

Geophysical surveys in Rick Field

Where shall we dig? Bradford on Avon 2013-14
Sophie Hawke

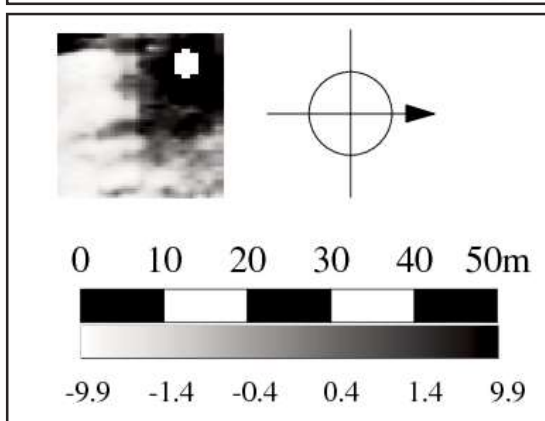
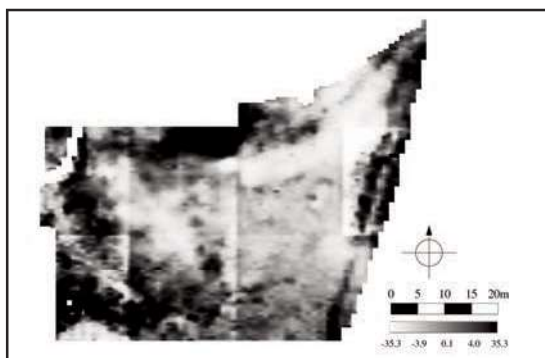
This geophysics report on Rick Field complements the excavation report by Roy Canham on the following pages. Bradford on Avon Museum was looking for an area to carry out a Community Dig to provide an opportunity for Museum members to try their hand at archaeological excavation. The area selected was east of the historic Tithe Barn, outside the Scheduled Area. The initial resistivity survey was carried out in September 2013; the first foray into Bradford on Avon by the BACAS geophysics team.

Following Bradford on Avon Museum's first season's excavations, BACAS returned in June 2014 and carried out a further resistivity survey and profiling in Rick Field (now renamed 'Hens' Orchard') and Victory Field, to the east.

Resistivity survey

Using the silver TR/CIA resistance meter, with twin-probe arrangement, we completed ten 20x20m grids, with readings taken at every 0.5m, along traverses 1m apart. This took place over two days in September 2013. The results (*Figure 1*) showed two parallel areas of resistance running along the eastern boundary of the field, suggestive of a collapsed earlier wall. The area to the west and south-west appeared to indicate high resistance but this was likely to be the result of spoil being dumped there when the car park just to the north was constructed. Several local residents confirmed this when they visited the subsequent excavations. There also appeared to be an area of low resistance, possibly a ditch, towards the northern end of the site but excavation here (Trench 14/2 in Roy's report) revealed a hard mass of clinker, which may have been dumped over a period from a local forge. The results here seem to have been skewed due to the high conductivity and thus low resistance of the material.

Figure 1
Resistivity results, Rick Field, September 2013.
Figure 2
Resistivity results, Victory Field, June 2014.



Following excavations at Easter 2014, a further resistivity survey was carried out in June 2014 with the silver TR/CIA resistance meter with the same arrangement as before. One 20x20m grid was surveyed in Victory Field, immediately east of Rick Field (*Figure 2*), showing an area of high resistance (later found to be modern disturbance). The blank area at the north-west corner of the results was a large tree which obscured part of the grid.

Profiling was carried out in two areas of Rick Field (*Figures 3, 4*) (just south of trench 14/1 and trench 14/6 respectively in Roy's report) and one line was also put in at Victory Field (*Figure 5*) (subsequently trench 15/4), parallel with Pound Lane. This was done using the TR/CIA resistance meter which has an attachment with a set of 30 probes which allows vertical sections to be profiled, giving a "worm's eye view". Figure 3 appears to show high resistivity, whilst Figure 4 appears to show both high and low resistivity. Following excavation, results depicted in Figure 5 proved to be the result of modern activity. Profiling was done in order to ascertain where we would put new or extend existing trenches. As you can see, (*Figure 6*) we were very lucky with the weather that day!

The geophysical surveys were most useful in determining where our Community Dig trenches would be situated and both Roy and I are very grateful to BACAS.

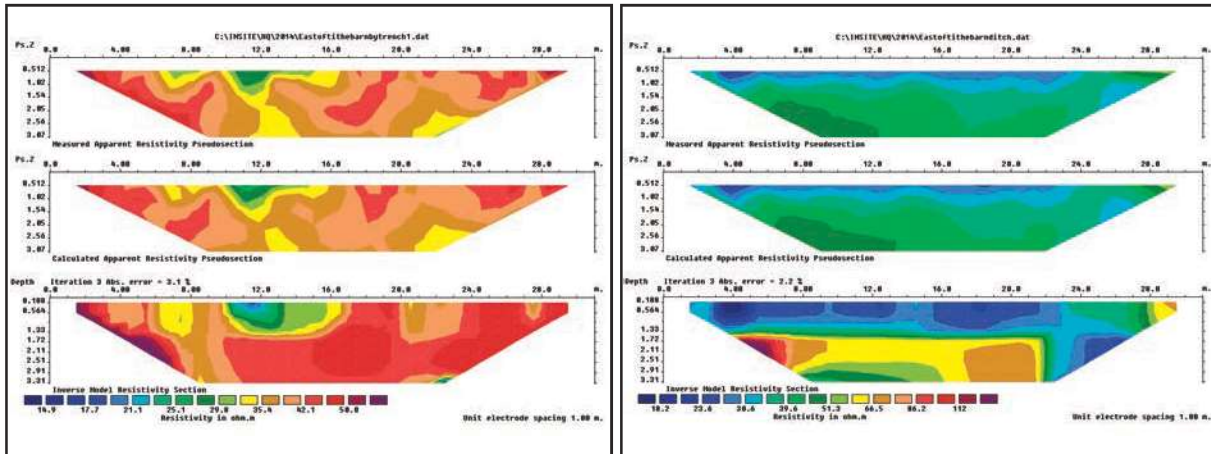
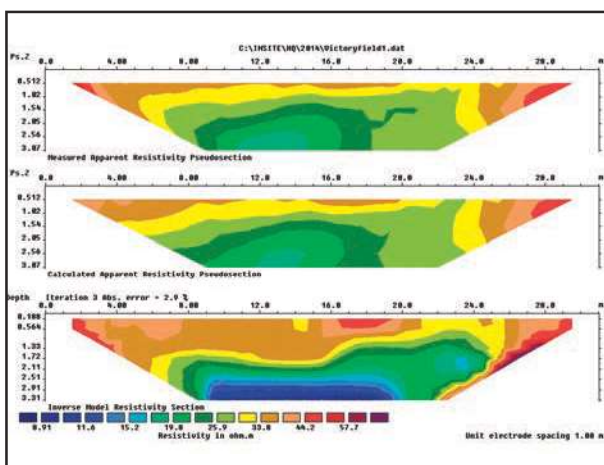


Figure 3 above left
Profiling results just south of trench 14/1, in Rick Field.

Figure 4 above
Profiling results trench 14/6, in Rick Field.

Figure 5 left
Profiling results trench 15/4, in Victory Field.



Acknowledgements

My thanks to BACAS for the use of their equipment and to the geophysics team: Terri Bell, Rick Buettner, Jan Dando, Clive Green, John Knapper, Janet Pryke, Oliver and Bernadette Stanley and to John Oswin for assistance with the results processing. Also to Bradford on Avon Preservation Trust for allowing us access to their land; Leo Wirtz, Senior Ranger, Barton Farm Countryside Park; Roy Canham and Ritchie Brown, Bradford on Avon Museum and to Heather Knight and Adrian Powell.

Figure 6 above
Members of the BACAS Geophysics team profiling in Rick Field.

