



CAM ARC Report Number 997

St Andrews School, Cambridge, Cambridgeshire

An Archaeological Evaluation

Tom Phillips

April 2008

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**St Andrews School, Cambridge,
Cambridgeshire**

An Archaeological Evaluation

Tom Phillips BA

With contributions by Rachel Fosberry HNC (Cert
Ed) AEA

Site Code: CAM SAS 07

CHER Event Number: ECB 2797

Date of works: 17th-18th December 2007 and 11th
February 2008

Grid Ref: TL 4704 6069

Status	Approved		
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PROJECT DETAILS				
Project name	Evaluation at St Andrews School, Cambridge			
Short description	Four trenches, each approximately 10m in length were excavated on a playground and sports court. Deposits of very loose sand, running to 1.4m below ground level, were encountered. These either represent the backfill of post-medieval quarries or some sort of palaeochannel deposit. The only significant artefacts was a very small assemblage of Roman pottery.			
Project dates	Start	17/12/07	End	11/02/08
Previous work	none		Future work	no
Associated project reference codes	Site code: CAMSAS 07, HER no: ECB 2797			
Type of project	evaluation			
Site status	None			
Current land use (list all that apply)	School playground and sports court			
Planned development	New school building			
Monument types / period (list all that apply)	Post-medieval quarry pits			
Significant finds: Artefact type / period (list all that apply)	Iron Age pottery			
PROJECT LOCATION				
County	Cambridgeshire	Parish	Cambridge	
HER for region	e.g. Cambridgeshire, Peterborough, Bedfordshire			
Site address (including postcode)	St Andrews School, Nuffield Road, Cambridge, CB4 1TF			
Study area (sq.m or ha)	900 sq. m			
National grid reference	TL 4704 6069			
Height OD	Min OD	6.98	Max OD	7.13
PROJECT ORIGINATORS				
Organisation	CAM ARC			
Project brief originator	Andy Thomas- Development control			
Project design originator	James Drummond-Murray			
Director/supervisor	Tom Phillips			
Project manager	James Drummond-Murray			
Sponsor or funding body	Mouchel Parkman on behalf of Cambridgeshire County Council			
ARCHIVES				
	Location and accession number		Content (e.g. pottery, animal bone, database, context sheets etc)	
Physical	Cambridgeshire County Store		Pottery	
Paper	Cambridgeshire County Store		Site records, plans, photos, background info, report	
Digital	CAM ARC		Digital photos	
BIBLIOGRAPHY				
Full title	St Andrew's School, Cambridge: An Archaeological Evaluation			
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Summary

Between 17th and 18th December 2007 and on 11th February 2008 CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit) carried out an evaluation at St Andrews School, Cambridge in advance of the construction of a new school building. Trenches 1-3, each 10m long, were excavated in December on the school all-weather sports court. Trench 4, approximately 12m long, was excavated in February on the school playground.

All trenches contained deposits of very loose sand, up to 0.7m thick. All features cutting the loose sand were modern with the exception of pit **33**, which contained three sherds of Roman pottery. There are two possible interpretations for what the loose sand could be. Firstly the loose sand may represent the unwanted material or backfill within large post-medieval quarry pits and pit **33** may be of a later date, the pottery being residual. The second interpretation is that the sand is a water lain deposit, part of a palaeochannel or an area prone to flooding. Regardless of which interpretation is correct, there was little evidence for archaeological evidence on this site.

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1 Introduction

This archaeological evaluation was undertaken in accordance with a Brief issued by Andy Thomas of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA), supplemented by a Specification prepared by CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit).

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 *Planning and Policy Guidance 16 - Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by CAPCA, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

The site archive is currently held by CAM ARC and will be deposited with the appropriate county stores in due course.

2 Geology and Topography

The site overlies 2nd terrace river gravels according to the British Geological Survey (1981). However, in reality the geology was a little more complicated. Although river gravels were present at approximately 5.8m OD, in all the trenches this was overlain by up to 0.98m of fine sand, believed to be water lain deposits, possibly part of a palaeochannel (see discussion).

The site was relatively flat, sloping very slightly downhill from 7.13m OD in the south-east to 6.98m OD in the north-west.

3 Archaeological and Historical Background

The site lies on the eastern fringes of Cambridge (Fig. 1) in an area where there have been various finds from the prehistoric period onwards.

Palaeolithic hand axes were found at the Milton Road Pits, approximately 350m to the north-west (Cambridgeshire Historic Environment Record 05224 – Salzman 1938).

A Bronze Age Hoard which included socketed axes, spearheads and a fragmented sword as well as Iron Age pits were found at Browns gravel pits in the 1920s, 350m to the west of the site (HER 05452 and 05452a).

A Roman coin (HER 05541) and prehistoric pottery were found on Green End Road 200m to the west of the site (HER 05218 - Salzman 1938).

Saxon inhumations were found 0.5km to the east of the site at Swans gravel pit (HER 05540 – Fox 1923; 244).

An evaluation by Wessex Archaeology in 1999 on the site of Cambridge Business Park, approximately 0.5km to the north, revealed medieval ridge and furrow and post-medieval features (MCB15918).

A Museum of London evaluation at Nuffield Road allotments, 250m to the north-east uncovered a prehistoric/Roman pit and later/undated ditches (MCB 15907 – Mackinder 1999).

An evaluation by Archaeological Solutions at Fallowfield, 400m to the south of the site revealed extensive post-medieval gravel quarrying (MCB 16498 – Grassam & Williams 2005).

Thus the site had the potential for archaeological remains for all periods, though activity generally seems to be at a low level.

4 Methodology

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.

The Brief required that 5% of the development area be sampled. However, given that the work was carried out in two stages and the first stage (trenches 1-3) revealed a lack of archaeology, it was decided one further trench across the playground would suffice.

Machine excavation was carried out under constant archaeological supervision with a wheeled JCB-type excavator using a 1.8m toothless ditching bucket.

All archaeological features and deposits were recorded using CAM ARC'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.

Two environmental samples were collected.

Site conditions were favourable during both stages of work. The water table was encountered in trench 4, at approximately 5.70m OD, 1.4m below modern ground level.

5 Results

Each trench is described below in turn. All archaeological features and deposits in trenches 1-4 were sealed by layer 2, a make-up layer of medium sized stones measuring up to 0.16m thick, and layer 1, a tarmac surface, measuring 0.06m thick on the sports court and 0.13m thick on the playground. Full context descriptions can be found in appendix 1.

5.1 Trench 1

Trench 1 was 10m long, orientated north-east to south-west, with a trench depth of 1.26m. Layers 26-24 were thin brown silty lenses sealing the natural, layer 25 being the thickest at 0.14m. At the north-eastern end of the trench the natural was sealed by layer 12, an orangey yellow sandy silt measuring 0.13m thick, and in turn by layer 11, a mid brownish grey silty clay measuring 0.09m thick (Fig. 3, section 1; Plate 1). Layers 24 and 11 were both sealed by layer 10 (equivalent to layer 41 in trench 2), a yellowish brown sand of very loose compaction, measuring 0.58m thick. Sealing this was layer 9 (equivalent to layer 40 in trenches 2-4), a light yellowish grey silty sand, again of very loose compaction, measuring 0.46m thick. It was sealed in turn by layer 27, a mid brown silty sand measuring 0.14m thick.

There is evidence of slumping at the north-east end of the trench. Layers 10, 11 and 12 have slumped, giving the impression of a cut feature. In actual fact layer 14 equates to layer 10, layer 15 is clearly equal to layer 11 and layer 16 equates to layer 12.

This slumping may have been caused by the cutting of pit 8, a steep sided feature only partially exposed at the north-east end of the trench, measuring 2m wide and 0.98m deep. It contained four fills, the lowest of which (7) contained a number of smashed Victorian bottles.

Sealing the upper fill (4) of pit 8 was subsoil 3, a dark greyish brown silty clay measuring 0.12m thick.

5.2 Trench 2

Trench 2 was 10m long, orientated north-west to south-east, with a trench depth of 1.34m. The natural gravel was sealed by layer 41 (equivalent to layer 10 in trench 1), a yellowish grey sand of very loose compaction, measuring 0.33m thick (Fig. 3, section 6). It was sealed by layer 40 (equivalent to layer 9 in trench 1), a yellow fine sand, again of very loose compaction, measuring 0.42m thick.

Truncating layer 40 was small pit **22**. It was sub-circular in plan with gently sloping sides and a concave base, measuring 0.75m wide and 0.15m deep. Its single fill (21) was a mid brown clayey sand.

Layer 20, towards the north-west end of the trench, was a greyish brown sandy clay containing rare pieces of coke and measuring 0.37m thick (Fig. 3, section 3; Plate 2). It was sealed by layer 19, an orangey yellow sand with a similar appearance to 40, measuring 0.37m thick. Sealing layer 19 was layer 18, a very compact greyish blue clay measuring 0.24m thick.

Stratigraphically later than both layers 18 and 40 was subsoil layer 17, a mid brown sandy clay containing occasional charcoal flecks and rare brick, measuring 0.32m thick. Sealing this was topsoil layer 23, a blackish brown sandy clay measuring 0.16m thick.

5.3 Trench 3

Trench 3 was 10m long, orientated north-east to south-west, with a trench depth of 0.46m. It was machine excavated to the upper horizon of layer 40, the fine yellow sand present in trench 2. Truncating layer 40 was pit **33** and possible post holes **29** and **31**.

Pit **33** was located at the north-eastern end of the trench, partially obscured under the baulk. It was irregular in plan with gently sloping sides and a concave base, measuring 1.1m wide and 0.18m deep. Its single fill (32) was a mid greyish brown clayey sand containing three sherds of Roman pottery.

Possible post hole **29** was located 0.5m to the north-west of pit **33**. It was circular in plan with irregular sides and an irregular base, measuring 0.3m wide and 0.08m deep. It contained a single fill (28), a mid greyish brown sandy clay.

Possible post hole **31** was located 0.5m to the north-west of possible post hole **29**. It was sub-circular in plan with gently sloping sides and a concave base, measuring 0.37m wide and 0.08m deep. Its single fill (30) was a mid greyish brown sandy clay.

Sealing **29**, **31** and **33** was subsoil layer 17, measuring 0.24m thick. It was truncated by modern pit **39**.

Modern pit **39** was located at the south-western end of the trench and was only partially visible. It had steep sides and a flat base, measuring at least 1.5m wide and 0.96m deep. It contained two fills (37 and 38), the upper of which (37), a blackish grey clayey silt, contained pieces of modern scrap metal.

Truncating pit **39** was another modern pit **36**, which was only visible in section. It had steep sides and a concave base, measuring 0.64m wide and 0.66m deep. It contained two fills (34 and 35). The lower (35) was a brownish grey clayey silt containing a large lump of concrete.

5.4 Trench 4

Trench 4 was 12.2m long, orientated north-east to south-west, with a trench depth of 1.45m. The natural river gravels were encountered at the base of the trench although there were problems at this level with incoming water.

Sealing the natural was layer 42, a dark greyish blue silty clay with an organic appearance and smell, measuring 0.3m thick. Layer 42 was visible in several places in the trench sections, sometimes as an amorphous lump (Fig. 3, section 7; Plate 3). Environmental sample 2 was collected from layer 42 and contained numerous waterlogged seeds such as fat hen, chickweed, bindweed and sedges. Layer 40 was again present, sealing layer 42. In trench 4 it measured 0.67m thick. An environmental sample collected from layer 40 contained no plant remains. Layer 40 was sealed by layer 46, a mid greyish blue silty clay measuring 0.35m thick, containing small pieces of post-medieval brick and traces of coke. The horizon between layers 40 and 46 was very sharp, suggesting layer 46 had been rapidly deposited, probably as a levelling layer, using material deliberately brought in for the purpose. Layer 46 was sealed by layer 45, a mid orangey brown sand measuring 0.23m thick (equivalent to layer 27 in trench 1).

6 Discussion

Excluding the modern features discovered there is very little in the way of archaeological remains on the site. A key factor is how to interpret the very loose layers of fine sand (9=40 and 10=41), which seem to be present across the site and are truncated by later features.

One possibility is that the sand is the backfill or leftover material from post-medieval quarrying. In other words, large, wide quarries are excavated, the coarser gravel is extracted and the finer sand is disposed of in the pits. Such intensive post-medieval quarrying would not be surprising in this part of Cambridge. As mentioned in section 3, several sites/artefacts in the vicinity were discovered during the excavation of gravel pits and the evaluation by Archaeological Solutions at Fallowfield to the south of the site revealed extensive post-medieval gravel quarrying (Grassam & Williams 2005).

A major problem with this theory is the vast difference in composition between the quite silty compacted natural gravels and the very fine

yellow sand. Such sand was not present in the gravel and therefore must have come from elsewhere. An alternative hypothesis is that the sands are water lain deposits, possibly part of a palaeochannel or area of land prone to flooding. This is supported by organic layer 42 in trench 4, which was earlier than layer 40 and had the appearance of a deposit that builds up in periodic episodes of stagnant water. The build up of layers in section 3 also had the appearance of belonging to a water channel. The environmental remains from layer 42 indicate a natural accumulation of waterlogged seeds but are of no use in determining function or date.

Pit **33**, which contained three sherds of Roman pottery must also be later than layer 40 which it cut through. If the post-medieval quarry pit theory is to be believed then the pottery would have to be residual, which it did not appear to be.

7 Conclusions

Regardless of which theory is accurate for explaining what was happening on the site, large post-medieval quarry pits or a wide palaeochannel, it can be concluded that there is very limited archaeological activity on the site.

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

Acknowledgements

The author would like to thank Mouchel Parkman who commissioned and funded the archaeological work. The project was managed by James Drummond-Murray. The author, Tom Eley and Ross Lilley excavated the site. Severine Bezie illustrated the report.

The brief for archaeological works was written by Andy Thomas, who visited the site and monitored the evaluation.

Bibliography

- | | | |
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Appendix 1: Context Summary

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Colour	Fine component	Compaction	Shape in Plan	Side
1	0	1	layer	tarmac	0	0.08	mid grey				
2	0	1	layer	make-up	0	0.08	reddish grey	sub-angular pebbles	moderate		
3	0	1	layer	subsoil	0	0.12	dark greyish brown	silty clay	moderate		
4	8	1	fill	pit	2	0.36	mid brown	sandy silt	moderately loose		
5	8	1	fill	pit	1.9	0.26	mid brownish yellow	silty sand	moderately loose		
6	8	1	fill	pit	1.9	0.36	light yellowish brown	silty sand	moderately loose		
7	8	1	fill	pit	1.88	0.46	dark blackish brown	clayey silt	moderately loose		
8	8	1	cut	pit	2	0.98				circular	steep
9	0	1	layer		1.1	0.46	light yellowish grey	sandy gravel	moderate		
10	0	1	layer		1.04	0.58	light yellowish brown	sandy gravel	moderately loose		
11	0	1	layer		0.9	0.09	mid brownish grey	silty clay	moderate		
12	0	1	layer		0.9	0.13	light orangey yellow	sandy silt	moderately loose		
13	0	void									
14	0	1	layer		0.38	0.46	mid yellowish brown	silty sand	moderately loose		
15	0	1	layer		0.2	0.13	dark greyish brown	clayey silt	moderately compact		
16	0	1	layer		0.74	0.24	light yellowish	sandy gravel	moderately loose		

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Colour	Fine component	Compaction	Shape in Plan	Side
17	0	2	layer	subsoil		0.32	mid brown	sandy clay	moderate		
18	0	2	layer	make-up		0.24	greyish blue	clay	very compact		
19	0	2	layer	re-deposited natural		0.26	orange yellow	sand	moderate		
20	0	2	layer	buried soil		0.37	greyish brown	sandy clay	moderate		
21	22	2	fill	pit	0.75	0.15	mid brown	clayey sand	loose		
22	22	2	cut	pit	0.75	0.15				sub-circular	gently sloping
23	0	2	layer	topsoil		0.16	blackish brown	sandy clay	moderate		
24	0	1	layer		1.8	0.16	mid brownish grey	clayey silt	moderate		
25	0	1	layer		1.8	0.14	mid grey	silty clay	moderate		
26	0	1	layer		1.5	0.06	light brownish yellow	sand	moderately loose		
27	0	1	layer		2.5	0.14	mid brown	silty sand	moderately loose		
28	29	3	fill	?post hole	0.3	0.08	mid greyish brown	sandy clay	moderately compact		
29	29	3	cut	?post hole	0.3	0.08				circular	irregular
30	31	3	fill	?post hole	0.37	0.08	mid greyish brown	sandy clay	moderate		
31	31	3	cut	?post hole	0.37	0.08				sub-circular	gently sloping
32	33	3	fill	pit	1.1	0.18	mid greyish brown	clayey sand	moderately compact		
33	33	3	cut	pit	1.1	0.8				irregular	gently sloping
34	36	3	fill	pit	0.5	0.4	blackish grey	clayey silt	moderate		

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Colour	Fine component	Compaction	Shape in Plan	Side
35	36	3	fill	pit	0.6	0.66	brownish grey	clayey silt	moderate		
36	36	3	cut	pit	0.64	0.66					steep
37	39	3	fill	pit	0.6	0.34	blackish grey	clayey silt	moderate		
38	39	3	fill	pit	0.54	0.58	brownish grey	silty clay	moderate		
39	39	3	cut	pit	1.5	0.96					steep
40	0	2	layer			0.42	yellow	sand	very loose		
41	0	2	layer			0.33	yellowish grey	sand	very loose		
42	0	4	layer			0.3	dark greyish blue	silty clay	moderate		
43	void										
44	void										
45	0	4	layer			0.23	mid orangey brown	sand	compact		
46	0	4	layer			0.35	mid greyish blue	silty clay	compact		

Appendix 2: Environmental Remains

By Rachel Fosberry

1 Introduction and Methods

Two bulk samples were taken from features within the evaluated areas of the site in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

Ten litres of each sample were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.5mm nylon mesh and the residue was washed through a 1mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted in Table 1.

2 Results

The results are recorded in Table 1. Sample 1 is completely devoid of plant remains. Sample 2 is preserved by waterlogging and contains numerous seeds including Fat Hen (*Chenopodium* sp.),ampions (*Silene* sp.), chickweed (*Stellaria* sp.), bindweed (*Polygonum* sp.) and sedges (*Carex* sp.).

Sample Number	Context Number	Flot contents	Residue Contents
1	40	No plant remains	No finds
2	42	Waterlogged seeds	No finds

Table 1: Results of bulk samples

3 Conclusions and Recommendations

The assemblage appears to represent mainly a natural accumulation of plant remains from local vegetation. No further work is required.

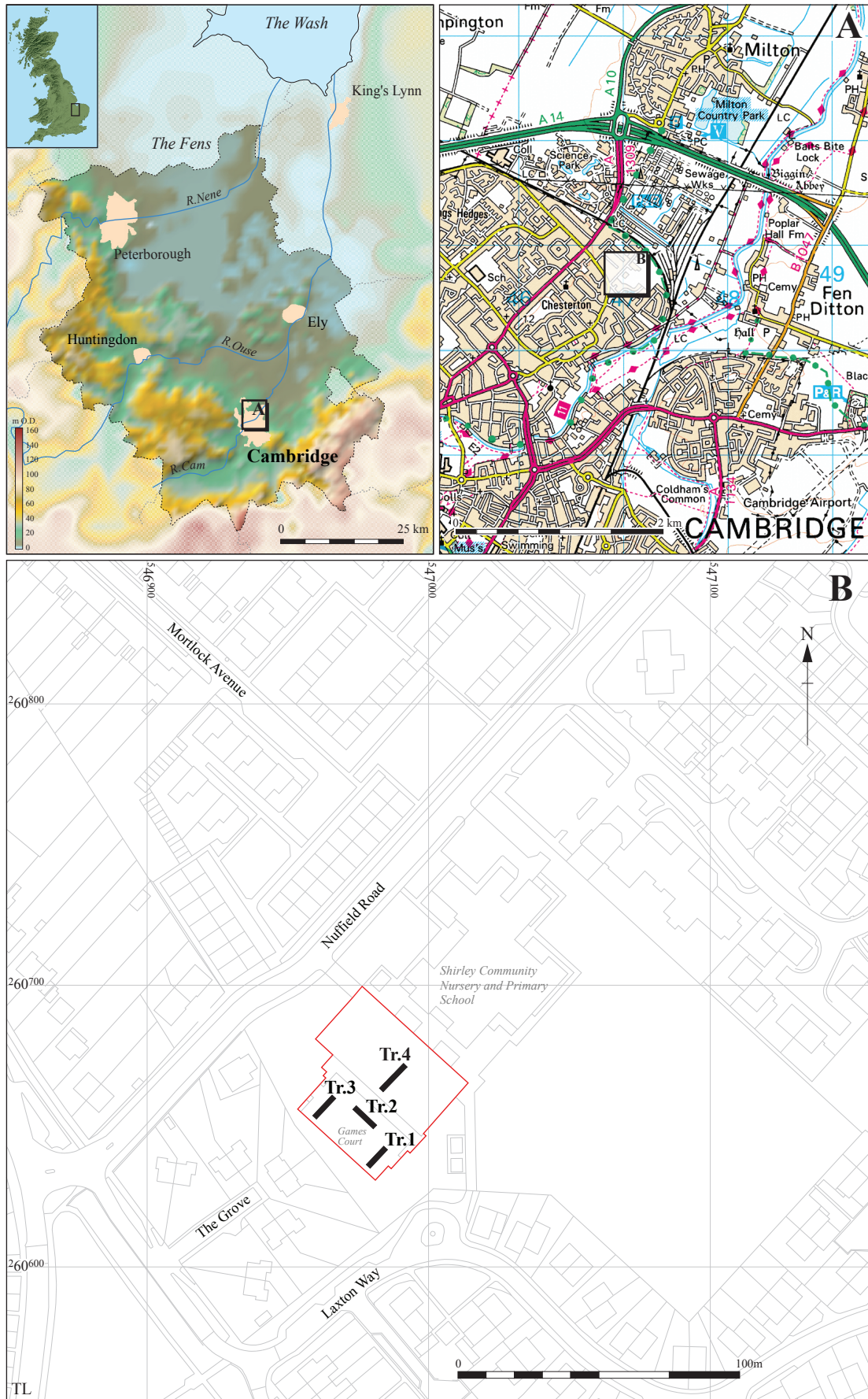
Drawing Conventions

Plans

Limit of Excavation	- - - - -
Evaluation Trench	—————
Deposit - Conjectured	- - - - -
Natural Feature
Sondages/Machine Strip	- - - - -
Test Pit	- - - - -
Intrusion/Truncation	- - - - -
Illustrated Section	S.14 —————
Archaeological Feature	
Archaeological Deposit	
Excavated Slot	
Modern	
Cut Number	118

Sections

Limit of Excavation	- - - - -
Cut	—————
Cut-Conjectured	- - - - -
Deposit Horizon	—————
Deposit Horizon - Conjectured	- - - - -
Intrusion/Truncation	- - - - -
Top Surface/Top of Natural	—————
Break in Section/ Limit of Section Drawing	- - - - -
Cut Number	118
Deposit Number	117
Ordnance Datum	18.45m OD X
Inclusions	Ⓞ



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Figure 1: Location of trenches (black) with the development area outlined (red)

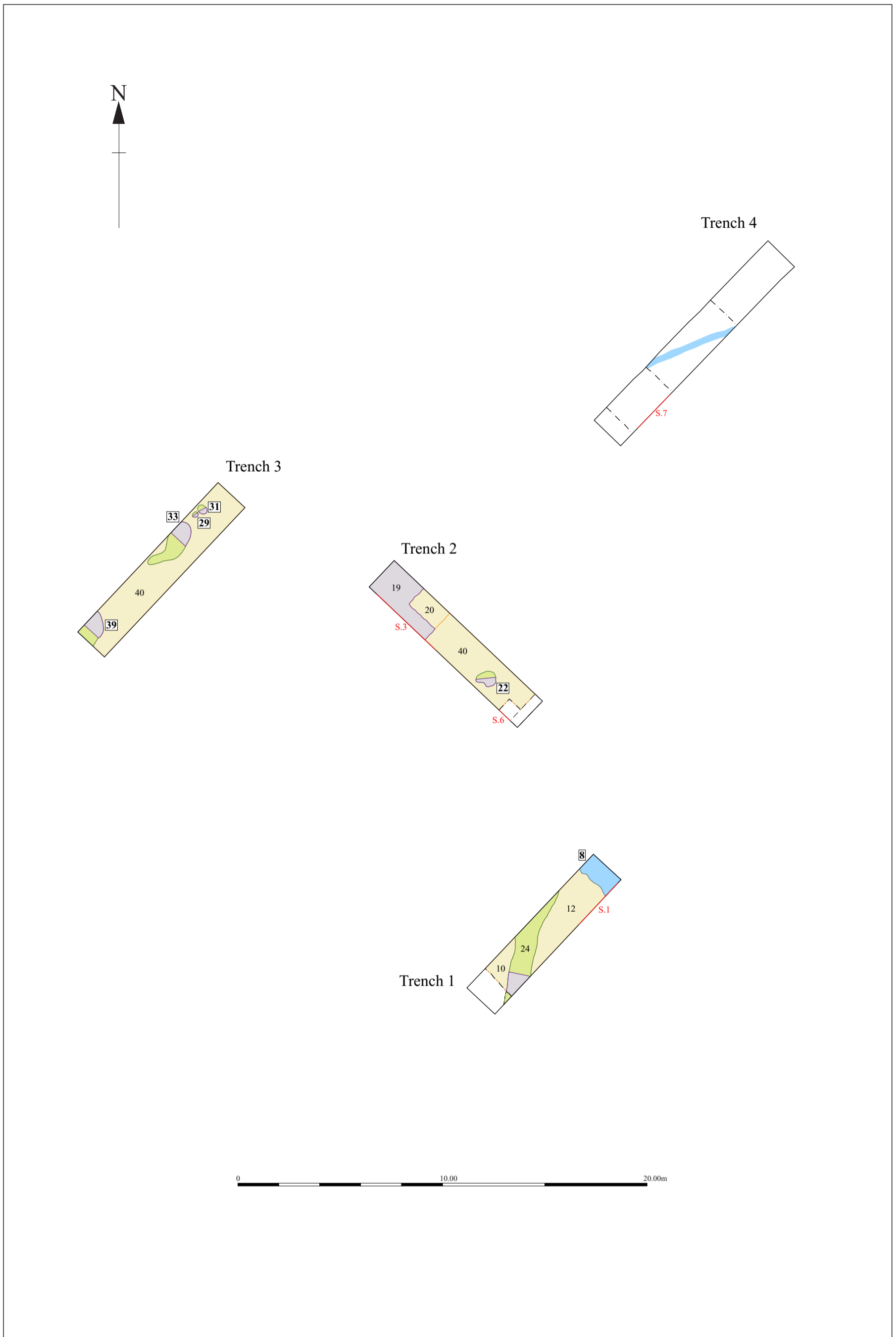


Figure 2: Trench plans

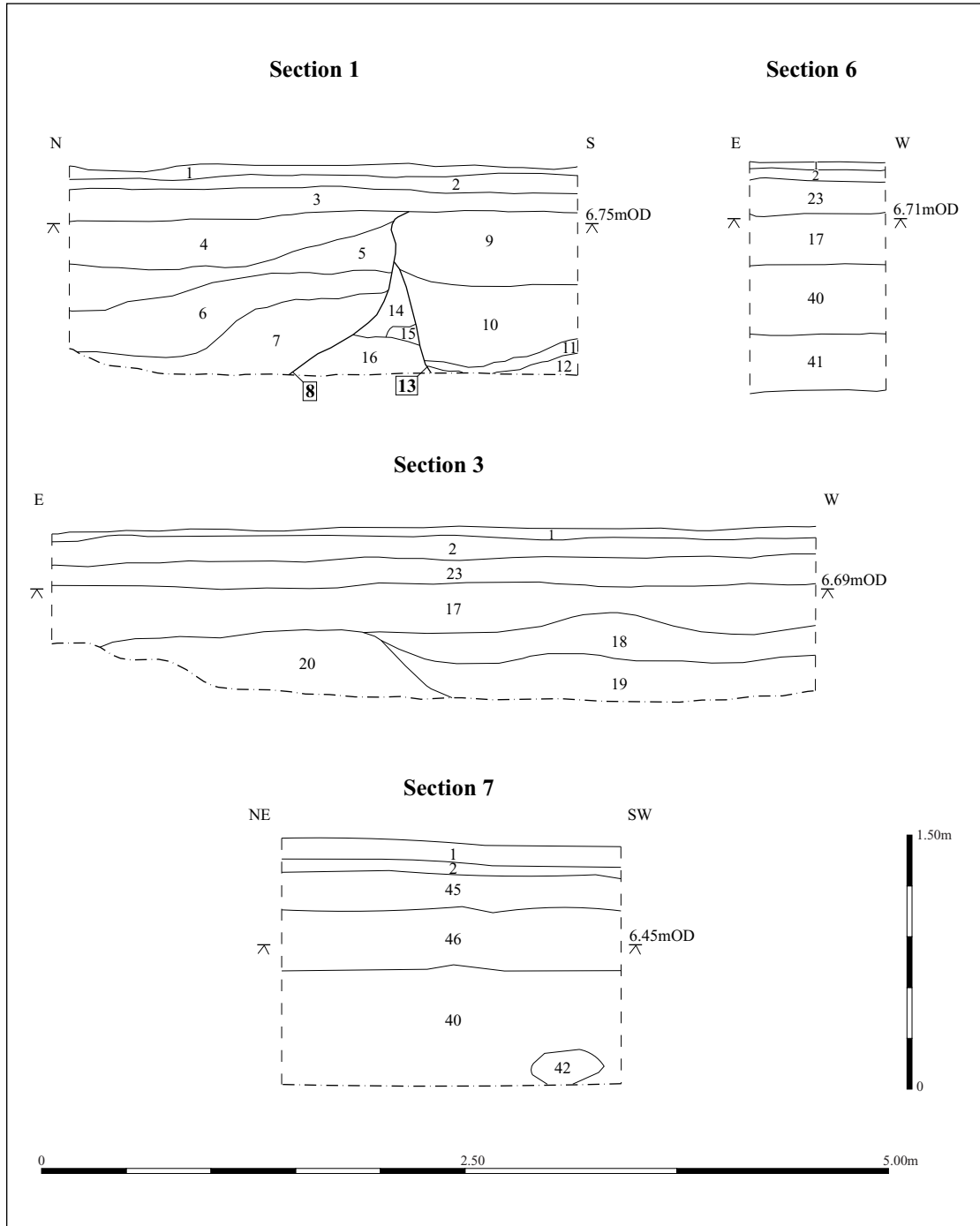


Figure 3: Section drawings



Plate 1: Section 1, north-west facing



Plate 2: Section 3, north-east facing

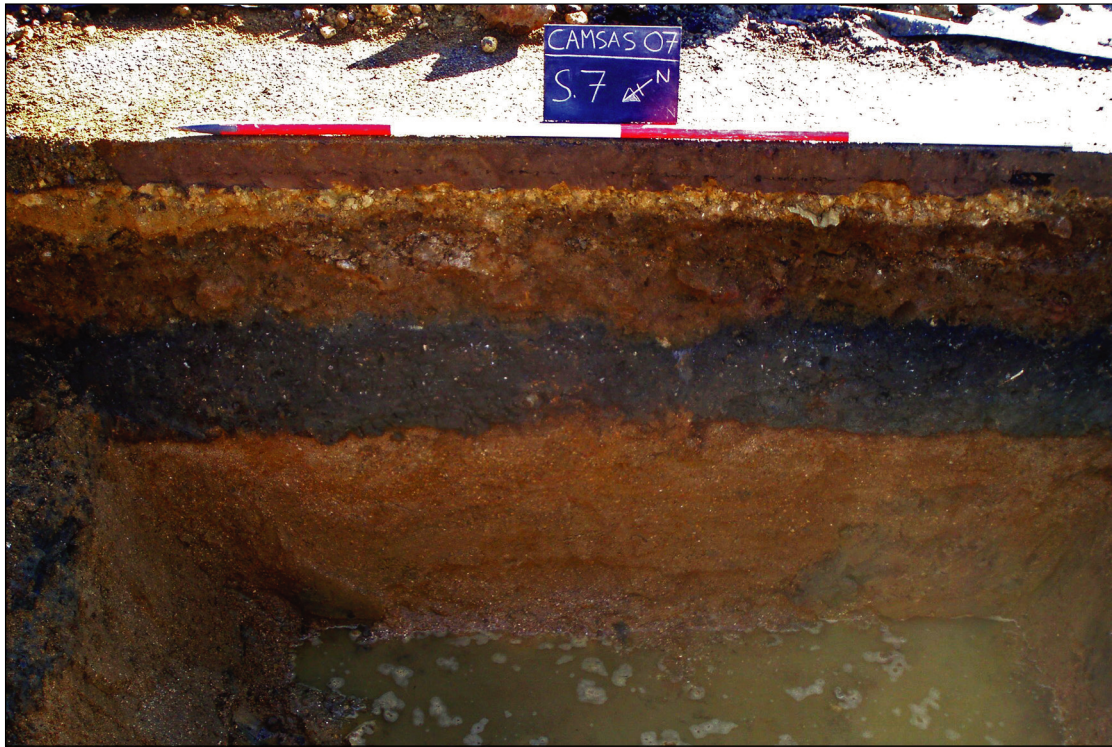
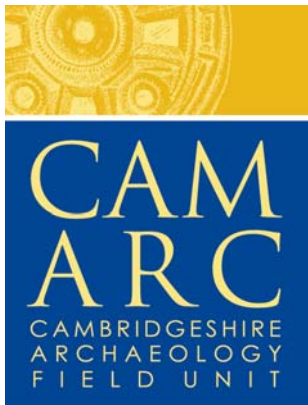


Plate 3: Section 7, north-west facing



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