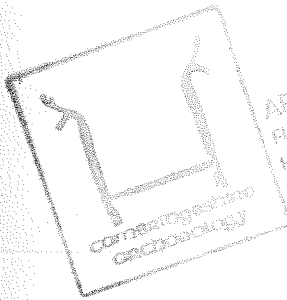
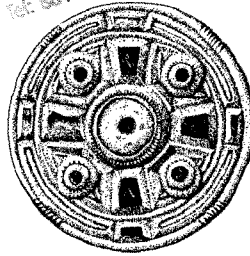


OFFICE COPY



ARCHAEOLOGY FIELD OFFICE  
FULBOURN COMMUNITY CENTRE  
HAGGIS GAP, FULBOURN  
CAMBRIDGE CB1 5HD Tel: 021614  
(Fax)



Archaeological Field Unit

## An Archaeological Evaluation at Ashton Close, Needingworth

Richard Heawood

1995

**Cambridgeshire County Council**

Report No. A57

*Commissioned By Andrew S Campbell Associates*

## **SUMMARY**

*In March 1995, the Archaeological Field Unit of Cambridgeshire County Council conducted an archaeological evaluation in two fields east and southeast of Ashton Close, Needingworth. The work was carried out for Andrew S Campbell Associates, and was in response to a Brief set by the County Archaeological Office (CAO). No archaeological evidence was discovered in the five machine trenches excavated, but an aerial photographic assessment commissioned from Air Photo Services Ltd. revealed traces of ploughed out medieval ridge and furrow cultivation in the south of the site. Adjacent archaeological sites showing as crop or soil marks were also re-plotted and interpreted.*

## **TABLE OF CONTENTS**

<b>1. INTRODUCTION</b>	<b>1</b>
<b>2. GEOLOGY AND TOPOGRAPHY</b>	<b>1</b>
<b>3. METHODOLOGY</b>	<b>1</b>
<b>4. RESULTS</b>	<b>1</b>
4.1 Excavation	1
4.2 Aerial Photographic Assessment	3
<b>5. DISCUSSION</b>	<b>3</b>
<b>6. RECOMMENDATIONS</b>	<b>4</b>
<b>ACKNOWLEDGEMENTS</b>	<b>4</b>
<b>BIBLIOGRAPHY</b>	<b>4</b>
<b>APPENDIX</b>	
Aerial Photographic Assessment by R Palmer	

## **LIST OF FIGURES**

<b>Figure 1 Site Location Plan</b>	<b>2</b>
------------------------------------	----------

## **1. INTRODUCTION**

The site was identified by the CAO as lying within an extremely archaeologically sensitive area. Some 130m to the east, the County Sites and Monuments Record (SMR) identified the presence of a ring ditch, (a monument of probable Bronze Age date), and a small sub-square enclosure (SMR 08125) see Figure 1. Approximately 200m to the south, cropmarks suggested the existence of a series of medieval enclosures (SMR 08271), and the remains of ploughed out ridge and furrow cultivation (SMR 08271A). It appeared likely that archaeological remains associated with these sites might extend into the development area, especially as its recent use for the cultivation of walnuts and as a nursery would not have allowed the identification of archaeology from the air.

## **2. GEOLOGY AND TOPOGRAPHY**

The site lies on the interface between an island of Ampthill Clay and Third Terrace Gravels to the north. The ground slopes very gently from Needingworth village located on a slight rise to the north/west, towards the fen edge c 300m to the south east.

## **3. METHODOLOGY**

Five evaluation trenches were dug using a 360 degree tracked excavator. They were photographed immediately, and some hand cleaning was subsequently carried out. Samples of the sections of the trenches were cleaned and the soil profiles recorded by section drawing. In addition, an Aerial Photographic Assessment was commissioned from Air Photo Services Ltd., in accordance with the brief. It was hoped that this would show whether cropmark evidence extended towards the site from the monuments identified in the SMR to the south and east, and that it would provide direct evidence relating to the southern part of the site, which had not been obscured by walnut trees and the presence of the nursery.

## **4. RESULTS**

### **4.1 Excavation**

No archaeological features were recognised in the evaluation trenches that were opened. The high water table meant that parts of many of the trenches soon acquired standing water, but it was possible to inspect and photograph the trenches in plan before this took place. The southern end of Trench A remained relatively dry. Here hand cleaning was carried out, but no archaeological features were present. Samples of all the trench sections were cleaned by hand to investigate whether traces of medieval ridge and furrow cultivation might remain: none were identified.

Trench A showed 0.30m of topsoil, increasing in depth to the north, overlying a discontinuous layer of strong brown sand and gravel, and stiff dark yellowish brown clay.



Figure 1 Site location plan

Trench B showed 0.26m of topsoil overlying c 0.20m of slightly gravelly olive brown silty clay, again with bands of clay and gravel below. At the southern end, a tree bole was seen in section with a gravelly fill and in situ decayed root material.

Trench C showed 0.24m of topsoil overlying 0.26m of dark yellowish brown silty clay, with below deposits of very stiff grey clay with chalk inclusions, and dark yellowish brown sand and gravel alternating along the length of the trench. At the west end, one metre from the present boundary fence, the edge of a tree bole filled with topsoil was recorded, with a root hole extending into the natural grey clay.

Trench D showed 0.28m of topsoil overlying 0.28m of dark yellowish brown silty clay. Below, strong brown sandy clay with occasional gravel alternated with very stiff grey clay with chalk inclusions.

Trench E showed 0.26m topsoil overlying 0.22m yellowish brown silty clay. Below, very stiff dark yellowish brown clay alternated with very stiff grey clay with chalk inclusions

#### 4.2 Aerial Photographic Assessment

The aerial photographic assessment produced no direct evidence for archaeological features in the field now used as a nursery which makes up the northern part of the site. However, in the field to the south, traces of ridge and furrow cultivation showing as marks in bare soil have been mapped. These features, aligned approximately west/north/west - east/south/east, had not been recognised before, and show that medieval strip fields had once existed here.

The re-assessment of aerial photographic evidence has also provided more information about the important sites identified to the east and south of the assessment area. It is now suggested that the small sub rectangular enclosure (SMR 08125) may have an associated external system of entrance ditches, and that south west of the ring ditch there may be a rectangular structure plus many pits perhaps indicative of a settlement which was not enclosed (Palmer, see Appendix). Slight linear ditches may form part of an extensive field system of unknown date. The series of ditched features south of the site (SMR 08271) are now interpreted as possibly part of a prehistoric or Romano-British settlement system (Palmer, see Appendix). This may or may not be related to the system of ditched fields referred to above.

### 5. DISCUSSION

The evaluation trenching suggests that although the assessment site lies in a very archaeologically sensitive landscape, significant archaeological remains are not present. It is surprising that evidence was not found in Trench E for the ploughed out ridge and furrow detected from the air in the southern field, although it is possible that the field had been deep ploughed since the air photographs were taken. Certainly medieval furrows had not penetrated the natural clays in the base of the trench. The silty clay deposits found underlying the topsoil in Trenches B-E suggest that the lower parts of the site had been subject to alluviation, although the date of this is not known. The presence of very stiff grey clay at the base of Trenches C-E is explained by the fact that the site lies on the interface between an island of Amphill Clay and later Third Terrace Gravels.

Whilst on site, pottery collected by Mr Hudson of Lodel Farm was inspected, and a number of sherds borrowed for spot dating. The pottery had been picked up after ploughing part of the field to the east of the assessment area where SMR 08125 is located. Three moderately abraded Roman sherds were identified, two being rim sherds from a very large storage jar,

as well as an abraded Iron Age or Post Roman chaff tempered sherd. However, in addition, a relatively large unabraded sherd of decorated Bronze Age pottery was present, flint tempered and in a red fabric, and its good condition suggests that it may have been recently ploughed out of the top of a Bronze Age feature. This highlights the importance of the archaeological remains known to be present in the field. The sherd itself has been photographed so that a record can be kept with the archive of this present site.

## **6. RECOMMENDATIONS**

No further archaeological works are recommended before the development currently proposed takes place. It should be noted that the area to be retained as 'open space' in the present development plans has not been investigated as part of this evaluation.

## **ACKNOWLEDGEMENTS**

The Archaeological Field Unit would like to thank Andrew S Campbell Associates for funding this project, and Yelcon Homes Ltd. for their practical assistance; also Mr Andrew White, and Mr J D Hudson of Lodel Farm, for their interest and co-operation, Melodie Paice for the illustration work and Rog Palmer of Air Photo Services for the Aerial Photographic Assessment printed below as an appendix.

## **BIBLIOGRAPHY**

Cambridgeshire Sites and Monuments Record

British Geological Survey Map of Huntingdon, 1:50,000, Ordnance Survey, Southampton

**AIR PHOTO SERVICES**

21 GUNHILD WAY

CAMBRIDGE

CB1 4QZ

PHONE/FAX 01223 572063

**ASHTON CLOSE, NEEDINGWORTH,  
AREA CENTRED TL34607176,  
CAMBRIDGESHIRE:**

**AERIAL PHOTOGRAPHIC ASSESSMENT**

**MARCH 1995**

**COMMISSIONED BY**

**ARCHAEOLOGICAL FIELD UNIT  
CAMBRIDGESHIRE COUNTY COUNCIL  
FULBOURN COMMUNITY CENTRE  
HAGGIS GAP  
FULBOURN  
CAMBRIDGE CB1 5HD**

**ASHTON CLOSE, NEEDINGWORTH,  
AREA CENTRED TL34607176, CAMBRIDGESHIRE:**

**AERIAL PHOTOGRAPHIC ASSESSMENT**

Rog Palmer MA MIFA

**INTRODUCTION**

This assessment of aerial photographs was commissioned to examine a nursery, centred TL34607176, in order to identify areas of archaeological potential. Mapping covered parts of the kilometre square TL3471 and was undertaken at a scale of 1:2500.

**PHOTO INTERPRETATION AND MAPPING**

A cover search was obtained from the Cambridge University Collection of Aerial Photographs (CUCAP) and included photographs resulting from specialist archaeological reconnaissance and routine vertical surveys.

All photographs consulted are listed in the Appendix to this report.

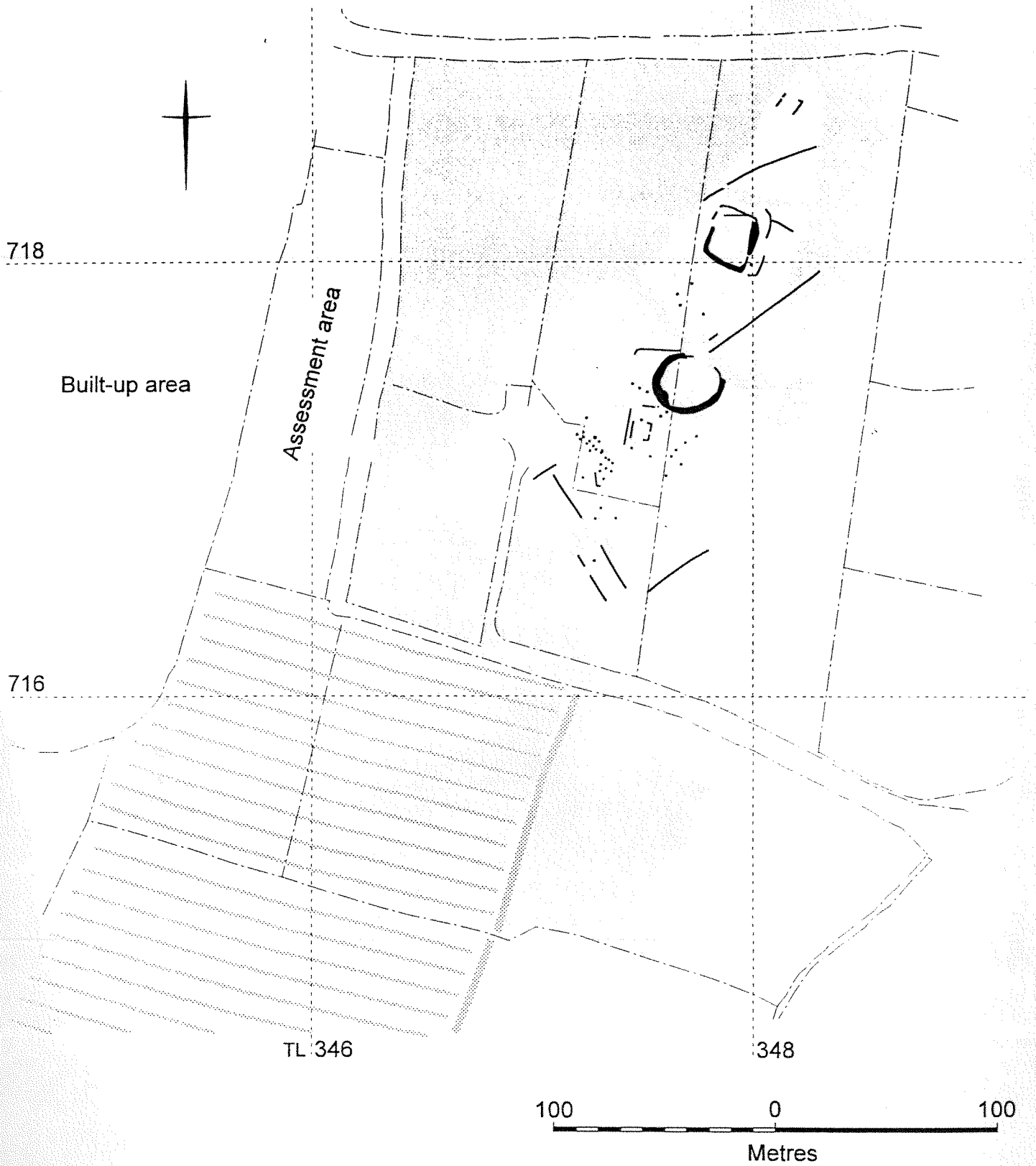
Photographs were examined by eye and under slight (1.5x) magnification, viewing them as stereoscopic pairs when possible. Vertical photographs were also examined stereoscopically using a 1.5x magnification stereoscope. Interpretations were marked on overlays to individual prints following procedures described by Palmer and Cox (1993). All rectification was computer assisted and carried out using AERIAL 4.2 software (Haigh 1993). Rectified digital output was transferred to a graphics program (PROFESSIONAL DRAW) to produce the final drawings included in this report and also to layer these (in a best-fit location) on to the digital Ordnance Survey base provided by Cambridgeshire Archaeology. The latter has been supplied on disc as a DXF file.

AERIAL provides values for error of control point match between the photograph and map. In the case of the northern mapping (Figure 1) these were less than  $\pm 2.0\text{m}$  but features to the south (Figure 2) were not as well matched ( $\pm 3.0\text{m}$ ) due to problems of correctly identifying undefined field boundaries. Control match grows progressively worse from west to east across Figure 2. None of this is of direct relevance to the assessment area but has been noted here in case there is field investigation in those parts.

**COMMENTARY**

The field scheduled for development shows no direct evidence of archaeological features on the photographs examined. In part this is due to its past use for nursery purposes and it has been recorded under fruit bushes or orchards on the oblique photographs. On some verticals the field is under different crops but these do not show any differential growth marks. This may be due to the unsuitability of those crops to show differential growth and/or to the season of











-  Archaeological ditches and pits
-  Ridge and furrow cultivation (schematic) and headland
-  Periglacial crack
-  Deep soil
-  Hand-dug quarries
-  Schematic modern boundary

Figure 1. The northern part of the assessment area. (Key also for Figure 2.)



Figure 2. Southern part of the assessment area. (Key as for Figure 1.)

photography and should not be taken as proof of absence of archaeological content below the surface.

Adjacent fields show various types of past activity. Immediately east are fields that show archaeological features located on three locally high areas (Figure 1). These include a ring ditch, partly masked by a band of deep soil, and a small sub-rectangular enclosure, possibly with an associated external system of entrance ditches (SMR 08125). Immediately southwest of the ring ditch are hints of what may be another rectangular structure plus many pits – possibly natural, possibly identifying an area of unenclosed settlement. Slight linear ditches on an (approximate) northeast-to-southwest – northwest-to-southeast axis have also been recorded. This axial direction can also be traced to the south (part of SMR 08271 and Figure 2). Some of these features have been mapped and others were noticed on photographs covering land beyond that mapped (eg SMR 08274). These may form fragments of an extensive system of ditched fields and are of unknown date. Ditches on similar axes may be located in the assessment area once topsoil has been removed.

Figure 2 also includes a series of ditched features that show parts of what may be a prehistoric or Romano-British settlement system (SMR 08271). It is not clear whether this was contemporary with the ditched field system – as may be suggested by a possible access into the enclosure ditches at TL34317135 – or not – because of the difference in axial trends. Interpretation of the ditched features was made difficult by the presence of numerous periglacial cracks which also had been photographed as crop-marked features. Usually these were of different character (broader and more irregular in their width) to the cut ditches of archaeological origin but in some cases a clear-cut distinction could not be made. Figure 2 shows a cautious interpretation of the archaeological features in which only those marks of high certainty have been mapped as 'ditches'. As with the features in Figure 1, those recorded in the southern area are located on locally high ground. Deeper soil shows to the east while the western part of the field shows evidence of considerable hand-dug quarrying, probably of 'recent' date.

Traces of medieval ridge and furrow, with its associated headlands, can be identified around the village of Needingworth. Most of this has now been levelled and shows as marks in bare soil on winter photographs but some earthwork furlongs remain around the quarries in the field centred TL343715. There is no direct evidence on the photographs for continuation of the strip fields into the assessment area but they may once have continued from those mapped immediately to the south (Figure 1).

## REFERENCES

- Haigh, J.G.B., 1993. A new issue of AERIAL – Version 4.20. *AARGnews* 7, 22-25.
- Palmer, R. and Cox, C., 1993. *Uses of aerial photography in archaeological evaluations*. IFA Technical Paper 12.

## APPENDIX

### *Aerial photographs examined*

*Source: Cambridge University Collection of Aerial Photographs*

#### Oblique photographs

BJD 75-83	30 June 1972
BYA 14-16	24 June 1976
CJZ 61-63	26 July 1979

#### Vertical photographs

K17-AR 26-28	31 January 1977	1:14100
RC8-CX 173-174	13 May 1979	1:21500
RC8-EI 101-103	11 May 1982	1:10000
RC8-EI 106-108	11 May 1982	1:10000
RC8-EI 120-121	11 May 1982	1:10000
RC8-JL 55-57	30 June 1987	1:10000
RC8-KnBO 96, 98	30 August 1988	1:10000
RC8-KnBO 168	30 August 1988	1:10000



Cambridgeshire  
County Council

Archaeology

The Archaeological Field Unit  
Fulbourn Community Centre  
Haggis Gap  
Fulbourn  
Cambridge CB1 5HD  
Tel (0223) 881614  
Fax (0223) 880946