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The First Geophysical Survey at the Roman Villa of Milreu (Algarve/Portugal)

Situated in the hinterland of the Phoenician-Roman city of Ossonoba, the modern Faro, with its important port on the Atlantic coast, the Roman villa of Milreu is one of the best preserved ancient monuments in Portugal. In 1877, Estácio da Veiga excavated large areas of these ruins, such as an extensive peristyle with rich coloured fish-mosaics, bath-buildings and a late Roman sanctuary *(nymphaeum?)*. From the 1970's to the mid-nineties, the German Archaeological Institute in Lisbon concentrated its investigations on the sanctuary. In March 1999 a new phase of the evaluation of the ancient site was initiated and, with the support of the IMPULS foundation of the VDMA (Frankfurt am Main) and the Friedrich-Schiller-University at Jena, it was possible for the first time to carry out a resistivity survey of a Roman rural monument in the Algarve.

A Martin-Clark five-probe and a Geoscan RM4 meter were used to allow the site to be prospected at different depths. The aim of the survey was to explore the possibility of further buildings in this already extensively excavated villa complex. In all, five areas of the site were surveyed:

Area 1 (fig. 1) was a 30 x 28 m grid to check for constructions lining the road which leads west from the entrance to the villa towards the river, Rio Seco. Earlier excavations immediately to the north had provided evidence of structures on a different alignment from the villa and presumably of an earlier date. The area towards the western end of the site, was very badly obscured by the spoil heaps from past excavations and no unambiguous archaeology was detected. There were, however, a number of very localised high spots in the north-east quarter of the grid, and although these might only represent natural boulders, they could also be interpreted as post pads or stone-choked post holes. Faint traces of linear structures on a similar alignment to the excavated structures could also be identified.

Area 2 was a 35 x 25 m grid situated behind the still well preserved late Roman sanctuary. The ground was partly impeded by dumped material as well as modern rubbish deposits which tended to mask any archaeology in the area. Nevertheless, the survey did reveal a slightly curved band of high readings leading off to the south-west behind the villa proper which has tentatively been identified as a path or road.

Area 3 (fig. 2, 30 x 23 m) lay in an orange grove to the east of the visible ruins. The trees were planted in rows, each of which was served by an irrigation system, and the survey results reflect this by displaying heavy banding. This can, however, be at least partly filtered out making it possible to identify underlying structures, some of which might represent remains shown in the antiquarian plan of Estácio da Veiga. There is, for example, a series of square shapes towards the southern end of the grid that may form an extension of the barrack-like buildings already known closer to the sanctuary (*pars rustica*). To the north of these there appear to be two more rectangular structures that do not appear on the old plan and which raise the possibility that more buildings may exist than has been assumed hitherto.

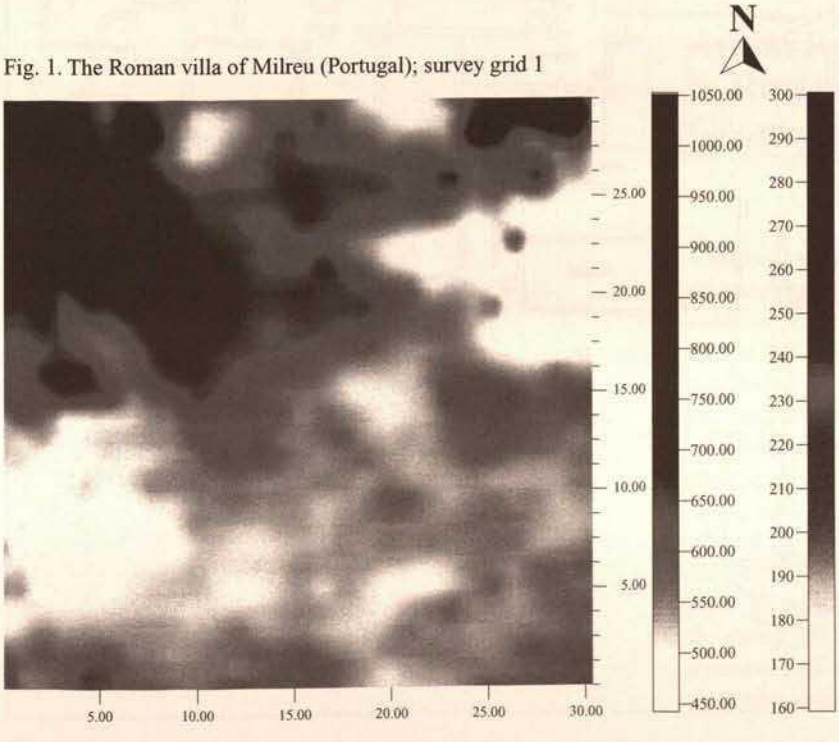

Fig. 1. The Roman villa of Milreu (Portugal); survey grid 1

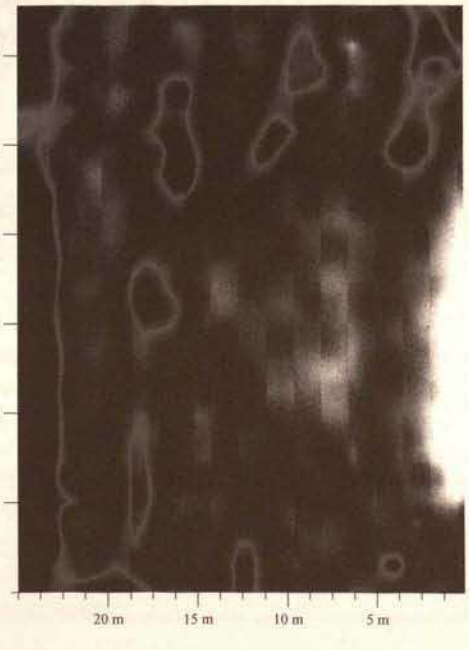

Fig. 2. Milreu; survey grid 3

Area 4 lay just to the east of a sixteenth-century farmstead and was designed to see if the Roman period walls found under this building could be traced outside it. There was only room for an 8 m wide (x 30 m long) grid between the building and the site's boundary fence but, despite its small scale, the survey proved successful in identifying structures connecting a mosaic-paved room under the farmstead and an atrium with a fountain to the south.

Area 5 lay just inside the modern entrance to the site, between grids 1 and 2. It consisted of very dry, compacted earth topped by a thin layer of pea gravel. No new structures were detected, but the survey was able to pinpoint structures that had been excavated previously but then backfilled.

In summary, although the presence of significant deposits of excavation spoil had meant that no great faith had been put in the ability of resistivity survey to produce useful data at Milreu, good results were obtained which have contributed to our understanding of this remarkable Roman site. The present work was merely a test survey and it is planned to carry out more extensive prospection in the coming year.

Reference

F. Teichner, "*Die römischen Villen von Milreu (Algarve/Portugal). Ein Beitrag zur Romanisierung der südlichen Provinz Lusitania*", Madr. Mitt. 38, 1997, 71–98

Fig. 3. The Roman villa of Milreu (Portugal) and the survey grids 1999 (area 1–5)