



A Geophysical Survey at Beech House, Brockbridge, Droxford Hampshire

June 13th - June 14th 2014

Liss Archaeology Ref: BHD-14

Carried out by Liss Archaeology
On the behalf of
The Friends of Corhampton Saxon Church
&
The Saxons in the Meon Valley Project

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With special thanks to the following for their support





Summary

The survey produced some interesting and surprising results revealing aspects of land use up to the present day. Several modern features were identified that relate to the disused Meon Valley railway line. No evidence of burials from the nearby Anglo-Saxon cemetery were detected.

Introduction

Liss Archaeological Group were asked by the Meon Valley Saxons Project to carry out a geophysical survey using resistivity at Beech House, Brockbridge, Droxford. The survey was conducted over the 13th and 14th June 2014. The weather was hot and sunny especially on the first day and caused the earth to dry out and in areas where grass was absent it resulted in high resistance and over range-readings.

The survey was carried out 50m west of a known Anglo-Saxon cemetery, i.e. the adjacent side of the railway cutting. The purpose was to try to identify whether the cemetery extended into the gardens and paddocks of Broom House, where in an area close to the cutting, human remains had recently been found in soil disturbed by rabbits.

The cemetery first came to light during the excavation of the cutting for the now disused Meon Valley railway, c.1898, with human remains and artefacts being retrieved from the spoil (Stone 1983); the cemetery was duly mapped as a 'Jutish Burial Ground.' The site later came to public notice when a bomb dropped from a Junkers JU88 destroyed a pair of railway cottages when it missed its target (probably the station) in 1940. According to pre-1940 maps the cottages appear to have stood to the rear (south) of the present Beech House, somewhere within the area of the vegetable gardens, i.e. immediately north of the survey area.

In 1973/4 part of the cemetery was investigated by F R Aldsworth and a team from King Alfred's college Winchester and 39 graves were excavated (Aldsworth 1979).

The Site

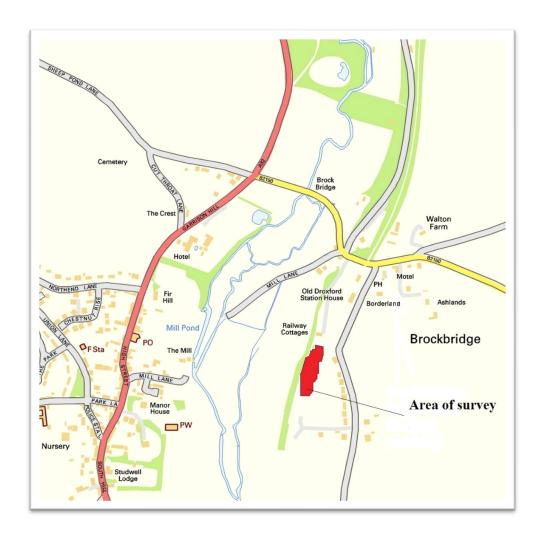


Fig 1 location and area of survey in red (contains Ordnance Survey data © Crown Copyright and Database right 2014)

The survey area is located immediately South of Beech House within the paddock to the rear of the property (Fig 1), SU 61156 / 18400.

The local bedrock is Seaford chalk formation and is composed of firm white chalk with conspicuous semi-continuous nodular and tabular flint seams. Some flint nodules are large to very large. Hardgrounds and thin marls are known from the lowest beds (NERC 2014). The superficial or drift is 'Head' polymict deposit comprising of gravel, sand and clay depending on upslope source. These are poorly sorted and poorly stratified deposits formed mostly by solifluction and/or hill wash and soil creep and essentially comprises sand and gravel locally with lenses of silt, clay or peat and organic material (NERC 2014). Neither the

superficial or bedrock geology should have any noticeable negative influence on the results of the survey.

Methods

The method for the survey was resistivity and was chosen on the basis that there was significant metal pollution, especially ferrous¹, within the survey area; this would have adversely affected the results of a magnetometry survey. A Geoscan Research RM-85 resistance meter owned by Liss Archaeology was used for the survey.

Settings

The resistance meter was configured in PA20 probe array with a 0.5 metre beam. The mobile probe spacing was 0.5 metre and the log mode was single log /twin array.

The interval setting was for 0.5 metre interval moving north to south. The traverse setting was for 0.5 metre zig-zag traverse moving east to west starting at the south-west corner of the grid square.

Software settings
Grid length – 20m
Sample interval – 0.5m
Grid width – 20m
Traverse interval – 0.5m
Traverse mode – Zig-Zag

Gain – x10 Current – 1 mA Frequency – 122.5 Hz

The collected data was processed using Snuffler version 1.11 geophysics data processing software on an Acer Aspire-x XC600 desktop computer running Windows 8 operating system.

The Grid

A grid comprising 20m x 20m squares was laid out from a base line orientated north to south from the north-east corner of the base of the concrete stable block (SU 61156 18440) and extending 80 metres to SU 61156 18360. The base line was aligned and set to north on a magnetic bearing using a Francis Barker M88 Prismatic sighting compass. The 20m x 20m grid was chosen because of the difficulties inherent in surveying around the many obstacles in the area. All grid references were obtained using a Garmin Etrex Vista hand held GPS receiver.

¹ As discovered during a previous metal-detecting survey of the site.

The Grid consisted of eight, 20 x 20m squares laid out as two columns of four squares side by side. Only six were surveyed: squares A2 and D1 were omitted due to them being totally obstructed or within inaccessible areas (Fig. 2).



Fig. 2 Grid overlaid onto aerial view

Results

The raw unfiltered data plot with grid attached is shown in Fig. 3 (displayed in linear plot format); Fig. 4 for the associated data setting. The data was filtered and presented in relief plot format; the filtering process was despike and interpolate plus grid before converting into relief plot (Figs 5 & 6). This was then overlaid onto an aerial view of the survey area (Fig. 7).

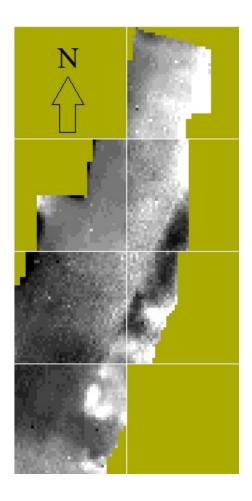


Fig. 3 Raw unfiltered data in linear plot format

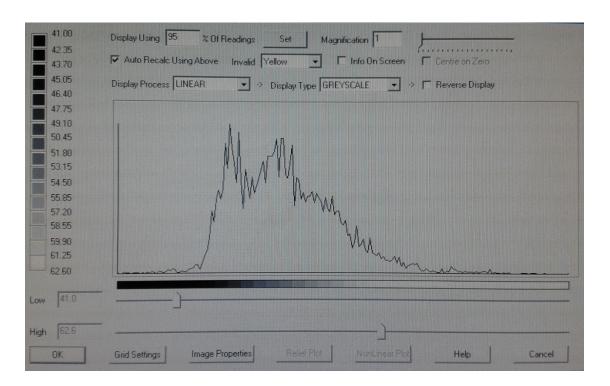


Fig. 4 Data settings for the linear plot

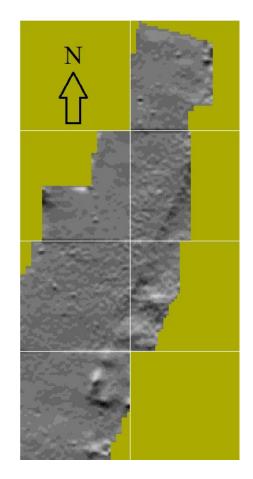


Fig: 5 Filtered data in relief plot format

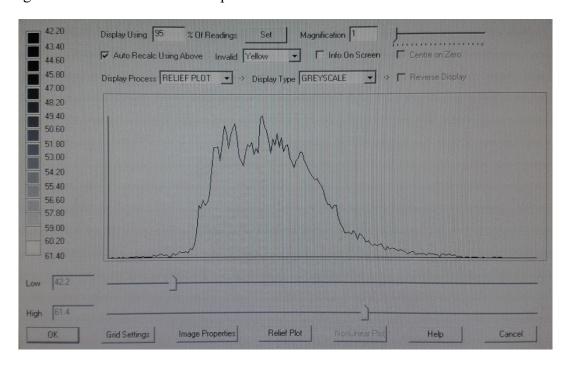


Fig: 6 Data settings for filtered relief plot



Fig: 7 Filtered relief plot overlaid onto an aerial view of the survey area

Interpretation

The resistivity produced two notable anomalies (Fig. 8).

- 1) A 50m x 10m long rectilinear feature (A) running north-east to south-west along the eastern edge of the survey area.
- 2) A small irregular feature roughly 5m x 3m (B) located in the bottom corner of grid square A1.

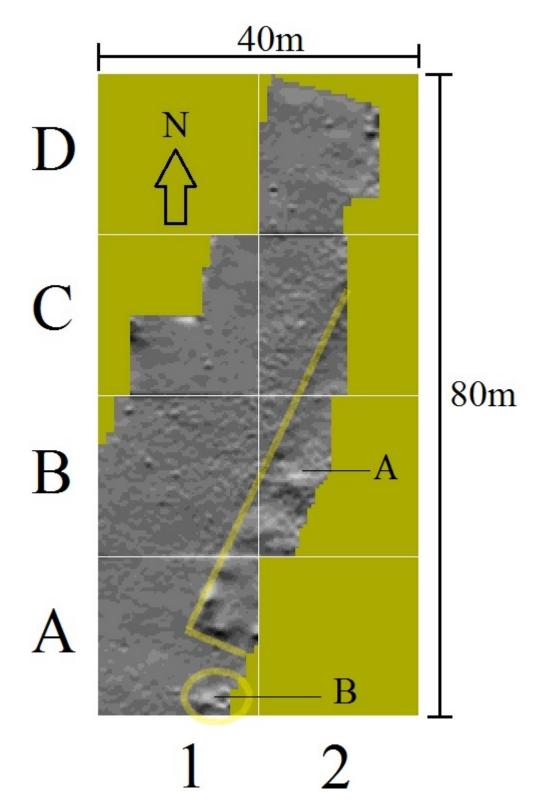


Fig: 8 Anomalies identified by resistivity survey.

Both anomalies appear to correspond to the positions of features identified on an Ordnance Survey map from 1963 (Fig. 9), suggesting that they are the buried remains of the same features (Fig. 10).

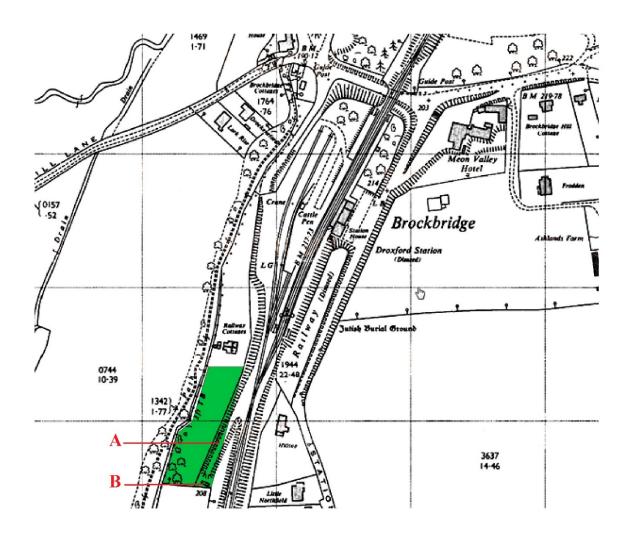


Fig: 9 Features identified on 1963 Ordnance Survey map

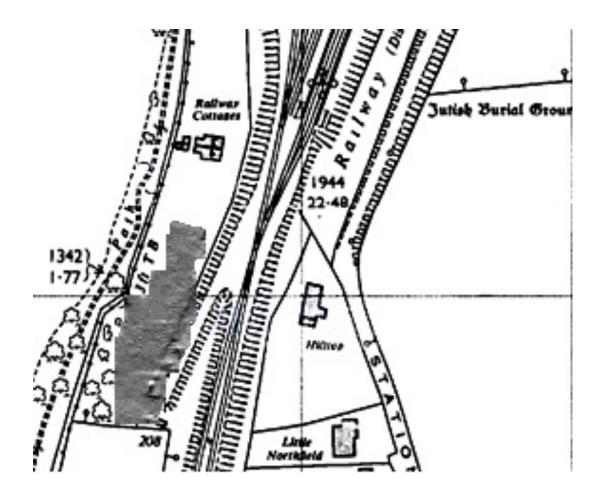


Fig: 10 The 1963 map with the resistivity plot overlaid in the correct position.

Conclusion

The survey was successful in identifying features that are contemporary with the Meon Valley railway line. Both features are almost certainly the remains of what were (A) a railway siding and (B) an associated structure which stood at the southern end of the siding - both are clearly visible on the 1963 map. No detectable evidence of burials from the nearby Anglo-Saxon cemetery were detected in the results of the survey.

Acknowledgements

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References

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