



Bridestones by T. P. Wood (A sketch from his scrap book).

SOTMAS Geophysical survey at the Bridestones Neolithic Chambered Long Cairn

On Saturday 13th August 2011 the SOTMAS society members undertook a magnetometry survey of part of the field between the monument and Dial Lane. This covered an area of 5400 square metres (90 by 60). In addition a small area adjacent to the monument was recorded. The following weekend, 20th and 21st August the same area in the field was surveyed using our resistivity meter (RM4). The area covered is shown superimposed on a detail of the English Heritage map (Figure 2).

The area of the field chosen had been subjected to modern intrusion:

The eastern most strip contains a large metal grid and it is clear from the magnetometry that there is probably a water pipe running down the field from this;

The western most strip appears to have had a cart track running through it;

The whole of the field was ploughed a few years ago.

The area, available for magnetometry, immediately round the monument was very restricted. We cut and removed the bracken from this area before attempting the survey.

The field

At the northern side of the field there is a stone wall. At the wall the ground is almost level from the gate (at the eastern side) for about 85 metres to the West. At the eastern end the ground falls away rapidly towards the South. Further West, near the tomb, there appears to be a platform which widens further to the West. This platform then narrows and ends at the 85 metre point. Also the field falls away to the South more slowly West of the tomb.

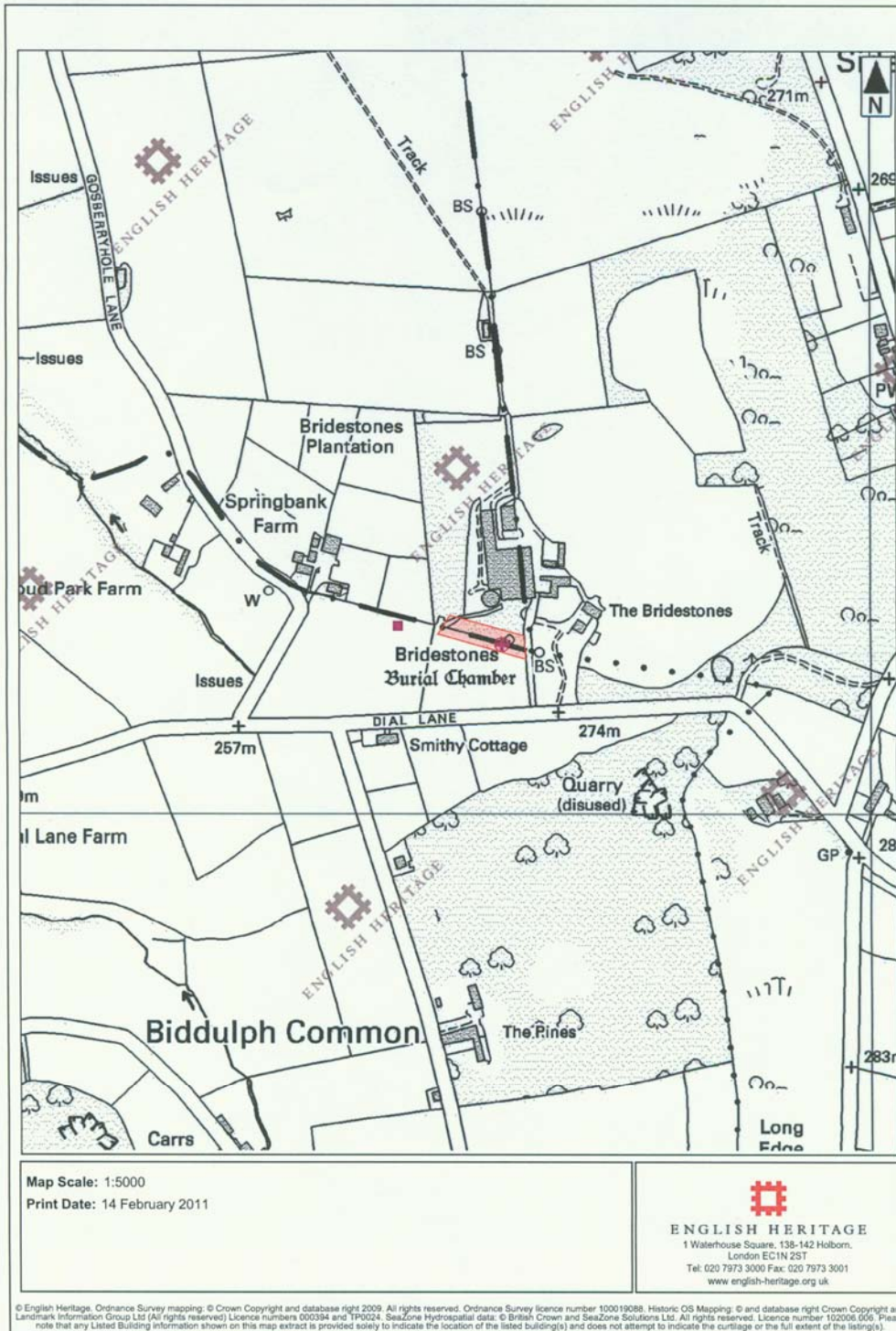


Figure 1: Map of the monument as provided by English Heritage.

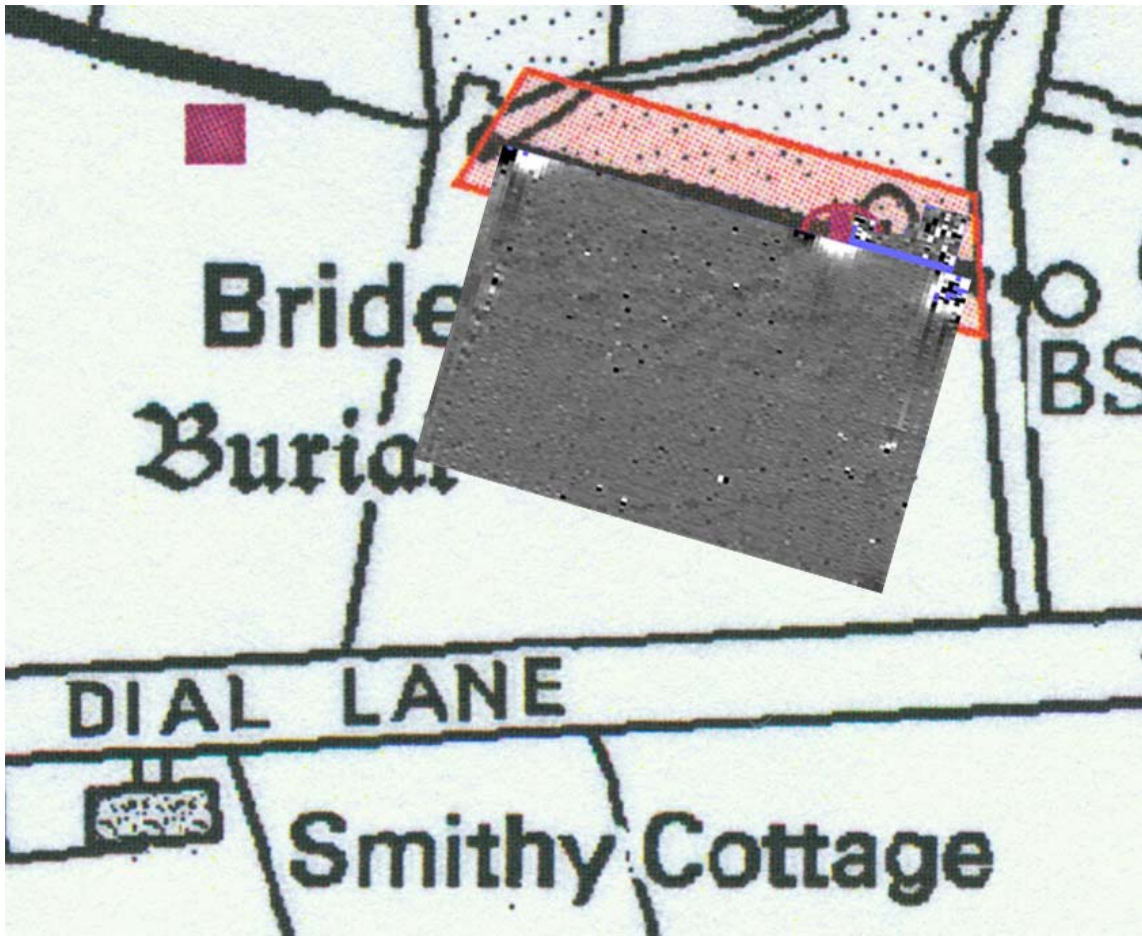


Figure 2: Detail of map showing location of survey (magnetometry survey superimposed).

Results of Magnetometer Survey.

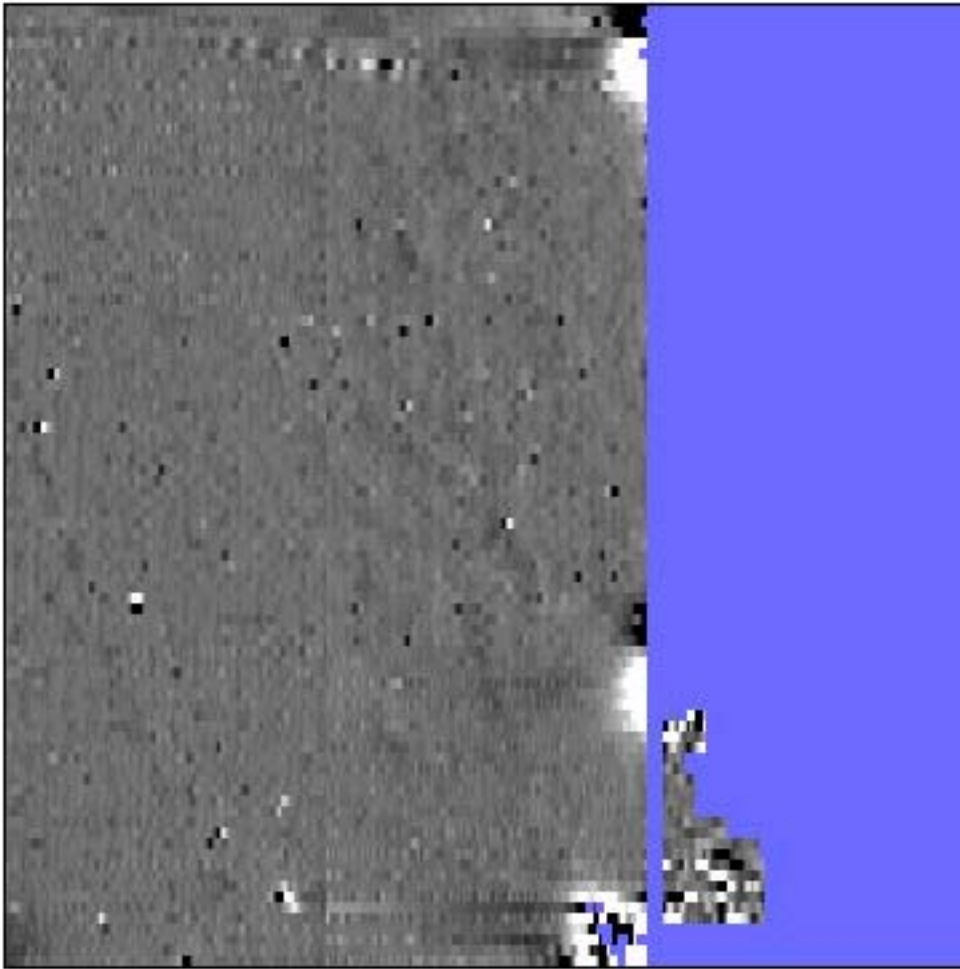


Figure 3: Magnetometry survey (as normal the top of the image is vaguely west).

The magnetometer survey shows a few scattered linear anomalies in the field. The area near the tomb is obviously very heavily disturbed. It is very difficult to come to any useful conclusions based on this.

Results of Resistivity Survey.

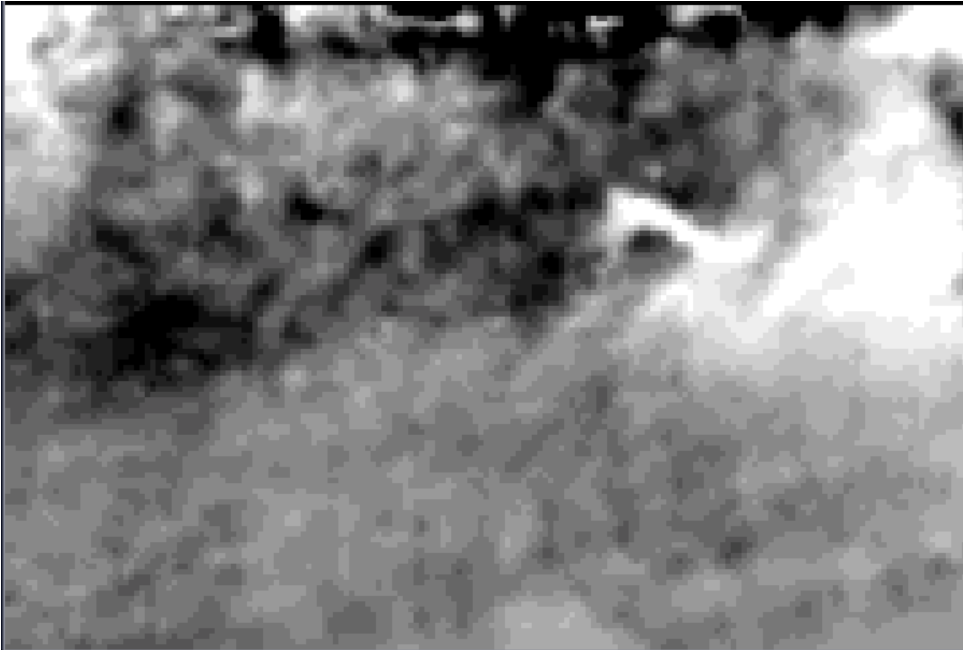


Figure 4: Resistivity survey (North at top)

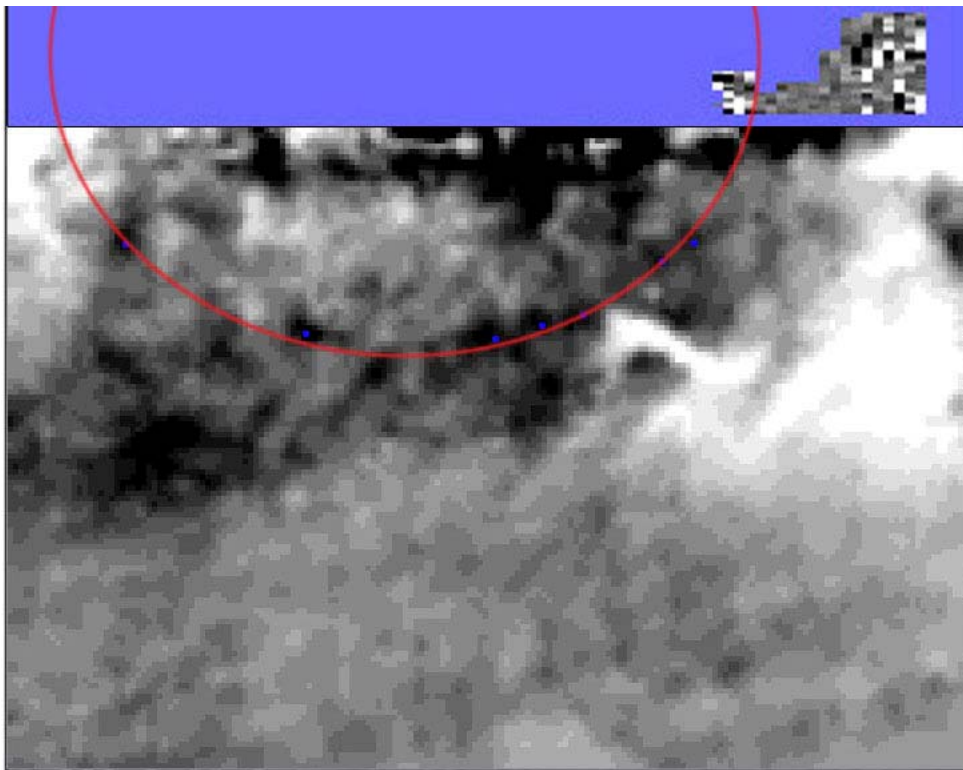


Figure 5: Resistivity survey with interesting isolated high resistance readings marked in blue. A curve centred on the axis of the tomb is shown in red.

Although the resistivity and the magnetometry surveys are generally similar, they differ in detail. In particular the resistivity chart shows several isolated small areas of very high resistance. We have marked these in Figure 5 with a blue dot. These can be joined up with a symmetrical curve with its centre on the axis of the tomb. Could this point to, a set of stone holes which might have supported a stone circle? There is a thin band of high resistivity close to and nearly parallel with the stone wall. This may reflect an earlier wall slightly further South or it may be fallen and soil covered stone from repair to the wall after collapse.

Further Work

The results from the resistivity survey are, we think, very interesting. The society (SOTMAS) would be interested in conducting some small scale excavations to validate the results. The areas of interest are some distance from the tomb and well outside the scheduled area.

Acknowledgments

Our thanks to Mr. Goodfellow for his interest in, and allowing us to conduct, the survey.

We thank English heritage for giving us permission to perform this survey. We also thank them and Andy Payne in particular for the loan of the magnetometer and the training in its use.

Randle Knight allowed us to use the preliminary sketch by T.P. Wood of the bridestones which he discovered, unrecognised, recently.

Appendix



ENGLISH HERITAGE
NORTH WEST REGION

Enclosure:

English Heritage Geophysical Survey Database Questionnaire

Survey Details

Name of Site: THE BRIDESTONES NEOLITHIC CHAMBERED LONG CAIRN.

County: STAFFORDSHIRE

NGR Grid Reference (Centre of survey to nearest 100m):

SJ 90614 62146 (SJ 90624 62181 for monument)

Start Date: 13th August 2011 **End Date:** 21st August 2011

Geology at site (Drift and Solid):

Unknown

Known archaeological Sites/Monuments covered by the survey

(Scheduled Monument No. or National Archaeological Record No. if known)

SM 13500

Archaeological Sites/Monument types detected by survey

(Type and Period if known. "?" where any doubt).

Stone Circle ?

Surveyor (Organisation, if applicable, otherwise individual responsible for the survey):

Stoke - on - Trent Museum Archaeology Society (SOTMAS)

Name of Client, if any:

None.



SUITES 3.3 AND 3.4 CANADA HOUSE 3 CHEPSTOW STREET MANCHESTER M1 5FW

Telephone 0161 242 1400 Facsimile 0161 242 1401
www.english-heritage.org.uk

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ENGLISH HERITAGE
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Purpose of Survey:

The idea was to see if there are any unrecorded features of the monument which could be detected with magnetometry or resistivity.

Location of:

a) Primary archive, i.e. raw data, electronic archive etc:

The primary archive is to be stored on our web site.

b) Full Report:

The full report is to be stored on our web site, and will be generally accessible.



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Additional Remarks (Please mention any other technical aspects of the survey that have not been covered by the above questions such as sampling strategy, non standard technique, problems with equipment etc.):

The magnetometry survey was taken heading alternatively North then South gradually moving East. The grid size was 30 metres by 30 metres.
The resistivity survey was performed similarly. The RM4 meter was set to RURAL and with a range of 2000 Ohms.

List of terms for Survey Type

Magnetometer (includes gradiometer)

Resistivity

Resistivity Profile

Magnetic Susceptibility

Electro-Magnetic Survey

Ground Penetrating Radar

Other (please specify)



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Technical Details

(Please fill out a separate sheet for each survey technique used)

Type of Survey (Use term from attached list or specify other):

Magnetometry

Area Surveyed, if applicable (In hectares to one decimal place):

90 X 60 metres plus approx. 7 X 16 metres.

Traverse Separation, if regular: 1 metre

Reading/Sample Interval: 0.25 metres

Type, Make and model of Instrumentation:

RM36 gradiometer

For Resistivity Survey:

Probe configuration:

Probe Spacing:

Land use at the time of the survey (Use term/terms from the attached list or specify other):

Grassland - pasture.



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Technical Details

(Please fill out a separate sheet for each survey technique used)

Type of Survey (Use term from attached list or specify other):

Resistivity

Area Surveyed, if applicable (In hectares to one decimal place):

90 X 60 metres

Traverse Separation, if regular: 1 metre

Reading/Sample Interval: 0.1 metre

Type, Make and model of Instrumentation:

RM4

For Resistivity Survey:

Probe configuration:

Standard 2 probe.

Probe Spacing:

50 cms.

Land use at the time of the survey (Use term/terms from the attached list or specify other):

Grassland - pasture.



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