

Later Bronze Age and medieval remains at Zone K (Area K1)

Beaulieu, Chelmsford

Essex



Post-Excavation Assessment



May 2017

**Client: Countryside Zest
(Beaulieu Park) LLP**

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**Later Bronze Age and medieval remains at Zone K (Area K1), Beaulieu,
Chelmsford, Essex**

Post-excavation Assessment

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Summary

Oxford Archaeology East carried out an open area excavation within Zone K (Area K1), Beaulieu, Chelmsford ahead of proposed new housing. These works were carried out between the 24/10/16 and 18/11/16.

The earliest phase of archaeological remains encountered comprised two Later Bronze Age pits. These may represent votive offerings that are part of a wider pattern of Later Bronze Age open settlement identified across the Beaulieu development area.

Occupation of the site during the 12th to 13th century was represented by a series of ditches that probably formed part of a field system. A second phase of activity was indicated by the remains of a possible domestic structure with an associated surface and rubbish pits. Both phases of medieval activity may have formed part of a wider pattern of nucleated settlement which surrounded the nearby Belstead Hall manor complex.

1 INTRODUCTION

1.1 Project Background

- 1.1.1 Between the 24th October 2016 and 18th November 2016 Oxford Archaeology East (OA East) carried out an archaeological excavation at Zone K (Area K1), Beaulieu, Chelmsford (TL 7233 1050; Fig. 1) in advance of the construction of a new neighbourhood to the north-east Chelmsford, known as Beaulieu.
- 1.1.2 Outline planning permission for the Beaulieu development has been granted by Chelmsford City Council (ref: 09/01314/EIA). The new neighbourhood, will comprise up to 3,600 new homes and up to 62,300m² of mixed use development including new schools, leisure and community facilities, employment areas, new highways and associated ancillary development, including full details in respect of roundabout access from Essex Regiment Way and a priority junction from White Hart Lane.
- 1.1.3 These archaeological excavations were undertaken to mitigate the construction impacts of an area of proposed residential housing totalling 0.057 hectares.
- 1.1.4 This work was carried out in accordance with the Beaulieu Archaeological Investigation Strategy (URS 2013a), and an Archaeological Method Statement prepared by Oxford Archaeology East (Mortimer 2016).
- 1.1.5 This excavation is part of an ongoing archaeological project, across a phased development. The time-scale for this development is dependant on many factors and so cannot be accurately determined at the present time. The work presented in this Post-Excavation Assessment will eventually be incorporated into wider Analysis and Publication Reports.
- 1.1.6 This assessment has been conducted in accordance with the principles identified in English Heritage's guidance documents *Management of Research Projects in the Historic Environment*, specifically *The MoRPHE Project Manager's Guide* (2006) and *PPN3 Archaeological Excavation* (2008).
- 1.1.7 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and Topography

- 1.2.1 Beaulieu (the Site) is located approximately 4km to the north-east of Chelmsford, Essex. The Site encompasses an area of high ground (c. 51.5m OD) surrounded on three sides by river valleys. To the west and south is the River Chelmer, and to the east is Boreham Brook. North of the Site the ground rises towards the village of Terling. From the southern part of the Site there are views south towards the Chelmer Valley and Danbury Hill.
- 1.2.2 Area K1 is situated in the centre of the Beaulieu development (centred on TL 7233 1050; Fig. 1) and encompasses a single field which is used for arable cultivation.
- 1.2.3 The superficial geology consists of boulder clay of the Lowestoft Till formation underlain by London Clays. To the south of the area lay a mixture of head deposits and sand and gravels (British Geological Survey).

1.3 Archaeological and Historical Background

Neolithic

- 1.3.1 Essex has some of the earliest surviving evidence of settlement, mainly concentrated to the north-east along the River Crouch at Lawford and Lemarsh (Hedges, 1984). Evidence for possible domestic settlement within the vicinity of Beaulieu was recorded at Court Road, 1km to the north-west, in the form of several pits with Neolithic pottery within their fills (SMR 6142).

Bronze Age

- 1.3.2 Settlement continued to be concentrated along the river valleys of the Chelmer and Crouch, however during the Bronze Age the landscape was enclosed by field systems for the first time, such as those found at Great Wakering (Kemble 2001). These enclosed field systems would have continued in use through into the early Iron Age. It has been suggested that these Bronze Age field systems form the basis for the modern landscape in the Chelmer Valley (Drury & Rodwell 1980).
- 1.3.3 Several crop-marks have been recorded by aerial photography to the south of Belstead Hall and interpreted as part of a Bronze Age settlement (SMR 16888), with further domestic dwellings excavated at Springfield Lyons, 2.5km to the south-west. Further occupation sites are attested to by the recovery of artefacts, such as at New Hall School, to the east and Pratt's Farm, to the north.

Iron Age

- 1.3.4 The settlement pattern during the Iron Age would have been of nucleated settlements within a larger farming landscape. Evidence of this, within the vicinity of the development area, was seen to the south of Belstead Hall (SMR 17438). This comprised a large enclosure with associated pits and smaller ditches (Drury 1978).
- 1.3.5 The Later Iron Age witnessed an expansion of settlement onto the heavier clay soils and the continued occupation of the estuaries. These estuarine sites are seen to become more complex in nature over time, with higher population density and sustained occupation, such as has been found at Little Waltham (Drury 1980).
- 1.3.6 By the end of the Iron Age sites such as Gosbecks oppida show that portions of the population were highly structured and of high status. These sites would have relied on farming communities scattered around the environs to supply agricultural commodities. (Crummy 1997).

Roman

- 1.3.7 During the Roman period a *mansio* (an imperial post station or inn) was established 5km west of Beaulieu at Moulsham Street. Around this a small market town (*Caesaromagus*) developed with the surrounding area forming an agricultural hinterland to supply produce to the town.
- 1.3.8 This agricultural landscape would have comprised of large farms and villa complexes, such as those at Great Holts Farm and Bulls Farm Lodge. Smaller domestic sites would also have formed part of the landscape. Evidence for these has been recorded during evaluation work at Greater Beaulieu. Evidence for pottery making, associated with domestic use was also recorded.

Anglo-Saxon

- 1.3.9 In the immediate Post-Roman period, the Roman town at Chelmsford was abandoned and much of the surrounding landscape reverted to rough pasture or woodland (Hunter

2003). No known remains of Anglo-Saxon date are recorded within the application site although this is more likely to reflect the relatively poor archaeological visibility of Anglo-Saxon settlement sites rather than a lack of activity during the period.

- 1.3.10 Two records dating to the Anglo-Saxon period are held by the EHER; both of which are documentary records for Late Saxon manors, with Belestedam (Belstead Hall) recorded in the Domesday survey of AD 1086 and one in the vicinity of New Hall School documented in AD 1062 (Reaney 1935).

Medieval

- 1.3.11 The medieval town of Chelmsford was founded at the end of the 12th century, by the Bishop of London, to the north of the earlier Roman settlement at Moulsham. Throughout the medieval period the site was located within the rural hinterland of Chelmsford in a landscape populated by scattered farmsteads and manors.
- 1.3.12 To the east lay the manor of New Hall on the site of the current New Hall School. It is first mentioned by name (as 'Nova Aula') in documents dating to AD1301 when the site formed part of the lands owned by the Canons of Waltham Abbey and was used as the summer residence of the Abbott. It was later transferred to the Regular Canons under Henry II (Burgess & Rance 1988).
- 1.3.13 The first deer park surrounding New Hall was created during the medieval period with the manor at its centre (Tuckwell, 2006). Under Henry VII, New Hall was granted to Thomas Boteler, Earl of Ormond, who received a licence to crenellate (fortify) it in AD1481 (E41/420) and who, in all likelihood, rebuilt or remodelled the original medieval hall in the latest architectural style. The new structure came to the attention of Henry VIII who visited New Hall in 1510 and 1515, shortly before Ormond's death. Subsequently, the property passed to Thomas' daughter and thus into the Boleyn family through her husband Sir Thomas Boleyn, from whom Henry VIII acquired the hall in 1516, changing its name to the 'Palace of Beaulieu'. Shortly after 1518 he rebuilt the Ormond's medieval hall on a quadrangular plan with gatehouse in the south range, great hall in the east and chapel in the west ranges. Mary Tudor took residency at New Hall intermittently between 1532 and her ascendancy to the crown in 1553.
- 1.3.14 Evidence for a further moated manor is recorded at Belstead Hall. This manor was occupied throughout the medieval period. By 1325 it was called Belestede, in 1354 it was recorded as Belestede Hall and by 1504 it was known as Belested Hall. The name is thought to derive from 'the site of the bell house' (Reaney 1935).
- 1.3.15 Analysis of aerial photographs and geophysical survey identified a number of features which, when investigated by trial trench evaluation, were found to comprise a possible enclosure ditch or moat. A cobbled surface (possibly representing a house platform or yard surface), pit and several further ditches were recorded within the enclosure. Pottery recovered from the features suggests an occupation date of the 12-13th century (ECC FAU 2009). These remains have been interpreted as paddocks and an agricultural processing area associated with the manorial site at Belstead Hall c.160m to the north-east of Site 7 within Zone A of the Beaulieu development.

Post-Medieval

- 1.3.16 The development of New Hall and its deer park dominated the landscape of the application site and the surrounding area until the park contracted in size and the fields were enclosed for agriculture in the early 18th century. As the deer park was reduced in size the former medieval manors or lodges developed into farms, creating an essentially agricultural landscape.

- 1.3.17 Since the medieval period, New Hall had been set within the largest deer park in Essex; once totalling some 1,500 acres. The EHER records that the enclosed area actually comprised four separate parks surrounding New Hall and its gardens. Within the Great or Old Park located to the north of New Hall. The remaining parks were known as the Red Deer Park located to east of New Hall, the Dukes Park (located further east beyond the study area; EHER 47226) and the New or Little Park situated to the south and west of New Hall. The application site is located within this latter area.

Previous Archaeological Investigations

Geophysical Surveys

- 1.3.18 Geophysical magnetic susceptibility and detailed magnetometer surveys were carried out to evaluate the potential for important archaeological remains that may be buried within the Site. The magnetic susceptibility survey provided a rapid assessment of likely areas for previous settlement and industrial activity. The survey identified six areas of high potential, ten areas of medium potential and seven areas of low potential (Scott Wilson 2008). The magnetic susceptibility survey was followed by a detailed magnetometer survey of c.50% of the Beaulieu scheme. This survey provided a greater level of detail and identified individual features such as pits and ditches, field boundaries, buildings and structures, kilns or hearths and buried iron objects. The detailed magnetometer survey identified ten areas of high archaeological potential; six of medium potential and 19 of low potential (Scott Wilson 2008).

Trial trench Evaluation, 2008

- 1.3.19 A limited programme of targeted trial trench evaluation was undertaken between June and August 2008 to support the Environmental Impact Assessment for the Beaulieu development. The purpose of the trial trenching was to confirm the presence/absence and significance of archaeological remains at eight sites identified by an assessment of the combined results of the desk-based studies and non-intrusive surveys (Scott Wilson 2007).
- 1.3.20 The trial trenching confirmed the presence of archaeological remains dating from the late prehistoric to post-medieval periods. This included a Late Iron Age and Early Romano-British settlement (Site 8); an Iron Age ditch (Site 5); medieval rural settlement possibly indicative of a precursor to Belstead Hall (Site 7); a possible medieval/transitional medieval warrener's lodge associated with the former deer park (Site 10); transitional medieval moated enclosure (Site 11); Tudor fishpond and associated earthwork dam (Site 2); a brick making site comprising two scove or clamp kilns of possible Tudor date (Site 3) and evidence for associated quarrying activity (Site 4).

Beaulieu Minerals trial trench evaluation, 2011

- 1.3.21 A trial trench evaluation was undertaken in September/October 2011 to inform and support the planning application for the Beaulieu Minerals Extraction scheme. The evaluation identified a concentration of archaeological remains to the north-west of New Hall School. These remains appear to represent a rural settlement and possible metalworking activity dating from the Late Bronze Age through to the end of the Roman period. Metal detecting of the plough soil revealed several Early Roman coins and fragments of Early Roman brooches within the main area of activity.

Beaulieu Phase 1 evaluation and excavations, 2013

- 1.3.22 Archaeological trial trench evaluation of the proposed Essex Regiment Way roundabout, White Hart Lane junction and connecting access road identified four locations of significant archaeological remains (Stocks-Morgan, 2013).
- 1.3.23 Site 5, located within the footprint of the proposed Essex Regiments Way roundabout, identified part of a Middle Iron Age settlement comprising a single roundhouse, surviving only as the remains of an eaves-drip gully. Several small pits and postholes were identified outside the roundhouse and were likely to be associated with domestic activity contemporary with the building. This settlement was surrounded by a large oval enclosure.
- 1.3.24 In Area A1 a single east to west aligned field boundary ditch of possibly Late Iron Age date attests to a wider agricultural landscape of field systems. A second, probably medieval, ditch was encountered on a north-west to south-east alignment (Stocks-Morgan, 2013a).
- 1.3.25 In Zone D of the development Site 11 and Area D1 identified evidence of two High medieval house platforms and their surrounding enclosures. Thought to be a medieval settlement associated with Belstead Manor estate (Stocks-Morgan, 2013b).

Beaulieu Zone A Housing Evaluation and Excavations, 2014

- 1.3.26 Trial trench evaluation and subsequent open area excavation within the Zone A housing area to the south of Belstead Hall Farm revealed remains dating from the Middle Bronze Age to the post-medieval period (Stocks-Morgan 2014a),
- 1.3.27 A Middle Bronze Age boundary ditch, aligned north-east to south-west, evidence for Early Iron Age open settlement comprising ten pits containing a large assemblage of pottery and fired clay, and a medieval, possible retting pit and enclosures were also recorded at Site 7. Sparse domestic activity is suggested by Late Iron Age pits that were revealed in Areas A3 and A4 along the side of a brook to the south of Zone A. In contrast Area A2 revealed the presence of a Late Iron Age/Roman enclosure ditch and later medieval ditch.

Zone B and E Trench Evaluation, 2014

- 1.3.28 Four areas of significant archaeological remains were identified in Zone E. No significant archaeological remains were recorded in Zone B (Stocks-Morgan 2014b).
- 1.3.29 Two small open area excavations were undertaken in the western part of Zone E, which encountered Late Bronze Age / Early Iron Age open settlement, comprising five four-poster structures and several pits. A further area in the northern part of Zone E encountered a small undated gully.
- 1.3.30 A large open area excavation (Site 8) was undertaken towards the south-eastern corner of the site, which identified occupation spanning a period from the Late Iron Age into the Early Roman period. These settlement remains consisted of an enclosure surrounding a roundhouse and associated occupation features. In the Early Roman period this enclosure was reconfigured and the roundhouse was replaced. This phase of settlement also produced an associated midden deposits and an ancillary roundhouse (Stocks-Morgan, 2016a)

Beaulieu Phase 2a Infrastructure mitigation evaluation and excavations, 2015

- 1.3.31 A small open area excavation was carried out ahead of the construction of drainage ponds and swales that form part of the Phase 2a infrastructure works. The archaeology encountered comprised a prehistoric trackway and a Late Iron Age nucleated settlement (Stocks-Morgan, 2016b).

CZ1 / Site 10

- 1.3.32 A 14th / 15th century pit was encountered with two associated ditches during excavation of Zone G / Site 10. This pit is thought to be a retting pit, based upon its shape and the recovery of pollen/seeds from the waterlogged deposits. A later medieval ditched enclosure was also recorded. Inside the enclosure were the remains of a 16th century house, represented by the remains of two brick built fireplaces, and a possible brick built staircase. Two further brick built ancillary structures were evident, one being a cellar and the second a probable toilet block (Stocks-Morgan, 2016c).

Beaulieu Gas Diversion

- 1.3.33 A total of six trenches were excavated across two separate fields, within the proposed development area.
- 1.3.34 No significant archaeological finds, features or deposits were present in the evaluation trenches (Stocks-Morgan, 2016d).

Beaulieu Primary and Secondary Schools Site

- 1.3.35 A total of sixty-one trenches were excavated within the proposed development area, across three separate fields.
- 1.3.36 Two phases of medieval field boundaries were present within the southern field, one of which was on a north-west to south-east alignment and the second phase aligned on a north to south axis. One further undated ditch was encountered in the northern part of the development area (Stocks-Morgan, 2016e).

Beaulieu Land parcels CZ 1 and CZ 2 and Zones M and N

- 1.3.37 This evaluation comprised thirty-three trenches across three separate fields, within the proposed development area.
- 1.3.38 A possible prehistoric posthole was recorded to the north of the site and a transitional medieval ditch and two quarry pits were encountered towards the eastern side of the development area. A further undated ditch was present (Stocks-Morgan, 2016f).

Beaulieu LS1, CZ5 and the Primary School site (Zone P)

- 1.3.39 A total of forty-five trenches were excavated across two separate fields, within the proposed development area.
- 1.3.40 Evidence of Early Iron Age open settlement was encountered, comprising a fire pit and two small pits. A Middle Iron Age ditch, thought to be part of either a field system or trackway was seen in the eastern field.
- 1.3.41 Transitional medieval remains comprising several brick filled linear features associated with the deer park were recorded in the eastern field. These may be evidence for a deer course. A post-medieval ring ditch was evident in the north-western part of the site along with a field boundary (Stocks-Morgan, 2016g).

Beaulieu CZ 6 and CZ 7

- 1.3.42 Forty-one trenches were excavated across two separate fields, within the proposed development area.
- 1.3.43 This evaluation recorded the remains of early prehistoric dispersed settlement in the form of a fire pit and a rectangular pit which contained frequent charcoal. In the northern part of the development area a putative late medieval settlement comprised four potential wall foundations, possibly belonging to a building, and two ditches thought to be part of an enclosure.
- 1.3.44 Several brick filled linear features in both fields may be evidence for a deer course associated with the deer park (Stocks-Morgan, 2016h).

Beaulieu land parcel CZ 7

A total of eighteen trenches were excavated in this area. The remains of two linear, brick filled features may be evidence for a deer course. A further three post-medieval field boundaries were found, along with two undated ditches and an undated posthole (Stocks-Morgan, 2016i).

Beaulieu Minerals Extraction Site (Site 1)

- 1.3.45 Evidence for prehistoric activity included three Early Bronze Age pits that may have been the remnants of cremations, although this was not conclusive and could represent domestic activity. An Early Iron Age post-built structure interpreted as a possible grain store was recorded in Area 1B. During the Middle Iron Age an unenclosed settlement was established that consisted of a roundhouse, a post-built structure and two ovens, a possible stock enclosure and numerous pits and postholes. Subsequently a Late Iron Age roundhouse within a sub-rectangular enclosure were set out in this area. The Early Roman period was represented by rectangular structures with associated cobbled surfaces and a small oven in Area 1C and a trackway to the north-east, in Area 1B.
- 1.3.46 Two areas of 12th to 14th century occupation were identified in Areas 1A and 1C. In Area 1C this comprised a rectangular enclosure encompassing a rectangular building. In the north-east of Area 1A, a small building was recorded in association with intercutting cess pits and a hollow filled by midden material.
- 1.3.47 By the transitional medieval period several brick filled gullies had been laid out. In the main these comprised gullies backfilled with broken brick fragments that followed the alignments of pre-existing medieval boundary ditches. These probably formed the foundations for creating visible barriers within the deer park landscape. A smaller number of more regularly constructed, brick-filled features possibly represented the foundations for small buildings.

Three post medieval ring ditches spaced across the excavation were most likely tree stands within a formal or managed garden (Stocks-Morgan, 2017).

1.4 Acknowledgements

- 1.4.1 The author would like thank Iain Williamson of AECOM and Countryside Zest (Beaulieu Park) LLP who respectively commissioned and funded the archaeological work. The project was managed by Richard Mortimer and the illustrator was Charlotte Walton. Thanks are also extended to Paddy Lambert who supervised the site and Simon Birnie, Ed Cole, Dan Firth and Joanna Nataszcyc who helped with the fieldwork. The project was monitored by Alison Bennett of Essex County Council. The machining was undertaken by Dave Calder of Danbury Plant Hire.

2 PROJECT SCOPE

- 2.1.1 This assessment deals only with the excavation carried out on areas designated as Area K1, within a larger phased development. The earlier evaluation data will be incorporated into the results where relevant. Further assessments will be produced following any future work required on other parts of the development.

3 ORIGINAL RESEARCH AIMS AND OBJECTIVES

3.1 Aims

- 3.1.1 The main aim of the excavation was to preserve by record the archaeological remains present within the development area and to reconstruct the history and use of the site.
- 3.1.2 The current project will be incorporated within the wider archaeological investigations at Beaulieu. The research objectives that are applicable to this specific site are detailed below.

3.2 Regional Research Objectives

- 3.2.1 There are a number of regional research objectives that have been identified by Historic England, formerly English Heritage (English Heritage, 1997) which provide a framework for investigation and can be applied to the medieval evidence recovered at Beaulieu.

Bronze Age (2000BC to 700BC)

- The central theme identified for both the Neolithic and Bronze Age is the development of farming and the associated development and integration of monuments, field systems and settlement
- To refine the chronologies for the period and cross referencing of pottery typologies across the region, using the application of Bayesian modelling of carefully selected radiocarbon dates
- To understand the variation in date and development of Bronze Age field systems across the region
- The identification of later Bronze Age pottery typologies linked to radiocarbon dates, notably with reference to the recognition of 'fine' wares and 'course' wares
- To understand the inter-relationship between settlement types and monuments (possibly with specific reference to the Bronze Age sites at Great Holts Farm and Springfield Lyons).

Medieval (AD 1066-1540)

- The study of medieval rural settlement diversity across East Anglia
- The characterisation of settlement forms, function, chronology, structure and the investigation rural settlement type and morphology
- The understanding of agrarian regimes on the geology of the rural sites, through the use of environmental sampling
- The characterisation and chronology of medieval field systems and understanding how the size and shape of fields can be related to agricultural regimes
- The study of the evolution of the medieval house and farmstead and agrarian economy.

- To understand the form that farms take and the type of building present and whether functions can be attributed to them.

3.3 Site Specific Research Objectives

3.3.1 The site specific aims for Area K1 are:

- To investigate and record evidence for Bronze Age settlement activity
- To preserve by record the nature, extent and form of the medieval settlement
- To investigate how the medieval settlement on Area K1 relates to the manorial complex at Belstead Hall to the south-east.

4 SUMMARY OF RESULTS

4.1 Provisional Site Phasing

4.1.1 For consistency with all previous and forthcoming reports, features where dating is available, will be attributed to the following periods (see Table 1). Features have been placed in phases based on stratigraphic and spatial relationships, alongside the use of artefact dating.

Neolithic (3500 – 2000 BC)	Early Neolithic (3500 – 2900 BC)	
	Middle Neolithic (2900-2500 BC)	
	Later Neolithic (2500 - 2000 BC)	
Bronze Age (2000 – 700 BC)	Early Bronze Age (2000 - 1500 BC)	EBA
	Middle Bronze Age (1500 - 1000 BC)	MBA
	Later Bronze Age (1000 – 700 BC)	LBA
Iron Age (700 BC – AD 43)	Early Iron Age (700 – 200 BC)	EIA
	Middle Iron Age (200 – 50 BC)	MIA = 200–100BC / LrIA:100-50BC
	Late Iron Age (50 BC – AD 43)	LIA
Roman (AD 43 - 410)	Early Roman (AD 43 - 200)	ER
	Roman (AD 200 - 400)	
Saxon (AD 410 – 1066)	Early Anglo-Saxon (AD 410 – 650)	
	Middle Anglo-Saxon (AD 650 – 850)	
	Late Anglo-Saxon (AD 850 – 1066)	
Medieval (AD 1066 – 1650)	Early Medieval (AD 1066 – 1200)	
	High Medieval (AD 1200 – 1450)	
	Transitional (AD 1450 - 1650)	
Post-Medieval (AD 1650 - 1800)		
Modern (AD 1800 – present)		

Table 1: Chronology used in this report

4.1.2 The site was overlain by a layer of dark grey brown silty clay topsoil (4289) that was on average 0.30m thick. This sealed a very thin layer of subsoil (4290) that was a

maximum of 0.10m thick. The geological natural which the features were cut into comprised a mid greyish blue clay (7233).

- 4.1.3 The earliest features are dated to the Later Bronze Age and comprise two pits which contained possible votive offerings. The majority of the archaeological remains encountered relate to medieval occupation and consist of ditches, pits and a possible structure (see Fig. 2 for plan of features). For ease of reference, the lowest cut number assigned to linear features is used in the following text, although all cut numbers relating to slots excavated across the features are shown on the accompanying plan.

4.2 Later Bronze Age

- 4.2.1 Two similar pits were encountered dating to the Later Bronze Age, both were circular in plan and contained the remains of a pottery vessel. No cremated bones were recorded in the pit fills.
- 4.2.2 In the north-western corner of the excavation area lay pit **7238**, which measured 0.35m in diameter and was 0.25m deep, with gradually-sloping sides and a flat base. The fill comprised a dark reddish brown silty clay (7239 – 7244) which contained the remains of a fragmented, Later Bronze Age pottery vessel (208g) (see Plate 1). This vessel was in a poor condition with the individual sherds being small and abraded, perhaps suggesting that it may have been broken up before being deposited into the pit.
- 4.2.3 Twenty metres to the south-east, in the centre of the site was the second pit (**6952**). This pit had steep sides and a flat base. It measured 0.26m in diameter and was 0.15m deep. A complete pottery vessel (6962) had been placed inside the pit, however, modern ploughing had truncated and disturbed this vessel. In total 64 body sherds (weighing 433g) were retrieved from this pit. The pit was then backfilled with a light greyish orange silty clay (6963).

4.3 Medieval

- 4.3.1 The main period of occupation dates to the 12th to 13th century AD, represented by two phases of activity.

Medieval (phase 1)

- 4.3.2 Two ditches (**6914**, **6920**) were revealed in the north-west corner of the site that appear to have formed part of a field system. A larger, slightly curving ditch (**6900**) extended to the south-east of these, aligned roughly parallel with the field boundary. Five small pits were recorded adjacent to the field entranceway.
- 4.3.3 The northernmost ditch (**6914**) was aligned north-west to south-east and had an exposed length of 5.5m before terminating at its south-eastern end. This ditch had a V-shaped profile and measured 0.22m wide and 0.12m deep. It was filled by a mid orangey grey sandy clay (6914).
- 4.3.4 To the south and west lay the second ditch (**6920**) which was slightly sinuous in plan and aligned north-east to south-west with a slight kink in the middle. It had gradually-sloping sides and a concave base, which was 0.48m wide and 0.14m deep. This ditch terminated to the north-east (**6995**) creating an entranceway which was 5.6m wide. The fill comprised a light orangey grey sandy clay (6921). In total the ditch contained 31 sherds of 12th to 13th century pottery.
- 4.3.5 Immediately to the south lay a small, parallel ditch (**6922**) which was 0.24m wide and 0.11m deep. It had fairly steep sides, a concave base and was filled by a mid greyish orange (6923). This ditch was severely truncated by modern ploughing and its course was not visible beyond the two excavated slots.

- 4.3.6 In the area between the two ditch termini (**6914**, **6995**) lay five pits which may have formed a fenceline or temporary barrier (see Plate 2). These are listed in Table 2.

Pit	Diameter (m)	Depth (m)	profile	fill
6906	0.28	0.18	V shape	Mid orangey grey
6908	0.38	0.15	Wide U shape	Mid orangey grey
6910	0.24	0.08	Wide U shape	Mid orangey grey
6912	0.20	0.12	Wide U shape	Mid orangey grey
6970	0.40	0.24	U shape	Mid greyish brown

Table 2: Medieval (phase 1) pits

- 4.3.7 To the south-east of the small enclosure/field lay ditch **6900**. This ditch, which was aligned north-east to south-west, roughly parallel with ditch **6920**, measured a maximum of 0.9m wide. It had fairly steep sides and a concave base and was a maximum of 0.5m deep. The initial fill comprised a mid brown sandy clay (6902) which was 0.26m thick. This was overlain by a 0.44m thick, dark greyish brown sandy clay (6901) which contained two sherds of early medieval ware. A further eight sherds were recovered from the upper fill of ditch slot **6974**.

Medieval (phase 2)

- 4.3.8 Cut into the north-eastern terminus of ditch **6900** was an L-shaped ditch (**6931**) which was aligned north-west to south-east before turning towards the north-east. This ditch measured 0.7m wide and 0.32m deep. It had moderately steep sides and a concave base. The fill comprised a dark brown silty clay (6932). Along the south-eastern arm (**6953**) the ditch fill contained a high frequency of fired clay / daub material and charcoal, suggesting a deliberate tipping of midden material into the ditch. This ditch is a continuation of ditch **2105** revealed in Area X to the east.
- 4.3.9 Further to the south lay another ditch (**6999**) which, although undated in this area, forms the continuation of ditch **2120** in Area X, where it contained medieval pottery. Two terminals were evident (**7227**, **7231**) at the western end of the ditch, the space between which was just 0.8m: too small for an entranceway and may indicate that the ditch was dug in segments. Measuring a maximum of 0.7m wide and 0.25m deep, it had steep sides and a flat base and was filled by a mid greyish silty clay (7226).

Settlement-related features

- 4.3.10 Immediately south of the corner of ditch **6931** in the northern part of the site was a gravel/cobble surface (6935/6936) with a complex shape (see Plate 3). This surface consisted of densely-compacted medium to large flint pebbles, with occasional brick fragments pressed into it. A total of 32 sherds, weighing 303g, of later 12th century pottery was recovered from the surface. The latter includes part of a jug or tripod pitcher in an early glazed fabric, fragments from which were also found in pit **6981** (see below).
- 4.3.11 Associated with this surface were two postholes. The first of which, posthole **6943**, lay to the north of the cobbles and was circular in plan, measuring 0.26m in diameter and 0.22m deep. It had steep sides and a concave base and was filled by dark brown silty clay (6944).
- 4.3.12 To the east of this was the second circular posthole (**6958**) that measured 0.4m in diameter and 0.4m deep, with steep sides and a concave base. The initial fill comprised a mid orangey brown silty clay (6960) that was 0.08m thick and which contained one

sherd of 11th century pottery. This was overlain by a 0.18m thick, dark greyish brown silty clay (6959). The postholes and surface, combined with the pits/postholes and beamslot in Area X to the immediate east, may represent part of a structure and associated features.

- 4.3.13 Truncating posthole **6958** was a large sub-circular pit (**6956**) which measured 1.58m long and 0.74m wide. It had steep sides and a slightly concave base and was 0.3m deep. It was filled by a dark blackish brown silty clay (6957) which contained five sherds of 12th to 13th century pottery.
- 4.3.14 Several other pits and postholes were encountered within the excavation area, which although not well-dated have been attributed to this phase as some of the them cut phase 1 ditch **6900**.
- 4.3.15 In the north-western corner of the excavation, within the small phase 1 enclosure/field (see above) were two sub-circular postholes (**7234**, **7236**). The westernmost posthole (**7234**) had concave sides and a tapered base and measured 0.22m in diameter and 0.11m deep. It was filled by a light greyish brown silty clay (6935) with occasional charcoal flecks. The easternmost posthole (**7236**) measured 0.3m in diameter and 0.12m deep. It had near vertical sides and a concave base. The fill comprised a mid greyish brown silty clay (7237) which contained one sherd of medieval coarseware.
- 4.3.16 Positioned c.10m to the south-west of the postholes was a sub-circular pit (**6981**) which measured 1.06m in diameter. It had concave sides and a flat base and was 0.13m deep. It had an initial mid yellowish brown sandy clay fill (6982), which was 0.07m thick. This was overlain by a 0.1m thick, dark brownish grey silty clay (6983) which contained 83 sherds of pottery, dating to the early medieval period, and two residual flint flakes.
- 4.3.17 Further to the south-west was another pit (**6989**) which was sub-circular in plan and measured 1.3m in diameter. It had gradually-sloping sides and a concave base and was 0.24m deep. The fill comprised a mid greyish brown sandy clay (6990) which contained one sherd (47g) of early medieval ware.
- 4.3.18 To the north of this was a small circular posthole (**6993**) which was 0.42m in diameter. This posthole had a rounded profile and was 0.09m deep. The fill comprised a mid yellowish brown silty clay (6994).
- 4.3.19 Two pits (**6924**, **6926**) which were both sub-circular in plan lay a few metres to the east of pit **6989**. The northernmost pit (**6926**) measured 0.32m in diameter and 0.06m deep. It had concave sides and a flattish base. The fill consisted of a mid reddish grey silty clay (6927). immediately adjacent was pit **6924** which measured 0.25m in diameter and 0.06m deep. This pit had steep sides and a slightly concave base. It was filled by a mid reddish grey silty clay (6925).
- 4.3.20 In the centre of the excavation area lay three pits, two of which cut phase 1 ditch **6900**. The more northerly of these (pit **6950**) was oval in plan with a width of 0.8m and depth of 0.32m. It had moderately steep sides and a concave base. The fill comprised a dark greyish brown silty clay with frequent charcoal flecks and occasional fired clay fragments (6951). This produced eight sherds of early medieval ware.
- 4.3.21 Adjacent to this was sub-circular pit **6903** which measured 1.1m in diameter and was 0.46m deep with steep sides and a concave base. The initial fill of this pit comprised a dark brown, charcoal rich silty clay (6904) which was 0.09m thick and was confined to the north-western part of the pit. This was overlain by a mid greyish brown silty clay (6905) which was 0.4m thick.

- 4.3.22 A collection of pits and postholes lay to the south-east of these and to the north of ditch **6999**. The more northerly feature in the group was a sub-circular posthole (**6929**) which measured 0.3m in diameter. It had steep sides and a concave base and was 0.25m deep. This was filled by a light brown silty clay (6930). Three metres to the south-west was a sub-circular pit (**6916**) that measured 0.75m in diameter and was 0.64m deep with steep sides and a concave base. It had an initial fill of light orangey brown sandy clay (6919) which was 0.17m thick. This was overlain by a 0.3m thick, dark reddish brown silty clay which contained frequent charcoal and fired clay fragments (6918). It had a final, upper fill comprising a mid greyish brown silty clay (6917) which was 0.4m thick and contained four sherds of early medieval ware.
- 4.3.23 To the south-east of this pit lay a further sub-circular pit (**6933**), which measured 0.8m in diameter and 0.08m deep. It had steep sides and a flat base. The fill comprised a mid greyish orange silty clay (6934).
- 4.3.24 A few metres to the south was another sub-circular pit (**7246**) which was 0.68m in diameter. It was 0.14m deep with concave sides and a slightly rounded base. The fill was a mid greyish brown silty clay (7245).
- 4.3.25 Three metres to the south-west was a posthole (**6984**) which was sub-circular in plan and measured 0.4m in diameter. This posthole had steep sides and a concave base and was 0.24m deep. It was filled by a mid grey silty clay (6985).
- 4.3.26 In the southern part of the excavation area lay a sub-circular pit (**6945**) which was 0.7m long and 0.36m wide, which cut ditch **6900**. This pit had steep sides and a concave base and was 0.08m deep. The fill consisted of a mid greyish brown silty clay (6946) which contained frequent charcoal and fired clay fragments.

4.4 Undated and Natural Features

- 4.4.1 A small circular feature (**6964**) measuring 0.13m wide and 0.08m deep located close to the western edge of excavation was of probable natural origin. A possible tree throw (**6986**) was revealed adjacent to pit **7246** in the eastern part of the site, this measured 1.4m long and 0.18m deep.

5 FACTUAL DATA AND ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

5.1 Stratigraphic and Structural Data

The Excavation Record

- 5.1.1 All hand written records have been collated and checked for internal consistency, and the site records have been transcribed onto an MS Access Database. Contexts will be ascribed to a phase dependant on the evidence found within them. The site plans and all relevant sections have been digitised in AutoCAD, finds will be drawn by hand. The quantification list of excavation records have been recorded in Table 3.

Type	Excavation
Context registers	5
Context numbers/sheets	119
Plan registers	2
Section registers	2
Sample registers	5
Photo registers	8

Plans (1:20; 1:50)	35
Sections (1:10; 1:20)	35
Digital photographs	107

Table 3: Quantification of excavation records

Finds and Environmental Quantification

- 5.1.2 A small finds assemblage was recovered during the excavation. Pottery forms the greatest components.
- 5.1.3 The bulk finds have been washed, bagged, marked (in accordance with Essex County Council guidelines) and quantified by material type onto an MS Office Access database to allow integration with the stratigraphic record. These overall totals are summarised in Table 4), which also includes some data obtained from the evaluation reports; more detailed quantification is presented in the finds appendices.

Finds Category	Excavation Quantities	
	Weight (kg)	Number
Flint	0.001	3
Prehistoric pottery	0.641	903
Medieval pottery	1.440	191

Table 4: Quantification of finds

Range and Variety

- 5.1.4 Features consisted of ditches, pits, postholes and a gravel surface. The features were Later Bronze Age and medieval in date with the majority dating to the medieval period. Table 5 below summarises the total number of each type of feature.

type	total	Provisional Date										
		LBA	EIA	EBA-EIA	MIA	LIA	ER	Med	TM	PM	Mod	undated
Ditches	6							6				
Pits	16	2						14				
Postholes	9							7				2
surfaces	1							1				
total	32	2						28				2

Table 5: Range and Variety of Features

Condition

- 5.1.5 Survival of the deposits was variable and there was some slight truncation due to ploughing. The overburden thickness was greatest in the northern part of the site.

5.2 Documentary Research

- 5.2.1 Research in documentary and cartographic evidence will be undertaken where appropriate to place the site (focusing on the possible structure) into its wider context.

5.3 Artefact Summaries

Flint

Summary

- 5.3.1 Three residual struck flint flakes were recovered from medieval phase 2 surface 6936 and fill 6983 in pit **6981**. All are struck from a mid reddish-brown semi-translucent good quality flint with an abraded chalky cortex.

Statement of Potential and Recommendations For Further Work

- 5.3.2 The flint has little demonstrable potential to inform the dating and nature of activity on the site. No further work is required.

Prehistoric Pottery

Summary

- 5.3.3 A total of 903 sherds, weighing 641g, were collected from two features. All of the sherds are in a flint-tempered fabric and are probably Later Bronze Age.

Statement of Potential and Recommendations For Further Work

- 5.3.4 This is a small assemblage and therefore not of great significance. The assemblage is only of interest in that when taken together with pottery recovered from other sites, especially Sites 7, 8 and the Minerals site, it can add to the understanding of the nature of Later Bronze Age open settlement in the area.

- 5.3.5 The assemblage has been fully recorded and described and no further work is required other than integration into the full analysis report/publication.

Medieval pottery

Summary

- 5.3.6 A total of 191 sherds weighing 1.440kg was excavated. The bulk of the assemblage is early medieval and includes a small number of specialised vessels and an early glazed ware. The medieval assemblage comprises mainly undiagnostic coarsewares. There is no evidence of late medieval activity,

Statement of Potential

- 5.3.7 This is a rather small assemblage and therefore not of great significance, the most interesting aspect of the pottery is the early medieval group in Area K1 containing the unusual vessel types. The rest of the assemblage is only of interest in that it provides additional data to that already accrued from other excavations at Beaulieu Park. Combined, this helps shed light on the settlement and development of this area, and adds to current knowledge of rural settlement in central Essex and of the hinterlands of the nearby medieval town of Chelmsford, although it has to be said that as Chelmsford was not founded until 1199, it perhaps post-dates the early medieval pottery from this site.

- 5.3.8 The assemblage has been fully recorded and described and no further work is required other than integration into the full analysis report/publication.

5.4 Environmental Summaries

Environmental Remains

Summary

- 5.4.1 Twenty-one samples were taken during fieldwork and seven selected for initial assessment. The assessment of a selection of samples taken indicate that there is preservation of a limited range of culinary waste. This is in the form of charred grain and peas, both of which were staple foods in the medieval period. Preservation of charred remains is greater in the second phase of the medieval period, which may reflect the level of activity on the site.

Statement of Potential and Recommendations for further work

- 5.4.2 Fourteen (25 buckets) samples remain unprocessed along with six buckets of the remaining soil from the selected samples. Further processing is suggested to examine the pits from the earlier medieval phase in order to ascertain if the results are due to the increasing intensity of occupation or due to preferential discarding.
- 5.4.3 Additional processing of the remaining buckets would take 2-3 days. Discard of the remaining buckets including washing of buckets would take 1/2 day.

6 REPORT WRITING, ARCHIVING AND PUBLICATION

6.1 Storage and Curation

- 6.1.1 Excavated material and records will be deposited with, and curated by, Essex County Council in appropriate county stores under the Site Code and county HER code SPBP16. A digital archive will be deposited with OA Library/ADS. ECC requires transfer of ownership prior to deposition (see Section 11). During analysis and report preparation, OA East will hold all material and reserves the right to send material for specialist analysis.
- 6.1.2 The archive will be prepared in accordance with current OA East guidelines, which are based on current national guidelines

6.2 Publication

- 6.2.1 The results from all phases of the project will form a site of regional significance, therefore publication in the East Anglian Archaeology monograph series appears appropriate. However, given the location of the site, the Oxford Archaeology monograph series is a viable alternative. Once the publication outlet is confirmed (following discussions with relevant parties), a preliminary synopsis will be prepared.

7 DISCUSSION

Introduction

- 7.1.1 The discussion concentrates on features that are dated and can be grouped. It is presented as an overall chronological format to help set the findings into context within their wider landscape setting.

Later Bronze Age

- 7.1.2 Two pits were encountered during the excavation, both of which contained a relatively large assemblage of pottery and it is likely a complete vessel was buried within each pit. This is not uncommon in the Later Bronze Age where they are either interpreted as votive offerings or are found with the remains of a cremated individual as part of a burial rite. No evidence of cremated bone was found in either pit, therefore it is suggested that these are evidence of votive offerings.
- 7.1.3 Several sites at Beaulieu have encountered Later Bronze Age features, including Site 7 (400m to the south), Site 8 (700m to the south-east) and the Minerals Site (750m to the north-east). Some of these remains, such as those at the The Minerals Site, suggest a domestic function, while at the current site it seems that a more ritual use of the land is represented. The remains, if taken together with previous excavation results, indicates that in the Later Bronze Age communities were utilising the whole of the Beaulieu landscape, perhaps reflecting that either different areas were given over to specific functions or that there was a gradual shift of the focus of settlement and other activities over time. Further analysis of the archaeological remains from each site when taken as a whole will help elucidate the nature of this occupation.

Medieval

- 7.1.4 The earliest phase of medieval activity dates to the 12th to 13th century (with the bulk of the pottery dating to the second half of the 12th to beginning of the early 13th century) and is represented by a series of ditches (**6900**, **6914**, **6920**) laid out as part of a field system. This arrangement is similar to the field systems seen to the south of Belstead Hall in Site 7 (Stocks-Morgan, 2014a: medieval phase 1). The ditches in Area K1 are slightly smaller but this may be a reflection of the drainage of each site, with area K1 being on slightly higher, better drained ground.
- 7.1.5 The second phase of medieval activity identified at this site and the adjacent Area X suggests a change in focus towards a more domestic function. The remains of a possible structure may be indicated by the beamslot (**2110**), postholes (**6956**, **6943**), pits (**2116**, **2118**, **6929**) and the gravel surface (6935) recorded across both sites (see Fig. 2).
- 7.1.6 A domestic function is also indicated by the increase in preserved plant remains and a similar increase in the amount of pottery found from all the medieval phase 2 features, with this second phase of activity accounting for 80% of the assemblage. The environmental remains comprise both charred grain and legumes which were a staple part of the medieval diet. The pottery assemblage is mostly represented by the domestic cooking jar from pit **6981**, however, sherds from a tripod pitcher suggest a more specialised function, or possibly a slightly more high status site. The latter interpretation may fit with the site's proximity to the manor house of Belstead Hall.
- 7.1.7 If these remains are combined with those uncovered at Site 7 and Site 10, the results suggest a pattern of small nucleated settlement complexes which surrounded Belstead

Hall. Further research should be conducted both through additional analysis of the archaeological remains and of historical records to help clarify the nature of this activity and how these sites related to Belstead Hall.

APPENDIX A. CONTEXT SUMMARY WITH PROVISIONAL PHASING

Context	Cut	same as	Category	Feature Type	Breadth	Depth	phase
6900			cut	ditch	0.86	0.5	medieval
6901	6900		fill	ditch	0.86	0.44	medieval
6902	6900		fill	ditch	0.5	0.26	medieval
6903			cut	pit	1.1	0.46	medieval
6904	6903		fill	pit	0.12	0.36	medieval
6905	6903		fill	pit	1.1	0.4	medieval
6906			cut	pit	0.28	0.18	medieval
6907	6906		fill	pit	0.28	0.18	medieval
6908			cut	pit	0.38	0.15	medieval
6909	6908		fill	pit	0.38	0.15	medieval
6910			cut	pit	0.24	0.08	medieval
6911	6910		fill	pit	0.24	0.08	medieval
6912			cut	pit	0.2	0.12	medieval
6913	6912		fill	pit	0.2	0.12	medieval
6914			cut	ditch	0.22	0.12	medieval
6915	6914		fill	ditch	0.22	0.12	medieval
6916			cut	pit	0.75	0.64	medieval
6917	6916		fill	pit	0.75	0.4	medieval
6918	6916		fill	pit	0.5	0.3	medieval
6919	6916		fill	pit	0.5	0.3	medieval
6920			cut	ditch	0.48	0.14	medieval
6921	6920		fill	ditch	0.48	0.14	medieval
6922			cut	ditch	0.24	0.11	medieval
6923	6922		fill	ditch	0.24	0.11	medieval
6924			cut	pit	0.32	0.06	medieval
6925	6924		fill	pit	0.32	0.06	medieval
6926			cut	pit	0.25	0.06	medieval
6927	6926		fill	pit	0.25	0.06	medieval
6928	6926		fill	pit	0.08	0.02	medieval
6929			cut	posthole	0.3	0.25	medieval
6930	6929		fill	posthole	0.3	0.25	medieval
6931			cut	ditch	0.7	0.32	medieval
6932	6931		fill	ditch	0.7	0.32	medieval
6933			cut	pit	0.8	0.08	medieval
6934	6933		fill	pit	0.8	0.08	medieval
6935			layer	surface	1.3	-	medieval
6936		6935	layer	surface	0.5	0.15	medieval
6937		6900	cut	ditch	1.6	0.36	medieval

Context	Cut	same as	Category	Feature Type	Breadth	Depth	phase
6938	6937		fill	ditch	1.6	0.36	medieval
6939		6931	cut	ditch	0.6	0.19	medieval
6940	6939		fill	ditch	0.6	0.19	medieval
6941		6931	cut	ditch	0.74	0.25	medieval
6942	6941		fill	ditch	0.74	0.25	medieval
6943			cut	posthole	0.26	0.22	medieval
6944	6943		fill	posthole	0.26	0.22	medieval
6945			cut	pit	0.36	0.08	medieval
6946	6945		fill	pit	0.36	0.08	medieval
6947		6900	cut	ditch	0.68	0.27	medieval
6948	6947		fill	ditch	0.6	0.14	medieval
6949	6947		fill	ditch	0.68	0.1	medieval
6950			cut	pit	0.8	0.32	medieval
6951	6950		fill	pit	0.8	0.32	medieval
6952			cut	pit	0.26	0.15	LBA
6953		6931	cut	ditch	0.6	0.44	medieval
6954	6953		fill	ditch	0.6	0.28	medieval
6955	6953		fill	ditch	0.4	0.2	medieval
6956			cut	pit	1.58	0.3	medieval
6957	6956		fill	pit	1.58	0.3	medieval
6958			cut	posthole	0.4	0.26	medieval
6959	6958		fill	posthole	0.4	0.18	medieval
6960	6958		fill	posthole	0.16	0.08	medieval
6961	void						
6962	6952		fill	pit	0.26	0.15	LBA
6963	6952		fill	pit	0.26	0.15	LBA
6964			cut		0.13	0.08	natural feature
6965	6964		fill		0.13	0.8	natural feature
6966				void			void
6967				void			void
6968		6900	cut	ditch	1.13	0.3	medieval
6969	6968		fill	ditch	1.13	0.2	medieval
6970			cut	pit	0.4	0.24	medieval
6971	6970		fill	pit	0.4	0.24	medieval
6972		6900	cut	ditch	0.9	0.34	medieval
6973	6972		fill	ditch	0.9	0.34	medieval
6974		6900	cut	ditch	0.84	0.36	medieval
6975	6974		fill	ditch	0.84	0.36	medieval
6976	6974		fill	ditch	0.5	0.36	medieval

Context	Cut	same as	Category	Feature Type	Breadth	Depth	phase
6977		6920	cut	ditch	0.38	0.1	medieval
6978	6977		fill	ditch	0.38	0.1	medieval
6979		6920	cut	ditch	0.38	0.14	medieval
6980	6979		fill	ditch	0.38	0.14	medieval
6981			cut	pit	1	0.12	medieval
6982	6981		fill	pit	0.9	0.06	medieval
6983	6981		fill	pit	1	0.1	medieval
6984			cut	posthole	0.4	0.24	medieval
6985	6984		fill	posthole	0.4	0.24	medieval
6986			cut	tree throw	1.4	0.18	natural feature
6987	6986		fill	tree throw	1.4	0.18	natural feature
6988	6900		fill	ditch	1.3	-	medieval
6989			cut	pit	1.3	0.24	medieval
6990	6989		fill	pit	1.3	0.24	medieval
6991		6920	cut	ditch	0.28	0.09	medieval
6992	6991		fill	ditch	0.28	0.09	medieval
6993			cut	posthole	0.42	0.09	medieval
6994	6993		fill	posthole	0.42	0.09	medieval
6995		6920	cut	ditch	0.5	0.12	medieval
6996	6995		fill	ditch	0.5	0.12	medieval
6997		6922	cut	ditch	0.18	0.08	medieval
6998	6997		fill	ditch	0.18	0.08	medieval
6999			cut	ditch	0.6	0.2	medieval
7226	6999		fill	ditch	0.6	0.2	medieval
7227		6999	cut	ditch	0.65	0.11	medieval
7228	7227		fill	ditch	0.65	0.11	medieval
7229		6999	cut	ditch	0.7	0.25	medieval
7230	7229		fill	ditch	0.7	0.25	medieval
7231		6999	cut	ditch	0.76	0.22	medieval
7232	7231		fill	ditch	0.76	0.22	medieval
7233			layer	natural			
7234			cut	posthole	0.22	0.11	medieval
7235	7234		fill	posthole	0.22	0.11	medieval
7236			cut	posthole	0.3	0.12	medieval
7237	7236		fill	posthole	0.3	0.12	medieval
7238			cut	pit	0.35	0.25	LBA
7239	7238		fill	pit	0.25	0.26	LBA
7240	7238		fill	pit	0.24	0.05	LBA
7241	7238		fill	pit	0.25	0.05	LBA

Context	Cut	same as	Category	Feature Type	Breadth	Depth	phase
7242	7238		fill	pit	0.25	0.05	LBA
7243	7238		fill	pit	0.25	0.05	LBA
7244	7238		fill	pit	0.25	0.05	LBA
7245	7246		fill	pit	0.68	0.14	medieval
7246			cut	pit	0.68	0.14	medieval

APPENDIX B. FINDS REPORTS

B.1 Flint

By Anthony Haskins

- B.1.1 Three residual struck flint flakes were recovered from medieval phase 2 surface 6936 and fill 6983 in pit **6981**. All are struck from a mid reddish-brown semi-translucent good quality flint with an abraded chalky cortex.
- B.1.2 A single heavily rolled and abraded flake was recovered from surface 6936. There is a possible small area of retouch on the left proximal margin but this is likely to be plough damage. The two remaining non-diagnostic flakes from context 6983 are similarly heavily abraded and rolled. The characteristics and typology of the flake from surface 6936 suggest it is of Early Neolithic date.

B.2 Prehistoric Pottery

By Sarah Percival

The assemblage

- B.2.1 A total of 903 sherds weighing 641g were collected from two features. Pit **6962** contained 64 body sherds weighing 433g in flint-tempered fabric which are probably Later Bronze Age. Pit **7238** contained 839 small abraded scraps weighing 208g, all from samples. These are also flint-tempered and are probably also Later Bronze Age. The small assemblage is contemporary with pottery found previously at Sites 7 and 8.

Feature	Feature type	Context	Fabric	Spot Date	Quantity	Weight (g)
6962	Pit	6963	F1	Later Bronze Age	64	433
7238	Pit	7239	F1	Later Bronze Age	124	27
		7240	F1	Later Bronze Age	147	70
		7241	F1	Later Bronze Age	260	71
		7242	F1	Later Bronze Age	164	24
		7243	F1	Later Bronze Age	61	6
		7244	F1	Later Bronze Age	83	10
Total					903	641

Table 6: Quantity and weight of prehistoric pottery by feature

B.3 Medieval Pottery

By Helen Walker

Introduction and methodology

- B.3.1 A total of 189 sherds weighing 1.431kg was excavated. The bulk of the assemblage is early medieval and includes a small number of specialised vessels and an early glazed ware. The medieval assemblage comprises mainly undiagnostic coarsewares. There is virtually no evidence of activity later than the 14th century.
- B.3.2 The Medieval Pottery Research Group (MPRG) *A guide to the classification of medieval ceramic forms* (MPRG 1998) and *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (MPRG 2001) act as a standard. The pottery recording follows Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1-16; expanded by Cotter 2000 and Drury *et al.* 1993). Some of

Cunningham's rim form codes are quoted in this report. All percentages quoted are by weight.

- B.3.3 The assemblage is recorded in the summary catalogue. The pottery and archive are curated by Oxford Archaeology East until formal deposition.

Sampling bias

- B.3.4 The open area excavation was carried out by hand and selection made through standard sampling strategies on a feature by feature basis. There are not expected to be any inherent biases.

The assemblage

- B.3.5 Table 7 shows the total sherd count and weight of all fabrics, shown in approximate chronological order.

Fabric Name	No. Sherds	Weight (g)	% by weight
Shell-and-sand-tempered ware	103	758	52.6
Early medieval ware	46	446	30.9
Early medieval ware with flint	1	19	1.4
Early glazed ware	6	46	3.2
Medieval coarseware	29	152	10.6
Hedingham coarseware	4	17	1.1
Sandy orange ware	2	2	0.2
	191	1440	

Table 7: Total sherd count and weight of all fabrics, shown in approximate chronological order.

- B.3.6 The bulk of the assemblage belongs to the early medieval period and comprises mainly early medieval ware, a coarse sandy handmade fabric typically with red-brown surfaces and a grey core, and shell-and-sand-tempered ware, which has crushed shell as its main tempering agent but is otherwise similar to early medieval ware. In central Essex both wares are contemporary, spanning the 11th to early 13th centuries. There is a single example of an early medieval ware variant, early medieval ware with flint which shows significant inclusions of crushed flint as well as sand. At this site shell-and-sand tempered ware is about twice as common (by weight) as early medieval ware and its variants, accounting for 52% of the total respectively (see Table 7). However, as 80% of the total shell-and-sand-tempered ware is represented by only two vessels, this statistic may not be as significant as appears. Conversely, several sherds identified as early medieval ware showed vesicles left by weathered out inclusions, which could be either grog or shell and therefore the proportion of early medieval ware may actually be less than stated. Also dating to the early medieval period are examples of an early glazed fabric (accounting for 3.2% of the total), which has not been possible to attribute, but which is described further in the next section.
- B.3.7 Medieval coarseware is much less abundant accounting for 10% of the total. This typically grey-firing pottery gradually replaced the coarser, oxidised early medieval ware during the later 12th and earlier 13th centuries and continued into the 14th. Medieval coarseware was manufactured at several production sites around the county and the products of the different kilns are not readily distinguishable from one another. However, it has been possible to identify examples of Hedingham coarseware in the assemblage, made in and around Sible Hedingham in north Essex, as this has a relatively fine and

micaceous fabric, which marks it out from other medieval coarseware. Hedingham coarseware accounts for around 4% of the total assemblage. A significant proportion of the medieval coarseware and Hedingham coarseware occurs in early medieval features and therefore belongs to the beginning of this date range.

- B.3.8 The medieval East Anglian redwares found here comprise two small sherds of sandy orange ware (<0.2% of the total). Like medieval coarseware, sandy orange ware was manufactured at several sites, all producing very similar pottery. One sherd of sandy orange ware can be assigned a probable 13th century date. No medieval traded wares are present.

Vessel forms

Early medieval pottery – 11th century to c.1200

- B.3.9 Area K1 produced 191 sherds weighing 1440g, virtually all (99%) belonging to this ceramic phase. Here the most interesting find is part of a jug or tripod pitcher in an early glazed fabric, fragments from which were found in layer (6936) and pit **6981**. The fragments from layer (6936) comprise sherds from the neck of the vessel showing traces of slip-coating and incised horizontal bands delineating a row of skewer marks under a pale green glaze. That from pit **6981** comprises a strap handle decorated with a row of straight line combing and showing traces of greenish glaze. This may be an example of an early Hedingham ware fabric but is largely lacking the characteristic mica inclusions. It can be dated on the grounds of its similarities to early Hedingham ware and early London-type ware jugs to the second half of the 12th century.
- B.3.10 The bulk of the finds from area K1 comprise examples of shell-and-sand-tempered ware and early medieval ware. Vessel forms in these wares include further, single, examples of jugs/tripod pitchers in the same contexts as the glazed example. The example in shell-and-sand-tempered ware shows a collared rim and a rod handle and that in early medieval ware has a thickened everted rim and a strap handle attaching at the rim. Also in layer (6936) is the everted rim from an early medieval ware handled-jar showing a handle attachment scar at the rim.
- B.3.11 Otherwise all identifiable vessel forms in these wares comprise fragments from cooking-pots. These can be assigned an approximate date by rim form and finds include a beaded cooking-pot rim from layer (6936) datable to the 12th century, and a thickened everted cooking-pot rim with a pointed edge (rim form B4) from pit **6956**, which has the slightly later date of c.1200. The single example of early medieval ware with flint to be found during these excavations occurred in pit **6981** and comprises an externally bevelled jar rim datable to the 11th to early 13th centuries. Several of the features that contained early medieval ware and shell-and-sand-tempered ware also contained small amounts of medieval coarseware and Hedingham coarseware. As production of these wares did not start until the mid- to late 12th century their presence in these features precludes a date before this time. The only diagnostic sherd in these wares is a small fragment of B4 rim in Hedingham coarseware from pit **6956** datable to c.1200. All the early medieval features in Area K1 could be of around the same date, belonging to the second half of the 12th century and perhaps going into the beginning of the 13th.
- B.3.12 Medieval finds from Area K1 comprise a small sherd of sandy orange ware from ditch terminus **6920** showing traces of pitted glaze, which is most likely to date to the 13th century and an H1-type rim from a medieval coarseware cooking-pot, which is also datable to the 13th century (from pit **7236**)

Context	Fabric	Form	Count	Weight	Context Date range
6901	Early medieval ware	B4 rim	2	9	c.1200
6917	Early medieval ware		4	18	11th to early 13th C
6921	Sandy orange ware		1	1	mid-12th to 14th C
6936	Early glazed ware	jug/tripod pitcher	4	30	later 12th C
	Early medieval ware	jug/tripod pitcher	1	63	
	Early medieval ware	jar/bowl	2	39	
	Early medieval ware	jar with everted rim	3	31	
	Early medieval ware		3	12	
	Shell-and-sand-tempered ware	jar with beaded rim	13	91	
	Shell-and-sand-tempered ware		4	28	
	Hedingham coarseware		2	9	
6938	Shell-and-sand-tempered ware		3	9	12th to early 13th C
	Early medieval ware		4	13	
	Medieval coarseware		4	13	
6951	Shell-and-sand-tempered ware		1	8	c.1200
	Early medieval ware	B2 rim	1	24	
	Early medieval ware		6	59	
6957	Shell-and-sand-tempered ware	jar with B4 rim	3	35	c.1200 or later
	Hedingham coarseware		2	8	
6960	Shell-and-sand-tempered ware		1	2	11th to early 13th C
6967	Early medieval ware		1	9	11th to early 13th C
6969	Shell-and-sand-tempered ware		1	2	11th to early 13th C
6973	Early medieval ware	B2 rim	1	32	c.1200
6975	Early medieval ware	beaded rim	5	11	12th C
	Early medieval ware		2	6	
6978	Shell-and-sand-tempered ware		2	13	12th to early 13th C
	Early medieval ware		3	15	
	Medieval coarseware		19	126	
6980	Early medieval ware	B2 rim	2	20	c.1200 or later
	Medieval coarseware		5	9	
6983	Shell-and-sand-tempered ware	jug/tripod pitcher	75	570	c.1200
	Early glazed ware	jug/tripod pitcher	2	16	
	early medieval ware with flint	jar	1	19	
	Early medieval ware	B2 rim	1	12	
	Early medieval ware		4	26	
6990	Early medieval ware		1	47	11th to early 13th C
7232	Sandy orange ware		1	1	mid-12th to 14th C
7237	Medieval coarseware	H1 rim	1	4	13th C

Table 8: Medieval pottery catalogue

Discussion

- B.3.13 The pottery spans the 11th to 14th centuries, with the best evidence for early medieval occupation, dating to the second half of the 12th to beginning of the early 13th century. Here, the presence of relatively unusual jugs/tripod pitchers in glazed and coarseware fabrics together with the handled-jar suggest specialised function. Otherwise, the ubiquitous cooking-pot is the main early medieval vessel form.

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Environmental Remains

By Rachel Fosberry

Introduction

C.1.1 Twenty-one samples were taken from medieval features in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Seven samples were selected for processing for this initial assessment based on contextual information.

Methodology

C.1.1 One bucket (up to 10 litres) of each of the selected bulk samples was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and a complete list of the recorded remains are presented in Table 9. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals.

Quantification

C.1.1 For the purpose of this initial assessment, items such as cereal, chaff and legumes have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50 specimens

Results

C.1.1 Preservation of plant remains is by carbonisation and is generally quite good although the density of preserved remains is low. Occasional charred grains of free-threshing wheat (*Triticum aestivum s.l.*) are present in most of the samples. Small charred legumes are surprisingly common; their size suggests that they are peas but the distinguishing marks that determine whether they are cultivated (*Pisum* sp.) or wild (*Lathyrus* sp.) peas are absent. Charred seeds are rare and occur as single specimens of bromes (*Bromus* sp.) and knotgrass-type (*Polygonum* sp.) in fill 6918 of pit **6916**.

Sample No.	Context No.	Feature No.	Feature Type	Phase	Volume processed (L)	Flot Volume (ml)	Cereals	Legumes	Weed Seeds	Charcoal volume
1052	6918	6916	Pit	medieval P2	8	10	#	##	#	8
1053	6921	6920	Ditch	medieval P1	8	15	0	0	0	8
1056	6932	6931	Ditch	medieval P2	9	15	##	###	0	10
1057	6951	6950	Pit	medieval P2	9	25	###	#	0	15

Sample No.	Context No.	Feature No.	Feature Type	Phase	Volume processed (L)	Flot Volume (ml)	Cereals	Legumes	Weed Seeds	Charcoal volume
1060	6957	6956	Pit	medieval P2	8	0	#	0	0	<1
1068	6901	6900	Ditch	medieval P1	9	5	#	#	0	2
1070	7226	6999	Ditch	medieval P2	8	5	0	0	0	0

Table 9: Selected environmental samples

Discussion

- C.1.1 The assessment of a selection of samples taken indicate that there is preservation of a limited range of culinary waste. This is in the form of charred grain and peas, both of which were staple foods in the medieval period. Preservation of charred remains is greater in the second phase of medieval period which may reflect the increased level of activity on the site.

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APPENDIX E. OASIS REPORT FORM

Project Details

OASIS Number	oxfordar3-284411		
Project Name	Area K1, Beaulieu, Chelmsford		
Project Dates (fieldwork) Start	24-10-2016	Finish	18-11-2016
Previous Work (by OA East)	Yes	Future Work	Yes

Project Reference Codes

Site Code	SPBP16	Planning App. No.	09/01314/EIA
HER No.	SPBP16	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt

Please select all techniques used:

<input type="checkbox"/> Field Observation (periodic visits)	<input type="checkbox"/> Part Excavation	<input type="checkbox"/> Salvage Record
<input type="checkbox"/> Full Excavation (100%)	<input type="checkbox"/> Part Survey	<input type="checkbox"/> Systematic Field Walking
<input type="checkbox"/> Full Survey	<input type="checkbox"/> Recorded Observation	<input type="checkbox"/> Systematic Metal Detector Survey
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Remote Operated Vehicle Survey	<input type="checkbox"/> Test Pit Survey
<input checked="" type="checkbox"/> Open-Area Excavation	<input type="checkbox"/> Salvage Excavation	<input type="checkbox"/> Watching Brief

Monument Types/Significant Finds & Their Periods

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

Monument	Period	Object	Period
ditch	Medieval 1066 to 1540	pottery	Medieval 1066 to 1540
pit	Bronze Age -2.5k to -700	pottery	Bronze Age -2.5k to -700
surface	Medieval 1066 to 1540	animal bone	Medieval 1066 to 1540

Project Location

County	Essex	Site Address (including postcode if possible)
District	Chelmsford	LAND OFF WHITE HART LANE, CHELMSFORD ESSEX
Parish	Springfield	
HER	Essex Historic Environment	
Study Area	0.57ha	National Grid Reference
		TL 7233 1050

Project Originators

Organisation	OA EAST
Project Brief Originator	Alison Bennett (Essex County Council)
Project Design Originator	Iain Williamson (AECOM)
Project Manager	Richard Mortimer (OA East)
Supervisor	Helen Stocks-Morgan (OA East)

Project Archives

Physical Archive	Digital Archive	Paper Archive
Chelmsford Museum	Oxford Archaeology East	Chelmsford Museum
SPBP16	SPBP16	SPBP16

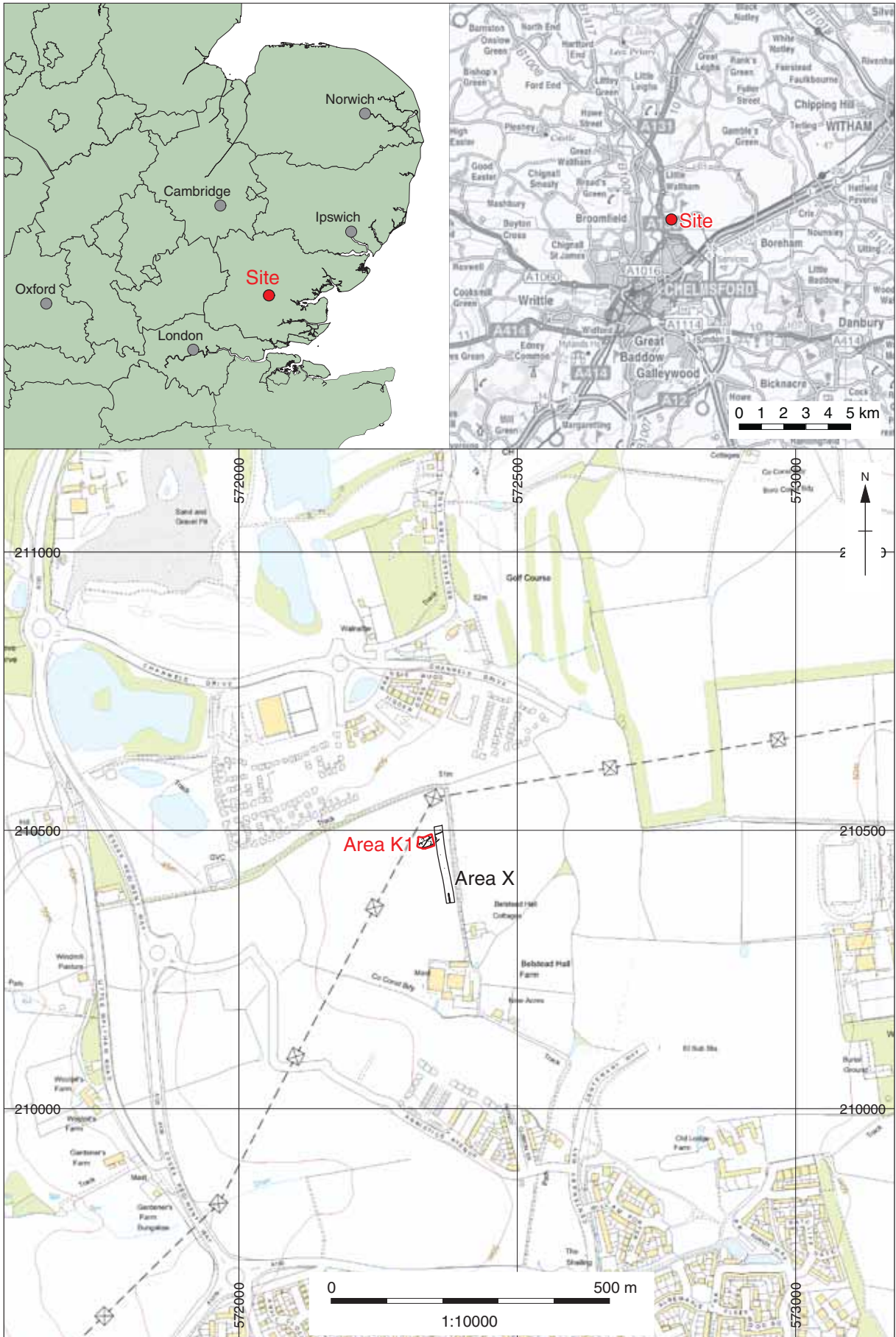
Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ceramics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Textiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Worked Stone/Lithic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Digital Media	Paper Media
<input checked="" type="checkbox"/> Database	<input type="checkbox"/> Aerial Photos
<input type="checkbox"/> GIS	<input checked="" type="checkbox"/> Context Sheet
<input type="checkbox"/> Geophysics	<input type="checkbox"/> Correspondence
<input checked="" type="checkbox"/> Images	<input type="checkbox"/> Diary
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<input type="checkbox"/> Virtual Reality	<input type="checkbox"/> Misc.
	<input type="checkbox"/> Research/Notes
	<input checked="" type="checkbox"/> Photos
	<input checked="" type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input type="checkbox"/> Survey

Notes:

Project Details OASIS Number Project Name Project Dates (fieldwork) Start Finish Previous Work (by OA East)



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Figure 1: Site location

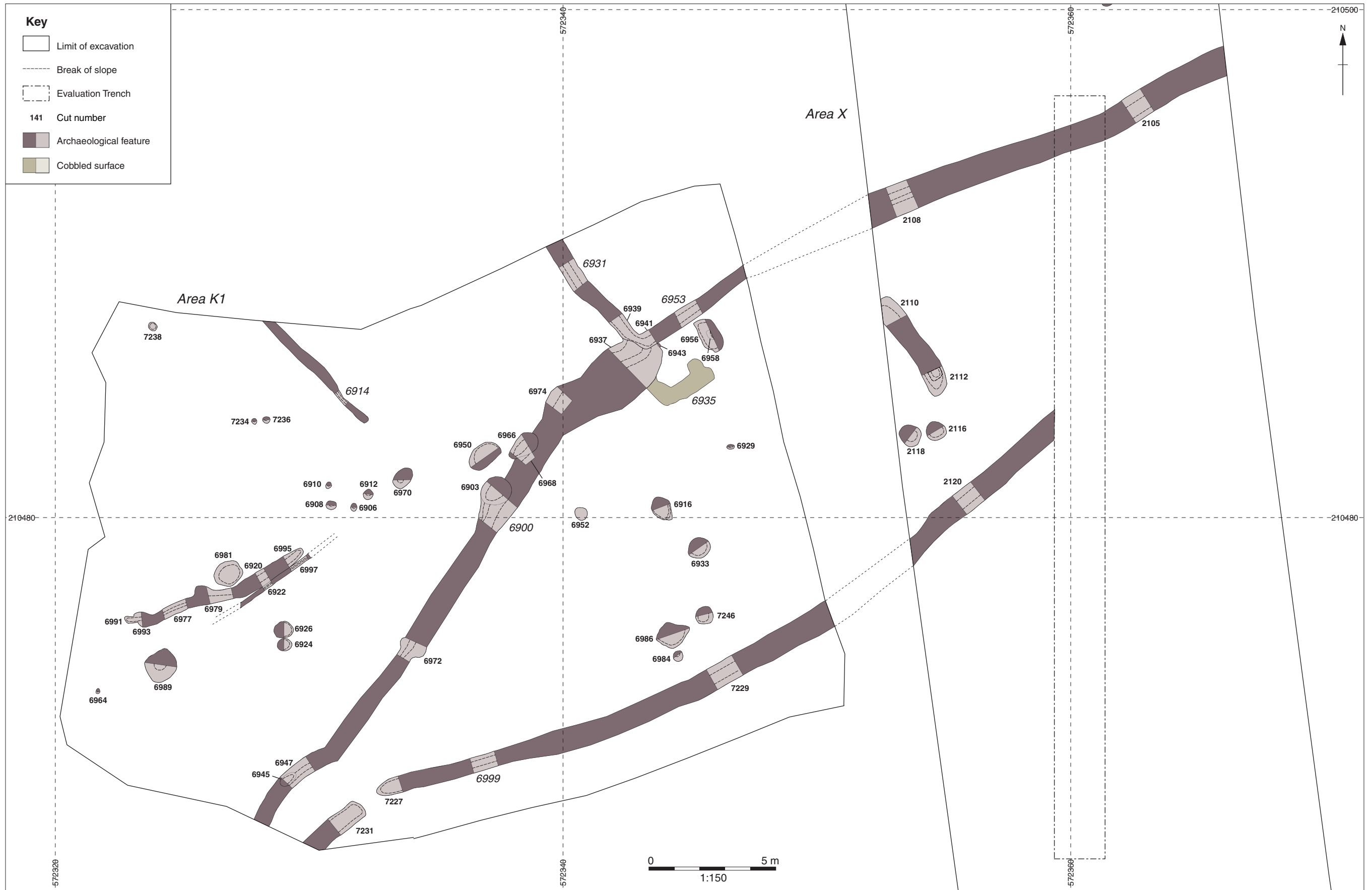


Figure 2: Archaeological Remains



Plate 1: Late Bronze Age pit **7238**, looking north



Plate 2: Medieval pits **6906**, **6908**, **6910** and **6912**, looking north



Plate 3: Medieval surface (6935) and ditch 6941, looking north-west



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