The East Oxford Archaeology and History Project

Magnetometer Survey, Scout Hut Field, Church Way, Iffley: SP 537 038

Date Surveyed: 11 June 2011

Background

A geophysical survey (magnetometry) was carried out during ongoing investigations as part of the East Oxford Archaeology and History Project. The aim of this Project, which is jointly funded by a grant from the Heritage Lottery Fund and Oxford University's John Fell Fund, is to gain a greater understanding of the history and archaeology of East Oxford, whilst training community volunteers in aspects of archaeological and historical research.

The location of the survey is shown as the hatched area in Figure 1.



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Figure 1: Location of survey

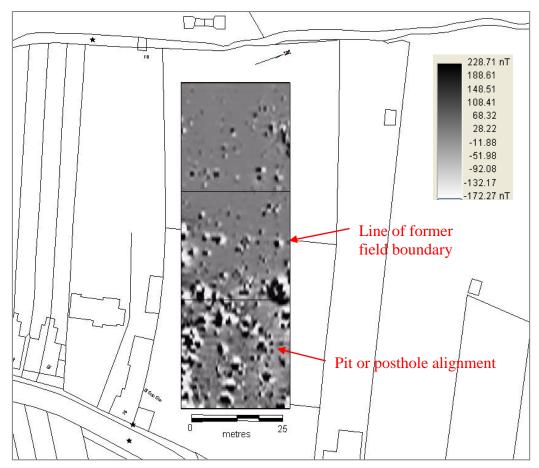
The Site:

The field lies on ground that slopes to the west and is currently under sheep pasture. The underlying soils derive from mudstone (West Walton Formation) in the west of the field, and interbedded sandstone and siltstone (Temple Cowley Member) in the east.

Method:

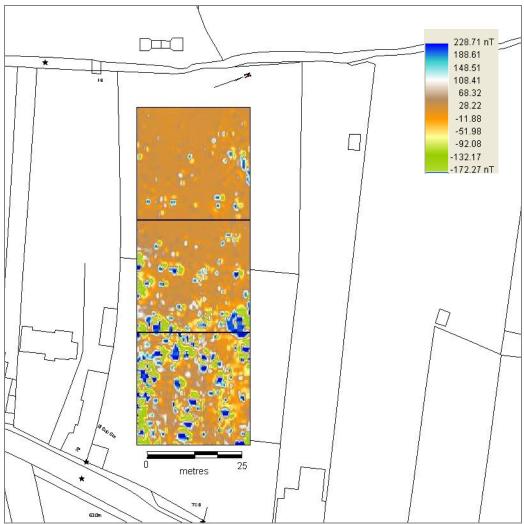
The survey was undertaken using a single sensor Bartington Grad 601-1 magnetic gradiometer, using a 1m line separation and a resolution of 4 readings per metre. The instrument was set to a sensitivity of 0.1nT. The results were processed using geophysical software *ArcheoSurveyor*.

The survey area covered a total of $2,700m^2$ (30m x 90m). The results are shown in Figures 2 and 3.



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Figure 2: Liner greyscale image (the intermediate field boundary no longer exists)



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Figure 3: Colour-shaded plot

Interpretation:

Apart from a possible alignment of pits or postholes (arrowed in Figure 2), which could not be explained by reference to available OS maps, no features were revealed earlier than those known from documentary sources. However, the survey has been particularly useful in showing how various buried materials respond to the magnetometer and accord well with what is known from historic ordnance survey maps and discussions with Mr Les White, the tenant shepherd of Scout Hut Field.

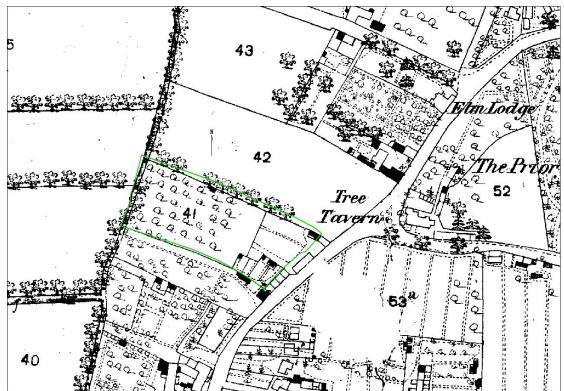
Fewer anomalies were detected in the west of the field (top third of survey). This might result from overlying colluvium and alluvium, but can also be explained by reference to earlier OS maps, which show the land as being under orchard and scrub beyond the intermediate field boundary (Figures 4-5).

The eastern extent of the field once housed the Memorial Hall (Institute) and the scout hut (Figure 6), which no longer survive.

Mr White recalls levelling the field after the buildings were removed, and low values (green and yellow) in Figure 3 most probably derive from the resulting distribution of building material such as limestone or concrete, some of which was still visible within the grass in the eastern end of the field at the time of the survey. The high values (blue) possibly derive from buried fired brick or tile, ferrous objects, and areas of burning such as bonfires.

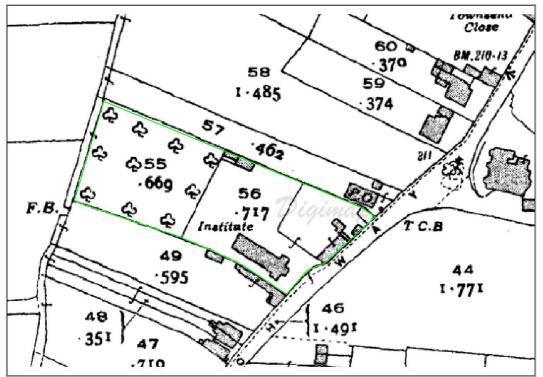
An RAF Hercules aircraft is known to have crashed in this field and some of the high value anomalies might relate to debris from this event.

This survey has been extremely valuable as both a training exercise and as a small case study, which will provide a reference for future surveys.



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Figure 4: 1870 Ordnance Survey map



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Figure 5: 1930 Ordnance Survey map



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Figure 6: 1970 Ordnance Survey map

Acknowledgements:

We would like to thank The Donnington Hospital Trust and tenant shepherd Mr. Les White for allowing access to the field.

The survey was carried out by Project Officer Paula Levick and community volunteers Greg Daniel, Pam England, Denise Leigh and Brian Leigh.

Report prepared by Paula Levick, 23 June 2011.

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