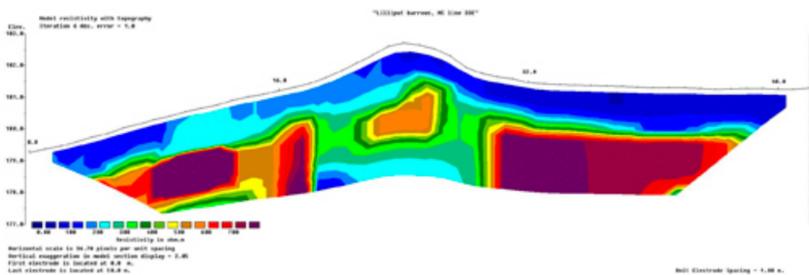


Gathering and processing three-dimensional data from the barrows was straightforward. The problem comes in displaying the data for interpretation. The technique we eventually used was to complement the three-dimensional models with a sequential ‘walk-through’ which allows the eye to pick up details and trace them through the sequence.

Techniques

An area 50 m square was set up incorporating the barrows, and subject to resistivity profiling (north-south profiles, as if viewed from the west), with probes at 1 metre spacing, and the height of each probe position measured by dumpy level.

The **dynamic display** shows the resistivity profiles for the barrows, labelled top right from 0 to 50. The progress bar moves through the magnetometry plot bottom right. Bottom centre shows progress through a 3-dimensional reconstruction showing (colours) the height of solid stone above OD with ground surface contours showing above that.



Pseudosection profile line 33

Solutions

Combination of all the resistivity pseudosection profiles with topographical measurement allowed the construction of a 3-D model of resistivity. A Matlab routine was written to display this. Thresholding for high resistivity showed the height of the internal stone and revealed 3 low resistivity cavities (labeled C1, C2, C3 from east-west), which extended up from the lowest level of the profiling to the surface.

C1 measured 7m EW by 14m NS. Its position and EW extent correspond to the ‘SOIL’ area marked on the EW section of barrow No.2 on the 1909 drawing.

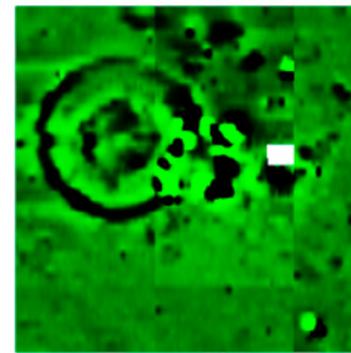
Two trenches running N-S can be identified, the first T1 is at 32m E. We presume that this corresponds to the N-S trench shown in No. 2 barrow.

C3 (2m EW by 3m NS) and T2 lie on the section at 17m E; they appear to correspond to the N-S trench shown in No. 1 barrow.

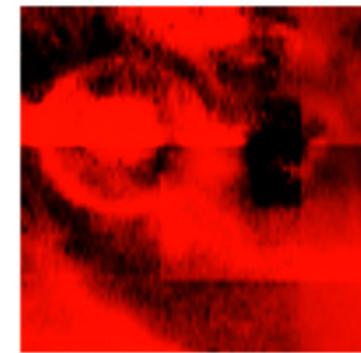
There is a discrepancy between our measurement of 15m (49 ft) between the trenches and that of 69 ft on the 1909 drawing, and we wonder whether the latter is written incorrectly.

The 1909 E-W trench through both barrows could not be clearly identified on the 3-D resistivity plot. Examination of individual profiling sections suggested two candidates; one at 17-18m North and one at 27m North; neither runs through the barrow centres as reported in 1909.

Cavity C2 (7m EW by 8m NS) is not marked on the 1909 sections: it is interesting that it lies at the intersection of the 2 barrows where the circular ditch is interrupted and that most of the high magnetometry readings lie around it.

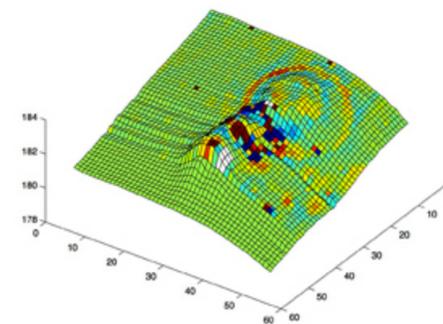


Standard magnetometry

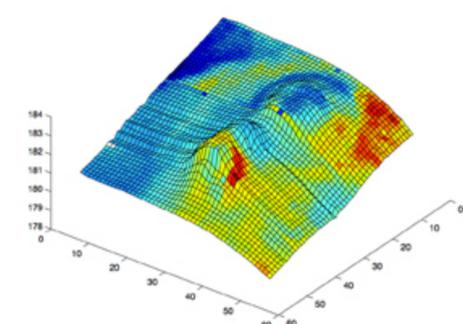


Standard resistance

The standard planar resistivity and magnetometry plots confirm the prominent circular ditch and centre of the round barrow to the west: in the east barrow they show areas of high resistivity, suggestive of stone, but with no clear shape. The standard resistance and magnetometry maps were then overlaid on the topographical surface. These showed respectively a line of high resistance along the N face of the east barrow and an interruption of the ditch around the west barrow at the apparent point of intersection with the east barrow. There were no signs of a ditch around the east barrow.



Magnetometry overlay



Resistance overly