

ANCIENT MONUMENTS LABORATORY

MAGNETOMETER SURVEY OF BY-PASS ROUTE, EYNHAM, OXON

Survey no. G 31/81

Dates of fieldwork: 11-13 Nov 198

This survey represents an initial reconnaissance of the by-pass route. Cropmarks are lacking and there are no specific known archaeological sites to be tested, but on the evidence of finds and sites nearby there is a possibility that Roman fields or settlement, and Saxon or medieval occupation might be present. Accessible parts of the route were therefore surveyed using standard fluxgate magnetometer procedure (ie traverses plotted directly by chart recorder at 1m intervals on a 30m grid).

Not all sections of the route could be surveyed: Permission for access to two fields was refused (plots 5 and 8); other plots were inspected and found to be overgrown or unsuitable (triangular plot immediately N of A40, allotments S of and alongside A40, plot 4 and plot 1). There is an area of open ground at the roadside at the junction with the B4044 southern by-pass, but this appears to have been recently made up where the road has been diverted. Permission for survey was not requested for the large field N of the A40 and S of the access to Eynsham Mill.

SURVEY RESULTS

Soil conditions are likely to be reasonably favourable for magnetic detection. The magnetic susceptibility reading from the topsoil (28×10^{-6} SI units/kg) is comparable with Dorchester-on-Thames where cropmark features were successfully located even in the absence of occupation. The soils appear to be similar river gravels, and so it is unlikely that any significant site here, especially if occupied, would be undetectable. Features not associated with occupation such as isolated boundary ditches (or graves) might not respond in these conditions.

In fact very little was found, and none of it is of definite archaeological significance. Magnetic anomalies detected are outlined on the reduced scale copies of the survey charts enclosed (plan 2):

Linear features are outlined in squares 5, 8-9, 11 and 15. These could be ditches, but none is clearly defined enough for this to be certain; they could be no more than superficial furrows or ridges in the ploughsoil. Only the anomaly in square 15 is strong enough to be a probable candidate for a ditch.

In two places there are strong anomalies which could indicate the presence of burnt material, or perhaps kilns, and these were tested by augering. The one in square 3 is very disturbed and so more likely to be caused by buried iron. This was confirmed by the auger which produced only clean subsoil. The two holes made in square 18 however both showed charcoal between depths of 25 and 60 cm. The anomaly in square 12 is larger than either of these and must be caused by metal.

The only other features detected were in square 14 where there are small and rather indistinct anomalies which could represent pits. The very disturbed response from square 1 (the play area) must mean the grass is growing over an old strongly magnetic surface of cinder or clinker.

CONCLUSIONS

The only definite finding of the survey was the charcoal in square 18, although this appears to be isolated and is not necessarily archaeologically significant.

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There could be a ditch curving as if to form part of an enclosure and perhaps associated with pits in squares 14 and 15, but none of the evidence here is conclusive.

The other features detected are marginal, but if any further investigation is to be made of the route a small trial trench might be worthwhile to test whether they are entirely insignificant.

The sections of the route for which a magnetic survey would be feasible if necessary in future are the field N of the A40 and plots 5 and 8.

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**EYNESHAM BY-PASS
MAGNETOMETER
SURVEY**

1 30m grid squares

1:2500 A.M. Laboratory
Geophysics Section

EYNSHAM BY-PASS: MAGNETOMETER SURVEY 1981

