

**YCCCART 2012 / Y 11  
North Somerset HER 2012 / 350**

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

**Geophysical surveys at Tyntesfield, North Somerset**

*General Editor: Vince Russett*



*Tyntesfield – early postcard.*

<b>Page</b>	<b>Contents</b>
3	Abstract Acknowledgements Introduction
4	Site location Land use and geology
5	Historical & archaeological context
7	Survey objectives Methodology
8	Results
12	Recommendations for further work References
13	Appendix 1 - Site records

## **Abstract**

*This survey was requested by members of the National Trust and revealed a number of features probably associated with previous foundations, service pipes and garden features. Without an excavation, interpretation of these features can only be speculative.*

## **Acknowledgements**

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Bartington Gradiometer 601 and a Geoscan RM15 Resistance Meter without which this survey could not have been undertaken.

YCCCART wish to thank the National Trust, in particular Mr Robin Childs (National Trust volunteer), Mr Paul Evans (Head Gardener) and Terry Cane (National Trust volunteer), for their help in completing this survey and providing the historical background documentation.

The authors are grateful for the hard work by the members of YCCCART in performing the survey and Vince Russett for editing this report.

## **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



*Figure1: Site location*

Tyntesfield is a Victorian Gothic Revival building, on an estate near Wraxall, North Somerset, in the Vale of Nailsea, seven miles from Bristol. It was acquired by the National Trust in June 2002 after a fund raising campaign to prevent it being sold to private interests and ensure it be opened to the public. The start point for the surveys is shown on the site records at Appendix 1.

## Land use and geology

The geology is Carboniferous Limestone, overlain for much of its area by Keuper Marl and then Glacial Head Deposits.

The sites are laid to lawn and hard surfaces.



## Historical & archaeological context

Tyntesfield is a fine Victorian country house created by one of England's richest commoners, William Gibbs, who ran the firm Antony Gibbs and sons, based primarily in London and trading in Spain and South America. Building from a portfolio of finished woollen products the firm became a conglomerate and is well known for its very successful sales of South American guano as a fertiliser and source of nitrates.

The area of Site 1 is close to the western side of the house and part of the area surveyed once housed a large and ornate conservatory as shown in the photographs below.



*The conservatory in 1867. Courtesy of North Somerset Museum.*



*This photograph has been given to the Trust by Mrs P Smallman and is the only one the Trust has of the west end of the conservatory taken from the west, looking east. That is a view directly at the conservatory.*

Please see YCCART report 2010 / Y30 for the geophysical surveys undertaken in the area of Tynte's Place.

## Survey objectives

The survey had the following objectives.

- 1) To investigate the area formerly occupied by the conservatory, to determine if there are any indications of remains of previous foundations, i.e. the first conservatory, as shown in the watercolour by Matilda Blanche Gibbs.
- 2) To establish if there are any remains in the area immediately outside Lord Wraxall's sitting room of previous foundations to the parts of the building which were subsequently changed by the alterations of John Norton in 1863-5.
- 3) To establish any remains on the croquet lawn of foundations from previous garden architecture.
- 4) To investigate the previous garden layout on the site of the old swings.

## Methodology

The survey was undertaken on 25 June 2012 by YCCCART teams using a Bartington Gradiometer 601 and Geoscan RM15 Resistance Meter, with settings as per the site records in Appendix 1.

The completed surveys were downloaded to the ArcheoSurveyor programme and the resultant composite adjusted using the following filters

```
Processes:      4
1   Base Layer
2   Clip at 2.00 SD
3   Despike Threshold: 1 Window size: 3x3
4   DeStripe Median Traverse: Grids: All
```

N.B.

- a) Destripe adjustment only applied to Grad 601 results.
- b) Base layer adjustments were Band Weight Equaliser and Grad Shade

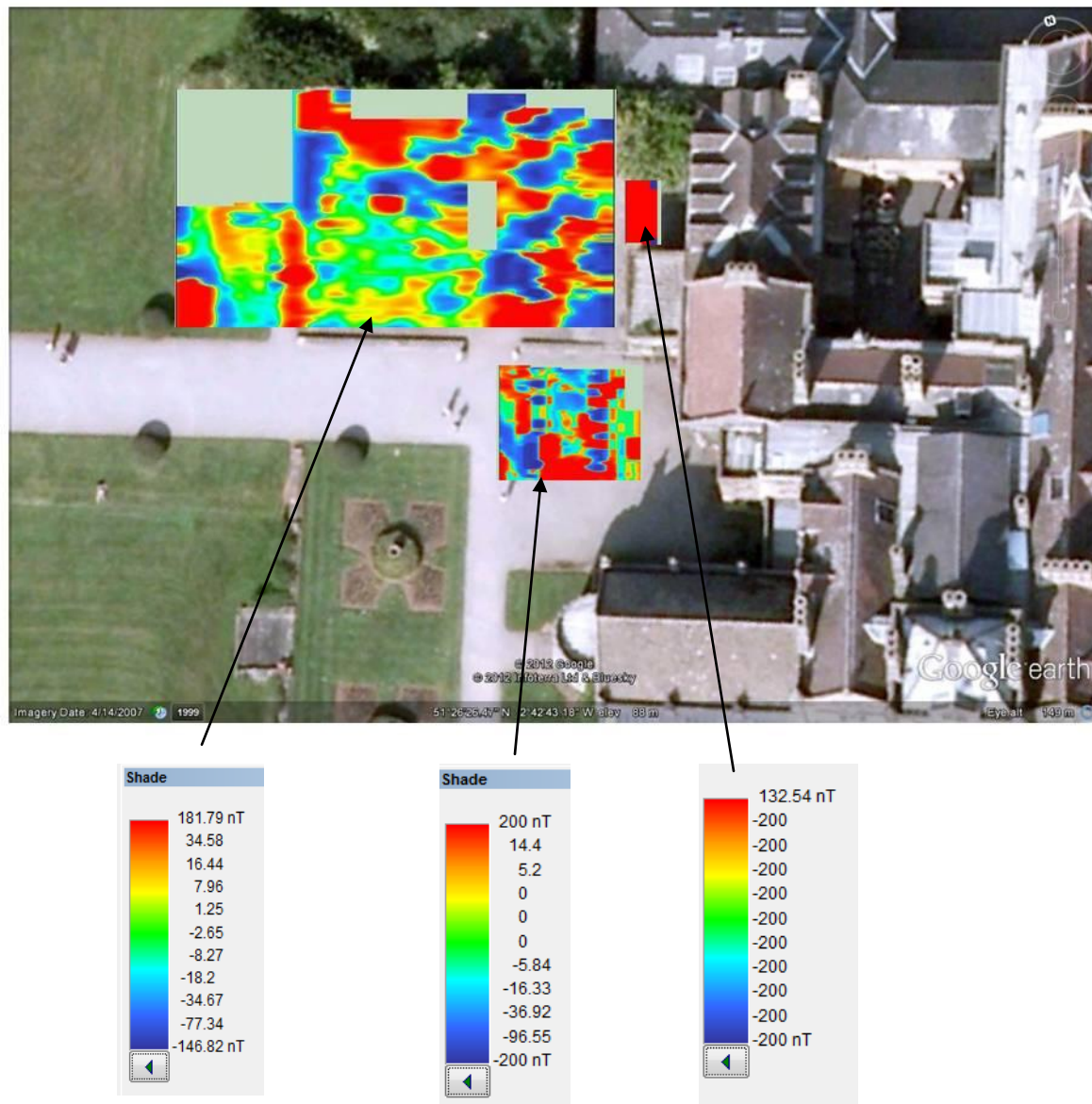
The resistivity survey was also downloaded to a Snuffler programme.

The report was written in Microsoft Word 2007.

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

## Site 1

### Gradiometry survey

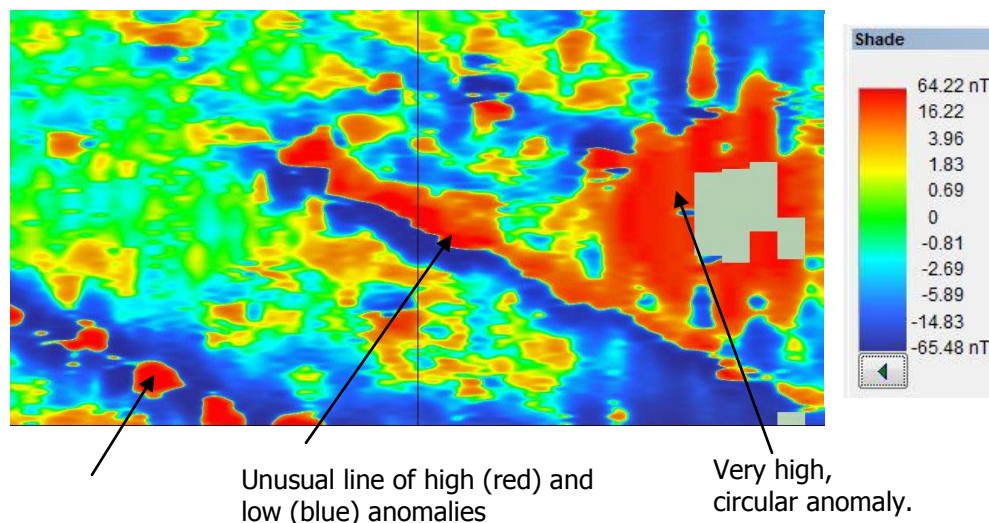


*Fig 2 : Gradiometer results shown in conjunction with approximate location to the house. The results show ArcheoSurveyor shade images. High readings are red.*

Site 1 lies adjacent to the western side of the house, as illustrated in Fig 2 above, and the high readings on the right, closest to the house, are no doubt caused by service pipes and possibly remains of the conservatory/foundations to the parts of the building which were subsequently changed by the alterations of John Norton in 1863-5.



## Site 2 Gradiometry survey



*Fig 3 : ArcheoSurveyor shade image. High readings are red.*

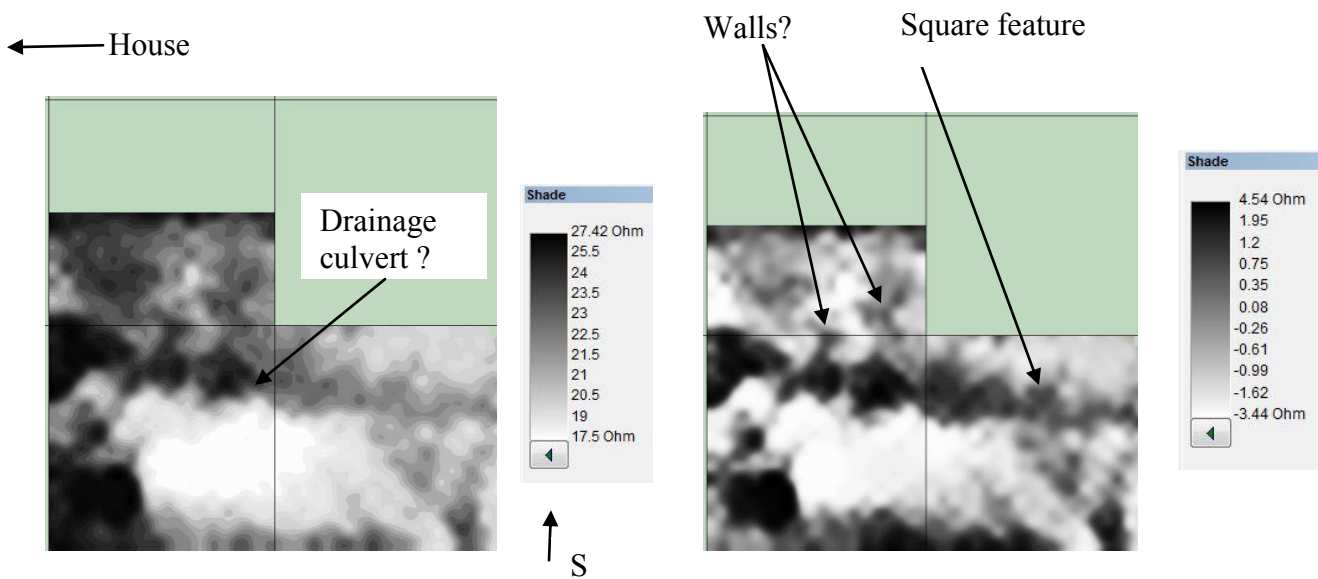
The results shown on Fig 3 above show a very high circular anomaly on the right hand side joined to a line of an unusual high and low linear feature running from the centre of the survey to bottom right.

Also shown is a series of high circular anomalies towards the bottom left one of which is high - lighted by an arrow.

Interpretation of these features is very difficult. They may be the result of garden debris or previous landscaping.

### Site 3.

#### Resistivity survey on current croquet lawn



*Fig 4: ArcheoSurveyor shade view results. High readings are black. Additional High pass Gaussian filter applied to give image on right.*

The most obvious feature shown in Fig 4 above is the high resistance line running centrally right to left. This could be the remains of a drainage culvert when led from a large water tank close to the house. Possible structures are also shown as indicated by the arrows. Are they the remains of garden walls /features? The high anomaly bottom left suggests another feature.

## Gradiometry survey on current croquet lawn.

← House

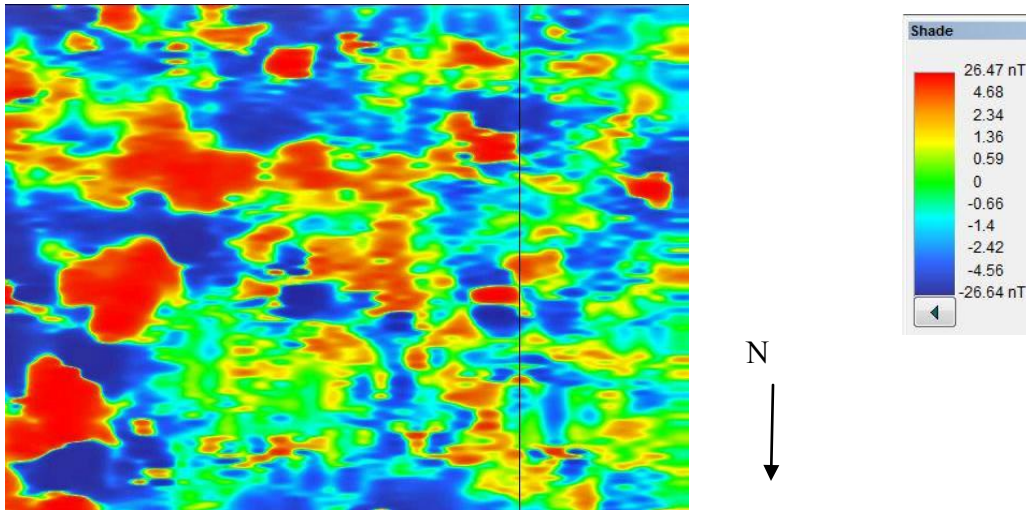


Fig 5: ArcheoSurveyor shade image. High readings are red

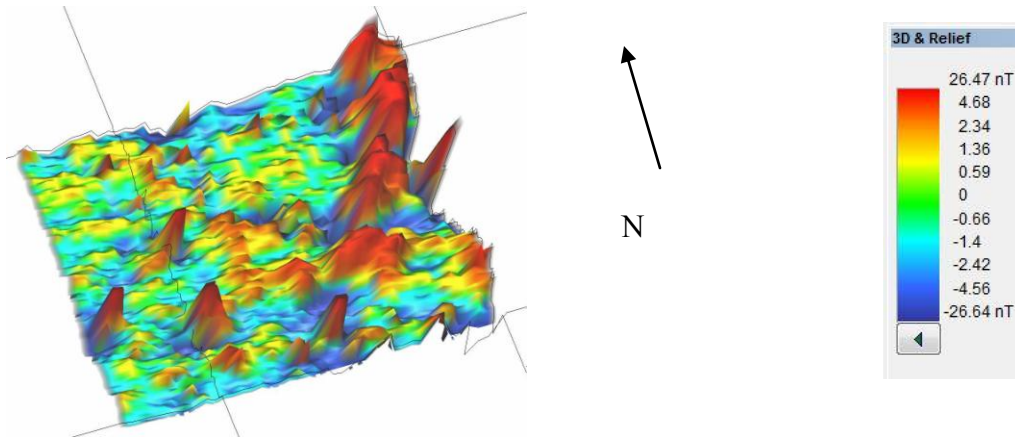


Fig 6: Axonometric view. ArcheoSurveyor. High readings are red.

The results illustrated in Figs 5 and 6 above show most clearly a high (red) feature, on the house side, running north to south. Could this be associated with service pipes?

**Recommendations for further work**

None at present

**References**

Historical information and photographs supplied by the National Trust.

**Authors.** Ian Morton & Chris Short

**Date.** July 2012

## Appendix 1 –Site records

### Gradiometry

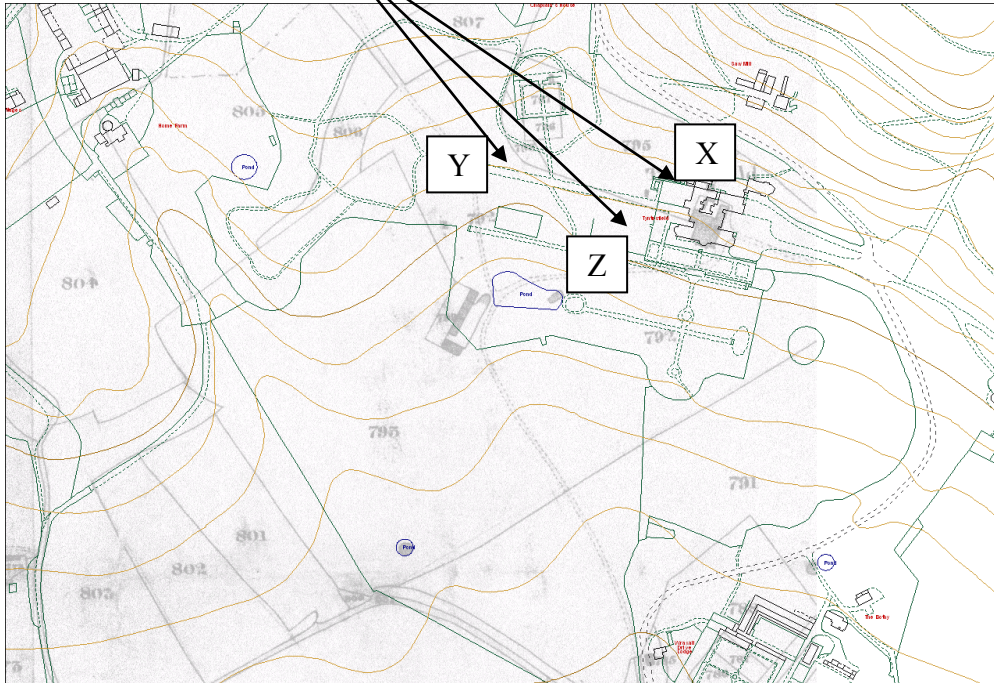
YCCCART Site Survey		
Project – Tyntesfield National Trust miscellaneous sites		
Survey date	25 <sup>th</sup> June 2012	
Report date	25 <sup>th</sup> June 2012	
Type /Instrument	Grad 601	
	Pace :1.5m/s Lines/m : 1 Range:100nT Volume: High Sensors:2	Grid size: 30m x30m Pattern : Zig Zag Samples/m:4 Audio: On Threshold:1nT Reject:50 Hz
Location		
Ref	none	
Site name	Tyntesfield	
Landowner	National Trust Contract Managers Paul Evans, Head Gardener and Terry Cane	
Tenant		
HER ref		
Site type	Formal gardens	
Description	Grass and gravel	
Period	Early 19 <sup>th</sup> century	
Geology	Limestone	
Land use	Formal grounds	
25 <sup>th</sup> June 2012	Team	Peter English, Phillipa Cormack, Ann Dimmock, Ian Morton
	weather	Sunny and hot

Survey area			notes		readings		
			size	walk direction	max	min	mean
Grid ref #	25/06/2012	1	30 x 30 m Mirror and return Grid terminated	N	+100.0	-100.0	-23.3
		2	30 x 30 m Mirror and return	N	+100.0	-100.0	-9.4
		3	30 x 30 m Mirror and return Grid terminated	N	+100.0	-100.0	-3.6
		4	30 x 30 m	N	+99.9	-100.0	-2.0
		5	30 x 30 m	N	+100.0	-100.0	+9.7
		6	30 x 30 m	S	+99.4	-100.0	+0.9
		7	30 x 30 m Grid terminated	S	+46.7	-15.2	-1.1

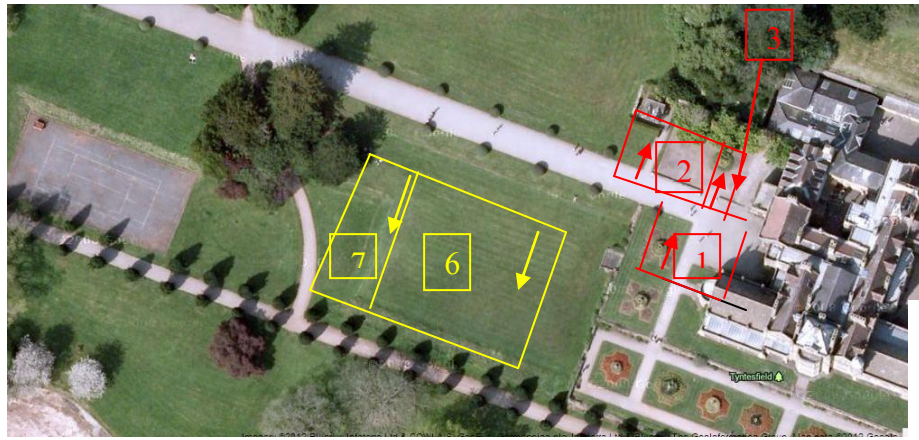


Setting out details

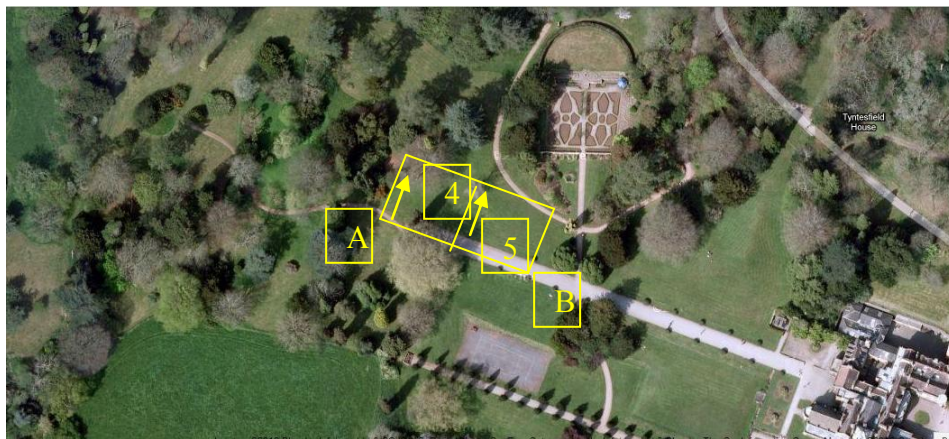
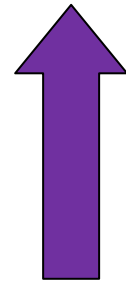
Approximate study areas



- X West side of house and former conservatory area
- Y Lawn outside Rose garden
- Z Croquet lawn



N



grid references

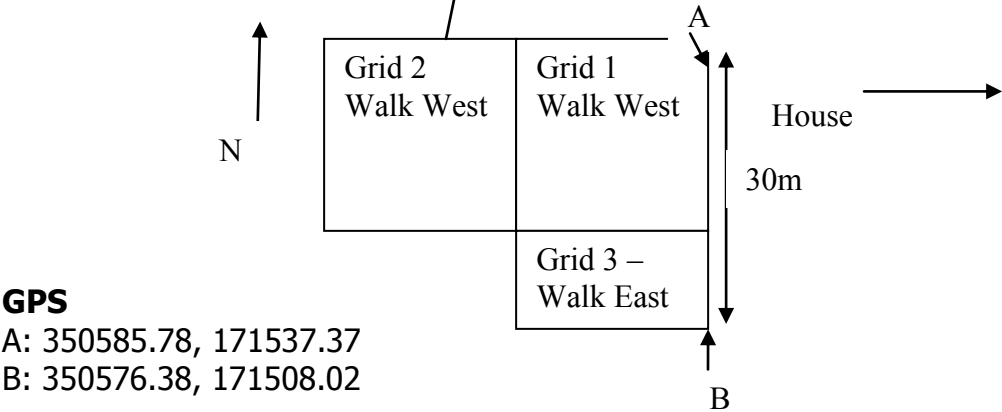
	E	N
A	350454.4	171602.8
B	350509.1	171579.4
quiet spot	350482.8	171602.8

## Resistivity

YCCART Site Survey						
Project – <b>Tyntesfield</b>						
Survey date		25 June 2012				
Report date		25 June 2012				
Type /Instrument		<b>RM15</b>				
		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		25 June: Sunny/overcast at times. Grass damp				
OS Ref or Lat-Longitude		See below				
Site name		Tyntesfield				
Landowner						
Tenant						
HER ref						
Site type		?				
Description						
Period						
Geology		See report				
Land use		Lawn				
Survey team		<i>Anne Dimmock, David Long, Chris Short, John Wilcox plus ?.</i>				
Survey area		Notes		Readings		
		Size	Walk direction			
25 June	Grid 1 Grid 2 Grid 3	20 x 20m 20 x 20m 20 x 10m	West West East			
Summary		Downloaded as: ArcheoSurveyor: <i>Tyne 2, grids 1 -3</i> Snuffler :				



Grid Layout & GPS



**GPS**  
A: 350585.78, 171537.37  
B: 350576.38, 171508.02