

SURVEY RESULTS

2001 / 77 Caer Vallack and Gear Farm, Cornwall

1. Survey Area

- 1.1 Just over 7.5 ha of detailed gradiometer survey was undertaken in two areas. The location of the survey areas is shown in Figure 1 at a scale of 1:2500.
- 1.2 The survey grids were set out by **GSB Prospection** and tied in by Dr Henry Chapman using a GPS system.

2. Display

- 2.1 Figures 2-3 and 4-5 are summary greyscale images with accompanying summary interpretation diagrams of the data from Caer Vallack and Gear Farm respectively, produced at a scale of 1:1250.
- 2.2 Figures 6-34 are XY traces, dot density plots and interpretation diagrams of the gradiometer data, produced at a scale of 1:500. For ease of display at this scale, Caer Vallack has been divided into two areas (A and B) and Gear Farm has been divided into eight areas (A - H) however, the results for each site have been discussed as a whole in the text below.
- 2.3 The display formats mentioned above are discussed in the *Technical Information* section at the end of the text.
- 2.4 Numbers in parentheses in the text refer to specific anomalies highlighted on the relevant interpretation diagrams.

3. General Considerations - Complicating factors

- 3.1 Generally conditions were suitable for survey, both Caer Vallack and the majority of Gear Farm being under short pasture at the time of survey. An area approximately 1ha in size in the northeastern corner of Gear Farm had been ploughed and left to "weather" for fieldwalking, making it difficult to maintain an even walking pace with the instrument. Although the resultant noise is visible in the data, it does not appear to have greatly affected the quality of the data.
- 3.2 The magnetic nature of the igneous and metamorphic soils causes an increase in background noise, which can sometimes mask archaeological responses. At these sites, the data show that generally the archaeological deposits appear to have been sufficiently enhanced to overcome this problem however, more subtle detail may have been lost.
- 3.3 Numerous small isolated ferrous responses have been recorded throughout the survey area and these are considered to be the result of modern ferrous debris in the topsoil. The most prominent of these are noted on the interpretation diagrams, but are not referred to in the text unless considered particularly relevant.

4. Results of Detailed Survey**Caer Vallack**

- 4.1 The western enclosure was shown to be generally magnetically quiet with geophysical evidence for an internal ditch / quarry scoop respecting the defensive bank. Several trends and small pit-type anomalies were also noted, however, they do not form a clear archaeological pattern therefore their origin is uncertain.
- 4.2 In the interior of the eastern earthwork a rectilinear anomaly (1) forms a smaller enclosure butting up against the northern edge. In addition, there are many linear anomalies and trends perhaps suggesting varying phases of use. Some strong anomalies are indicative of burning and possibly small-scale industrial activity. Other responses in this area are also characteristic of archaeological features suggesting occupational activity; however, no obvious pattern is apparent in the data. Subsequent excavation over anomaly (2) confirmed the archaeological nature of these responses.

Gear Farm

- 4.3 This monument appears to have a quarry scoop (3) running alongside the interior of the defensive bank; this is clearly seen on the western and southern side where the vegetation on the bank was less dense and survey was carried out right up to the earthwork.
- 4.4 Two strongly magnetic anomalies (4) extend across the site apparently dividing it into three parts. However, the anomalies contain both positive and negative elements and these are commonly associated with Cornish field boundaries. As such they are believed to be relatively modern in origin compared to the other archaeological features.
- 4.5 Numerous small circular anomalies (c.10-15m diameter) typified by those at (5) are scattered across the eastern central portion of the site; they are thought to be huts associated with Iron Age or Romano-British settlement. The majority have a highly magnetic pit type anomaly within the confines; these may be due to domestic debris (e.g. rubbish pits) or hearths. One of the sub-circular anomalies appears to be made up of two concentric rings and could, therefore, indicate the presence of barrow ditches. This raises the possibility that some of the single rings might not be settlement features.
- 4.5 In the centre of the site is a larger sub-circular anomaly (6), approximately 40m in diameter. This appears morphologically different to many of the other features and perhaps suggestive of earlier prehistoric activity; this was later confirmed by excavation.
- 4.6 Appearing to shadow the line of the ramparts, but set some 100 to 200 metres inside, is a series of ditch lengths (7). The responses are clear on the western side of the site but there are also linear magnetic responses in the east. As such the responses may form another enclosure, perhaps earlier in date, though in the west the ditches appear to act as some form of interior division. For example, there is a distinct lack of archaeological type anomalies in the zone between the ditches and the ramparts, compared to elsewhere on the site.
- 4.8 There are several other enclosures visible in the survey results. For example, a D-shaped enclosure at (8) and some rectilinear type features at (9). At (10) there is a ditch that abuts with the rampart to form a distinct zone within the hillfort. Anomaly (11) occupies a small promontory at the southern end of the site. As such it appears to demarcate the area and may possibly indicate an early feature on the site, predating the hillfort.

5. Conclusions

- 5.1 The results from Caer Vallack show an inner quarry ditch running inside the earthworks of the western enclosure and several pit like responses. However, the majority of activity appears to have taken place in the larger, eastern enclosure. A rectilinear anomaly within this area formed a smaller sub-enclosure butting up to the northern edge. Anomalies within this area are suggestive of burnt features and numerous other anomalies of likely archaeological interest.
- 5.2 Gear Farm also contained a plethora of archaeological type responses. There are numerous ring ditches in the data, the majority of which are presumed to be Iron Age / Romano British houses, but some could be barrow ditches. The geophysical data also show several enclosures (both rectilinear and sub-circular) along with lengths of ditch and pits, suggesting that the site had an extensive occupational history. Despite the complexity of these results and the multi-period nature of the activity, there is still geophysical evidence for zonation within the hillfort. Areas of settlement are quite distinct from zones where stock is likely to have been kept. These are distinct from the sub-division of the site into three, which is believed to be associated with more recent Cornish field boundaries.

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References:

SSEW 1983. *Soils of England and Wales. Sheet 5, South West England.* Soil Survey of England and Wales.

SITE SUMMARY SHEET

2001 / 77 Caer Vallack and Gear Farm, Cornwall

NGR: SW 726 245 (Caer Vallack) and SW 721 248 (Gear Farm), approximate centres

Location, topography and geology

The two sites, approximately 350m apart, are situated ten kilometres to the southeast of Helston, Cornwall, just off the St Martin to Mawgan road. Gear Farm lies directly to the south of the modern farm buildings and Caer Vallack lies to the immediate south of Caervallack Lodge. Both sites lie on gently sloping ground on the crest of the valley slope overlooking a tributary of the Mawgan Creek. The soils comprise well drained fine loams with basic igneous and metamorphic rock of the Trusham association forming the parent geology (SSEW 1983).

Archaeology

Caer Vallack is a Scheduled Ancient Monument (SAM No. 435) consisting of a kidney-shaped enclosure surrounded by a bank and ditch thought to be Iron Age or Romano-British in origin and has been interpreted as a "round" or small hillfort. Gear Farm is a large defended enclosure with univallate defences. It is also a SAM (No. 436). A large number of artefacts recovered during ploughing of the site suggest activity from prehistoric times through to the post-medieval period.

Aims of Survey

Gradiometer survey was undertaken to determine the nature and extent of buried archaeological deposits. This work forms part of a wider archaeological investigation being undertaken as part of the **Time Team** series for **Channel 4** television.

Summary of Results *

Caer Vallack: The results of survey show the western half to be generally free of archaeological anomalies apart from pit-like responses. By contrast, the eastern half contains a large rectilinear enclosure and a number of other archaeological type responses. Some of the anomalies were later confirmed by excavation to be both occupational and industrial in nature. It remains unclear on the basis of the geophysics whether the two halves of the enclosure were separate entities or a single kidney-shaped feature.

Gear Farm: The magnetic data indicate a plethora of archaeological responses of different periods throughout the hillfort. Although there are numerous presumed Iron Age round houses and enclosure ditches, there is also geophysical evidence for barrows and possible earlier enclosures (the latter interpretation being based on morphology alone). The site is also divided into three by former field boundaries that are thought to be medieval or later in date. There appear to be clear zones of activity within the hillfort, but any interpretation is complicated by the multi-period nature of the results and the sheer intensity of features.

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

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