

# THE ANGLESEY COASTAL AREA OF OUTSTANDING NATURAL BEAUTY

## THE ANCIENT LANDSCAPE OF MÔN ARCHAEOLOGY SURVEY PROJECT

Report No. 858

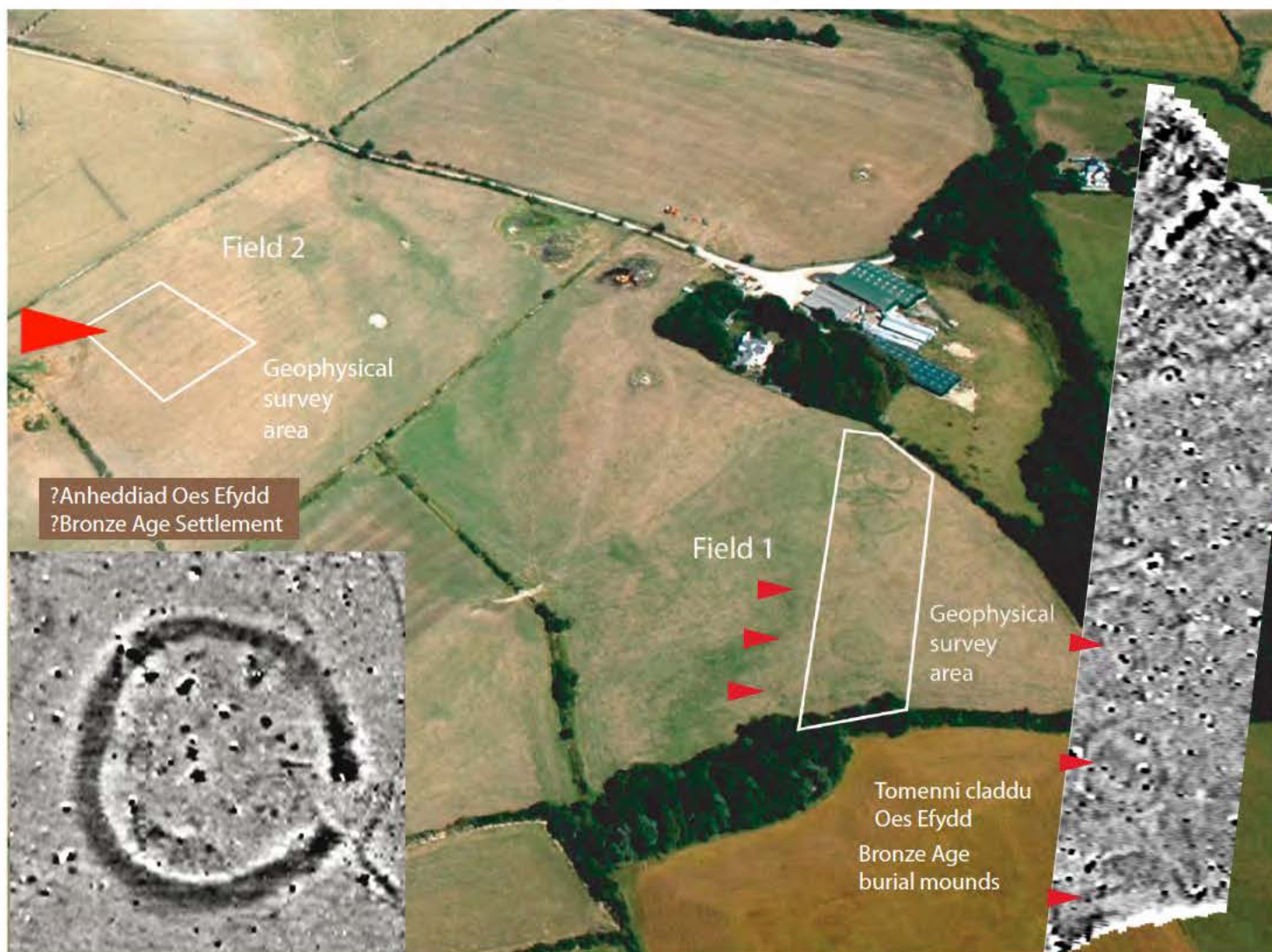


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Prepared for Cadw  
March 2010

By  
George Smith and David Hopewell



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# **THE ANGLESEY COASTAL AREA OF OUTSTANDING NATURAL BEAUTY:**

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Project No. G2076

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Cover picture: Aerial photograph of cropmarks at Carrog, Llanbadrig, Anglesey,  
with geophysical survey overlay.  
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Gwynedd Archaeological Trust**



# **THE ANGLESEY COASTAL AREA OF OUTSTANDING NATURAL BEAUTY: THE ANCIENT LANDSCAPE OF MON - ARCHAEOLOGY SURVEY PROJECT**

George Smith and David Hopewell

## **SUMMARY**

This survey was designed to improve the understanding of the prehistory and early history of Anglesey, particularly the coastal area within or close to the Anglesey Area of Outstanding natural Beauty (AONB). It studies newly discovered elements of the prehistoric and more recent landscape to identify features known only from aerial photographic survey or from antiquarian references. Eight areas were targeted for detailed evaluation by geophysical survey. Of these two were interpreted as possibly of Bronze Age date, two of Iron Age date, one of Roman date and three of possibly Medieval date. These included burial mounds, areas of settlement and possible agricultural activity. Four of these areas will be investigated in more detail by trial excavation in 2010. The project included some educational and public involvement, including a public walk, a display at the 2009 Anglesey show and design of a schools' archaeology event to be held in May 2010. The archaeological part of the project was funded by Cadw and the educational part by the Sustainability Fund for the Anglesey AONB.

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## 1. INTRODUCTION

This project followed on from similar previous successful work on the Llŷn peninsula carried out by Richard Kelly, in which a number of crop mark features seen on aerial photographs were targeted for geophysical survey and trial excavation (Ward and Smith 2001). This provided some significant new information about the prehistory of Llŷn, especially the identification of a Middle Bronze Age settlement at Mellteyrn Uchaf. More recently a series of aerial photographs of new archaeological features have been obtained by Toby Driver of the Royal Commission on Ancient and Historic Monuments in Wales (RCAHMW) during the dry year of 2006 in both Llŷn and Anglesey. Some of the features on the Llŷn have since been studied by geophysical survey, along with another one in Anglesey discovered by Mr John Rowlands and Dafydd Roberts of the aerial survey company Pixaerial. These were a series of small enclosures or defended settlements, believed to be of generally first millennium BC date (Hopewell *et al* 2008). The one example studied in Anglesey, at Ynys Wen near Llanerchymedd was a curvilinear feature, which was shown to be a probably quite well preserved compact homestead of Late Iron-Age/Romano-British type. This work comprised geophysical survey and soil depth testing together with one small trial excavation. These added much detail to the aerial photographic evidence.

The present work on Anglesey intended to study aerial photographic evidence also derived from 2006. It focussed on the coastal area of Anglesey, concentrating on the coastal Area of Outstanding Natural Beauty (AONB) and its vicinity and used photographs provided by both the RCAHMW and Pixaerial (John Rowlands and Dafydd Roberts). Most aerial photographs by the RCAHMW can be viewed on the *Coflein* website and by Pixaerial on the *Pixaerial* website.

## 2. BACKGROUND

Crop marks of archaeological features identified from aerial photography have provided a major increase in knowledge about the early landscape in areas where prolonged intensive agriculture has removed upstanding remains. Such work began with balloon flights and then early military reconnaissance by aeroplane during the First World War. Such work in areas of the Middle East produced stunning pictures of ancient cities and the techniques were developed for use in Europe after 1945, particularly as a result of co-operation between the RAF and Dr J.K. St Joseph of Cambridge University. The best results were obtained on the river gravels of the English Midlands, Yorkshire and East Anglia. In Wales the results were sparser, because of the predominance of grass pasture and the temperate climate, which meant that fields rarely suffered the kind of drought that would produce crop marks. One of the big successes by Dr St. Joseph was the identification of a Neolithic henge and cursus complex at Llandygai near Bangor. More recently frequent survey in occasional suitable conditions has gradually increased the quality and number of photographs. These sometimes relied on drought conditions, but also targeted low light and snow-cover conditions. This has been aided by the introduction of digital photography, which has allowed more numerous image capture and successful shooting in more extreme light conditions.

Anglesey has a special place in the history of North Wales. Its favourable climate, soils and accessible coast made it a focus of settlement from the earliest farming communities at least from the early fourth millennium BC onward, through prehistory into

Medieval times. This is reflected in the variety of ancient sites in the area, from Neolithic tombs to Bronze Age burials and standing stones to Iron Age settlements and hillforts, Medieval inscribed stones, crosses, churches, holy wells and farms incorporating medieval name elements. These individual sites represent just isolated survivals of the wider ancient landscape of fields, tracks and settlements, most of which has been lost due to widespread clearance and remodelling during agricultural improvements and changes during the 18<sup>th</sup> and 19<sup>th</sup> centuries. This early landscape is now being revealed in some detail by aerial photographic survey and closer study of these features can provide a window into the past.

### **3. PROJECT DESIGN**

The project was designed to increase knowledge about the early landscape of Anglesey and to assess the archaeological value and vulnerability of features studied. All the areas of features chosen are situated within fields used for arable or improved pasture and so are potentially at risk from cultivation.

The project included an application for some funding from the Sustainable Development Fund for the Anglesey AONB, administered through Anglesey County Council, and a grant was received to provide public and educational information and activities to accompany the archaeological work.

The project aims to provide interpretative information about a number of major archaeological features recently identified as a result of aerial photographic survey. Some were drought crop marks, others were low-light shadow photographs. The work will add greatly to knowledge about the early landscape of Anglesey, of which much has been lost or obscured by millennia of agricultural clearance and cultivation.

Initial assessment was carried out of all previously recorded crop mark or other unidentified major earthwork features in Anglesey as well as of the recent aerial survey results in and around the Anglesey AONB. This desktop study identified a number of features or areas of features that deserved further investigation. Eight of these were initially chosen for survey. Subsequently two new sites came to light that were of special potential value and these were substituted for two of the original features. One of these, Tai Cochion, Llanidan, a probably important Roman-British settlement, was first discovered by metal detecting although its existence, but not exact whereabouts, was known from antiquarian descriptions. The other, Llys Caswallon, Llaneilian, a possibly important high status Medieval settlement, was also known about from antiquarian records, but its probable site was only recently identified.

The field survey included geophysical survey of these eight areas together with limited soil test pitting to assess the depth and type of topsoil and subsoil associated with the features. The geophysical survey would allow better information about the nature of the features. The soil survey would provide information about variations in the soil cover and about the vulnerability of the features to cultivation. It would also allow some feedback to allow understanding of efficacy and meaning of the geophysical survey results.

The project was designed to take place over two years with a first year of survey and a second year with trial excavation of two sites to provide interpretative and dating evidence as well as publication of the results.

#### 4. OUTREACH WORK

A guided walk was led around Holyhead Mountain Iron Age hillfort and Roman signal station in July 2009 as part of the Council for British Archaeology Festival of British Archaeology. This included production of a bilingual walks leaflet that could have a longer term use, for instance distributed as part of the AONB or the Breakwater Country Park publicity. It was also designed to be downloadable on-line and available on the GAT web-site (Appendix 1). A panel display about the project was also created for the 2009 Anglesey show and updated for use at an AONB Archaeology Day in March 2010 (Appendix 2). Further planned outreach work was curtailed because of WAG financial cut-backs, but in the second year of the project a two day schools archaeology event is planned for May 2010 at Llynnon Mill, in association with Anglesey CC (Appendix 3). Trial excavations will also be carried out with community involvement at Carrog, Llanbadrig, St Mary's Church, Llanfairpwllgwyn and Tai Cochion, Llanidan.

#### 5. ANGLESEY GEOGRAPHY AND HISTORY

The Anglesey County Council website describes the AONB as follows:

*Anglesey covers an area of approximately 720 sq km with an exceptionally long coastline of 201 km (125 miles). The coastal zone of Anglesey was designated as an AONB in 1966 and was confirmed in 1967. It was designated in order to protect the aesthetic appeal and variety of the island's coastal landscape and habitats from inappropriate development.*

*The area of the Anglesey AONB is approximately 220sq km (22,000 hectares), about a third of the whole island, and the largest AONB in Wales.*

*A number of the habitats found on Anglesey are afforded even greater protection both through UK and European designations because of their nature conservation value, these include:*

- 6 candidate Special Areas of Conservation (cSACs)
- 4 Special Protection Areas (SPAs)
- 1 National Nature Reserve
- 26 Sites of Special Scientific Interest (SSSI)
- 52 Scheduled Ancient Monuments (SAMs)

Anglesey has a complex and unusual geological background with several sites of international importance. It also has relatively good soils, compared to the mainland and has a milder climate with a longer growing season, important for ripening cereal crops. It therefore has good agricultural potential, which was important for the earliest prehistoric farmers. The coast itself provided an important food resource for the Mesolithic hunter/gatherer communities that first colonised the area after the ice age and they spread along the coast as did the first Neolithic agriculturalists. At the time of the earliest settlement, sea-levels were lower and Anglesey was joined to the mainland. Much of the earlier coastline, and therefore many of the coastal exploitation sites, has therefore been submerged and remnants of preserved land surfaces are to be found in the lower

intertidal zone. The earliest farmers clearly recognised and were attracted by the quality of the land and settled Anglesey quite densely, to judge by the number of tombs of that period to be found there, one of the most significant concentrations of such tombs in Western Britain (Lynch 1969). This high density of settlement continued through the millennia and estimates of population in the Later Iron Age and Romano-British period suggest that the landscape was farmed as intensively as in the present day and perhaps more so in that many areas of former arable cultivation have now been given over to pasture.

The intensity of cultivation over the millennia, and particularly the large scale revision of the farming landscape in the 18<sup>th</sup> and 19<sup>th</sup> centuries meant that earlier field patterns and many archaeological remains were destroyed or cleared away. Those earlier features that survived were in marginal land and therefore perhaps not representative of the wider pattern, or were monuments of such magnitude or renown that they were left alone. These included many standing stones and megalithic tombs. Remains of actual settlement from the Neolithic and Bronze Age, which left little visible evidence, were totally unknown before modern archaeological research took place. Known settlement was confined to that of the Iron Age, represented by hillforts, enclosed settlements and some unenclosed stone-built roundhouses. Even so, the evidence provided by a transect across the island provided by the construction of the A55 trunk road (Hughes and Davidson forthcoming), and by recent large scale excavations on Holy island in advance of development (Kenney *pers. Com.*) indicated that many hundreds more Iron Age settlements must have existed than are known. There is therefore a large gap in knowledge about the early landscape of Anglesey and the study of crop marks provides another way to help understand it. Continued aerial survey can fill out the pattern of the early landscape, but it is necessary to follow up such survey by ground investigation in order to test the features discovered. This investigation can identify what the photographic evidence actually represents, whether the features are natural or man-made and if the latter, of what date and function. These are the aims of the present project.

## **6. PRELIMINARY DESKTOP STUDY**

A search was made for all the sites in Anglesey recorded as crop marks on the Gwynedd Historic Environment record (HER) and a database also made of all sites within the AONB area recorded on the HER (Fig. 1). The study aimed to concentrate on features identified as result of recent aerial survey but others were also considered since the HER already included some features seen on monochrome aerial photographs, which not been investigated. The search produced 23 features or areas of features (Table 1) a few of which have already been studied as part of other archaeological projects although most still need further investigation. Most are fairly small isolated features but two deserved consideration. The first was PRN 5198 a sub-circular enclosure about 35m diameter, near to Amlwch. This was set on a terrace on a low hillside and interpreted as possibly a small Iron Age settlement. The second was very large circular enclosure, about 120m diameter close to Aberffraw. This enclosure is set on level ground and has a smaller ring ditch about 15m diameter towards one side within it. This was interpreted as a possible Bronze Age settlement or ceremonial site. However, neither of these was eventually chosen. The former was a relatively small feature and indeterminate. The second was potentially an important feature, but was not visible on any more recent colour aerial photographs so was somewhat uncertain and it

was decided that it should be left until more conclusive photographic evidence was obtained.

**Table 1 Archaeological crop mark features in Anglesey**

<b>PRN</b>	<b>Description</b>	<b>Source</b>
1642	Circular. NW of Trefdraeth. Indeterminate, possibly a natural glacial feature	GAT ground obs.
1716	Circular. Bodffordd	GAT AP
2026	Possible settlement. Garnedd, Llanfaethlu	RAF undated
2038	Enclosure. Bodernog, Cylch y Garn.	RAF 1945
2039	Ditch, rectangular plan. Cae Du, Llanfaethlu.	RAF 1945
2056	Crop mark and earthwork enclosure. Castell, Valley. Geophysical survey 2002	GAT AP
2092	Possible settlement enclosure. Mae Meredydd Uchaf, Rhosybol	RAF 1946
2105	Enclosure. Tre-wyn, Rhosybol	RAF 1945
3042	Circular. Near Ty Newydd chambered tomb	RAF 1946
3079	Crop marks. North of Rhuddgaer. Possible IA/RB settlement	Ord. Survey
3154	Circular. Llanidan	Camb AP 1966
3169	Circular. south of Hen-dy, Llangaffo	Private ground obs
3585	Circular. E of Ty Hen Newydd, Llanerchymedd	No info.
5198	Ring ditch. Probable hut circle settlement, SW of Rhos Isaf.	RCAHMW 1990
5199	Enclosure. Werthyr, Amlwch	RCAHMW 1990
5759	Circular. Possibly natural, Ty Mawr, LlanfairPG	CCW AP
5760	Circular enclosure. Ty Mawr, LlanfairPG	CCW AP
5766	Crop mark. Unspecified, Llanbabo	GAT AP 1995
6642	D-shaped. Valley	CCW 1993
7361	Circular and linear. Unidentified, Llanfair Mathafarn Eithaf	Talwrn ground obs
7393	Circular. Hendre Hywel, Llandyffnan	Talwrn ground obs
7396	Circular. Penmynydd	Talwrn ground obs
7874	Large circular. Unidentified, Aberffraw	RAF 1945

Recorded crop marks tend to be of three main types, first small ring ditches, which may be the remains of burial mounds or hut circles, second larger discrete enclosures, circular or rectilinear, which may be settlements, third complexes of linear features, which may be old field systems or more extensive open settlements. The main focus of the recent research in Llŷn and of the present Anglesey project has been crop marks of the second type, which comprises probable settlement enclosures. Most of these can be expected to belong to the first millennium BC although some could have continued into the Romano-British or even Early Medieval periods.

The following areas were those finally selected for survey:

1. St Mary's Church, Llanfairpwllgwyn. NPRN 405365. Sub-rectangular enclosure, c. 30m square. Probable Iron Age settlement. Previous surface find of an Early Medieval bronze pin nearby. RCAHMW aerial survey 2006 showing drought marks in grass pasture.

2. Fodol, Llanidan. NPRN 405372. Possible sub-circular bivallate enclosure, c. 100m dia. Probable IA/RB defended settlement. RCAHMW aerial survey 2006 showing drought marks in ripening cereal crop.
3. Tai Cochion, Llanidan. Probable Romano-British settlement. Antiquarian references, metal detectorist finds and surface finds after ploughing.
4. Bod-Gyffai, Llanfaelog. NPRN 402768. Probable IA/RB hilltop enclosed/defended settlement. Pixaerial photo January 2005 and RCAHMW photo 2006, both showing low light shadow features in partly improved grass pasture.
5. Porth Tywyn Mawr, Llanfaethlu. Large curvilinear enclosure with smaller curvilinear and rectilinear enclosures, possibly representing IA/RB enclosed settlements. Pixaerial aerial survey July 2005, when very dry, showing drought marks in grassed-over stubble.
6. Carrog Farm, Llanbadrig. Several sub-circular enclosures, the largest c. 50m dia, all too large for roundhouses, in two adjoining fields. Interpretation uncertain. Pixaerial aerial survey August 2006 when very dry, showing drought marks in cereal crops.
7. Bryn Dyfrydog, Rhosybol. Probable large sub-circular enclosure, c. 80m dia.. Possible Bronze Age settlement or ceremonial enclosure. Close to Maen Chwyf chambered tomb and to a standing stone. Pixaerial aerial survey December 2005, when wet, showing low light shadow features.
8. Llys Caswallon, Mynydd Llanelian, Llanelian. Small rectilinear settlement enclosure. Antiquarian references and newly identified earthwork features.

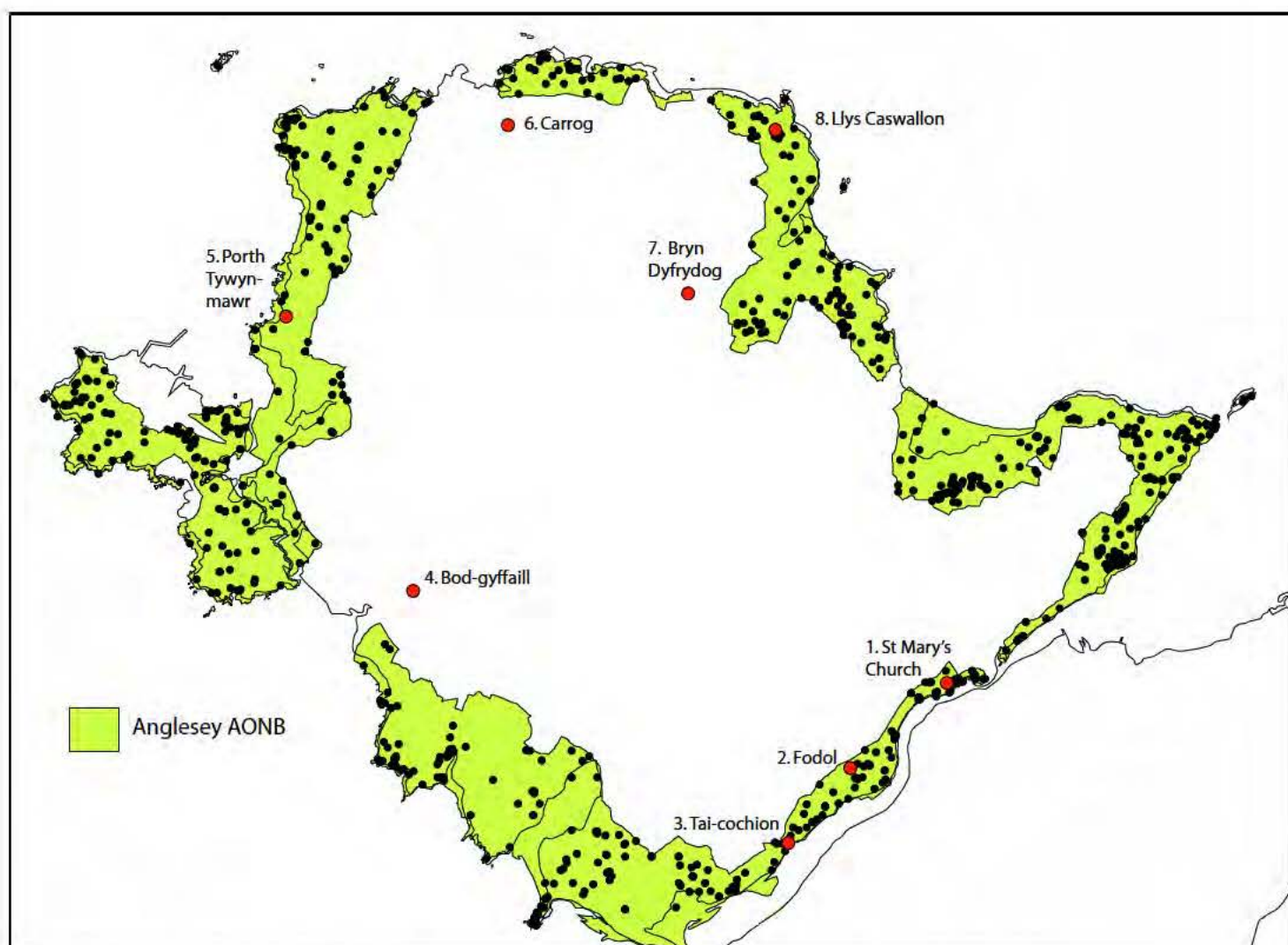


Fig. 1 The distribution of all recorded archaeological sites (black dots) within the Anglesey AONB and the location of the areas studied (1-8)

## **7. GEOPHYSICS METHODOLOGY**

Fluxgate gradiometer survey provides a relatively swift and completely non-invasive method of surveying large areas.

### ***Instrumentation***

A Bartington Grad601 dual gradiometer was used to carry out the surveys. Gradiometers detect variations in the earth's magnetic field caused by the presence of iron in the soil. This is usually in the form of weakly magnetised iron oxides which tend to be concentrated in the topsoil. Features cut into the subsoil and backfilled or silted with topsoil therefore contain greater amounts of iron and can therefore be detected with the gradiometer. This is a simplified description as there are other processes and materials which can produce detectable anomalies. The most obvious is the presence of pieces of iron in the soil or immediate environs which usually produce very high readings and can mask the relatively weak readings produced by variations in the soil. Strong readings are also produced by archaeological features such as hearths or kilns as fired clay acquires a permanent magnetic field upon cooling. Not all surveys can produce good results as results can be masked by large magnetic variations in the bedrock or soil and in some cases, there may be little variation between the topsoil and subsoil resulting in undetectable features.

The gradiometers are hand held instruments and readings can be taken automatically as the operator walks at a constant speed along a series of fixed length traverses. The sensors on the Grad 601 consist of two vertically aligned fluxgates set 1.0m apart. Their cores are driven in and out of magnetic saturation by a 1,000Hz alternating current passing through two opposing driver coils. As the cores come out of saturation, the external magnetic field can enter them producing an electrical pulse proportional to the field strength in a sensor coil. The high frequency of the detection cycle produces what is in effect a continuous output.

The gradiometer can detect anomalies down to a depth of approximately one metre. The magnetic variations are measured in nanoTeslas (nT). The earth's magnetic field strength is about 48,000 nT, typical archaeological features produce readings of below 15nT although burnt features and iron objects can result in changes of several hundred nT. The machine is capable of detecting changes as low as 0.1nT.

### ***Data Collection***

The gradiometer includes an on-board data-logger. Readings in the surveys were taken along parallel traverses of one axis of a 20m x 20m grid. Two resolutions were used. Standard resolution was used for surveying larger areas. The traverse interval was one metre and readings were logged at intervals of 0.5m along each traverse giving 800 readings per grid. Smaller areas or features of interest were surveyed at high resolution with a traverse interval of 0.5m and a sample interval of 0.25m giving 1600 readings per grid.

## Data presentation

The data is transferred from the data-logger to a computer where it is compiled and processed using ArcheoSurveyor 2.5 software. The results are presented as grey-scale plots and interpretation drawings.

On a grey-scale plot data values are represented by modulation of the intensity of a grey scale within a rectangular area corresponding to the data collection point within the grid. This produces a plan view of the survey and allows subtle changes in the data to be displayed.

## ***Data Processing***

The data is presented with a minimum of processing. High readings caused by stray pieces of iron, fences, etc are usually modified on the grey-scale plot as they have a tendency to compress the rest of the data. The data is however carefully examined before this procedure is carried out as kilns and other burnt features can produce similar readings. Corrections are also made to compensate for instrument drift and other data collection inconsistencies. Any further processing is noted in relation to the individual plot.

## **8. FIELDWORK: ST MARY'S CHURCH, LLANFAIRPWLLGWYN**

SH 53577116

### **Introduction**

This feature lies within farmland belonging to the Plas Newydd estate. It was discovered during aerial survey by Toby Driver of the RCAHMS during the summer of 2006 when a prolonged dry period produced new crop marks in Anglesey. This is an area where the predominance of pasture, clayey subsoils and damp climate mean that crop marks are rarely produced. The unusual dry conditions produced some scorching even of permanent pasture, leaving some underground features visible as areas of darker green grass as was the case at St Mary's Church.

The feature visible was a sub-rectangular enclosure about 40m by 40m with rounded corners. This seemed to represent a substantial ditch with a probable entrance at the east side (Fig. 3).

Thanks go to Lord Anglesey for permission to carry out the survey.

### **Topographic location**

The enclosure lies at a height of 10m OD on a natural, approximately level promontory within more sloping land at the edge of the Menai Straits (Fig. 2). The bedrock is metamorphic serpentine in the area of the enclosure and schist in the adjoining field higher up slope (HMSO 1972). The area has a cover of glacial gravel drift (HMSO 1974) and the soil is a brown earth (Soil Survey 1958), the land classified as of Grade 3 (MAFF 1977), land of fairly good quality suitable for general arable production.

The fields around are improved pasture with a number of lynchet terraces and possible slight 'ridge and furrow' that suggest that the fields were arable plough land in the past and were divided into a number of smaller fields than at present. The present large fields derive from amalgamation in the 19<sup>th</sup> century when they probably became permanent pasture.

St Mary's church is a 19<sup>th</sup> century structure and lies in a small valley next to a spring, which rises within the graveyard at the west side of the church. This would have been an important source of fresh water for a nearby settlement.

### **Magnetometer survey results (Figs 4 and 5)**

An area of 100m x 60m was surveyed at high resolution (0.5 x 0.25m). Background noise levels varied from moderate to high across the survey area.

A sub-circular anomaly (1) with a diameter of 45m is best interpreted as a ditched enclosure. The ditch is 3m wide with a 2.8m wide entrance on the eastern side. A slight anomaly (2) inside the northern side could indicate a ploughed out rampart but this cannot be traced elsewhere in the enclosure due to the effects of other features. Two faint areas of noise (3 and 4) could indicate roundhouses but the high levels of noise make definite interpretation difficult. An area of noise (5) runs across the centre of the survey. This could be produced by magnetic bedrock or a variation in the subsoil. The

part of ditch (1) that coincides with the noise produced a relatively weak response. This may indicate that the noise is a result of either the infilling of a hollow with imported soil or material from a spread field boundary either of which could partially mask the response from the ditch. The latter hypothesis is supported by the differing orientation of ridge and furrow (6 and 7) to either side of the feature.

There are three positive linear anomalies (8, 9 and 10) at the eastern end of the survey all of which are best interpreted as ditches. Ditch 8 may not extend beyond the enclosure (1) and could represent a recutting of the ditch but a wider survey would be needed to confirm this. Anomaly 9 is a faint curvilinear ditch that runs across a natural slope that is best interpreted as a drain. Anomaly 10 is aligned with the ridge and furrow and could be a contemporary boundary. Three negative anomalies (11 to 13) were detected in the north-western corner of the survey. Negative anomalies often indicate buried stone features, 11 and 12 may therefore be stone filled drains. Anomaly 13 appears to form one corner of a square or rectangular feature. Further survey would be needed to determine its extent. It is most likely to be an agricultural or parkland feature associated with Plas Newydd estate.

## Discussion

The feature visible on the aerial photograph produced a clear geophysical anomaly that is best interpreted as a ditch enclosing a prehistoric defended enclosure. Little is visible of interior features due to high levels of magnetic material in the topsoil. The survey also detected well-defined ridge and furrow and several other undated drains and former field boundaries

## Soil study

Three soil pits, a, b and c were dug outside the enclosure to test the depth and type of topsoil and subsoil (Fig. 5).

There was a good depth of stone-free soil in each, representing a considerable period of pasture without ploughing. This turf line overlay an old stony ploughsoil, which contained 19<sup>th</sup> century pottery fragments.

- Pit a    Turf depth 0 to -0.20m. Dark brown stone-free silt.  
          Ploughsoil -0.20 to -0.45m Dark brown silt with 20% subangular stone and rounded gravel up to 150mm long.  
          Subsoil at -0.45m Mid-brown sandy silt with 95% subangular stone up 150mm long and rounded gravel.
- Pit b    Turf depth 0 to -0.15m. As Pit a.  
          Ploughsoil -0.15 to -0.20m. As Pit a.  
          Stony horizon -0.20 to -0.35m. Densely packed stones up to 200mm long.  
          Subsoil at -0.35m+. As Pit a.
- Pit c    Turf depth 0 to -0.15m. As Pit a.  
          Ploughsoil -0.15 to -0.30m. As Pit a.  
          Silty horizon not bottomed at -0.62m. Similar to ploughsoil but with fewer stones.  
          Too dark to be glacial gravel. Possibly the fill of a feature such as a field ditch.

## Discussion

The location of the St Mary's church crop mark is suitable for a settlement, on a natural terrace, with good access to fresh water and with views over the Menai Straits. More significantly it lies within a relatively small area of better quality land with better drained soils over a locally limited area of glacial gravels, as opposed to the more widespread clayey drift. This and the presence of plough lynchets and ridge and furrow shows that the land here has been used fairly intensively for arable in the past and has more agricultural potential than suggested by the broad agricultural land classification of the area.

The ridge and furrow overlies the enclosure and relates to a former field boundary that incorporated one edge of the enclosure bank so is clearly later than the enclosure. The boundary corresponds to a field enclosure seen on the Tithe map of 1840 (Fig. 6). The fields defined by the lynchets are of some size and length. Presuming that this enclosure is of Iron Age or Romano-British date then it would be expected to be associated with small rectangular fields. A measured survey or more extensive geophysical survey of this area might produce evidence of such earlier fields.

The enclosure is of a recognisable type of small sub-circular or sub-rectilinear shape, with a substantial ditch (and presumably substantial bank) with an internal area of about 0.1ha (0.25acre) and with possibly two houses within the enclosure rather than incorporated in the surrounding bank. These type of enclosures appear to small homesteads and further analysis may reveal that they are distinguishable as a size class from, but closely comparable to, similar larger enclosures, such as that of Bryn Eryr, Llansadwrn, Anglesey, of 0.3ha (0.75 acre) internal area (Longley 1998). Bryn Eryr and other native settlements continued to be occupied during the period of Roman occupation and there is evidence from some for even later use. This possibility here may have some support from the chance discovery of a decorated bronze pin reported to be at a depth of 9ft (although this seems unlikely), during excavation of a new grave at St Mary's Church in the early 20<sup>th</sup> century. The church is situated in a small valley and perhaps developed around the well there, with which the pin may also be associated or perhaps have come from an earlier burial on the site. The pin (Fig. 7) is dated to about the 10<sup>th</sup> century AD (Fox 1940) and one of a number of finds from Wales of the Early Christian period of Hiberno-Norse type, thought to indicate trading activity (Redknap 1991, 33 and 1994, 69).

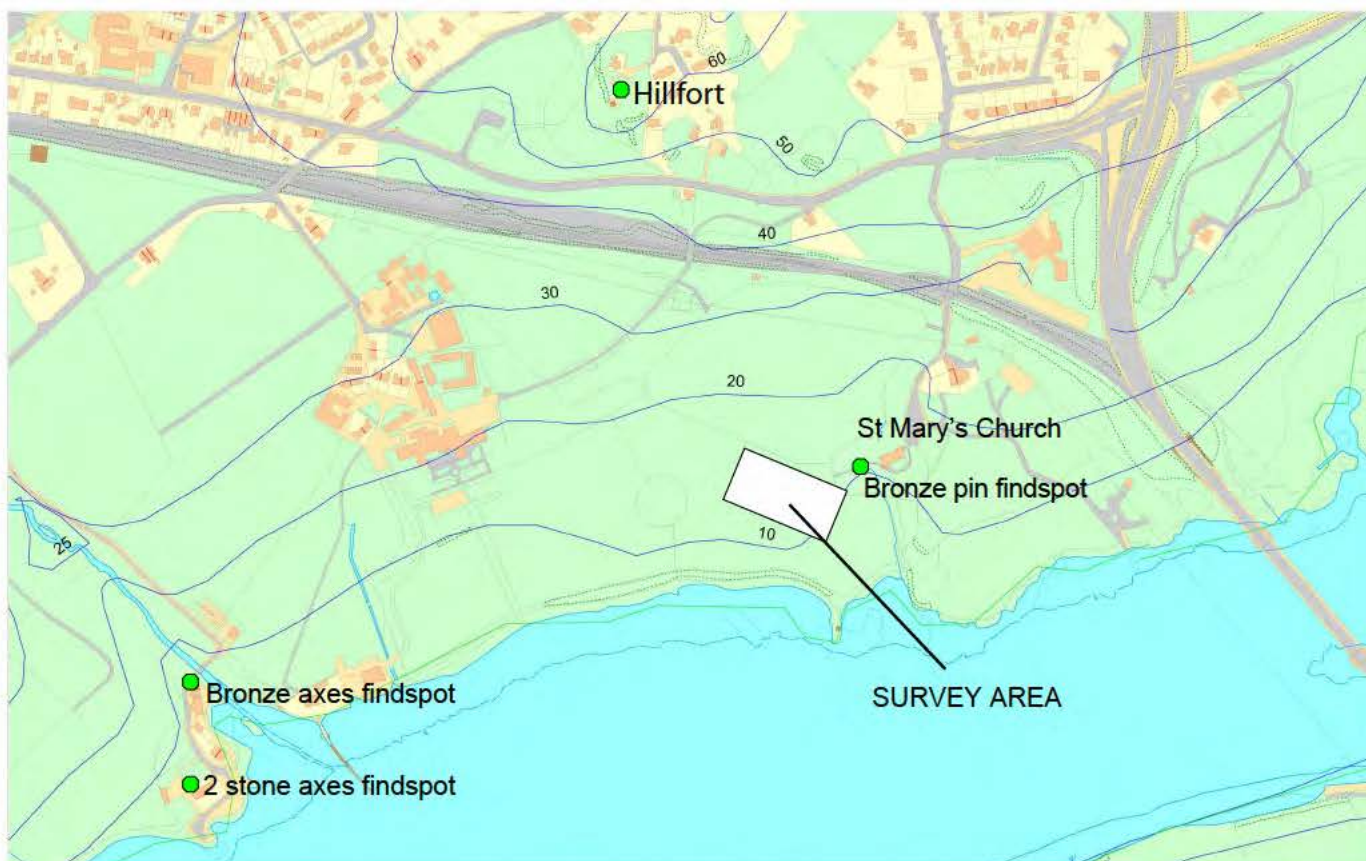


Fig. 2 St. Mary's Church, Llanfairpwllgwyn. Location map



Fig. 3 St. Mary's Church, Llanfairpwllgwyn. Aerial photograph, from the north-east.  
Copyright RCAHMW

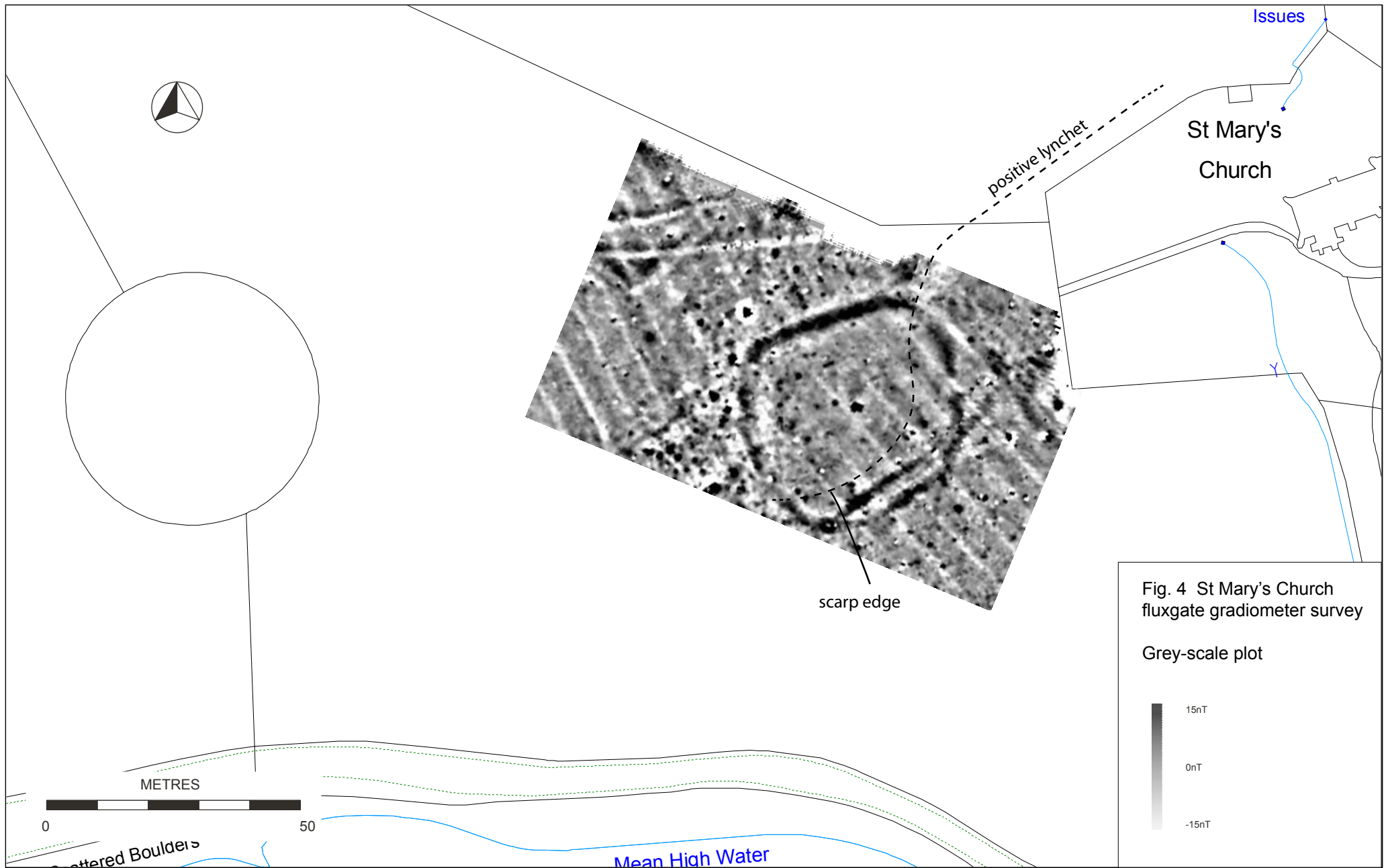


Fig. 4 St. Mary's Church, Llanfairpwllgwyn. Fluxgate gradiometer survey. Grey-scale plot

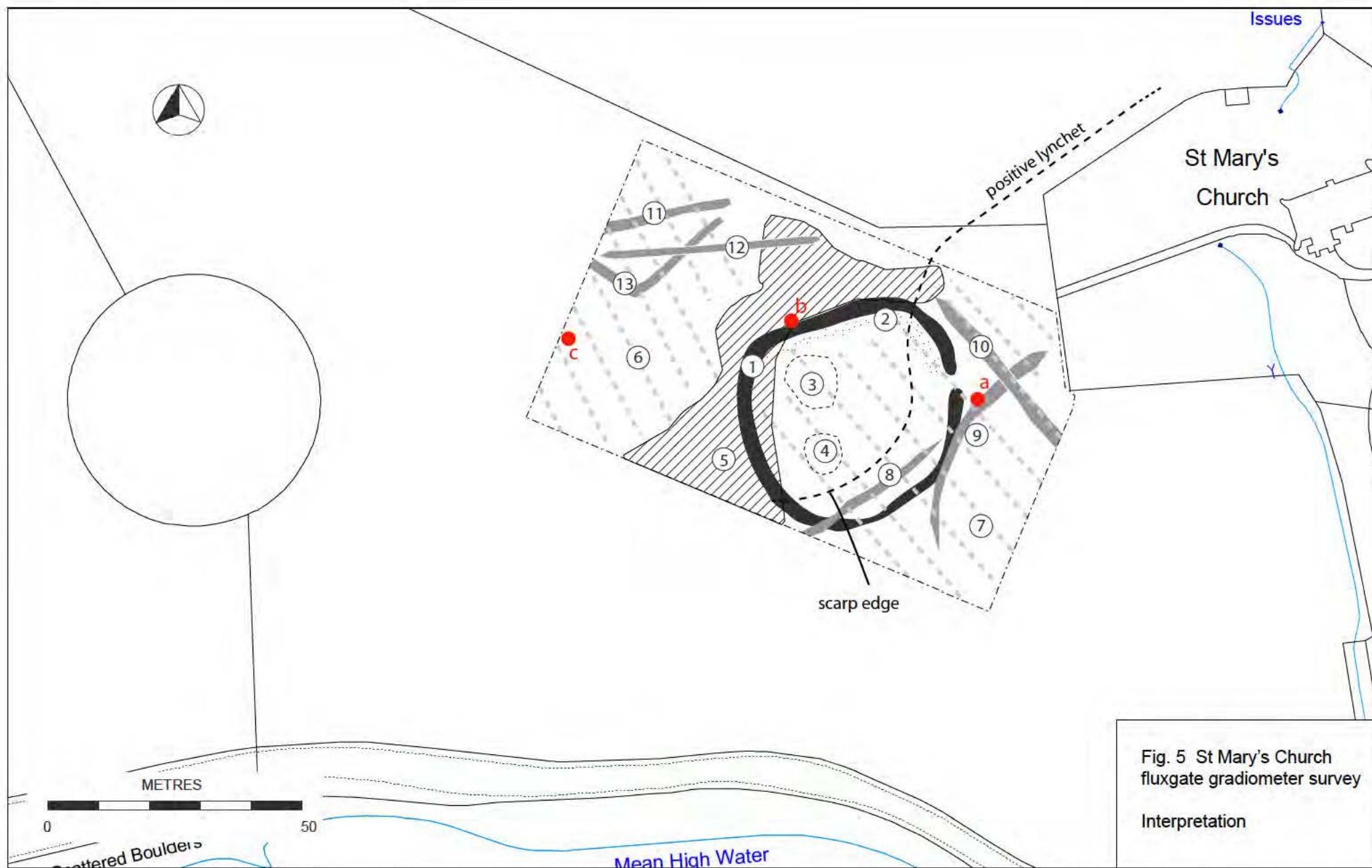


Fig. 5 St Mary's Church  
fluxgate gradiometer survey  
Interpretation

Fig. 5 St. Mary's Church, Llanfairpwllgwyn. Fluxgate gradiometer survey. Interpretation and location of soil test pits (a-c)



Fig. 6 St. Mary's Church, Llanfairpwllgwyn. Tithe map, 1840

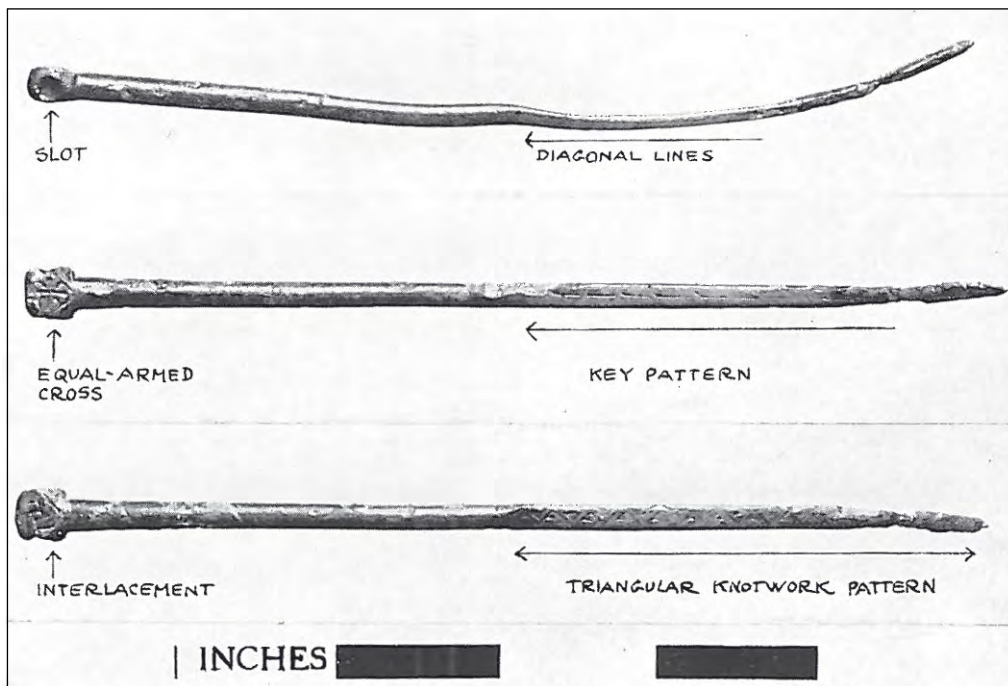


Fig. 7 St. Mary's Church, Llanfairpwllgwyn. 10th century AD Irish-type decorated, ring-headed pin (ring-missing), found in the church yard

## 9. FIELDWORK: FODOL, LLANIDAN

SH 50216837

### Introduction

This site was discovered during aerial survey by Toby Driver of the RCAHMW in 2006. It was photographed during an exceptional dry period and showed as parch marks in the crop, possibly after cutting for silage (Fig. 9). These marks suggested a large sub-circular enclosure with some possible internal features, all partly cut by an adjoining minor road. The RCAHMW description was as follows:

'Crop mark of a bivallate, polygonal defended enclosure, occupying the edge of a rounded summit, partly overlain by Fodol farm. The enclosure measures approx. 94m N/S x 70m E/W. The ditches are well-executed and parallel where they can be seen along the south-western side. The north-eastern extents cannot be traced and may survive below the minor road. In morphology and general dimensions the enclosure appears very similar to the Romanized defended settlement of Caer Leb (NPRN 95536) nearby. Discovered during RCAHMW aerial reconnaissance on 25th July 2006.' (T. Driver).

Thanks go to Fodol Farm for permission to carry out the survey.

### Topographic location

The possible enclosure lies at a height of 50m OD on a gentle south-east facing slope which continues down to the Menai Strait about 1300m to the south-east (Fig. 8). The bedrock is carboniferous limestone (HMSO 1972). The hill on which the feature lies has cover of drift consisting of boulder clay (HMSO 1974) and the soil is a brown earth over drift over the calcareous bedrock (Soil Survey 1958). The land is of good agricultural quality classified as of Grade 3 (MAFF 1977), suitable for general arable crops. The fields around are arable, cropped regularly for cereals and silage.

The field pattern is one of large, approximately rectangular fields with some curving boundaries, which are probably remnants of an earlier pattern and of which the adjoining winding minor road is the most obvious.

The whole area of this low ridge of limestone has good soils and is a favoured one agriculturally and the presence of many sites of all periods shows that it was well-settled in prehistory from the Neolithic period on. The long continuation of arable farming means that many earlier features must have been lost or left as subsoil features. Two that have survived are the Iron Age defended enclosures at Caer Idris, 800m to the west and at Porthamel, 800m to the east. There is also a place name 500m to the east, *Llys Llywarch ap Bran*, that suggests the presence somewhere nearby of a high status Medieval settlement.

Study of the site of the crop mark on the ground showed some earthwork features that were recorded by rapid survey. The main one was a large shallow sub-circular hollow or platform about 20m diameter in the hillside, approximately central to the crop mark. This had the potential to be a settlement terrace. Below it, to the south-east, was a low slight

ridge lying approximately on the outer line of the crop mark, where an enclosure bank might be expected and there was another slight irregular wandering terrace to the west.

### **Magnetometer survey results (Figs 10 and 11)**

An area of 80m x 80m was surveyed at standard resolution (1.0 x 0.5m). Background noise levels were fairly high but there was no obvious interference from bedrock.

An iron pipeline (1) produced a strong anomaly thus masking all other features along an 8m wide strip of the field. Two major anomalies (2 and 3) are best interpreted as former field boundaries. A further linear anomaly (4) running parallel to the modern road could be another boundary in the same field system. A poorly defined anomaly (5) when viewed alongside a spur and kink on boundary 2 may account for the circular cropmark. The cropmark is most likely to be the result of a combination of features associated with the former field system although it is possible that the boundaries overlie an earlier enclosure. Linear anomaly 7 is probably a continuation of boundary 3. Two further boundaries or other cut features (8 and 9) converge in an area of noise (10) that could be disturbance dating from the laying of the pipe. Another possible boundary (11) is aligned with the hedge on the other side of the road suggesting it is relatively recent. A further faint anomaly (12) runs parallel to this and may be another, earlier, boundary. An irregular anomaly (13) is best interpreted as a back-filled quarry pit.

### **Discussion**

The survey detected a series of undated former field boundaries, cut by a modern pipeline. The circular cropmark, initially interpreted as a bivallate enclosure, appears to be principally a result of intersecting field boundaries. There is a slight possibility that the central part of the cropmark is the remains of an early enclosure that is partially masked by the later boundaries and pipeline.

### **Soil study**

Three soil pits were excavated to test the depth and type of topsoil and subsoil. Pit a was close to the outside line of the enclosure, Pit b within the central hollow and Pit c in the space between the 'outer' enclosure and the central hollow (Fig. 11).

- Pit a    0-40cm Plough soil. Red-brown silt with c. 5% small gravel and other small subangular stones, including schist up to 50mm long.  
          40cm+ Subsoil. Yellow-brown clayey silt with c. 5% gravel and other small subangular stones, including schist up to 50mm long.
- Pit b    0-36cm Plough soil. As Pit a.  
          36cm+ Subsoil. Limestone bedrock.
- Pit c    0-35cm Ploughsoil. As Pit a.  
          35-45cm Red-brown clayey silt.  
          45cm-59cm Bedrock? Subangular limestone.

The soil is of good depth showing that normal ploughing will not disturb any archaeological features that in any case might be protected from erosion if they are cut into the limestone bedrock.

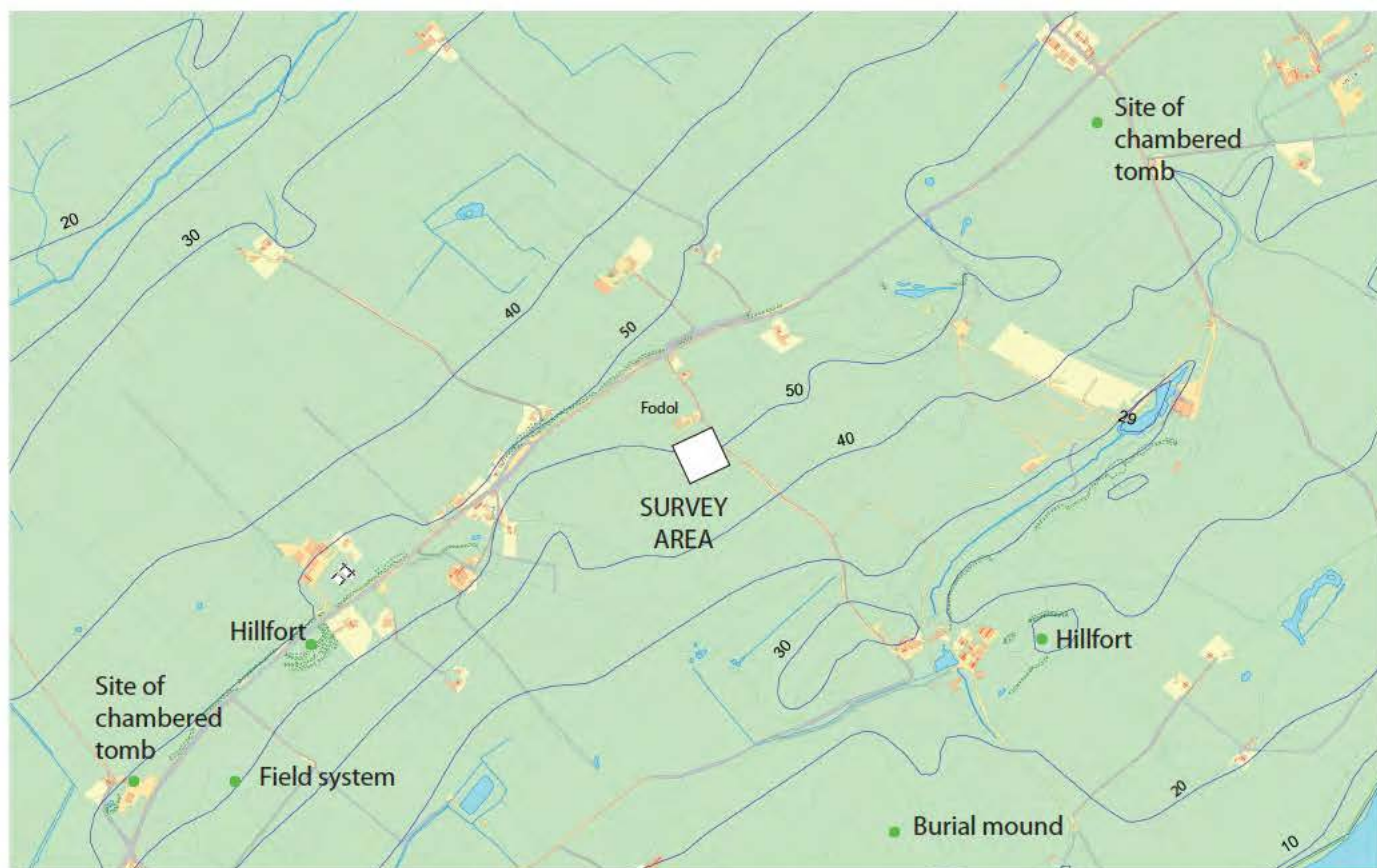


Fig. 8 Fodol, Llanidan. Location map



Fig. 9 Fodol, Llanidan. Aerial photograph, from the south-east.  
Copyright RCAHMW

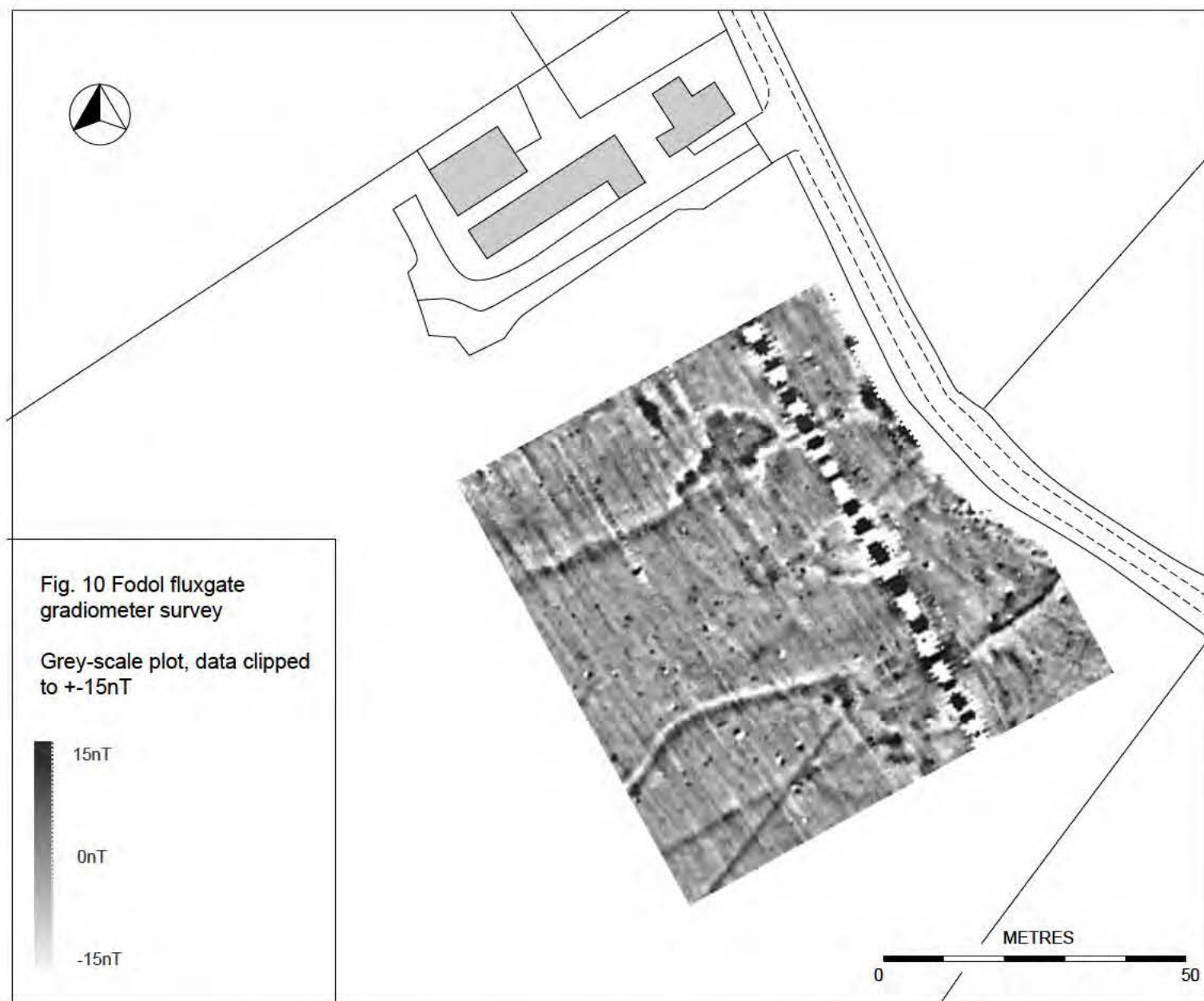
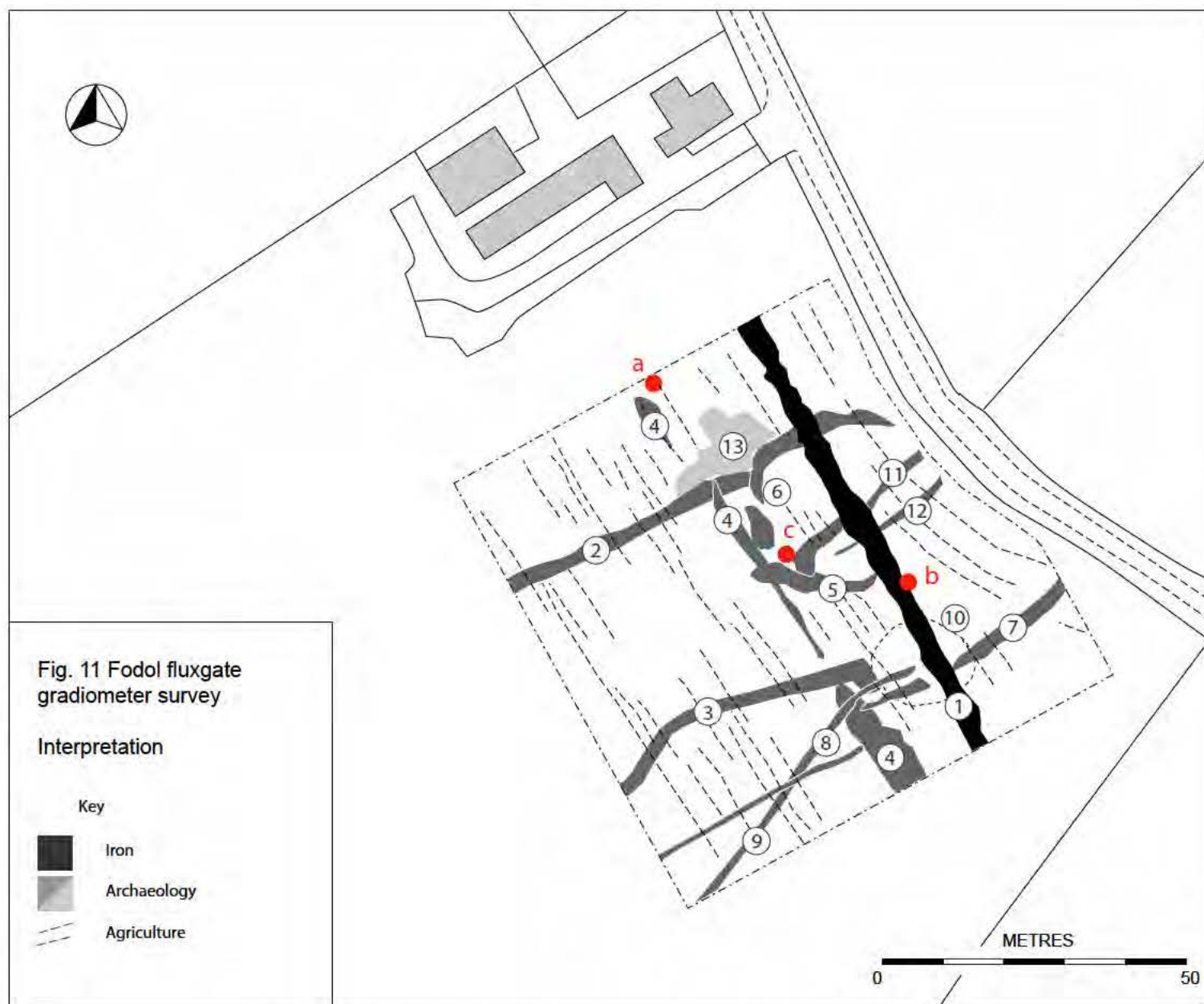


Fig. 10 Fodol, Llanidan. Fluxgate gradiometer survey. Grey scale plot





## **10. FIELDWORK: TAI COCHION, LLANIDAN**

SH 47636555

### **Introduction**

A large number of Roman coins, fibulae, pieces of Samian ware and other Roman material have been found in four fields around Tai Cochion, near Brynsiencyn, Anglesey, some of which have been reported to the Portable Antiquities Scheme. A geophysical survey of the area of the finds was carried out in 2008-9 by David Hopewell of GAT and John Burman as part of the Cadw Roman Military sites project (G1632) and described in GAT Report No. 778. The survey showed a road flanked by house plots with rectangular buildings and yards, suggesting a Roman civilian settlement. The settlement pattern indicated that it continued further to the east. An additional area was therefore surveyed as part of the Anglesey AONB project in order to identify the limits of the settlement. This further survey, described here in outline, showed that the settlement was of considerable extent and continued even further. Additional funds were later received from Cadw to carry out further geophysical survey to identify the limits of the settlement and the overall results are described here.

Thanks are due to the landowners who allowed us access to the sites; Mr Peter Rogers at Tai Cochion, Mr Jack Roberts at Trefarthen and Mr Speers at Barras.

### **Topographic location**

The features lie on gently sloping fields between 10-15m OD, about 200m north of the Menai Straits (Fig. 12).

The underlying bedrock is limestone (HMSO 1972) with a covering of boulder clay drift (HMSO 1974). The soil is a brown earth (Pentraeth Series) (Soil Survey 1958). The agricultural quality of the land is classified as of Grade 4 (MAFF 1977) which is land mainly suitable for intensive pasture but the land is used partly for cereal cultivation and partly for grass silage crops.

The field pattern is of smallish sub-rectangular fields with some curvilinear boundaries in the western while to the east, part of Trefarthen Estate, the fields are very large with straight boundaries and rectilinear outline.

### **Historic background**

Metal detectorists have reported finds of large amounts of Roman metalwork from fields around Tai Cochion close to the Anglesey shore of the Menai Strait. The finds were most frequent in the field between Tai Cochion house and the Anglesey Sea Zoo. It was decided to investigate the site using gradiometer survey along with surface finds collection and documentary research. The survey has been carried out in three phases by the writer with assistance from John Burman (Merioneth Geophysical Research

Team) and George Smith (GAT). The first phase was part of the Cadw grant aided, pan-Wales Roman military sites project (Hopewell 2009, Gat report 778) the second, part of the Anglesey AONB (G2076) project and the third funded by a Cadw contingency grant, again as part of the Roman military sites project (G1632). This report relates to phases two and three but contains survey information from all three phases of the project. The project is expected to continue with further documentary research and a programme of excavation in 2010/11. The finds collection and documentary research from phase 1 are not reproduced in full here. A collection of 207 sherds of Roman pottery was made during the phase 1 geophysics. These were examined by Peter Webster and were found to have a date range of c. AD 100 to c. AD 300. The majority was high status 2nd century material suggesting the presence of a Roman site of some importance.

### **Earthwork survey**

A few slight features in the surface of the field were surveyed while the geophysics grid was in place. One was a low, slightly waterlogged area. One was a broad slightly raised area, one was a curving linear raised area and one was a curving slight terrace. These latter three corresponded to features identified by the geophysical survey, the first was an enclosure boundary and the other two were roads.

### **Magnetometer survey results (Figs 13 and 14)**

The first phase of the survey concentrated on the field between Tai Cochion and Barras. This was arable land and was not suitable for survey for most of the year because it was either under crop or too wet and muddy. The surface of the ground was frozen during a week of sub-zero temperatures at the beginning of January 2009 and the survey was then carried out. An irregular area with dimensions of 220m x 210m was surveyed at standard (1.0m x 0.5m) resolution. The second and third phases were designed to trace the extent of the settlement revealed in the earlier survey. The survey was expanded to cover an irregular area of about 750m x 200m with a total area of 16 ha. Survey conditions in these fields were good, with short grass and few obstacles.

The results and interpretation are shown on Figs 13 and 14. The survey produced clear results and detected highly complex archaeology across most of the survey area. The greyscale plot shows many overlapping features and areas of increased noise. Gradiometer survey presents a two dimensional picture of buried remains that does not usually allow different phases to be distinguished. In the present survey there are some areas that cannot be interpreted with certainty because several phases are superimposed and are therefore indistinguishable from each other. The interpretation diagram indicates more definite anomalies and indicates areas of activity without attempting to define all of the fine detail.

A roughly linear anomaly (1) runs for 590m from the boundary to the east of Tai Cochion to the shore of the Menai Strait. This is almost certainly a road, possibly with short spurs (2 and 3) running to the north and a fork to the south-west. The road is flanked by a series of small enclosures, plots or fields with typical dimensions of about 20m x 40m that were probably delineated by small ditches (e.g. 5-7). The enclosures show signs of a range of activity. Many contain fairly clear rectangular anomalies that are best interpreted as buildings, with typical dimensions of around 16m x 8m (e.g. 8, 9 and 10). Others appear to be more complex buildings (11 and 12) and one area (13) appears to contain multiple phases although there could be some interference from geology in this

case. This regular settlement pattern is less evident on the north side of the Roman road as it approaches the Menai Strait. Fairly well defined rectangular buildings are still visible (14 and 15) but the plots are less regular and some areas appear to contain several phases producing areas of noise (16) that are difficult to interpret. There are further enclosures to the north (17 and 18), along with a possible side-road (19). There are, however, no well-defined buildings here. The main part of the settlement seems to be delineated by ditches (20 and 21) to the north of the northernmost modern field boundary. There are numerous small, moderately strong (typically between 15 and 30 nT) anomalies scattered throughout the settlement. These are best interpreted as either weak thermomagnetic anomalies or pits, or perhaps a mixture of the two. The stronger anomalies are most likely to be the result of burning, either hearths, bonfires or ovens. Either interpretation indicates that areas of activity and clusters of features occur alongside the road and in the enclosures (22 to 24). Further buildings (25 and 26) and areas of activity (27) at the north east are probably part of the settlement but activity is less dense here. One of the possible buildings (26) has a strong associated thermomagnetic or ferrous response (28) that could indicate industrial activity such as metal-working. In some areas the edge of the settlement and its associated enclosures and activity are sharply delineated. The field to the south of Barras exhibits very little magnetic variation as do the fields to the west of the survey. A small area of the field on the edge of the Menai Strait at the east of the survey was surveyed and was found to be magnetically very quiet suggesting it was brought into cultivation fairly recently and that features 29 and 30 represent former boundaries to the cultivated land. The northern end of the survey contains several overlapping sets of field boundaries. Some (31 and 32) correspond to boundaries on an 18<sup>th</sup> century estate map (a copy was provided by the land owner, Jack Roberts). A double anomaly (33) appears to be contemporary and could be interpreted as a large double ditched boundary or a narrow road. Two further undated phases of boundaries are also visible in this field. One set (e.g. 34 and 35) is well-defined, narrow and similar to the Roman boundaries, but could be later. The other boundaries are considerably more diffuse (e.g. 36 and 37, shown in a lighter tone) suggesting banks. These are more typical of prehistoric or medieval fields.

A stone built culvert is clearly visible as a strong negative anomaly (38). Areas of increased noise 39, 40 and 41 all indicate undated activity and a very strong anomaly (42) is probably thermomagnetic.

## Discussion

The finds from the area strongly suggest the presence of a high-status Roman period site with the proportion of decorated samian suggesting a Roman site of some importance as opposed to a native site. The features on the geophysical survey appear to support this. It is clearly not a typical Romano-British site which would presumably be an enclosed hut-group. There is an obvious road flanked by small plots which may contain rectangular buildings. This could be a Roman town or village. There are, at least, superficial similarities to the newly discovered town at Sedgfield near Durham which consists of similar sized plots alongside a central road with smaller side roads for access (Info from Dr D. Mason in Burnham 2007). The position of the site on the opposite side of the Menai Strait to Segontium Roman fort suggests that the settlement marks the crossing point of the strait. The road leads to a low point in the fields that (presuming that there have been no major changes in the shoreline) would have allowed easy access to the foreshore. The foreshore at this point is relatively sheltered and shallowly

sloping and could have provided a good place to pull small boats out of the water. It is likely that a settlement would have grown up around the landing place and that it would have functioned as a trading point with the inhabitants of Anglesey.

### Soil study

Six soil pits were excavated in the Trefarthen fields to test the depth and type of topsoil and subsoil. These were placed widely to sample the overall area of the survey, three pits in the western field and three in the eastern field (Fig. 14).

- Pit a    0 to -34cm Plough soil. Silty mid-brown loam with c. 5% grit and small gravel up to 15mm long. Occasional sub-angular cobbles up to 150mm long.  
          -34 to -40cm Buff silt with grit and gravel  
          -40cm+ Subsoil. Buff silt with small sub-angular stones and scattered iron/manganese flecks.
- Pit b    0 to -34cm Plough soil. As Pit a but slightly darker.  
          -34 to -46cm Dark brown slightly clayey silty loam.  
          -46cm+ Subsoil. Buff clayey silt, in north edge of pit ?burnt to an orange-brown associated with 2 fragments of thin ?roofing slate and charcoal fragments.
- Pit c    0 to -27cm Ploughsoil. As Pit a.  
          -27cm+ Subsoil. Buff-orange, slightly clayey silt.
- Pit d    0 to -31cm Ploughsoil. As Pit b.  
          -31 to -41cm Lower ploughsoil as Pit b including occasional fragments of burnt clay, roofing slate and one burnt stone.  
          -41 to -64cm. Dark brown silty loam with occasional sub-angular cobbles up to 120mm long. Possible archaeological feature (not bottomed).
- Pit e    0 to -30cm Ploughsoil. As Pit b but including occasional sub-angular cobbles up to 150mm long including limestone, conglomerate and schist.  
          -30 to -65cm. As ploughsoil but slightly lighter brown.  
          -65cm+ Horizon of small sub-angular stones, possibly natural or cobbled surface.
- Pit f    0 to -29cm Ploughsoil. As Pit b with 40% subangular gravel.  
          -29cm Hard surface of sub-rounded cobbles up to 15mm diam. Possible cobbled road surface.

The land is of good quality with a reasonable depth of soil. Some areas may not be affected by normal depth ploughing but in some areas with shallower topsoil any ploughing must be directly affecting the buried horizons. Four of the pits show some evidence of underlying archaeological features, three of which correspond to features identified by the geophysical survey.

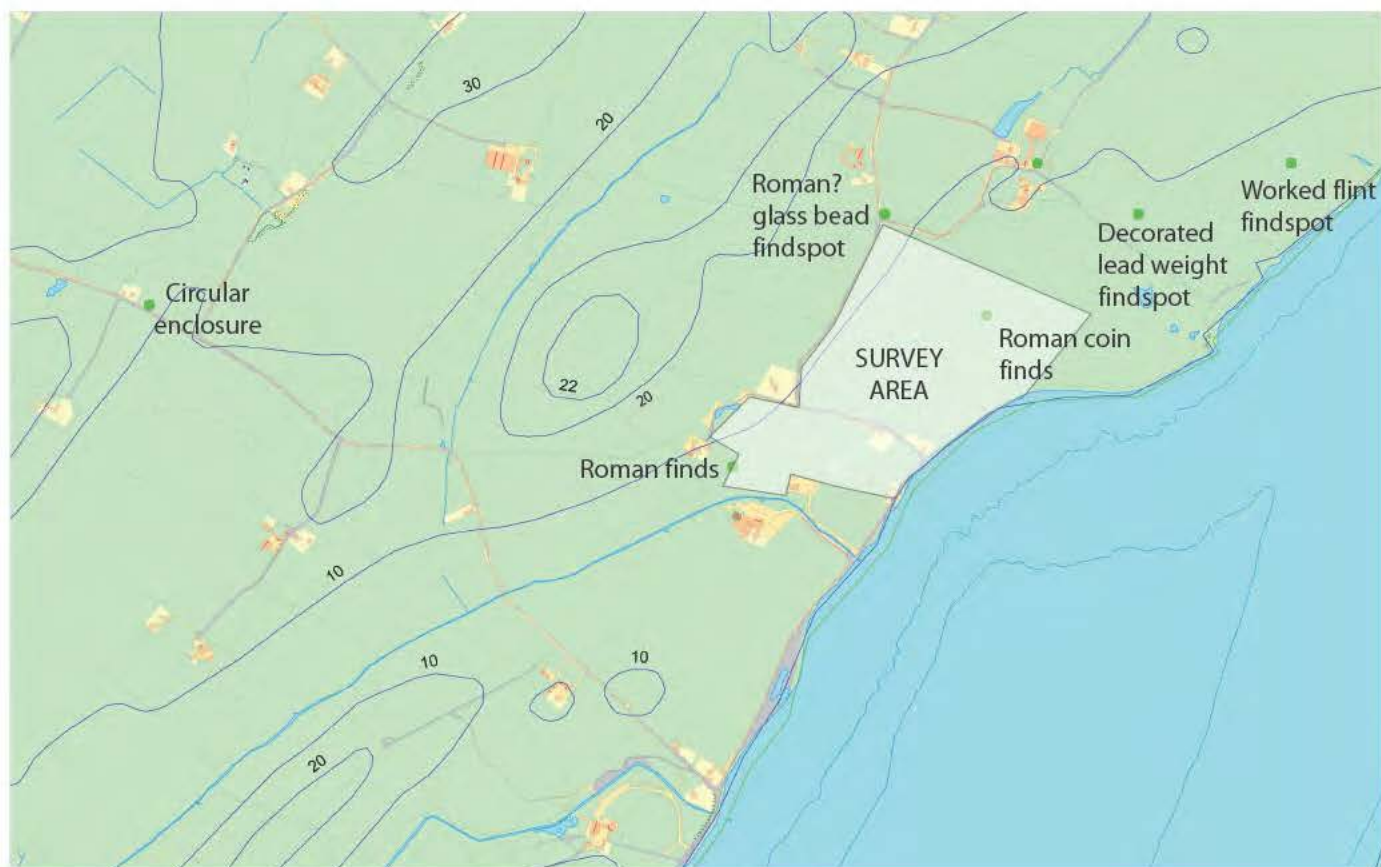


Fig. 12 Tai-cochion, Llanidan. Location map



## 11. FIELDWORK: BOD-GYFFAILL, LLANFAELOG

SH 3432 7485

### Introduction

This site was discovered during aerial survey separately by both John Rowlands and Dafydd Roberts of Pixaerial and by Toby Driver of the RCAHMW (NPRN 402,768). These oblique photographs taken in low evening light showed an area of raised earthworks on and around a small low hill to the east of the farmhouse of Bod Gyffail, Llanfaelog (Fig. 16). These consisted of a series of banks enclosing the hill, a trackway and a small central complex area of features of a possibly rectangular nature, encompassing an area of about 100m square. The RCAHMW description is as follows:

*Low earthworks of an enclosed settlement of unknown date, sited on the south-western tip of a low spur or bluff which extends into formerly marshy ground (now drained) alongside a small stream.*

*The earthworks comprise the remains of an oval embanked enclosure c.35-40m across with footings of rectangular and circular buildings within. At the south-east side the outer enclosure breaks to form an outward-facing antenna entrance, possibly flanked by a further building or hut scoop. Earthworks of boundary banks connect to each side of the enclosure and run generally north defining both sides of the promontory spur, possibly for defensive purposes. The site requires a field visit to clarify the form of the earthworks.*

*Discovered during RCAHMW aerial reconnaissance on 20th March 2005.*

Outside these features, at the foot of the hill was an area of ridge and furrow. The whole was interpreted as a possible Medieval homestead, with enclosure banks. The name element *Bod* is a Medieval word for a settlement. There was a possibility then that these earthworks were those of a Medieval settlement that later moved to a new location at the present farmhouse.

Thanks go to Bwlchyn Farm, Bryngwran, for permission to carry out the survey.

### Topographic location

The area is of irregular topography, low-lying but undulating with rounded hillocks and occasional small protruding rock outcrops interspersed with small valleys and streams. 200m to the west is a large area of marsh. The low, flat-topped hill on and around which the features lie has a height of 15m OD, surrounded by marshy minor valleys at a height of 10m OD containing small streams (Fig. 15).

The bedrock of the hill is granite while the adjoining valleys are filled with alluvium (HMSO 1972). The hill has a cover of boulder clay drift (HMSO 1974). The soil of the area is a brown earth over drift over acid igneous rock (Soil Survey 1958). The agricultural quality of the land is classified as of Grade 3 (MAFF 1977), which is of fair quality, suitable for general arable crops. It is presently all improved pasture but all shows evidence of having been cultivated in the past, apart from the hill top, where there is little soil cover and the bedrock protrudes in a places.

## **Historic background**

The landscape in the vicinity shows an irregular pattern of sub-rectilinear fields suggesting a piecemeal, partly reorganised field pattern of field shapes, constricted by the irregular topography and fragmented ownership. The ridge and furrow in the valley below the hill suggests some antiquity but in this case is likely to have been created to improve drainage of the pasture, rather than representing earlier arable cultivation. The field and drainage pattern is unchanged from that shown on the Ordnance Survey map of 1889.

## **Earthwork Survey**

Ground study of the earthworks provided more information and a rapid plan was made to help the interpretation of the earthworks and of any features subsequently shown on the geophysical survey (Fig. 17).

Surrounding the base of the hill is a broad, very low bank [1] which continues around the contour further north at the west and east side of the hill. In places this seems to be a deliberate bank, in others to be a terrace, defining the division between the improved and cultivated land and that of the wetter valley floor, where there is ridge and furrow. At the east side of the hill the bank can be followed northwards along the valley floor, continuing as just a terrace and pre-dating the straight field wall on the north side of the hill.

At the east side of the hill bank [1] is broken by what appears to be a deliberate entrance [2], from which a slight hollow trackway [3] leads diagonally up the hill.

The summit of the promontory is bounded on the north by a very low bank [4], which cuts across the hill and seems to delineate the summit of the hill from a smooth area of field to the north. At the west this bank joins the lower contour bank. Bank [4] seems to form an enclosure around the hill in conjunction with a steep grassy scarp [5] which may be an artificial terrace around the south side of the hill. Within the space enclosed by [4] and [5] is another very low bank [6] of rectilinear plan enclosing the south side of the hill. This may be continued by a similar but curving bank around the west side of the hill, but there is a gap, perhaps an entrance between [4] and [5]. Within these banks is one relatively level area [6] and in the remainder a series of slight ridges and hollows, that do not make any obvious pattern. At the west are two curvilinear hollows [7] and [8] and to the east is an area [9] of smaller irregular hollows with a general north-south trend. In two places bedrock can be seen at the surface within these hollows.

The top of the hill has clearly been deliberately enclosed and approached by a trackway so seems to have been the site of some occupation or activity. However, there are no obvious house platforms, the smaller hollows are too small to be structural, yet also rather small to be the result of quarrying.

## **Magnetometer Survey Results (Figs 18 and 19)**

An area of 60m x 120m was surveyed at standard resolution. Background noise levels were moderate across most of the site but scanning showed a large area of very magnetic igneous bedrock to the south-west. Strong geological anomalies run across the survey area and are indicated on the interpretation plan.

The central part of the survey consists of a roughly rectangular area with slightly elevated background noise containing smaller vaguely geometric areas of increased and decreased noise. This area corresponds to the earthworks visible on the aerial photographs. The areas of increased noise generally appear to correspond to banks on the ground. The quieter areas roughly correspond in places to the low points in earthworks although some coincide with banks. The roughly geometric features cannot be reliably resolved into structures or identifiable archaeological features. This may be because the survey is unable to detect discrete features due to the nature of the deposits. It could however indicate that this is an area of more amorphous features such as gravel quarrying. Excavation would be needed to test either of these interpretations. Elsewhere three linear anomalies (2, 3 and 4) correspond to earthwork banks. Similar anomalies 5 and 6 could be interpreted as the remains of banks but could possibly be a result of buried geology. Large earthworks at the south of the area produced no anomalies, perhaps because they consisted of similar soil to their surroundings. Clear plough marks (7 and 8) were detected at the north of the survey. These respect earthworks 2 and 6 and do not run across the central part of the survey.

## Discussion

The survey produced fairly clear results but could not resolve the earthworks into structures. The survey clearly shows that the central area was used for a different activity to that of the ploughed fields to the north. The central area may have been used as source of gravel with the vaguely geometric anomalies representing small quarry pits. Interpretation as a settlement site cannot be entirely dismissed however, geophysical survey does not always detect all archaeological features and there may be buried structures in this area.

## Soil study

Four soil pits, a, b c and d were dug to test the depth and type of topsoil and subsoil, two, a and b outside the main area of earthworks and two, c and d inside (Fig. 17 and 18). Pit a was on the level floor of the small valley to the west, in the area of ridge and furrow. Pit b was within a probable earlier field just to the north of the hill. Pit c was in an open area of the hill within the main area of earthworks. Pit d was within a small hollow in the earthworks.

Pit a    0 to -25cm Mid-grey silt. Stone-free, slightly gleyed.  
         -25 to -35cm Orange-brown gritty, iron-panned silt.  
         -35 to 35cm+ Angular bedrock.

Pit b    0 to -22cm Dark brown humic loam.  
         -22 to -32cm Orange-brown silty loam with c. 25% small sub-angular stones,  
         mainly 20-50mm long.  
         -32cm+ Orange silt.

Pit c    0 to -22cm Dark brown silty loam with c. 25% gravel of sub-rounded rock mainly  
         up to 50mm long.  
         -22 to -24cm Buff-brown gritty silt, semi-cemented, mixed with gravel.  
         -24cm+ Bedrock

Pit d    0 to -20cm Dark brown humic loam.  
          -20cm+ Sub-angular broken rock interspersed with some dark loam.

### **General Discussion**

The topsoil survey showed shallow topsoil over bedrock or broken bedrock even in the valley bottom (Pit a) where some alluvium was expected. The ridge and furrow in this area, suggested to be possibly the remains of Medieval cultivation is therefore almost certainly ridging to improve drainage for pasture and more likely to be of Post-medieval than Medieval date.

The only soil pit that showed a deeper soil was Pit b where the subsoil was silt. This pit lay within an area of a former cultivated field that pre-dated the existing rectilinear field boundary walls. This cultivated area was clearly associated with the 'enclosure bank' around the hill top and therefore probably with all the other earthworks.

The shallow depth of the soils here means that they are vulnerable to damage from cultivation. However, the survival of the features results from the avoidance of this rocky hillock by modern cultivation. The aerial photographs do show that the whole of the hill top has been ploughed over, probably as an initial improvement following the establishment of the present rectilinear fields (Fig. 16). Cultivation took place prior to the creation of the present lay-out of rectilinear fields as shown by the presence of a lynchet around the hillock which continues along the contour of the valley towards the north-east where it is overlain by the present field walls. The present fields to the north-east have also been cultivated in more recent times but all is now rented as pasture and unlikely to be further improved.

The dates of the features on and around the hill are uncertain but they do predate the existing stone field walls, which were present on the 1889 OS map but not on the 1840 Tithe map when this was recorded as one large open area (Tithe Apportionment 31). The RCAHMW aerial photographs also show ridge and furrow in the fields immediately to the north-east.

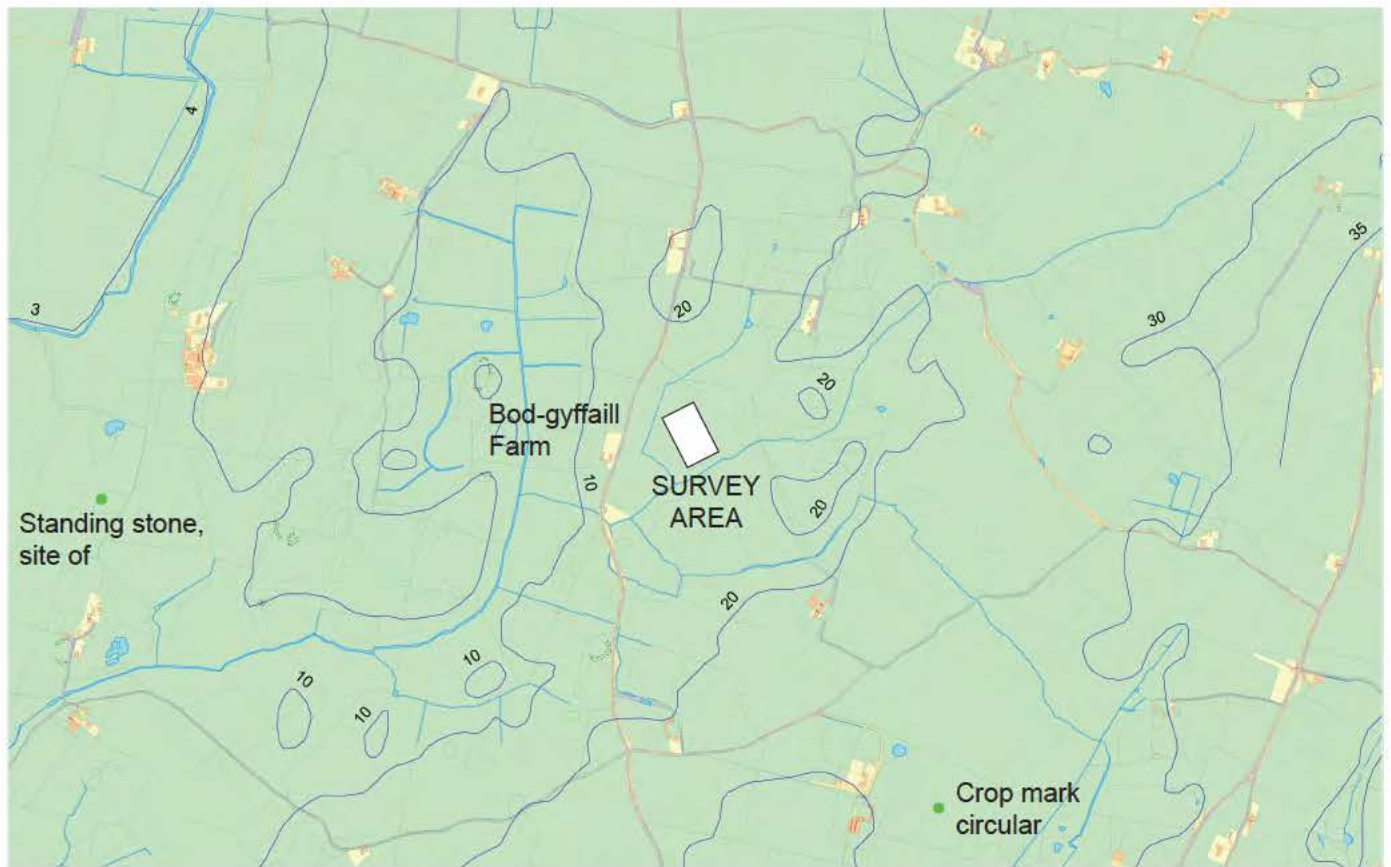


Fig. 15 Bod-gyffail, Llanfaelog. Location map



Fig. 16 Bod-gyffail, Llanfaelog. Aerial photograph, from the north.  
Copyright Pixaerial



Fig. 17 Bod-gyfaill, Llanfaelog. Measured sketch plan of earthworks and location of soil test pits (a-d)

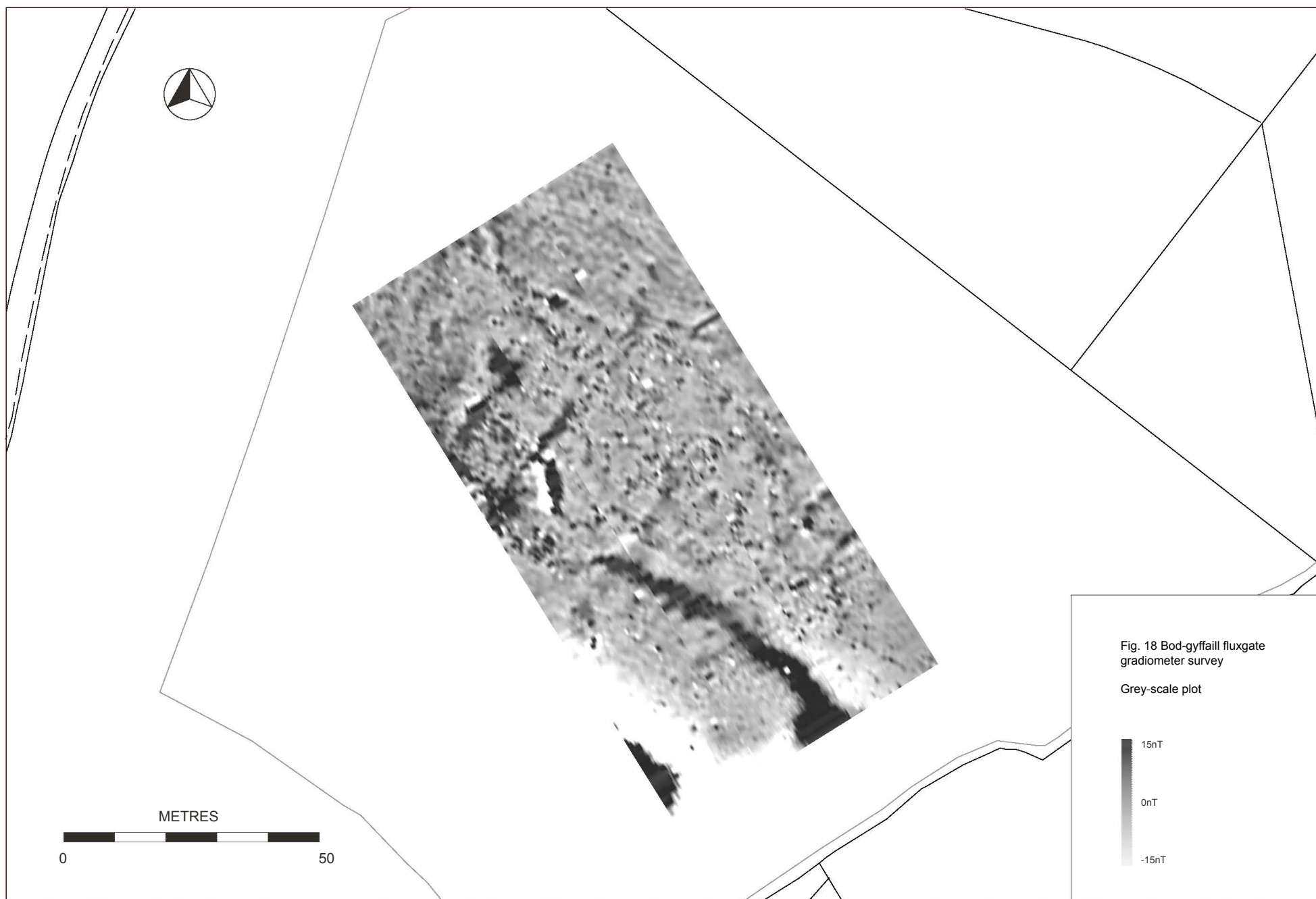


Fig. 18 Bod-gyfaill, Llanfaelog. Fluxgate gradiometer survey. Grey scale plot



Fig. 19 Bod-gyffail, Llanfaelog. Fluxgate gradiometer survey. Interpretation and location of soil test pits (a-d)

## **12. FIELDWORK: PORTH TYWYN MAWR, LLANFAETHLU**

SH 29008520

### **Introduction**

This site was discovered during aerial survey by John Rowlands and Dafydd Roberts of Pixaerial. It was photographed during an exceptional dry period, which showed a number of features in the grass after harvest as darker and lighter parch marks (Fig. 21). At least four separate features were visible, three possibly being enclosures and one a long linear feature.

Thanks are due to Mr Williams, Penrhyn Farm, for permission to carry out the survey.

### **Topographic location**

The features lie on the east facing side of an extensive low hill at a height of between 10 to 20m OD and only 300m from the coast edge, which here is a broad sandy bay (Fig. 20 and 21). The bedrock is green mica schist (HMSO 1972) with has a covering of boulder clay drift (HMSO 1974). This is in turn covered with a layer of blown sand, which decreases eastwards. The soil is a brown earth over sand or drift (Soil Survey 1958). The agricultural quality of the land is classified as of Grade 4 (MAFF 1977), suitable mainly for intensive cattle pasture, rather than arable crops. However, the fields here and nearby are cropped regularly for both cereals and silage.

The field pattern is mainly of very large sub-rectangular fields typical of 18<sup>th</sup>-19<sup>th</sup> century enclosure, apart from one that has two crop mark features in it. This has a curving boundary on the west and a straight boundary on the east, where it borders a stream/drain channel. This curvilinear field is likely to predate the rectilinear fields and so this area was chosen for survey.

### **Historic background**

The general area here shows up several potential features on the aerial survey, probably because of the sand cover, which easily dries out, leaving darker crop marks of subsoil features. Four main features were seen (Fig. 21). The largest C1 was a sub-circular enclosure about 40 to 60m diameter. In the north corner of the same field was another possible enclosure C2 of sub-rectangular shape, about 30m across with a possible circular feature less than 10m diameter incorporated into one corner. This looked in plan like a roundhouse with attached rectangular yard, of possible Romano-British date. In the adjoining field to the south near the summit of the hill was a possible large rectangular enclosure C3, 40-60m across. Around the whole hill, across several fields was a long linear feature C4.

At the time of the visit the main field was cereal stubble starting to re-grow with grass. The ground visit showed that the long linear feature C4 was a modern trackway, running between field gates. Local enquiry also showed that the possible rectangular enclosure C3 was the concrete foundation of a WW2 gun emplacement.

The outline of the possible enclosure C3 could be seen as a very faint linear sunken feature with greener grass, suggesting that it was a ditch. The site of the possible roundhouse was not visible but was a slightly raised and drier area.

The desktop research showed that the enclosure C1 was the site of a small cottage or farm house Tywyn-mawr, which was present on large scale Ordnance Survey maps from 1889 (Figs 22-23) until at least 1970 but, as there was no track marked to it even in 1889, was probably already abandoned by that date, and later just used as a cattle yard, a fact that was corroborated from local memory (John Williams, *Pers. Com.*). However, the crop mark, considerably larger than the site of the cottage itself, was clearly curvilinear so the cottage could have been on the site of an earlier enclosure, so this area and that of the possible enclosure C3 were surveyed.

### **Magnetometer Survey Results (Figs 24-25)**

An area comprising two conjoining rectangular surveys of 60m x 60m and 60 x 40m was surveyed at standard resolution (1.0 x 0.5m). Background noise levels were very low, perhaps as a result of low levels of iron in the very sandy soil. The majority of archaeological features also produced very faint anomalies. The data was clipped to +- 7nT in order to make these more visible.

The cropmark under investigation marked coincided with a building named Tywyn-mawr on the 1889 OS 25" map. A rectangular anomaly with maximum dimensions of 30m x 20m (1) was produced by this structure. The anomaly contains large amounts of strong magnetic dipoles, which also extend as a scatter (2) into the surrounding field. These are typical of the debris such as roofing nails and other iron fittings found in and around a demolished post-medieval building. A former boundary (3) also appears to be associated with this. The corner of a second rectangular anomaly (4) with dimensions of at least 30m x 20m was detected at the north of the survey. The modern field boundary overlies this suggesting that it is relatively early. The anomaly is well defined but somewhat patchy suggesting the remains of a building floor level as opposed to stone foundations or a cleanly-cut ditched enclosure. It was noted that there was no ferrous debris associated with this. Slight anomalies (5 and 6) to the south of this hint at further activity. It was not possible to survey to the north of the boundary as there was a crop in the field. A faint negative curvilinear anomaly (7) is aligned with the current field gate, suggesting that it may be a road or trackway. Plough scars (8) run uphill from this and either cross or predate Tywyn-mawr building. It is usually impossible to demonstrate phasing from gradiometer results as it produces a superimposed image of all archaeological layers.

### **Discussion**

The stone foundations of the building of Tywyn-mawr are clearly visible on the survey. A second possible building or structure that predates the current field boundaries is aligned with Tywyn-mawr and could therefore represent an earlier phase of activity that was still extant when the later buildings were constructed. A possible road runs through the area. It seems likely that Tywyn-mawr was once a larger farm or settlement. This had mostly been destroyed by the time the building was shown on the 25" OS map of 1889. Some elements of the settlement underlie the modern field system so it seems likely that it was cleared during estate improvements in the 18th or 19th century.

## Soil study

Three soil pits were excavated to test the depth and type of topsoil and subsoil (Fig. 25). Pit a was in the upper part of the field close to the edge of the feature C1. Pit b was midway down the field just beyond the edge of feature C1. Pit c was in the lower part of the field positioned to sample the linear feature forming the possible enclosure C3.

Pit a    0 to -20cm Plough soil. Dark brown sandy loam with occasional small subangular stones.  
          -20 to -40cm Mid-brown sand  
          -40cm+ Compact red-brown sand with c. 20% small stones

Pit b    0 to -25cm Plough soil. As Pit a.  
          -25 to -65cm+ Mid-brown stone-free sand. Not bottomed.

Pit c    0 to -25cm Ploughsoil. As Pit a.  
          -25 to -45cm+ Grey-brown pure sand with orange iron mottling. Not bottomed.

The ploughsoil was quite shallow but lay over sand, rather than drift and easy to plough, which could have been attractive for prehistoric agriculture.

## General Discussion

The survey did not prove that there were settlement features here before Tywyn-mawr although some features found have not been explained. There is a strong possibility that there was earlier settlement and agriculture in the area because of its relatively good soils and there are other crop mark features close by, just to the west (Fig. 20). These consist of three small enclosures discovered by the RCAHMW and described as follows.

‘Soil marks reveal low earthworks of three enclosures, sited at the interface between an alluvial terrace and a small river which flows 50m to the south-east. The two main enclosures appear to be separated by a walled trackway.

The soil marks show at SH 2915 8478, an eastern enclosure, c.45m long and rectangular with rounded corners. To the west at SH 2911 8476 is a curvilinear enclosure c.40m across. Just to the north, and the other side of a modern field boundary, a curving bank of a third enclosure can be seen. The enclosures appear to represent small field enclosures with an integral trackway. Discovered during RCAHMW aerial reconnaissance on 20th March 2005.’ (T. Driver).

These features have not yet been investigated but could be Iron Age, Romano-British or Early Medieval fields. 500m to the west an Iron Age quern has been found and 750m to the north is a small coastal promontory fort, Castell Trefadog (Fig. 20), which excavation shows to have been occupied, possibly from the Iron Age until the Medieval period and may have been a stronghold acting as a focus for local settlement (Longley 1991).



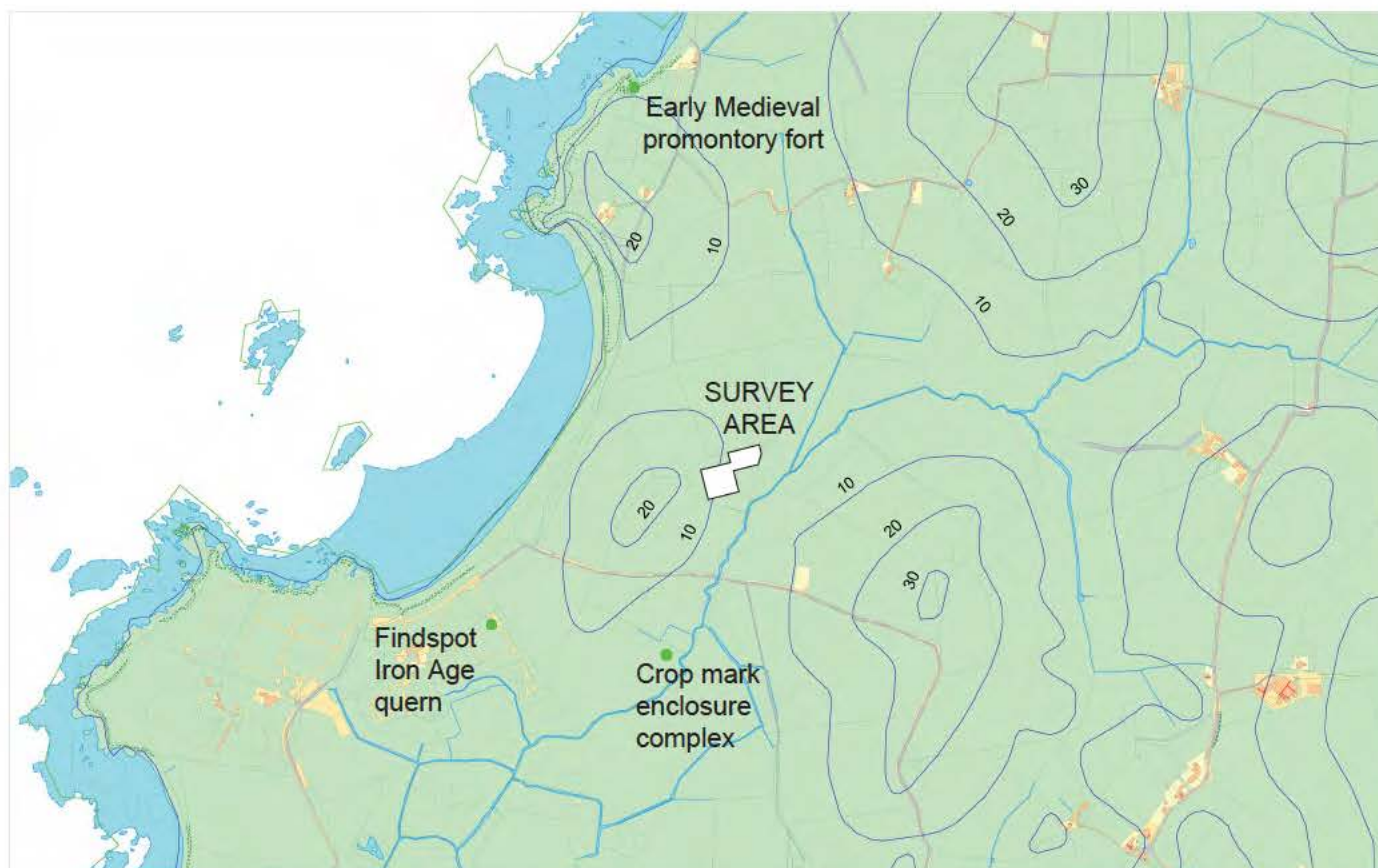


Fig. 20 Porth Tywyn-mawr, Llanfaethlu. Location map



Fig. 21 Porth Tywyn-mawr, Llanfaethlu. Aerial photograph from the south-east.  
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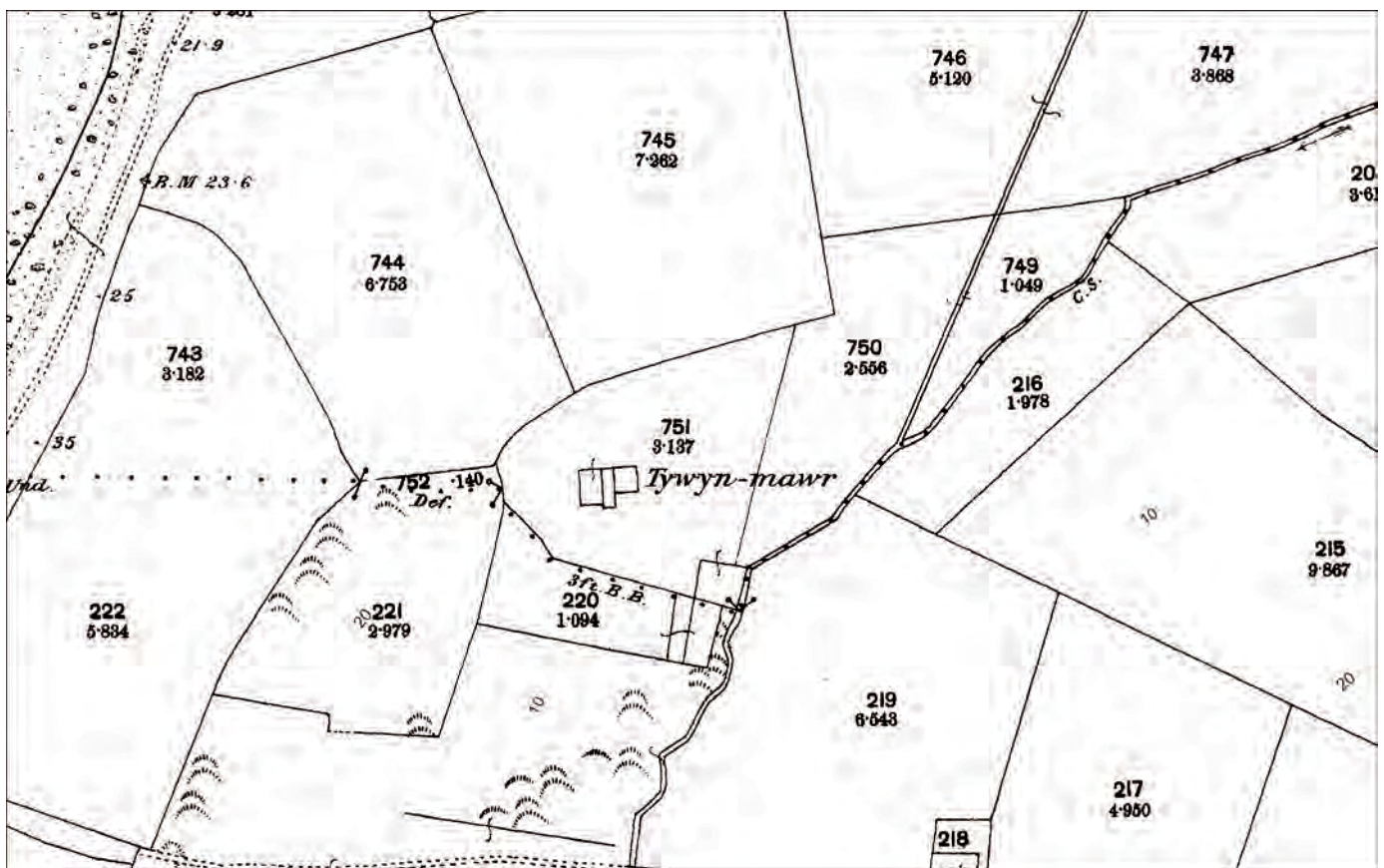


Fig. 22 Porth Tywyn-mawr , Llanfaethlu. 1889 Ordnance Survey 1:2500

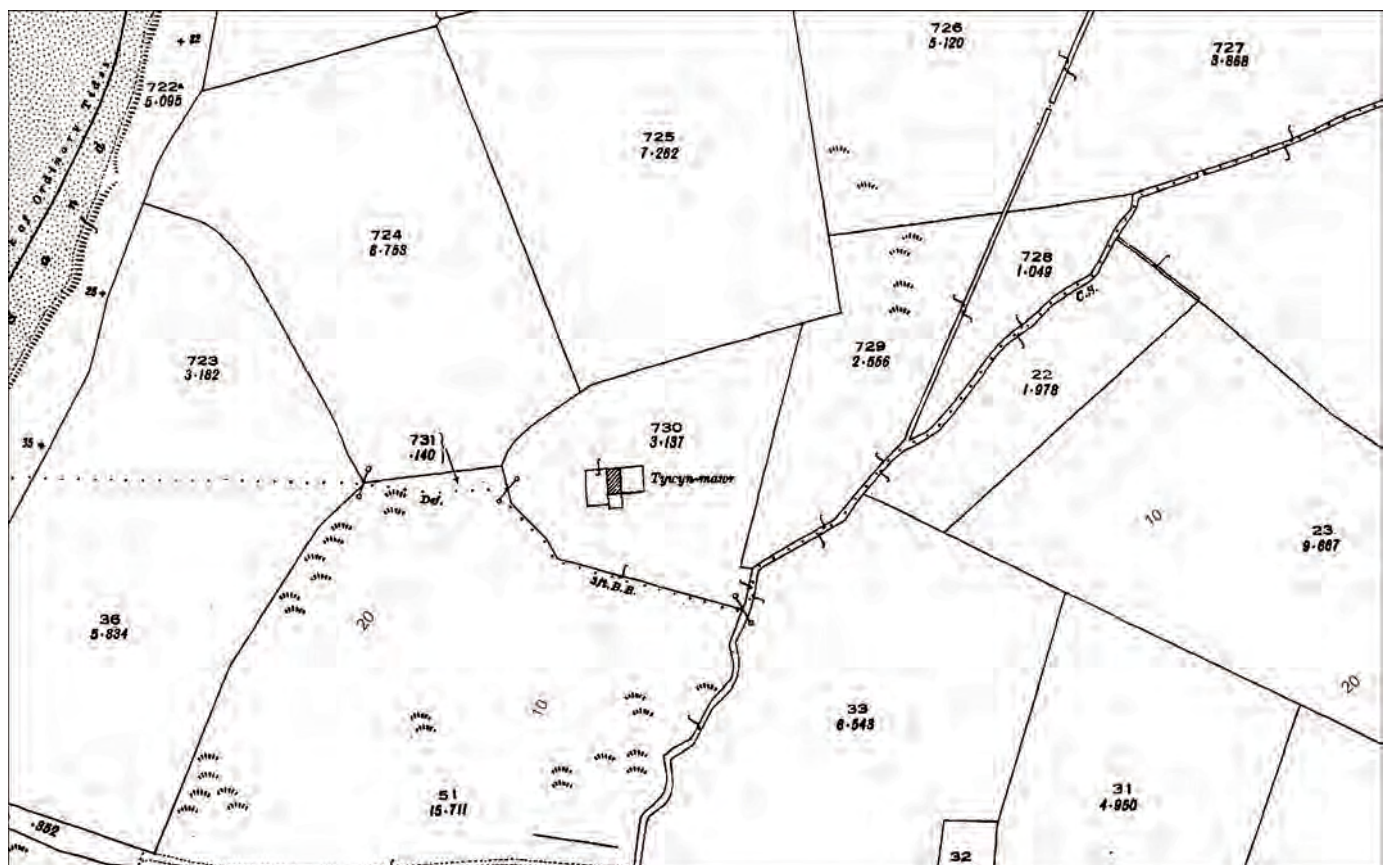


Fig. 23 Porth Tywyn-mawr, Llanfaethlu. 1923 Ordnance Survey 1:2500

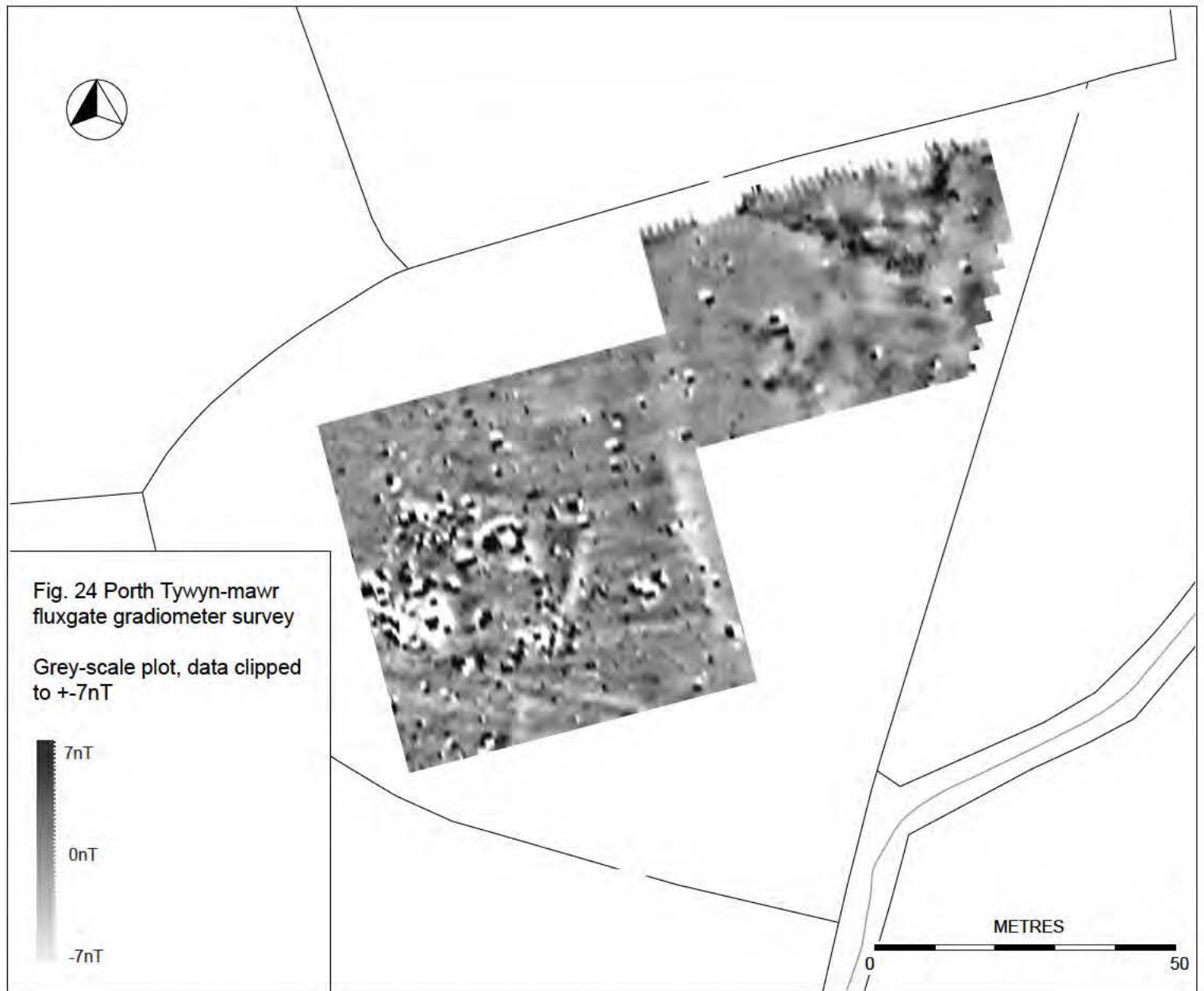
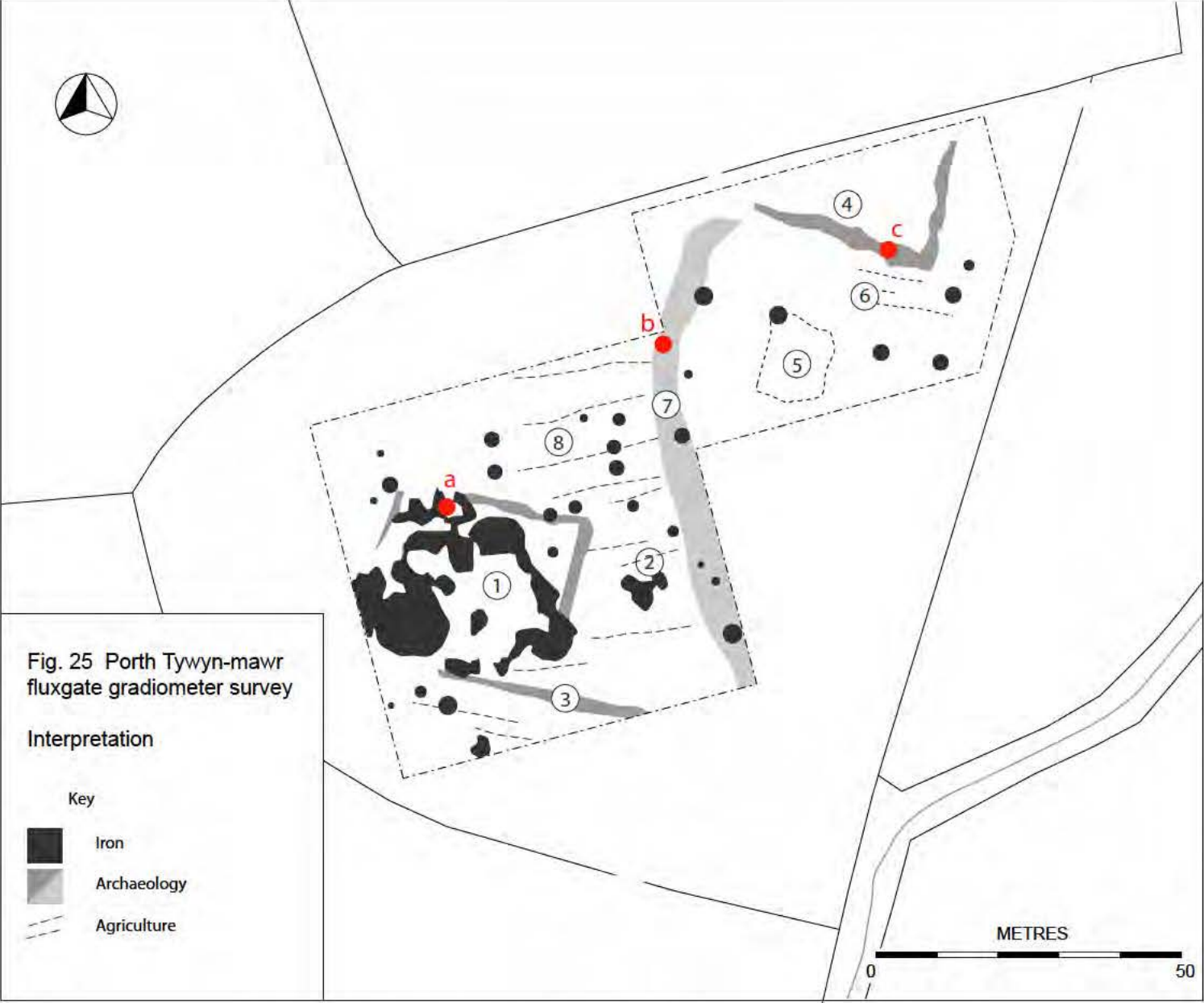


Fig. 24 Porth Tywyn-mawr, Llanfaethlu. Fluxgate gradiometer survey. Grey scale plot



### **13. FIELDWORK: CARROG, LLANFECHELL**

SH 3780 9180

#### **Introduction**

Archaeological features were first discovered at Carrog during aerial photographic survey by Chris Musson for the RCAHMW in July 1996. This recorded a possible small settlement enclosure 'about 30m diameter with an entrance on the east side' (PRN 7362, NPRN 309,535). This type of circular enclosure could be expected to be a homestead of Early Iron or later Bronze Age date and therefore potentially an important discovery for Anglesey, where the presence of burial mounds and standing stones demonstrates major activity in that period, but where evidence of actual settlement is lacking, probably due to the effects of intensive cultivation over millennia. New photographs were taken by John Rowlands and Dafydd Roberts during the dry summer of 2006 when a prolonged dry period was very favourable to the production of crop marks. These photographs showed the original northern enclosure (Carrog 2, Fig. 28) and in addition, other circular and sub-circular features in the adjoining field to the south (Fig. 27). These new features appeared to be three ring ditches, each about 20m diameter, lying approximately in a line along the ridge. Ground survey showed that there were some earthworks remaining and these are almost certainly the remains of three large earthen burial mounds of Early Bronze Age date. This interpretation was later supported by the results of geophysical survey (below). The aerial photographs also showed traces of other linear features further to the north in the field, possibly representing an earlier field system (Carrog 1, Fig. 27). Near Llanfechell, at the west end of the ridge on which the three probable burial mounds were identified is a large standing stone. Near Llanfechell there is also an unusual setting of three standing stones, a Neolithic chambered tomb and a number of cup-marked stones and these all suggest that the area was a focus of prehistoric ceremony.

Thanks are due to the landowner, Prof. Robin Grove-White and to the farmer, Jak Jones, for permission to carry out the survey.

#### **Topographic location**

The features lie at a height of 30m OD in low, gently undulating countryside. The larger northern enclosure lies on the east side of the summit of a low hill. The southern features lie along the summit of a low ridge, which is oriented south-west to north-east. On one end lies the farmhouse of Carrog while at the south-western end, close to Llanfechell, there is a large standing stone (Fig. 26).

The fields at Carrog lie over ancient metamorphic green mica schist (HMSO 1972) but with an overlying cover of glacial drift boulder clay (HMSO 1974). The soil is a brown earth (Soil Survey 1958) and the land classified as of agricultural Grade 3 (MAFF 1977). Grade 3 land is not the best land, suitable mainly for pasture but with occasional arable.

The southern field was under pasture at the time of the survey while the northern field held a cereal crop. The straight sides of most of the fields and the geometric division suggests that the present field pattern was a result of 18<sup>th</sup>-19<sup>th</sup> century improvement and is largely unchanged from that shown on the Ordnance Survey map of 1889). However,

the southern edge of the southern field is irregular and wandering and this is also a Community boundary and is likely to be the continuation of a much earlier boundary.

## **Magnetometer Survey Results**

### **Carrog Area 1 (Figs 29-30)**

An area of 200m x 40m was surveyed at standard resolution (1.0 x 0.5m). Background noise levels were low and archaeological features produced faint but well-defined anomalies. The data was clipped to  $\pm 7\text{nT}$ .

The strong clipping applied to the data increases the visibility of faint archaeological features but also makes other responses such as minor variations in the subsoil and anomalies produced by scraps of iron more obvious. Small dipoles, caused by ferrous debris in the topsoil are scattered across the survey. These are visible as small half black and half white dots on the grey-scale plot and are probably small pieces of farmyard and domestic iron waste spread during manuring.

The most obvious anomaly is a circular feature (1), probably a ring ditch, with a diameter of 22m. Part of a second similar feature (2) with a projected diameter of 29m was detected at the far south-western end of the survey. A third possible circular feature (3) with a diameter of about 27m was detected to the north-west of the other two. This anomaly was very faint and would require confirmation by excavation. The three possible ring ditches appear to be cut or overlain by a fragmentary linear feature, possibly a former field boundary (4).

A clear division (5) in the north-eastern end of the field probably indicates a former field boundary with the differing geophysical results on either side indicating differing agricultural activity. The north-eastern side contains parallel anomalies 6 and 7 that probably indicate plough scarring on the top of the subsoil. A narrow linear anomaly (8) is best interpreted as a drain.

### **Discussion**

The survey detected two or perhaps three circular anomalies best interpreted as ring ditches. Two of these are clearly visible on the aerial photograph (Fig. 27). The other cropmarks did not produce geophysical anomalies. It should be noted that archaeological features did not produce strong geophysical anomalies in this survey and so absence of geophysical evidence should not be taken to indicate absence of archaeology.

### **Carrog Area 2 (Figs 31-32)**

An area of 60m x 60m on the top of the hill was surveyed at high resolution (0.5m x 0.25m) with an additional area on the slope to the north at (1.0m x 0.25m). Levels of background noise were again very low and archaeological anomalies were again relatively faint. Data was cropped to  $\pm 5\text{nT}$ .

A very well-defined circular anomaly (1) best interpreted as a circular ditched enclosure was detected. This has an external diameter of 40m and has a 6m wide entrance at the eastern side. The ditch appears to be about 4m wide. A slight anomaly around the inside

of the ditch (2) could indicate the remains of a bank but this interpretation would have to be tested by excavation. The survey shows a scatter of typical iron responses (not transcribed on the interpretation plan) from debris in the topsoil but several weaker anomalies within the enclosure could be post-holes or pits (3). A narrow curvilinear anomaly (4) runs up the hill to the edge of the enclosure. It then appears to continue as a faint anomaly running parallel to the ditch for a short distance. It either divides or is crossed by a second anomaly (4) corresponding to the south edge of the enclosure entrance. There is no obvious interpretation for this anomaly, it appears to be a narrow, cut feature (or combination of features) and respects the edge of the enclosure, either implying that is contemporary or perhaps simply avoiding the earthwork. It is visible as a double feature on the slope. This could indicate that is a trackway that has caused increased erosion on the slope. Clearly excavation would be needed to allow anything but speculative interpretation of this feature and its relationship to the enclosure. Very faint anomalies elsewhere in the survey could indicate former field boundaries (6, 7 and 8).

## Discussion

The survey detected a very clearly defined ditched settlement enclosure that was first recognised as a crop-mark. There are hints of internal activity although no structures could be recognised. A narrow feature, apparently aligned with the edge of the settlement requires further investigation.

## Soil study

### *Carrog 1 (Southern Field)*

Three soil pits, a, b and c were dug to test the depth and type of topsoil and subsoil (Fig. 30).

There was a considerable depth of topsoil in each, despite this being on the top of the ridge, where the soil might have been eroded down the slope.

Pit a Topsoil 0 to -40cm. Dark brown silt with scattered small sub-angular stones up to 200mm long.

Subsoil not reached at -60cm. Dark grey silt with scattered sub-angular stones up to 200mm long. Possible feature.

Pit b Topsoil 0 to -41cm as Pit a.

Subsoil at -41cm+. Orange silt.

Pit c Topsoil 0 to -45cm. as Pit a.

Subsoil at -45cm+. Mottled buff-orange silt.

## Comments

Pit a coincides with a possible linear anomaly on the geophysical survey and the soil pit suggests that this is a genuine, negative, soil-filled feature. However, the geophysical results here were complex and of uncertain interpretation, perhaps produced by geological features.

Pit b was positioned on the summit of the ridge, where topsoil might be expected to be thinner because of soil movement on the slope during cultivation. However, the soil

depth was little different than Pit a, lower down the slope. This was also in the area of complex geophysical features, but at the base was natural subsoil of fluvio-glacial till.

#### *Carrog 2 (Northern Field)*

Three pits, a, b and c were dug (Fig. 32).

Pit a Topsoil 0 to -26cm. Mid-brown silty loam with c. 5% angular fragments of schist and occasional rounded pebbles and pieces of black chert up to 100mm long.

-26cm+ Subsoil. Yellow-buff clayey silt with c. 10% small angular stones and some iron-panning.

Pit b Topsoil 0 to -30cm. As Pit a.

-30cm+ Subsoil? Light grey clayey silt, not bottomed.

Pit c Topsoil 0 to -31cm. As Pit a.

-31cm+ Subsoil. As pit a.

#### Comments

Pit a lies outside the enclosure on the west side, slightly down slope from the hill summit and does not coincide with any geophysical feature. The topsoil was very shallow and lay over subsoil of *in situ* fluvio-glacial till.

Pit b was also outside the enclosure and slightly down slope from the hill summit, but to the east and beyond any geophysical features. The topsoil here was deeper and layer over darker silt that was not obviously natural subsoil.

Pit c was positioned in the centre of the enclosure on the hill summit. It was not above any identified geophysical feature and the topsoil was shallow and lay directly over undisturbed natural subsoil of fluvio-glacial till.

#### General Discussion

The survey was very successful in identifying features in both fields. The identification of the probable burial mounds in Field 1 was supported by the presence of some slight earthworks. The complex of features at the north end of this field did not show up clearly on the survey and remain unexplained. They may still be of archaeological value and be the remains of early settlement or fields, perhaps confused by geological features, but it seems that geophysical survey cannot help.

The enclosure on the hill in Field 2 showed up very clearly and probably consisted of a small defended enclosure of some kind, because of the large ditch (about 4m wide) that surrounded it, and therefore presumably associated with a similarly large bank.

However, despite the fact that there were earthworks remaining of the mounds in Field 1, here there was nothing identifiable as remnant bank or ditch. The hilltop within the enclosure appeared to have been deliberately levelled off, and while such terracing for the interior would be expected, there should still be traces of a bank. One possibility is that the bank was deliberately bulldozed down the hill slope in modern times to aid ploughing, thus also obscuring the ditch although if the site still existed as feature in say the 19<sup>th</sup> century, it should have been recorded by early antiquaries. The features within the enclosure suggest possible large post-holes, but not in any recognisable pattern. The enclosure still remains as a possible Bronze Age defended site and therefore of great interest and worthy of further study.

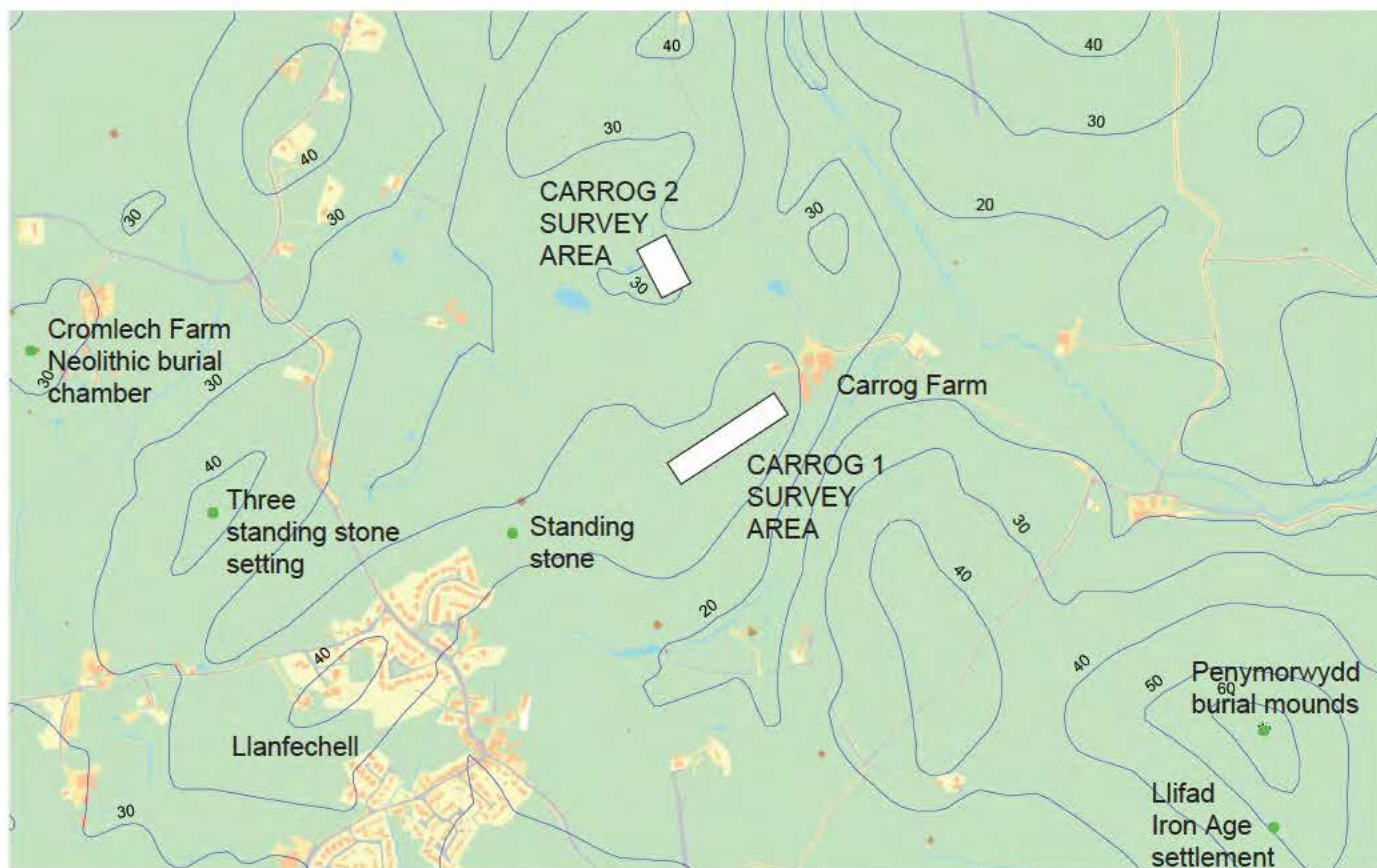


Fig. 26 Carrog, Llanbadrig. Location map

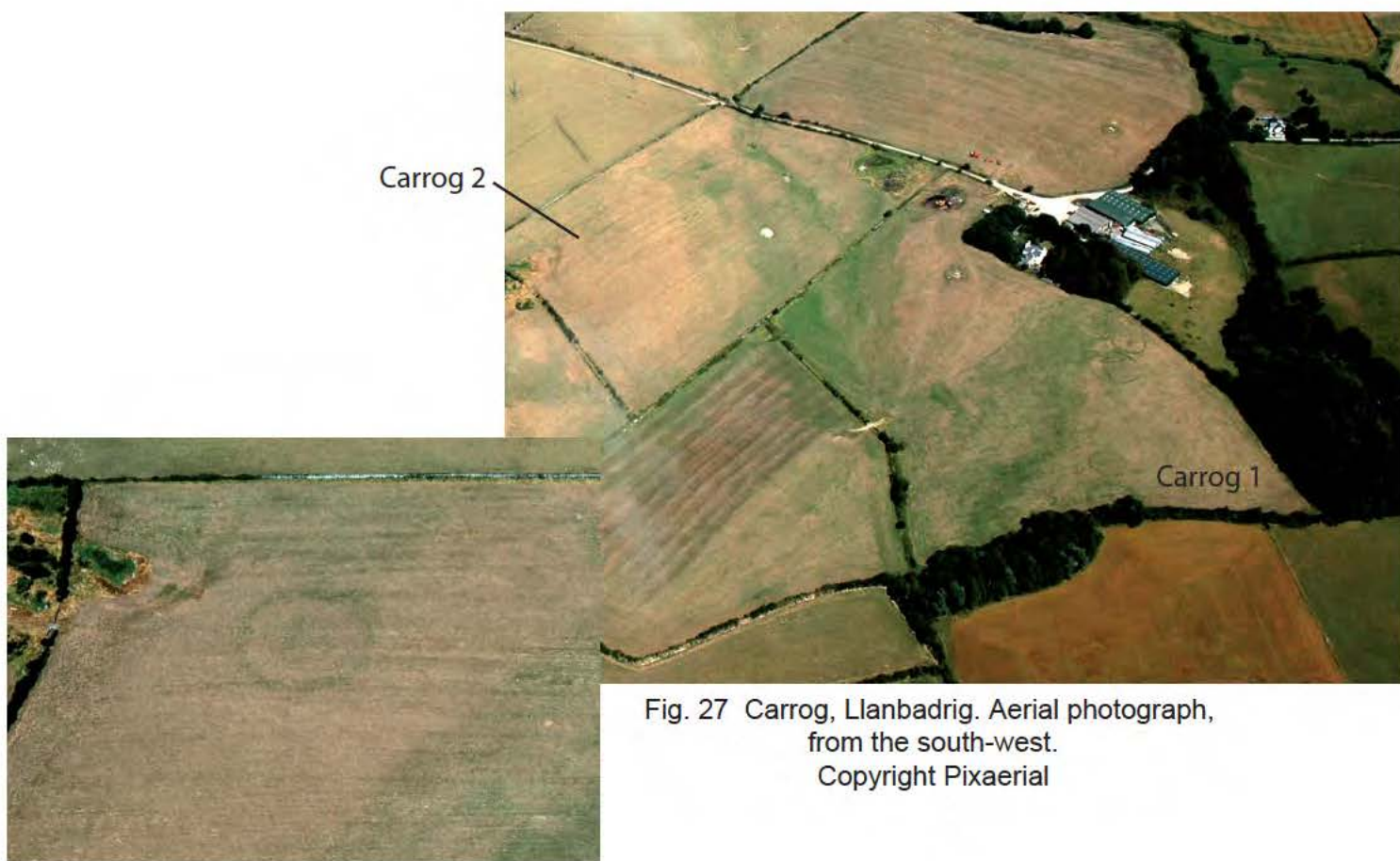


Fig. 27 Carrog, Llanbadrig. Aerial photograph, from the south-west.  
Copyright Pixaerial

Fig. 28 Carrog 2, Llanbadrig. Aerial photograph, from the south.  
Copyright Pixaerial



Fig. 29 Carrog 1, Llanbadrig. Fluxgate gradiometer survey. Grey scale plot

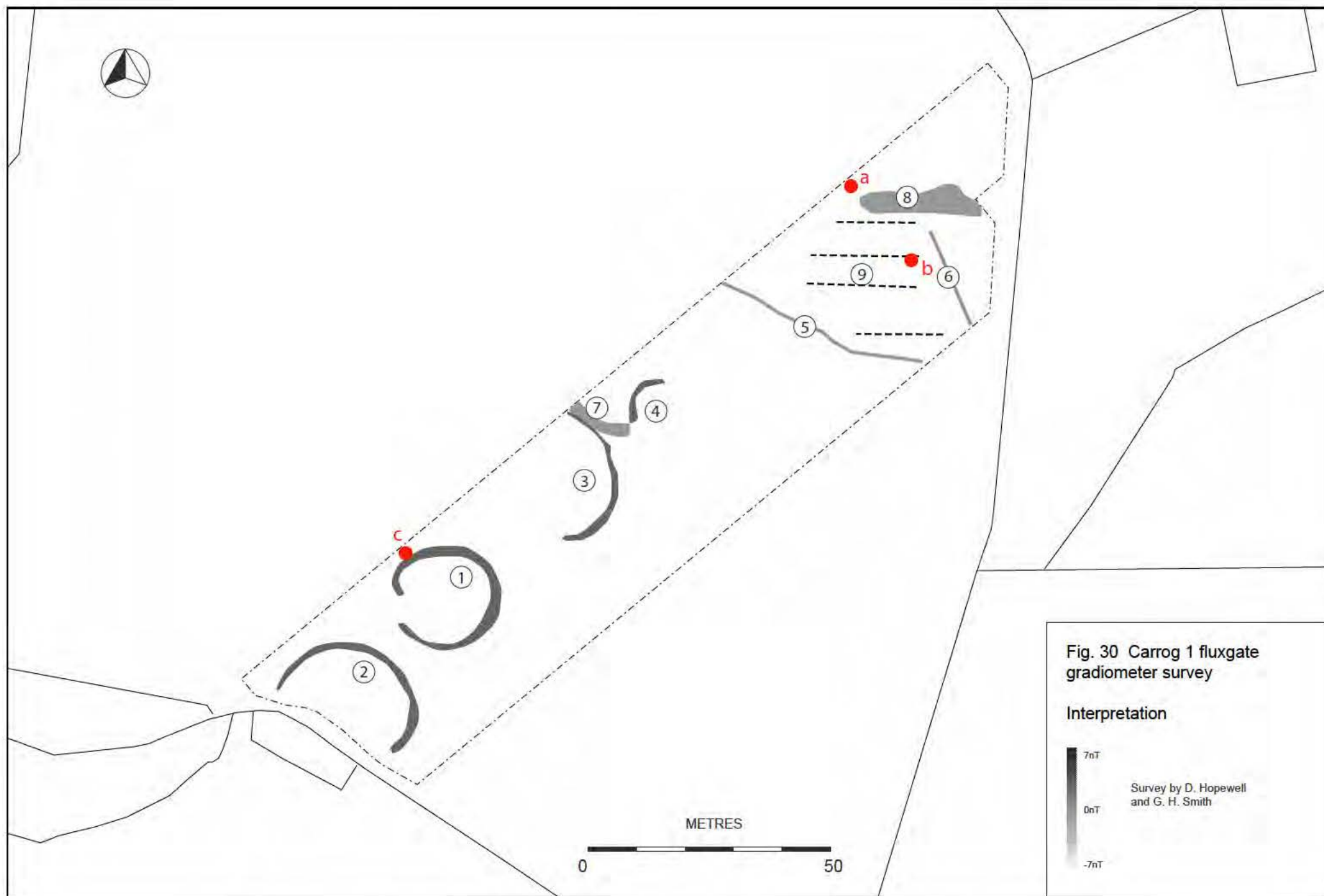


Fig.30 Carrog 1, Llanbadrig. Fluxgate gradiometer survey. Interpretation and location of soil test pits (a-c)

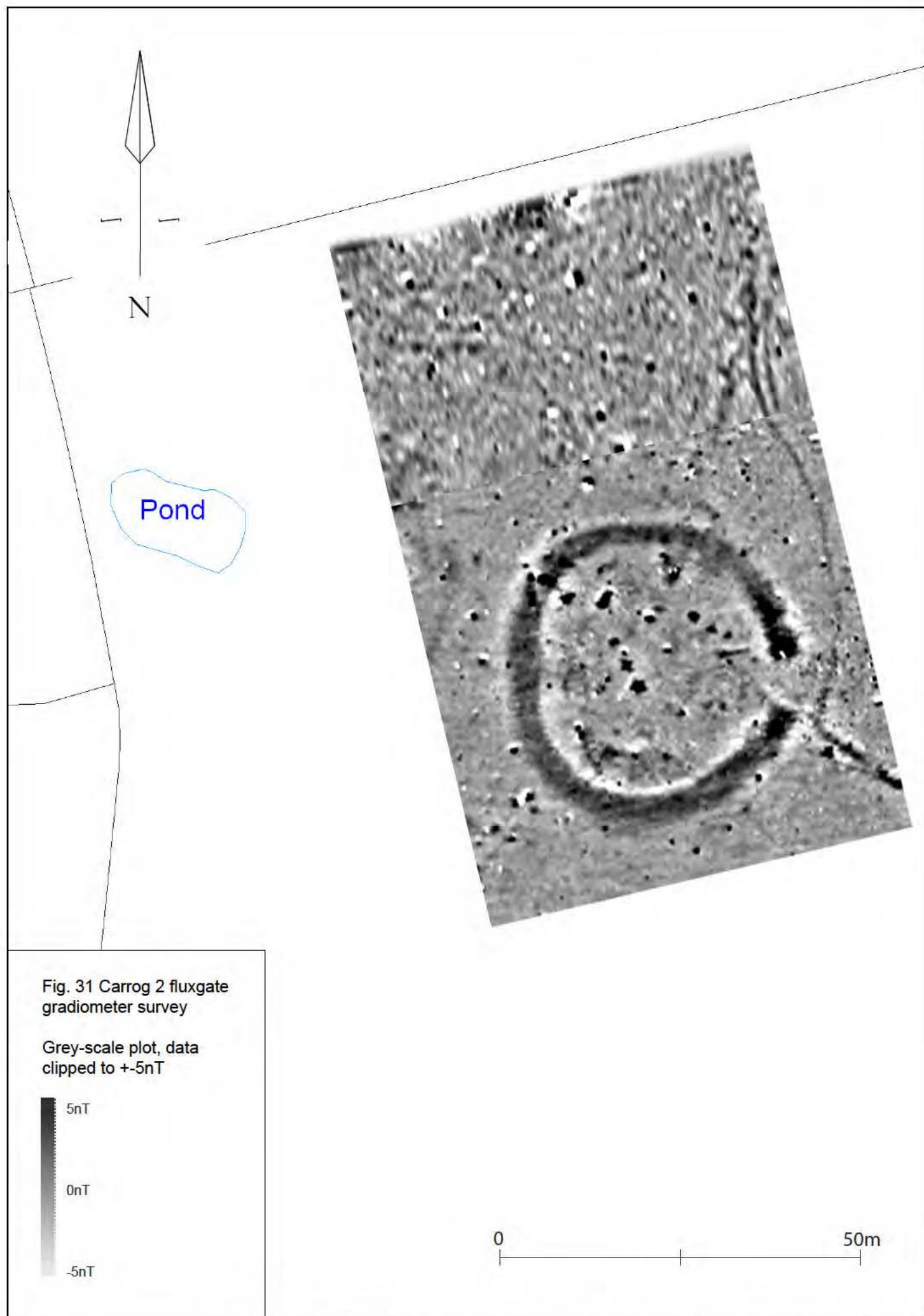


Fig. 31 Carrog 1, Llanbadrig Fluxgate gradiometer survey. Grey scale plot

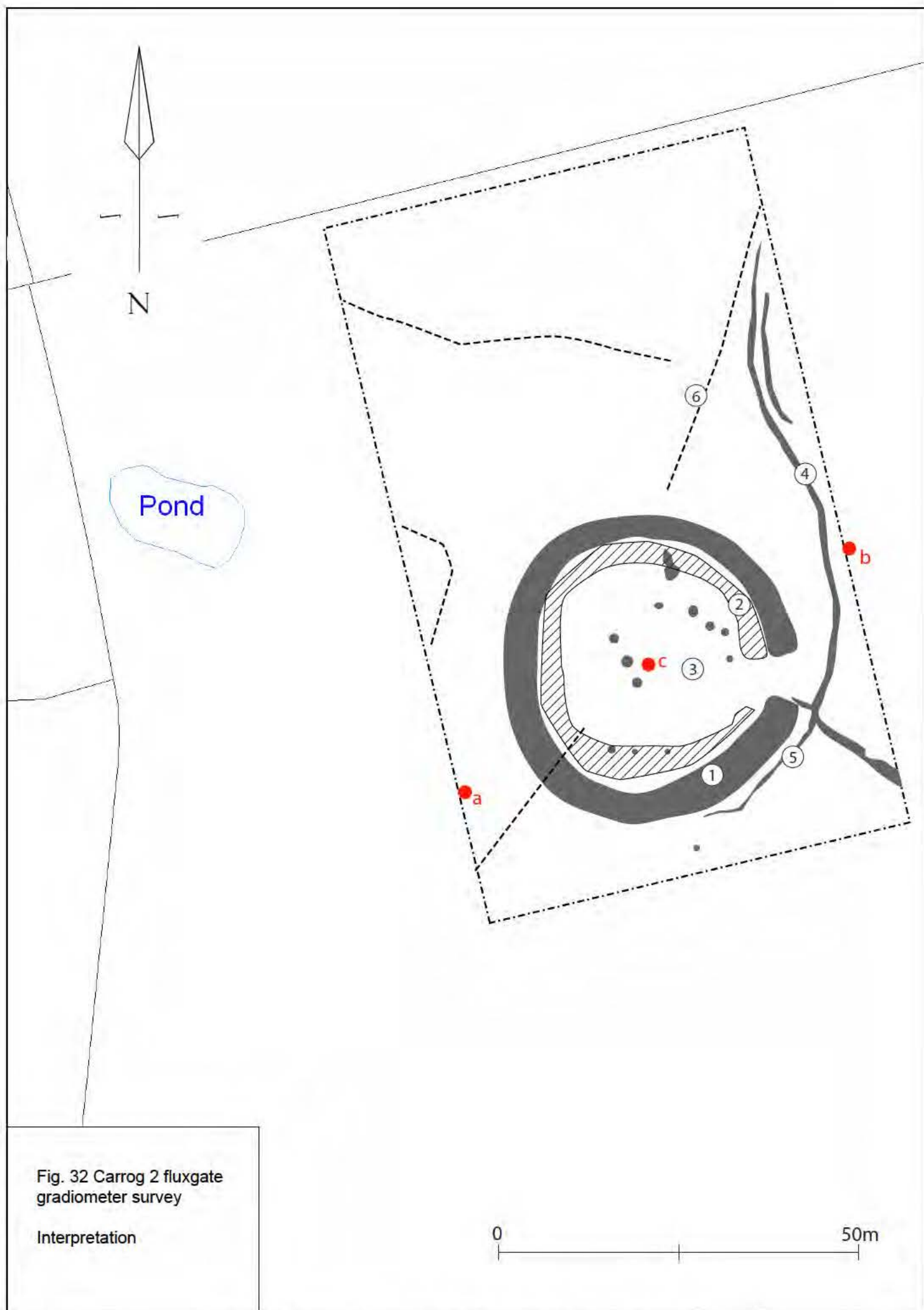


Fig. 32 Carrog 1, Llanbadrig Fluxgate gradiometer survey.  
Interpretation and location of soil test pits Grey scale plot

## **14. FIELDWORK: BRYN DYFRYDOG, LLANDYFRYDOG**

SH 4348 8588

### **Introduction**

This site was discovered during aerial survey by John Rowlands and Dafydd Roberts of Pixaerial. A photograph of a field to the north-west of the farmhouse of Bryn Dyfrydog showed a possible large circular feature, about 80m diameter. This was an oblique photograph taken in very low evening light and the field in question was under short grass pasture. The circular feature appeared to be a neatly circular bank around a low internal mound (Fig. 34). The photograph also showed up many very slight surface features in the grassland, including quite slight cultivation marks.

Thanks go to Mr Farrell, Bryn Dyfrydog, for permission to carry out the survey

### **Topographic and Historic Background**

The possible enclosure lies at a height of 65m OD on the gently sloping, south-east facing side of a low, gently rounded hill (Fig. 33). The bedrock is slate and shale but lying close to a rock outcrop of intrusive serpentine just to the south-east, on which the farmhouse of Bryndyfydog stands (HMSO 1972). The hill on which the feature lies has cover of drift consisting of glacial gravel, which is a quite limited deposit in a wider area of boulder clay drift (HMSO 1974). The soil of the area is a brown earth over drift over hard, non-calcareous shale (Soil Survey 1958). The land is classified as of Grade 4 (MAFF 1977), which is suitable for intensive cattle and sheep grazing rather than arable. However, the localised area over the glacial gravel is probably somewhat better drained and more favourable to agriculture and has clearly been well-cultivated in the past.

The fields here are improved pasture, some used for silage and hay crops and all have been cultivated, if only for grass improvement. There are no obvious terraces of former lynchets within the fields to suggest the presence of an earlier field system but the combination of irregular and straight boundaries suggests at least subdivision and possibly re-alignment of an earlier layout. The field pattern is still much as it was in 1889 with the exception of a boundary at the south-east side of the field, which has been straightened.

The area has some potential interest as a possible focus of earlier prehistoric activity because of the occurrence about 300m to the west of a possible chambered tomb, Maen Chwyf (PRN 2014), and about 500m to the west of a standing stone at Llys Einion (PRN 2103), both scheduled monuments. However, Maen Chwyf is of uncertain value because it has been suggested to be just a natural rock feature (Lynch 1969, 307). Other visitors consider that it may be a collapsed tomb and it is now so overgrown that only excavation would be able to achieve better understanding. Certainly it is a major feature, even if it is natural, and such features were often regarded as of significance in early prehistory and used for the placing of burials. The Llys Einion standing stone is a large upright slab about 1.8m high. Apart from these features there are no other known archaeological features or finds in the area that might suggest a focus of activity although it is relatively good agricultural land and could have been attractive for early settlement.

## **Magnetometer Survey Results (Figs 35-36)**

An area of 80m x 80m was surveyed at standard resolution (1.0 x 0.5m). Two 20m grids were resurveyed at high resolution (0.5 x 0.25m). These detected slightly more noise but improved the resolution of the survey and are superimposed on the standard grey-scale plot. Background noise levels were generally high across the survey area due to igneous intrusions in the bedrock. This produced large scale variations across the survey which have been processed out using a high-pass filter.

The most obvious anomaly is a linear feature (1), probably a ditch marking a former field boundary, running across the centre of the survey. A roughly circular anomaly (2) visible as a dip or shelf on the ground may cut the boundary although the relationship between the two is not clear. The circular feature could be interpreted as a small prehistoric settlement site but given that it appears to cut the field boundary it seems more likely to be a recent gravel quarry-pit. There are several other examples visible in nearby fields. A linear feature (3) runs parallel to the survey traverses; this is best interpreted as a former subdivision of the present field system. An amorphous anomaly at the north-east of the survey is probably geological in origin as is a much stronger anomaly (5) further to the south. It should be noted that magnetic scanning, carried out while searching for a suitable calibration point for the gradiometer, showed that rocks outcropping to the east of the survey are strongly magnetic.

## **Soil study**

Two soil pits, a and b were dug to test the depth and type of topsoil and subsoil, Pit a outside the area of the possible enclosure and Pit b within it (Fig. 36).

Pit a Plough soil 0 to -32cm. Grey-brown clayey silt with scattered small sub-angular shale stones and 5% rounded gravel, 10mm dia. and smaller.  
Subsoil at -32cm+. Orange-brown clayey silt with 10% small sub-angular shale stones up to 10mm long and 5% rounded gravel, 10mm dia. and smaller.

Pit b Plough soil 0 to -35cm. As Pit a.  
Subsoil at -35cm+. As Pit a.

There was a reasonable depth of stony plough soil in each pit and the subsoil was gravelly, as suggested by the soil survey map. The soil depth is average and shows that normal ploughing will disturb the whole of the topsoil to the surface of the subsoil, so any archaeological features would be at risk.

## **Discussion**

The aerial photograph shows what appears to be a large sub-circular earthwork. Only one side of this is readily visible on the ground and this could tentatively be interpreted as a platform c. 30m dia., indicating a prehistoric settlement site or a later feature such as a haystack stand (Fig. 36b). The geophysical survey did not detect anything related to the possible large earthwork seen on the aerial photograph. Features such as the former field boundaries produced clear anomalies and it would be expected that a large enclosure would also produce an anomaly. The smaller platform produced an anomaly consistent with a fairly regular excavation into the ground; this could be interpreted as a

platform or a shallow quarry pit. There was nothing to suggest an enclosing ditch or any occupation. The relationship between the platform and the former field boundary is unclear although it is probable that the platform cuts the field boundary and is therefore relatively modern.

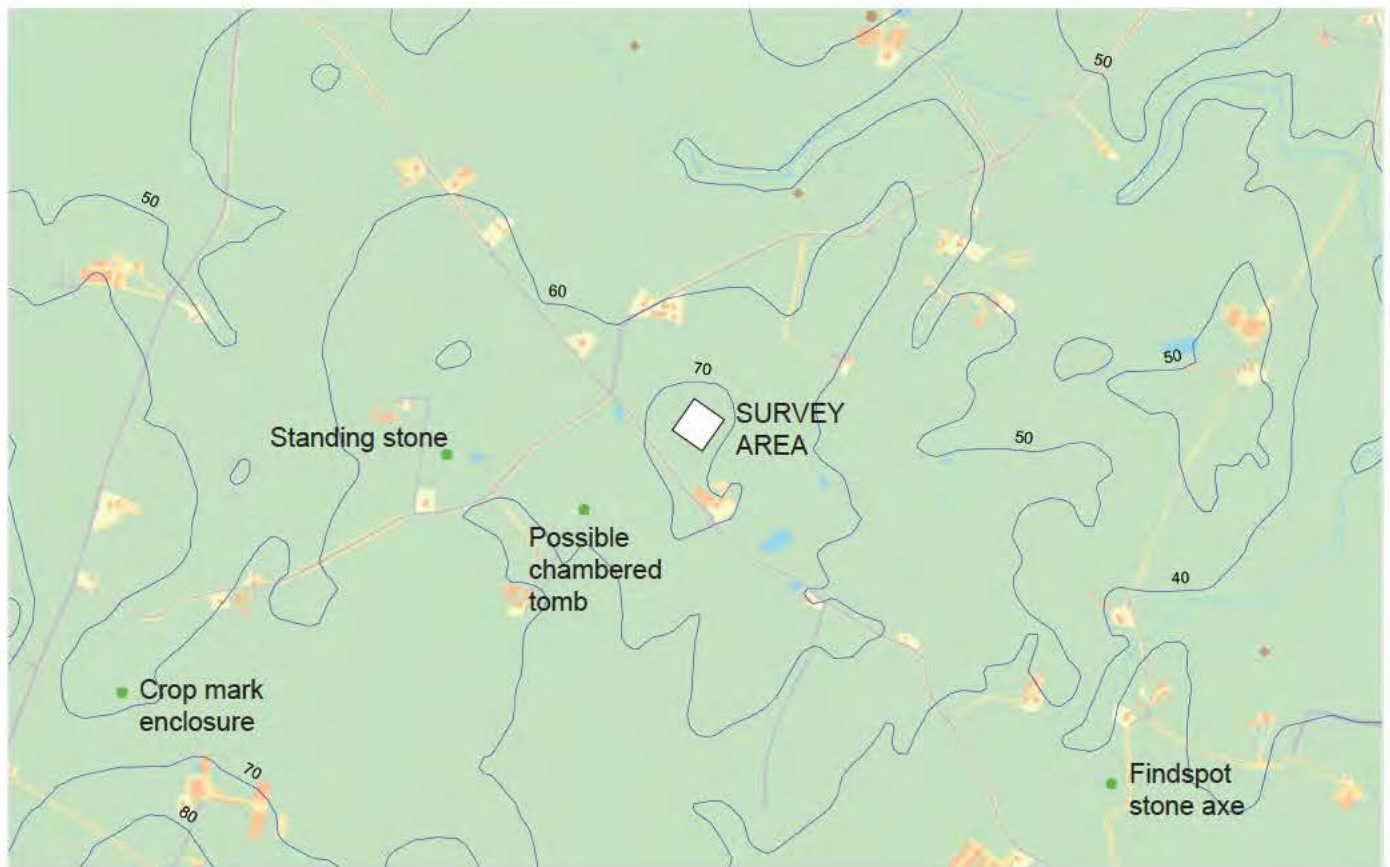


Fig. 33 Bryn Dyfrydog, Llandyfrydog. Location map



Fig. 34 Bryn Dyfrydog, Llandyfrydog. Aerial photograph from the north.  
Copyright Pixaerial

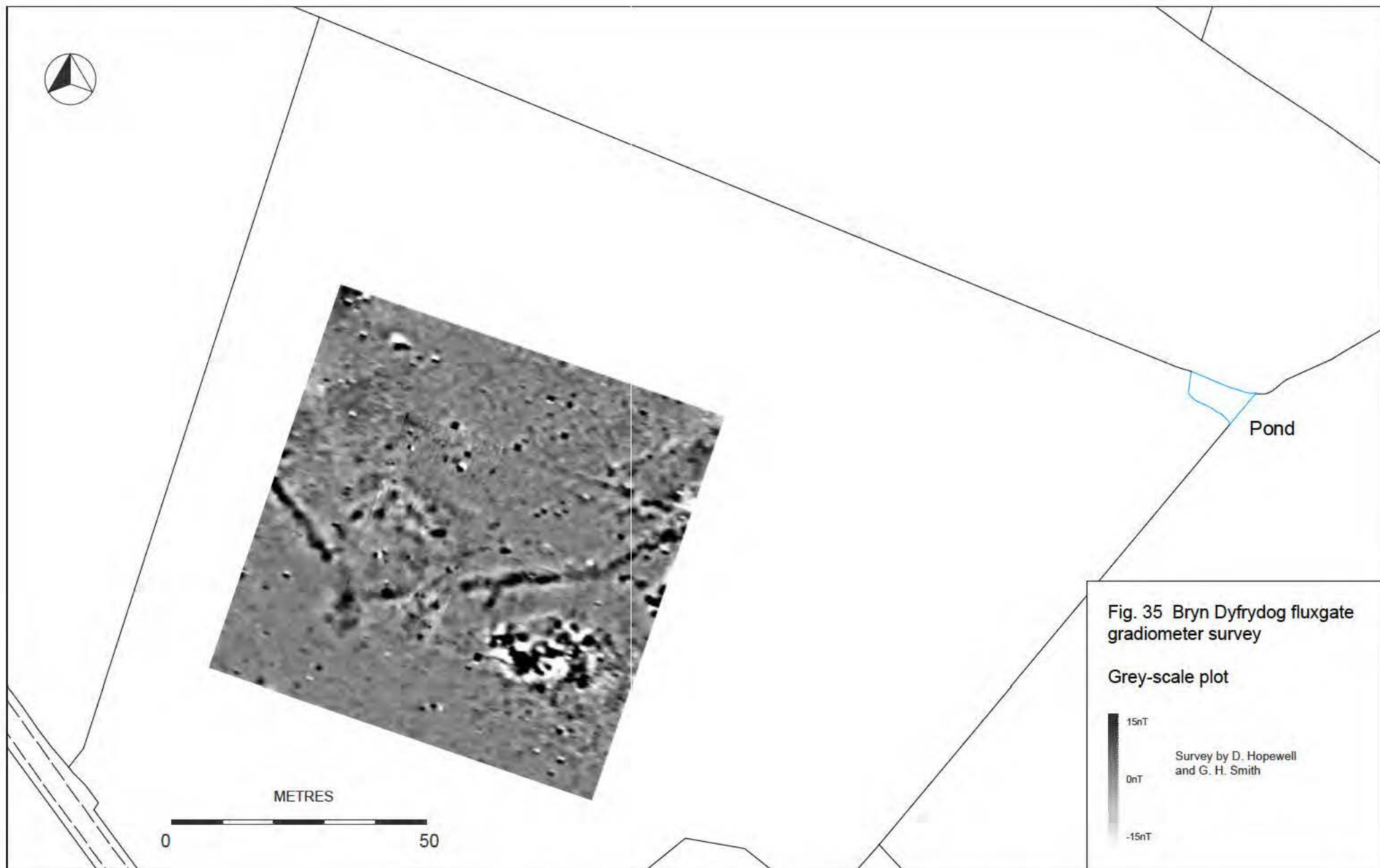


Fig. 35 Bryn Dyfrydog, Llandyfrydog. Fluxgate gradiometer survey. Grey scale plot

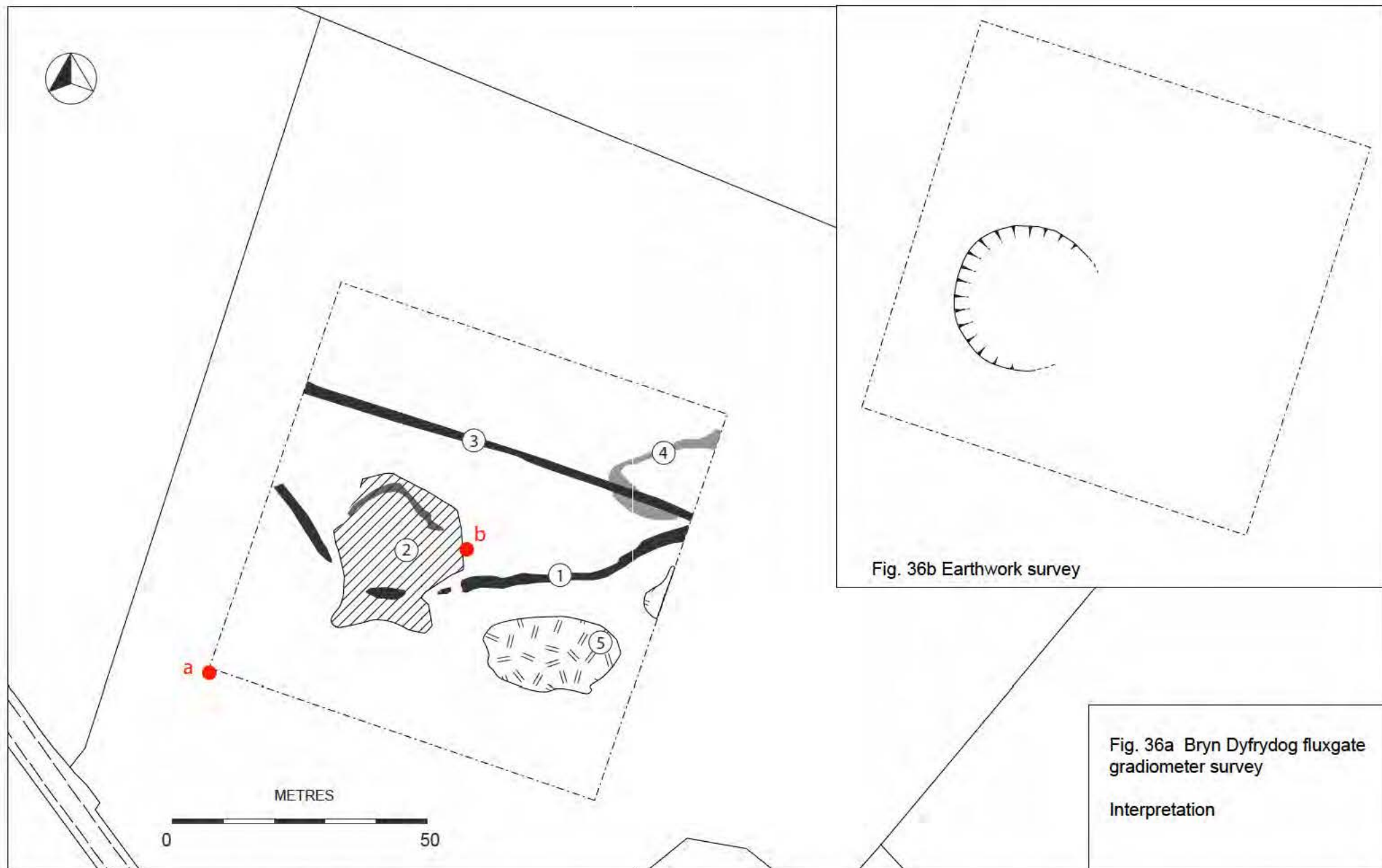


Fig. 36a Bryn Dyfrydog, Llandyfyrydog. Fluxgate gradiometer survey. Interpretation and location of soil test pits (a-b) and Fig. 36b Earthwork survey



## 15. FIELDWORK: LLYS CASWALLON, LLANEILIAN

SH 47729202

### Introduction

There are several antiquarian references from as early as the 16<sup>th</sup> century to the presence of an antiquity called 'Llys Caswallon' near Llaneilian although no visible remains were known. A site for it was shown on the first edition Ordnance Survey maps on Mynydd Eilian overlooking the east coast of Anglesey. The identification of this lost antiquity has been one of the avenues of enquiry pursued by the Anglesey historian T.P.T. Williams from whom the following summary has been compiled.

Thanks are due to the landowner, Mr T.D. Jones, for permission to carry out the survey.

### Historical Background

T.P.T. Williams writes the following... 'The name *Caswallon* is identified with the semi-legendary 5<sup>th</sup> or 6<sup>th</sup> century chieftain Cadwallon Lawhir ap Einion Yrth, taken to be the father of Maelgwn Gwynedd and credited with the final expulsion of Irish settlers from Anglesey' (Williams In Press). The antiquarian sources say that Caswallon constructed his *llys* or court near Llan Eilian, but provide no evidence of exactly where this was or of what form it took. The location of the *llys* as being on Mynydd Eilian has been recorded as such since at least 1816-20 although why this is so is not clear. The earlier descriptions say only that the *llys* was near Llaneilian. There are references to Mynydd Eilian as Mynydd Cadwallawr, probably a corruption of Mynydd Caswallon and it could be simply that the mountain formed grazing land belonging to Caswallon and so absorbed the name. The '*llys*' could be expected to be a substantial semi-defensive enclosure containing a main hall and outbuildings, similar to that of Llywelyn Fawr known from excavations at Rhosyr, Newborough (Johnstone 1999). The rocky heights of Mynydd Eilian do not seem a suitable site for such a complex, which was essentially domestic and would have needed a water supply. Nor are there any visible earthworks on Mynydd Eilian that could be the remains of such a complex. Nevertheless, the site has a prominent position overlooking Llaneilian and has some defensive value. There is a 19<sup>th</sup> century house on the hill there that has taken the name Llys Caswallon and there is a tradition that stones from the original *llys* were taken to help build the new house. The position where the *llys* is marked on the first edition Ordnance survey map is at the east end of an elongated field (Fig. 38). Mr Williams organised a geophysical survey of this area by Mr John Burman in 2002, but although the survey was effective, there were no geophysical anomalies that could be the remains of any buildings or earthworks. Subsequently, a visit by David Hopewell of GAT suggested that there was another more likely location at the west end of the field, on a slight prominence. A further survey of the whole field was therefore carried out in 2009 as part of the present project and described here. This survey located a small sub-rectangular enclosure containing a probable rectangular building at the suggested location.

### Topographic location

The features identified lie at a height of 140m OD on a slight prominence on an east-west ridge to the east of the main summit of Mynydd Eilian, which rises to 177m OD (Fig. 37). It has wide views to the north over Llaneilian village, Trwyn Eilian (Point

Lynas) and the sea and to the east over the Anglesey coast, Ynys Seiriol and Snowdonia.

The land here and nearby is undulating with grassed over rocky prominences and is all permanent pasture, although ploughed in the past. The farmer reports that he has not ploughed here for 40 years.

The field lies over a small area of Ordovician sandstone and conglomerate (HMSO 1972). The hill is rocky with no identified cover of glacial drift (HMSO 1974). However the soil is recorded as Rocky brown earth (Gaerwen Series) over drift over Mona complex schist (Soil Survey 1958) and the land classified as of agricultural Grade 3 (MAFF 1977) which is reasonably good land, suitable for arable crops, although the immediate area of the study is rocky.

### **Magnetometer Survey Results (Figs 39-40)**

Two areas of fluxgate gradiometer survey were carried out. The first, an area of 60m x 40m centred on the location of the site as shown by the Ordnance Survey, was surveyed by J. Burman in 2001. A second area with maximum dimensions of 200m x 60m was carried out by D. Hopewell and T.P.T. Williams in 2009. No archaeology, apart from a single ditch or drain (1), was revealed at the OS location of Llys Caswallon. A geophysical anomaly (2), corresponding to a low earthwork on the ground bisected by a later field wall, was however detected at the western end of the survey area. The anomaly is best interpreted as a trapezoidal enclosure with dimensions of 42m x 46m. It appears to be bounded by a ditch and bank, enclosing an area of 29m x 32m (0.09 ha) with the somewhat irregular southern side following the line of a natural shelf. The results are a little unclear on the western side but there appears to be a break in the ditch indicating an entrance associated with a faint linear anomaly that could indicate a road (3). The western side of the interior contains a fairly clear rectangular anomaly (4) with dimensions of 20m x 7m. This is best interpreted as a building. It appears to contain a central subdivision and the strong negative magnetic signal is consistent with a stone construction (although it could indicate destruction by fire). The eastern side of the interior contains a strong anomaly (5) that is probably a thermo-remnant response. This could be a result of either igneous geology close to the surface, an area of burning or debris from metalworking.

A former field boundary, partly visible as an earthwork (6), runs down the centre of the field and parallel anomalies at 90 degrees to this probably indicate ploughing (7). It should be noted that the enclosure appears to overlie the field but this may be misleading. Gradiometer results show a series of superimposed anomalies and the stronger signals will tend to mask the weaker even though they may be lower in the stratigraphic sequence. A series of anomalies to the west of the enclosure are the result of a quarry, an undated boundary, and probably an area of magnetic geology.

### **Discussion**

A trapezoidal enclosure of this size could date from the Iron Age or Early Medieval periods although the presence of a rectangular building in the interior makes the later date more likely. The farmer reports finds of marine shells in the area and these could indicate food midden deposits and suggest domestic activity. Definite interpretation of

the enclosure is not possible without excavation and it is hoped that trial work can be carried out in 2010.

### **Soil study**

Four soil pits, a, b, c and d were dug to test the depth and type of topsoil and subsoil (Fig. 40).

Pit a 0 to -10cm. Dark brown stone free silt. Turf-line.

-10 to -30cm. Compact dark brown humic gritty silt. Scattered sub-angular small stones up to 100mm long, deriving from local bedrock. One piece of black chert from glacial till. Two small pieces of broken roofing slate, probably from manuring of field. Old plough soil.

-30cm+. Partly shattered bedrock interleaved with orange-brown silt. Silt probably remnant of glacial till.

Pit b 0 to -10cm. Turf.

-10 to -20cm. Old plough soil as pit a.

-20cm.+. Solid bedrock dipping steeply down to the north and continuing down at -30cm, still with plough soil cover.

Pit c 0 to -10cm. Turf.

-10 to -45cm. Dark brown silty loam with scattered subangular stones up to 100mm long. Old plough soil, perhaps accumulated in natural or man-made negative feature.

-45cm and not bottomed at -55cm+. Orange-brown silt with small subangular stones. Natural glacial till.

Pit d 0 to -10cm. Black peaty turf.

-10cm+. Partly disaggregated bedrock.

### **Comments**

Pits a and d are in the field outside the enclosure. Pit a is in a level part of the field, which must have been ploughed in the past. This shows a fairly shallow old plough soil which has been compacted by prolonged grazing but the presence of numerous worms shows it is a fertile soil. Pit d is on the edge of a small hummock, which the pit shows to be a grassed-over rock outcrop with a very thin organic peaty turf.

Pit b is, like pit a, in a level part of the field within the identified area of the enclosure in what may be a yard beyond the building. It has very shallow topsoil of old plough soil over bedrock, showing that ploughing has probably truncated and removed any earlier occupation horizons or structures.

Pit c lies over one of the linear geophysical anomalies of the enclosure bank or ditch. This showed a much greater depth of topsoil/plough soil, perhaps accumulated in a shallow ditch forming part of the enclosure.

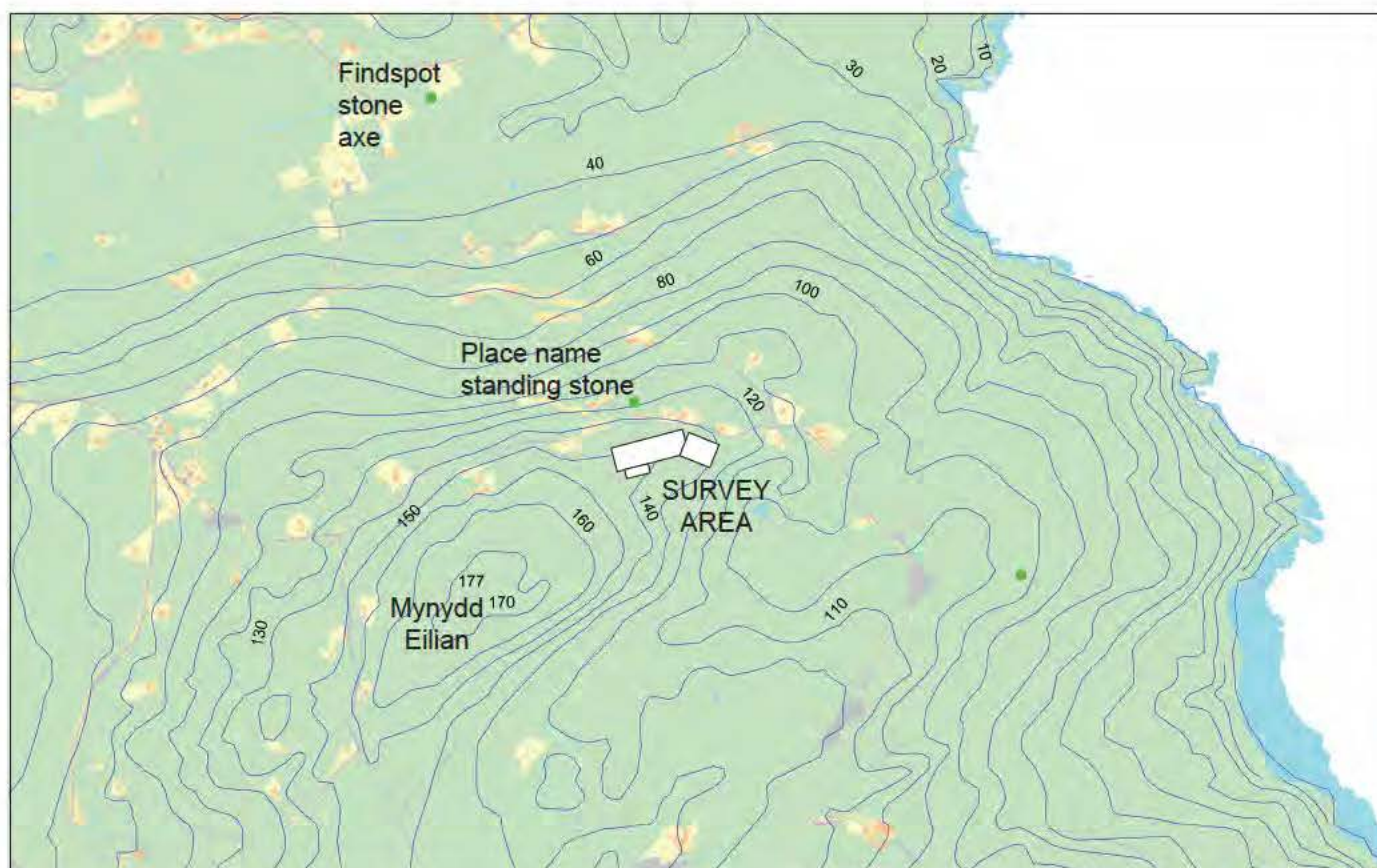


Fig. 37 Llys Caswallon, Llanelian. Location map

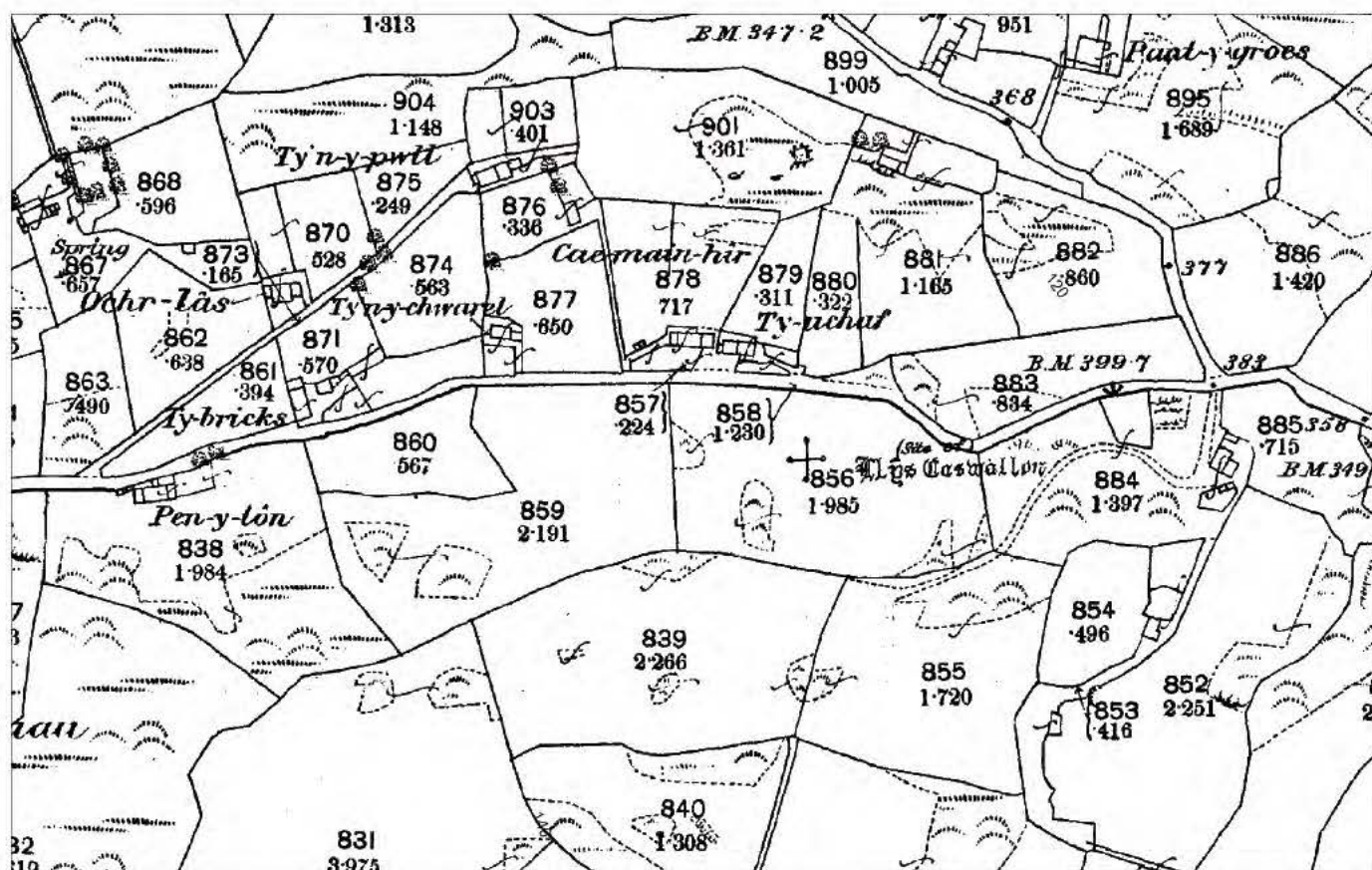


Fig. 38 Llys Caswallon, Llanelian. 1889 Ordnance Survey 1:2500



Fig. 39 Llys Caswallon. Fluxgate gradiometer survey, Grey scale plot

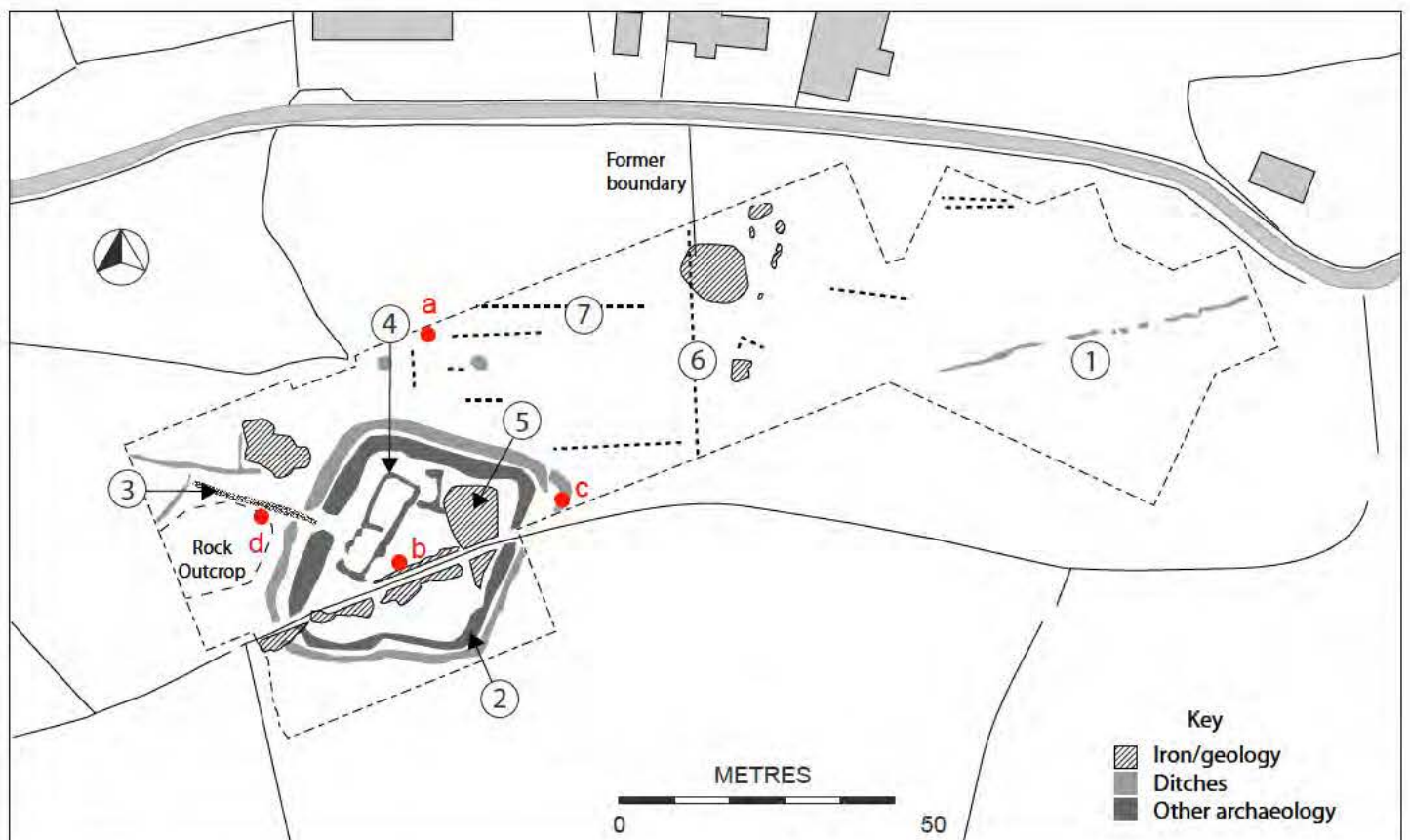


Fig. 40 Llys Caswallon fluxgate gradiometer survey. Interpretation and location of soil test pits (a-d)

## 16. GENERAL DISCUSSION

The survey has produced some significant results, represented by a variety of new features of several periods (Table 2). The features are widely scattered geographically and are not representative of a particular period, type of site, activity or geographical area. However, the nature of the aerial photographic evidence in this case is diverse. In the Llŷn project a number of features happened to have been identified that were all prehistoric enclosures. The evidence here does demonstrate how much of the Medieval and prehistoric landscape of Anglesey still has to be identified and understood.

**Table 2 Summary of Survey Results**

A. Early Bronze Age burial mounds	Carrog 1
B. Possible Late Bronze Age settlement	Carrog 2
C. Iron Age enclosed settlement	St. Mary's Church; Fodol (possible)
D. Romano-British open settlement	Tai Cochion/Trefarthen
E. Medieval homestead/ farmyard	Bod-gyffail (possible)
F. Medieval(?) enclosed house	Llys Caswallon
G. Post-medieval and earlier(?) farm house/other activity	Porth Tywyn Mawr Bryn Dyfrydog

The commonest type of monument in Gwynedd representative of the Bronze Age, from the second millennium BC, is that of the stone built burial cairns in the uplands and a few of these occur in marginal areas of Anglesey, such as on Mynydd Llwydiarth. In the intensively farmed lowlands earth-built burial mounds were the equivalent, and these rarely survive as earthworks, and more often recognised as ring ditches. These are one of the most frequently observed crop marks in lowland areas in general and of those known on Anglesey (Table 1). Those observed at Carrog 1 were rather large at about 23m and 28m diameter but their interpretation as burial mounds was the most likely. Ground observation showed that slight earthworks did survive, which supported the interpretation. Their discovery helps to show that occupation in this area in the Bronze Age is likely to have been quite intensive, although at present we have little direct evidence of it. Moreover, these mounds add to the local evidence of some kind of prehistoric ceremonial focus around Llanfechell, which derives further investigation. This includes a chambered tomb with Bronze Age re-use, cup-marked stones, a unique group of three standing stones and a standing stone with an associated cup and ring marked stone.

The absence of settlement remains from the Bronze Age in Anglesey is problematic, given the agricultural quality of the land and the presence of widespread chance finds of bronze artefacts, of funerary and ritual features such as burial mounds/ring ditches and standing stones. This is an avenue of research that needs to be pursued. Settlement may have been scattered, insubstantial, less likely to survive and difficult to identify. However, by comparison with evidence from elsewhere in Britain there should be some enclosed settlement and this would consist of curvilinear or sub-circular enclosures. In

North-west Wales concentric enclosures are typical but no earthworks or marks of that type are known in Anglesey. In the later second millennium defended settlements developed and substantially ditched sub-circular hill-top enclosures were built. The large sub-circular crop mark on a low hill at Carrog 2 is therefore intriguing and trial excavation there may prove valuable.

The St. Mary's Church enclosure is the most recognisable settlement type. It takes the form of a slightly flattened circle and is about 40m square internally. In shape and area it corresponds closely with enclosures surveyed in Llŷn in 2008 (Table 3).

**Table 3 Internal area of Iron Age type enclosures surveyed in 2008 and 2009**

**Llŷn**

Bwlch y Ffordd Isa	0.13ha
Maesoglan	0.10ha
Cwmistir Uchaf	0.13ha
Penybryn	0.07ha
Pont Rhyd Hir	0.16ha
Cae Newydd Mynachdy	0.13ha
Ynys Bach	0.11ha
King George's Field	0.10ha

**Anglesey**

St Mary's Church	0.14ha
------------------	--------

These enclosures are distinctively neatly laid out, sub-circular or slightly oblate, which seems deliberate, while one, King George's Field, is flattened at the 'rear', i.e. at the part of the enclosure opposite the entrance. Only at Bwlch y Ffordd Isa and Penybryn were houses identified. St. Mary's Church probably had two roundhouses inside and so was quite a small homestead. Bwlch y Ffordd Isa, Cwmistir Uchaf, Penybryn and King George's Field had wide entrances, while St. Mary's Church was different, with a narrow entrance. However, these are typical Iron Age small settlements, which can be curvilinear or rectilinear in plan, the choice of design seemingly not culturally significant. They can be compared to the excavated (sub-rectangular) settlement of Bryn Eryr, Anglesey, occupied from about the third centuries BC and into the Roman period (Longley 1998).

It seems certain that the lowland of Anglesey was intensively settled and farmed during the first millennium BC although evidence of it has been largely erased by more recent agriculture. The situation is similar to that in the lowland of north-east Wales. There, a survey of crop marks and earthworks identified at least 60 small undated enclosures, mainly in non-defensive positions and mainly of sub-circular outline, with a few rectilinear (Manley 1991). These varied from 0.1 to 1.2ha in area, most frequently between 0.2 to 0.3ha. These small enclosures still have to be investigated but were taken to represent the previously unknown lowland Iron Age farming landscape to complement that of the known hill forts.

The discovery of the Romano-British settlement at Tai Cochion is an extremely important find. It is so large that work on it has carried on beyond this project. As a large open civilian settlement it has parallels elsewhere in Roman Britain but not so far in north-west Wales, where settlement evidence, except that immediately outside forts, consisted only of native settlements of roundhouses, some enclosed, some open. Surface finds show

that it was in use in the second and third centuries AD but it is hoped that further research will find out more about its origins, functions and relationship to the fort at Segontium, Caernarfon.

The possible Medieval remains here are disparate and difficult to identify and classify but they are still valuable. A major problem with identifying the Medieval landscape is that much of the settlement locations, both rural and urban continued in use and were built over and the earlier remains obscured. Occasional discoveries of abandoned sites and particularly preserved sites such as Bod-gyfaill and Llys Caswallon are therefore important. What the aerial survey and geophysics do show is that other elements of the earlier landscape, such as tracks, field boundaries and even cultivation features such as ridge and furrow can be identified. The identification of these is needed in order to build up a proper picture of the whole of the earlier landscape. Geophysical survey has identified earlier roads or tracks at Tai Cochion and Porth Tywyn Mawr as well as field boundaries or cultivation features at St Mary's Church, Fodol, Bod-Gyfaill and Bryn Dyfrydog. Such survey is too time consuming and costly to carry out on a very wide scale so that is where aerial photography must take over. In some cases also there may be early estate maps that record earlier field patterns and field names, perhaps incorporating evidence of earlier use or features. Plots produced from aerial survey repeated over several seasons, crop and weather types can build up a wider picture. A useful avenue of research would be to concentrate on one or more specific Community areas and to carry out longer term multi-disciplinary research which, besides documentary research, aerial photography, geophysics and trial excavation could include earthwork survey, hedgerow analysis, surface collection, environmental sampling of buried soils and vernacular building recording, such as has been successfully carried out in East Brittany (Davies and Astill 1994).

A long term focussed project then can also involve different disciplines and provide opportunities for student training and local volunteers. The second year of the present project will include work with local schools as part of an archaeology event at the Llynnon Mill roundhouses and trial excavation with local volunteers. The proposed locations for this work are at St. Mary's Church, Llanfairpwllgwyn and at Carrog, Llanbadrig. Separate projects are planned to carry out similar trial work, with local involvement, at Tai Cochion, Llanidan and at Llys Caswallon, Llaneilian.

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## **APPENDIX 1**

**Archaeological walk leaflet: Holyhead Mountain Iron Age hillfort and Roman signal station**



# CERDDEDIADAU ARCHAEOLEGOL O GWMPAS CAER Y TŴR: BRYNGAER MYNYDD Y TŴR, CAERGYBI



## Cerddediad 1: O Parc Gwledig y Morglawdd

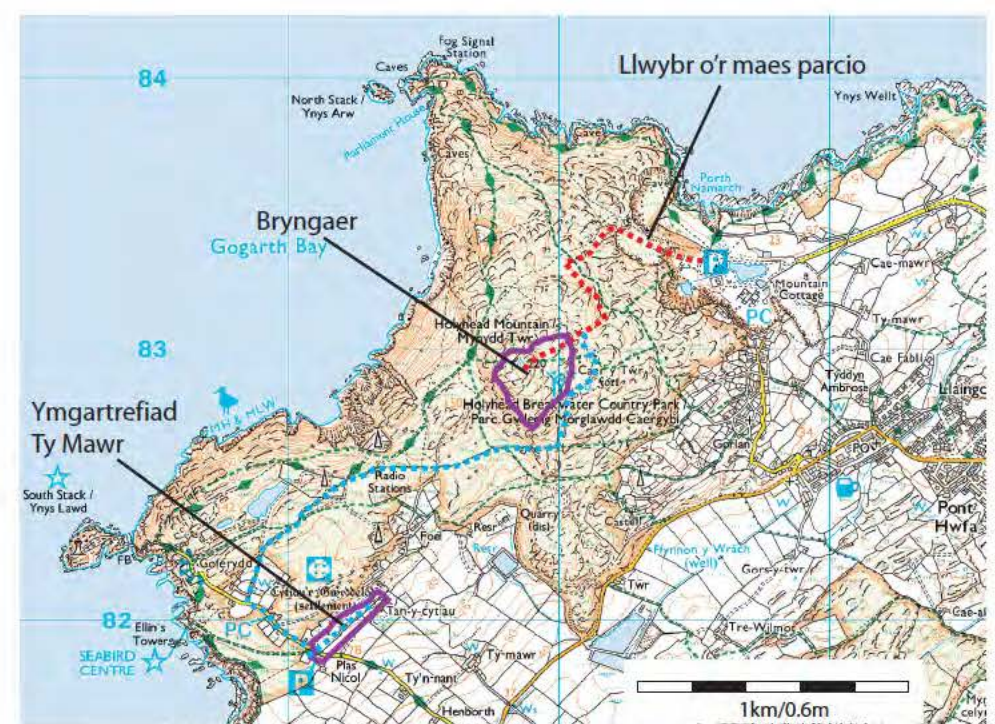
Mynydd y Tŵr

**Lleoliad:** Mae'r bryngaer Oes yr Haearn yma yn gorwedd ar gopa Mynydd y Tŵr. Y ffordd hwylusaf i'w gyrraedd yw o faes parcio Parc Gwledig y Morglawdd, a ellir ei gyrraedd gan fynd heibio terfynell ysgraffau Chaergybi a throi i'r chwith ar hyd y promenâd o ble welwch arwyddion i'ch cyfeirio at y Parc Gwledig. Mae yna gaffi a thoiledau, yn ogystal a swyddfa wybodaeth yn y Parc Gwledig.

**Pellter:** Mae'r cyfanswm yn ymddibynnu ar faint o'r bryngaer y cerddwch, ond y mae tua 3.5km (2.5 milltir) i gyd, gadewch tua 2 awr.

**Caledrwydd:** Mae'r llwybrau i fyny'r bryn yn serth ac anwastad mewn mannau, ond fel arfer yn sych. Mae mannau oddi ar y llwybr yn aml wedi'w gordyfu gyda grug, yn gerrigog ac yn anodd i'w cerdded.

O'r maes parcio mae'r llwybr yn ymestyn tua'r gogledd ac wedyn yn troi tua'r gorllewin i fyny'r llethr. Ar ben y rhan gyntaf o'r bryn uwchben lefel y chwarelau mae'r llwybr yn cwrdd ac un arall ac yma trowch i'r chwith am 200m i droi i ffordd ar y dde i fyny'r bryn tua'r copa. Mae'r llwybr yn arwain drwy fynediad y bryngaer ac yn ymestyn i'r copa. Ar ol cerdded o'i gwmpas dychwelwch gyda'r un llwybr. Peidiwch a chael eich temtio i gymeryd torriad byr, gan fod ymylon y chwarel gerllaw.



Yn seiliedig ar fapiau Arolwg Ordnans. Hawlfraint y Goron. Rhif Trwydded 100020895

..... Cerddediad 1

..... Cerddediad 2

## Cerddediad 2: O faes parcio Tŵr Ellin

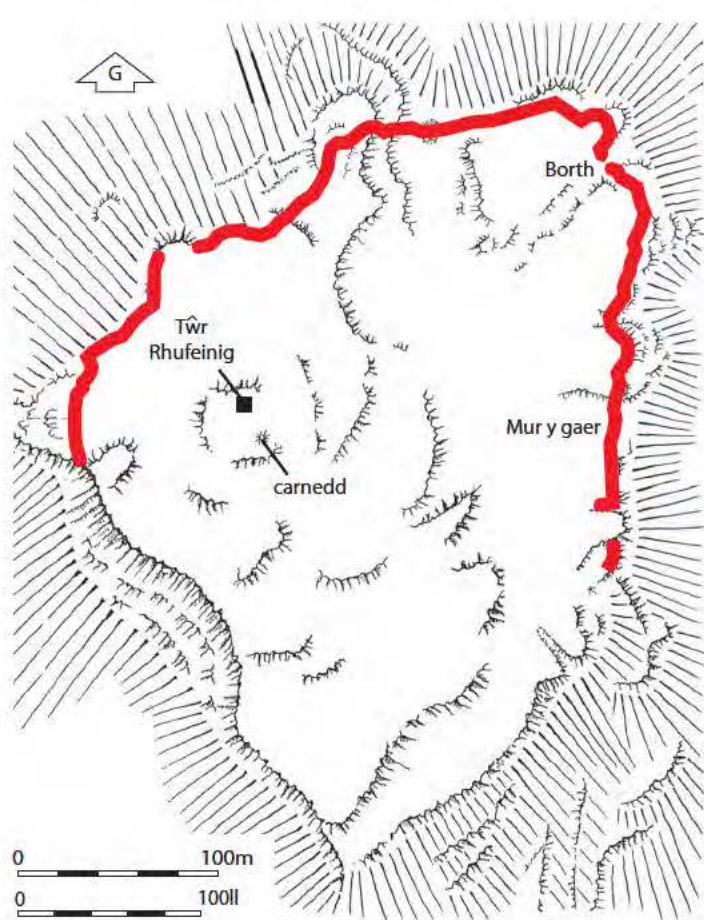
**Lleoliad:** Gellir cymerid llwybr arall, hirach o'r maes parcio ger Tŵr Ellin ar ochr orllewinol Ynys Cybi. Mae hwn yn cynnwys ymgartrefiad Ty Mawr yr Oes Haearn yn ogystal a'r bryngaer ond mae rhaid amgylchu y gaer i gyrraedd y fynedfa. Mae Tŵr Ellin a'r maes parcio yn agos i oleudu Ynys Lawd, sydd wedi'w arwyddo o Gaergybi a Phorth Dafarch.

**Pellter:** Unwaith eto, mae'r cyfanswm yn ymddibynnu ar faint o'r gaer y cerddwch ond tua 6km (4 milltir), gadewch tua 3 awr.

**Caledrwydd:** Mae rhan fwyaf o'r llwybr yn hawdd dros draciau da ond mae'r dynesiad terfynol i'r bryn yn serth a garw. Cadwch ar y llwybrau wedi'w cerdded yn dda.

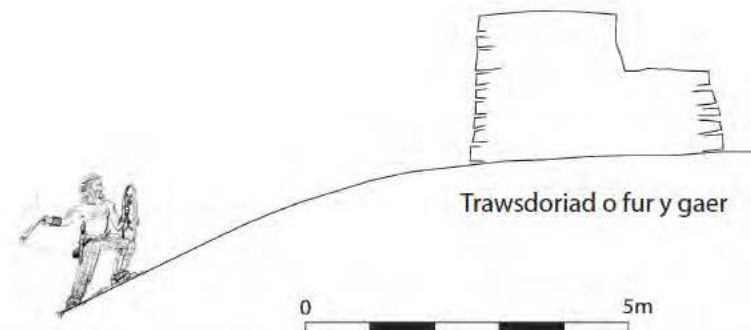
Mae'r llwybr yma yn rhoi gwell golygfa o glogwyni rhyfeddol gorllewinol y mynydd. O'r maes parcio croeswch y ffordd i'r ymgartrefiad, sydd wedi'w harwyddo. Ewch ymlaen heibio'r ymgartrefiad ac ar hyd y ffordd am 300m i gyfeiriad Ynys Lawd, yna cymerwch y ffordd fechan i fyny'r allt at y llwyfandir ble bydd y bryn yn amlwg i'w gweld. Ewch ymlaen eto o gwmpas ochr ddwyreiniol y bryn o gwmpas muriau'r gaer hyd y gwelwch y fynedfa. Ffordd arall i ddychwelyd yw o gwmpas ochr orllewinol y bryn ar hyd y clogwyni uwchben goleudu Ynys Lawd.





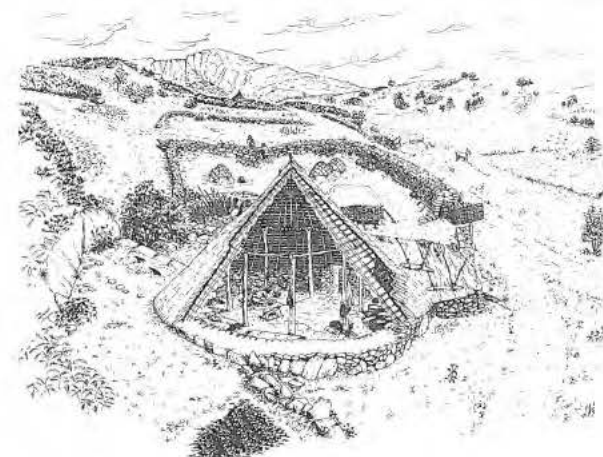
### Caer y Tŵr, bryngaer Mynydd y Tŵr a Thŵr Rhoi Arwydd Rhufeinig

Mae'r bryngaer ar Mynydd y Tŵr yn fawr iawn ei harwynebedd, yn amgáu tua 7 hectar (17 o erwau). Clogwyni serth yn rhoi amddiffynfeydd digonol yw'r rhan helaeth ohono. Amddiffynnwyd y gweddill, ar yr ochrau dwyreiniol a gogleddol gan furiau enfawr o gerrig, a mae rhannau o rhain yn dal i sefyll hyd at 3m. Yr oedd y mur yma tua 3.5m o led ger ei waelod ac yn culhau ychydig ar ei phen, tybiwyd o fod tua 4m o uchder, gyda ffordd gerdded â chamau ynddi tu ol i barwyden. Mae'r llafur a aeth i fewn i adeiladu'r mur yma dros 380m o hir yn anferthol. Yr oedd mynedfa unigol i'r gogledd-ddwyrain, yn ei chyrraedd gan drac i fyny ceunant naturiol. Cryfhawyd y fynedfa gan droi'r muriau i fewn ar bob ochr, fel bod yr agosfa wedi'w drosedrych ac felly'n haws i'w hamddiffyn. Mae'n ddiddorol, er mae caer mawr a chryf bo hon, na ddarganfyddwyd unrhyw dystiolaeth o ymgartrefiad yma erioed. Yn bendant, nid yw'r mynydd yn le ffafrïol i ymgartrefu, yn agored i'r tywydd, yn gerrigog ac anial. Fodd bynnag, mae nifer o olion ymgartrefu mewn mannau eraill ar Ynys Cybi ac y mae'n debygol bod yma gymuned poblog a ffynadwy yn y cyfnod cynhanesyddol. Mae'n debyg yr adeiladwyd y bryngaer fel lloches i'r boblogaeth leol. Buasau ei faint wedi'w alluogi i gymeryd eu holl heidiau a chenfeintiau hefyd. Mae helaethrwydd cwmpo mur y gaer, mewn mannau yn ymddengus fel ei bod wedi'w daflu i lawr i fyny'r llethr ac yn awgrymu chwalu bwriadol yn ystod cyfnod cyntaf yr anheddu Rhufeinig o Ynys Môn, yn ystod y ganrif cyntaf O.C.

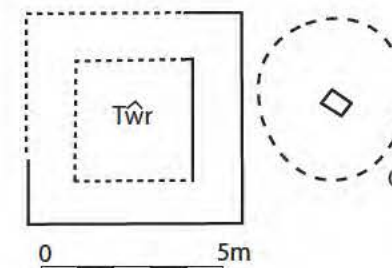


Mae arddull y gaer yn awgrymu mae yn ystod diwedd y mileniwm cyntaf C.C. yr adeiladwyd, ond efallai ei fod wedi gwasanaethu fel lloches yn yr oes Rhufeinig diweddarach pan fod diogelwch unwaith eto o dan fygythiad o'r Iwerddon. Ar gopa'r mynydd, o fewn y gaer mae olion adeilad bychan sgwâr. Yn ystod cloddio'r safle ym 1980, darganfuwyd crochenwaith Rhufeinig. Dehongliwyd y safle fel gwylfa a gorsaf rhoi arwydd yn gysylltiedig a'r caer Rhufeinig a gorsaf llyngesol tebygol Caer Gybi yn ystod y 4<sup>ydd</sup> ganrif O.C. wedi'w gynllunio i rhoi rhybydd cynnar o ymosodiad o'r mor.

Ymgartrefiad  
Ty Mawr,  
Ty crwn



Y wylfa Rhufeinig  
ar gopa'r mynydd



Carn cyfoesol a philer  
Arolwg Ordans

# ARCHAEOLOGICAL WALKS AROUND CAER Y TWR: HOLYHEAD MOUNTAIN HILLFORT



## Walk 1: From the Breakwater Country Park

Holyhead Mountain and hill fort

**Location:** This Iron Age hillfort lies on the summit of Holyhead Mountain. It is most easily reached from the car park at the Breakwater Country park which can be reached by continuing past the ferry terminals at Holyhead and turning left along the promenade from where the Country Park is signposted. There is a café and a toilet as well as an information office at the Country Park.

**Distance:** The total depends on how much of the area of the fort is walked but will be about 3.5km (2.5miles) overall, allowing about 2 hours.

**Difficulty:** The paths up the hill are steep and uneven in places, although usually dry. Areas away from the trodden path are often very overgrown with heather, rocky and difficult to walk.

From the car park a footpath continues northwards and then turns west up the slope. At the top of the first part of the hill above the level of the quarries the path meets another and here turn left for 200m to turn off to the right up the hill towards the summit. This path leads through the entrance of the hillfort and continues to the summit. After walking around return by the same path. Do not be tempted to take a short cut, as the quarry edge is close.



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..... Walk 1

..... Walk 2

## Walk 2: From the Ellin's Tower car park

**Location:** An alternative, longer walk can be taken from the car park at Ellin's Tower on the west side of Holy Island. This takes in the Iron Age settlement of Ty Mawr as well the hillfort but necessitates a circuit of the fort to reach the entrance. Ellin's Tower and car park are close to South Stack lighthouse which is signposted from Holyhead and Porth Dafarch.

**Distance:** Again the total depends on how much of the fort is walked but basically about 6km (4miles), allowing about 3 hours.

**Difficulty:** Most of the route is easy over good tracks but the final approaches to the hill are steep and rough. Keep to the trodden paths.

This provides a better view of the impressive western cliffs of the mountain. From the car park cross the road to visit the ancient settlement, which is sign posted. Then continue up the road for 300m towards South Stack and take a track leading up the hill up onto the plateau where the hill is plainly visible. Continue around the east side of the hill until the walls of the fort and the entrance is seen. An alternative return route can be taken around the west side of the hill and via the cliffs above South Stack lighthouse.



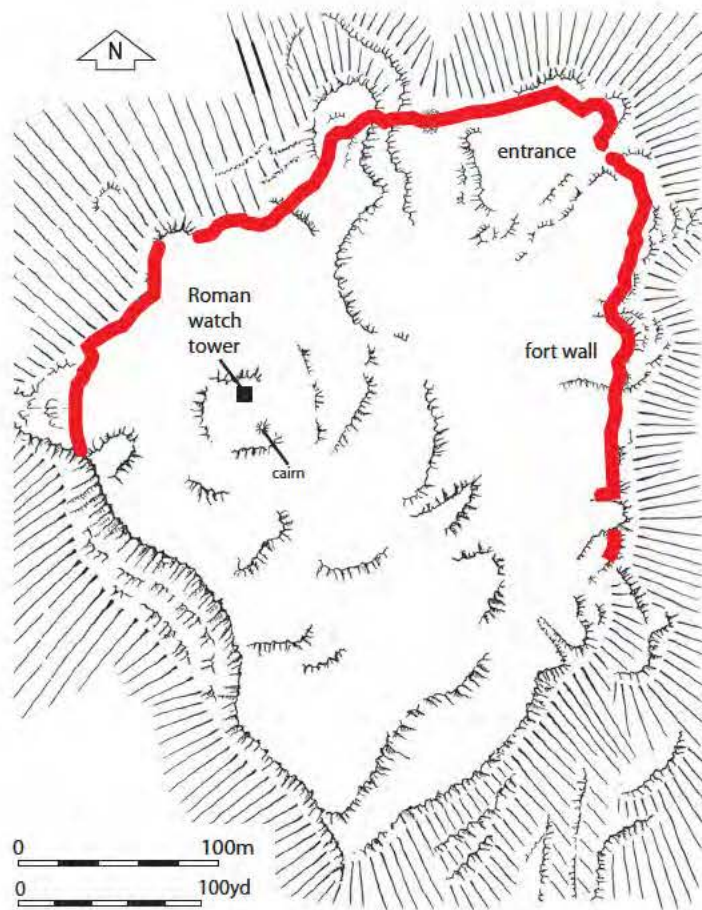
Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust  
01248 352535 01248 370625 email: gati@hmbd.co.uk

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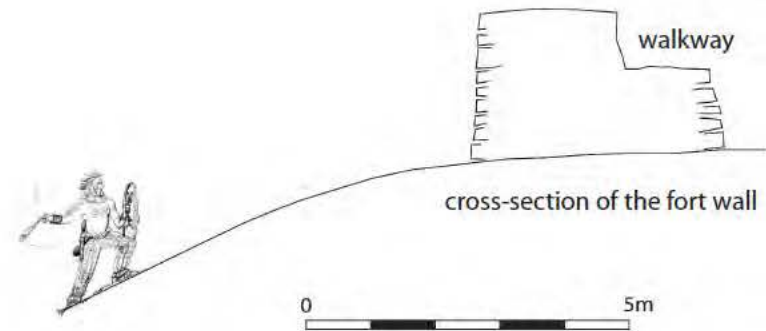
CAM+  
Cynllun Arbrolfod Môn  
A Sustainable Development  
Fund for Anglesey





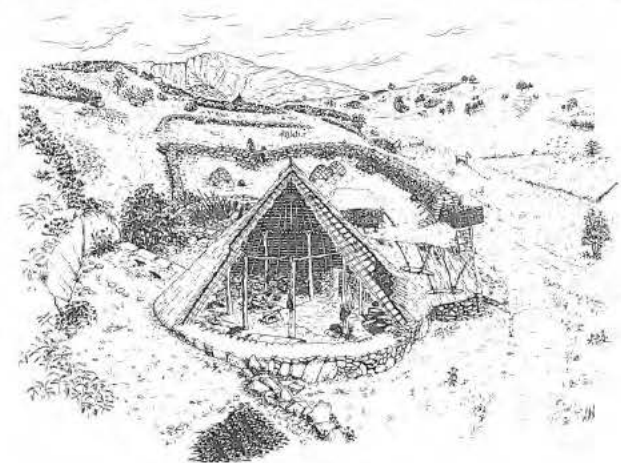
### Caer y Twr, Holyhead Mountain hillfort and Roman signal tower

The hillfort on Holyhead Mountain is very large in area, enclosing some 7 hectares (17 acres). Much of it has steep cliffs that provide adequate defences. The remainder, on the east and north side was defended by a massive stone wall, parts of which are still standing to a height of 3m. This wall was about 3.5m wide at the base and tapered slightly to the top, estimated to have been about 4m high, with a stepped walkway behind a breast wall. The amount of labour that went into building this wall over a length of about 380m was immense. There was single entrance at the north-east approached by a track up a natural gully. The entrance was strengthened by turning the walls in on either side, so that the approach was overlooked and more easily defended. It is curious that although this was large and strong fort no evidence of any actual settlement within it has ever been found. Certainly the mountain is not a very favourable place for settlement being exposed, rocky and dry. However, there are many remains of settlement elsewhere on Holy Island and it must have been a populous and prosperous agricultural community in the prehistoric period. It seems likely that the hillfort was built as a place of refuge for the local population. Its size would have allowed it to accommodate all their flocks and herds as well. The amount of collapse of the wall of the fort, in places apparently thrown down uphill has been taken to suggest deliberate demolition during the initial Roman occupation of Anglesey, in the 1<sup>st</sup> century AD.

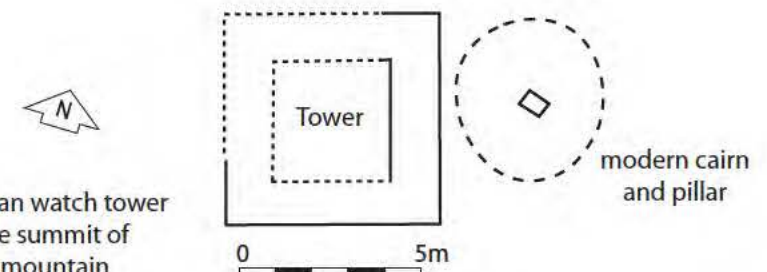


The style of the hillfort indicates that it was built during the later first millennium BC but it may have served as a refuge later in the Roman period when security was again threatened by raiders from Ireland. On the summit of the mountain, within the fort are the remains of a small square building. Excavation of this in 1980 produced Roman pottery. It was interpreted as a watch tower and signal station associated with the Roman fort and probable naval station of Caer Gybi, Holyhead during the 4<sup>th</sup> century AD and designed to provide early warning of attack from the sea.

Round house at the Ty Mawr settlement



The Roman watch tower on the summit of the mountain



## **APPENDIX 2**

### **Display panel for Anglesey Show**



ANGLESEY AONB ARCHAEOLOGICAL PROJECT  
*PROSIECT ARCHAEOLEGOL AHNE YNYS MÔN*

# THE ANCIENT LANDSCAPE OF MÔN

## *TIRLUN HYNAFOL MÔN*



Photo: Copyright RCAHMW  
Ffoto: Hawlfraint y CBHC

Arolwg Geoffisegol , Anheddiad Oes Haearn, Eglwys St Fair, Llanfairpwllgwyn  
Geophysical Survey, Iron Age settlement, St Mary's Church, Llanfairpwllgwyn

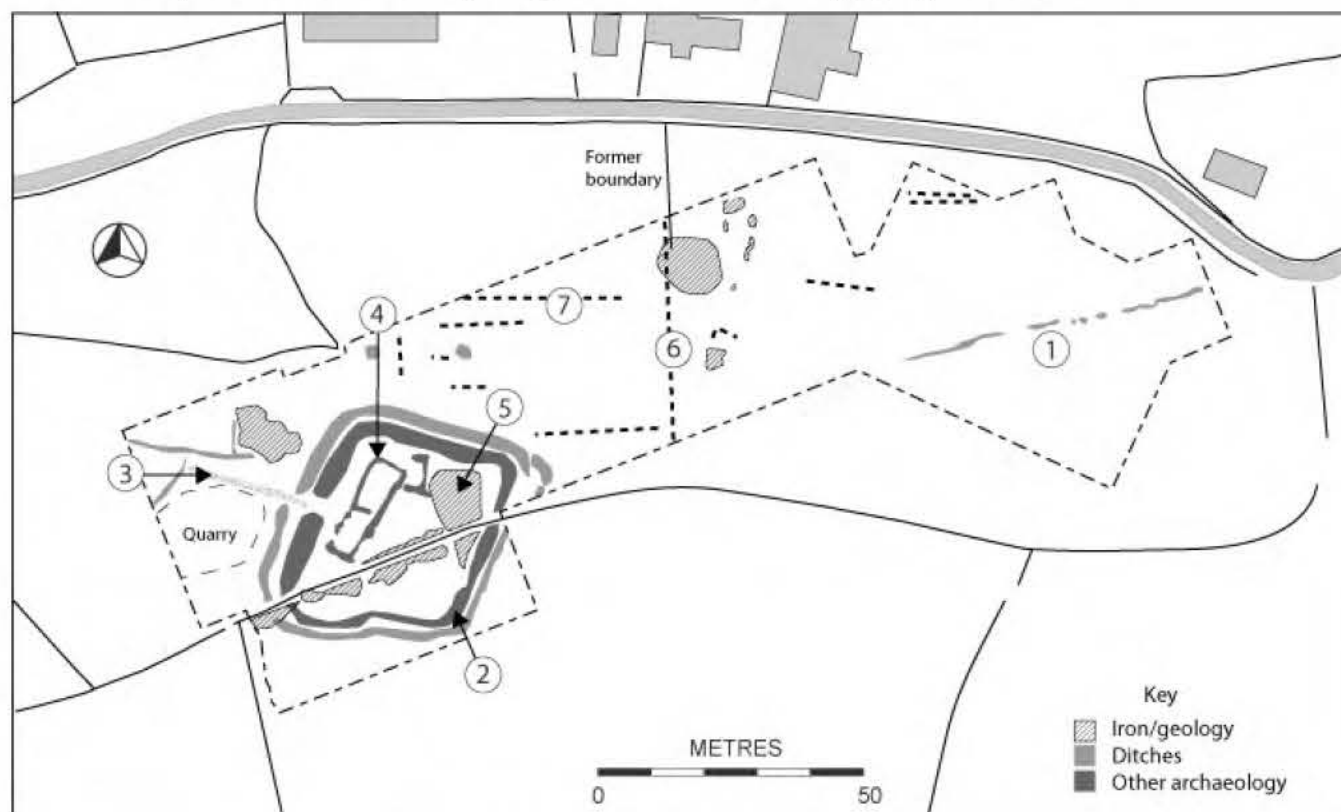


Photo: Copyright www.pixaerial.com  
Ffoto: Hawlfraint www.pixaerial.com

Arolwg Geoffisegol , Fferm Canoloesol/ôl-Canoloesol, Porth Tywyn Mawr, Llanfaethlu  
Geophysical Survey, Medieval and Post-Medieval Farm, Porth Tywyn Mawr, Llanfaethlu



Llys Caswallon fluxgate gradiometer survey, grey-scale plot



Llys Caswallon fluxgate gradiometer survey, interpretation

Geophysical Survey, Medieval defended house, Llys Caswallon, Llaneilian  
Arolwg Geoffisegol , Tŷ Canoloesol gyda mur amddyffinol, Llys Caswallon, Llaneilian

Y GRONFA DATBYGLU CYNALIADWY YNYS MÔN  
THE SUSTAINABLE DEVELOPMENT FUND ANGLESEY

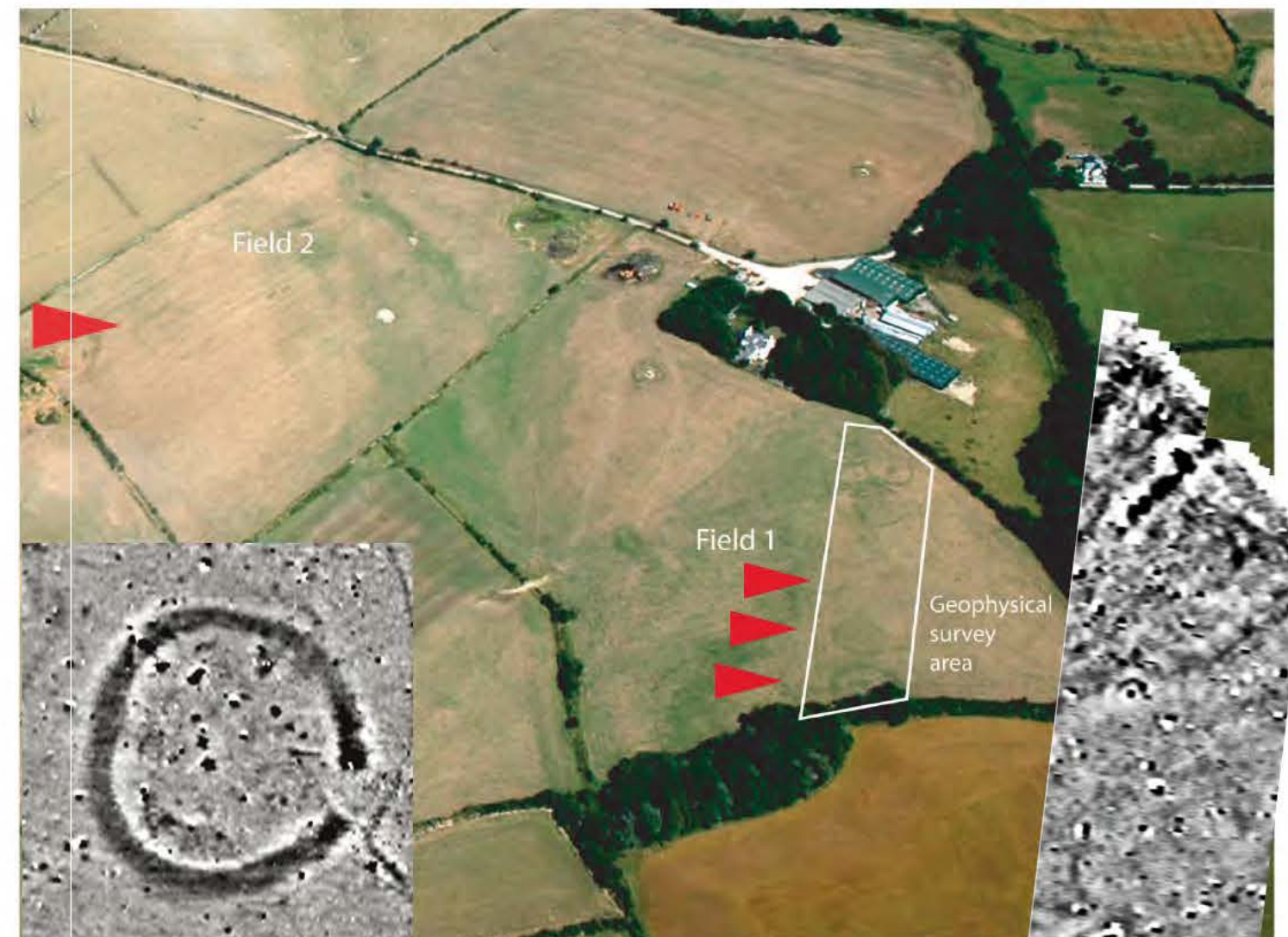


Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust  
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?Anheddiad Oes Efydd  
?Bronze Age Settlement

Photo: Copyright www.pixaerial.com  
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Bronze Age Burial Mounds  
Tomenni claddu Oes Efydd

Geophysical Survey, Carrog, Llanbadrig  
Arolwg Geoffisegol , Carrog, Llanbadrig





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