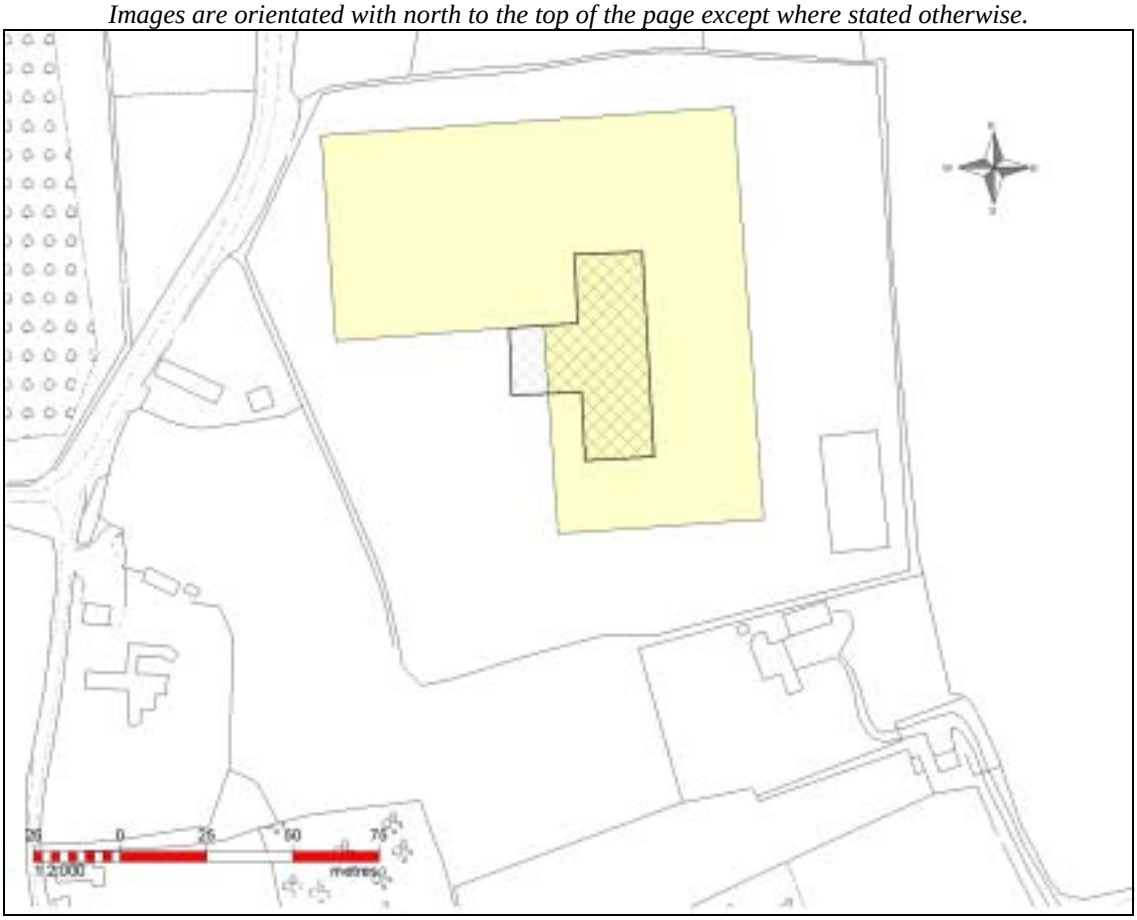
Duddenhoe Report

In November 2006 and January 2007 Archaeology RheeSearch Group carried out magnetometry and resistivity surveys on this site at the suggestion of Olive Harvey on the basis that it might be the location of one of the Duddenhoe manor houses.
Members participating: Brian Bridgland, Pat Davies, Liz Livingstone, Bruce Milner, Ian Sanderson, Maureen Storey, Tony Storey.
Site Owner: John Hughes.
Site conditions: Rough grass, sheep pasture. Access from Cogmore at the NW corner of the site.
Equipment: Bartington 601 gradiometer; TRCIA 50cm twin probe.

Area covered:	Magnetometry	twelve 30 m × 30 m grids
	Resistivity	four 20 m × 20 m grids

Location: TL 466 373, 50 m E of Cogmore, Duddenhoe End, Essex.

Images are orientated with north to the top of the page except where stated otherwise.



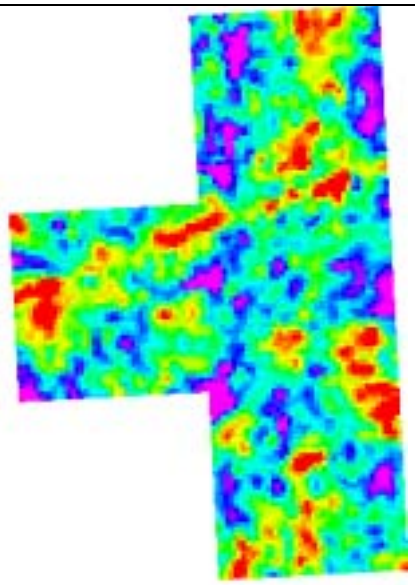
Location plan: Survey areas with Cogmore to the W
(resistivity survey area crosshatched, magnetometry area solid.
Resistivity only area 20 m x10 m).

On the ground location points:

NE corner of SE grid to tennis court NW 19.36 m, tennis court SW 45.26 m
SE corner of SE grid to tennis court NW 29.06 m, tennis court SW 22.45 m.
SW corner of SW grid to telegraph pole 18.6 m SE corner to same 18.28 m

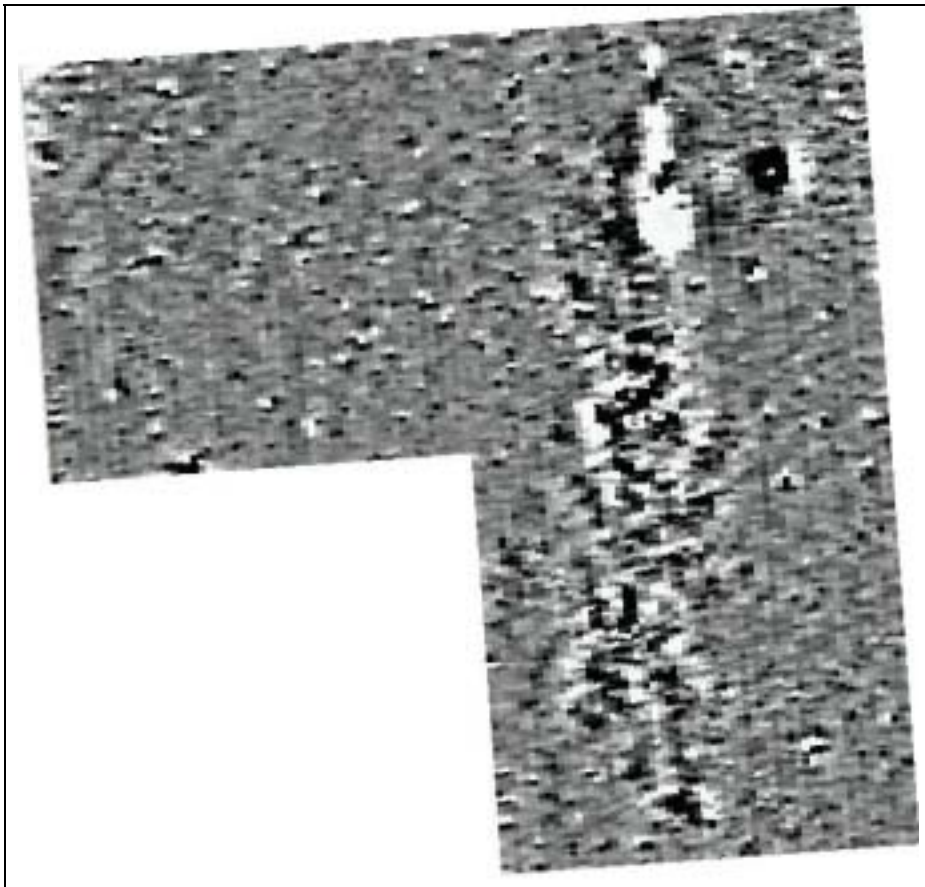
Purpose of survey: To determine if any subsurface structures were detectable which would indicate the site of a building.

Results:



Resistivity results, four 20 m x 20 m grids
(purple/blue - low, red - high)

Resistivity results, four 20 m x 20 m grids
(black - low, white - high)



Magnetometry results,
120 m x 120 m

(black high, white low)

Resistivity

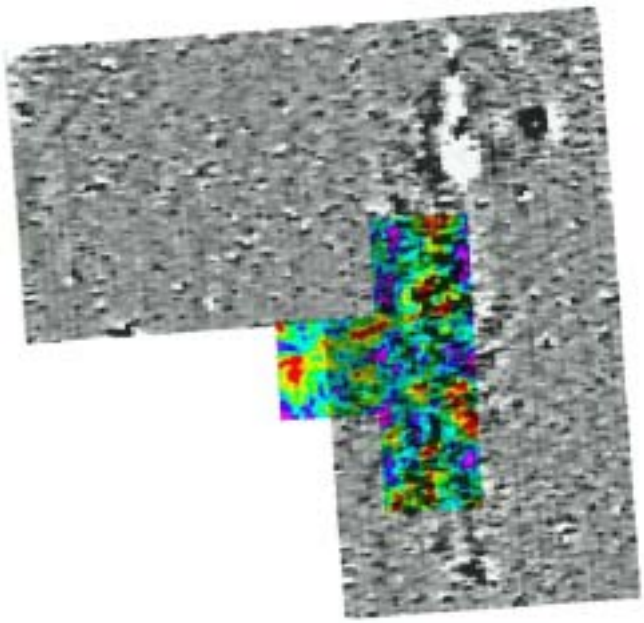
The resistivity measurements show a broken line of high resistance value running approximately EW across the survey area. This may have a matching low resistance line immediately to the S. There are indications of a rectilinear high resistance feature centrally to the S.

Magnetometry

The magnetometry results clearly show a broad strip of anomalous signals running NS across the survey area. Within this strip there may be discernible shapes but the background noise is too great to speculate with any confidence. There is a ditch line across the NW corner approximately parallel to the present NW boundary of the field.

Correlations

Magnetometry and resistivity detect different aspects of subsurface structures and should not therefore be expected to show the same features. The differences and coincidences in what is detected can sometimes add further information about those structures.
Superimposing the resistivity and magnetometry results in this case shows no appreciable correlations. However, there are suggestions of low resistance lines (albeit with one area of high resistance) bordering the NS magnetic anomaly, The EW high resistance line might also continue into the magnetometry survey area.



Superimposition of resistivity and magnetometry results

	
Aerial photograph	Inclosure Map (Essex Records Office)

Discussion:
The most likely explanation for the NS strip that is perhaps bordered by low resistance lines, is a general route across the field which has been partly metalled using fired clay debris, such as broken brick or tiles. Some evidence of a plank bridge was found over the field's N boundary ditch in approximately the expected position. The EW high resistance feature points towards the road junction on the west and might represent a path from there to the NW corner of Dawes Wood to the east of the site. The length of ditch in the NW corner of the magnetometry survey suggests that the road may have been moved slightly W to its present course.
No distinct evidence of building structures was found but the 14–20 m width of the NS magnetic feature could be sufficient to obscure responses attributable to foundations. Scatter due to demolition would not normally be expected to be linear unless it were used to form a track.

Raw data are available as separate appendices.
Magnetometry readings: 4/m, 1 m separation.
Resistivity readings: 1 m interval, 1 m separation.