

Archaeological geophysical survey at Home Farm Broadwell, Warwickshire January 2014

Report No. 14/43

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Quality control and sign off:

Issue No.	Date approved:	Checked by:	Verified by:	Approved by:	Reason for Issue:
1	21/02/2014	Pat Chapman	Mark Holmes	Andy Chapman	Draft for client review

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OASIS REPORT FORM

PROJECT DETAILS		OASIS No: molanort1-172156
Project name	Archaeological geophysical survey at Home Farm, Broadwell, Warwickshire, January 2014	
Short description	Northamptonshire Archaeology (now trading as MOLA) was commissioned to carry out a detailed magnetometer survey at Home Farm, Broadwell, Warwickshire. The work was undertaken across the site of a Roman enclosure which is currently under investigation by the Coventry and District Archaeological Society. The survey demonstrated that the enclosure is not an isolated feature, as had previously been thought, but lies at one edge of a moderately large (> 7.5 hectare) Roman settlement with possible Iron Age origins.	
Project type	Geophysical survey	
Site status	None	
Previous work	Desk-based assessment and fieldwalking (Mason 2013)	
Current Land use	Arable	
Future work	Unknown	
Monument type/ period	Iron Age / Roman settlement	
Significant finds	None	
PROJECT LOCATION		
County	Warwickshire	
Site address	Home Farm, Broadwell	
Study area	c15ha	
OS grid reference	SP 450 664	
Height OD	c85-95m aOD	
PROJECT CREATORS		
Organisation	MOLA (formerly Northamptonshire Archaeology)	
Project brief originator	Coventry and District Archaeological Society	
Project design originator	MOLA	
Director/Supervisor	Chris Chinnock	
Project Manager	Mark Holmes	
Sponsor or funding body	Coventry and District Archaeological Society	
PROJECT DATE		
Start date	20 January 2014	
End date	20 February 2014	
ARCHIVES	Location	Content
Physical	N/A	
Paper	MOLA Northampton	Site survey records
Digital	MOLA Northampton	Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey at Home Farm, Broadwell, Warwickshire, January 2014	
Serial title & volume	MOLA 14/43	
Author(s)	John Walford	
Page numbers	5	
Date	21 February 2014	

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ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT HOME FARM, BROADWELL, WARWICKSHIRE JANUARY 2014

ABSTRACT

Northamptonshire Archaeology (now trading as MOLA) was commissioned to carry out a detailed magnetometer survey at Home Farm, Broadwell, Warwickshire. The work was undertaken across the site of a Roman enclosure which is currently under investigation by the Coventry and District Archaeological Society. The survey demonstrated that the enclosure is not an isolated feature, as had previously been thought, but lies at one edge of a large (> 7.5 hectare) Roman settlement with possible Iron Age origins.

1 INTRODUCTION

Northamptonshire Archaeology (now trading as MOLA) was commissioned by the Coventry and District Archaeological Society (CADAS) to conduct a geophysical survey on a site at Home Farm, Broadwell, Warwickshire (NGR SP 450 664, Fig 1). The site contains a Roman enclosure which CADAS are currently investigating with financial support from the Heritage Lottery Fund and professional advice from AOC Archaeology. The survey was undertaken from 20th to 24th January 2014, and covered two arable fields with a combined area of c15ha.

2 TOPOGRAPHY AND GEOLOGY

The survey area comprises two adjacent arable fields located approximately 400m north-west of Broadwell and immediately east of the A426 (Fig 1). The fields occupy a gentle north-east facing slope which lies mainly between the 85m and 95m contours. The eastern field includes a small copse, within which there are residual earthworks of ridge and furrow.

The geology of the survey area is mapped as the Rugby limestone member of the Blue Lias formation. This member comprises interbedded strata of limestone and mudstone. No overlying drift deposits are recorded (BGS 2014).

3 ARCHAEOLOGICAL BACKGROUND

The survey area encompasses the site of a Roman enclosure which was first identified from cropmarks in 1995 (Plate 1). Following the discovery of the site CADAS undertook fieldwalking and excavated test pits, recovering a large quantity of Roman pottery, a few pieces of Roman tile and a few Roman coins. Smaller quantities of late prehistoric and medieval pottery were also recovered (Mason 2013, 1-3).



The enclosure cropmark, viewed from the east Plate 1
(Source: <http://broadwell-investigation.blogspot.co.uk>)

A desk-based assessment of the survey area (Soden 2013) noted that, apart from a chance find of a Roman coin in Broadwell village, there was no evidence for other Roman sites in the near vicinity of the enclosure. The majority of the local features listed on the Warwickshire Historic Environment Record related to medieval and post-medieval settlement, and none had a direct bearing on the archaeology of the survey area.

4 METHODOLOGY

The survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

A grid of contiguous 30m squares was established within each of the two fields to be surveyed. The grid points were set out with a tape measure and optical square and were tied in to the Ordnance Survey National Grid using Leica System 1200 dGPS. The gradiometers were carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square. All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data were largely processed using Geoplot 3.00v software. Most of the striping was removed using the 'Zero Mean Traverse' function but some areas had to be de-striped separately, using a spreadsheet based routine, in order to preserve linear

anomalies lying parallel to the traverse direction. Destaggering of the data was performed where necessary.

The processed data is presented in this report in the form of grey-tone plots at scales of +/- 4nT and +/- 10nT black/white. The two different scales were chosen because the tight range reveals more of the fine detail of the results and the wide range provides a better overview, less cluttered by background noise. All of the plots have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Figs 2 & 3). Interpretative overlays are presented in Figures 4 and 5.

5 SURVEY RESULTS

5.1 General comments

The survey has detected a complex palimpsest of linear and curvilinear anomalies, extending across the central and western parts of the survey area. It has also detected two sets of parallel linear anomalies, one aligned north-west to south-east across the western field and the other north-east to south-west through the eastern field. Together, these represent an extensive set of enclosures and other settlement remains cut by two furlongs of medieval to early post-medieval ridge and furrow. The general form and appearance of the settlement is consistent with an Iron Age to Roman date,

The dense clustering of the archaeological anomalies, their multiple intersections and their disruption by the ridge and furrow, mean that a fully detailed, feature by feature, discussion is not feasible. Thus the following comments, and the accompanying colour coding of anomalies in Figure 5, aim to provide only a broad overview with some provisional suggestions as to which features may form distinguishable groups or belong to particular phases of site development.

5.2 Archaeology in the eastern field

The enclosure which was originally identified from cropmarks has been clearly detected (Fig 5, purple). It has an entrance to the east and a small annex on its western end, and contains a penannular feature which is almost certainly a roundhouse gully. The strength of the enclosure ditch anomaly becomes increasingly weak towards its eastern edge, and this could be due either to a greater truncation of the remains or some broad scale variation in the magnetism of the ditch fills and subsoil.

To the south-west of the cropmark enclosure there is a set of generally weak linear anomalies which seem to define a large open-ended sub-rectangular enclosure, roughly 50m wide and more than 100m long (Fig 5, pink). This contains a few weak and 'scrappy' anomalies, two of which are C-shaped and perhaps represent partial roundhouse gullies. The southern edge of the enclosure is defined by a double anomaly which correlates with a tenuous cropmark feature (Plate 1) and probably represents the side ditches of a trackway.

To the north of the cropmark enclosure, there are four rectilinear enclosures (Fig 5, dark green), the largest of which incorporates a small D-shaped annex on its north-eastern corner. These have been grouped together for ease of description but need not have been contemporary with each other. The smallest contains a T-shaped anomaly with an

intensity of around 15nT which, on the basis of its shape and size, may be tentatively interpreted as a Roman corn drier.

A linear feature with a rounded, right angled corner (Fig 5, light blue) extends across the northern part of the eastern field, passing between some of the enclosures and continuing north-east to the edge of the survey area. It is perhaps to be interpreted as a trackway or a field boundary, and it is presumed to be of ancient origin as it does conform to the alignment of either the medieval furrows or the modern landscape. It may link up with another linear feature in the western field, but this is unclear as the possible junction is concealed under the modern hedgeline.

5.3 Archaeology in the western field

The archaeological remains in the western field are particularly dense, and it is evident that several phases of occupation and site development are represented. Four distinct sets of features can be distinguished with reasonable confidence, but there is much else which cannot be meaningfully discussed because the evidence is too ambiguous and incoherent.

One set of features consists of many loosely clustered small enclosures, most of which are sub-circular and around 15m - 20m across (Fig 5, red). These could represent animal pens and enclosures for individual roundhouses or other structures. Whilst they cannot be dated with complete confidence, their overall appearance is reminiscent of an unenclosed Iron Age settlement.

A second set of features consists of a partial rectilinear enclosure, measuring about 40m x 50m, and three slightly curving linear ditches all of which have similar north - south alignments (Fig 5, light green). Their layout seems to respect some of the smaller enclosures mentioned above, but there are relatively few points of contact so the evidence is not conclusive.

The third set of features (Fig 5, yellow) includes a set of parallel ditches which lie within a relatively narrow band across the site. These are most probably the side ditches of a road, which has been widened, narrowed or slightly re-aligned at some point during its use. To its east there are a number of perpendicular ditches which seem to form small rectilinear enclosures, reminiscent of a Roman 'ladder' settlement. Unfortunately the interpretation of these ditches is hindered by the later ridge and furrow, which follows a very similar alignment.

The fourth set of features comprises two conjoined sub-square enclosures (Fig 5, orange), lying to the east of the probable road. These have a broadly similar alignment to the roadside enclosures, and may prove to be contemporary with them. One linear ditch extends east from the southern enclosure and seems to provide a link between this and the other enclosures in the field to the east.

5.4 Non-archaeological features

Only a few non-archaeological features have been detected by the survey. One linear anomaly, extending westwards from the copse in the eastern field, marks the course of a recently backfilled field boundary ditch, and a small group of linear anomalies with alternating magnetic polarities indicate the presence of field drains in the north of the western field. At the western edge of the same field, alongside the A426, there are magnetic halos which may have arisen from an adjacent fence or some other modern

feature, and at various locations across both fields there are small, discrete dipolar anomalies which are likely to represent pieces of ferrous debris within the ploughsoil.

6 CONCLUSION

This fieldwork has shown that the archaeology of the survey area is far richer and more complicated than was previously suspected. The cropmark enclosure may now be seen as merely one feature, lying at the eastern edge of a much larger settlement, which is at least 7.5ha in extent. The northern and eastern limits of this settlement have been fairly well defined, but its southern and western limits lie beyond the boundaries of the survey area and await further investigation.

It is clear from the results that the settlement was not only extensive, but also of long duration. The survey did not detect a simple, coherent set of features but a complex palimpsest, which would indicate that the site underwent several episodes of development and remodelling over an extended period of time. Whilst the majority of this development is likely to have occurred in the Roman period, the earliest phases may prove to be of Iron Age date.

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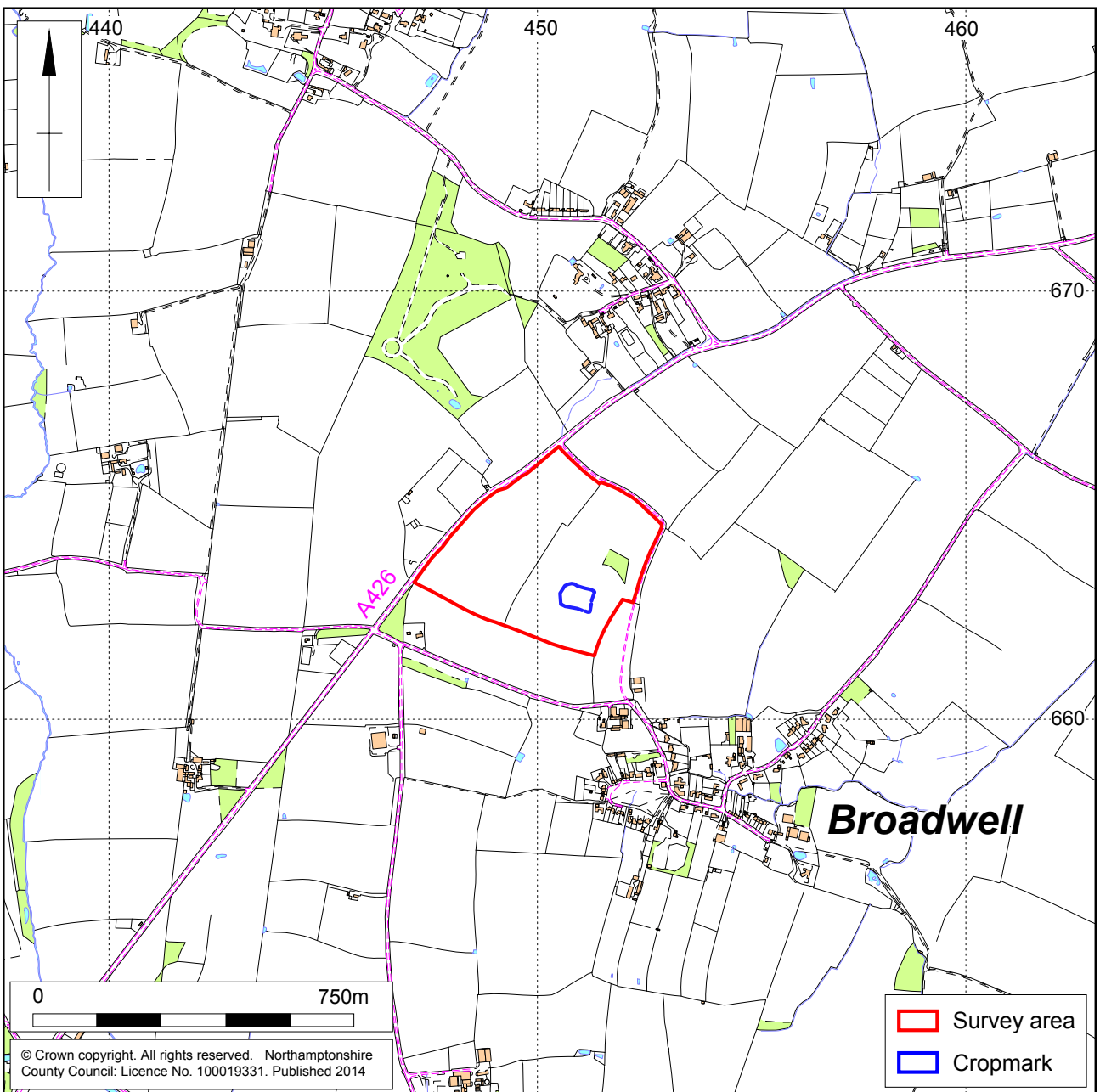
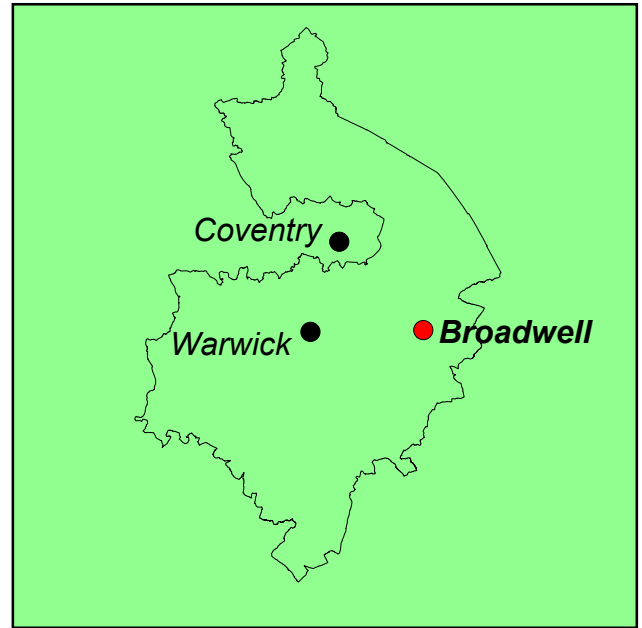
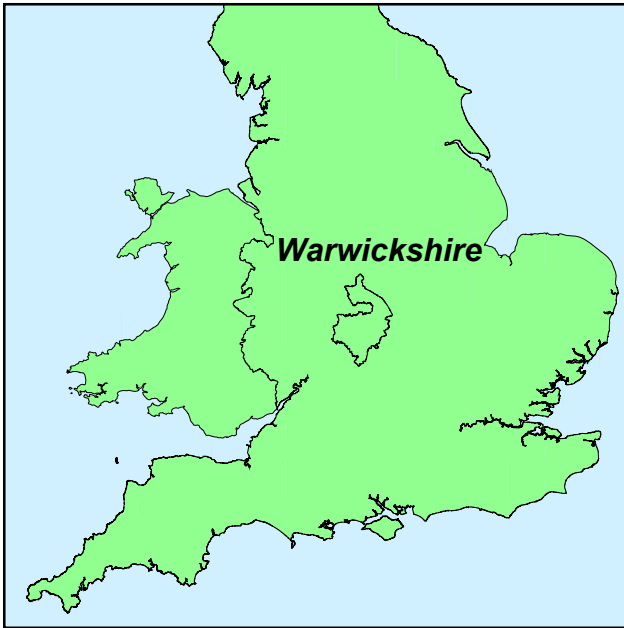
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21 February 2014



Scale 1:15,000

Site location Fig 1



Scale 1:2500

Magnetometer survey results, 4nT range Fig 2



Scale 1:2500

Magnetometer survey results, 10nT range Fig 3



Scale 1:2500

Magnetometer survey, general interpretation Fig 4



Scale 1:2500

Magnetometer survey, suggested feature groups Fig 5

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