Barton Road Car Park, Ely, Cambridgeshire

Archaeological Evaluation Report

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Client: Henry Riley LLP on behalf of Palace Green Homes and East Cambridgeshire District Council

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Archaeological Evaluation Report

Barton Road Car Park, Ely, Cambridgeshire

Archaeological Evaluation

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Summary

Between 7th and 9th November 2016, Oxford Archaeology East (OA East) carried out an archaeological evaluation at Barton Road Car Park, Ely, Cambridgeshire. The area evaluated covered approximately 0.19 hectares and lay within the historic city of Ely. Two evaluation trenches (14m x 2m and 24m x 2m) were opened within the development area.

The evaluation identified the presence of archaeological remains of both uncertain and medieval date. A substantial boundary ditch in Trench 2 is possibly of Roman or Early-Middle Saxon origin, the presence of which may prove to be a significant discovery within this part of Ely. A buried soil in Trench 1 contained small, abraded early-high medieval pottery sherds, animal bone fragments (predominantly of pig) and a moderate assemblage of charred wheat grains. This soil was cut by a minor boundary ditch dated to the late medieval period whose fill yielded a dingle piece of iron smithing slag. A further ditch, or trench, cutting the buried soil was also recorded, and is undated. The relict topsoil and subsoil revealed in the southern part of Trench 2 provides possible evidence that the site lay within agricultural land at the edge the historic core of Ely, possibly associated with Barton Manor. Truncation relating to the construction of the current car park was encountered in both trenches.

1 Introduction

1.1 Location and scope of work

1.1.1 An archaeological evaluation was conducted at Barton Road Car Park, Ely, Cambridgeshire (TL 5377 8001; Fig. 1) on the southern side of the historic city of Ely.

1.1.2 This work was commissioned by Henry Riley LLP on behalf of Palace Green Homes and East Cambridgeshire District Council, in respect of a proposed residential development on the site (Planning Application: 15/01417/F3M).

1.1.3 This archaeological evaluation was undertaken in accordance with a Brief issued by Kasia Gdaniec of Cambridgeshire County Council Historic Environment Team (CCC HET), supplemented by a Specification prepared by OA East (Mortimer 2016).

1.1.4 The work was designed 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 CCC, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

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 The site comprises the southern part of the current Barton Road Car Park, in the historic city of Ely, at approximately 20m above Ordnance Datum (OD) (Fig. 1).

1.2.2 The underlying geology of the proposed development site comprises Woburn Sands Formation - Sandstone Bedrock. Superficial deposits are described as Oadby Member Diamicton – Chalky Boulder Clay. (http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html accessed 24th October 2016).

1.3 Archaeological and historical background

1.3.1 The site lies on the southern side of the historic core of Ely, in proximity to the scheduled monument of the castle motte on Cherry Hill, and to Ely Cathedral and its precincts.

1.3.2 A full search of the Cambridgeshire Historic Environment Record (CHER) of a 1km radius centred on the evaluation site was commissioned from CCC HET. A Heritage Statement for the development was also produced by Carter Jonas in 2015. The following is a summary based on this report and on the findings of the CHER search, with pertinent records shown on Fig. 1.

Prehistoric to Roman

1.3.3 There is plentiful evidence of prehistoric and Roman land use on the higher ground of the Isle, but pieces of fieldwork directly relevant to the site are few in number.

1.3.4 A large enclosure ditch dating to the Middle Bronze Age was revealed during an excavation at Cam Drive, Ely located approximately 1.5km to the north of the site (National Grid Reference: TL 5425 8155; ECB 4413; Phillips & Morgan 2015). The excavation also revealed many more features of the period including post-built structures, pits and a waterhole. An excavation at Bray's Yard, located approximately

750m to the north east of the site, also revealed a Bronze Age ditch and plough marks (Hunter 1991).

1.3.5 Excavation at the former Red, White and Blue, Chief's St (CHER ECB706), 370m to the north-west, identified gullies and pits pre-dating the Roman period. A Roman phase included fence lines of post holes and other boundary features, probably relating to settlement adjacent to the Roman road running across the summit of Ely Island. Nearby, at No. 36b St John's Road, an evaluation and watching brief revealed a series of ditches, pits, postholes and a possible roundhouse, some of which produced artefacts dating from the Late Iron Age, including an assemblage of Late Iron Age Plain Ware pottery (CHER CB15549). Subsequent monitoring recorded a ditch and two pits, the former containing pottery of Early Roman date.

Anglo-Saxon

1.3.6 There is little evidence for Early Saxon settlement in Ely. The closest findings to the current site include the remains of a cemetery found during an evaluation at Witchford Road, 350m to the south-west (CHER MCB16830). The cemetery had clearly been badly affected by ploughing but findings of Early Saxon metalwork and disarticulated human remains proved its existence. Early Saxon pottery sherds were found at No. 2 West End, 250m to the north-west (CHER CB15551). Evidence relating to the original 7th century abbey of Etheldreda (Aethelthryth) remains elusive. It may have been located within the footprint of the current cathedral buildings. An alternative location is to the west, close to the location of St John's Hospital, 400m west-north-west of the site on St John's Road.

1.3.7 The Middle Saxon settlement at Ely was referenced by Bede in the mid 8th century with Middle Saxon remains being found close to the centre at No. 2 West End (CHER CB15551) and at Chief's Street (CHER ECB 706), where pits, wells and an oven were in use. A watching brief at St Mary's Lodge, north of St Mary's church, revealed a beamslot associated with Ipswich ware pottery (CHER CB15552). Pits with Late Saxon and medieval pottery and a quantity of animal bone were also found. An extensive Middle Saxon settlement has been found extending on either side of West Fen Road (CHER CB15477).

1.3.8 At The Paddock, to the east of the cathedral and 500m north-east of the current site, excavations revealed evidence of ditches from the Late Saxon period, along with Saxon pottery, St Neots and Thetford ware (CHER 10170). The features excavated lay under a depth of cultivated soil and it is possible that a part of the Late Saxon landscape may have survived within the Paddock.

Medieval

1.3.9 The castle motte on Cherry Hill is located 300m to the east of the site (CHER CB39). The motte has long been considered to be of Norman origin but more recently has been interpreted as contemporary with the 12th century Anarchy period.

1.3.10 The site is also near to the Cathedral Church of the Holy Trinity (Ely Cathedral; 400m to the north-east) and its precincts are bounded by The Gallery, the grounds and structures of the medieval Bishops' Palace to the south of Palace Green and the south-east of St Mary's Church.

1.3.11 The Bishop held the manor of Barton centred on the current Barton Farm, located 250m to the south-east of the site (Fig. 1). This 'paramount manor' of the see of Ely is documented back to the 12th century (Atkinson *et al.* 2002, 47-50; Karn 2005, ciii). The manor is described as opening upon Back Hill to the east with its fields extending

westwards. This was evidenced by an earthwork survey at The King's School located 175m to the south of the site that identified medieval ridge and furrow agriculture (CHER 11881; Fig. 1). The excavation of an adjacent evaluation trench revealed a single medieval ditch, probably connected to agricultural activity (CB 15312; Hatton 2002).

1.3.12 An evaluation at the Railway Mission on Silver Street located 100m to the north-east of the site revealed features suggestive that the area may have been part of a farmyard. The features included boundary ditches, pits and post holes and an oven or corn dryer for domestic or agricultural use (Kenney & Casa-Hatton 2000; CHER CB15550; Fig. 1). Based on artefactual evidence, they were dated to the 13th-14th centuries. Thick post-medieval make-up layers sealed the archaeological features.

1.3.13 Other medieval remains excavated in the vicinity of the site include medieval building foundations and a midden (probable kitchen waste) identified at Heywood Theatre located 200m to the north-east of the site (CB 15546; Fig. 1).

1.3.14 Excavations at No. 16 Church Lane located 200m to the north of the site identified medieval and post-medieval remains including wells and undated skeletal human remains (MCB 16896; MCB 17889; Fig. 1).

1.3.15 Numerous further archaeological interventions around the precincts of the religious houses in the area have revealed important evidence of early and high medieval cemeteries, building remains, and domestic properties.

Post-medieval and modern

1.3.16 Evidence of post-medieval land divisions and domestic activity has been found in excavations around St Mary's Street, Silver Street and Church Lane. The proposed development area had itself been used in the 19th century as a parade ground for a militia barracks; developed in response to the Ely and Littleport riots during the depression in the early part of the 19th century.

1.4 Acknowledgements

1.4.1 The author would like to extend thanks to Henry Riley LLP and Palace Green Homes on behalf of East Cambridgeshire District Council for commissioning the archaeological works. The fieldwork was undertaken by the author with the assistance of Toby Knight. The site survey was carried out by Dave Brown. Machine excavation was undertaken by Lattenbury Services. The project was managed by Richard Mortimer, while Kasia Gdaniec monitored the evaluation of behalf of CCC HET. The illustrations were produced by Séverine Bézie. Thanks are extended to the various specialists for their contributions.

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 The Brief required that a programme of linear trial trenching be undertaken to adequately sample the area and conform with the aims of the investigation. This entailed two trial trenches (totalling 38m in length) representing a 5% sample of the approximate 0.19ha development area.

2.2.2 Machine excavation was carried out under constant archaeological supervision with 360º mechanical excavators using a toothless ditching bucket.

2.2.3 The site survey was carried out using a Leica GPS GS08 with SmartNET.

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 A total of three bulk samples were taken from the excavated features. These each totalled between 20L & 40L and were processed by flotation at OA East's environmental processing facility at Bourn.

2.2.7 The site conditions were good with occasional showers.

3 Results

3.1 Introduction

3.1.1 Descriptions of the ground conditions encountered, features identified and artefacts recovered are given in this section, and are described chronologically. Further trench descriptions with dimensions are given in Appendix A, supplemented by artefact and ecofact reports included as Appendices B and C. Figure 2 provides a plan of the features encountered. Figure 3 provides the sections of the deposits and features encountered.

3.2 Results

Natural deposits

3.2.1 The natural deposits of the Oadby Member Diamicton were encountered in both Trenches 1 and 2 (contexts 6 and 20 respectively). In Trench 1 (Plate 1) the natural ground lay at a depth of 0.9m below ground level (19.32m OD) and in Trench 2 (Plate 2) at a depth of 0.7m below ground level (19.37m OD). This deposit consisted of a mix of orange, reddish and greenish brown clayey silt with a little sand and gravel content.

Possible pre-medieval ditch

3.2.2 Ditch **21** (Fig. 3 Section 4; Plate 3) at the northern end of Trench 2 lay on a west-north-west to east-south-east alignment and measured 2.4m wide by 0.85m deep, with a U-shaped profile. A fill (22) up to 0.4m thick extended down the southern side of the cut and consisted of orange brown clayey sandy silt with occasional gravel inclusions. This was overlain by another fill (23) up to 0.85m thick that consisted of mid brown clayey silt with occasional gravel inclusions. Fill 23 contained one small fragment of shell and grog tempered pottery, weighing less than 1g, dating to the Early-Middle Bronze Age (Dr Matthew Brudenell *pers. comm.*). In addition, 162g of animal bone was also recovered. The animal bone assemblage was dominated by pig with other identifiable fragments of sheep/goat, goose and fish.

Early-High medieval buried soil (c.AD 1150-1400)

3.2.3 A buried soil (5) (Fig. 3 Section 2) was observed to overlie the natural ground in Trench 1. The soil consisted of mid yellowish brown silty clay with moderate gravel inclusions, 0.15m thick. It contained nine (25g) small, abraded sherds of medieval pottery dating to the mid 12th to 15th centuries and a larger residual sherd (88g) of Late Saxon Thetford-type ware. Animal bone (23g) was present with identifiable fragments of pig, sheep/goat and dog. Charred plant remains of free-threshing wheat grains, pea/bean, clover and Great Fen sedge were also recovered. The soil was cut by ditches **7** and **9**, and truncated at a height of 19.48m OD by the car park construction formation level (**12**).

Late medieval ditch (c.AD 1400-1500)

3.2.4 Ditch (**7**) at the southern end of Trench 1 lay on a north-east to south-west alignment. This ditch cut the buried soil (5) and measured 1m wide and 0.2m deep with a shallow U-shaped profile (Fig. 3 Section 1). The fill (8) consisted of dark grey clayey silt with occasional gravel inclusions that produced a single fragment (13g) of late medieval roof tile and a lump of smithing slag (15g) indicative of iron working. Two unidentifiable charred cereal grains were also recovered. The ditch profile was truncated by the car park construction formation level (**12**) at a height of 19.48m OD.

Undated ditch or trench

3.2.5 To the north of ditch **7** was a deep linear feature (**9**) on a west-north-west to east-south-east alignment that measured 1.1m wide and 1.35m deep (Fig. 3 Section 2). This also cut the medieval buried soil (5) and was in turn truncated by the modern car park construction (**12**). The sides of the cut were near vertical and merged sharply with a flat base. It contained two fills that did not yield any artefacts. The lower fill (10) consisted of dark greyish brown silty clay with moderate gravel inclusions. This was overlain by an upper fill (11) that consisted of mid yellowish brown silty clay with moderate gravel inclusions.

Relict topsoil and subsoil

3.2.6 Relict topsoil (18) and subsoil (19) layers were identified in a narrow zone up to 1m wide along the southern boundary of Trench 2, in the south-western corner of the site (Fig. 3 Section 3). Both were observed to be 0.25m thick. The topsoil consisted of mid greyish brown sandy clayey silt with moderate gravel inclusions. The subsoil consisted of a similar orange brown deposit. These were overlain by the concrete hardcore base (17) for the tarmac surface (13) and completely truncated by the car park construction formation level cut (**16**) to the north.

Modern truncation

3.2.7 Modern truncation was encountered in both trenches representing the formation level for the construction of the car park (Fig. 3 Section 3). The truncation (**12** in Trench 1 = **16** in Trench 2) extended to a depth of 0.75m below ground level in Trench 1 (19.48m OD) and 0.7m below ground level in Trench 2 (19.37m OD).

3.2.8 In Trench 1 the formation level (**12**) was overlain successively by a brick hardcore base (4) for a former tarmac surface (3) beneath the concrete hardcore (2) for the present car park tarmac surface (1).

3.2.9 In Trench 2 a mixed layer, 0.1m thick, of greenish brown sandy clayey silt (15) was observed over the formation level (**16**) that probably represents a 'trample' layer. This was overlain by a layer of sandstone hardcore (14) for the present tarmac surface (13).

3.3 Finds Summary

Metalworking debris (Appendix B.1)

3.3.1 One piece of metalworking debris (MWD) weighing 15g was collected from the fill (8) of late medieval ditch **7** in Trench 1. It consisted of a dense rusty lump with a concave base and few small vesicules. The MWD was scanned with a magnet to establish the presence of iron and weighed to the nearest whole gramme. The piece is diagnostic of iron smithing but is not closely datable. It was redeposited in a ditch dated to the late medieval period and on current evidence does not appear to have been associated with structures connected with iron production or working.

Prehistoric pottery

3.3.2 A small fragment of shell and grog tempered pottery, weighing less than 1g, dating to the Early-Middle Bronze Age was recovered from the fill (23) of ditch **21** in Trench 2 (Dr Matthew Brudenell *pers. comm.*).

Post-Roman pottery (Appendix B.2)

3.3.3 Archaeological works produced a small pottery assemblage of 10 sherds, weighing 0.114kg, recovered from buried soil 5 in Trench 1. Almost all sherds are abraded, the exception being a large moderately-abraded sherd from a Thetford ware jar dating from

the mid 9th-end 12th century. The remaining sherds appear medieval, including sherds of Ely ware. The assemblage is likely to be domestic in origin, the Thetford ware sherd seems to be an anomaly within the layer/buried soil and may be from an earlier feature that has subsequently been reworked or disturbed by ploughing or later activity. The other small sherds recovered from context 5 are moderately abraded and some bear relatively fresh breaks, possibly from relativity recent reworking; other sherds are more abraded suggesting they may have been spread across the site through manuring.

Ceramic building material (Appendix B.3)

3.3.4 A single fragment (0.013kg) of late medieval or early post-medieval roof tile was recovered from ditch **7** in Trench 1.

3.4 Environmental Summary

Faunal remains (Appendix C.1)

3.4.1 The preservation condition of this faunal assemblage is fairly good. From the hand-collected material, 26 specimens were identified from two contexts, buried soil 5 in Trench 1 and fill 23 of ditch **21** in Trench 2. The assemblage is rich in pig remains and also includes fragments of sheep/goat, dog and a large bird (possibly a goose species). Vertebrae recovered from ditch fill 23 belong to a small-sized fish.

Environmental samples (Appendix C.2)

3.4.2 Three bulk samples were taken from the site. Samples were taken from ditch **21** in Trench 2, and medieval deposits from Trench 1 that included a layer of medieval buried soil (5) and late medieval ditch (**7**). Ditch **21** did not contain any preserved plant remains other than sparse charcoal. Late medieval ditch **7** produced two unidentifiable charred cereal grains. Buried soil layer 5 contained a moderate assemblage of charred plant remains that is predominantly comprised of free-threshing wheat grains along with a fragment of charred pea/bean and single seeds of clover and Great Fen sedge. It is possible that these remains represent the use of midden material as fertiliser.

4 Discussion and Conclusions

4.1 Introduction

4.1.1 The evaluation identified activity or material dating to the Early-Middle Bronze Age, Late Saxon and medieval periods.

Possible pre-medieval remains

4.1.2 Ditch **21** possibly represents part of an enclosure or boundary that extended across this part of the site prior to the medieval period. The ditch fill was notably far paler and more leached than the proven medieval deposits encountered in Trench 1. The range of pig, goose, sheep and fish remains recovered from the ditch fill are not consistent with a faunal assemblage expected from the prehistoric period. Therefore, there is a high potential for this ditch to belong to the Roman or Anglo-Saxon periods. This ditch may possibly be a further example of Roman land use on the high ground of the Isle (see Section 1.3.3). As the archaeological background illustrates, there is little evidence for Early Anglo-Saxon settlement in Ely. In contrast, Middle Saxon settlement remains have been revealed through excavation in Ely, with the nearest example located 250m to the north of the site at St Mary's Lodge.

Late Saxon remains

4.1.3 The residual Late Saxon pottery sherd found in the medieval buried soil (5) provides tentative evidence for Late Saxon activity in the near vicinity of the site. The nearest known Late Saxon remains to the site were pits excavated at St Mary's Lodge 250m to the north and ditches excavated at The Paddock 500m north east of the site (see Sections 1.3.7 & 1.3.8).

Medieval remains

4.1.4 The medieval remains probably represent agricultural activity associated with the nearby medieval manor of Barton to the south-east, whose fields are documented to have extended westwards towards the site (see Sections 1.3.11). This predominantly agricultural setting during the medieval period has also been suggested by the survey of ridge and furrow earthworks at The King's School to the south of the site, along with the excavation of a medieval boundary ditch probably associated with agricultural activity (see Sections 1.3.11). Features suggestive of farmyard activity have also been excavated at the Railway Mission on Silver Street to the east of the site (see Section 1.3.12).

4.1.5 The presence of the small, abraded sherds of domestic medieval pottery, animal bone fragments and plant remains in the buried soil (5) revealed in Trench 1 may be indicative of the use of midden material as fertiliser/manure for fields, although their relatively high density could also suggest nearby contemporary occupation. Buried midden waste, probably derived from kitchen waste, was also excavated in the area, at Heywood Theatre to the north-east of the site (see Section 1.3.13). The presence of the relict agricultural topsoil and subsoil (18/19) surviving in the south-western corner of the site is further evidence for the site being under agricultural use, outside the historic core of Ely, during the medieval period.

4.1.6 The minor boundary ditch (**7**) cutting the buried soil (5), lay on a different orientation to the current site's boundaries, and contained evidence for iron working in the vicinity during the late medieval period. A further ditch or trench cutting the subsoil, although undated, may also have acted as a boundary during this period.

Degree of survival

4.1.7 Substantial truncation of the original land surface was revealed across both trenches, associated with the construction of the current Barton Road Car Park. However, the presence of the medieval and possibly earlier features described above illustrates the potential for archaeological remains to be preserved below the level of truncation.

4.2 Significance

4.2.1 The evaluation at Barton Road has identified the presence of potentially significant archaeological remains on this site dating to the medieval period and a ditch of possible Roman or Early-Middle Saxon origin. The presence of a possible enclosure pre-dating the medieval period within this part of Ely, although as yet only postulated, may prove to be a significant discovery. Despite the proximity of the historic city of Ely during the medieval period, the remains suggest the site lay within agricultural fields, probably associated with Barton Manor.

4.3 Recommendations

4.3.1 Recommendations for any future work based upon this report will be made by the County Archaeology Office.

Appendix A. Trench Descriptions and Context Inventory

Trench 1						
General description					**Orientation**	N-S
Consisted of tarmac surface overlying hardcore layers within truncation cut for car park construction. Beneath the truncation lay an Early-Middle medieval buried soil cut by a Late medieval ditch.					**Avg. depth (m)**	0.9
					Width (m)	2
					Length (m)	14
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	layer	-	0.2	Tarmac surface	-	modern
2	layer	-	0.1	Concrete hardcore	-	modern
3	layer	-	0.28	Old tarmac surface	-	modern
4	layer	-	0.2	Brick hardcore	-	modern
5	layer	-	0.16	Buried soil	-	Early-High medieval
6	-	-	-	natural	-	-
7	cut	1	0.2	Ditch	-	Late medieval
8	fill	-	0.2	Ditch	Tile & metal-working debris	Late medieval
9	cut	1.1	1.35	Ditch	-	Late medieval?
10	fill	-	0.65	Ditch	-	Late medieval?
11	fill	-	0.7	Ditch	-	Late medieval?
12	cut	-	0.75	Truncation	-	modern

Trench 2						
General description					**Orientation**	N-S/E-W
Consisted of tarmac surface overlying hardcore layers within truncation cut for car park construction. The truncation cut a relict topsoil and subsoil, observed to survive at the southern end of the trench. An E-W ditch of potential pre-medieval date lay at the northern end of the trench beneath the truncation.					**Avg. depth (m)**	0.7
					Width (m)	2
					Length (m)	17m/9m
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
13	layer	-	0.1	Tarmac surface	-	modern
14	layer	-	0.5	Sandstone hardcore	-	modern
15	layer	-	0.1	Trample layer	-	modern
16	cut		0.7	Truncation	-	modern
17	layer	-	0.1	Concrete hardcore	-	modern

Trench 2						
General description					**Orientation**	N-S/E-W
Consisted of tarmac surface overlying hardcore layers within truncation cut for car park construction. The truncation cut a relict topsoil and subsoil, observed to survive at the southern end of the trench. An E-W ditch of potential pre-medieval date lay at the northern end of the trench beneath the truncation.					**Avg. depth (m)**	0.7
					Width (m)	2
					Length (m)	17m/9m
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
13	layer	-	0.1	Tarmac surface	-	modern
18	layer	-	0.25	Relict topsoil	-	uncertain
19	layer	-	0.25	Relict subsoil	-	uncertain
20	-	-	-	Natural	-	-
21	cut	2.4	0.85	Ditch	-	pre-medieval
22	fill	-	-	Ditch	-	pre-medieval
23	fill	-	-	Ditch	Pottery & animal bone	pre-medieval

Table 1: Trench descriptions and context inventory

Appendix B. Finds Reports

B.1 Metalworking debris

By Graeme Clarke

Introduction and methodology

B.1.1 One piece of metalworking debris (MWD) weighing 15g was collected from the fill (8) of late medieval ditch **7** in Trench 1. It consisted of a dense rusty lump with a concave base and few small vesicules. The MWD was scanned with a magnet to establish the presence of iron and weighed to the nearest whole gramme. The piece is diagnostic of iron smithing but is not closely datable. It was redeposited in a ditch dated to the late medieval period and on current evidence does not appear to have been associated with structures connected with iron production or working.

B.2 Post-Roman pottery

By Carole Fletcher

Introduction

B.2.1 Archaeological works produced a small pottery assemblage of 10 sherds, weighing 0.114kg, recovered from buried soil 5 in Trench 1. The condition of the overall assemblage is moderately abraded to abraded. The average sherd weight from individual contexts is low at approximately 11g and this weight would be further reduced but for the presence of a large sherd from the base of a Thetford ware vessel, weighing 0.088kg. If this sherd is excluded, the average sherd weight is <0.003g.

Methodology

B.2.2 The Prehistoric Ceramics Research Group (PCRG), Study Group for Roman Pottery (SGRP), The Medieval Pottery Research Group (MPRG), 2016 *A Standard for Pottery Studies in Archaeology* and the MPRG *A guide to the classification of medieval ceramic forms* (MPRG, 1998) act as a standard.

B.2.3 Dating was carried out using OA East's in-house system based on that previously used at the Museum of London. Fabric classification has been carried out for all previously described medieval and post-medieval types. All sherds have been counted, classified and weighed. All the pottery has been recorded and dated on a context-by-context basis and the summary catalogue is recorded in Table 2. The archive is curated by Oxford Archaeology East until formal deposition.

Assemblage

B.2.4 Almost all sherds are abraded, the exception being a large moderately-abraded sherd from a Thetford ware jar dating from the mid 9th-end 12th century. The remaining sherds appear medieval, including sherds of Ely ware.

Discussion

B.2.5 The assemblage is likely to be domestic in origin, the Thetford ware sherd seems to be an anomaly within the layer/buried soil and may be from an earlier feature that has subsequently been reworked or disturbed by ploughing or later activity. The other small

sherds recovered from layer 5 are moderately abraded and some bear relatively fresh breaks, possibly from relativity recent reworking; other sherds are more abraded suggesting they may have been spread across the site through manuring.

Trench	Context	Cut	Fabric	Basic Form-description	Count	Weight (kg)	Pottery Date
1	5		Thetford-type ware	Jar base angle, moderately abraded	1	0.088	Mid 9th-end 12th century
			Ely ware	Unglazed body sherd, moderately abraded	1	0.004	Mid-12th-mid 14th century
			Ely ware	Unglazed body sherd, heavily abraded	1	0.003	Mid-12th-mid 14th century
			Ely ware	Unglazed body sherd, moderately abraded	1	0.002	Mid-12th-mid 14th century
			Shelly ware	Body sherd, abraded	1	0.003	Mid-12th-end 15th
			Early Medieval Essex Micaceous Sandy ware	Jar body sherd, slightly sooted and abraded	1	0.003	12th-end 14th
			Medieval Sandy Coarseware	Jar body sherd, externally sooted and moderately abraded	2	0.004	Mid-12th-end 15th
			Medieval Sandy Coarseware	Body sherd, moderately abraded	2	0.006	Mid-12th-end 15th
Total					**10**	**0.114**	

Table 2: Post-Roman pottery catalogue

B.3 Ceramic building material

By Carole Fletcher

Introduction and methodology

B.3.1 During the evaluation a single fragment (0.013kg) of late medieval or early post-medieval roof tile was recovered from ditch **7**, the tile is relatively thin (12mm thick) and has a sanded base, made of poorly mixed red clay, grey core and slightly orange surfaces with numerous large voids and some calcareous material. The fragmentary nature of the tile means few conclusions can be drawn and, if no further work on the site is undertaken, the ceramic building material may be deselected prior to archival deposition.

Appendix C. Environmental Reports

C.1 Faunal remains

By Angelos Hadjikoumis

C.1.1 The condition of this faunal assemblage is fairly good with most of the bone surfaces preserved to a degree that would allow the identification of gnawing and cut marks. From the hand-collected material (Table 3), 11 specimens were identified from two contexts (5 and 23). The assemblage is rich in pig remains and it would be interesting to explore whether this holds true if larger samples become available. Moreover, a single fragment of sheep/goat and another of a large bird (possibly a goose species) were also identified. Small, medium and large mammal remains were also identified but only to a general level.

C.1.2 Beyond the hand-collected material, 15 faunal specimens were also identified in the residues of bulk samples processed through water flotation (Table 4). More specifically, 10 vertebrae belonging to a small-sized fish, as well as a vertebrae and a rib of a small mammal (cat/rabbit size), were identified in context 23. Context 5 produced a sheep/goat and a single dog tooth.

C.1.3 Overall, the potential of this assemblage appears to be good if substantial quantities of faunal remains are recovered and dated to specific chronological periods.

Specimen	Context	Weight (g)	Element	Taxon	Age	Gnawed	Biometry	Butchery
1	5	14	Humerus	Pig	√			
2	5	6	Humerus	Pig				
3	5	1	Skull	Medium mammal				
4	23	47	Humerus	Pig	√	√	√	√
5	23	18	Pelvis	Pig		√		√
6	23	5	Humerus	Anatid bird (goose?)	√			
7	23	3	Metacarpus	Sheep/goat		√		
8	23	16	Skull	Medium mammal				
9	23	6	Vertebra	Medium mammal		√		
10	23	63	Vertebra	Large mammal				
11	23	1	Long bone	Small mammal				

Table 3: Taxonomic composition of hand-collected material

Specimen	Context	Sample	Weight (g)	Number	Element	Taxon	Age
1	23	3	1	10	Vertebra	Fish	
2	23	3	1	2	Rib	Small mammal	
3	23	3	1	1	Vertebra	Small mammal	
4	5	1	1	1	Third phalanx	Sheep/goat	
5	5	1	1	1	Loose mandibular tooth	Dog	√

Table 4: Taxonomic composition of faunal remains identified in the residues of bulk samples

C.2 Environmental samples

By Rachel Fosberry

Introduction

C.2.1 Three bulk samples were taken from 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. Samples were taken from ditch (**21**) encountered in Trench 2 and medieval deposits from Trench 1 that included a layer (5) of medieval buried soil and a late medieval ditch (**7**).

Methodology

C.2.2 The total volume (up to 36 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 an abbreviated list of the recorded remains are presented in Table 5. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* (Cappers et al. 2006) and the authors' own reference collection. 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.2.3 For the purpose of this initial assessment, items such as seeds, cereal grains and legumes have been scanned and recorded qualitatively according to the following categories

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

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

Results

C.2.4 Fill 23 of ditch **21** did not contain any preserved plant remains other than sparse charcoal.

C.2.5 Late medieval ditch **7** contained two charred cereal grains in fill 8. The remains are poorly preserved, precluding identification to species.

C.2.6 Buried soil layer 5 produced a moderate assemblage of charred plant remains that is predominantly comprised of free-threshing wheat (*Triticum aestivum s.l*) grains along with a fragment of charred pea/bean (Fabaceae) and single seeds of clover (*Trifolium*

sp.) and Great Fen sedge (*Cladium mariscus*). Charcoal volumes were small (<2ml). It is possible that these remains represent the use of midden material as fertiliser.

Sample No.	Context No.	Feature No.	Feature Type	% context sampled	Trench No.	Volume processed (L)	Flot Volume (ml)	Cereals	Legumes	Weed Seeds	Charcoal <2mm	Charcoal > 2mm
1	5	0	Layer	2	1	34	40	###	#	#	++	+
2	8	7	Ditch	2	1	15	20	#	0	0	++	++
3	23	21	Ditch	2	2	16	15	0	0	0	0	+

Table 5: Environmental samples

Appendix D. Bibliography

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Appendix E. OASIS Report Form

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-268452		
Project Name	Evaluation at Barton Road Car Park, Ely, Cambridgeshire		
Project Dates (fieldwork) Start	07-11-2016	Finish	09-11-2016
Previous Work (by OA East)	No	Future Work	Unknown

Project Reference Codes

Site Code	ELYBRD16	Planning App. No.	15/01417/F3M
HER No.	ECB4849	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt	Direction from Local Planning Authority - PPS 5
Development Type	Urban Residential

Please select all techniques used:

☐ Aerial Photography - interpretation	☐ Grab-Sampling	☐ Remote Operated Vehicle Survey
☐ Aerial Photography - new	☐ Gravity-Core	☒ Sample Trenches
☐ Annotated Sketch	☐ Laser Scanning	☐ Survey/Recording Of Fabric/Structure
☐ Augering	☐ Measured Survey	☐ Targeted Trenches
☐ Dendrochronological Survey	☐ Metal Detectors	☐ Test Pits
☐ Documentary Search	☐ Phosphate Survey	☐ Topographic Survey
☐ Environmental Sampling	☐ Photogrammetric Survey	☐ Vibro-core
☐ Fieldwalking	☐ Photographic Survey	☐ Visual Inspection (Initial Site Visit)
☐ Geophysical Survey	☐ 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
Ditch	Bronze Age -2.5k to -700	pottery, animal bone	Bronze Age -2.5k to -700
Buried soil	Medieval 1066 to 1540	pottery, animal bone	Medieval 1066 to 1540
Ditches	Medieval 1066 to 1540	tile, smithing slag	Medieval 1066 to 1540

Project Location

County	Cambridgeshire	Site Address (including postcode if possible)	
District	East Cambridgeshire	Barton Road Car Park, Barton Road, Ely, Cambridgeshire	
Parish	Ely		
HER	Cambridgeshire		
Study Area	0.19 ha	National Grid Reference	TL 5377 8001

Project Originators

Organisation	OA EAST
Project Brief Originator	Kasia Gdaniec (CCC HET)
Project Design Originator	Richard Mortimer (OA East)
Project Manager	Richard Mortimer (OA East)
Supervisor	Graeme Clarke (OA East)

Project Archives

Physical Archive	Digital Archive	Paper Archive
Cambs. County Store	OA East	Cambs. County Store
ECB4849	ELYBRD16	ECB4849

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☐	☐
Ceramics	☒	☐	☐
Environmental	☒	☐	☐
Glass	☐	☐	☐
Human Bones	☐	☐	☐
Industrial	☒	☐	☐
Leather	☐	☐	☐
Metal	☐	☐	☐
Stratigraphic		☐	☐
Survey		☐	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☐	☐	☐
None	☐	☒	☒
Other	☐	☐	☐

Digital Media	Paper Media
☒ Database	☐ Aerial Photos
☐ GIS	☒ Context Sheet
☐ Geophysics	☐ Correspondence
☒ Images	☐ Diary
☒ Illustrations	☐ Drawing
☐ Moving Image	☐ Manuscript
☐ Spreadsheets	☐ Map
☐ Survey	☐ Matrices
☒ Text	☐ Microfilm
☐ Virtual Reality	☐ Misc.
	☐ Research/Notes
	☒ Photos
	☒ Plans
	☒ Report
	☒ Sections
	☒ Survey

Notes:

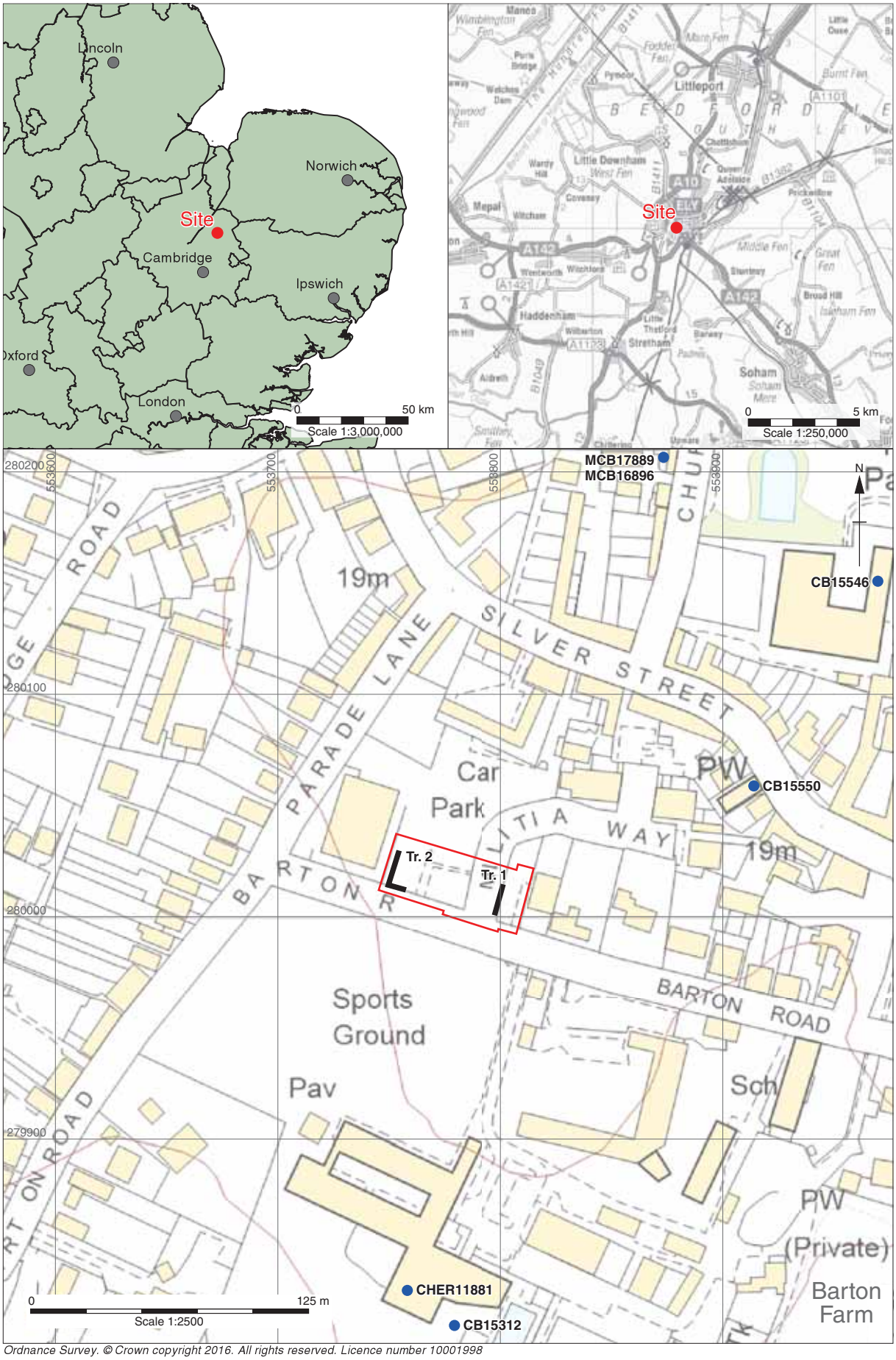

Figure 1: Site location map showing development area outlined (red) and evaluation trenches (black) with HER entries (blue)

Figure 2: Site layout plan

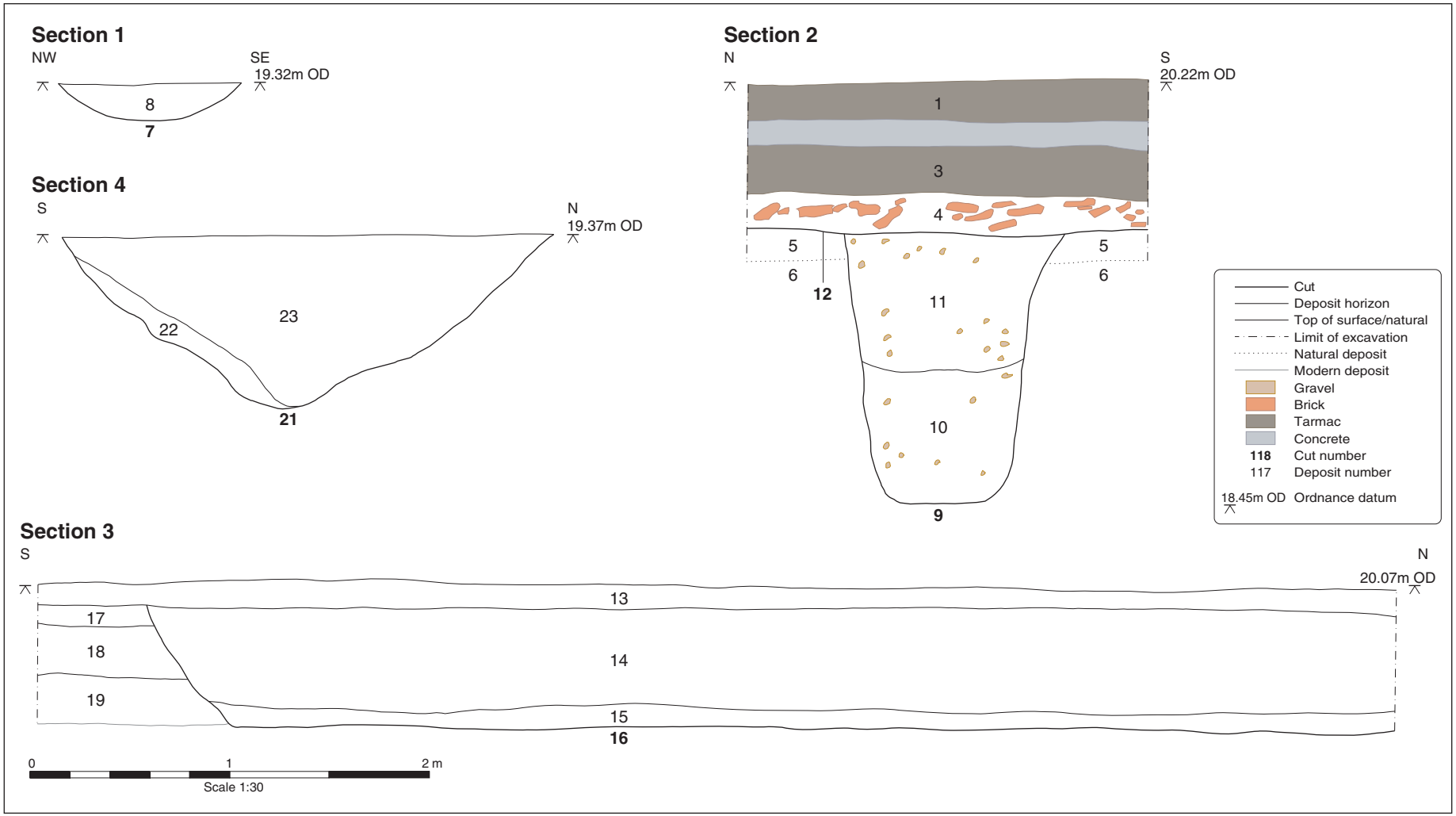

Figure 3: Sections

Plate 1: Trench 1, looking south

Plate 2: Trench 2, looking south

Plate 3: Ditch **21**, looking west

Plate 4: Working shot of Trench 1

Plate 5: Working shot of Trench 2, with Ely Cathedral in background

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