

ABINGDON ARCHAEOLOGICAL GEOPHYSICS

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Broughton Villa, Broughton Estate, Oxon.

Short Report no. 2021-07R

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This report is largely a repetition of report no 2017-06. It has been amended to change the name of the site which was originally known as Hazleford, after a nearby deserted village. A plot of the coins found in the ploughsoil has been added as has a Creative Commons licence.



Survey Details

Name of site: Broughton Villa, Broughton Estate, Oxon.

Purpose of survey:

A magnetometry survey was carried out to investigate whether Roman and other remains could be detected in this area.

Client: Martin Fiennes, Broughton Castle, Banbury, Oxon OX15 5EB

County: Oxfordshire **District:** Cherwell **Parish:** Tadmarton

NGR grid reference: Area approximately centred on SP 402388

Nearest postcode: OX15 5TD

Start date: 08-01-2017 **End date:** 26-03-2017 **Report date:** 11-11-2021.

Geology at site The geology is understood from the Geology of Britain viewer to be Marlstone Rock formation - Ferruginous limestone and ironstone. Beneath this is Dyrham Formation - siltstone and mudstone, interbedded. Charmouth Mudstone Formation is near the stream at the foot of the slope to the east of the site.

Topography: The field is on a spur which slopes downwards from west to east and on the northern and southern sides. There is a stream to the east and a spring and small watercourse in the valley to the south.

The field is fairly level but undulating with slopes on the northern, eastern and southern sides at approx 116 metres OD.

Land use at the time of survey: Wheat stubble.

Known archaeological sites / monuments covered by the survey

On the afternoon of October 31st 2017, Keith Westcott set out to field-walk the surrounding area of a little known sarcophagus burial of a Romano British female. Keith had been interested in this high status burial for some years as he believed that at 1 mile from the closest known Roman site, there could be a residence within the vicinity comparative to that of the status of the burial. On surveying the land Keith noticed an area which did not appear to be of natural topography and returned home to confirm this from satellite imagery. Keith then returned to the field and found Roman flue tile. He has also found several Roman coins in the vicinity. The coins appear to be 1st to 4th Century and the tiles were found at 550315E 238757N and at 440295E 238822N

The Historic England Pastscape system has this information:-

1 An extended RB inhumation burial, probably 3rd. or 4th.c. was found at SP 40453855 when ploughing in 1963. It consisted of a limestone coffin lined with a single sheet of lead, with an unlined single limestone slab lid, and contained a partially preserved female skeleton and a broken glass unguent bottle.
Oxfordshire Architectural and Historical Society Oxoniensia (D Sturdy H Case) 28 - 1963 Page(s)92-3

2 Near the road to the west of the site is a bank which is Scheduled as 'Camp NE of village'. This may relate to the Lower Lea Roman town which is located on the western side of the Shutford Rd.

The Oxfordshire Historic Environment Records' Heritage Search system did not contain any additional information before we carried out the survey.

Archaeological sites / monument types detected by the survey

Geophysics cannot give a date to remains, particularly if their shape is not distinctive. Presumed Romano British courtyard villa with possible gardens. Possible aisled hall and mausolea. Possible other prehistoric remains.

Surveyor : Abingdon Archaeological Geophysics, Roger Ainslie, Sally Ainslie. Paul Booth kindly identified the coins.

Location of:

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

Abingdon Archaeological Geophysics, with client and Oxfordshire History Centre (accession no D21/806).

b) Full report: ditto

Technical Details

Type of survey

A Magnetometer

Area surveyed: 4.71 hectares.

Traverse separation, if regular: 1metre

Reading / sample interval: 8 per metre

Type, make and model of instrumentation: Bartington Grad 601/2 fluxgate gradiometer.

B Earth Resistance

Area surveyed: 0.15 hectares.

Traverse separation, if regular: 0.5metre

Reading / sample interval: 2 per metre

Type, make and model of instrumentation TR Systems earth resistance meter V2.

Additional remarks

30 metre grids. First line start NW corner going east zig zag. Grids aligned on National grid using Trimble pro XR GPS with beacon differential correction - probably accurate to 0.5 metres. NW corner of grid 1 at 440290.0E 238830.0N. Grid 18 and part of 19 was also surveyed using earth resistance. TerraSurveyor used for processing.

Results (refer to plans below) As the site was large some plans may need to be printed at A3 size in order to comply with the 1:1000 minimum size plot required in the English Heritage 2008 guidance.

- 1 Small high anomalies. Possible garden or minor courtyard with possible diagonal drains.
- 2 Square and circular anomalies. Purpose unknown but could possibly be Roman mausolea. See detail 1.
- 3 High readings. Possibly burnt material in ditches or watercourses.
- 4 Irregular area. Possibly an area of later soil disturbance and damage.
- 5 Small straight high linear anomalies. Purpose unknown.
- 6 Small high anomaly. Possibly a pit or a well.
- 7 Possibly modern tractor ruts around the field edge.
- 8 Line of present hedge. There is a drop of some 1.5 metres on its southern side. Maps show this continuing eastwards but this cannot be seen in the magnetometry results.
- 9 Linear low readings. Possibly walls.
- 10 High readings near stream. This could indicate some industrial activity took place upstream and has got into the stream silts which have been dumped on the banks when the stream has been cleared.
- 11 The green lines are high linear anomalies which are of a low strength. These could be the layout of a garden or similar.
- 12 The area shown cross hatched is the main area of higher readings although

individual features cannot be identified in much of it. This could be because they are damaged or it could be that they are more deeply buried.

- 13 Short low linear anomalies. Possibly walls. The area to the east of this appears to have anomalies which could be collapsed rubble, so this may have been a more substantial structure than many others in this vicinity. The earth resistance results indicate that there is a N-S range here with a possibly circular feature mid way down this eastern range. Its results also suggest some drain runs or similar going across the courtyard area.
- 14 Curved high anomaly. This is probably just a former course of the stream. It is more visible on the more clipped versions of the survey plot.
- 15 Curved ditch-like anomaly. Purpose and date unknown, possibly prehistoric.
- 16 Rectilinear arrangement of low linear anomalies. This could be an aisled hall. The area of high anomalies to its west appears to respect it. See detail 2.

Conclusions

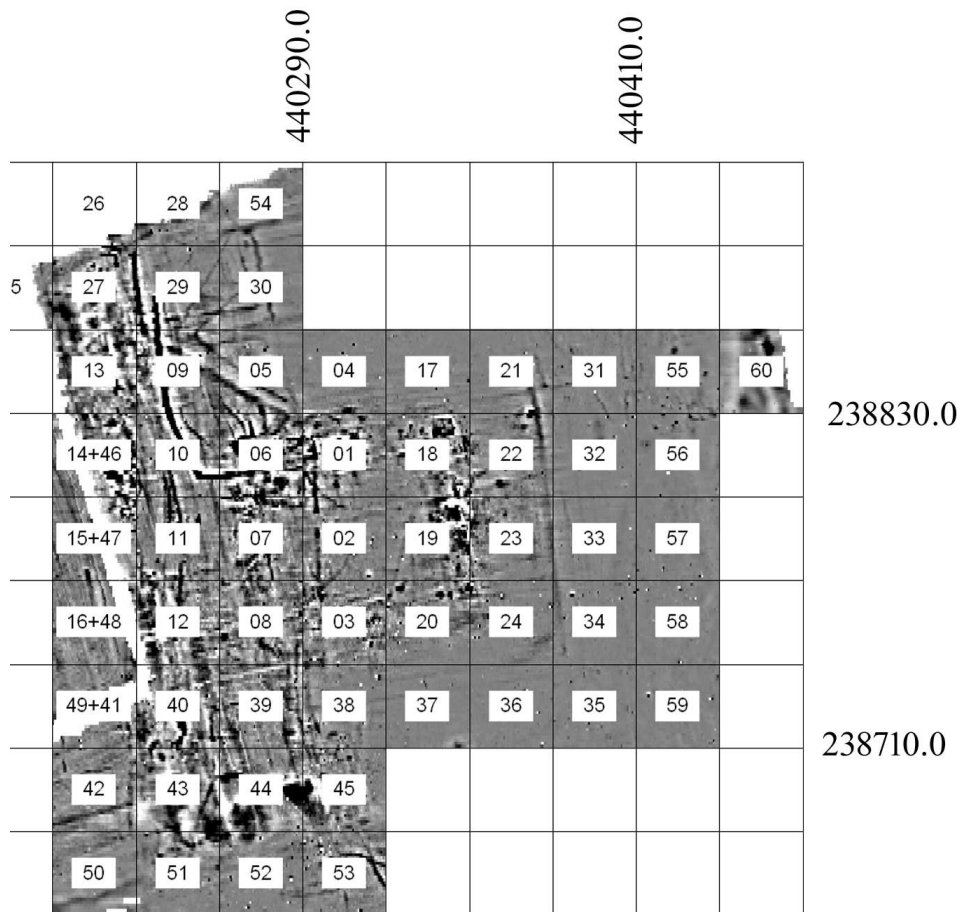
The magnetometry here appears to have been successful in locating anomalies which archaeological and could be a Roman courtyard villa with possibly other prehistoric remains on the same area. The Roman date could have been assumed by the pieces of tile on the surface and Keith Westcott's coin finds which show a concentration over the villa area. Processing with different clipping limits shows more than if only a single plan was produced, for example it enables the ditches(3) to be identified as being two separate phases. Earth resistance has been less successful, although it has clarified some of the magnetometry results. More surveys using earth resistance or magnetometry on a different orientation and a smaller line interval could define some of the features which have been identified. Excavation may be needed to get a date for the features.

Disclaimer

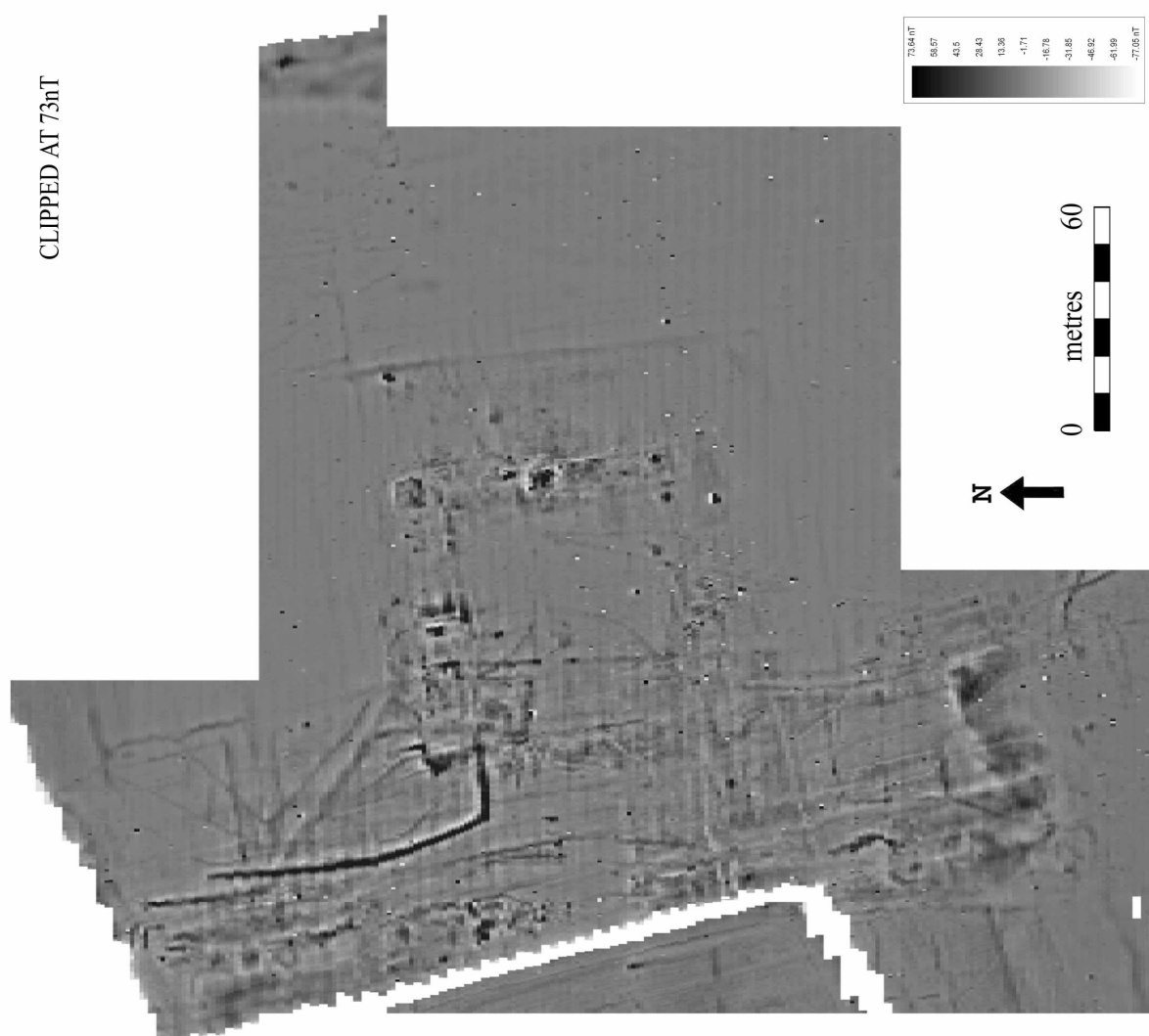
Geophysics is not always successful in locating sites. Whilst we do our reasonable best to locate features we cannot influence ground conditions and the state of preservation of remains. Graves and spreads of material are seldom located. The failure to locate remains does not mean that they are not there. Geophysics on its own cannot give a date to remains.



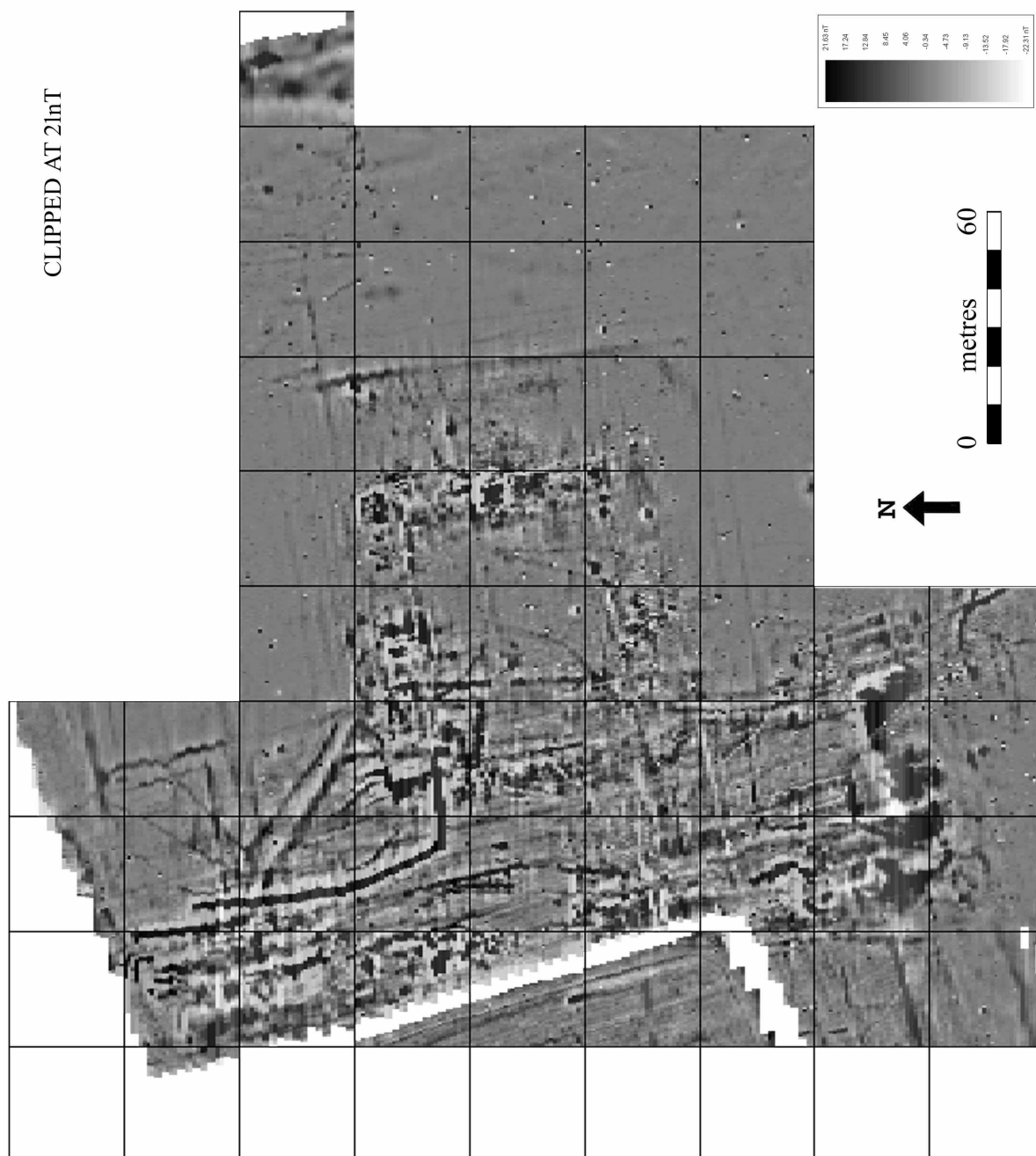
Location on Google Earth base



Grid order and location detail



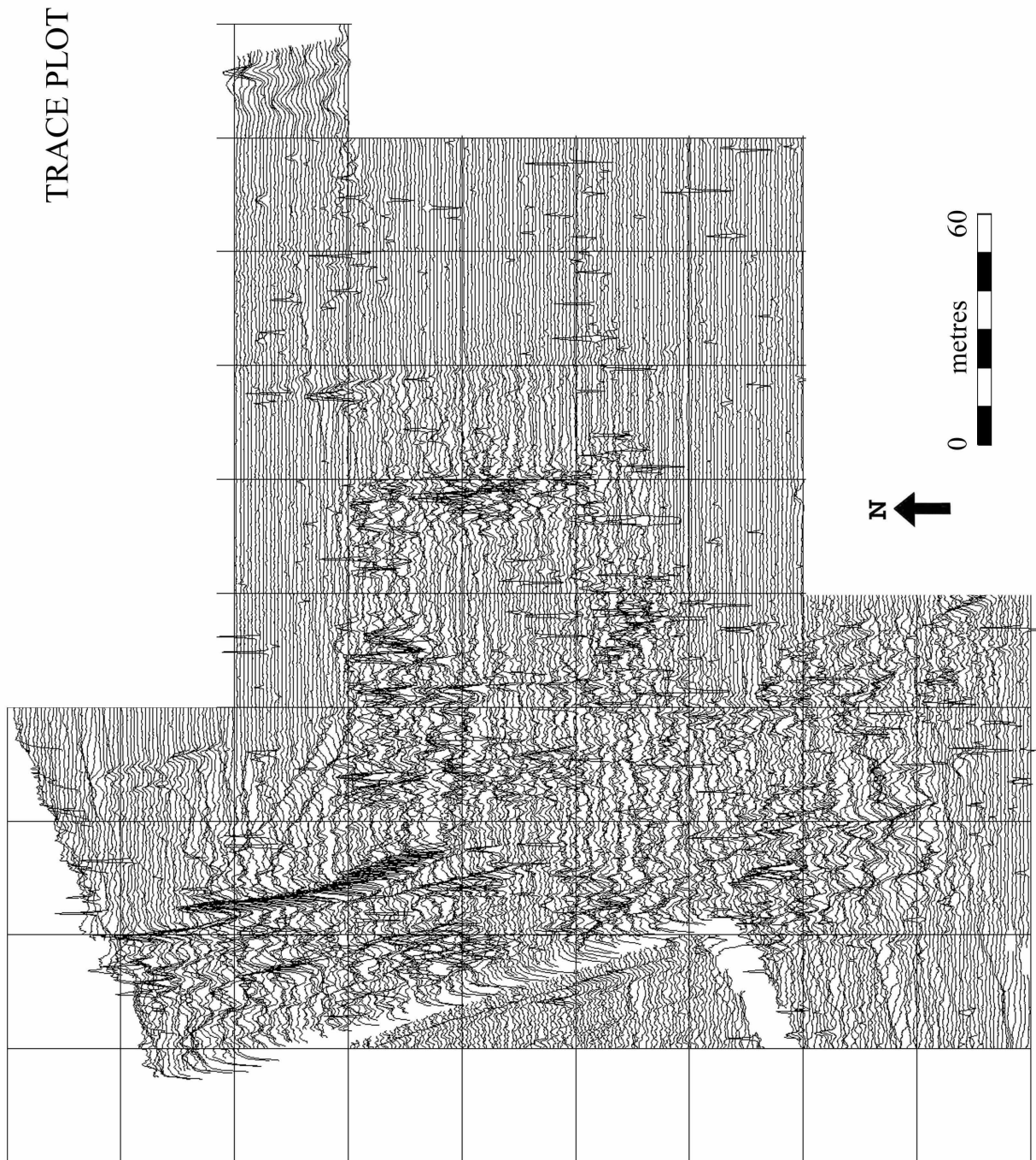
Magnetometry clipped at +/- 73nT



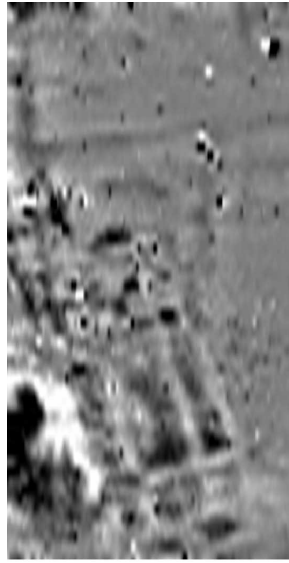
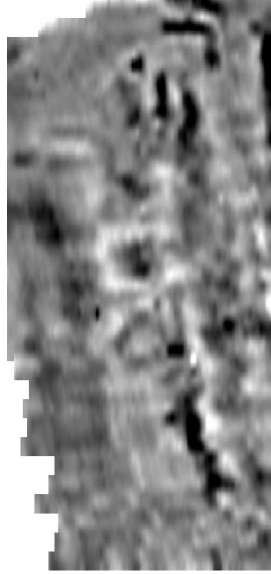
Magnetometry clipped at +/-21nT



Magnetometry clipped at +/-3.5nT



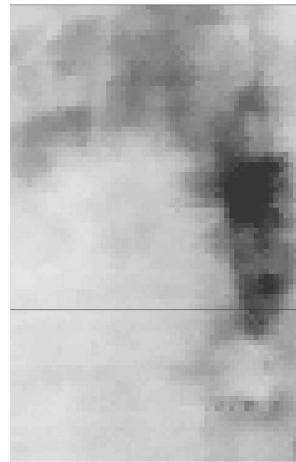
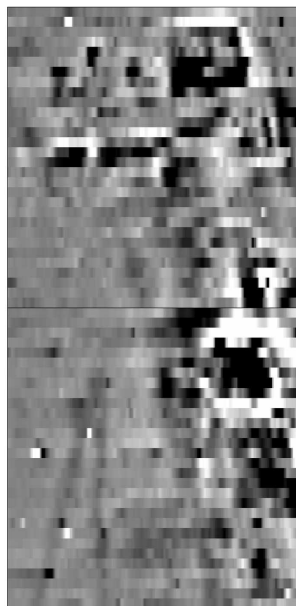
Magnetometry Trace plot



Detail1

Detail 2

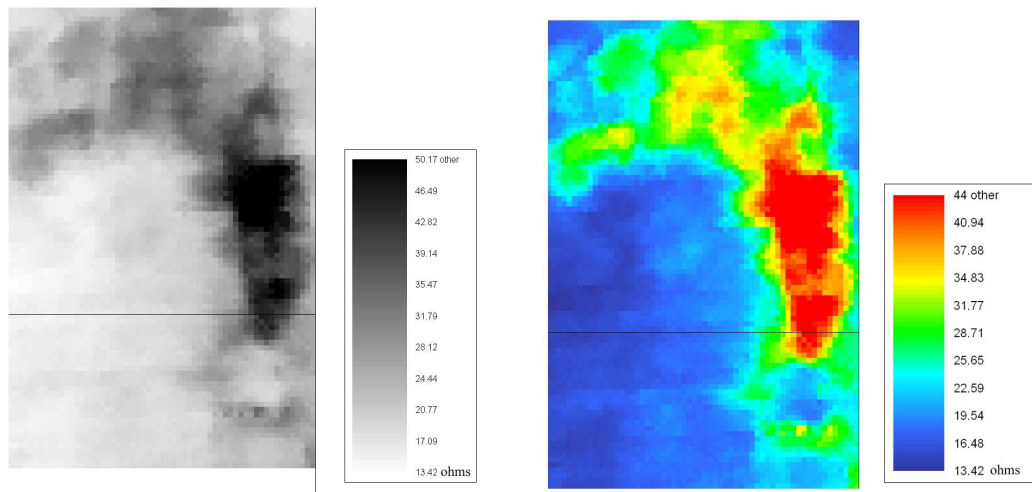
Details of Magnetometry in grids 27/13 and 38/45



earth resistance

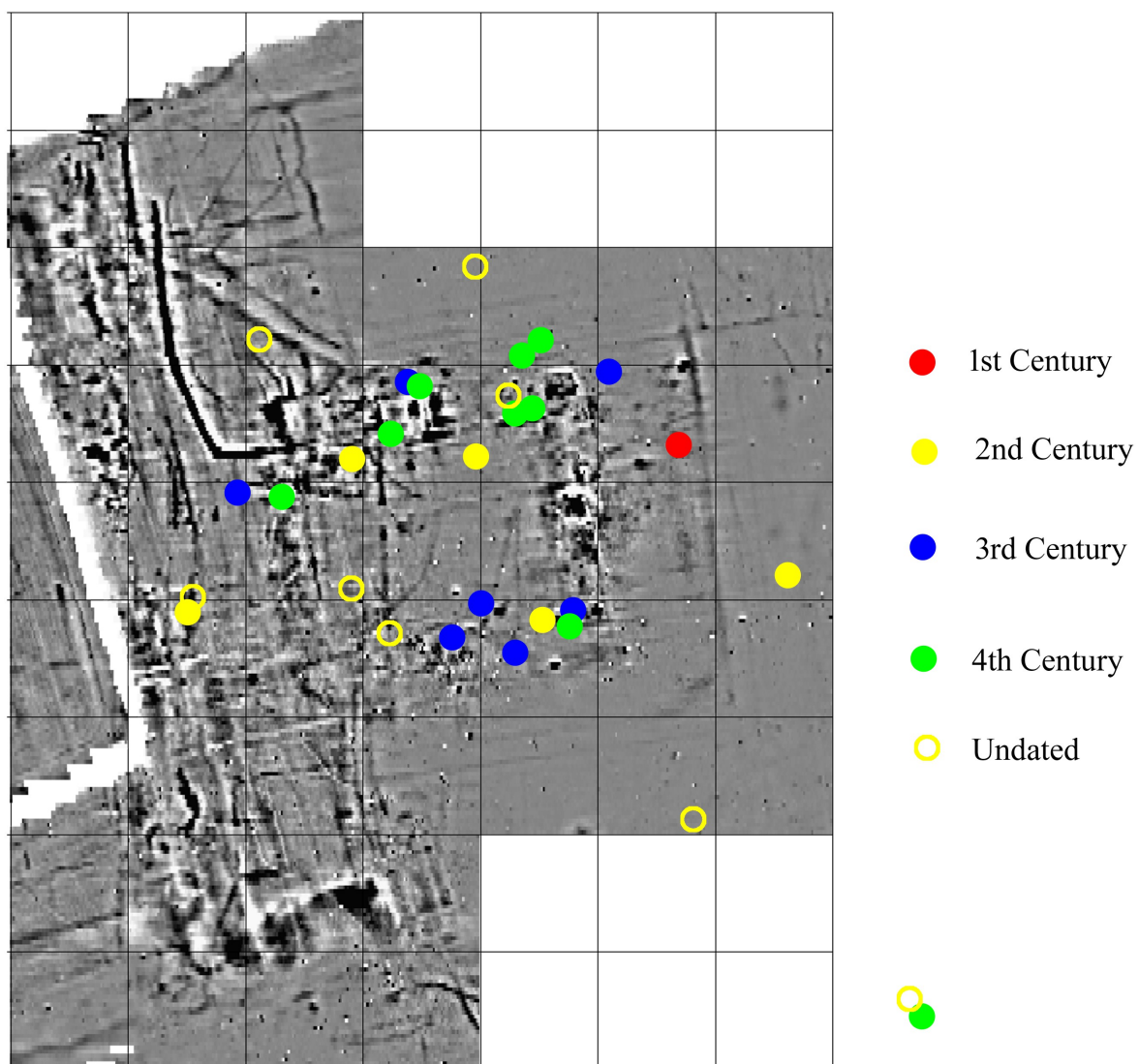
magnetometry

Comparison of magnetometry and earth resistance for grids 18 and 19



Colour and greyscale earth resistance plots for Grids 18/19





Plot of Keith Westcott's Roman coin finds. North at top.