

**YCCCART 2011 / Y 20
North Somerset HER 2012/141**

Report on geophysical surveys at Cadbury Hill, Congresbury

**YATTON, CONGRESBURY, CLAVERHAM AND CLEEVE ARCHAEOLOGICAL RESEARCH TEAM
(YCCCART)**

General Editor: Vince Russett



Richard operating the RM 15, Colin on the wire and behind them members of the manual survey team.

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Abstract

YCCCART has agreed with the Heritage Lottery Fund to undertake a project over two years commencing May 2009 to establish the extent of the Congresbury Roman kiln sites and investigate the archaeology of the environs on and around Cadbury Hill, Congresbury.

Gradiometry and resistivity surveys show a number of features previously identified in excavation and earthwork survey, and many other previously unknown features.

Acknowledgements

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Geoscan RM 15 Resistance Meter and a Bartington Gradiometer 601, without which this survey could not have been undertaken.

YCCCART is most grateful to Golden Software for their providing a free copy of Surfer software.

This survey would also not have been carried out without the willing permission of Yatton and Congresbury Parish Councils and English Heritage.

The authors are grateful for the British Library for permission to reproduce the sketch by the Rev Skinner, Mark Corney for allowing us to reproduce his Cadbury Hill plan, the hard work by the members of YCCCART in performing the surveys and Vince Russett for editing this report.

The survey of this Scheduled Monument was carried out under English Heritage licence, case number SL00013997

Introduction

Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team (YCCCART) is one of a number of Community Archaeology teams across North Somerset, supported by the North Somerset Council Development Management Team.

The objective of the Community Archaeology in North Somerset (CANS) teams is to carry out archaeological fieldwork, for the purpose of recording and better understanding and management of the heritage of North Somerset.

Site Location



Fig 1: Site location

Cadbury Hill is part of the Cadbury Hill Local Nature Reserve, sited on the parish boundary between Yatton and Congresbury parishes, in North Somerset, the centre of the site being at ST441650. The site is the westernmost point of Broadfield Down, the largely limestone down which occupies much of the central area of North Somerset.

The site can be accessed from the north by Henley Lane, off Frost Hill in Yatton parish, which leads to a small public car park: there is also access by Blind Lane, off the A370 at Rhodyate Hill in Congresbury parish.

Land use and geology

Cadbury Hill is a public area owned by Congresbury and Yatton Parish Councils and North Somerset Council, and enjoyed by walkers (particularly dog walkers).

The hill fort is situated on a small outcrop of Oxwich Head limestone which overlies the Clifton Down limestone formation. The junction of these two formations appears to result in a steeper slope in some places, and at Cadbury Hill this steep slope has been utilised as part of the outer defences.



Fig 3:1959 excavation on the site of the eastern entrance (Late Keith Gardner collection)

Rahtz et al 1968-1973

Large scale open plan excavations took place at Cadbury in the late 60s and early 70s, to the north of the plantation. This revealed several unexpected facets of the archaeology of the hill, not least, the recognition of post-Roman roundhouses, and connections to the rest of Europe in the fifth and sixth centuries, which until this point had been thought of as a 'Dark Age' in British affairs.

The report (Rahtz et al 1992) summarised its findings: The hill-top of Cadbury Congresbury was frequented in Neolithic and Bronze Age times. Substantial defences were built in the pre-Roman Iron Age, when the site became a multivallate hillfort. This was re-occupied in the latest Roman period (late fifth century AD); new earthworks were subsequently built, including a bank dividing the hillfort into two parts, with a linking entrance way.

In the sixth century the group who had initiated these works (or a group supplanting them) had clearly achieved high status, patronising craft-workers, and having access to glass and ceramics from the Anglo-Saxon areas to the east, and from the Eastern Mediterranean, North Africa and possibly France or Spain.

In the late sixth or early seventh century the settlement declined and was abandoned, probably due to the major changes initiated by Anglo-Saxon military, political and ecclesiastical domination. Subsequently, some use was made of the hill in the medieval and post-medieval periods.

Eight structures of late or post-Roman date were defined, of both rectilinear and sub-circular plan, and a wide variety of other features, including cairns, pits, post-holes, timber-slots, and other emplacements.

Finds include flint and other stone, fired and baked clay, ore and slag, iron objects, copper alloy, gold, lead, glass, enamel, coins, bone, pottery (including imports of Phocian Red Slip Ware, African Red Slip Ware, B Ware amphorae, and other ceramics), human and animal remains, mollusca, and botanical residues.

Interpretation of the site can be only tentative on the basis of the small sample excavated (five per cent). The late/post-Roman earthworks may be seen as defensive, but may be merely enclosing banks, possibly defining status, or even delimiting ritual areas. Some evidence suggests that one or more structures and other features had a religious function; there are indications of cult practice involving one or more human skulls of Iron Age date, and a hint of the replacement of this by a feature which has Christian analogues.

Discussion ranges over the cultural, political, and religious affiliations of the community; and on its role (or that of its ruling elite) in permanent or periodic activities in relation to a defined territory around the hill. There is also speculation on the available resources, communications, and contacts with the wider British and European world.

Corney 2004

Mark Corney, an independent archaeologist, formerly a surveyor for the Royal Commission on Historic Monuments in England (now English Heritage) was commissioned to carry out a detailed earthwork survey of Cadbury hill fort in winter 2003-4 (Cadbury Hill Fort. An Analytical survey by Mark Corney, with Nik Morris. YCCCART 2011/Y3: <http://www.ycccart.co.uk> ; North Somerset HER2011/041)

This survey, carried out in near-perfect conditions, revealed a previously unrecognised wealth of earthworks of prehistoric and later features on the hill top.

Unfortunately, Corney's commission did not extend to the survey of the presumably Iron Age earthworks on the hill slopes around the hill top. This work has been completed on the whole accessible area of the hill fort by YCCCART (some is still under impenetrable undergrowth).

Tabor 2003

Richard Tabor was commissioned by English Heritage to carry out a magnetometry survey of the hilltop at Cadbury Hill. Unfortunately, the material appears to have never been published or even fully processed.

Survey objectives

The survey had the following objectives.

- To identify any archaeological features.
- To use the survey to further train YCCCART members and members of Community Archaeology in North Somerset (CANS) in the use of the RM 15 Resistance Meter and Bartington 601 gradiometer.

Methodology

The surveys were undertaken during the period February to May 2011 and October 2011 to March 2012 by teams from YCCCART using a Geoscan RM 15 Resistance Meter and Bartington 601 Gradiometer, with settings as per the site records in Appendix A.

The completed survey was downloaded to the ArcheoSurveyor, Snuffler and Surfer programmes.

ArcheoSurveyor composites were adjusted using the following filters:

Grad shade
Despiked
Destriped (Gradiometer results only)
Clip SD2
Black, Green, White
Red Green Blue 2

In addition as indicated in the results below a selection of results were further filtered using:

Edge Match
Range Match
High Level Pass

The report was written in Microsoft Word 2007.

Site photographs were taken by members of YCCCART, and remain the copyright of YCCCART.

Results

Gradiometry Survey

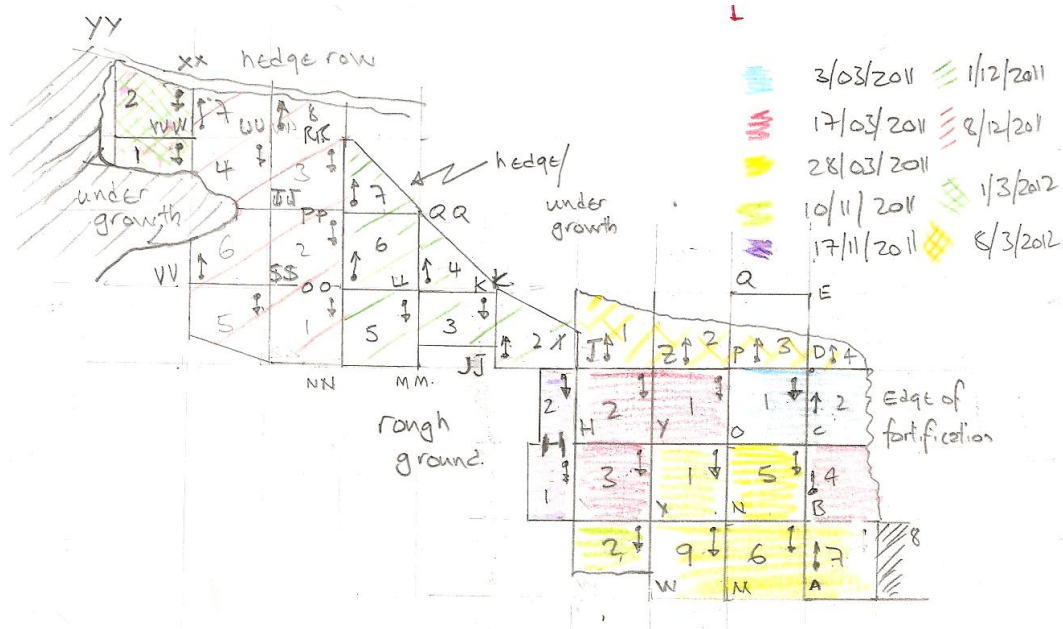


Fig 4: Grid layout

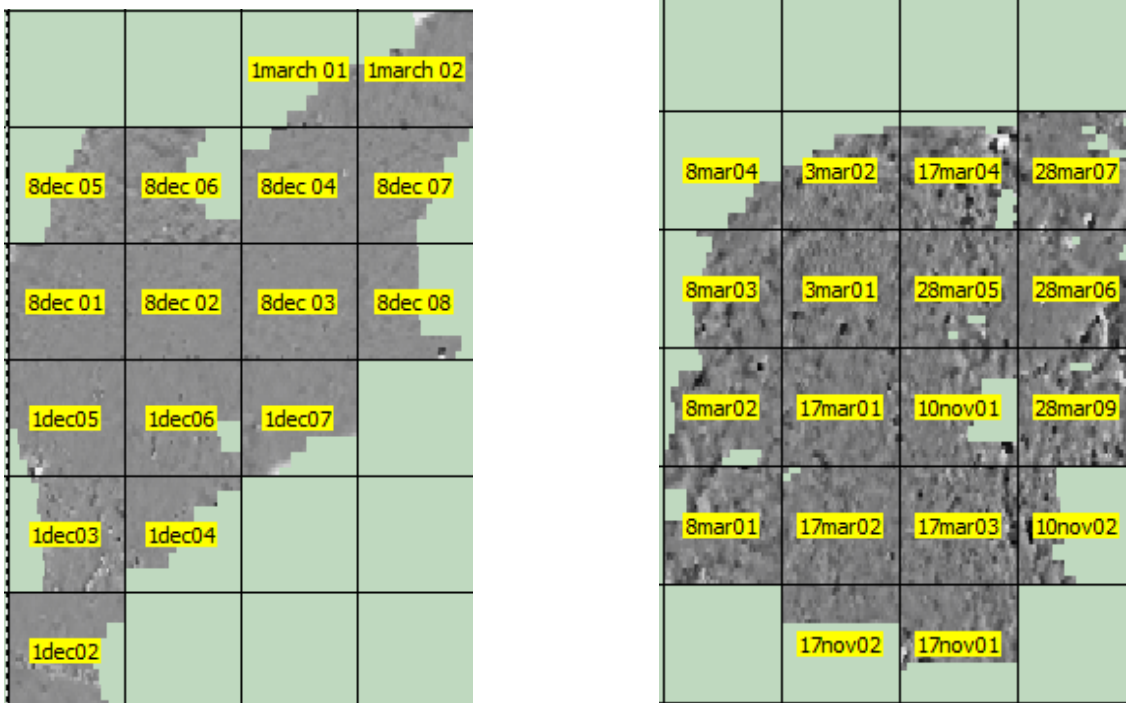


Fig 5: ArchaeoSurveyor grids

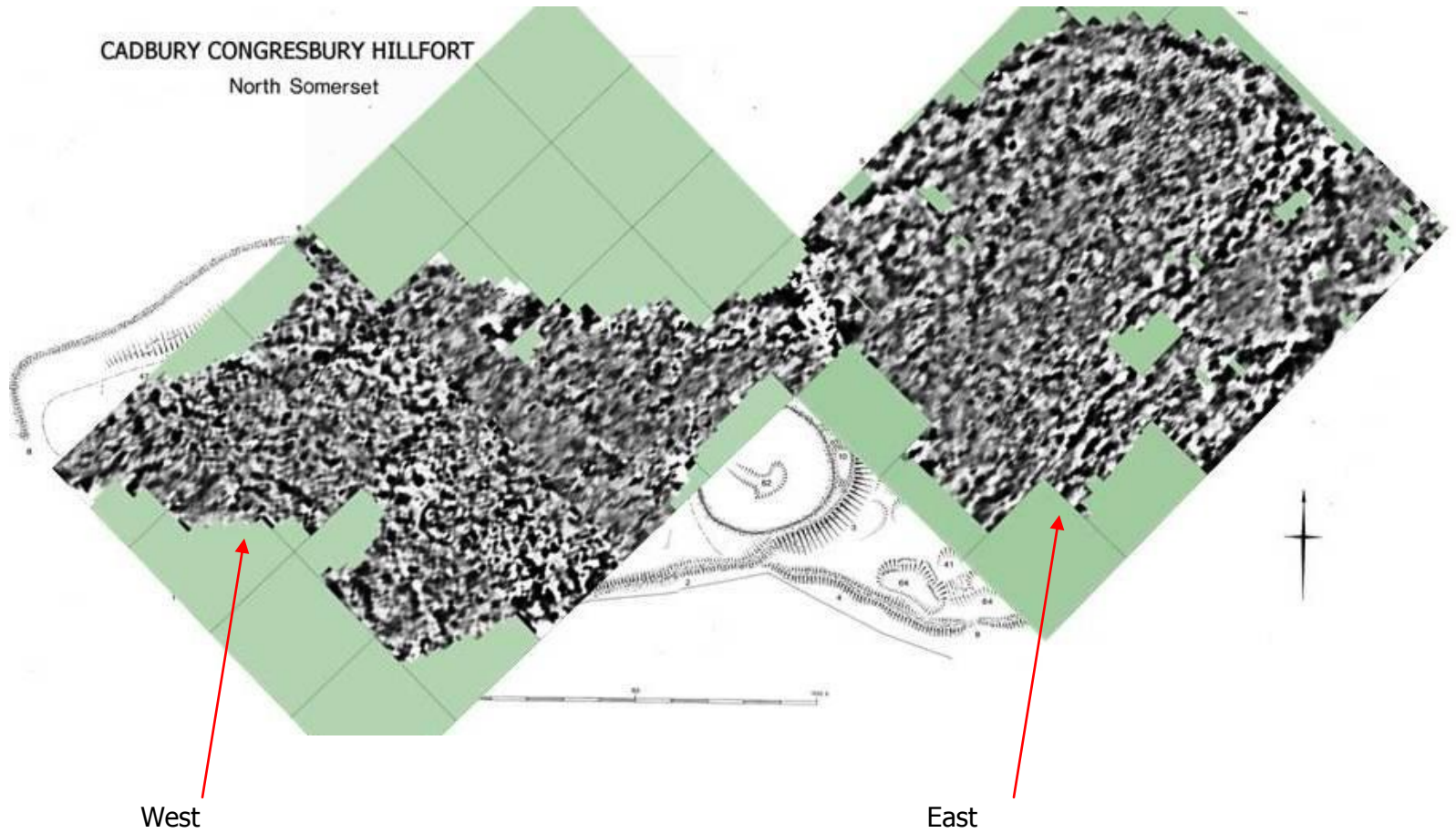
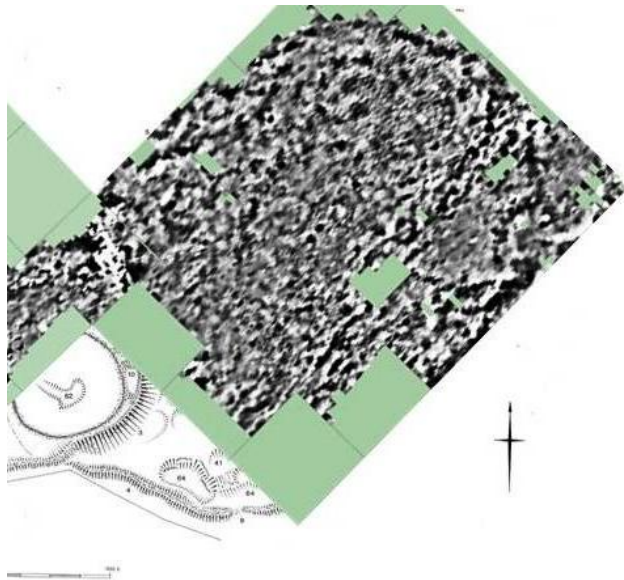


Fig 6: Cadbury 601 surveys east and west overlaid on Mark Corney's survey Cadbury Hill Fort an Analytical survey by Mark Corney with Nik Morris. North Somerset HER2011/041. YCCART report 2011/Y6

Eastern Survey



63 – “Area of
intercutting
linear
quarries.”

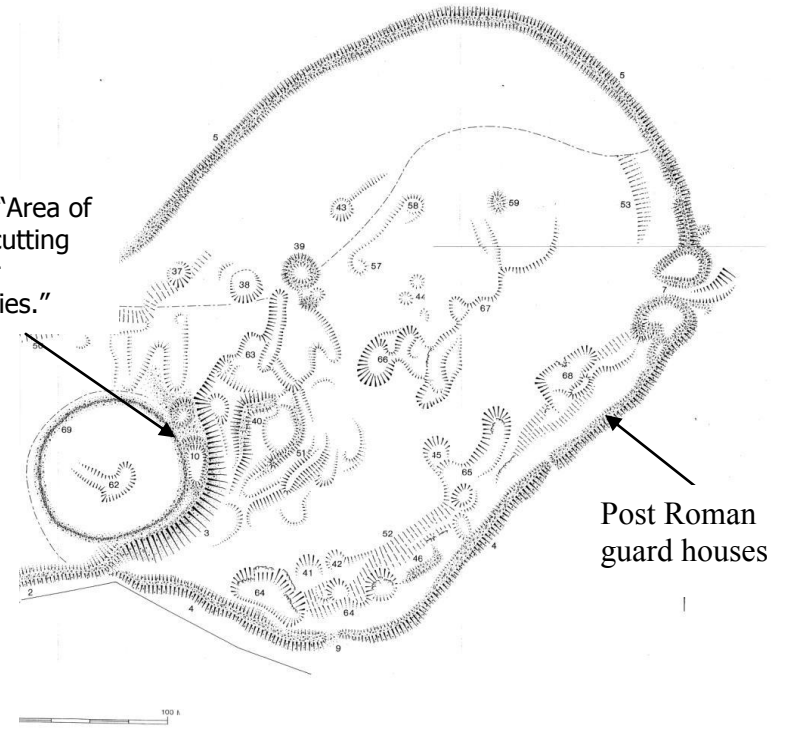


Fig 7: Cadbury East. Left - Gradiometry results overlaid on Mark Corney's survey. Right - Mark Corney's survey.

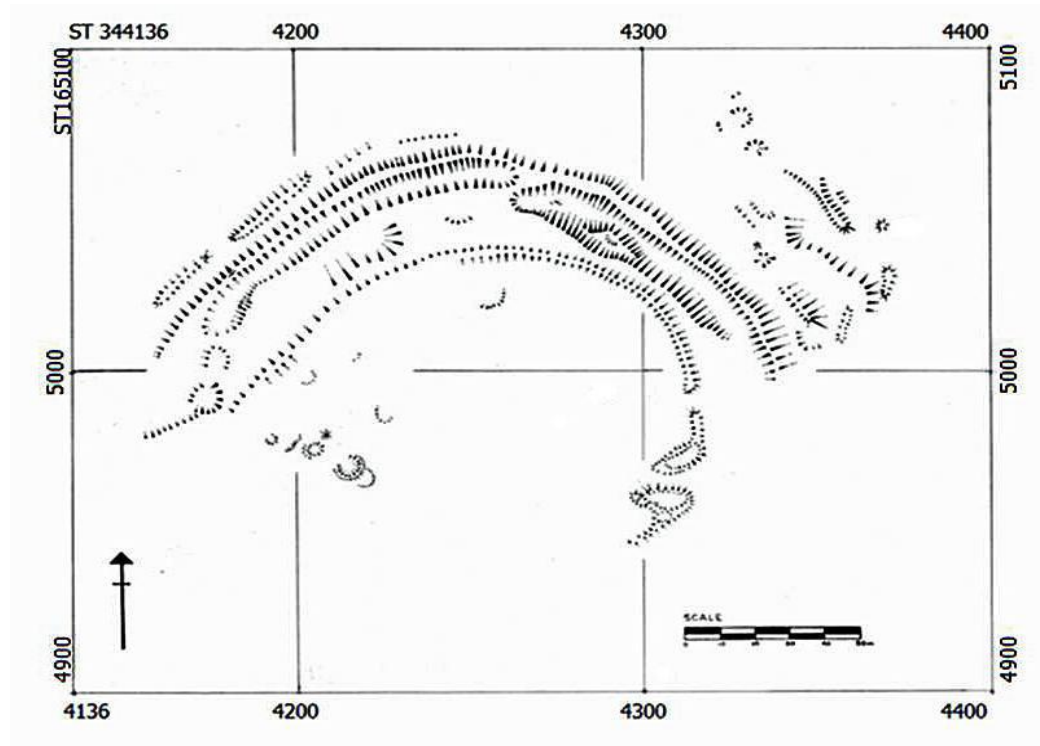
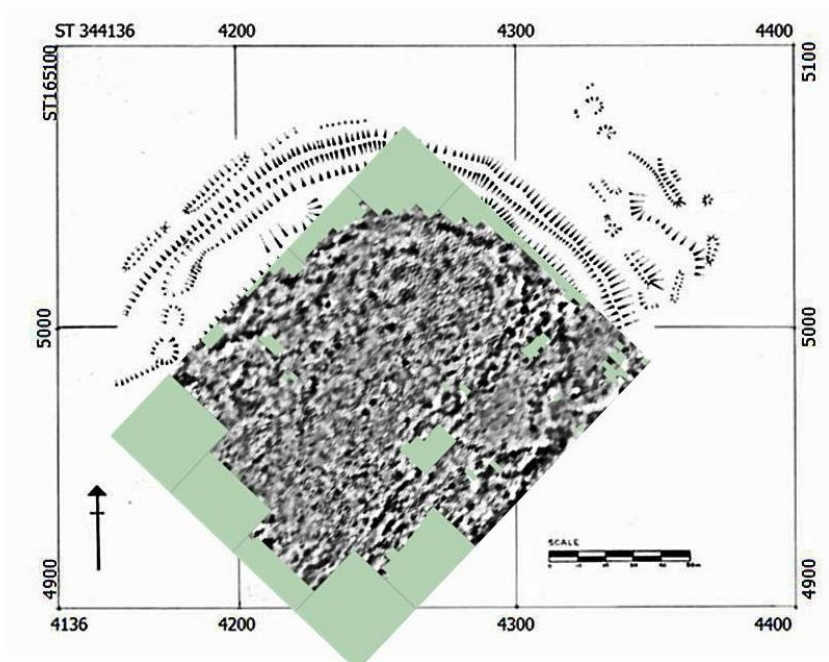


Fig 8: Cadbury East. Left - Gradiometry overlaid on YCCART manual survey. Right - YCCART manual survey.

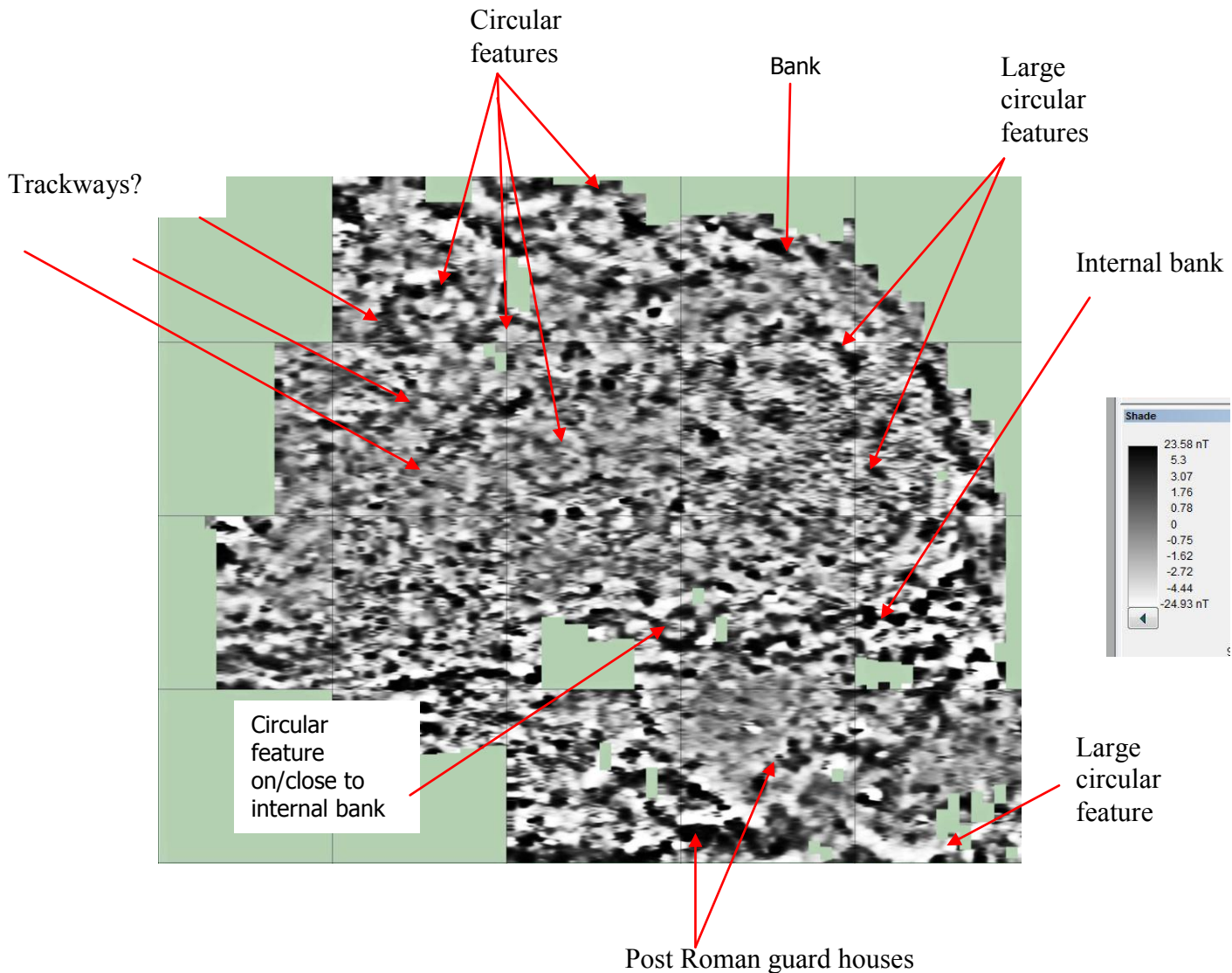


Fig 9: Shade view. ArcheoSurveyor image. (High readings are black)

There are bands of iron ore on the site (it was mined at least as early as the Iron Age), and it is not known how much this has affected the results. The results shown in Fig 9 above reveal a wealth of features, including previously unrecorded circular structures

Also previously unrecorded are what appears to be an internal bank crossing west to east and several parallel lines in the north west. The latter may possibly be track ways or could relate to Mark Corney's feature 63 ("Area of intercutting linear quarries" – see Fig 7 above).

The post Roman guard houses and internal bank shown in the manual survey (See YCCART report Y 2012/2 and Fig 8 above) are also evident.

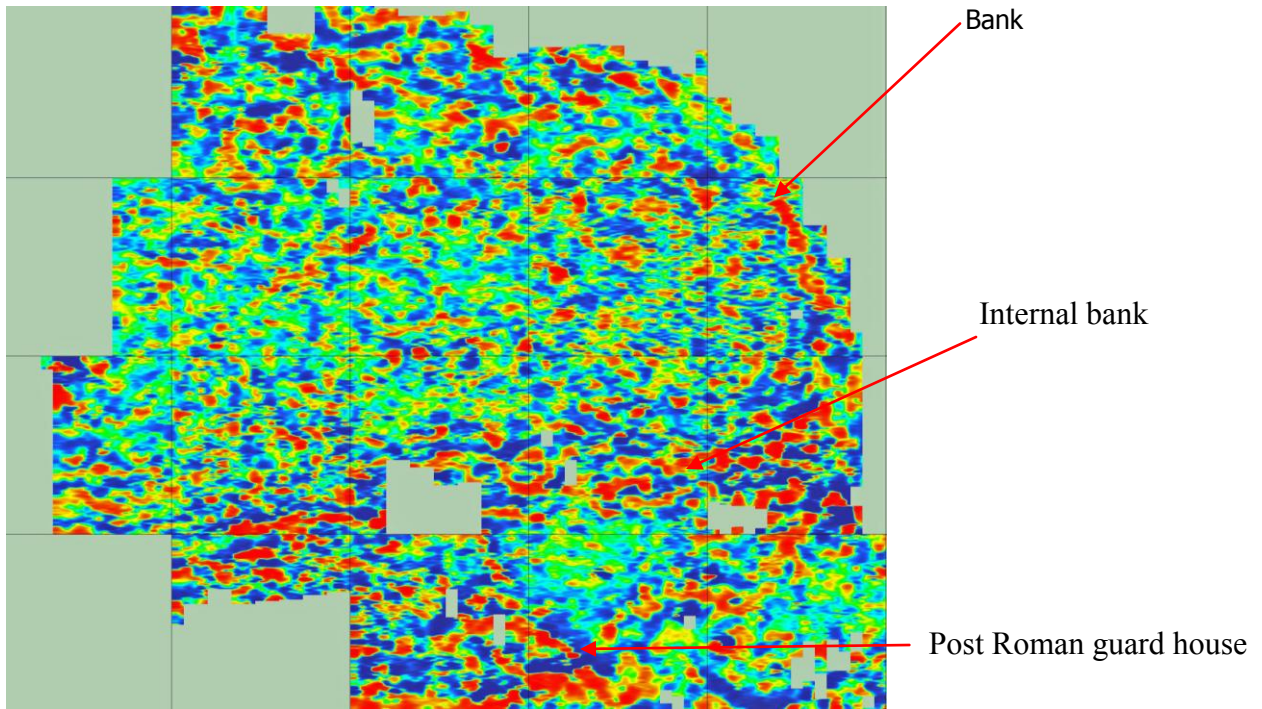


Fig 10: Shade view colour ArcheoSurveyor image. (High readings are red)

The high readings in Fig 10 above are most evident along the lines of the banks and area containing the guard houses.

Western Survey

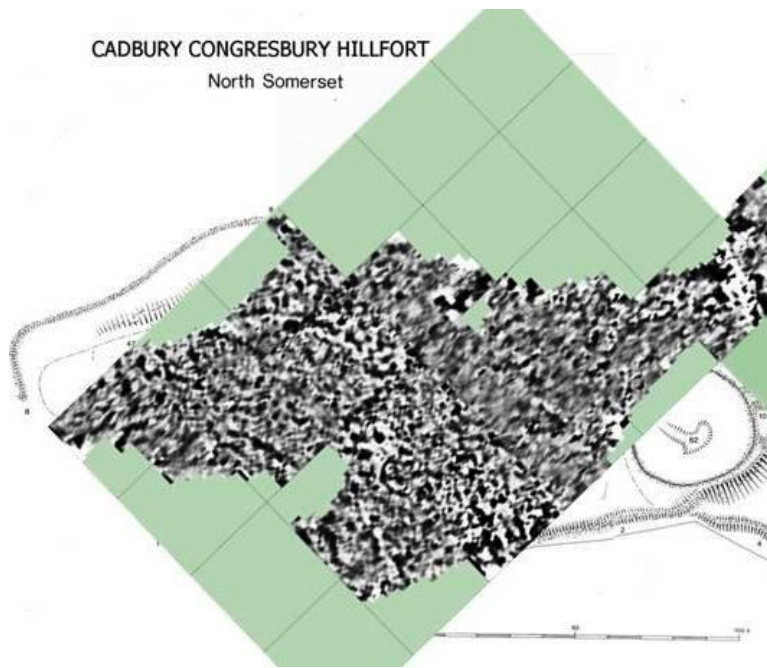
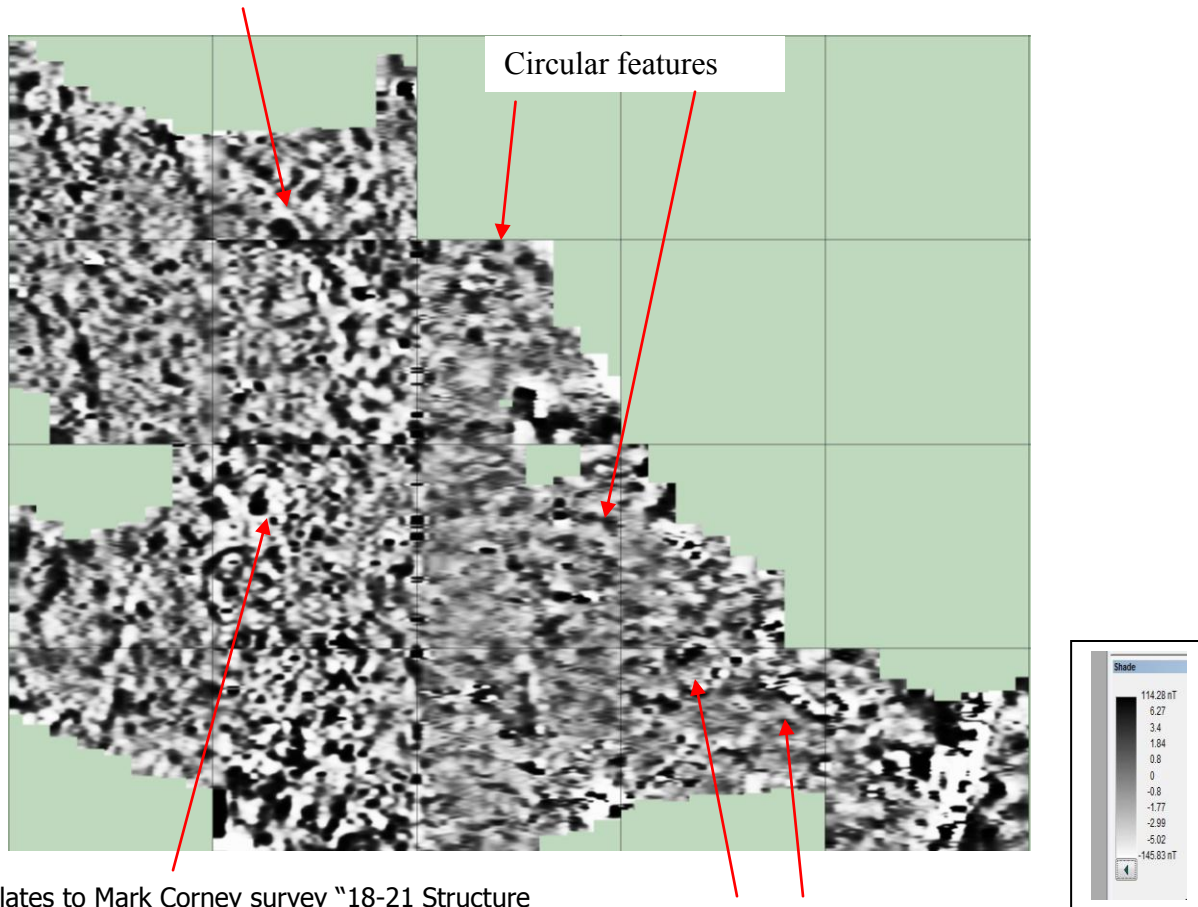


Fig 11: Cadbury West. Left - Gradiometry overlaid on YCCCART manual survey. Right - Mark Coney's survey.

Enclosure / bank



Relates to Mark Corney survey "18-21 Structure complex comprising 4 circular structures displaying complex earthwork stratigraphy."

Circular features

Fig 12: Shade view. ArcheoSurveyor image. (High readings are black)

A series of what appear to be internal banks are evident as per Fig 11 above, including a bank in the central of the picture running from north to south.

The four circular structures identified in Mark Corney's survey (See YCCART report 2011 Y6 page 10 items 18-21) are also identifiable.

In addition there a number of circular features as per the selection indicated by arrows in Fig 12 above.

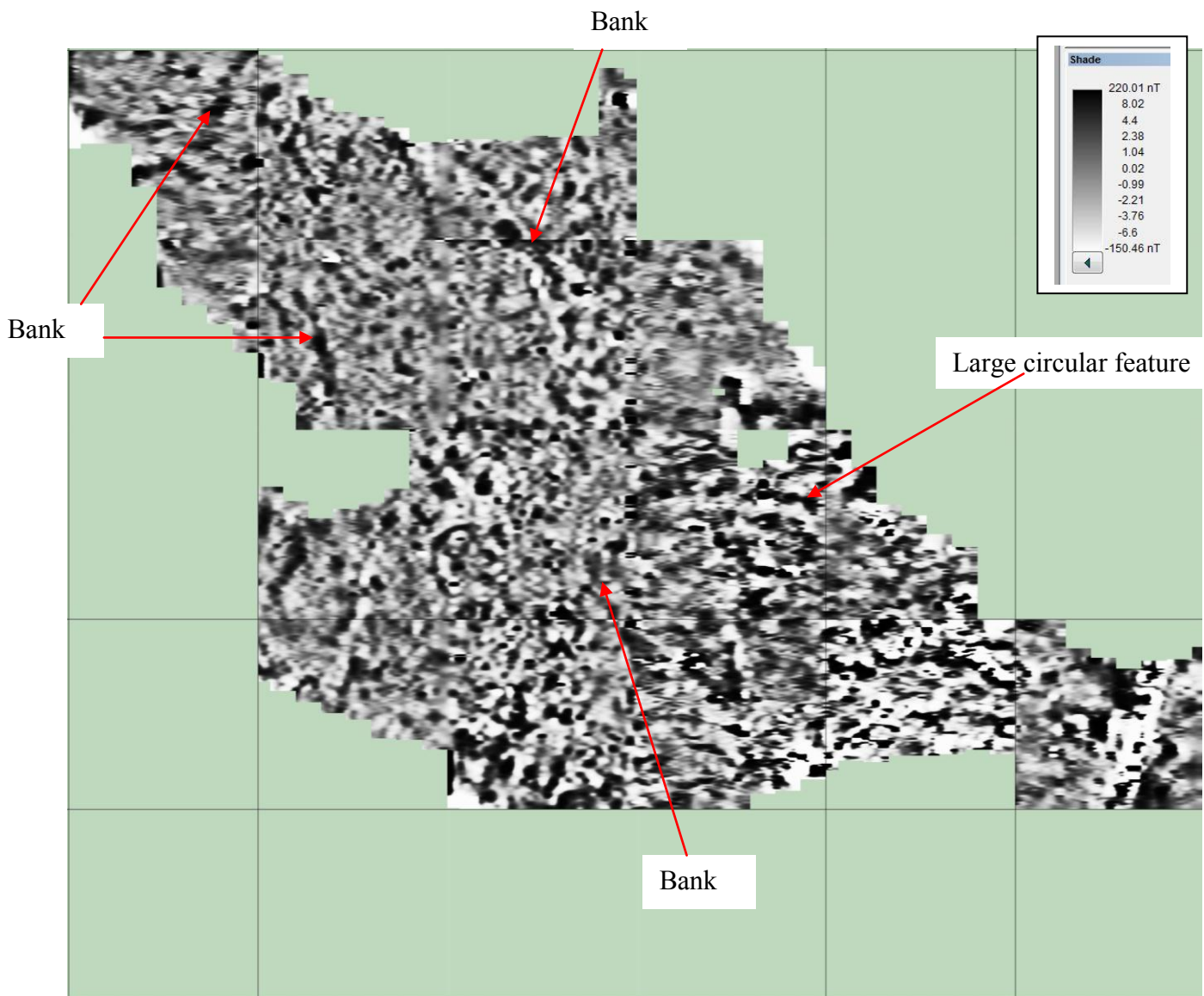
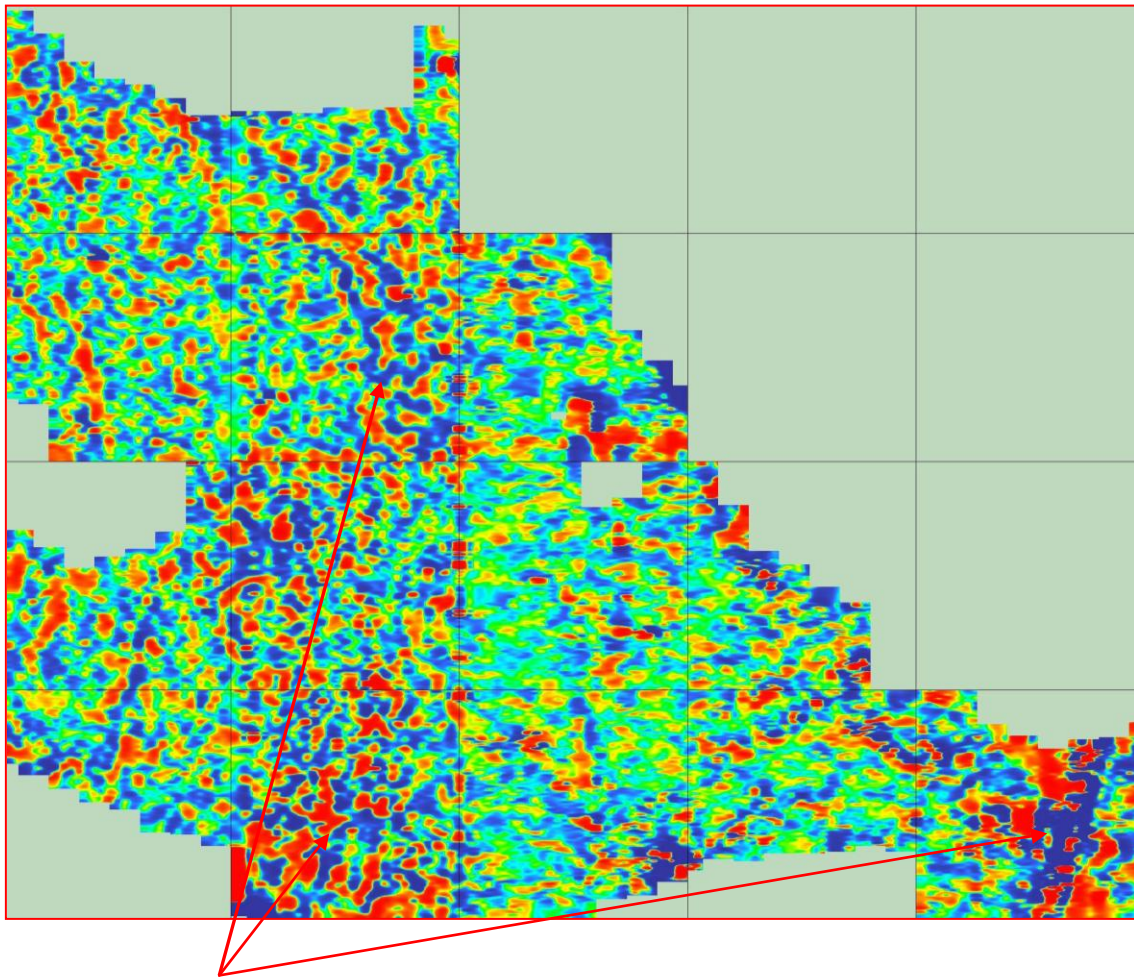


Fig 13: Shade view. ArcheoSurveyor image with edge match filter. (High readings are black)

The enhanced result per Fig 12 above shows even more circular features particularly to the east of the possible bank.



Areas of high level activity

Fig 14: Shade view. ArcheoSurveyor colour image. (High readings are red)

The colour image Fig 14 above shows high response areas around the possible central bank area and grid at the extreme right. The latter area covers the area of excavation from 1968-1973 and may well reflect the metal working recorded as being evident at this site.

Resistivity

CADBURY CONGRESBURY HILLFORT
North Somerset

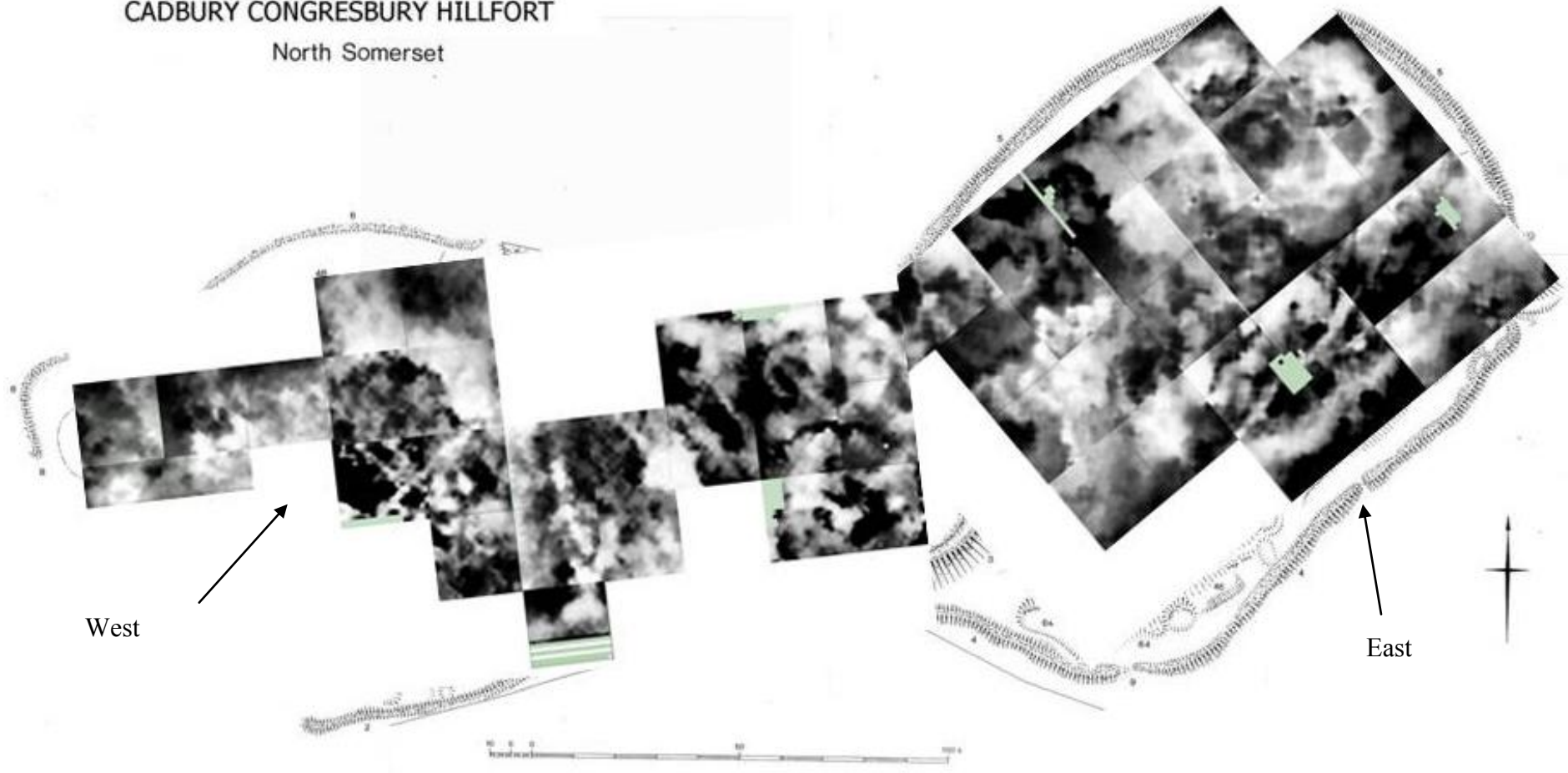


Fig 15: Resistivity results overlaid on Mark Coney's survey.

Resistivity survey- West

				18 April 5					
3 March 1	3 March 2	Brambles to be cleared	11 April 2	14 April 2	18 April 1				
17 March 1	24 March 2	7 April 2	11 April 1	14 April 1	18 April 2	5 May grid 1	Abortive grid	8 Mar grid 3	8 Mar grid 2
17 March 2	24 March 1	7 April 1	Brambles to be cleared	Brambles to be cleared	28 April grid 1	28 April grid 2	1 Mar 12 grid 1	1 Mar 12 grid 2	8 Mar grid 1
					15 Mar grid 1	15 Mar grid 2			

2011



2012

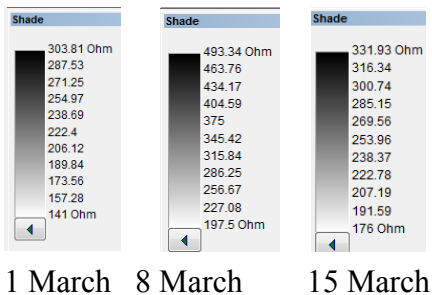


Fig 16: Grid layout and daily readings.

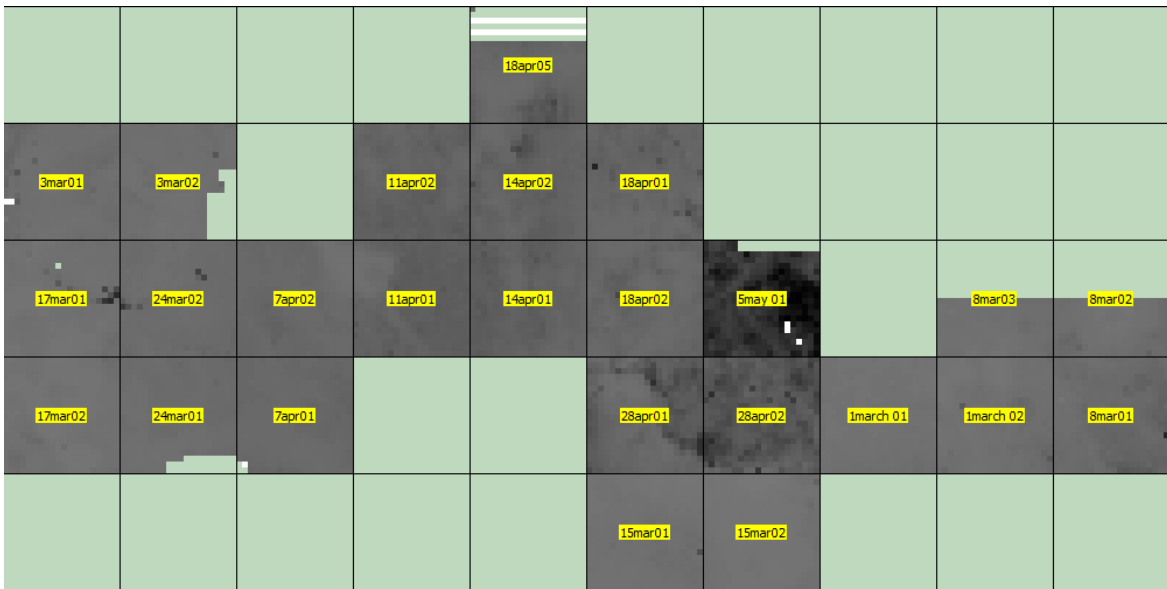


Fig 17: ArcheoSurveyor grids



18-21. Structure complex comprising 4 circular structures displaying complex earthwork stratigraphy.

Fig 18: Part of the main survey drawing from Cadbury Hill Fort an Analytical survey by Mark Corney with Nik Morris. YCCART 2011/Y6, North Somerset HER2011/041.

The above survey was completed during 2004. Fig 18 above shows only the western section of the survey which corresponds to the resistivity survey undertaken by YCCART. Highlighted in red are two features referred to in the results which follow.

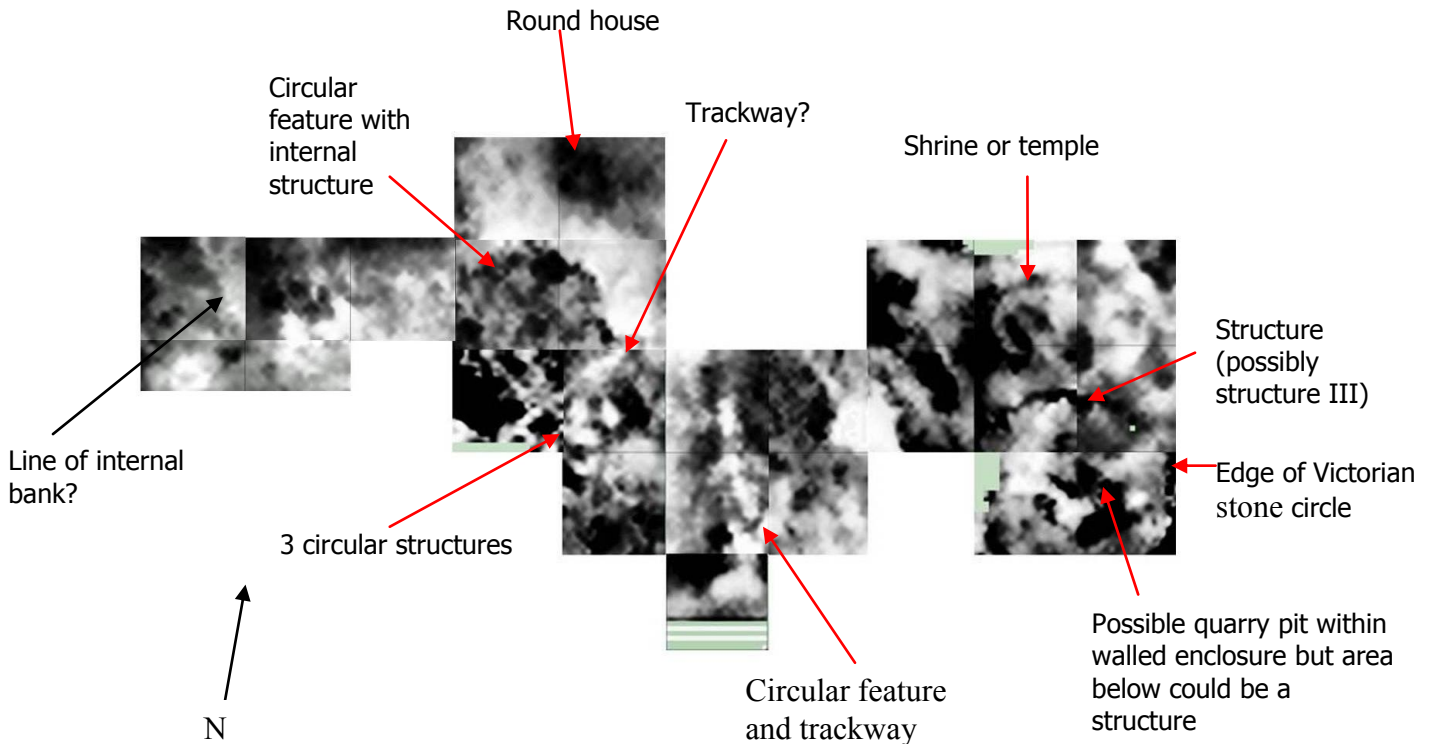


Fig 19: Shade view. ArcheoSurveyor image. (High readings are black)

Traditionally, resistivity survey is unreliable on carboniferous limestone geologies, but here, it has been very successful and large number of features have been revealed.

The most recognisable is the circular feature towards the top right, which mirrors the plan of Structure II (See top right Fig 19 above) described in the report on the Cadbury Hill excavations during 1968 to 1973 as a shrine or temple (Rahtz, PA, Fowler, P et al 1992. p197). Just below the shrine appears to be part of a structure described in the same report as Structure III. (YCCCART hope to obtain permission to reproduce plans from this report at a later date.)

The circular structures middle left appear to relate to the structures described in Mark Corney's survey (See YCCCART report 2011 /Y6) as '18-21. Structure complex comprising 4 circular structures displaying complex earthwork stratigraphy', which are also evident on the gradiometry results.

At bottom right, within the remains of a stone circular walled enclosure believed to have been constructed in Victorian times, is the feature described within Mark Corney's survey as "62. Shallow, irregular quarry pit within walled enclosure". This feature could be that shown but the survey results also shows a potential new structure abutting the south of the potential quarry.

Other features include a low resistance line across the middle grids to the left and also top left a large circular feature which seems similar to that at bottom right.

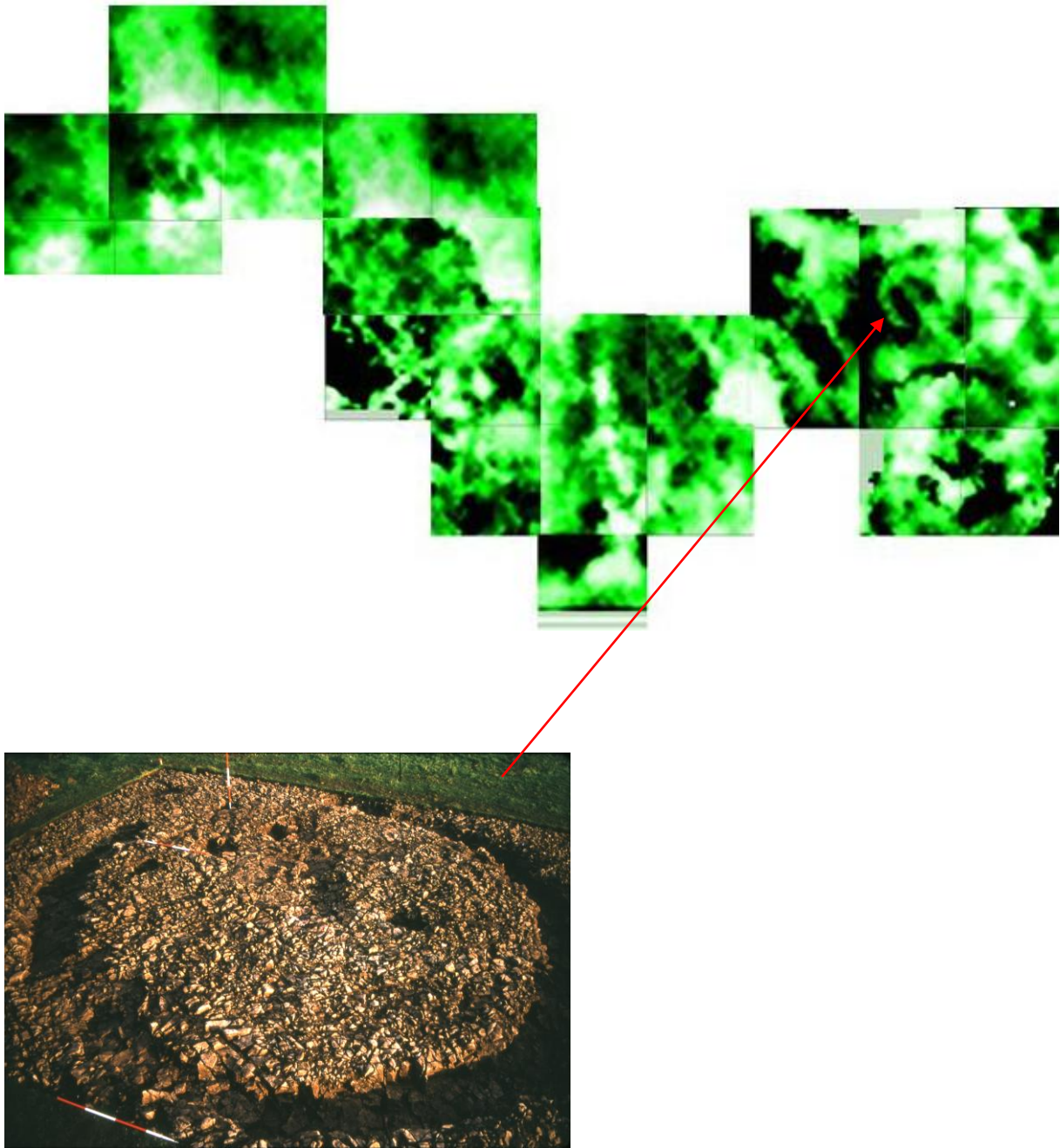


Fig 20: Shade view. ArcheoSurveyor Black, Green, White image. High readings are black and low white. Below this is a photograph of Shrine 2 (Courtesy of the late Keith Gardner)

The results at Fig 20 above and Fig 21 below further show the range and complexity of anomalies revealed.

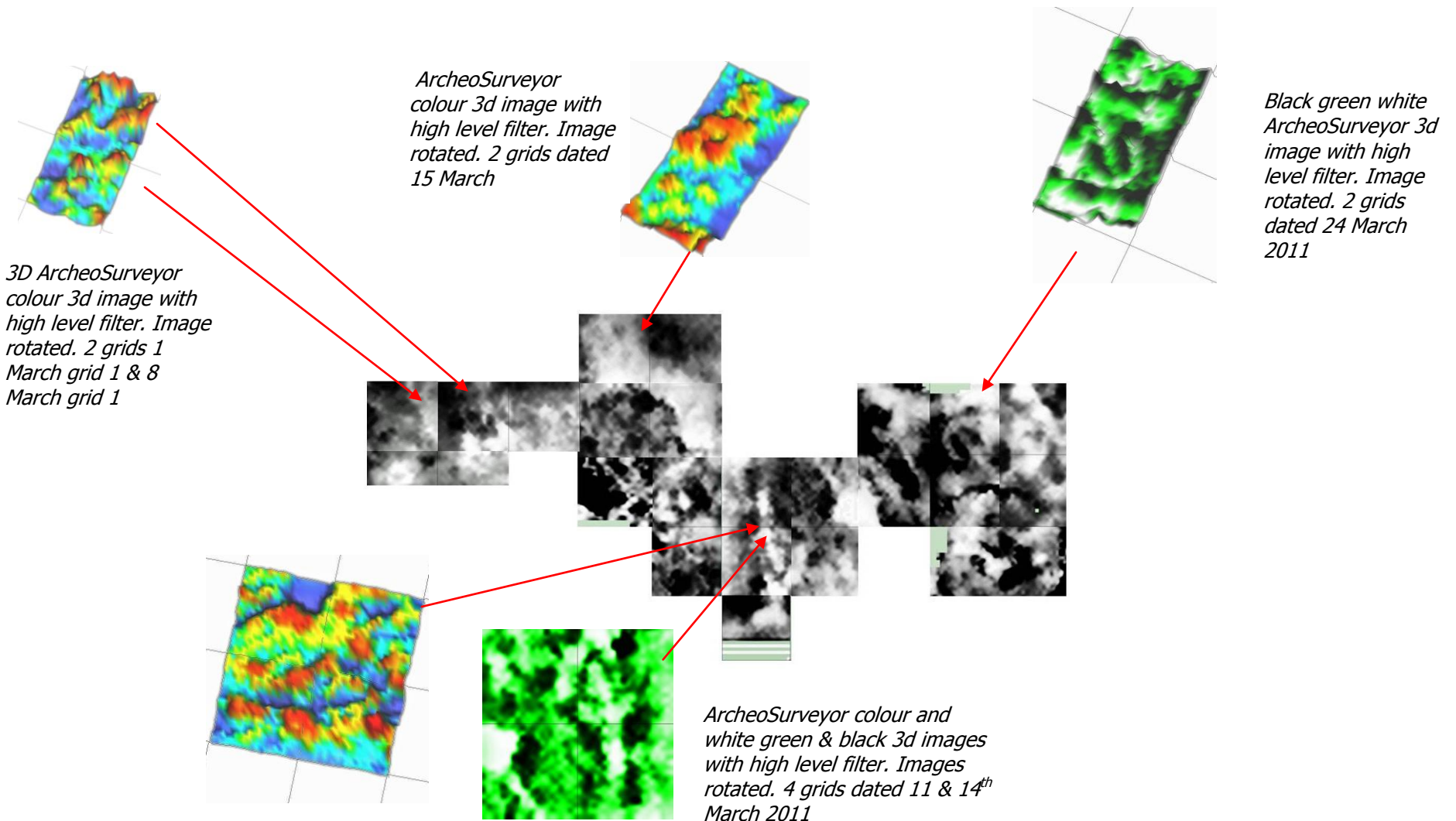
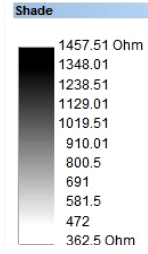
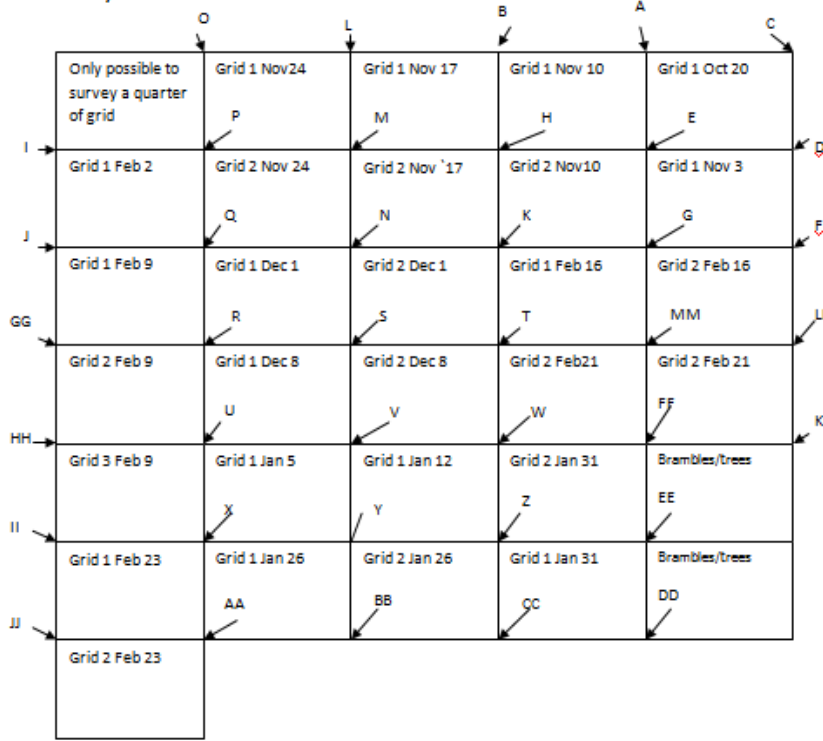
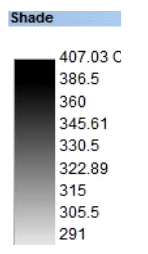


Fig 21: Shade view. ArcheoSurveyor with enhanced images as indicated

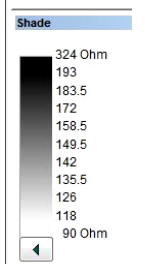
Resistivity East



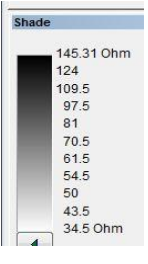
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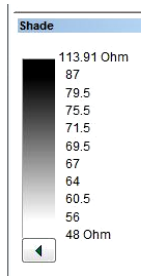
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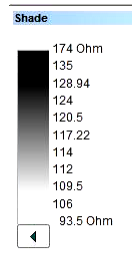
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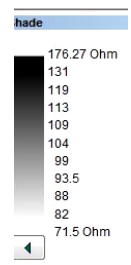
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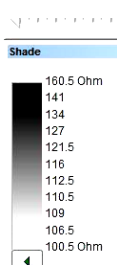
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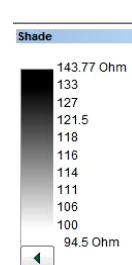
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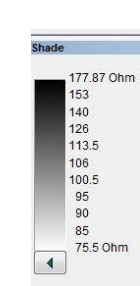
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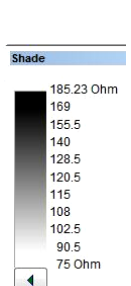
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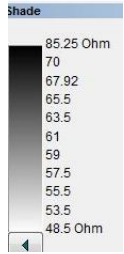
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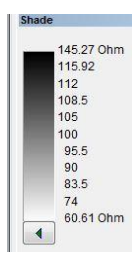
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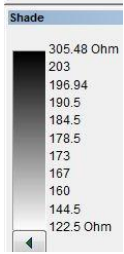
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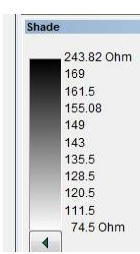
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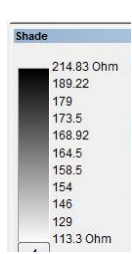
9 Feb



16 Feb



21 Feb



23 Feb

Fig 22: Grid layout and daily readings

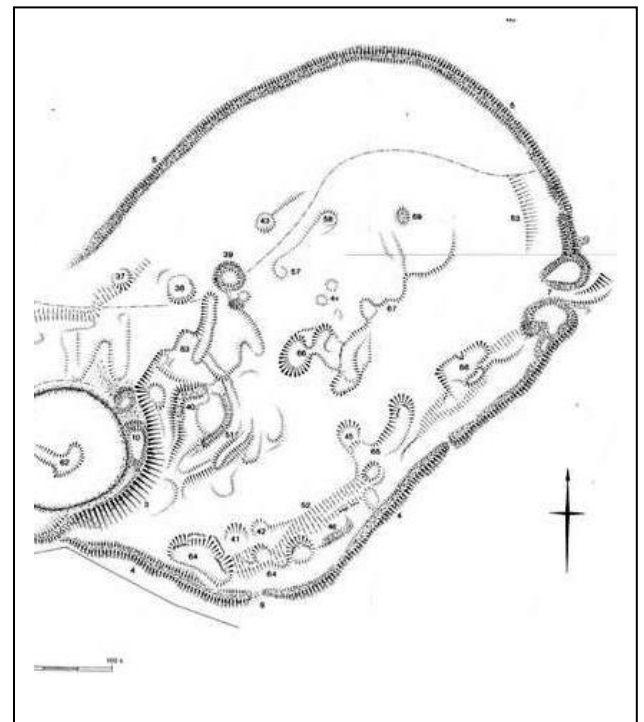
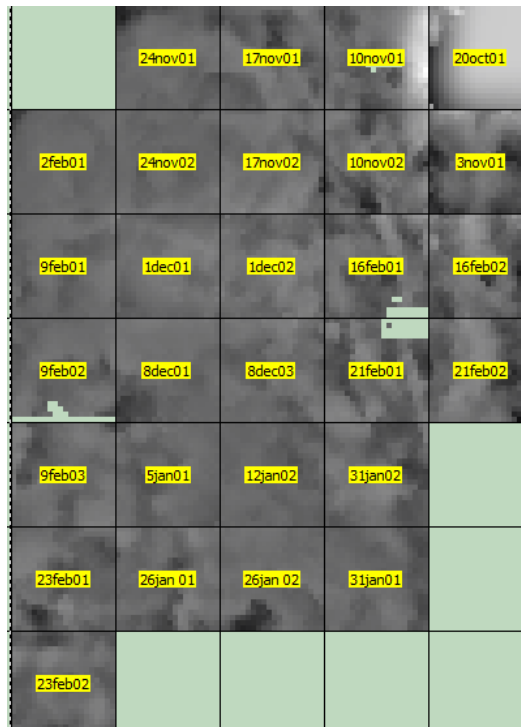
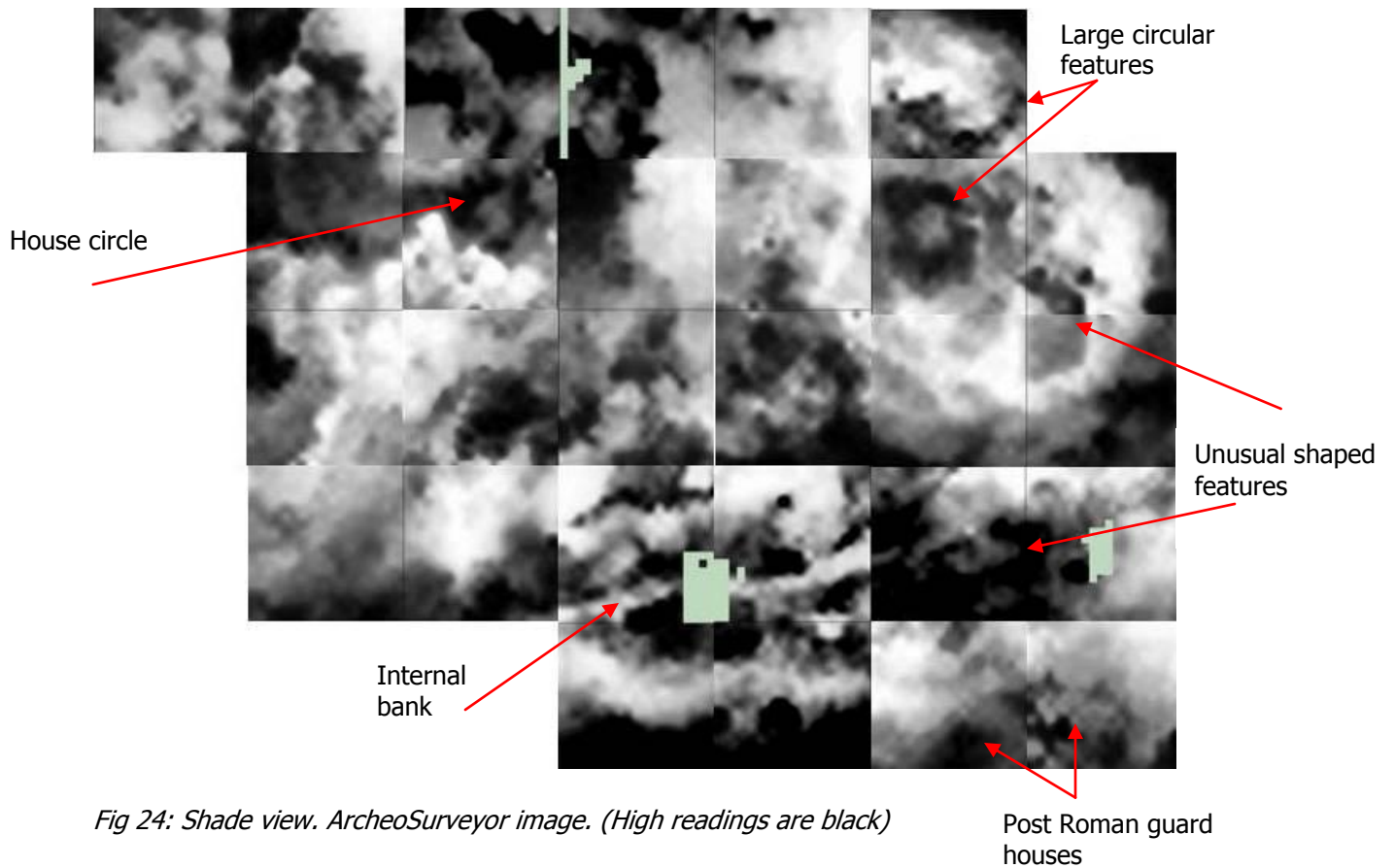


Fig 23: ArcheoSurveyor grids and section of Mark Corney's survey



The results at Fig 24 above show the post Roman guard houses referred to in the gradiometry results. Large circular and unusual features are also evident top right and towards the lower right as indicated by the red arrows.

An internal bank mentioned in the gradiometry results is also shown towards the bottom of Fig 23.

A house circle indicated top left is clearly evident on the ground.

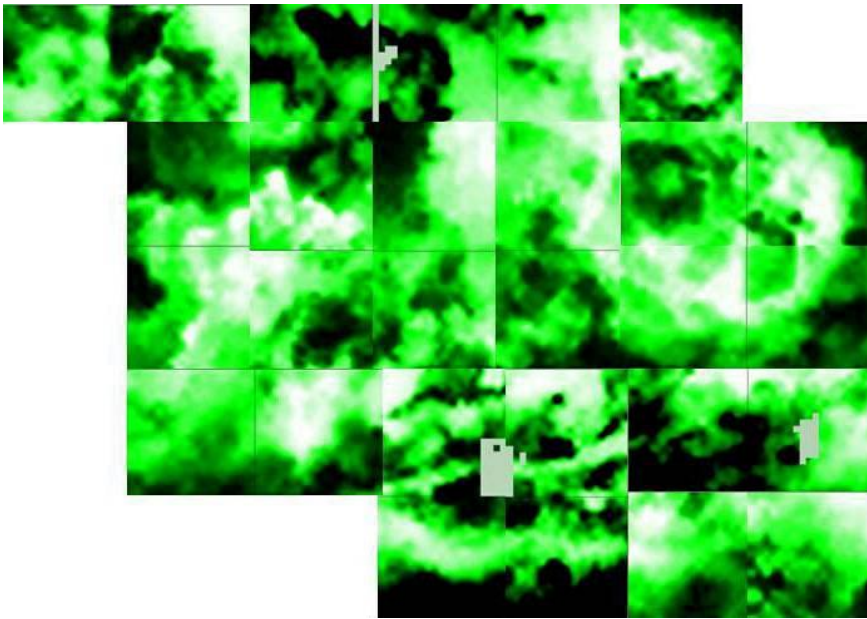
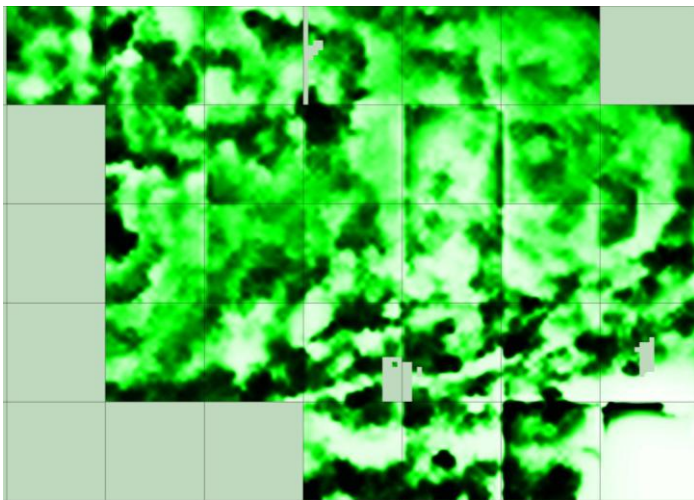


Fig 25: Shade view. ArcheoSurveyor White green & black image image. (High readings are black)



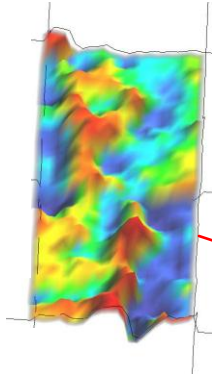
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8 Range Match (Area: Top 20, Left 100, Bottom 39, Right 119) to Left edge
9 Edge Match (Area: Top 60, Left 40, Bottom 79, Right 59) to Top edge
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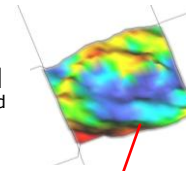
Fig 26: Shade view. ArcheoSurveyor White green & black image image with process filters. (High readings are black)

The results shown in Fig 24 and 25 above and Fig 26 below further emphasize the wealth of features revealed. It seems likely that the results indicate a succession of structures such as round houses overlaying each other.

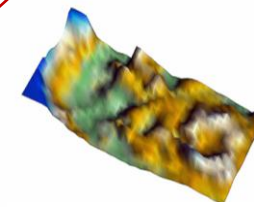
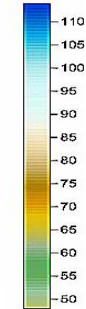
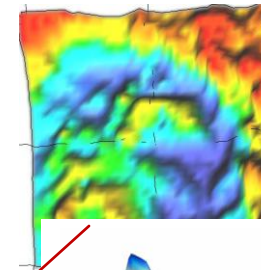
ArcheoSurveyor
3d rotated
colour image
with high
level pass
filter of grids
for 5th & 26
February
(grid 1 only)



ArcheoSurveyor 3d rotated
colour image of grid for 2nd
February



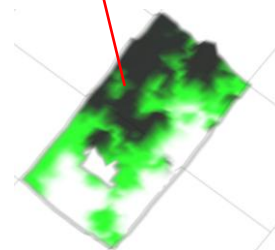
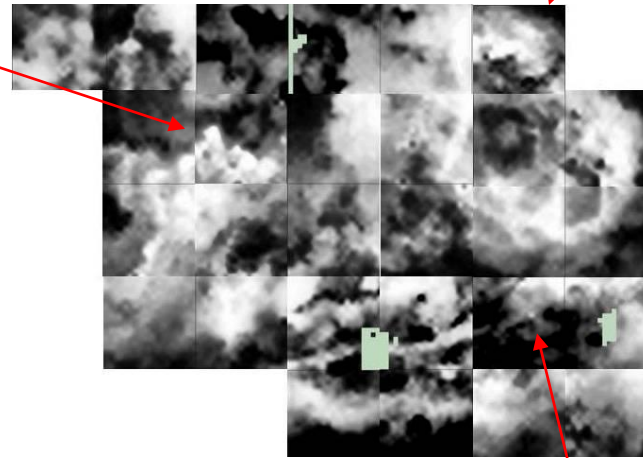
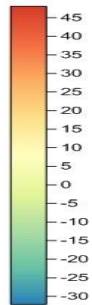
ArcheoSurveyor 3d
rotated colour image of
grids for 17th & 24th
November



Surfer image of 24
November grids with
colour chart



Left- Surfer
image of
grid for 5th
Jan & 26 Jan
grid 1 with
colour scale
below



ArcheoSurveyor 3d
rotated white green
black image of grids
for 10th November

Fig 27: Shade view. ArcheoSurveyor image with enhanced images of specific grids.

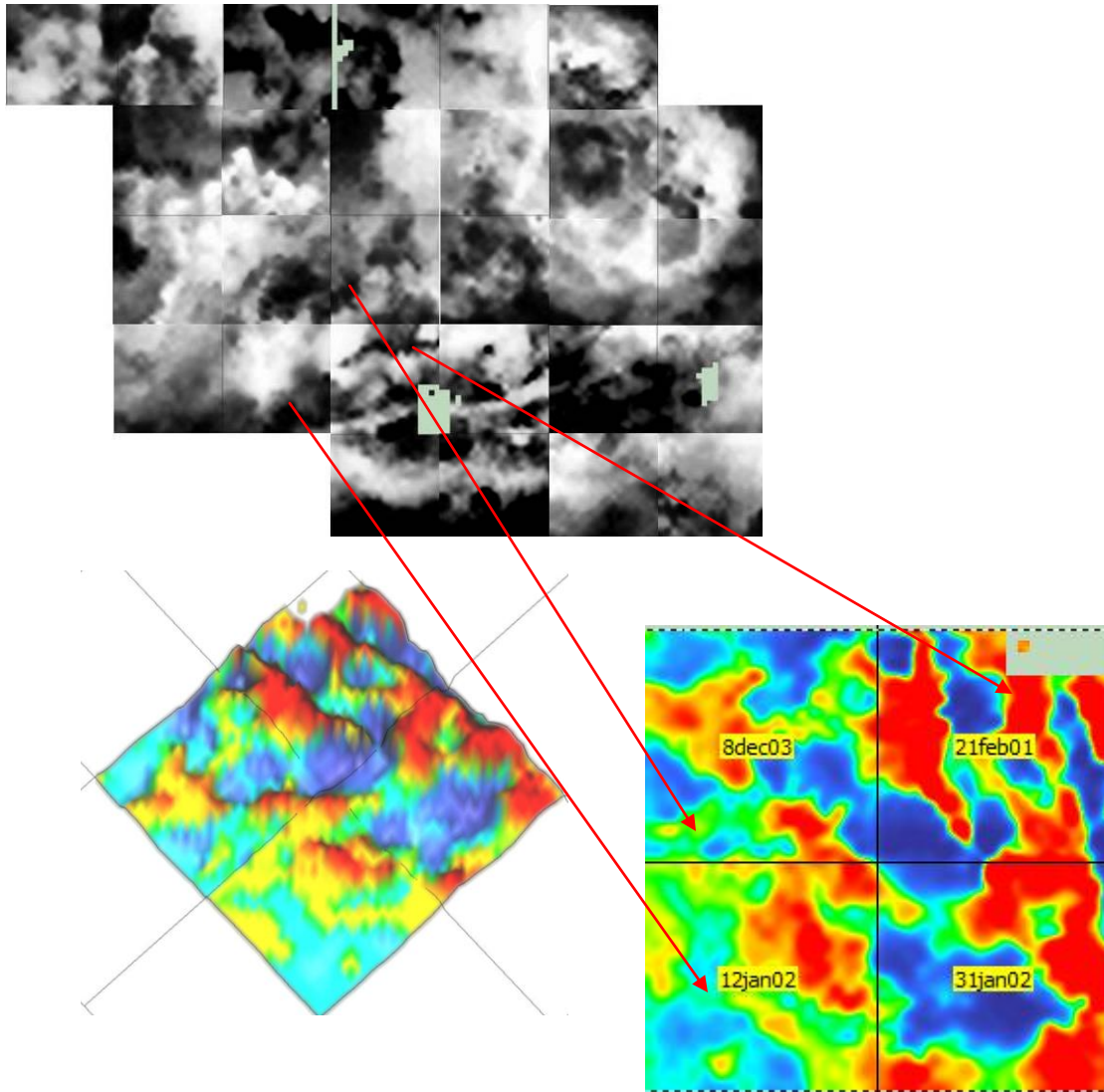


Fig 28: Axonometric view. ArcheoSurveyor Red Green Blue 2 image with (right) file names and location as above

The 3d image at Fig 28 above shows a number of features in a 40m by 40m area including what appear to be several linked round houses.

Recommendations

- 1) The surveys have covered a great deal of the hill fort but some areas have still to be cleared of trees, brambles etc. In view of this it is recommended that a further English Heritage licence is obtained, when such areas are cleared, in order to complete the survey.
- 2) Psuedosection surveys are undertaken on selected areas in order to provide more information on anomalies.
- 3) Further analysis of results should be made to attempt to fully interpret the geophysical results.

References

Corney M. Morris N, 2004	<i>Cadbury Hill Fort An Analytical survey by Mark Corney with Nik Morris. YCCCART 2011/Y3,North Somerset HER2011/041)</i>
Fowler, P, Gardner, K and Rahtz, P. 1970	<i>Cadbury Congresbury, Somerset, 1968. Bristol</i>
Rahtz, PA, Fowler, P et al 1992	<i>Cadbury Congresbury 1968-73. A Late/Post Roman hilltop Settlement in Somerset. British Archaeological Reports, British Series 223</i>

Authors. YCCCART members.

Date May 2012

Appendix A
Site record for gradiometry

YCCART Site Survey		
Project – Cadbury Hill		
Survey date	8 th March 2012	
Report date	8 th March 2012	
Type /Instrument	Grad 601	
	Pace : 1.5m/s * Lines/m : 1 Range: 100nT Volume: High Sensors: 2	Grid size: 30m x30m Pattern : Zig Zag Samples/m: 4 Audio: On Threshold: 1nT Reject: 50 Hz
	*Except 17 th November 2011 when 1.3m/s due to ground conditions	
Location	Cadbury Hill	
	See annex A	
Ref	none	
Site name		
Landowner		
Tenant		
HER ref		
Site type	Open field	
Description	Grass	
Period	Unknown	
Geology	Limestone	
Land use	recreation	
Survey team and conditions		
24th February 2011	Team	Peter Wright, Ferdi, Mike Fox & Ian Morton
	weather	cold & overcast
3 rd March 2011	Team	Peter Wright, Ferdi, Mike Fox, Sue Dugas & Ian Morton
	weather	cold & overcast
17 th March 2011	Team	Peter Wright, Ferdi, Mike Fox, John Wilcock, Peter English, Sue Dugas & Ian Morton
	weather	Sunny and warm
28 th March 2011	Team	Peter Wright, Ferdi, Mike Fox, John Wilcock, Peter English, Anne Dimmock & Ian Morton
	weather	Overcast, cool, dry
10 th November 2011	Team	Peter Wright, Ferdi, John Wilcock, Janet Dickson & Ian Morton
	weather	Sunny intervals
17 th November 2011	Team	Peter Wright, Ferdi, Mike Fox, John Wilcock, Peter English, Sue Dugas & Ian Morton
	weather	sunny
1 st December 2011	Team	Peter Wright, Ferdi, Mike Fox, John Wilcock, Peter English, Sue Dugas & Ian Morton
	weather	Overcast with light shower
8th December 2011	Team	Peter Wright, Mike Fox, John Wilcock, Sue Dugas & Ian Morton
	weather	Overcast with light shower
1 st March 2012	Team	Peter English, Mike Fox, Susan Dugas, Ferdi & Ian Morton
	weather	Overcast, cool, dry
Page 32		

8 th March 2012	weather	Peter Wright, Mike Fox, Susan Dugas, Ferdi & Ian Morton
	weather	Sunny intervals.

Survey area		notes		readings			
		size	walk direction	max	min	mean	
Grid ref #	27th February 2011	Setting out grids					
	03/03/2011	1	30 x 30 m	SE	+36.4	-9.3	+1.4
		2	30 x 30 m Mirror and return Grid terminated	NW	+29.4	-35.5	+0.5
	17/03/2011	1	30 x 30 m	SE	+36.7	-20.6	+2.7
		2	30 x 30 m Obstacles; dummy data entered	SE	+38.7	-96.9	+2.4
		3	30 x 30 m Obstacles; dummy data entered	SE	+70.0	-24.6	-2.0
		4	30 x 30 m Obstacles; dummy data entered Grid terminated	NW	+100.0	-100.0	-0.6
	28/03/2011 Note; grid #s start at 5 because previous grids not deleted from machine).	5	30 x 30 m	SE	+30.0	-98.9	+2.3
		6	30 x 30 m	SE	+98.6	-100.0	-2.3
		7	30 x 30 m	NW	+75.4	-90.9	+1.8
		8	30 x 30 m Grid not to be used. Wrong start point	SE	+47.8	-22.1	+3.0
		9	30 x 30 m	SE	+46.5	-28.5	+1.7
	10/11/2011	1	30 x 30 m	S	+100.0	-100.0	-0.1
		2	30 x 30 m Mirror and return	S	+98.3	-100.0	+0.7
	17/11/2011	1	30 x 30 m Grid terminated	S	+75.8	-42.5	+2.5
		2	30 x 30 m Grid terminated	S	+17.2	-7.0	+2.3
	1/12/2011	1	defective	Not to be used			
		2	30 x 30 m Mirror and return	NW	+100.0	-100.0	-1.9
		3	30 x 30 m Mirror and return	SE	+68.0	-99.7	+2.8
		4	30 x 30 m Mirror and return	NW	+97.6	-50.7	+1.7
		5	30 x 30 m Mirror and return	SE	+98.6	-100.0	+2.5
		6	30 x 30 m Mirror and return	NW	+62.1	-63.0	+2.5
		7	30 x 30 m Mirror and return	NW	+41.5	-100.0	+1.2
	8/12/2011	1	30 x 30 m	SE	+35.6	-100.0	-23.5
		2	30 x 30 m	SE	+6.7	-44.3	-26.8
		3	30 x 30 m	SE	+9.2	-59.3	-25.2

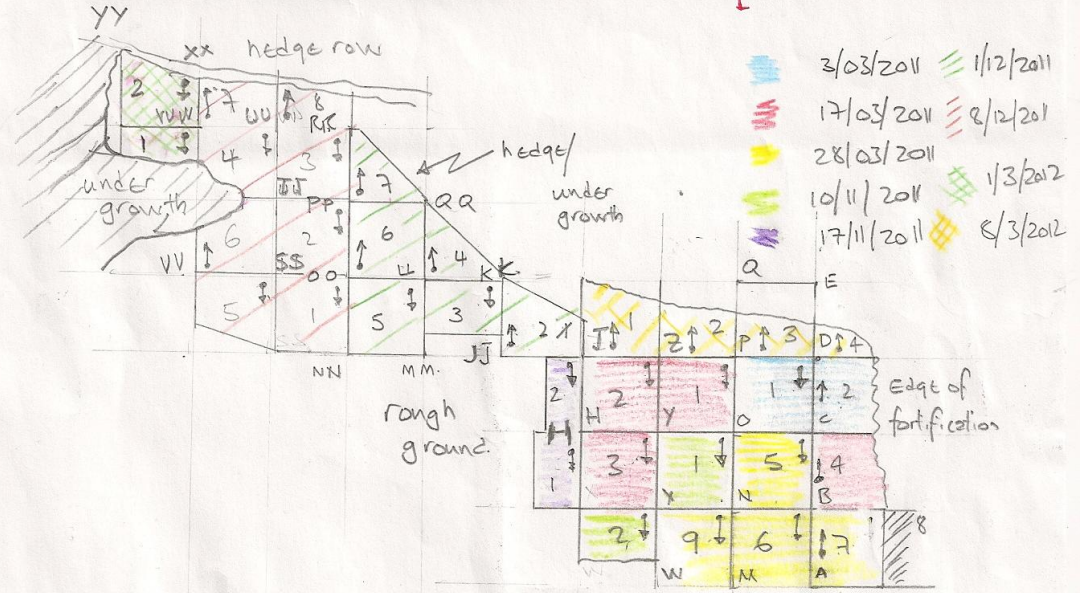
Note these
should
have been
SE not S

Survey area		notes			readings		
		size	walk direction	max	min	mean	
Grid ref #	8/12/2011 (cont)	4	30 x 30 m Mirror and return	SE	+10.3	-30.0	-11.0
		5	30 x 30 m Mirror and return	SE	+4.4	-32.0	-13.3
		6	30 x 30 m Mirror and return	NW	+8.1	-22.6	-11.2
		7	30 x 30 m Mirror and return	NW	+10.1	-29.6	-11.9
		8	30 x 30 m Mirror and return	NW	+98.4	-21.4	-11.4
Grid ref #	1/03/2012	1	30 x 30 m Mirror and return incomplete	S	+40.5	-15.5	+2.8
		2	30 x 30 m Mirror and return incomplete	S	+45.7	-100.0	-0.1
Grid ref #	8/03/2012	1	30 x 30 m Mirror and return	NW	+55.3	-46.5	-1.0
		2	30 x 30 m Mirror and return	NW	+85.1	-96.1	-1.6
		3	30 x 30 m Mirror and return	NW	+56.5	-13.7	-2.2
		4	30 x 30 m Mirror and return incomplete	NW	+7.9	-9.7	-0.9

Annex 1
Setting out details

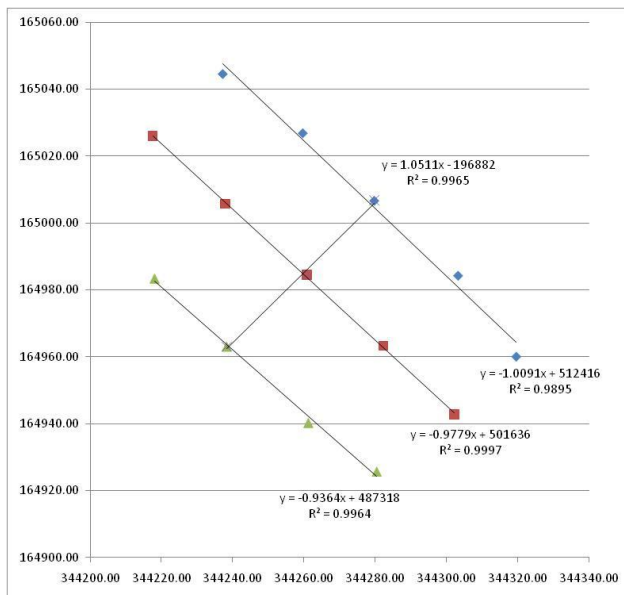


location of Cadbury I



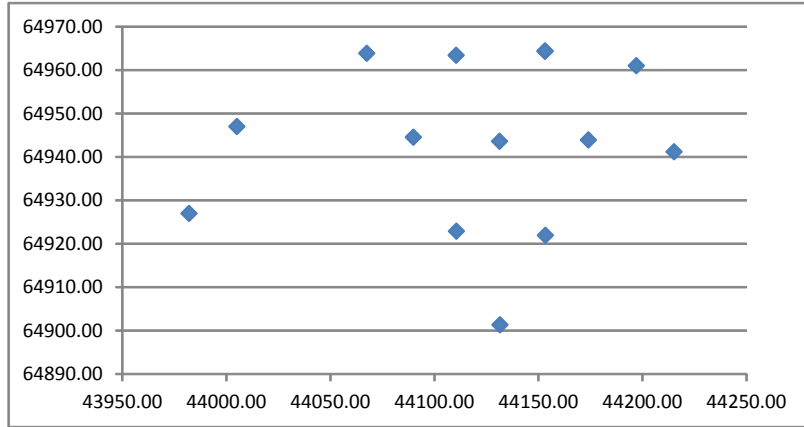
Grid location details

GPS			
Cadbury I			
location	E	N	
A	344319.70	164960.10	
B	344303.35	164984.30	
C	344279.78	165006.70	
D	344259.69	165026.89	
E	344237.19	165044.60	
M	344302.20	164942.70	
N	344282.35	164963.26	
O	344260.80	164984.46	
P	344237.87	165005.70	???? Suspect reading
Q	344217.60	165026.00	
W	344280.45	164925.67	
X	344261.27	164940.25	
Y	344238.39	164963.07	
Z	344218.19	164983.42	



Grid Ref. All ST
 eastings northings

H	44215.14	64941.18
J	44197.00	64961.00
K	44153.14	64964.35
JJ	44173.97	64943.91
KK	44153.14	64964.35
LL	44131.28	64943.60
MM	44153.30	64921.95
NN	44131.47	64901.35
OO	44110.54	64922.90
PP	44089.82	64944.54
QQ	44110.40	64963.41
RR	44067.45	64963.86
XX	44005.00	64947.00
YY	43982.00	64927.00



Site record for resistivity surveys – West

YCCART Site Survey			
Project – Cadbury Hill Fort			
Survey date	3 March 2011 to 5 May 2011 & 1 st to 15 th March 2012		
Report date	March 2012		
Type /Instrument	RM15		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 60%;">Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)</td> <td style="width: 40%;">Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag</td> </tr> </table>	Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)	Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag
Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)	Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag		
Weather	<p>3 March: Dry but overcast and grass damp 17 March: Dry and sunny 24 March: Dry & sunny 7April : Dry & sunny 11 April: Cool, overcast and grass very damp 14 April : Warm, overcast, grass damp 18 April : Warm, sunny and dry 28 April: Warm, sunny and dry 5 May: Warm and sunny. Ground very dry 1 March 2012: Sunny & warm 8 March : Overcast, warm, grass very dry 15 March: Damp, foggy</p>		
OS Ref or Lat-Longitude	ST		
Site name	Cadbury hill fort		
Landowner			
Tenant	Congresbury & Yatton Parish Councils		
HER ref			
Site type	Iron Age /Post Roman		
Description	Hill fort		
Period	Unknown		
Geology	Oxwich Head Limestone Formation –OOIDAL LIMESTONE		
Land use	Public amenity		
<i>Survey team</i>	<p><i>3 March: Colin Campbell, Chris Short, Richard Baker & John Wilcox, David Long & Brian Bradbury.</i> <i>17 March : Colin Campbell, Chris Short, Richard Baker, David Long & Brian Bradbury.</i> <i>24 March : Colin Campbell, Chris Short, David Long & Nick Joy.</i> <i>7April: Colin Campbell, Chris Short, David Long, Geoff Pearson ,Vince Russettt & Philippa Cormack.</i> <i>11 April: Chris Short, Anne Dimmock, Feri, Pete Wright & Brian Bradbury</i></p>		
	Page 39		

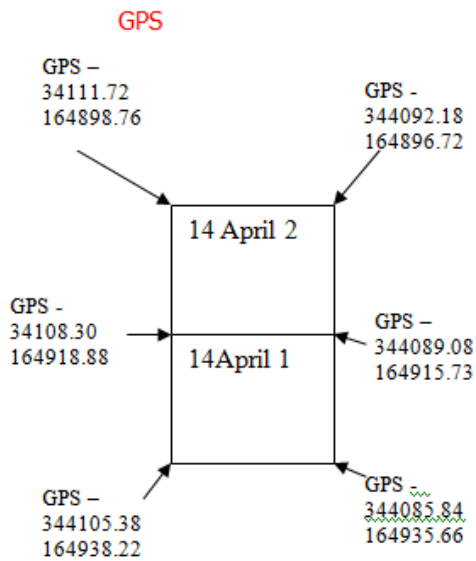
		<p>14 April : Chris Short, Pete Wright, Ian Morton, Richard Baker, Philippa Cormack, Judy and Charlotte Sack 18 April: Chris Short, Pete Wright, Colin Campbell, Ferdi and Pete English 28 April: Chris Short, Pete English, Ferdi ,Geoff Pearson, David Long, Susan Degas & Maggie Rosevink 5May : Chris Short, Pete English, Maggie Rosevink, Colin Campbell,Pete Wright, Ian Morton 1 March : Chris Short, Pete English, Colin Campbell, David Long, John Wilcox, Ferdi, Vince Russett & Philippa Cormack. 8 March: Chris Short, Colin Campbell, David Long, John Haynes, Vince Russett, Philippa Cormack & Judy Sack. 15 March: Chris Short, Colin Campbell , Judy Sack, Pete English & John Wilcox</p>				
Survey area		notes		readings		
		size	walk direction			
3 March	Grid 1 Grid 2 (Part grid. Terminated by use of <i>Finish grid</i> (western end covered with brambles etc)	1 x 20m 1 x 20m	W W			
17 March	Grid 1 Grid 2 (Part grid. Terminated by use of <i>Finish grid</i>	1 x 20m 1 x 20m	W W			
24 March	Grid 1 (Part grid) Grid 2	1 x 20m 1 x 20m	W W			
7April	Grid 1 (Part grid) Grid 2	1 x 20m 1 x 20m	W W			
11 April	Grid 1 Grid 2	1 x 20m 1 x 20m	W W			
14 April	Grid 1 Grid 2	1 x 20m 1 x 20m	W W			
		Page 40				

18 April	Grid 1 Grid 2 Grid 3 (Part grid & without dummy log at beginning) Not used Grid 4 Abortive Grid 5 (14 m wide grid. 6 lines of dummy data).	1 x 20m 1 x 20m 1 x 20m 1 x 20m	W W W W			
28 April	Grid 1 Grid 2	1 x 20m 1 x 20m	W W			
5 May	Grid 1 (Limited by brambles, bushes etc) Grid 2 (Abortive) Grid 2 abandoned because ground so dry machine would not register or readings exceeded maximum.	1 x 20m 1 x 20m	W W			
1 March 2012	Grid 1 Grid 2	1 x 20m 1 x 20m	W W			
8 March 2012	Grid 1 Grid 2 Grid 3 Grids 2 & 3 line end used to delete first 10 lines	1 x 20m 1 x 20m 1 x 20m	W W W			
15 March 2012	Grid 1 Grid 2	1 x 20m 1 x 20m	W W			
Page 41						

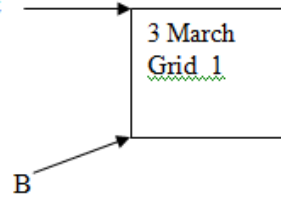
Summary	Downloaded to : ArcheoSurveyor: Cadcong / 3Mar 1 & 2 Cadcong / 17 March 1 & 2 Cadcong / 24 March 1 & 2 Cadcong / 7 April 1 & 2 Cadcong /11 April 1 & 2 Cadcong /14 April 1 & 2 Cadcong / 18 April 1 to 5 Cadcong /28 April 1 & 2 Cadcong / 5 May 1 & 2 Cadbury / 1 March 1 & 2 Cadbury / 8 March 1,2 & 3 Cadbury /15 March 1 & 2 Snuffler: Cad 1 to 26
---------	--

Grid layout

					18 April 5				
3 March 1	3 March 2	Brambles to be cleared	11 April 2	14 April 2	18 April 1				
17 March 1	24 March 2	7 April 2	11 April 1	14 April 1	18 April 2	5 May grid 1	Abortive grid	8 Mar grid 3	8 Mar grid 2
17 March 2	24 March 1	7 April 1	Brambles to be cleared	Brambles to be cleared	28 April grid 1	28 April grid 2	1 Mar 12 grid 1	1 Mar 12 grid 2	8 Mar grid 1
						15 Mar grid 1	15 Mar grid 2		

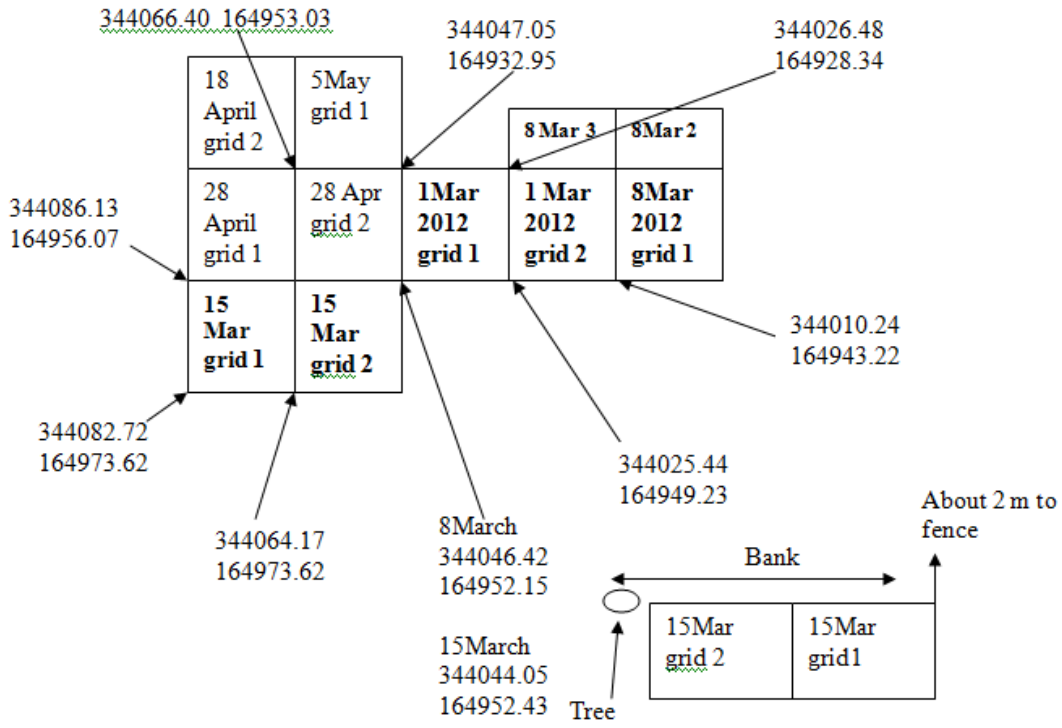


A = start
point



A- Eastings 344188.74 Northings 164912.25
B Eastings 344186.89 Northings 164931.68

Update 1,8 & 15 March 2012 with GPS

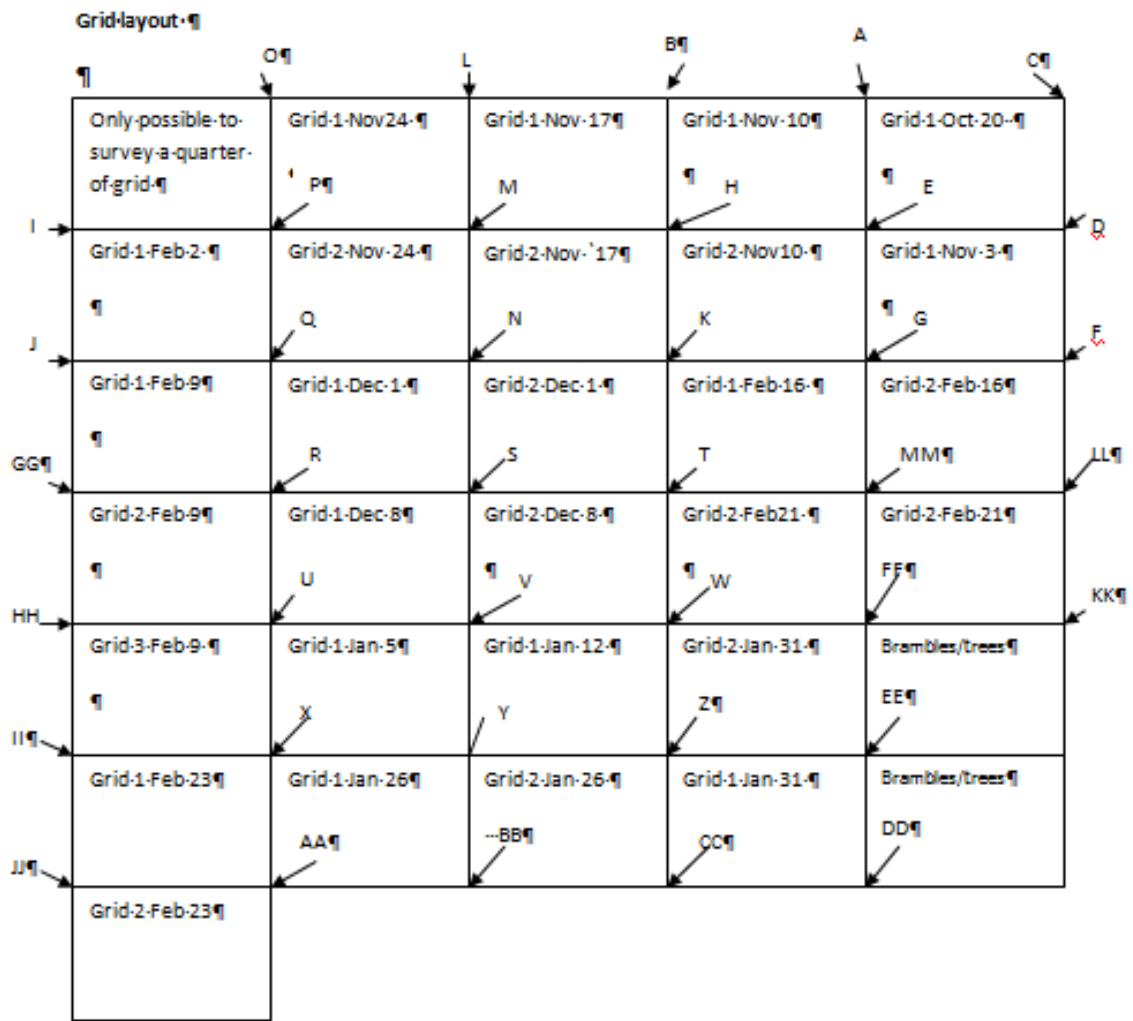


Site record for resistivity surveys – East

YCCART Site Survey			
Project – Cadbury Hill Fort			
Survey date	20 October 2011 to 23 Feb 2012		
Report date	23 February 2012		
Type /Instrument	RM15		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)</td> <td style="width: 50%;">Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag</td> </tr> </table>	Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)	Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag
Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)	Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag		
Weather	<p>20 Oct: Dry and sunny 3 Nov: Overcast and grass wet 10 Nov: Sunny and warm. Grass damp 17 Nov: Sunny and warm. Grass damp 24 Nov: Overcast but dry. Grass slightly damp 1 Dec: Overcast, grass damp, slight rain shower 8 Dec: Overcast , very windy & damp 5 Jan: Very windy, mixed sun & cloud, grass wet. 12 Jan: Overcast, grass damp 26 Jan: Overcast /sunny, grass very wet, a few light showers 31 Jan: Dry, sunny cold & grass damp 2 Feb: Dry, very cold & sunny 9 & 16 Feb: Dry, sunny 21 Feb: Dry but overcast 23 Feb: Dry, overcast and grass damp</p>		
OS Ref or Lat-Longitude	ST		
Site name	Cadbury hill fort		
Landowner			
Tenant	Congresbury & Yatton Parish Councils		
HER ref			
Site type	Iron Age /Post Roman		
Description	Hill fort		
Period	Unknown		
Geology	Oxwich Head Limestone Formation –OOIDAL LIMESTONE		
Land use	Public amenity		
Survey team	<p><i>20 Oct: Chris Short, Peter English, Colin Campbell, Ferdi, Mike Fox, Janet Dickenson, Nick Hart (ex CHERT).</i></p> <p><i>3 Nov: Chris Short, Colin Campbell , Janet Dickenson, Nick Hart (ex CHERT), David Long & John Wilcox.</i></p> <p><i>10 Nov: Chris Short, Colin Campbell, David Long, Vince Russett & John Haynes.</i></p>		
	Page 45		

		<p>17 Nov: Chris Short, Colin Campbell, Vince Russett & John Haynes, Phillipa Cormack & Judy Sack 24 Nov: Chris Short, Colin Campbell, Vince Russett Phillipa Cormack & Judy Sack. 1Dec: Chris Short, Colin Campbell, Vince Russett, Judy Sack, Pete English, Brian Bradbury, Robert Cleland, David Long, Unsal Hussan (GPS). 8Dec: Chris Short, Colin Campbell, Vince Russett (Part of time), Brian Bradbury, David Long & Pete English. 5Jan: Chris Short, Colin Campbell, Geoff Pearson, Brian Wills, Unal Hussan. 12 Jan: Chris Short, Unsal Hussan, John Haynes & Pete English 26 Jan: Chris Short, David Long, Unsal Hussan, John Haynes & Pete English, Vince Russett, Brian Wills, Janet Dickenson, Colin Campbell, John Wilcox. 31 Jan : Chris Short, Pete English, Pete Wright, Janet Dickson & Anne Dimmock. 2 Feb: John Wilcox, Janet Dickson, David Long & Chris Short, Colin Campbell. 9 Feb: Janet Dickson, David Long, Chris Short, Colin Campbell, Vince Russett, Ferdi. 16 Feb: David Long, John Wilcox, John Haynes, Mike Fox, Geoff Pearson, Chris Short, Ian Morton, Pete Wright. 21 Feb: David Long, John Wilcox, Pete English, Pete Wright, Anne Dimmock & Chris Short 23 Feb: David Long, John Wilcox, Pete English, Chris Short, Judy Sack</p>			
Download		<p>Snuffler: Cadcongeast/east 1 to 28 ArcheoSurveyor : Cadcong 2 grid 20 Oct grid 1, 3 Nov, grid 1, 10 Nov grids 1 & 2, 17 Nov grids 1 & 2, 24 Nov grids 1 & 2, 1 Dec grids 1 & 2, 8 Dec grids 1 & 3. (grid 2 on machine abortive), 5Jan grid 1, 12 Jan grid 2 (grid 1 in error), 26Jan grid 1 & 2, 31 Jan grids 1 & 2, Feb 2 grid 1, Feb 9 grids 1 to 3. Feb 16 grids 1 & 2, Feb 21 grids 1 & 2, Feb 23 grids 1 & 2.</p>			
Survey area		Notes		Readings	
		Size	Walk direction		
20 Oct	Grid 1	1 x 20m	SE		
3Nov	Grid 1	1 x 20m	SE		
10 Nov	Grids 1 & 2	1 x 20m	SE		
17 Nov	Grids 1 & 2	1 x 20m	SE		
		Page 46			

24 Nov	Grids 1 & 2	1 x 20m	SE			
1 Dec	Grids 1 & 2	1 x 20m	SE			
8 Dec	Grids 1 & 2 (3 on machine)	1 x 20m	SE			
5 Jan	Grid 1	1 x 20m	SE			
12 Jan	Grids 1 (Abortive) & 2	1 x 20m	SE			
26 Jan	Grids 1 & 2	1 x 20m	SE			
31 Jan	Grids 1 & 2	1 x 20m	SE			
2 Feb	Grid 1	1 x 20m	SE			
9Feb	Grids 1, 2 & 3 <i>NB. End of Grid 2 dummy entries because of tree stumps & brambles. Final line – also dummy due to operation error</i>	1 x 20m	SE			
16 Feb	Grids 1 & 2	1 x 20m	SE			
21 Feb	Grids 1 & 2	1 x 20m	SE			
23 Feb	Grids 1 & 2	1 x 20m	SE			



GPS

Location	Eastings	Northings	Eastings	Northings	Eastings	Northings
A	344315.93	164992.80				
B	344304.61	165006.54				
E	344301.56	164978.37				
F	344300.21	164952.46				
G	344288.45	164964.50				
I	344249.9	165038.1				
J	344234.0	165024.4				
K	344272.60	164979.52				
N	344260.36	164994.48				
P	344261.2	165023.6				
Q	344245.7	165011.4				
R	344232.13	164996.07	344232.10	164996.40		
S	344245.31	164979.87				
T	344256.61	164963.21				
U	344216.98	164983.39	344216.50	164982.90		
V	344229.32	164979.41				
W	344243.62	164952.94	344244.07	164952.82		
X	344202.95	164969.03	344202.00	164970.75	344201.50	164970.30
Y	344215.85	164954.33	344216.10	164955.22		
Z	344229.36	164940.41				
AA	344187.31	164957.78	344187.71	164956.10		
BB	344202.10	164941.05	344201.09	164941.15		
CC	344214.19	164926.69				
DD	344228.36	164912.48				
EE	344242.08	164952.44				
FF	344257.71	164937.70				
GG	344218.00	165011.10				
HH	344205.30	164997.10				
II	344189.90	164984.40				
LL	344287.61	164940.50				
MM	344272.44	164952.10				

Several readings for same position taken as per R to BB above

Relationship to manual survey

