

## **Wimpole Hall Outlook Field (East) Report**

During July and August 2011 Archaeology RheeSearch Group carried out magnetometry and resistivity surveys on this site.

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

**Site liaison:** Simon Damant.

**Site conditions:** Rough grass.

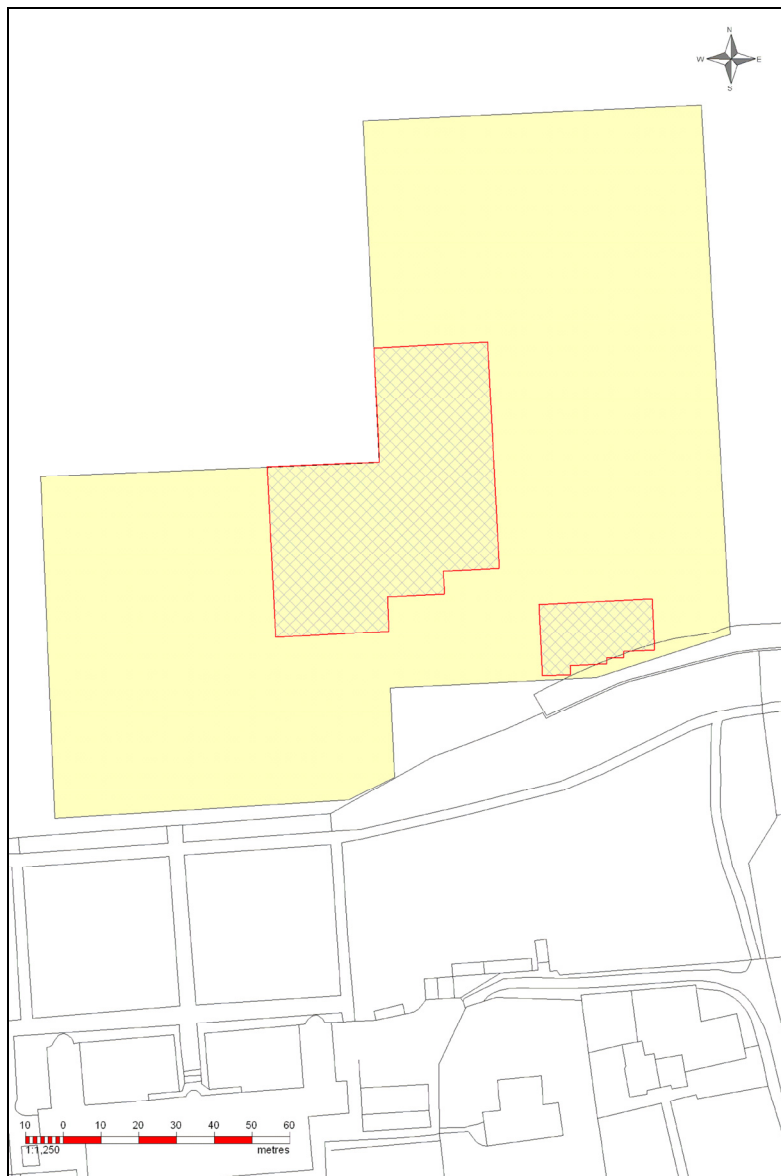
**Equipment:** Bartington 601 gradiometer; TRCIA 50 cm twin probe.

Magnetometry readings: 8/m, 1 m separation.

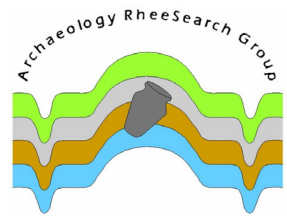
Resistivity readings: 1 m interval, 1 m separation.

Raw data are available as separate appendices.

**Location:** TL336511, Wimpole Hall, Wimpole, 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 and to complement our previous report (Sanderson, 2010).

**Site topography:**

Fairly level grazing field just north of the formal gardens at Wimpole Hall.

**Results:**

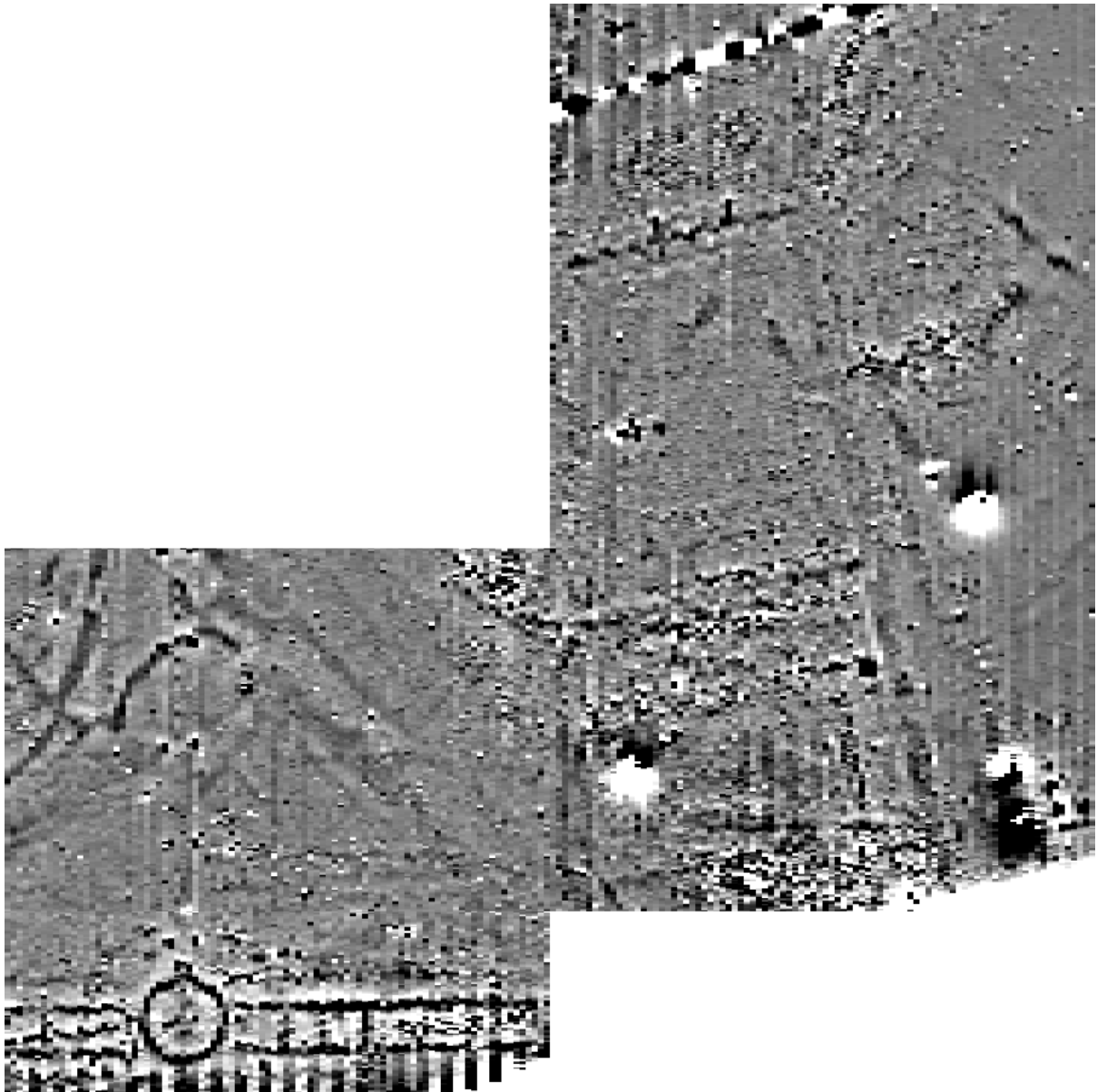
*The images in this section are orientated for presentation; this is close to grid north. The images are not to a common scale.*

Resistivity  
Northern area

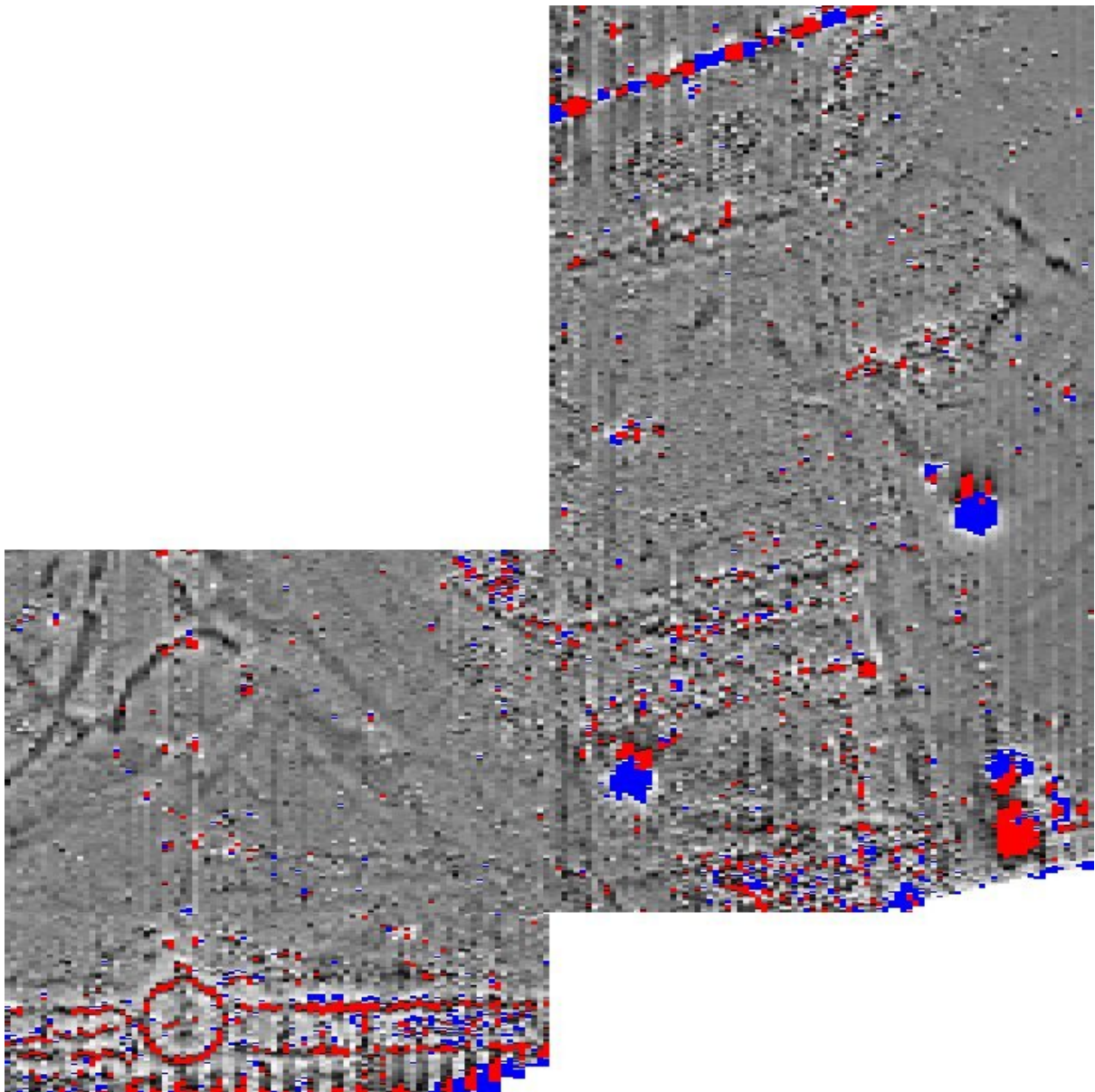
		<p>Resistivity 60 m x 75 m</p> <p>Raw data</p>
		<p>High pass filter 4</p>
<p>(black – low, white – high, red – null)</p>	<p>(purple/blue – low, red – high, white – null)</p>	

Southern area

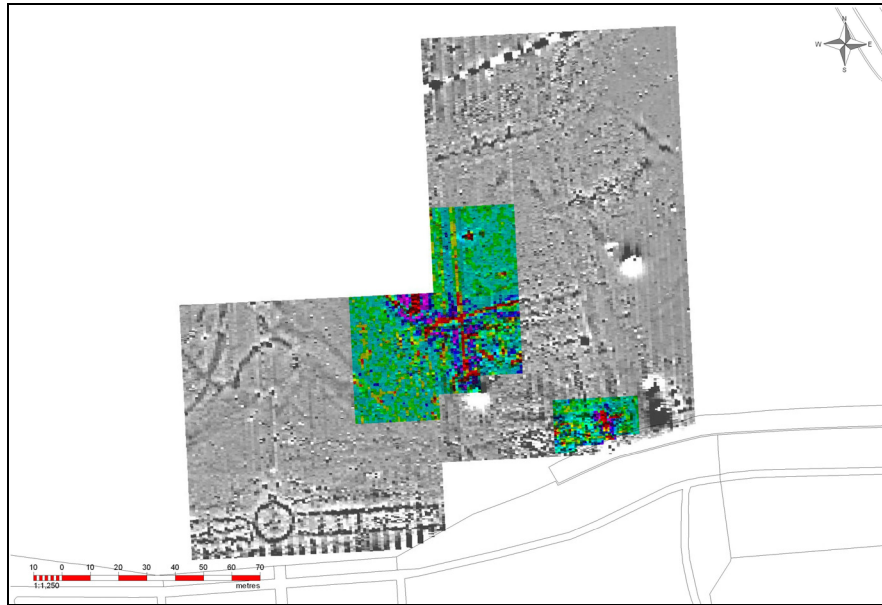
		<p>Resistivity 25 m x 40 m</p> <p>Raw data</p>
		<p>High pass filter 4</p>
<p>(black – low, white – high, red – null)</p>	<p>(purple/blue – low, red – high, white – null)</p>	



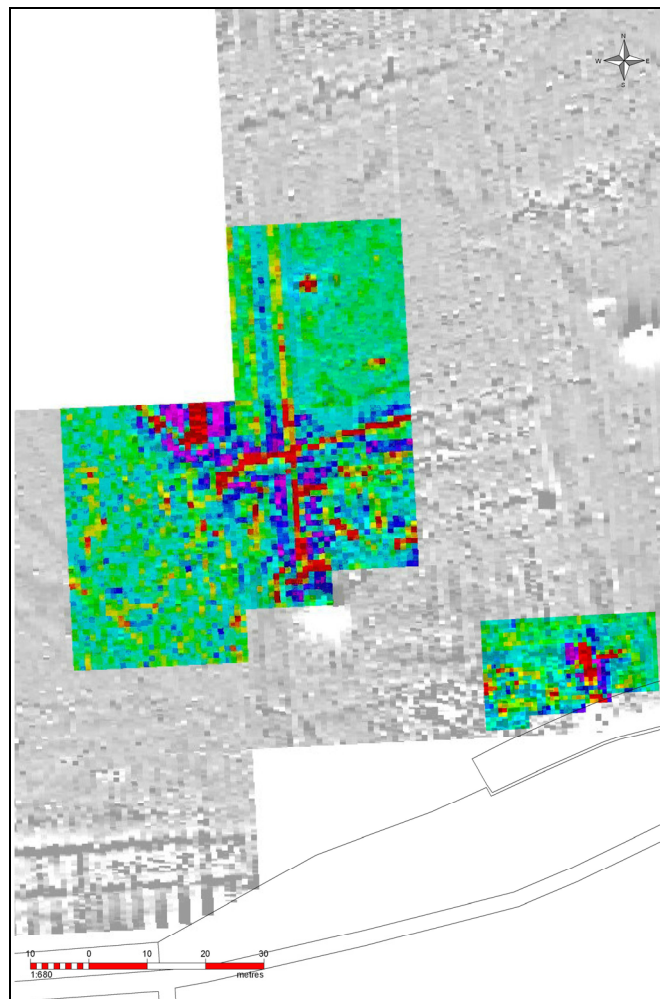
Magnetometry 180 m x 180 m range +11 to -11 nT .



Magnetometry 180 m x 180 m range +15 to -15 nT showing the extreme values in red (high) and blue (low).



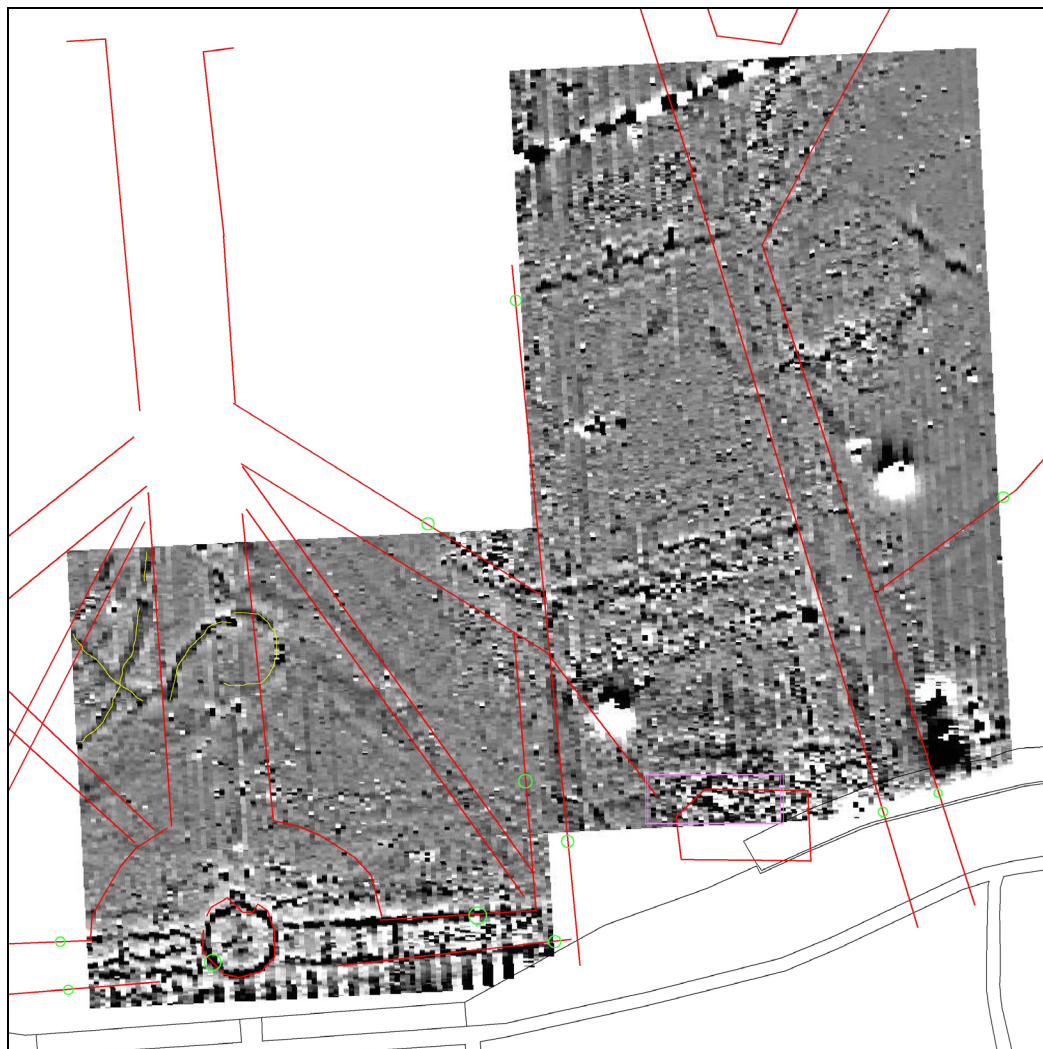
Superimposition of resistivity and magnetometry results.



Superimposition of resistivity and magnetometry results (detail).

**Discussion:**

This area of the Wimpole Estate is known to be a location where extensive landscape gardening modifications took place, particularly in the 18<sup>th</sup> century. Recent modifications have included placing metal guards around some trees, and these guards account for the four major anomalies in red/blue shown on the extreme values image above. The same image also shows a service conduit running across the N edge of the survey area. The remainder of the geophysical responses recorded in these surveys are dominated by the 17<sup>th</sup> and 18<sup>th</sup> century garden modifications although some may reflect much earlier archaeology since they apparently fail to fit the formal nature of garden design at that time. However, it is possible that this failure to conform to the expected pattern may be due to a more pragmatic approach being taken when placing subsurface features, such as water supply and drainage pipes. Some of the potential non-garden features are identified in yellow on the image below which shows lines from Charles Bridgeman’s plan (Bridgeman ca. 1721-24) superimposed on the magnetometry results.



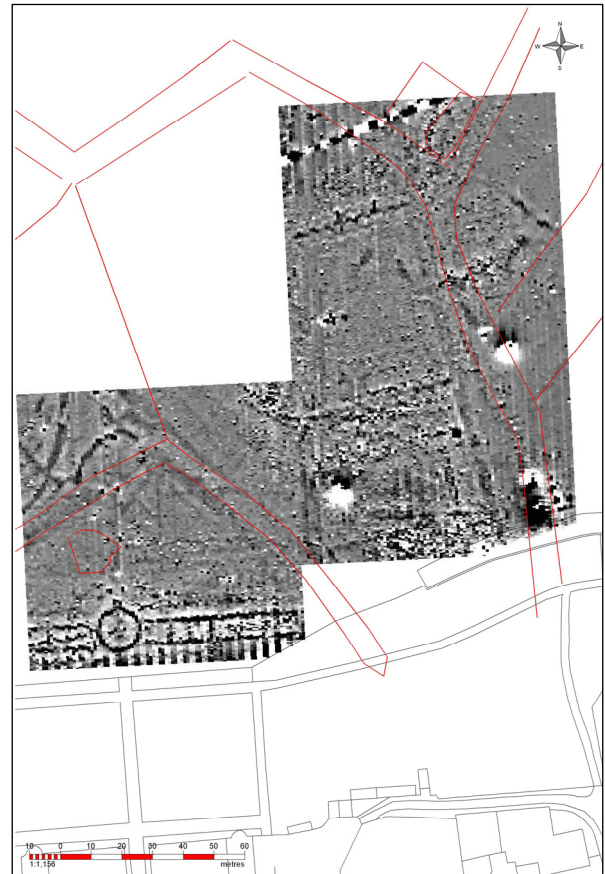
Lines on Bridgeman’s plan of c1721 (red) on magnetometry results.

The lines on this image identified by green circles are those on the Bridgeman plan with a very close response in the magnetometry results. The area marked with a purple box is of particular interest because it overlaps what may be a building on the Bridgeman plan and

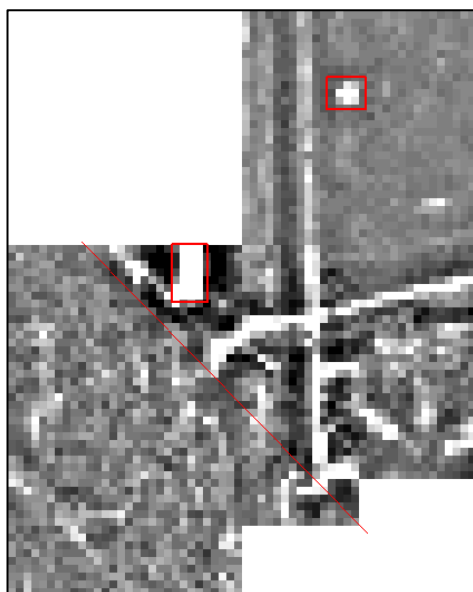
shows a magnetic response often associated with demolition debris. In addition the W side of the southern resistance survey shows a rectilinear pattern of medium to high resistance values overlapping this area suggesting foundation remains. This resistivity survey also shows a discrete high resistance area which has some elements of a rectilinear form. This is separated from a small high resistance area to the S which was over a visible drainage conduit in the edge of the present ditch (photos below). This conduit appears to run to the NW but no geophysical responses were detected on this alignment beyond about 4 m from the visible structure. A short line of high resistance values in the N survey area runs parallel to, but displaced from the projected alignment.

The Hare map (1638) was also compared with the magnetometry results. This map is difficult to georeference with confidence due to a lack of modern reference points. Despite this limitation there is a strong correlation between a band of woodland around the Manor house shown on Hare's map and with the attenuation of the potentially earlier archaeology mentioned and shown in yellow above. It also shows a track which approximates to the linear magnetometry responses running NNW on the E side of the survey area.

The resistivity results are probably similarly dominated by garden landscaping features. The northern area has a line of high resistance values running N-S across the survey area which terminates at its S end in a larger cluster of high values. A line of high resistance values extends to the E from the centre of the N-S line and parallels a line shown slightly to the S in the magnetometry results. This line continues to the W of the N-S line but with a different alignment.



Lines on Hare's map of 1638 (red) on magnetometry results.



Annotated northern resistivity survey.

The northern resistivity survey area has two areas of high resistivity values, which are shown in outlined in red. The block to the N has a corresponding discrete magnetic signal. This could be the foundation of a plinth for a garden feature. The central block is larger and corresponds with a confused magnetic response which could indicate a demolished structure. The red line on the resistivity image divides the survey into an area to the SW where the responses are attenuated and an area to the NE where the responses are much clearer. This suggests that large scale surface modification took place at a later date in the SW area.



Conduit outfall photographs.

**References:**

- I. Sanderson (2010) RheeSearch Report Wimpole Hall North Gate Site. Unpublished report linked with Cambridgeshire HER Monument MCB17736.
- C. Bridgeman (ca. 1721-24), Bodleian Library, MS.Gough Drawings a4 f.69.
- B. Hare (1638) Survey Plan of the Wimpole Estate, Cambridgeshire Record Office, R77/1.

Report by Dr I Sanderson for Archaeology RheeSearch