



A R C H A E O L O G  
**CAMBRIA**  
A R C H A E O L O G Y

**AIR PHOTO MAPPING AND RECORD CREATION 1997-98**

**Grant-aided by RCAHMW**

**March 1998**

**Project undertaken by K Murphy BA MIFA**

**Project No 35779**

YMDDIRIEDOLAETH ARCHAEOLEGOL DYFED CYF  
Neuadd y Sir, Stryd Caerfyrddin, Llandeilo, Sir Gaerfyrddin SA19 6AF  
Ffôn: Ymholiadau Cyffredinol 01558 823121  
Adran Rheoli Treftadaeth 01558 823131 Ffacs: 01558 823133

DYFED ARCHAEOLOGICAL TRUST LIMITED  
The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF  
Tel: General Enquiries 01558 823121  
Heritage Management Section 01558 823131 Fax: 01558 823133

## **AERIAL MAPPING PROGRAMME 1997/98**

Project grant-aided by RCAHMW

Undertaken by k Murphy Archaeolog Cambria Archaeology

Project No 35779

### *Aims and Objectives*

The aim of this programme was to digitally map all the readily available cropmark evidence from oblique aerial photographs of Iron Age and related enclosures of two areas in Carmarthenshire, Pembrokeshire and Ceredigion. Database records were then to be created for each mapped site. These records were to be in a form compatible for integration with the regional SMR and with the Extended National Database.

### *Methodology*

The methodology for aerial photography mapping is set out in RCAHMW's *Air Photography Mapping and Record Creation Methodology - Extended Notes* (1996). Digitising of the aerial photographs was undertaken in a similar fashion to that described in the report on the 1996/97 project - the Roman Road Mapping Programme. In the 1996/97 project it was discovered that the greatest amount of information could be gained by mapping colour slides. In this year's project black and white photography was found to be the best medium for showing archaeological features, though reference was made to colour slides where available.

### *Snags and Problems*

As with the 1996/97 project, the major problem encountered was the lack of control on some photographs. This usually resulted in a poorly located plot. Where this is the case, it has been noted adjacent to the relevant plot. In a few instances, it was not possible to plot the archaeology with any degree of confidence. Where this occurred, a sketch of the archaeology was provided with appropriate annotation.

### *Geographical and Archaeological Scope of the Programme*

Ten Ordnance survey quarter sheets (250 sq km) relating to an area to the north and east of Cardigan, and 15 quarter sheets (375 sq km) relating to an area north and east of Haverfordwest were chosen for the mapping programme.

Recent aerial photography by RCAHMW in the Cardigan area indicated that many more Iron Age enclosures and related sites existed here than had been previously recorded. Many of these were cropmark sites, with, it is suspected, no surface evidence. Prior to the recent aerial photography and mapping programme, cropmark sites were not unknown in this area, but were relatively rare in comparison with other types of evidence, particularly earthwork sites. Most of the previously recorded cropmark sites had been discovered by St. Joseph in the late 1950s/1960s. The majority of these sites have been re-photographed by RCAHMW or DAT, but there are a few where no other record exists. Because of the lack of a good copy of St. Joseph prints, these few sites remain un-plotted.

Cropmark archaeology in the Haverfordwest area has been relatively well recorded over the previous 14 years and good quality plots have been made of certain sites by T A James, formerly of DAT. Recent aerial photography has added to the number of known sites, and provided extra detail to many sites previously known. All sites

plotted by T A James were re-plotted in the course of this project, as were previously un-plotted sites.

Initially, the aim of the project was to plot all the cropmark evidence relating to Iron Age defensive sites. Following an initial inspection of the photographic evidence, it was decided expand the project's aims to include within the project the plotting of earthwork evidence where the site was previously unrecorded or no good record has been made and the plotting of sites clearly not of Iron Age date.

### *Results*

Plots have been produced for 147 sites. Of these, 66 are sites which have not been previously recorded.

In the Cardigan area sites tend to be ploughed out (it is unlikely that many would be visible on the ground) and of simple form. There are approximately 13 examples of simple, small univallate rectangular or sub-rectangular enclosures, including several in groups or clusters (35743, 35738, 35744 and 35712, 35715, 35716). A similar number of simple circular, sub-circular and elliptical enclosures are also present. These tend on average to cover a slightly larger area than the rectangular enclosures. More complex circular and sub-circular forms are present: 5838 has large outer enclosure eccentric to the inner circular enclosure; 2094 is a concentric enclosure with antennae ditches, as is 11267; 35726 is a bivallate enclosure with multiple ditches to the east. Three sites of note are: 35751 a possible medieval/post-medieval moated enclosure with central rectangular building and approaching hollow-ways; 35727, close to the defended enclosure 35726, and tentatively classified as a *Roman Temple*; the newly identified site 35722 which is very close to the Dyffryn Bern early Christian inscribed stone, a Roman burial and a Bronze Age round barrow.

The sites in the Haverfordwest area show greater variety and greater complexity. Cropmark evidence indicates that many of the sites in this area are ploughed out, but it is also equally evident that some survive as low earthworks (the degree of survival unclear without field visits), whilst others have well-defined upstanding earthworks. Simple, small rectangular enclosures are present, but they are fewer both absolutely and relatively compared with the Cardigan area. Complex circular and sub-circular enclosures dominate the assemblage. Particularly fine examples are 11790, 14336, 14333, 14246 and 14304. All these are concentric enclosures with widely-spaced defences and antennae ditches. Strongly rectilinear enclosures of unknown date, 11792, 14337 and 14323, are also present. Distinct prehistoric field systems were also plotted. 1323 is associated with hut-circles and non-defensive enclosures, 35755 with the defensive enclosure 1294 and 35754 with the defensive enclosure 2386. The most complex and diverse cropmarks are located around and close to Llangan Church (12222, 11786 etc). The church seems to be sited within a defended enclosure; other cropmarks indicate smaller enclosures of prehistoric or later date associated with possible field systems and other unclassified remains.

### *Recommendations for Further Research*

Aerial photography should continue in the two study areas. The Haverfordwest area has not been subjected to a systematic aerial survey since T A James's work in the

1980s. It is likely that further flying in both areas will add to our knowledge of existing sites and lead to the discovery of new sites.

The current aerial mapping programme has created a corpus of high-quality archaeological data which will be of considerable interest to prehistorians and other archaeologists. It is recommended that elements of this work is disseminated through publication. The information is of sufficiently high quality to merit its publication as a short paper or extended note in an international journal such as *PPS*.

As well as discovering archaeological sites, the mapping programme has revealed the vulnerability of these sites to agricultural practices. Many sites now only survive as cropmarks. It is recommended that the means are explored to further promote the study of these sites through survey and excavation before they suffer further degradation. Joint projects involving Cadw and universities might be a suitable vehicle for promulgating such studies.

K Murphy March 1998