

POW Camp
Frost Hill
Yatton
Resistivity Survey 2009

YCCART 2010/8

North Somerset HER 47512

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



Dave Long and Brian Wills using the RM15 on the POW field

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1. Abstract

YCCCART has agreed with the Heritage Lottery Fund to undertake a project over the two years commencing May 2009 to investigate the archaeology of Cadbury Hill Fort and its environs. As part of this study, a WW2 prisoner of war site at the foot of the Hill fort was subjected to Resistivity survey. Three contiguous, 20m square grids were surveyed.

Results showed three strong anomalies, two of them roughly rectangular, each approximately 15 x 10m. and aligned with the course of the road as it existed at the time. A third anomaly was smaller and less defined.

2. Acknowledgements

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Resistance Meter RM15 without which this survey could not have been undertaken.

This survey would also not have been carried out without the willing permission of the landowner, Mr G Gosling and the help of Mr D Gosling.

The authors are grateful for the hard work by the members of YCCCART in performing the survey.

3. Introduction

Yatton, Congresbury, Claverham and Cleve Archaeological Research Team (YCCART) 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 of the heritage of North Somerset.

4. Site Location

The site lies in the south-east of the parish of Yatton, in the District of North Somerset, some 12 miles south of Bristol. The field is privately owned but can be seen from the adjacent road - Frost Hill.

The POW site at OS Ref. ST 436 651, occupied an area approximately 60 x 50m, as seen (ringed) on the 1:25,000 Fifth Series OS map, Revised 1966 (Fig 1). The modern Satellite image shows this area has been merged with a larger field (arrow, Fig 2). It also shows that the adjacent road has been re-routed to cut through the site, obliterating its western side.



Fig 1. Crown copyright Ordnance Survey. All rights reserved.



Fig 2

Another map (fig 3) shows the positions of the buildings of the POW Site in more detail

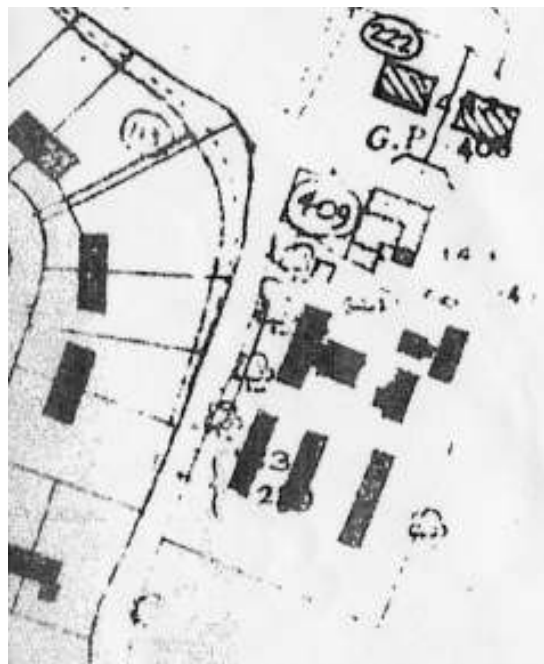


Fig 3. Crown copyright Ordnance Survey. All rights reserved.

5. Land Use and Geology

The site lies immediately to the south of the flood plain of the natural course of the Congresbury Yeo. The soil is of clay - bluish grey in colour over limestone

Currently the field is used for stock grazing.

6. Historical and Archaeological Context.

The Camp was constructed during World War 2 (early 1940s) to house prisoners of war. Hearsay evidence has been received that the Camp was used for mainly Italian military prisoners, of low security risk. After the war it was used as a depot for construction industries, specifically during the 1950s in connection with National Grid pylon installation. At some date following this it reverted to pasture and was merged with the adjacent field.

In the 1970s about half of the original site was obliterated by road building when the B3133 road to Yatton was improved. What remains would have been at the rear of the site, furthest from the original entrance. The Parish Map (Fig. 3) shows that there were three huts or perhaps more substantial buildings on this rear area. One was long and narrow, another shorter but of the same width, and the third T-shaped.

7. Survey Objectives

The survey had the following objectives.

- 1) To identify the site of the prisoner of war camp.
- 2) To identify any additional features.
- 3) To use the survey to train YCCART members in the use of the RM15 .

8. Methodology

Equipment used. A newly acquired Geoscan RM 15 Adv. 15000 (version 2) was used, with twin probe array set at 0.5 m. separation, and remote twin probes approximately 20m from the grid edge.

Resistometer settings :-

Gain x1; Current 1mA, Frequency 137 Hz, Output Voltage 40v, Auto log speed medium, High pass filter 13Hz, Battery Voltage 10.4 v.

A survey was undertaken by teams from YCCART in October/November 2009. Three 20m. square grids were laid out aligned roughly with the present field boundary over the area thought to coincide with the remaining POW Camp site. Visual examination showed no topographical or vegetational variations suggestive of human activity. Each grid was surveyed in a zig-zag transect at 1m. intervals of both X and Y directions. Grids 1 and 2 were completed in one session, and Grid 3 was added at a separate session. The remote probe readings were not correlated between the two sessions.

Post survey processing of data

The completed survey was downloaded to

(1) Geoplot (Geoscan Research) Version 3.00v for Windows. The data were modified by Geoplot integration software, as follows.

- a) Despiking $X=1, Y=1, Thr=3=mean$.
- b) Low pass filter $X=1, Y=1, Wt=G$:
- c) High pass filter $X=10, Y=10, Wt=U$.

2) An ArcheoSurveyor programme and the resultant composite adjusted using the following filters

- a) Colour - Red Blue Green 2
- b) Band weight equaliser
- c) Grad shade
- d) Destripe
- e) Despiking

Current photographs were taken by members of YCCART, and remain the copyright of YCCART.

9. Results

A) Using GEOPLOT

The composite of three grids is shown in Fig.4 before the computer manipulation (interpolation) of the data. Two areas of high resistance are clearly shown, and a third, more diffuse area. The two best differentiated areas are roughly rectangular, about 10m wide and appear to be aligned North East/South West.

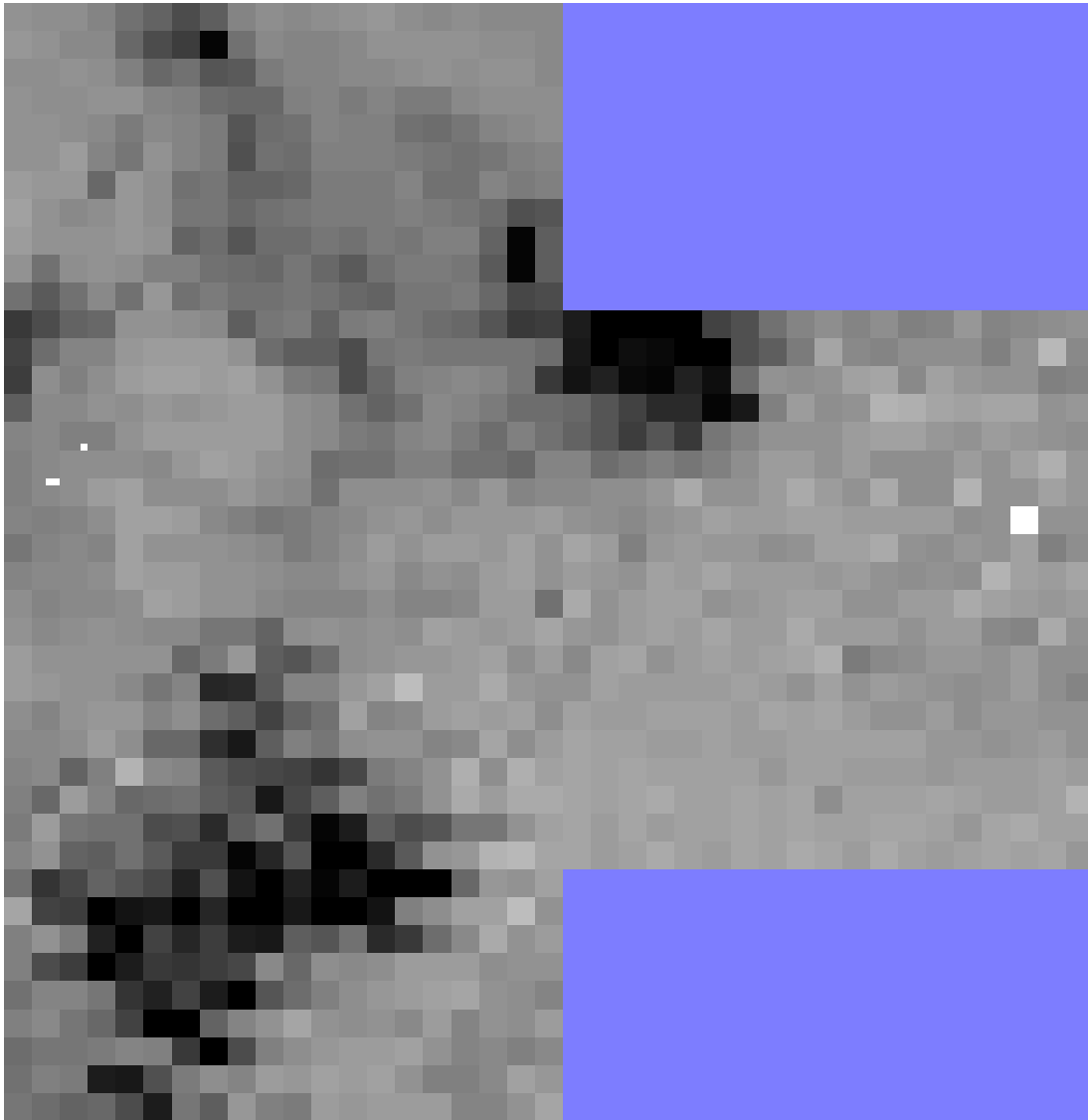


Fig. 4 Un-interpolated data, (North at top)

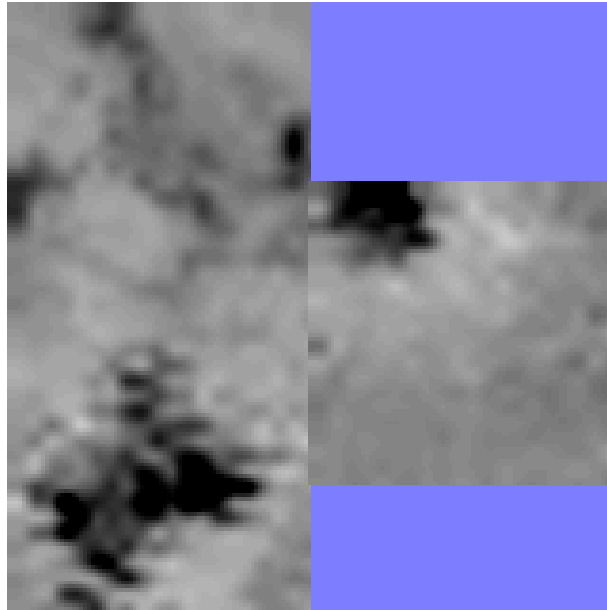


Fig. 5 The three grids after interpolation by Geoscan software

B) Using ARCHEOSURVEYOR

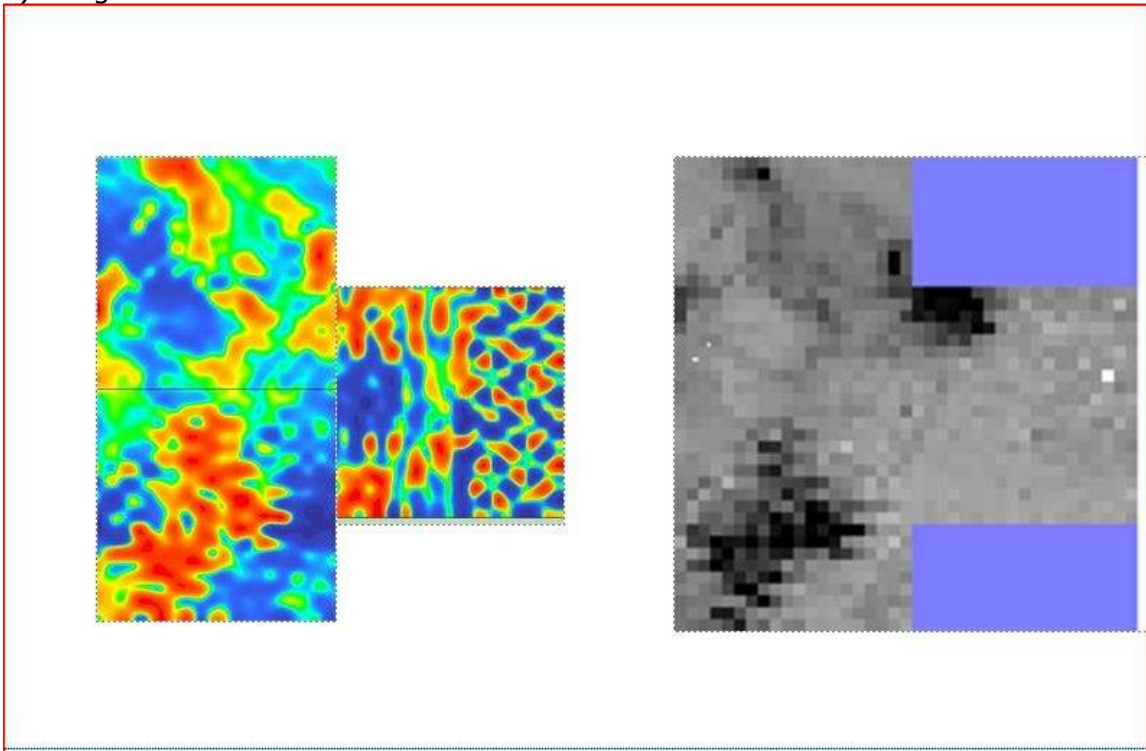


Fig 6, Left, Colour interpretation, (red = high resistance) compared with the greyscale image from Geoscan software on the right

Interpretation

The plots of the sampled area after interpolation by *Geoplot* software did not greatly alter the presentation of the anomalies. The clear NE/SW alignment in is keeping with the positioning of the POW huts as shown on the map (Fig.3), and would have been parallel with the road as it was in the 1940s. It thus seems reasonable to conclude that the anomalies represent the bases of these huts.

The interpretation of the plots by Archeosurveyor roughly parallels that of the Geoscan results, with areas of high resistance shown in red.

10. Recommendations for Future Work

The results show apparently successful detection of sub-surface building remains, indicating that the method is of use for the type of remains resulting from WW2 sites.

Further work to support the interpretation made here would involve physical excavation of the high resistance areas to establish the nature of the materials present.

11. References

Author: Colin Campbell

Date: 11 March 2010

12. Appendix

Appendix 1. Site Survey Records

YCCART Site Survey						
Project – YCCART WW2 Prisoner of War Site						
Survey date		29 October 2009 AM				
Report date		8 th November 2009				
Type /Instrument		Geoscan RMD15-D Resistance Meter				
		Range: Gain x 1 Lines/m : 2m Current: 1mA, frequency 137Hz Probes: 2		Grid size: 20m x 20m Pattern : Zigzag Samples/m: 1m Travel Interval: 1m		
Location		Congresbury/Yatton				
Ref						
Site name		Gosling's Field, Smallway				
Landowner		Gosling Family				
Tenant		None				
HER ref						
Site type		Open Field				
Description		Grassland				
Period						
Geology		Limestone				
Land use		Grazing				
Survey team		C Campbell, P Cormack, BB, BW, DL, HM, SE, JB, Bob McClelland, Mary Campbell, later joined by CS, PW and MF				
Survey area		notes		readings		
		size	walk direction	max	min	mean
Grid ref #	1	20m x 20m	Zigzag from bottom left corner (NW)	N/A	N/A	N/A
	2	20m x 20m	Zigzag from bottom left corner (NW)	N/A	N/A	N/A
	This survey complete					
Summary		Weather: Cloudy, cold				
		Version 1				

Setting out details

Grid 1 and 2

20m x20m each set out from base line with (NW) bottom left corner peg 2.57m from roadside fence, 14.7m from corner and 11.2 m from Cypresses tree.

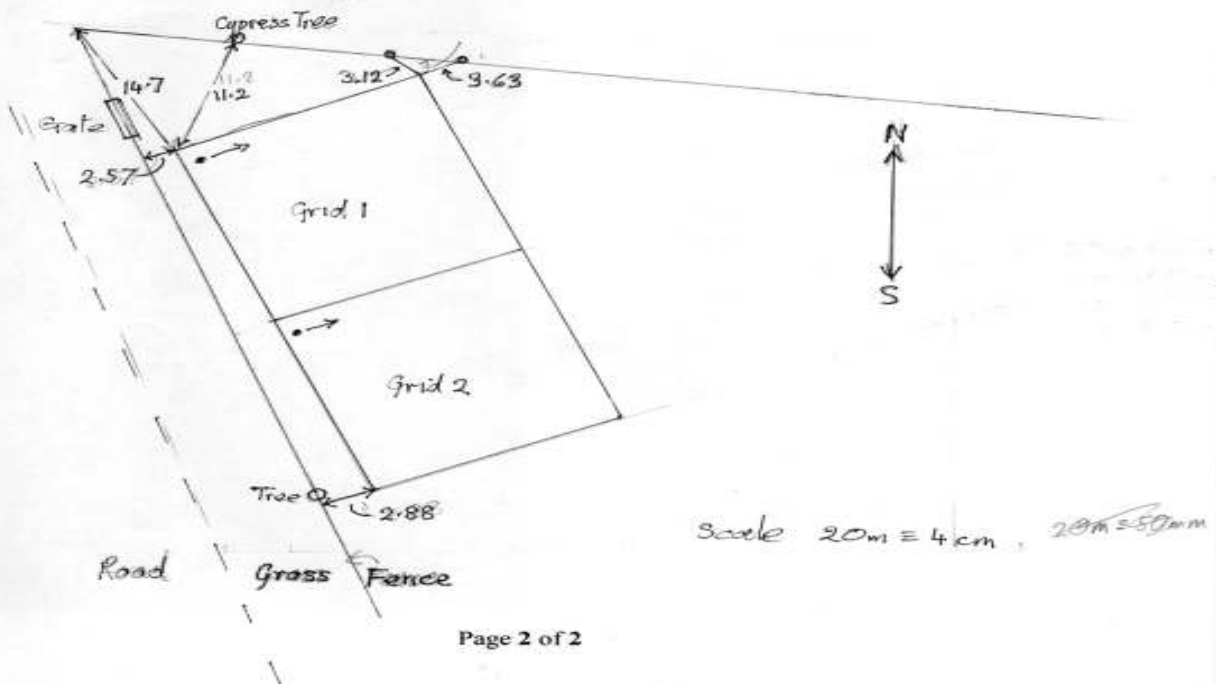
NE corner peg was 1.9m from fence, 3.12m from fence post marked with a Y and 3.63m from fence post marked an X.

The peg 40m from first base line peg was 2.88m from the road fence.

Each grid starting point for 1st traverse was 25cm from left side tape walking in a NE direction.

Data downloaded to C Campbell computer and YCCART laptop for analysis.

See notebook for sketch of site



YCCART Site Survey						
Project – YCCART WW2 Prisoner of War Site						
Survey date		5 th November 2009				
Report date		8 th November 2009				
Type /Instrument		Geoscan RMD15-D Resistance Meter				
		Range: Gain x 1 Lines/m : 2m Current: 1mA, Frequency 137Hz Probes: 2		Grid size: 20m x 20m Pattern : Zigzag Samples/m: 1m Travel Interval: 1m		
Location		Congresbury/Yatton				
Ref						
Site name		Gosling's Field, Smallway				
Landowner		Gosling Family				
Tenant		None				
HER ref						
Site type		Open Field				
Description		Grassland				
Period						
Geology		Limestone				
Land use		Grazing				
Survey team		P Wright, P Cormack, H Munton, M Fox				
Survey area		notes		readings		
		size	walk direction	max	min	mean
Grid ref #	1					
	2					
	3	20m x 20m	Zigzag from bottom left corner	N/A	N/A	N/A
	4					
	5					
	6					
	7					
This survey complete						
Summary		Weather: Cloudy, cold				
		Version 1				

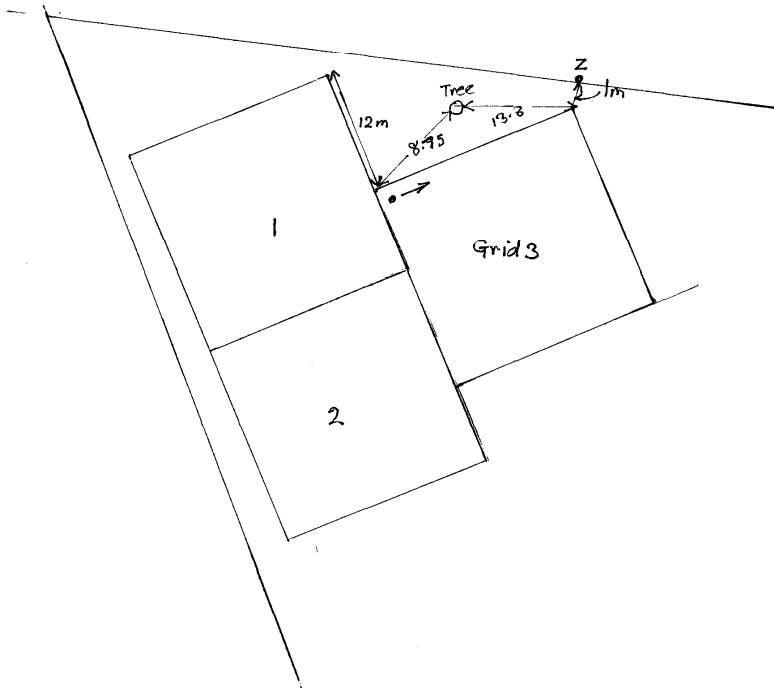
Setting out details

Grid 3 20m x20m set out from top line of Grids 1 and 2 from previous week grids (using original base line) commencing 12m from top left corner of Grid 1.

Grid 3 Bottom left corner of was 8.75 m from tree trunk and top left corner 13.8 m from tree trunk and 1m from post Z 2nd from end.of fence.

At end of survey machine switched off awaiting download of data to computers.

See notebook for sketch of site



12. Appendix

Appendix 2 Site Photographs



Site topography, looking north-West



Site topography, looking South-East



YCCART members prepare to survey.