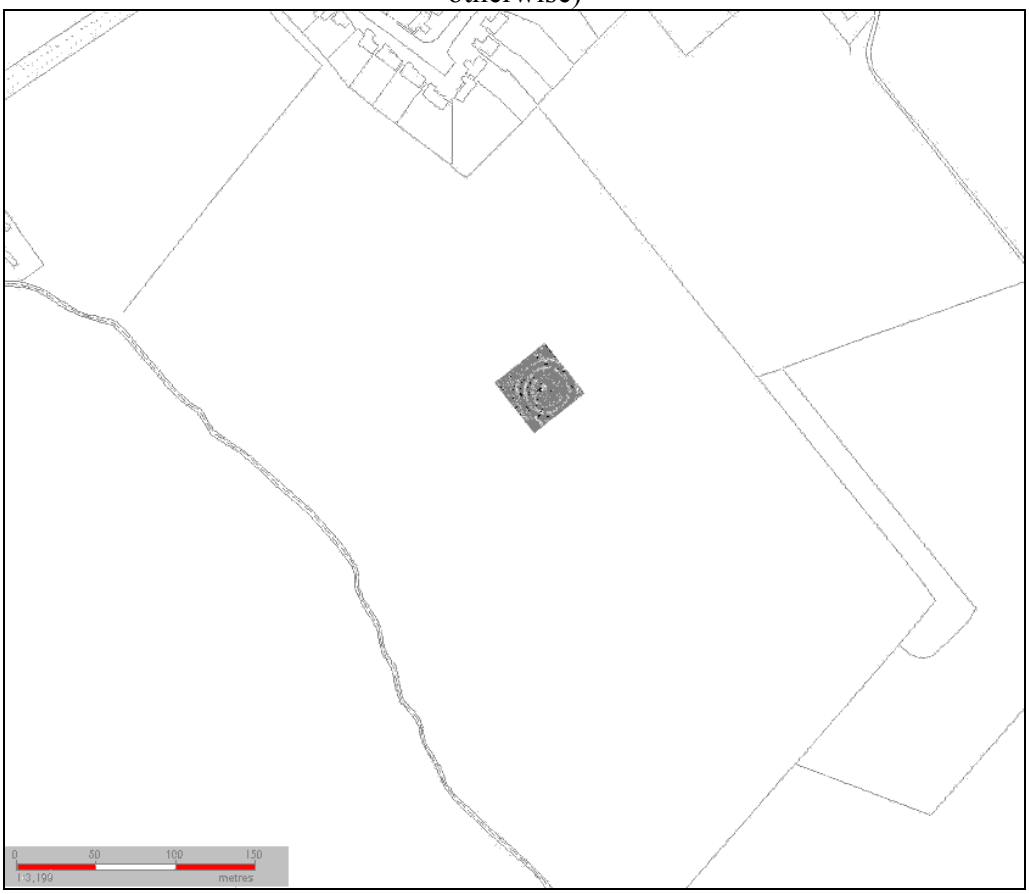
Foxton West Hill Tumulus Second Geophysical Survey Report

In 2003 the Thriplow Landscape Research Group carried out a resistivity survey on this site after ploughing (CHER ref CB15638) which detected a single ring ditch with some internal structure. The recent ploughing at that time resulted in poor signal detection which meant that the images produced were not as clear as might be achieved with better surface conditions. Since then the group has changed its name to the Archaeology RheeSearch Group and acquired a magnetometer as the result of a grant from the Local Heritage Initiative fund, and it was thought worthwhile to revisit the site on 5 Aug 2007.

Members participating: Brian Bridgland, Ian Sanderson, Maureen Storey, Tony Storey.
Owner: Richard Barnes.
Site conditions: Stubble. Two bale stacks were within the survey area, one at the centre and the other on the south west edge. Access road to the north of the site.
Weather: Hot and sunny, with a strong wind. No rain during preceding week.
Equipment: Bartington 601 gradiometer; TRCIA 50cm twin probe.

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

Location: TL 408477 on the north slope of West Hill, Foxton.
(All images following are orientated with north to the top of the page, except where indicated otherwise)

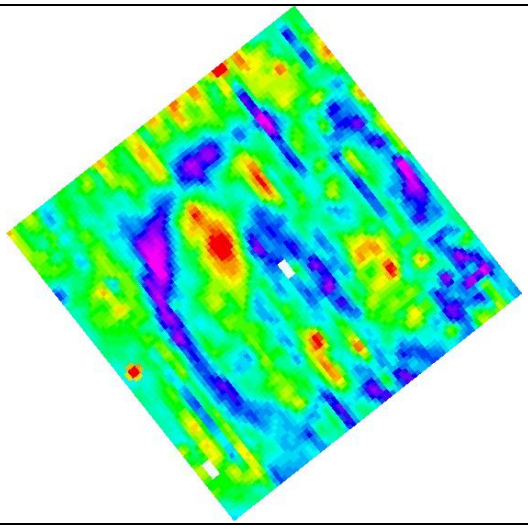
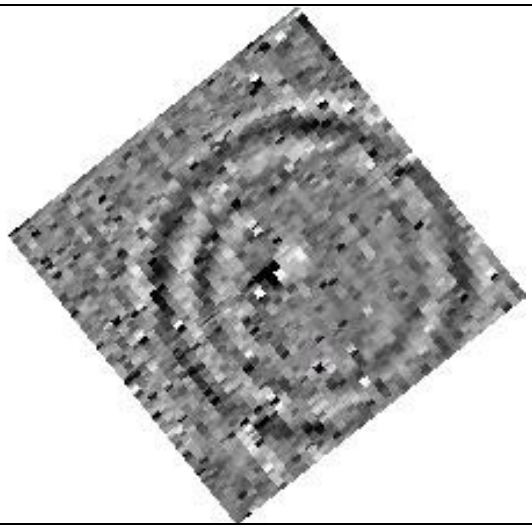


Location plan: southern limit of Foxton village with the survey image shown.

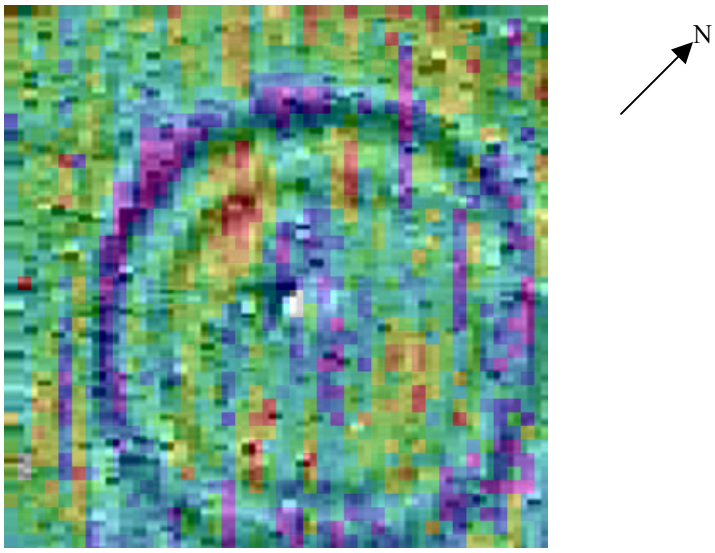
On the ground location points – Centre 133 m from lower point of wood to the E; 142 m from the fence corner to the N.

Purpose of survey: To repeat and extend the resistivity survey under better soil conditions and to conduct a magnetometry survey of the site.

Results:

	
Resistivity 40 m x 40 m (purple blue low, red high)	Magnetometry 40 m x 40 m (black +3 nT, white –3 nT)

Resistivity measurements showed a single ring ditch approximately 33 m diameter with a central low resistance area. The streaking parallel to the NE and SW sides of the surveyed area, particularly apparent in the centre, is in the same direction as the ploughing line. Magnetometry results showed two concentric ditches with a slight anomaly just off the centre. The inner ditch has a diameter of approximately 23.5 m. A similar but less marked streaking effect in the ploughing line direction is apparent, but given that this was also the traverse direction, data collection effects may be a contributory factor.

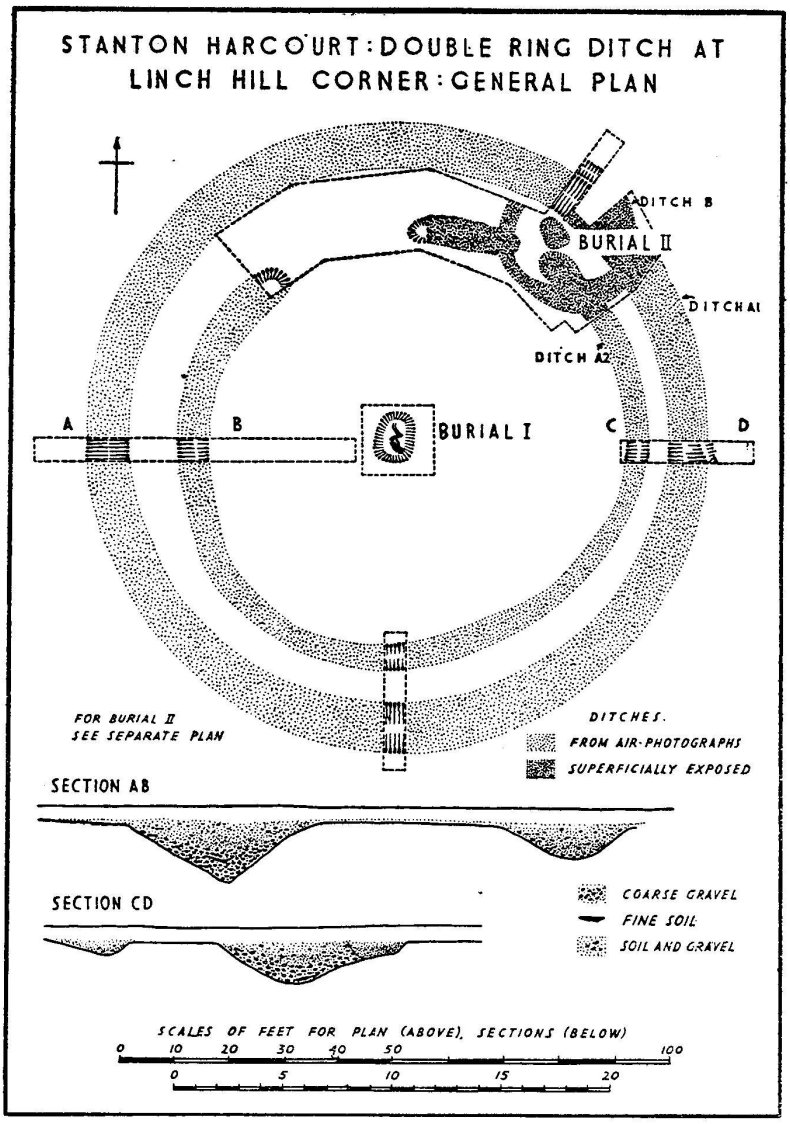


Superimposition of resistivity and magnetometry results.

Superimposing the resistivity and magnetometry results shows that only the outer ditch was detected by resistivity and that the central magnetic anomaly is to one side of the central low resistance area.

Discussion

Previous results located a ring ditch structure under sub-optimal conditions, the present resistivity survey confirmed the presence of a ring ditch in the same position. Despite the consolidated soil structure on this survey there was still some streaking which could be attributed to long term plough damage, however given the four year gap between the surveys the damage does not appear to be unduly progressive. A pair of concentric ditches was detected during the magnetometer survey, the inner of which was not detected by resistivity. This is suggestive of a shallower inner ring in which most of the moisture retentive surface layer has been dispersed by ploughing leaving only the deeper biologically induced magnetic material. The outer ring appears to be appreciably wider than the inner, which might leave sufficient moisture retentive material to be detected by resistivity. A structure of almost the same size was excavated by Grimes in 1940. *(www.oahs.org.uk/oxo/vol 8-9/Grimes.doc).*



The magnetic anomaly and low resistance area in the centre suggest that any burial remains may be intact.
Raw data are available as separate appendices.
Magnetometry readings: 4/m, 1 m separation.
Resistivity readings: 1 m interval, 1 m separation.