Ancient Monuments Laboratory
Report 28/88

REPORT ON GEOPHYSICAL SURVEY AT ACTON COURT, AVON, 1987

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Summary

A resistivity survey and magnetometer scan of an extensive area of earthworks immediately north of Acton Court house.

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This survey was carried out in response to a request from the Inspectorate of Ancient Monuments. Its object was to investigate any further archaeological content of the area to the north of Acton Court House and to relate it to recent topographical survey.

The field to the north of the house was surveyed using a Geoscan RM4 resistivity metre. The Twin Electrode probe configuration was used, with a 0.5m probe separation and readings were taken at 1.0m intervals. A large area at the western end of the field was not prospected due to the recent dumping of rubble: the disturbance so caused would mask any underlying archaeological effects, and the rubble itself would make probe insertion impossible. A second area - the pond - where stone had been quarried, was also omitted. Furthermore, the north-eastern corner of the field could not be surveyed owing to a covering of rubble from the demolition of a barn in this area.

Computer plots of data resulting from this survey are enclosed on plan 2. The location of the survey grid and the extant earthworks are shown on plan 1.

A marked variation in resistivity across the site corresponds to the varying proximity of the bedrock to the surface. This makes it difficult to display all the features detected on one plot, because of the relation of plotting scale to wide range of recorded values. With few exceptions the anomalies recorded reflect the surface topography mapped by the earthwork survey. Several features are notable, the most striking being those at the centre of the surveyed area, just north of the surviving walls of what is thought to be a dovecote. The regular geometric layout indicates an archaeological origin, although whether it is associated with a formal garden or actual buildings is not certain. At the eastern end of the site, in squares 20-23, there is a pattern of slight anomalies which are not present on the earthwork survey. Unfortunately they are so weak and diffuse that no firm conclusion can be advanced as to their origin. This is particularly so in view of the amount of recent disturbance on the site, especially close to the house.

To the west of the pond, the plot indicates evidence of several channels leading towards the lower ground, possibly dug to drain water from this feature. Besides this, however, the resistivity survey yields little information about activity at the northern end of the site. Some possible linear features are evident in square 16 but further exploration would be necessary to determine their nature.

It was originally intended to extend the survey into the field to the west of the house. However, this proved to be so waterlogged that the difference in resistivity between buried

features and the background level was greatly reduced. There was thus little chance that a resistivity survey would detect anything, other than those features already apparent, whilst these conditions prevail.

The area covered by the resistivity survey was also scanned in detail with the magnetometer, traversing the ground at 5m intervals, to assess the likelihood of this technique yielding more information. Unfortunately it was found that recent dumping and disturbance covering the entire site effectively masked any archaeological response. It is thus unlikely that a more detailed magnetometer survey would be of any value.

The area nearest the house, corresponding to squares 20-23 on the survey grid, contained a notable amount of magnetic noise. The amount of scrap iron discovered in excavations near this area almost certainly accounts for this response. A second region of increased magnetic noise was evident in squares 25-27. Whilst its origin is less certain, it is likely to be due to the road construction in this area. No anomalies of definite archaeological origin were detected.

Surveyed by: P Linford and D Shiel

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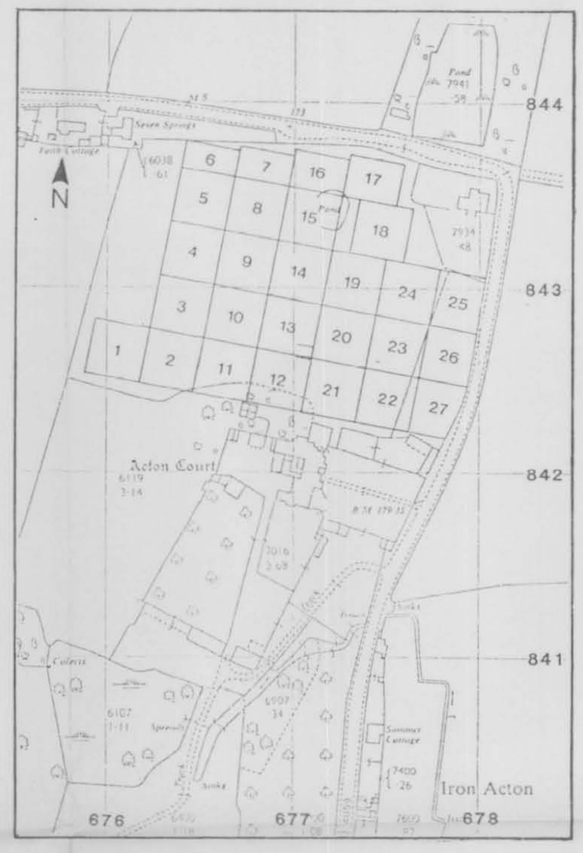
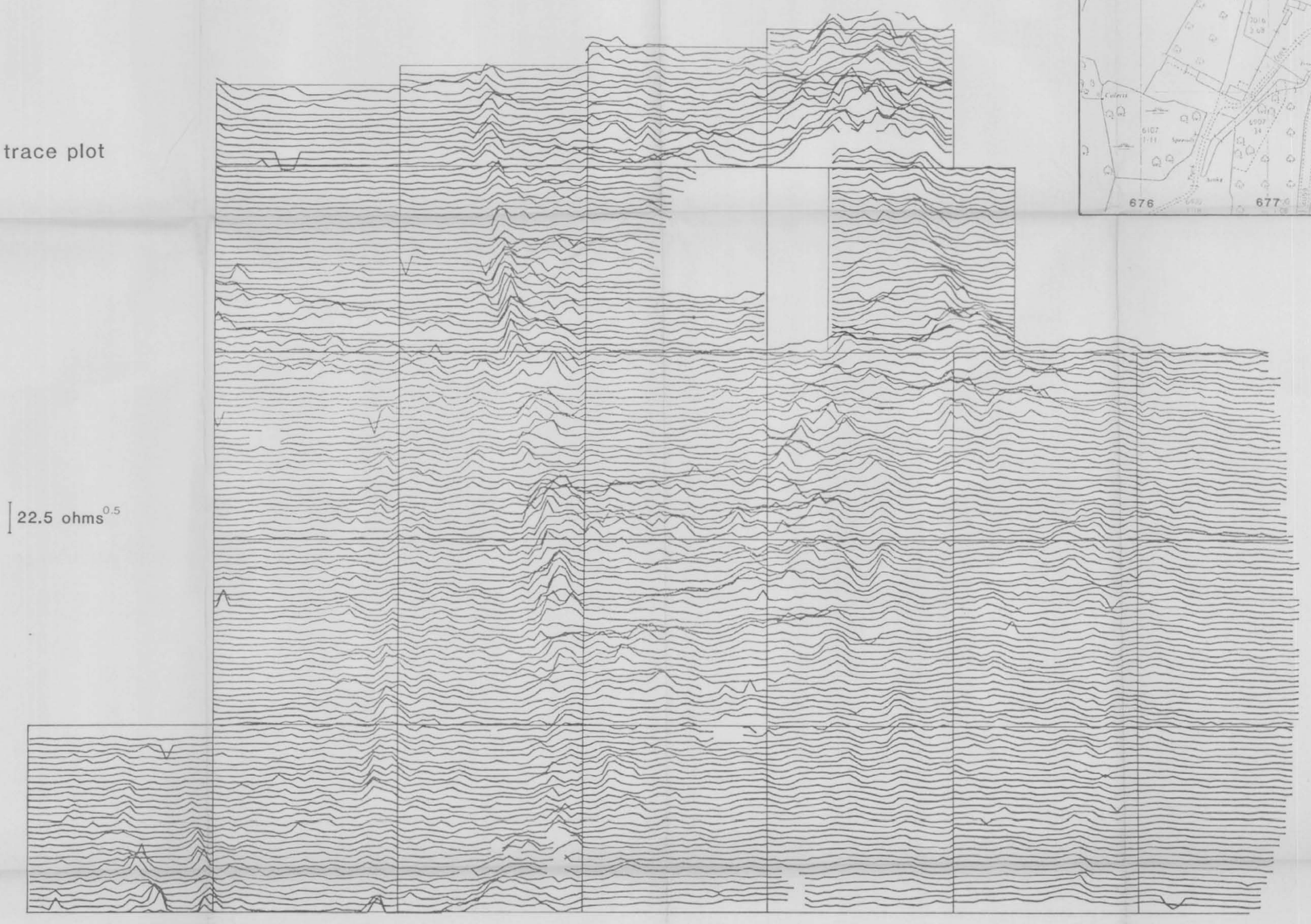
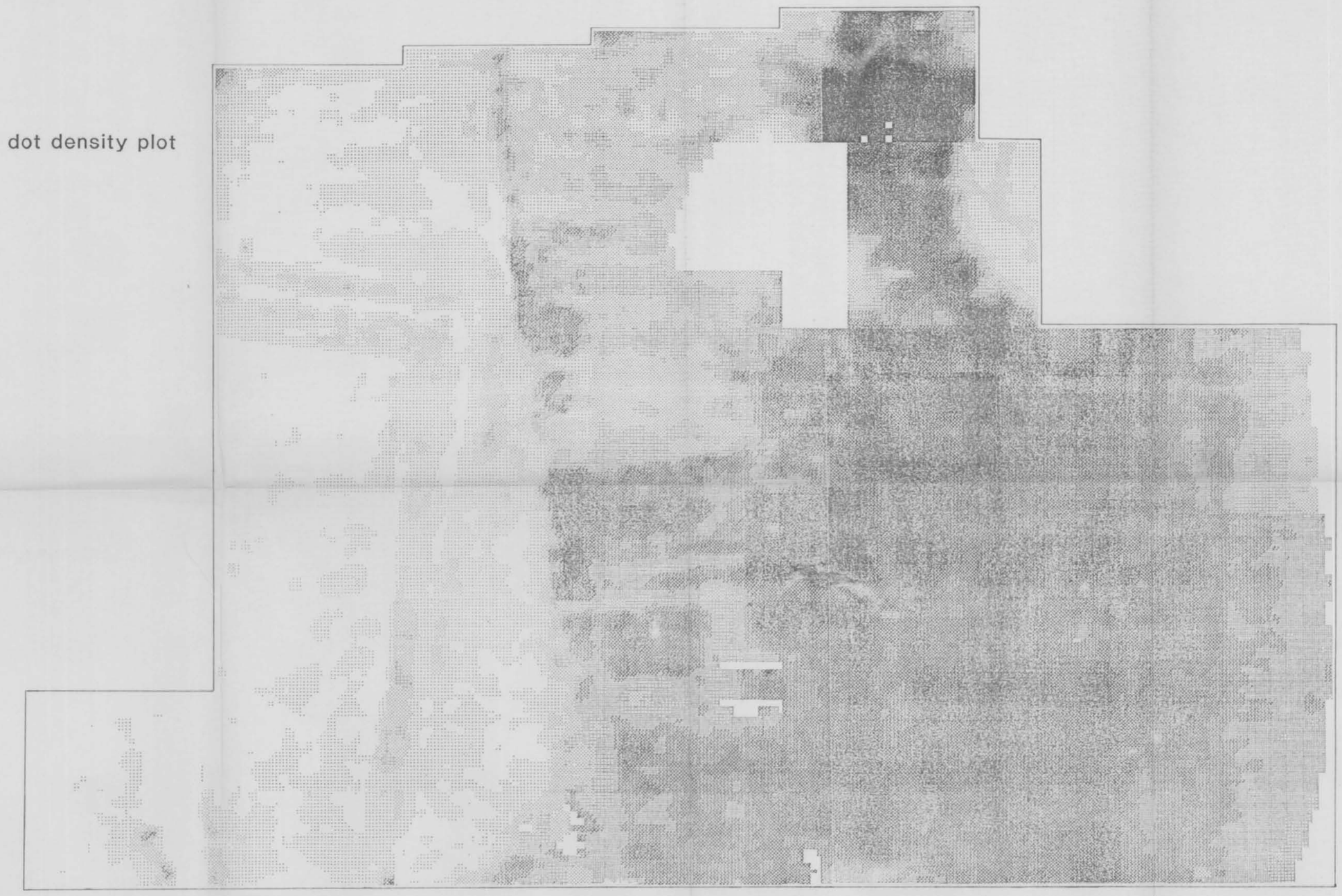


Resistivity trace plot



Resistivity dot density plot



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Location of survey grid

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based on the topographical survey by Rob Iles, Avon C C

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