

SURVEY RESULTS

2006 / 79 Roughtor, Bodmin Moor

1. Survey Area

- 1.1 Approximately 1.5ha of gradiometer survey, using Bartington Grad 601-2 instruments, was carried out within three areas; readings were taken every 0.25m along traverses 1m apart. Magnetic susceptibility survey, totalling just less than 1 ha, was carried out using a Bartington MS2 meter at 5m intervals.
- 1.2 The survey grid was set out by *GSB Prospection Ltd* and tied in to the Ordnance Survey (OS) grid by *Dr Henry Chapman* using a Trimble differential GPS system.

2. Data Processing and Display

- 2.1 The magnetic data have been pre-processed by removing baseline shifts due to zig-zag data collection. Where appropriate, traverses have been corrected for minor misalignments; these are due to variations in walking speed, which are usually a result of ground conditions or topography. Unless stated it should be assumed that no filtering has been undertaken on the datasets collected in this project. The data have been interpolated to improve the quality of the greyscale images.
- 2.2 Figures 2 and 3 shows the gradiometer data as summary greyscales and interpretations, respectively, at a scale of 1:2000. Figure 4 shows the magnetic susceptibility data at a scale of 1:1000.
- 2.3 The magnetic results are displayed as XY traces and greyscale images with accompanying interpretations, all at a scale of 1:500. These display formats and the interpretation categories used are discussed in the *Technical Information* section at the end of the text.

3. General Considerations and Complicating Factors

- 3.1 Conditions for survey were adequate. The ground cover consisted of tussocky grass and the partially upstanding archaeological remains.
- 3.2 Small scale ferrous anomalies within the gradiometer data are likely to be either modern iron debris on the surface or relate to the mineralogy of the igneous rocks.

4. Results of Gradiometer Survey**Area 1**

- 4.1 Areas of increased magnetic response correspond to the majority of the remains of the roundhouses as shown in Figure 3. Response (A) in the northern section of the data had a strong response, which suggested burning. When excavated the roundhouse proved to have a burnt floor surface. Although anomalies (B) also have a similar strength of response, this structure was excavated in the 1950s and it is possible that the responses reflect back-filled trenches.
- 4.2 Anomalies (C) show a slight increase over the background level and, as they coincide with upstanding archaeological features, it seems probable that this is the origin of the responses, unless they too have been subject to excavation.
- 4.3 The extents of the earthworks enclosure can be seen as trends and the limits of enhancement in the data (D). Some of the responses visible in the results may be natural responses.
- 4.4 Ferrous response (E) was caused by a surface obstruction (excavator bucket) that could not be moved.

Area 2

- 4.5 This area was positioned over a postulated 'pear-shaped' enclosure; however, the magnetic results show no evidence for this. A handful of pit-type anomalies have been detected but they may represent natural variations within the soil.

Area 3

- 4.6 This area was positioned over the 'Bank Cairn' which is visible at the surface and within the data (F). No other detectable archaeological anomalies have been noted in this survey area.
- 4.7 Faint areas of banding within this and all of the survey areas are likely to represent natural variations within the soils.

5. Results of Magnetic Susceptibility Survey

- 5.1 A magnetic susceptibility survey was undertaken over the earthwork enclosure and roundhouses in Area 1. The data clearly show areas of higher readings which correlate with the individual round houses; for example, the strongest readings correspond to anomalies (A) in the magnetic data. However, there is no obvious zonation within the enclosure as might be expected if specific areas were used solely for stock.
- 5.2 Figure 5 shows this dataset combined with the gradiometer data: areas of high magnetic susceptibility (shown as red) correspond closely with increased responses in the gradiometer data.

6. Conclusions

- 6.1 A number of the round houses proved to have areas of burning, both in the gradiometer and magnetic susceptibility datasets. Burnt floors / hearths were found during excavations which supports the geophysical evidence.

- 6.2 While the bank cairn is visible in the data, no other archaeological anomalies were noted in this area. The postulated 'pear-shaped' enclosure was not detected; this could be due to a lack of enhancement or the feature simply relates to earlier field boundaries.
- 6.3 Banding within all areas surveyed indicate probable natural variations within the soils.

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Date of Report: 8th December 2006

References:

- Mower, J 2006 *Proposed Archaeological Evaluation at Roughtor, Cornwall*. Unpublished Report.
- SSEW 1983 *Soils of England and Wales. Sheet 5, South West England*. Soil Survey of England and Wales.

SITE SUMMARY SHEET

2006 / 79 Roughtor, Bodmin Moor

NGR: SX 141 815

SAM: 15584

Location, topography and geology

The site is situated in the Roughtor region of Bodmin Moor, approximately 4 miles southeast of Camelford and 15 miles northwest of Liskeard, Cornwall. The topography of the site is of an undulating nature. Soils of the area belong to the Hexworthy (651b) association formed from a parent of granite and other acid igneous rock (SSEW 1983).

Archaeology (Background Information taken from Mower 2006)

The study area of Roughtor is rich in archaeological remains. A large bank cairn lies to the northwest of Rough Tor itself (the rocky outcrop); it has not been investigated archaeologically and therefore little is known about the monument. An enclosure and group of roundhouses is situated to the south of the bank cairn; several of these houses were investigated in the 1950's and are presumed to be Bronze Age. Below and around the west side of the Tor is a network of linear boundaries which divide the moor land into a series of large 'blocks'. Roughtor has also been designated a Site of Special Scientific Interest (SSSI).

Aims of Survey

The aims of the survey were to collect data over the roundhouse group and the bank cairn to define any areas of burning or indications of habitation associated with the surviving earthworks / upstanding archaeology. This work forms part of a wider research being carried out by Channel 4's **Time Team**.

Summary of Results *

Both the gradiometer and magnetic susceptibility data have detected areas of probable burning which correlate to a number of the roundhouses in Area 1. A handful of pit-type anomalies have been detected within Area 2, but little of interest shows up in Area 3 apart from the bank cairn itself.

*** It is essential that this summary is read in conjunction with the detailed results of the survey.**

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Archive CD

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