



The Crump, Berden (SAM20665) Report

In June 2009 Archaeology RheeSearch Group carried out magnetometry and resistivity surveys on this site at the instigation of the owner on the basis of general interest in this moated site.

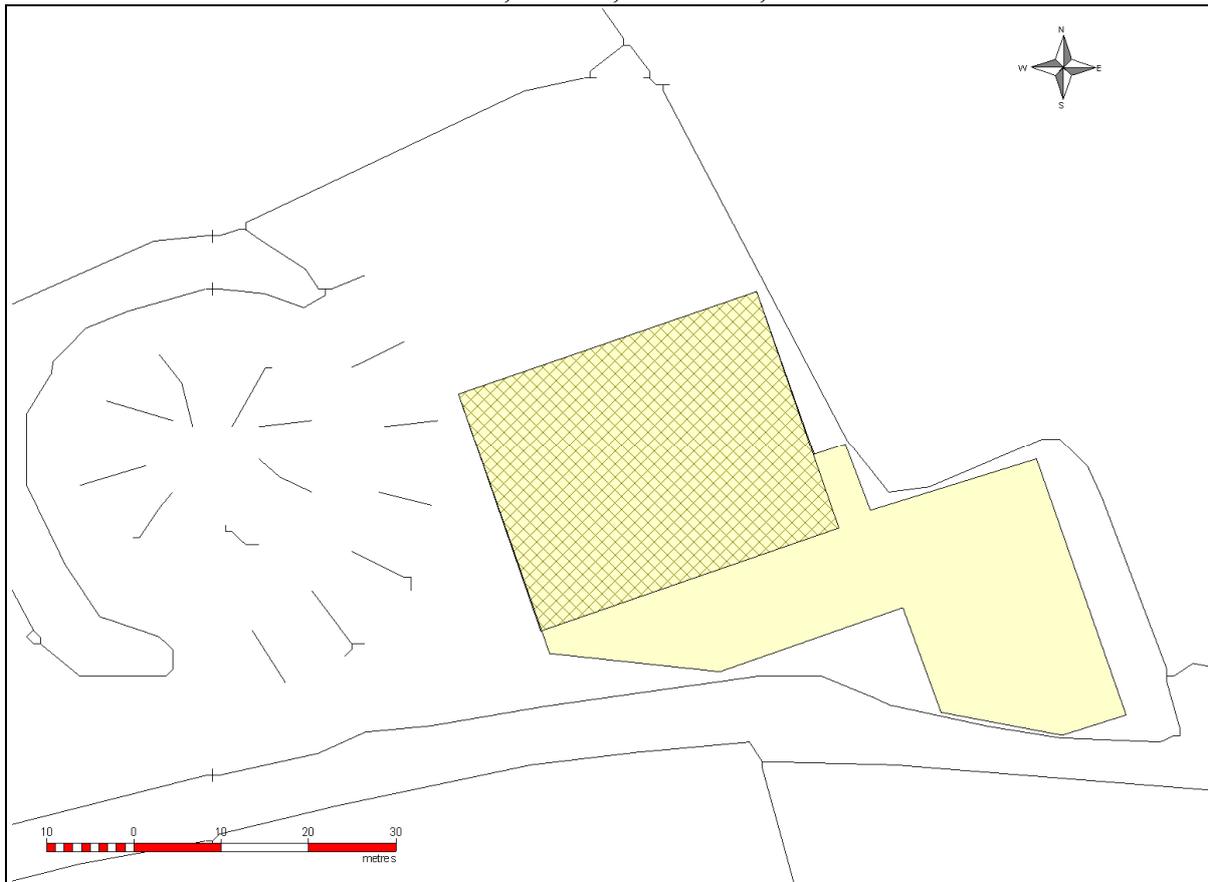
Site liaison: Fiona Bengsten (Owners S&C Cave)

Site conditions: Grass with trees. Several rabbit holes and extensive indications of rabbit activity within the survey area. Some undergrowth around boundaries.

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

Area covered: Magnetometry six 20 m × 20 m grids
Resistivity three grids totalling 29 m × 36 m

Location: TL 4659 2919 Stock's Farm, Berden, Uttlesford, Essex



Location plan: Survey areas.

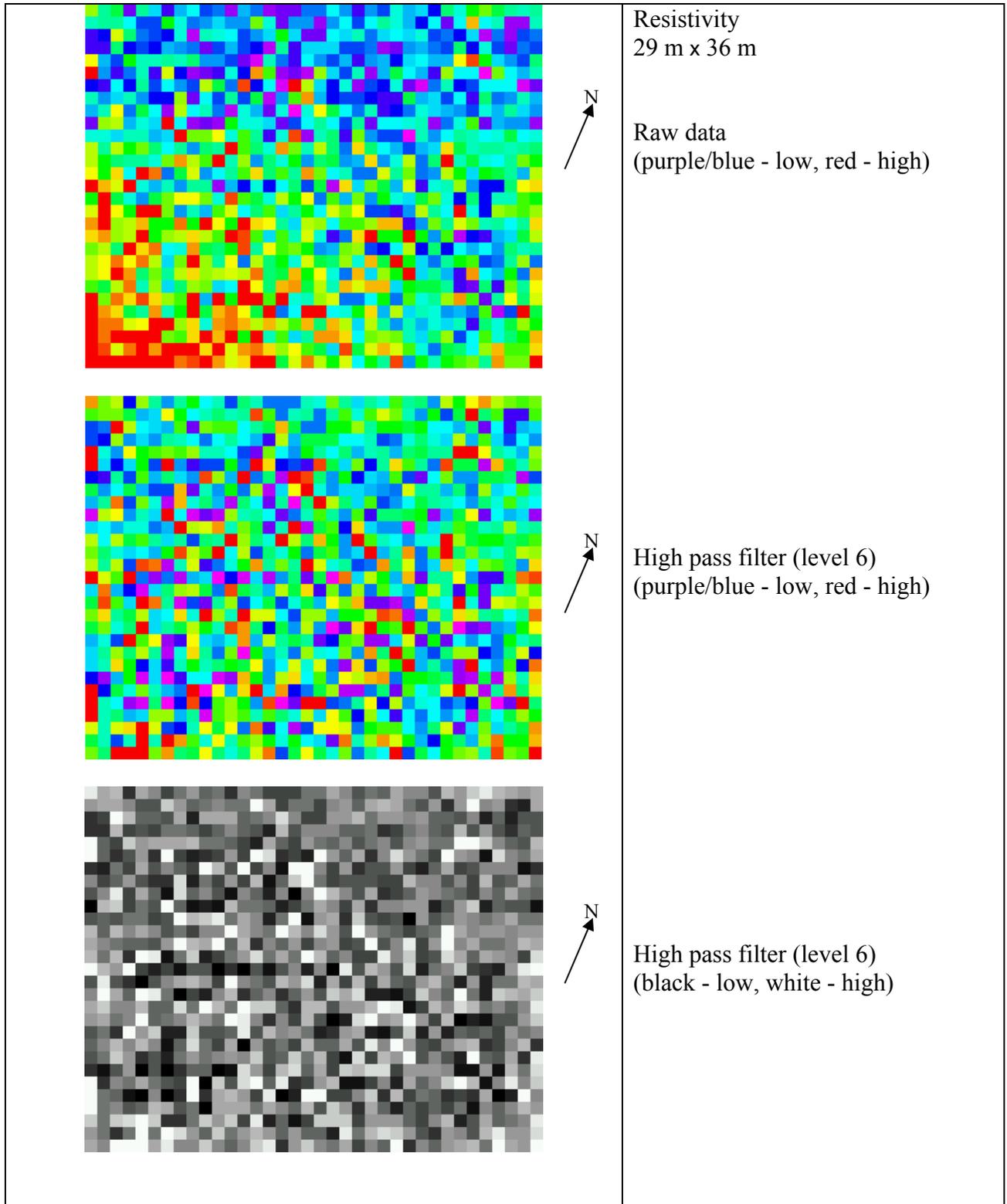
(resistivity survey area crosshatched, magnetometry area solid).

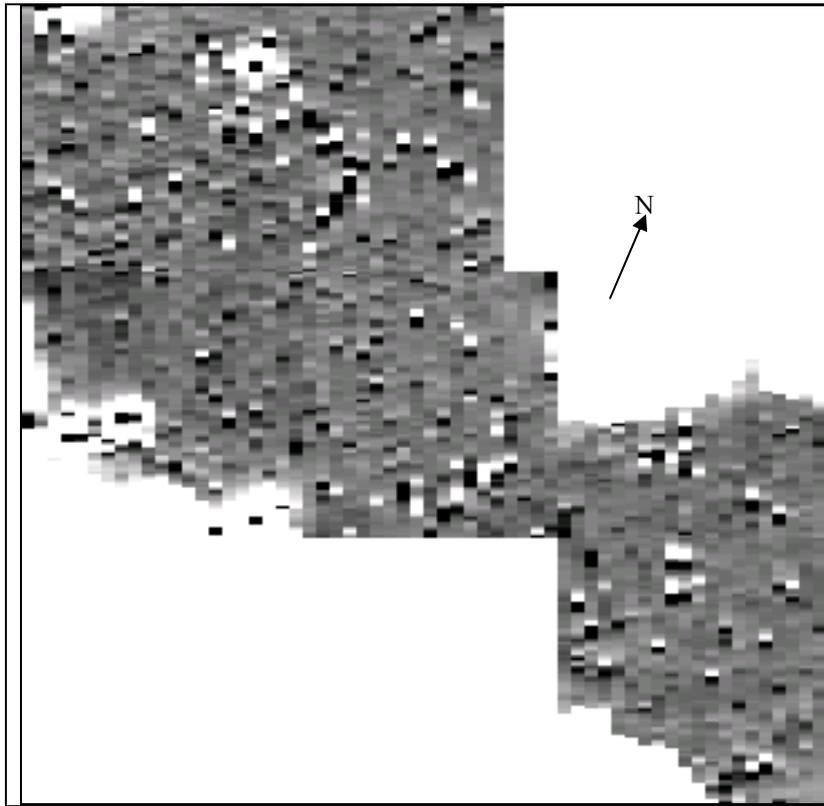
Survey areas were limited by the presence of trees, hedges, ditches and other garden features.

Purpose of survey: To determine if any sub surface features could be detected which would aid in clarifying site usage.

Results:

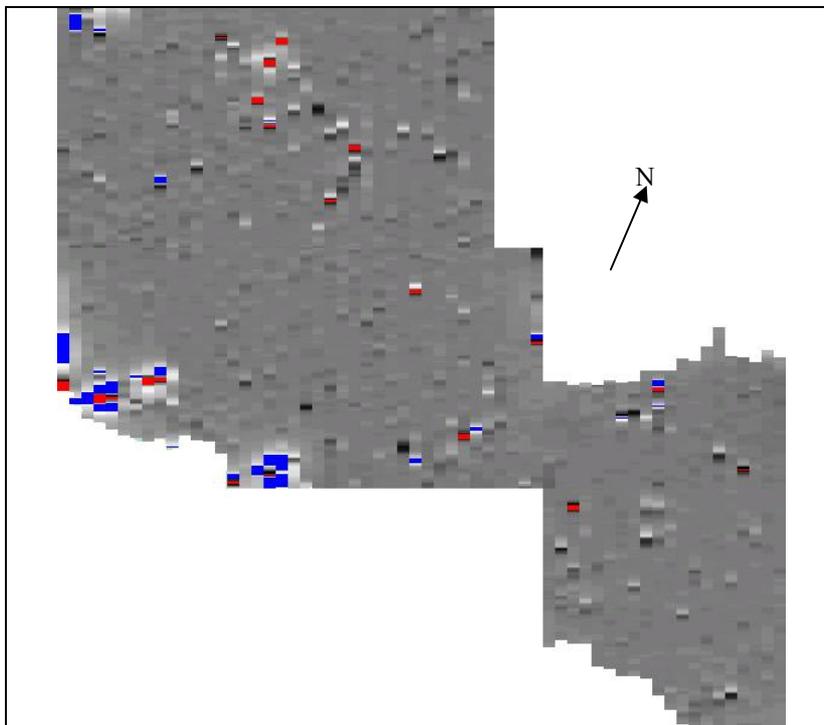
The images in this section are orientated for presentation. They are not to a common scale. Grid north may be determined by reference to the plan above.



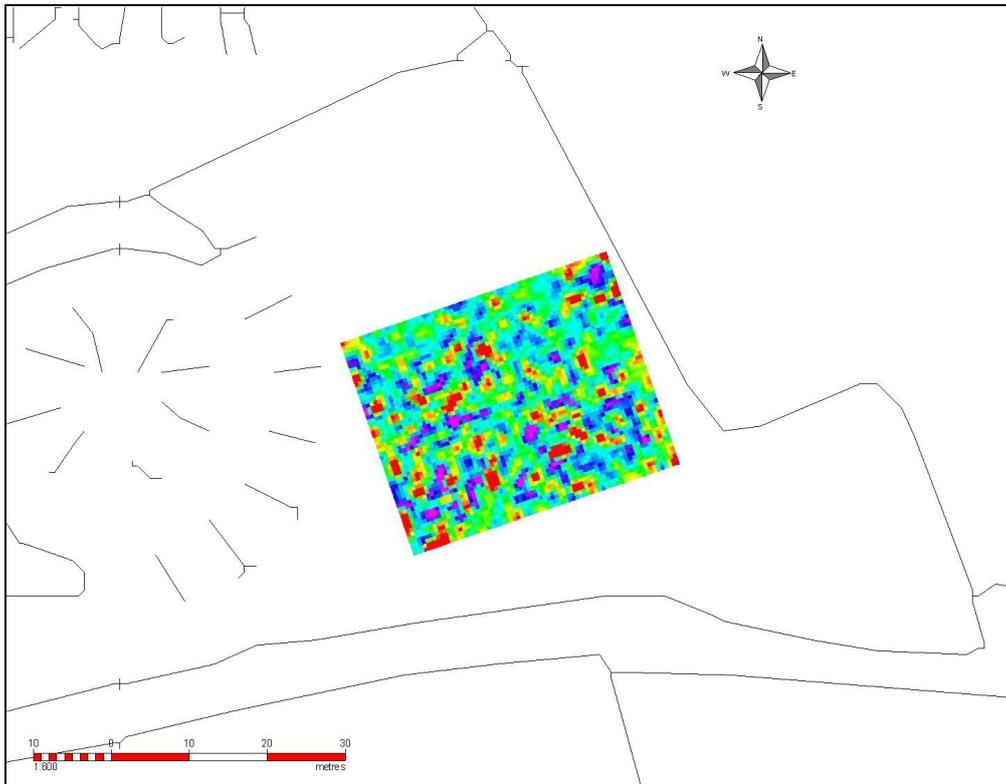


Magnetometry
(± 6 nT) with high pass filter
six 20 m x 20 m grids of
which only 2 are complete.

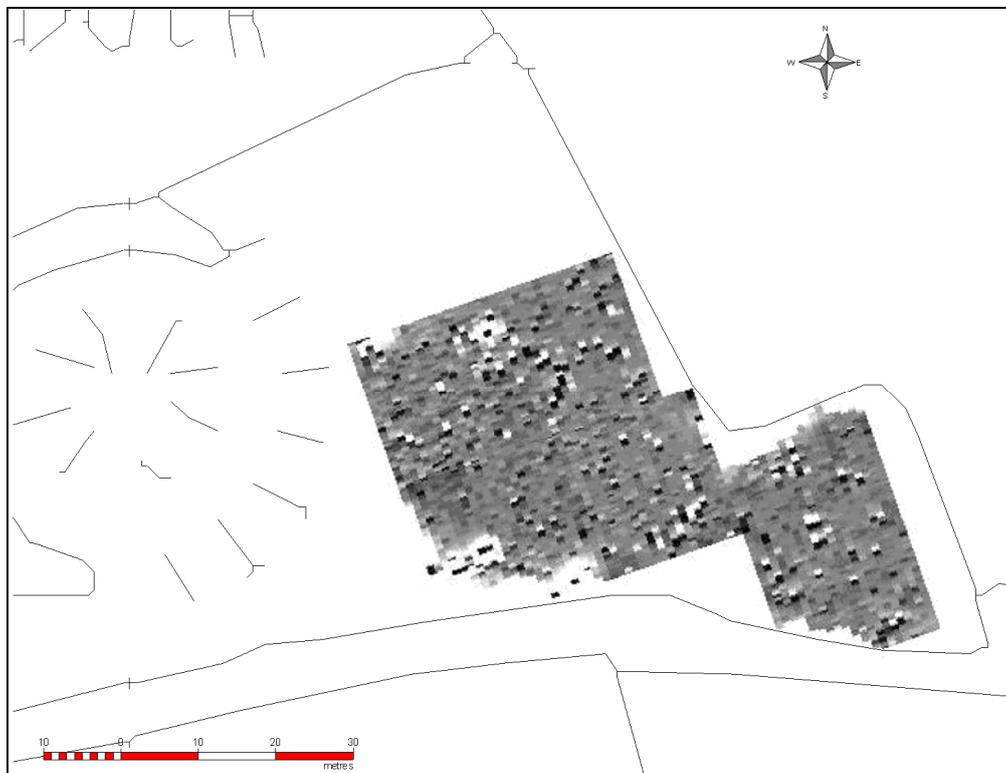
(black high, white low)



Magnetometry Signals
+99 nT (red) or -800 nT
(blue)



Resistivity results in context



Magnetometry results in context



The areas covered in this survey were severely constrained by obstacles on the site and are insufficient to form a good impression of any remaining features.

Resistivity

The resistivity results do not show any clear features. There are several short segments of both high and low resistance which might be part of a larger pattern, but none which link together. There was a patch of high resistivity in the SW corner of the survey area and a broad diffuse band of low resistivity running parallel to the N edge.

Magnetometry

The magnetometry results do not show any clear features. There is the suggestion of a linear feature running from part way down the W side of the survey area towards the NE corner, with an anomaly on its N side. There are suggestions of several circular features approximately 8 m in diameter in the central area, but without the consistency or signal strength to be convincing. A larger (14 m diameter) circle with a distinct central anomaly could be present, on the same basis as the others, in the SE extension of the survey area.

Discussion:

Overall this is an inconclusive set of results. The high resistance area in the SW corner was caused by a group of mature trees. The number of rabbit holes suggests that burrows may have obscured any archaeological features to such an extent that it is not even possible to be confident of a negative result.

The possible circular features in the magnetometry were indistinct and with the scattered stronger responses could equally represent spread bonfire debris. This seems a likely cause of the anomaly to the N of the linear feature. The latter may be a path to some building remains which we were informed lay in that direction outside the survey area. The larger circle in the magnetometry results towards the SE was reflected in a bowl shaped indentation in the field. The presence of a strong response towards the centre and the fact that the property boundary respects this feature suggest it could be a rare pond barrow, determining whether it is requires more expert knowledge than we can supply. However, the centre of an indentation in a field would make a good place to burn scrub trimmings and the spread might be expected to wash down to the lowest point leading to a magnetic response similar to that recorded.

The broad band of low resistance does not appear to be aligned with any visible access to the motte, and would seem to represent an area of different activity resulting in increased moisture retention in the soil, rather than a trackway.

Summary

Resistivity and magnetometry surveys were undertaken just outside the ditch surrounding a motte. The resistivity results did not show the responses which might be expected in an open field situation and did not show any interpretable patterns. The magnetometry results showed no clear features, but suggested a linear trackway with 8 m diameter circular features. The suggestion of a 14 m diameter circle combined with its earthwork features might merit further investigation with a view to determining whether it is a pond barrow.

Raw data are available as separate appendices.

Magnetometry readings: 8/m, 1 m separation.

Resistivity readings: 1 m interval, 1 m separation.