Birmingham University Field Archaeology Unit

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An Evaluation at the Croft, Aldridge

by

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An Archaeological Evaluation at the Croft, Aldridge, West Midlands (SMR 6293)

Introduction

The following report outlines the results of an archaeological evaluation carried out at the Croft, Aldridge, for PSW Projects and on behalf of Barnados Developments. The evaluation of the area was carried out to assess the archaeological impact of the proposed extension of the existing play facilities and the resurfacing and diversion of an existing footpath across the area. The evaluation included a desk-top survey of available sources held locally at Walsall and those derived from records held in the West Midlands Joint Data Team Sites and Monuments Record, as well as a magnetometry, magnetic susceptibility and earthwork survey of the affected areas.

The site

The Croft (OS Ref. SK 059 007) is an open area situated several hundred metres to the south east of the centre of Aldridge (figure 1). The underlying geology is glaciofluvial drift. The land is currently used for leisure purposes and is under grass. An area in the northern part of the site contains a children's playground. Action within the area was precipitated by proposals to extend the play area to incorporate two spring mobiles and safety surface and to relocate the existing footpath running to the south east corner of the site. Site evaluation was limited to these two areas.

Archaeological Background

Very little is known about the Croft. There are no records of significant archaeological remains on the site (SMR 6293). The land parcel is first recorded in a will of 1671 and appears always to have formed part of the demesne of the Lord of the Manor and was never common land. The house in the south east corner of the field is known as "The Cottage" and is thought to have a 17th century core. The current footpath across the site appears in the OS map of 1883. Smaller enclosures in the area of today's playground are shown in the OS maps of 1883, 1902 and 1914 and there have been minor changes in the enclosure surrounding the cottage during this time. Although there are records that the Home Guard used the area as a parade ground there are no known structures associated with this activity. Photographs exist recording the destruction of the surrounding wall of the Croft during the 1950s in preparation of improvements to the A454. In 1955 the Croft was bought by Aldridge Urban District Council who, at a later date, planted a number of trees and established a children's play area. Although there are no records of archaeological remains within the area Hodder's (1993) analysis of the street plan of the town centre, the proximity of the site to St Marys Church and the possible survival of earthworks in the area of the Croft suggested that the area should be treated as holding some archaeological potential.

Summary of Geophysical Survey Results (see appended report and interpretative figure 8)

A magnetic susceptibility and magnetometer survey was carried out over the areas affected by the proposed development. The work, carried out by Stratascan, is reported in detail in the accompanying document. A summary is presented here.

The magnetic susceptibility survey indicated that there are zones of magnetic enhancement in both areas which may be of anthropogenic origin.

The magnetometer survey recorded a number of anomalies.

In the northern area much of this relates to the presence of the play equipment. The survey has identified, however, the presence of a large enclosure (M20, M21) which may be associated with some thermoremnant activity and perhaps flanking internal features. A negative rectilinear anomaly (M14) may be an earlier path. A pipe (M29) runs through the area.

In the southern area there are a number of anomalies . Much activity may relate to the presence of metal objects, although there are several linear anomalies which may be of archaeological significance (M2, M3, M4).

Earthwork Survey (see figures in attached wallet)

In the northern area, the earthwork survey indicated a number of linear features. Some may be linked with the linear anomalies located by the magnetometer survey. In the northern area (figure 2 in wallet) the feature M20, M21 may be equated with linear earthwork A and feature C with M17. Linear feature 2E may be equated with M15. The feature D in figure 2 is probably an earlier path and features within the attached geophysical report. None of the surviving earthworks is in the area associated with the proposed play area extensions. There were, however, indications of considerable modern disturbance to the north of the play area.

In the southern area, the earthwork survey revealed a number of platforms and features (figure 3 in wallet). The linear features 3A and B/C are probably equated with magnetic anomalies M2 and M3 respectively. These linear features display the effect of landscaping and tree holes.

Conclusions

The work carried out as part of this evaluation has revealed a number of anomalies which may be of archaeological interest. Although many features would require further investigation to clarify their status, some features may be identified from existing map evidence. The enclosure (M20, M21) identified through geophysical survey in the northern section is probably associated with an enclosure shown in the 1883 OS map, whilst the southern parallel feature (M17) may form part of a larger enclosure shown on the 1902 and

1914 map. Whether any of the other features identified by survey relate to these enclosures cannot be said.

Recommendations

In considering recommendations for further work in the area of the Croft it should be noted that the area affected by the proposed developments does contain a number of possible and probable archaeological features and only some of these features can be tentatively identified from map evidence. However, the proposed changes and the nature of development are unlikely to affect the majority of these features. The children's play area and re-routed path will involve disturbance to a maximum depth of 190mm (Bull 1994). The proposed development and the available archaeological data does not suggest that any excavation is needed, although a watching brief may be considered useful.

Bibliography

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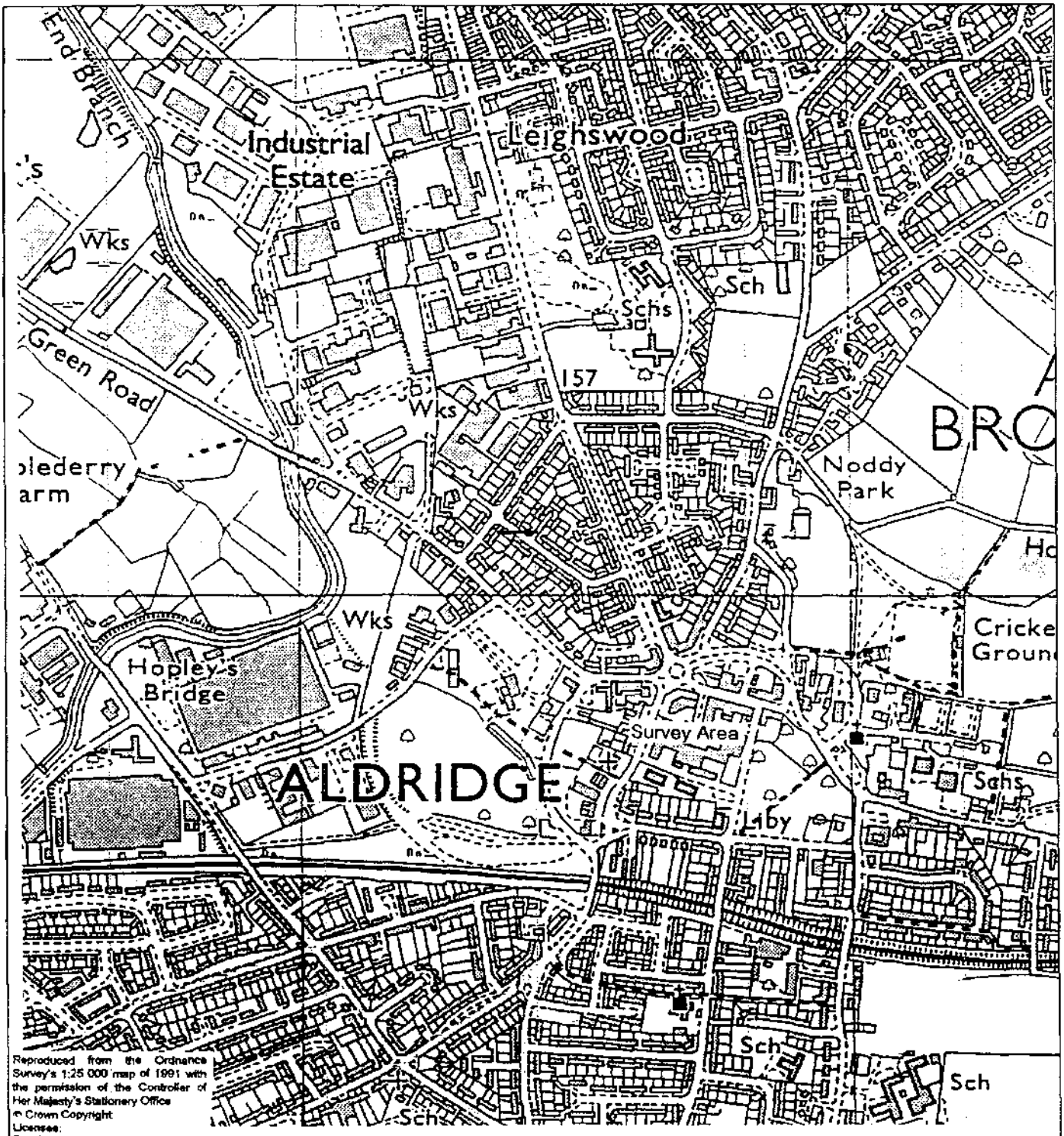

Date Feb. 1995	Client UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	STRATASCAN
Scale 1:10 000	Subject Geophysical Survey The Croft, Aldridge Detailed Location Plan	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK TELEPHONE (0684) 592266
Figure 1		

A Report for

UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT

on a

Geophysical Survey

carried out at

THE CROFT, ALDRIDGE

February 1995

A Report for

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February 1995

CONTENTS

INTRODUCTION

This geophysical survey was commissioned as part of an archaeological evaluation of a proposed development of part of The Croft near the centre of Aldridge.

DESCRIPTION OF THE SITE

The site lies 200m to the east of the centre of Aldridge (OS Ref SK 059 007). The ground cover was grass at the time of the survey but part of the north site is used as a childrens playground and contains several swings etc. beneath which are impact mats. The underlying geology is thought to be glaciofluvial drift producing a deep well drained sandy soil.

The site is split into two sections. The larger northern section is approximately 100m x 60m and the smaller southern section is some 40m x 40m in which there are several surface undulations.

It is possible that the site contains remains of the medieval centre of Aldridge.

The survey was carried out over two days, 3rd and 9th February 1995.

METHODOLOGY

Two techniques were employed on this site, being MS and magnetometer. These are described in brief below.

Magnetic Susceptibility

Alteration of iron minerals in topsoil through biological activity can enhance the magnetic susceptibility (MS) of that soil. Thus measuring the MS of a soil can give a measure of past (i.e. archaeological) activity and can be used to target the more intensive and higher resolution technique of Magnetometry.

Measurements of MS can be carried out in two various ways.

1/ Field coils provide rapid scanning and have the benefit of allowing "insitu" readings though problems with ground contact can be experienced.

2/ Alternatively samples can be taken out in the field for analysis back in a laboratory. This overcomes the ground contact problem, but is slower and more laborious.

The equipment used on this contract was an MS2 Magnetic Susceptibility meter manufactured by Bartington Instruments Ltd. A field coil known as an MS2D was used to take field samples at the nodes of a 10m x 10m grid. This assessed the top 200mm or so of topsoil. To overcome the problem of ground contact all readings were taken 4 or 5 times and an average taken. All obvious localised "spikes" were ignored. Where readings were taken on permanent pasture or regenerated set-aside a small divot was removed to enable good contact to be made.

The readings were stored and later loaded into a computer. From this data grey scale plots have been generated which are reproduced in this report at a scale of 1:1250 and overlain onto the site plans at the same scale.

Magnetometer

Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.2 nanoTesla (nT) in an overall field strength of 48,000nT, can be accurately detected using an appropriate instrument.

The mapping of the anomaly in a systematic manner will allow an estimate of the type of material present beneath the surface. Strong magnetic anomalies will be generated by buried iron-based objects or by kilns or hearths. More subtle anomalies such as pits and ditches can be seen if they contain more humic material which is normally rich in magnetic iron oxides when compared with the subsoil.

To illustrate this point, the cutting and subsequent silting or backfilling of a ditch may result in a larger volume of weakly magnetic material being accumulated in the trench compared to the undisturbed subsoil. A weak magnetic anomaly should therefore appear in plan along the line of the ditch.

The magnetic survey was carried out using an FM36 Fluxgate Gradiometer, manufactured by Geoscan Research. The instrument consists of two fluxgates mounted 0.5m vertically apart, and very accurately aligned to nullify the effects of the earth's magnetic field. Thus readings relate to the difference in localised magnetic anomalies compared with the general magnetic background. Readings are taken automatically with a sample trigger and held in an 'on board' data logger. The data is later downloaded into a computer for processing and presentation.

Processing can emphasise various aspects contained within the data but which are often not easily seen in the raw data. Basic processing of the magnetic data involves 'flattening' the background levels with respect to adjacent traverses and adjacent grids. 'Despiking' is also performed to remove the anomalies resulting from small iron objects often found on agricultural land. Once the basic processing has flattened the background it is then possible to carry out low pass filtering to reduce 'noise' in the data and hence emphasise the archaeological or man-made anomalies. The presentation of the data for the site involves a print-out of the raw data both as grey scale and trace plots, together with grey scale plots of the "flattened" and despiked data, and, if appropriate, after further processing to emphasise various aspects within the data.

Magnetic features have been identified and plotted onto the 'Abstraction of Anomalies' drawing for the site (Figure 8), numbered for ease of reference and prefixed with the letter 'M'.

DISCUSSION (see Figure 8)

The magnetic susceptibility survey

Northern section

There is an area of magnetic enhancement MS1 in the central and northern part of this section which may possibly be of archaeological interest. As no soil samples were taken for laboratory analysis no further information on this enhancement such as fractional conversion is available.

Southern section

Two areas MS2 and MS3 are seen on the north-eastern and north-western corners.

The magnetometer survey

Northern section

Many areas of strong magnetic disturbance were revealed in the survey. Most of these are explained from observations of surface features or by their characteristic shape. Table 1 is a schedule of these strong magnetic disturbances.

The general level of magnetisation of the anomalies is notably high. Included in these anomalies are M20 and M21 which are rectilinear and intersect at right angles. At this intersection point is the strong anomaly M19. M22 also sits adjacent to M20. It should be further pointed out that the area of enhanced MS lies within the angle made by M20 and M21 and that the linear anomaly M17 is parallel to M20.

By processing the data to remove the large anomalies it is possible to look for weaker anomalies (see Figure 7). Though not very clear, it would seem there are two enclosures formed by M30 and M31. The rectilinear anomalies making up these features are either parallel or at right angles to M20 and M21 suggesting they may be associated.

The interpretation made from the above is that there would seem to be the SW corner of a large enclosure within the survey area containing smaller enclosures. The strong anomalies M19 and M22 may be the sites of fires or some other thermoremanent effect associated with the postulated enclosure. M17 being parallel to M20 may also be associated with this conjectural site.

M14 is a negative rectilinear magnetic anomaly "sandwiched" between two positive anomalies. This may be an earlier path or track as it is parallel with and close to the modern path.

Southern section

As in the northern section this magnetic survey is dominated by strong areas of magnetic disturbance. From Table 2 it can be seen that many of these are unexplained by visible objects, the only exception being the rectilinear anomaly M1

which is caused by a modern path. The others (e.g. M5, M6, M7, M9, M10 etc.) are thought to be from buried metal objects or other thermoremanent debris. There are, however, some linear anomalies, M2, M3, M4 and M8 which may prove of interest though they form no obvious pattern.

It should also be noted that no anomalies show up in the two areas of enhanced susceptibility MS2 and MS3. The anomaly M11 is predominantly positive and does not have the characteristic ferrous metal "spike" and is therefore of possible interest, however, it may also be no more than the base of a large bonfire.

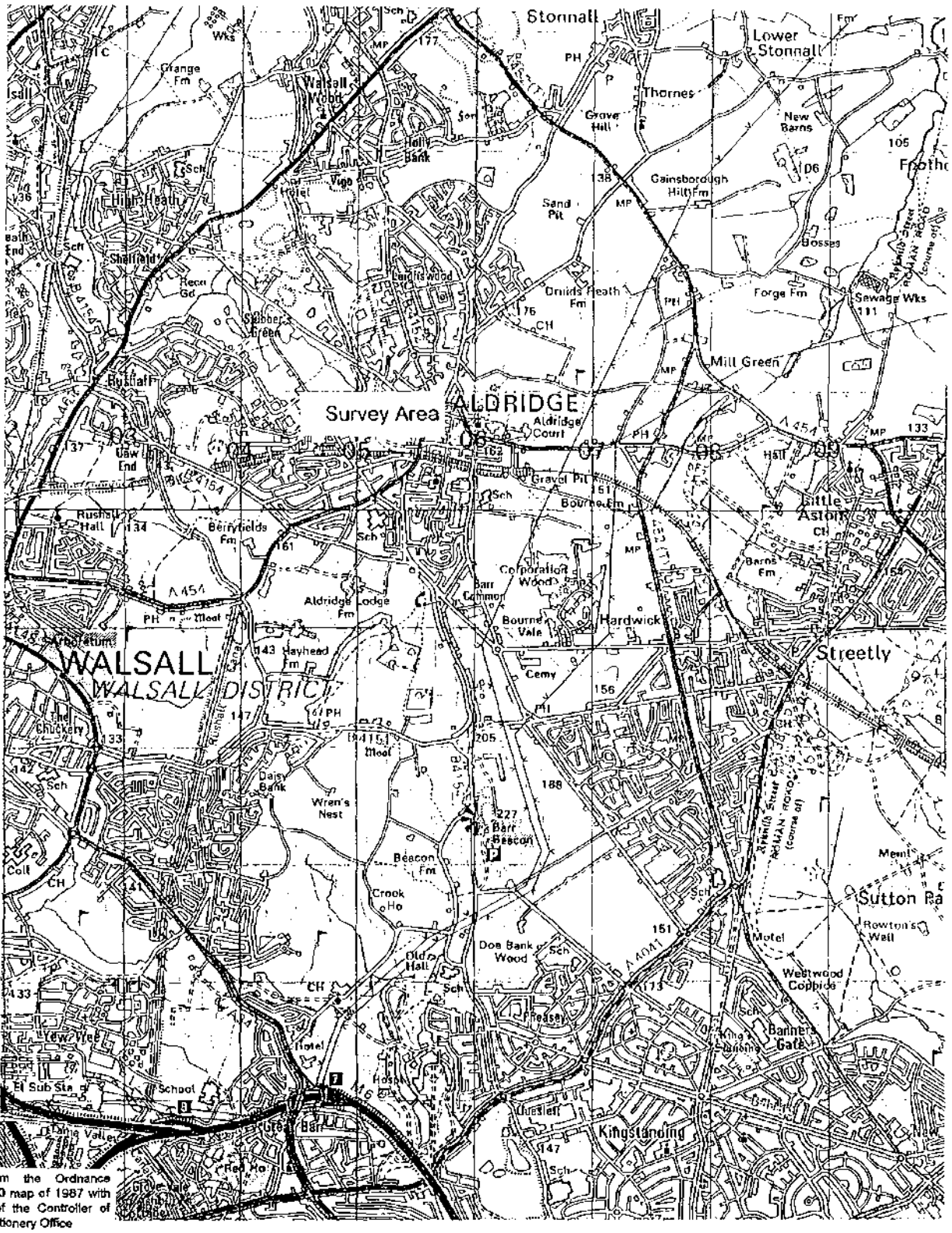
No general interpretation is made for this section other than to emphasise the presence of the strong anomalies mentioned and the linear features (particularly M2) crossing the site from east to west.

TABLE 1
SCHEDULE OF STRONG MAGNETIC DISTURBANCES
NORTHERN SECTION

REF. NO.	REASON FOR DISTURBANCE
M13	Sign
M16	Bin
M18	Swings
M19	No visible explanation
M22	No visible explanation
M23	Climbing frame
M24	Bin (but anomaly looks large for size of bin)
M25	Seesaw
M26	Slide
M27	Roundabouts
M28	Swings
M29	Underground pipeline

TABLE 2
SCHEDULE OF STRONG MAGNETIC DISTURBANCES
SOUTHERN SECTION

REF. NO.	REASON FOR DISTURBANCE
M1	Footpath
M5	No visible explanation
M6	" "
M7	" "
M9	" "
M10	" "
M11	" "
M12	" "



Date Feb. 1995	Client UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	STRATASCAN™
Scale 1:50 000	Subject Geophysical Survey The Croft, Aldridge General Location Plan	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK
Figure 1		TELEPHONE (0684) 592266

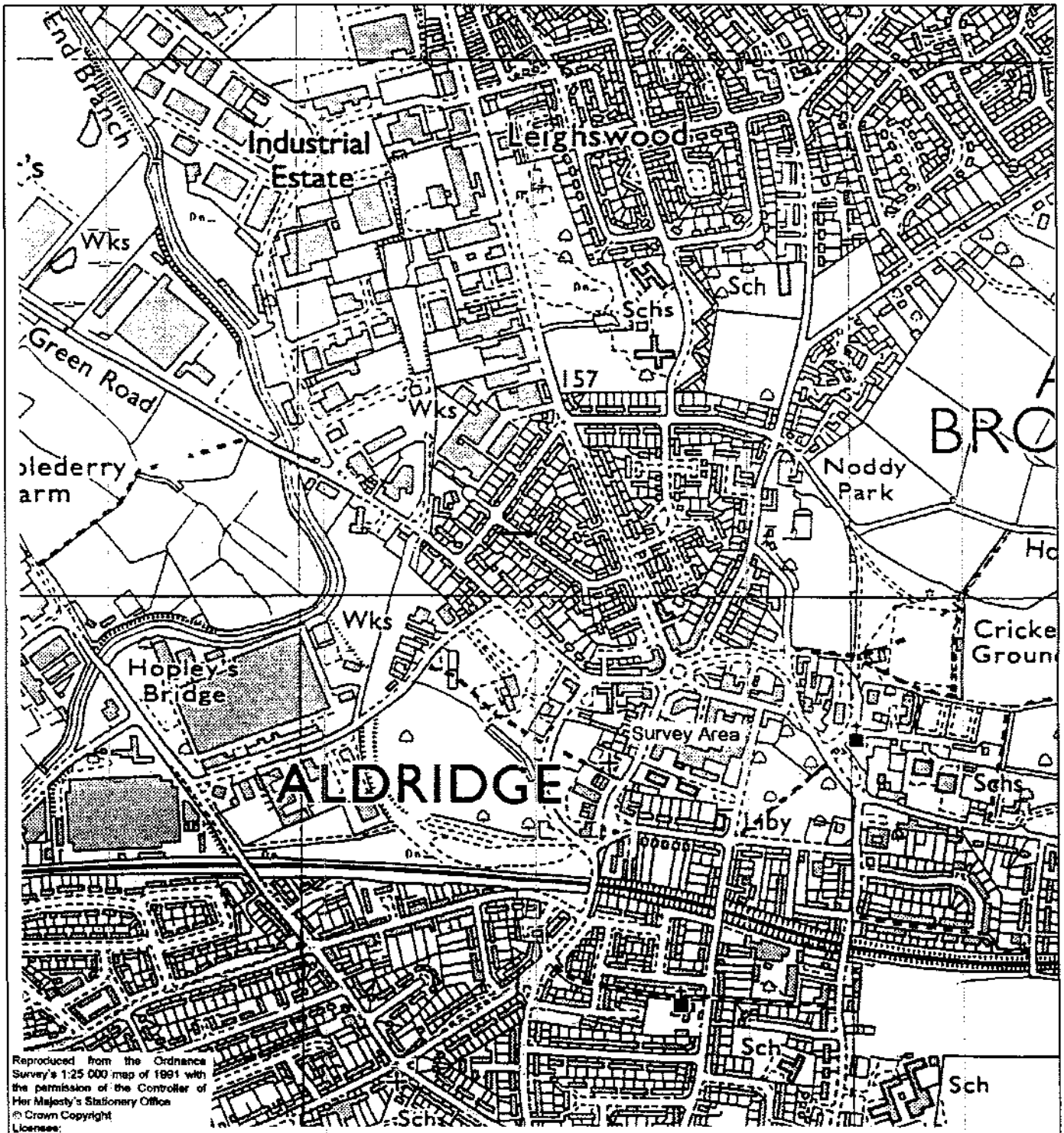


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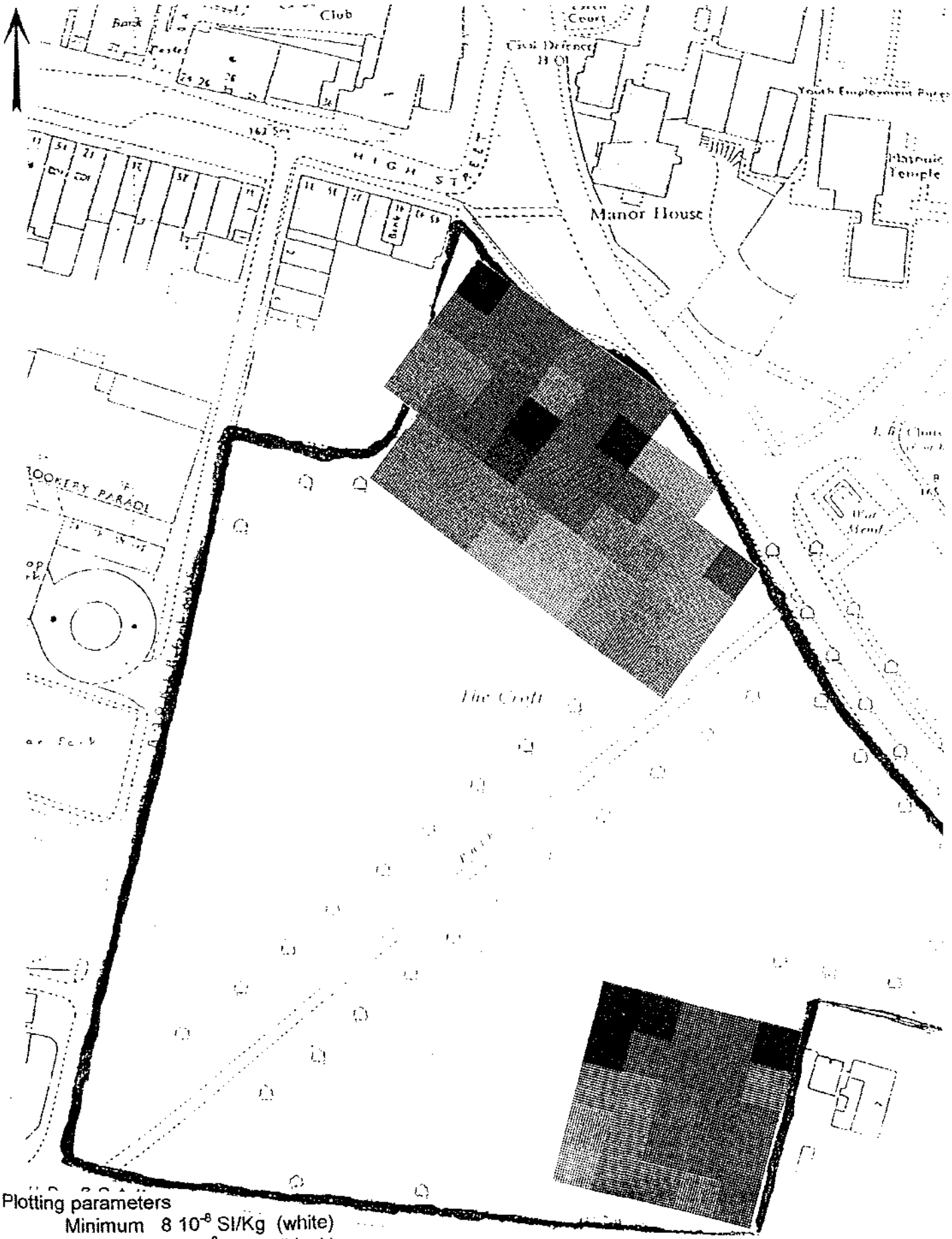
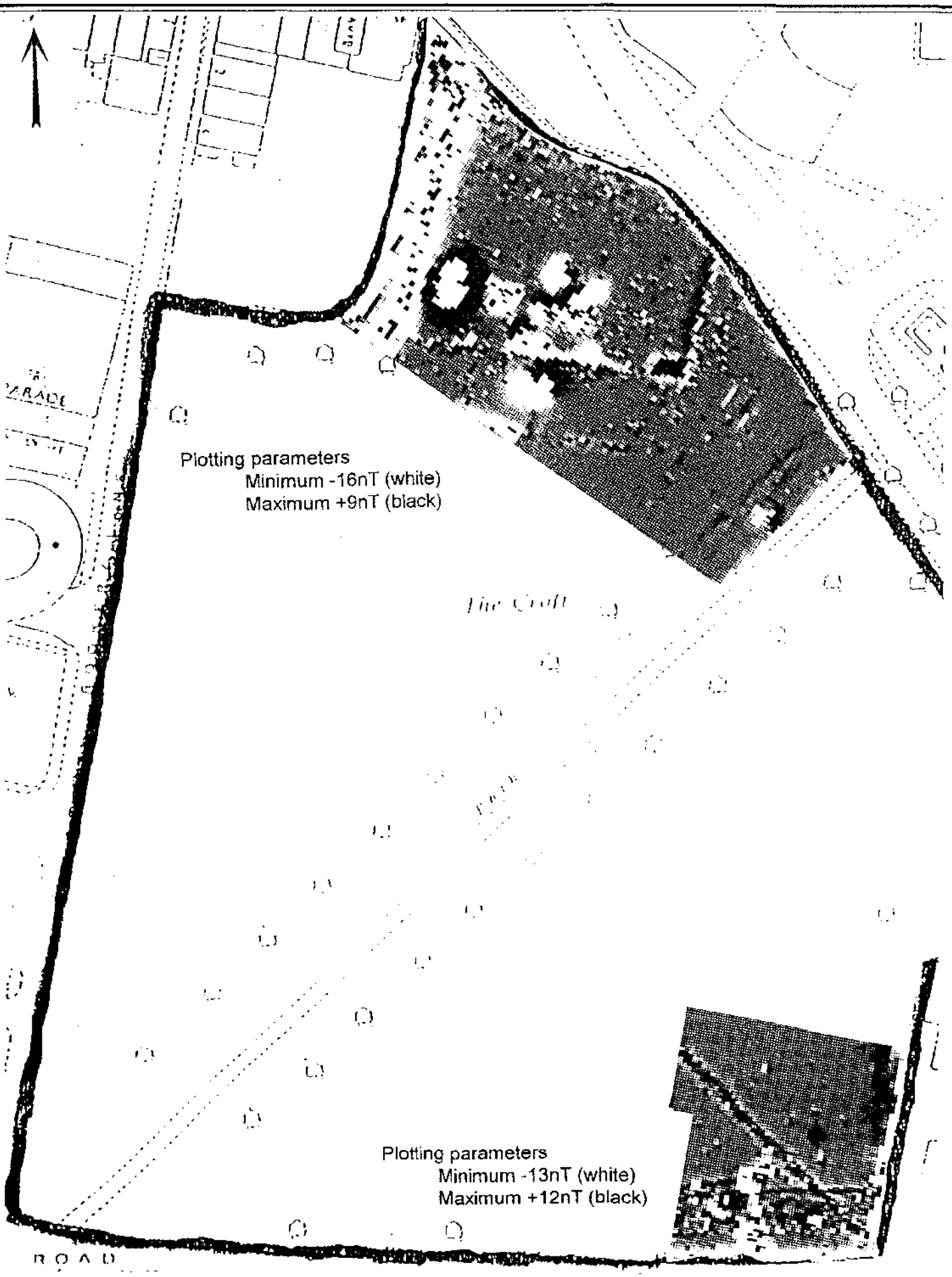
Figure 1		

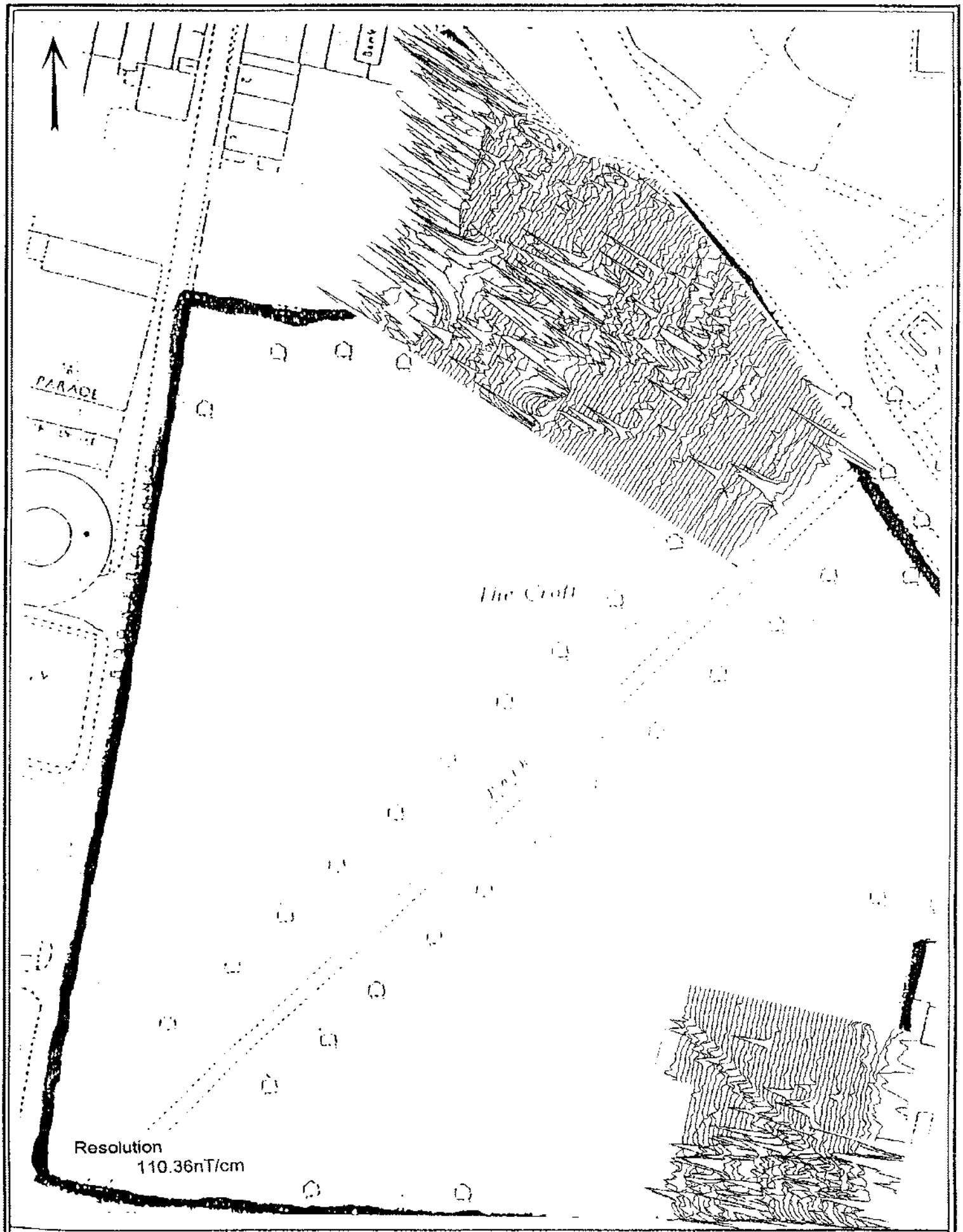


Plotting parameters
Minimum 8 10^{-8} SI/Kg (white)
Maximum 81 10^{-8} SI/Kg (black)

Date Feb. 1995	Client	UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	STRATASCAN
Scale 1:1250	Subject	Geophysical Survey The Croft, Aldridge Plot of magnetic susceptibility data	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK TELEPHONE (0684) 592266
Figure 3			



Date Feb. 1995	Client UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	SIRAISCAN.
Scale 1:1000	Subject Geophysical Survey The Croft, Aldridge Plot of raw magnetometer data	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK TELEPHONE (0684) 592266
Figure 4		



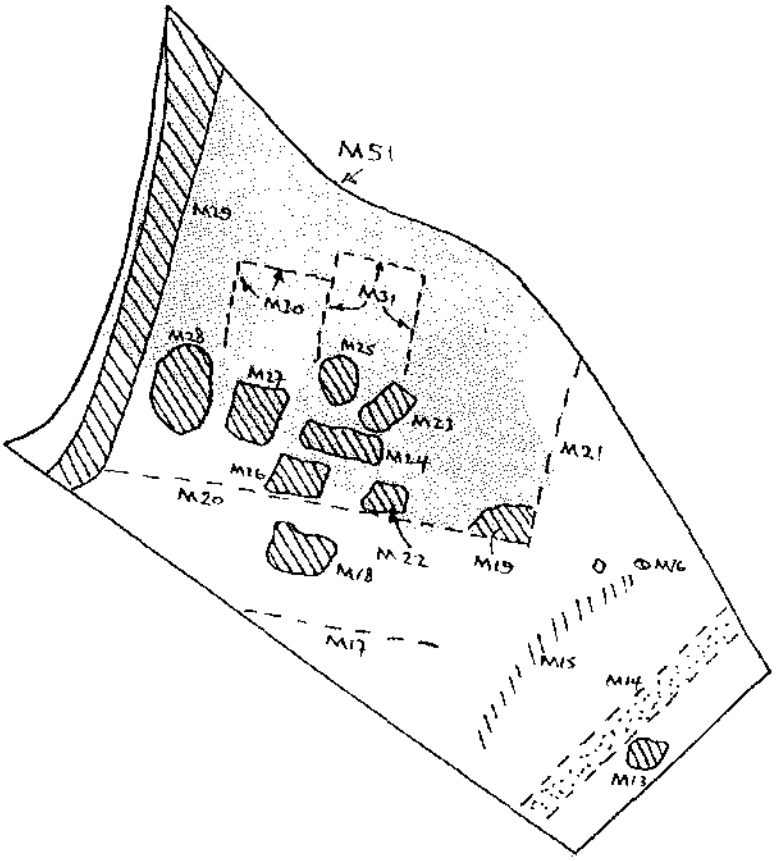
Date Feb. 1995	Client UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	STRATASCAN™
Scale 1:1000	Subject Geophysical Survey The Croft, Aldridge Trace plot of raw magnetometer data	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK TELEPHONE (0684) 592266
Figure 5		

Plotting parameters
Minimum -4.5nT (white)
Maximum +4.5nT (black)

Date Feb. 1995	Client UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	STRATASCAN™
Scale 1:1000	Subject Geophysical Survey The Croft, Aldridge Plot of magnetometer data after basic processing	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK TELEPHONE (0684) 592266
Figure 6		

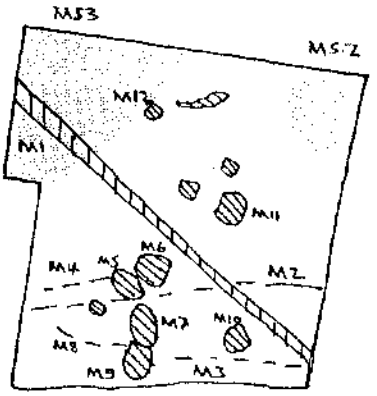
Plotting parameters
Minimum -3.5nT (white)
Maximum +3.5nT (black)

Date Feb. 1995	Client UNIVERSITY OF BIRMINGHAM FIELD ARCHAEOLOGY UNIT	STRATASCAN
Scale 1:1000	Subject Geophysical Survey The Croft, Aldridge Plot of magnetometer data after further processing	TILTRIDGE FARM UPPER HOOK ROAD UPTON UPON SEVERN WORCESTERSHIRE WR8 0SA UK TELEPHONE (0684) 592266
Figure 7		



KEY

	AREA OF ENHANCED MAGNETIC SUSCEPTIBILITY
	AREA OF STRONG MAGNETIC DISTURBANCE
	MAGNETIC ANOMALIES OF POSSIBLE INTEREST



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