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PROPOSED NEW ARRIVALS LANE, CENTER PARCS, ELVEDEN FOREST HOLIDAY VILLAGE, BRANDON, SUFFOLK

RESEARCH ARCHIVE REPORT

ELV 093

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NGR: TL 8103 8022		Report No: 4772
District: Forest Heath		Site Code: ELV 093
Approved: Claire Halpin MIfA		Project No: 5691
Signed:		Date: 28 January 2015

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Project details			
Project name	*Center Parcs, Elveden Forest Holiday Village, Brandon, Suffolk*		

Between June and July 2014, Archaeological Solutions Ltd (AS) conducted an archaeological excavation at Center Parcs, Eleveden Forest Holiday Village, Brandon, Suffolk. The project was undertaken in advance of the proposed construction of a new arrivals lane. The excavation was preceded by an archaeological trial trench evaluation, also conducted by AS (dated 28/04/214 – 09/05/2014).

The site lies within an area of archaeological potential, with recorded evidence of prehistoric and Romano-British settlement activity within the immediate vicinity.

Fieldwork revealed two phases of archaeological activity dating to the late Bronze Age/ early Iron Age (9th to 6th century BC; Phase 1) and early Romano-British period (mid 1st to early 2nd century AD; Phase 2). Possible ditched enclosures were revealed in both phases. Of particular note was the Phase 1 burial of an adolescent/ young adult present in Area 2. Several Phase 1 pits also yielded notable pottery groups which displayed traits consistent with the 'late' decorated Post Deverel-Rimbury ceramic style. Radiocarbon dating of one of these pits produced a calibrated date range of 1050-890 cal BC (90.3%) and 880-845 cal BC (5.1%) at 95.4% confidence.

Project dates (fieldwork)	*28/04/14 – 09/05/14 and 23/06/14 – 0/07/14*		
Previous work (Y/N/?)	*N*	Future work	*N*
P. number	5691	Site code	*ELV 093*
Type of project	*Archaeological Excavation*		
Site status	-		
Current land use	*Woodland/ holiday village*		
Planned development	*New arrivals lane*		
Main features (+dates)	*LBA/ EIA:* *Grave; pits/ postholes; ditches/ gullies* *Romano-British:* *Pits/ postholes; ditches/ gullies*		
Significant finds (+dates)	*LBA/ EIA:* *Inhumation burial; 'late' decorated Post Deverel-Rimbury pottery; struck flint; complete cattle skull* *Romano-British:* *Pottery*		
Project location			
County/ District/ Parish	*Suffolk*	*Forest Heath*	*Brandon*
HER/ SMR for area	*Suffolk Historic Environment Record*		
Post code (if known)	-		
Area of site	*0.79ha*		
NGR	*TL 8103 8022*		
Height AOD (min/max)	*c. 39m*		
Project creators			
Brief issued by	*Dr Matthew Brudenell (Suffolk County Council Archaeological Service Conservation Team)*		
Project supervisor(s)	*Kamil Orzechowski; Laszlo Lichtenstein; James Fairclough*		
Funded by	*Center Parcs Ltd*		
Full title	*Proposed New Arrivals Lane, Center Parcs, Elveden Forest Holiday Village, Brandon, Suffolk. Research Archive Report*		
Authors	*Antony R.R. Mustchin*		
Report no.	*4772*		
Date (of report)	*28 January 2015*		

PROPOSED NEW ARRIVALS LANE, CENTER PARCS, ELVEDEN FOREST HOLIDAY VILLAGE, BRANDON, SUFFOLK

RESEARCH ARCHIVE REPORT

SUMMARY

Between June and July 2014, Archaeological Solutions Ltd (AS) conducted an archaeological excavation at Center Parcs, Eleveden Forest Holiday Village, Brandon, Suffolk (NGR TL 8103 8022). The excavation was undertaken in advance of the proposed construction of a new arrivals lane and was preceded by an archaeological trial trench evaluation (Orzechowski 2014), also conducted by AS (dated 28/04/214 to 09/05/2014).

The site comprises a narrow strip of land, extending to c. 0.79ha, located approximately 1.2km to the north-west of Elveden village. The market town of Thetford is c. 5.3km to the east-north-east. The site lies within an area of archaeological potential, with recorded evidence of prehistoric and Romano-British settlement activity within the immediate vicinity.

Fieldwork revealed two phases of archaeological activity dating to the late Bronze Age/ early Iron Age (9th to 6th century BC; Phase 1) and early Romano-British period (mid 1st to early 2nd century AD; Phase 2). A small number of undated features were also present. Features were recorded across the excavated areas of the site and included evidence of enclosure in both phases. Of particular note was the Phase 1 burial of an adolescent/ young adult present in Area 2. Several Phase 1 pits also yielded notable pottery groups, including eight individual vessels from Pit F2103. The pottery displays traits consistent with the 'late' decorated Post Deverel-Rimbury ceramic style.

1 INTRODUCTION

1.1 Between June and July 2014, Archaeological Solutions Ltd (AS) carried out an archaeological excavation at Center Parcs, Eleveden Forest Holiday Village, Brandon, Suffolk (NGR TL 8103 8022; Figs. 1-2). The excavation was undertaken in advance of the proposed construction of a new arrivals lane and was preceded by an archaeological trial trench evaluation (Orzechowski 2014), also conducted by AS (dated 28/04/214 to 09/05/2014).

1.2 This Report presents the archaeological findings of the project within their topographical, geological and geographical context and discusses their interpretation and significance with reference to appropriate local/ regional comparative material (principally SHER[1] records and published site reports/ journal articles). The discussion will chiefly focus on the nature and development of past human activity at the site as evidenced by the excavated features, finds and archaeozoological/ palaeoenvironmental assemblages. Particular emphasis is placed on the late

[1] Suffolk Historic Environment Record

Bronze Age/ early Iron Age phase – the principal period of past human activity at the site.

2 THE SITE

2.1 The site comprises a narrow, irregular strip of land (*c.* 0.79ha) located to the north-west of Elveden village (Figs. 1-2). The market town of Thetford is *c.* 5.3km to the east-north-east. The development area sits at *c.* 39m AOD[2] within the landscaped grounds of Elveden Forest Holiday Village, part of Thetford Forest. The forest – a site of special scientific interest – dates from the early 1920's and is the largest lowland pine forest in Britain. Prior to the establishment of Thetford Forest, much of its *c.* 47,000 acres formed parts of landed estates (Skipper and Williamson 1997). Elveden Hall (SHER ELV 009), the centre of Elveden Estate is located approximately 1.5km to the south-east of the site.

2.2 The site's soils are of the Worlington Association, comprising 'deep well drained sandy soils, in places very acid with subsurface pan […at…] risk of wind erosion' (Soil Survey of England and Wales 1983, 11). These soils are suitable for the cultivation of barley (*ibid.*). The free-draining soils of the surrounding Breckland are also suitable for the cultivation of rye, as is evidenced during the medieval period (Campbell and Overton 1993). The local drift geology comprises glaciofluvial drift and till, while the underlying solid geology is Upper Cretaceous chalk; a good source of flint (www.bgs.ac.uk/lexicon/).

2.3 The site does not sit particularly close to any major/ navigable river systems. The River Little Ouse passes some 5.5km to the east of the site, while the River Lark runs *c.* 8.4km to the south-west at its nearest point. Both the Little Ouse and Lark are tributaries of the River Great Ouse which empties into the Wash, some 51km to the north-west of the site.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 The site lies within an area of archaeological potential, containing numerous prehistoric and Romano-British sites/ findspots (Fig. 1). Investigations between 1897 and 1914 at Elveden Brickyard, *c.* 300m north of the site, recovered several hundred Lower Palaeolithic flint handaxes, cores and flakes (SHER ELV 006). Another 50 stone tools attributable to this local flint industry were found in 1967 (*ibid.*). Excavations between 1995 and 1999 characterised the Brickyard site as occupying a 'lake basin that had formed in the Lowestoft till…attributed to the Anglian glaciation' (Ashton *et al.* 2005). The basin's fills were sealed by colluvial 'brickearth' which also yielded stone tools (*ibid.*). Two Neolithic arrowheads have also been found in the vicinity (SHERs ELV 001 and ELV 004).

3.2 Two undated human inhumations, possibly late prehistoric burials, were encountered during groundworks to the south of the site (SHER ELV 030). Widespread evidence of 1st century BC to 1st century AD activity, including a ditched

[2] Above Ordnance Datum

enclosure and pits, has also been identified within the confines of the Elveden Forest Holiday Village (Craven 2010; SHERs ELV 049, ELV 051 and ELV 067). Among the finds was part of a probable late Iron Age gold torc (SHER ELV 049) and a large number of Roman coins (ELV Misc). The Elveden Estate Hoard, comprising 621 bronze coins of Allectus was found within 500m of the current site (Craven 2006; SHER ELV 065).

3.3 An archaeological evaluation to the south of the site encountered a large number of Romano-British features, including evidence of a ditched enclosure (SHERs ELV 058 and ELV 059). Recovered artefacts mainly dated from the 2nd to 4th centuries AD but also included some Iron Age material (*ibid.*). Further local evidence of late Iron Age and Romano-British settlement includes surface finds/ artefact scatters (SHERs ELV 013 and ELV Misc) and several Roman coins from Elveden Brickyard (SHER ELV 006).

4 THE ARCHAEOLOGICAL TRIAL TRENCH EVALUATION

4.1 Excavation of the current site was preceded by an archaeological trial trench evaluation (Orzechowski 2014) which revealed features of early Iron Age and Romano-British date in all but two of the eight trenches cut (Table 1). Features were predominantly discrete although some residuality of material was evident where features intercut.

4.2 Prehistoric features were encountered along the length of the proposed new arrivals lane in Trenches 1-2 and 5A-7 (Figs. 3-6). Between one and three features were present in each trench. Deep deposits of made ground in Trenches 3 and 4 alluded to significant modern disturbance; no archaeological features or finds were present in these trenches.

Trench	Feature	Description	Date
1	F1006	Gully	-
	F1008	Ditch	Early Iron Age (6th to 5th century BC)
	F1010	Pit	-
	F1012	Pit	-
2	F1003	Posthole	-
	F1027	Pit	Romano-British (late 1st to 2nd century AD)
	F1029	Ditch	Romano-British (late 1st to early 2nd century AD)
	F1035	Pit	Early Iron Age (6th to 5th century BC)
	F1037	Pit	-
	F1040	Ditch	Early Iron Age (6th to 5th century BC) (residual)
	F1057	Posthole	Romano-British (late 1st to early 2nd century AD)
	F1067	Ditch	Romano-British (late 1st to 2nd century AD)
5A	F1045	Pit	Early Iron Age (6th to 5th century BC)
	F1048	Pit	-
	F1050	Gully	-
	F1052	Gully	Early Iron Age (6th to 5th century BC)
	F1054	Ditch Terminus	Early Iron Age (6th to 5th century BC)
5B	F1063	Ditch	Early Iron Age (6th to 5th century BC)
	F1065	Pit	Early Iron Age (6th to 5th century BC)
6	F1061	Ditch	-
	F1070	Ditch Terminus	Early Iron Age (6th to 5th century BC)
	F1072	Ditch	Early Iron Age (6th to 5th century BC)
	F1074	Ditch	Prehistoric
	F1076	Pit	-
	F1078	Pit	-
7	F1033	Pit	Prehistoric

Table 1: Summary of the features recorded by the archaeological trial trench evaluation

4.3 The bulk of features contained between one and three sherds of prehistoric pottery, with slightly larger groups from Ditches F1008 (Trench 1), F1070 and F1072 (Trench 6) and Pit F1035 (Trench 2), which yielded four, ten, five and seven sherds respectively (Appendix 1). Although modest in number, the prehistoric sherds were consistently found in association with burnt and struck flint, since identified as being 'consistent with the traits identified for Iron Age flint working' (Peachey, this report – *The Flint*).

4.4 The struck flint occurred in sparse quantities (one to four pieces), with Ditches F1072 and F1074 (Trench 6) containing slightly larger quantities (ten and eight pieces respectively). Ditch F1074 contained a hammerstone, flake core and debitage flakes. The overall character of the lithic assemblage suggests that modest exploitation of local flint – possibly its preparation for working elsewhere – was carried out at this location.

4.5 Romano-British features were only encountered in Trench 2 and numbered four in total (Table 1; Figs. 3-4). Ditches F1029 and F1067, Pit F1027 and Posthole F1057 in this trench yielded between three and 16 sherds of pottery, solely comprising Wattisfield/ Waveney Valley reduced ware, produced around the Norfolk/ Suffolk border throughout the Romano-British period (Peachey, this report – *The Roman Pottery*). The forms present suggest an early date.

5 DESCRIPTION OF RESULTS

Chronological Phasing

5.1 Based on the stratigraphic sequence, diagnostic artefact assemblage (pottery and struck flint) and a targeted programme of radiocarbon dating, two chronological phases of activity were interpreted at the site, dating to the late Bronze Age/ early Iron Age and early Romano-British period, respectively (Table 2). The character of the struck flint assemblage was consistent across the site and several groups were found in association with significant quantities of Post Deverel-Rimbury pottery. Radiocarbon dating of two pottery/ flint-rich features yielded a single useful result: 1050-890 cal BC (90.3%) and 880-845 cal BC (5.1%) at 95.4% confidence. As such, an earlier and broader date range was assigned to Phase 1 activity than suggested by the associated pottery/ lithic assemblage. Some features that did not yield diagnostic material were phased based on their stratigraphic or spatial relationships with dated features. Undated features/ deposits were also encountered.

Phase	Period	Date
1	Late Bronze Age/ early Iron Age	9th to 6th century BC
2	Romano-British	Mid 1st to early 2nd century AD

Table 2: Chronological Phasing

Phase 1: Late Bronze Age/ Early Iron Age (9th-6th century BC)

5.2 Phase 1 features were present across Areas 1 and 2 (Figs. 4-6). These chiefly comprised linear features (ditches and gullies), possibly indicating enclosure of the immediate landscape at this time; evidence of later prehistoric/ early historic ditched enclosures has previously been identified within Elveden Forest Holiday

Village. Phase 1 features also included Pits F2103, F2126 and F2130, which yielded significant pottery groups consistent with the 'late' decorated Post Deverel-Rimbury (PDR) ceramic style (Peachey, this report – *The Prehistoric Pottery*), in association with notable struck flint assemblages. The poorly preserved inhumation burial of an adolescent/ young adult was also encountered in Area 2 of the excavation (Curl, this report – *The Human Bone*), close to the south-eastern corner of a possible enclosure.

Evidence of Enclosure

5.3 The dating of the Phase 1 ditches and gullies was chiefly based on small quantities of diagnostic pottery and struck flint (Table 3); the overall pottery and flint assemblages (from across the site) are homogenous. However, given the sandy nature of the local soils and previous finds in the area, there is a possibility that this material is residual (from features of late Iron Age or Romano-British date); the absence of diagnostically earlier material from the site would seem to argue against the material being residual from an earlier period, e.g. Neolithic or early/ middle Bronze Age. Although the possibility of residuality must be maintained, it should be noted that the Phase 1 ditches and gullies appeared to respect the position of other late Bronze Age/ early Iron Age features with only one instance of intercutting recorded (between Ditch F1063 (=2117=2124) and Pit F1065). Pit F2126 and Grave F2145 also appeared to loosely mirror the alignment of adjacent boundary features (Fig. 6). Furthermore, although late Iron Age ditches are known from the immediate area (see above), no pottery of this date was recovered from the site and no Romano-British material was present within the Phase 1 ditches and gullies.

5.4 The late Bronze Age/ early Iron Age ditches and gullies in Area 1 of the site were aligned *c.* NW-SE while those in Area 2 ran *c.* N-S or E-W (Figs. 4-6). Several instances of intercutting were recorded and probably represented the maintenance/ recutting of boundaries over time (e.g. Ditches/ Gullies F2020, F2022, F2026, F2028 and F2030 (Area 1); Figs. 4, 7 and 8). The sandy nature of the site's soils and their susceptibility to wind erosion (Soil Survey of England and Wales 1983, 11) would necessitate the ongoing maintenance/ recutting of any boundary in long-term use so to avoid rapid infilling. Two possible T-shaped boundary alignments – perhaps marking the corners of enclosures – were recorded in Area 2 of the site; Gullies F1052 (=2133) and F2128 comprised the northernmost arrangement, while that to the south was formed by Ditches F2143 and F2159 (Fig. 6). Possible double-ditched boundaries were also marked by F2135/ F2137 and F1061 (=2147)/ F2150 (Area 2), and by F1006 (=2008)/ F1008 (=2010) (Area 1; Figs. 4-6). A fourth possible double ditched boundary may have been formed by shallow Ditches F1072 and F1047, although these features were only identified in Trial Trench 6 of the evaluation (Fig. 5) and their identification remains tentative. It is thought, based on their general uniformity of alignment that the Phase 1 ditches and gullies represented the remnants of enclosure boundaries, similar to late Iron Age examples recorded in the surrounding landscape. The regular 15m spacing observed between E-W aligned features in Area 2 of the excavation (F2128, F2135/ F2137 and F2143; Fig. 6) suggests a formally laid out/ planned landscape. However, the limited scope of the excavation meant that no individual enclosures could be fully identified or measured. A summary of the Phase 1 ditches and gullies is presented in Table 3.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1006= 2008	1007=2009	Linear/ Moderately sloping sides, flat base (8.60+ x 0.80 x 0.30m)	Friable, mid orange brown silty sand with occasional small to medium sub-angular flint	Ditch; cut L1002=2002; sealed by L1001=2001	Pottery (5g)
1008= 2010	2011 (primary)	Linear/ Moderately sloping sides, flat base (8.60+ x 1.20 x 0.48m)	Compact, dark brown silty sand with moderate small to medium sub-angular flint. Environmental sample 1 taken	Ditch; cut L1002=2002; sealed by L1001=2001	-
	1009=2012 (uppermost)		Friable, mid orange brown silty sand with occasional small to medium sub-angular flint. Environmental sample 2 taken		Pottery (10g); struck flint (4g)
1052= 2133	2139 (primary)	Linear/ steep sides, concave base (6.55+ x 0.64 x 0.22m)	Friable, mid brown grey silty sand with frequent medium angular flint	Gully; cut L1002=2002; cut by F2128	Pottery (8g); struck flint (10g); burnt flint (44g)
	1053=2134 (uppermost)		Friable, dark brown/ black silty sand with occasional charcoal flecks and moderate medium angular flint. Environmental sample 32 taken		Pottery (3g); struck flint (38g)
1054	1055	Linear/ steep sides, flat base (1.20+ x 0.35 x 0.10m))	Friable, dark brown/ black sandy silt with occasional small angular flint	Ditch; cut L1002=2002; sealed by L1001=2001	Pottery (7g); struck flint (31g)
1061= 2147	1062=2148 (primary)	Linear/ steep sides, concave base (8.00+ x 1.12 x 0.26m)	Friable, dark brown/ black silty sand with occasional small sub-angular flint	Ditch; cut L2151; sealed by L1001=2001	Struck flint (80g)
	2149 (uppermost)		Friable, mid yellow brown silty sand with occasional small sub-angular and angular flint		-
1063= 2117= 2124	1064=2118= 2125	Curvilinear/ gently to moderately sloping sides, concave base (12.00+ x 1.19 x 0.25m)	Friable, mid to dark orange brown/ black silty sand with occasional small to medium sub-angular and angular flint	Ditch; cut L1002=2002; sealed by L1001=2001	Struck flint (8g)
1072	1073	Linear/ gently sloping sides, irregular base (11.00+ x 1.80+ x 0.24m)	Friable, mid yellow brown silty sand with occasional medium angular flint	Ditch; cut L1077=2071; cut by F1074	Pottery (14g); struck flint (165g)
1074	1075	Linear/ gently sloping sides, irregular base (6.40+ x 1.20+ x 0.30m)	Friable, mid orange brown silty sand with occasional medium angular flint	Ditch; cut L1073; sealed by L1001=2001	Struck flint (190g); hammerstone (391g); animal bone (23g)
2020	2021	Linear/ gently sloping to steep sides, concave base (6.00+ x 1.00 x 0.50m)	Friable, mid yellow brown silty sand with moderate small to medium sub-angular and angular flint. Environmental sample 5 taken	Ditch; cut L2027 and L2031; cut by F2022	Pottery (77g); CBM (8g); struck flint (39g); burnt flint (183g)
2022	2023	Linear/ steep sides, concave base (3.80+ x 1.12 x 0.24m)	Friable, dark yellow brown silty sand with occasional small sub-angular flint. Environmental sample 6 taken	Ditch; cut L2021; sealed by L1001=2001	Pottery (26g); burnt flint (235g)
2026	2027	Linear/ steep sides, flattish base (4.00+ x 0.32+ x 0.27m)	Friable, mid yellow brown silty sand with occasional medium sub-angular flint	Ditch; cut L2029; cut by F2020	Struck Flint (151g)
2028	2029	Linear, gently sloping sides, flat base (4.00+ x 0.48+ x 0.16	Friable, dark yellow brown silty sand with occasional small angular flint	Gully; cut L2031; cut by F2026	-
2030	2031	Linear, gently sloping sides, concave base (6.00+ x 0.36+ x 0.11m)	Friable, dark yellow brown silty sand with occasional small angular flint	Gully; cut L1002=2002; cut by F2028	-
2119	2120	Linear/ moderately	Loose, dark orange brown silty sand with occasional small to	Gully; cut L1002=2002;	Pottery (11g); struck flint (31g); burnt flint

		sloping to steep sides, v-shaped base (2.94m+ x 0.33 x 0.16m)	medium angular flint. Environmental sample 28 taken	sealed by L1001=2001	(267g); shell (1g)
2128	2129	Linear/ steep sides, concave base (6.70+ x 0.52 x 0.23m)	Friable, dark brown/ black silty sand with occasional medium angular flint. Environmental sample 30 taken	Gully; cut L1053=2134; sealed by L1001=2001	Pottery (79g); animal bone (2g); struck flint (104g); burnt flint (113g)
2135	2136	Linear/ Moderately sloping sides, flat base (7.00+ x 0.75 x 0.24m)	Firm, dark brown grey silty sand with occasional chalk flecks and small angular flint. Environmental sample 36 taken	Ditch; cut L1002=2002; cut by F2137	Burnt flint (154g)
2137	2138	Linear, gently sloping sides, flat base (7.00+ x 1.00 x 0.08m)	Firm, dark grey/ black silty sand with occasional chalk flecks and small angular flint	Ditch; cut L2136; sealed by L1001=2001	Struck flint (32g); burnt flint (370g)
2143	2161 (primary)	Linear/ Moderately sloping sides, concave base (8.20+ x 0.85 x 0.30m)	Firm, mid yellow grey silty sand with occasional small angular flint	Ditch; cut L1002=2002; cut by F2141 and F2159	-
	2144 (uppermost)		Firm, dark grey brown silty sand with occasional small to medium sub-angular flint. Environmental sample 34 taken		CBM (1g); animal bone (3g); struck flint (145g); burnt flint (46g)
2150	2151	Linear/ steep sides, concave base (9.90+ x 0.36 x 0.11m)	Friable, dark brown/ black silty sand with occasional small angular flint. Environmental sample 37 taken	Gully; cut L1002=2002; sealed by L1001=2001	Pottery (4g); struck flint (43g)
2159	2160	Linear/ gently sloping sides, flat base (3.50+ x 0.50 x 0.16m)	Friable, dark brown/ black silty sand with moderate small to medium angular flint. Environmental sample 38 taken	Ditch; cut L2144; sealed by L1001=2001	Pottery (11g); struck flint (114g)

Table 3: Phase 1 ditches and gullies

The Pits

5.5 Late Bronze Age/ early Iron Age pits were present across the site (Table 4; Figs. 4-6). No clustering of features was apparent, although several yielded sizable assemblages of struck flint in association with Post Deverel-Rimbury pottery – notably Pits F2103, F2126 and F2130 – possibly indicating the continued exploitation of flint technology into the early Iron Age (Peachey, this report – *The Flint*). Scientific dating of Pits F2103 and F2126 was undertaken in order to better understand the chronology of the recovered pottery as well as more securely date the lithic assemblage (see Mustchin with Summers and Peachey, this report – *Radiocarbon Dating Determinations*). Pit F2103 produced a calibrated date range of 1050-890 cal BC (90.3%) and 880-845 cal BC (5.1%) at 95.4% confidence. This date range 'may support an initial appearance of 'late' decorated [Post Deverel-Rimbury] wares in the 9th century BC, if not before' (Peachey, this report – *The Prehistoric Pottery*). Other Phase 1 finds of note include a fragment of saddle quern from Pit F2103 (L2106). This feature also yielded the bulk of the animal bone assemblage by weight, including an originally complete cattle skull from Fill L2105 (Plate 1). This was found in direct association with prehistoric pot sherds and might have represented a special deposit of some kind. Cunliffe (1992, 75) indicates that animal burials, often largely complete or whole, are common special deposits found in Iron Age pits across Britain.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1033	1034	Oval/ gently sloping sides, flat base (1.50 x 0.60 x 0.06m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Struck Flint (62g)
1035	1036	Circular/ gently	Firm, dark brown/ black clay silt	Pit; cut	Pottery (13g); burnt

		sloping sides, flat base (0.40 x 0.20 x 0.07m)	with occasional small sub-rounded flint	L1002=2002; cut by F1040=2077	flint (1g)
1045	1046 (primary)	Oval/ steep sides, flat base (0.60 x 0.40 x 0.10m)	Firm, dark brown silty sand with occasional medium angular flint	Pit; cut L1049; sealed by L1001=2001	-
	1047 (uppermost)		Firm, black silty sand with moderate medium angular flint		Pottery (4g); struck flint (7g)
1065	1066	Oval/ steep sides, irregular base (2.25 x 0.95 x 0.23m)	Friable, dark grey brown silty sand with occasional medium angular flint	Pit; cut L1064; sealed by L1001=2001	Pottery (15g)
2032	2033 (primary)	Circular/ moderately sloping sides, concave base (1.50 x 1.50 x 0.40m)	Friable, mid orange brown silty sand with occasional small to medium sub-angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (14g)
	2034 (uppermost)		Friable, dark orange brown silty sand with occasional small to medium sub-angular flint		Pottery (21g); struck flint (60g); burnt flint (185g)
2046	2047	Sub-oval/ steep sides, flat base (1.20 x 0.50 x 0.40m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Struck flint (178g)
2048	2049	Sub-oval/ steep sides, concave base (0.75 x 0.25 x 0.20m)	Friable, dark brown silty sand with occasional small to medium sub-angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (16g); struck flint (18g)
2085	2086	Sub-circular/ gently sloping sides, concave base (0.70 x 0.50 x 0.08m)	Friable, dark yellow brown/ black silty sand with occasional small angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Struck flint (30g)
2087	2088	Sub-rectangular/ vertical sides, base not excavated (1.10 x 0.48 x 0.25+m)	Friable, mid grey brown/ grey yellow silty sand with occasional small angular flint and chalk flecks	Pit; cut L1002=2002; sealed by L1001=2001	Struck flint (21g); plastic (likely intrusive; 2g)
2095	2096	Sub-circular/ gently sloping sides, concave base (0.40 x 0.30 x 0.06m)	Friable, dark brown grey silty sand with occasional small angular flint. Environmental Sample 22 taken	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (12g); burnt flint (1g)
2099	2100	Sub-oval/ moderately sloping sides, concave base (1.70 x 1.00 x 0.30m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint. Environmental Sample 23 taken	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (51g); struck flint (132g); burnt flint (203g)
2103	2104 (primary)	Sub-oval/ steep sides, flat base (2.44 x 1.90 x 0.40m)	Compact, red/ orange silty sand occasional small sub-angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Animal bone (73g); struck flint (15g)
	2105		Friable, mid orange brown/ grey silty sand with moderate small to large sub-angular flint. Environmental Sample 25 taken		Pottery (368g); struck flint (717g); burnt flint (1125g)
	2106		Friable, dark orange brown/ black silty sand with moderate small to medium sub-angular flint. Environmental Sample 26 taken		Pottery (4847g); animal bone (2389g); struck flint (3385g); burnt flint (1095g); quern fragment (2099g)
	2107 (uppermost)		Friable, mid orange brown/ grey silty sand with moderate small to medium sub-angular flint. Environmental Sample 27 taken		Pottery (668g); animal bone (77g); struck flint (883g); burnt flint (1052g)
2126	2127	Sub-circular/ near vertical, flat base (2.78 x 1.60 x 0.40m)	Friable, dark brown/ black sandy silt with frequent charcoal flecks and small to medium angular flint. Environmental Sample 29 taken	Pit; cut L1002=2002; cut by modern service	SF1 Fe (2g); pottery (155g); animal bone (15g); struck flint (1389g); burnt flint (1790g)
2130	2131 (primary)	Sub-oval/ gently sloping sides, flat base (2.20 x 1.10 x 0.18m)	Friable, mid yellow brown silty sand with occasional charcoal flecks and small angular flint. Environmental Sample 31 taken	Pit; cut L1002=2002; sealed by L1001=2001	-

	2132 (uppermost)		Firm, dark grey/ black silty sand with occasional charcoal flecks and small to medium angular flint		Pottery (590g); animal bone (1g); struck flint (371g); burnt flint (1435g)
2152	2153 (primary)	Sub-rectangular/ steep sides, flat base (2.25 x 1.20 x 0.40m)	Firm, orange/ red sandy clay	Pit; cut L1002=2002; cut by F2141 and F2154	-
	2156		Friable, dark brown/ black silty sand with occasional small to medium sub-angular flint		-
	2157		Friable, mid orange brown/ grey silty clay with occasional small to medium sub-angular flint		-
	2158 (uppermost)		Friable, dark brown/ black silty sand with occasional small to medium sub-angular flint		-

Table 4: Phase 1 pits

5.6 The Phase 1 pits varied greatly in terms of their size (in plan), profile and in the number of fills they contained. The majority yielded pottery and struck flint (generally in small quantities; Table 4), while four contained animal bone. Bar the cattle skull from F2103 (L2105; see above), the combined faunal assemblage from these features is also small. It is likely that much organic evidence has been lost, however, due to the acidic nature of the site's soils (Curl, this report – *The Animal Bone*; Soil Survey of England and Wales 1983, 11). Although the primary function of most of these features is difficult to determine, it appears that the majority were backfilled with domestic or industrial (see below) refuse. In the case of the smaller finds assemblages, this material may constitute chance inclusions. The larger groups from Pits F2103, F2026 and F2127 might indicate that these features were deliberately dug for the disposal of refuse, or that they had some special significance. Certainly the uniformity (in plan and profile) of large Pits F2103 and F2126 (and possibly smaller Pit F2046; Table 4; Figs. 4, 6 and 8) suggests that these features were intended for a specific purpose. The possibility that some of the deeper pits (e.g. F2126 and F2122; Table 4) were the result of small-scale chalk/ flint quarrying is also suggested by the relatively shallow outcropping of the natural chalk geology (L1002=2002) across the site.

5.7 Of the pottery-/ flint-rich features noted above, Pit F2103 was of particular interest. This relatively substantial feature (measuring 2.44 x 1.90 x 0.40m) contained four fills which appear (in section) to have been heated/ burnt (Table 4; Plate 2). Although environmental samples from F2103 only contained sparse charcoal, the colour of its fills – predominantly orange/ red/ black – suggests at least some exposure to heat. Burnt flint was also abundant within the upper fills of this feature. A calibrated radiocarbon date from Fill L2016, in addition to the diagnostic pottery assemblage, suggests that this pit was infilled at some point between the 9th and 6th centuries BC (Mustchin with Summers and Peachey, this report – *Radiocarbon Dating Determinations*; Peachey, this report – *The Prehistoric Pottery*). Large Pit F2152, some 134m to the south of F2103 contained four similar fills, both in terms of their composition and colour (Table 4; Plate 3). Although devoid of finds this feature was tentatively assigned a late Bronze Age/ early Iron Age date based on its similarities to Pit F2103. No discolouration of the surrounding natural, potentially indicative of *in situ* burning, was observed in either case.

5.8 Large Phase 1 Pit F2126 contained a dark brown/ black fill (L2127; Table 4), also suggestive of redeposited burnt material. Once again, however, a sample of L2127 contained only sparse charcoal. It is possible that the (apparently) burnt

material was derived from an industrial process of some kind or the cleaning out of domestic hearths/ ovens. A domestic source seems unlikely, however, due to the tendency of flint to explode when heated and cooled (Sieveking and Clayton 2011, 284). Attempts to radiocarbon date F2126 (Fill L2127 (Seg.A)) produced a date range of 165-130 cal BC (5.5%) and 120 cal BC-cal AD55 (89.9%) at 95.4% confidence. This mid 1st century BC to mid 1st century AD date range is considered erroneous, however, based on the generally accepted chronology of the pottery from this feature (*c*. 600/ 500 to 350/ 300 BC (Brudenell 2012, 195)) and the date obtained for Pit F2103 (see above).

5.9 Pits F2103, F2126 and F2130 were spread out across a distance of some 130m (with a minimum of 29m between features) (Figs. 3, 4 and 6). This broad distribution suggests that the struck flint from their fills was not the product of a focussed 'zone' of flint-working; rather that such activity was occurring across the immediate landscape. Similarly, it is not possible to speculate regarding the likely location of any nearby dwellings based on this distribution or the generally low numbers of finds from the Phase 1 features as a whole. Pottery from the Phase 1 pits does however attest to the presence of a later prehistoric settlement – possibly a small farmstead – somewhere in the immediate vicinity. The latter is also strongly suggested by the occurrence of an inhumation burial in Area 2 of the excavation and the remains of a putative granary structure in Area 1 (see below).

Structural Evidence

5.10 A possible late Bronze Age/ early Iron Age granary (Putative Structure 1) was encountered in Area 1 of the excavation, close to the existing arrivals lane. Putative Structure 1 was sub-rectangular in plan, formed of six regularly spaced postholes (Table 5; Plate 4; Fig. 4). Posthole F2067 included an *in situ* post-pipe (Fig. 8) and yielded a small assemblage (20g) of struck flint. Phase 1 Pit F2048 was present immediately to the north of this group. It is possible that these features represented the remains of a post-built structure measuring approximately 10.5m^2. Such structures are ubiquitous across southern Iron Age Britain and are commonly thought to have been raised store houses, intended to protect perishable commodities such as grain, dairy products and dried meat/ fish from moisture and rodent attack (Cunliffe 2010, 411; Cunliffe and Poole 1991, 115). While four-post structures are more commonly occurring, Cunliffe (2010, 411-12, fig. 16.2) cites examples with between five and nine post settings. On average these structures measure between 2.5m and 3m in length (*ibid*. 411), making the Elveden example, at *c.* 3.5m, comparatively large.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
2055	2056	Circular/ steep sides, concave base (0.45 x 0.40 x 0.10m)	Firm, mid orange brown/ grey silty sand with occasional small to medium sub-angular flint	Posthole; cut L2051; sealed by L1001=2001	-
2057	2058	Circular/ steep sides, flat base (0.40 x 0.30 x 0.20m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Posthole; cut L2051; sealed by L1001=2001	-
2059	2060	Sub-circular/ steep sides, flat base (0.40 x 0.30 x 0.20m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Posthole; cut L1002=2002; sealed by L1001=2001	-
2063	2064	Circular/ steep sides, flat base (0.50 x 0.50 x 0.20m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Posthole; cut L1002=2002; sealed by L1001=2001	-
2065	2066	Circular/ steep sides, flat base (0.40 x 0.40 x 0.20m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Posthole; cut L1002=2002; sealed by L1001=2001	-
2067	2069 (primary)	Circular/ steep sides, flat base (0.40 x 0.35 x 0.20m)	Friable, dark brown silty sand	Posthole; cut L1002=2002; sealed by L1001=2001	-
	2068 (uppermost)		Friable, dark orange brown silty sand with occasional small to medium sub-angular flint		Struck flint (20g)

Table 5: Putative Structure 1

Grave F2145

5.11 The only encountered funerary feature was located in Area 2 of the excavation. Shallow Grave F2145 (Table 6) was found adjacent to Phase 1 Gully F1052 (=2133; Plate 5), and may have occupied the south-eastern corner of an enclosure defined by Gullies F1052 (=2133) and F2128 (see above; Fig. 6). This feature contained the poorly preserved inhumation of an adolescent/ young adult of indeterminate sex (SK1; Curl, this report – *The Human Bone*). The skeleton lay in a flexed position, aligned N-S with the head to the north; the skull was looking west. No pathologies were observed on the skeleton and no cause of death was apparent, possibly reflecting the poorly preserved state of the remains (*ibid*.). The body had been covered by a single (surviving) backfill of dark brown/ black silty sand (L2146), containing modest quantities of burnt and struck flint and a single sherd (1g) of pottery.

5.12 Although not firmly datable based on the associated finds assemblage, SK1 fits the accepted pattern of early Iron Age burial practice in Britain. By this time, inhumation, rather than cremation was becoming the dominant funerary rite, with apparently 'casual' treatment of the dead having been evidenced at a number of sites across the south-east (Cunliffe 2010, 544, 552; see below). The location of Grave F2145, within the Phase 1 ?enclosure system, might suggest an informal funerary rite. Also, burials of this period were generally only sparsely adorned (*ibid.* 546). An early Iron Age inhumation at Duxford in Cambridgeshire, for example, was accompanied only by two polished stones and 18 sherds from a single pottery vessel (Lyons 2011, 12, fig. 7). A number of associated animal bones were also found (*ibid*.); similar biological evidence may not have survived at the current site due to the acidic burial environment.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
2145	2146	Oval/ gently sloping sides, concave base (1.49 x 0.64 x 0.11m)	Friable, dark brown/ black silty sand with occasional small sub-angular flint. Environmental Sample 35 taken	Grave; cut L1002=2002; sealed by L1001=2001	Pottery (1g); struck flint (43g); burnt flint (22g)

Table 6: Grave F2145

Spread L2140

5.13 A single Phase 1 spread (L2140; Plate 6) was present in Area 2 of the excavation. The dark orange brown/ black colour of this material (Table 7) suggested that it may have been exposed to heat; however, no charcoal component was evident and the associated animal bone (a single sheep/ goat molar) was unburnt (Curl, this report – *The Animal Bone*). No evidence of *in situ* burning was apparent. The dating of this spread was based on the recovered struck flint. L2140 was also equidistant between Phase 1 Ditch F2143 and Pit F2130 (Fig. 6).

Context	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
2140	(0.70 x 0.60 x 0.07m)	Firm, dark orange brown/ black silty sand with occasional small sub-angular flint	Spread; sealed L1002=2002; sealed by L1001=2001	Struck flint (11g); animal bone (4g)

Table 7: Phase 1 Spread L2140

Phase 2: Romano-British (mid 1st to early 2nd century AD)

5.14 Romano-British features were only present in Area 1 of the excavation. A partially intercutting group of four linear features may have represented the northern corner of an enclosure or similar (Fig. 4).

Evidence of Enclosure

5.15 The Romano-British ditches (Table 8) formed a partially intercutting group in Area 1 of the excavation. Ditches F1029 (=2072), F1040 (=2077) and F2074 appeared to represent consecutive cuts/ recuts of a single alignment (running *c.* E-W; Figs. 4 and 9). The exposed section of Ditch F1067 (=2070) ran approximately perpendicular to the above alignment, immediately to the south-west (Fig. 4). The number of fills present numbered between one and four, both between ditches and along the length of each. Certain fills (e.g. L1042 in Ditch F1040=2077; Fig. 9) appeared to comprise discrete dumps or lenses of material, not present in all excavated segments. A summary of the Phase 2 ditches is presented in Table 8.

5.16 In plan the Romano-British ditches appeared to form the northern corner of an enclosure or similar, the majority of which lay beyond the excavation to the south-east (Fig. 4). To the north-west, the projected alignments of these features meet less than 1m beyond the excavation edge. Finds from the ditches mostly comprise modest groups of Romano-British pottery (Table 8); Ditch F1040 (=2077) also contained 70g of animal bone and a small quantity of residual prehistoric sherds.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1029= 2072	1030 (primary)	Linear; gently sloping sides, flat base (8.90+ x 0.50 x 0.18m)	Friable, mid grey brown silty sand with occasional small to medium sub-rounded flint	Ditch; cut L1002=2002; cut by F1040=2077	-
	1031		Friable, light grey yellow silty sand with occasional small gravel		Pottery (100g); animal bone (11g); struck flint (167g); burnt flint (1360g)
	1032=2073 (uppermost)		Firm, mid grey brown silty sand with occasional small angular flint		Pottery (40g)
1076= 2070	1077=2071	Linear; gently sloping to steep sides, irregular base (8.50+ x 2.15 x 0.30m)	Friable, dark brown/ black silty sand with frequent small to medium sub-angular and angular flint	Ditch; cut L1002=2002; sealed by L1001=2001	Pottery (10g)
1040= 2077	1041 (primary)	Linear; steep sides, flat base (8.50+ x 1.37 x 0.33m)	Firm, mid grey brown clay sand with moderate small to medium angular flint	Ditch; cut L1032=2073 and L2076; cut by F2037	Struck flint (44g); burnt flint (73g)
	1042		Firm, light brown yellow sandy clay with frequent small gravel		-
	1043=2078		Firm, dark grey brown silty sand with moderate small to medium sub-rounded flint		Pottery (114g); animal bone (70g); burnt flint (4g)
	1044 (uppermost)		Friable, dark brown/ black sandy silt with moderate small to medium sub-angular and angular flint		Pottery (4g); burnt flint (4g)
2074	2075 (primary)	Linear; moderately sloping to steep sides, concave base (5.00+ x 1.52+ x 0.58m)	Firm, mid grey orange silty sand with moderate small sub-angular and angular flint	Ditch; cut L1002=2002; cut by F1040=2077	-
	2076 (uppermost)		Firm, light grey orange silty sand with occasional small sub-angular flint		Pottery (6g)
2108	2109	Curvilinear; moderately sloping to steep sides, flat base (5.00+ x 1.00 x 0.22m)	Friable, mid orange brown/ grey brown silty sand with occasional small to medium sub-angular flint	Gully; cut L1002=2002; sealed by L1001=2001	Pottery (21g); struck flint (15g)

Table 8: Phase 2 ditches and gullies

The Pits

5.17 The Phase 2 pits (Table 9) were located within and to the north-east of the putative Romano-British enclosure (see above). Two of these (F2079 and F2110) may have formed a feature cluster with similar, undated features in the vicinity although this interpretation is tentative. The undated pits and postholes in this area of the site did not appear to conform to any structural or otherwise functional arrangement. The only notable finds assemblage is from Pit F2110 (L2111) which yielded cross-joining sherds of a single storage jar (Peachey, this report – *The Roman Pottery*). The majority of the Phase 2 pottery assemblage is similarly utilitarian in character, comprising three locally-produced coarse wares (*ibid.*).

Posthole F1057

5.18 A single Romano-British posthole (F1057) was encountered in Trial Trench 2 of the evaluation (Table 10; Figs. 4 and 9). No *in situ* post-pipe was visible in section and this feature was not close to any other Phase 2 feature.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1027	1028	Sub-circular/ moderately sloping sides, irregular base (1.00 x 0.80 x 0.20m)	Firm, dark yellow brown clay sand with moderate small to medium angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (44g); struck flint (102g); burnt flint (168g)
2053	2054	Sub-oval/ moderately sloping sides, flat base (1.79 x 1.10 x 0.12m)	Firm, dark grey brown silty sand with occasional small sub-angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (108g); Fe (5g); struck flint (53g); Burnt flint (92g)
2079	2080	Sub-circular/ steep sides, irregular base (0.58 x 0.46 x 0.15m)	Firm, dark orange brown silty sand with occasional small angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (11g)
2110	2111	Oval/ steep to near-vertical sides, irregular base (0.94 x 0.26+ x 0.29m)	Friable, dark brown/ black silty sand with occasional charcoal flecks and medium angular flint	Pit; cut L1002=2002; sealed by L1001=2001	Pottery (5004g); Fe nail (1g)

Table 9: Phase 2 pits

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1057	1058 (primary)	Circular/ vertical sides, flattish base (0.48 x 0.24+ x 0.17+m)	Loose, light yellow grey sand	Posthole; cut L1002=2002; sealed by L1001=2001	Burnt flint (92g)
	1059 (uppermost)		Friable, dark grey/ black sand		Pottery (15g); struck flint (2g); burnt flint (310g)

Table 10: Posthole F1057

Undated Features

5.19 Twenty-nine undated features were encountered, distributed across the site (Figs. 4-6). These included two gullies and five postholes forming the outline of a putative post-built structure.

Putative Structural Remains

5.20 The ephemeral remains of a possible post-built structure were encountered in Area 1 of the excavation. Putative Structure 2 (Table 11) comprised five postholes forming an inverted L-shaped arrangement, measuring *c.* 2.3m x 1m (Fig. 4). The features forming this ?structure were smaller than those forming Putative Structure 1 (see above). One posthole (F2036) truncated Fill L1043 (=2078) of Romano-British Ditch F2077. If genuine, it is possible that only part of this (Romano-British or later) structure survived; all of the postholes were shallow and may have been severely truncated. The possible (overall) layout and function(s) of Putative Structure 2 remains uncertain.

The Remaining Undated Features

5.21 The remaining undated features mostly comprised pits and postholes (Table 12) though no further structural/ functional arrangements were apparent. An *in situ* post-pipe was clearly visible in Posthole F2003 (Fig. 9), which may have formed part of a loose cluster of similar features with Postholes F1010, F1012, F2003, F2006 and F2016 (Fig. 4). The purpose of these features is unclear, however. Undated

Posthole F2018 was also present a short distance to the south-west of this possible cluster (Fig. 4). Three of the undated pits (F2081, F2083 and F2089) contained identical fills and may have been contemporary. These features were located within the confines of the putative Phase 2 enclosure (see above) and may have formed part of a cluster of similar features in this area (including Phase 2 Pits F2079 and F2110); these interpretations remain tentative. Pit F2089 contained a modest quantity of struck flint (21g) but could not be confidently phased as its fill (L2090) also yielded 2g of plastic.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
2036	2037	Circular/ gently sloping sides, concave base (0.20 x 0.20 x 0.03m)	Friable, dark grey brown silty sand with occasional charcoal flecks	Posthole; cut L1043=2078; sealed by L1001=2001	-
2038	2039	Sub-circular/ gently sloping sides, concave base (0.12 x 0.10 x 0.02)	Friable, mid grey brown silty sand with occasional small angular flint	Posthole; cut L1002=2002; sealed by L1001=2001	-
2040	2041	Sub-circular/ gently sloping sides, concave base (0.20 x 0.18 x 0.04)	Firm, dark grey brown silty clay with occasional charcoal flecks	Posthole; cut L1002=2002; sealed by L1001=2001	-
2042	2043	Sub-circular/ gently sloping sides, concave base (0.16 x 0.15 x 0.01)	Firm, dark grey brown silty clay with occasional small angular flint	Posthole; cut L1002=2002; sealed by L1001=2001	-
2044	2045	Sub-circular/ gently sloping sides, concave base (0.26 x 0.24 x 0.06)	Firm, dark grey brown silty clay with occasional small angular flint	Posthole; cut L1002=2002; sealed by L1001=2001	-

Table 11: Putative Structure 2

5.22 Two gullies (F1050 and F2141; Table 12) were also undated; both were encountered in Area 2 of the excavation (F1050 was originally recorded in Trial Trench 5A of the evaluation). The single fill of Gully F1050 (L1051) was truncated by Phase 1 Gully F1052 (=2133) and this feature ran at right angles to the latter (Fig. 6). L1051 differed from F1052 (=2133) in plan and profile, however, and its fill was devoid of finds. Gully F2141, some 27m to the south, truncated the fills of Phase 1 Ditch F2143 and Pit F2152 (Figs. 6, 8 and 9). The alignment of this feature was not directly relatable to the Phase 1 linear features in this part of the site, however, and no datable finds were present in its fill.

5.23 The single undated feature of note was Pit F2016 (Table 12; Figs. 4 and 9). The fill of this feature contained a dense concentration of burnt flint (Plate 7); possibly refuse from some indeterminate industrial process. Phase 1 Pit F2032 was present *c.* 0.7m to the south-west of this feature. Although Pit F2016 cannot be confidently dated, the burnt flint from its fill is similar to material from the Phase 1 pits.

Feature	Fill(s)	Plan/ profile (dimensions)	Fill description	Comments/ relationships	Finds
1003	1004	Sub-circular/ steep sides, flattish base (0.45 x 0.36 x 0.29m)	Loose, light yellow grey sand	Posthole; cut L1002=2002; sealed by L1001=2001	-
1010	1011	Sub-circular/ steep sides, concave base (0.65 x 0.50 x 0.12m)	Friable, dark yellow brown silty sand with occasional small sub-rounded flint	Pit; cut L1002=2002; sealed by L1001=2001	-
1012	1013	Sub-circular/ moderately sloping sides, concave base (0.35 x 0.32 x 0.08m)	Friable, mid brown/ black silty sand with occasional small rounded flint	Pit; cut L1002=2002; sealed by L1001=2001	CBM (1g)
1037	1038 (primary)	Oval/ moderately sloping sides, concave base (0.44 x 0.35 x 0.18+m)	Firm, mid brown grey clay sand	Pit; cut L1002=2002; cut by F1040	-
	1039 (uppermost)		Loose, light grey yellow sand		-
1048	1049	Oval/ steep sides, concave base (0.50 x 0.40 x 0.22m)	Loose, mid yellow sandy silt with occasional small sub-angular and angular flint	Pit; cut L1002=2002; cut by F1045	-
1050	1051	Linear/ steep sides, flattish base (0.85 x 0.30 x 0.08m)	Firm, dark brown grey sandy silt with occasional medium angular flint	Gully; cut L1002=2002; cut by F1052=2133	-
1076	1077	Sub-circular/ gently sloping sides, flat base (2.00+ x 0.90+ x 0.59m)	Friable, dark orange brown silty sand with occasional small sub-angular flint	Pit; cut L1080; cut by F1072	-
1078	1079 (primary)	Sub-circular/ gently sloping sides, irregular base (2.00+ x 1.80 x 0.36m)	Friable, mid yellow brown silty sand with occasional small sub-rounded flint	Pit; cut L1001=2001; cut by F1076	-
	1080 (uppermost)		Friable, dark grey brown silty sand with occasional small sub-rounded flint		-
2003	2005 (primary)	Sub-circular/ moderately sloping sides, concave base (0.55 x 0.40 x 0.15m)	Friable, mid brown grey silty sand with occasional charcoal flecks	Posthole; cut L2002; sealed by L2001	-
	2004 (uppermost)		Friable, mid grey brown silty sand with occasional small sub-angular flint		-
2006	2007	Sub-circular/ steep sides, flat base (0.38+ x 0.33 x 0.15m)	Friable, dark brown grey silty sand with occasional small sub-angular flint	Pit; cut L2002; sealed by L2001	-
2016	2017	Sub-circular/ moderately sloping sides, concave base (0.50 x 0.45 x 0.25m)	Friable, dark orange brown/ black silty sand with frequent small to medium sub-angular flint	Posthole; cut L2002; sealed by L2001	Burnt flint (not recovered)
2018	2019	Circular/ moderately sloping sides, concave base (0.20 x 0.20 x 0.07m)	Friable, mid orange brown silty sand	Posthole; cut L2002; sealed by L2001	-
2050	2051	Sub-oval/ moderately sloping sides, concave base (2.10 x 0.50 x 0.20m)	Friable, dark orange brown/ grey silty sand with occasional small to medium sub-angular flint	Pit; cut L2002; cut by F2055 and F2057	-
2061	2062	Circular/ steep sides, concave base (0.20 x 0.20 x 0.20m)	Friable, dark orange brown silty sand with occasional small to medium sub-angular flint	Posthole; cut L2002; sealed by L2001	

2081	2082	Sub-circular/ near-vertical sides, irregular base (0.42 x 0.26 x 0.11m)	Compact, dark brown yellow sandy clay with occasional small angular flint	Posthole; cut L2002; sealed by L2001	-
2083	2084	Sub-circular/ near-vertical sides, flattish base (0.30 x 0.30 x 0.21m)	Compact, dark brown orange clay with occasional small sub-angular flint	Posthole; cut L2002; sealed by L2001	-
2089	2090	Sub-circular/ near-vertical sides, irregular base (0.28 x 0.26 x 0.21m)	Compact, dark brown orange clay with occasional small sub-angular flint	Posthole; cut L2002; sealed by L2001	Struck flint (21g); plastic (2g)
2091	2092	Sub-circular/ steep sides, concave base (0.24 x 0.22 x 0.13m)	Compact, dark brown orange clay with occasional small sub-angular flint	Posthole; cut L2002; sealed by L2001	-
2097	2098	Oval/ steep sides, concave base (0.82 x 0.58 x 0.24m)	Friable, dark yellow brown silty sand with occasional small to medium sub-angular and angular flint	Pit; cut L2002; sealed by L2001	Burnt flint (28g)
2101	2102	Sub-circular/ steep sides, concave base (0.50 x 0.40 x 0.08m)	Compact, light orange to mid orange brown silty sand with occasional small sub-angular flint	Posthole; cut L2100; sealed by L2001	-
2115	2116	Sub-oval/ near-vertical sides, irregular base (0.40 x 0.40 x 0.11m)	Compact, mid orange brown silty clay with occasional small angular flint	Pit; cut L2002; sealed by L2001	-
2121	2122 (primary)	Sub-circular/ moderately sloping sides, flat base (0.37 x 0.40 x 0.12m)	Friable, dark orange brown silty sand with occasional small angular flint	Posthole; cut L2002; sealed by L2001	-
	2123 (uppermost)		Friable, dark brown silty sand with occasional CBM flecks and small angular flint		-
2141	2142	Linear/ moderately sloping sides, flat base (10.50+ x 0.50 x 0.10m)	Firm, dark orange brown silty sand with occasional small to medium sub-angular flint	Gully; cut L2158 and L2144; sealed by L2001	Animal bone (37g); burnt flint (66g)
2154	2155	Circular/ steep sides, concave base (0.20 x 0.20 x 0.50m)	Friable, mid orange brown silty sand with occasional small to medium sub-angular flint	Posthole; cut L2158; sealed by L2001	-

Table 12: The remaining undated features

6 SPECIALIST REPORTS

The Prehistoric Pottery

Andrew Peachey

Excavations recovered a total of 884 sherds (7327g) of early Iron Age pottery in a well-preserved condition with a high proportion of cross-joining sherds (Appendix 1). The pottery was hand collected. The assemblage includes a highly significant diagnostic group in Pit F2103, a smaller group in Pit F2130, with a sparse distribution of further sherds in pit and ditch features, largely limited to body sherds (Table 13). The early Iron Age pottery groups are comprised of the characteristic mix of fabrics tempered with coarse or fine calcined flint, and the form types appear to conform to the 'late' decorated post Deverel-Rimbury (PDR) ceramic style, including bipartite bowls, impressed finger-tip and burnished decoration, and an omphalos base. It is

postulated that this ceramic style was current in the 6th to 5th centuries BC, but a calibrated radiocarbon date from Pit F2103 suggests origins possibly extending back to the 9th century BC.

Feature Group	Sherd Count	Weight (g)	R.EVE
Pit F2103	665	5883	1.26
Pit F2130	68	590	0.30
Other features	147	810	0.07
Subsoil	4	44	0.07
Total	*884*	*7327*	*1.70*

Table 13: Quantification of early Iron Age pottery in feature groups

Methodology

The pottery was quantified by sherd count, weight (g) and R.EVE with fabrics examined at x20 magnification in accordance with the guidelines of the Prehistoric Ceramics Research Group (PCRG 1995). All data were entered into a Microsoft Excel spreadsheet that forms part of the site archive.

Fabric types

Six hand-made, bonfire-fired fabric types were identified in the assemblage (Table 14), of which two could be described as common, equating to coarse (F1) and medium-coarse (F2) variants with calcined flint temper. Fine fabrics (F3 and F4) account for 9.8% of the assemblage by sherd count (12.3% by weight), with the slightly anomalous higher percentage of the total weight reflecting the greater liability of the coarser fabrics to be friable, thus tending to include higher quantities of small sherds, while the finer fabrics have a higher degree of robustness and durability. It is highly likely that the bulk of fabrics were produced in the local vicinity, especially given the abundant availability of raw flint in the Breckland, with only the rare F5 potentially a regional import, although this may simply reflect the expedient use of other types of stone present in local river or surface gravels.

Fabric Code	Fabric Texture	Fabric (temper) Description	Sherd Count (%)	Weight (g) (%)
F1	Coarse	Common coarse calcined flint (1-5mm)	478 (54.1%)	4174 (57.0%)
F2	Medium-Coarse	Common medium-coarse calcined flint (typically 0.5-2mm, occasionally to 4mm)	310 (35.1%)	2130 (29.1%)
F3	Fine	Common-abundant fine calcined flint	27 (3.1%)	274 (3.7%)
F4	Fine	Common fine calcined flint (0.25-1.5mm) with quartz sand (<0.5mm)	59 (6.7%)	631 (8.6%)
F5	Medium-Coarse	Sparse crushed medium coarse flint (0.5-2mm, occasionally to 5mm) and rock fragments (1.5mm) with sparse mica	2 (0.2%)	33 (0.5%)
FO1	Coarse	Poorly-sorted sparse calcined flint (0.5-3mm), quartz sand and (<0.75mm) burnt-out organic voids, probably chopped grass (1-5mm)	8 (0.9%)	85 (1.2%)
Total			*884*	*7327*

Table 14: Quantification of early Iron Age pottery by fabric type

The large group in Pit F2103 (L2105, L2106 and L2107) included all fabric types in proportions approximately paralleled in the total assemblage, except fabric FO1, which is absent. In contrast the group in Pit F2130 was almost entirely comprised of fabric F1, with a single sherd of F3 present. The rare sherds of fabric FO1 occur almost entirely in Pit F2126 (L2127), but isolated body sherds are present elsewhere. This composition of fabric types is typical of early Iron Age in the region (Martin 1999a, 74; Brudenell 2011, 12) and is closely comparable to those recorded

at Valley Belt, Trowse (Percival 2000, 170); however the Trowse assemblage had notably more equal proportions of coarse and fine fabrics, including several sandier variants. This may reflect the slightly contrasting local resources, but it is also noted that the finer fabrics are generally better fired. The dominant presence of coarse to medium-coarse fabrics is more consistent with the assemblages from Longham Site 7239 and Bittering Site 15910, where the early Iron Age assemblages may indicate a date centring on the 7th and 6th centuries AD (Percival 1999, 247-8); while a closely comparable profile of fabric inclusions and proportions was present at Framlingham (Martin 1993, 60). Sparse vessels in comparable calcined flint-tempered fabrics have also been recorded at Grimes Graves (Rigby 1988, 106: LP3 and LP6) and Barnham (Martin 1993, 15).

Form Types

The assemblage includes a minimum of 13 early Iron Age bowls or jars, excluding bases that may be associated with already quantified rim sherds (Table 15). The vessels may be broadly categorised according to the form types defined by Barrett (1980), and with the classes of vessel defined in the type-site assemblage from West Harling, Norfolk *c.*15km to the east (Table 15). The vessels predominantly comprise coarse bowls with limited surface treatment, including single examples of faint wiping and faint scoring; while a single coarse jar provides the only example of finger-tip impressed decoration (not on an applied band).

Barrett Form	West Harling Class	Summary Description	Fabric	MNV	R.EVE
1	II	Coarse jar, impressed decoration	F2	1	0.08
3	IV	Coarse bowl, limited surface treatment	F1,F2, F4 and FO1	8	1.32
1/3?	IV?	Small rim sherd of coarse vessel	F2	1	0.07
(1/3?)	(IV?)	Coarse basal sherds, probably associated with rim sherds above	F1	(3)	n/a
4	VI	Fine bowl, typically polished/burnished	F3 and F4	3	0.23
Total				*13 (16)*	*1.7*

Table 15: Quantification of early Iron Age vessel types using Barrett's (1980) form type and West Harling Class (Clark and Fell 1953), by minimum number of vessels (MNV) and rim estimated vessel equivalent (R.EVE)

The assemblage contains three fine bowls that comprise the all the examples of external burnished surface treatment present, including an omphalos base. All three fine bowls in association with five coarse vessels were contained in Pit F2103, predominantly in fill L2106; with three coarse bowls in Pit F2130 (L2132), a single coarse bowl in Pit F2128 (L2129) and a small, non-diagnostic coarse rim sherd in Subsoil L1001. Collectively the assemblage is consistent with 'late' or 'mature' decorated PDR wares from northern east Anglia, typically associated with the 6th to 5th centuries BC, but this chronology is not secure as discussed below.

Catalogue of Illustrated Vessels

Pit F2103

Fig. No.	*Fabric*	*Vessel type/decoration (Barrett Form/West Harling Class)*	*Parallels*
11.1	F3	Bipartite bowl; burnished exterior (4/VI)	West Harling (Clark and Fell 1953, 21: fig.15.72); Witton (Lawson 1983, 39: fig.32.6)
11.2	F3	Bipartite bowl; burnished exterior (4/VI)	West Harling (Clark and Fell 1953, 21: fig.15.67);

			Trowse (Percival 2000, 173: P89)
11.3	F1	Shallow-necked bowl, flat-topped rim (3/IV)	Trowse (Percival 2000, 174: P97); Feltwell (Brudenell 2011: fig.6.12; after Shand 1985) Longham Site 7239 (Percival 1999, 244: P40)
11.4	F2	Jar with upright rim and single row of finger-tip impressions at base of neck (1/II)	West Harling (Clark and Fell 1953, 17: fig.11.14)
11.5	F1	?Bipartite bowl with slight neck and everted plain rim (3/IV)	Aylsham Bypass (Brudenell 2011: fig.6.8)
11.6	F4	Bowl with upright rim and rounded shoulder (3/IV)	Witton (Lawson 1983, 39: fig.33.2)
11.7	F4	Omphalos base of fine bowl; burnished exterior (4/VI)	/
11.8	F2	Shallow-necked bowl, very thin base (3/IV)	West Harling (Clark and Fell 1953, 22: fig.16.94); Trowse (Percival 2000, 177: P124)

Gully F2128

11.9	FO1	Necked bowl, rounded shoulder (3/IV)	Witton (Lawson 1983, 39: fig.32.3)

Pit F2130

11.10	F1	Bowl with upright rim, ovoid body, traces of horizontal wiping and soot on the exterior (3/IV)	Witton (Lawson 1983, 39: fig.33.2); Trowse (Percival 2000, 174: P96)
11.11	F1	Shallow-necked bowl, faint vertical scoring on lower body (3/IV)	West Harling (Clark and Fell 1953, 19: fig.13.32)
11.12	F1	?Bipartite bowl with upright plain rim (3/IV)	Trowse (Percival 2000, 176: P122)

The most common form type, bowls with rounded girths and slight necks (Barrett Form 3/West Harling Class IV), exhibit slight variations in profile with rims typically slightly everted but ranging to upright. Vessels profiles were probably approaching bi-partite, although slightly less angular, and the bowls were almost all coarse, typically in fabric F1, with single examples in F2, FO1, and a single fine example in F4. However the bowls vary considerably in size with rim diameters ranging from 120mm (Fig. 11.12) to 300mm (Fig. 11.5), spanning and the median range of 'mature' decorated PDR vessels, and generally consistent with the common presence of 'standard' and 'large' bowls and lack of 'small bowls' (Brudenell 2012, 200-2). Evidence for function is limited, with surface treatment limited to faint vertical scoring (Fig. 11.11) and horizontal wiping (Fig. 11.10), with the latter also exhibiting the only incidence of external sooting in the assemblage. In addition to the defined vessels Pit F2103 also contained three bases in fabric F1 that are probably associated with this type of vessel. The bases exhibited considerable variation in their manufacture, with one preserving common medium flint grit on its underside with finger-tip impressions around the junction with the wall; another with abundant fine grit on its underside; and another 'un-gritted'. This supports a degree of personal preference expressed by multiple potters, possibly also reflected in the minor variations in profile, and suggests that although the vessels were produced in the locality they were brought, gathered or traded to eventually be consumed and deposited around these pit features.

The remaining coarse vessel, the only jar in the assemblage (Fig. 11.4) is in fabric F2, with a relatively wide diameter of 240mm, and is the only vessel in the assemblage to exhibit finger-tip impressed decoration, in this example applied as a single row at the junction of the neck/shoulder. The principal form of decoration comprised the investment of time to burnish the exterior surfaces of the fine bowls in the assemblage (Figs. 11.1 and 11.2), which while thinner-walled and more angular that their coarse counterparts, occur in a similar size range with rim diameters of 160-200mm. The omphalos base (Fig. 11.7) also had a burnished exterior but is

conclusively not part of either of the bi-partite fine bowls identified, but of a further bowl.
The range of diagnostic vessel types in the Pit F2103 and F2130 groups conform to the characteristics of 'late' or 'mature' decorated PDR assemblages in the region (Brudenell 2011, 20; 2012, 197-9); principally the slightly more sinuous profiles and rounded shoulders of coarse ware vessels, combined with a decline in decoration, although fine ware bowls remain highly burnished but in this assemblage without further ornamentation. The vessels are broadly paralleled across the region of central-south Norfolk and north Suffolk (see above), encompassing an area that would become 'the land of the Iceni' later in the Iron Age, and which has a distinction from the early Iron Age styles of the adjacent East Anglian regions, in part due to a lack of certainty in dating assemblages and in part to cultural and technological contrast (Brudenell 2011, 21; 2012, 131).

However, there is a notable contrast in this assemblage with the 'type-site' of West Harling (Clark and Fell 1953) in that there is an absence of applied cordons and pierced sherds; a contrast that may also be made with the assemblage from Framlingham (Martin 1993, 60), where there is a common incidence of finger-tip impressed decoration more typical of the classic 'West Harling style'. This trait of reduced or negligible decoration has previously been noted at Valley Belt, Trowse (Percival 2000, 178-9) and Bittering Site 15910 (Percival 1999, 247-8), but it remains unclear whether this reflects a distinction in chronology, function or choice. The decline in decoration between 'early' and 'late' decorated PDR assemblages typically coincides with the disappearance of omphalos bases (Brudenell 2012, 197). This is contra the occurrence of an omphalos base in this assemblage, but the incidence of an example in Pit F2103 may betray an earlier chronology, in an assemblage that otherwise displays the traits of a later ceramic style, however illusory. There can be little doubt that the limited sample (assemblage) from the two principal Pit groups: F2103 and F2130 form homogenous deposits, potentially representing domestic refuse or midden material deposited relatively rapidly in association with struck flint debitage, animal bone and quern fragments, rather than as a more structured deposition.

This phase of the early Iron Age ceramic sequence is typically dated between *c*. 600/ 500-350/ 300 BC, and assigned to the stylistic group of 'late' or 'mature' decorated PDR vessels (Brudenell 2012, 195). Close comparisons with the assemblage from Valley Belt, Trowse suggest a ceramic style consistent with that currently postulated for early Iron Age Norfolk including a chronology potentially centred on the 5th century BC (Percival 2000, 179); however the similar pottery from Bittering Site 15910 may be centred on the 7th-6th centuries BC, but neither was supported by radiocarbon dates. Therefore, it may be either anomalous or incisive that of limited viable samples, a single useful calibrated radiocarbon date range was returned from Pit F2103 (L2106): 1050-890 cal BC (90.3%) and 880-845 cal BC (5.1%) at 95.4% confidence levels; i.e. mid 11th to early 9th century BC and early 9th century BC (see Mustchin with Summers and Peachey, this report – *Radiocarbon Dating Determinations*). Such a date range is more typical of 'mature' plainware PDR and transitional 'early' decorated PDR (Brudenell 2012, 150), but the limitations of our understanding of radiocarbon date-supported chronologies relative to a secure ceramic framework in Norfolk and Suffolk have previously been highlighted (Brudenell 2011, 19; 2012, 213). This assemblage may reinforce a sub-regional

trend, inconsistent with broad ceramic styles. Recent radiocarbon dates from Micklemoor Hill, West Harling (Brudenell 2012, 155-6) have proved continuity of earlier styles, potentially including omphalos bases such as that present in this assemblage; while this assemblage may support the earlier development of typically 'late' decorated PDR vessels alongside elements such as the same omphalos base, anchored earlier within the stylistic progression. Indeed in northern East Anglia traits typical of 'early' decorated wares appear to persist into the 5th/4th centuries BC (Brudenell 2012, 197), and these groups may support an initial appearance of 'late' decorated wares in the 9th century BC, if not before; perhaps supporting a conclusion that the groups in Pits F2103 and F2130 may have a date range spanning the 9th-6th centuries BC with an earlier focus than stylistic typologies would suggest.

The Roman Pottery: A MAP2 Assessment
Andrew Peachey

Excavations recovered a total of 110 sherds (5419g) of Roman pottery (hand collected; Table 16); the bulk of which was derived from a single storage jar in a pit, with further sherds of locally-produced coarse ware associated with this vessel very sparsely distributed in ditches and gullies. The limited form types present indicate a homogenous assemblage that dates between the mid 1st to early 2nd century AD, probably associated with low status or peripheral rural activity.

Fabric Code	Fabric (temper) Description	Sherd Count	Weight (g)
SOB GT	Southern British ('Belgic') grog-tempered ware	47	5026
BSW	Romanising/ Black-Surfaced grey ware	47	262
WAT RE	Wattisfield/ Waveney Valley reduced ware	16	131
Total		*110*	*5419*

Table 16: Quantification of Roman pottery by fabric type

The bulk of the Roman pottery is accounted for by cross-joining sherds of a single SOB GT storage jar contained in Pit F2110 (L2111). The wheel-made fabric SOB GT (Tomber and Dore 1998, 214) has its origins in the pre-Roman late Iron Age but continued into the Roman period, especially for large storage jars that were manufactured into the 3rd century AD. However; although the rim and base of this vessel are missing, the upper body and neck sherds indicate this was a shouldered storage jar with a slightly off-set everted rim and vertical combing on the exterior; comparable to post-Roman Conquest examples at Melford Meadows (Rollo 2002, 87: fig. 54.1) and Hacheston (Arthur and Plouviez 2004, 166-7: type 31B) dating to the mid 1st to early 2nd centuries AD.

In addition to the SOB GT storage jar, Pit F2110 also contained sparse sherds of WAT RE and BSW. The highly micaceous WAT RE (Tomber and Dore 1998, 184) was the product of a major pottery industry in north Suffolk/south Norfolk, while BSW represents a post-Roman Conquest transitional fabric between SOB GT and the generic sandy grey wares that epitomise Roman coarse wares in East Anglia. In Pit F2110 the WAT RE included a straight-sided cordoned bowl imitating samian form Dr.30 (Symonds and Wade 1999: type Cam.69B/320) that was produced in the mid 1st to 2nd centuries AD, and is comparable to vessels at Scole (Rogerson 1977, 180: fig.76.81). A second WAT RE vessel in the assemblage comprised a beaker with a flaring rim (Arthur and Plouviez 2004, 164-5: type 15A) typical of late 1st to early 2nd century AD types, with fragments of the single vessel contained in both Posthole

F1057 (L1059) and Ditch F1029 (L1031). The BSW was limited to non-diagnostic body sherds, but was consistent with a date before the early/ mid 2nd century AD.

The Small Finds
Nicholas J. Cooper

Introduction

A total of three iron finds and one of stone were recovered during the excavation (hand collected). The finds were identified and catalogued as follows.

Catalogue

Objects of Iron

1. SF1 (Pit F2127 (Seg.A)). Short tapering length of iron sheet object, bent at right-angles. Length 24mm, maximum width 11mm; minimum width 5mm.
2. (Pit F2053) Broken tip of iron knife blade. Broken length 28mm; width 17mm.
3. (Pit F2110) Sample No. 24. Complete iron hobnail of Manning's Type 10 (1985). Length 14mm; width of head 7mm.

Object of Stone

4. (Pit F2103). Fragment of saddle quern manufactured from a boulder of fine grey sandstone, probably originally oval with about 30% form one end surviving. Upper surface is smooth and very slightly convex. Skirts or sides are vertical and the underside is undressed. Surviving length 114mm: width 170mm: thickness 64mm.

Discussion

Unfortunately objects 1 (SF1) and 2 are too un-diagnostic to identify further, the former sheet fragment coming from a late Bronze Age/ early Iron Age context, and the latter blade tip from a fill of a 1st or 2nd century AD pit. The hobnail from a shoe (object 3) was also recovered from a Romano-British pit and would have been one of about 50 that would have adorned the sole of each shoe.

The fragment of saddle quern came from a late Bronze Age/ early Iron Age context and represents the main method of processing grain for flour prior to the development of rotary querns.

The Flint
Andrew Peachey

Introduction

Excavations recovered a total of 339 pieces (9491g) of struck flint in a well-preserved, un-patinated condition (hand collected; Appendix 2). A large proportion of the assemblage is accounted for by significant groups of unsystematic flake cores and associated debitage contained in Pits F2103 and F2126 (Table 17) with early

Iron Age ceramics. These groups appear to be the result of *in situ* knapping in the immediate vicinity of the pits, with further small groups of struck flint in Pits F2053, F2099 and F2130 and the wider assemblage broadly consistent with this technology. Implements are rare, but include a hammer stone, end and horseshoe scrapers that may be contemporary with the on-site knapping. The cores are entirely un-systematic and exhibit extensive evidence of direct, hard-hammer percussion; flake scars that characterise the debitage flakes, typically slightly irregular to sub-rectangular in profile, frequently with broad, partially shattered bulbs of percussion and irregular terminations. Evidence for the continued utilisation of lithic technology through the late Bronze Age, into the early Iron Age and beyond has become irrefutable. Many defining technological traits or lack thereof have been identified (Young and Humphrey 1999, 232-3; Humphrey 2003, 20; Humphrey 2007, 145), and although they are rarely conclusive in isolation, this assemblage includes the primary deposition of cores and debitage contextually associated with a range of early Iron Age pottery and other artefactual/ ecofactual material that support this later prehistoric exploitation of flint.

Flint Type	Pit F2103		Pit F2126		Other features	
	F	W	F	W	F	W
Hammer-stone	-	-	-	-	1	391
Scraper	-	-	-	-	4	126
Nodule fragment ('quartered')	3	2093	-	-	-	-
Core	5	465	2	157	6	371
Core fragment	3	181	1	76	-	-
Core trimming Flake	-	-	7	303	3	229
Other Debitage	112	2438	65	805	127	1856
Total	*123*	*5177*	*75*	*1341*	*141*	*2973*

Table 17: Quantification of struck flint by type, frequency (F) and weight (W, in grams), in major pit groups and other features

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. At a basic level, debitage was assigned to a profile and size group (i.e. slightly irregular and 30-50mm long); however the groups in Pits F2103 and F2126 were selected for an enhanced level of recording, where individual debitage flakes were measured to allow size ranges to be plotted. A 'blade' is defined as an elongated flake whose length is at least twice as great as it's breadth, often exhibiting parallel dorsal flake scars (a feature that can assist in the identification of broken blades that, by definition, have an indeterminate length/ breadth ratio).

Raw Material

The raw flint in the assemblage is uniformly very dark grey to near black with, where extant, a chalky white cortex up to 10mm thick; typical of the high quality flint sourced locally from the chalk underlying the Breckland region (Orna and Orna 1982, 2). Pit F2103 (L2106) contained re-fitting fragments of an extracted raw flint nodule that has been broken or 'quartered' by human agency, to create workable fragments that could be utilised as cores. Although based on a limited extent of approximately 130mm^2, the nodule appears to have a consistent thickness of *c.*100mm, suggesting it may comprise tabular flint mined from the Breckland. One important caveat and additional step in the procurement process of raw material is that successive generations of flint workers (miners), probably Neolithic left large quantities of discarded or stockpiled material in the vicinity seemingly with little concern, resulting in the availability and exploitation of higher quality raw flint than the more weathered and flawed topstone typical of later prehistoric flint work (Young and Humphrey 1999, 232; Humphrey 2003, 30), as previously observed at Grimes Graves (Herne 1991, 29; Mercer and Saville 1981, 2). The availability and advantage provided to potential early Iron Age flint knappers by this tertiary source of high quality raw material should not be under-estimated and contrasts with that available at West Harling, where nodular surface flint was sourced from local gravel ridges (Young and Humphrey 1999, 236), probably reflecting its location *c.*19km to the east and slightly more distant form the area of former Breckland flint mines, highlighting the 'locality' of natural resources.

Technology

The assemblage contained a total of 13 cores and fragments 4 further cores, with the bulk contained in Pits F2103 and F2126 (Table 17). The cores exhibit a homogenous reduction process, in as much as that they are irregular and unsystematic flake cores that were rotated to utilise an expedient striking platform. A single core in Ditch Terminus F1054 appears discoidal, but more likely reflects the exploitation of a flint pebble that had natural striking platforms around its circumference. The cores all exhibit multi-directional flake removals, with common scars of shattered bulbs of percussion, hinge and step terminations. Every core appears to have been heavily reduced from its original size with little or no cortex remaining. Conflating the dimensions of the complete cores, the upper size limit of such a core in 80 x 60 x 40mm, and the lower size limit 45 x 30 x 15mm; however the typical size range is within a length of 50-65mm, a width of 40-50mm and a depth of 30-40mm; often with little difference between the length and width and a slightly squat appearance. The cores range in weight from 30-122g, with an average weight of 76.4g; although it is notable that the five cores deposited together in Pit F2103 appear exhausted but have a higher average weight of 93g. The presence of simple core technology employing hard hammer, direct percussion, with a lack of skill evidenced of irregular morphology and flake scar patterns with a high incidence of step and hinge terminations has been identified as a key tenet in the recognition of Iron Age flintwork (Young and Humphrey 1999, 232-3; Humphrey 2003, 20; Humphrey 2007, 145), with seven crude, irregular, multi-directional flake cores recorded at West Harling forming a close late Bronze Age to early Iron Age parallel (Young and Humphrey 1999, 236). Intriguingly at Silfield, Wymondham and in the general pattern of Iron Age flake production, irregular cores appear to have been produced and abandoned following expedient removals (Robins 1996, 269), in contrast to the extensive removals from the cores in this assemblage, albeit with

equally crude or reduced levels of skill, possibly reflecting the higher quality of the raw flint, which had less of a propensity to shatter under the substantial force of percussion utilised.
The pattern of flake scars evident on the cores correlates very closely with the morphology of the debitage flakes that form the bulk of the assemblage, notably including 112 debitage flakes in Pit F2103 and 72 debitage flakes in Pit F2126 that would appear to have been deposited as bi-products of knapping in the immediate vicinity and whose depositional integrity forms the focus of the analysis of the debitage. As with the cores, the characteristics of the debitage in this assemblage are broadly consistent with those identified from Iron Age flint work (Young and Humphrey 1999, 232-3; Humphrey 2003, 20; Humphrey 2007, 145): principally short, squat flakes that tend towards thick, squarish dimensions, pattern of dorsal flakes cars that are not regular, a high incidence of irregular terminations, wide striking platforms, and a predominance of tertiary and un-corticated flakes; but the two pit groups can allow for some more detailed comments to be made.

In both Pits F2103 and F2126 tertiary and un-corticated flakes account for c.90% of the debitage flakes present, with primary and secondary 'core trimming' flakes notably in Pit F2126 (L2127 (Segs.A and B) exhibiting partially facetted butts, or butt ends (only) exhibiting a dorsal scar of a previous flake removals, where the core was rotated as cortex was removed, in turn creating a fresh expedient stroking platform. The common tertiary and un-corticated flakes exhibit a considerable range in size, but their distribution clusters around *c*. 20-50mm in length/ width with proportions that tend towards squarish but often slightly broader than long (Chart 1). A closely comparable distribution and range was observed in the plot of flake measurements from the Iron Age settlement at North Berstead, West Sussex (Humphrey 2007, 147), while the same study noted at similar distribution but a narrower range at other sites in Wiltshire and Leicestershire. It is notable that in comparison to middle Bronze Age debitage from the 1971 shaft at Grimes Graves, where levels of skill were already supposedly in decline, the range of sizes and ratio of length:width is similar but much more evenly distributed between 0-80mm (Mercer and Saville 1981, 14); while that from the surface area has a very similar profile (Mercer and Saville 1981, 28 and 34), prompting contested questions of potential continuity masked by occupation layers that lack any other distinguishing artefact types. The thickness of the flakes is most commonly less than 10mm and only rarely above 15mm (Chart 2), which while thicker than some earlier Neolithic blades is not emphatically thicker than one might expect of many flakes in prehistoric assemblage, contra the postulated pattern. It is notable that while the smallest tertiary and un-corticated flakes include a low proportion of chips for Iron Age assemblages, and while they tend to be thinner, this is proportional to their overall size and leads to a propensity to shatter or snap.

More typically, bulbs of percussion are wide and pronounced, forming part of a broad butt end that frequently preserved part of a large striking platform; however the force of the direct percussion frequently results in the shattering, wholly or partially of these bulbs of percussion, with approximately 40% of the bulbs of percussion in F2103 and F2126 shattered (Chart 3), and little bias evident towards flake type, except where the sample size is very limited (primary/secondary flakes). This unintentional result of direct percussion, combined with facetted edges resulting from core rotation, can result in some neat, refined flakes that are persuasive of a higher

level of skill. Four flakes in Pit F2103 (L2105, L2106 and L2107) and F2126 (L2127 (Seg.A)) exhibit bulbs of percussion that have been completely shattered in a manner that the ventral ace has scars not dissimilar to the dorsal face, albeit emanating from the bulbar end, rendering them as 'janus' flakes similar to blanks deliberately produced in the later Neolithic and early Bronze Age. Three further flakes, also in Pit F2126 (L2127 (Seg.A)) may also be subjectively identified as flake blanks, as a result of being removed from a rotated core and truncating the scars of previous removals thus creating a fairly regular scalloped or facetted curved edge around a sub-circular flake; however the shattered bulbs of these flakes are less consistent with Levallois-type removals (flake blanks) of the preceding prehistoric periods, nor is there any evidence of further modification or re-touch. The general lack of skill (or care) in the process of flake removal is betrayed by the high incidence of irregular terminations recorded on the debitage flakes: *c*. 64% in Pit F2103 and *c*. 51% in Pit F2126 (Chart 4), with hinge terminations roughly equating to the total of step and overshoot terminations present.

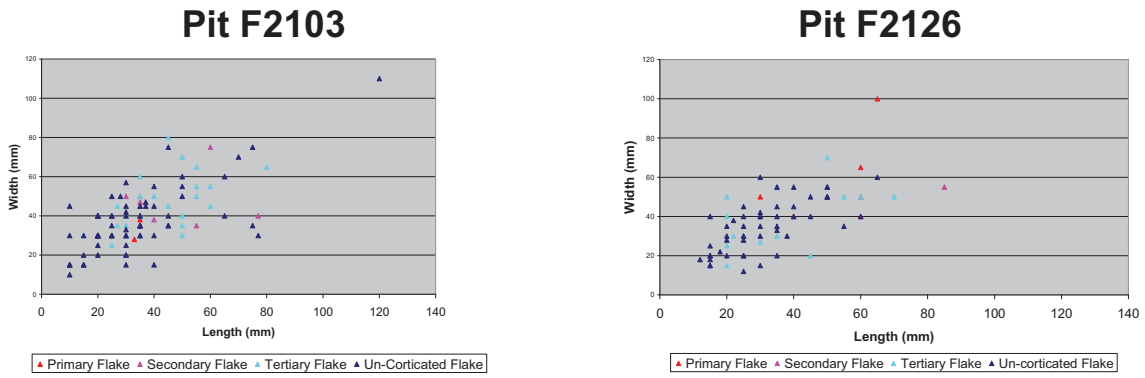

Chart 1: Length:width profile of debitage flakes

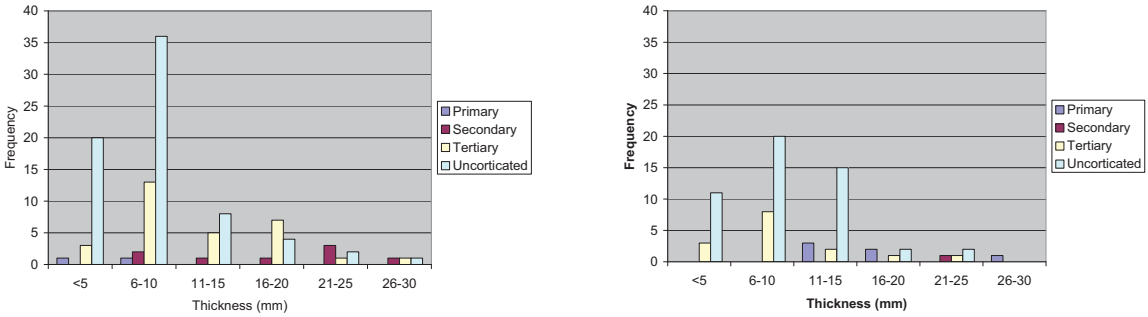

Chart 2: Thickness of debitage flakes

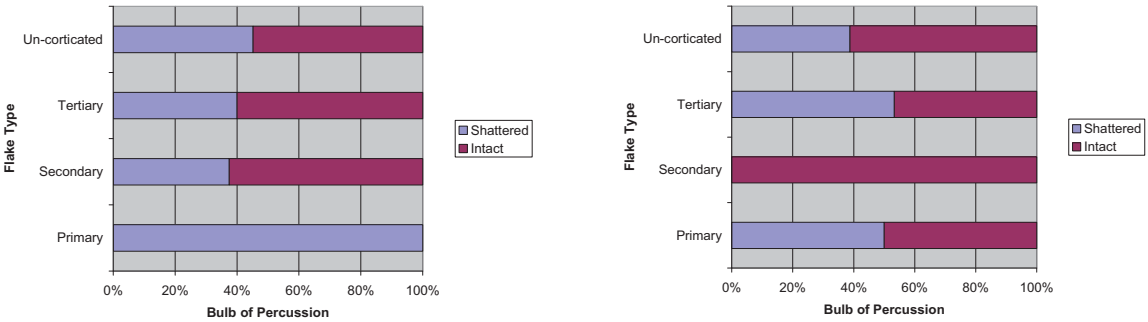

Chart 3: Bulb of Percussion

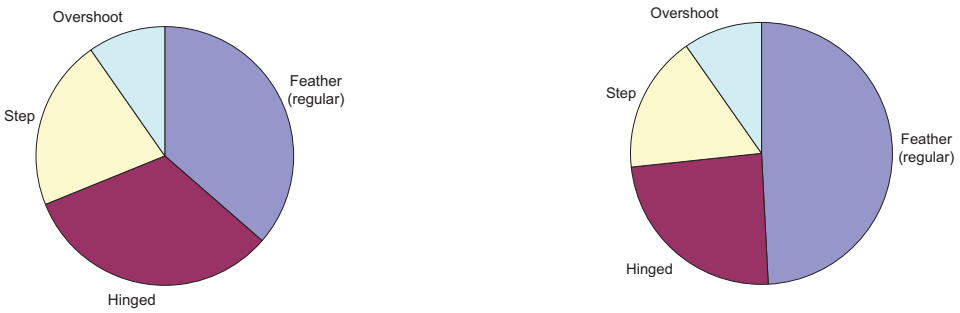

Chart 4: Flake Terminations

Implements

Implements of any type are very rare in the assemblage and limited to scrapers and a single hammer stone. One scraper was contained in Pit F2130, associated with a significant concentration of early Iron Age pottery, while the technological traits of scrapers in Ditches F1033 and F2026 are consistent with the flake technology outlined above, but no implements were present in the concentrations of struck flint in Pits F2103 and F2106. A single horseshoe scraper contained in Ditch F1040 (L1041) is anomalous in that it is neatly re-touched and exhibits a high degree of patination that suggest an earlier prehistoric origin, probably in the earlier Neolithic.

The early Iron Age scrapers do not exhibit any uniformity in their morphology, comprising a horseshoe scraper in Pit F2130 (L2132), and end scraper in Ditch F1033 (L1034) and a thumbnail scraper in Ditch F2026 (L2027). The horseshoe scraper mirrors closely the debitage flakes outlined above with a partially shattered bulb of percussion, broad striking platform and multi-directional flake scars; contrasting only in that coarse retouch has been applied to one half of the ventral face, and the other half of the dorsal face, thus forming a crude scraping edge around most of the circumference. In contrast the end scraper was formed on a hard hammer struck flake, removed from a re-used, patinated core, supporting the theory that raw materials were sourced from flint discarded by earlier knappers/ miners on the Breckland. The thumbnail scraper has abrupt re-touch around its circumference, excluding the butt end, and is comparable to characteristic types produced in the early Bronze Age; however it is associated with an unsystematic flake core and debitage typical of this assemblage indicating probably early Iron Age origins. Closely comparable scrapers to the end and thumbnail types in this assemblage have been recorded in associated with Iron Age pottery at Silfield, Wymondham; while the re-use of patinated flakes/cores was also noted there and in the late Bronze Age debris from the 'Black Hole' at Grimes Graves (Robins 1996, 268-9). Scrapers were also the only clearly discernible artefact type at West Harling, and conform to the postulated pattern of restricted formal tool types associated with early Iron Age flint work (Young and Humphrey 1999, 233 and 236).

Crude hammer stones are also a postulated feature of Iron Age flint working assemblages; however in East Anglia this is a problematic distinction as many hammer stones throughout prehistory are simply selected from approximately spherical pebbles of varying size, weight and hardness, whose only evidence for being utilised comprises one or more worn faces. A single hammer stone (391g) was contained in 'Feature' F1074 (L1075) and was manufactured from the same

local flint as the nodule fragments, cores and debitage in the assemblage. The hammer stone is roughly semi-hemispherical with several flakes seeming removed to create a single slight protrusion, seemingly designed to facilitate the effectiveness of hard-hammer, direct percussion flake removal, and yet slightly at odds with the supposed lack of skill in early Iron Age flint work, and possibly more reflective of a less concern or requirement for accuracy or aesthetics in the desired product (Humphrey 2007, 148). Experimental modern flint work has classified the range of hammer stones in a knapper's kit, with this example conforming to a medium-large sized, hard implement (Whittaker 1994, 87; Lord 1993, 24); however the knapping process in this instance appears simpler and not to have utilised such a range of tools, requiring only a hammer of sufficient weight fulfilled by this implement, and suggesting it was not an expedient tool but deliberately retained for continual use. An alternative origin, may be suggested by the presence of flaked or abraded flint hammer stones in a middle Bronze Age shaft at Grimes Graves whose median weight and size is very close to this example (Mercer and Saville 1981, 4-5) suggesting that, as with some of the raw flint, potentially the hammer stone may have been sourced from within surface deposits of earlier prehistoric flint, but the lack of patination indicates if this was the case it must have been shielded from weathering processes.

Discussion

The assemblage is principally comprised of important diagnostic groups of discarded exhausted cores and debitage, whose irregular, un-systematic and slightly crude morphology and technology support their association with significant quantities of early Iron Age pottery. The assemblage includes well-preserved (un-patinated) high concentrations of in Pits F2103 and F2126, with further small consistent groups notably in Pits F2053, F2099 and F2130 that appear to represent the bi-products and discarded flint from knapping in the immediate vicinity. This knapping is characterised by extensive flake production and reduction of un-systematic cores using hard hammer, direct percussion through the medium of a relatively heavy hammer stone, such as that in F1074. both the cores and the hammer stone utilise locally available, high quality Breckland flint, possibly re-cycled from material discarded in earlier prehistoric periods, but including floor stone 'nodule' fragments whose primary or secondary deposition are unclear. The principal product of this industry are tertiary and un-corticated flakes with a squarish to slightly broad profile in a relatively consistent size range; albeit with pronounced, often shattered bulbs of percussion and a high incidence of irregular terminations. Evidence for the utilisation of these flakes is poor, with implements rare and limited to scrapers, including isolated horseshoe, end and thumbnail types.

The defining technological traits of early Iron Age flint work have been broadly postulated and contested (Young and Humphrey 1999, 232-3; Humphrey 2003, 20; Humphrey 2007, 145), with particular reference in Norfolk to assemblages from West Harling and Silfield, Wymondham. This assemblage is broadly consistent with the proposed model, albeit with some minor discrepancies potentially linked to local variation. It provides an important addition to the catalogue of early Iron Age sites with the later prehistoric continuation of flint work, with an increased worth due to the secure dating and artefact association in Pits F2103 and F2126 that cannot be confused with residuality (Humphrey 2003, 17). The discrepancies with the

postulated model are principally that while core reduction and flake production methods are un-systematic and utilised continually rotated cores, this does appear to have been conducted with a degree of regularity and care to result in a relatively consistent size range of flakes, not overly thick that sometimes coincide with a dorsal or edge scar pattern approaching that of flake blanks deliberately produced in the later Neolithic and early Bronze Age; albeit often with shattered bulbs of percussions and irregular terminations that betray an ambivalent or low level of skill. This slightly elevated degree of consistency is probably related to the prevalence of the high quality raw material available on the local Breckland that in turn reduces the risk of shatter and unpredictable removals associated with poorer quality flint and chert; with the variability and lack of definitive identification of Iron Age flint work acknowledged as potentially clustered or masked by local geology (Humphrey 2007, 154). It also supplements an ever increasing pattern in Norfolk, where the Breckland chalk geology may also underlie potential Iron Age flint utilisation at London Road (Gardiner 1993) and Fison Way, Thetford (Gregory 1991).

The relative lack of implement types is at odds with the level of debitage, but this may represent a superficial distinction, with experiments illustrating that a range of 'flawed' debitage flakes were as effective when deployed for a range of butchery tasks as traditionally defined implements (Humphrey 2007, 152). Therefore the high concentrations of debitage in the Pits F2103, F2126 and sparsely distributed elsewhere may indeed represent the expedient use of local raw material, but not simply be the discarded bi-product of rejected flakes and cores from flint tool production. The cores and debitage may instead be associated with a specific non-flint material process also conducted on the site, such as butchery associated with a domestic mode of production, where it is suggested flint tools continued the longest in a practical context, long after being replaced as fancy or status items in other contexts (Humphrey 2003, 20). It appear likely in this context, the struck flint would have been collected together in association with other artefacts and ecofacts that were discarded into rubbish pits as this working area was abandoned, but this remains hypothetical.

The Human Bone
Julie Curl

Introduction

One inhumation burial (SK1) was encountered during excavations at Elveden. The bone from Grave F2145 was in very poor condition and difficult to excavate, resulting in a poor quality assemblage; the bone was hand collected. The remains could be identified as an adolescent/ young adult.

Methodology

The human remains were recorded following modified guidelines produced by English Heritage (Mays 2004) and the IfA (Brickley and McKinley 2004). All of the bones were quantified by skeleton number or context and an estimate of the minimum number of individuals was recorded based on counts of the most frequent elements recorded and ages of those present. All elements were examined for pathologies, genetic traits and other modifications, noting the location on the body.

Bone fusion and tooth wear were noted when possible to allow estimation of age following Brothwell (1981). Full recording was made on skeleton record sheets and data input into an MS Excel spreadsheet; summary tables of these data are included in Appendix 3.

The Human Assemblage

Skeleton 1 (Grave F2145; Fill L2146) comprised 100 fragments of bone, totalling 63g in weight. The bone was in very poor and friable condition, being highly fragmented and eroded. The erosion is likely to be a result of the site's acidic soil conditions. The teeth discovered had been better preserved than the bone, which is typical of burials in acidic and sandy soils.

The elements recovered were heavily fragmented and in poor condition; identifiable were pieces of the left humerus, radius/ ulna, femur, tibia and fibia, a talus, a tarsal fragment, fragments of the skull and six isolated teeth.

The elements recovered provided little information due to the deterioration of the bone. No epiphyses were seen that could provide fusion information for ageing and no information was obtainable on the sex of the individual. No pathologies were seen on any of the bones or teeth and there is no evidence of trauma or indications as to the cause of death.

The teeth were recorded following Bass (1995) and a table of the recorded wear scores is included in Appendix 3. The teeth present were the permanent adult teeth and wear on these teeth was low, suggesting an age range of 17-25 years. Considering the coarse diet eaten in the early Iron Age, the low wear would suggest an individual in the lower part of that range. All of the teeth were in good condition, no calculus deposits were seen and no cavities were present, indicating good oral health.

Discussion

The skeleton recovered from Elveden was in poor condition, which limited the information obtainable from the remains. The poor condition of the bone was typical of remains buried in acidic soils, with little or no bone surviving in many burials, particularly of this early date. Similar destruction of the bone was also seen within the faunal assemblage (see below).

The age data recovered from the few teeth present suggest an individual aged 17-25 years, with the low wear suggesting an age at the lower end of this range.

Even given the lower survival ages expected during the late Bronze Age/ early Iron Age, this individual was young at time of death. No information was recovered (if it was ever present) that could suggest a cause of death. Many illnesses leave no trace on the skeleton and it is possible that this individual died of a short-term infection, but given the poor condition of the bone, other causes of death cannot be ruled out.

The Animal Bone

Julie Curl

Methodology

Subsequent analysis was carried out following a modified version of guidelines by English Heritage (Davis 1992). All of the bone was examined to determine range of species and elements present. A record was also made of butchering and any indications of skinning, horn-working and other modifications. When possible, ages were estimated along with any other relevant information, such as pathologies. Measurements were taken where appropriate following von den Driesch (1976). Counts and weights were noted for each context and counts made for each species. Where bone could not be identified to species, they were grouped as, for example, 'large mammal', 'bird' or 'small mammal'. The results were input into a MS Excel spreadsheet for quantification and analysis. A summary catalogue and a table of measurements is included with this report and a full catalogue (with additional counts) of the faunal remains is presented in Appendix 3.

The Faunal Assemblage

Quantification, provenance and preservation

A total of 3518g of faunal remains, consisting of 532 pieces of bone, was recovered from excavations at Elveden. Bone was produced from eleven fills amongst eight features and was hand collected. Most of the bone (in terms of both count and weight) was recovered from pit fills. The bulk of the assemblage (95% by weight) was produced from Phase 1 Pit F2103, with most of the bone from Fill L2106 and lesser amounts from L2104, L2105 and L2107. Smaller quantities of bone were yielded by ditch fills, a gully fill and a single spread. Quantification of the faunal assemblage by context number, feature type and fragment count is presented in Table 18 and by weight in Table 19.

The faunal assemblage was in poor condition. The remains were often friable and the acidic soils have eroded the surfaces of the bone causing destruction of a good deal of evidence such as butchering and gnawing.

Context	Feature Type				Context Total
	Spread	Ditch	Gully	Pit	
1043=2078		36			36
2104				4	4
2105				147	147
2106				225	225
2107				47	47
2127				4	4
2129			1		1
2132				1	1
2140	1				1
2142		65			65
2144		1			1
Feature Total	*1*	*102*	*1*	*428*	*532*

Table 18: Quantification of the faunal assemblage by context, feature type and fragment count

Pit F2103 (L2105) produced five fragments of cattle bone that had been blackened from burning. No canid gnawing was observed, but given the degradation of the bone at this site, this may have been present, but destroyed.

Context	Feature Type				Context Total
	Spread	Ditch	Gully	Pit	
1043=2078		70g			70g
2104				73g	73g
2105				801g	801g
2106				2389g	2389g
2107				77g	77g
2127				15g	15g
2129			2g		2g
2132				1g	1g
2140	4g				4g
2142		37g			37g
2144		3g			3g
Total	*4g*	*110g*	*2g*	*3402g*	*3518g*

Table 19: Quantification of the faunal assemblage by context, feature type and weight in grams

Species range, modifications and other observations

Three species were identified in this assemblage. The poor condition of the assemblage prevented full identification of the remains, resulting in around 84% of the bone being only identifiable as 'mammal'. Quantification of the species by feature type and NISP (number of identified specimens) is presented in Table 20.

Species	Feature Type and NISP				Species Total
	Spread	Ditch	Gully	Pit	
Cattle			1	82	83
Mammal		101		345	446
Sheep/ goat	1			1	2
SM - Rabbit		1			1
Feature Total	*1*	*102*	*1*	*428*	*532*

Table 20: Quantification of the faunal assemblage by species, feature type and NISP

Cattle were the most frequently identified and seen in three fills, most of which were from Pit F2103. The cattle remains included an originally complete but very fragile skull from Pit F2103 (L2105). The poor condition of the cattle skull meant that there were no signs of butchering, such as skinning, visible. The teeth from this animal suggest an adult of at least two years of age. Other cattle remains from the same pit (Fill L2106) included horn core, from a long-horn type breed. Butchering evidence was limited, but one chopped metatarsal was noted from Pit F2103 (L2106).

Sheep/ goat was only represented by one adult lower molar from Phase 1 Spread L2140 and a metapodial fragment from Fill L2104 of Pit F2103, which had been chopped.

A juvenile rabbit humerus was found in Phase 1 Ditch F2143 (L2144). This unfused bone was from a small individual. The condition of the rabbit was better than the other remains in the assemblage and the bone displayed no butchering, strongly suggesting that this bone was intrusive.

Discussion and Conclusions

The faunal assemblage from Elveden was poorly preserved due to the acidic burial environment, which has made excavation and cleaning of the remains very difficult. Poor survival of bone is typical of the soil conditions found at the site, especially on early dated assemblages. The condition of the bone has made it impossible to properly answer questions on husbandry and butchering practices. The dominance of cattle in the assemblage and lack of or scarcity of other food mammals may be due to survival of more robust bones. It may be possible, however, to suggest that cattle had a greater importance, as they do on most sites, for a range of uses, including traction, milk and meat, as well as other by-products. Apart from a probable intrusive rabbit, there is a lack of smaller mammals and birds, which is at least partly due to poor preservation.

Although limited, butchering waste was present and showed a dominance of primary waste or poorer cuts of meat, such as lower limbs and heads, and may suggest that the waste here is from such processing.

The Environmental Samples
Dr John Summers

Introduction

During excavations at Elveden, 37 bulk soil samples for environmental archaeological assessment were taken and processed. Amongst the sampled features were deposits of early Iron Age and Romano-British dates, although 16 (43%) were from undated features. This report presents the results from the assessment of the bulk sample light fractions and discusses the significance and potential of any remains recovered.

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 scanned under a low power stereomicroscope (x10-x30 magnification). Botanical and molluscan remains were identified and recorded using reference literature (Cappers *et al.* 2006; Jacomet 2006; Kerney 1999; Kerney and Cameron 1979) 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 samples >10 litres were 50% sub-sampled in the first instance, with full processing being carried out for those which produced carbonised plant remains from an initial scan.

Results

The assessment data from the bulk sample light fractions are presented in Appendix 4.

Late Bronze Age/ early Iron Age

Fifteen samples were dateable to the late Bronze Age/ early Iron Age. Carbonised plant macrofossils were frequently encountered, being present in 12 of the light fractions. However, concentrations of remains were low in the majority of samples. Most frequently encountered were carbonised cereal grains, including glume wheat (*T. dicoccum/ spelta*) and hulled barley (*Hordeum* sp.). However, the numbers were insufficient to determine their relative significance. A single wheat glume base was recorded in Ditch Fill L2160, indicating the limited presence of crop processing debris.

A relatively large number of non-cereal taxa were recorded in Fill L2132 (Pit F2130), predominantly in the form of goosefoot (*Chenopodium* sp.) and black bindweed (*Fallopia convolvulus*). In addition were a small number of sedge family (Cyperaceae) and small grass (Poaceae) seeds. These all occur as common arable weeds and are likely to be associated with the cereal remains in the assemblage. They probably represent the debris from routine crop processing activities, which became carbonised in domestic hearths. Goosefoot and black bindweed also constituted the majority of the non-cereal taxa in the remaining samples, perhaps due to their relative durability during carbonisation.

Charcoal was present in a number of the samples, although not in any great concentrations. Based on the transverse sections of some of the fragments, diffuse-porous wood types predominated and a single fragment of possible elm (*Ulmus* sp.) was also noted. However, the charcoal assemblage is considered too small for detailed comment.

Romano-British

Six samples came from Romano-British contexts but few archaeobotanical remains were recorded. Indeterminate cereal grains were present in L2078 and L2111, and a small amount of oak charcoal was present in L2076.

Undated

A similar range of material was recorded in the 16 undated deposits as was present in the early Iron Age assemblage. Remains included barley and wheat grains, and a small assemblage of non-cereal taxa (including *Chenopodium* sp., *Fallopia convolvulus* and *Bromus* sp.). None produced enough remains to merit further detailed discussion.

Contaminants

Modern contaminants were only present in low concentrations, predominantly in the form of rootlets. It is unlikely that any of these represent significant biological disturbance of the deposits. Due to the unfavourable preservation conditions for bone and shell, it is possible that the sparse terrestrial mollusc remains in the assemblage are intrusive.

Discussion

The archaeobotanical remains from the late Bronze Age/ early Iron Age indicate that cereals were in common usage at the site, frequently becoming carbonised and incorporated in the fills of numerous features. However, the concentrations of material were generally low, indicating that most of the remains were present as scattered carbonised debris accidentally incorporated into deposits rather than through the deliberate disposal of carbonised material. This is supported by the correspondingly low concentrations of charcoal, which would be indicative of spent fuel debris. However, the common occurrence of charred cereals and their associated weed contaminants suggests that the excavated features lay close to areas of domestic activity during late Bronze Age/ early Iron Age.

Although fewer Romano-British deposits were represented, the view of this period is that less carbonised material was being deposited. This may indicate that the excavated area was not near any focus for domestic occupation.

Conclusions and statement of potential

Although the archaeobotanical remains from Elveden have provided a little information regarding diet and economy during the late Bronze Age/ early Iron Age, no samples are rich enough to withstand detailed numerical analyses (>100 items) and the range of taxa recorded is most likely significantly under-represented.

Radiocarbon Dating Determinations
Antony R.R. Mustchin with Dr John Summers and Andrew Peachey

Introduction

Based on the advice of Dr John Summers (Environmental Archaeologist, Archaeological Solutions Ltd (AS)) and Andrew Peachey (Pottery, Lithics and CBM Researcher, AS), and following the approval of Dr Matthew Brudenell (Suffolk County Council Archaeological Service Conservation Team), two radiocarbon dating samples were submitted to the Scottish Universities Environmental Research Centre (SUERC; University of Glasgow). Two features were dated: Phase 1 pottery/ flint-rich Pits F2103 and F2126. The availability and suitability of material for scientific dating was determined by Dr Summers (see below).

Research questions

During excavations at Elveden, environmental bulk samples were collected from various features/ contexts. Following the processing of these samples (see Summers, this report – *The Environmental Samples*), material suitable for radiocarbon dating was identified and isolated. Proposals for the scientific dating of features were developed with reference to the regional research agenda (Medlycott 2011) and through consultation with artefact and palaeoenvironmental specialists.

National and regional research agendas clearly state the need to scientifically date Iron Age pottery assemblages. Haselgrove *et al.* (2001, 31) state that throughout Britain, 'Chronology is a major problem for the earlier first millennium BC' and that

'Research is needed on regional pottery sequences, supported by absolute dating programmes'. In the East of England, Medleycott (2011, 29) notes that 'The chronology of early Iron Age pottery is [only] vaguely known…' and that '…features with good pottery assemblages need to be targeted'. Suffolk in particular lacks high resolution AMS radiocarbon dates associated with early Iron Age pottery assemblages, although a plateau in the calibration curve can serve to limit resolution.

The need to enhance and clarify our understanding of late Bronze Age to early Iron Age Post Deverel-Rimbury assemblages and their associated chronologies, through both characterisation and radiocarbon dating is also a widely-recognised research priority in East Anglia (Brudenell 2011, 22; Bryant 1997, 26; Medlycott 2011, 26), and the large Phase 1 pit groups from Elveden had good potential to contribute to the evidence from the Breckland area surrounding West Harling. These groups were also found in association with sizable struck flint assemblages, indicating the continued – early Iron Age – exploitation of flint technology. Therefore, radiocarbon dating of Pits F2103 and F2126 also had good potential to more securely date the phase 1 struck flint assemblage.

Sample Availability

No carbonised/ organic residues – a viable target for radiocarbon dating (e.g. Berston *et al.* 2008) – were present on the early Iron Age pottery. Therefore, the radiocarbon dating programme targeted carbonised plant macrofossils recovered through environmental sampling (i.e. barley (*Hordeum* sp.) grains). The features selected for dating were Phase 1 Pits F2103 (L2106) and F2126 (L2127 (Seg.A) (Table 21). Although the densities of carbonised plant remains were low from these features (see Appendix 4), the selected deposits were the only ones of significance to contain taxonomically identifiable cereal grains. In addition, they were securely stratified contexts with little nearby, later activity. Although the potential for intrusive/ residual material remained, the extremely low occurrence of carbonised plant macrofossils from Romano-British (Phase 2) activity at the site suggested a low probability for such mixing; also, earlier prehistoric features/ contexts were identified at the site.

Phase	Feature	Datable Context	Dating Rationale
1	2103	2106	Potential to provide a date for the pottery group from this feature/ test the ceramic dating evidence for Phase 1 and firmly date the associated struck flint assemblage
	2126	2127	Potential to provide a date for the pottery group from this feature/ test the ceramic dating evidence for Phase 1 and firmly date the associated struck flint assemblage

Table 21: Features suitable for radiocarbon dating

Results

The results of the radiocarbon dating programme are shown in Table 22 and Chart 5. ^{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 (Bronk Ramsey 2010)). Conventional ages and calibrated age ranges were calculated by Dr Elaine Dunbar (SUERC).

Phase	Feature	Context	Sample Type	Genus/ Species	Lab. No. (SUERC-)	Date BP	$\delta^{13}C$ value	Calibrated Date/ Date Range (95.4% Confidence Levels)
1	2103	2106	Carbonised grain	*Hordeum* sp.	56524 (GU 35598)	2803±35	-21.3 ‰	1050-890 cal BC (90.3%); 880-845 cal BC (5.1%)
	2126	2127	Carbonised grain	*Hordeum* sp.	56528 (GU 35599)	2031±35	-23.7 ‰	165-130 cal BC (5.5%); 120 cal BC-cal AD55 (89.9%)

Table 22: Radiocarbon determinations (calibrated using OxCal4 (Bronk Ramsey 2010)). Key: BP = before present (AD 1950)

For Phase 1 Pit F2103 (L2106), a calibrated age range of 1050-890 cal BC (90.3%) and 880-845 cal BC (5.1%) was produced at 95.4% confidence levels for sample SUERC-56524 (uncalibrated age 2803±35BP). For Phase 1 Pit F2126 (L2127), a calibrated age range of 165-130 cal BC (5.5%) and 120 cal BC-cal AD55 (89.9%) was produced at 95.4% confidence levels for sample SUERC-56528 (uncalibrated age 2031±35 BP). The results of the radiocarbon dating programme are cited and discussed within the archaeological narrative (above) and subsequent 'Discussion' section (see also Peachey, this report – *The Prehistoric Pottery*).

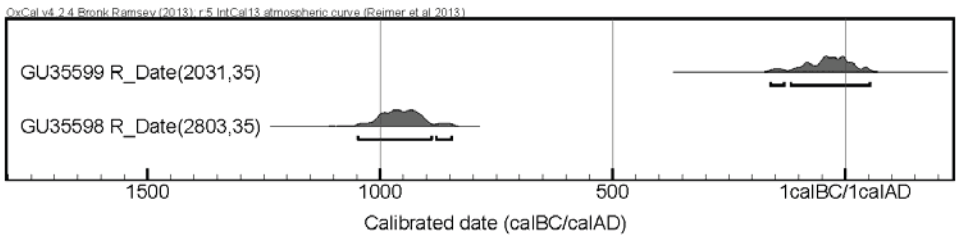

Chart 5: Radiocarbon probability distributions

7 DISCUSSION

Phase 1: Late Bronze Age/ Early Iron Age (9th to 6th century BC)

Topographical, Geological and Geographical Context

7.1 The distribution of early Iron Age sites in Suffolk shows a concentration on lighter soils and along the major river valleys (Bryant 1997, 25). A similar distribution of Bronze Age sites is presented by Martin (1999b, 39), with a notable clustering to the west/ south-west of Elveden, close to the fen-edge and several significant river systems. A study by Sussams (1996) has also shown a distinct concentration of early Iron Age settlement evidence on the free-draining Breckland soils (after Bryant 1997, 25), while Martin (1988, 68-9, fig. 59) suggests a distribution pattern dictated by drainage, with sites being generally restricted to areas within easy reach of water; the primary limiting factor appears to have been the need to water livestock (particularly cattle; Martin 1988, 68). According to Martin's map of Iron Age sites and 'potentially dry areas' (Martin 1988, 69, fig. 59), the current site appears somewhat marginal: the nearest major river (the Little Ouse) is located some 5.5km to the east of the site, while the River Lark runs *c.* 8.4km to the south-west. Based on this assessment, the site might be thought ill-suited to the rearing of livestock. However, the Phase 1 faunal assemblage attests to the presence of cattle, sheep/ goat and

indeterminate terrestrial mammal, although the relative importance of these species to the late Bronze Age/ early Iron Age economy cannot be firmly ascertained.

7.2 The site's soils, although light and free-draining, are suited to the cultivation of barley (Soil Survey of England and Wales 1983, 11). Environmental samples from Phase 1 features yielded carbonised cereal grains including both glume wheat and hulled barley, although the numbers of these taxa were insufficient to determine their relative economic significance. Nonetheless, the widespread cultivation of such crops during the Iron Age has been reported by Wiltshire and Murphy (1999, 153), who recorded no 'sub-regional differences' in cereal cultivation – based on carbonised grains of emmer, spelt, barley and wild/ cultivated oat – throughout Norfolk and adjacent areas. The general cultivation of hulled barley and wheat is also evidenced during the period 'c. 1350 cal BC and cal AD50' at sites across southern Britain (Campbell and Staker 2003, 21), indicating clear continuity of economic practice. Late Bronze Age to middle Iron Age activity along the route of the A505 Baldock Bypass included the cultivation and processing of wheat and barley, among other species (Martin 2009, 55-6). Other Bronze Age sites including evidence (albeit scarce) for similar agricultural economies, include Game Farm near Brandon and Colne Fen South in Cambridgeshire (Roberts 2013, 109; Scaife 2004, 47). Although early Iron Age evidence is scant from East Anglia, middle and later Iron Age sites where barley and wheat cultivation/ processing was carried out include Lodge Farm, St Osyth (Essex; Fryer 2007) and Kilverstone in Norfolk (Ballantyne 2006, 162), some 8.4km to the north-east of the current site. Like Elveden, the Kilverstone site occupies sandy Breckland soils (Garrow *et al.* 2006, 1).

7.3 The local Breckland geology appears to have been a significant factor influencing prehistoric activity. The Elveden site sits upon a solid geology of Upper Cretaceous chalk overlain by chalky drift; a good source of flint (www.bgs.ac.uk/lexicon/). A Lower Palaeolithic flint industry is known *c.* 300m to the north of the site (SHER ELV 006) and two Neolithic arrowheads have also been found in the vicinity (SHERs ELV 001 and ELV 004), although need not have been locally produced. The Neolithic and later (e.g. Longworth *et al.* 1991) flint mines at Grime's Graves are located only 9.6km to the north of the site. Evidence from the recent excavations highlights the continuity of exploitation of local flint into the early Iron Age (based on associated pottery typologies), with calibrated radiocarbon date ranges indicating a late Bronze Age/ early Iron Age date. The abundance of this raw material in the form of high quality Breckland flint, possibly recycled from earlier prehistoric waste deposits may have facilitated the production of a consistent range of flakes, removed from unsystematic cores using hard-hammer percussion, for the purpose of utilising them as un-modified tools, potentially for butchery or similar domestic tasks. Although traditionally a point of contention, early Iron Age flint utilisation is becoming more widely acknowledged; Humphrey (2007) lists 97 Iron Age sites displaying potential evidence of this industry and it is an indisputable facet of activity and deposition in the pit groups recorded here.

The Late Bronze Age/ Early Iron Age Enclosures

7.4 The Phase 1 site was criss-crossed by a number of shallow ditches and gullies, thought to represent a system of rectilinear enclosures. Although the dating of these remains tentative, based on the potential residuality of finds, their

alignments respected the position of other late Bronze Age/ early Iron Age features with only one instance of intercutting recorded. Phase 1 Pits F2130, F2152 and Spread L2140, for example, lay within the confines of an apparent enclosure delineated to the south by Ditch F2143 and to the north by a ?double-ditched boundary comprising F2137 and F2137 (Fig. 6). Other Phase 1 features including Pit F2126 and Grave F2145 were located within 1m of contemporary boundaries with which they were also loosely aligned (Fig. 6). Furthermore, no late Iron Age or Romano-British material was recovered from the enclosure features. It must be acknowledged, however, that existing evidence for early Iron Age enclosure is scarce from East Anglia (Brudenell *pers. comm.*), although late Bronze Age examples are more numerous (e.g. Bond 1988; Gibson *et al.* 2004; Wallis and Waughman 1998). The middle to late Bronze Age landscape at Game Farm, Brandon, some 7km to the north of Elveden, comprised a complex and evolving system of rectilinear enclosures (Gibson *et al.* 2004). As such, the potentially late date of the Elveden ditches, extending into the 6th century BC, might represent a rare and interesting survival.

7.5 The function of the Phase 1 enclosures, based on their morphology alone, remains uncertain. The shallow depth of the ditches/ gullies does not favour defence, nor would they have served to effectively corral livestock, unless paired with secondary boundaries such as fences or hedging. Like some recently discussed Essex examples (e.g. the middle Iron Age settlement enclosure at Stanway; Crummy *et al.* 2007), it is possible that the demarcation of space at the site was 'ideological' rather than functional (after Sealey 2012, 45).

7.6 The linear features were interspersed by a number of pits, some of which appeared to contain redeposited burnt material (e.g. F2103 and F2152), while several yielded significant groups of early Iron Age pottery and struck flint, suggesting low-level industrial and domestic waste disposal (see below). An originally complete cattle skull within Pit F2103 may have been a special deposit of some kind. The generally poor survival of animal bone at the site and the low incidence of identifiable cereal grains meant that the relative importance of animal and crop husbandry to the Phase 1 economy could not be ascertained. It does appear, however, that both were occurring on or near to the site. Crop processing is hinted at by a single wheat glume base from Ditch F2159 and a fragment of saddle quern from Pit F2103. The presence of a raised ?granary in Area 1 of the site also suggests the medium to long-term storage of processed cereals or other foodstuffs (see below). The sparse faunal assemblage includes the remains of cattle, sheep/ goat and indeterminate terrestrial mammal, with a predominance of poorer cuts/ processing waste being tentatively suggested. It is assumed that the enclosures were not directly related to flint-working at the site and no evidence of habitations was identifiable within the excavated area.

7.7 Although rare, regional evidence of similarly dated enclosures includes the site of North Shoebury, Essex (Wymer and Brown 1995) where a field system was seen to evolve from the late Bronze Age/ early Iron Age transition. Examples from further afield include a rectilinear arrangement of early to middle Iron Age ditches at Watchfield, Oxfordshire (Birbeck 2001) and a settlement enclosure at High Post in Wiltshire, encompassing roundhouses and other domestic evidence (Powell 2011). Further occupation evidence was excavated at Prickwillow Road, Ely

(Cambridgeshire), partly demarcated by a fragmented Iron Age (pre-3rd century BC) ditch (Atkins and Mudd 2003). The economy at this site was based on a mixed pastoral and arable regime (*ibid.*), perhaps similar to that suggested at the current site. In contrast, the late Iron Age defensive enclosure at Burgh, Suffolk produced evidence of a predominantly pastoral economy based on sheep and cattle husbandry (Martin 1988, 73). The middle to late Bronze Age enclosures and settlement at Game Farm, Brandon – on similar soils to the Elveden site – produced scant economic evidence, although cattle/ horse sized bones were recovered and environmental bulk samples yielded evidence of cereal agriculture (Baxter 2004, 43; Scaife 2004, 47). Limited evidence of Bronze Age cattle and sheep/ goat husbandry, including features possibly associated with stock control/ corralling, was also reported from The North Ring, Mucking (Essex; Bond 1988, 52). Similar (middle to late Bronze Age) livestock husbandry was interpreted at Stocks Farm on the route of the Bacton to King's Lynn Gas Pipeline (Norfolk; Ashwin 2012, 36). The Stocks farm site also contained part of a possible ditched enclosure system (*ibid.*).

7.8 Based on the limited evidence from Elveden, and regional comparative material, it seems most likely that the Phase 1 enclosures had an agricultural function associated with a nearby settlement. However, the sites relative isolation from a good water source would suggest that any pastoral activity involved at least low-level transhumance; possibly between the site and the Little Ouse, some 5.5km to the east. A similar system of livestock movement between grazing areas and water was interpreted at the middle Iron Age site of Watton Green, Norfolk (Mustchin 2014a). Tullett's (2010) study of central southern Britain indicates a growth in the importance of transhumance between the middle Bronze Age and middle Iron Age.

The Structural Evidence

7.9 Putative Structure 1 was thought to represent the remains of a raised granary, associated with the storage of cereals or other perishable foodstuffs. Numerous examples of such structures have been reported in the literature (Gent 1983, 246), with interpretations ranging from excarnation platforms (Carr and Knüsel 1997) to watchtowers (Ellison and Drewett 1971) and shrines (Downes 1997) although a storage function is more widely accepted (Cunliffe 2010, 411). Regional examples of this structural form include 13 middle Iron Age four- to nine-post structures at Lodge Farm, St Osyth, Essex (Germany 2007, 54-5, fig. 39), and ten late Iron Age four-post structures at Cedars Park, Stowmarket (Suffolk; Nicholson and Woolhouse forthcoming). All were interpreted as granaries. Although evidence of Phase 1 cereal cultivation/ processing from the current site is slight, Putative Structure 1 is thought to have performed a similar function.

The Pits

7.10 Activity within the late Bronze Age/ early Iron Age enclosures was chiefly characterised by pit digging. Although the primary function of the smaller pits was difficult to determine, several of the larger pits yielded significant groups of early Iron Age pottery in association with sizable struck flint assemblages. These deposits of apparently domestic/ industrial refuse, as well as indicating the existence of nearby a settlement, are important as indicators of possible early Iron Age flint-working. Pits F2103, F2126 and F2130 yielded rich deposits of struck flint in association with 'late'

decorated post Deverel-Rimbury (PDR) pottery, generally thought to be of 6th to 5th century BC date. However, a calibrated radiocarbon date from Pit F2103 suggests possible 9th century BC origins for the PDR ceramic style (Peachey, this report – *The Prehistoric Pottery*). This early date is 'more typical of "mature" plainware PDR and transitional "early" decorated PDR (Brudenell 2012, 150), but the limitations of our understanding of radiocarbon date-supported chronologies relative to a secure ceramic framework in Norfolk and Suffolk have previously been highlighted (Brudenell 2011, 19; 2012, 213)' (*ibid.*). It is possible, therefore, that the Elveden assemblage, supported by the scientific date from Pit F2103, reinforces 'a sub-regional trend, inconsistent with broad [regional] ceramic styles' (*ibid.*).

7.11 The Phase 1 pottery assemblage is domestic in character, dominated by coarse bowls, and includes six hand-made bonfire-fired fabrics. Fine fabrics account for just 9.8% of the assemblage by sherd count and 12.3% by weight. It is likely that the bulk of the pottery, based on the fabrics and form present, was locally produced and consumed.

Possible special/ ritual deposit

7.12 In contrast to the generally prosaic character of the finds assemblage, a single, possibly special/ ritual deposit was encountered in Phase 1 Pit F2103. The secondary fill of this pit contained an originally complete cattle skull. The skull is from an adult animal and displays no signs of butchery, although this may be due to its poor condition. Cleaning of the skull revealed that it was directly associated with early Iron Age pot sherds.

7.13 Animal burials are common special deposits found in Iron Age pits (Cunliffe 1992, 75). Cunliffe (*ibid.* 78) suggests that the fills of grain storage pits (for example) are often associated with curated deposits intended to placate chthonic deities associated with fertility. Regionally, the ritual deposition of animal remains in grain storage pits has been reported from several sites including Ingham Quarry, Fornham St Genevieve (Suffolk; Newton and Mustchin forthcoming) some 11.5km to the south-east of Elveden. Although a similar significance, perhaps associated with the disuse and symbolic 'closure' of Pit F2103 at Elveden is possible, the primary use of this feature was difficult to determine (see above). Another possibility is that the cattle skull was meant to mark a point/ area of significance within the early Iron Age landscape. However, Pit F2103 did not appear closely associated with a liminal space, such as an enclosure entrance or similar which might have been endowed with a perceived power or significance by the prehistoric population (cf. Cunliffe 2010, 576), although this may be due to the limited scope of the excavation.

7.14 In summary, although the cattle skull from Pit F2103 may have held some significance beyond the mundane, it might equally represent food processing waste or similar. Besides horns (where applicable), cattle skulls have a comparatively low economic utility (Lyman 1999, 226, fig. 7.1, after Binford 1978), certainly as food items. Also, the mixed artefact assemblage from F2103, including pottery, struck and burnt flint, animal bone and worked stone, was distributed throughout the fills of this feature, thus appearing more representative of general waste than curated material.

Funerary Evidence

7.15 The clearest evidence for the ritualistic use of the site was represented by the flexed inhumation of an adolescent/ young adult of indeterminate sex (SK1) buried in what appeared to be the south-eastern corner of a prehistoric enclosure. Grave F2145 lay adjacent to contemporary Gully F1052 (=2133), which may have helped to mark its position in the landscape; alternatively the grave may have been unmarked. The shallow, ovoid cut of F2145 did not resemble the larger Phase 1 pits in plan or profile and, therefore, was probably intended as a grave. However, its shallow depth (0.11m) might indicate that it was hastily dug without any form of ceremony – 'casual' treatment of the dead having been noted at a number of sites (Cunliffe 2010, 544, 552) – although may also be due to subsequent truncation.

7.16 The skeleton was in a poor condition due to an acidic, free-draining burial environment. No pathologies or evidence of trauma, indicating a possible cause of death, was observable. Assessment of the surviving teeth suggested an age range of 17-25 years. The grave's single (surviving) backfill yielded sparse flint and a single pot sherd, although these are thought to represent chance inclusions rather than grave-goods. It is possible that organic grave-goods such as animal bone or fleece were originally present but had not survived. Although not firmly datable based on the associated finds, the setting of SK1 within the Phase 1 landscape strongly suggests a late Bronze Age/ early Iron Age date for this individual; no datable features from any other period were present in the near vicinity. The characteristics of the burial were also in keeping with inhumations of early Iron Age date.

7.17 By the 5th century BC, inhumation within (generally) sparsely adorned graves had become the dominant funerary rite (Cunliffe 2010). This pattern is in stark contrast to the communal/ monumental funerary contexts of the Neolithic and the individual but often highly distinctive and sometimes richly furnished inhumations of the Bronze Age (Jones 2008, 178-9). Iron Age burials are a rare survival in the East of England, however; examples of complete inhumation burials include a crouched burial at Southend Airport (Holgate 1996), one from North Shoebury in Essex (Wymer and Brown 1995) and two crouched burials at Grimes Graves in Norfolk (Mercer 1981) (after Bryant 1997, 26). The Grime's Graves examples were accompanied by a chalk plaque and a pair of iron beads, respectively (*ibid.*). An early Iron Age inhumation at Duxford in Cambridgeshire was accompanied by two polished stones and 18 sherds from a single pottery vessel (Lyons 2011, 12, fig. 7). Two crouched Iron Age inhumations, predating the 3rd century BC, were also found at Prickwillow Road, Ely (Atkins and Mudd 2003), while two probable late prehistoric burials (SHER ELV 030) were found a short distance to the south of the current site. Although poor preservation prevented any in-depth analysis of the Elveden inhumation (Curl, this report – *The Human Bone*), it nonetheless adds usefully to the known regional corpus/ distribution of early Iron Age burials.

Phase 2: Romano-British (mid 1st to early 2nd century AD)

7.18 In comparison to the early Iron Age phase, the recorded Phase 2 archaeology was sparse and attested only to the possible enclosure of the site in the early Romano-British period. Once again, animal bone and environmental remains related

little regarding past environment or economy. The Phase 2 pottery comprises three locally-produced coarse wares, whose fabric and form types indicate a homogenous assemblage of no particular significance.

The Romano-British Enclosure

7.19 Four Romano-British ditches were encountered in Area 1 of the site and appeared to form the initial cut and recuts of a rectilinear boundary, possibly associated with an enclosure or similar. Phase 2 Gully F2108 was present a short distance to the north-east but did not obviously relate to the ?enclosure features. The majority of the possible enclosure lay beyond the excavation; only *c.* 43m^2 of the *interior* was exposed within Area 1. The constituent ditches were more substantial than the Phase 1 ditches and gullies, suggesting that the enclosure, if genuine, could have functioned as a livestock corral. Although animal bone from these features comprises just 70g from Ditch F1043 (=2078), this may simply reflect the acidic burial environment. The Phase 2 pits within/ near to the ?enclosure – numbering five in total – did little to elucidate its possible function. The only finds of note from these features comprise 5004g of pottery (including cross-joining sherds from a single storage jar) from Pit F2110 (L2111).

7.20 Complementary Romano-British evidence from the immediate landscape includes a ditched enclosure located just to the south of the site (ELV 058 and ELV 059). A trial trench evaluation at ELV 059 revealed a series of linear Romano-British ditches which, like the current ?enclosure features, yielded sherds of locally produced coarse wares and animal bone (Ames 2004, 6-8, 16-17); the bone included two species of deer and displayed evidence of butchering (Ames 2004, 16-17). Jointly, the current evidence suggests that the local settlement landscape was at least partially enclosed during the early to middle Romano-British period. The economy appears to have included a pastoral element and was supplemented (to some extent) by hunting. The importance of cereal agriculture to the local population at this time remains uncertain, although the regional pattern favours a mixed agricultural economy.

7.21 Regional, enclosed Romano-British sites include Brandon Road, Thetford some 5.9km to the north-east of Elveden. Phase 2a (late 1st to 2nd century) at this site included a rectilinear enclosure (measuring at least *c.* 20 x 20m) and, possibly, a more extensive field system (Atkins and Connor 2010, 11). The enclosures formed part of a pastoral farmstead, also including possible roundhouses (*ibid.*). Although animal bone was sparse from the earliest features, the later Romano-British economy was based on a mixed farming system – in keeping with the established regional pattern (e.g. Upex 2008, 155ff) – with some evidence for craft-level activities (Baxter 2010, 101). Similar, mixed Romano-British economies have been noted at Snettisham in Norfolk (Flitcroft 2001), Beck Row in Suffolk (Bales 2004; Mustchin 2014b) and at Prickwillow Road, Ely (Cambridgeshire; Atkins and Mudd 2003). The 2nd century AD phase at Prickwillow Road included a number of enclosures and field systems (*ibid.*).

8 CONCLUSIONS

8.1 The late Bronze Age to early Iron Age, broadly dated between the 9th and 6th centuries BC, was the main period of settlement activity at the Elveden site. Although only limited structural evidence was encountered, the artefact assemblage – chiefly comprising struck flint and pottery – suggested sedentary domestic activity within the immediate landscape. The Phase 1 enclosure system may have been associated with the cultivation of cereals and/ or the raising of livestock, although evidence for both was extremely limited (mostly as a result of poor preservation). A mixed, subsistence agricultural regime is likely, however, based on comparisons with other local/ regional sites of similar date. A possible granary structure and fragment of saddle quern from this phase also attest to the ?storage and low-level processing of grain for consumption. The total lack of 'rich' artefacts in the late Bronze Age/ early Iron Age assemblage would suggest that the excavated site was not of any particular social or economic status.

8.2 Of intrinsic interest were three dispersed pits (F2103, F2126 and F2130) containing sizable assemblages of struck flint in association with Post Deverel-Rimbury (PDR) pottery (generally considered to be of 6th to 5th century BC date). The continued exploitation of flint technology through the late Bronze Age, into the early Iron Age has become a more generally accepted phenomenon, and the Elveden site adds usefully to the known corpus of regional sites displaying evidence of such. Pit F2103 produced a calibrated date range of 1050-890 cal BC (90.3%) and 880-845 cal BC (5.1%) at 95.4% confidence, however, potentially indicating the 9th century BC (late Bronze Age) or earlier appearance of PDR pottery.

8.3 Other notable Phase 1 features/ finds included the poorly preserved inhumation burial of an adolescent/ young adult close to the south-eastern corner of a possible enclosure. The seemingly 'casual' disposal of this individual within a non-funerary landscape is typical of the early Iron Age in the region; two possible late prehistoric burials have previously been excavated to the south of the site (SHER ELV 030). Also of potential note was the occurrence of an originally complete cattle skull within Phase 1 Pit F2103. The skull was found in direct association with prehistoric pottery and may have represented a special or ritual deposit. Although such deposits are a common occurrence within Iron Age pits across Britain (Cunliffe 1992, 75) other finds from Pit F2103 were more indicative of refuse disposal.

8.4 In contrast to Phase 1, the Romano-British period was represented by few features and finds, the latter including an unremarkable pottery assemblage comprising three locally-produced coarse wares. A small area of possible enclosure attested to the possible agricultural utilisation of the local landscape at this time, although no specific economic practices could be interpreted from the sparse ecofactual evidence.

9 DEPOSITION OF THE ARCHIVE

Archive records, with an inventory, will be deposited at the Suffolk County Store. The archive will be quantified, ordered, indexed, cross-referenced and checked for

internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data.

The archive will be deposited within six months of the conclusion of the project. It will be prepared in accordance with the UK Institute for Conservation's *Conservation Guideline No. 2* and according to the document *Deposition of Archaeological Archives in Suffolk* (Suffolk County Council Archaeological Service Conservation Team 2010).

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PROPOSED NEW ARRIVALS LANE, CENTER PARCS, ELVEDEN FOREST HOLIDAY VILLAGE, BRANDON, SUFFOLK

WRITTEN SCHEME OF INVESTIGATION FOR
ARCHAEOLOGICAL EXCAVATION

4th June 2014

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PROPOSED NEW ARRIVALS LANE, CENTER PARCS, ELVEDEN FOREST HOLIDAY VILLAGE, BRANDON, SUFFOLK
ARCHAEOLOGICAL EXCAVATION

SPECIFICATION FOR ARCHAEOLOGICAL EXCAVATION

1 INTRODUCTION

1.1 This Written Scheme of Investigation has been prepared in response to a brief issued by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT). It provides for a programme of archaeological investigation at Center Parcs, Elveden Forest Holiday Village, Brandon, Suffolk (NGR TL 810 804). The investigation is required to be undertaken to comply with a planning condition attached to planning permission for the construction of a new arrivals lane (Ref. DC/13/0728/FUL). The requirement follows a trial trench evaluation of the site (Orzechowski 2014).

2 COMPLIANCE

2.1 The terms and conditions contained in the SCC AS-CT brief have been read, understood and are accepted. The project will adhere also to the *Code of Conduct* of the Institute for Archaeologists. The investigation will adhere to the IfA's *Standard and Guidance for Archaeological Excavation (revised 2008);* the SCC AS-CT document *Requirements for Archaeological Excavation 2012 Ver 1.1* and *Standards for Field Archaeology in the East of England* (Gurney 2003).

3 ARCHAEOLOGICAL BACKGROUND

In summary the trial trench evaluation revealed:

In May 2014 Archaeological Solutions Ltd (AS) carried out an archaeological evaluation at Center Parcs, Eleveden Forest Holiday Village, Brandon, Suffolk (NGR TL 810 804). The evaluation was commissioned by Center Parcs Ltd and was undertaken in compliance with a planning condition attached to planning approval for the proposed construction of a new arrivals lane. The evaluation was required by Forest Heath District Council, based on advice from SCC AS-CT (Planning Approval Ref. DC/13/0728/FUL).

The site lies within an area of archaeological potential, recorded on the Suffolk County Historic Environment Record. The recorded find spot of an Iron

Age/Roman torc is recorded immediately adjacent (HER ELV049), and a major scatter of Roman finds is recorded 150m to the south (HER ELV 013). Further evidence of widespread early settlement in the area is shown by prehistoric and Roman finds recorded to the north of the proposed new road line (HER ELV 006).

In the event the evaluation revealed two phases of archaeology: late Neolithic and Roman (late 1st – 2nd century AD), however the dating of the former phase must remain tentative as the artefactual evidence is limited in quantity, character and preservation, with inter-cutting Roman and post-Roman ditches providing a mechanism for the disturbance and re-distribution of prehistoric archaeological remains that may have once been present on the site.

The prehistoric archaeology extends the length of the proposed new access road. Archaeological features were not recorded in Trenches 3 and 4 but here the made ground is deepest and directly overlies the natural. It seems likely that these areas are damaged. The features comprise pits and ditches. The Roman features were only recorded in Trench 2, and again a relatively high number of features were present (four). The features are a pit (F1027), a post hole (F1057) and ditches (F1029 and F1067).

4 REQUIREMENTS
MITIGATION STRATEGY COMPRISING EXCAVATION

4.1 All stages of the excavation will be carried out in accordance with the procedures and guidance contained within *Management of Archaeological Projects 2,* English Heritage (1991) and MoRPHE (2006).

5 MITIGATION STRATEGY DETAILS

5.1 Aims and Objectives

5.1.1 The primary objective is to preserve the archaeological evidence contained within the site by record and to attempt a reconstruction of the history and use of the site.

5.2 Research Priorities

5.2.1 Principally:
*

- Place the Saxon and medieval activity in context with the known activity of these dates in the surrounding area
- Characterise the activity present within the site

- Identify topographical/geological/geographical influences on the layout and development of the activity present within the current site and in the surrounding area.
- Environmental reconstruction

6 PROGRAMME OF WORKS

Archaeological Excavation

6.1 The brief requires controlled strip, map and excavation of the demarcated areas within the new arrivals lane

6.2 Details of proposed work are presented below.

6.3 All of the above stages and operations will be carried out in accordance with MAP2 (EH 1991), MORPHE and the IFA *Standard and Guidance for Archaeological Watching Briefs* and *Excavations* (revised 2008), as well as the documents listed in Section 2 (above). A Method Statement for dealing with archaeological remains, if present, is presented below (Appendix 2).

7 EXCAVATION METHODOLOGY

7.1 As set out in the brief. A Method Statement is presented (Appendix 1).

7.2 The research design and details of proposed work amplify the methodology.

8 SPECIFIC REQUIREMENTS

8.1 As set out in the brief.

8.2 The SCC AS attaches considerable importance to the public archaeology associated with the work. AS also has a commitment to educational work, and will arrange for outreach as required as part of the project.

8.3 A programme of environmental sampling will be undertaken according to guidelines of the document *Environmental Archaeology; A guide to the theory and practice of methods, from sampling and recovery to post-excavation,* Centre for Archaeology Guidelines, English Heritage, 2011. The results of the project will be made known to the English Heritage Regional Advisor in Archaeological Science. A method statement for sampling and scientific analysis is presented (Appendix 1).

9 GENERAL REQUIREMENTS

9.1 STAFF

9.1.1 Archaeological Team

As to be set out in the brief. Details, including the name, qualifications and experience of the site director and all other key project personnel are provided (as required) (Appendix 2).

Senior Project Manager	Claire Halpin MIfA
Project Manager	Jon Murray MIfA
Project Officer	TBC
Outreach Officer	Andy Peachey MIfA

All have extensive experience of the archaeology of the local area.

All senior AS Field Staff have experience of the use of metal detectors during excavation projects.

AS is recognised as an Investor in People, a Registered Organisation of the Institute of Field Archaeologists and is certified to ISO: 9001 & 14001.

9.2 RESEARCH DESIGN

9.2.1 Prehistoric archaeology has previously been recorded in the vicinity of the site and so the identification of further activity of this type is not unexpected. The identification of later Neolithic activity adds to what is known of this period in the immediately surrounding area and to the overall corpus of Neolithic archaeology known in Suffolk. Much of the known archaeology of Neolithic date from the East Anglia region relates to monuments, funerary sites, barrows etc. The character of this site suggests that it may relate to activity of a different kind and as such may be of importance; Medlycott (2011, 14) identifies the importance of work that will reduce the bias towards monumental sites in the archaeological record and help to understand the relationships between these sites and those that are less visible. Palaeoenvironmental work, macrobotanical analysis and other techniques designed to recreate the Neolithic environment, landscape and agricultural economies are also identified as important areas of research for this period in East Anglia (Medlycott 2011, 14). Evidence recovered from environment sampling carried out during this evaluation has shown that material from food processing was present in the cut features of this date (Summers, below). Although this occurred in low quantities and suggested that the features were peripheral to areas of settlement activity, the potential for an increased understanding of these aspects of the area is present. The presence of struck flint characteristic of the later Neolithic or Bronze Age indicates that the site has

the potential to contribute to artefact studies; particular pertinent for this period is the study of the relationship between sources of raw flint and the types of tools for which they were used (Medlycott 2011, 13-14). In addition, the identification of Neolithic activity at this location may be considered to indicate a general potential for the site to contribute to a greater understanding of the human impact on the landscape in the Neolithic, the nature and character of settlement in this period, and the relationships between settlements and between settlements and monumental aspects of the landscape.

9.9 The Roman archaeology recorded during the evaluation was more limited but its presence indicates that the site might provide further information relating the nature and character of Roman activity in this part of Suffolk. Roman activity is well-attested locally and the site has the potential to add further context and detail to the current picture. It may be considered that it has the potential to provide information relating to rural settlements and landscapes (Medlycott 2011, 47-48) and the presence of Roman pottery, all in a single fabric, indicates a potential for the site to contribute to finds studies and to offer information relating to the local supply and trade of Roman pottery.

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10 DETAILS OF PROPOSED WORK

10.1 Areas of Excavation

- The brief requires formal archaeological excavation of the two areas depicted on the map within the new arrivals lane.

The excavation will address the research priorities listed above

10.2 Excavation Methodology

Methodology for the excavation is contained in Appendix 1.

It is understood that the excavation should comprise the following stages:

- Mechanical stripping of topsoil and overburden

- Cleaning/base planning of archaeological features
- Review with SCCAS. This will be an ongoing part of management of the project at regular intervals. Monitoring visits will include all phases of the excavation and will be essential at key points e.g. decisions to vary requirements in the brief or this WSI, any proposal for supplementary machine stripping of layers or features, before any area is treated as completed and backfilled or otherwise degraded.
- Full excavation and recording of the archaeological deposits as specified in the brief and Appendix 1

The above will be carried out according the requirements of the document *Management of Research Projects in the Historic Environment. The MoRPHE Project Managers Guide* (English Heritage 2006).

10.3 Arrangements for Access

Access is to be arranged by the client.

10.4 Security

Throughout all site works care will be taken to maintain all existing security arrangements and to minimise disruption to landowners and local residents.

10.5 Reinstatement

No provision has been made for reinstatement of the excavation areas, not even backfilling.

10.6 TIMETABLE FOR THE PROPOSED WORK

10.6.1 As required
Excavation Duration c.3 weeks

Composition of the excavation team:
Project Officer, Supervisor and 4 Archaeological Excavators (to be deployed as necessary after the site has been stripped and planned).

10.7 DETAILS OF ALL SPECIALISTS

10.7.1 Details of all specialists are presented (Appendix 2) as required

10.8 METHOD OF RECORDING

10.8.1 Details of the method of recording are presented (Appendix 1) as required.

10.9 LEVELS AND GRADES OF ALL KEY PROJECT STAFF

10.9.1 The levels and grades of all key project staff are presented (Appendix 2) as required. AS is a recognised Investor in People.

10.10 POST-EXCAVATION ANALYSIS & PUBLICATION

10.10.1 This specification includes provision for the post-excavation assessment, analysis and final publication of the project results, to the requirements and timescales set out in the SCC AS brief, and to be agreed with SCC AS following the results of the excavation and assessment. An interim report will be prepared immediately on conclusion of the site works, followed by a Post-Excavation Assessment. This will follow the guidelines and format outlined in MAP2 (English Heritage 1991) and MoRPHE (English Heritage 2006).

10.10.2 Publication of the project results will be made in the appropriate county journal or the relevant national period-specific journal, depending on the results of the project.

11 CONSTRAINTS

11.1 All constraints will be identified prior to the start of works.

12 HUMAN REMAINS

12.1 As set out in the brief and also Appendix 1.

13 RISK ASSESSMENT & INSURANCES

13.1 A risk assessment will be prepared prior to the commencement of the field work .

13.2 AS is a member of FAME, formerly the Standing Conference of Archaeological Unit Managers (SCAUM) and operates under the ‘Health & Safety in Field Archaeology Manual’.

13.3 AS is a member of the Council for British Archaeology and is insured under their policy for members.

14 ARRANGEMENTS FOR THE LONG TERM STORAGE AND DEPOSITION OF ALL ARTEFACTS

14.1 As set out in the brief and Method Statement (Appendix 1). Any necessary conservation of items will be carried out by the specialists listed in Appendix 2. Long-term storage and deposition of all artefacts will be at the SCC County Store and in accordance with *Deposition of Archaeological Archives in Suffolk.*

14 PROJECT ARCHIVE

14.1 The SCC County Store, Suffolk, will be the depository for the resulting project archive. The deposition of the archive will be agreed prior to the commencement of the fieldwork. A unique reference number will be obtained.

15 MONITORING

151 As set out in the brief

16 CHANGES TO THE SPECIFICATION ACKNOWLEDGEMENT OF SCCAS

16.1 As set out in the brief

17 OASIS REPORTING

17.1 The results of the project will be communicated to the OASIS project.

APPENDIX 1

METHOD STATEMENT

The archaeological excavations will be conducted in accordance with the project brief, and the code and guidelines of the Institute for Archaeologists

1 Topsoil Stripping

1.1 A mechanical excavator with a 1.8-2 m wide toothless bucket will be used to remove the topsoil and subsoil. The machine will be powerful enough for a clean job of work and be able to mound spoil neatly, at a safe distance from the trench edges.

1.3 Removal of overburden will be controlled, under the full-time supervision of an experienced archaeologist.

2 Grid and Bench Marks

2.1 Following the stripping the temporary bench marks (with corrected levels) and an accurate site grid (pegs at 5-10 m intervals) will be surveyed.

3 Site Location Plan

3.1 On conclusion of the site stripping, a `site location plan', based on the current Ordnance Survey 1:1250 map and indicating site north, will be prepared. This will be supplemented by an `area plan' at 1:200 (or 1:100) which will show the location of the area(s) investigated in relationship to the development area, OS grid and site grid. The location of the OS bench marks used and site TBMs will also be indicated.

4 Manual Cleaning & Base Planning of Archaeological Features

4.1 As set out in the brief.

4.2 Ahead of any excavation a complete site plan will be composed. The principal purpose will be to quantify the composition of the site from the outset in order to agree a detailed excavation strategy.

5 Archaeological Excavation

The archaeological features will be excavated according to the requirements of the SCCAS brief

Archaeological Excavation Strategy

Negative features will be half-sectioned and box sections may be excavated through more homogeneous layers as appropriate. These may provide a window into any underlying deposits present on the site.

Where archaeological features are encountered at a 'high' level; e.g. cutting earlier horizons, they will be base planned, cleaned, hand excavated and recorded prior to excavation proceeding to the underlying archaeological horizons.

100% excavation will be undertaken of

- **structural features;** (including post holes unless clearly not part of a recognisable structure)

- **surviving internal floors;** e.g. within ring gullies, or buildings, will be fully exposed, carefully cleaned, planned (at 1:50 or 1:20) and photographed, prior to being hand excavated to reveal possible underlying features. Where appropriate these surfaces will be excavated in a grid of $1m^2$ test pits, in 5cm spits in order to assess artefact density and distribution.

- **positive features obscuring earlier features;** will be cleaned, photographed and planned (at 1:50 or 1:20) prior to being excavated stratigraphically and in phase. Component deposits or structural elements will be recorded on *pro-forma* recording (Context) sheets and in section if appropriate prior to 100% excavation.

- **hearths;** will be hand cleaned and planned, hand excavation of 50% of the feature will be carried out stratigraphically and in phase in order for a profile to be drawn and a full assessment the component deposits be made. Additional environmental and specialist sampling will be carried out on specialist advice, prior to 100% hand excavation of the feature.

- **graves or animal burials;** each grave cut will be cleaned, fully defined and planned. The grave fill(s) will be hand excavated in phase and any skeletal remains carefully cleaned and exposed; environmental bulk samples will be taken from the grave fill(s) and abdominal cavity (for stomach contents, kidney stones etc) as appropriate. The exposed skeletal remains will be recorded using *pro forma* recording (Skeleton) sheets photographed and planned at 1:20 or 1:10 dependant on size and

complexity. Small finds such as grave goods, shroud pins or coffin fittings will be will be three dimensionally recorded.

- **industrial features**; (pottery kilns, furnaces etc) will be excavated stratigraphically and in phase. Sections will be recorded through the length of each feature (large features such as a limekiln may be quadranted) incorporating any surviving flue or stoke hole allowing a full assessment the component deposits be made and any industrial waste, or structural components (e.g. kiln furniture, tuyeres) to be identified. These features will photographed and planned at 1:20. All industrial features will be sampled for appropriate scientific analysis (e.g. archaeometallurgical, artefactual and environmental analysis). The document Archaeomaetallurgy (English Heritage Centre for Archaeology Guidelines 2001) will be used to give guidance to the project. Advice on archaeomagnetic dating will be obtained from the relevant specialists (e.g. Dr Cathy Batt, University of Bradford) as necessary.

- **wells;** will be hand excavated stratigraphically and in phase. The backfills of the well shaft will be 'half-sectioned' to a maximum depth of 1.2m. The deposits revealed will be recorded using *pro-forma* recording (Context) sheets, photographed and drawn at 1:10 or 1:20 as appropriate, any lining or structure will be cleaned and recorded prior to 100% excavation and investigation of any possible construction cut. Excavation will only continue beyond a depth of 1.2m once the area of excavation has been made safe either by 'stepping' or shoring. Specialist advice (such as Maisie Taylor) will be sought if a preserved wooden lining or water-logged remains are encountered.

50% excavation will be undertaken of

discrete features, pits, post and stake holes (the latter which are clearly not part of a structure). Pits with a suggestion of 'placed' deposits or which contain significant artefactual/ecofactual assemblages will be 100% excavated as required

10% excavation will be undertaken of

simple linear features not directly associated with core settlement, with more detailed investigation of intersections/terminals/re-cuts/specialised deposits etc

A minimum of 25% excavation will be undertaken of linear features associated with settlement in hand excavated slots up to 2m in length.

Building remains

Building remains may be encountered. These structures are likely to comprise SFBs, stake holes, post holes, beam slots, gullies and, more rarely masonry

foundations or low masonry walls. Associated features may be represented e.g. stone, tile floors, cobbled yard surfaces and hearths.

These features will be fully excavated in plan/phase.

Where encountered the structural remains of early buildings will be hand cleaned to reveal their full extent and then planned at 1:50 or 1:20 as appropriate.

The internal areas will be stratigraphically excavated and recorded by quadrants where appropriate to establish the sequence of post-use deposition and abandonment and to identify any *in situ* occupation or floor surfaces.

Any surviving walls or foundations of structures will be cleaned and recorded using *pro forma* recording (Masonry) sheets. Elevations will be drawn of external and internal wall faces as appropriate. Sections will be excavated and recorded through the fabric of the walls in order to fully understand their construction.

Samples of worked stone, early tile and any bonding or render material will be taken for specialist analysis.

Waterlogged Deposits/Remains

Should deposits such as the above be encountered, provision has been made for controlled hand excavation and sampling. Appropriate specialists will be on hand to advise as necessary.

All industrial features will be sampled for appropriate scientific analysis (eg archaeometallurgical, artefactual and environmental analysis). The document Archaeomaetallurgy (English Heritage Centre for Archaeology Guidelines 2001) will be used to give guidance to the project.

Sieving Strategy

Dry-sieving of onsite deposits will be carried out to enhance finds recovery.

6 Written Record

6.1 All archaeological deposits and artefacts encountered during the course of the excavation will be fully recorded on the appropriate context, finds and sample forms.

6.2 The site will be recorded using AS's excavation manual which is directly comparable to those used by other professional archaeological organisations, including English Heritage's own Central Archaeological Service. Information contained on the site record forms will be entered into a database programme to

enable computerised manipulation of the data. The data entry will be undertaken in tandem with the fieldwork.

7 Photographic Record

7.1 An adequate photographic record of the investigations will be made. It will include black and white prints and colour transparencies (on 35mm) illustrating in both detail and general context the principal features and finds discovered. It will also include 'working and promotional shots' to illustrate more generally the nature of the archaeological operations. The black and white negatives and contacts will be filed, and the colour transparencies will be mounted using appropriate cases. All photographs will be listed and indexed.

8 Drawn Record

8.1 A record of the full extent, in plan, of all archaeological deposits encountered will be drawn on A1 permatrace. The plans will be related to the site, or OS, grid and be drawn at a scale of 1:50. Where appropriate, e.g. recording an inhumation, additional plans at 1:10 will be produced. The sections of all archaeological contexts will be drawn at a scale of 1:10 or, where appropriate, 1:20. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

9 Recovery of Finds

GENERAL

The principal aim is to ensure that adequate provision is made for the recovery of finds from all archaeological deposits.

The Small Finds, e.g. complete pots or metalwork, from all excavations will be 3-Dimensionally recorded.

A metal detector will be used to enhance finds recovery. The metal detector survey will be conducted on conclusion of the topsoil stripping, and thereafter during the course of the excavation. The spoil tips will also be surveyed. Regular metal detector surveys of the excavation area and spoil tips will reduce the loss of finds to unscrupulous users of metal detectors (treasure hunters). All non-archaeological staff working on the site should be informed that the use of metal detectors is forbidden.

WORKED FLINT

When flint knapping debris is encountered large-scale bulk samples will be taken for sieving.

POTTERY

It is important that the excavators are aware of the importance of pottery studies and therefore the recovery of good ceramic assemblages. A Roman ceramic specialist will visit during the excavations as required, to provide on-site advice.

The pottery assemblages are likely to provide important evidence to be able to date the structural history and development of the site.

The most important assemblages will come from 'sealed' deposits which are representative of the nature of the occupation at various dates, and indicate a range of pottery types and forms available at different periods.

'Primary' deposits are those which contain sherds contemporary with the soil fill and in simple terms this often means large sherds with unabraded edges. The sherds have usually been deposited shortly after being broken and have remained undisturbed. Such sherds are more reliable in indicating a more precise date at which the feature was 'in use'. Conversely, 'secondary' deposits are those which often have small, heavily abraded sherds lacking obvious conjoins. The sherds are derived from earlier deposits.

The pottery specialist is likely to seek important or key groups which will be studied in detail.

If several sherds from a single pot are found, the other half of the feature will be dug to obtain conjoins and a more complete pottery profile.

METALWORKING

The excavation team will be made fully aware of the potential presence of any early metalworking evidence. It is envisaged that where there is evidence for industrial activity, large technological residues will be collected by hand. Separate smaller samples will be collected for micro-slags, as detailed in the EH/HMS *Archaeometallurgy in Archaeological Projects*, Centre for Archaeology Guidelines 2001. Appropriate specialists (e.g. Jane Cowgill/Oxford University Research Laboratory for Archaeology) will be invited to visit the site if significant deposits (e.g. slag) are encountered.

The requirements of the Treasure Act 1996 (with subsequent amendments) will be adhered to, in the event of significant items of metalwork being recovered.

HUMAN BONE

If human remains are encountered, AS will obtain an exhumation licence for human remains from the Ministry of Justice.

Post-excavation analysis will follow the guidelines outlined in the English Heritage document *Human Bones from Archaeological Sites, Guidelines for producing assessment documents and analytical reports*, Centre for Archaeology Guidelines 2002.

ANIMAL BONE

Animal bone is one of the principal indicators of diet. As with pottery the excavators will be alert to the distinction of primary and secondary deposits. It will also be important that the bone assemblages are derived from dateable contexts.

SAMPLING

Provision will be made for the sampling of appropriate materials for specialist and/or scientific analysis (e.g. radiocarbon dating, environmental analysis). The location of samples will be 3-dimensionally recorded and they will also be shown on an appropriate plan. AS has its own environmental sampling equipment (including a pump and transformer) and, if practical, provision will be made to process the soil samples during the fieldwork stage of the project.

The programme of environmental sampling will adhere to the guidelines, in particular, it will accord with *Model clauses on Archaeological Science for Briefs and Specifications* (EH Advisors for Archaeological Science from all 9 regions), December 2000 and the document *Environmental Archaeology; a guide to the theory and practice of methods, from sampling and recovery to post-excavation*, English Heritage, Centre for Archaeology Guidelines 2011.

If waterlogged remains are found advice on sampling will be obtained on site from Dr Rob Scaife. Dr Rob Scaife and AS will seek advice from the EH Regional Scientific Advisor if significant environmental remains are found.

The study of environmental archaeology seeks to understand the local and near-local environment of the site in relation to phases of human activity and as such is an important and integral part of any archaeological study. The evaluation

report notes the potential of deposits within the site for the preservation of charred plant remains.

Environmental remains, both faunal and botanical, along with pedological and sedimentological analyses may be used to understand the environment and the impact of human activity.

There may be a potential for the recovery of a range of environmental remains (ecofacts) from which data pertaining to past environments, land use and agricultural economy should be forthcoming.

To realise the potential of the environmental material encountered, a range of specialists from different disciplines is likely to be required. The ultimate goal will be the production of an interdisciplinary environmental study which can be of value to an understanding of, and integrated with, the archaeology.

Organic remains may allow study of the contemporary landscape (Romano-British occupation/industrial/agricultural impact and land use) and also changes after the abandonment of the site.

The nature of the environmental evidence

Aspects of sampling and analysis may be divided into four broad categories; faunal remains, botanical remains, soils/sediments and radiocarbon dating measurements.

a) Faunal remains: These comprise bones of macro and microfauna, birds, molluscs and insects.

a.i) Bones: The study of the animal bone remains, in particular domestic mammals, domestic birds and marine fish will enhance understanding of the development of the settlement in terms of the local economy and also its wider influence through trade. The study of the small animal bones will provide insight into the immediate habitat of any settlement.

The areas of study covered may include all of the domestic mammal and bird species, wild and harvested mammal, birds, marine and fresh water fish in addition to the small mammals, non-harvest birds, reptiles and amphibia.

Domestic mammalian stock, domestic birds and harvest fish

The domestic animal bone will provide insight into the different phases of development of any occupation and how the population dealt with the everyday aspect of managing and utilising all aspects of the animal resource.

Small animal bones

Archaeological excavation has a wide role in understanding humans' effect on the countryside, the modifications to which have in turn affected and continue to affect their own existence. Small animals provide information about changing habitats and thereby about human impact on the local environment.

a.ii) Molluscs: Freshwater and terrestrial molluscs may be present in ditch and pit contexts which are encountered. Sampling and examination of molluscan assemblages if found will provide information on the local site environment including environment of deposition.

a.iii) Insects: If suitable waterlogged contexts (pit, pond and ditch fills) are encountered (which can potentially be expected to be encountered on the project), sampling and assessment will be carried out in conjunction with the analysis of waterlogged plant remains (primarily seeds) and molluscs. Insect data may provide information on local site environment (cleanliness etc.) as well as proxies for climate and vegetation communities.

b) Botanical remains: Sampling for seeds, wood, pollen and seeds are the essential elements which will be considered. The former are most likely to be charred but possibly also waterlogged should any wells/ponds be encountered.

b.i) Pollen analysis: Sampling and analysis of the primary fills and any stabilisation horizons in ditch and pit contexts which may provide information on the immediate vegetation environment including aspects of agriculture, food and subsistence. These data will be integrated with seed analysis.

b.ii) Seeds: It is anticipated that evidence of cultivated crops, crop processing debris and associated weed floras will be present in ditches and pits. If waterlogged features/sediments are encountered (for example, wells/ponds) these will be sampled in relation to other environmental elements where appropriate (particularly pollen, molluscs and possibly insects).

c) Soils and Sediments: Characterisation of the range of sediments, soils and the archaeological deposits are regarded as crucial to and an integral part of all other aspects of environmental sampling. This is to afford primary information on the nature and possible origins of the material sampled. It is anticipated that a range of 'on-site' descriptions will be made and subsequent detailed description and analysis of the principal monolith and bulk samples obtained for other aspects of the environmental investigation. Where considered necessary, laboratory analyses such as loss on ignition and particle size may also be undertaken. A geoarchaeologist will be invited to visit the site as necessary to advise on sampling.

d) Radiocarbon dating: Archaeological/artifactual dating may be possible for most of the contexts examined, but radiocarbon dating should not be ruled out

Sampling strategies

Provision will be made by the environmental co-ordinator that suitable material for analysis will be obtained. Samples will be obtained which as far as possible will meet the requirements of the assessment and any subsequent analysis.

a) Soil and Sediments: Samples taken will be examined in detail in the laboratory. An overall assessment of potential will be carried out. Analysis of particle size and loss on ignition, if required would be undertaken as part of full analysis if assessment demonstrates that such studies would be of value.

b) Pollen Analysis: Contexts which require sampling may include stabilisation horizons and the primary fills of the pits and ditches, and possibly organic well/pond fills. It is anticipated that in some cases this will be carried out in conjunction with sampling for other environmental elements, such as plant macrofossils, where these are also felt to be of potential.

c) Plant Macrofossils: Principal contexts will be sampled directly from the excavation for seeds and associated plant remains. It is anticipated that primarily charred remains will be recovered, although provision for any waterlogged sequences will also be made (see below). Sampling for the former will, where possible (that is, avoiding contamination) comprise samples of an average of 40-60 litres which will be floated in the AS facilities for extraction of charred plant remains. Both the flot and residues will be kept for assessment of potential and stored for any subsequent detailed analysis. The residues will also be examined for artifactual remains and also for any faunal remains present (cf. molluscs). Where pit, ditch, well or pond sediments are found to contain waterlogged sediments, principal contexts will be sampled for seeds and insect remains. Standard 5 litre+ samples will be taken which may be sub-sampled in the laboratory for seed remains if the material is found to be especially rich. The full sample will provide sufficient material for insect assessment and analysis. Where wood is found, representative material will be sampled during the excavation and stored wet/moist to facilitate later identification.

d) Bones: Predicting exactly how much of what will be yielded by the excavation is clearly very difficult prior to excavation and it is proposed that in order to efficiently target animal bone recovery there should be a system of direct feedback from the archaeozoologist to the site staff during the excavation, allowing fine tuning of the excavation strategy to concentrate on the recovery of animal bones from features which have the highest potential. This will also allow the faunal remains to materially add to the interpretation as the excavation proceeds. Liaison with other environmental specialists will need to take place in order to produce a complete interdisciplinary study during this phase of activity.

In addition, this feedback will aid effective targeting of the post-excavation analysis.

e) Insects: If contexts having potential for insect preservation are found, samples will be taken in conjunction with waterlogged plant macrofossils. Samples of 5 litres will suffice for analysis and will be sampled adjacent to waterlogged seed samples and pollen; or where insufficient context material is available provision will be made for exchange of material between specialists.

f) Molluscs: Terrestrial and freshwater molluscs. Samples will be taken from a column from suitable ditches. Pits may be sampled, based on the advice of the Environmental Consultant and / or English Heritage Regional Advisor. Provision will also be made for molluscs obtained from other sampling aspects (seeds) to be examined and/or kept for future requirements.

g) Archiving: Environmental remains obtained should be stored in conditions appropriate for analysis in the short to medium term, that is giving the ability for full analysis at a later date without any degradation of samples being analysed. The results will be maintained as an archive at AS and supplied to the EH regional co-ordinator as requested.

Waterlogged Deposits/Remains

Should waterlogged deposits (such as wells/deep ditches) be encountered, provision has been made for controlled hand excavation and sampling. Dr Rob Scaife will visit to advise of sampling as required, and AS will take monolith samples as necessary for the recovery of palaeoenvironmental information and dating evidence.

Scientific/Absolute Dating

- Samples will be obtained for potential scientific/absolute dating as appropriate (eg Carbon-14).

FINDS PROCESSING

The Project Manager (and Project Officer) will have overall responsibility for the finds and will liaise with AS's own finds personnel and the relevant specialists. A person with particular responsibility for finds on site will be appointed for the excavation. The person will ensure that the finds are properly labelled and packaged on site for transportation to AS's field base. The finds processing will take place in tandem with the excavations and will be under the supervision of AS's Finds Officer.

The finds processing will entail first aid conservation, cleaning (if appropriate), marking (if appropriate), categorising, bagging, labelling, boxing and basic cataloguing (the compilation of a Small Finds Catalogue and quantification of bulk finds), i.e., such that the finds are ready to be made available to the specialists.

The Finds Officer, having been advised by the Project Officer and relevant specialists, will select material for conservation. AS's Finds Officer, in conjunction with the Project Officer, will arrange for the specialists to view the finds for the purpose of report writing.

APPENDIX 2
ARCHAEOLOGICAL SOLUTIONS:
PROFILES OF KEY STAFF & SPECIALISTS

DIRECTOR **Claire Halpin BA MIfA**

Qualifications: Archaeology & History BA Hons (1974-77).
Oxford University Dept for External Studies In-Service Course (1979-1980).
Member of Institute of Archaeologists since 1985: IFA Council member (1989-1993)

Experience: Claire has 25 years' experience in field archaeology, working with the Oxford Archaeological Unit and English Heritage's Central Excavation Unit (now the Centre for Archaeology). She has directed several major excavations (e.g. Barrow Hills, Oxfordshire, and Irthlingborough Barrow Cemetery, Northants), and is the author of many excavation reports e.g. St Ebbe's, Oxford: *Oxoniensia* 49 (1984) and 54 (1989). Claire moved into the senior management of field archaeological projects with Hertfordshire Archaeological Trust (HAT) in 1990, and she was appointed Manager of HAT in 1996. From the mid 90s HAT has enlarged its staff complement and extended its range of skills. In July 2003 HAT was wound up and Archaeological Solutions was formed. The latter maintains the same staff complement and services as before. AS undertakes the full range of archaeological services nationwide.

DIRECTOR **Tom McDonald MIfA**

Qualifications: Member of the IfA

Experience: Tom has twenty years' experience in field archaeology, working for the North-Eastern Archaeological Unit (1984-1985), Buckinghamshire County Museum (1985), English Heritage (Stanwick Roman villa (1985-87) and Irthlingborough barrow excavations, Northamptonshire (1987)), and the Museum of London on the Royal Mint excavations (1986-7)., and as a Senior Archaeologist with the latter (1987-Dec 1990). Tom joined HAT at the start of 1991, directing several major multi-period excavations, including excavations in advance of the A41 Kings Langley and Berkhamsted bypasses, the A414 Cole Green bypass, and a substantial residential development at Thorley, Bishop's Stortford. He is the author of many excavation reports, exhibitions etc. Tom is AS's Health and Safety Officer and is responsible for site management, IT and CAD. He specialises in prehistoric and urban archaeology, and is a Lithics Specialist.

OFFICE MANAGER **Rose Flowers**

Experience: Rose has a very wide range of book-keeping skills developed over many years of employment with a range of companies, principally Rosier Distribution Ltd, Harlow (now part of Securicor) where she managed eight accounts staff. She has a good working knowledge of both accounting software and Microsoft Office.

SENIOR PROJECTS MANAGER **Jon Murray BA MIfA**

Qualifications: History with Landscape Archaeology BA Hons (1985-1988).

Experience: Jon has been employed by HAT (now AS) continually since 1989, attaining the position of Senior Projects Manager. Jon has conducted numerous archaeological investigations in a variety of situations, dealing with remains from all periods, throughout London and the South East, East Anglia, the South and Midlands. He is fluent in the execution of (and now project-manages) desk-based assessments/EIAs, historic building surveys (for instance the recording of the Royal Gunpowder Mills at Waltham Abbey prior to its rebirth as a visitor facility), earthwork and landscape surveys, all types of evaluations/excavations (urban and rural) and environmental archaeological investigation (working closely with Dr Rob Scaife), preparing many hundreds of archaeological reports dating back to 1992. Jon has also prepared numerous publications; in particular the nationally-important Saxon site at Gamlingay, Cambridgeshire (*Anglo-Saxon Studies in Archaeology & History*). Other projects published include Dean's Yard, Westminster (*Medieval Archaeology*), Brackley (*Northamptonshire Archaeology*), and a medieval cemetery in Haverhill he excavated in 1997 (*Proceedings of the Suffolk Institute of Archaeology).* Jon is a member of the senior management team, principally preparing specifications/tenders, co-ordinating and managing the field teams. He also has extensive experience in preparing and supporting applications for Scheduled Monument Consent/Listed Building Consent

PROJECTS MANAGER
(FIELD & ARCHIVES) **Martin Brook BA**

Qualifications: University of Leicester BA (Hons) Archaeology (2003 -2006)

Experience: Martin worked on archaeological excavations throughout his university career in and around Leicester including two seasons excavating a medieval abbey kitchen at Abbey Park, Leicester with ULAS. He specialised in Iron Age funeral traditions and grave goods for his 3rd year dissertation advancing his skills in museum research, database use and academic correspondence. He joined AS in September 2006 as an excavator involved in projects such as Earsham Bronze Age Barrow and cremation site. From May 2007, Martin has moved across to the Post-Excavation team to become Assistant Archives Officer, and thereafter Martin has returned to fieldwork as a Supervisor before being promoted to project management in 2009

PROJECT OFFICER **Zbigniew Pozorski MA**

Qualifications: University of Wroclaw, Poland, Archaeology (1995-2000, MA 2003)

Experience: Zbigniew has archaeological experience dating from 1995 when as a student he joined an academic group of excavators. He was involved in numerous archaeological projects throughout the Lower Silesia region in southwest Poland and a number of projects in old town of Wroclaw. During his university years he specialized in medieval urban archaeology. He had his own research project working on an early/high medieval stronghold in Pietrzykow. He was a member of a University team which located and excavated an unknown high medieval castle in Wierzbna, Poland. Zbigniew has worked for archaeological contractors in Poland on several projects as a supervisor where he gained experience in all types of evaluations and excavations in urban and rural areas. Recently he worked in Ireland where he completed two large long-term projects for Headland Archaeology Ltd. He joined AS in January 2008 as a Project Officer.

Zbigniew is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work (St Johns Ambulance).

SUPERVISOR **Gareth Barlow MSc**

Qualifications: University of Sheffield, MSc Environmental Archaeology & Palaeoeconomy (2002-2003)
King Alfred's College, Winchester, Archaeology BA (Hons) (1999-2002)
Experience: Gareth worked on a number of excavations in Cambridgeshire before pursuing his degree studies, and worked on many archaeological projects across the UK during his university days. Gareth joined AS in 2003 and has worked on numerous archaeological projects throughout the South East and East Anglia with AS. Gareth was promoted to Supervisor in the Summer 2007.

Gareth is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work (St Johns Ambulance).

SUPERVISOR **Mariusz Gorniak BA MPhil**

Mariuz Gorniak joined AS in 2012 as a highly experienced archaeologist, having spent over 12 years working in commercial field archaeology, notably in Colchester. After graduation from Jagiellonian University, Poland, he completed an MPhil (Hons) in Mediterranean Archaeology. Mariuz has authored numerous papers and reports on archaeology in Britain and Europe, and is a skilled illustrator of archaeological finds and architecture. He is also fluent in numerous European languages.

Mariuz is qualified in the Energy and Utility Skills Scheme (EUSS).

SUPERVISOR **Stephen Quinn BSc**

Stephen Quinn joined AS as a Site Assistant 2009, and in 2012 was promoted to the role of Supervisor. After graduating in Archaeology and Palaeoecology at Queens University Belfast, he worked for several commercial archaeology units including on Neolithic settlement and burial sites and a Bronze Age henge monument in Northern Ireland; early industrial pottery productions sites in Glasgow, and urban Roman excavation in Lincoln. In 2012 Stephen has been heading AS' excavation of a Roman fenland settlement site at Soham, Cambridgeshire.

Stephen is qualified in the Construction Skills Certification Scheme (CSCS).

SUPERVISOR **Kamil Orzechowski BA, MA**

Kamil Orzechowski joined AS in 2012, as an experienced field archaeologist after spending five years in various commercial archaeology units working on large-scale construction projects including railways and pipelines. Before becoming a field archaeologist, Kamil graduated from the Institute of Ethnology and Cultural Anthropology, Adam Mickiewicz University, Poznan, Poland.

Kamil is qualified in the Construction Skills Certification Scheme (CSCS).

SUPERVISOR **Samuel Egan BSc**

Samuel Egan joined AS in 2012 as an experienced field archaeologist after working on a range of excavations in Northamptonshire including a large-scale road project, community projects, evaluation and excavation projects, and geophysical syrveys. Samuel graduated from Bournemouth University with two degrees: Fdsc Field Archaeology and BSc (hons.) Field Archaeology.

Samuel is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work (Red Cross).

SUPERVISOR **Laszlo Lichtenstein MA, MSc, PhD**

Laszlo Lichtenstein joined AS in 2012 as a Supervisor, highly experienced in a range of archaeological project management, field archaeology and archaeozoology. Laszlo has extensive experience spanning Hungary, and later Northamptonshire, including directing evaluation and excavation projects; managing project set-up including written schemes of investigation, desk-based assessments and geophysical survey; and post-excavation analysis. Laszlo completed his academic studies at University of Szegad, Hungary, including his PhD on geophysical and archaeological investigations of late Bronze Age to early Iron Age settlements in south-east Hungary, and has published numerous articles on his areas of research.

Laszlo is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work.

PROJECT OFFICER
(DESK-BASED ASSESSMENTS) **Kate Higgs MA (Oxon)**

Qualifications: University of Oxford, St Hilda's College Archaeology & Anthropology MA (Oxon) (2001-2004)

Experience: Kate has archaeological experience dating from 1999, having taken part in clearance, surveying and recording of stone circles in the Penwith area of Cornwall. During the same period, she also assisted in compiling a database of archaeological and anthropological artefacts from Papua New Guinea, which were held in Scottish museums. Kate has varied archaeological experience from her years at Oxford University, including participating in excavations at a Roman amphitheatre and an early church at Marcham/ Frilford in Oxfordshire, with the Bamburgh Castle Research Project in Northumberland, which also entailed the excavation of human remains at a Saxon cemetery, and also excavating, recording and drawing a Neolithic chambered tomb at Prissé, France. Kate has also worked in the environmental laboratory at the Museum of Natural History in Oxford, and as a finds processor for Oxford's Institute of Archaeology. Since joining AS in November 2004, Kate has researched and authored a variety of reports, concentrating on desk-based assessments in advance of archaeological work and historic building recording.

ASSISTANT PROJECTS MANAGER (POST-EXCAVATION) **Andrew Newton MPhil PIFA**

Qualifications: University of Bradford, MPhil (2002-04)
University of Bradford, BSc (Hons) Archaeology (1998-2002)
University of Bradford, Dip Professional Archaeological Studies (2002)

Experience: Andrew has carried out geophysical surveys for GeoQuest Associates on sites throughout the UK and has worked as a site assistant with BUFAU. During 2001 he worked as a researcher for the Yorkshire Dales Hunter-Gatherer Research Project, a University of Bradford and Michigan State University joint research programme, and has carried out voluntary work with the curatorial staff at Beamish Museum in County Durham. Andrew is a member of the Society of Antiquaries of Newcastle-upon-Tyne and a Practitioner Member of the Institute for Archaeologists. Since joining AS in early Summer 2005, as a Project Officer writing desk-based assessments, Andrew has gained considerable experience in post-excavation work. His principal role with AS is conducting post-excavation research and authoring site reports for publication. Significant post-excavation projects Andrew has been responsible for include the Ingham Quarry Extension, Fornham St. Genevieve, Suffolk – a site with large Iron Age pit clusters arranged around a possible wetland area; the late Bronze Age to early Iron Age enclosure and early Saxon cremation cemetery at the Chalet Site, Heybridge, Essex; and, Church Street, St Neots, Cambridgeshire, an excavation which identified the continuation of the Saxon settlement previously investigated by Peter Addyman in the 1960s. Andrew also writes and co-ordinates Environmental Impact Assessments and has worked on a variety of such projects across southern and eastern England. In addition to his research responsibilities Andrew undertakes outreach and publicity work and carries out some fieldwork.

PROJECT OFFICER (POST-EXCAVATION) **Antony Mustchin BSc MSc DipPAS**

Qualifications: University of Bradford BSc (Hons) Bioarchaeology (1999-2003)
University of Bradford MSc Biological Archaeology (2004-2005)
University of Bradford Diploma in Professional Archaeological Studies (2003)

Experience: Antony has over 11 years' experience in field archaeology, gained during his higher education and in the professional sector. Commercially in the UK, Antony has worked for Archaeology South East (2003), York Archaeological Trust (2004) and Special Archaeological Services (2003). He has also undertaken a six-month professional placement as Assistant SMR Officer/ Development Control Officer with Kent County Council (2001-2002). Antony is part-way through writing up a PhD on Viking Age demographics, a long-term academic interest that has led to his gaining considerable research excavation experience across the North Atlantic. He has worked for projects and organisations including the Old Scatness & Jarlshof Environs Project, Shetland (2000-2003), the Viking Unst Project, Shetland (2006-2007), the Heart of the Atlantic Project/ Føroya Fornminnissavn, Faroe Islands (2006-2008) and City University New York/ National Museum of Denmark/ Greenland National Museum and Archives, Greenland (2006 & 2010). Shortly before Joining Archaeological Solutions in November 2011, Antony spent three years working for the Independent Commission for the Location of Victims Remains, assisting in the search for and forensic recovery of "the remains of victims of paramilitary violence ("The Disappeared") who were murdered and buried in secret arising from the conflict in Northern Ireland". Antony has a broad

experience of fieldwork and post-excavation practice including specialist (archaeofauna), teaching, supervisory and directing-level posts.

POTTERY, LITHICS AND CBM RESEARCHER **Andrew Peachey BA MIfA**

Qualifications: University of Reading BA Hons, Archaeology and History (1998-2001)

Experience: Andrew joined AS (formerly HAT) in 2002 as a pottery researcher, and rapidly expanded into researching CBM and lithics. Andrew specialises in prehistoric and Roman pottery and has worked on numerous substantial assemblages, principally from across East Anglia but also from southern England. Recent projects have included a Neolithic site at Coxford, Norfolk, an early Bronze Age domestic site at Shropham, Norfolk, late Bronze Age material from Panshanger, Hertfordshire, middle Iron Age pit clusters at Ingham, Suffolk and an Iron Age and early Roman riverside site at Dernford, Cambridgshire. Andrew has worked on important Roman kiln assemblages, including a Nar Valley ware production site at East Winch Norfolk, a face-pot producing kiln at Hadham, Hertfordshire and is currently researching early Roman Horningsea ware kilns at Waterbeach, Cambridgeshire. Andrew is an enthusiastic member of the Study Group for Roman Pottery, and also undertakes pottery and lithics analysis as an 'external' specialist for a range of archaeological units and local societies in the south of England.

POTTERY RESEARCHER **Peter Thompson MA**

Qualifications: University of Bristol BA (Hons), Archaeology (1995-1998)
University of Bristol MA; Landscape Archaeology (1998-1999)

Experience: As a student, Peter participated in a number of projects, including the excavation of a Cistercian monastery cemetery in Gascony and surveying an Iron Age promontory hillfort in Somerset. Peter has two years excavation experience with the Bath Archaeological Trust and Bristol and Region Archaeological Services which includes working on a medieval manor house and a post-medieval glass furnace site of national importance. Peter joined HAT (now AS) in 2002 to specialise in Iron Age, Saxon and Medieval pottery research and has also produced desk-based assessments. Pottery reports include an early Iron pit assemblage and three complete Early Anglo-Saxon accessory vessels from a cemetery in Dartford, Kent.

PROJECT OFFICER
(OSTEOARCHAEOLOGY) Julia Cussans PhD

Qualifications: University of Bradford, PhD (2002-2010)
University of Bradford, BSc (Hons) Bioarchaeology (1997-2001)
University of Bradford, Dip. Professional Archaeological Studies (2001)

Experience: Julia has c. 12 years of archaeozoological experience. Whilst undertaking her part time PhD she also worked as a specialist on a variety of projects in northern Britain including Old Scatness (Shetland), Broxmouth Iron Age Hillfort and Binchester Roman Fort. Additionally Julia has extensive field experience and has held lead roles in excavations in Shetland and the Faroe Islands including, Old Scatness, a large multi-period settlement centred on an Iron Age Broch; the Viking Unst Project, an examination of Viking and Norse houses on Britain's most northerly isle; the Laggan Tormore Pipeline (Firths Voe), a Neolithic house site in Shetland; the Heart of the Atlantic Project, an examination of Viking settlement in the Faroes and Við Kirkjugarð, an early Viking site on Sanday, Faroe Islands. Early on in her career Julia also excavated at Sedgeford, Norfolk as part of SHARP and in Pompeii, Italy as part of the Anglo-American Project in Pompeii. Since joining AS in October 2011 Julia has worked on animal bone assemblages from Beck Row, a Roman villa site at Mildenhall, Suffolk and Sawtry, an Iron Age, fen edge site in Cambridgeshire. Julia is a full and active member of the International Council for Archaeozoology, the Professional Zooarchaeology Group and the Association for Environmental Archaeology.

ENVIRONMENTAL ARCHAEOLOGIST Dr John Summers

Qualifications: 2006-2010: PhD "The Architecture of Food" (University of Bradford)
2005-2006: MSc Biological Archaeology (University of Bradford)
2001-2005: BSc Hons. Bioarchaeology (University of Bradford)

Experience: John is an archaeobotanist with a primary specialism in the analysis of carbonised plant macrofossils and charcoal. Prior to joining Archaeological Solutions, John worked primarily in Atlantic Scotland. His research interests involve using archaeobotanical data in combination with other archaeological and palaeoeconomic information to address cultural and economic research questions. John has made contributions to a number of large research projects in Atlantic Scotland, including the Old Scatness and Jarlshof Environs Project (University of Bradford), the Viking Unst Project (University of Bradford) and publication work for Bornais Mound 1 and Mound 2 (Cardiff University). He has also worked with plant remains from Thruxton Roman Villa, Hampshire, as part of the Danebury Roman Environs Project (Oxford University/ English Heritage). John's role at AS is to analyse and report on assemblages of plant macro-remains from environmental samples and provide support and advice regarding environmental sampling regimes and sample processing. John is a member of the Association for Environmental Archaeology.

SENIOR GRAPHICS OFFICER Kathren Henry

Experience: Kathren has twenty-five years experience in archaeology, working as a planning supervisor on sites from prehistoric to late medieval date, including urban sites in London and rural sites in France/Italy, working for the Greater Manchester Archaeological Unit, Passmore Edwards Museum, DGLA and Central Excavation Unit of English Heritage (at Stanwick and Irthlingborough, Northamptonshire). She has worked with AS (formerly HAT) since 1992, becoming Senior Graphics Officer. Kathren is AS's principal photographer, specializing in historic building survey, and she manages AS's

photographic equipment and dark room. She is in charge of AS's Graphics Department, managing computerised artwork and report production. Kathren is also the principal historic building surveyor/illustrator, producing on-site and off-site plans, elevations and sections.

HISTORIC BUILDING RECORDING **Tansy Collins BSc**

Qualifications: University of Sheffield, Archaeological Sciences BSc (Hons) (1999-2002)
Experience: Tansy's archaeological experience has been gained on diverse sites throughout England, Ireland, Scotland and Wales. Tansy joined AS in 2004 where she developed skills in graphics, backed by her grasp of archaeological interpretation and on-site experience, to produce hand drawn illustrations of pottery, and digital illustrations using a variety of packages such as AutoCAD, Corel Draw and Adobe Illustrator. She joined the historic buildings team in 2005 in order to carry out both drawn and photographic surveys of historic buildings before combining these skills with authoring historic building reports in 2006. Since then Tansy has authored numerous such reports for a wide range of building types; from vernacular to domestic architecture, both timber-framed and brick built with date ranges varying from the medieval period to the 20th century. These projects include a number of regionally and nationally significant buildings, for example a previously unrecognised medieval aisled barn belonging to a small group of nationally important agricultural buildings, one of the earliest surviving domestic timber-framed houses in Hertfordshire, and a Cambridgeshire house retaining formerly hidden 17th century decorative paint schemes. Larger projects include The King Edward VII Sanatorium in Sussex, RAF Bentley Priory in London as well as the Grade I Listed Balls Park mansion in Hertfordshire.

HISTORIC BUILDING RECORDING **Lisa Smith BA**

Qualifications: University of York, BA Archaeology (1998-2001)
Experience: Lisa has nine years archaeological experience undertaken mainly in the north of England previously working as a senior site assistant for Field Archaeology Specialists in York on both rural and urban sites as well as Castle Sinclair Girnigoe and Tarbat in Scotland. Prior to working for FAS Lisa was involved in various excavation projects for Oxford Archaeology North and Archaeological Services, University of Durham. Lisa joined AS as a supervisor in January 2008 and in November 2009 transferred to historic building recording and has since worked on a variety of buildings dating from the medieval period onwards, working closely with external consultant Dr Lee Prosser.

GRAPHICS OFFICER **Rosanna Price BSc**

Qualifications: University of Kent, Medical Anthropology BSc (Hons) (2005 -2008)
Experience: Rosanna's interests have always revolved around art and human history, and she has combined these throughout her work and education. During her degree she specialised in Osteoarchaeology and Palaeopathology, and personally instigated the University's photographic database of human remains. This experience gained her the post of Osteoarchaeologist at Kent Osteological Research and Analysis in early 2009, where she worked on a number of human bone collections including the Thanet Earth Skeletons. In January 2010 she joined AS as a Finds and Archives assistant, and by the summer had achieved a new role as graphics officer. In her current position Rosanna uses a range of computer programmes, such as AutoCAD, Adobe Illustrator and

CorelDraw to produce digital figures and finds illustrations. These accompany a wide range of archaeological reports, from desk-based assessments and interim reports through to publication standard.

GRAPHICS OFFICER **Charlotte Davies MPhil**

Qualifications: University of Exeter, Archaeology BA (Hons) (2004-2007)
Surrey Institute of Art & Design, BTEC Foundation Diploma in Art & Design (2003-2004)
University of Cambridge, Archaeology (Heritage & Museum Studies) MPhil (2010-2011).

Experience: Charlotte has always had a passionate interest in art and archaeology, and has combined these interests in her higher education. Charlotte worked on archaeological excavations in South Dakota, USA, before joining AS in 2007 as part of the graphics team. Charlotte's role within AS comprises the production of a wide range of high quality figures and illustrations for reports, from desk-based assessments and interim reports through to publication. Charlotte became a member of the Association of Archaeological Illustrators and Surveyors in 2009 (this subsequently became incorporated into the Institute for Archaeologists), and in 2010 undertook a masters degree in archaeology at the University of Cambridge.

ARCHAEOLOGICAL SOLUTIONS: PRINCIPAL SPECIALISTS

GEOPHYSICAL SURVEYS	Stratascan Ltd
AIR PHOTOGRAPHIC ASSESSMENTS	Air Photo Services
PHOTOGRAPHIC SURVEYS	Ms K Henry
PREHISTORIC POTTERY	Mr A Peachey
ROMAN POTTERY	Mr A Peachey
SAXON & MEDIEVAL POTTERY	Mr P Thompson
POST-MEDIEVAL POTTERY	Mr P Thompson
FLINT	Mr A Peachey
GLASS	H Cool
COINS	British Museum, Dept of Coins & Medals
METALWORK & LEATHER	Ms Q Mould, Ms N Crummy
SLAG	Ms J Cowgill
ANIMAL BONE	Dr J Cussans
HUMAN BONE:	Ms J Curl
ENVIRONMENTAL CO-ORDINATOR	Dr R Scaife
POLLEN AND SEEDS:	Dr R Scaife
CHARCOAL/WOOD	Dr J Summers
SOIL MICROMORPHOLOGY	Dr R MacPhail, Dr C French
CARBON-14 DATING:	English Heritage Ancient Monuments Laboratory (for advice).
CONSERVATION	University of Leicester

PLATES

Plate 1: DP1: Cattle skull in Phase 1 Pit F2103 (mid-excavation), looking W

Plate 2: Phase 1 Pit F2103 (mid-excavation), looking NE

Plate 3: Phase 1 Pit F2152 (left) and undated Gully F2141 (right) (post-excavation), looking SE

Plate 4: Putative Structure 1 (mid-excavation), looking NW

Plate 5: SK 1 (Grave F2145; mid-excavation), looking N

Plate 6: Phase 1 Spread L2140 (post-excavation), looking NE

Plate 7: Undated Pit F2016 (post-excavation), looking N

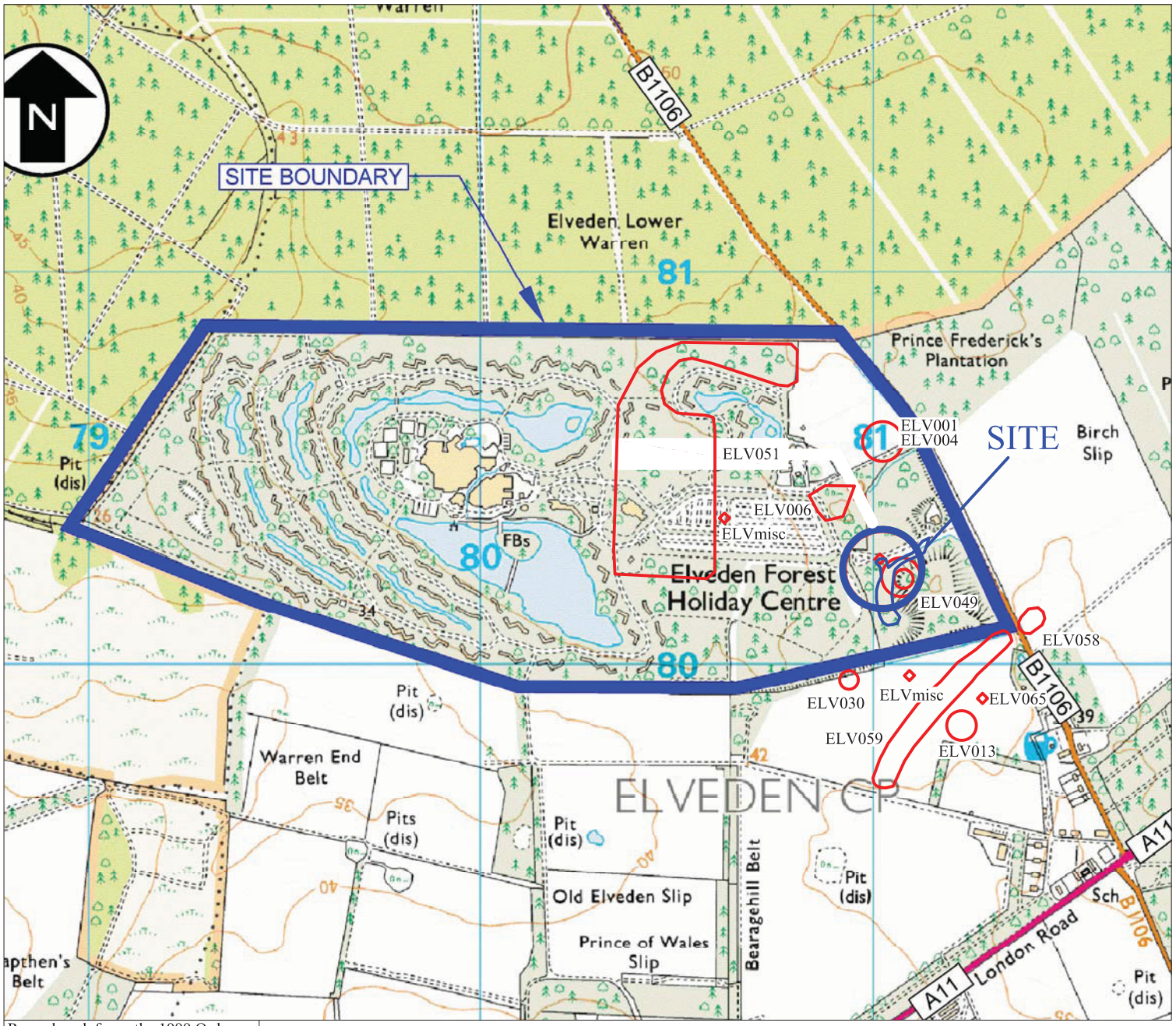

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Fig. 1 Site location

Scale 1:15,000 at A4

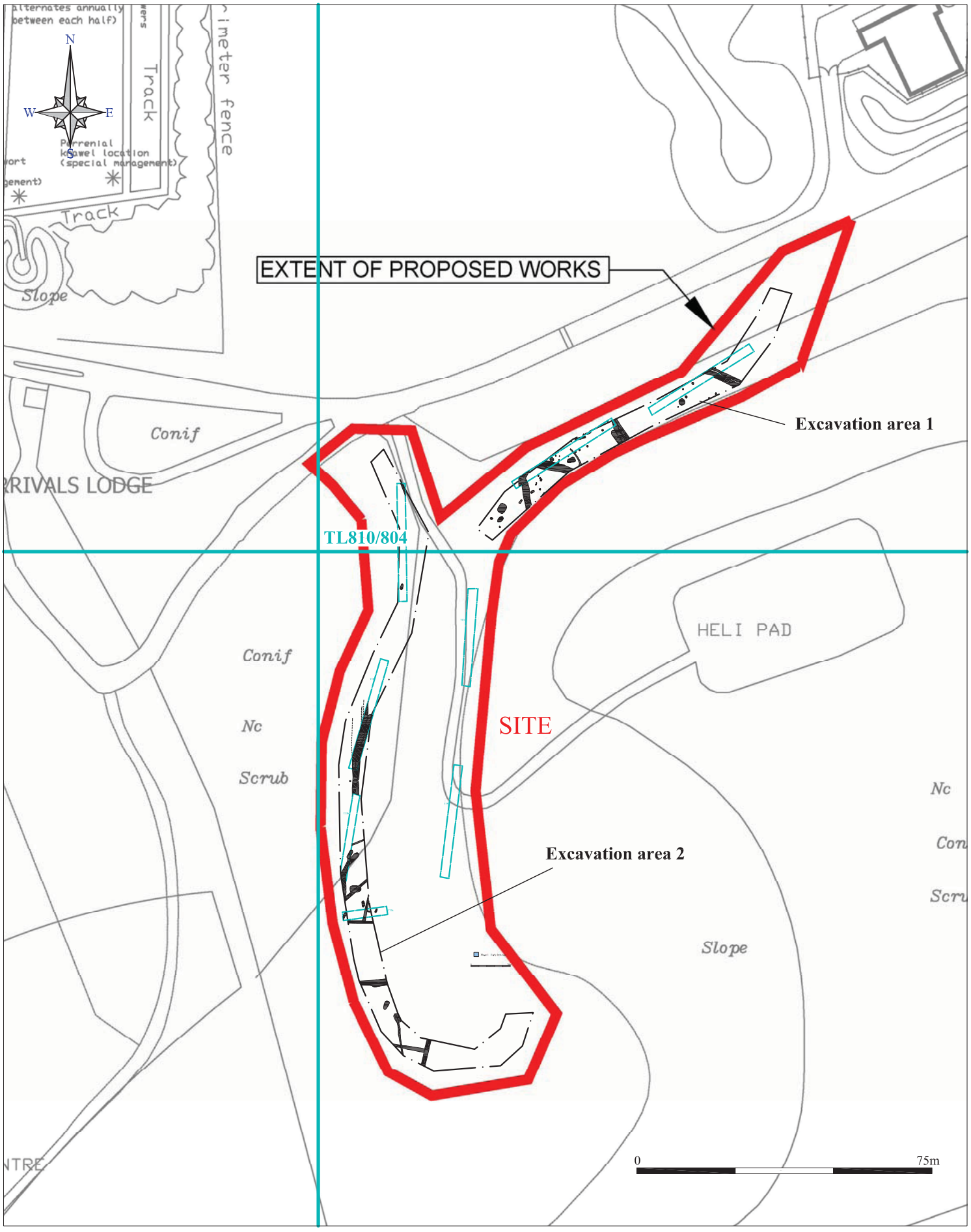

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Fig. 2 Detailed site location plan

Scale 1:1250 at A4

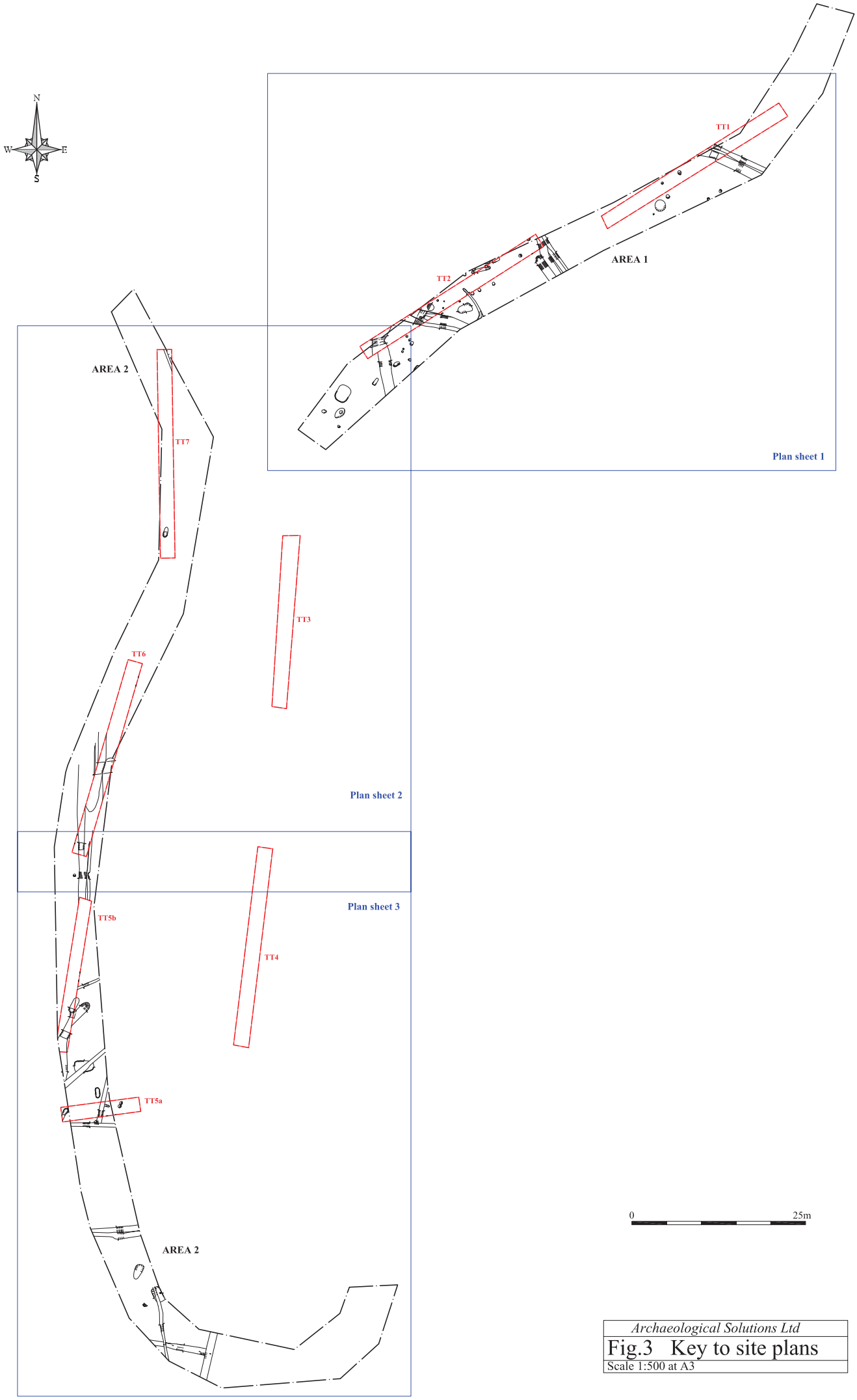

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Fig.3 Key to site plans

Scale 1:500 at A3

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Fig. 4 Plan sheet 1

Scale 1:200 at A3

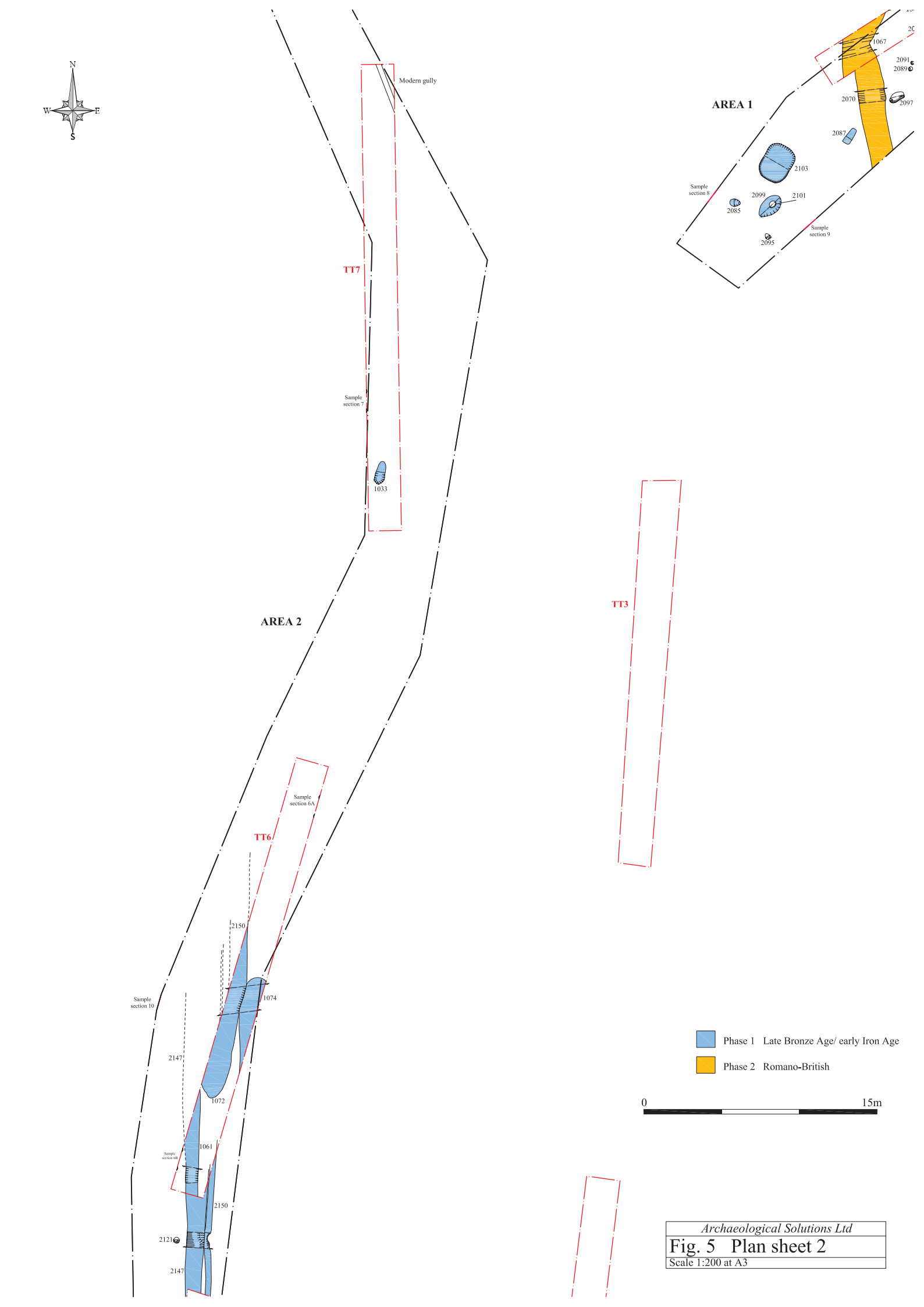

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Fig. 5 Plan sheet 2

Scale 1:200 at A3

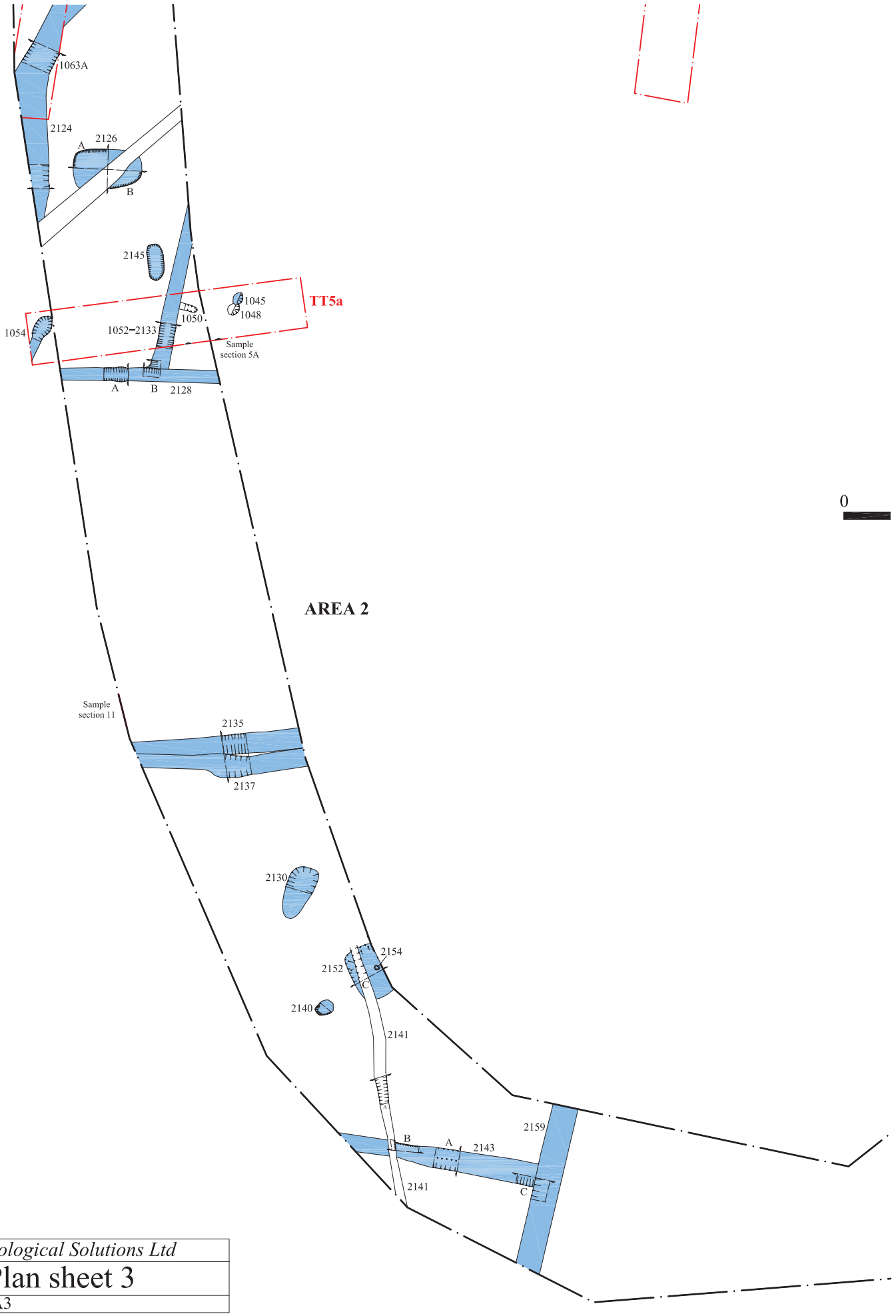

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Fig. 6 Plan sheet 3

Scale 1:200 at A3

Phase 1

Ditches/ gullies

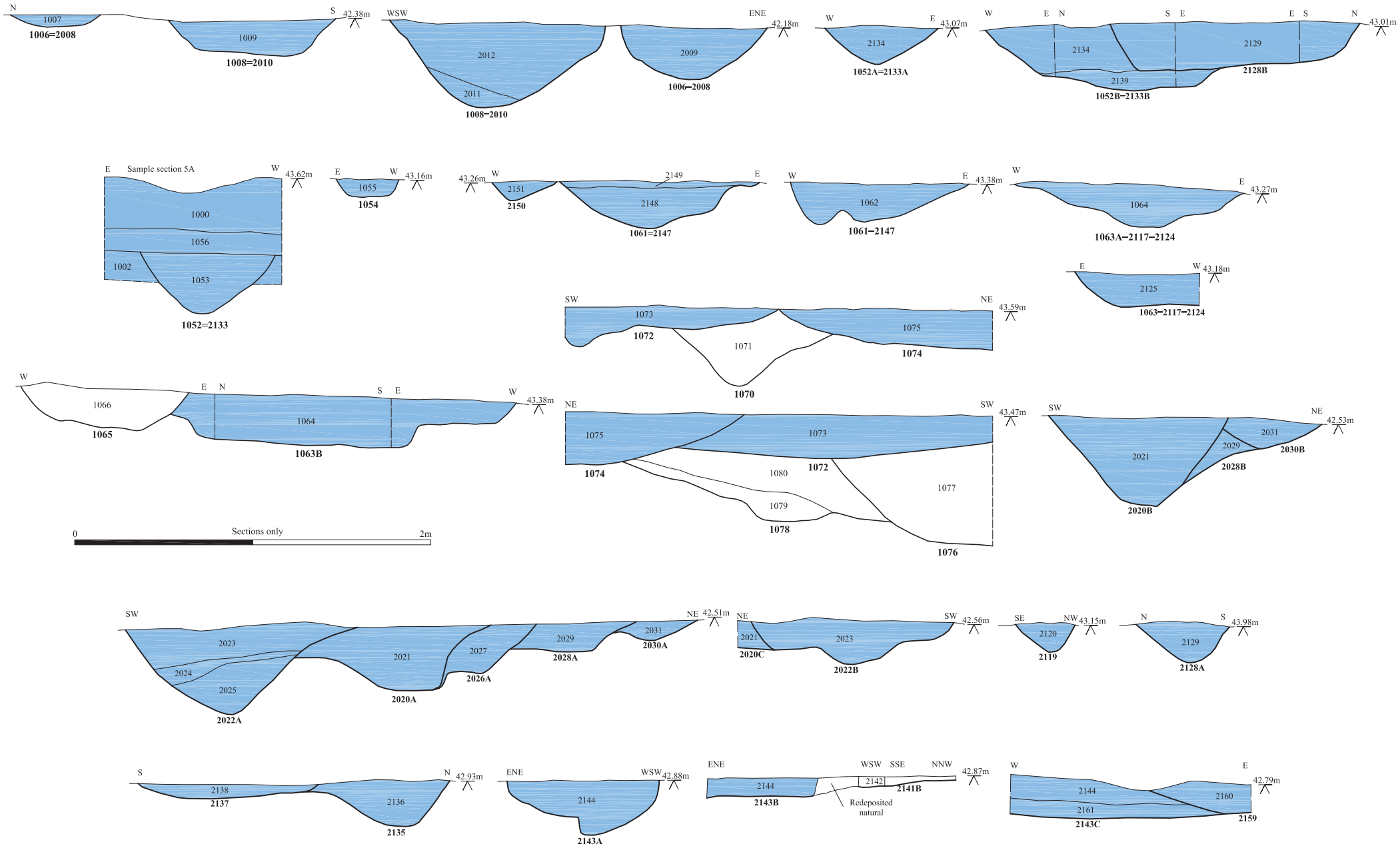

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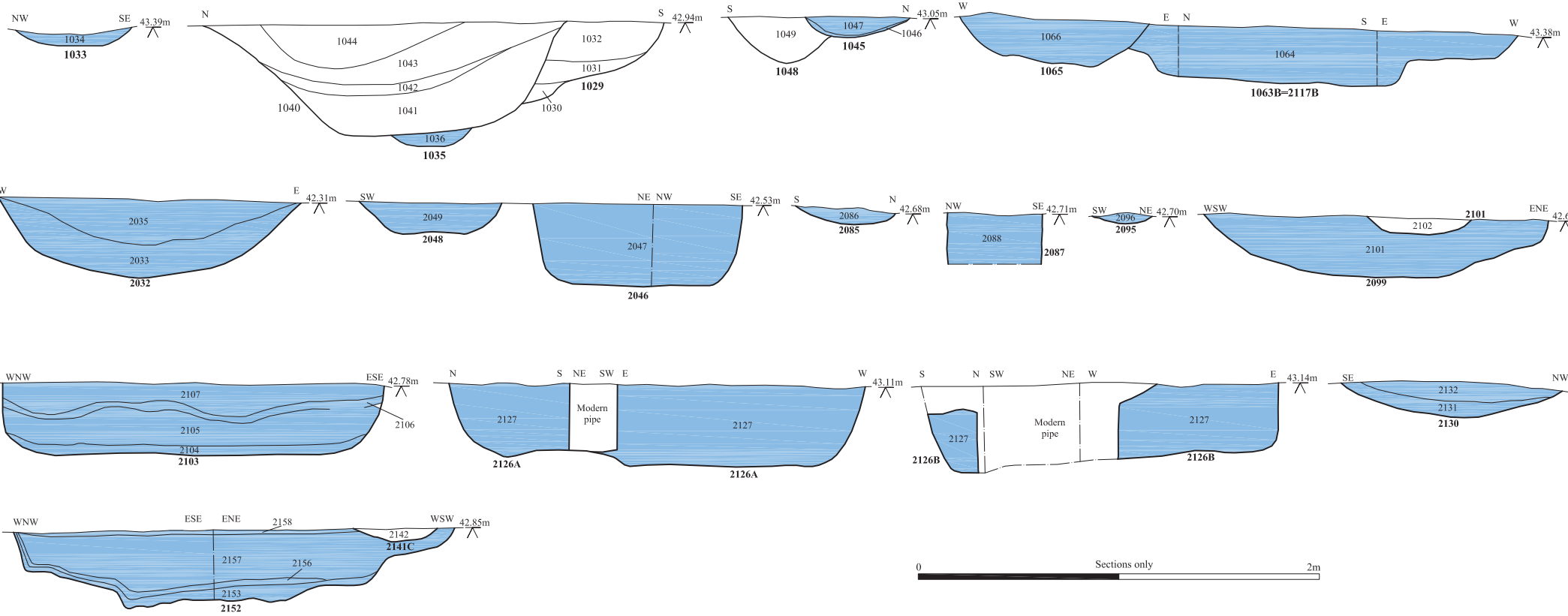
Fig. 7 Sections

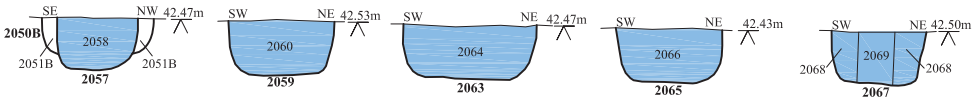
Scale 1:20 at A3

Phase 1

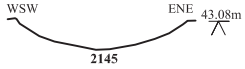
Pits



?Structure 1



Grave



Spread

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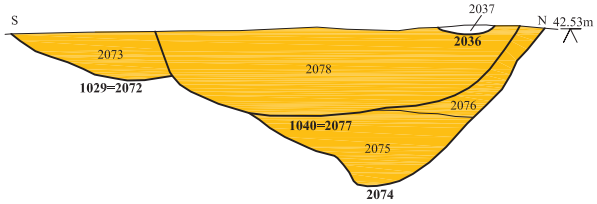
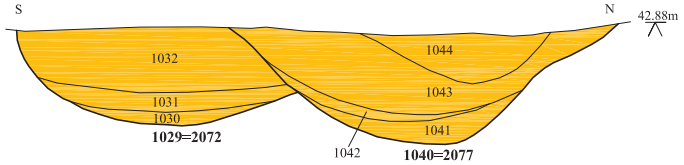
Fig. 8 Sections

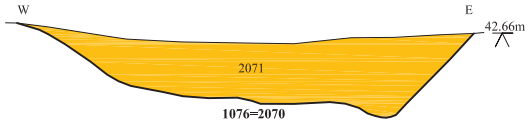
Scale 1:20 at A3

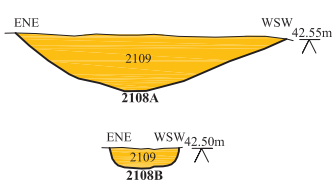
Phase 2

Ditches/ gullies

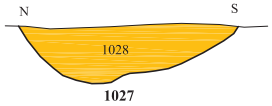


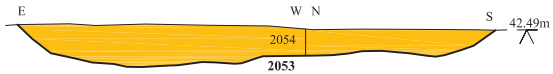


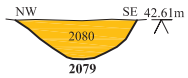


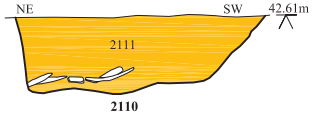


Pits

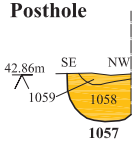






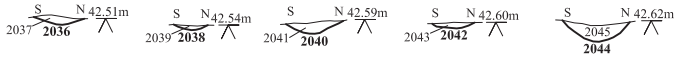


Posthole

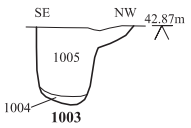


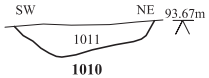
Undated

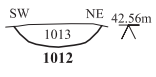
?Structure 2

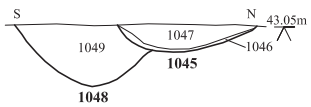


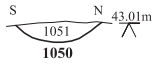
Remaining undated features

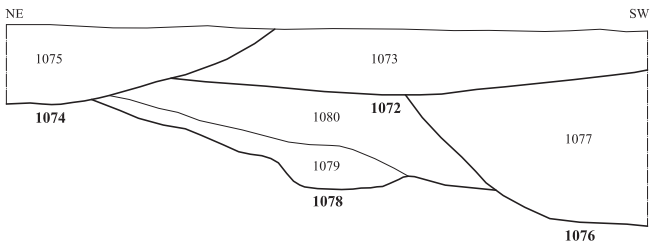


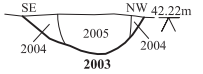


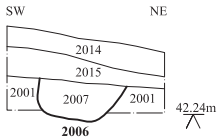


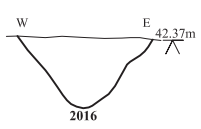


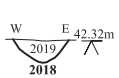


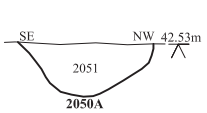


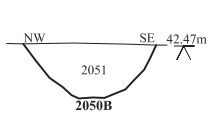


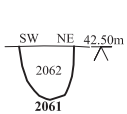


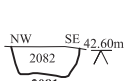


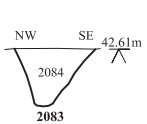


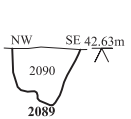


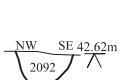


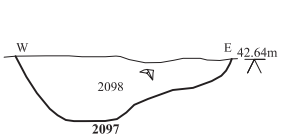


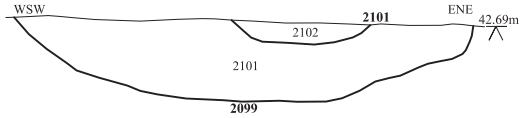


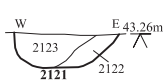


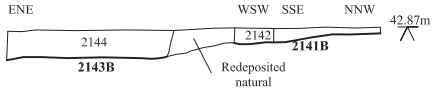












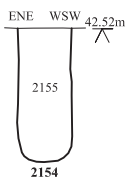


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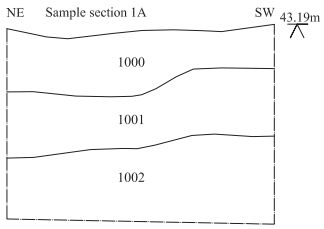
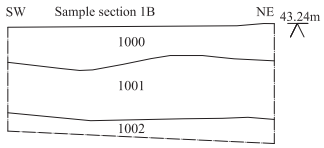
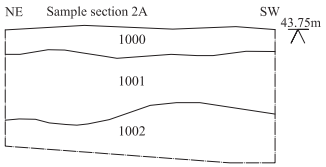
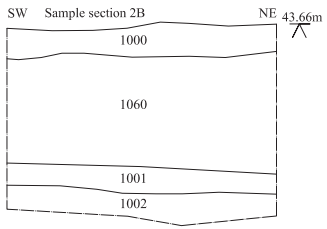
Fig. 9 Sections

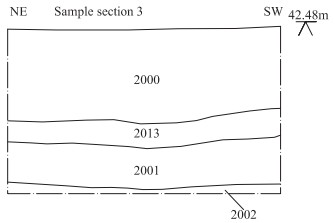
Scale 1:20 at A3

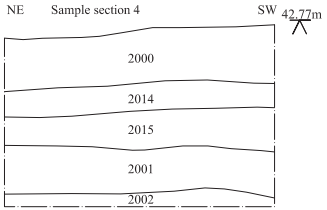


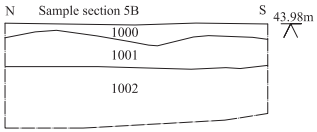


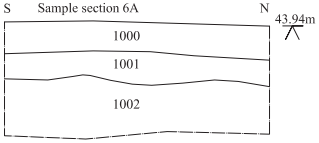


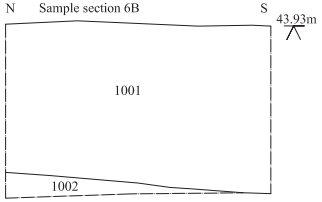


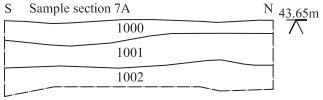


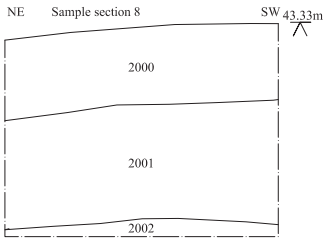


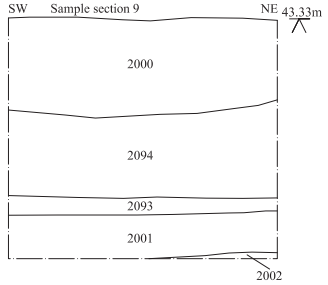


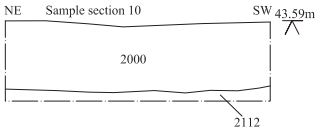


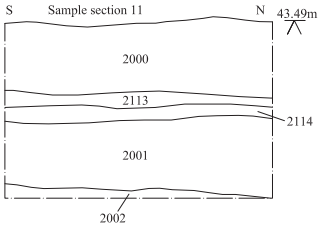












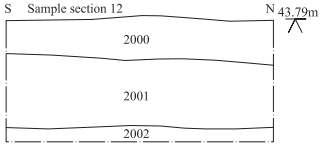


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Fig. 10 Sample sections

Scale 1:20 at A3

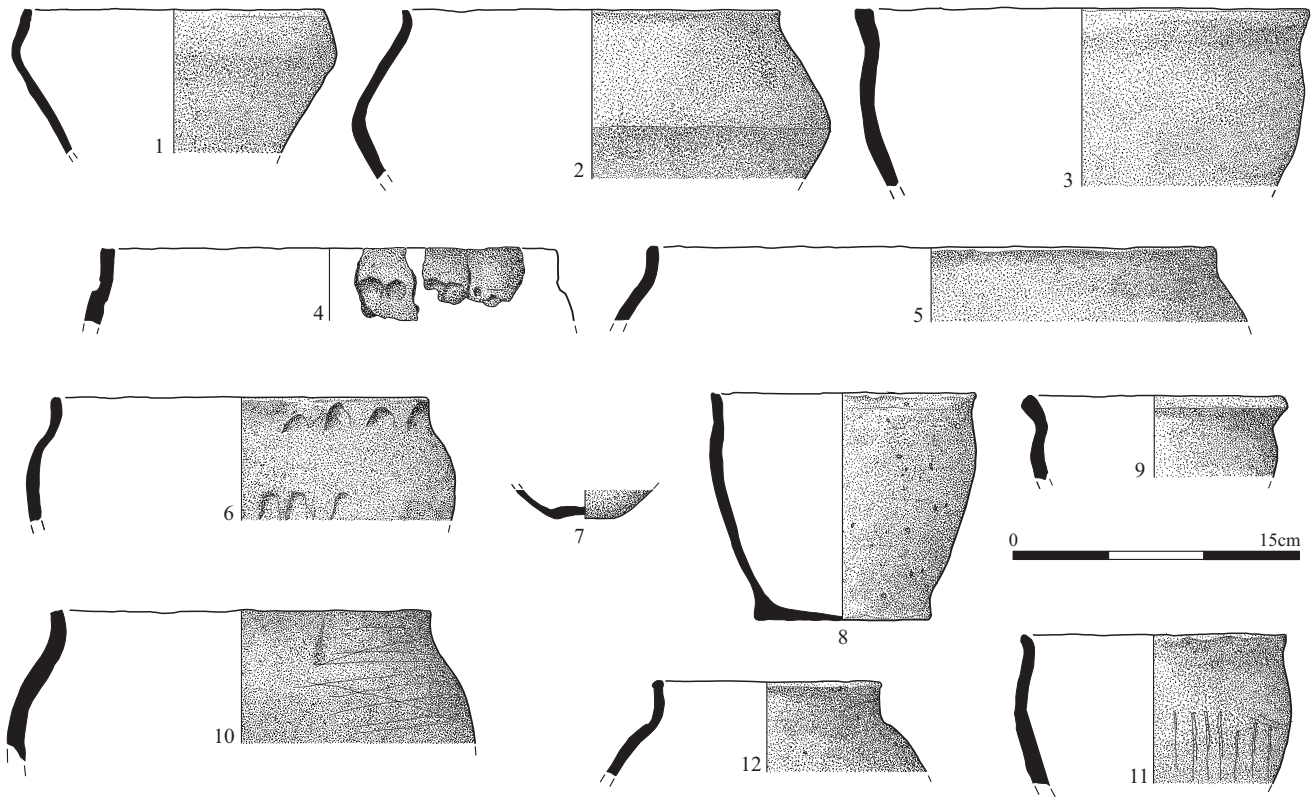

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Fig. 11 Pottery illustrations