



BROUGH, CUMBRIA.

Report of Geophysical Survey, 1976.

A geophysical survey was undertaken adjacent to the site of the Roman cemetery that was partially excavated during the building of the present A 685. It was hoped that a magnetometer survey in fields 6500 and 6900 would define a limit to the cemetery.

The area concerned was initially scanned with the magnetometer in order to locate the most promising areas for detailed surveying. As shown on the enclosed OS extract, a grid of 30m. squares was then set out and surveyed with the fluxgate gradiometer and automatic recording system. The resultant magnetic traces are included below.

Although there are some anomalies that could be of archaeological origin there is very little to suggest a pattern that could be related to the cemetery or its boundary. The background magnetic susceptibility of the soil is low, disturbed by isolated anomalies indicative of miscellaneous iron objects and magnetic stones. The only anomalies that suggest buried archaeology are outlined on the chart. These are possibly pits and lengths of ditch, but show no coherent pattern.

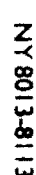
Unlike features associated with domestic occupation, graves rarely show as magnetic anomalies because of the lack of magnetic enhancement of the fill. The very slight contrast between fill and subsoil limits the possibility of magnetic detection. Cremation pits might give rise to anomalies but these would be difficult to distinguish from spurious anomalies. Iron grave-goods would be detectable but also indistinguishable from modern iron and igneous stones. Although some of the peaks on the traces could thus be associated with burials, this seems unlikely as the anomalies are scattered randomly throughout the entire surveyed area. Broad and faint trends running north-south through the traces are attributable to ploughed-over ridge and furrow. The surveyed area also includes the course of an old hedge-line.

Scanning with the magnetometer throughout the area in question suggests that the magnetic features of the unsurveyed areas are as indeterminate as those of the surveyed grid.

In conclusion, regretfully, one cannot point to any very significant features as indicative of the whereabouts of the cemetery or any associated archaeology. Even where close to the known site, the charts are not encouraging and show a very similar picture to that of the most distant parts of the survey. Although the geophysical evidence for the cemetery is so insubstantial it would be unwise to conclude that no archaeological features exist in the area concerned. Burials are difficult to find in such a survey, and here the difficulty is enhanced by the geology and soil of the site.

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27.1.77

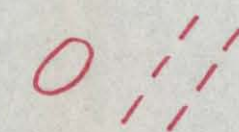
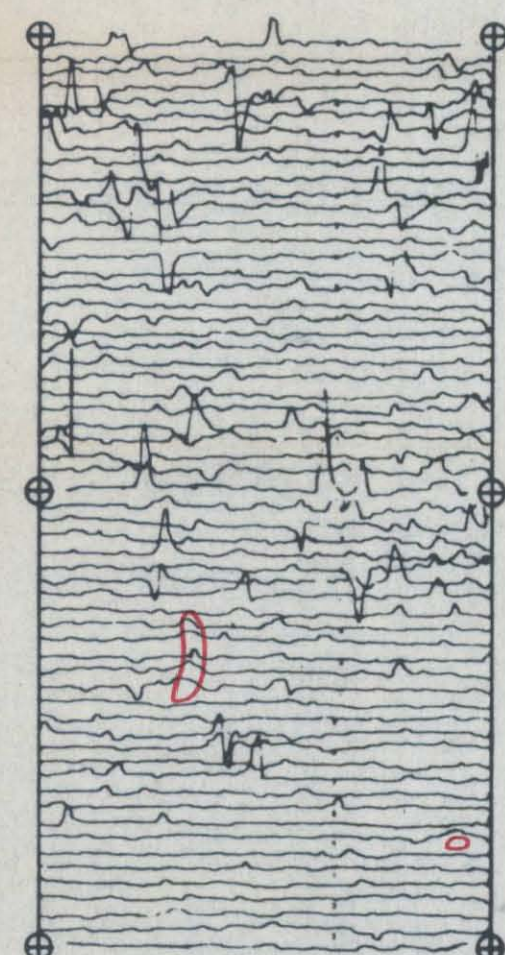
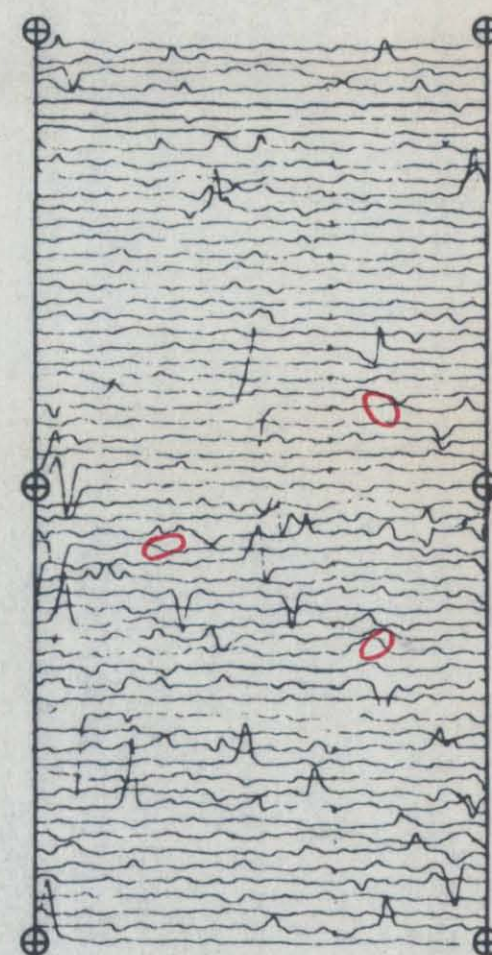
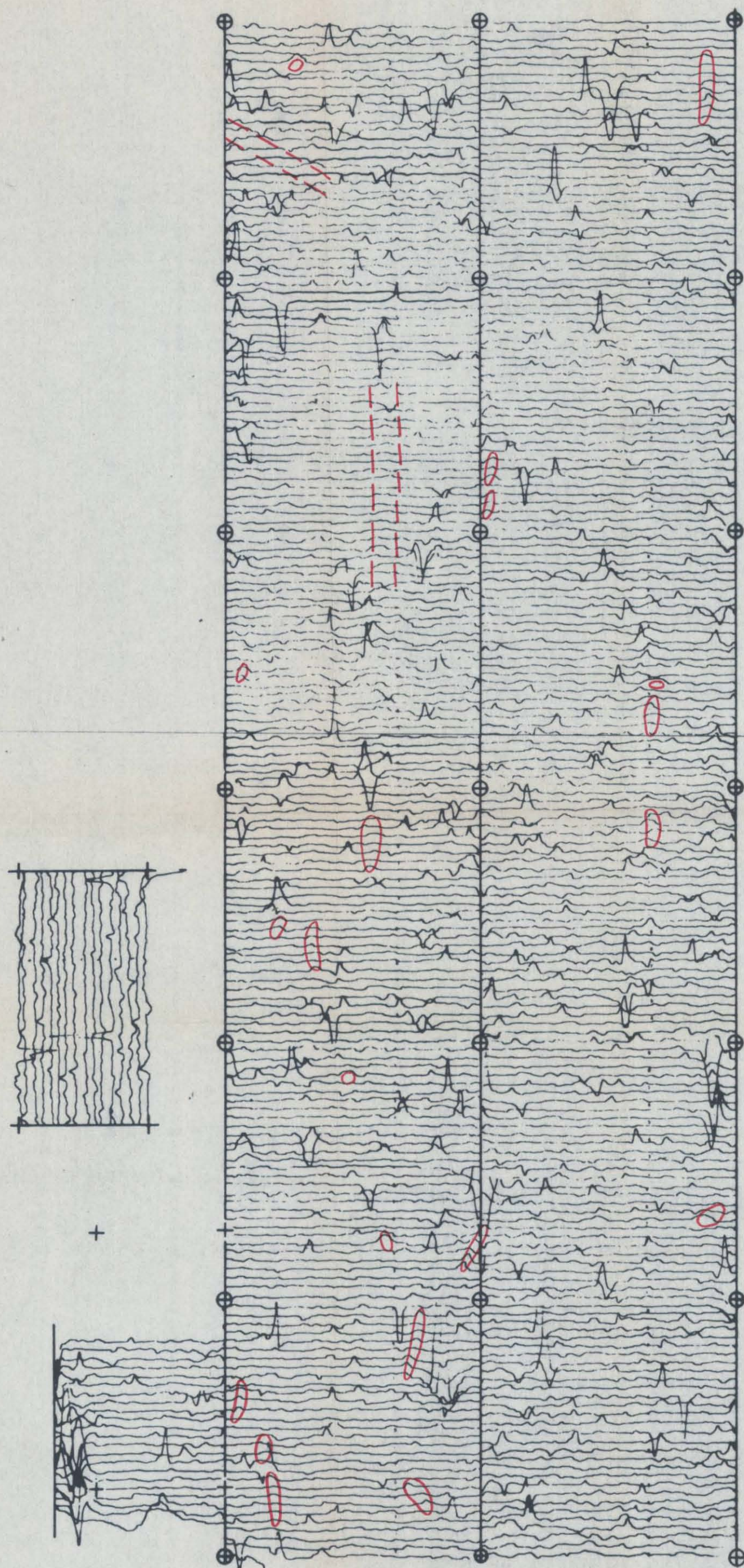




BROUGH, CUMBRIA

Magnetometer survey, 1976

1 : 500



magnetic anomalies