

Ancient Monuments Laboratory
Report 153/87

BRIGHTON HILL, BASINGSTOKE.

Andrew David

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Summary

This report describes results of magnetometer coverage of two sample areas within the 109 hectares of Brighton Hill, Basingstoke, due for housing development. Two cropmark complexes, of medieval and Romano-British age, respectively, were sampled, but the response of the magnetometer to these was poor. Although certain features were detectable, the anomalies were weak and discontinuous and did not match the quality of the cropmark evidence. Further survey was therefore not attempted.

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BRIGHTON HILL, BASINGSTOKE, HANTS: GEOPHYSICAL SURVEY, 1984

The survey described here was undertaken in 1984 during the early stages of the archaeological investigation of cropmark sites at Brighton Hill South (SU 606 489), Basingstoke, Hants. (TWA, 1985).

Aerial photography had revealed four cropmark complexes within an area of some 109 hectares to be developed for housing. As magnetometer surveys on the Hampshire chalk have proved effective in the past (Bartlett and David, 1984), it was decided to test the method here in conjunction with the more direct means of site investigation, such as test pits, trenching and fieldwalking, then being undertaken by the Trust for Wessex Archaeology. Magnetic survey might be expected to complement and add to the evidence from cropmarks and, if effective, to test areas of the site where such evidence is negative.

Recorded magnetometer survey was restricted to two 30m grid systems aligned on excavation trenches (A, B and C) cut through the two most elaborate cropmark complexes. The location of the survey grids is shown on plan 1: survey squares 1 - 17 cover the majority of the enclosure complex to the north-west of the site and are cut by trench A. Squares 18 - 25 sample the enclosures partially excavated in trenches B and C. Fluxgate magnetometer traverses were made at 1.0m intervals across the survey grids and the resultant signal traces are reproduced on plan 2, where significant anomalies have been outlined in red.

Results:

Squares 1 - 17:

Excavation prior to the survey had shown that the cropmarks here belonged to a deserted medieval village and had uncovered part of the church and its cemetery, and evidence of another building and occupation features. The density of surface tile and pottery clearly indicated a concentration of medieval activity to the north of the church.

The magnetometer survey reveals only a few of the ditches belonging to this complex, which are also identifiable as cropmarks, and little else of significance except for localized increases in magnetic 'noise', perhaps partially attributable to interference from spoil heaps. An outer enclosure ditch is faintly detectable running between squares 2 and 9 and through squares 16 and 17. Part of the inner enclosure ditch can be seen running through squares 7, 8 and 12, and another ditch in squares 4 and 8. Localized disturbance probably relating to medieval activity can be seen in squares 11, 12 and 14, although no pattern or structure is visible amongst this. The many indications of pieces of iron (sharp 'spikes' in the traces) may be of ancient or modern origin: the magnetometer is unable to detect the difference.

A sample of topsoil from this area gave a magnetic susceptibility value of $67.6 \times 10 \exp(-8)$ SI/kg, which is consistent with human occupation on the site. However, detectable anomalies

resulting from infilling with such enhanced soil seem to be restricted to just a few occupation features and parts of surrounding enclosure ditches. It must be assumed that magnetic contrasts between feature fills and subsoil elsewhere over the site are not substantial enough to provide detectable anomalies, producing the indifferent results seen here. It is certainly the case that feature fills near the church (F 0182 and F 0085), as might be expected, have low magnetic susceptibilities of 22.1 and $19.5 \times 10 \exp(-8)$ SI/kg which are unlikely to be detectable against a chalky background.

Squares 18 - 25:

This survey area, covering cropmarks shown to be of Iron Age and Roman-British date, also resulted in a disappointing magnetic response where only weakly defined and partial anomalies were detectable. The few fragments of ditch located probably correspond with parts of the more elaborate plan of enclosures visible from the air.

Two samples of topsoil gave magnetic susceptibility values of 58.2 and $54.2 \times 10 \exp(-8)$ SI/kg, whilst a sample from a feature fill (F 5052) gave a value of $26.01 \times 10 \exp(-8)$ SI/kg.

Conclusions:

This extensive coverage of two of the cropmark complexes at Brighton Hill suggests that, although some archaeological features are faintly detectable, the majority are too weak in contrast with the soil background to be confidently identifiable. It was not possible to reproduce the detail of the sites already available from aerial photography and consequently further detailed and more extensive magnetic coverage was not attempted. Free-range scanning with the magnetometer over much of the remainder of the threatened area at Brighton Hill, to the south, east and west of trenches B and C, did not produce positive results, but in the circumstances this cannot be taken as confirmation of the absence of archaeological features.

It is probable that the generations of ploughing that have completely erased any surface indication of a medieval village have blended many of the soil contrasts that in other circumstances would have been magnetically distinct.

Surveyed by A. David and D. Shiel.

References:

Bartlett, A. and David, A., 1984, 'Geophysical Prospecting' in Catherall, P. D. et al (eds). 'The Southern Feeder, the archaeology of a gas pipeline', published by the British Gas Corporation.

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