

Medieval Remains at Zone K Beaulieu, Chelmsford

Essex



Archaeological Evaluation Report



November 2016

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

OA East Report No: 1979

OASIS No: oxfordar3-267607

NGR: TL 7222 1045

Medieval Remains at Zone K, Beaulieu, Chelmsford, Essex

Archaeological Evaluation

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Report Date: November 2016

Report Number: 1979
Site Name: Zone K, Beaulieu, Chelmsford
HER Event No: SPBP 16
Date of Works: October 2016
Client Name: Countryside Zest (Beaulieu Park) LLP
Client Ref: 15344
Planning Ref: 09/01314/EIA
Grid Ref: TL 7222 1045
Site Code: SP BP 16
Finance Code: XEX BEP 14
Receiving Body: Chelmsford Museum / Stores

Accession No:

Prepared by: Helen Stocks-Morgan
Position: Project Officer
Date: 20/11/16

Checked by:
Position:
Date:
Signed:

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Summary

An archaeological evaluation, comprising twelve trenches, was carried out within Zone K, Beaulieu, Chelmsford. The fieldwork took place between the 13/08/16 and the 23/09/16.

A undated pit in Trench 559 may be a prehistoric fire pit based on its characteristics. Evidence for early medieval activity was found in the eastern side of the development area, in the form of a ditch which contained a large and unabraded medieval pottery assemblage and other finds indicative of domestic occupation.

A further field system, putatively medieval in date was evident, represented by two ditches on a north-west to south-east alignment.

1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 Outline planning permission for the construction of a new neighbourhood for North-East Chelmsford, known as Beaulieu, 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 roundabout access from Essex Regiment Way and a priority junction from White Hart Lane. The development area is located on land to the east of Essex Regiment Way and north of White Hart Lane, Chelmsford.
- 1.1.2 Archaeological investigation is required to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government March 2012). The results will enable decisions to be made by ECC, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.
- 1.1.3 The evaluation detailed in this report is one of a number of archaeological investigations that have and will take place in the wider development area. This report details only the results of a twelve trench evaluation centred at (TL 7222 1045) Zone K. The fieldwork took place between the 13th August and 23rd September 2016 and was undertaken by Oxford Archaeology East (Fig. 1).
- 1.1.4 This archaeological evaluation was undertaken in accordance with the Archaeological Investigation and Mitigation Strategy (URS 2013) prepared for the Beaulieu scheme in consultation with Richard Havis of the Historic Environment Branch, ECC (Planning Application 09/01314/EIA), and supplemented by a Method Statement prepared by OA East.
- 1.1.5 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 Zone K is located within the proposed Beaulieu development which is approximately 4km to the north-east of Chelmsford (Fig. 1). The development Site encompasses an area of high ground 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 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 south-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 become more complex 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 developed with the surrounding area forming an agricultural hinterland to supply produce to the town.
- 1.3.8 This agricultural landscape would have comprised 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 (Pocock 2008). 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, Belestedam (Belstead Hall) is recorded in the Domesday survey of AD 1086 (Reaney, 1035).

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 south-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 A 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 another moated manor is recorded at Belstead. 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' (P.H 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 more 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 within which the application site is located.

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

- 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 1st Section 278 highways 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 B and E (Stocks-Morgan 2014b).
- 1.3.29 Two small open area excavations were undertaken to the west of the area, which encountered Late Bronze Age / Early Iron Age open settlement, comprising five four-poster structures and several pits. A further one to the north of the site 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, in prep)

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, 2016a).

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, 2016b).

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, 2016c).

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, 2016d).

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, 2016e).

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, 2016f).

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, 2016g).

Beaulieu land parcel CZ 7

- 1.3.45 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, 2016h).

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 illustrators were Charlotte Walton. Thanks are also extended to Simon Birnie who supervised the evaluation and to Ed Cole, Jessica Dyson and Paddy Lambert who helped with the fieldwork. The project was monitored by Richard Havis and Alison Bennett of Essex County Council. The machining was undertaken by David Calder of Danbury Plant Hire.

2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

2.2 Methodology

2.2.1 Twelve trenches (Fig. 2) were excavated to evaluate Zone K. All archaeological remains were excavated where appropriate and possible.

2.2.2 Machine excavation was carried out with a tracked 15 ton machine fitted with a toothless ditching bucket, under constant archaeological supervision.

2.2.3 The site survey was carried out using a Leica GPS fitted with *Smartnet* technology.

2.2.4 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.2.5 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

2.2.6 No bulk samples were taken, as no deposits were considered appropriate for environmental sampling

2.2.7 The site conditions were dry and sunny.

3 RESULTS

3.1 Introduction

3.1.1 The trenches are presented below by field and then in numerical order (see Fig. 2 for trench locations).

3.2 Trenches in Field 20

3.2.1 Twelve trenches were excavated within this field. The natural geology was an orange clay. A subsoil layer (4290) approximately 0.2m thick was recorded underlying a 0.35m thick topsoil (4289).

Trench 549

3.2.2 No archaeology was recorded in this trench.

Trench 550

3.2.3 This trench could not be excavated due to modern disturbance.

Trench 551 -556

3.2.4 No archaeology was recorded in these trenches.

Trench 557

3.2.5 In the northern part of the trench lay a north-west to south-east aligned ditch (**7056**) which was 1.1m wide and 0.28m deep. This ditch had concave sides and a concave base, it was filled by a light orangey brown silty clay (7057) that produced no finds.

Trench 558

3.2.6 At the eastern end of the trench a sub-circular posthole (**7045**) was 0.6m in diameter and 0.2m deep. This posthole had steep sides and a flattish base, it was filled with a mid greyish brown silty clay (7046) that produced no finds.

3.2.7 Three metres to the east lay a north to south aligned ditch (**7047**) which was 2.2m wide and 0.47m deep. It had stepped sides and a concave base. The lower fill of this ditch consisted of a light orangey brown silty clay (7048) which was 0.25m thick. This was overlain by a 0.22m thick light greyish brown silty clay (7049). Neither fill produced any finds.

Trench 559

3.2.8 At the western end of the trench was a sub-circular pit (**7041**) which was 1.3m in diameter and 0.1m deep. This pit had steep sides and a flat base, it was filled with a mid greyish brown silty clay (7042) which contained several burnt unworked flint nodules and frequent charcoal, and the natural was scorched around the footprint of the pit cut.

Trench 560

3.2.9 In the centre of the trench lay a 0.4m wide ditch (**7045**) aligned on a west-north-west/east-south-east alignment. It had steep sides and a flat base and was 0.14m deep. The fill comprised a mid greyish brown silty clay (7046) that produced no finds.

Trench 561

- 3.2.10 Two features were revealed by this trench (Fig. 3), a small pit and a ditch.
- 3.2.11 The pit (7038) was sub-circular in plan, 0.67m in diameter and 0.07m deep with a concave base and filled by a light grey brown silty clay (7039) which contained frequent charcoal and fired clay flecks.
- 3.2.12 A north-east to south-west aligned ditch (**7063**) was located 6m to the south of the pit and was 0.57m wide by 0.24m deep. This ditch had steep sides and concave base, it was filled with a dark greyish brown silty clay (7064) which contained 12 sherds of early medieval pottery, one flint flake, one sherd of Iron Age pottery, 7g of cattle bone and 98g of oyster shell.

3.3 Finds Summary

- 3.3.1 The total finds assemblage from this evaluation was recovered from the same ditch slot (**7063**) in Trench 561. This assemblage comprises 12 sherds of medieval pottery, one sherd of prehistoric pottery and one flint flake

3.4 Environmental Summary

- 3.4.1 A total of 98g of oyster shell and 7g of animal bone was recovered by this evaluation, all of which came from ditch **7063** in Trench 561. Three samples were taken during the evaluation, one of which, from ditch **7063** contained bread and spelt wheat and the other two contained sparse charcoal only.

4 DISCUSSION AND CONCLUSIONS

4.1 Introduction

- 4.1.1 The discussion concentrates on features that are dated and can be grouped. It is presented chronologically to help set the findings into context within their wider landscape setting (see Figs 2 and 3).
- 4.1.2 No archaeological features were present in the seven western trenches of Zone K with sparse evidence of activity in the five easterly trenches.

Early Prehistoric

- 4.1.3 A small undated pit (**7041** in Trench 559) with charcoal rich fill and scorched clay base is characteristic of an early prehistoric fire pit. A swathe of early prehistoric occupation has been recorded throughout the whole Beaulieu development with areas of relatively dense occupation, such as to the south in Zone A (Stocks-Morgan, 2015) and areas with the occasional pit, as seen in Site 9 to the south-east (Stocks-Morgan, 2016). Overall these pits represent a period of seasonal occupation and periodic visits.
- 4.1.4 A single pit of possible prehistoric date found by evaluation trenching could indicate that more could be found nearby. Where prehistoric pits have been found elsewhere across the Beaulieu landscape the presence or absence of pottery within a feature has been a good indicator of whether or not a pit is isolated or part of a group. The lack of pottery in this instance suggests that this pit is likely to be isolated.

Medieval

- 4.1.5 Proximity to medieval settlement is indicated by the presence of a relatively large assemblage of pottery and other finds in a north-east to south-west aligned ditch (**7063** in Trench 561). A posthole (**7038**) adjacent to the ditch may be evidence for a structure which could also be indicative of occupation nearby. On a perpendicular alignment to ditch **7063** was a second undated ditch (**7056** in Trench 557) and the two may be evidence for a field system.
- 4.1.6 Excavation to the east of Zone K ahead of the construction of a haulage road (Area X: Stocks-Morgan, 2014) revealed two ditches, a beam slot and two pits dating to the medieval period. If taken together both the previous excavation and this evaluation trench suggests a small area of occupation. The finds assemblage indicates that this is domestic in nature, perhaps associated with crop processing or bread making as the environmental samples from the ditch contained a large assemblage of bread wheat and oat grains.

Undated

- 4.1.7 Two ditches that are undated and did not conform to the north-west/south-east alignment of the probable medieval field system were found in Trenches 558 and 560. They had no other characteristics in common, being on different alignments and very different in size and character.

4.2 Recommendations

- 4.2.1 Recommendations for any future work based upon this report will be agreed in consultation with the ECC HEM.

APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

| Trench 549 | | | | | | | |
|---|-------|------------|-----------|---------|----------------|------|------|
| General description | | | | | Orientation | | |
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of orange clay. | | | | | N-S | | |
| | | | | | Avg. depth (m) | | 0.60 |
| | | | | | Width (m) | | 2 |
| | | Length (m) | | 30 | | | |
| Contexts | | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date | |
| 4290 | layer | | 0.38 | subsoil | - | - | |
| 4289 | layer | | 0.3 | topsoil | - | - | |
| Trench 550 | | | | | | | |
| General description | | | | | Orientation | | |
| Trench not excavated due to modern disturbance | | | | | | | |
| | | | | | Avg. depth (m) | | |
| | | | | | Width (m) | | 2 |
| | | Length (m) | | 30 | | | |
| Trench 551 | | | | | | | |
| General description | | | | | Orientation | | |
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of clay. | | | | | E-W | | |
| | | | | | Avg. depth (m) | | 0.4 |
| | | | | | Width (m) | | 2 |
| | | Length (m) | | 30 | | | |
| Contexts | | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date | |
| 4290 | layer | | 0.19 | subsoil | - | - | |
| 4289 | layer | | 0.36 | topsoil | - | - | |
| Trench 552 | | | | | | | |
| General description | | | | | Orientation | | |
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of clay. | | | | | E-W | | |
| | | | | | Avg. depth (m) | | 0.45 |
| | | | | | Width (m) | | 2 |
| | | Length (m) | | 30 | | | |
| Contexts | | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date | |
| 4290 | layer | | 0.26 | subsoil | - | - | |
| 4289 | layer | | 0.35 | topsoil | - | - | |
| Trench 553 | | | | | | | |
| General description | | | | | Orientation | | |
| | | | | | N-S | | |

| | | | | | | |
|--|-------------|-----------------------|------------------|----------------|-----------------------|-------------|
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of clay. | | Avg. depth (m) | 0.5 | | | |
| | | Width (m) | 2 | | | |
| | | Length (m) | 30 | | | |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 4290 | layer | | 0.24 | subsoil | - | - |
| 4289 | layer | | 0.26 | topsoil | - | - |
| Trench 554 | | | | | | |
| General description | | | | | Orientation | NW-SE |
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of clay. | | | | | Avg. depth (m) | 0.45 |
| | | | | | Width (m) | 2 |
| | | | | | Length (m) | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 4290 | layer | | 0.25 | subsoil | - | - |
| 4289 | layer | | 0.26 | topsoil | - | - |
| Trench 555 | | | | | | |
| General description | | | | | Orientation | N-S |
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of clay. | | | | | Avg. depth (m) | 0.45 |
| | | | | | Width (m) | 2 |
| | | | | | Length (m) | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 4290 | layer | | 0.19 | subsoil | - | - |
| 4289 | layer | | 0.36 | topsoil | - | - |
| Trench 556 | | | | | | |
| General description | | | | | Orientation | E-W |
| Trench devoid of archaeology. Consists of subsoil and topsoil overlying a natural of clay. | | | | | Avg. depth (m) | 0.46 |
| | | | | | Width (m) | 2 |
| | | | | | Length (m) | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 4290 | layer | | 0.24 | subsoil | - | - |
| 4289 | layer | | 0.30 | topsoil | - | - |
| Trench 557 | | | | | | |
| General description | | | | | Orientation | N-S |

| | | | | | | |
|---|-------------|-----------------------|------------------|-----------------------|--------------|-------------|
| Trench contained one ditch. Consists of subsoil and topsoil overlying a natural of clay. | | Avg. depth (m) | | 0.55 | | |
| | | Width (m) | | 2 | | |
| | | Length (m) | | 30 | | |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 7056 | cut | 1.1 | 0.28 | ditch | | |
| 7057 | fill | 1.1 | 0.28 | Fill of ditch | | |
| 4290 | layer | | 0.25 | subsoil | - | - |
| 4289 | layer | | 0.4 | topsoil | - | - |
| Trench 558 | | | | | | |
| General description | | | | Orientation | | E-W |
| Trench contained one ditch and one posthole. Consists of subsoil and topsoil overlying a natural of clay. | | | | Avg. depth (m) | | 0.53 |
| | | | | Width (m) | | 2 |
| | | | | Length (m) | | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 7045 | cut | 0.6 | 0.2 | posthole | - | - |
| 7046 | fill | 0.6 | 0.2 | Fill of posthole | - | - |
| 7047 | cut | 2.2 | 0.47 | ditch | - | - |
| 7048 | fill | 1.64 | 0.25 | Lower fill of ditch | - | - |
| 7049 | fill | 2.2 | 0.22 | Upper fill of ditch | - | - |
| 4290 | layer | | 0.22 | subsoil | - | - |
| 4289 | layer | | 0.35 | topsoil | - | - |
| Trench 559 | | | | | | |
| General description | | | | Orientation | | E-W |
| Trench contained one pit. Consists of subsoil and topsoil overlying a natural of clay. | | | | Avg. depth (m) | | 0.47 |
| | | | | Width (m) | | 2 |
| | | | | Length (m) | | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 7041 | Cut | 1.3 | 0.1 | pit | - | - |
| 7042 | fill | 1.3 | 0.1 | Fill of pit | - | - |
| 4290 | layer | | 0.23 | subsoil | - | - |
| 4289 | layer | | 0.33 | topsoil | - | - |
| Trench 560 | | | | | | |
| General description | | | | Orientation | | N-S |
| Trench contained one ditch. Consists of subsoil and topsoil overlying | | | | Avg. depth (m) | | 0.46 |

| | | | | | | |
|---|-------------|------------------|------------------|----------------|-----------------------|-------------|
| a natural of clay. | | | | | Width (m) | 2 |
| | | | | | Length (m) | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 7043 | cut | 0.4 | 0.14 | ditch | - | - |
| 7044 | fill | 0.4 | 0.14 | Fill of ditch | - | - |
| 4290 | layer | | 0.22 | subsoil | - | - |
| 4289 | layer | | 0.31 | topsoil | - | - |
| Trench 561 | | | | | | |
| General description | | | | | Orientation | N-S |
| Trench contained one ditch and one posthole. Consists of subsoil and topsoil overlying a natural of clay. | | | | | Avg. depth (m) | 0.4 |
| | | | | | Width (m) | 2 |
| | | | | | Length (m) | 30 |
| Contexts | | | | | | |
| context no | type | Width (m) | Depth (m) | comment | finds | date |
| 7063 | cut | 0.57 | 0.24 | ditch | | |
| 7064 | fill | 0.57 | 0.24 | Fill of ditch | Pottery, shell, flint | medieval |
| 7038 | cut | 0.67 | 0.07 | pit | - | - |
| 7039 | fill | 0.67 | 0.07 | Fill of pit | - | - |
| 4290 | layer | | 0.2 | subsoil | - | - |
| 4289 | layer | | 0.2 | topsoil | - | - |

APPENDIX B. FINDS REPORTS

B.1 Flint

By Anthony Haskins

- B.1.1 A single non-diagnostic residual secondary flint flake (20g) was recovered from context 7064 the fill of medieval ditch **7063** (Trench 561). The flake is struck from a dark greyish-brown flint with a thin white chalky cortex similar to locally available gravel.

B.2 Prehistoric Pottery

by Sarah Percival

Assemblage

- B.2.1 A single rim sherd weighing 7g and made of coarse sandy oxidised fabric with plate-like voids suggesting shell temper may be Late Iron Age. The rim came from context 7064, fill of medieval ditch **7063**, which also contained medieval pottery.

| Context | Cut | Feature type | Fabric | Quantity | Weight (g) | Spot Date |
|---------|-------------|--------------|--|----------|------------|---------------|
| 7064 | 7063 | ditch | S1: Common plate-like voids (shell) in silty clay matrix | 1 | 7 | Late Iron Age |
| Total | | | | 1 | 7 | |

Table B.2.1: Quantity and weight of prehistoric pottery from Zone K

B.3 Medieval Pottery

by Carole Fletcher

Assemblage

- B.3.1 A total of 12 sherds of pottery, weighing a total of 0.288kg was recovered during this evaluation, all from a single context in ditch **7063** (Trench 561). Early medieval sandy shelly ware comprise the majority of the assemblage (11 sherds) and are from the same jar. One rim sherd was recovered within this group which was everted, near square with internal thickening. A further sherd of sandy ware was recovered and dated to the early medieval period. All of the pottery was in a good and unabraded condition.

| Context | Cut | Feature type | Fabric | Quantity | Weight (g) | Spot Date |
|---------|------|--------------|---|----------|------------|-------------------|
| 7064 | 7063 | ditch | 12C: slightly shelly sandy ware, one rim sherd with everted, near square with internal thickening | 11 | 269 | 11 – 13th century |
| 7064 | 7063 | ditch | Sandy ware | 1 | 17 | 11 – 13th century |
| Total | | | | 12 | 288 | |

Table B.3.1: Quantity and weight of medieval pottery from Zone K

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Faunal remains

By Zoe Ui Choileain

Introduction

C.1.1 A total weight of 7g of animal bone was recovered from the excavations at Beaulieu Zone K.

Methodology

C.1.2 All identifiable elements were recorded using a version of the criteria described in Davis (1992). Identification of the assemblage was undertaken with the aid of Schmid (1972) and France (2009) plus use of the OAE reference collection.

C.1.3 Preservation condition (Erosion) was evaluated using the 0-5 scale simplified version of Brickley and McKinley (2004, 14-15) as follows:

- 0 (surface morphology clearly visible, fresh appearance),
- 1 (light and patchy surface erosion),
- 2 (more extensive surface erosion than grade 1),
- 3 (most of bone surface affected by some degree of erosion),
- 4 (all of bone surface affected by erosive action),
- 5 (heavy erosion across whole surface, completely masking normal surface morphology).

Results

| Context | Element | No. of frags | Taxon | Collection method | Erosion | weight |
|---------|-----------|--------------|--------------|-------------------|---------|--------|
| 7064 | Rib | 1 | Large mammal | Hand | 2 | 4 |
| 7064 | Long bone | 1 | Large mammal | Hand | 2 | 3 |

Table C.1.1: Results according to collection method (i.e. hand-collection or flotation).

Discussion

C.1.4 This assemblage is too small and fragmented to yield any further information. No further work is required.

C.2 Shell

By Alexandra Scard, BA, PCIFA

Introduction

C.2.1 A total of 0.098kg of *Ostrea edulis* (oyster) shell was recovered from one context during the evaluation at Zone K of Beaulieu Park, Chelmsford (Table C.2.1). The shell showed no evidence of ornamentation *etc.*, though possible 'shuck' marks and specimens of a good, edible size suggest that this assemblage could be evidence for consumption/diet.

Recovery from the fill of a gully suggests unintentional deposition. The assemblage has been fully quantified and no further work is required.

| Context | Cut number | Feature type | Weight (kg) | Left valve (kg and quantity) | Right valve (kg and quantity) | MNI | Average Size (cm) | Comments |
|---------|------------|--------------|-------------|------------------------------|-------------------------------|-----|-------------------|---|
| 7064 | 7063 | Gully | 0.098 | 0.068/5 | 0.030/5 | 5 | Medium (c.5-7cm) | Shuck marks evident ('u-shaped' marks from opening the oyster). Hole in one valve, taphonomic. Moderate preservation: flakey specimens. |

Table C.2.1: Overview of quantified oyster shell

C.3 Environmental Samples

By Rachel Fosberry

Introduction

- C.3.1 Three bulk samples were taken from features within the evaluated areas of Zone K, Beaulieu, Essex in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

Methodology

- C.3.2 The total volume (up to 22 litres) of each bulk sample 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 1. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

- C.3.1 For the purpose of this initial assessment, items such as chaff have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50, ### = 51-100, #### = >101 specimens

Items that cannot be easily quantified such as charcoal have been scored for abundance

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

Results

C.3.2 Preservation is by carbonisation. All of the flots contain modern seeds and rootlets and Samples 850 (fill 7042 of pit **7041**) and 852 (fill 7037 of pit/post hole **7038**) contain sparse flecks of charcoal. Sample 851, fill 7064 of ditch **7063**, produced a moderate assemblage of charred plant remains largely comprised of cereal grains. Bread wheat (*Triticum aestivum* sensu-lato) grains predominate. Ota (*Avena* sp.) grains are frequent but it is not possible to ascertain if these are a cultivated or wild variety as diagnostic chaff elements are absent. A single grain of barley (*Hordeum vulgare*) was also noted. Charred legumes present are probably peas (*Pisum/Lathyrus* sp.) and weed seeds include stinking mayweed (*Anthemis cotula*), bromes (*Bromus* sp.) and docks (*Rumex* sp.)

| Trench | Sample No. | Context No. | Cut No. | Feature Type | Sample Size (L) | Flot Volume (ml) | Cereals | Legumes | Weed seeds | Charcoal <2mm | Charcoal > 2mm | Flot comments |
|--------|------------|-------------|---------|---------------|-----------------|------------------|---------|---------|------------|---------------|----------------|------------------------------------|
| 559 | 850 | 7042 | 7041 | Pit | 14 | 15 | | | | + | | Sparse charcoal only |
| 561 | 851 | 7064 | 7063 | ditch | 22 | 45 | ##### | ## | ## | +++ | +++ | Bread wheat, oats, barley, legumes |
| 561 | 852 | 7039 | 7038 | Pit/Post hole | 15 | 15 | | | | + | | Sparse charcoal only |

Table C.3.1: Environmental samples from Zone K

Discussion

C.3.1 The only significant plant remains recovered from Zone K are from ditch **7063** which contains bread wheat. This variety of wheat became popular in the Roman period as it produced a better quality of flour for bread than the more common spelt (*T. spelta*) wheat. This assemblage is slightly unusual in that spelt wheat chaff is usually found in cereal-rich samples as it was commonly used as fuel. If further excavations are planned for this area, detailed sampling should be considered as it is possible that there may be bread ovens in the vicinity.

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APPENDIX E. OASIS REPORT FORM

Project Details

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|---------------------------------|----------------------|-------------|----------------------|
| OASIS Number | <input type="text"/> | | |
| Project Name | <input type="text"/> | | |
| Project Dates (fieldwork) Start | <input type="text"/> | Finish | <input type="text"/> |
| Previous Work (by OA East) | <input type="text"/> | Future Work | <input type="text"/> |

Project Reference Codes

| | | | |
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| Site Code | <input type="text"/> | Planning App. No. | <input type="text"/> |
| HER No. | <input type="text"/> | Related HER/OASIS No. | <input type="text"/> |

Type of Project/Techniques Used

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| Development Type | <input type="text"/> |

Please select all techniques used:

| | | |
|--|---|---|
| <input type="checkbox"/> Aerial Photography - interpretation | <input type="checkbox"/> Grab-Sampling | <input type="checkbox"/> Remote Operated Vehicle Survey |
| <input type="checkbox"/> Aerial Photography - new | <input type="checkbox"/> Gravity-Core | <input type="checkbox"/> Sample Trenches |
| <input type="checkbox"/> Annotated Sketch | <input type="checkbox"/> Laser Scanning | <input type="checkbox"/> Survey/Recording Of Fabric/Structure |
| <input type="checkbox"/> Augering | <input type="checkbox"/> Measured Survey | <input type="checkbox"/> Targeted Trenches |
| <input type="checkbox"/> Dendrochronological Survey | <input type="checkbox"/> Metal Detectors | <input type="checkbox"/> Test Pits |
| <input type="checkbox"/> Documentary Search | <input type="checkbox"/> Phosphate Survey | <input type="checkbox"/> Topographic Survey |
| <input type="checkbox"/> Environmental Sampling | <input type="checkbox"/> Photogrammetric Survey | <input type="checkbox"/> Vibro-core |
| <input type="checkbox"/> Fieldwalking | <input type="checkbox"/> Photographic Survey | <input type="checkbox"/> Visual Inspection (Initial Site Visit) |
| <input type="checkbox"/> Geophysical Survey | <input type="checkbox"/> Rectified Photography | |

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 |
|----------------------|----------------------|----------------------|----------------------|
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Project Location

| | | |
|------------|----------------------|---|
| County | <input type="text"/> | Site Address (including postcode if possible) |
| District | <input type="text"/> | <input type="text"/> |
| Parish | <input type="text"/> | |
| HER | <input type="text"/> | |
| Study Area | <input type="text"/> | National Grid Reference <input type="text"/> |

Project Originators

| | |
|---------------------------|----------------------|
| Organisation | <input type="text"/> |
| Project Brief Originator | <input type="text"/> |
| Project Design Originator | <input type="text"/> |
| Project Manager | <input type="text"/> |
| Supervisor | <input type="text"/> |

Project Archives

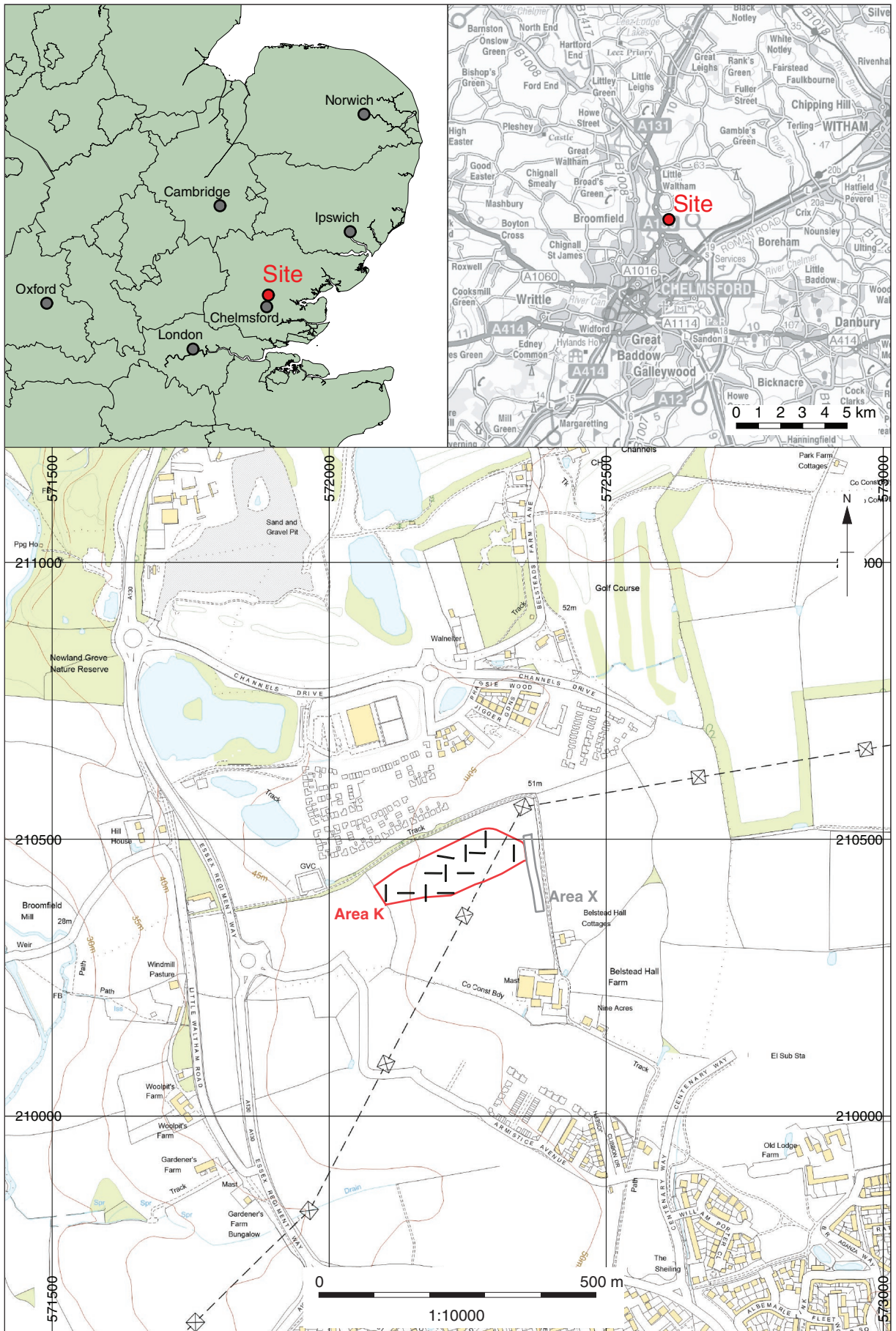
| Physical Archive | Digital Archive | Paper Archive |
|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |

Archive Contents/Media

| | Physical Contents | Digital Contents | Paper Contents |
|---------------------|--------------------------|--------------------------|--------------------------|
| Animal Bones | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Ceramics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Environmental | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Glass | <input 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"/> |
| Stratigraphic | | <input type="checkbox"/> | <input type="checkbox"/> |
| Survey | | <input type="checkbox"/> | <input type="checkbox"/> |
| Textiles | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Wood | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Worked Bone | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Worked Stone/Lithic | <input 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 type="checkbox"/> Database | <input type="checkbox"/> Aerial Photos |
| <input type="checkbox"/> GIS | <input type="checkbox"/> Context Sheet |
| <input type="checkbox"/> Geophysics | <input type="checkbox"/> Correspondence |
| <input type="checkbox"/> Images | <input type="checkbox"/> Diary |
| <input type="checkbox"/> Illustrations | <input type="checkbox"/> Drawing |
| <input type="checkbox"/> Moving Image | <input type="checkbox"/> Manuscript |
| <input type="checkbox"/> Spreadsheets | <input type="checkbox"/> Map |
| <input type="checkbox"/> Survey | <input type="checkbox"/> Matrices |
| <input type="checkbox"/> Text | <input type="checkbox"/> Microfilm |
| <input type="checkbox"/> Virtual Reality | <input type="checkbox"/> Misc. |
| | <input type="checkbox"/> Research/Notes |
| | <input type="checkbox"/> Photos |
| | <input type="checkbox"/> Plans |
| | <input type="checkbox"/> Report |
| | <input type="checkbox"/> Sections |
| | <input type="checkbox"/> Survey |

Notes:



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Figure 1: Site location showing archaeological trenches (black) in evaluation area (red)

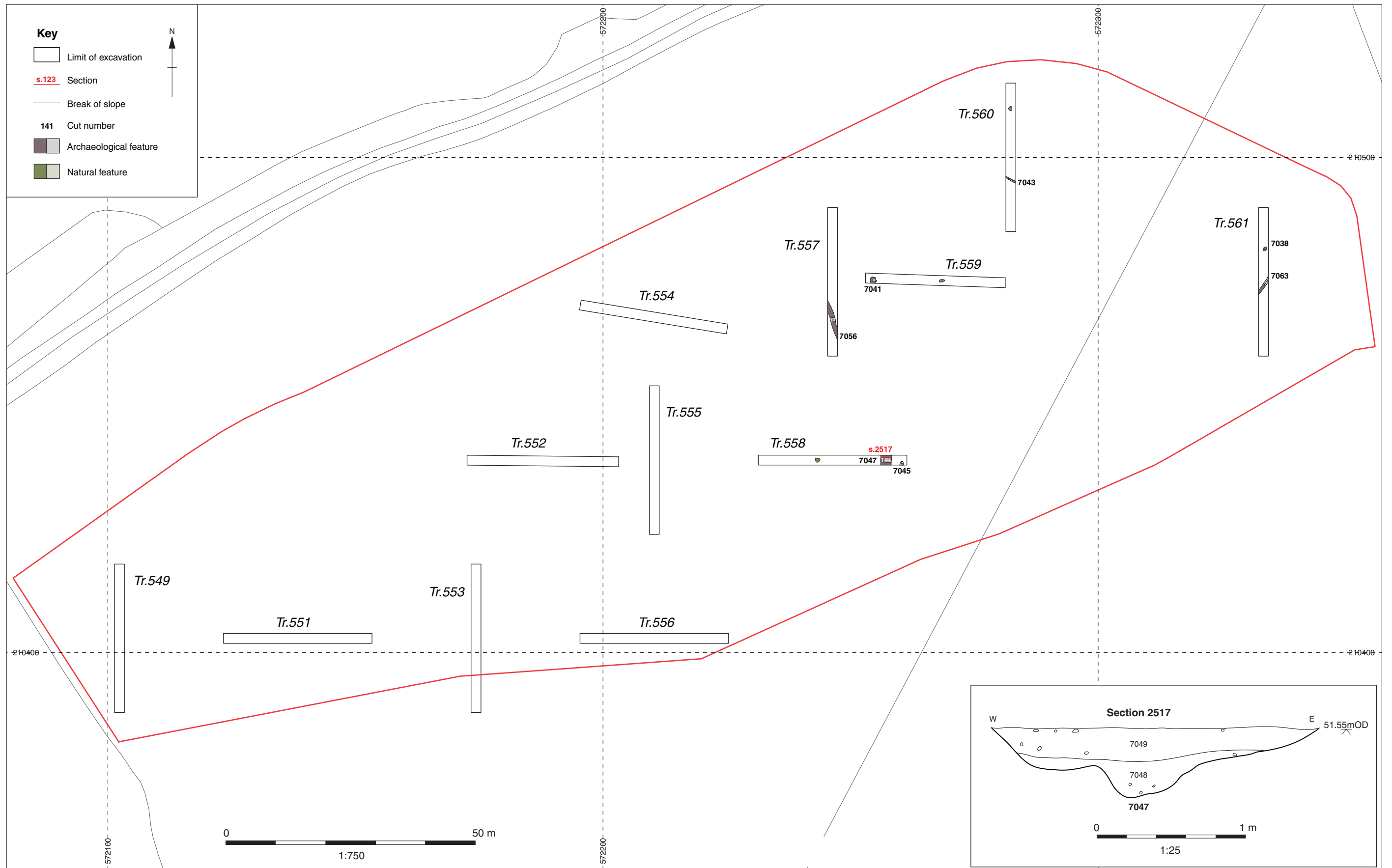


Figure 2: Plan of evaluation trenches and selected section

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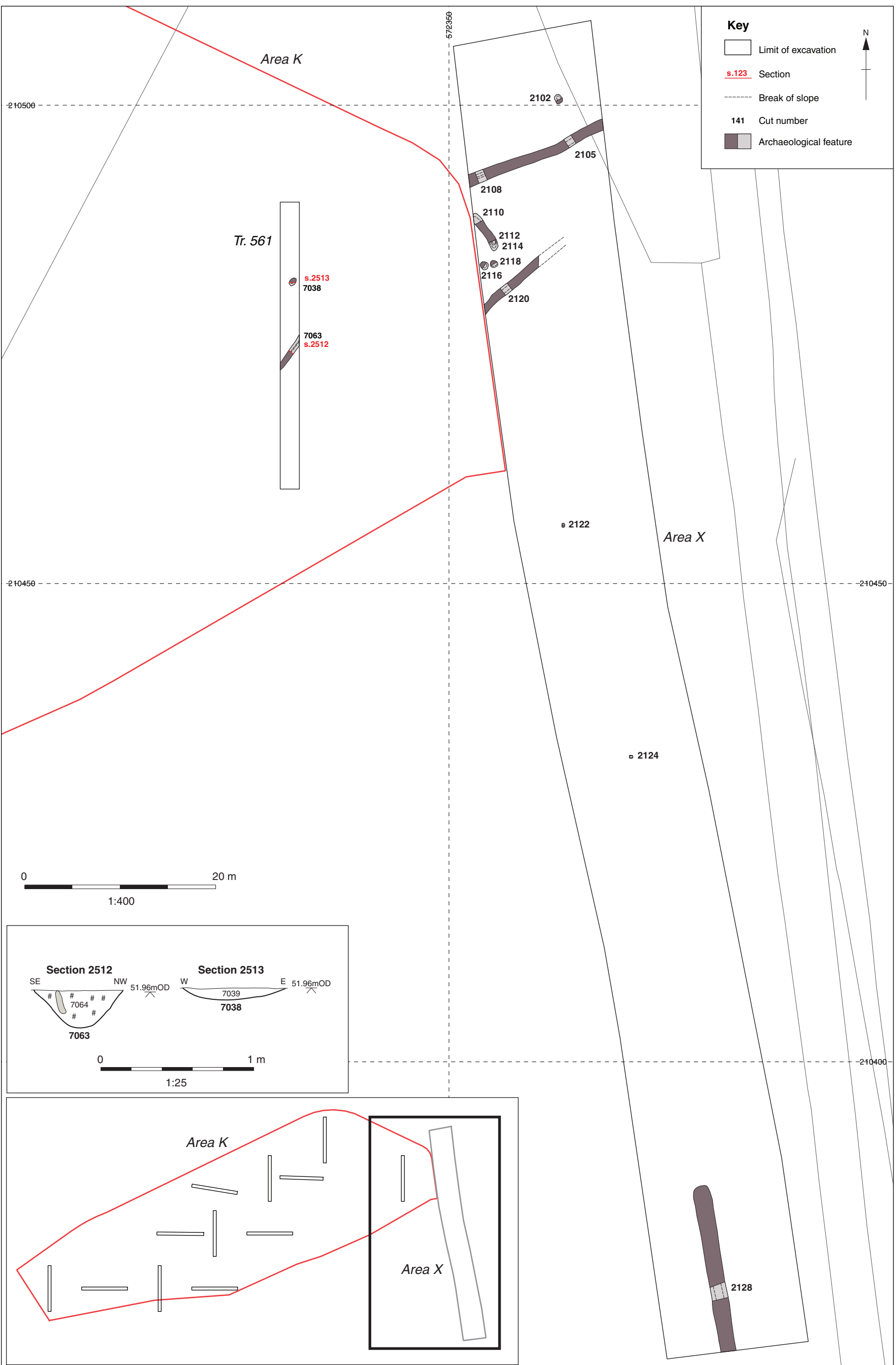


Figure 3: Plan of medieval features and in Trench 561 and Area X and selected sections



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