KENCHESTER, HEREFORDSHIRE : MAGNETIC SCAN SEPT 1975

This survey was undertaken in response to a request from Mr A. Fleming, IAM, and with the cooperation of Mr A. Hunt, then county archaeologist. The objective was to ascertain the extent to which archaeological features along the Roman road leaving the town of MAGNIS to the east, and known to exist from air photographs, were threatened by westward encroachment of the large gravel pit.

PREVIOUS WORK. Air photography had revealed a probable temple south of the lane that follows the approximate line of the Roman road, and signs of a field system further away from the road. In the drought of 1975, a series of short linear features at right angles to the road were found in the area marked F on the plan by Dr St Joseph, who interprets them as side streets (exhibition in Fortress House).

SURVEY METHOD. Free scan with fluxgate gradiometer. Features marked with flags and afterwards tied in approximately by tape measurements to field boundaries.

SURVEY RESULTS. The probable site of the temple and two boundary ditches were found, enabling the strip to be divided conveniently into A: east of the temple; B: temple to first ditch; C: between the ditches; D: from the second ditch to the field boundary. More pits were found than are actually marked, especially in D; the ones marked are those furthest from the road, and are meant to give an indication of the limits of appreciable activity. Ditches may have run along the backs of the properties as they normally do in Roman extra-mural settlements (the ones found do appear to turn), but were not detected probably because of a rapid fall-off in soil susceptibity away from the main activity (see below).

A. East of the probable temple. No anomalies detected.

B. A 10m diameter patch of anomalies with some stone probably represents the temple. It is on a noticeable rise (approach road?) running north to the road, close to which a similar patch may represent another building. The ditch on the west side seems to turn east, so that B could be the temenos. Scattered minor anomalies within it may, however, indicate more buildings.

C. This strip between the two ditches seems blank; anomalies were not detected within it.

D. This is a much more 'industrial' looking area than the others. The soil is dark and it contains numerous pit-like anomalies and one probable kiln, which gave a reading of 150 gamma.

LABORATORY TESTS. A measure of human activity can be gained from (i) the overall magnetic susceptibility of the topsoil and (ii) phosphate content. Samples taken from the different areas of the site and from an archaeologically sterile part of the gravel pit face were compared in the laboratory susceptibility bridge with the following results:

A.	2.4×10^{-6}	electromagnetic units per gram
B.	3.2	" " " " "
C.	2.5	" " " " "
D.	4.0	" " " " "
GRAVEL PIT		
Topsoil	2.4	" " " " "
Subsoil	1.5	" " " " "

These values are very low in absolute terms and close to the limits of instrumental discrimination, but they are in accordance with a crude phosphate test and with observation of the darkness of the soil, which is naturally rather light and pinkish. All give a maximum for area D.

These observations seem sufficiently positive to support the deductions from the magnetic scan. No sample was taken from the 'outfield' E, but the lack of anomalies and rapid lightening of soil colour in this direction indicate that there has not been a deep penetration of occupation away from the Roman road and that the breadth of the Romano-British activity has probably been fairly accurately defined. Field ditches may exist without having been detected because of the lack of magnetic enhancement from more intensive occupation. In common with other soils of the Welsh Marches, this is not a particularly good soil for magnetic detection except where activity has been intensive, but buildings should be suitable for resistivity planning if required.

CONCLUSION. This an area of relatively light Romano-British ribbon development that appears to terminate about 90m from the gravel pit fence, itself (Sept 1975) many metres in advance of the pit face. The threat therefore seemed to be a fairly long-term one.