

# **CROP-MARKED ENCLOSURES IN SOUTH CEREDIGION AND NORTH PEMBROKESHIRE 2004 – 2006: INTERIM STATEMENT ON FEATURE SURVIVAL AND MANAGEMENT**



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# **CROP-MARKED ENCLOSURES IN SOUTH CEREDIGION AND NORTH PEMBROKESHIRE 2004 – 2006: INTERIM STATEMENT ON FEATURE SURVIVAL AND MANAGEMENT**

## **Introduction**

The following brief statement provides a supplement to the reports prepared for the Cadw grant-aided project investigating crop-marked enclosures. It considers the evidence for the survival of archaeological features recorded and reflects on the level of information that has been provided by various archaeological techniques: aerial photography, survey, geophysics and excavation. Between 2004 and 2006 16 sites were subjected to geophysical survey and two of these were excavated. The results are summarised in the table below and are briefly analysed here.

## **The aerial photographic evidence**

All sixteen of the sites were detected through aerial survey between 1976 and 2004, with most of the discoveries occurring in the mid 1980s. All sites showed as positive cropmarks, generally showing as ditches between 4m and 6m wide surrounding a rectangular or oval internal area. The cropmarks for two sites, Hafod and Penbwliad II, were very poor, and it was considered possible that these were not archaeological features. The only photograph to show evidence of parching over a bank was that of Blaensaith. Cwmhowni and Ffynnonwen II contained dark oval cropmarks indicating the presence of internal features such as large pits or hut platforms cut into a slope. Features external to the enclosures were rare and consisted of possible contemporaneous field boundaries at Ffynnoncyff and Cwmhowni, as well as possible pits at the latter site.

## **Rapid field survey**

A field visit to each of the sixteen sites showed that earthwork evidence survived in only four cases. In three (Blaensaith Penbwliad II and Berry Farm) the earthworks comprised low, discontinuous, linear banks running inside the cropmark ditches. That at Blaensaith was the best example, and that was only 0.2m-0.3m high. At Nantycroy a shallow, saucer-shaped hollow marked the enclosure. In all four cases it would not have been possible to identify an enclosure from the earthworks without photographic evidence. No surface evidence was present at the remaining sites.

## **Geology**

The underlying geology of the region is Ordovician shale. At many sites this could be seen outcropping. Information from the landowners and/or farmers indicated that bedrock was overlain by thin soils. This was confirmed by the excavations at Troedyrhiw and Ffynnonwen where 0.2m-0.3m thick ploughsoils lay directly on vertically-pitched, hard bedrock. The contrast between silty ditch fills and hard bedrock undoubtedly accounts for the sharp-edged cropmarks and the good results from the geophysical surveys.

The exception to the above was at Penparc, which lies on glacial sands and gravels.

## **Crop regime**

Most of the sites surveyed were under improved pasture, and have been for 20 years or more. Fields are occasionally ploughed for reseeded. Ffynnonwen and Ffynnoncyff were detected when the fields were under barley in the 1980s, but

since then they have been under grass. Blaenfflyman is more regularly ploughed, and Penparc is ploughed and seeded with barley on an annual basis.

Owing to the hard bedrock ground is ploughed down to only 0.10m-0.15m to avoid damage to machinery.

### **Geophysical survey**

At two sites (Hafod and Penbwliaid II) geophysical survey returned a positive-negative result, that is to say the survey confirmed that the poor cropmarks on aerial photographs were not archaeological.

At Ffynnoncyff and Penparc the geophysical survey confirmed the presence of the ditches shown on photographs, but added no further detail. The reasons for this at Ffynnoncyff is that this was the first survey completed and was carried out at a lower resolution than later work, and the reason at Penparc is that the underlying sand and gravel is not conducive to geophysical survey.

Survey at Blaenfflyman, Berry Farm and Troedyrhiw revealed archaeological features not visible on aerial photographs, such as internal divisions and external ditches, but fine detail was not generally detected.

Good geophysical results were returned from Ffynnonwen II, Nantycroy and Ty Gwyn. At Ffynnonwen II the strongly rectangular form of the enclosure showed clearly, something that was not apparent on the photograph, and the central cropmark splotch was almost certainly a house platform cut into the slope. Nantycroy was shown to be an unusually shaped enclosure with internal divisions. At Ty Gwyn a substantial inner, rectangular enclosure was discovered lying within the cropmark enclosure.

The best geophysical results were from Blaensaith, Cwmhowni, Ffynnonwen, Penbwliaid I, Penpedwast and Tre-Cefn Isaf. In all examples detail was detected, including roundhouses, pits, postholes and ditches. The value of surveying outside the enclosure boundaries was demonstrated at Cwmhowni and Ffynnonwen where ditches, pits and other features were detected.

### **Excavation**

Trial excavations at Troedyrhiw and Ffynnonwen uncovered far more archaeological evidence than is shown on aerial photographs and was detected by geophysical survey. The ditches shown on photographs at both sites were demonstrated to be very substantial, up to 3m deep. At Troedyrhiw a series of internal pits, postholes and gullies were excavated, some of which, with the benefit of hindsight, are visible on the geophysical survey. At Ffynnonwen the presence of roundhouses detected by geophysics was confirmed, and other features not apparent on the survey, such as postholes were excavated. Evidence of phasing was also revealed. An assemblage of Roman pottery was found at Troedyrhiw, but few artefacts were recovered at Ffynnonwen.

### **Conclusions**

The four levels of archaeological intervention: aerial photography, rapid field survey, geophysical survey and excavation, add a new layer to our understanding of the date, function and preservation of these sites.

Geophysical survey detected detail on some sites, but the absence of detail on surveys is not an indication that little below ground archaeology survives, as the excavation at Troedyrhiw demonstrated. **This project has demonstrated that well-preserved archaeological remains are likely to survive on all cropmarked enclosures.**

The agricultural regime is predominantly grassland, with occasional episodes of ploughing. **This project has demonstrated that when reduced to a cropmark little further agricultural damage is occurring to enclosures.**

Table. Analysis of results 16 surveyed sites

Site	Cropmark	Earthworks	Geophysical Survey	Excavation
Berry Farm	Good	V.Slight	Fair	
Blaenfflyman	Good	None	Fair	
Blaensaith	Good	V.Slight	Excellent	
Cwmhowni	Good	None	Excellent	
Ffynnoncyff	Good	None	Poor	
Ffynnonwen	Good	None	Excellent	Excellent
Ffynnonwen II	Good	None	Good	
Hafod	Poor	None	Negative	
Nantycroy	Moderate	V.Slight	Good	
Penbwliaid I	Good	V.Slight	Excellent	
Penbwliaid II	Poor	None	Negative	
Penparc	Good	None	Poor	
Penpedwast	Good	None	Excellent	
Tre-cefn Isaf	good	None	Excellent	
Troedyrhiw	Good	None	Poor	Excellent
Ty Gwyn	Good	None	Good	

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Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith  
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