

**Former Headington Cricket Club
Headington, Oxford**

**Report on Archaeological Geophysical Survey
2013**

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Surveyed by:

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for:

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Former Headington Cricket Club Headington, Oxford

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Introduction

The geophysical survey as described in this report was undertaken to test for evidence of any possible archaeological features or remains at the site of the former Headington Cricket Club in Headington, Oxford.

The survey was commissioned by Thomas Homes Ltd of Thatcham from Bartlett Clark Consultancy, Specialists in Archaeogeophysics of Oxford. Fieldwork for the survey was done on 23 May 2013. Data plots showing the survey findings have been supplied to Thomas Homes Ltd, and are now included in this report.

The Site

Location

The former cricket ground occupies a site of c. 0.99 ha located in a residential area on the west side of Barton Road to the north of the London Road in Headington (at NGR 455000, 207600). The site is currently unused, and has reverted to rough grassland scattered with items of modern debris. The main part of the site was surveyed almost in full, but the smaller southern extension is partly overgrown, and obstructed by quantities of rubble, scrap, etc, and so was unsuitable for magnetic investigation.

Geology and archaeology

The site is on a bedrock of Late Jurassic (Corallian) limestone, and free of drift deposits. Ground conditions should therefore be generally favourable of the magnetic detection of archaeological features.

We have not been told of any specific archaeological findings which have been identified or recorded within the site itself, and the survey therefore represents an initial reconnaissance exercise to test for previously unknown archaeological sites or remains.

Survey Procedure

Magnetometer survey

The method used for the investigation was a recorded magnetometer survey, with readings collected along transects 1m apart using Bartington 1m fluxgate gradiometers, and plotted

at 25cm intervals along each transect. The results of the survey are presented as a grey scale plot at 1:1000 scale (figure 1), and as a graphical (x-y trace) plot at 1:625 scale in figure 2. These alternative presentations allow the detected magnetic anomalies to be examined in plan and profile respectively.

The graphical survey plot shows the magnetometer readings after minimal pre-processing based on adjustment for irregularities in line spacing caused by variations in the instrument zero setting. Additional 2D low pass filtering has been applied to the grey scale plot to adjust background noise levels.

An interpretation of the findings is shown superimposed on figure 2 (which permits the interpreted outlines to be compared with the underlying data), and is reproduced separately to provide a summary of the findings (figure 3). Colour coding has been used in the interpretation to distinguish different effects. Features are indicated by coloured outlines or broken lines.

A small number of features showing some of the characteristics which may be associated with archaeological findings are outlined or indicated in red. Recent disturbances are in a blue/purple, and minor background anomalies in light brown. Ferrous anomalies are outlined in blue.

The survey was supplemented by magnetic susceptibility readings, which were taken (using a Bartington instrument) at intervals across the survey area. This information provides an indication of the strength of magnetic response to be expected from the site (as commented on below), and can be of help when interpreting the magnetometer survey.

Survey location

The survey grid was set out and tied (to c. 10cm accuracy) to the OS grid using a differential GPS system. The plans are therefore geo-referenced, and OS co-ordinates of map locations can be read from the AutoCAD version of the plans which can be supplied with this report.

Results

The survey has detected a considerable amount of magnetic activity at the site, but has produced only minimal evidence for the possible presence of archaeological features. The overall background to the survey in the less disturbed parts of the site appears to be generally blank, and there are few individually interpretable findings.

The most conspicuous features visible in the survey plots are strong disturbances caused by wire fences and adjacent buildings around the site boundaries (as outlined in blue / purple in figure 3). The level of magnetic activity within this disturbed perimeter is relatively low to the south and east of the site, but increases to the north and west (as indicated by small background magnetic anomalies outlined in light brown). This variation may be partly natural, but is more likely, given the condition of the site, to reflect the distribution of modern litter and debris. Some of the stronger individual magnetic anomalies (indicated by

narrow spikes in the graphical plot, figure 2, and outlined in blue in the interpretation) represent pieces of iron at or near the ground surface, and so might also relate in part to surface litter.

Two particularly strong magnetic anomalies in the north west corner of the site (labelled A and B in figure 3) are likely to be caused by large (possibly buried) metal objects, but are otherwise difficult to interpret. Magnetic activity of similar strength might sometimes be seen at an ancient industrial (pottery or metal working) site, but there is no evidence here to support such an interpretation. [For a structure with remanent magnetisation such as a kiln the negative anomaly peak would be to the north of the positive, which is not the case here.]

Magnetic susceptibility readings taken at the site are sufficiently high (in a range $16-23 \times 10^{-5}$ SI) to confirm that soil conditions should be responsive to a magnetometer survey, but they did not show any enhancement (of the kind which would be expected at an ancient industrial site) in the north west corner of the survey, and are consistent with the likelihood that anomalies A and B are of recent origin.

The remaining findings which could (improbably) be of archaeological origin are outlined in red in figure 3. They include a rather fragmented linear feature (C), and small pit-like magnetic anomalies outlined in red (as at D and E). The linear feature could be a small former ditch containing fill of varying composition, or perhaps a disturbance relating to drainage or levelling when the site was in use as a cricket pitch. It does not appear to connect with any other ditch-like features to suggest the presence of an ancient field system, or enclosures of the kind which might indicate a late prehistoric or other settlement site.

Concentrations of small pit-like magnetic anomalies are commonly found at ancient settlement sites, but here they are small and isolated, and not clearly differentiated from the general level of magnetic background activity

Conclusions

The survey has detected magnetic activity which clearly relates to recent and current activities around the site, and to the presence of surface debris, but much of the site remains sufficiently undisturbed for archaeological feature to be identifiable, if any were present.

Only minimal findings show any of the characteristics to be expected of features of potential archaeological origin. They include the linear marking at C, and some small and uncertain pit-like features (as at D, E). The isolated nature of the ditch-like disturbance C suggests it is more likely to be a recent drain or other infilled channel (rather than part of a system of ancient enclosures), and there do not appear to be any distinct concentrations of identifiable pit-like magnetic anomalies of a kind which would suggest the presence of concentrations of archaeological features.

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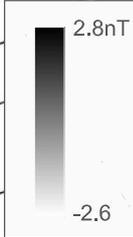
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13 June 2013

The fieldwork for this project was done by C. Oatley.

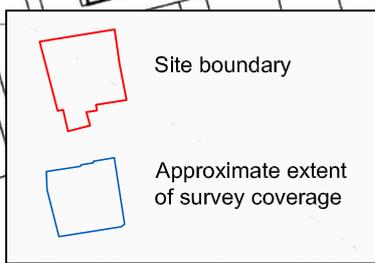
455000E

455100E



207600N

207500N



building

overgrown
+ rubble, etc

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Barton Lane, Headington, Oxford
Geophysical Survey 2013
Figure 1: Magnetometer survey
(grey scale plot)

1:1000





455000E

207600N

BARTON ROAD

30nT

building

overgrown
+ rubble, etc

-  magnetic anomalies (possibly archaeological ?)
-  strong (recent) magnetic disturbances
-  strong individual magnetic anomalies (ferrous)
-  background magnetic anomalies (small items of debris, or natural ?)

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Figure 2: Magnetometer survey
(with interpretation)

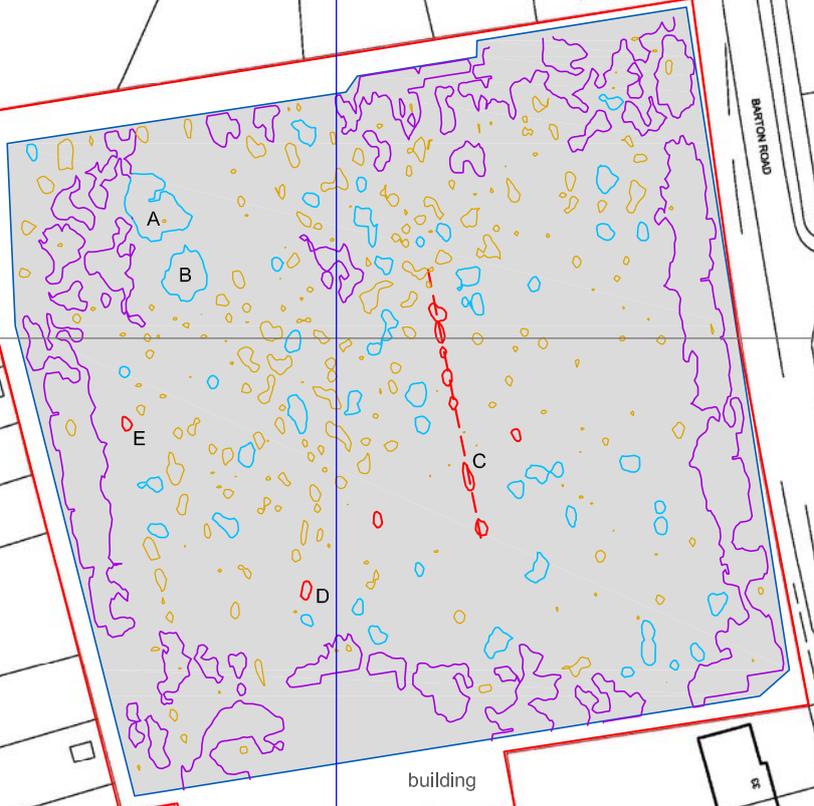


455000E

455100E

207600N

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Figure 3: Magnetometer survey
(summary of findings)

