

## Land at 69-77 Ditton Walk, Cambridge, Cambridgeshire

March 2008

**CAM ARC Report Number 976**

## **Land at 69-77 Ditton Walk, Cambridge, Cambridgeshire**

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### **An Archaeological Evaluation**

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With contributions by Rachel Fosberry HNC (Cert  
Ed) and Steve Boreham BSc PhD

Site Code: CAM DTW 07  
CHER Event Number: 2742  
Date of works: 4th-5th October 2007  
Grid Ref: TL 4735 5965

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## CAM ARC OASIS Report Form

OASIS Number: 32378

<b>PROJECT DETAILS</b>				
Project name	Land at 69-77 Ditton Walk, Cambridge, Cambridgeshire			
Short description	Two trenches, each 20m long were excavated on land at Ditton Walk, Cambridge. Trench one revealed a sequence of natural water laid deposits more than 2.5m deep directly to the east of Coldhams Brook. Trench two was heavily affected by modern disturbance, meaning no archaeological remains survived.			
Project dates	Start	04/10/07	End	05/10/07
Previous work	no		Future work	no
Associated project reference codes	Site code: CAM DTW 07. HER Event No.: ECB 2742			
Type of project	Targeted trenches			
Site status	none			
Current land use (list all that apply)	Industry- Offices Residential- General residential			
Planned development	Residential- urban			
Monument types / period (list all that apply)	Natural feature			
Significant finds: Artefact type / period (list all that apply)	none			
<b>PROJECT LOCATION</b>				
County	Cambridgeshire	Parish	Cambridge	
HER for region	Cambridgeshire			
Site address (including postcode)	69-77 Ditton Walk, Cambridge, CB5 8QD			
Study area (sq.m or ha)	0.25ha			
National grid reference	TL 4735 5965			
Height OD	Min OD	5.39	Max OD	6.21
<b>PROJECT ORIGINATORS</b>				
Organisation	CAM ARC			
Project brief originator	Eliza Gore- Development control			
Project design originator	Paul Spoerry			
Director/supervisor	Tom Phillips			
Project manager	Paul Spoerry			
Sponsor or funding body	McCann Homes- landowner			
<b>ARCHIVES</b>	<b>Location and accession number</b>	<b>Content (e.g. pottery, animal bone, database, context sheets etc)</b>		
Physical		No finds		
Paper	Cambridgeshire County Store	Site indices, context sheets, plans, photos.		
Digital	CAMARC	Photos		
<b>BIBLIOGRAPHY</b>				
Full title	Land at 69-77 Ditton Walk, Cambridge, Cambridgeshire: An Archaeological Evaluation			
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## **Summary**

Between 4th-5th October 2007 CAM ARC, Cambridgeshire County Council (formerly Archaeological Field Unit) undertook an evaluation on land at Ditton Walk, Cambridge in advance of a residential development. Two trenches, each 20m long, were excavated. Trench one, located directly to the east of Coldhams Brook, a tributary of the river Cam, revealed a sequence of alluvial river and flood deposits measuring more than 2.5m deep. Trench two was heavily affected by modern development, to a depth of at least 1.5m. No archaeological features were encountered.

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## **1 Introduction**

This archaeological evaluation was undertaken in accordance with a Brief issued by Eliza Gore of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA; Planning Application C/04/0559/0 and C/07/0783/RM), 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**

According to the British Geological Survey (1981) the site overlies Lower Chalk, directly to the north-east of an area of Gault clay with alluvium of the Cam floodplain possibly spreading in to the northern tip of the site. In reality a combination of all three were encountered.

The topography of the site sloped downhill from 6.21m OD in the east to 5.39m OD in the west close to the brook.

## **3 Archaeological and Historical Background**

### **3.1 Prehistoric**

Palaeolithic flints were recorded to the east (Historic Environment Record Number 04691) and Mesolithic flints have been found c 750m to the north (HER 05451 & 05450). A Neolithic axe was found at Stansfield Road 600m to the south-east (HER 04633).

A Bronze Age axe was found in 1857 to the south (HER 04694), a Bronze Age cremation was uncovered to the north-east on Ditton Lane (HER 04685), and Iron Age pottery came from Stourbridge Common to the west (HER 04699).

### **3.2 Roman**

Roman artefacts have been found to the north-east of the site (HER 04693, 05531) and an evaluation carried out approximately 100m to the south-west at The Old Paper Mill, revealed pits and ditches of Roman and Saxon date (Muldowney 2007).

### **3.3 Saxon**

Newmarket Road to the south is thought to be of late Saxon origin and Saxon finds have been found on its route (HER 05338) as well as possible Saxon burials 700m to the east at Barnwell Road (MCB16936).

### **3.4 Medieval**

The site represents part of the general location of Stourbridge Fair, which was one of the largest late medieval fairs nationally. Within this area there is the potential for remains associated with impermanent fair structures, plus associated industrial and craft activities. To the south-west lies Stourbridge Chapel (HER 04781), the infirmary of which was dedicated to St Mary Magdalene and funded by tolls from the fair.

## **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 should be subject to trial trenching. However, due to the level of truncation only half of this was trenched.

Machine excavation was carried out under constant archaeological supervision with a wheeled JCB-type excavator using a 1.6m toothless ditching bucket. Due to the depth of deposits in trench 1 and at the western end of trench 2 the edges of the trench were stepped to provide safe working conditions.

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 taken to investigate the possible survival of micro- and macro-botanical remains (see appendix 2).

Site conditions were hampered in trench 1 by the depth of natural deposits, petrol contamination and incoming water. Weather conditions were good.

## 5 Results

Two 20m trenches were excavated in total. Apart from modern disturbance in trench 2 no archaeological features were encountered, although trench 1 contained a build-up of natural water laid deposits.

Due to demolition and levelling that had been carried out prior to the evaluation topsoil and subsoil were not present in either of the trenches. The demolition layer (1) was up to 0.28m deep. Full context descriptions can be found in Appendix 1.

### 5.1 Trench 1

Trench 1 was located in the west of the site, approximately 5m to the east of Coldhams Brook and was orientated east-south-east to west-north-west (Fig. 1). A natural sequence of water laid deposits was encountered, which at the western end was machine excavated to 2.5m below ground level (2.89m OD) without reaching any form of natural (Fig. 2, sections 1-4; Plate 1). At the eastern end natural Gault clay sloped gently uphill to 3.79m OD.

Layer 8, the earliest deposit, was a blackish brown peaty clay, measuring more than 0.36m thick and containing frequent inclusions of natural wood. This was sealed by layer 7, a greenish grey sand measuring 0.18m thick. Sealing this was layer 6=14, a black peaty clay measuring 0.3m thick and containing occasional inclusions of natural wood. It was sealed in turn by layer 13, a light brownish grey clay, 0.16m thick. Layer 12 was a peaty layer similar to layers 8 and 6=14, measuring 0.21m thick and containing organic inclusions. Environmental samples from layers 8 and 12 both contained plant matter, seeds such as bramble and chickweed, wetland plants such as sedges and wetland snails.

Sealing layer 12 was channel 17, a shallow cut representing an earlier version of the brook. It measured 2.7m wide and 0.23m deep. It contained two fills (15), a greenish grey sand, and (16), a mid grey silt.

Layer 5=11 was a brownish grey silty clay measuring 0.5m thick and lying under layer 10, a black sandy clay, 0.1m thick. It was sealed in turn by layer 4=9, a mid grey silty clay measuring 0.28m thick and containing frequent inclusions of crushed shell. Sealing this was layer 3, a blackish brown silty clay measuring 0.14m thick. Layer 2 was a thick blueish grey silty clay measuring 0.71m thick. It had the appearance of alluvium. Layer 2 was truncated by a modern ditch, orientated east to west, on the southern trench step. The ditch was



unexcavated but contained pieces of modern brick. It was sealed by layer 1, the demolition layer, measuring 0.28m thick.

## **5.2 Trench 2**

Trench 2 was located in the east of the site, orientated north-west to south-east. Modern disturbance, 1.6m deep at the western end and more than 1.5m deep in the east meant that any archaeological remains that may have previously existed had been completely truncated away (Plate 3).

## **5.3 Soil survey results**

Environmental site investigations carried out by Knight Environmental (Kwasniewska 2007) included 11 soil samples distributed across the site, at depths of up to 4m. Sample logs 1 and 2 in the west of the site encountered sequences similar to trench 1 with peat recorded up to 3.4m deep. Sample log 4 to the east of trench 1 contained a bluish grey silty layer at 0.7m to 3m below ground level, which may equate to layer 2, although it is much thicker. Sample logs 6, 7 and 8 along the northern boundary of the site where no trenches were excavated contained made ground (containing brick, tarmac and concrete) ranging between 0.9m and 3m below ground level. Sample log 8, taken in the north-east corner, contained 2m of made ground overlying a grey gravelly clay which could have been natural. Sample log 9, taken in the south-east corner contained a similar sequence, although there was only 0.7m of made ground.

## **6 Discussion**

The results for trench 1 were analysed by Steve Boreham of Cambridge University and this analysis accounts for the bulk of the discussion (notes in project archive).

The build up of natural deposits in trench 1 is an interesting sequence denoting environmental change in the vicinity of Coldhams Brook over a prolonged period of time. The river Cam and its tributaries have a characteristic Holocene valley-fill sequence. There is usually a basal gravel representing the late-glacial course of the river, overlaid by peats and clayey peats representing the early Holocene (the Mesolithic and Neolithic in archaeological terms). On the current site these peats are represented by layers 8, 6=14 and 12. They formed when the floors of the Cam valley were covered by dense wet woodland or 'carr' with trees like willow or alder. This is supported by the environmental samples from layers 8 and 12 which represent a natural accumulation of plant remains from local vegetation.

Sandwiched between these are layers denoting fast moving water, such as the layer of sand (7) and the former channel (17). These

represent very occasional episodes of flooding during this period of general stagnation.

During the Bronze Age human impact on the environment intensified. Felling and burning of the wooded landscape followed by ploughing meant that increasing quantities of mineral soil (silts), opposed to organic material, were released in to the river systems. Layers such as 5=11, 4=9 and 3 represent this. The process of clearance culminated, it is thought, in the mid-late Iron Age as rivers became increasingly silted up with the vast amount of sediment being released by the cleared landscape. The result was massive over-bank alluvial sedimentation during flooding episodes leading to the deposition of thick silty clay sequences, colloquially known as the 'Romano-British silt'. This is probably what can be seen in layer 2. At first it was thought this could be a make-up layer but it had a definite alluvial appearance and was devoid of any modern inclusions

The sequence was not fully exposed at Ditton Walk but it is reasonable to suppose the sequence spans the Neolithic, Bronze Age, Iron Age and Medieval periods and although no archaeological remains have been identified within this sequence the progression clearly represents the general impact of human agency in the widest sense.

No alluvium or water laid deposits existed in trench 2 and the natural, where visible, was only 0.7m below ground level suggesting a significant drop-off somewhere between trenches 1 and 2.

The soil survey results support what was encountered in the trenches. The natural sequence spread over the west of the site. In the east of the site, on higher ground, the results showed that modern truncation was widespread, varying between 0.7m and 3m deep.

## **7 Conclusions**

While the evaluation expected to encounter some alluvium close to Coldhams Brook, a sequence more than 2.5m deep was surprising. What it does show is that flooding and environmental change affecting the Cam also affected the Coldhams Brook valley. The discovery of peat layers was particularly surprising indicating that for prolonged periods the site was part of a wet woodland environment. The rest of the development area was severely truncated by modern disturbance and no archaeological remains were encountered.

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

## Acknowledgements

The author would like to thank McCann Homes who commissioned and funded the archaeological work. Paul Spoerry managed the project and edited the report. Dan Wheeler and the author excavated the site, Louise Bush surveyed the trenches and illustrated the report. Steve Boreham contributed to the discussion and Rachel Fosberry studied the environmental remains.

The brief for archaeological works was written by Eliza Gore, while Kasia Gdaniec visited the site and monitored the evaluation.

## Bibliography

- |                           |      |   |
|---------------------------|------|---|
| British Geological Survey | 1981 | <i>England and Wales Sheet 188 Cambridge, Solid and Drift Geology Map</i>   |
| Kwasniewska, A.           | 2007 | <i>Environmental Site Investigation Report on: 69-77 Ditton Walk Knight Environmental Report No. CA0206/Rpt 2/Issue 1</i>                     |
| Muldowney, L.             | 2007 | <i>Roman and Saxon Remains at The Old Paper Mill, Ditton Walk, Cambridge, Cambridgeshire: An Archaeological Evaluation CAM ARC Report 917</i> |

### Appendix 1: Context Summary

Context	Trench	Category	Feature type	Colour	Fine composition	Width (m)	Depth (m)	Side	Break of slope	Base	Comments
1	1 and 2	Layer	Demolition	Brownish grey	Silty clay		0.28				
2	1	Layer	Natural	Blueish grey	Silty clay		0.71				
3	1	Layer	Natural	Blackish brown	Silty clay		0.14				
4	1	Layer	Natural	Mid grey	Silty clay		0.26				Same as 9
5	1	Layer	Natural	Brownish grey	Silty clay		0.5				Same as 11
6	1	Layer	Natural	Black	Peaty clay		0.3				Same as 14
7	1	Layer	Natural	Greenish grey	Sand		0.18				
8	1	Layer	Natural	Blackish brown	Peaty clay		0.34				
9	1	Layer	Natural	Mid grey	Silty clay		0.28				Same as 4
10	1	Layer	Natural	Black	Sandy clay		0.1				
11	1	Layer	Natural	Brownish grey	Silty clay		0.44				Same as 5
12	1	Layer	Natural	Black	Peaty clay		0.21				
13	1	Layer	Natural	Light blueish grey	Clay		0.16				
14	1	Layer	Natural	Black	Peaty clay		0.16				Same as 6
15	1	Fill	Channel	Greenish grey	Sand	2.7	0.15				
16	1	Fill	Channel	Mid grey	Silt	2.7	0.12				
17	1	Cut	Channel			2.7	0.23	Gentle	Gradual	Flat	

## **Appendix 2: Environmental Remains**

by Rachel Fosberry

### **1 Introduction and Methods**

Two bulk samples were taken from contexts 8 and 12, both from peaty layers from water-lain deposits. Ten litres of each sample were processed by tank flotation for the recovery of 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 residue was scanned by eye and the flot was examined under a binocular microscope at x16 magnification.

### **2 Results**



The flots are comprised of organic remains of plant matter including twigs, thorns and roots that are preserved by waterlogging. Both samples also contain seeds including bramble (*Rubus* sp.), chickweed (*Stellaria* sp.) and wetland plants such as sedges (*Carex* sp.). Wetland snails are also present.

### **3 Conclusions and Recommendations**

The level of the water table may have ensured that the features were permanently inundated resulting in survival of organic plant remains with a bias towards the survival of woody material and more robust seeds. The assemblage appears to represent mainly a natural accumulation of plant remains from local vegetation. Full assessment and identification of this assemblage could provide more details of the surrounding environment.

## Drawing Conventions

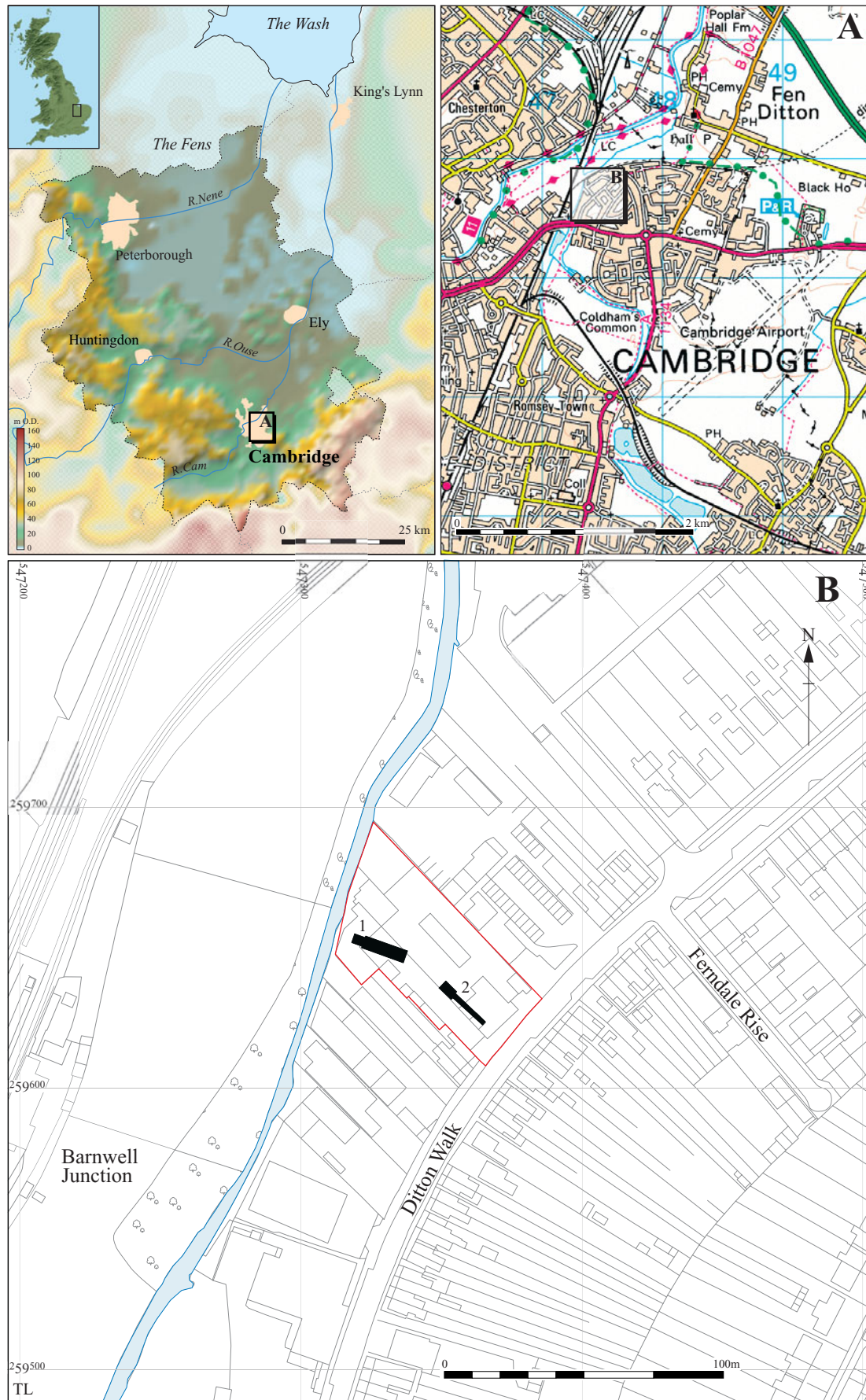
### Plans

Limit of Excavation	—————
Intrusion/Truncation	- - - - -
Sondages/Machine Strip	- - - - -
Illustrated Section	<u>S.14</u>
Deposit	
Modern	
Cut Number	<b>118</b>

### Sections

Limit of Excavation	- - - - -
Cut	—————
Soil Horizon	- - - - -
Soil Horizon - Conjectured	.....
Top of Natural	—————
Break in Section	- - - - -
Cut Number	<b>118</b>
Deposit Number	117
Ordinance Datum	$\frac{18.45\text{m OD}}{\times}$

Figure 1: Convention key



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Figure 2: Location of trenches (black) with the development area outlined (red)

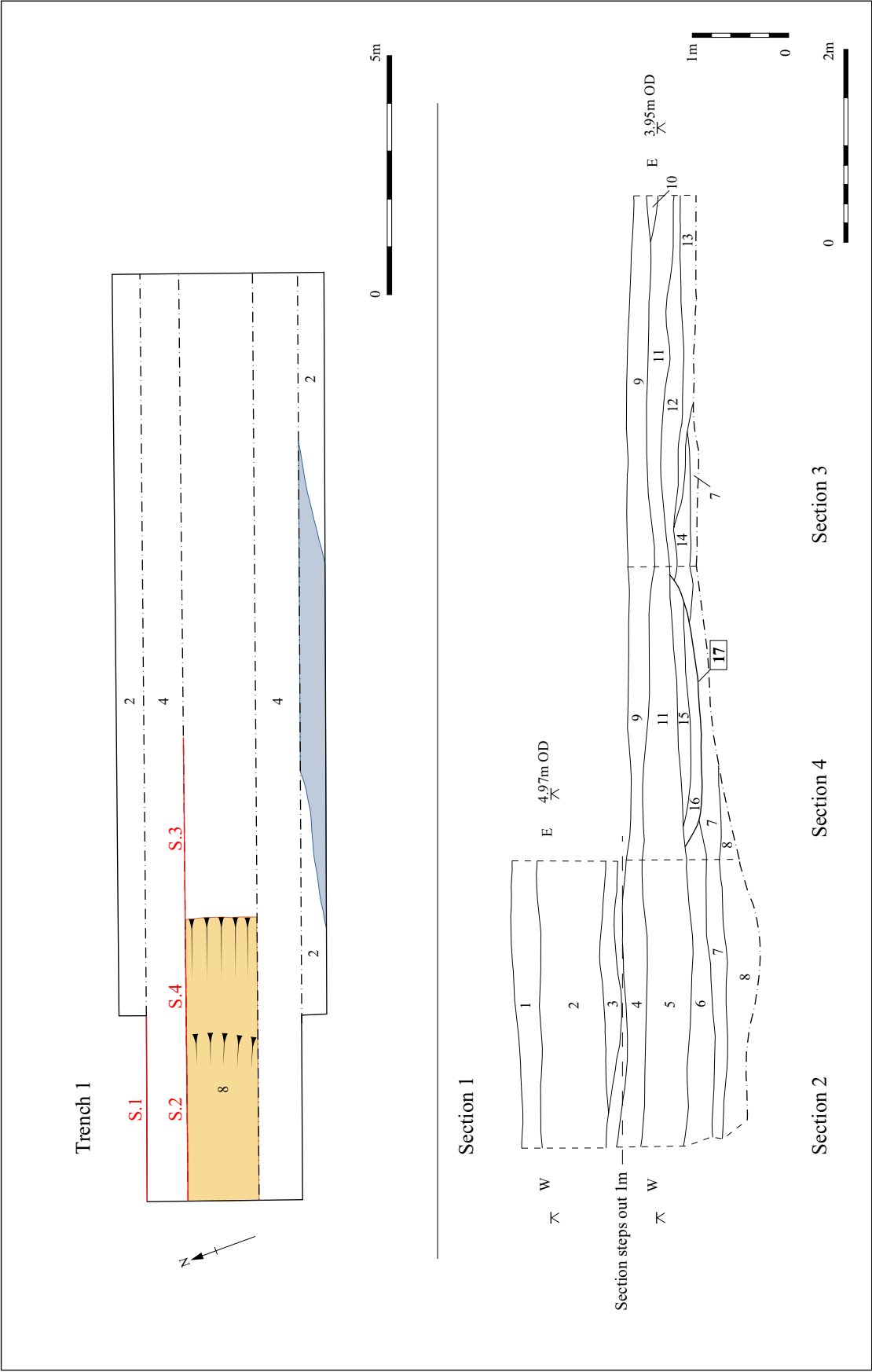


Figure 2: Trench plan and sections





**Plate 1: Sections 1 and 2, showing full depth of trench 1**

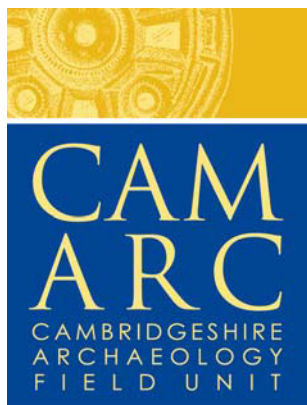


**Plate 2: Trench 1 during excavation**



*Plate 3: Trench 2 during excavation*





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