Neolithic Activity at Land West of Peterhouse Technology Park, Cherry Hinton, Cambridge

Archaeological Evaluation Report

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Neolithic Activity at Land West of Peterhouse Technology Park, Cherry Hinton, Cambridge

Archaeological Evaluation

By Nick Gilmour MA AIfA

With contributions by Barry Bishop MA, Chris Faine MA Msc, Rachel Fosberry AIfA and Sarah Percival MA MIfA

Editor: Rachel Clarke BA MIfA

Illustrator: Dave Brown BA

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Prepared by:	Nick Gilmour
Position:	Project Officer
Date:	July 2014
Checked by:	James Drummond-Murray
Position:	Project manager
Date:	July 2014
Signed:	.....

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Oxford Archaeology East,
15 Trafalgar Way,
Bar Hill,
Cambridge,
CB23 8SQ

t: 01223 850500
f: 01223 850599
e: oaeast@thehumanjourney.net
w: http://thehumanjourney.net/oaeast

Table of Contents

List of Figures

Summary

Between 23rd and 25th June 2014, Oxford Archaeology East carried out an archaeological evaluation on land west of Peterhouse Technology Park, Cherry Hinton, Cambridge. The evaluation revealed an Early Neolithic pit containing pottery, flint and animal bone. An environmental sample from this pit produced burnt food remains together with other domestic and culinary waste. The discovery of this pit adds to a growing corpus of Early Neolithic pit sites in East Anglia, of which few have so far been identified on the Cambridgeshire chalklands. A second nearby pit was not excavated but may be of similar date. Three further features, all possibly of natural origin, were also recorded; two of these contained material of Early Neolithic date.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 An archaeological evaluation was conducted by Oxford Archaeology East (OA East) on land west of Peterhouse Technology Park, Cherry Hinton, Cambridge (TL48832 55949; Fig. 1). The evaluation, commissioned by CgMs, was a requirement in support of a proposed extension to the Peterhouse Technology Park.

1.1.2 This archaeological evaluation was undertaken in accordance with a Brief issued by Andy Thomas of Cambridgeshire County Council (CCC), supplemented by a Specification prepared by Rob Bourn of CgMs.

1.1.3 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.

1.1.4 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 British Geological Survey (2002, Sheet 205) indicates that the solid geology of the site comprises Zig-Zag Chalk Formation.

1.2.2 The site lies on a north-facing slope, dropping from 30m OD at the south to 22m OD at the north. Peterhouse Technology Park lies to the east, residential properties to the north, arable fields to the south and a nature reserve to the west; the latter within a former chalk quarry.

1.3 Archaeological and historical background

1.3.1 A full archaeological background has already been produced within a desk based assessment of the site (Bourn 2012). The background below is taken from the specification (Bourn 2014).

Prehistoric

1.3.2 A single prehistoric flint flake and a transverse arrowhead, a round scraper and number of flints of Early Neolithic/Bronze Age date have been recorded immediately to the south east of Peterhouse Technology Park (ECB 04452).

1.3.3 The cropmarks of three ring-ditches had been identified on the site of Peterhouse Technology Park (ECB0880). The site was subsequently evaluated and excavated ahead of the construction of the Technology Park, revealing that the ring-ditches were all approximately the same size but that none had any evidence of use for burial. Artefacts recovered include Early to Late Neolithic flint artefacts, possibly residual and Middle to Late Bronze Age pottery. The cropmark of a further ring-ditch has been recorded immediately to the south of Peterhouse Technology Park.

1.3.4 Two Bronze Age barrows were formerly located immediately to the west of the study site in the area of the War Ditches but have been destroyed by chalk quarrying (ECB 04964 & 04965).

1.3.5 Two Bronze Age flint scrapers have been recorded to the south-east of the site.

1.3.6 The War Ditches were a circular earthwork/hill fort of Iron Age date, now destroyed by chalk quarrying, to the south-west of the site (ECB 04963).

Roman

1.3.7 A Roman settlement comprising post-built structures, a number of wells, kilns, pits, inhumation burials, agricultural features and pottery, has been excavated within the War Ditches Iron Age hillfort immediately to the west of the study site (ECB 04963a & 05216).

1.3.8 An unspecified number of Roman coins have been recorded as having been found on the south-eastern corner of the Peterhouse Technology Park (ECB 04841). A sherd of pottery was recovered during the evaluation of the Technology Park itself (ECB 08880a).

Saxon

1.3.9 A Saxon cemetery comprising of 17 inhumation burials with 6th/7th century grave goods has been excavated at War Ditches (ECB 04965a).

Medieval

1.3.10 Medieval pottery sherds were recorded during the evaluation of the Peterhouse Technology Park at the northern end of the site (08880b). Pottery sherds of this date have also been recorded in the south-western corner of the study site.

1.4 Acknowledgements

1.4.1 The author would like to thank CgMs, who commissioned the work. Additional thanks go to Matt Brooks who assisted the author with the fieldwork, which was managed by James Drummond-Murray. The evaluation was monitored by Andy Thomas on behalf of Cambridgeshire County Council. Thanks are also due to Dave Brown who carried out the site survey and produced the illustrations for this report, which was edited by Rachel Clarke; and to the various specialist contributors. The mechanical excavator was supplied by Anthill Plant Ltd.

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.

2.1.2 In the event that archaeological remains are present, the evaluation will provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.

2.2 Methodology

2.2.1 The Brief required that ten linear trenches, totalling 300m in length, were excavated.

2.2.2 Machine excavation was carried out under constant archaeological supervision with a tracked 20 tonne, 360^0 excavator using a toothless ditching bucket.

2.2.3 The site survey was carried out using a Leica GS08Plus dGPS utilising SmartNet live correctional data.

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 All of the soil from a Neolithic pit (**8**) was retained as a bulk sample for the recovery of artefacts and environmental remains.

2.2.7 Site conditions were generally good, with cloudy dry weather, although there was a heavy rain shower.

3 Results

3.1 Introduction

3.1.1 Details of each trench are given in Appendix A with written descriptions below, by trench. Finds and environmental reports are included as Appendices B and C. Only two of the ten trenches (7 and 8) produced archaeological remains.

3.2 Trenches 1, 3, 4, 5 and 6 (Fig. 2)

3.2.1 No archaeological features were present in any of these trenches. However, it is of interest that the depth of subsoil varied greatly. At the southern end of Trench 1 (at the eastern end of the proposed development) the subsoil was 0.95m thick, while it was only 0.40m thick at the northern end. Similarly, at the eastern end of Trench 2, the soil was significantly thicker (0.85m) than at the western end (0.35m). These deeper/thicker soil deposits were very homogeneous and appear to represent colluvium filling natural depressions.

3.3 Trench 7 (Figs 2 and 3)

3.3.1 Trench 7, located in the south-west corner of the proposed development area, was orientated north to south. Two natural features (**3** and **5**), probably formed by tree roots, were excavated toward the northern end of this trench.

3.3.2 Feature **3** was sub-circular in plan, with an irregular profile. It had a diameter of 2.30m and was 0.18m deep. A single mid greyish brown, silty clay deposit (4) filled this feature which produced a small quantity of animal bone, none of which is identifiable.

3.3.3 Feature **5**, located to the immediate north, was also sub-circular in plan, with an irregular profile. It was slightly smaller, but deeper than feature **3**, with a diameter of 1.66m and a depth of 0.21m. The single fill of this feature (6) was a dark greyish brown, silty clay. Three struck flint flakes were recovered from this fill, along with a small quantity of animal (cattle) bone comprising portions of two humerii and a single scapula fragment.

3.4 Trench 8 (Figs 2 and 3)

3.4.1 A single pit (**8**) and a possible tree throw (**10**) were excavated within the eastern half of this trench, which was orientated east to west to the north of Trench 7.

3.4.2 Pit **8** was circular in plan, with a bowl-shaped profile. It had a diameter of 0.98m and was 0.26m deep. A single deposit (7) filled this pit: a dark brownish grey, silty loam. Finds from this pit comprised four sherds (17g) of Neolithic pottery, 58 struck flints, of probable earlier Neolithic date and including knapping waste (App. B1), and a small quantity of animal bone (cattle and pig). A bulk sample (sample 1) taken from this pit produced charred grains of wheat, barley and a spikelet fork of emmer wheat along with charred hazelnut shell fragments (App. C2). It should be noted that this pit was only half sectioned and had been truncated by ploughing and so clearly the original assemblage within it would have been considerably larger.

3.4.3 A second pit (unnumbered) was partly visible against the edge of the trench, just to the north-west of pit **8**, this was not excavated.

3.4.4 Immediately to the east of pit **8**, lay another feature (**10**) that was only partly-exposed within the trench. This possible tree-throw, which may have been crescent-shaped in plan, had steeply sloping sides and a concave base. Where excavated it was 1.18m wide and 0.42m deep. A single deposit (9) filled this feature, comprising a mid greyish brown silty loam. This contained six stuck flints of probable Early Neolithic date, six

sherds of pottery (17g) and a small quantity of animal bone comprising a heavily fragmented adult cattle mandible and a portion of red deer antler tine. The pottery sherds, some of which are decorated, have been provisionally identified as earlier Neolithic Mildenhall Ware (App. B2).

3.4.5 Trenches 9 and 10 (Fig, 2)

3.4.6 No archaeological features were present in either of these trenches.

3.5 Finds Summary

Flint (App. B1)

3.5.1 A total of 74 pieces of struck flint was recovered from three features: two tree-throw hollows and a pit, as well as from unstratified contexts. The assemblage is broadly technologically homogeneous and the material from the three features at least is likely to be broadly contemporary. Whilst there are no truly diagnostic pieces the presence of blades, which contributed just under a fifth of the assemblage but of which few could be described as systematically produced, would indicate a date within the Early Neolithic, possibly towards the middle of the 4th millennium BC.

Prehistoric pottery (App. B2)

3.5.2 A small assemblage of ten sherds weighing 34g was collected from two features (pit **8** and feature **10**) in Trench 8. Four sherds from pit **8** (context 7) have been provisionally identified as being LNEBA Grooved Ware, although given the small sherd size they could equally be earlier Neolithic, while the sherds from feature **10** are earlier Neolithic Mildenhall Ware.

3.6 Environmental Summary

Animal bone (App. C1)

3.6.1 A total weight of 0.344kg (24 fragments) of animal bone was recovered from four features (pit **8** and features **3**, **5** and **10**), of which nine fragments are identifiable. The latter are largely cattle bones, although some pig bones and a portion of red deer antler tine are also present.

Environmental samples (App. C2)

3.6.2 The recovery of charred plant remains from Early Neolithic pit **8** indicates that the feature was used for the disposal of burnt food together with other domestic and culinary waste.

4 Discussion and Conclusions

4.1 Neolithic pit

4.1.1 Pit **8** in Trench 8 is part of a growing corpus of Early Neolithic pits in East Anglia. Perhaps the best known locations of these are Hurst Fen, Norfolk (Clark *et al.* 1960) and Kilverstone, Norfolk (Garrow *et al.* 2005). More locally at Dimmock's Cote quarry, Wicken (Gilmour 2014) a number of similar pits were found. However, currently there are remarkably few Early Neolithic pit sites identified on the Cambridgeshire chalklands.

4.1.2 Interpretation of these pits has been the subject of much recent debate (*e.g.* Garrow 2006), with the current consensus suggesting that the pits were dug in order to deposit material within them, which perhaps originated from a midden. The mixed artefactual and environmental assemblage from pit **8** certainly seems to fit this pattern, as it includes burnt food remains together with other domestic and culinary waste, alongside pottery sherds and animal bone (cattle and pig). These types of pit are most commonly found in groups (such as at Kilverstone and Wicken), but are occasionally found as isolated examples (*e.g*. Clay farm, Trumpington; Tom Phillips pers. comm.).

4.1.3 The recovery of further material of earlier Neolithic date within naturally formed features on the site is also of some interest. This material may have been deliberately deposited into natural features, but the lower find densities within them might suggest incidental inclusion, perhaps as a result of natural processes.

4.2 Soils

4.2.1 The presence of thicker subsoils in some of the trenches suggests that some areas of the site have become infilled since the area has been ploughed. This is of interest as the original topography may have affected how the area was used in the past. Although the area is currently gently sloping, it is clear that the topography of this site was more complex in the past, with pit **8** located on what was probably a slight rise.

4.3 Significance

4.3.1 This evaluation has shown that earlier Neolithic activity took place on the eastern part of the site, represented by material of this date that had been deposited in a pit and had also became included within the fills of naturally formed features.

4.4 Recommendations

4.4.1 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
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	1.43
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.48	Topsoil	-	-
2	Layer	-	0.95	Subsoil	-	-

Trench 2						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	1.35
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.50	Topsoil	-	-
2	Layer	-	0.85	Subsoil	-	-

Trench 3						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	0.58
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.45	Topsoil	-	-
2	Layer	-	0.18	Subsoil	-	-

Trench 3						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	0.58
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.45	Topsoil	-	-
2	Layer	-	0.18	Subsoil	-	-

Trench 4						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	0.60
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.25	Topsoil	-	-
2	Layer	-	0.36	Subsoil	-	-

Trench 5						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	0.88
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.48	Topsoil	-	-
2	Layer	-	0.40	Subsoil	-	-

Trench 6						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	1.0
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.50	Topsoil	-	-
2	Layer	-	0.50	Subsoil	-	-

Trench 7						
General description					**Orientation**	N-S
Two tree throw were identified in this trench, both sealed by subsoil and topsoil.					**Max. depth (m)**	0.64
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.46	Topsoil	-	-
2	Layer	-	0.20	Subsoil	-	-
3	Cut	2.30	0.18	Tree throw	-	
4	Fill	2.30	0.18	Fill of tree throw 3	Bone	-
5	Cut	1.66	0.21	Tree throw	-	-
6	Fill	1.66	0.21	Fill of tree throw 5	Flint, bone	Neolithic

Trench 8						
General description					**Orientation**	E-W
A pit and a tree throw were identified in this trench, both sealed by subsoil and topsoil.					**Max. depth (m)**	0.70
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
1	Layer	-	0.42	Topsoil	-	-
2	Layer	-	0.28	Subsoil	-	-
7	Fill	0.98	0.26	Fill of pit 8	Pot, bone, flint	Early Neolithic
8	Cut	0.98	0.26	Pit	-	Early Neolithic
9	Fill	1.18	0.42	Fill of tree throw 10	Pot, bone, flint	Neolithic
10	Cut	1.18	0.42	Tree throw	-	Neolithic

Trench 9						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	0.70
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
100	Layer	-	0.40	Topsoil	-	-
101	Layer	-	0.30	Subsoil	-	-

Trench 10						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of chalk					**Max. depth (m)**	0.70
					Width (m)	2.00
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
100	Layer	-	0.45	Topsoil	-	-
101	Layer	-	0.25	Subsoil	-	-

APPENDIX B. FINDS REPORTS

B.1 Lithics

By Barry Bishop

Introduction

B.1.2 The archaeological evaluation led to the recovery of 74 pieces of struck flint. They were recovered from three features, two tree-throw hollows and a pit, as well as from unstratified contexts. This report will briefly describe the material, assess its significance and recommend any further work required for the material to achieve its full research potential.

Quantification

Context	Feature	Primary / Decortication Flake	Core Rejuvenation Flake	Flake	Flake Fragment	Prismatic Blade	Non-prismatic Blade	Conchoidal Chunk	Micro-debitage (flakes, fragments and shatter <15mm)	Utilized and Edge-trimmed Flakes	Utilized and Edge-trimmed Blades	Scraper	Serrated Blade
1	Topsoil			4			1	1				1	
6	Tree-throw [5]	1		2									
7	Fill pit [8]	4	3	19	10	2	6		8	4	1		1
9	Tree-throw [10]	1		3	1							1	

Table 1: Quantification of the Lithic material

Description

B.1.2 The assemblage is broadly technologically homogeneous and the material from the three features at least is likely to be broadly contemporary. Whilst there are no truly diagnostic pieces the presence of blades, which contributed just under a fifth of the assemblage but of which few could be described as systematically produced, would indicate a date within the Early Neolithic, possibly towards the middle of the 4th millennium BC. It includes pieces from all of the reduction sequence, from the preparation of raw materials for use as cores to the production of retouched tools, although there are no actual cores present. Nevertheless, many of the flakes show dorsal scars indicating that they were struck from small multi-platformed blade or narrow flakes cores.

B.1.3 The assemblage from pit **8** contains many pieces of micro-debitage and other small and fragmented flakes, suggesting that knapping was conducted either close to the pit or its debris was carefully collected for deposition. Although dominated by knapping debris there are also high proportions of retouched or evidently utilized pieces, these accounting for over 10% of the assemblage from pit **8**.

B.1.4 The condition of the assemblage does vary; whilst the material from the topsoil is mostly chipped and abraded, those pieces from the features are generally in a good and often even sharp condition, supporting the notion that the assemblage from the features is broadly *in-situ,* although they are heavily recorticated resulting in their thinner edges becoming very friable

Significance and Recommendations

B.1.5 The assemblage, particularly that from pit **8**, is comparable to those recovered from a series of pits at Wicken Fen and from an isolated pit at Clay Farm, which were all associated with Mildenhall Ware pottery. Although a noted feature of the wider East Anglian Early Neolithic, few 'pit sites' have been recorded along the Cambridgeshire chalklands, and the findings at this site therefore represent a valuable addition to the corpus from the region. More specifically, the flintwork can contribute to further understandings of settlement and depositional practices, modes of raw material acquisition and specific flintworking traditions, all of which could be potentially greatly enhanced through additional fieldwork.

B.1.6 Should further fieldwork at the site be considered, this assemblage should be re-analysed and documented in conjunction with any new material following the completion of the archaeological programmes. From the point of view of the lithic material, any further fieldwork should focus on obtaining as large and closely contextually defined lithic assemblage as possible, in order to attempt to understand the nature, extent and chronology of any prehistoric lithic-based activities. Should sufficient quantities of lithic artefacts be procured from any future work, full metrical, typological and technological analysis may be warranted.

B.2 Prehistoric Pottery

By Sarah Percival

B.2.2 A small assemblage of ten sherds weighing 34g was collected from two features (pit **8** and feature **10**) in Trench 8. Context 7 (pit **8**) produced four sherds weighing 17g which included a possible base sherd and a fine rim with slashed decoration to the rim top. All sherds are made of shell-tempered fabrics. These sherds have been provisionally identified as being Late Neolithic/Early Bronze Age (LNEBA) Grooved Ware, although given the small sherd size and associated earlier Neolithic flintworking they could equally be contemporary with the pottery from feature **10**.

B.2.3 Context 9 in feature **10** contained six sherds, 17g, including a sparsely shell-tempered body sherd with incised linear bands and a folded rim with flattened rim top decorated with incised slashed in fine silty fabric. A possible base sherd, two highly abraded body sherds in shelly fabric and a scrap of orange sandy fabric were also found in context 9. The sherds have been tentatively identified as being earlier Neolithic Mildenhall Ware.

context	fabric	dsc	qty	wt (g)	type	form	spotdate	comment	abraded
7	S1	B	1	5	GW?		EN or LNEBA		V
7	S1	U	2	9			EN or LNEBA		Y
7	S2	R	1	3	GW?	cup	EN or LNEBA	slashed on rim top, fine	
9	S2	D	1	8	?		NCD	incised decoration	
9	Q1	R	1	3	Mildenhall		EN	folded flattened rim flat top slashed decoration	
9	S1	B?	1	3	?		NCD		Y
9	S2	U	2	2	NCD		NCD		V
9	Q2	U	1	1	NCD		could be modern	Orange sandy	Y
Total			10	34					

Table 2: Prehistoric pottery

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Animal Bone

By Chris Faine

C.1.2 A total weight of 0.344kg (24 fragments) of animal bone was recovered from four features, of which nine fragments are identifiable. Context 4 (fill of tree throw **3**) contained no identifiable elements. Context 6 (feature **5**) contained portions of two cattle humerii and a single scapula fragment. Cattle material was also recovered from context 7 in pit **8** in the form of a partial adult mandible along with a partial pig mandible and tibia. Context 9 in feature **10** contained a heavily fragmented adult cattle mandible a portion of red deer antler tine.

C.2 Environmental Samples

By Rachel Fosberry

Introduction

C.2.2 A single bulk sample was taken from an Early Neolithic pit during the evaluation of Peterhouse Technology Park, Cherry Hinton, Cambridge in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Seven buckets (approximately seventy litres) of soil were taken from fill 7 of pit **8**.

Methodology

C.2.2 Two buckets (18 litres) of the 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 residue 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 3. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* and the authors' own reference collection. Nomenclature is according to Stace (1997). 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.2.2 For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50, ### = 51+ specimens #### = 100+ specimens

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

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

Sample No.	Context No.	Cut No.	Feature Type	Sample Size (L)	Flot Volume (ml)	Cereals	Chaff	Hazel nut shells	Charcoal <2mm	Charcoal > 2mm	Large animal bones	Pot
1	7	8	Pit	18	30	#	#	#	+	+	+++	##

Table 3: Environmental sample

Results

C.2.2 Preservation of plant remains is by carbonization. Charred grains of wheat (*Triticum sp.*), barley (*Hordeum vulgare*) and a spikelet fork of emmer wheat (*T. dicoccum*) are present as single specimens and charred hazelnut (*Corylus avellana*) shell fragments were recovered from both the flot and the sample residue. The residue also contains pottery fragments and a substantial amount of degraded animal bone and teeth.

Discussion

C.2.3 The recovery of charred plant remains from the processed fraction of the sample from pit **8** indicates that the pit was used for the disposal of burnt food together with other domestic and culinary waste. Emmer wheat is a prehistoric hulled wheat variety that was cultivated in this region from the Neolithic period through to the early Roman period. It can only be accurately identified by the chaff components which have to be removed from the grain by parching and pounding so it is fortuitous that a spikelet fork has survived.

C.2.4 Hazelnut shell fragments are commonly recovered from prehistoric pits and can be considered to be the remains of a collected wild food resource. Their outer shells are fairly resistant to burning and survive well in archaeological contexts.

C.2.5 If further excavation is to take place at this site, a detailed schedule of sampling for environmental remains should be included.

Appendix D. Bibliography

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APPENDIX E. OASIS REPORT FORM

Project Details

OASIS Number	oxfordar3-182943		
Project Name	Neolithic Activity at Peterhouse Technology Park, Cherry Hinton, Cambridge		
Project Dates (fieldwork) Start	23-06-2014	Finish	25-06-2014
Previous Work (by OA East)	No	Future Work	Unknown

Project Reference Codes

Site Code	CAMPET14	Planning App. No.	
HER No.	ECB4215	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt	Direction from Local Planning Authority - PPS 5
Development Type	Rural Commercial

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
pit	Neolithic -4k to -2k	pottery	Neolithic -4k to -2k
tree throw	Neolithic -4k to -2k	flint	Neolithic -4k to -2k
	Select period...	bone	Select period...

Project Location

County	cambridgeshire	Site Address (including postcode if possible)	
District	Cambridge city	Peterhouse technology park Cambridge Road Cambridge CB1 9PT	
Parish	Cambridge		
HER	cambridgeshire		
Study Area	1.7ha	National Grid Reference	TL48832 55949

Project Originators

Organisation	OA EAST
Project Brief Originator	Andy Thomas
Project Design Originator	James Drummond-Murray
Project Manager	James Drummond-Murray
Supervisor	Nick Gilmour

Project Archives

Physical Archive	Digital Archive	Paper Archive
CCC stores	OA East office Bar Hill	CCC Stores
CAMPET14	CAMPET14	CAMPET14

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:

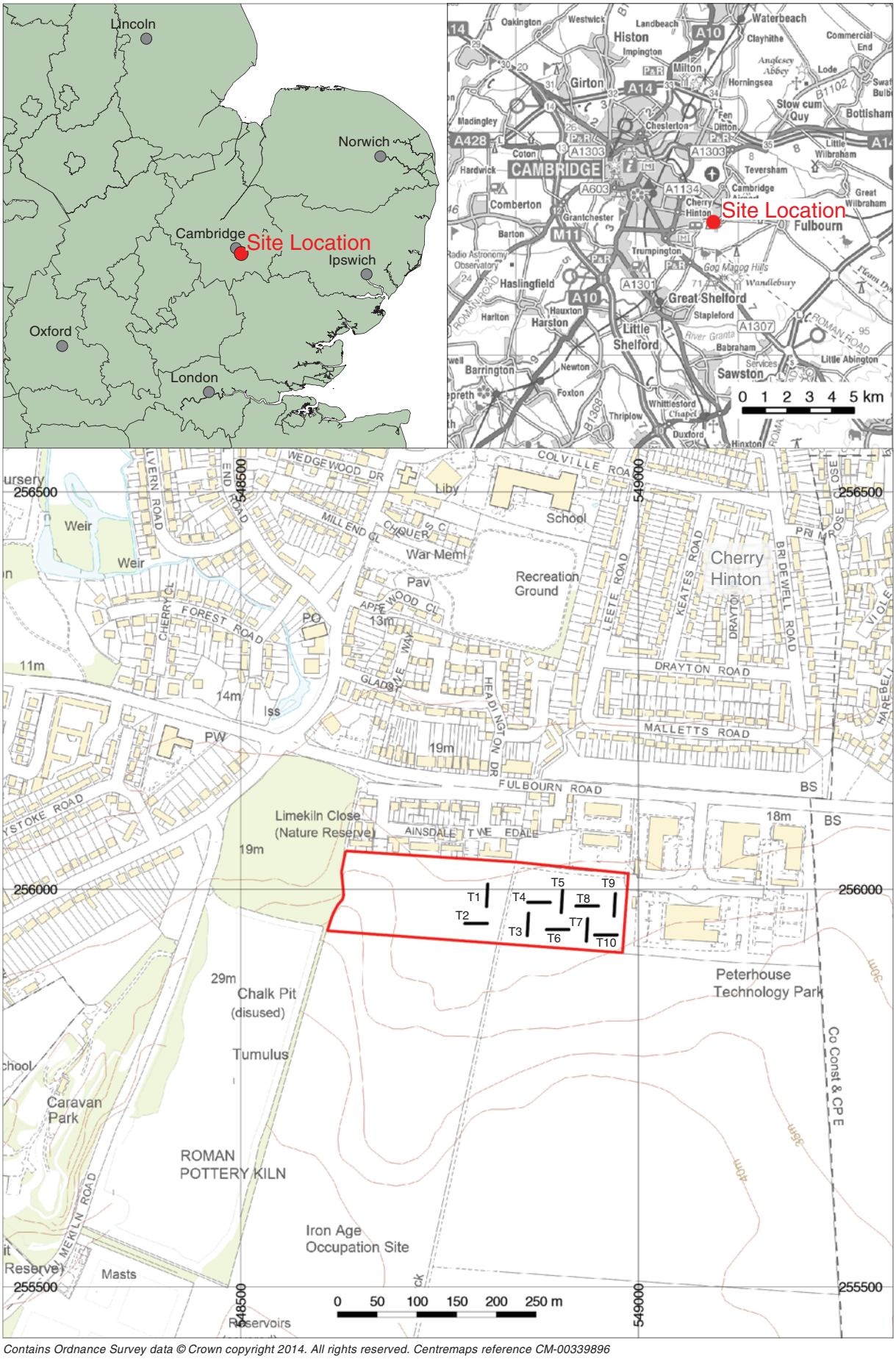


Figure 1: Site location showing archaeological trenches (black) in proposed development area (red)

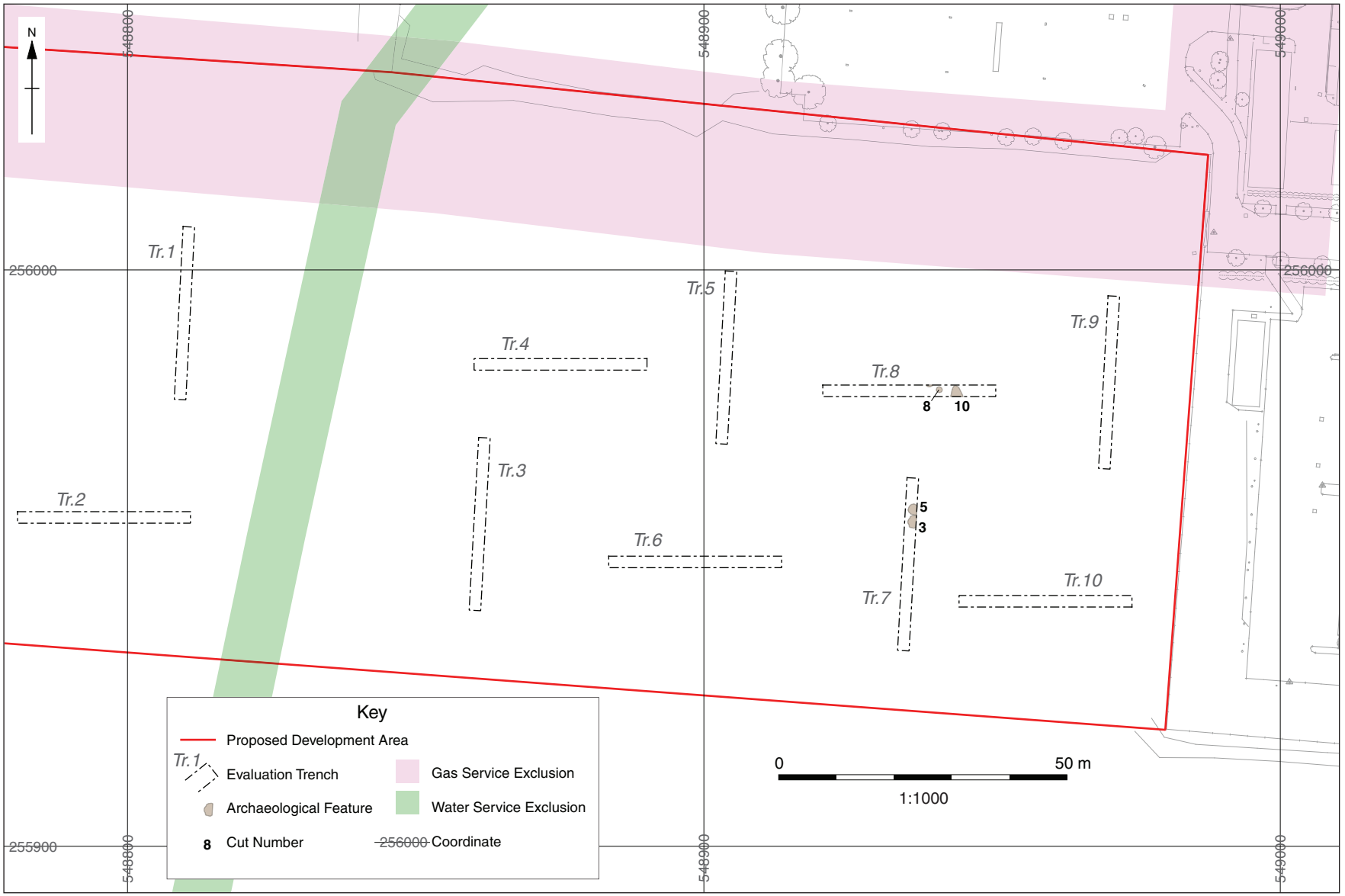
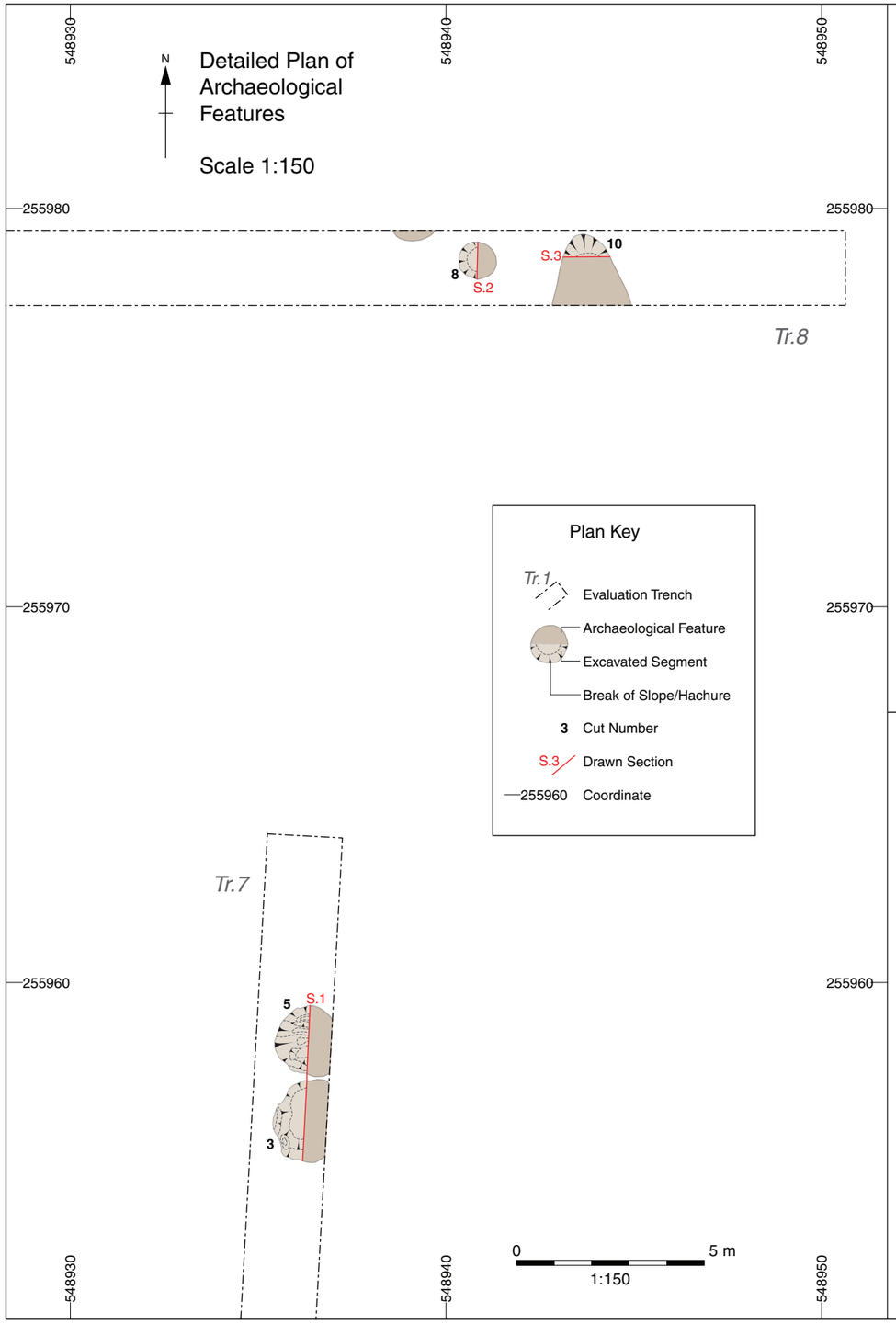


Figure 2: Trench plan



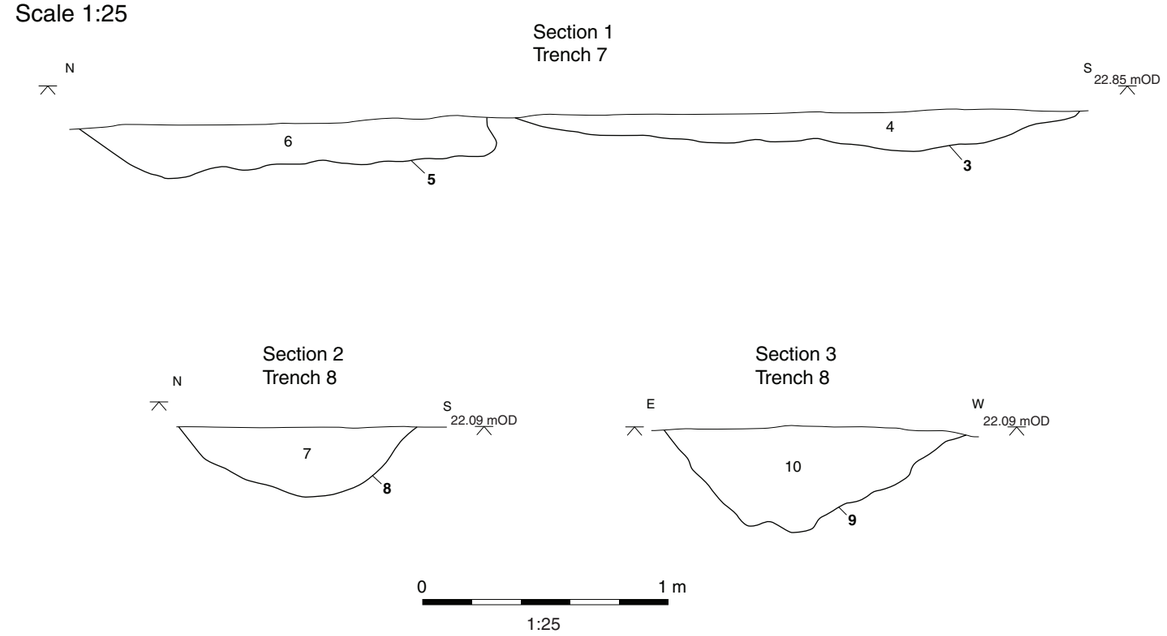


Plate 1:
Pit **8** from the west

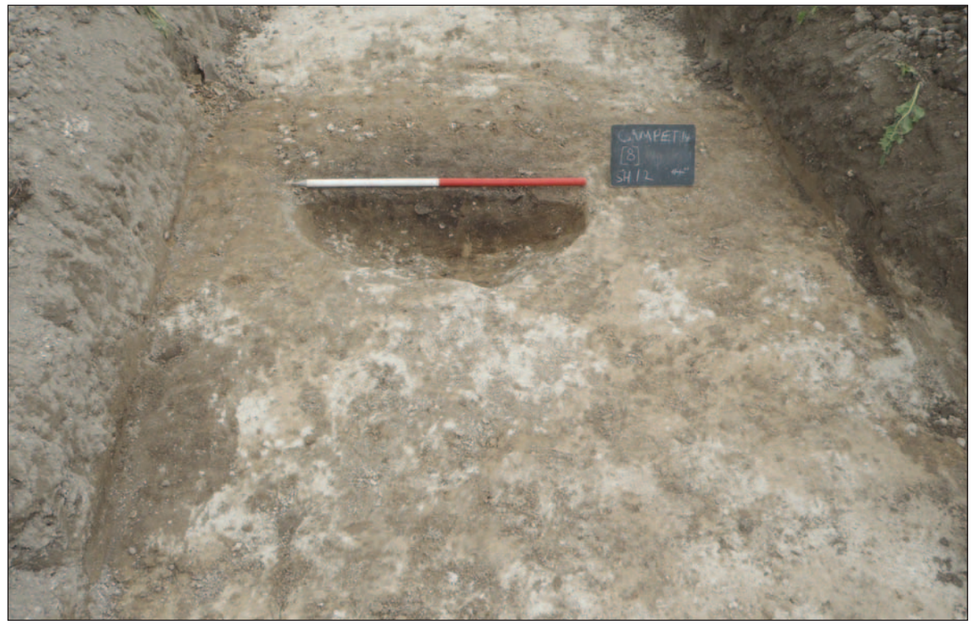


Figure 3: Detailed plan of archaeological features, drawn sections and Plate 1

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1GF

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com