

Archaeological geophysical survey in Delapre Park, Northampton October 2016

Event number: ENN108506

Report No: 16/183

Author: Adam Meadows

Illustrator: John Walford



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OASIS REPORT

PROJECT DETAILS		Oasis No. molanort1-267081	
Project name	Archaeological geophysical survey in Delapre Park, Northampton		
Short description	MOLA (Museum of London Archaeology) was commissioned to undertake a magnetometer survey of c 0.4ha of land in the northern part of Delapre Park, Northampton. The survey detected two probable ditches of unknown date, medieval ridge and furrow cultivation and modern services.		
Project type	Geophysical survey		
Site status	Registered Battlefield Number 1000028		
Previous work	Not known		
Current land use	Parkland		
Future work	Watching brief		
Monument type/ period	Undated ditches, Medieval ridge and furrow		
Significant finds	None		
PROJECT LOCATION			
County	Northamptonshire		
Site address	Delapre Park, Northampton		
Study area	c 0.4ha		
OS Easting & Northing	SP 756 592		
Height OD	c 63m - 68m aOD		
PROJECT CREATORS			
Organisation	MOLA		
Project brief originator	Northamptonshire County Council		
Project design originator	MOLA		
Director/Supervisor	Adam Meadows		
Project Manager	John Walford		
Sponsor or funding body	Northampton Borough Council		
PROJECT DATE			
Start date	14 October 2016		
End date	14 October 2016		
ARCHIVES		Location	Content
Physical	N/A		
Paper	MOLA Northampton.	Site survey records	
Digital	ENN108506	Geophysical survey & GIS data	
BIBLIOGRAPHY		Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey in Delapre Park, Northampton, October 2016		
Serial title & volume	MOLA Northampton Reports 16/183		
Author(s)	Adam Meadows		
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ABSTRACT

MOLA (Museum of London Archaeology) was commissioned to undertake a magnetometer survey of c 0.4ha of land in the northern part of Delapre Park, Northampton. The survey detected two probable ditches of unknown date, medieval ridge and furrow cultivation and modern services.

1 INTRODUCTION

MOLA (Museum of London Archaeology) was commissioned by Northampton Borough Council, acting on advice from Iain Soden Heritage Services Ltd, to conduct a magnetometer survey of c 0.4ha of land within Delapre Park, Northampton (NGR SP 756 592; Fig 1). The purpose of the survey was to identify any potential archaeological remains prior to the excavation of a service trench for new electrical cabling.

The survey was undertaken on the 14th October 2016. The Northamptonshire Historic Environment Record (HER) has been notified of the work and has recorded it under event number ENN108506.

2 BACKGROUND

2.1 Topography and geology

Delapre Park is located within the Borough of Northampton, to the south of the town centre. It encompasses Delapre Abbey and borders Delapre Golf Course to the south. It is bounded to the west by London Road and to the north by properties along Ransome Road (Fig 1). The park itself lies on a predominantly north-facing slope with the survey area at an elevation between 63m and 68m aOD.

The geology of the survey area comprises Lias Group mudstone, siltstone and sandstone overlain by glacial sands and gravels (BGS 2016).

2.2 Historical and archaeological background

A search of the Northamptonshire Historic Environment Record yielded a number of archaeological results within close proximity of the survey area. The earliest dating archaeological remains found within Delapre Park are some potential Bronze Age barrows (5022/0/2) and a pit alignment dating from the early Iron Age within what is now the golf course (9607/1/1).

Roman remains were recorded in Delapre Park in 2006, during emergency archaeological works close to the entrance gate on the A508 London Road. Here a group of eight pottery kilns dating from late 1st century to early 2nd century were discovered with adjacent ditches following what would have been the predecessor of London Road (Woodfield 2010).

In the Saxon and early medieval period the area now occupied by Delapre Park was used for agriculture. Earthworks originating from medieval ridge and furrow cultivation are still visible in some areas of the park (5023/1/2).

Delapre Abbey was founded in 1145 as a Clunaic nunnery by the second Simon de St Liz. Little to no above ground evidence of this early structure is present, due to later remodelling, although some walls in the basement of the present house are thought to be medieval.

The abbey was witness to two well-known historic events. Firstly, in 1290, the funeral procession for Eleanor of Castile, Queen of Edward I stopped here on its way to Westminster. In commemoration of this, the Eleanor Cross was constructed. Originally twelve of these were made following the route taken to Westminster; only three of them remain standing. This particular one is Grade I Listed and a Scheduled Monument (18/137).

In 1460 the abbey was the staging area for the Battle of Northampton. Fought between the Yorkist and Lancastrian armies during the War of the Roses, it is recognised to be one of the key battles of the conflict. The land between the A508 and the A45, from the Eleanor Cross roundabout to Delapre Abbey and covering the whole of Delapre Golf course is recorded as a Registered Historic Battlefield (1000028).

The abbey was dissolved in 1538 after the separation of England from the Catholic Church. The property was sold by the Crown, and became the private residencies for a succession of families, most notably the Tate family from 1546 to 1764 and the Bouverie family from 1764 to 1946. During their tenure, the property underwent multiple phases of remodelling, removing the monastic structure and replacing it with a courtyard building that has been subject to further alterations and expansion over the following years.

After 1948 (following a period of requisition by the War Office) the property was used by the Northamptonshire County War Agricultural Committee before being occupied by the Northamptonshire County Record Office between 1957 and 1992. During this period extensive works were carried out within the house until it was Grade II* listed in 1968 (7/138). After being vacated in 1992, the property was left empty until charitable organisations moved in with the aims of renovating the house to be open for public tours while maintaining the grounds as a public park.

3 METHODOLOGY

The route of the proposed trench was marked out by the developer with a c 320m long spray-painted line on the ground and the survey was required to cover a corridor extending at least 5m either side of this line. This was to ensure enough coverage was made to allow for the confident identification of archaeological features.

The survey was undertaken with the MOLA magnetometer cart. This is a lightweight two-wheeled structure designed to be pushed by hand. It incorporates a bank of six vertically-mounted Bartington Grad601 magnetic sensor tubes, spaced at half-meter intervals along a bar aligned crossways to the direction of travel, and also incorporates a Leica Geosystems Viva GPS antenna mounted on the central axis, 0.5m astern of the sensors. The magnetic sensors each output data at a rate of six readings per second and the GPS antenna outputs NMEA format data (GGA messages) at a rate of one position every second. These data streams are fed into a laptop computer where they are compiled into a single raw data file by MultiGrad601 logging software specifically designed for that purpose.

The cart was pushed along straight and parallel traverses across the survey area, with data logging being manually toggled on and off at the start and end of each traverse to avoid the collection of spurious data whilst turning. Traverse ends were marked with ranging poles to aid even coverage, and the evenness of coverage was further checked by monitoring the positional trace plotted in real time by the MultiGrad601 logging software. The average speed of coverage was c 1.5m/s and the effective data resolution thus approximated to 0.25m x 0.50m.

The raw survey data was initially processed with MLGrad601 software, which calculated an actual UTM co-ordinate for each data point by interpolating the GPS readings and applying offset corrections based on the array geometry and calculated heading direction. This produced an output file in XYZ format which could be imported into TerraSurveyor software for data visualisation and further processing.

The raw XYZ data exhibited striping caused by slight mis-matches in the calibration of the individual magnetic sensors. This was removed in TerraSurveyor by applying the median destripe function to runs of data from each sensor.

The processed data is presented in this report as greyscale raster plots (range +10nT to -10nT / black to white), rotated and scaled for display against the Ordnance Survey base mapping (Fig 2). An interpretive overlay is presented in Figure 3.

4 SURVEY RESULTS

The survey data contains two linear anomalies of potential archaeological interest, located centrally in the western field. They are likely to represent ditches of indeterminate date. It is possible that they relate to the Roman remains previously discovered nearby, but it is also possible they are later boundaries or garden features related to Delapre Abbey.

Medieval ridge and furrow cultivation was detected predominantly in the western portion of the eastern field. Aligned north-north-west to south-south-east, this correlated with surviving earthworks encountered in this area. Much more indistinct linear anomalies have been detected in the western and south-eastern ends of the survey area, these may also represent ridge and furrow.

Scatterings of small dipolar anomalies were detected across much of the site. These are likely to represent small items of metallic debris within the soils. Further modern disturbance is present in the form of a large metallic dipole in the western field resulting from a manhole cover and two linear anomalies of alternating magnetic polarity representing subterranean pipes in the eastern field. In the same area as the pipes there is a weaker and more fragmentary linear anomaly which aligns towards an adjacent pond and perhaps represents a drain.

Much of the western end of the survey data exhibits amorphous patterning with a few discrete positive anomalies also present. These are hard to interpret confidently, especially as they appear in such a narrow transect of data and their wider context is not apparent. However, it would be most likely that they have a geological origin, perhaps relating to a pocket of alluvial sediments.

5 CONCLUSION

The survey has detected two undated ditches and some medieval ridge and furrow, as well as modern pipes and ferrous debris. Whilst the limited coverage makes it difficult to set these features in their wider context, the data does provide a useful record of the site's geophysical signature as it was prior to the insertion of the new service trench. As such, it could be a valuable adjunct to any more extensive survey of the park which may be undertaken in the future.

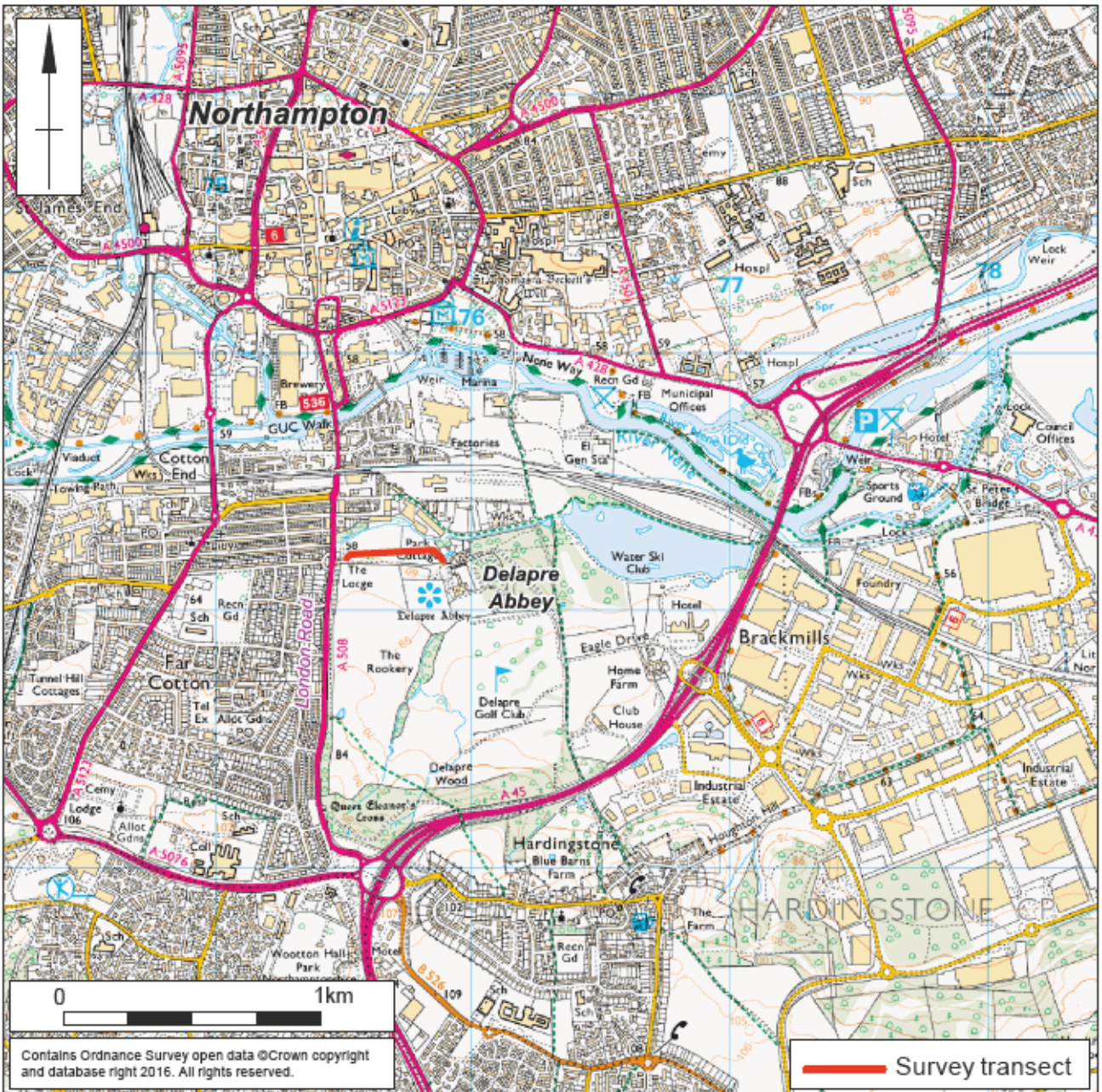
BIBLIOGRAPHY

BGS 2016 *Geology of Britain Viewer*, <http://mapapps.bgs.ac.uk/geologyofbritain>, British Geological Survey, consulted May 2016

CIfA 2014 *Standard and Guidance for Archaeological Geophysical Survey*, Chartered Institute for Archaeologists

EH 2008 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage

Woodfield P, 2010, The Delapre Roman Kiln Field, Northampton, *Northamptonshire Archaeology*, 36, 97-112



Scale 1:25,000

Site location Fig 1



Scale 1:2000

Magnetometer survey results Fig 2



Scale 1:2000

Magnetometer survey interpretation Fig 3



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