



Ely Cathedral Dean's Paddock Report

On 7 April 2013 Archaeology RheeSearch Group carried out magnetometry and resistivity surveys on this site.

Members participating: Pat Davies, Brian Bridgland, Liz Livingstone, Ian Sanderson, Gill Shapland, Maureen Storey and Tony Storey.

Site liaison: Vicki Roulinson

Site conditions: Rough grass.

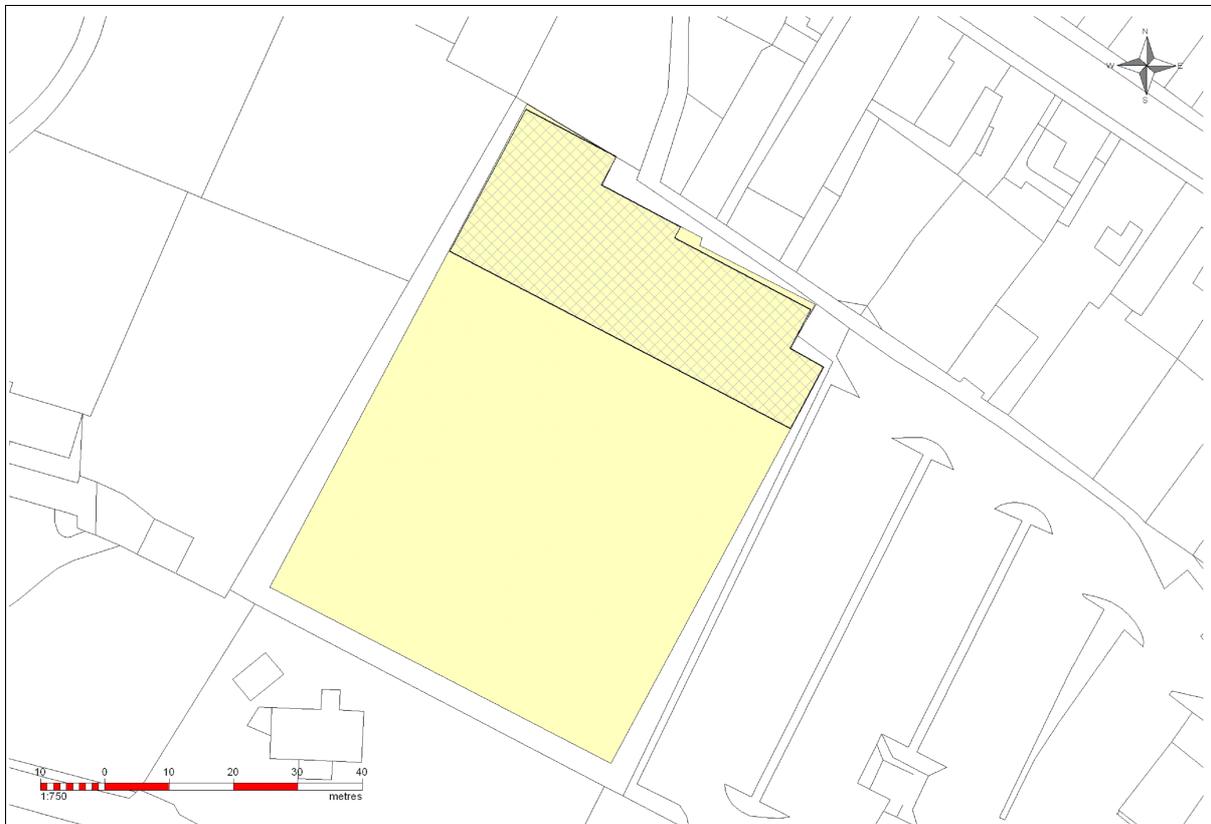
Equipment: Bartington 601 gradiometer; TRCIA 50 cm twin probe.

Magnetometry readings: 8/m, 1 m separation.

Resistivity readings: 1 m interval, 1 m separation.

Raw data are available as separate appendices.

Location: TL543802, Ely Cathedral precincts, Cambs.



Location plan: Survey areas

(resistivity survey areas hatched, magnetometry areas solid)

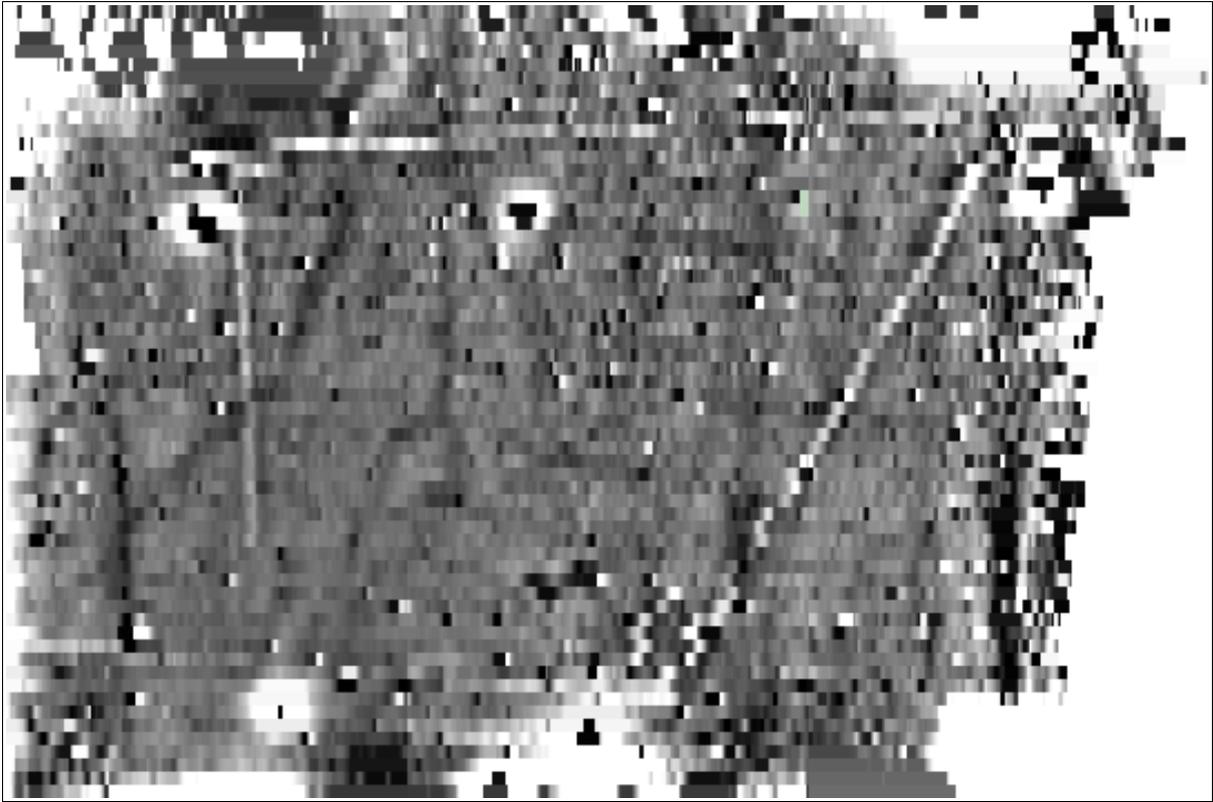
Purpose of survey: The purpose of this survey was to determine if any subsurface features could be detected.

Site topography: This paddock slopes fairly evenly from the NW walled boundary to the SE boundary of scrub shielding a lower car park. The NE boundary is formed by a metalled path rising from the carpark to the shopping area.

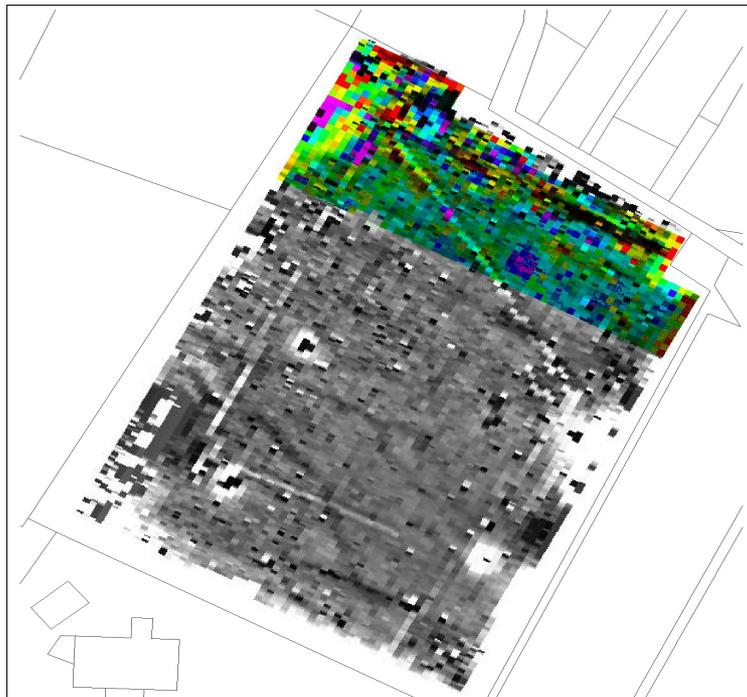
Results:

The images in this section are orientated for presentation. The images are not to a common scale.

		<p>Resistivity 25 m x 60 m</p> <p>Raw data</p>
		<p>High pass filter 7</p>
<p>(black - low, white - high, red null)</p>	<p>(purple/blue - low, red - high, white null)</p>	



Magnetometry 120 m x 150 m range +14to -19 nT
(black - high, white - low)



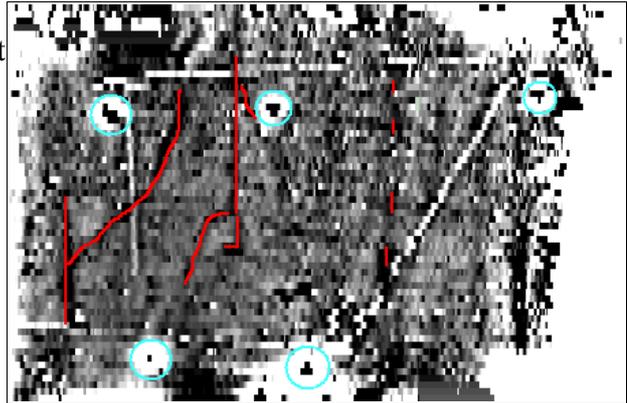
Superimposition of resistivity and magnetometry results.

Resistivity

The principal feature in the resistivity results is an interrupted linear high resistance response running parallel to but about 4 m from the NE boundary. In addition, there was a scatter of high resistance signals in the N corner of the survey area. Two squares (5 m and 3 m) of low resistance values occur close to each other about 25 m NW of the SE edge of the survey area.

Magnetometry

The main features in the magnetometry results are three lines, two of which parallel the NW and SW boundaries of the site and one running SE from the N corner of the site. There is also a much less distinct but similar line running parallel to the SE boundary of the survey from the S end of the line running SE. These very distinct low intensity (white) responses without an associated high intensity response are unusual in magnetometry surveys. More common response types are shown in red on the adjacent image. Parts of these are linear and the dashed one is indistinct. There are in addition five point areas of particularly strong intensity indicated in blue.



Discussion:

The level of background magnetic noise on this site is sufficiently high to possibly obscure some of the archaeological features. With regard to the resistivity, the interrupted high values probably indicate either a path parallel to the present path or an earlier boundary wall to the present path. Given the slight difference in alignment, the former seems more likely. This might be resolved by a close examination of the NW boundary wall for evidence of a previous opening. The two low value response areas described above are anomalous and remain unexplained. The three distinct linear features picked up by the magnetometry survey may result from electric cabling, but the apparent termination within the paddock would run counter to this suggestion. The linear portions of the lines shown in red above suggest boundary ditches which are associated with natural flow drainage lines. The distribution of the high intensity points suggests that they may be archaeologically significant.