



INDEX DATA	RPS INFORMATION
Scheme Title A111A604 Four Wentways, Abington. Cambridgeshire	Details Aerial photographic Assessment.
Road Number A111A604.	Date October 1994.
Contractor Oxford Archaeological Unit.	
County Cambridgeshire.	
OS Reference TL54.	
Single sided ✓ Double sided A3 0 Colour 0	

AIR PHOTO SERVICES

21 GUNHILD WAY

CAMBRIDGE

CB1 4QZ

PHONE/FAX 0223 572063

**A11/A604, FOUR WENTWAYS
ABINGTON, CAMBRIDGESHIRE
(Centred TL523498).**

AERIAL PHOTOGRAPHIC ASSESSMENT

OCTOBER 1994

COMMISSIONED BY

OXFORD ARCHAEOLOGICAL UNIT
46 HYTHE BRIDGE STREET
OXFORD OX1 2EP

PARTNERS: ROG PALMER MA MIFA CHRIS COX MA MIFA

Archaeological consultants for aerial photographic interpretation, accurate mapping and oblique aerial photography

**A11/A604, FOUR WENTWAYS (Centred TL523498),
ABINGTON, CAMBRIDGESHIRE
AERIAL PHOTOGRAPHIC ASSESSMENT**

Rog Palmer MA MIFA

INTRODUCTION

Photo interpretation was commissioned to examine an area of proposed development adjacent to the filling station at the A11/A604 junction at Four Wentways, Abington, Cambs (centred TL523498) and produce a plan at 1:2500 of any archaeological features recorded therein.

This area was included in a previous assessment for which mapping was undertaken at 1:10000 (Air Photo Services 1993). One ring ditch from that work, beyond the area of this current development, has been enlarged and transferred to indicate the extent of the barrow group within the modern field.

PHOTO INTERPRETATION AND MAPPING

All photographs for this assessment came from the Cambridge University Collection of Aerial Photographs and are listed in the Appendix. No other material was sought and it is not known whether any photographs of relevance are held in other collections, although, from personal knowledge, this is thought to be unlikely.

Much of the immediate locality shows fine examples of natural soil markings of periglacial origin which form patterns of pits (in area TL524496) and of swirl-like appearance possibly resulting from collapsed frost mounds and/or earlier watercourses (west of this assessment area). Wilson (1982, 141-155; 1987, 5-9) has discussed and illustrated such phenomena and on the photographs covering the area examined they offer minimal confusion with archaeological marks. The natural features show clearly as crop-marked differences on the single photograph taken in June 1976. On that photograph the archaeological ditches are also producing distinct crop marks which are likely to depict a reasonably complete picture of the major sub-surface features.

Interpretation and mapping was carried out following procedures described by Palmer and Cox (1993). Original prints were examined using 1.5x magnification and enabled fine distinctions of tone to be identified that are not apparent on the laser copies. The 1:2500 mapping was produced from rectified interpretations of laser copied enlargements of two oblique prints. These enlargements were necessary to avoid too-great an enlargement factor between photograph and map. Photographic enlargements may have aided perceptual abilities, but there was insufficient time for these to be printed. Complementary information came from each print and the rectified agreement of location was close. Vertical photographs show traces of some features but add nothing to the obliquely recorded information. Neither vertical sortie (1977 and 1988) was flown at an optimum time of year for recording crop or soil marks although both show parts of the framework of medieval headlands that covers this part of the county. None of these show in the

area mapped for this assessment. None of the obliques was taken from a sufficient height to include enough control information to match the 1:2500 OS map and allow accurate rectification. However, the necessary secondary control points were provided by transferring the location of selected trees and poles from a vertical photograph to the 1:2500 map. This required a four-times enlargement factor but did not cause undue error in control point matching.

Interpretations were rectified using AERIAL 4.2 software (Haigh 1993). Error values for mean control point matching were below $\pm 2.0\text{m}$ and therefore match the accuracy of the Ordnance Survey 1:2500 map. The resulting files were then edited and combined as a single digital file to which was added a modern map background with output scaled to 1:2500. A copy is included as illustration in this report.

COMMENTARY

The group of three crop-marked ring ditches was photographed obliquely on two different dates and parts of one ring ditch also show on the 1988 vertical prints. The ring ditches are between 25 and 34 metres in diameter and all three appear to have broad, and slightly irregular, ditches. The rectified plan shows the complete ring ditch to be slightly oval in shape (although it is possible that this is due to the angle of view and obliquity of the photographs) with axes of 30 and 34 metres. The photograph dated June 1976 also suggests there to be an area of slightly deeper soil within the eastern part of the ring ditch. This may be due to truncation of the upper layers of the feature and a subsequent spreading of ditch fill. Two other ring ditches are cut by modern boundaries and have been recorded in partially complete form.

A curved banana-shaped feature shows on one photograph only but on that print it was as distinct as the adjacent ring ditches. It is not known whether this is an archaeological feature although arguments can be given in its favour. The photograph shows the slightest of suggestions that the 'banana' may be part of a ring ditch – whose remaining arc is producing a barely discernible crop mark – and, as such, it bears similarity to the suggested spread of ditch fill noted above. However its appearance is also similar to features which occur in the band of natural patterning some 150 metres to the south and it could be an isolated example of this kind. A more improbable suggestion comes from its close similarity to known crop-marked souterrains, more common in highland areas, examples of which have been photographed in recent years by the Royal Commission on the Ancient and Historical Monuments of Scotland. I know of no examples in this part of England.

A few metres east of this 'banana' the photograph showed slight suggestion of a smaller, fragmentarily recorded, ring ditch. If the 'banana' is part of a ring ditch this smaller feature would lie in superimposition with it.

A single ring ditch, some 30 metres in diameter, has been recorded within a band of periglacial pitting at TL52454961. This was mapped at 1:10000 as part of an earlier assessment and is included here as a direct enlargement for illustration only.

A11/A604 Four Wentways, Abington, Cambs

- Archaeological ditch
- Possible archaeological ditch
- Archaeological ditch added from 1:10000 mapping
- Patterned soil area
- Modern boundary



Original mapping at 1:2500

Air Photo Services: 1994

REFERENCES

- Air Photo Services, 1993. *Bourn Bridge (TL5149), Babraham, Cambridgeshire: aerial photographic assessment*. [November 1993 for Cambridge Archaeological Unit]
- 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.
- Wilson, D R, 1982. *Air Photo Interpretation for Archaeologists*, London.
- Wilson, D R, 1987. Reading the palimpsest: landscape studies and air-photography. *Landscape History* 9, 5-26.

APPENDIX

Aerial photographs examined

Source: Cambridge University Collection of Aerial Photographs

Vertical photographs

RC8-BS 34 11 April 1977

RC8-KnBE 60, 62 12 June 1988

(these were not suitable for stereoscopic viewing)

Oblique photographs

TL523498 ARV 49-51 15 June 1967

 BXQ 56 18 June 1976

TL524496 AGA 92 9 July 1962

TERMS AND CONDITIONS

Air Photo Services have produced this assessment for their clients, the Oxford Archaeological Unit, subject to the following conditions:

Air Photo Services will be answerable only for those transcriptions, plans, documentary records and written reports that it submits to the clients, and not for the accuracy of any edited or re-drawn versions of that material that may subsequently be produced by the clients or any other of their agents.

That transcriptions, documentation, and textual reports presented within this assessment report shall be explicitly identified as the work of Air Photo Services.

Although Air Photo Services has endeavoured to identify and consult all existing air photographic coverage of the assessment area which was available within the assessment timescale, it cannot guarantee that further aerial photographs of archaeological significance do not exist in collections unknown or inaccessible to it.

That the original working documents (being interpretation overlays, control information, and digital data files) will remain the property of Air Photo Services and be securely retained by it for a period of three years from the completion date of this assessment after which only the digital files may be retained.

Copyright of this report and the illustrations within and relevant to it is held by Air Photo Services © 1994 who reserve the right to use or publish any material resulting from this assessment.