
**PREHISTORIC FUNERARY AND RITUAL MONUMENT
SURVEY**

**PALAEO-ENVIRONMENTAL PROJECT:
WAUN LLANFAIR, CONWY, 2004**

PRELIMINARY REPORT

Project No. G1629

Report No. 578

Prepared for Cadw

March 2005

By

George Smith, Astrid Caseldine and John Griffith Roberts



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

**PREHISTORIC FUNERARY AND RITUAL MONUMENT
SURVEY
PALAEO-ENVIRONMENTAL PROJECT:
WAUN LLANFAIR, CONWY, 2004
PRELIMINARY REPORT**

Project No. G1629

Report No. 578

Prepared for Cadw
March 2005

By George Smith, Astrid Caseldine and John Griffith Roberts.

**Gwynedd Archaeological Trust
Ymddiriedolaeth Archaeolegol Gwynedd**

PREHISTORIC FUNERARY AND RITUAL MONUMENT SURVEY PALAEO-ENVIRONMENTAL PROJECT: WAUN LLANFAIR, CONWY, 2004

By George Smith, Astrid Caseldine and John Griffith Roberts.

CONTENTS

1. INTRODUCTION
2. AIMS
3. METHODOLOGY
4. PALAEO-ENVIRONMENTAL STUDY
5. THE GENERAL SURVEY
6. THE DETAILED SURVEY
7. DISCUSSION

ILLUSTRATIONS

Fig. 1 General location of the survey area

Fig. 2 Topography of the survey area

Fig. 3 General survey results

Fig. 4 Survey results: North area

Fig. 5 Survey results: South area

Fig. 6 Detailed survey, preliminary plot and location of geophysical survey area

Fig. 7 Detailed survey area, fluxgate magnetometer survey, grey-scale plot

1. INTRODUCTION

The work this year as part of the pan-Wales survey for Cadw was carried out jointly with John Griffith Roberts as part of his doctoral research for Cambridge University and had three aims. The first two were a direct part of the project for Cadw, which comprised a trial study of the environmental context of a selected area of prehistoric funerary and ritual monuments, supporting palaeo-environmental study carried out by Astrid Caseldine of Lampeter University. The third was carried out as a part of John Roberts' research. The work was carried out in an area of upland heathland at Waun Llanfair, Llanfairfechan, south of Penmaenmawr, centred on SH720740 at 400m OD.

2. AIMS

1. To provide a better understanding of the geomorphological context of the palaeo-environmental sampling carried out by Astrid Caseldine in the Waun Llanfair upland basin.
2. To provide better background information and interpretation of the archaeological context of the trial palaeo-environmental sampling.
3. To carry out a detailed study of one particular group of monuments that appeared to include both settlement and funerary monuments.

3. METHODOLOGY

The methodology to fulfil the Cadw requirements was an extensive survey of the Waun Llanfair basin and surrounding slopes. The area of about 5km by 5km centred a little to the east of the Waun Llanfair basin has the highest concentration of prehistoric funerary and ritual monuments in North West Wales (Fig. 1). The existing record is largely dependent on the survey by the RCAHMW around 1950 and by further visits by the Ordnance Survey. The east side of the Waun Llanfair basin has many small cairns of c. 4-5m dia. as well as a few larger examples, some with central cists. Visits as part of the original survey for Cadw identified three separate groups of cairns (Fig. 2) recorded by the HER within the area chosen for survey this year, including a number of new features. It was clear that the density of sites was such that a detailed measured survey was needed before they could be adequately recorded or understood. The detailed walkover involved in the survey also led to the identification of a number of additional features. The survey was targeted at new features identified in the 2001 survey, the location of which had not yet been recorded as well as the features identified in 2004. It is hoped to return in future to map the existing HER features to the same standard in order to provide a better record.

The area chosen for survey was a block of about 800m square (64 ha) comprising the north and east side of the Waun Llanfair basin. The survey was carried out using a XXX Geodimeter from 4 stations. Walls were recorded as linear strings but cairns were recorded in actual outline, as were cists and major stones. The survey was tied into two sub-rectangular sheepfolds and to several cairns that had already been mapped by the Ordnance Survey.

The area of the study is within Common Land with a number of graziers and crossed by a public right of way footpath. It lies within the Snowdonia National Park but outside the Eryri SSSI. The peat sampling was agreed to be acceptable by prior discussion with the SNP Warden for the area XXX.

4. PALAEO-ENVIRONMENTAL STUDY

The area was selected as possibly suitable for palaeo-environmental study because the marshy basin was identified as peat-filled. The area was therefore visited in 2002 with Astrid Caseldine for further assessment and the basin was randomly probed to test the depth of deposits. This showed that the depth of deposits was not great and it appeared that the deposits did not get deeper towards the centre of the basin as might be expected:

At a subsequent visit two columns were taken, about 150m apart, the greatest 1m in depth. Surprisingly the deposits proved to be humic silt rather than pure peat and charcoal was recovered

from the very base of the deposits. It seemed a possibility that the deposits had accumulated as a result of hill wash resulting from human activity in the area, perhaps as a result of forest clearance. The humic silt proved to have adequate amounts of preserved pollen and the initial assessment of the samples was as follows (Caseldine 2003):

‘Two pollen columns were also recovered from Waun Llanfair, Llanfairfechan in the uplands south of Penmaenmawr (AW 41, 98-99). Preliminary examination of pollen from the longer column indicated that alder dominated the assemblage from the lower deposits, with lesser but significant amounts of birch, hazel, grass and sedge pollen also present. Higher in the profile the assemblage was dominated by grass pollen. Pollen from the shorter profile comprised a mixture of birch, alder, hazel and grass with the former two taxa being more abundant than the latter two. Two radiocarbon dates were obtained from the longer column. Charcoal from the lowest deposits gave a date of 6290 +/- 40 BP (Beta-186680) and an organic clay from higher in the column gave a date of 3490 +/- 60 BP (Beta-186679).’

Subsequently another date has been received from a sample higher in the column and the 2 sigma calibrated results for the dates are as follows, depths given below the present surface:

At -32cm 710 +/- 50 BP, calibrated at 2 sigma Cal AD 1240-1320.

At -53cm 3490 +/- 60 BP, calibrated at 2 sigma Cal BC 1950-1670.

At -65cm 6290 +/- 40 BP, calibrated at 2 sigma Cal BC 5330-5220.

The positions of the two pollen columns, previously recorded by GPS were relocated and mapped. Two depth transects were then taken across the basin, intersecting at the point where the deeper column had been taken (Fig. 3, a and b). These were designed to provide a longitudinal basin profile, including the edge of the basin slopes, approximately E-W and a transverse profile across the centre of the basin, approximately NE-SW. Total station readings were taken on the ground surface along a line, at approximately every 10m and the depth of the peat was recorded at each point by probing. The recorded depths are recorded in Tables 1 and 2.

The transects confirmed the results of the previous random probing, showing that the basin does not have a great depth of deposits and that these do not increase significantly towards its centre or lower downslope or even in any buried palaeo-channels. The deposits were thus more like a blanket deposit on a plateau and the greatest depths were actually in small areas of raised bog. The assessment so far suggests that the deposits are the result of long term accumulation, rather than a dramatic peat growth following climatic change, for instance. There may have been periods of increased slope run-off due to woodland clearance or increased trampling from stock grazing. The radiocarbon dates show that the deposits illustrate a very long time scale of environmental change from the later Mesolithic through to the medieval period and therefore include the period or periods when the funerary and ritual monuments were built. They therefore have good potential to throw light on the land use and environmental changes associated with those monuments.

Table 1 Peat depth transect a, South – North, a-a¹. Depths in metres below ground surface

0.5, 0.25, 0.34, 0.86, 0.38, 0.62, 0.56, 0.34, 0.52, 0.55, 0.77, 0.43, 0.49, 0.49, 0.58, 0.96 (Pollen column 1), 0.61, 0.80, 0.75, 0.27, 0.40, 0.53, 0.34, 0.62, 0.35, 0.56, 0.57, 0.70, 0.65, 0.70, 0.70, 0.70, 0.56, 0.00.

Table 2 Peat depth transect b, West – East, b-b¹. Depths in metres below ground surface

0.66, 0.46, 0.97 (Pollen column 1), 0.80, 0.51, 0.47, 0.70, 0.23, 0.40, 0.47, 0.56, 0.44, 0.53, 0.35, 0.47, 0.41, 0.23, 0.48, 0.30, 0.31, 0.46, 0.36, 0.25, 0.39, 0.39, 0.24, 0.27, 0.42, 0.45, 0.51, 0.37.

Another walkover was carried out of the plateau immediately to the east of Waun Llanfair. At the north edge of this plateau is the Cefn Coch group of monuments, which includes the well-known Druid's Circle. The plateau was tested by probing for other possible peat deposits. Several small basins were identified with peat up to 1m depth and the deepest points were recorded by GPS. It is proposed to take column samples from one or more of these areas for palaeo-environmental pollen assessment. The objective would be to provide a comparison with the results from Waun Llanfair basin itself where the tree pollen assemblage is dominated by alder (see above). This might give a better understanding of

prehistoric land use in the area, particularly in relation to the Cefn Coch monument complex, the main period of use of which can be expected to be quite different to the Waun Llanfair cairnfields.

5. THE GENERAL SURVEY

The overall results of the survey are shown in Fig. 3 and in greater detail in figs 4-5. The survey was mainly aimed at recording new features rather than those already recorded by the RCAHMW and in the HER. Three known cairns PRNs 473, 474 and 4710 were also recorded in stone by stone detail and the subject of a geophysical survey for the detailed survey, part 3 of the work (J.G. Roberts, below). Four other known features were also mapped to help tie in the survey and to record them in better detail than previously. These comprised a burnt mound, two cairns at the south of the area and two walls noted in 2001.

Burnt Mound 467. This lies at the north edge of the basin, at the foot of the surrounding hill slopes and at the edge of a small stream. The mound is c. 9m dia. of crescentic shape with the open side of the crescent facing the stream.

Wall 15943. The survey in 2004 confirmed the line seen in 2001 although until now it was not mapped and so its relationship to other features could not be demonstrated. It is a low linear tumble of stone that approximately follows the contours around the edge of the basin, in places running from outcrop to outcrop in a very irregular 'wandering' line. It terminates at the north side of the basin but in an indeterminate way at the edge of a marshy side valley, suggesting it may have continued around the north side of the basin. At the south side of the basin, however, the wall suddenly curves downslope and comes to an abrupt and apparently deliberate termination. At two places cairns on small outcrops are incorporated in the line of the wall. In the case of the southern of these, cairn 7, the wall seems to respect the cairn indicating that the wall post-dates the cairn (Fig. 5).

The wall forms a boundary between the rough hillslope of the basin sides and a strip of slightly better land fringing the edge of the basin, noticeable now as area of better-grazed turf compared to the heather of the basin slopes or the marsh vegetation of the basin floor. The wall may have derived from clearance of this strip of better land, which may have been of the nature of a deltaic fan, with a layer of colluvium deriving from the hill slopes but still having better drainage than the basin floor itself.

Wall 15944. Part of this wall was first recorded by the Ordnance Survey and added to the 1:2500 map, but without comment so was not added to the HER (OS Index Card SH74SW 86). Survey in 2004 showed that the wall continued further than had been recorded by the OS. This wall is in fact a low stony bank similar to wall 1593 although in places it seems slightly more neatly built. Unlike that wall, however, this one maintains quite a straight line even over changes in slope, suggesting that it was laid out by sighting. The wall runs downslope into the basin, crossing the line of wall 15943 and continuing onto the more level basin floor where it disappears under the blanket peat. No continuation of the wall has yet been found on the west side of the basin. The wall also continues upslope passing on one side of a small outcrop and across the fairly level plateau beyond, finally disappearing beneath the peaty fill of a small basin or hollow in the plateau. Its layout seems to have used the small outcrop at the edge of the main basin as a sighting point. The straightness of the wall suggests that it may be more recent than wall 15943 and so it might be associated with the two small sheepfolds at the east of the area that still survive largely as standing structures. However, structurally it is different, in different condition and seems to bear no relationship to them in plan. Another small sub-rectangular shelter is actually attached to the line of the wall and survives only as a low feature unlike the two larger folds. On the top of the plateau a spur wall off to the south for a short distance from wall 15944. Another straight length of wall or bank has been observed continuing for a considerable distance across the plateau just to the east of the Druid's Circle. These walls may therefore all belong to a wider subdivision of the moorland, of unknown date.

The remainder of the features recorded, include 19 new features and three cairns that were recorded by the RCAHMW and are on the HER. The features comprise 17 cairns, a possible settlement enclosure bank, a short length of wall, a small sub-rectangular fold or shelter and two possible round hut platforms, given survey numbers 1-22 (Figs 4 and 5):

Cairn 1. Sub-circular, c. 3.5m dia. grassed-over mound with a number of large boulders protruding. Set on a medium, south-facing slope. Probably lowered by stock trampling.

Cairn 2. Sub-circular, grassed over mound with possible central robbing pit. Some stones protrude and three larger boulders to the north may be associated and deliberately placed. Set on a medium, south-facing slope.

Sub-rectangular fold or shelter 3. , A group of small boulders with an outline of deliberate shape, c. 6m by 5m, but with no clear walls and masked by vegetation. Set on a medium, south-facing slope. Possibly a small fold or shelter with clearance dumping over.

Enclosure? wall 4. A rectilinear grassed-over bank, possibly a wall defining a small area of enclosure on a natural terrace, the uphill side of which is formed by a scarp. Within the enclosure are a few irregularities that could be buried features.

Hut platform? 5. A sub-circular scoop, c. 4m dia., set on a slight slope just south of enclosure 4. It seems to be artificial and could be a hut platform associated with the enclosure.

Cairn 6. A sub-circular stone heap c. 5m dia set on a slight natural promontory knoll overlooking the basin and incorporated in the line of wall 15943.

Cairn 7. A sub-circular stone heap c. 5m dia.. Low and trampled, set on a slight promontory knoll overlooking the basin. Wall 15943 approaches towards the cairn from the north but its line becomes vague and at the south takes up a new line, almost as if the wall line had been changed to run around the edge of the cairn to avoid it, suggesting that the wall is later than the cairn.

Cairn 8. A sub-circular stone-heap, c. 5m dia., quite well preserved, steep-sided and grown over. Set on a fairly level area forming the floor of a small side valley a little above the main basin

Cairn 9. A sub-circular stone-heap c. 2.5m dia., partly grown over but prominent within the fairly level area of the valley floor.

Cairn 10. A sub-circular stone-heap c. 4m dia., partly grown over but prominent within the level valley floor.

Cairn 11. A sub-circular stone-heap c. 2.5m dia., partly grown over but prominent within the level valley floor.

Hut platform? 12. A subcircular scoop, c. 4m dia. in the fairly level large natural terrace. This is the clearest feature within an area of irregular grassed-over ground. This looks rather un-natural and could be an area of hut platforms degraded by later stock trampling associated with the two folds that also occupy the terrace.

Cairn 13. A sub-circular stone-heap c. 4m dia., lying on a fairly level area on the fringe of the main basin floor.

Cairn 14. Ditto, c. 2m dia.

Cairn 15. Ditto, c. 2m dia.

Cairn 16. Ditto, c. 4m dia.

Wall 17. A low boulder line leading south from cairn 16, lying on a fairly level area on the fringe of the main basin floor. The wall seems to serve no purpose unless it is part of a longer feature that is not visible.

Cairn 18. A sub-circular stone-heap c. 3m dia., lying on a fairly level area on the fringe of the main basin floor.

Cairn 19. Ditto, c. 2m dia.

Cairn 20. Ditto, c. 3m dia.

Cairn 21. Ditto, c. 4m dia.

Cairn 22. Ditto, c. 6m dia. Built of larger boulders than most and built in a more structured way that gives it a megalithic appearance.

6. DETAILED SURVEY, BRYNIAU BUGEILYDD

The detailed survey looked at a small plateau area just below the summit of Bryniau Bugeilydd. Previous visits had recorded three cairns and an enclosure wall here, described as follows:

Cairn Group A. On the shoulder of the promontory of Bryniau Bugeilydd, between the low summit and a rise to higher ground to the east, is a small, level area one side of which is enclosed by a low, irregular stony bank. Within the bank are two small cairns, one a ring bank, the other a cist within a ring bank, both about 5m in diameter. At the south side of the enclosure bank is another small ring bank, built into or built over by the enclosure bank. About 10m south of the enclosure is another group of boulders that is probably the disturbed remains of another cairn (PRN 473). The topographic position, layout and presence of the enclosing bank suggest the ring banks are actually small huts, one of which, at least, has later been modified to form a funerary monument.

The present survey by J.G. Roberts aimed first to provide a better record of these features by detailed planning and profiles of the features. Secondly, to carry out a geophysical survey to look for anomalies that might clarify the status of the monuments, whether domestic or funerary. The cairns and enclosure wall were planned at 1:20 together with profiles at the same scale. A detailed plot of individual stones and other features in the area immediately around was carried out by total station. A full plot of the results still awaits processing but a preliminary plot of the features is shown in Fig. 6 overlaid on a plan of the cairns produced by the Ordnance Survey at 1:500 scale in 1971. A preliminary plot of the fluxgate magnetometer survey is shown in Fig. 7. This recorded a number of anomalies that might be hearths or pits with burning. These could be funerary or belong to earlier or secondary prehistoric activity, if as seems possible this was a settlement site that became a funerary site. There is also a strong possibility of later re-use of the area, because of the presence of a number of small sheepfolds or shelters lower down the slopes of the hill and elsewhere around the basin.

7. DISCUSSION

The addition of so many new features within a small area is surprising considering how many cairns are already known from the work of the RCAHMW. The identification of other types of features gives a new dimension to the interpretation of the area in that it should not be seen now simply as a remote cairnfield. It shows that the area was well used and the number and variety of features suggests that there is still more to discover. The very variable size of the cairns seems significant and might suggest casual clearance, yet they are all quite discrete and placed in a variety of topographic positions, i.e. not randomly placed within cleared areas. None within the basin have identifiable cists, which contrasts with those on the plateau above where there are four with cists. However the cists are visible because of robbing and generally the cairns off the plateau are less likely to have been recognised by cairn robbers. One of the plateau cairns with a cist is notable bigger than all the other cairns but the others are a similar small size to most of the rest without cists. Cairns 8-10 lie on the floor of a small valley and in this position seem unlikely to result from clearance of the ground, which does not seem to have been boulder-strewn. Similarly cairns 6, 7, 21 and 22 are placed on knolls and so seem deliberately placed rather than just clearance dumps.

Cairns 13-16 and 18-20 are on somewhat lower and rock-strewn ground that could have benefited from clearance. The wall fragment 17 could also form or demarcate the west side of an enclosure or cleared area that could be defined on the east by wall 15943. If wall 17 is part of an enclosure then it suggests that other features remain to be identified around the basin edge and perhaps hidden by the basin floor deposits. Further work is therefore needed to identify further features, to plot the rest of the HER

features and to look for ways of tying the cairns and walls into the dated pollen sequence. This could involve sampling buried soils or geophysical survey of possible settlement areas to look for signs of hearths, which could be sampled for dating. The results of the pollen analysis may also suggest new lines of research, for instance if cultivation was indicated then sampling for phosphates and magnetic susceptibility could be carried out to identify areas of disturbance, manuring or intensive stock grazing.

Possible hut platform 12 is part of an area of disturbance identified as possible settlement area in the 2001 survey. Enclosure bank 4 was also identified as another possible settlement area and both could relate to agricultural use of the basin fringe. Excavation would prove if this was so but the detailed pollen analysis from the basin may be able to identify periods of activity. The basin deposits, which are up to 1m deep have been shown to cover the period *c.* cal 5200 BC to cal 1300 AD between the deposits at 65 to 32cm depth so provides a full sequence of environmental change over the periods when the all the known archaeological features were in use. The pollen analysis will therefore be the most important and useful part of the project.

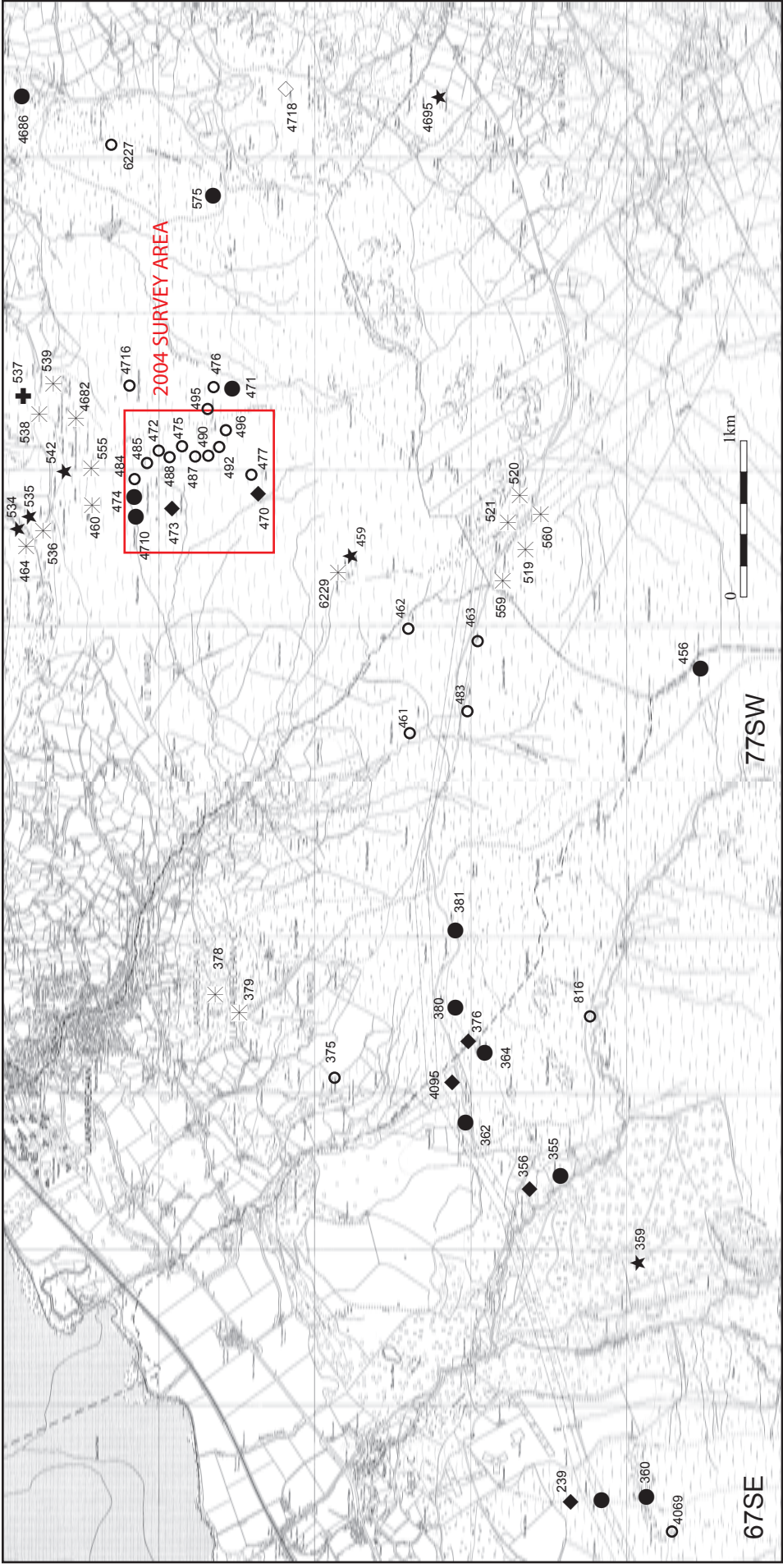


Fig. 1 Waun Llanfair Survey 2004: Location of survey area in relation to the distribution of round barrows near Abergwyngregyn and Llanfairfechan. SH67SE and SH77SW. Scale 1:25000. Based on the Ordnance Survey 1:10,000 scale maps. © Crown copyright. All rights reserved. Licence number AL 100020895.

Scheduled Ancient Monument	Monument of National Value	Monument of lesser value or requiring further investigation
✱ Cairn	● Cairn	○ Cairn
★ Kerb, platform, ring or complex ring cairn	◆ Kerb, platform, ring or complex ring cairn	◇ Kerb, platform, ring or complex ring cairn
✚ Mound	■ Mound	□ Mound

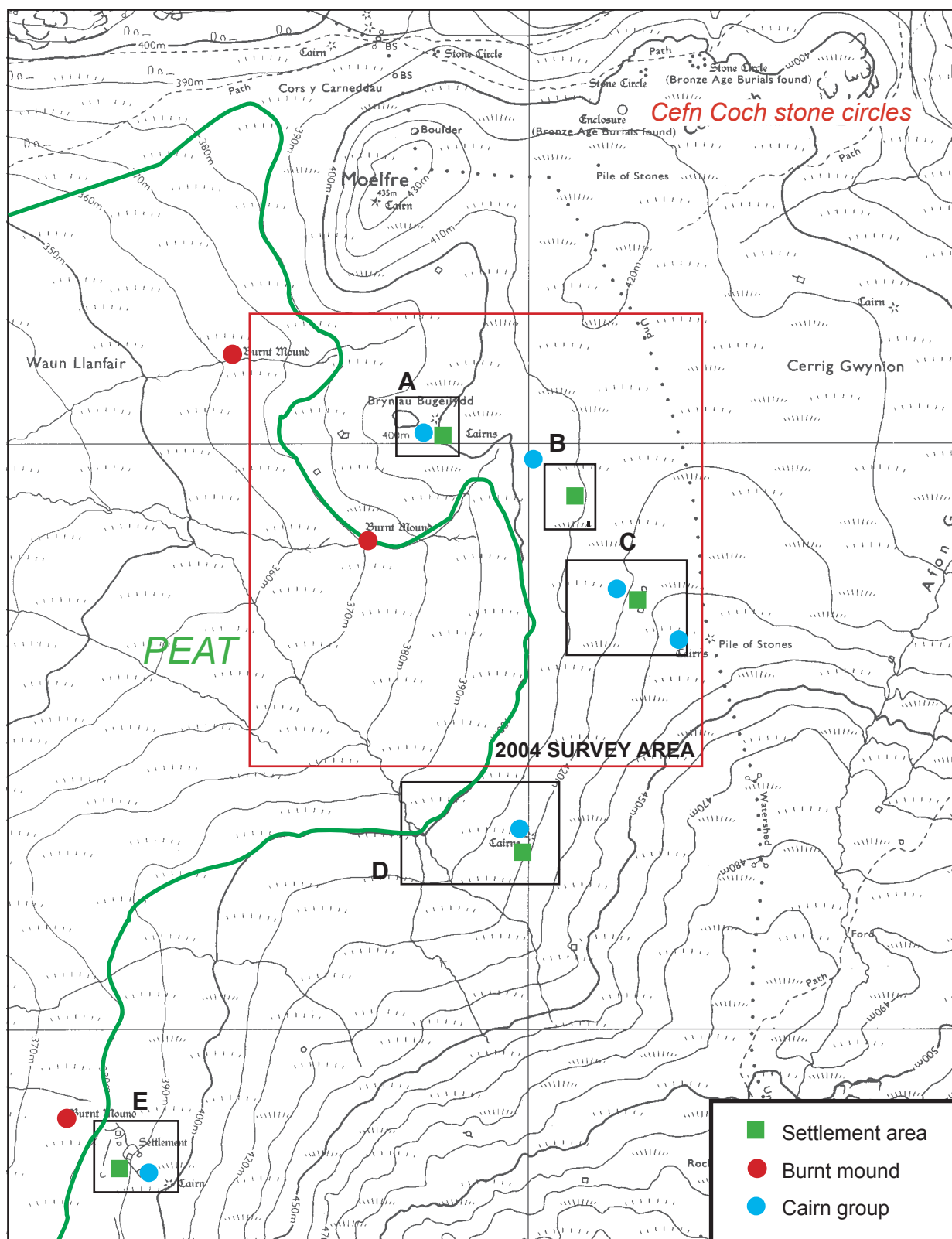


Fig. 2 Waun Llanfair Survey 2004: General topography of the survey area in relation to main archaeological feature groups, Scale 1:10,000.

Based on OS 1:10,000 scale maps. © Crown copyright. All rights reserved. Licence number AL 100020895.

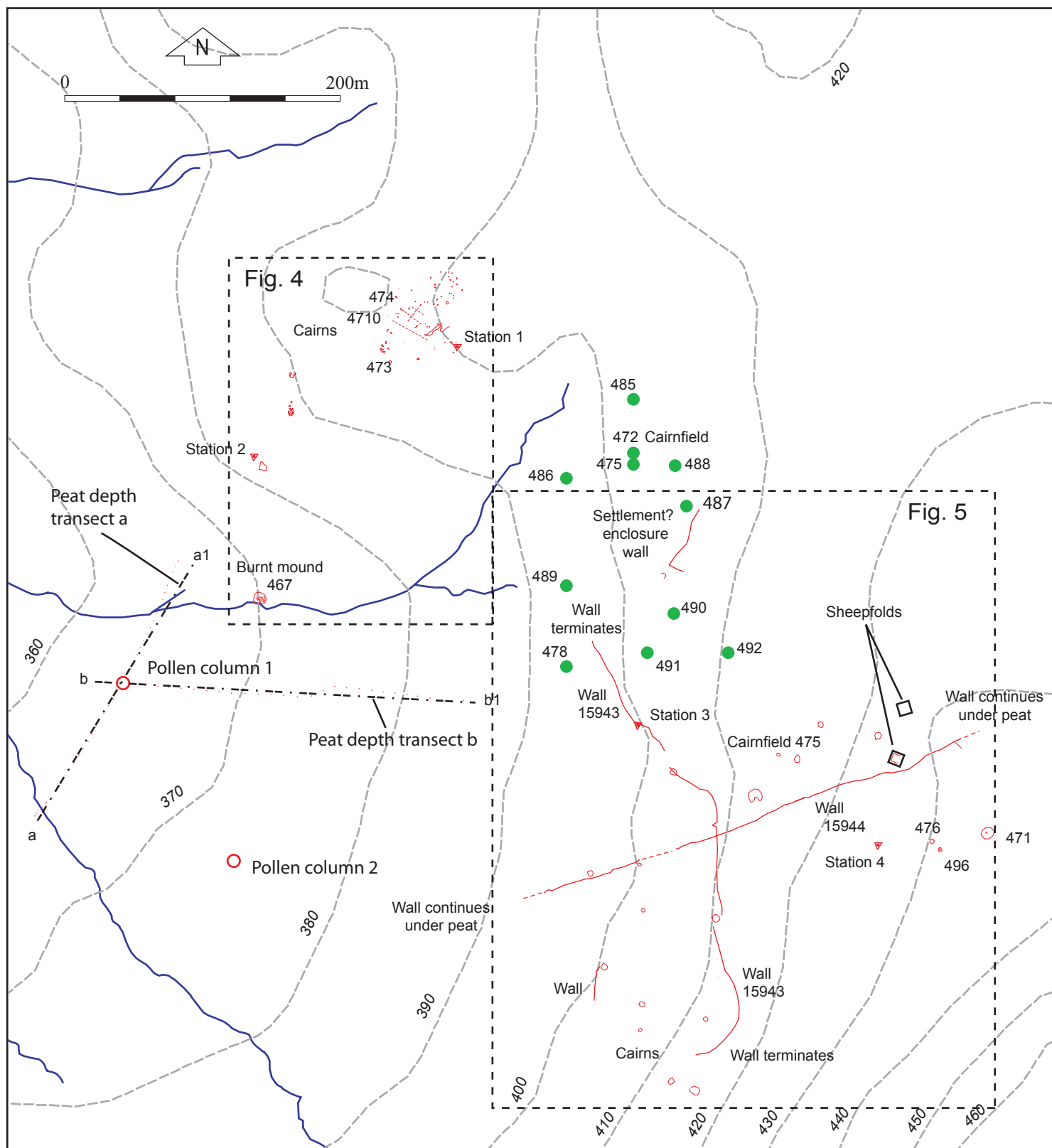


Fig. 3 Waun Llanfair Survey 2004: General survey results and location of peat depth transects and column samples. Scale 1:4000.
 Red: Features recorded in 2004. Green: All previously recorded HER features that were not resurveyed. Heights: metres OD.
 Based on Ordnance Survey data. © Crown copyright. All rights reserved. Licence number AL 100020895.

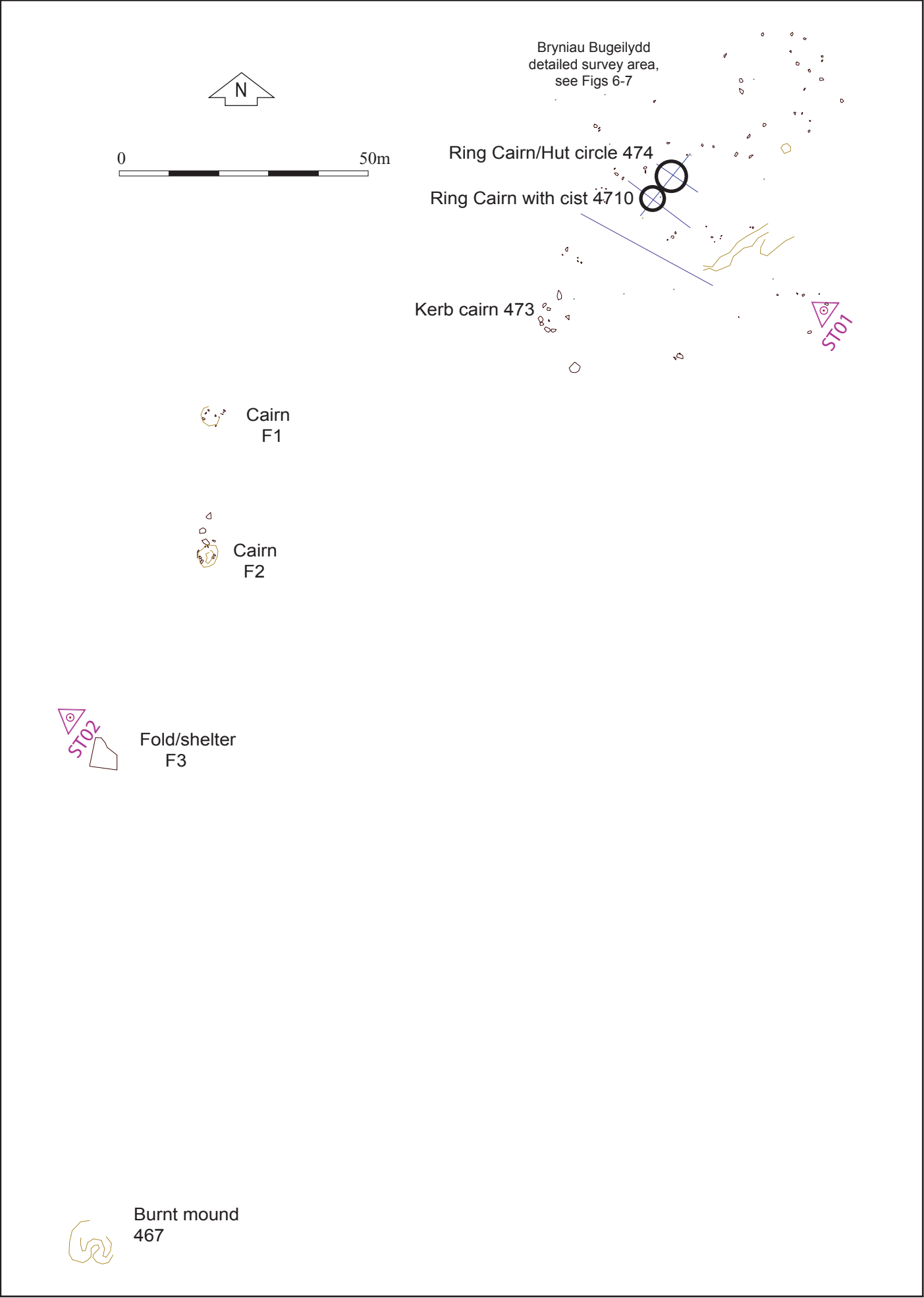


Fig. 4 Waun Llanfair Survey 2004: Survey Area North. Scale 1:1000

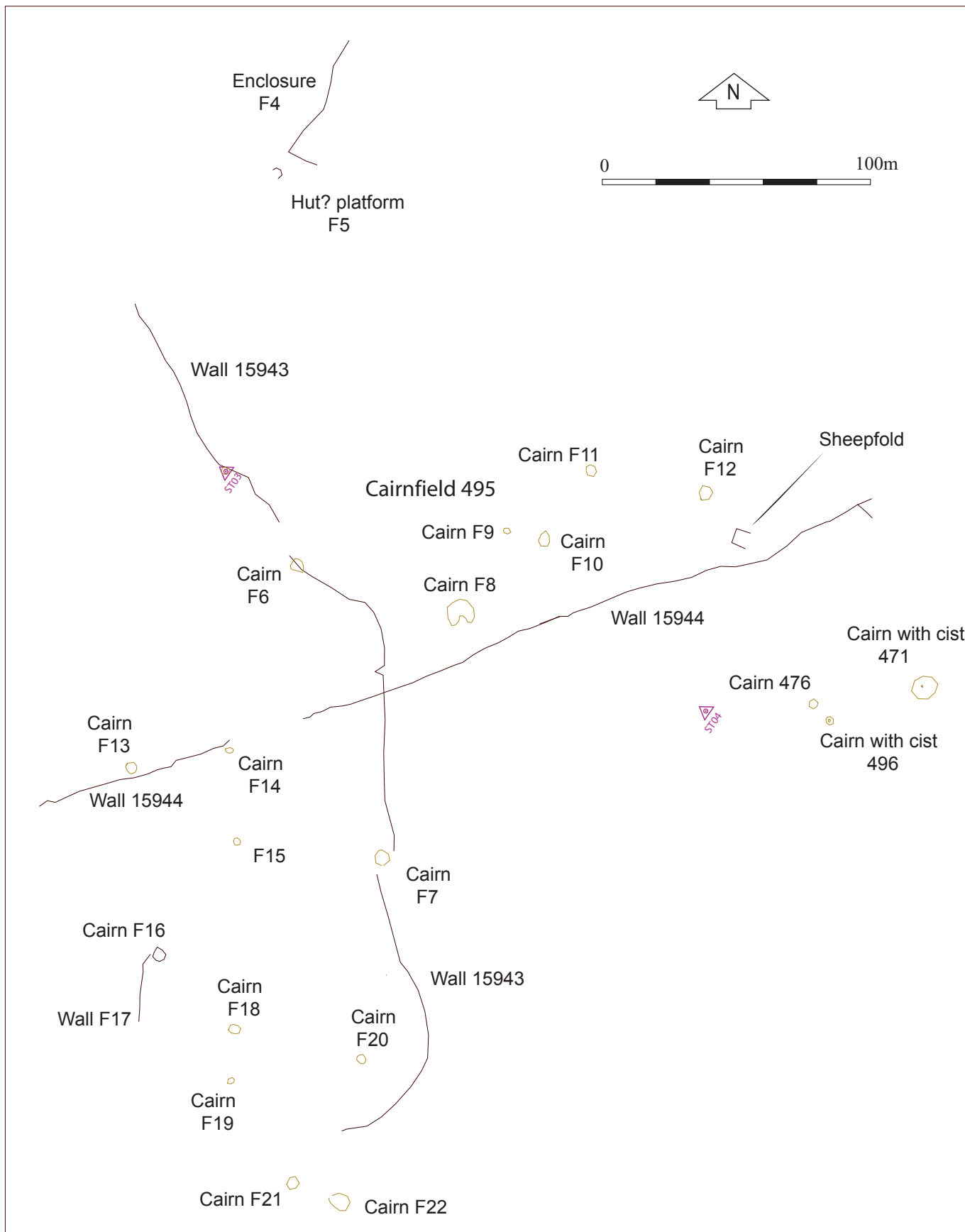


Fig. 5 Waun Llanfair Survey 2004: Survey Area South. Scale 1:2000

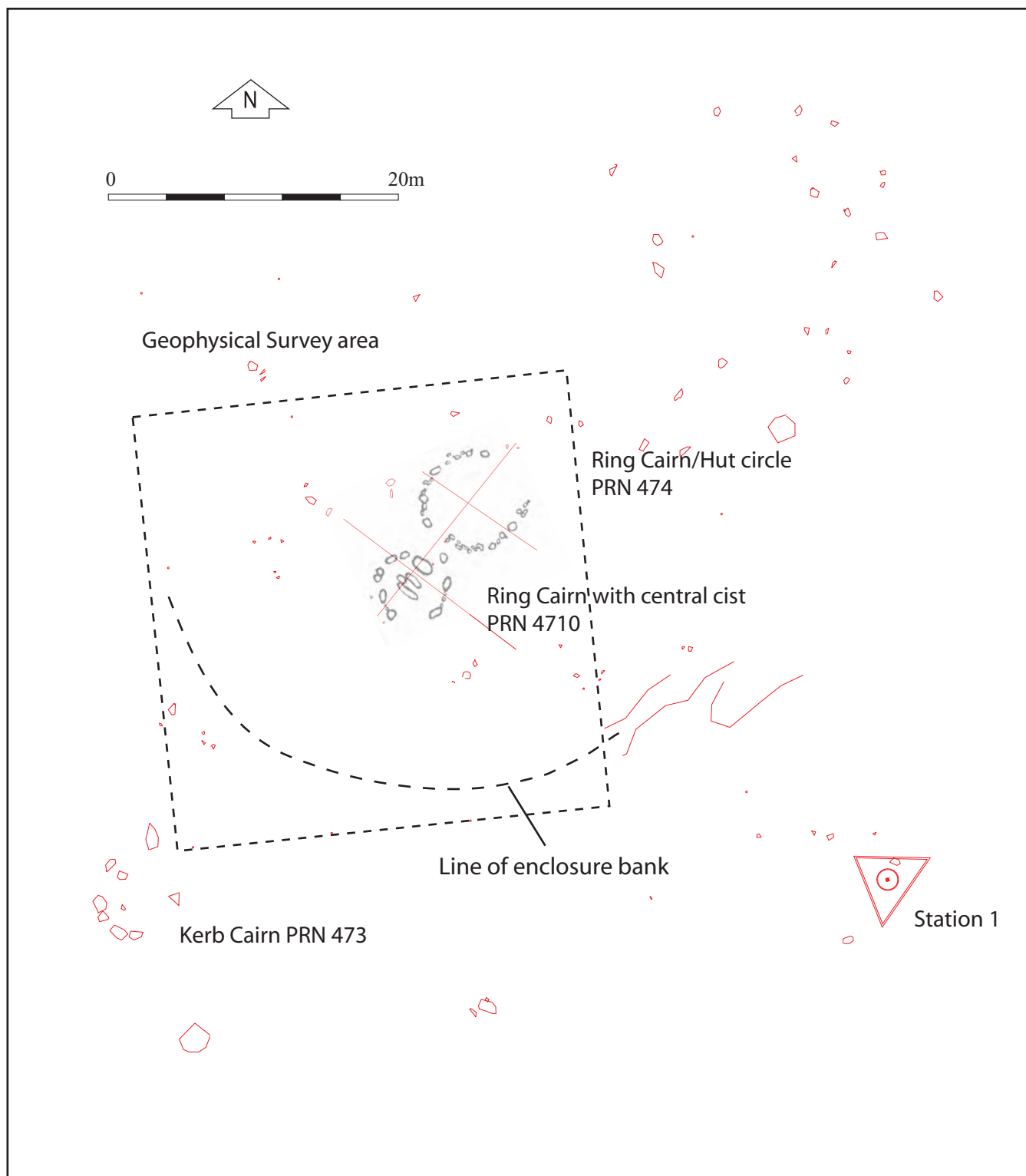


Fig. 6 Waun Llanfair Survey 2004
Bryniau Bugeilydd detailed survey area
Topographic survey with location of cairn profiles and geophysical survey area.

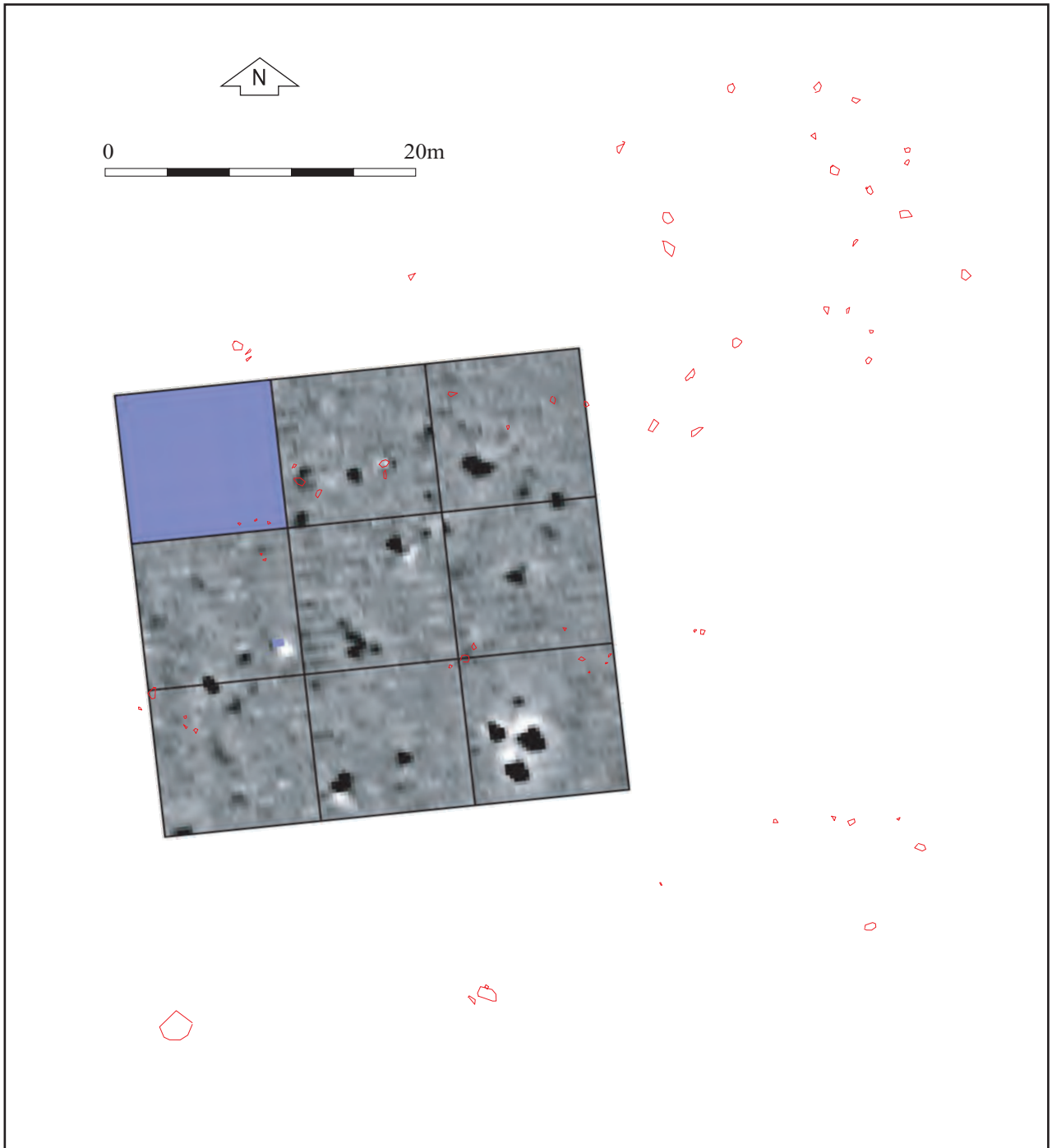


Fig. 7 Waun Llanfair Survey 2004
Bryniau Bugeilydd detailed survey area:
Fluxgate magnetometer survey of cairns 474 and 4710, grey-scale plot



YMDDIRIEDOLAETH
ARCHAEOLEGOL
GWYNEDD



GWYNEDD
ARCHAEOLOGICAL
TRUST

Craig Beuno, Ffordd y Garth, Bangor, Gwynedd LL57 2RT Ffon/Tel 01248 352535 Ffacs/Fax 01248 370925
e-mail: gat@heneb.co.uk web site: www.heneb.co.uk