



CCC AFU Report Number 898

Undated features and possible Post Medieval quarry pits at Netherhall Upper and Lower School, off Queen Edith's Road, Cambridge

An Archaeological Evaluation

Helen Stocks

September 2006

CCC AFU Report Number 898

**Undated features and possible
Post Medieval quarry pits at
Netherhall Upper and Lower
School, off Queen Edith's Road,
Cambridge**

An Archaeological Evaluation

Helen Stocks BSC

Site Code: CAM NES 06
CHER Event Number: ECB 2192
Date of works: 01.08.06 – 04.08.06
Grid Ref: Upper School TL 4810 5580
Lower School TL 4800 5610

Editor: Elizabeth Shepherd Popescu BA PhD
Illustrator: Alexandra Howe BA

Summary





Between the 1st August and the 4th August 2006 the Cambridgeshire County Council Archaeological Field Unit (CCC AFU) conducted an archaeological evaluation at Netherhall Upper School (TL 4810 5580) and Lower School (TL 4800 5610), off Queen Edith's Road, Cambridge. Excavation commenced in advance of the construction of a new school building at the Upper School site and the demolition of the Lower School site which is to be replaced with housing. The work was commissioned by Mouchelparkman.

Nine trenches (total length 174.9m) were mechanically excavated in the Upper School development area. The evaluation identified one undated ditch and one undated pit. There were a series of possible post medieval quarry pits. Seven trenches (total length 141.2m) were mechanically excavated in the Lower School development area. The evaluation identified one undated feature and a possible 18th or 19th century quarry pit was seen during geo-technic pitting.

Contents

1	Introduction	1
2	Geology and Topography	1
3	Archaeological and Historical Background	1
4	Methodology	6
5	Results	8
5.1	Aerial Photography	8
5.2	Geophysical Survey	8
5.3	Trenches in Upper School	8
5.4	Trenches in Lower School	9
5.5	Geotechnic Test Pits and Boreholes in the Lower School	10
6	Discussion and Conclusions	10
	Acknowledgements	11
	Bibliography	11
	List of Figures	
Figure 1:	Location of trenches with the development areas outline (red)	2
Figure 2:	Archaeological trenches in the Upper School with location of services in red	4
Figure 3:	Archaeological trenches in the Lower School with location of services in red	5
Figure 4:	Plans and sections of trenches with archaeological remains	7
	List of Tables	
Table 1:	Upper School development area trenches: showing length and archaeological features	9
Table 2:	Lower School development area trenches: showing length and archaeological features	10
	List of Appendices	
Appendix 1:	Context Summary	12
Appendix 2:	Finds Summary	13

Drawing Conventions

Sections	Plans
Limit of Excavation - - - - -	Limit of Excavation _____
Cut _____	Deposit - Conjectured - - - - -
Cut-Conjectured - - - - -	Natural Features
Deposit Horizon _____	Sondages/Machine Strip - - - - -
Deposit Horizon - Conjectured - - - - -	Intrusion/Truncation - - - - -
Intrusion/Truncation - - - - -	Illustrated Section <u>S.14</u>
Top Surface/Top of Natural _____	Excavated Slot 
Break in Section/ Limit of Section Drawing - - - - -	Cut Number 118
Cut Number 	
Deposit Number 117	
Ordnance Datum  18.45m OD	
Inclusions 	

1 Introduction

This archaeological evaluation was undertaken in accordance with a Specification prepared by Cambridgeshire County Council Archaeological Field Unit (CCC AFU) (Macaulay 2006).

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 Cambridgeshire Archaeology, Planning and Countryside Advice team (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 CCC AFU and will be deposited with the appropriate county stores in due course.

2 Geology and Topography

The Upper School site overlies the zig zag chalk formation, and the Lower School site overlies the West Melbury marly chalk formation (British Geological Survey 2002).

The development area is located on a natural slope down from the south to the east. The Upper School topography has been artificially raised around the area of the tennis courts and football pitch by banking up of topsoil to level the ground. The change in height is from 24m OD near the tennis courts down to 18.9m OD at the front of the school.

The Lower School has a bank to the east of the school at 14.5m OD with the area of the school buildings being truncated down to c.12.5m OD. When the Lower School was built in 1959 the immediate land surface around the buildings had been reduced in height.

3 Archaeological and Historical Background

A Bronze Age (c.2500-700 BC) Barbed and Tanged arrowhead (CHER 04827) was found on the Lower School site during the digging of an allotment garden, prior to the construction of the Lower School. Two disk or bell barrows (CHER 04964, 04965) were recorded during quarrying 135 / 180 metres from the War Ditch monument (CHER 04963a). Grooved ware (Rhino-Clacton Tradition) and Beaker pottery was recovered.



© Crown Copyright. All rights reserved Cambridgeshire County Council 100023205 2006

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

The War Ditches monument (Iron Age hillfort) is located to the immediate southeast of the proposed development site of the new Upper School buildings. Identified first during quarrying in 1893 and excavated between 1893-1903 (ECB601) by Crawley and Tebbutt and later by Prof. T McKenny Hughes, it was subsequently later excavated by TC Lethbridge in 1939 (ECB617) and again between 1949-51 (ECB603). this is an important Iron Age settlement site and is significant in the understanding of Iron Age Cambridgeshire and the tribal boundaries of the southern fen edge, notably its location between the territories of the Catuvelunai and Trinovantes. The site appears to have first been occupied in the 3rd century BC and it was destroyed in a massacre in the mid 1st century BC with evidence of bodies flung into ditches and a violent end to the site. Excavations at the site have uncovered earthwork defensive banks and ditches, pits, postholes for wooden structures, skeletons, stone, bone, ivory and horn objects as well as pottery (including examples displaying 'Belgic' traditions).

A Roman settlement was recorded on the War Ditches site (CHER 04963b) dating to the 1st – 2nd centuries AD. This included at least two buildings, a palisade and ditches, a well, pottery kiln and pits. In addition inhumation burials were also recorded. Celtic fields are also recorded 500 yards to the southeast (CHER04830). Roman pottery and a skeleton were also found to the west of War Ditches (CHER 05126, 05126a) during quarrying: these finds are less than 200m from the proposed development site.

A pagan Saxon cemetery (CHER 04965a) was excavated at the War Ditches site. These were secondary inhumations within the Bronze Age barrows and contained the classic 6th/7th century grave goods (spears, knives, iron and copper alloy objects, bone comb, pottery and a crystal ball mounted on bronze).

The early 19th century 1" Map Sheet No. 54 shows both the Upper and Lower School sites as empty although individual chalk pits were shown directly to the southeast and east of the Upper School development area within part of the former Iron Age hillfort. By the time of the 1st edition Ordnance Survey (1891), both sites were recorded to be within large fields although the chalk pits adjacent to the present Upper School had greatly expanded in size to include much of the former hillfort. The Lower School was built in 1959 while the Upper School was built fairly recently in the 1970s.

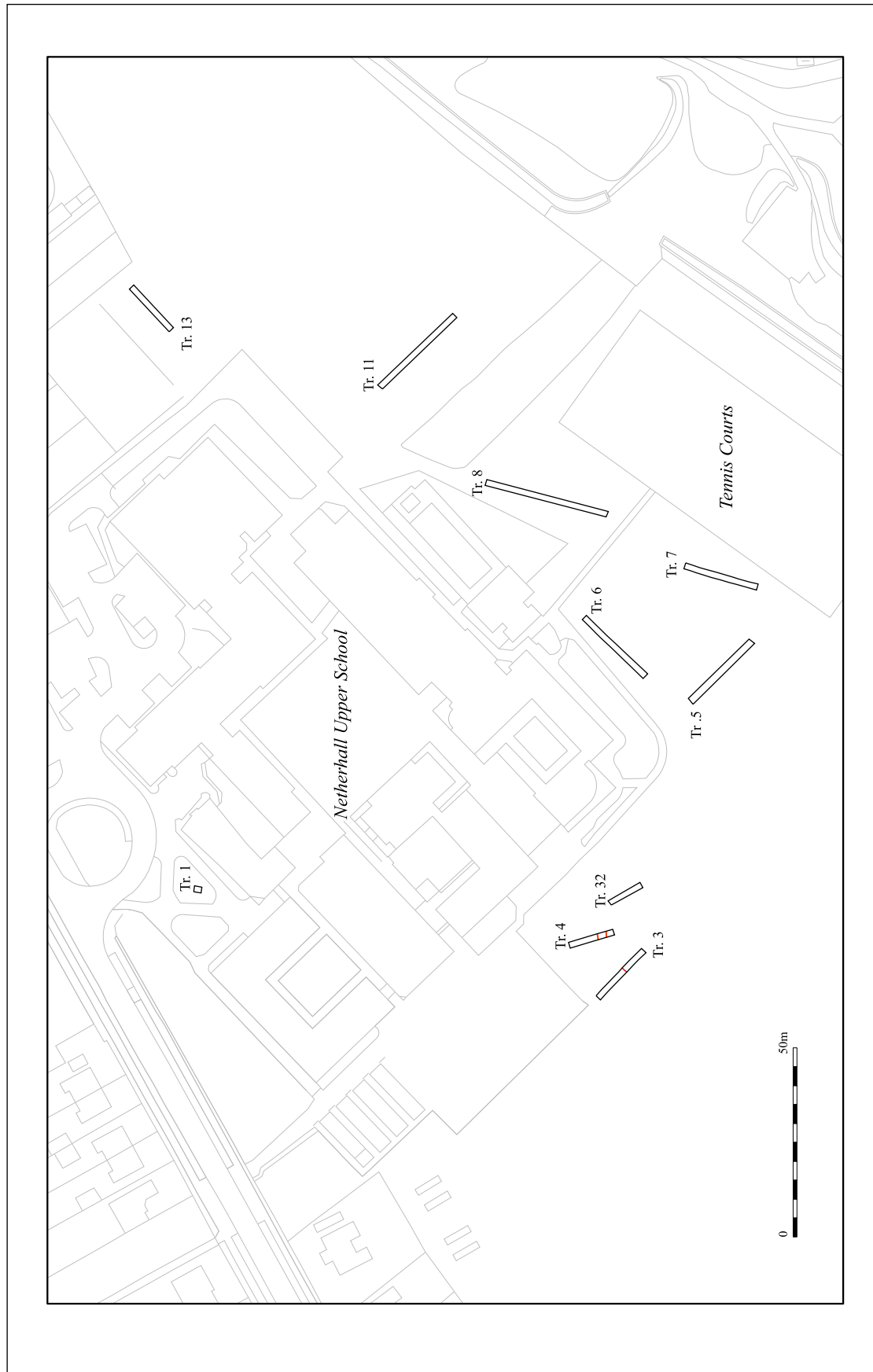


Figure 2: Archaeological trenches in the Upper School with location of services in red

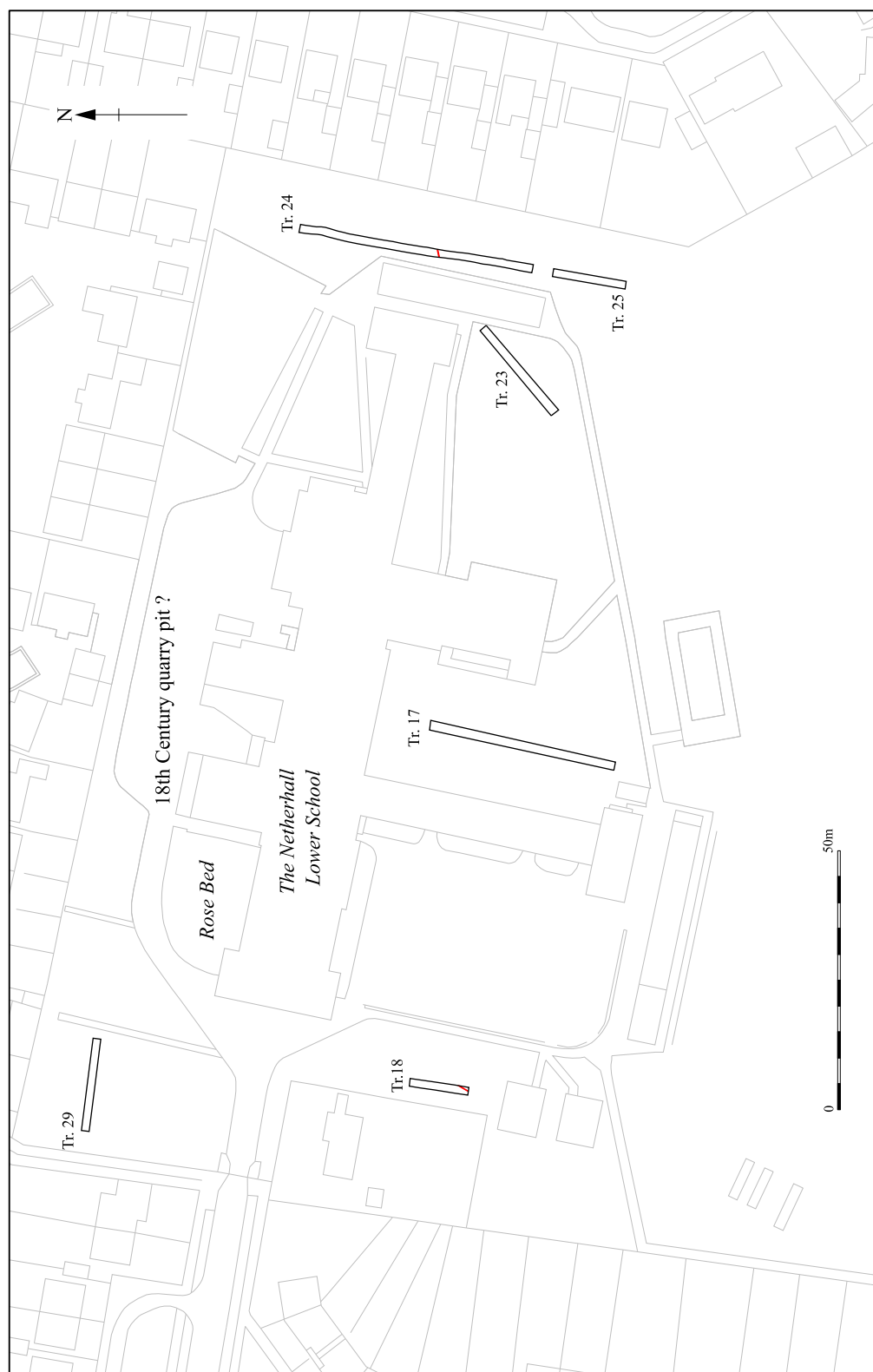


Figure 3 : Archaeological trenches in the Lower School with locations of services in red

4 Methodology

The objective of this archaeological 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 in accordance with the earlier specification (Macaulay 2006).

A 360° mechanical excavator with a 1.6m wide bucket was used to excavate the sixteen trenches under supervision. A map of known services was provided by MouchelParkman. The proposed trench layout was agreed with Cambridgeshire Archaeology Planning and Countryside Advice team (CAPCA). Prior to excavation of trenches a Cat scan was used to detect if there were services in the area. Trenches were largely moved when the CAT found cables within the proposed excavation area although the lack of space meant that some trenches had to be abandoned.

In the event the total excavated length for the Upper School trenching was 174.9m, with c. 2% of the proposed development area evaluated (Fig. 2). The proposed layout of the trenches were altered due to services being found by CAT scan in several locations. Trench 1 to the northwest of the main Upper School buildings, for example, was reduced in size as cables were indicated on its northern side and a proposed trench directly to the west was abandoned because of cables. There was other reasons for reduction in area including a proposed trench to the north of Trench 8 being abandoned due to temporary containers located here, while a proposed trench to the east of Trench 11 was not dug since it would have encroached on a football pitch being used as part of the school's summer camp events.

Total excavated length for the Lower School trenching was 141.2m, with c. 1.5% of the proposed development area evaluated (Fig. 3). As with the Upper School some of the trenches were moved if cables found by CAT were within the area of excavation or abandoned if there was no area available to put the trench. There was, for example, a north to south service located by CAT directly to the east of Trench 29 and the proposed trench here was not excavated. Services were exposed in Trench 18 and the remaining part of the trench was not continued.

Further proposed trenching was left unexcavated after consultation and a meeting on site with Adrian Scruby (CAPCA). Landscaping of the site had occurred when the school was built and the lack of archaeology found in trenches already excavated meant that it was judged not profitable to excavate the remaining proposed trenches.

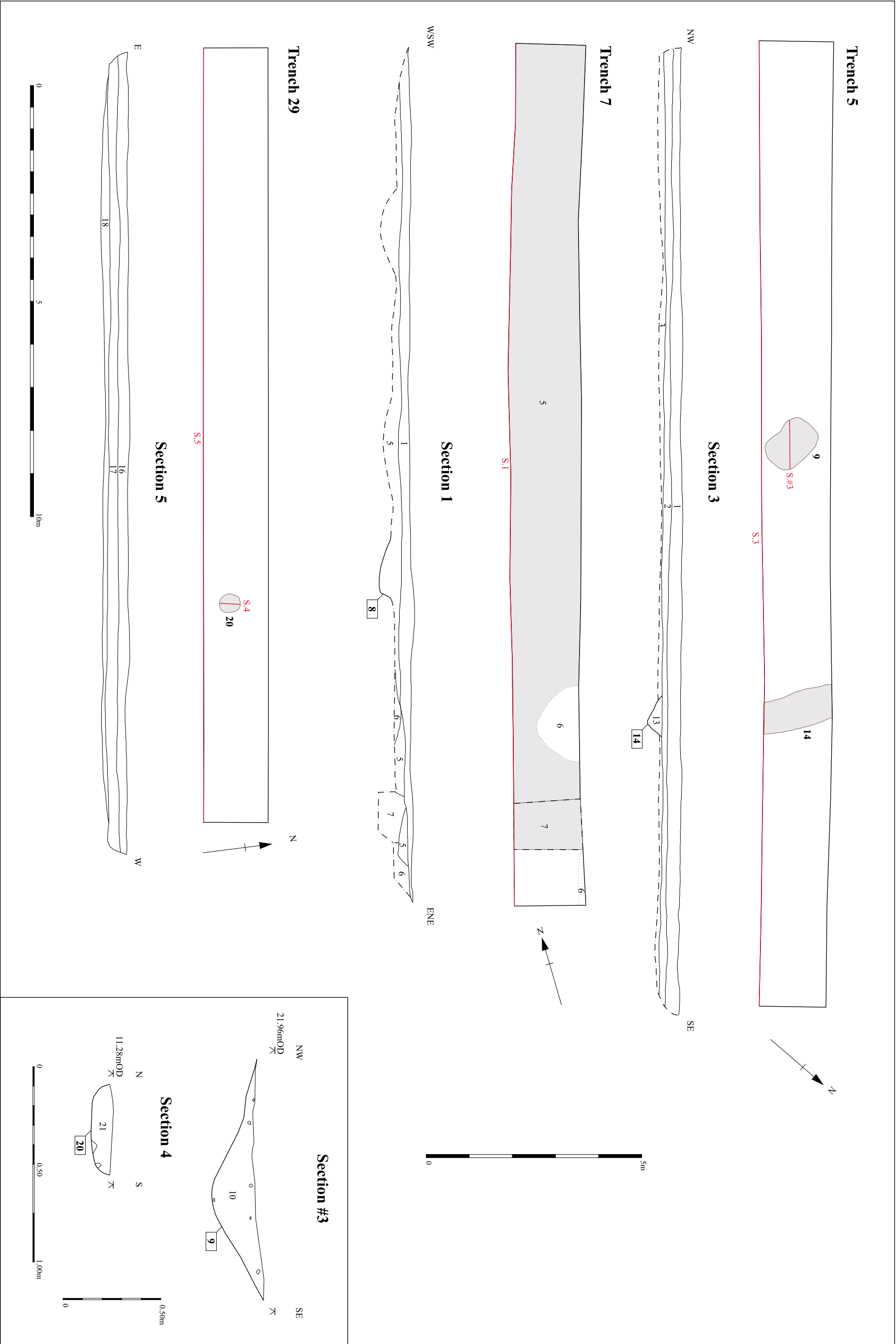


Figure 4: Plans and sections of trenches with archaeological remains

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

5 Results

5.1 Aerial Photography

An aerial photographic assessment was undertaken of all the available images for the subject site (Palmer 2006). This assessment covered c.26 hectares (centred TL 480 560). No archaeological features were identified within the proposed development area although a series of banks were identified and were interpreted to be a result of modern cultivation.

5.2 Geophysical Survey

A geophysical survey (magnetometer survey) was undertaken by PC Geophysics within the areas of proposed development consisting of approximately 3 hectares around the Upper and Lower Schools (Masters 2006). The results identified modern services and zones of disturbance caused by modern landscaping. No potential archaeological features were identified.

5.3 Trenches in Upper School (Figs. 2 and 4)

Trench 7 ran southwest to northeast along the bank of the tennis courts (Fig. 2). Recorded features included a possible quarry pit (8) containing fills (5, 6, 7) or this may have been a possibly a landscaped layer (Fig. 4, S. 1). The possible quarry extended beyond the evaluation area. It contained a series of topsoil layers (5 and 7) and redeposited chalk (6). Two sondages were excavated through the quarry pit to a depth of up to 0.65m below the topsoil. Finds from the latest fill (5) included sherds of Red Ware pottery (AD 1500-1800) including a bowl with exterior lead glaze and a probable jar. Both were of later types dating from 18th century. There was a cream slip/glazed pottery dating from after AD1700 but before the Victorian period. Five pieces of tile, three clay pipe stems and some iron slag were recovered. The iron slag was made by blast furnace technology (c. 1700+) but was not of modern type (pers comm. Ian Hogg).

Trench 5 was aligned northwest to southeast down the gradient of the hill (Fig. 2). An undated ditch (14) was excavated running northeast to southwest along the contours of the natural slope (Fig. 4, S. 5), the ditch was 0.8m wide and 0.25m deep and was filled by light grey sandy

clay (13). A further pit (9) was excavated 5 m to the northwest (Fig. 4, S. 3). The dimensions were 1.15m by 1.1m and 0.2m deep with steep sides and a concave base. The fill was a mid brownish grey (10) with no datable finds.

Trenches 5, 11 and 13 found natural chalk directly below the topsoil less than 0.20m thick. Levelling had been undertaken in these areas. Presumably the topsoil and any subsoil was removed when the site had been landscaped for the school buildings and playing fields. Trench 8 had a modern dumping layer up to 0.50m thick sealing the natural chalk directly below the topsoil. Trenches 3, 4 and 32 had either topsoil sealing the natural or modern former building remains (only a few years old and including cables) which sealed the natural.

Trenches	Length (m)	Archaeological Features
Trench 1	2	None
Trench 3	17.7	None
Trench 4	12	None
Trench 5	22.4	Undated ditch, undated pit
Trench 6	22.7	None
Trench 7	20	Possible 18th century quarry pits
Trench 8	28.1	None
Trench 11	27.5	None
Trench 13	14	None
Trench 32	8.5	None

Table 1: Upper School development area trenches: showing length and archaeological features

5.4 Trenches in Lower School (Figs. 3 and 4)

One undated feature (20), a possible pit, was excavated within Trench 29 in the Lower School (Fig 4, S. 4). It was recorded as 0.5m by 0.5m and 0.1m deep, with steep sides and a concave base. Its fill consisted of dark greyish brown sandy clay (21) with no finds recorded.

Trenches 24 and 25 in the far eastern part of the site lay 1.5m above elsewhere on site and was formed the only area within the development proposal which had not been affected by the construction of the school buildings. These trenches found topsoil and subsoil (collectively 0.4m thick) overlaying natural chalk. In contrast Trenches 18 and 29 had a shallow topsoil overlying natural chalk. Trenches 17 and 23 had a redeposited natural chalk layer with occasional modern 20th century brick fragments and was c. 0.20-0.30m thick. It directly overlay the natural chalk and was in turn was sealed by the thin topsoil layer. This implies that when the school was built not only the topsoil and subsoil were removed but also some natural chalk. Some of the chalk was evidently redeposited later during landscaping.

Trenches	Length (m)	Archaeological Features
Trench 17	11.3	None
Trench 18	36.3	None
Trench 23	21.1	None
Trench 24	45.5	None
Trench 25	8.2	None
Trench 29	18.8	Undated feature

Table 2: Lower School development area trenches: showing length and archaeological features

5.5 Geotechnic Test Pits and Boreholes in the Lower School

On the 15th August five geotechnic pits and five boreholes were excavated within the Lower School. The geotechnic pits were c.2.5m long and 0.60m wide and were positioned adjacent to Trench 18, within part of Trench 17 and three directly to the north side of the school (two in the northern part of the car park and one in the rose bed) (Fig. 3). Probable c. later 18th century quarrying had occurred in this area. Here, a deposit up to 1m thick comprising brown silty sand as well as some handmade brick dating to c.1750 to early 19th century overlay natural chalk.

6 Discussion and Conclusions

The Bronze Age barrows, Iron Age hillfort, Roman settlement and pagan Saxon cemetery recorded directly to the southeast of the Upper School did not continue downslope within the site. A single undated ditch and shallow pit were recorded in this part of the development area. It is possible these features relate to field systems or boundaries of the above site although no Iron Age, Roman or Saxon artefacts were recovered. This implies that settlements were restricted to the higher ground and any activity on the development site was peripheral.

A probable large 18th century quarry pit may have been found directly to the north of the tennis courts (Upper School site) and may relate to 18th and 19th century chalk quarrying. Finds include 18th century pottery, tile fragments and iron slag derived from post blast furnace technology (c. 1700).

The evaluation at the Lower School recovered no archaeological remains of significance. One small undated feature and probable late 18th or early 19th century quarrying was found.

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

Acknowledgements

The author would like to thank Mouchelparkman who commissioned and funded the archaeological work, especially David Langford who helped the smooth running of the project.

Chris Wisson from Lattenbury services is thanked for organising the machinery, fencing and reinstating the site to an excellent condition.

Netherhall Upper and Lower Schools were particularly cooperative throughout the evaluation, especially Keith Griffiths, the caretakers and grounds people.

The specification for archaeological works was written by Stephen Macaulay, and who also managed the project. Adrian Scruby from CAPCA visited the site and monitored the evaluation.

Fieldwork was carried out by Louise Bush, Ian Hogg, Helen Stocks, Gemma Tully, and supervised by Rob Atkins. Taleyna Fletcher carried out the field surveying. Carole Fletcher and Ian Hogg undertook the finds identification. Alex Howe drew the illustrations and Liz Popescu edited the text.

Bibliography

British Geological Survey,	2002	Geological Maps of England and Wales sheet 205 Solid and Drift Edition
Macaulay, S.P,	2006	Specification for Archaeological Evaluation. Cambridgeshire county council Archaeological Field Unit report (unpublished)
Masters, P.,	2006	Gradiometer Survey: Netherhall School (Lower and Upper sites) Cambridge, Cambridgeshire. Pre-construct geophysics report (unpublished)
Palmer, R.,	2006	Netherhall Schools (Lower and Upper), Area Centred TL480560 Cambridgeshire: Aerial Photographic Assessment Air Photo Services report 2006/1 (unpublished)

Appendix 1: Context summary

Context No.	Cut No.	Trench	Category	Feature Type	Description
1	-	1 – 13, 32	Deposit	Topsoil	Dark brown silty loam, < 0.25m thick
2	-	1 – 13, 32	Deposit	Subsoil	Brown silty loam, 0.1m thick
3	-	1 – 13, 32	Deposit	Natural	White Chalk
4	-	4	Deposit	Modern rubble	Brick rubble dump, extent 1.6m.
5	8	7	Fill	Pit	Dark greyish brown clayey silt
6	8	7	Fill	Pit	White chalk, redeposited natural
7	8	7	Fill	Pit	Dark greyish brown silty clay
8	8	7	Cut	Pit	Unknown, extends outside of trench
9	9	5	Cut	Pit	Oval pit with wide u shaped profile, 1.15m long, 1.1m wide, 0.2m deep
10	9	5	Fill	Pit	Mid brownish grey sandy clay
11	-	8	Deposit	Layer	Mid brownish orange sandy gravel, 5.1m length, 0.08m deep
12	-	8	Deposit	Layer	Mid greyish brown clayey silt 0.5m deep
13	14	5	Fill	Ditch	Light greyish brown sandy clay
14	14	5	Cut	Ditch	Linear ditch NE SW aligned, with u shaped profile, width 0.8, depth 0.25m
15	-	11	Deposit	Layer	Light yellowish grey sandy silt, modern dump layer, width 4m
16	-	17 - 29	Layer	Topsoil	Dark brownish grey sandy loam, depth max 0.2m
17	-	17 – 29	Layer	Subsoil	Mid brownish grey silty clay, depth max 0.2m
18	-	17 – 29	Layer	Natural	White chalk
19	-	Various	Deposit	Layer	Redeposited white chalk natural
20	20	29	Cut	Post hole	Oval post hole with steep sides and wide u shaped profile, length 0.3m, width 0.48m, 0.11m deep
21	20	29	Fill	Post hole	Dark brownish grey sandy clay

Appendix 2: Finds summary

Context No.	Cut No.	Trench	Bone (kg)	Ceramic (kg)	Slag (kg)	Tobacco pipe (kg)	Shale (kg)	Ceramic building material (kg)
2		32	0.011	0.002				
5	8	7		0.026	0.087	0.008	0.002	0.091

Cambridgeshire County Council's **Archaeological Field Unit** undertakes a wide range of work throughout the county and across the eastern region.

Our key purpose is to increase understanding of the rich heritage of the region.

We are keenly competitive, working to the highest professional standards in a broad range of service areas. We work in partnership with contractors and local communities.

We undertake or provide:

- ☐ surveys, assessments, evaluations and excavations
- ☐ popular and academic publications
- ☐ illustration and design services
- ☐ heritage and conservation management
- ☐ education and outreach services
- ☐ volunteer, training and work experience opportunities
- ☐ partnership projects with community groups and ☐ research bodies

contact
•cambridgeshirearchaeology
•archaeological field unit

Fulbourn Community Centre Site
Haggis Gap
Fulbourn
Cambridge
CB1 5HD

Tel : 01223 576201
Fax: 01223 880946
email: arch.field.unit@cambridgeshire.gov.uk
web: www.cambridgeshire.gov.uk/archaeology



Printed on recycled paper