

# How did we know it was here?

## Discovering the past

Welcome to a new column by Dyfed Archaeological Trust based in Llandeilo. Louise Austin, head of heritage management looks at one of the most puzzling aspects of archaeology...

ONE of the most frequent questions asked of archaeologists is 'how did you know it was here?'

There is not always an easy answer to this question, particularly as archaeologists are using more and more scientific methods of discovery.

Geophysical survey is one such scientific method. Viewers of Time Team will know that archaeologists have used 'geophysics' for decades, but it is only advances in computer programmes make the results a lot easier to understand.

Archaeologists also make use of aerial photography, and the two methods are frequently used to complement each other.

A good example of these techniques working together can be seen around the redundant church at Llangan, near Whitland. Llangan has been the site of Christian worship for almost 1,500 years.

Suggested evidence of this antiquity was the discovery in the 19th century of a stone with the inscription 'Canv', a form of the name of St Canna, the 6th century Breton prin-



cess who later became a nun and founded a church at Llangan. The stone, however, is now known to be a forgery. But there was no need to cheat. The results of recent surveys show the evidence of the importance of the site still lies beneath our feet.

Aerial photographs taken in the dry summer of 1984 show the presence of buried archaeological remains in the fields around the church.

There is nothing in the smooth pasture fields to indicate the existence of these remains. What you can see on the aerial photograph are large ditches completely filled with silt and soil. In dry summers the grass over the damp, deep soil in the ditches remains lush and green while the surrounding grass becomes brown and parched.

The ditches are the remains of defences that first surrounded a village more than

2,000 years ago — an Iron Age settlement.

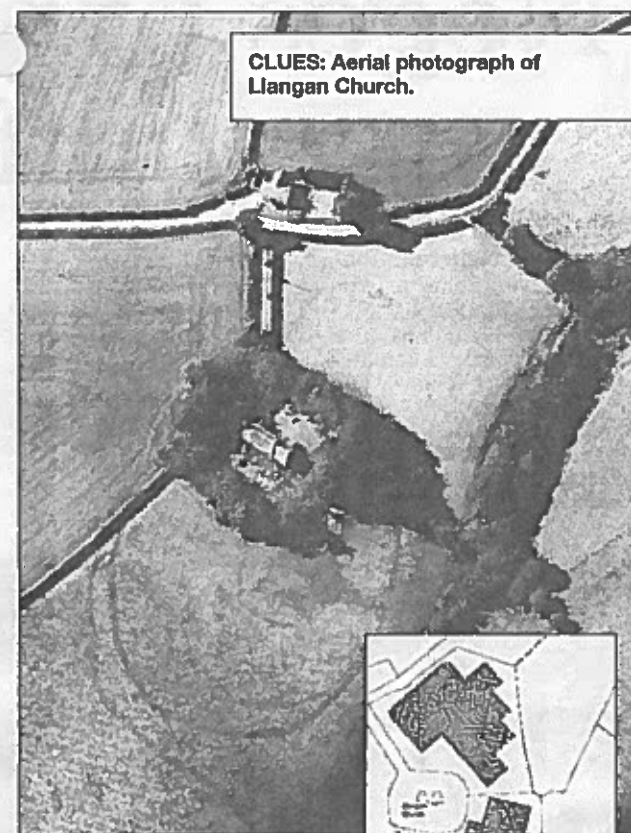
A few years ago Dyfed Archaeological Trust carried out a geophysical survey at Llangan. Geophysical survey detects below-ground magnetic changes.

As all soil is magnetic, the deeper the soil the higher the magnetic readings. High readings are therefore obtained from ditches and pits filled with soil. Heating the soil also increases the readings and features such as furnaces and hearths show up clearly.

The Llangan survey shows the ditches discovered by aerial photography, but more detail is also visible. The dark blobs represent industrial hearths or furnaces, probably used to make iron tools, and a round-cornered rectangle in the inner circular ditch is the site of a building, perhaps a church.

In the field to the north of the church, a mass of ditches is not easy to interpret, but it could be the remains of the medieval village in which Canna lived.

Aerial photography and geophysical survey can give us



a valuable insight into how and where people have lived on these ancient sites.

At Llangan we can see that a church was founded in the 6th century within the remains of the defences of an abandoned prehistoric village.

Over time the banks were gradually worn down and the ditches filled in and the wooden church rebuilt in stone. While remote survey can provide this broad-brush picture, the fine-grain detail of the many thousands of people who lived, worshipped and have been buried at Llangan still survives concealed beneath the soil.

The fields around Llangan are in private ownership and are protected as a Scheduled

Ancient Monument. Dyfed Archaeological Trust would like to thank the landowners for allowing us to undertake the survey.

Over the summer Dyfed Archaeological Trust is doing geophysical surveys at a variety of sites where there will be opportunities for volunteers to take part.

●To volunteer, contact  
info@dyfedarchaeology.org.uk  
or look on our web site  
www.dyfedarchaeology.org.uk