible interpretation of L1137 as a remnant buried soil means that the remains from this deposit may have entered with other midden material added to increase soil fertility.

A substantial concentration of charcoal was present in the primary fill of Phase 3 Pit F1121 (L1122) (Table 21), accompanying a large volume of slag and furnace lining. The charcoal was dominated by ash (*Fraxinus* sp.), accompanied by a lesser quantity of oak (*Quercus* sp.), and trace quantities of Maloideae fruit wood (*Sorbus/Malus/Pyrus/Crataegus*) and hazel (*Corylus* sp.). This is contrary to the

expected emphasis on oak charcoal, which is generally the most common fuel for industrial processes due to its high energy and long burning. Ash is still a high quality hardwood fuel but may have been selected in the absence of sufficient quantities of oak, rather than through strict preference for its properties as a fuel for iron smelting.

Discussion

The overall pattern shown by the results of the archaeobotanical analysis is that during both Phases 1 and 2/3, the excavated site was largely peripheral to core areas of occupation and agricultural processing activities. The presence of one large dump of wheat de-husking waste, perhaps representing fuel waste from an agricultural kiln, in a Phase 1 deposit shows that there was local cultivation of cereals and that processing activities were taking place in the vicinity of the site, somewhere outside the excavated area.

The primary crops were spelt wheat and hulled barley. Oat was a minor presence in all phases, as was free-threshing type wheat, which appears to have become more significant during Phase 2/3. The adoption of free-threshing type wheat may have begun to accelerate during the later Roman period in England (e.g. Campbell 2008, 66), and it largely replaces glume wheats during the Anglo-Saxon period (e.g. Ballantyne 2005; Carruthers 2008; Murphy 2005). Minor contributors to the assemblage were flax in Phase 1, which may have been cultivated but is under-represented due to the low likelihood of contact with fire during processing, and rye in Phase 2/3, which is difficult to confirm as a crop but could have been grown as a reliable but lower status winter cereal, possibly even a fodder crop.

Barley is also often seen as a fodder crop (e.g. Carruthers 2008), although it is logical that this was not its only role in diet and economy (e.g. Summers 2015). However, the numerical dominance of barley grains in three of the five fully quantified samples suggests that it was a significant crop in the Great Cornard area during the early Roman period, despite the higher ubiquity of wheat remains. Should fodder be considered a primary role for barley, the relative proximity of the site to the large urban centre of Colchester and other surrounding settlements and military sites may have given significance to barley as a valuable fodder crop for riding horses. Oats are also a common fodder crop and, although they were poorly represented, it has been pointed out by Carruthers (2008, 34.11) that oats used for fodder would rarely be fully processed or kiln dried, leading to an under-representation in carbonised plant macrofossil assemblages.

It is possible that part of the spelt wheat crop was malted, either for local brewing activities or as a higher value export crop (e.g. van der Veen and O'Connor 1998, 134). However, the evidence from L1168, which may represent kiln waste, is inconclusive in providing clear evidence of deliberate malting and malt drying.

Sample number	Context	Feature	Description	Grid square	Volume taken (litres)	Volume processed (litres)	% processed	Cereals			Non-cereal taxa		Hazelnut shell	Charcoal		Molluscs		Contaminants					Other remains
								Cereal grains	Cereal chaff	Notes	Seeds	Notes		Charcoal>2mm	Notes	Molluscs	Notes	Roots	Molluscs	Modern seeds	Insects	Earthworm capsules	
1	1004A	1003	Ditch fill	-	40	20	50%	-	-	-	X	Large Poaceae (1)	-	X	-	-	-	XX	-	-	-	-	-
2	1008	1007	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
3	1010	1009	Posthole fill	-	10	10	100%	-	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-
4	1012	1011	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	XX	-	X	-	-	-
5	1015B	1014	Ditch fill	-	40	20	50%	X	-	Hord (1)	X	Medium Fabaceae (1)	-	X	-	-	-	XX	-	X	-	-	-
6	1017	1016	Posthole fill	-	20	10	50%	X	-	Trit (1)	-	-	-	X	-	-	-	XX	-	X	-	-	-
7	1019	1018	Posthole fill	-	20	10	50%	-	-	-	X	Large Poaceae (1)	-	-	-	-	-	X	-	X	-	-	-
8	1044	1043	Posthole fill	-	20	20	100%	-	X	Hord rachis (1)	X	Large Poaceae (1)	-	X	-	-	-	XX	-	XX	-	-	-
9	1052	1051	Pit fill	-	20	10	50%	-	X	FTW rachis (1)	-	-	-	-	-	-	-	X	-	X	-	-	-
10	1030	1029	Posthole fill	-	20	10	50%	X	-	NFI (1)	-	-	-	X	-	-	-	X	-	X	-	-	-
11	1048	1047	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
12	1050	1049	Posthole fill	-	10	10	100%	X	-	HB (1), FTW (1)	-	-	-	X	-	-	-	XX	-	X	-	-	-
13	1062	1061	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
14	1004B	1003	Ditch fill	-	40	20	50%	-	-	-	X	Large Poaceae (1), Small Poaceae (1)	-	-	-	-	-	X	-	X	-	-	-
15	1013	1003	Ditch fill	-	40	40	100%	XX	X	Hord (3), E/S (1), Trit (2), cf. Oat (1), Spelt GB (2), E/S GB (3), FTW rachis (1)	XX	*Chenopodium* sp. (1), *Montia fontana* (4), *Rumex acetosella* (1), *Tripleurospermum inodorum* (1), Asteraceae (1), *Bromus* sp. (1), Large Poaceae (8), Medium Poaceae (3)	-	XX	Diffuse porous	-	-	X	-	X	-	-	Bud (1)

16	1058A	1057	Pit fill	-	40	20	50%	X	-	Trit (3), Oat (1), NFI (3)	X	*Anthemis cotula* (1)	-	-	-	-	-	X	-	X	-	-	-
17	1058B	1057	Pit fill	-	40	40	100%	X	-	Hord (1), Trit (2)	X	*Bromus* sp. (1)	-	-	-	-	-	X	-	X	-	-	-
18	1079	1077	Ditch fill	-	40	40	100%	XX	XX	HB (1), Hord (2), Trit (2), NFI (3), Spelt GB (4), E/S GB (20), E/S SF (1)	XX	Medium Fabaceae (1), *Bromus* sp. (2), Large Poaceae (2), Small Poaceae (1)	-	XX	*Quercus* sp.	-	-	X	-	X	-	-	-
20	1096	1095	Pit fill	-	20	10	50%	-	-	-	-	-	-	-	-	-	-	XX	-	X	-	-	-
21	1098	1097	Pit fill	-	20	20	100%	XX	X	Hord (1), E/S (1), Trit (4), Oat (1), NFI (1), Trit rachis (1)	X	*Odontites vernus* (1)	-	X	-	-	-	X	-	X	-	-	-
23	1004F	1003	Ditch fill	-	20	20	100%	X	-	Hord (2), NFI (2)	X	Large Poaceae (1), Small Poaceae (1)	-	-	-	-	-	X	-	X	-	-	-
24	1118	1117	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
28	1126	1125	Posthole fill	-	20	20	100%	X	X	Oat (1), NFI (1), Culm (1)	X	Medium Fabaceae (1)	-	XX	Diffuse porous	-	-	X	-	X	-	-	-
31	1130	1129	Ditch fill	-	10	10	100%	X	-	Hord (1), NFI (1)	X	*Linum* sp. (1), Cyperaceae (2)	-	X	-	-	-	X	-	X	-	-	-
32a	1132	1131	Ditch fill	-	10	10	100%	X	X	Hord (2), Trit/Rye (1), Oat (1), NFI (2), E/S SF (1), Oat awn (1)	X	*Linum usitatissimum* (1), *Chenopodium* sp. (1), Medium Fabaceae (2), *Carex* sp. (1), *Bromus* sp. (2)	-	X	-	-	-	X	-	X	-	-	-
32b	1004G	1003	Ditch fill	-	20	10	50%	X	-	NFI (1)	-	-	-	-	-	-	-	X	-	X	-	-	-
37	1157A	1156	Ditch fill	-	20	10	50%	X	-	NFI (2)	-	-	-	X	-	-	-	X	-	X	-	-	-
38	1157B	1156	Ditch fill	-	20	20	100%	XX	XX	HTB (1), HB (2), Hord (7), Trit (1), NFI (8), E/S GB (3), E/S SF (1), Hord rachis (3)	XX	*Chenopodium* sp. (6), *Atriplex* sp. (1), *Cerastium* sp. (1), *Rumex acetosella* (3), *Raphanus raphanistrum* (1), *Bromus secalinus* (1), *Bromus* sp. (3), Large Poaceae (5)	-	X	-	-	-	X	-	X	-	-	-
39	1157C	1156	Ditch fill	-	20	20	100%	X	X	HTB (1), Trit (1), NFI (3), E/S GB (1), Hord rachis (2)	X	Medium Fabaceae (1), *Tripleurospermum inodorum* (1), *Bromus* sp. (3),	-	-	-	-	-	X	-	X	-	X	-

												Large Poaceae (3)											
40	1159	1158	Ditch fill	-	20	10	50%	X	-	NFI (1)	X	Large Poaceae (1)	-	X	-	-	-	X	-	X	-	-	-
41	1161A	1160	Ditch fill	-	20	10	50%	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
42	1161B	1160	Ditch fill	-	20	10	50%	-	X	E/S GB (2)	X	*Chenopodium* sp. (1), Medium Poaceae (1)	-	X	-	-	-	X	-	X	-	X	-
43	1136	1135	Layer	3A	20	20	100%	X	-	Trit (1)	-	-	-	X	-	-	-	X	-	X	-	-	-
44	1136	1135	Layer	5A	20	20	100%	X	X	Hord (1), Trit (2), NFI (2), E/S GB (2)	X	Medium Fabaceae (1), Large Poaceae (2)	-	X	-	-	-	X	-	X	X	X	-
45	1136	1135	Layer	5C	20	20	100%	-	X	E/S GB (1)	X	*Bromus* sp. (1)	-	X	-	-	-	X	-	X	-	X	-
46	1159B	1158	Ditch fill	-	20	10	50%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
47	1136	1135	Layer	3C	20	20	100%	X	-	HTB (1)	-	-	-	-	-	-	-	XX	-	XX	-	-	-
48	1157D	1156	Ditch fill	-	20	20	100%	X	X	HB (2), NFI (1), Oat awn (1)	X	Large Poaceae (2)	-	X	-	-	-	X	-	X	-	X	-
49	1136	1135	Layer	5E	20	20	100%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
50	1130B	1129	Ditch fill	-	20	10	50%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
51	1153	1152	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
52	1155	1154	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	-	-	X	-
53	1149	1148	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
54	1151	1150	Posthole fill	-	10	10	100%	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
55	1163	1162	Ditch fill	-	10	10	100%	XX	XX	Hord (5), Trit (2), NFI (6), E/S GB (6), FTW rachis (1)	XX	*Chenopodium* sp. (1), Chenopodiaceae (1), *Fallopia convolvulus* (1), *Malva* sp. (1), Large Poaceae (3), Medium Poaceae (1)	-	-	-	-	-	X	-	X	-	-	-
56	1157F	1156	Ditch fill	-	20	20	100%	X	X	Trit (1), NFI (1), E/S GB (2)	0	*Bromus* sp. (2), Large Poaceae (2)	-	X	-	-	-	X	-	X	-	-	-
57	1172	1171	Pit fill	-	20	20	100%	XX	X	Hord (1), Trit (4), Trit germ (1), NFI (10), Sprout (3), Embryo (6), E/S GB (1)	XX	*Chenopodium* sp. (3), *Montia fontana* (1), cf. *Fallopia convolvulus* (1), *Vicia/ Lathyrus* sp. (1), Medium Fabaceae (1), Large Poaceae (4), Small Poaceae (1)	-	X	-	-	-	X	-	X	-	-	-
58	1174	1173	Pit fill	-	20	20	100%	X	-	E/S (1), NFI (2)	X	*Persicaria* sp. (1), Medium Fabaceae (2)	-	X	-	-	-	X	-	X	-	-	-

59	1178A	1177	Ditch fill	-	20	10	50%	-	-	-	-	-	-	X	-	-	-	X	-	X	-	X	-
65	1136	1135	Layer	6A	20	20	100%	X	-	Trit (1), Hord (1)	X	Medium Fabaceae (1)	-	X	-	-	-	X	-	X	-	-	-
66	1136	1135	Layer	6C	20	20	100%	X	-	HB (2), NFI (2)	X	Medium Fabaceae (1), *Bromus* sp. (1)	-	X	-	-	-	X	-	X	-	-	-
67a	1136	1135	Layer	6E	20	20	100%	X	-	E/S (1)	-	-	-	-	-	-	-	X	-	X	-	-	-
67b	1136	1135	Layer	8A	30	30	100%	X	-	Trit (2)	X	*Montia fontana* (1)	-	X	-	-	-	X	-	X	-	-	-
69	1136	1135	Layer	8C	20	20	100%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-
70	1199	1198	Pit fill	-	20	20	100%	XX	-	Hord (1), E/S (4), Trit (4), NFI (4)	X	*Chenopodium* sp. (6), *Cerastium* sp. (1), *Polygonum aviculare* (1), Large Poaceae (3)	-	X	-	-	-	X	-	X	-	-	-
71	1200	1198	Pit fill	-	40	40	100%	X	-	Trit (3)	X	Large Poaceae (1)	-	XX	*Quercus* sp.	-	-	X	-	X	-	-	Monocot. Culm (X)
72	1195	1194	Ditch fill	-	40	40	100%	X	-	Trit (1), NFI (1)	-	-	-	X	-	-	-	X	-	X	-	-	-
73	1202	1201	Pit fill	-	20	20	100%	X	-	Trit (1), NFI (2)	-	-	-	X	-	-	-	X	-	X	-	-	-
74	1197	1196	Ditch fill	-	40	20	50%	X	-	Hord (1)	-	-	-	-	-	-	-	X	-	X	-	-	-
79	1110	1109	Pit fill	-	40	20	50%	-	X	E/S GB (1)	-	-	-	-	-	-	-	X	-	X	-	-	-
80	1104	1103	Pit fill	-	20	10	50%	X	-	Trit (1), NFI (1)	-	-	-	-	-	-	-	X	-	X	-	-	-
81	1108	1107	Pit fill	-	20	20	100%	X	-	Trit (1)	-	-	-	X	-	-	-	X	-	X	-	-	-
82	1195C	1194	Ditch fill	-	40	40	100%	X	X	HB (1), Hord (1), Trit (2), NFI (2), E/S GB (1)	X	Medium Fabaceae (1)	-	X	-	-	-	X	-	X	-	X	-
83	1168	1166	Pit fill	-	40	40	100%	XX	XXX	HB (3), Hord (7), E/S (1), E/S germ (2), Trit (3), cf. Oat (1), NFI (21), Sprout (5), Embryo (1), Spelt GB (53), Emmer GB (1), E/S GB (333), Spelt SF (1), E/S SF (16), Trit rachis (1), Oat awn (3)	XX	*Chenopodium* sp. (1), *Atriplex* sp. (1), *Rumex acetosella* (6), *Rumex* sp. (1), *Polygonum aviculare* (1), Polygonaceae (1), *Bromus secalinus* (2), *Bromus* sp. (9), Large Poaceae (18)	-	X	-	-	-	X	-	X	-	-	-
22	1114	1113	Posthole fill	-	20	10	50%	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-

25	1122	1121	Pit fill	-	40	40	100%	X	-	Trit (1), Rye (1), NFI (3)	XX	*Ranunculus* sp. (1), *Chenopodium* sp. (2), *Atriplex* sp. (1), Medium Fabaceae (1), Small Fabaceae (2), *Hyoscyamus niger* (1), Indet. (2)	-	XXX	Ring porous	-	-	X	-	X	-	-	Monocot. Culm (XX)
26	1123	1121	Pit fill	-	40	40	100%	X	-	HTB (1), NFI (2)	X	*Rumex* sp (1)	-	XX	Ring porous	-	-	X	-	X	-	-	Monocot. Culm (XX)
27	1124	1121	Pit fill	-	20	20	100%	-	-	-	-	-	-	XX	Ring porous	-	-	X	-	X	-	-	Monocot. Culm (X)
29	1128	1127	Pit fill	-	40	40	100%	X	-	Trit (1), NFI (3), E/S GB (1), FTW rachis (1)	X	*Chenopodium* sp. (3), *Carex* sp. (3)	-	XX	Diffuse porous	-	-	X	-	X	-	X	-
33	1137	1135	Layer	3A	20	20	100%	-	X	E/S GB (1)	X	*Chenopodium* sp. (1), *Bromus* sp. (1), Large Poaceae (1)	-	X	-	-	-	X	-	X	-	-	-
34	1137	1135	Layer	5A	20	20	100%	X	-	Trit (1), NFI (1)	-	-	-	X	-	-	-	X	-	X	-	-	-
35	1137	1135	Layer	4B	20	20	100%	X	-	FTW (1), Trit (2), cf. Oat (1), NFI (1)	X	*Persicaria* sp. (1)	-	XX	*Quercus* sp., Diffuse porous	-	-	XX	-	X	-	-	-
36	1137	1135	Layer	5C	20	10	50%	-	-	-	-	-	-	X	-	-	-	X	-	X	-	-	-
60	1137	1135	Layer	6A	20	20	100%	X	-	NFI (1)	-	-	-	X	-	-	-	X	-	X	-	-	-
61	1137	1135	Layer	8A	20	20	100%	X	-	HB (1)	-	-	-	XX	Diffuse porous	-	-	X	-	X	-	X	-
62	1137	1135	Layer	10A	30	30	100%	X	-	Hord (1), NFI (2)	X	*Bromus* sp. (1)	-	X	-	-	-	XX	-	X	-	-	Coal (X)
63	1137	1135	Layer	6C	20	20	100%	-	-	-	-	-	-	X	-	-	-	X	-	X	-	X	-
64	1137	1135	Layer	6C	20	20	100%	X	-	Hord (1), Trit (1), NFI (2)	X	*Bromus* sp. (1)	-	X	-	-	-	X	-	X	-	X	-

Table 19: Results from the bulk sample light fractions from Great Cornard. Abbreviations: HB = hulled barley (Hordeum sp.); HTB = hulled, twisted barley grains (Hordeum vulgare var. vulgare); Hord = barley (Hordeum sp.); E/S = emmer/ spelt wheat (Triticum dicoccum/ spelta); FTW = free-threshing type wheat (Triticum aestivum/ turgidum); Trit = wheat (Triticum sp.); Oat (Avena sp.); Rye (Secale cereale); NFI = not formally identified (indeterminate cereal grain); GB = glume base; SF = spikelet fork

Sample number	**15**	**18**	**38**	**57**	**83**
Context number	**1013**	**1079**	**1157B**	**1172**	**1168**
Feature number	**1003**	**1077**	**1156**	**1171**	**1166**
Feature type	**Ditch**	**Ditch**	**Ditch**	**Pit**	**Pit**
Phase	**1**	**1**	**1**	**1**	**1**
Volume (litres)	**40**	**40**	**20**	**20**	**40**
Cereal grains:					
Cereal NFI	7	3	8	10	21
Hordeum sp. - Barley	3	2	7	1	7
Hordeum sp. - Hulled barley	-	1	3	-	3
(*Hordeum vulgare* - twisted grain)	-	-	(1)	-	-
Triticum sp. - Wheat	2	2	1	5	3
(*Triticum* sp. - germinated grain)	-	-	-	(1)	-
Triticum dicoccum/spelta - Emmer/spelt wheat	1	-	-	-	3
(*Triticum dicoccum/spelta* - germinated grain)	-	-	-	-	(2)
cf. *Avena* sp. - Oat	1	-	-	-	1
Cereal indet. detached embryos	-	-	-	6	1
Cereal indet. sprout	-	-	-	3	5
Cereal chaff:					
Hordeum sp. - Barley rachis	-	-	3	-	-
Triticum spelta - Spelt wheat glume base	2	4	-	-	53
Triticum spelta - Spelt wheat spikelet fork	-	-	-	-	1
Triticum dicoccum - Emmer wheat glume base	-	-	-	-	1
Triticum dicoccum/spelta - Emmer/spelt wheat glume base	3	20	3	1	333
Triticum dicoccum/spelta - Emmer/spelt wheat spikelet fork	-	1	1	-	16
Triticum sp. - Free-threshing type wheat rachis	1	-	-	-	-
Triticum sp. - Indet. wheat rachis	-	-	-	-	1
Avena sp. - Oat awn fragment	-	-	-	-	3
Wild taxa:					
Chenopodium sp. L. - Goosefoot	1	-	6	3	1
Atriplex sp. L. - Oraches	-	-	1	-	1
Montia fontana L. - Blinks	4	-	-	1	-
Cerastium sp. L. - Mouse-ear	-	-	1	-	-
Polygonum aviculare L. - Knotgrass	-	-	-	-	1
cf. *Fallopia convolvulus* (L.) A.Love - Black-bindweed	-	-	-	1	-
Rumex acetosella L. - Sheep's sorrel	1	-	3	-	6
Rumex sp. L. - Dock	-	-	-	-	1
Polygonaceae indet. - Knotweed family	-	-	-	-	1
Raphanus raphanistrum L. - Wild radish	-	-	1	-	-
Vicia/Lathyrus sp. L. - Vetch/wild pea	-	-	-	1	-
Fabaceae indet. - Pea family (medium)	-	1	-	1	-
Tripleurospermum inodorum (L.) Sch. Bip. - Scentless mayweed	1	-	-	-	-
Asteraceae indet. - Daisy family	1	-	-	-	-
Bromus secalinus type L. - Rye brome/ chess	-	-	1	-	2
Bromus sp. L. - Brome grass	1	2	3	-	9
Poaceae indet. - Grass (large)	8	2	5	4	18
Poaceae indet. - Grass (medium)	3	-	-	-	-
Poaceae indet. - Grass (small)	-	1	-	1	-
Seeds indet.	-	1	-	-	-
Charcoal:					
Charcoal >2mm	XX	XX	X	X	X
Other carbonised:					
Indet. Bud	1	-	-	-	-

Table 20: Fully quantified data for Phase 1 samples containing >30 identifiable specimens; X = present; XX = common; XXX = abundant

Sample number	Context	Feature	Feature type	Volume (litres)	Phase	Fraction	Quercus		Corylus		Maloideae		Fraxinus		Indet./ unidentified	Total weight (g)
							WEIGHT (g)	COUNT	WEIGHT (g)	COUNT	WEIGHT (g)	WEIGHT (g)	COUNT	WEIGHT (g)	WEIGHT (g)	
25	1122	1121	Pit	40	3	LF >5mm	9	0.481	-	-	-	-	91	5.945	1.167	7.593
						LF 2-5mm	15	0.379	1	0.02	3	0.067	81	1.844	12.266	14.58
						HF >5mm	14	1.344	-	-	5	0.763	81	5.646	1.102	8.855
						HF 2-5mm	16	0.338	-	-	5	0.141	79	1.661	4.051	6.191
						Total	*54*	*2.542*	*1*	*0.02*	*13*	*0.971*	*332*	*15.1*	*18.586*	*37.22*

Table 21: Charcoal identifications from L1122

Radiocarbon Dating Determinations

Antony R.R. Mustchin with Dr John Summers

A number of environmental bulk samples were collected during excavations at Great Cornard from which material suitable for radiocarbon dating was identified. A single sample of Roundwood charcoal from primary Pit Fill L1122 was submitted to the Scottish Universities Environmental Research Centre (SUERC; University of Glasgow; Table 22).

Feature	Context	Sample Type	Genus/ Species	Lab. No. (SUERC-)	Date BP	Calibrated Date Range at 95.4% Confidence
Pit F1121	L1122	Roundwood charcoal	*Fraxinus* sp.	5075701 (GU45808)	1586±30	406-544 calAD

Table 22: Radiocarbon determinations (calibrated using OxCal4). BP = before present (AD 1950)

Results

The results of the radiocarbon dating programme are displayed in Table 22 and Chart 4. ^{14}C ages are displayed in conventional years BP (before present (1950)). Calibrated age ranges were determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4). Conventional ages and calibrated age ranges were calculated by Dr Brian Tripney (SUERC). The single sample of roundwood charcoal from Pit Fill L1122 returned a calibrated date range of 406-544 calAD at 95.4% confidence. The larger part of this range falls within the early Anglo-Saxon period.

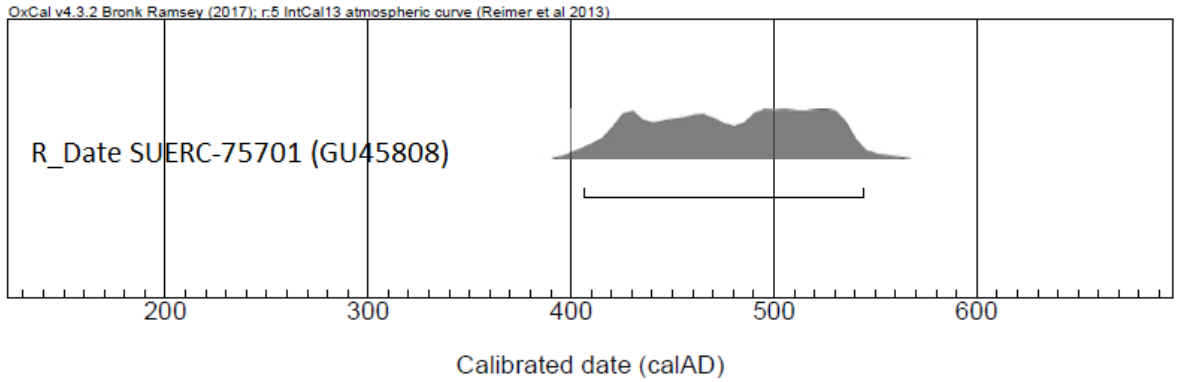

Chart 4: Radiocarbon probability distribution

4 DISCUSSION

Summary of Results

4.1 The excavation revealed evidence of activity dating to the early Romano-British (1st to 2nd century AD (Phase 1)), late Romano-British (3rd/ 4th century AD (Phase 2)) and Anglo-Saxon (late 4th to mid 8th century AD) periods. Phase 1 witnessed the greatest level of 'occupation' activity within the excavated area, while subsequent activity was chiefly represented by a mixed ?plough soil or midden deposit within the upper part of Natural Hollow F1135. However, despite a dearth of 3rd/ 4th century features, the late Roman pottery assemblage is only lightly abraded, suggesting primary discard from a nearby settlement. Phase 3 Pit F1121 also yielded a significant assemblage of slag and furnace material, indicative of local industrial activity. The pattern of deposition within F1121 is thought to represent the final cleaning out and subsequent demolition of a smelting furnace. The Saxon pottery from the site is heavily abraded, suggesting re-deposition and reworking, possibly associated with agricultural processes; the bulk of the Saxon assemblage is from L1137 (a possible plough soil or midden deposit). Pre-Roman evidence comprises a modest assemblage of struck flint, the technological traits of which indicate mixed origins spanning the Mesolithic to Early Bronze Age (see *The Struck Flint*). Ard marks of probable prehistoric date were also recorded in the base of Hollow L1135; cut into Natural L1002. Trace medieval pottery was recovered although no features of this date were present.

Landscape Setting

4.2 The layout and development of the site was no doubt heavily influenced by its location, on fertile land close to the navigable River Stour. The site occupies the interface of 'rolling valley farmlands' and 'ancient rolling farmlands', close to the urban landscape of Sudbury and the meadowlands of the Stour Valley (Alison Farmer Associates 2016, drawing 2). The agricultural character of Great Cornard (including Little Cornard) is recorded in Domesday Book, and largely persisted (https://heritage.suffolk.gov.uk/). During the 16th/ 17th century this landscape formed part of Suffolk's 'wood pasture region', characterised by stock rearing and dairying, with crop husbandry dominated by Barley (*ibid*.). In 1524-5, Babergh Hundred was the wealthiest in the county, largely as a result of the woollen cloth industry (locally centred on Sudbury) which prospered in Suffolk between *c.* AD 1400 and 1700 (Dymond 1999, 140-1; Pattern 1972, 2-3). The suitability of the local landscape for agricultural exploitation represents a valuable resource, attractive to both historical and earlier settlement. Good access to water – an important factor for the grazing of livestock, particularly cattle (Dryden 2008, 121, fig. 8.4; Miller 1979, 209-10) – is also available close to the site.

4.3 The surrounding landscape offers a range of geological and other resources which would have been attractive to past settlement. Evidence of historical quarrying includes medieval sand quarries at Bulmer Road, Sudbury (SHER SUY 133; Picard 2013) and post-medieval quarries at Brundon Lane (SHER SUY 134). The historically wooded character of the landscape around Sudbury (https://heritage.suffolk.gov.uk/) would also have offered a good supply of timber, as well as (possibly) seasonal pannage (cf. Szabó 2013); the entry for [Great and Little]

Cornard in Domesday Book records woodland for 44 pigs (http://opendomesday.org). Additional resources including reeds and fowl would have been available from the Stour Valley and other habitats within easy reach of the current site.

Archaeological and Historical Context

Late Iron Age/ Romano-British

4.4 At the time of the Late Iron Age/ Romano-British transition, the current site occupied the 'core' of tribal Britain, within the territory of the Trinovantes, one of two major tribal groups occupying land to the north of the Thames (Cunliffe 2010, 149, 159 and fig. 7.9). The Portable Antiquities Scheme (PAS) database (https://finds.org.uk/database/) includes a number of Iron Age coins from Babergh District including a gold Trinovantian stater of Cunobelin from Lavenham (PAS ID: SF-813F85) and a quarter stater from Preston St Mary (PAS ID: CCI-2003). A continental Gallo-Belgic stater (PAS ID: CCI-02002) and a Gallo-Belgic E uniface stater (SHER COG 001) are also recorded from Great Cornard. However, later prehistoric evidence from the immediate vicinity of the excavation is relatively scant, comprising concentrations of struck flint and Bronze Age/ Iron Age pottery. The findings of the excavation do little to redress this pattern, although ard marks encountered within the base of Hollow F1135 are thought to be of prehistoric date.

4.5 Romano-British activity is better represented, however, and includes evidence of extended occupation from within the current site (Fig. 5). Finds from the surrounding area include Roman coins spanning the entire occupation, while sites within a 5km radius of the site include villas at Liston Lane and to the north-east of Rodbridge House, Long Melford (SHERs LMD 017 and LMD 042), and sections of Roman road, e.g. at Acton and Newton (SHERs ACT 019 and NEN 002). The closest of these is located just 1.4km to the north-east. The site's location, within easy reach of road links and the wider Roman infrastructure would have provided easy access to urban centres including Wixoe Roman Town (Atkins 2012), some 19km to the west of Great Cornard, and Colchester (*Camulodunum*) – the onetime capital of Roman Britain – *c.* 18km to the south-east.

Anglo-Saxon

4.6 The situation of the Anglo-Saxon site on easily tilled soils close to a navigable river is typical of the period in East Anglia (West 1999, 44). From the late prehistoric to the early Anglo-Saxon period in England, the light, fertile soils of river valleys were the chief focus of clearance, settlement and cultivation, with the rivers themselves forming major arteries for communication and commerce (Mudd 2002, 3; Williamson 2010, 146, 152). Suffolk's central 'claylands' are devoid of early settlement evidence, with the exploitation of these heavier soils only beginning around AD 650-850 (*ibid.;* Wade 1999, 46). Settlement evidence from within the northern area of the current site includes pottery, personalia and a socketed iron spearhead [of possible Saxon date] (Muldowney 2009, 37; Rolfe 2007; Fig. 5). Early Anglo-Saxon settlement evidence in the wider area includes funerary sites (West 1999, 44-5), while the later Anglo-Saxon landscape (from the early 7th century) included a town at Sudbury (cf. Lewis and Ranson 2014, 10; Wade 1999, 46-7). It appears, therefore,

that the site was located within a continuously settled landscape, within easy reach of settlements and, latterly, an urban centre. These would have provided the basis of a local trade and exchange network with wider reaching connections both overland and via the Stour.

Phase 1: Early Romano-British (1st to 2nd Century AD)

Summary

4.7 Within the confines of the excavation, the early Romano-British landscape appeared distinctly agricultural, being chiefly defined by a system of boundary ditches, albeit fragmentary, which are thought to have formed parts of enclosures. Also present was a possible working hollow, contained by Natural Hollow F1135 and further defined by a series of short, curvilinear ditches. The working hollow contained numerous postholes, cut into an early Roman layer (L1136) containing significant quantities of domestic refuse; thought to derive from a nearby settlement. The earliest Phase 1 activity within Hollow F1135 was characterised by a series of linear ditches and a small number of pits, cut into its base; some of these truncated ard marks of probable prehistoric date. An intercutting group of possible quarry pits was located close to the southern limits of the excavation, cut into Natural L1002. The recovered pottery assemblage provides a 1st to 2nd century AD date for Phase 1, while environmental remains attest to a mixed agricultural economy based on crop and animal husbandry.

Evidence of Activity

4.8 The Phase 1 ditches included a number of remnant boundary features within the central and southern area of excavation (Figs. 5-7). The best surviving of these comprised Ditches F1003, F1142 and F1077 (two of which were intercutting), which ran for approximately 27.5m down the slope of the site. Although this probably represents an enclosure boundary, the remaining Phase 1 ditches were less well preserved and no enclosures were positively identified. Possible fencelines were also identified, notably running parallel to the above boundary, although these were relatively insubstantial and their interpretation is by no means certain. The generally poor preservation of Phase 1 boundaries is thought reflect truncation by modern ploughing; the forerunning evaluation encountered deep plough damage along the ridge of the site (Muldowney 2009, 11). Romano-British enclosures are common across East Anglia, being typical of the '… extensively and continuously bounded landscapes' recorded throughout southern and central England (Taylor 2007, 113). Other Roman ditches within the local landscape include field boundaries at Great Cornard Reinforcement Main (Little Cornard; SHER COL 033), some 2.1km to the south-east, and settlement ditches recorded at Bramertons, Long Melford (SHER LMD 131). Suffolk sites including more extensive field/ enclosure systems include Beck Row, Mildenhall (Bales 2004), Cedars Park, Stowmarket (Nicholson and Woolhouse 2016) and Church Road, Snape (Mustchin and Peachey forthcoming). While the ascribed functions of Romano-British fields/ enclosures differ from site to site, the Mildenhall and Stowmarket examples were primarily agricultural. Substantial agricultural enclosures have also been excavated at North Stud, Woodditton and Childerley Gate in Cambridgeshire (Abrams and Ingham 2008; Mustchin *et al.* 2016). Both sites were characterised by mixed agricultural

economies. The environmental remains from Great Cornard suggest a similarly mixed economic base, principally comprising crop husbandry – with a particular focus on spelt wheat and hulled barley – and pastoral activity (see below), while finds from the Phase 1 site indicate the presence of a nearby settlement, possibly to the north-east. As such, any enclosures may represent elements of 'infield' agriculture on the periphery of this settlement. The recovered Phase 1 animal bone includes all major 'farmyard' species, although identifiable fragments were few.

4.9 Natural Hollow F1135 was associated with at least two episodes of Phase 1 ditch digging. Seven ditches were cut in to the base of the F1135, while five ditches, including two recut features, traced its western/ north-western edge (Figs. 5-6). These marginal ditches appeared to post-date features within the base of the hollow, all of which were physically sealed by Layer L1136. While the earlier ditches are difficult to interpret, those on the edge of F1135 appear to deliberately demarcate the hollow. The enclosure of natural features, including hollows, is often associated with attempts by prehistoric societies to 'monumentalise' such features, defining their significance and separating them from the surrounding landscape (Simmonds 2011, 30). Bradley (1991; 2000) especially has highlighted the incorporation of natural features into prehistoric monuments (after Simmonds 2011, 30). While later examples are rare, a Romano-British (1st to 3rd century AD) hollow associated with ritual feasting has been excavated at Ashwell near Baldock (Hertfordshire) (Burleigh 2015). Unlike the current example, however, the Ashwell hollow contained structured features and deposits including a central clay hearth associated with a rich artefactual and ecofactual assemblage (*ibid*.).

4.10 The lack of obviously 'special' or structured deposits associated with Hollow F1135 might suggest that it formed a midden – following the backfilling of features cutting its base – or a possible 'working' hollow, demarcated by the surrounding ditches. The expedient disposal of refuse into natural features is common to many periods (e.g. Garrow 2000; Wilson *et al.* 2012, 130), with Romano-British examples including a deliberately backfilled hollow at Par in Cornwall (Sims and Vallentin 2011), and a large shallow pit of hollow at Acle, Springfield (Norfolk) which yielded over 5000 sherds of Roman pottery, CBM, animal bone and shell (Whitmore 2009, 135). Layer L1136 at the current site contained a notable concentration of early Roman pottery (170 sherds (2121g)) with lesser quantities of CBM, animal bone and other material, and most probably represents the disposal of domestic refuse. Working hollows are also common to numerous periods (e.g. Bishop and Proctor 2011, 94; Lovell 2002, 52), with Romano-British examples known from Littlehampton (West Sussex), Spong Hill and High Noon Road, Colby (Norfolk) (Lovell 2002, 27; Rickett 1995, 32. 35 and 151; Wilson *et al.* 2012, 85). Examples from military sites have also been excavated at Rhyn Park (Shropshire) (http://search.shropshire.org.uk/collections/getrecord/CCS_MSA449) and Binchester Roman Fort, County Durham (http://binchesterblogspot.co.uk/2015/05/exciting-new-dating-evidence-from.html). Such hollows can have a number of uses, including metalworking (e.g. Wilson *et al.* 2012, 85) and agricultural processing (Lovell 2002, 27). The processing hollow at Littlehampton contained various pits and postholes/ stakeholes associated with its use. The basal fill of F1135 at Great Cornard was also cut by 13 postholes, although their purpose remains uncertain. Features within and around the hollow (associated with the second episode of ditch digging) contained only modest quantities of finds. In contrast, an environmental sample from

Fill L1157B (Ditch F1156) produced common cereal grains (dominated by barley), indicative of local bulk processing. However, this dump of material cannot be confidently associated with activity within the immediate vicinity of F1135.

4.11 Also of significance within Phase 1 was a series of intercutting quarry pits close to the southern limits of the excavation. These appear to be related sand extraction in this part of the site, possibly for use in construction (e.g. Humphrey *et al.* 1998, 229-30 and 235). The concentrated nature of the pits, accepting the limited size of the excavated area, might imply targeted quarrying and/ or a limited period of extraction activity. Certainly, the homogenous nature of fills associated with several of the pits would tend to imply that they were backfilled using material from a single source, possibly within a short timescale. Finds from these features were scarce and environmental sampling yielded nothing of note. Regardless of primary function, therefore, the pits do not appear to have been utilised for refuse disposal, perhaps illustrating a location further from the core of contemporary settlement.

The Early Romano-British Economy

4.12 Despite being peripheral to the core of Roman settlement activity, the current site contained useful economic evidence. The Phase 1 animal bone assemblage, a large part of which was derived from Layer L1136 within Hollow F1135, is dominated by cattle and sheep/goat, although positively identifiable fragments were few and cannot be used to infer the specifics of any particular pastoral system. However, while the immediate landscape is best suited to cereal agriculture, grazing and pig rearing are both historically attested within the parish (http://opendomesday.org), while more intensive grazing probably occurred closer to the River Stour on soils of the Thames Association (Fig. 4); these 'mainly calcareous clayey soils' support permanent grassland in most areas (SSEW 1983, 19). If animals were being farmed at the current site, some level of transhumance between this location and more favourable grazing lands might be inferred. Similar movement of livestock has been suggested elsewhere (cf. Mustchin *et al.* 2016), while the large-scale transhumance of livestock in Roman Britain has been widely suggested, not least based on the demands of the Roman military population of the frontier (cf. Stallibrass 2009).

4.13 Environmental remains attest to local crop husbandry, dominated by the production and processing/ use of spelt wheat and hulled barley (see *The Environmental Samples*). Oat and flax also made a minor economic contribution, although flax may be underrepresented (*ibid*.). The predominance of spelt wheat and barley within Romano-British arable systems is evidenced at numerous sites across southern Britain, including Higham Ferrers Site 3 (Northamptonshire), Great Holts Farm (Essex), Haddon (Peterborough), Westhawk Farm (Kent), Poundbury Farm (Dorset) and within the Danebury environs (Hampshire) (Campbell 2008; Carruthers 2004; Fryer 2003; Murphy 2003; Pelling 2008 and 2011). It is probable that the current site had strong economic ties to local/ regional market centres, including Wixoe, to the west, Long Melford, to the north and Colchester (*Camulodunum*), to the south-east. However, the extent to which local agricultural products were supplied to these is towns difficult to determine based on the current evidence. Nonetheless, the presence of fine wares including samian in the pottery assemblage does indicate some degree of access to broader Roman markets including continental Europe (see *The Roman Pottery*). A single body sherd of

Baetican amphorae from Ditch F1156 is almost certainly from a Dressel 20 amphorae used to transport olive oil from southern Spain (*ibid*.).

Phase 2: Late Romano-British (3rd/ 4th AD)

4.14 The late Romano-British period is almost exclusively evidenced by material from Layer L1137, within the upper profile of Hollow L1135. A single Phase 2 pit (F1115) was present some 11m to the south, but yielded little in terms of material culture. Although the general absence of features suggests a shift in the nature and/ or focus of local activity by the 3rd/ 4th centuries AD, the material from L1137 strongly implies continued settlement within the immediate vicinity. The late Roman pottery from this layer, comprising just 36 sherds, appears consistent with domestic consumption and discard, and is not significantly abraded. L1137 yielded a significant quantity of early Roman sherds, however, thought to indicate residual material introduced from earlier features/ deposits via ploughing. L1137 also contained the majority of the Saxon pottery assemblage, all of which is heavily abraded (see below). Of particular note from this layer is a fragment of crucible, of Romano-British or later date. Similar examples include crucibles associated with iron working at Little Oakley Villa (Barford 2002, 91: MD1-2), while comparable examples were also utilised in the 10th-13th centuries (Bayley 1992, 4-5).

4.15 Tegula roof tile forms the bulk of the Roman CBM from L1137 and, although not occurring in quantities to suggest the presence of a building within the site, does suggest some form of substantial Romano-British building in the near vicinity (cf. Mustchin 2015; Mustchin and Peachey forthcoming).

Phase 3: Anglo-Saxon (Late 4th to Mid 8th Century AD)

4.16 Other than continued activity/ discard within the area of Hollow L1135, there is little evidence from the excavation to suggest direct continuity of late Romano-British and early Anglo-Saxon settlement. Nonetheless, such might be inferred based on earlier finds from the site of 5th century AD belt fittings of a type usually associated with Romans of an official or military position (after Rolfe 2007, 6). However, the current evidence, predominantly derived from Layer L1137, is thought largely suggestive of agricultural exploitation of the site during Phase 3, with the abraded nature of the Saxon pottery possibly implying re-deposition/ reworking as a result of ploughing (or other processes). It is also possible that the Saxon material, totalling just 29 sherds, was introduced from middens, located elsewhere within the landscape, via manuring. It is not thought that the assemblage is of a size or quality to indicate the presence of a settlement within the immediate area of the excavation (cf. Barford 2002, 198). Soil improvement strategies may well have been the source of the Phase 3 pottery, especially as middens of this date (and associated settlement archaeology) were not identified (cf. Banham and Faith 2014, 43). At Raunds in Northamptonshire, spreads of 9th and 10th century pottery demonstrate the intensive manuring of large areas of infield (Oosthuizen 2011, 392-3; Oosthuizen 2013, 63). However, the clear spatial patterning of animal bone from Layer L1137 at the current site (see *The Animal Bone*) strongly suggests that this context was subject to only minimal disturbance, and may in fact represent a substantial midden deposit.

4.17 Radiocarbon dating of Pit F1121 produced a calibrated date range of 406-544 calAD at 95.4% confidence. Although incorporating the very final years of the Roman occupation (dated AD43-410), the vast majority of this range sits within the Anglo-Saxon period. F1121 is thought to have been deliberately dug for the disposal of industrial waste associated with the final firing and dismantling of an iron furnace (see *The Slag*). The slag assemblage was dominated by tap slag, indicative of a high temperature process. Charcoal from F1121 was dominated by ash with lesser quantities of oak and other species (see *The Environmental Samples*). Both oak and ash have densities of 550kg per cubic meter, making both species highly desirable as fuel (Mytting 2015, 58 and 62). A middle Saxon 'developed bowl' furnace with slag tapping facilities has previously been identified at Ramsbury in Wiltshire (Haslam *et al.* 1980), while an iron furnace of the same date is reported from the Suffolk site of Burrow Hill (SHER BUT 001). The material from F1121 at Great Cornard is unlikely to have been transported any distance for deposition, and it is very probable that the furnace site is located only a short distance beyond the edge of excavation.

5 CONCLUSIONS

5.1 The encountered 1st to early 2nd century AD archaeology adds usefully to our understanding of the early post-Conquest period around Great Cornard, to the east of the River Stour. While, buildings and other primary evidence of occupation was lacking within the excavated area, the nature of the recovered finds assemblage, including a significant quantity of pottery, strongly suggests a settlement of some description – probably a farmstead – in the immediate vicinity. A concentration of Roman pottery in the north-east of excavation, within and around Hollow F1135, may indicate that the core of settlement activity lay a short distance to the east or north-east. F1135 is thought to have been used as a working hollow, although the precise nature of associated activity is difficult to define. The Romano-British economy appears to have been overwhelmingly agricultural, however, including good evidence of crop husbandry on the site's easily tilled, fertile soils. The poor preservation of animal bone prevents any detailed appraisal of the arable economy, although all major domestic ungulates are represented.

5.2 Of principal significance within the Anglo-Saxon site was Pit F1121. Slag and furnace material from this feature attests to industrial activity within the immediate vicinity, almost certainly linked to a neighbouring settlement. Previous finds of Anglo-Saxon material including pottery, brooches and coins from within the current site (Fig. 5) also attest to a local focus of activity, with an emphasis on the 5th century AD. Abraded Saxon pottery from Layer L1136 (uppermost within Hollow L1135) has been dated between the 5th and 8th centuries AD, while a single grass tempered sherd appears to be of 6th/ 7th century date. Natural Hollow F1135 appears to have received a selection of Anglo-Saxo midden material, once again suggesting nearby settlement activity. However, Saxon pottery from L1137, within the upper part of the hollow, was heavily abraded, which is thought to suggest at least secondary deposition into the hollow from elsewhere; possibly a primary midden deposit or surface scatters.

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APPENDIX 1 CONCORDANCE OF FINDS

Feature	Context	Segment/ Grid Square	Description	Spot Date (Pottery Only)	Pottery (Count)	Pottery (g)	CBM (g)	Animal Bone (g)	Other Material	Other (Count)	Other (g)
1003	1004	A	Ditch Fill	Mid-Late 1st C AD	6	255			**SF1** Spindle whorl	1	26
		B			49	1473		19	Fired clay		85
		C			7	87	10				
		D			1	12		2			
		F						23			
		H			2	40			Fired clay	1	10
1005	1006		Ditch fill	Mid-Late 1st C AD	1	3					
1014	1015	B	Ditch fill	Mid-Late 1st C AD	11	166			Fired clay		43
1018	1019		Posthole fill	Mid-Late 1st C AD	1	83					
1029	1030		Posthole fill	Roman	2	8					
1045	1046		Pit fill	Mid-Late 1st C AD	1	10		15	Burnt flint	1	202
1043	1044		Pit fill						**SF2** Cu	1	1
1051	1052		Pit fill	Mid-Late 1st C AD	3	29			Fired clay		35
1053	1054		Pit fill	Mid-Late 1st C AD	2	37					
1057	1058	A	Pit fill	Mid-Late 1st C AD	11	134	23		Struck flint	1	10
		B		Mid-Late 1st C AD	3	20			Burnt flint	1	21
1061	1062		Posthole fill	Mid-Late 1st C AD	2	56					
1075	1076		Posthole fill					4	Burnt flint	1	12
1077	1078		Ditch fill	Mid-Late 1st C AD	6	155	41				
1082	1083		Posthole fill	Mid-Late 1st C AD	1	2					
1086	1087		Ditch fill	Mid-Late 1st C AD	1	8	15				
1088	1090		Pit fill						Burnt flint		172
1095	1096		Pit fill	Mid-Late 1st C AD	1	2			Burnt flint		131
1097	1098		Pit fill	Mid-Late 1st C AD	2	23					
1113	1114		Posthole fill	Saxon	2	41					
1115	1116		Pit fill	4th C AD	1	40					
1117	1118		Posthole fill	Mid 1st-2nd C AD	4	40	212				
1119	1120		Posthole fill						Struck flint	1	1
1121	1122		Pit fill						Slag		21538
	1123		Pit fill						Slag		2738
	1124		Pit fill	Mid-Late 1st C AD	9	58			Slag Fired clay		4952 1674
1127	1128		Posthole fill	Saxon (1 sherd; remainder Mid-Late 1st C AD)	7	121	33	26			
1129	1130	A	Ditch fill	Mid-Late 1st C AD	11	266					
		B		Mid-Late 1st C AD	6	82					
1135	1136	A3	Layer	Mid-Late 1st C AD	9	122					
		A5		Mid-Late 1st C AD	11	170	11	50	Fired clay		38
		A6		Mid-Late 1st C AD	1	9		84			
		A8		Mid-Late 1st C AD	2	68					

		B4		Mid 1st-2nd C AD	11	102		6	Burnt bone	1	1
		B5		Mid-Late 1st C AD	3	27	65	20			
		C2		Mid-Late 1st C AD	13	187					
		C3		Mid-Late 1st C AD	5	25					
		C4		Mid-Late 1st C AD	9	97		13	Struck flint	1	4
		C5		Mid-Late 1st C AD	8	55					
		C6		Medieval, 11-13th C (1 sherd; remainder Mid-Late 1st C AD)	8	56		29			
		C7		Mid 1st-2nd C AD	5	33		26	Fired clay	3	20
		C8					14				
		D2		Mid 1st-2nd C AD	2	7					
		D3		Mid 1st-2nd C AD	4	33					
		D5		Saxon (1 sherd; remainder Mid-Late 1st C AD)	21	180	6	20	Struck flint	1	1
		D7		Mid-Late 1st C AD	13	121	5		Struck flint	1	21
		D9		Mid-Late 1st C AD	19	84		15	Fired clay	2	26
		E3		Mid 1st-2nd C AD	9	38			Struck flint	1	5
		E6					18	18			
		E8		(Early?) Roman	2	3					
		F4		Mid-Late 1st C AD	17	145		6	Struck flint	1	3
		F5		Mid-Late 1st C AD	6	101		10	Struck flint	1	3
	1137	-	Layer				70		Struck flint	1	5
		A3		2nd-Mid 3rd C AD	7	29	202	65			
		A4		Medieval (1 sherd Med; 5 sherds Saxon; remainder 4th C AD)	23	473	541	495	Fired clay Slag Pumice	 2	49 1010 55
		A5		Saxon (7 sherds; remainder 4th C AD)	21	267	93	693	Slag **SF3** Fe **SF4** Fe Struck flint Fired clay	1 1 1 2 3	69 14 5 16 125
		A6		Saxon (1 sherd; remainder 4th C AD)	6	26	85	177	Crucible	1	389
		A7		Mid-Late 1st C AD	7	61	104	31			
		A8		Saxon (1 sherd; remainder 4th C AD)	6	133	16	454	Struck flint	1	16
		A9		Mid 1st-2nd C AD	6	71	61	87			
		A10		Mid-Late 1st C AD	1	6	93	76	Fired clay	1	34
		B3		Mid-Late 1st C AD	4	15	59	31			
		B4		Saxon (3 sherds; remainder 4th C AD)	11	82	413	177	Burnt flint **SF5** Fe Pumice Slag	1 1 1	5 2 34 258
		B5		Saxon (5 sherds; remainder 4th C AD)	20	374	508	578	Burnt flint	2	64
		B6		Saxon (1 sherd; remainder 4th C AD)	6	57	456	207	Fired clay	1	56
									Burnt flint	1	60
		B7		Saxon	1	6	167	24	Pumice	1	11
		B9		Mid-Late 1st C AD	2	25					

		C4		Mid-Late 1st C AD	1	6			**SF6** Fe **SF7** Fe **SF8** Fe	1 1 1	2 6 12
		C5		Mid-Late 1st C AD	6	19	261	260	Struck flint	2	10
									Fired clay	4	27
		C6		Saxon (1 sherd; remainder 4th C AD)	6	115	834	77			
		C7		Saxon (1 sherd; remainder Mid-Late 1st C AD)	7	76		119	Burnt flint	1	85
		C8		Mid-Late 1st C AD	2	13	7	143			
		C9		4th C AD	1	28		16			
		D5		Mid-Late 1st C AD	8	99					
		D8		Roman	3	14					
1156	1157	-	Ditch fill	Mid 1st-2nd C AD	2	11		56			
		A		Mid-Late 1st C AD	13	303			Struck flint	2	34
		B		Mid-Late 1st C AD	8	106	1		Struck flint	1	4
		C		Mid-Late 1st C AD	5	27					
		E		Roman	1	23					
1158	1159	-	Ditch fill	Mid-Late 1st C AD	8	276		35	Struck flint	1	16
		B		Mid-Late 1st C AD	9	60					
1162	1163	-	Ditch fill	Roman	1	2		5			
		B		Mid-Late 1st C AD	2	17	9				
1164	1165	-	Ditch fill	Mid-Late 1st C AD	1	11					
		D		Mid-Late 1st C AD	6	41					
		F		Mid-Late 1st C AD	5	64		9	Struck flint	1	6
1166	1167		Pit fill	Mid-Late 1st C AD	1	20			Fired clay	2	18
	1168		Pit fill	Mid-Late 1st C AD	2	12					
1169	1170	A	Ditch fill	Mid-Late 1st C AD	3	8					
		C						4			
		D		Mid-Late 1st C AD	8	67		16			
1171	1172	A	Ditch fill	Mid-Late 1st C AD	4	45	89				
1173	1174		Pit fill	Mid-Late 1st C AD	4	13		4			
1175	1176		Pit fill					8			
1177	1178	A	Ditch fill	Roman	1	2					
1179	1180		Posthole fill	Mid-Late 1st C AD	1	4					
1185	1186		Posthole fill	Mid-Late 1st C AD	1	7					
1187	1188		Posthole fill	Mid-Late 1st C AD	1	3		3			
1192	1193		Posthole fill	Roman	1	19					
1196	1197	B	Ditch fill	Mid-Late 1st C AD	19	186					

APPENDIX 2 OASIS DATA COLLECTION FORM

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: archaeol7-305050

Project details

Project name	Land East of Carsons Drive, Great Cornard, Suffolk
Short description of the project	This report comprises the research archive for an archaeological excavation at land to the east of Carsons Drive, Great Cornard, Suffolk, carried out by Archaeological Solutions Ltd (AS) in 2017. It follows a desk-based assessment (Rolfe 2007) and an archaeological evaluation (Muldowney 2009), both conducted by Suffolk County Council Archaeological Service, and a geophysical survey by GSB Prospection Ltd (2009). The results of the excavation have also been subject to post-excavation assessment (Bull and Mustchin 2017). In keeping with earlier findings from the site and surrounding area, the project principally encountered evidence of Romano-British and Anglo-Saxon activity. The Romano-British site was most probably peripheral to a settlement of some description, while Anglo-Saxon features included a pit containing a large assemblage of iron slag and furnace material associated with local industry at this time. Charcoal from this feature was dominated by ash with lesser quantities of oak and other species; a sample of roundwood charcoal returned a calibrated radiocarbon date of 406-544 calAD at 95.4% confidence. The suspected pond barrow in the northern site area was found to be a natural hollow, although formed a focus of Romano-British and later activity. Layers within this hollow (including a possible plough soil or midden deposit) yielded material dating between the 1st and 8th centuries AD. Recovered environmental remains attest to a mixed agricultural economy in both the Romano-British and Anglo-Saxon periods, while the animal bone assemblage, almost all of which derives from Natural Hollow L1135, contains the usual suite of domestic ungulates. Finds of note include a clay spindle whorl from early Romano-British Ditch F1003 and a crucible fragment from Layer L1137.
Project dates	Start: 23-01-2017 End: 02-03-2017
Previous/future work	Yes / No
Any associated project reference codes	P6688 - Contracting Unit No.
Any associated project reference codes	COG029 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Other 15 - Other
Monument type	DICTHES Roman
Monument type	PITS Roman
Monument type	POSTHOLES Roman

Monument type	PITS Early Medieval
Monument type	POSTHOLE Early Medieval
Significant Finds	STRUCK FLINT Mesolithic
Significant Finds	POTTERY Roman
Significant Finds	CBM Roman
Significant Finds	POTTERY Early Medieval
Significant Finds	SPINDLE WHORL Early Medieval
Significant Finds	POTTERY Medieval
Investigation type	"Full excavation"
Prompt	Planning condition

Project location

Country	England
Site location	SUFFOLK BABERGH GREAT CORNARD Land East of Carsons Drive, Great Cornard, Suffolk
Study area	1.39 Hectares
Site coordinates	TL 6604 5954 52.208586470774 0.430354201191 52 12 30 N 000 25 49 E Point
Height OD / Depth	Min: 35m Max: 62m

Project creators

Name of Organisation	Archaeological Solutions Ltd
Project brief originator	Suffolk County Council Archaeological Service Conservation Team
Project design originator	Jon Murray
Project director/manager	Jon Murray
Project supervisor	Kerrie Bull

Project archives

Physical Archive recipient	Suffolk County Archaeological Store
Physical Contents	"Ceramics","Worked stone/lithics","other"
Digital Archive recipient	Suffolk County Archaeological Store
Digital Contents	"Survey"
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Suffolk County Archaeological Store
Paper Contents	"Survey"
Paper Media available	"Drawing","Photograph","Plan","Report","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land East of Carsons Drive, Great Cornard, Suffolk
Author(s)/Editor(s)	Mustchin, A
Author(s)/Editor(s)	Bull, K
Other bibliographic details	Archaeological Solutions Report No. 5508
Date	2017
Issuer or publisher	Archaeological Solutions Ltd
Place of issue or publication	Bury St Edmunds

Entered by	Sarah Powell (info@ascontracts.co.uk)
Entered on	3 January 2018

OASIS:

Please e-mail Historic England for OASIS help and advice

PLATES

1: Landscape shot, looking south-west from excavation area

2: Site record shot (during excavation), looking south-west

3: Site record shot (during excavation), looking south

4: Grid square excavation of Hollow F1135 (southern half), looking east

5: Phase 1 features truncating the base of Hollow F1135 (mid-excavation), looking east

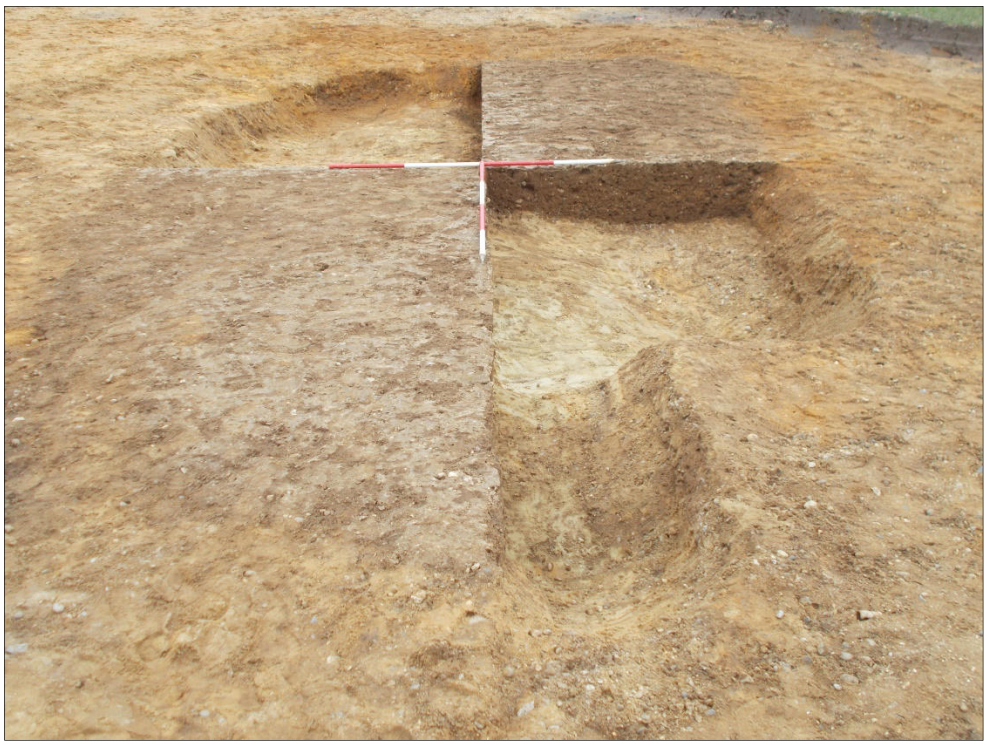
6: Phase 1 features truncating the base of Hollow F1135 (mid-excavation), looking south

7: Phase 1 Ditch F1003B (mid-excavation), looking west

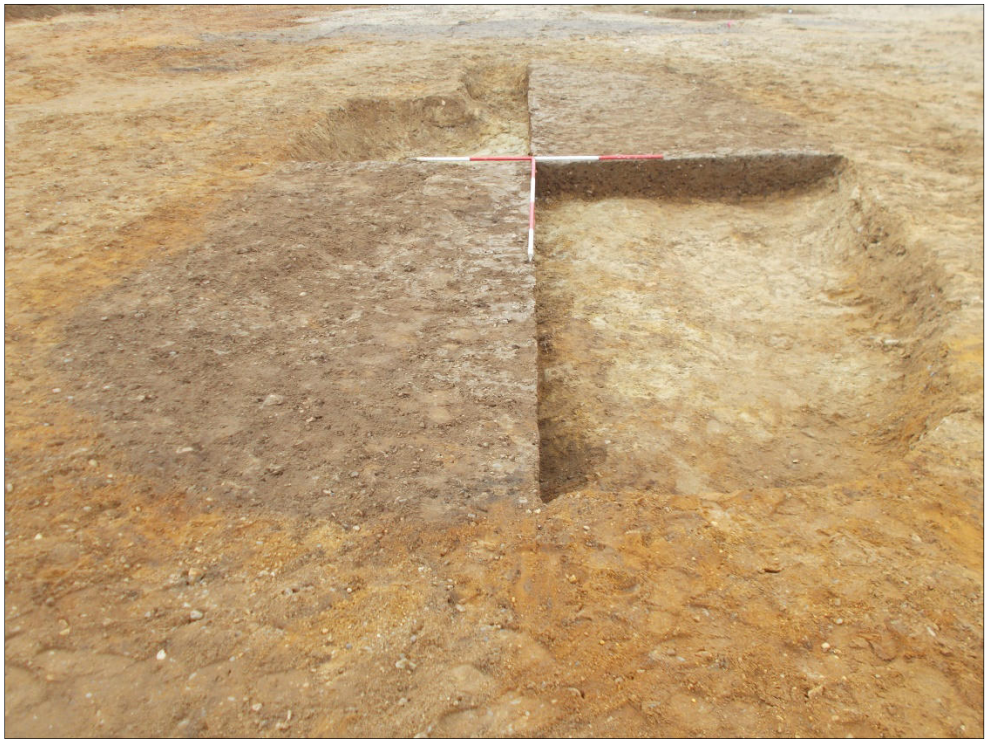
8: Phase 1 Ditch F1003C, looking north-west

9: Sections through Phase 1 Ditches F1003E (right), F1077 (left) and Posthole F1119 (far left), looking north-west

10: Phase 1 Ditch F1005C, looking east



11: Clustered Phase 1 pits (mid-excavation), looking north-east

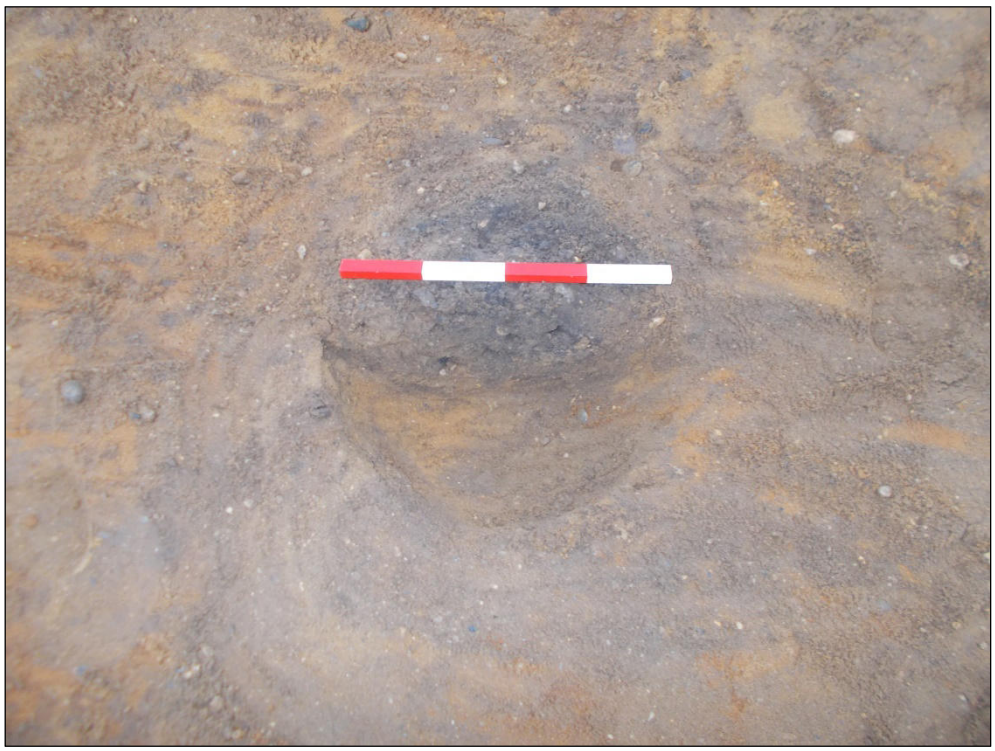


12: Clustered Phase 1 pits (mid-excavation), looking south-west

13: Section through Phase 1 Pit F1166, looking south-west

14: Section through Phase 1 Pit F1051, looking north

15: Section though Phase 2 Pit F1115, looking north-east



16: Section through Phase 3 Posthole F1113, looking north-east

17: Phase 3 Pit F1121 (mid-excavation), looking north

18: Phase 3 Pit F1121 (mid-excavation), looking north

19: Spindle whorl (SF1) from Phase 1 Ditch F1003

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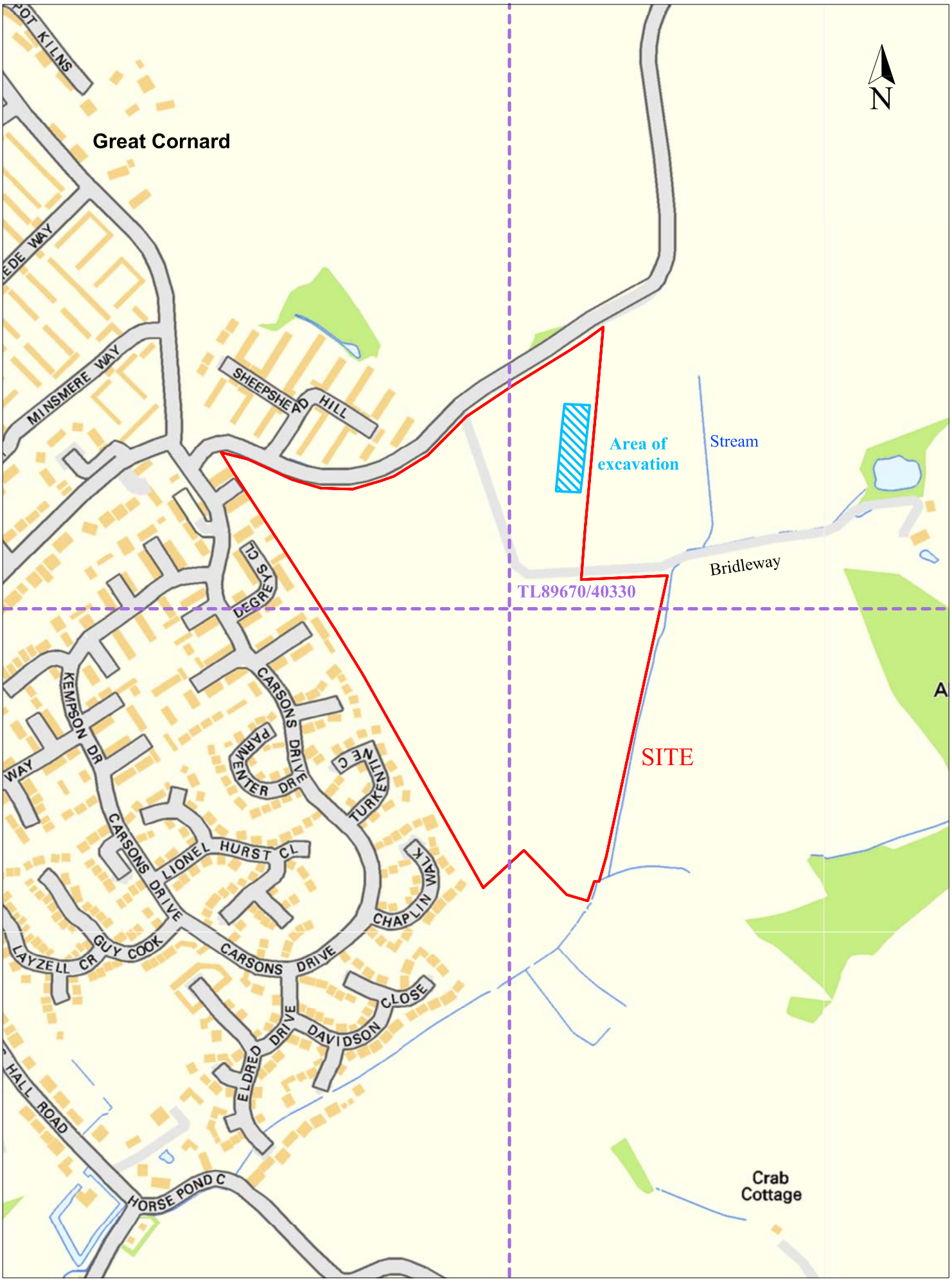
Fig. 1 Site location plan

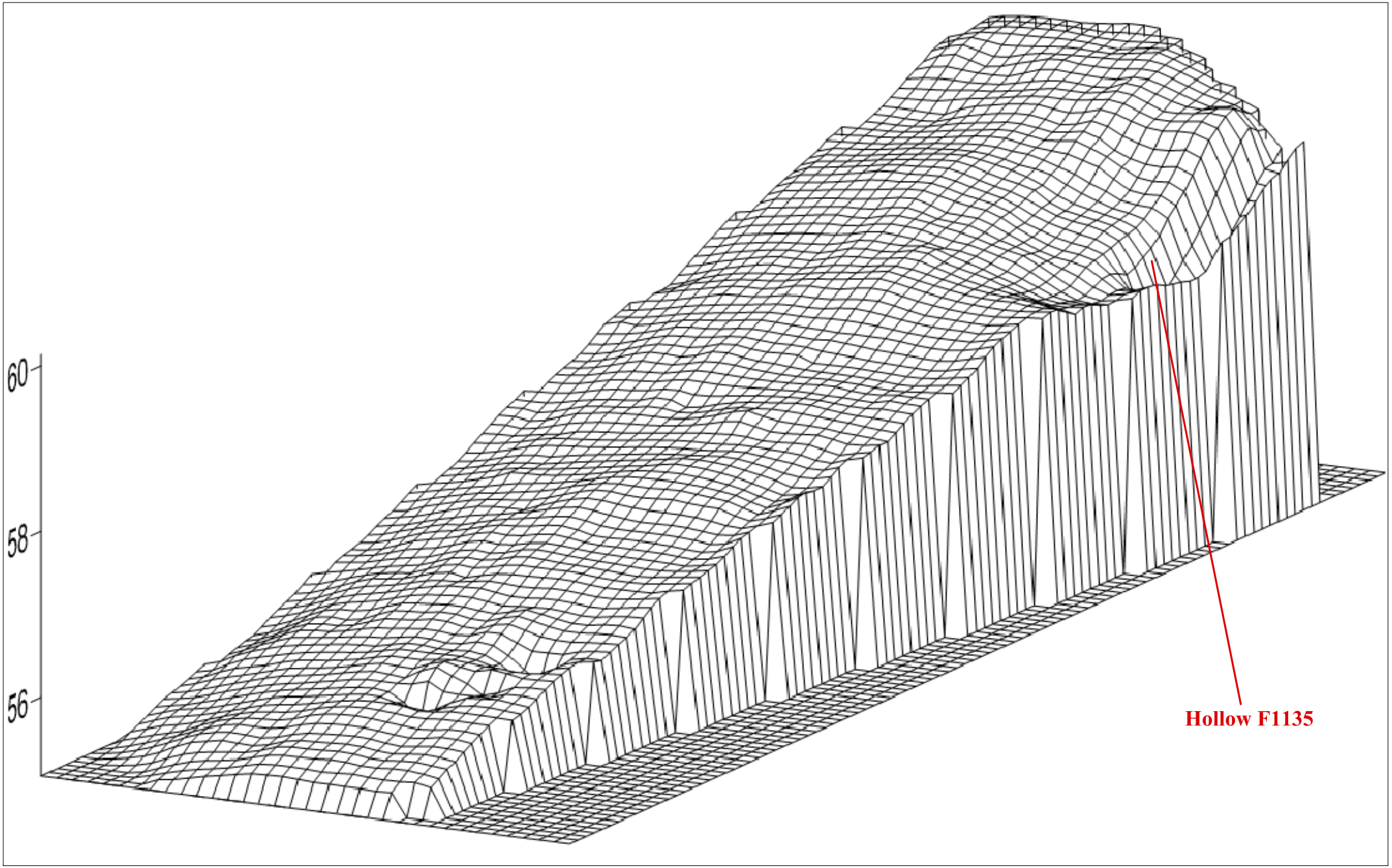
Scale 1:25,000 at A4

Great Cornard, Suffolk (P6688)



0 300m

Archaeological Solutions Ltd
Fig. 2 Detailed site location plan
Scale 1:5000 at A4
Great Cornard, Suffolk (P6688)

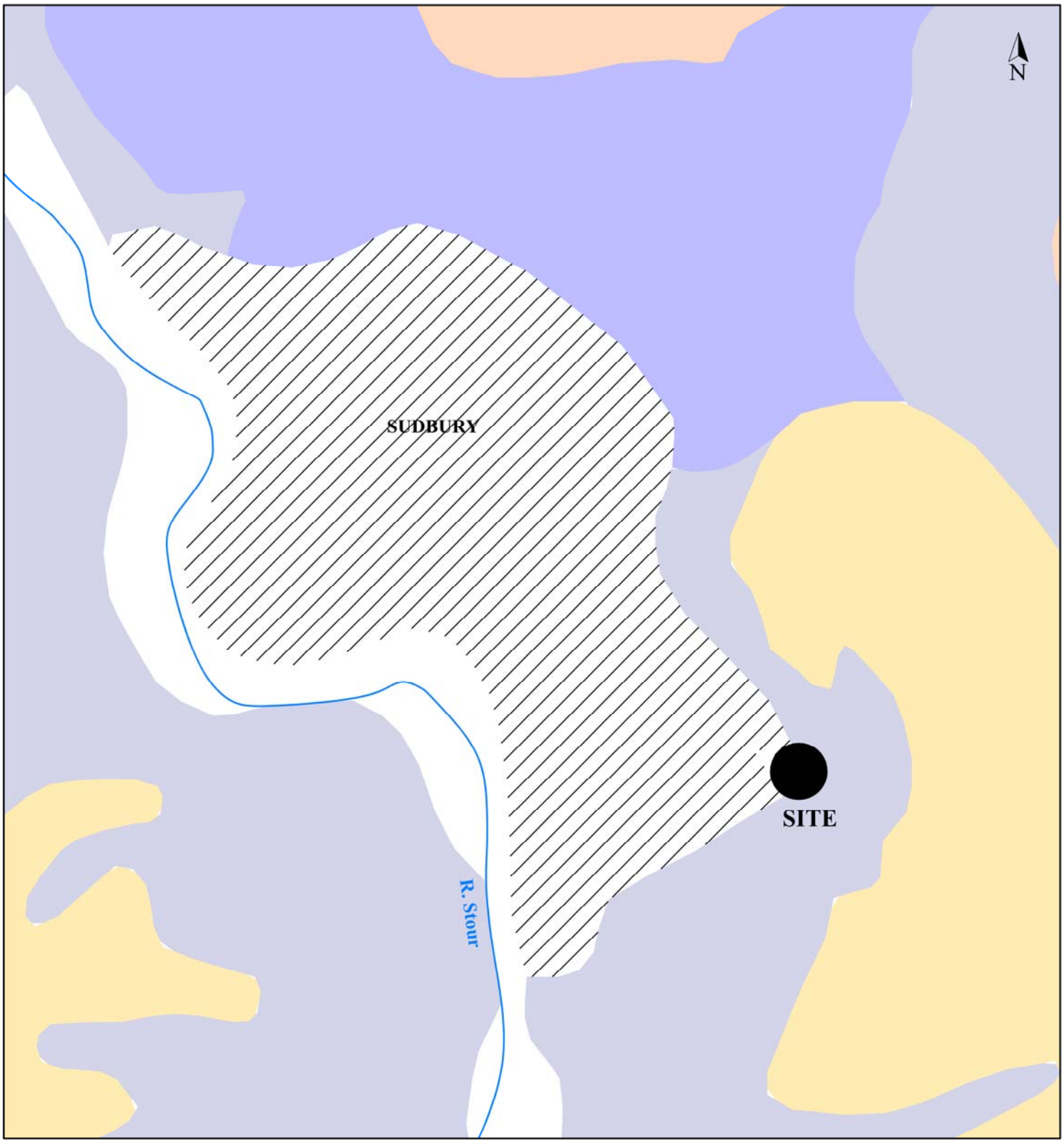


Archaeological Solutions Ltd

Fig. 3 Topography of natural geology

Not to scale

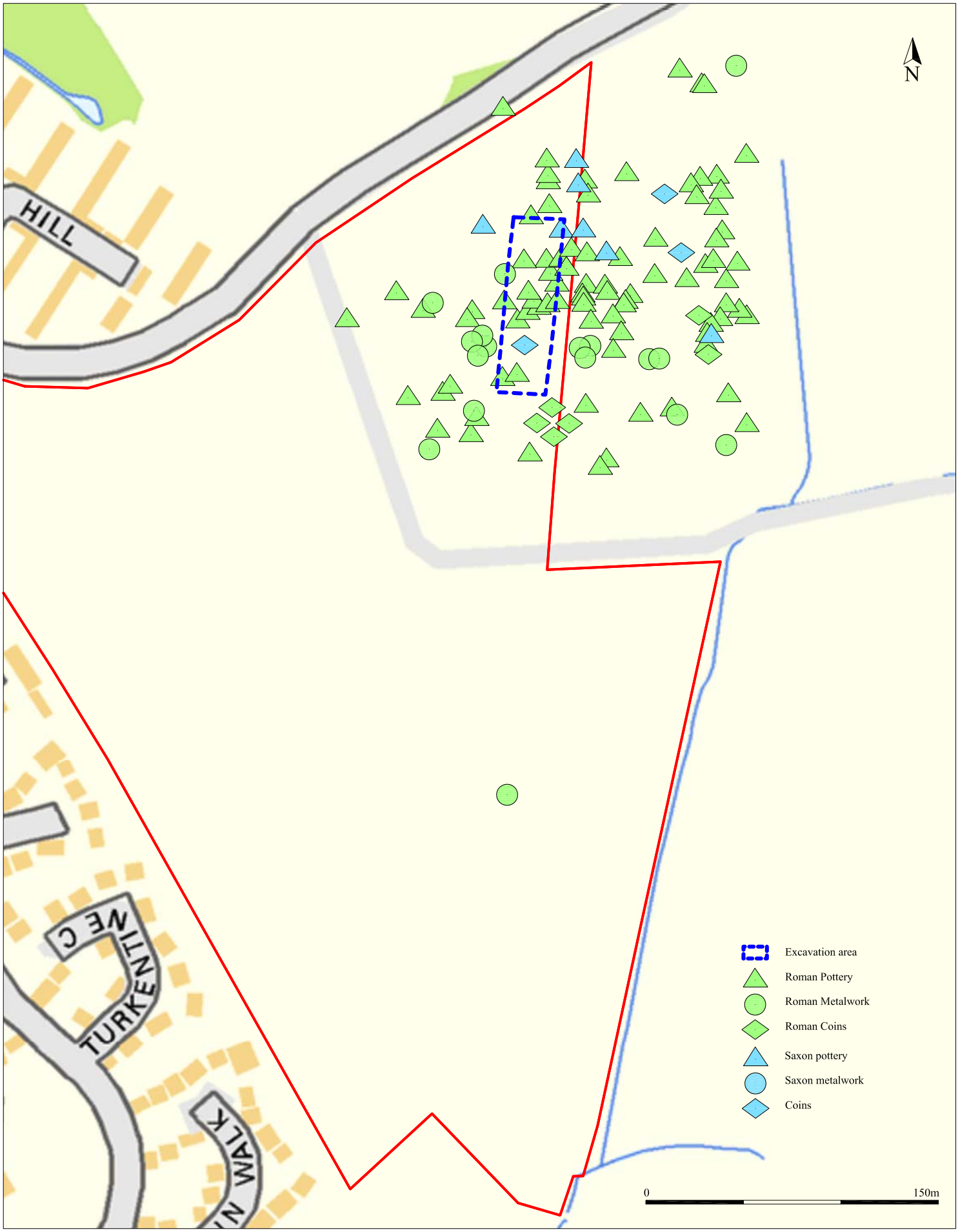
Great Cornard, Suffolk (P6688)



U - Unsurveyed urban area
582d - Hornbeam 3
411d - Hanslope
571x - Ludford
571o - Melford
814a - Thames

0 1500m

Archaeological Solutions Ltd
Fig. 4 Soils map
Scale 1:25,000 at A4
Great Cornard, Suffolk (P6688)

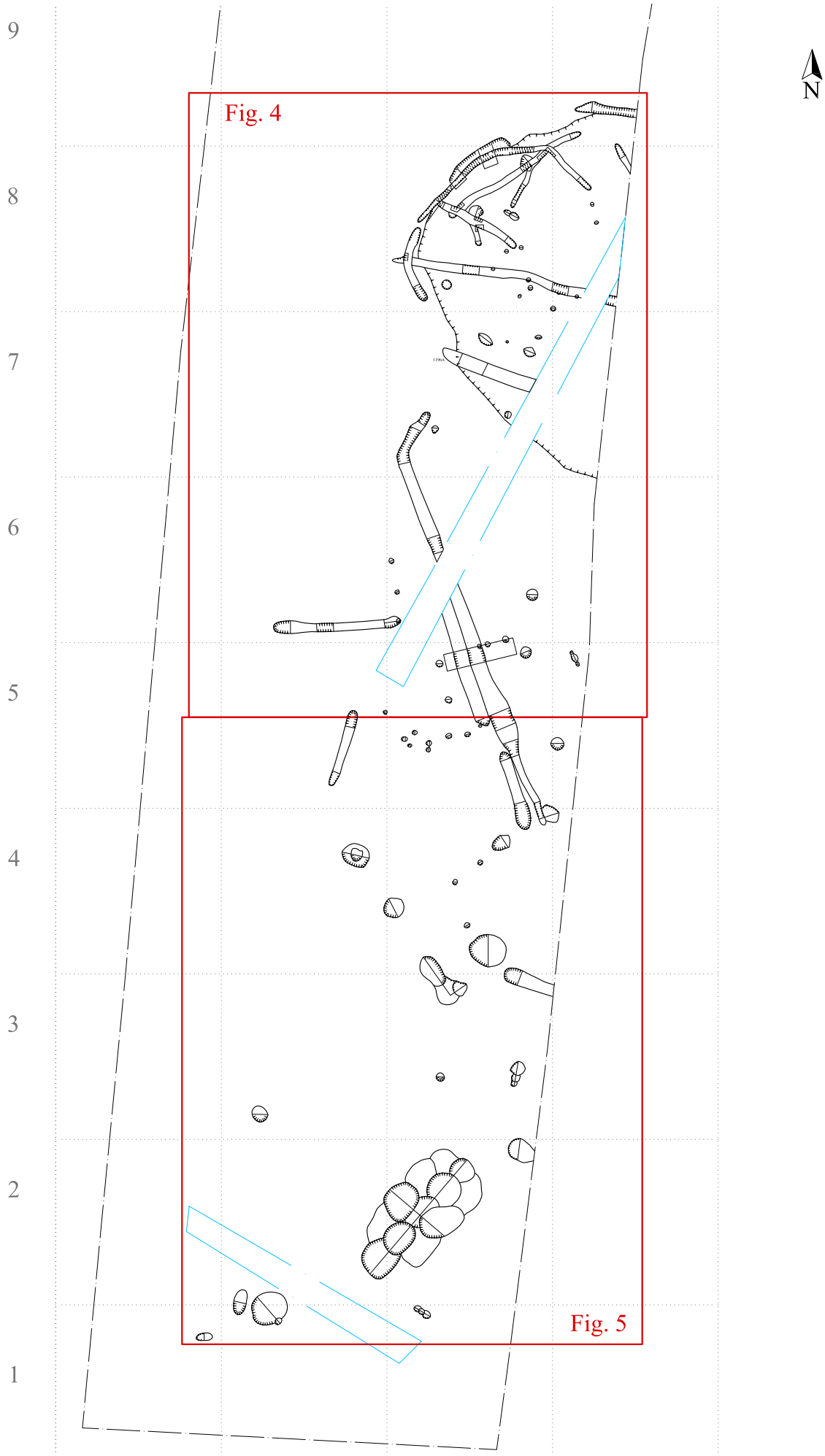


Archaeological Solutions Ltd

Fig. 5 Distribution of Roman and Anglo-Saxon material after Rolfe (2007)

Scale 1:2500 at A4

Great Cornard, Suffolk (P6688)



0 15m

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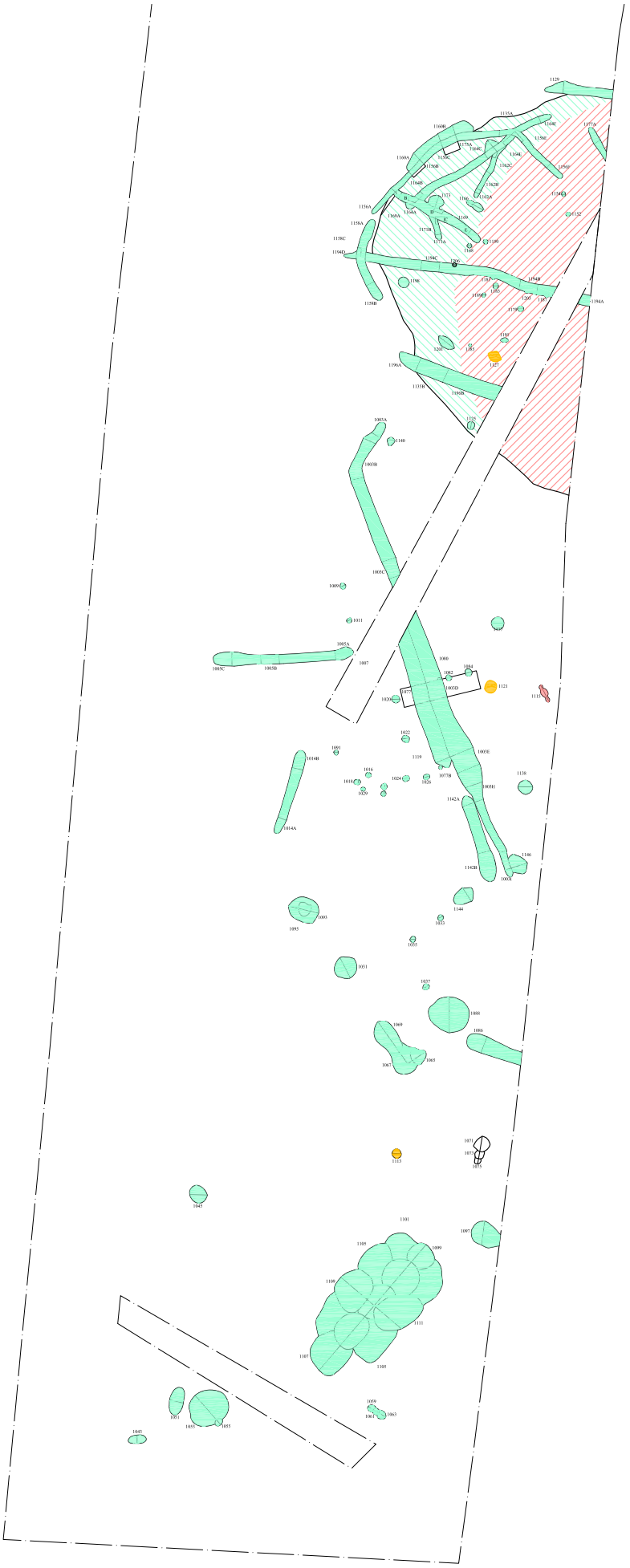
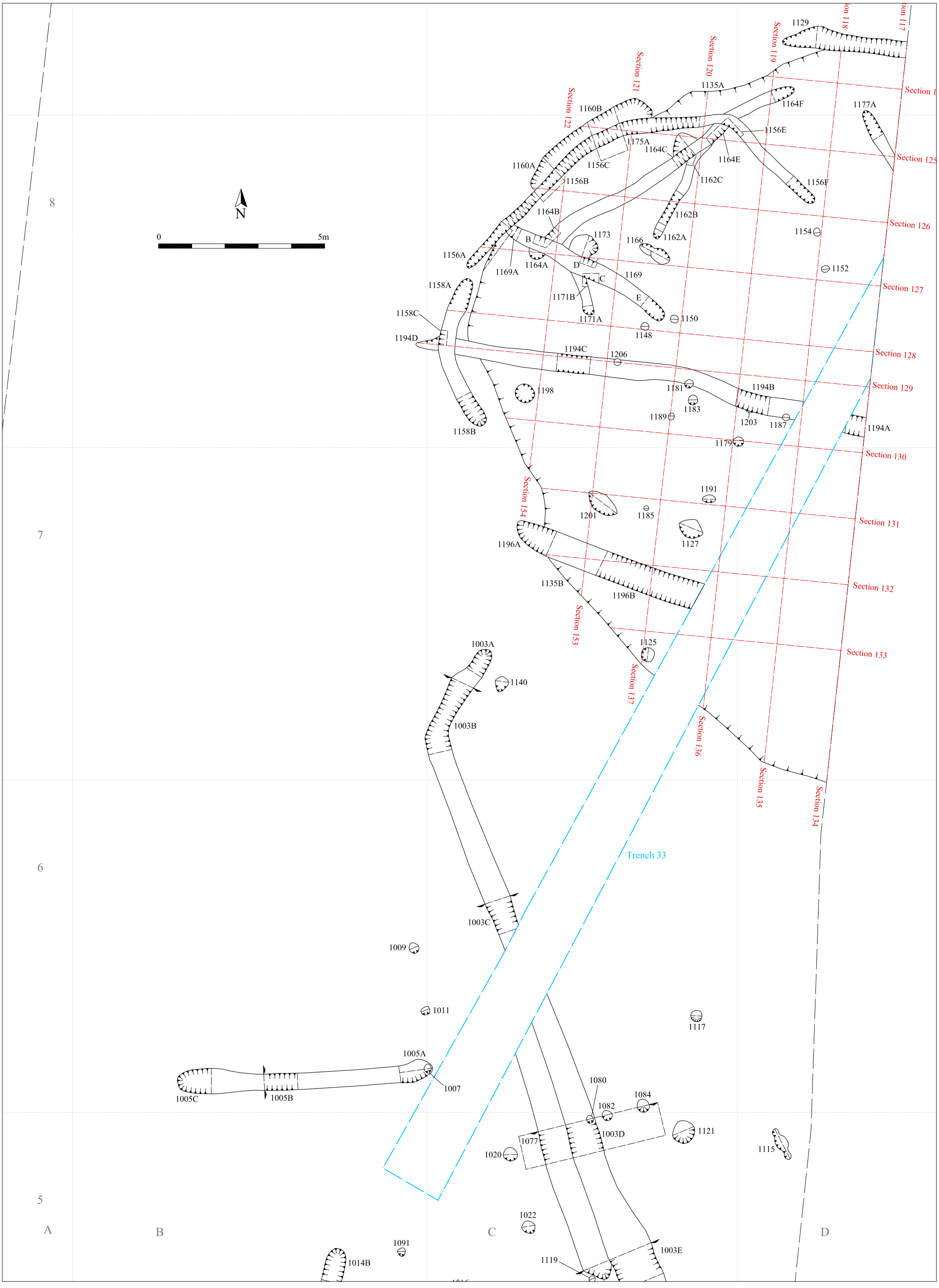
Fig. 6 All features plan
Not to scale
Great Cornard, Suffolk (P6688)



Archaeological Solutions Ltd
Fig. 7 Phased all features plan
Not to scale
Great Cornard, Suffolk (P6688)



Archaeological Solutions Ltd	
Fig. 8 Plan	
Scale 1:100 at A3	
Great Cornard, Suffolk (P6688)	

Archaeological Solutions Ltd
Fig. 9 Plan
Scale 1:100 at A3
Great Cornard, Suffolk (P6688)

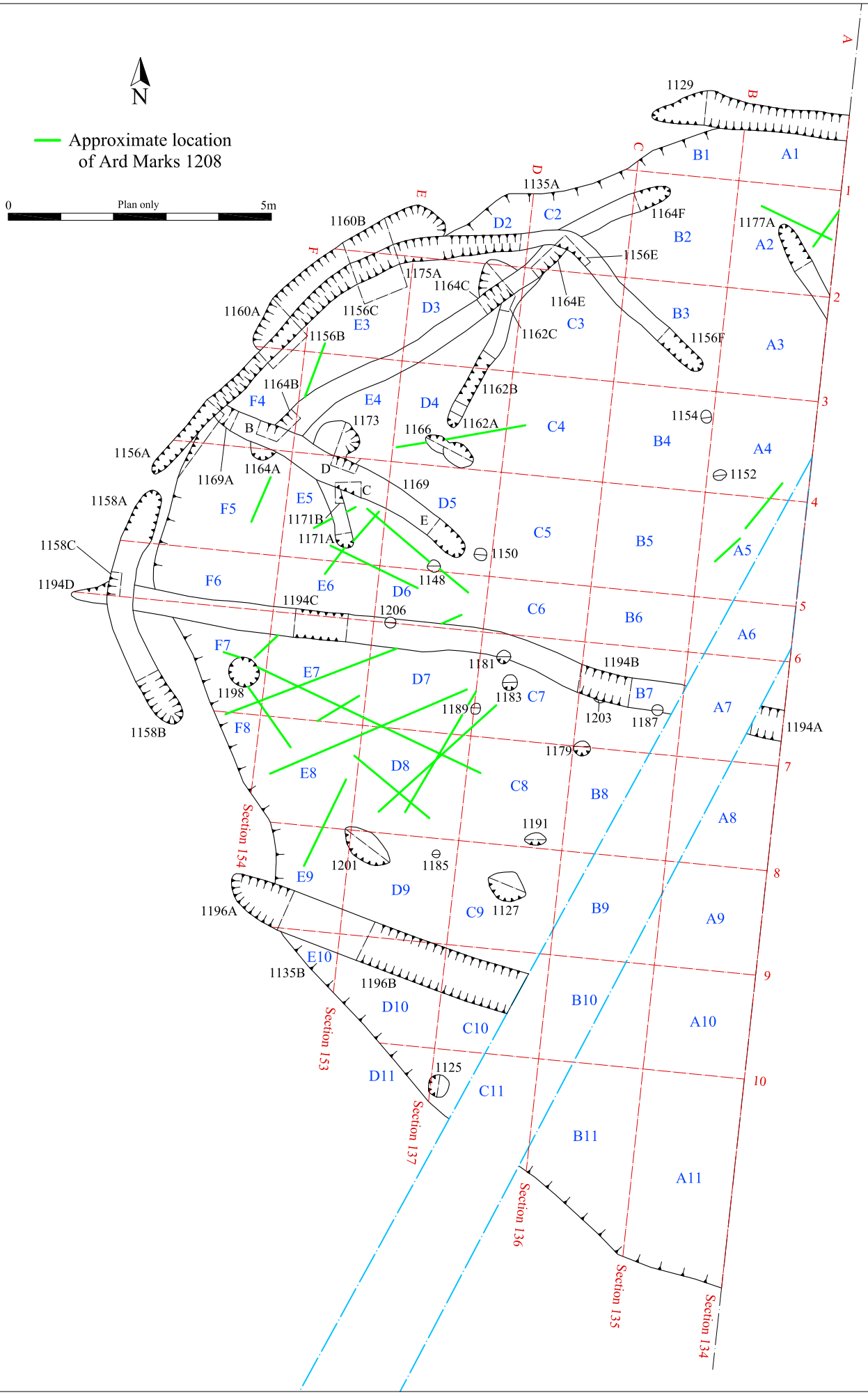


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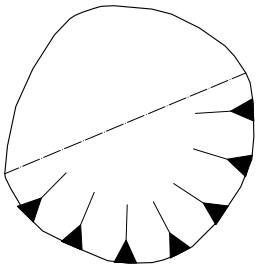
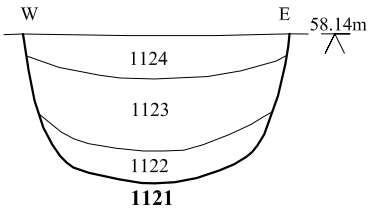
Fig. 10 Grid square locations (Hollow 1135)

Scale 1:100 at A4

Great Cornard, Suffolk (P6688)



Mid-excavation



Post-excavation

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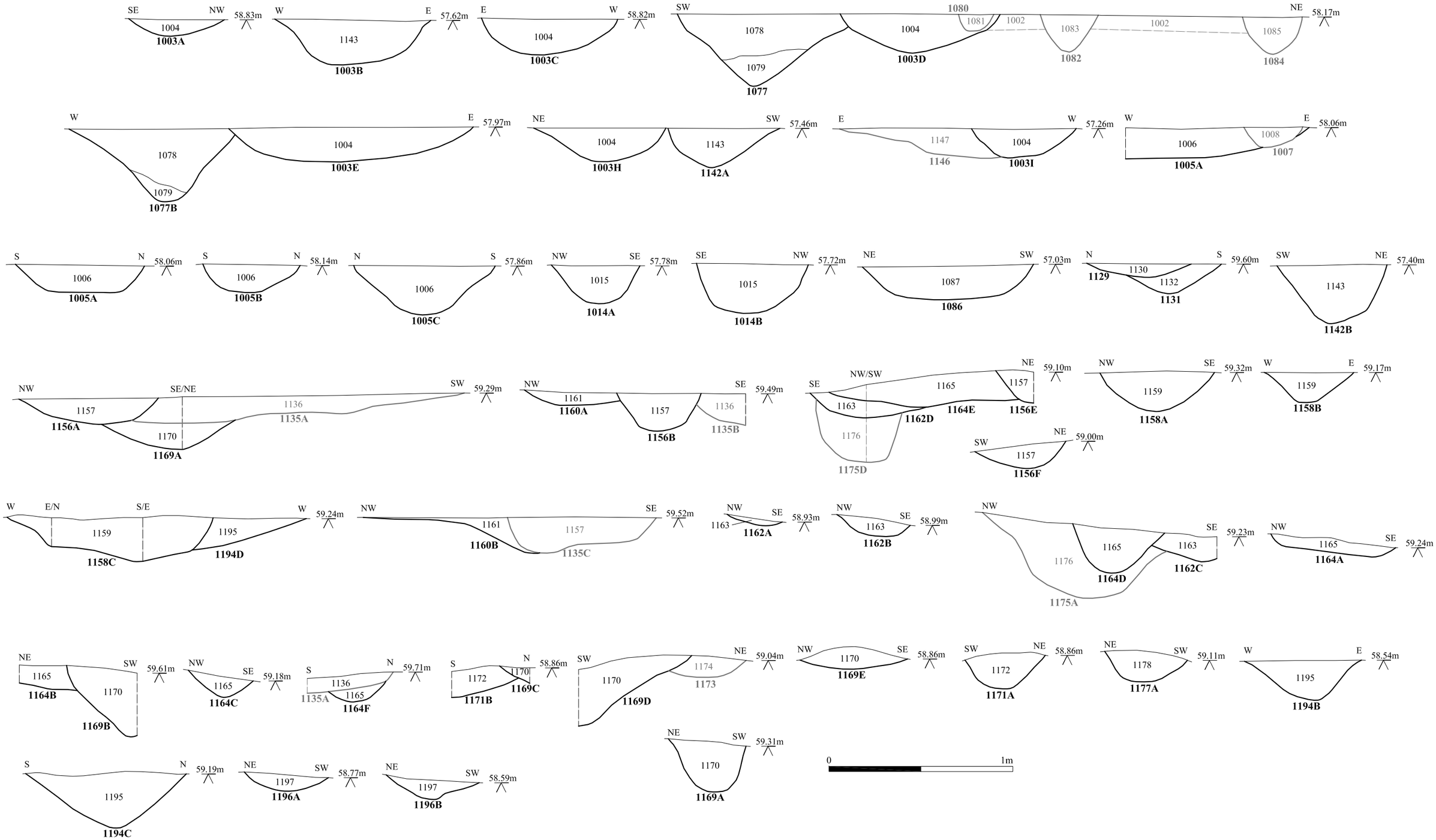
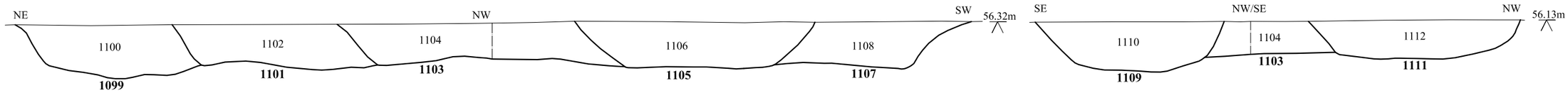
Fig. 11 Pit F1121
Scale 1:20 at A4
Great Cornard, Suffolk (P6688)

Phase 1 ditches

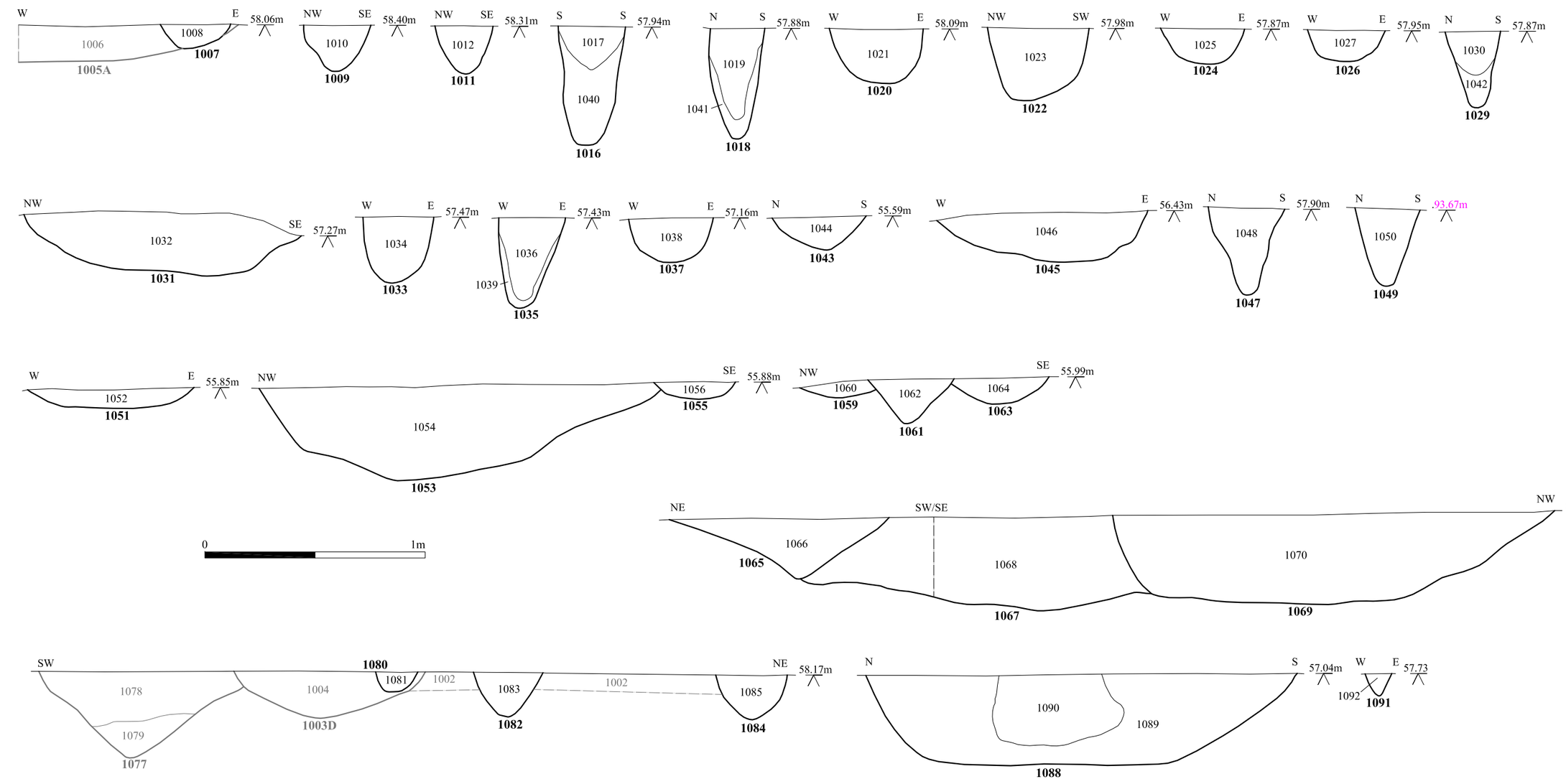


Archaeological Solutions Ltd
Fig. 12 Sections
Scale 1:20 at A3
Great Cornard, Suffolk (P6688)

The clustered Phase 1 pits

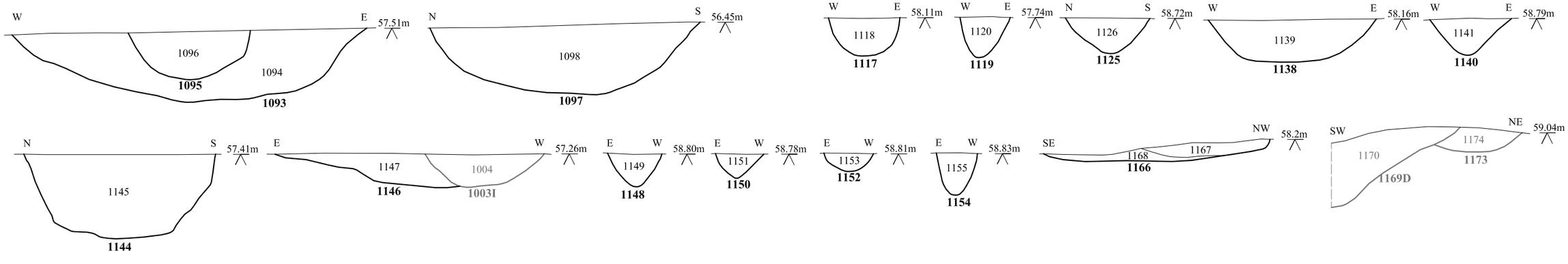


The dispersed Phase 1 pits and postholes

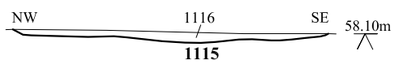


Archaeological Solutions Ltd
Fig. 13 Sections
Scale 1:20 at A3
Great Cornard, Suffolk (P6688)

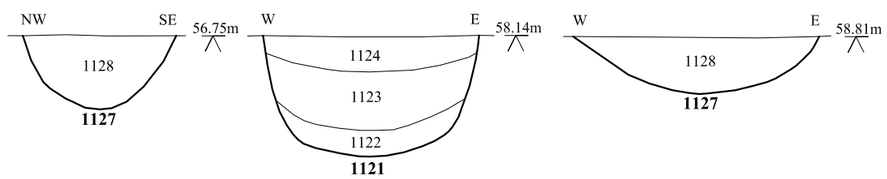
The dispersed Phase 1 pits and postholes (continued)



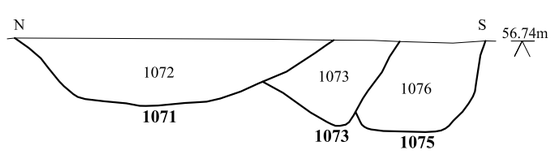
Phase 2 features



Phase 3 features

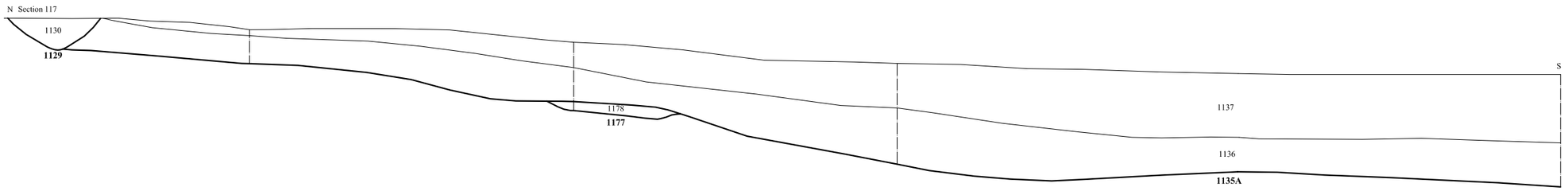


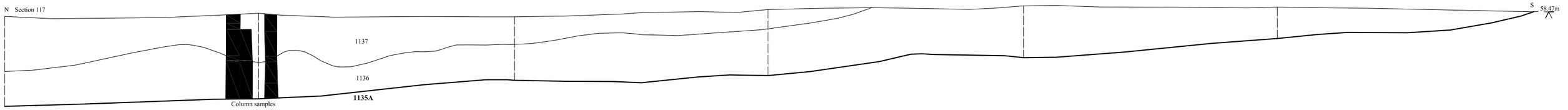
Undated features

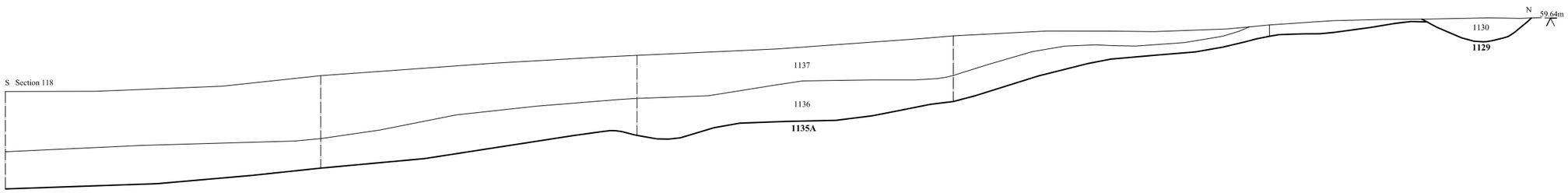


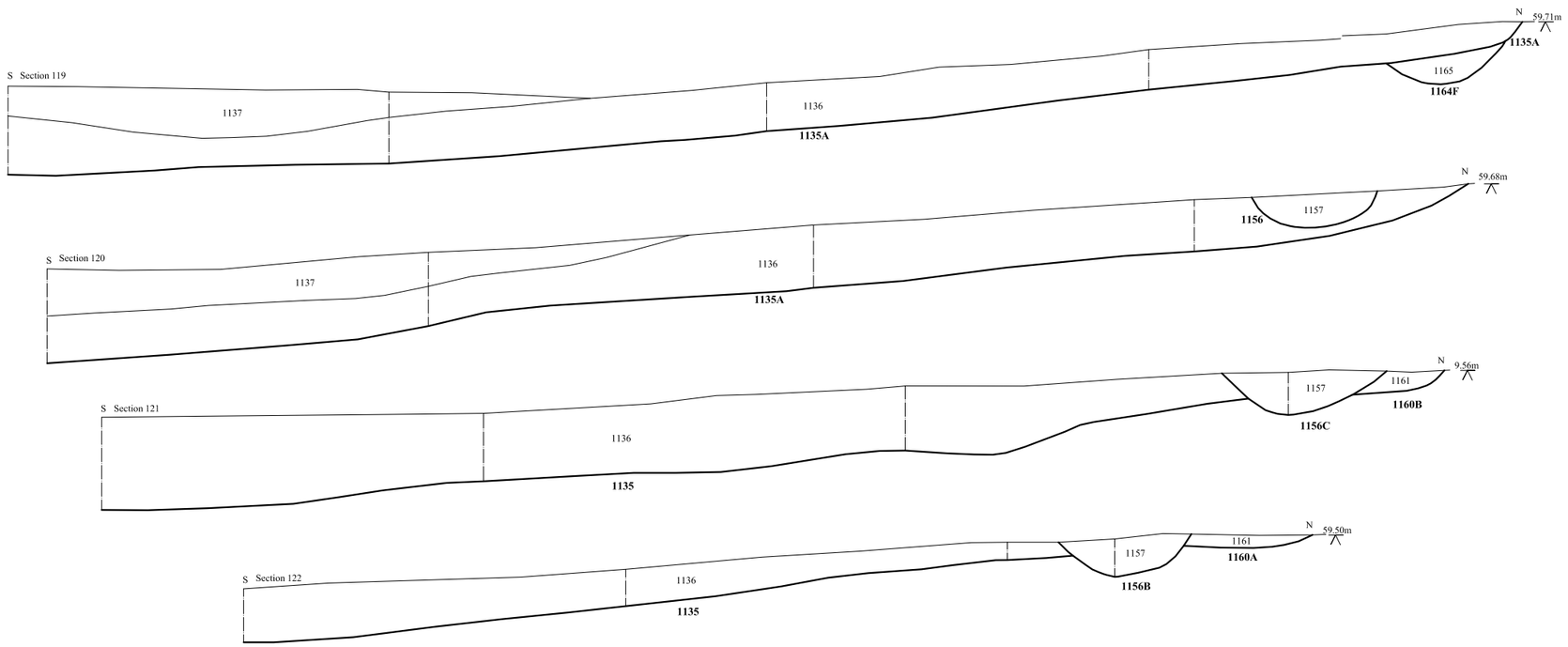
Archaeological Solutions Ltd
Fig. 14 Sections
Scale 1:20 at A3
Great Cornard, Suffolk (P6688)

Hollow F1125



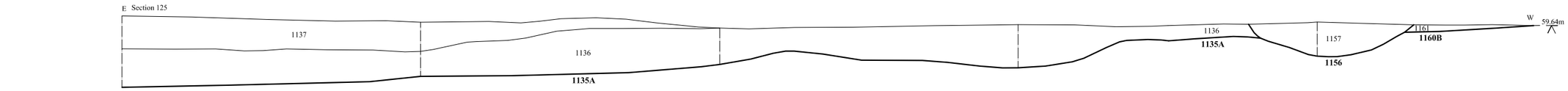


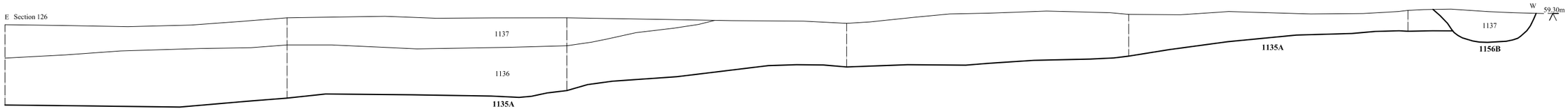


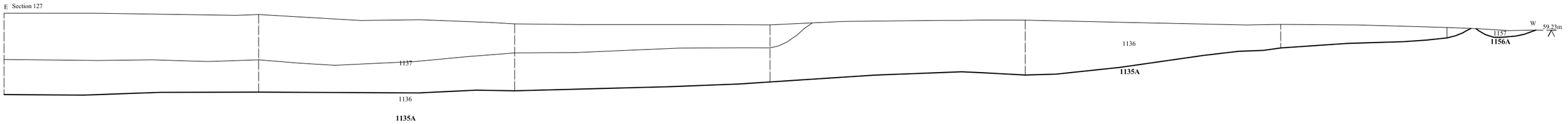


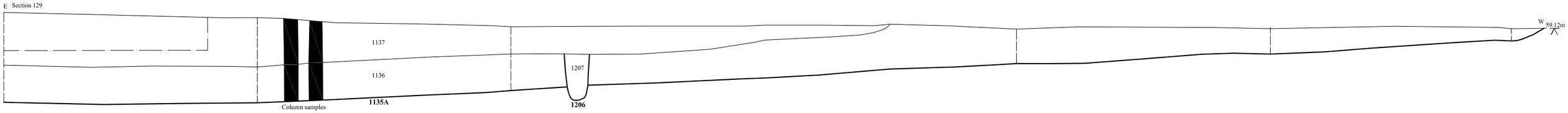
Archaeological Solutions Ltd
Fig. 15 Sections
Scale 1:20 at A3
Great Cornard, Suffolk (P6688)

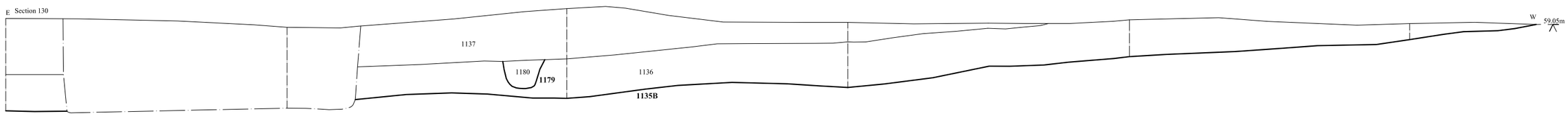
Hollow F1125 (continued)

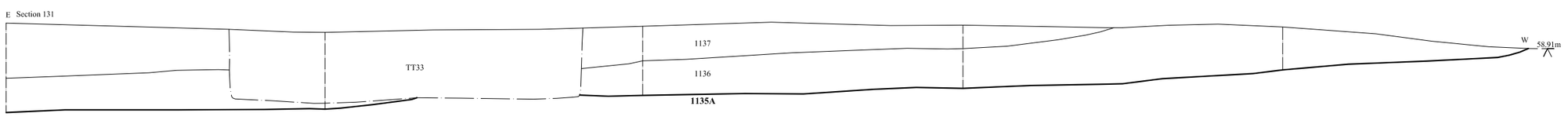


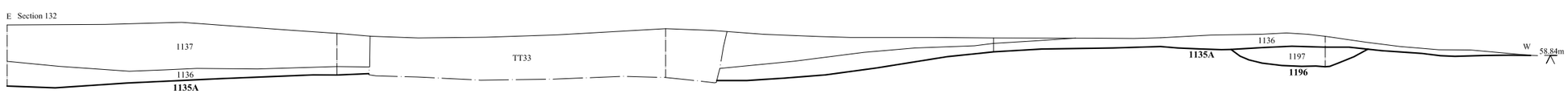






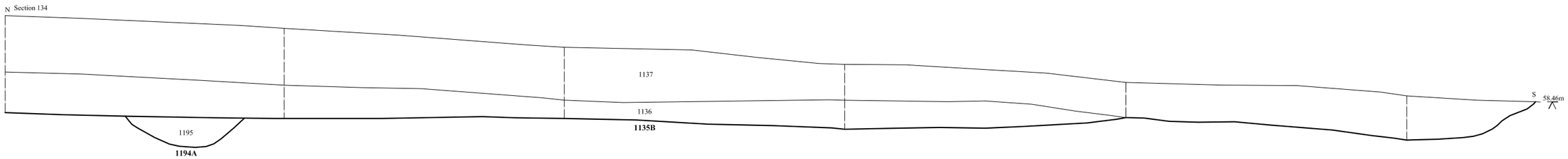


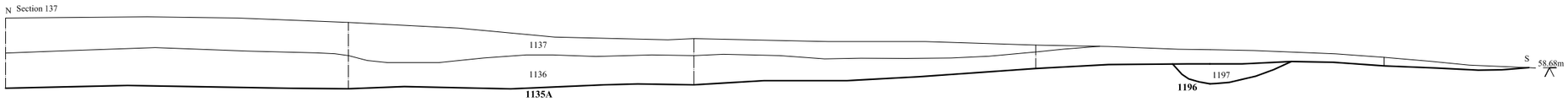


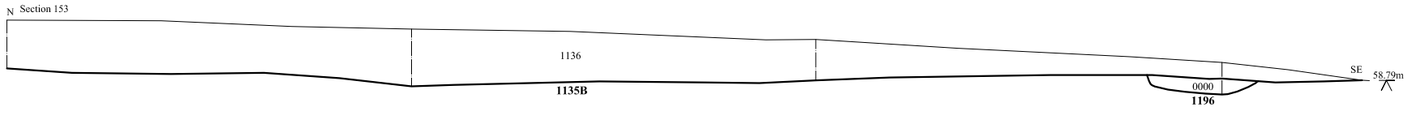


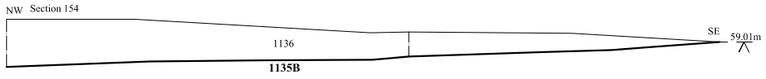
Archaeological Solutions Ltd
Fig. 16 Sections
Scale 1:20 at A3
Great Cornard, Suffolk (P6688)

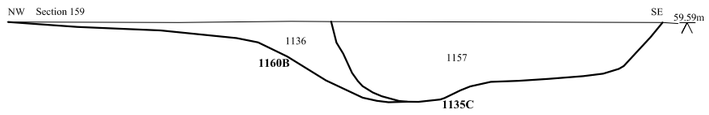
Hollow F1125 (continued)



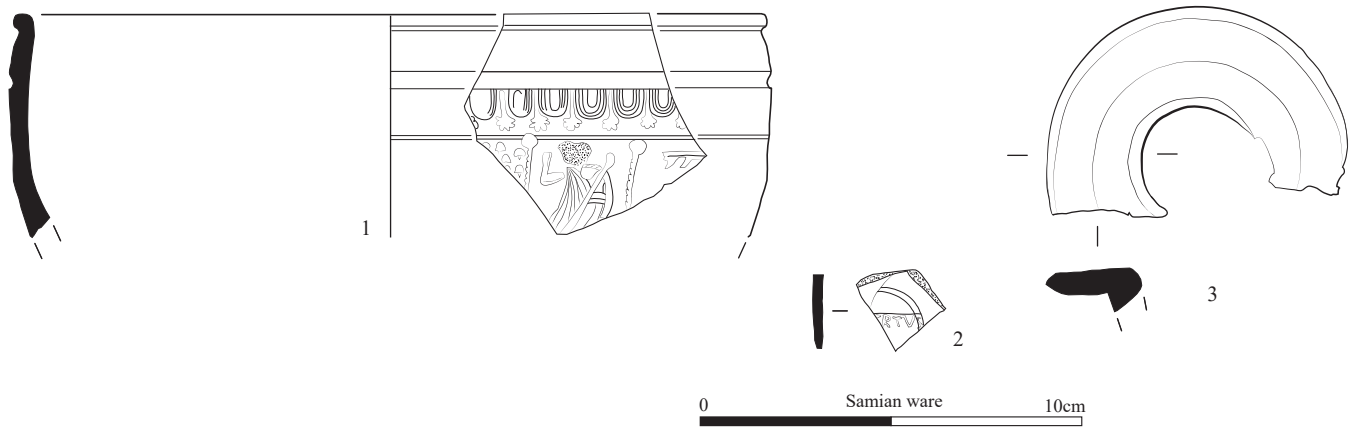


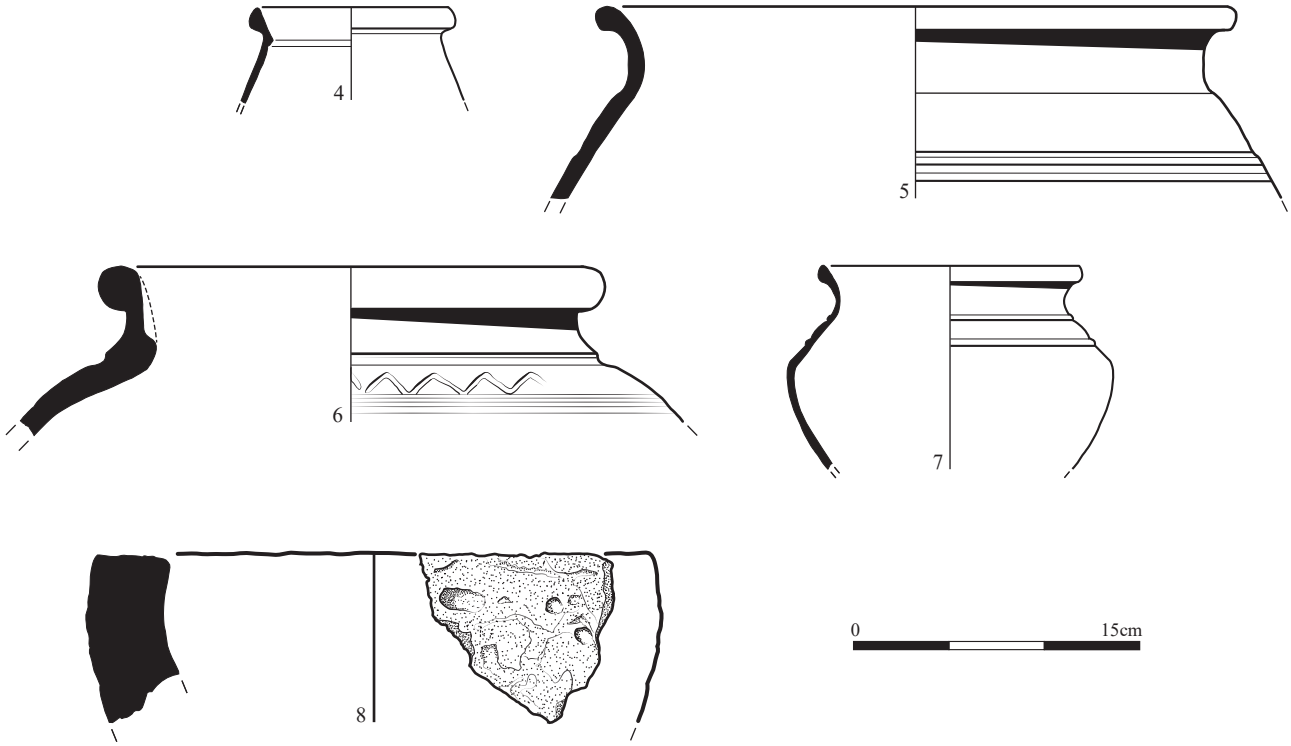






Archaeological Solutions Ltd
Fig. 17 Sections
Scale 1:20 at A3
Great Cornard, Suffolk (P6688)

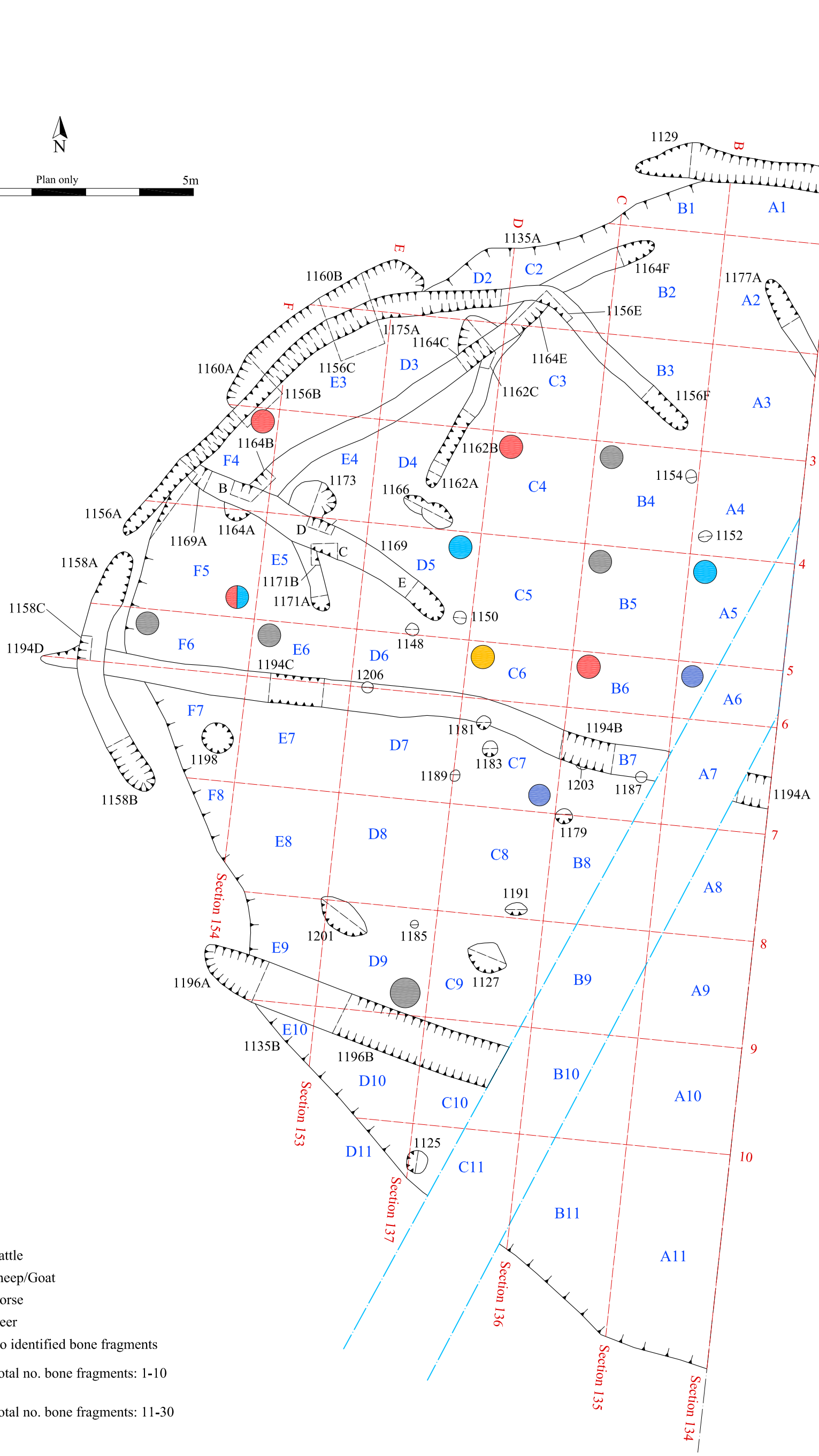




Archaeological Solutions Ltd
Fig. 18 Pottery illustrations
Scale 1:4 at A4
Great Cornard (P6688)

N

0 Plan only 5m



Key

- Cattle
- Sheep/Goat
- Horse
- Deer
- No identified bone fragments
- Total no. bone fragments: 1-10
- Total no. bone fragments: 11-30

Archaeological Solutions Ltd

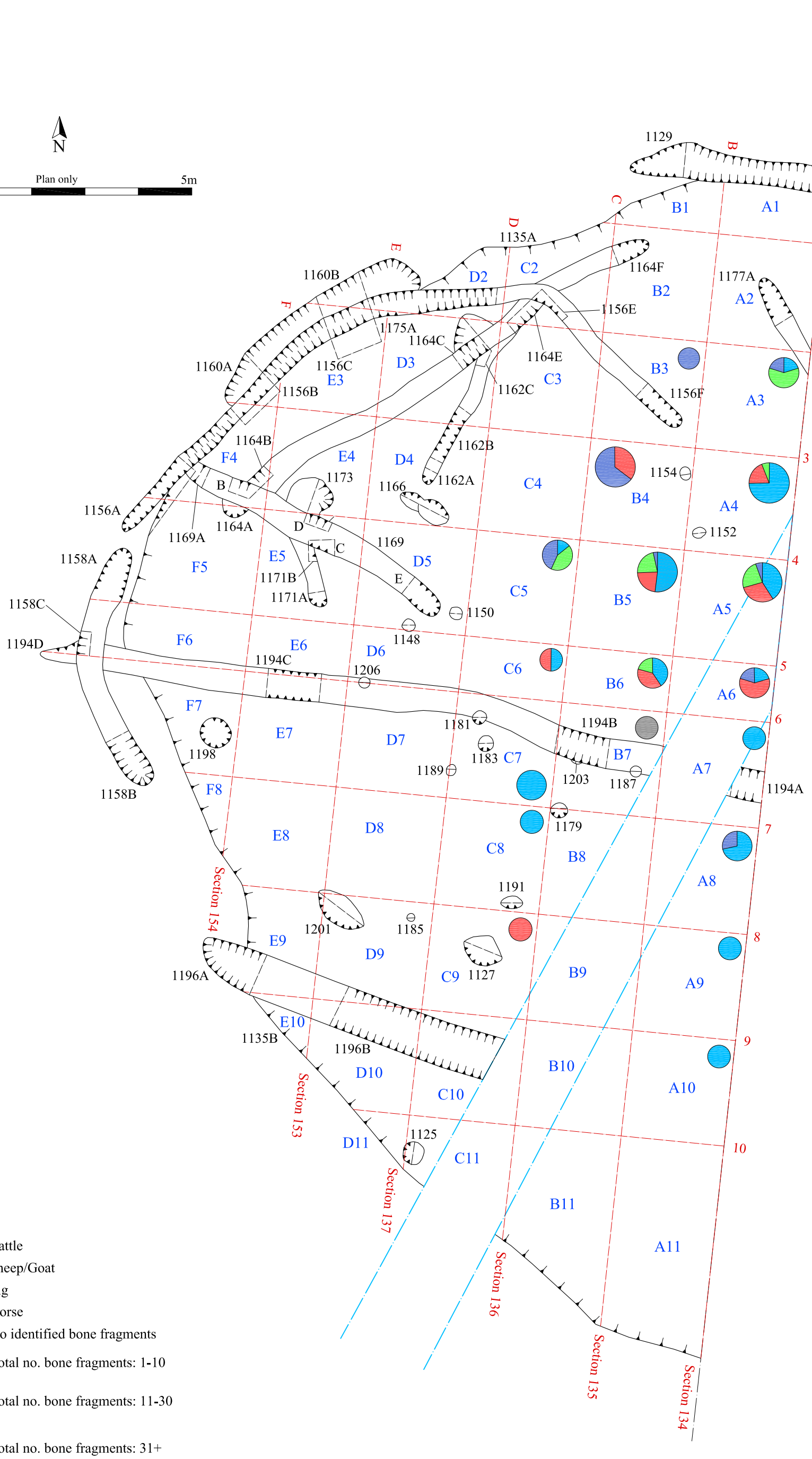
Fig. 19 Bone distribution for L1136

Scale 1:75 at A3

Great Cornard, Suffolk (P6688)

N

0 Plan only 5m



Key

- Cattle
- Sheep/Goat
- Pig
- Horse
- No identified bone fragments
- Total no. bone fragments: 1-10
- Total no. bone fragments: 11-30
- Total no. bone fragments: 31+

Archaeological Solutions Ltd
Fig. 20 Bone distribution for L1137
Scale 1:75 at A3
Great Cornard, Suffolk (P6688)