

The Old Plough Report

On 15 October 2006 Archaeology RheeSearch carried out magnetometry and resistivity surveys at The Old Plough near Prickwillow in Cambridgeshire.

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

Owner: Mr & Mrs Gerald Rigby.

Coordinator: Prof. Michael Chisholm.

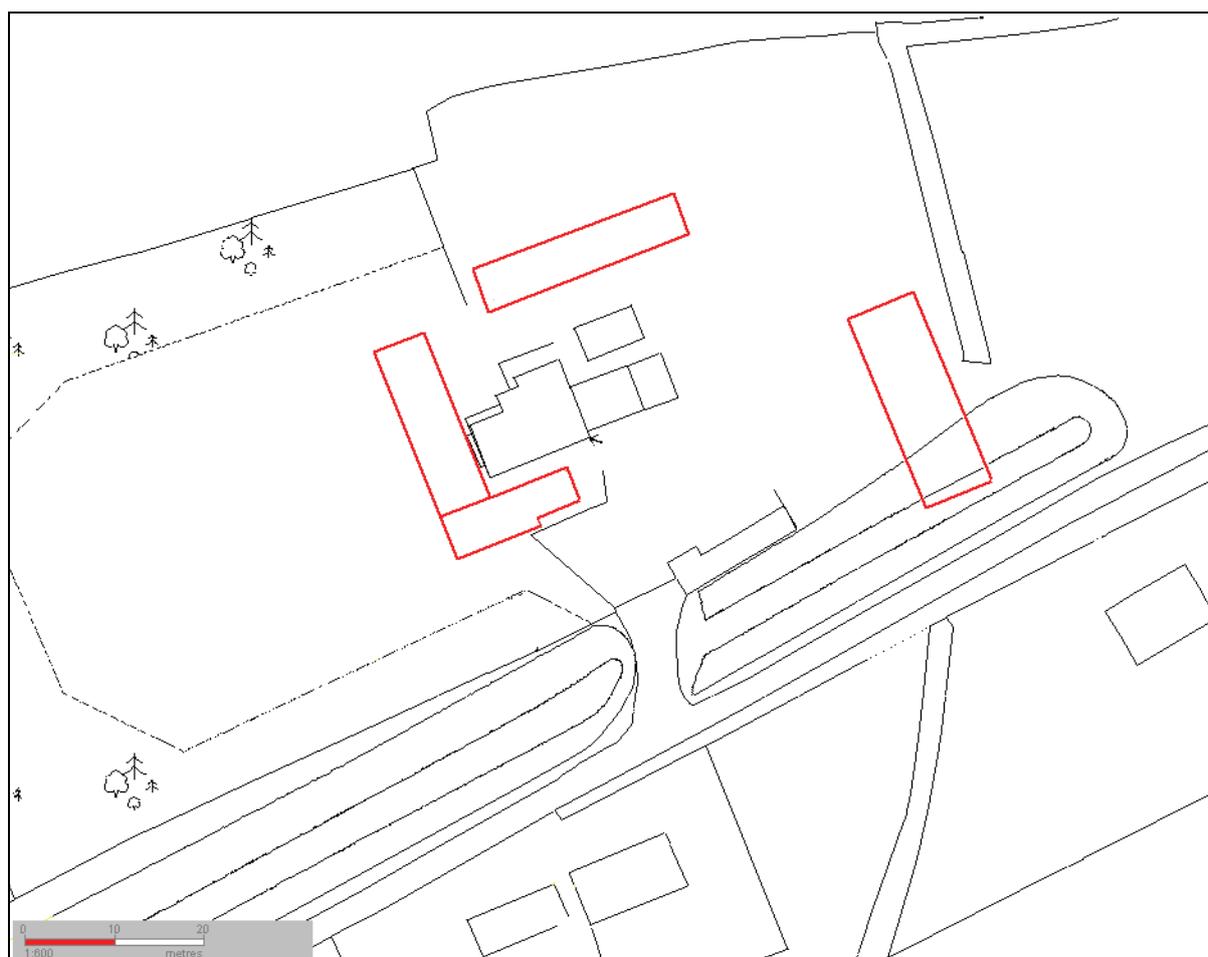
Site conditions: Cut grass around a stone based house with a small lake, the spoil of which covered the edge of one of the survey zones. Multiple shrubs, hedging, an orchard, mature trees and outbuildings.

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

Area covered:

Area	West	North	East	South
Magnetometry	6 m × 20 m	20 m × 4 m	8 m × 20 m	
Resistivity	6 m × 20 m 5 m × 15 m	24 m × 5 m	8 m × 23 m	15 m × 5 m

Location: TL 575811.



Old Plough site plan. The linear feature from bottom left to mid right is the Middle Fen Bank, the break being the access point for the site. The survey areas are outlined in red.

All the images in this report are orientated with grid north towards the top of the page.



Purpose of survey: To ascertain whether foundations exist to the west of the main building and to determine whether any indications remain of a dock or hythe near to the building.

Site Assessment: The site comprised a house almost covering the top of a distinct rise in the terrain, with the ground falling away on all sides. The southern and western survey areas were on the top of the rise. To the south of the property there was a substantial embankment of a similar height to the house platform. The northern survey area, sloping slightly to the north, was lower than the house. The western survey area was on the embankment at its southern end, and at the general fen level to the north. It was within a few metres of a ditch running NS on its eastern side.

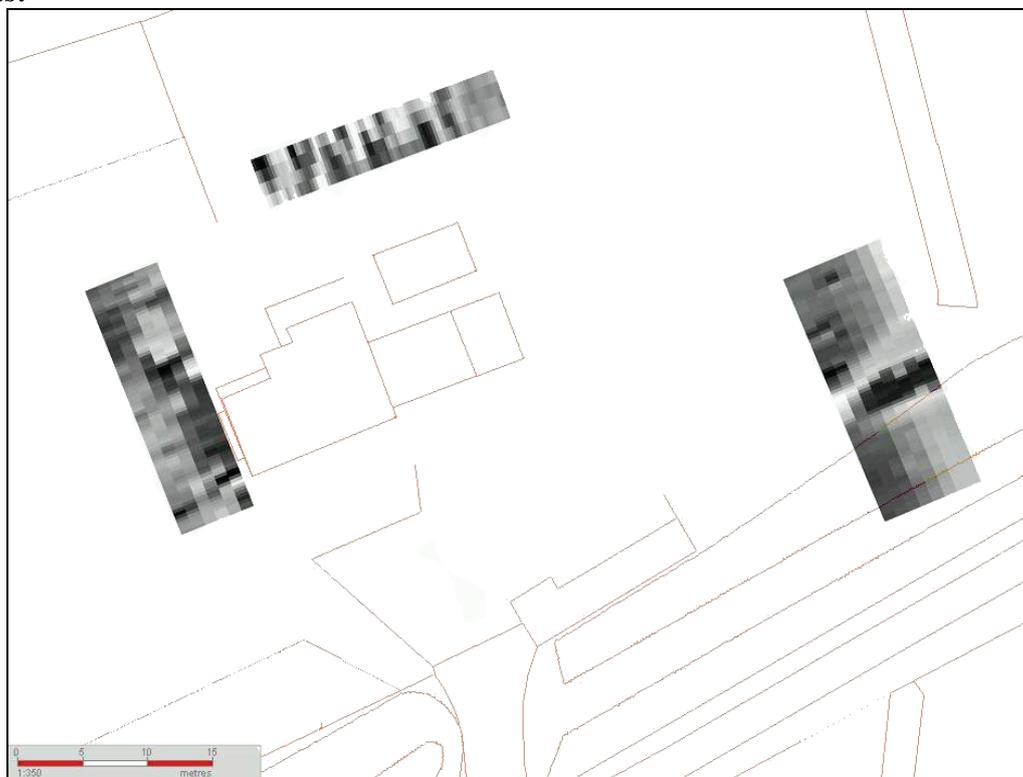
The river courses near to this rise have altered. Clear rodin traces are visible on aerial photographs just to the south, and there are records of the cutting of the present channel of the River Lark, just to the north, from the 18th century. It has been put forward that the building at one point represented a transit point for river to land borne stone intended for cathedral works in Ely, which is why it is one of the very few (non ecclesiastical) stone based constructions on the Fens.

From a geophysical survey perspective, this site as a whole was particularly difficult because of the constraints arising particularly from the vegetation. The western survey area was taken close to the chimney breast of the house on its eastern side but limited on the west by the spoil from a small lake further to the west. The northern survey area was constrained by shrubbery at least partially on all sides. The eastern survey block was constrained to the north by orchard, to the south by the fen bank and by mature trees elsewhere. As a consequence, the individual areas surveyed are insufficient to show any larger scale features with confidence. The areas surveyed by resistivity and magnetometry are subtly different, reflecting the greater ease of the mechanical handling of the former in close proximity to encroaching vegetation. Part of the western area was surveyed twice by resistivity with data collection at either 1 m or 0.5 m intervals.

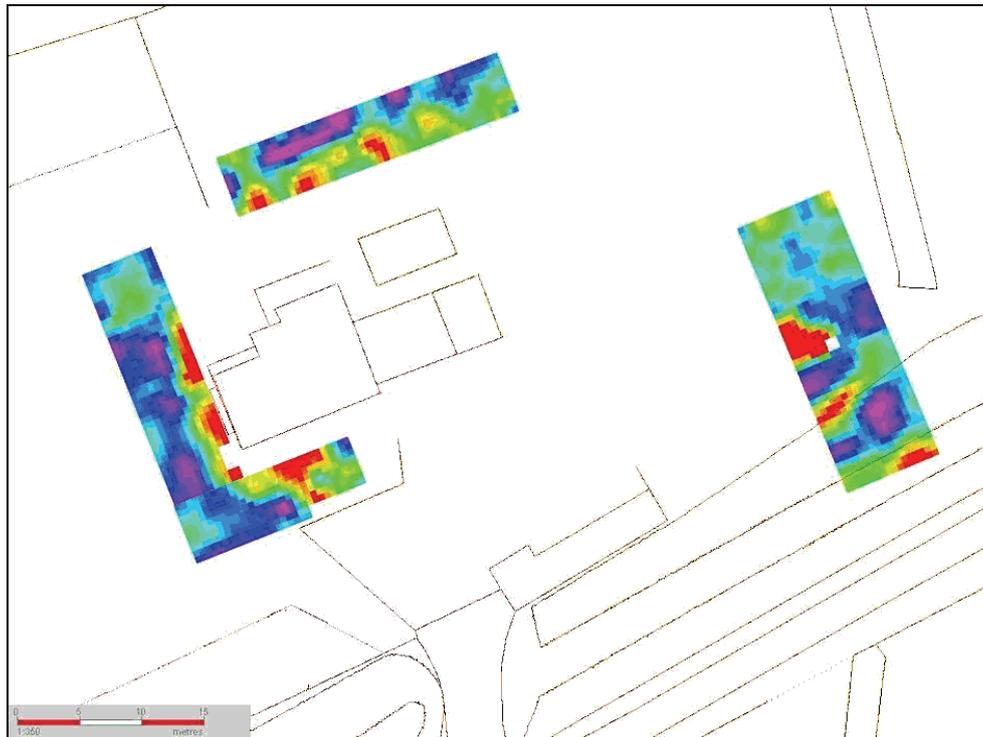


Aerial view of the site with The Old Plough house in the centre. The small red block is a car next to the gap in the Middle Fen Bank giving access to the site.

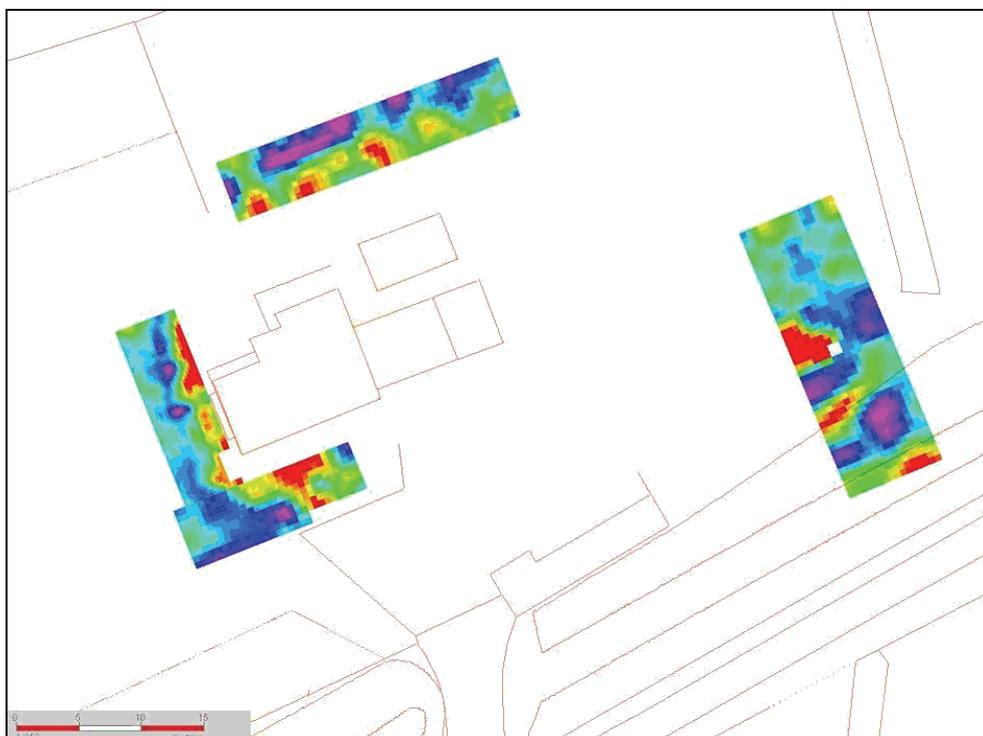
Results:



Magnetometry



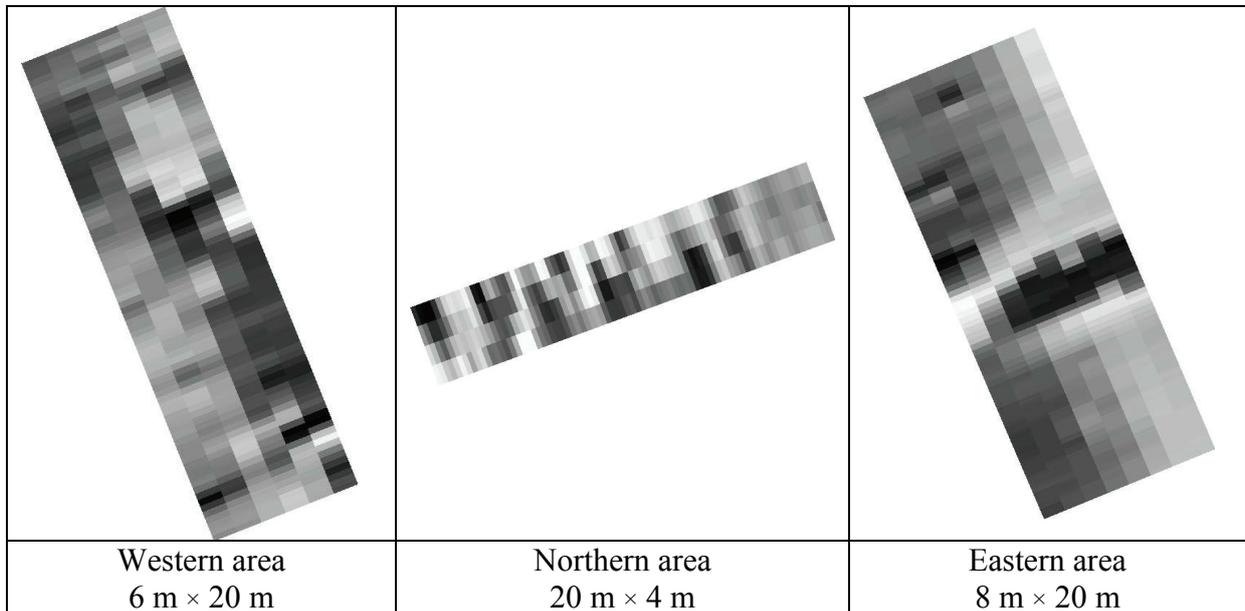
Resistivity, (1m spacing throughout)



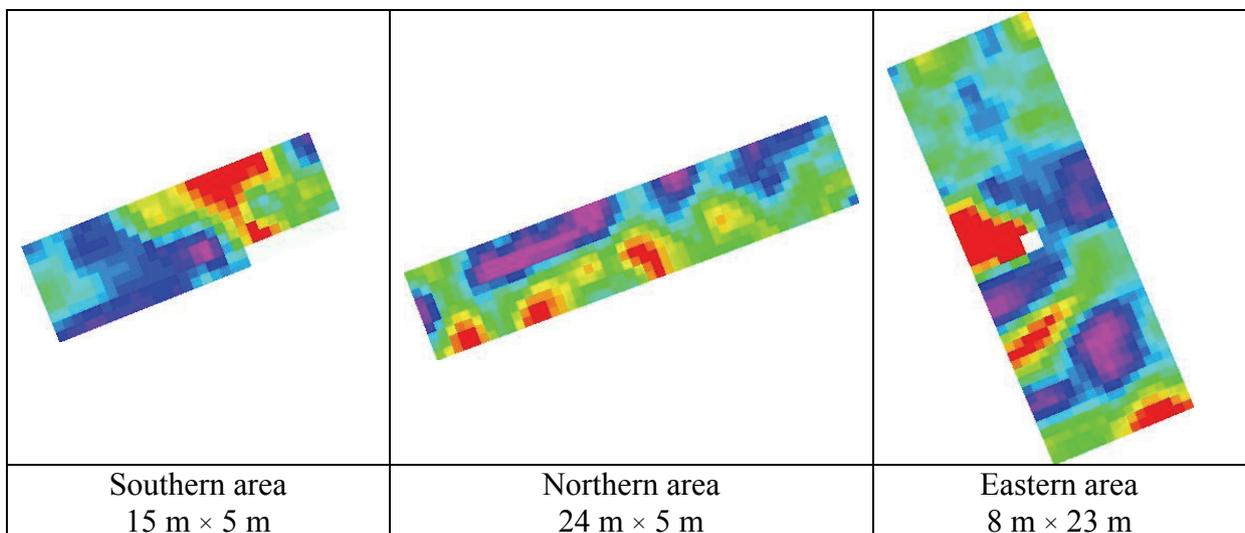
Resistivity, (northern part of western survey area with 0.5 m spacing)

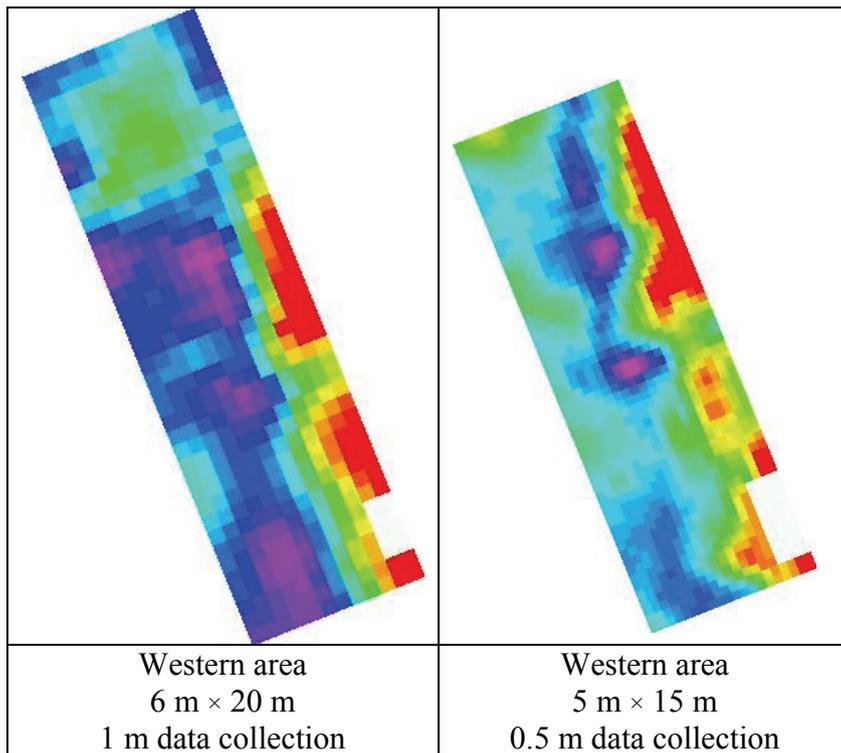
Individual results:

Magnetometry results (not to scale; where black is a high signal and white is low).



Resistivity results (not to scale; where red is high resistance and blue/purple is low).





Magnetometry.

Western area: A slightly stronger signal was recorded around end of the building, with a slightly weaker zone centrally to the north.

Northern area: Insufficient coverage to define any pattern apart from indications of stripes running NS across the area.

Eastern area: A distinct anomaly running EW towards the bottom of the embankment, despite a marked variation in signal strength also running EW. The anomaly has a sharp delineation on the W and is approximately 6 m x 2 m.

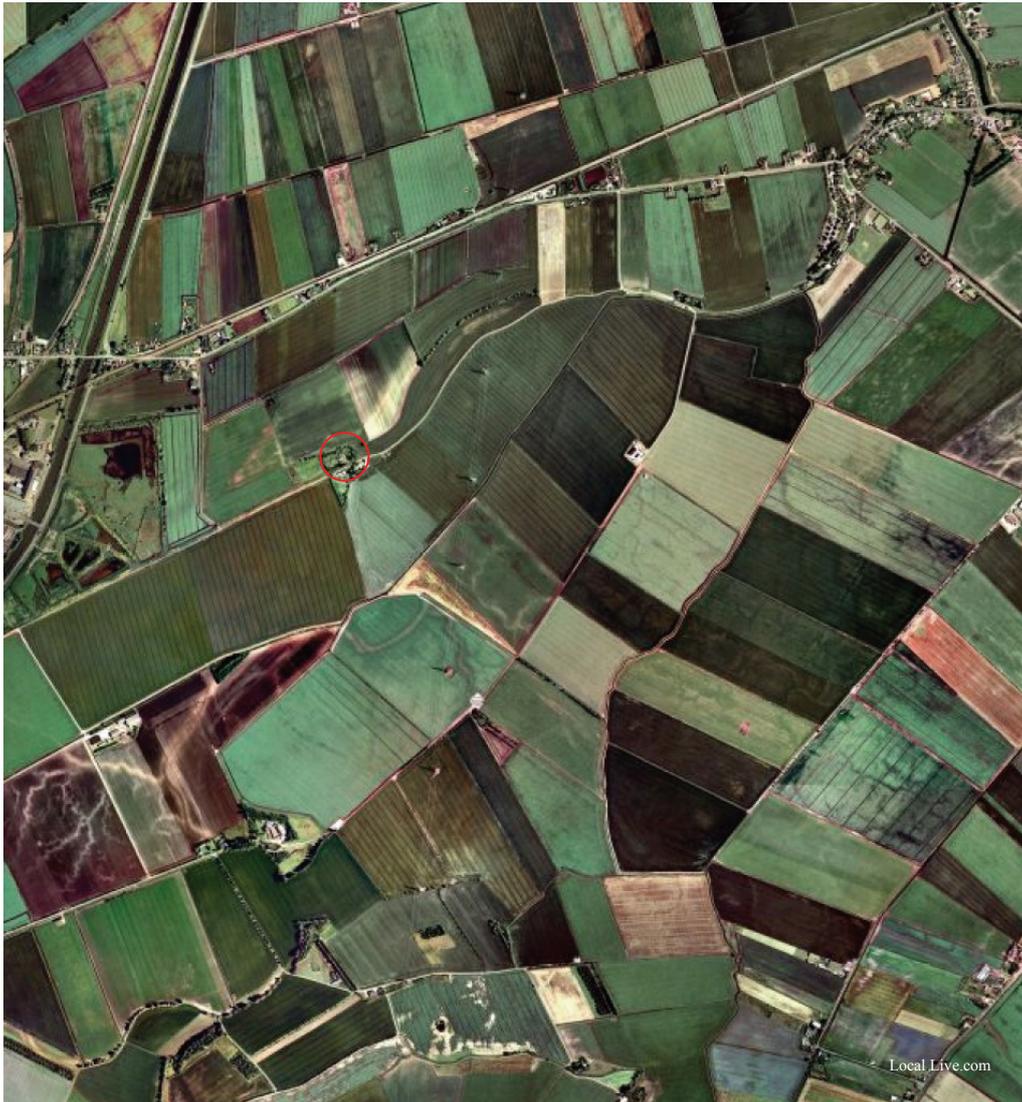
Resistivity.

Southern area: A distinct high resistance band NS with lower resistance to the west.

Western area: Similar results from 1m and 0.5 m spacing surveys with clearer definition as expected from the smaller spacing. High resistance areas to the east in proximity to the existing building and a patio area to the north. A low resistance line NS following the probable edge of the lake spoil with two distinct areas of particularly low values. One area to the north of medium (green) resistivity in the extended area survey.

Northern area: Higher resistance values to the south, low to the north with some elements of striping running NS.

Eastern area: Southern end, distinct striping EW with high (red and green) band followed by low resistance band (blue and purple) increasing in width to the east. This is followed, moving north, by another high resistance band and then a low resistance band divided by a high resistance area on the west side.



Aerial view of the area around the site showing crop and field marks of old river courses. The site is marked by a red circle.

Discussion:

Southern area, resistivity only: The high resistivity area coincides with an indentation on the island platform which was stated by the owners to have been built up with building debris.

Western area: No clear evidence of the existing foundations extending in this direction, but spoil from the lake to the west may have intruded into this area. Magnetometry results will have almost certainly been influenced by the adjacent largely brick, chimney breast. The area to the north of the western survey, differentiated in both resistivity and magnetometry almost certainly reflected an increased depth of lake spoil.

Northern area: Insufficient area to detect any larger scale pattern, but both magnetometry and resistivity reflect a NS striping perhaps suggesting run off channels from the Fen island high point.

Eastern survey area: The resistivity and magnetometry results are slightly anomalous in this area. The magnetometry results suggest, given the context, the potential for a narrow dock assuming that an earlier river course was nearby to the east. The resistivity results support



this contention to some extent, but low resistance values continue further to the west, and do not continue to the eastern boundary of the survey area.

Interpretation is further clouded by the presence of two mature trees in this EW band. The high resistance area to the west mid way up the survey area had no obvious explanation but would be consistent with a metallised area towards the higher ground from a dock. The southern edge of the principal magnetic anomaly is at a small but noticeable angle to the embankment suggesting that they are from different periods.

Conclusion:

The survey areas were too small to form any coherent pattern either individually or as a whole. The only clear anomaly is the EW band in the eastern survey block which might represent a filled in dock. It is unlikely that this possibility will be resolved without intrusive intervention, as any extension of the survey area is constrained by a ditch and the embankment.

Post survey note: We have been informed that a small trench dug close to the western end of the house revealed no evidence that the foundations extended in that direction.

Report by I. Sanderson