PREHISTORIC DEFENDED ENCLOSURES: SCOPING FOR PAN-WALES ASSESSMENT

Report No. 497

Braich-y-Dinas hillfort, Penmaenmawr, before destruction by quarrying.
Anon. Probably mid-18th century.

Prepared for Cadw: Welsh Historic Monuments
September 2003

By
G.H. Smith

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust
☎ 01248 352535 ✉ 01248 370925 email : gat@heneb.co.uk
www.heneb.co.uk

PREHISTORIC DEFENDED ENCLOSURES: SCOPING FOR PAN-WALES ASSESSMENT

GAT Project No. G1770

Report No. 497

Prepared for Cadw: Welsh Historic Monuments
September 2003

By
G.H. Smith

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust
☎ 01248 352535 ✉ 01248 370925 email : gat@heneb.co.uk
www.heneb.co.uk

Prehistoric defended enclosures: Scoping for pan-Wales assessment

GAT Project No. 1770

CONTENTS

LIST OF FIGURES

INTRODUCTION

Purpose of report

This report provides a design for a project to assess the prehistoric defended settlements of Wales. This group of monuments forms one of the most significant elements of the prehistoric landscape, both in terms of the visible remains of that landscape and as a key component of the past social and political structure. These sites have high amenity value and are often incorporated in local publicity and trail routes and subjected to high visit rates. They are particularly important as an educational resource in Wales where the Celtic heritage is a key part of the national curriculum. The project will provide Cadw with a comprehensive and up-to-date overview of these sites for the purposes of current and future management. It will improve understanding, add information to the SMRs and promote continuing research. The key concepts are seen as

Sustainability,
Enhancement of public knowledge and
Encouragement of academic understanding.

The purpose of such an assessment will be to identify and provide a complete record of such monument types. To achieve this it will carry out desktop study of documents, maps and photographs, visit and record the condition and potential of sites, put forward proposals for protection and enhancement of existing protection, identify sites and areas at risk, suggest programmes of threat management, provide site-specific programmes of improved visitor access and information and suggest possibilities for enhancement of the record by detailed study of particular areas.

Definition

Defended prehistoric settlement is chiefly known for its hill-forts but is much wider than this, as it must also include sites such as defended enclosures, ring-works and coastal promontory forts. For ease of use in discussion, however, the term hill-fort will be used as a general term to include all types of defended settlement.

The period of study cannot be easily defined because only a small proportion of these sites have been excavated in any detail and their dating is often conjectural. Hill-forts are regarded as typical of the Iron Age but some have been shown to start in the Later Bronze Age. In parts of Wales Roman influence was marginal and the native culture and styles of settlement continued. Some hill-forts continued to be occupied during the Roman period and some were re-occupied and refurbished after the end of the Roman period or even have been new works at that time. Not all defended earthwork sites are therefore necessarily prehistoric and so this project, to be comprehensive, will include all with rampart or palisade defences, except for specifically Roman style works, within the period up to the introduction of Medieval timber or stone ‘castles’.

There are also two problems of definition of the boundary between defended and undefended settlement. Firstly, because the surrounding banks of some hill-top enclosures are quite lightly built or may have been free-standing palisades leaving little above-ground evidence. Secondly, because some enclosed settlements have quite substantial banks even though the size and situation of the settlement suggests that they were not meant to be defensive. These problems will be addressed in development of the methodology but in general the two terms defended and undefended settlement should include the whole of prehistoric settlement and be mutually exclusive. This will be facilitated because of the existence of a previous major project in north-west Wales studying undefended settlement against which the present project can be compared. However, other areas of Wales have some major differences in settlement types and these must be identified and allowed for in the design of the present project.

Objectives

The present study will design and test a suitable methodology for a project covering the whole of Wales. This will include definitions of monument type, criteria for evaluation and development of a database and recording forms. It will also suggest a programme of work and form of product. Both methodology and programme are likely to be modified in the course of subsequent discussion before inception of any work.

Approach

This involved a search and study of relevant literature, in the SMR, in the library of the University of Wales, Bangor and via the internet. This has included books and articles in journals relevant to past and current understanding of hillforts, both in terms of recent excavation, survey, recording and interpretation. It has also included an appraisal of monument typologies, as used in past studies and presently used by English Heritage National Monuments Record and by the ENDEX forum for Wales. These have been compared and assessed in respect to the guidelines set out by MIDAS, the Manual and Data Standard for Monument Inventories. Particularly relevant recent papers have been the British Iron Age Research Agenda (Haselgrove *et al* 2001), The Iron Age paper in the recent IFA Wales Research Agenda for Wales (Gwilt 2001) and the audits of the regional WAT SMRs that preceded the production of the IFA research agenda.

After review of the available data as many people as possible were consulted informally about whether such a project might be needed, what it might achieve and what its approach might be. There was general approval of such a project although with a variety of ideas as to what it should consist of. The consultees are listed below and the results summarised and discussed later. If the project develops then there will need to be more formal meeting and discussion between the WATs to develop objectives and methodology.

List of consultees

P. Crew, Snowdonia National Park Authority
Peter Dorling, Brecon Beacons National Park Authority
Toby Driver, RCAHMW
Fiona Gale, Denbigh County Council
I. Hedley, Northumberland National Park. Authority
C. Hill, GGAT
G. Hughes, ACADAT
Neil Johnstone, Menter Mon
D. M. Longley, GAT
Ken Murphy, ACADAT
F. Olding, Blaenau-Gwent District Borough Council
A. Oswald, English Heritage, North
Jeff Spencer, CPAT SMR
Nick Wheeler, Pembrokeshire Coast National Park Authority
Ann Williams, Conwy Council

BACKGROUND TO HILLFORT STUDIES

Archaeological background

The origins of hillforts

Before the introduction of the 'Three Ages' chronological view in the mid-19th century hillforts were regarded as the work of 'Celts' or 'Ancient Britons' generally accepting that a native tribal society was present when the first Roman incursions occurred and the first literary descriptions become available. The first hillfort studies focussed on the larger and more impressive sites, particularly those in the south-east of Britain. Their role was seen as part of the general development of tribal agricultural settlements towards a more complex society with urban groupings, craft specialisation, trade and political groupings in the two centuries prior to the imposition of Roman control. This model was based on the better known picture of pre-Roman society in Gaul and much emphasis was placed on the effects of supposed 'waves' of invasions of tribal groups into Britain from the Continent. More recently such views have been largely discarded, partly because actual evidence of movement of peoples has been unproven but largely because of overwhelming evidence that hillforts in Britain had a long history, with evidence that some originated in the later Bronze Age. In some cases the earliest hillforts may have developed from undefended hill-top settlements to which palisades were first added, later replaced by ramparts. In Wales occupation at the end of the Late Bronze Age has been demonstrated at The Breiddin

(Musson 1991), Llwyn Bryn-dinas (Musson *et al* 1992), Moel y Gaer (Guilbert 1976), Dinorben (Guilbert 1980), Fridd Faldwyn (Guilbert 1981) and Castell Odo (Alcock 1960).

One theory of the origins of defended settlement has interpreted it as a response to unsettled social conditions following climatic deterioration in the Late Bronze Age, possibly associated with a change to dependence on pastoralism. This generalisation now has to be abandoned in the face of the results of excavations that have demonstrated the presence of cereal grains and querns within hillforts together with environmental studies that have shown evidence of woodland clearance and arable cultivation in the vicinity of hillforts during the first millennium BC.

In parallel with the discovery of early origins for hillforts has been the acceptance of the previous bias of studies towards the south of England and the recognition of the great numbers of defended sites throughout the rest of Britain. For instance, Feachem (1966), in emphasising the point, mentions that over 1500 hillforts and large settlements were known in northern Britain, north of the Tyne/Solway line and that these included forts of similar sophisticated construction to those in southern Britain as well as large sites with many houses that could be considered as 'oppida', i.e. proto-urban centres.

The social function of hillforts

One predominant view of hillforts has been as ' central places' of authority and wealth, following Cunliffe's studies of southern England (1984). This has been tempered by the recognition of the diversity of defended sites from very large lightly defended plateau enclosures to very small defended small settlements or even single farmsteads. It has also been recognised that some areas of Britain and even of southern England have no large dominating defensive sites and even in the 'hillfort dominated' zones continuing work with aerial photographs (e.g. Stoertz 1997) and with environmental study has shown that settlement and agricultural activity was very widespread and that hillforts represent only one aspect of a much large settlement pattern.

The main difficulty in interpreting the nature and functioning of society at the time of the hillforts is in identifying synchronicity. Even with the long programme of research excavations carried out at Danebury and at other possibly contemporary nearby sites only broad patterns could be suggested for a relatively small area of Wessex and it must be accepted that it is unlikely that any other comparable large scale investigations will be carried out elsewhere (Cunliffe 1995).

Study of defensive sites has demonstrated that there is more to their understanding than simply authority, warfare and defence. Cunliffe suggests that even Danebury began as either a ritual or cattle gathering place. It has been suggested that hillfort entrances may have been designed more to impress than to be functional and Hill (1995b) has shown that hillfort entrances tend to have similar orientations so function was not the only factor in their design. However, Cunliffe has demonstrated that the complex entrance works at Danebury comprised a carefully thought-out defensive design based on fields of view and fire.

Hillforts, as massive structures, were fairly permanent features in the landscape but may have functioned in a defensive role only occasionally during their life. At Danebury only two phase of destruction, *c*. 360 and *c*. 100-50 BC were identified during the course of the fort's 500 years or more of occupation. Throughout most of its life a hillfort may have simply been a settlement even though a special kind of settlement. Cunliffe saw Danebury as a focus of authority and social and religious activity and perhaps as a centre for wealth, through storage and redistribution. It may have developed as a 'central place' at the expense of other forts in the vicinity that show less intensive and a less extended period of settlement. Such centralisation does not need to mean extension of authority by conflict as such developments could take place by evolution of control of wealth just as market towns developed in the later Middle Ages as focal points in the landscape according to transport routes and centres for the marketing of grain, cattle or wool, unrelated to military or political power. Sharples has also pointed out that warfare as such has rarely been demonstrated by excavation, for instance there are relatively few skeletons with evidence of battle injury. Further, there are also relatively few finds of swords or spears associated with the period of the Early and Middle Iron Age when hillforts were the main feature of society in Wessex and that when such weapons start to become more common there is little evidence of refurbishment of hillfort defences. Following his work at Maiden Castle Sharples suggests that the massive multivallation there served no really useful defensive purpose and that their construction was an ongoing process more in the nature of a symbolic task or establishment of status (Sharples 1991).

Hillfort studies in relation to Wales

Wales in a European context

Any consideration of defended settlement in Wales must take a wider view of the context within Britain and even of Europe, partly because all were within a single cultural area and partly to avoid biases of centricity. Although hillforts especially have been the subject of much discussion in the past the amount of data that is now available from major excavation and survey projects means that more complex models must be proposed. Previous theorising about defended sites has been limited by the small areas that have been excavated in relation to their size. When a scenario of a sequence of invasions from the Continent was envisaged they were seen as the strongholds of dominant warrior groups and therefore isolated intrusions into the landscape. The emphasis on introductions from the Continent also meant that a bias was seen towards the south-east of England. More recently excavations have revealed long sequences of occupation and many defended sites, whether in Wessex, Wales, Northumberland or Scotland can be seen as settlements that have developed internally without outside influence.

Previous synthesis

Information on hillforts in Wales has been collected by Hogg (1979 and 1986) and several syntheses have been published (e.g. Hogg 1972 and Savory 1976). The distribution of known defended sites across Wales (and the adjoining English Marches) is therefore fairly well known. It demonstrates distinct variations according to size and type (Fig. 1), perhaps unsurprisingly considering the dissected nature of the country. South-west Wales is dominated by small defended enclosures while south-east Wales is typified by a mixture of small and medium-sized enclosures. North-west Wales is typified by a mixture of small and large enclosures and east Wales, from Conwy down to the Severn and the English Borders by a mixture of all sizes of enclosure. The adjoining areas of England are dominated by large hillforts but there may be smaller defended enclosures in the cultivated areas that may still be discovered by aerial photography (Spurgeon 1972).

Geography and diversity

As an area of study Wales falls into distinct geographical regions and it would be surprising if these regions did not demonstrate some social variations in prehistory. However, these variations may not be detectable in the appearance, siting, design or size of defended enclosures. Nevertheless, the very varied nature of the geography, compared to that of the English Midlands or Wessex, for instance, provides the possibility of recognising regional differences. The upland of Wales also has many areas of relict landscape with well preserved field prehistoric field systems and settlement features as well as environmental potential that all provide considerably more potential than many hillforts in England. Regional variations in structure and design of hillforts may also be associated with differences in artefacts and dating which might help to identify wider chronological patterns or even cultural differences. In the case of artefacts, as with much of north Britain Wales is at a disadvantage because it was largely aceramic during the first millennium and finds of any kind from this period tend to be sparse. Finds of Romano-British pottery and coins on some sites may often tend to be misleading and obscure their actual origins.

While hillforts often depend on the existence of hill summits that are suitable for defence there are may areas of hills in Wales where no defended sites are found and it has been observed that most forts are actually found on or close to arable land (*ibid*). There are also some larger defended enclosures within lowland areas to which the natural relief added little to their defensive qualities. An example is that of Y Werthyr, Llantrisant, Anglesey, a fort on a relatively low rounded hill within ploughed land, of which the details still need to be plotted from aerial photographs. Other examples continue to be found by aerial survey, for instance in south-west Wales (James 1984).

Hillforts and territories

It has been argued that hillforts are unproven as centres of authority and the settlement of the elite because of the lack of evidence of social stratification of the settlement within them in that there tends to be no significant variation in size of houses within the forts. Hill (1995b), for instance, regards the Early Iron Age as a period when society was not very hierarchical and that elites only developed after *c*. 100BC. Certainly at Danebury from *c*. 300 BC Cunliffe (1995) sees centralisation reflected in the number of different raw materials present, the reprocessing of materials e.g. the subdivision of iron ingots, and the huge increase in storage capacity for grain. After about 100 BC however, new storage pits are few and warrior equipment and horse bones increase. Cunliffe suggests that these show that Central Southern Britain was under stress at this time because of increasing population, declining soil fertility and the pressure on resources as well as the impact of trade with and the introduction of new ideas from the Continent. As a result society became destabilised, rival power bases in other hillforts appeared and the focus of settlement switched to smaller, substantially enclosed

settlements. Danebury itself was eventually abandoned. In Wales there were also changes because of a decline in the importance of long distance trade in bronzes and the newly important and more widespread sources of iron ore which do not seem to have been under the control of any central authority, as seems to have been the case with the bog ore deposits exploited at Crawcwellt and Bryn y Castell. Similarly, environmental changes may have been important if uplands became less productive.

Size has often been used as an indicator for hillfort classification as it is indeed the only easily obtainable statistic since other data such as number of houses or type of defence cannot always be discerned from the external evidence alone and size might reflect the territorial importance of a site. However, size is often dependent on the natural topography of the naturally defensible area and may not necessarily reflect the size or importance of the settlement enclosed within it. For instance, where aerial photographs have been applicable some large hillforts have been shown to have large empty spaces within them. Some of these large hill-top enclosure may have been designed to hold cattle and in Wales it has been postulated that the first fortified settlements in the northern Marches were built as defences against raids by pastoralists from the uplands to the west. Certainly the Marches must have been attractive agriculturally and this was a 'hillfort-dominated ' zone. It was also the first part of Wales to show Late Bronze Age influence from the Continent. The larger hillforts in the Marches in Hereford and Shropshire have been shown to be reasonably evenly distributed (Stanford 1972) supporting Cunliffe's suggestion of a pattern of territories, each with a hillfort as a single centre of authority. This territorial approach has been recently convincingly applied to the distribution of hillforts in the eastern Black Mountains (Olding 2000).

Regional patterns

The pattern of defended sites in the western part of Wales is different between north and south and Savory (1976, 22) suggested that it may depend on development from local Late Bronze Age styles of concentric enclosure, noting that rectangular structures are also absent from these types of site. This area was also more influenced by the Atlantic contacts than central or southern Britain (Matthews 1999). Sea trade was also important in South Wales which was influenced by contacts with south Gloucestershire and Somerset as shown by pottery types and the distribution of Later Hallstatt metal finds (Savory 1976, 23, 28). Savory proposed three broad zones of defended settlement in Wales, north-west, south and east and suggested that these may mirror actual tribal areas. These areas can also be distinguished to some extent by differences in form of the typical defended sites. In the north-west the typical form is the stone-walled fort, in the Marches are large hillforts and in the south small fortified homesteads and concentric homesteads (*ibid* 43-4). However, this is only a very general observation and Jeff Davies' recent summary of the evidence relating to defended settlement has avoided attempts at such broad interpretation (Lynch *et al* 2000). A general similarity has been observed between developments in Wales and southern England. The results of a number of important excavations at, for example, The Breiddin, Moel y Gaer, Moel Hiraddug and Castell Henllys have shown how complex such individual sites can be in terms of chronology and structure and therefore how hazardous it can be to make generalisations on the basis of outward appearances. Nevertheless, the record of defended sites in Wales should be fairly complete in terms of numbers alone and does show that there are distinct variations in type, size and distribution and so the data should be amenable to some basic analysis. Such sites also need to be assessed in relation to the pattern of nearby undefended settlement evidence, which may have been contemporary. The large amount of existing evidence needs to be collected into a usable form. A project to collate published data for Southern Britain was proposed in 1966 but did not proceed. However, basic hillfort data for the whole of Britain was completed in 1979 (Hogg 1979) and a summary of published data for hillforts in Wales up to about 1980 was produced (Hogg 1986), which included both abstracts of articles and as well as details of structure, siting and finds covering about 340 of the estimated 750 known sites in Wales (*ibid* 292). One of the main objectives of the present proposed project would be to bring this work up to date and to complete it by producing a record of all sites. As a computer-based record will be more easily accessible and useable for research and management than the previous published data.

CLASSIFICATION SCHEMES FOR DEFENDED SETTLEMENT

Previous analysis of hillforts has focussed on size of forts as the only common statistic that can be easily obtained and studied in relation to geographical distribution. Feachem (1966) studying hillforts in northern Britain classified forts into size ranges of under 6 acres, 6-10 acres, 10-20 acres and 20-30 acres and was confident enough to state that 'Above all, the surveys have shown that regional types can be recognised from surface indications; and that the surface remains of enough multi-period forts and settlements remain in a good enough state of preservation to allow a considerable amount of important information about structural sequences to be gleaned from plans alone, without excavation' (*ibid* 60). Spurgeon (1972) studying

Montgomeryshire divided forts into those less than 1 acre (0.4ha), 1-3 acres (0.4-1.2 ha), 3-8 acres (1.2-3.2 ha) and over 8 acres, each sub-divided into univallate and multivallate. Jackson (1999) looking at the Welsh Marches divided forts into small (0.1ha-1.2ha), medium (1.3-3ha), large (3.1-6ha) and very large (over 6ha). He identified three geographical areas based on the predominant size of fort present. He observed that these seemed to coincide with differences in topography and land capability and suggested that differences in size of forts may reflect different functions. Perhaps what may be being observed is dependent on different social and economic conditions between areas of well-settled lowland mixed arable farming and areas of more scattered pastoral communities. Any deeper chronological or cultural differences are more difficult to identify where continuous use of a defended settlement means that earlier structures are hidden by later.

Hogg (1972) classified hillforts according to their topographic location as contour forts, promontory forts, cliff forts and ridge forts. This classification would not adequately encompass lowland defended sites and the topographic location is probably of little relevance to understanding the social, political and economic role of hillforts. The same can be said of the type of structure of the forts, whether of stone or dump ramparts, which may reflect the availability of local building materials rather than cultural differences. For instance, Wales is geographically more varied than lowland England and this is reflected in the style of its vernacular buildings, particularly in relation to the use of abundant stone and the occurrence of different types of stone. There can be expected to be two main areas of influences, in the east from lowland England, with its timber-framed buildings and in the west with its stone buildings. In Caernarfonshire, which has some areas of exceptionally good archaeological preservation, the Royal Commission surveys recognised four main types of fort, Stone walled forts, Bivallate rampart forts, Small circular forts (Ringworks) and Strong univallate forts. Although the walled forts have been considered to be a particular regional style they may be just a reflection of the available material. However, there is a suggestion of a chronological pattern in that of the walled forts that have a second phase, more than half have a second phase that is a dump rampart, a type that is typical of the 'developed hillforts of the Middle Iron Age, *c*. 400-150BC, in Southern England (Cunliffe 1991). In north-west Wales, even if stone-walled forts were early in origin some continued to be used or re-used in later periods when 'developed' hill forts were more typical.

Any future work on classification needs to be based on a variety of attributes of which overall design or type of defences may be only part. Classification of sites according to type of defence may, in any case, not be reliable where excavation has not taken place. Unfortunately, classification has been used freely when compiling lists and has formed the basis of terminology. The situation is therefore similar to that encountered in plant biology in that classification, based on form, has been refined over time but where modern DNA studies reveal previously unexpected ancestral and family relationships. Whatever the problems in studying hillforts, it is essential to have a terminology that is well defined. The current scheme in use in SMRs in Wales is that agreed as part of development of the Extended National Database (END) designed by the RCAHMW. In this scheme defended settlements can be classified under Form or Function. Under Function they may be classified as Defence or Domestic. Those included under Form only will be those sites where a function cannot be readily assigned such as ditched enclosures remaining only as crop-marks. Classification under Function is more problematic as most defended sites of this period are defended settlements rather than purely military. Their primary function can therefore be argued to be domestic. Many settlements are also enclosed in a non-defensive way and there is a difficult distinction to be made between enclosed settlements classed as Domestic and those that should be classed as Defence. In other cases settlements that began as defended will become purely domestic after defences are no longer maintained. It has also been suggested that in some cases defences were maintained purely in a symbolic or display fashion, without regard to their actual effectiveness.

TERMINOLOGY

The terminology used within the Welsh SMR's has been gradually modified to fall in line with the accepted English Heritage/RCAHME Thesaurus of Monument Types. The RCAHMW has led the introduction of these terms through production of an accepted list for the use of the Extended National Database (END 2003). The application of the thesaurus to the SMRs of the individual Welsh Archaeological Trusts has been monitored through a series of regular meetings. These allow the discussion of any new proposed terms that might be necessary to cover types of archaeological site that may be specific to Wales. The monument types have been added to the SMR databases as a new field so that the previous terms can still be accessed if required. The introduction of the new monument type thesaurus is still in progress and requires careful manual checking. It is being carried out across Wales in alphabetical order of monument type. The work began in 2002 and should be completed by April 2004.

The EH Monument Protection Programme has produced monument definitions as well as definition of non-statutory criteria for the purposes of evaluation and scheduling. The monument types for these descriptions can be paralleled in the NMR Thesaurus but are not directly equivalent because the MPP describe monuments in more detail than allowed for by the thesaurus (Table 1).

Table 1 EH/NMR and EH/MPP Monument types covering all prehistoric defended site types

EH/NMR Term		**EH/MPP Monument characterisation term**
Hillfort	Bivallate hillfort	Large multivallate hillfort
		Small multivallate hillfort
	Multiple enclosure fort	Multiple enclosure fort
	Multivallate hillfort	Large multivallate hillfort
		Small multivallate hillfort
	Univallate hillfort	Large univallate hillfort
		Slight univallate hillfort
Hilltop enclosure		Hilltop enclosure
	Palisaded hilltop enclosure	Nil
Oppidum		Enclosed oppida
Palisaded enclosure		Nil
Palisaded homestead		Nil
Promontory fort	Cliff castle	Cliff castle
Round		Round
Nil		Wooton Hill style enclosure
Hilltop enclosure		Springfield style enclosure

The only significant difference here is the lack of monument type definitions for palisaded enclosures and homesteads. These form a special case and in the main are only identifiable after excavation although an MPP definition would be desirable. The MPP also separates the (Bronze Age) Springfield style enclosures: small sub-circular univallate hill-top enclosures and the (Iron Age) Wooton Hill style enclosures: small rectangular enclosures with substantial banks and ditches and often with elaborate gateways and stockades. These are found often on the upper terraces of river valleys and are mainly applicable to a specific type occurring in the Northamptonshire area. They are primarily small farming settlements but with enclosures of such a scale as to indicate deliberate defence. These could not easily be fitted into the NMR scheme, the nearest category in terms of form and date would be Rounds. As a type these are regarded as confined to Cornwall and Devon. In fact there are examples of 'Rounds' that are sub-rectangular not round and this would make them equivalent to a much wider range of Later Iron Age substantially enclosed small settlements, including the raths of south-west Wales and some of the nucleated enclosed settlements of north-west Wales.

Work on the Extended National Database for Wales has begun with a more general approach so that broad, inclusive types can be easily agreed and sub-types can then be added later. The terms that can relate to defended settlement are listed in Table 2. These broad terms allow only general comparison with the EH/NMR terms and at some point the two must be made to be properly equivalent. The present scheme provides only three distinguishable categories (Table 3). These are Hillfort, Promontory fort and Other sites for which four terms are available, *viz.* Defended enclosure, Defended settlement, Earthwork and Enclosure. These categories are difficult to distinguish. The first two are the most useful and can be defined as defended non-hilltop enclosures respectively with or without evidence of settlement. The latter two general terms are needed for lowland ploughed-down or cropmark sites where no more specific identification can be made. The present study aims to provide refined and defined categories for defended sites that can be used in any subsequent pan-Wales project.

Table 2 END preferred indexing terms for prehistoric defended sites. Non-EH/NMR terms shaded.

BROAD CLASS		
Form	***Domestic***	***Defence***
Banked enclosure		
Circular enclosure		
	Defended enclosure	Defended enclosure
	Defended settlement	Defended settlement
Ditched enclosure		
Double ditched enclosure		
Earthwork		Earthwork
	Enclosed settlement	
Enclosure		Enclosure
Enclosure complex		
	Hillfort	Hillfort
	Promontory fort	Promontory fort
Rectangular enclosure		
Rectilinear enclosure		

Table 3 Correlation of END and EH/NMR terms for defended settlement

END term		**EH/NMR Term**	
Broad term	**Narrow term**	**Broad term**	**Narrow term**
	Hillfort	Hillfort	Bivallate hillfort
			Multiple enclosure fort
			Multivallate hillfort
			Univallate hillfort
Earthwork/ Enclosure/ Defended enclosure/ Defended settlement		Hilltop enclosure	
			Palisaded hilltop enclosure
	Nil	Oppidum	
	Nil	Palisaded enclosure	
	Nil	Palisaded homestead	
	Promontory fort	Promontory fort	Cliff castle
		Round	

Despite the work on the END there is still some variation between the WATs in classification of defended settlement (Table 4). Simplification of the Broad terms would allow easier searching of the database. There will also be some minor problems to overcome. For instance in some cases more than one PRN is given to a single site, where more than one phase has been identified. In the DAT SMR all promontory forts have been classified as hillforts even though promontory fort is and END term. There is also some variation in basic identification between south-west and north-west Wales. In south-west Wales there are many small substantially enclosed settlements, some recorded as hillforts, some as defended settlements. In north-west Wales are about 200 examples of similar but not so substantially enclosed settlements of a variety of forms, both rectilinear and curvilinear. These, however, have been classified as undefended settlement, although they may be broadly equivalent in social terms to the defended examples in the south-west. Similarly, in north-east Wales there are 58 enclosed settlements that may need to be added to the total of 280 recorded defended enclosures. In south-east Wales there are relatively few known defended settlements but there are 200 unclassified enclosures, 21 of prehistoric date and 179 of unknown date.

These points highlight the fact that defended settlement may be assessed as a class but must finally be understood in relation to the pattern of settlement as a whole. In general it can be said that pursuing the

requirements of comparability and inclusiveness for END have led to the adoption of such broad terms that there is little information to be derived from the database that is useful for interpretation. The kind of overall analysis of size, type and features carried out by Hogg (1972) and Savory (1976) cannot be carried out unless a further range of more detailed data is added. This is something that must be carried out by the proposed project if hillfort studies are to be carried forward. Hillforts may be put into simple classes such as Multivallate, Univallate, Defended enclosure etc but genuine distinction must derived from identification and recording of items such as overall shape, internal area, structural type of ramparts, type and orientation of entrance, number and type of houses. The record should also include features in the immediate environs, such as settlement that might be of contemporary date, and of the agricultural capability of the surroundings as well as the potential for environmental evidence. These have not all been identified at the present time and will depend to some extent on local knowledge so it will be important to discuss and identify by a full range of such items before any survey commences.

Table 4 Terms used by the WAT SMRs to record prehistoric defended settlement

WAT	***Broad class***	***Type***	***Period***
CPAT	Defence Domestic	Defended enclosure Fort Hillfort Hillfort (Promontory)	Bronze Age Iron Age
DAT	Defence Domestic Defence; Domestic Domestic; Defence Defence; Defence Religious Ritual and Funerary	Defences Defended enclosure Henge?; Hillfort Hillfort Hillfort? Hillfort; Enclosure Hillfort? Fort? Hillfort; Occupation site	Bronze Age Iron Age Iron Age? Neolithic; Bronze Age; Iro
GAT	Defence Domestic Domestic; Defence	Fort-Promontory Hillfort Hillfort? Hillfort, Enclosure Hillfort, Excavation Settlement-Defended	Prehistoric Romano-British
GGAT	Defence; Domestic Domestic; Defence	Defended enclosure Enclosure Hillfort	Iron Age

THE PRESENT SMR RECORD OF DEFENDED SETTLEMENT IN WALES

Study of the Welsh Archaeological Trust SMR databases produces a total of 1423 sites of defended settlement type (Table 5). The GAT SMR has been checked in more detail, showing that there are some difficulties in arriving at a final total. For instance, there are some hill-top enclosures that may be of Early Medieval date and there are certainly some enclosures not included in the lists that may have been defensive, particularly those known only as crop marks. The same problems will probably occur when the other SMRs are studied. The main site types represented in the lists are ‘Hillfort’, ‘Fort – promontory’, ‘Defended enclosure’ and ‘Settlement – defended’. The WATs are in process of refining the site types to a common standard agreed as part of the ENDEX meetings and are about half way through the process, working in alphabetical order of site type. Queries of the database will be easier when this is completed.

Table 5 Rapid summary of all prehistoric defended settlement in Wales

	SMR total	Defended settlement total	Def Set as % of total SMR	Def Set SAM total	Def Set SAMs as % of total Def Set
CPAT	44105	569	1.3	167	29
DAT	36280	613	1.7	235	38
GAT	16558	119	0.7	61	51
GGAT	18760	125	0.7	94	75
		1423		557	39

Condition and survival

Production of management information will be a key part of any survey. Condition is already recorded as part of the WAT SMRs and added to the database except in GAT where it is felt that variation in application of the term by different fieldworkers makes it of uncertain validity. It cannot therefore be used for an overview of defended settlement in Wales. However, a general picture can be arrived at by study of the recorded form of such sites (Table 6). This shows what proportion survive as upstanding or as ploughed out sites. It shows particularly the large number of such sites that have been identified as crop marks in south-west and north-east Wales compared to the rest. It also shows that the overall proportion of scheduled monuments seen in Table 5 is somewhat misleading in that the sites that are visible upstanding monuments have a much higher proportion of protected examples than is evident overall. Only in north-west and north-east Wales is there a significant proportion of upstanding monuments without statutory protection. The larger numbers of cropmark sites in north-east and south-west Wales is partly due to the greater amount of lowland there and partly due to the concentration of aerial photographic work there.

Table 6 The recorded form of defended settlement according to WAT area

	Form	***Total no.***	***No. of SAMs***	***% SAMs***
GGAT	Not recorded	1	0	0
	Cropmark	6	0	0
	Document/Placename/Natural?	2	0	0
	Earthwork	116	94	81
GAT	Cropmark	12	0	0
	Document/Placename/Natural?	9	0	0
	Earthwork	43	27	63
	Stone-built feature	54	34	63
CPAT	Not recorded	1	0	0
	Cropmark	197	7	4
	Document/Placename/Natural?	79	2	3
	Earthwork	174	152	87
	Structure	18	15	83
DAT	Not recorded	3	0	0
	Cropmark	68	0	0
	Document/Placename/Natural?	30	0	0
	Earthwork	512	235	46

The survey will therefore have to address the status of the large and increasing number of sites existing in cultivated land as low earthworks or just as crop marks. Such sites may be of equal value to many where the defences survive as earthworks but the interior is still subject to cultivation and erosion. The potential value of such sites was demonstrated by the results of the Lawhaden Small Enclosures project in Pembrokeshire, which surveyed and excavated several small defended settlements that were being damaged by ploughing (Williams and Mytum 1998).

The measured survey record

The present measured survey record of defended settlement in Wales still relies mainly on the work of the RCAHMW apart from some site specific work and then only the more recent inventories of Caernarfonshire, Brecknock and Glamorgan. To these may be added the work of Davies (1929, 1949) in Denbigh and Flintshire, Gresham in Meirionnydd and Spurgeon in Montgomeryshire. For most other areas the surveys of the Ordnance Survey still provide the basis. Work in progress includes that of Adam Gwilt in Gwent and Toby Driver in north Ceredigion. There is therefore presently a need for up to date measured survey and information about the survival and condition of defended settlements in several different areas of Wales, and filling this need will be one of the aims of the proposed survey.

The inventory for Glamorgan has been studied as an area that is topographically more representative of a large part of Wales than, for instance Caernarfonshire, where the most defended sites lie in areas of unimproved rough grazing, the ramparts are often stone-built and internal features also often survive as upstanding features with stone-walled roundhouses. In more lowland areas survival is different, often with dump ramparts and little upstanding internal preservation because lowland roundhouses were not stone-walled. Analysis of the inventory (Table 7) shows that for the majority only the defences are recognisable and in many cases the defences themselves have been levelled and ploughed over. Only three are intact internally, in other cases some slight internal features are visible. Not all have been ploughed and lack of recorded internal features in some cases is because they are grown over or wooded. Where any upstanding internal features have been lost to ploughing this is mainly due to earlier farming and many now appear to be in permanent pasture.

Table 7 The type, condition and measured survey record of defended settlements in Glamorgan

Type	***Upstanding internal preservation***			***Total***	***No. with survey plan***
	Good	***Some***	***Slight/ None***		
Univallate over 1.2ha	0	1	4	5	2
Univallate under 1.2ha in naturally defensive sites	0	7	21	28	7
Univallate under 1.2ha not in naturally defensive sites	0	5	17	22	3
Multivallate over 1.2ha with close-set ramparts	2	2	5	9	9
Multivallate under 1.2ha with close-set ramparts	1	0	11	12	3
Multivallate with wide-spaced ramparts, inland	0	2	9	11	10
Multivallate with wide-spaced ramparts, coastal	0	4	4	8	5
Total	***3***	***21***	***71***	***98***	***39***

The lack of visible, upstanding internal features does not mean that such do not survive. Where excavation has taken place, such as at Hardings Down West, Cae Summerhouse and High Pennard, roundhouses have been found. In addition, excavations have provided evidence of longevity of use at several sites with both Late Iron Age and Romano-British finds. At Llancarfan remains were found of a prior univallate enclosure while at Cae Summerhouse evidence was found of development from an initial undefended settlement, with three pre-Roman phases and two later phases within the period 2nd to 4th centuries AD (Davies 1967). The proposed project should therefore look at the potential for survival of sub-surface remains. This is particularly important where the current land-use involves ploughing.

Almost half of the defended sites in Glamorgan have good survey plans but this is biased towards the larger, more impressive monuments. Very few sites under 1.2ha in size have been surveyed and for this area should therefore be targeted in any follow-up work. In areas not covered by recent RCAHMW inventories the need for fresh survey will be even more widespread. Recent survey work by Toby Driver at Castell Grogwynion,

Ceredigion as part of his doctoral research, has provided many new details about the layout of the fort and he has kindly allowed his new survey plan to be included as an example here (Driver 2002). The sub-rectangular fort, of about 1.7ha was shown to be of more complex and sophisticated design than previously recorded by the Ordnance Survey plan (Fig. 2). The survey (Fig. 3), carried out over two days, was able to suggest how the fort may have been modified over time and showed how much additional information and new interpretation can be achieved with a relatively low input. Such surveys also benefit management in that areas of erosion can be pinpointed and so should be regarded as essential. This was the case at the stone-built Tre'r Ceiri fort, Gwynedd where a digital ground survey was carried out and provided the basis for subsequent conservation, consolidation and footpath work (Hopewell 1999).

Aerial survey

Aerial Survey can add new details or indicate such details that can then be located and mapped on the ground. This may be most relevant to faint details such as levelled remains of earlier defences or internal remains surviving only as sub-soil features, which may be identifiable only as crop-marks. Such photographs are also important in identifying more extensive remains of cultivation and trackways in the area around forts. Exemplary aerial photographic work has been carried out by Tim Gates in the Cheviots of Northumberland and used to great effect in the surveys of the environs of the hillforts there (Oswald *et al* 2000). Aerial survey has also been shown to be productive in south-east Wales (Spurgeon 1972) and south-west Wales (Fig. 4) (James 1984). The latter identified a new range of rectilinear enclosures but the largest number of discoveries related to hillforts of which there were 27. In north-west Wales there has been comparatively little archaeological aerial survey but there is extensive air cover carried out for other purposes that deserves study. The results of the Llyn Cropmarks Project showed that smaller defensive enclosures are still to be discovered, like the concentric enclosure of Bryn Rhydd (Fig. 5) which may be a Late Bronze Age settlement like Castell Odo (Alcock 1960). There are also some upland monuments where aerial survey under low light or light snow might add new details. Such is the hillfort of Moel Offrwm, Meirionnydd, planned by Gresham (Bowen and Gresham 1967) but where aerial photographs show many new house platforms (Crew and Musson 1996, 19). Several photographs of the large fort of Caer Eini, Meirionnydd also show settlement details in the (cultivated) interior as well as subordinate enclosures in adjoining unploughed heathland (Fig. 7). In south-west Wales a completely new hillfort has recently been identified and there is extensive aerial cover of defended sites in Wales awaiting plotting and checking on the ground (Driver, pers. com). These and all other available photographs will need to be plotted and the features measured and classified as part of a future project. Features in noted in upland sites will need measured ground survey to produce an adequate record.

Geophysical survey

Aerial survey may not always be useful for the many cases of defended settlement where the interiors have been or are still under plough. Most of these are in semi-permanent pasture in which soil moisture conditions are rarely suitable for good crop marks. In these cases geophysical survey will be the most appropriate approach for production of better detail. A long term programme of geophysical surveys of the interiors of hillforts and other defended settlements has been carried out by English Heritage, with many excellent results, although in some cases the soils and geology prove to be unresponsive (Payne 1996). It provided an essential role in work on all of the Iron Age settlements excavated as part of the Danebury Environs programme, producing exemplary results at Bury Hill hillfort and at the Suddern Farm and Houghton Down hillslope enclosures (Cunliffe and Poole 2000). However, the chalk geology was particularly suitable and the main features identified were storage pits, unlikely to occur in Wales. Despite this, geophysical survey has been shown to be very productive in Wales where it has been applied to Roman Forts and their environs (Hopewell 2002). Geophysical survey may prove to be essential for the further understanding of the many small lowland defended settlements in south-west Wales known only from aerial photographs and for settlement features in the ploughed interiors of some forts. It proved very productive as a follow up to aerial photography as part of the Llyn Crop Marks Project. It may also be useful for the identification of areas of metal-working within forts and for the identification of areas of 'vitrified' ramparts as has been suggested for Caer Eini, Meirionnydd (Fig. 6). Recent trial survey in the interior of Moel Faner hillfort, Meirionnydd however, produced no results (P. Crew, pers. com.).

Palaeo-environmental assessment

Assessment of environmental potential will form part of the project. There has been relatively little environmental evidence from hillforts in Wales concerning their agricultural economy and crop husbandry. Some work done has not yet been published, for instance from Castell Henllys. There is some new work in progress from the cliff promontory forts of Porth y Rhaw and Great Castle Head in Pembrokeshire. An essential first step is the identification of areas of potential both within and in the vicinity of hillforts and defended enclosures, for instance areas of wetland peat or of middens and testing of depth of deposits by probing (Astrid Caseldine, pers. com.).

Scheduling enhancement

The rapid survey of WAT SMR data (Table 4) shows about 1400 sites of prehistoric defended settlement type of which the proportion scheduled is about 40%. There are therefore about 866 sites of this type not scheduled and evidently considerable potential for further protection although this inevitably means a change in emphasis towards less impressive upstanding monuments and to cropmark sites and these will need to be justified. Some of the slighter earthworks, such as the 'Weak concentric earthworks' in West Gwynedd noted in the Llyn Cropmarks study (Ward and Smith 2001) may be the earliest types of defensive enclosure and of greater value than their visible remains indicate. Many will also be ploughed sites that are not scheduled but which further assessment may prove to be valuable and worthy of protection. This is the case with the newly identified group of sub-rectangular enclosures in coastal Ceredigion, a class of monument awaiting study and dating (Murphy, pers. com.). Added to this is the likelihood that assessment of the presently scheduled monuments may result in suggestions for extension of presently protected areas. Ground survey of the Cheviot hillforts has in every case resulted in proposals for extension of scheduled areas (Oswald, pers. com.).

Assessment of Risk

The main risks overall are plough damage in lowland areas and visitor damage in upland areas. Development of trails has led to more intensive use of certain routes such as the Offa's Dyke Path along the Clwydian Hills and direct remedial work on the hillforts there has been carried out by the County Council. Similar problems are evident elsewhere, in North Snowdonia and in the Brecon Beacons. The exact effect of ploughing is generally not known but there is an assumption that such sites are in a stable state assuming that they are already ploughed 'flat' and the plough horizon remains the same, providing a protective. However, this is not necessarily the case as shown by the Llyn Cropmarks project. First, when visited, such 'cropmark sites' are often not 'flat' but actually low earthworks and as such open to continuing erosion. Secondly, soil movement depends on the slope and an area may be eroding or aggrading. Where, as often now happens, a boundary is removed, an area that was once protected by soil accumulation may start to erode. This seems to be the case with the hillfort of Y Werthyr, Llantrisant, Anglesey, its extensive and once impressive earthworks gradually disappearing under cultivation after general removal of field boundaries (Lynch 1991, 267). In addition, areas ploughed in the past may be much more at risk from modern designs of agricultural machinery and areas of permanent pasture, improved in the past may be vulnerable to renewed use and improvement. For instance it has been observed that there has been a recent increase in ploughing for fodder in areas of West Wales that have formerly been stable permanent pasture (Ken Murphy, pers. com.).

PROPOSED METHODOLOGY

Outline

It is important that to be of lasting value the project should provide a balance between collection of management data and furtherance of interpretation and understanding. The project should provide a focus and catalyst for renewed research. It was first considered that a general field survey should be carried out in an intensive manner. This would involve a great deal of work on each site, considering the size and complexity of many of them. However, the mass of descriptive results would not necessarily add to understanding and would be difficult to use. There were also, in consultation, general misgivings about the value of extensive field visits and assessment without at least improvement of the mapped record or other investigation. However, a comprehensive round of field visits for management purposes is essential so that condition, threats, land use and monument value can be assessed. Greatest emphasis should however be paced on desktop study, to collate the existing record and to include aerial photograph study and plotting. Field visits should be relatively rapid and not repeat earlier descriptions. Many of the field visits will be to cropmark sites that have never been assessed on the ground and need basic description and classification. More intensive field visits might be undertaken in those cases or areas where fuller study measured survey or geophysics is agreed.

It is proposed that the work within each WAT should have two strands. First a programme of desktop study followed by field visits designed to inform Cadw and the regional SMRs. Secondly a more in depth study of a smaller topographic area as part of a programme that might also be of interest to an organisation such as a National Park. For instance it might enhance primary survey information and understanding and serve as an input to public information for leisure, tourism and education. Suitable areas of interest might be the coastal forts of Pembrokeshire, the Clwydian forts, the Conwy Valley forts, the Brecon forts. The National Park Authorities in some areas might assist in the development of suitable schemes and contact with other projects such as rural tourism schemes. A general approval of such an approach has been indicated by the Pembrokeshire and Brecon Beacon National Park Authorities. Possible partner projects involving local heritage enhancement are already taking place with European funding in Anglesey, Conwy and Denbighshire.

Desktop study

The initial stage will be a database search of the each Trust's SMR to extract all possibly relevant sites. This will be followed by a desktop study of the extracted sites to provide a final checked and verifiable shortlist according to accepted site types. Of course the existing classification may change later after field visits. The desktop study will check the existing bibliographic references, archaeological history, aerial photographic references and artefact records of the selected sites. The study will then identify the archaeological potential of the area around each site by identifying all relevant known sites within 1km of each defended settlement and by studying any aerial photographic cover.

Fieldwork

Each site will then be visited and assessed. This will involve first, a study and description of the archaeological evidence and secondly a record of the condition and threats, and thirdly an evaluation of each site according to defined non-statutory criteria. The recording will be carried out using pre-designed forms and database fields so that the records from the whole of Wales can be easily compared and synthesised.

The recording has been tested by application to two case studies, one small and presently not scheduled, the other large, well visited and scheduled. It is hoped that these may then be fairly representative of a wide range of extant sites. However, the fieldwork has not yet been tested on an example of low or cropmark site. The case study work has been quite brief and limited and there is still more to be done to develop the best fieldwork approach and recording methods and categories. These will need to be modified by later discussion.

Aims of the fieldwork:

Identification of additional internal features.

Identification of additional relevant features in the immediate environs.

The possible need for extending protected areas.

Monument evaluation according to defined criteria that might identify new sites of national importance.

Assessment of the condition and threats to each site and provide management recommendations, including possibly structural conservation measures and management of land-use.

The work will also identify sites where full ground survey is needed and where access and information might be usefully provided, particularly where this relates to land within a National Park, Access land or any other land affected by other management schemes, such as Tir Gofal or National Trust land.

Three draft recording forms have been produced to test on the two case study sites to cover Desktop research, Site description and Management (Appendix 1).

DRAFT MONUMENT EVALUATION CRITERIA DEFINITIONS FOR DEFENDED SETTLEMENT

Many hillforts are large and complex monuments or even complexes of monuments or phases of activity and so are not easily susceptible to a simple summary of criteria values. In southern England the presence of many subsoil features means that potential may be high even when visible condition is low. There may also be very rare types such as possible Bronze Age enclosures, which must be rated as valuable without investigation of subsoil feature survival. A draft set of monument evaluation criteria has been prepared. These were designed with the two case studies in question, both stone-walled hill-top forts but aim to be more generally applicable. They may need modification for some classes of site, such as the smaller defended enclosures in the lowland of south-west Wales, particularly those that survive as low earthworks or crop marks. Excavation of a range of such sites in Pembrokeshire demonstrates their potential (Williams and Mytum 1998) but valuation of other sites may depend on identification of subsoil features by geophysical survey. With that proviso, the single set of criteria produced here may still be adequate.

There are two aspects to new scheduling proposals. Firstly recommendations for protection of new unprotected sites. Secondly recommendations for extension of presently protected areas. It is likely that in both cases the protection will cover relatively large areas and so will be sensitive to landowners. In both cases it is also likely to cover areas under agricultural use so will involve management of land use.

A relatively large proportion of defended settlement types are already scheduled and it is likely that this includes all those that are fairly complete and in an upstanding state of preservation. Proposals for protection of new sites can therefore be expected to involve sites in relatively poorer condition. This is acceptable in that all examples of this site type are rare and potentially important sources of knowledge about past society and should be protected. Those examples that are less well preserved in some cases are likely to be the earlier sites, which are smaller and less massively built but which are more significant for understanding. Even sites that are very incomplete, whether as a result of natural erosion or human interference are important in that the surviving fragments may hold the last clues to the date and relevance of the site in question. Preservation as such may not be merited but recording may be.

Extension of existing scheduled sites needs to be carefully qualified since although there may be related features around the defended site at some point this can merge with the general landscape which continues uninterruptedly. There needs to be a distinction between individual sites that may merit protection in their own right, such as house sites and broader areas of interrelated features which may include house sites but may also include, for instance minor enclosures, fields, cultivation terraces or trackways.

1. Management criteria

Condition:

Good - With evidence for over 50% of original circuit of rampart, facing or palisade
Medium - 25-50% ditto
Low – Under 25%

Fragility:

Low - Mainly grassed and stable
Medium – c. 50% exposed
High – Generally exposed stone work/rampart fill

Vulnerability:

High – Ploughing/cattle trampling
Medium – Visitor
Low – remote and low intensity pasture

2. Discrimination Criteria

Survival:

High – Defences mainly survive and interior fair survival or defences poor but interior intact
Medium – ditto at least 50%
Low – ditto less than 50%

Potential:

High – 3 or more of: Rare type/Rare in area/buried features/significant finds
Medium – 1-2
Low – Nil

Group Value:

High - More than five sites/features: fields/huts etc
Medium – 2-5
Low – Less than 2

Archaeological documentation:

High – 2 or more records
Medium – 1
Low – Nil

Historical documentation:

High – 2 or more documents
Medium – 1
Low – Nil

Amenity value:

High – Easy visibility and accessibility
Medium – Accessible with some difficulty and not immediately understandable
Low – Not accessible or understandable

Palaeo-environmental value:

High – Peat or buried soils present on site
Medium – ditto close by
Low – No evident buried peats or soils

CASE STUDIES

1. Dinas Ty-Du, Llanberis, Gwynedd (SH 56665985) (Figs 8 - 11)

This was chosen as an example of a defended site that is not presently scheduled although complete in extent. This would allow a trial of proposed techniques of monument evaluation and recording. It provides an assessment of condition and potential of an example of a type of defended site that has had relatively little attention paid to it in the past because of their simplicity, lack of obvious internal features, such as round houses and of low and unimpressive ramparts. Previous attention and scheduling has been focussed on the larger more impressive hillforts. In the overall picture of hillfort development these probably represent just the later 'developed' hillforts while the smaller simpler defended sites, which may represent earlier sites have been neglected.

Description

Dinas Ty-Du is a small fort about 100m long and 30m wide with no obvious re-building or additional enclosures and in that respect would be unlikely to have seen long or extensive use or phases of use. It is situated high up on the south side of the deep valley above Llanberis and Llyn Padarn at a height of 320m (Fig. 8). It lies on the promontory of a naturally defensive ridge with steep, rocky sides (Fig. 9). It lies within an area of enclosed sheep pasture and much of its remains are in a very low and eroded condition. The earliest reference to it refers to hut circles within it although none were identified by the RCAHMW or the OS. The first OS plan of 1914 (Fig. 10) shows a simple single oval enclosure. A later survey of 1973 (Fig. 11) recorded the extent of the surviving faced wall and suggested that the entrance was at the east, where the steep approach would make it more defensible whereas the strongest part of the defences can be expected to have been at the west where there is an easier approach from the saddle along the ridge. The southern rampart has been incorporated into a modern field wall and only at the west end are any surviving structural features, in the form of facing to the rampart. It was classed by the RCAHMW (1964 lxxiii) as a 'later walled fort' like Tre'r Ceiri. This type is differentiated from the 'early walled forts' by the less massive stone single rampart although what the basis is of this chronological distinction is unsure. The walled forts themselves are identified as early in the overall hillfort sequence because of six forts in the area that have two phases, in all cases the first phase is a walled fort, three have a second phase that is also a walled fort and three have a second phase that is a bivallate fort.

Management comments

The area immediately around the fort is reasonably well preserved apart from clearance for pasture and two groups of round huts have been recorded on the slopes to the south-west (Fig. 10). The best preserved (PRN 4032), only about 50m from the fort has a hut about 8m dia. with some orthostatic inner facing stones. Nearby is another smaller platform that may be a subsidiary building. Further to the south-west is a group of two or three contiguous round huts that are close to a trackway and have been all but entirely robbed out (PRN 4052). The area to the north has no recorded features although most of it has been destroyed by quarrying. It might be expected that there may have been settlement associated with the hillfort further away in the valley where there is some better quality land, suitable for arable. Several additional minor features were recorded during the visit (Fig. 10) and there is a considerable area of largely unimproved land in the vicinity that might produce further features if studied more intensively (Fig. 8). There are no known internal features in the hillfort although a possible entrance and trackway was identified on the north side where there is a break and discontinuity in the rampart facing (Fig. 11) although this might be a later feature. Geophysical survey of the interior may not be productive because of the rocky nature of the hilltop in which any features such as house platforms should be visible. The lack of internal features and the slight and fragmentary nature of the defences may mean that this is an unfinished hillfort. Nevertheless, the monument evaluation suggests that it should be considered for scheduling, mainly because of the rarity of such sites.

2. Castell Caer Seion, Conwy Mountain, Conwy (SH 76047784), SAM Co12 (Figs 12 – 15)

This was chosen as an example of a well-known defended site that has been protected as a scheduled monument. It has also been relatively well studied, with detailed surveys by the RCAHMW accompanied by some excavation in 1951-2 (Griffiths and Hogg 1956). It will show to what extent further study of such sites is needed, whether further details can be elicited and whether present management and public interpretation programmes can be extended.

Description

Castell Caer Seion lies on a naturally defensive position, a steep ridge on the very edge of a steep drop to the coast as well as overlooking the mouth of the Conwy Valley (Fig. 12). The ridge rises to about 250m OD and the northern, coastal side is so steep as to preclude the need for ramparts. The remaining sides are also steep and rocky and there is no easier, natural route to the summit where a more strongly fortified entrance would be required. The main fort is composed of a single-walled stone rampart, relatively narrow in width and without an accompanying ditch, surrounding three sides of the ridge, enclosing about 6 acres in which are at least 20 circular hut platforms. At the west end of the ridge is a later smaller enclosure of about half an acre area with a similar stone-walled rampart to the main enclosure but backed up by deep outwork ditches on the easier approach along the ridge. This smaller enclosure was entered through a separate entrance to the main fort and it seems likely that the smaller enclosure was created after abandonment of the larger enclosure. It has been suggested that the smaller enclosure might represent post-Roman re-use of the hillfort. However, excavations in 1951 and 1952 by the RCAHMW and MPBW (Griffiths and Hogg 1956) produced no datable finds, except spindle-whorls and saddle querns, suggesting an earlier Iron Age date, the absence of rotary querns, pottery or coins suggesting that it was not occupied during the Romano-British period. The inner enclosure is also of quite similar construction to that of the larger and has similar roundhouses, whereas some rectangular buildings usually occur in Romano-British and later settlements.

The fort has prominent and commanding views over the coast and the Conwy estuary. Perhaps more importantly it lies adjoining an important ancient route along the coast, from the mouth of the Conwy along the north Wales coast which follows the ridge because of the lack of a lower coast edge route at this point, because the ridge falls almost shear to the sea. The land immediately surrounding the fort is poor heathland so its defensive qualities were clearly more important than as a natural centre of settlement. Judging by the present day situation the nearest water supply was probably from springs some way down the hillside outside the fort. However, off the summit ridge the presence of bracken, and improved fields shows the land is fertile. Ridge and furrow cultivation features have been noted on the lower slopes of the hill to the west and there are a number of roundhouses on the slopes of the hill just below the fort itself, included within the scheduled area. There are also scattered huts, a sub-circular ditched enclosure to the south-east and a substantial nucleated settlement about 1km to the south-west at Gwern Engan (Fig. 12). The latter (PRN 2832, SAM Co215) looks more like a typical Romano-British period settlement of this area but was the subject of some excavation in 1911 producing a similar assemblage to Caer Seion, lacking evidence of Romano-British period occupation (Lowe 1912, 43, 101-3).

Management comments

The fort is impressively sited and focally placed, close to Conwy and adjoining the North Wales Coastal Path and is very heavily visited. The path, which runs for 60 miles, connects Bangor to Prestatyn. It not a recognised Long Distance Path and so has not yet attracted widespread interest but is well-signposted and promoted locally with a printed guide. The hillfort is in the care of the Conwy County Borough Council and the popularity of the site has meant continuing erosion problems due to trampling. A conservation plan was drawn up in 1991 by the council and the Snowdonia National Park Authority with input from Gwynedd Archaeological Trust. Extensive restoration and consolidation works were carried out, including backfilling trenches left open after the 1951-2 excavations. Two small (A4 sized) interpretation panels were placed at the site and while these are minimal are unobtrusive and have survived well. Unfortunately, the stonework of the inner enclosure of the fort is not surviving well (Fig. 13). This is mainly because the stone rampart wall is used as the most obvious route for walking and the request on the interpretation panel to avoid walking on the stonework is not effective. Although a parallel footpath was created this does not provide the spectacular views that the site affords. A new conservation management plan and works are needed to cope with the erosion caused by the increase in visitors since the opening of the North Wales Path. The stone used in the construction is somewhat fragile and thought

needs to be given to producing surfaces that are able to withstand intensive visitor use. In Denbighshire this has been achieved by ramping over sensitive areas of archaeology (Fiona Gale, pers. com.).

The previous excavations produced few finds, none closely datable but still of interest and stored in Bangor Museum. A guide to the North Wales Path is available, as is a local footpath guide to Conwy Mountain. A local interpretation panel could be usefully provided, either below the hillfort, adjoining the North Wales Path or at Sychnant Pass, a popular route for motorists, where a car park is provided by the National Park and where there is also a privately run (wildlife) Conservation Centre.

Improvement of interpretation in a general way can be made on existing evidence but further excavation work would be useful with the benefit of radiocarbon dating as charcoal was found in good quantities during the earlier work. Particularly beneficial would be the excavation of three roundhouses, one in the main fort, one in the smaller enclosure and one in the extra mural settlement. This could help to refine the dating of the phases of the fort and the roundhouses could be consolidated and displayed in a similar way to those on Holyhead Mountain, Anglesey, providing added visitor interest to the site. The smaller enclosure of the fort itself was surveyed in some detail by the RCAHMW (Fig. 15) but the main fort enclosure was surveyed in lesser detail (Fig. 14). It would repay further ground survey supported by air photo study and geophysical survey that may indicate huts or areas of iron working. In addition three roundhouses have been identified on the southern slopes outside the fort and these have not been surveyed in any detail. A considerable area around the fort and to the south around the Gwern Engan settlement is upland heath (Fig. 12) and there may be many more hut platforms and other features to be discovered. The sub-circular enclosure to the south-east is ploughed down and would repay geophysical survey.

Summary of case study work

The collation of desk-top evidence and the results of field visits on these two sites indicate how much detailed work can be carried out on every defended settlement site. Each is to some extent a focus for settlement and must be considered in relation to its surroundings, not as just an individual feature. In the time available for a visit the area can be assessed but not studied in great detail. Even informal recording needs to be extensive and the results and recommendations carefully considered. Rapid visits to complex forts such as Caer Seion must answer specific questions, perhaps not recording features in additional detail (for instance recording the diameters of all the roundhouses). Fortunately, in the case of Caer Seion excellent plans already exist. For many forts in Meirionnydd, for example, better measured survey would be needed to be able to identify and record features. Comments on erosion and consolidation would also need to be tied to good plans where they do not already exist. In addition to the comments here, plans could be marked with areas in and immediately around the forts that might be of greater potential. For instance where there is better preservation, the likelihood of some depth of stratigraphy or where geophysical or environmental survey might be productive. At Caer Seion the ramparts are the visible and obvious features and noteworthy because of the obvious erosion to them. In themselves however, and on the surface areas that are eroding they may have not have great potential for archaeological information. The most important areas are those sealed beneath the ramparts, in the ditches and in the interior of the fort, with its many well-preserved house platforms and where there is likely to be evidence of industrial activity. This interior area is largely well vegetated and stable and so has very good archaeological potential.

The desktop work required on these sites was not great as the SMR record was good and completion of the desktop form was not vital. There is no AP cover of these sites in the SMR but there may be some general AP cover elsewhere but this was not searched for. It is hoped to arrange some new air cover later in the year when snow might highlight new features. Strings of sites will need to be identified and put on hold to be part of a single sortie when suitable conditions occur.

About half a day’s fieldwork was spent on each of the sites here. This allowed some walk-over of the area at Ty-Du because the fort itself is small and simple. At Caer Seion, however it only allowed a full walk-over of the fort itself and the area around the fort was in any case bracken-covered and not suitable for survey.

Desktop study of the environs and production of assessment maps for every site takes time and would add considerably to work involved for a Pan-Wales project. Consideration of the wider landscape than looked at here, in terms of possible territory and boundaries is also needed. The recording forms were useable, but the main input was simply description and comment. Further fields will need to be added after discussion, together with agreement on definition on database fields.

CONSULTATION ON THE RELEVANCE OF NEW HILLFORT STUDIES

The most relevant parallel project is that being carried out by the Northumberland National Park Authority and English Heritage who have been involved over about the last five years in a major project based around the hillforts of the Cheviots and this provides a possible model for similar work in Wales. This has been a multidisciplinary project with European and Heritage Lottery funding with like for like support from English Heritage, the National Park, the universities of Durham and Newcastle and local archaeology groups. It has been developed around a series of new detailed ground surveys of hillforts and their immediate surroundings, which have produced a wealth of new information as well as management recommendations and have contributed to interpretation work for the development of local access trails and leaflets as part of the Countryside and Rights of Way (CROW) Act. The hillforts, as the largest monuments in the area acted as a focus for the project, which nevertheless produced much new information about a wide range of sites of all periods. This work, which is still continuing provides a good example for the development of similar projects elsewhere, such as in Wales where the National Park authorities could carry out a similar focalising and enabling role. This is a suitable time to carry out this kind of work because of the need to manage the effects of the CROW Act and the possibilities for new community involvement and the development of tourism.

The Cheviots Project, directed by Paul Frodsham and Ian Hedley was perceived basically as working to foster community involvement in the National Park area through access agreements and rural tourist business development. The project, 'Discovering our hillfort heritage' integrates several strands of work, including Conservation, through long term management of sites, Research, through detailed ground survey, geophysical and environmental investigations by local universities and excavations by a local society, the Northumberland Archaeology Group. The work benefited from good recent aerial photographic cover. It began as a 3 year project for which funding was achieved from the European Agriculture and Guidance Scheme and the Heritage Lottery Fund. English Heritage support in kind was 50/50 and contribution from local voluntary societies was valued at an agreed daily rate. The original three year project was extended by another 2 years after a further successful grant application through the Leader Plus Scheme.

The hill fort surveys themselves are published in a series of English Heritage survey reports (e.g. Oswald, *et al* 2000). These have been a major contribution to knowledge in the amount of new detail that has been identified, deriving from aerial photographs and ground survey, in some case allowing re-interpretation of phasing of sites. Geophysics has also been carried out successfully by the universities both inside and in the environs of some of the forts. One of the most interesting facts to emerge is that several of the forts seem to have been re-occupied in the Romano-British period after a period of abandonment. A summary of progress has been published (Frodsham 2000) and the work will eventually result in a number of academic papers and a popular publication.

Management work has involved first recommendations for extension of scheduled areas as a result of identification of outlying or associated features in the environs. Secondly by identification of areas of damage, particularly by rabbits. The National Park has arranged management agreements as a response to the damage and access agreements have been made with landowners and a series of interpretative leaflets showing trails organised around historic and archaeological features have been produced.

There are several areas of Wales where hillforts are just as significant a part of the landscape as in Northumberland and similar projects could be developed. One such is currently under way in Central Clwydian area of Denbighshire and named 'Heather and Hillforts', based around the six hillforts in the area combined with wider upland management. Survey has identified many new minor sites and identified areas of erosion on hillforts for which control measures have been put in place. This may now become a heritage Lottery funded project with scope for topographic and geophysical survey and some research on the environment. This will lead to development of leaflets, interpretation boards and educational support (Fiona Gale, pers. com.).

Academic involvement should be sought in addition to organisations concerned with land management. The University of York has been involved for several years at Castell Henllys and work that might produce related interpretative information in the area might receive university involvement or support. Elsewhere surveying or excavation projects might fit into university fieldwork training programmes.

In Glamorgan there has been relatively little recent work and several hillforts are now forested and in need of management. Many forts and particularly their interiors have been eroded by ploughing as shown by the survey plans of the RCAHMW. There are occasional cases of field systems around hillforts that need surveying and a current wind farm application at Margam may involve a hillfort (Charles Hill, pers. com.).

The Pembrokeshire National Park area includes about 50 coastal promontory forts, mostly scheduled but very few accurately surveyed. The National Park Authority encourages any work that might throw light on the development of the forts and provide information that might promote them to the public or aid access or identify erosion (Nick Wheeler, pers. com.). There would seem to be a good possibility of developing a match -funded project here, applying to the Heritage Lottery Fund. The same is the case in the Brecon Beacons National Park where there are several hillforts. Information on these is needed for incorporation in trails' information, interpretation panels and educational visits. Production of better understanding through geophysical survey of hillfort interiors, for instance, would be useful (Peter Dorling, pers. com.).

In the lowland of Anglesey there are few well preserved forts but some under cultivation are in need of aerial survey, plotting and geophysical survey. The hillfort at Holyhead Mountain is in a well-used tourist area and close to several popular monuments but is poorly understood or recorded with no known internal settlement features. Work there could feed into current local tourism and heritage initiatives with European funding (Neil Johnstone, pers. com.). In the Conwy Valley area are several major hillforts (including Castell Caer Seion, above, under the care of Conwy County Borough Council, Countryside Service) and there is a perceived need for more information to assist with educational visits and trail information (Ann Williams, pers, com.). There are also rural tourism and heritage projects under way to which study of hillforts and settlement might be relevant.

SUMMARY OF OPTIONS FOR METHODOLOGY

It has been shown that more than half of all known defended settlements in Wales do not have statutory protection. Those that are protected are the mainly the largest and most visible examples. While many of the remainder are smaller and not visibly impressive or even exist only as subsoil features they may be equally valuable for research, often for a different range of periods or social structure than the hillforts themselves. Excavation of defended settlements has been rare in recent years and understanding of the first millennium BC has made little progress. In much of Wales, lack of artefacts, particularly ceramics, for settlements of this period makes excavation often unproductive and unattractive despite the need for it. Several excavated hillforts show origins in the Late Bronze Age as undefended hilltop sites or lightly defended palisaded enclosures. Such features may exist at other hillfort sites, masked by later features. Similar early enclosures have also been identified in the lowlands and more are likely to be identified, some amongst the body of aerial photographic information that already exists, some by new photography. Geophysics provides further potential for the identification of early defensive features within known hillforts and patterns of settlement within defended sites generally, including those at present known only as crop marks.

In terms of published works the existing information about defended settlements up to about 1986 was summarised by Hogg (1979 and 1986). Subsequent work can be referenced through the CBA British Archaeology on line index (BIAB). Data summarising the existing SMR information relevant to defended settlement was collected as part of the audit for production of the IFA Archaeological Research Agenda for Wales (Gwilt 2001). An overview of the Iron Age in Britain has also been produced (Haselgrove *et al* 2001) and this identified areas in Wales '...where site types are still ill-defined or unknown, and which have seen relatively little modern research beyond the site specific.' (*ibid* 24). These areas comprised Wrexham and Conwy in north Wales, Central and southern Powys in mid-Wales, the Welsh Valleys, Neath-Port Talbot and Bridgend, central and northern Monmouthshire in South Wales and Cardiganshire and eastern Carmarthenshire in south-west Wales. The Iron Age section of the IFA Research Agenda for Wales by Adam Gwilt highlighted the fact that although excavation of the Iron Age period in Wales has tended to focus on hillforts, very few hillfort interiors have been excavated and published. The relationship between hillforts and open settlement is still largely unknown. It pointed out that Welsh hillforts need to be reassessed in the light of fresh ideas about their function generally, which has now changed from the Wessex type 'central place' theory that predominated at the time that Hogg produced his syntheses. The observable regional diversity of hillfort types in Wales is significant and might be made more of in interpretation. The general scarcity of chronological and artefactual evidence for the first millennium BC was also noted. With regard to artefactual data it was suggested that although sparse there was a need for a proper Pan-Wales database. With regard to chronological data it was observed that survey alone cannot produce answers even though it can demonstrate the presence of multiple phases. Excavation is seen as urgently needed and a suitable start would be to reassess old excavations and their artefacts such as that of Llanmelin hillfort, Monmouthshire (Nash-Williams 1933). In general Gwilt advocates 'Co-ordinated and intensive studies of particular landscape blocks, firstly integrating survey and aerial photographic mapping with key previously excavated sites, and secondly, involving new targeted excavation, could transform our understanding of landscape organisation in selected regions of Wales.' (Gwilt 2001, 109).

While such is an ideal for research, which can be followed up by academic projects there is general agreement that there is a need for a re-assessment of and new initiatives for defended settlement. At the same time there is the realisation that collection of data alone is not productive without accompanying interpretation, synthesis and primary archaeological evidence. This view could apply to a general assessment of defended settlement unless it was carried out with specific research aims in view. It remains to identify options for such an assessment.

SUMMARY OF SCOPE FOR THE PROPOSED PROJECT

1. Desktop study of the whole resource will form a major component whatever fieldwork is carried out. This will include compilation of old excavation and artefact data, maps and surveys, study of aerial photographs and possibly plotting of new features. For the majority of sites most details, of location, shape, size and layout can be recorded from existing map or aerial photographic evidence. The project would include addition of the data to the SMR and production of digital versions of site plans.

Product: This part of the work alone would provide an important resource for management and research. It would require synthesis and publication and would generate research questions.

2. General fieldwork must include s**ite visits** if management data on condition, threats and monument evaluation are to be acquired. This might lead to further detailed site investigation for management purposes, for example measured survey where it is lacking of SAMs or proposed SAMs, or geophysical assessment of such sites or trial excavation to assess plough damage.

This could take the form of:

a. A full round of site visits in all WAT areas, with only rapid walkover to record condition and monument evaluation and to identify potential for further measured survey, geophysics or environmental investigation.

It is estimated that this might allow two site visits per day, on average. This would mean about 60 days fieldwork each in GAT and GGAT, with 119 and 125 sites respectively, and about 300 days fieldwork each in CPAT and ACADAT with 284 and 306 sites respectively. The former areas could probably be completed in one project year, the latter perhaps over three years.

b. A full round of site visits in only one trust area or in one identified area within a trust area as a pilot study, with the possibility of modification.

c. A full round of site visits in one selected area within all trusts according to identified research problems or conservation area needs such as erosion or lack of information in National Parks.

Product: Each of these would result in a report to management and might produce input to other land management bodies such as the National Parks. Any site-specific survey or other investigation might merit publication.

3. Targeted detailed fieldwork is needed to balance the general site visits. This might take the form of study of a particular topographic area with new aerial photographs, measured survey, geophysics and environmental study or it might involve investigation of a particular question or site type that was not locally restricted, such as the occurrence of metalworking within forts, the presence of rampart vitrification or the application of techniques such as soil susceptibility within forts. A thematic project might be developed in conjunction with a university to investigate specific research problems or to simply to enhance the record for general understanding and input to public information, tourism and education. The general fieldwork would itself generate a need for measured survey and perhaps geophysics and environmental investigation, which would be channelled through the targeted area.

Product: This work would generate academic papers, possibly up to monograph level, depending on results and the extent of academic liaison.

BIBLIOGRAPHY

Not all items consulted are referred to directly.

Alcock, L. 1960. Castell Odo. An embanked settlement on Mynydd Ystum, near Aberdaron, Caernarvonshire, *Arch. Camb*. 109, 78-135.
Alcock, L. 1985. Hillforts in Wales and the Marches, *Antiquity* XXXIX, 184-95.
Avery, M. 1976. Hillforts of the British Isles: a student's introduction. In Harding 1976, 1-58.
Avery, M.
Bevan, B. 1997. Bounding the landscape: place and identity during the Yorkshire Wolds Iron Age. In Gwilt and Haselgrove 1997a, 181-91.
Bevan, B. ed 1999. *Northern Exposure: interpretative devolution and the Iron Ages in Britain*, Leicester Arch. Monog. 4, Univ. of Leicester.
Bevan, B. 1999. Northern Exposure: interpretative devolution and the Iron Ages in Britain. In Bevan, ed 1999, 1-20.
Bowden, M.C.B. and McCormish, D. 1987. The required barrier, *Scot. Arch. Rev* 4, 76-84.
Bowden, M.C.B. and McCormish, D. 1989. Little boxes: more about hillforts, *Scot. Arch. Rev*. 6, 12-16.
Bowen, E.G. and Gresham, C.A. 1967. *History of Merioneth, Vol. 1*, Merioneth Historical and record Society, Dolgellau.
Bradley, R. 1984. *The social foundations of prehistoric Britain*, Longmans, Harlow.
Crew, P. and Musson, C.M. 1996. *Snowdonia from the air*, Snowdonia National Park Authority and RCAHMW.
Cunliffe, B.W. 1984. Iron Age Wessex: Continuity and change. In B.W. Cunliffe and D. Miles eds, 1984. *Aspects of the Iron Age in southern Britain*, OUCA Monog. 2, Institute of Archaeology, Oxford, 12-45.
Cunliffe, B.W. 1991. *Iron Age Communities in Britain*, Routledge, London.
Cunliffe, B.W. 1995. *Danebury: An Iron Age Hillfort in Hampshire. Vol. 6. A Hillfort Community in Perspective*, CBA Res. Rep. 102.
Cunliffe, B.W. and Poole, C. 2000. *The Danebury Environs Project, Vol. 2*, OUCA Monog. 49, Institute of Archaeology, Oxford.
Davies, E. 1949. *The prehistoric and Roman remains of Flintshire*, Cardiff.
Davies, E. 1929. *The prehistoric and Roman remains of Denbighshire*, Cardiff.
Davies, J.L. 1967. Cae Summerhouse, *Morgannwg* X, 75-7.
Driver, T. 2002. *Castell Grogwynion: A complex Iron Age stronghold in mid Wales*. Unpublished monograph.
END 2003. L*ist of indexing terms for monument type in Wales*, Technical Working Group of the END Partnership, Version 1.
Evans, C. 1997. Hydraulic communities: Iron Age enclosure in the East Anglia fenlands. In Gwilt and Haselgrove 1997, 216-27.
Feachem, R.W. The hillforts of northern Britain. In Rivet, ed. 1967, 59-88.
Forde-Johnston, J.L. 1976. *Hillforts of the Iron Age in England and Wales: a survey of the surface evidence*.
Frodsham, P. 2000. Discovering our hillfort heritage, *Archaeology in Northumberland*, Northumberland Co. Co., 18-19.
Gardner, W. and Savory, H.N. 1964. *Dinorben*, National Museum of Wales, Cardiff.
Giles, M. and Parker Pearson, M. 1999. Learning to live in the Iron Age. In Bevan ed. 1999, 217-232.
Griffiths, W.E. and Hogg, H.A. 1956. The Hill-fort on Conway Mountain, Caernarvonshire, *Arch. Camb.* 105, 49-80.
Guilbert, G.C. 1976. Moel y Gaer, Rhosesmor 1972-1973: An area excavation in the interior. In D.W. Harding ed. 1976, 303-17.
Guilbert, G.C. 1980. Dinorben C14 dates, *Current Archaeology* 65, 182-8.
Guilbert, G.C. 1981. Fridd Faldwyn, *Archaeological Journal* 138, 20-2.
Gwilt, A. and Haselgrove, C. eds 1997a. *Reconstructing Iron Age societies: new approaches to the British Iron Age*, Oxbow Monog. 71, Oxford.
Gwilt, A. and Haselgrove, C. 1997b. Approaching the Iron Age. In Gwilt, A. and Haselgrove, C. 1997a, 1-8.
Gwilt, A. 2001. Understanding the Iron Age: towards agenda for Wales. In S. Briggs and A. Gwilt, eds 2001. *Towards a research agenda for Welsh Archaeology*.
Harding, D.W. ed, 1976. *Hillforts: Later prehistoric earthworks in Britain and Ireland*, Academic Press, London.
Haselgrove, C. 1999. Iron Age societies in Central Britain: retrospect and prospect. In Bevan ed, 1999, 253-278.

Haselgrove, C., Armit, I., Champion, T., Creighton, J., Gwilt, A., Hill, J.D., Hunter, F. and Woodward, A. 2001. *Understanding the British Iron Age: An agenda for action, Report for the Iron Age Research Seminar and the Council of the Prehistoric Society.*
Hawkes, C.F.C. 1931. Hillforts, *Antiquity* 5, 60-97.
Hill, J.D. 1989. Re-thinking the Iron Age, *Scot. Arch. Rev.* 6, 16-24.
Hill, J.D. 1995a. The pre-Roman Iron Age in Britain and Ireland: an overview, *Journ. of World Prehistory* 9 (1), 47-98.
Hill, J.D. 1995b. How should we understand Iron Age societies and hillforts? A contextual study from southern Britain. In Hill and Cumberpatch 1995, 45-66.
Hill, J.D. and Cumberpatch, C.G. eds, 1995. *Different Iron Ages: studies on the Iron Age in Temperate Europe*, Brit. Arch. Rep., Int. Ser. 602.
Hingley, R. 1999. The creation of later prehistoric landscapes and the context of the re-use of Neolithic and Earlier Bronze Age monuments in Britain and Ireland. In Bevan, ed 1999, 233-52.
Hogg, A.H.A. 1972. The size-distribution of hill-forts in Wales and the Marches. In Lynch and Burgess, eds 1972, 293-307.
Hogg, A.H.A. 1979. *British hillforts: an index*, BAR Brit. Ser. 244.
Hogg, A.H.A. 1986. Hill fort abstracts for Welsh archaeological journals, *BBCS*, XXXIII, 291-386.
Hopewell, D. 1999. *Tre'r Ceiri Hillfort Management Plan*. GAT.
Hopewell, D. 2002. *The Gwynedd Roman Forts Environs Project*, GAT Report No. 479.
Jackson, D. 1999. Variation in the size distribution of hillforts in the Welsh Marches and its implication for social organisation. In Bevan, ed 1999, 197-216.
James, T. 1984. Aerial reconnaissance in Dyfed, *Archaeology in Wales*, 24, 12-24.
Leah, M.D., Wells, C.E., Stamper, P., Huckerby, E. and Welch, C. 1998. *The wetlands of Shropshire and Staffordshire*, North West Wetlands Survey 5, Lancaster Univ. Arch. Unit., Lancaster.
Lowe, W.B.1912. *The Heart of Northern Wales, Vol. 1*, Llanfairfechan.
Lynch, F.M. and Burgess, C. B eds 1972. *Prehistoric man in Wales and the West: essays in honour of Lily F Chitty*, Adams and Dart, Bath.
Lynch, F.M. 1991. *Prehistoric Anglesey*, 2nd ed., Anglesey Antiquarian Soc., Llangefni.
Lynch, F.M. Aldhouse-Green, S. and Davies, J.L. 2000. *Prehistoric Wales*, Sutton, Stroud.
Matthews, K.J. 1999. The Iron Age of North-west England and Irish Sea trade. In Bevan, ed 1999, 173-196.
Musson, C.R. 1991. *The Breiddin Hillfort; A later prehistoric settlement in the Welsh Marches*, CBA Res. Rep. 76, London.
Musson, C.R., Britnell, W.J., Northover, J.P. and Salter, C.J. 1992. Excavations and Metal-working at Llwyn Bryn-dinas hillfort, Llangedwyn, Clwyd, *Proc. Prehist. Soc*. 58, 265-83.
Nash-Williams, V.E. 1933. An early Iron Age hillfort at Llanmelin…, *Arch. Camb*. 88, 237-346.
Olding, F. 2000. *The prehistoric landscapes of the eastern Black Mountains*, BAR Brit. Ser 297, Archaeopress, Oxford.
Oswald, A., Jecock, M. and Ainsworth, S. 2000. *An Iron Age hillfort and its environs on West Hill, Northumberland*, Report Series AI/12/2000, English Heritage.
Payne, A. 1996. The use of magnetic prospection in the exploration of Iron Age hillfort interiors in southern England, *Archaeological Prospection* 3, 163-84.
RCAHME 1992. *Thesaurus of Archaeological Site Types*, RCAHME and English Heritage, London.
RCAHMW 1911. *Montgomeryshire Inventory*, HMSO, London.
RCAHMW 1964. *An Inventory of the Ancient Monuments in Caernarvonshire: 3, West.*
RCAHMW 1976. *An Inventory of the Ancient Monuments in Glamorgan, Vol. 1: Pre-Norman, Part II The Iron Age and Roman Occupation*, HMSO, Cardiff.
RCAHMW 1986. *Inventory of Ancient Monuments in Brecknock, Pt II Hillforts and Roman remains*, HMSO, London.
Rivet, A.L.F. ed. 1967. *The hillforts of northern Britain*, Edinburgh.
Savory, H.N. 1976. Welsh hillforts: a reappraisal of recent research. In Harding 1976, 237-91.
Sharples, N.M. 1991. *Maiden Castle: excavations and field survey1985-6*. English Heritage Arch. Rep. 19, London.
Simpson, G. 1964. The hillforts of Wales and their relation to Roman Britain: A recension. In Gardner and Savory 1964.
Spurgeon, C.J. 1972. Enclosures of Iron Age type in the Upper Severn Basin. In Lynch and Burgess 1972, 321-44.
Stanford, S.C. 1972. The functions and populations of hill-forts in the Central Marches. In Lynch and Burgess eds 1972, 307-20.
Stanford, S.C. 1980. *The archaeology of the Welsh Marches*, London.
Stoertz 1997, *Ancient Landscapes of the Yorkshire Wolds*, RCHME, Swindon.

Topping, P. 1989. Early cultivation in Northumberland and the borders, *Proc. Prehist. Soc*. 55, 161-79.
Ward, M. and Smith, G.H. 2001. The Llyn Crop Marks Project, *Studia Celtica* XXXV, 1-87.
Welsh Office 1996. *Planning and the Historic Environment*, Circular 60/96, Annex C.
Williams, G.H. 1988. Recent work on rural settlement in later prehistoric and early historic Dyfed, *Antiq. Journ*. 68, 30-54.
Williams, G.H. and Mytum, H.C. 1998. *Llawhaden, Dyfed; Excavations on a group of small defended enclosures*, BAR Brit. Ser. 275, Archaeopress, Oxford.
Wood, J.B. and Warren, A. eds 1978. *A handbook for the preparation of management plans, Conservation Course Format, revision 2*, Discussion papers in Conservation No. 18, University College, London.

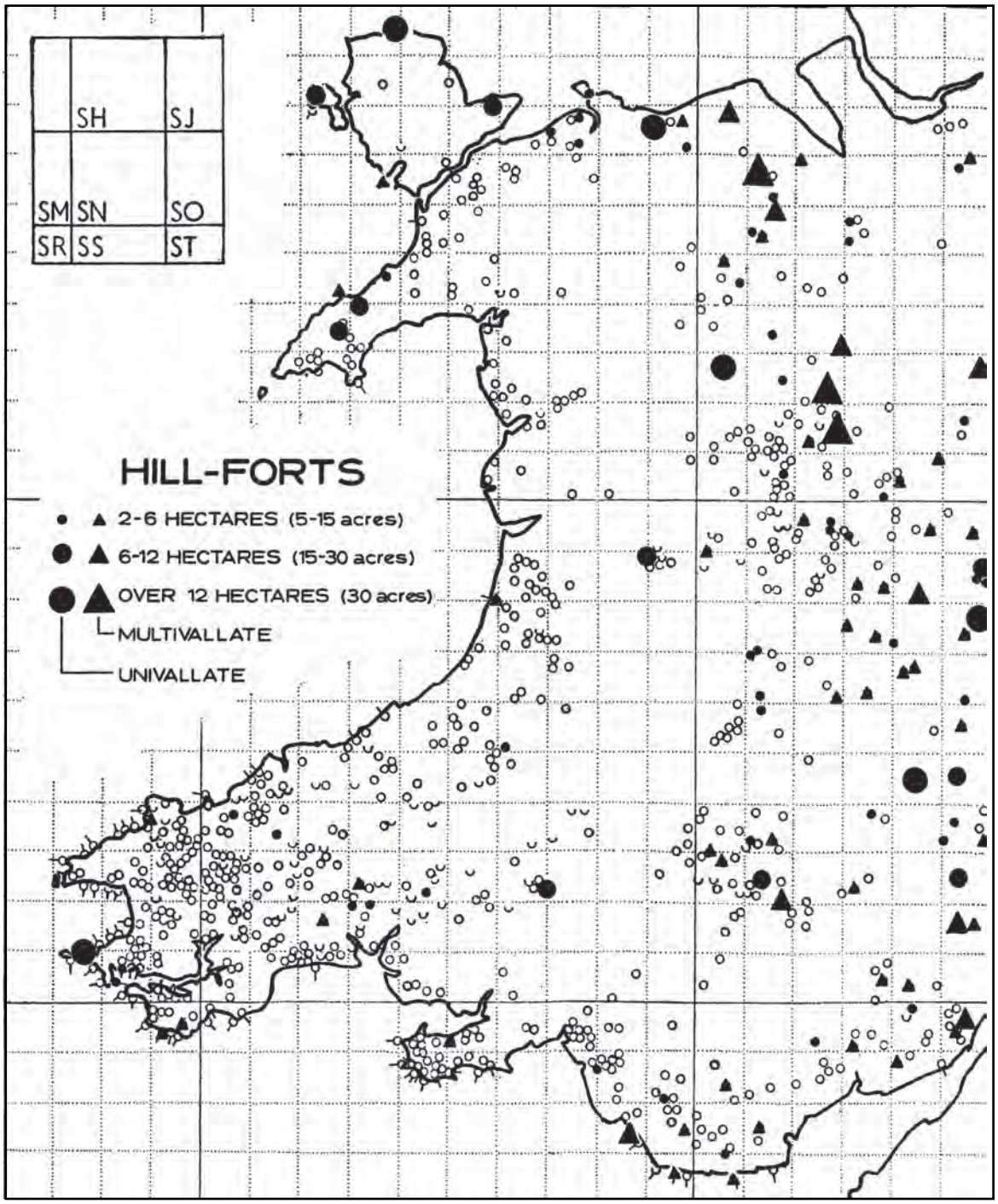


Fig. 1 Distribution of all prehistoric defended settlement in Wales and the Borders according to area enclosed (Hogg 1972, 296, Fig. 3).

○ Hillforts under 5 acres (2ha) ◡ Hillforts, size not recorded

⊸○ Hillfort, coastal

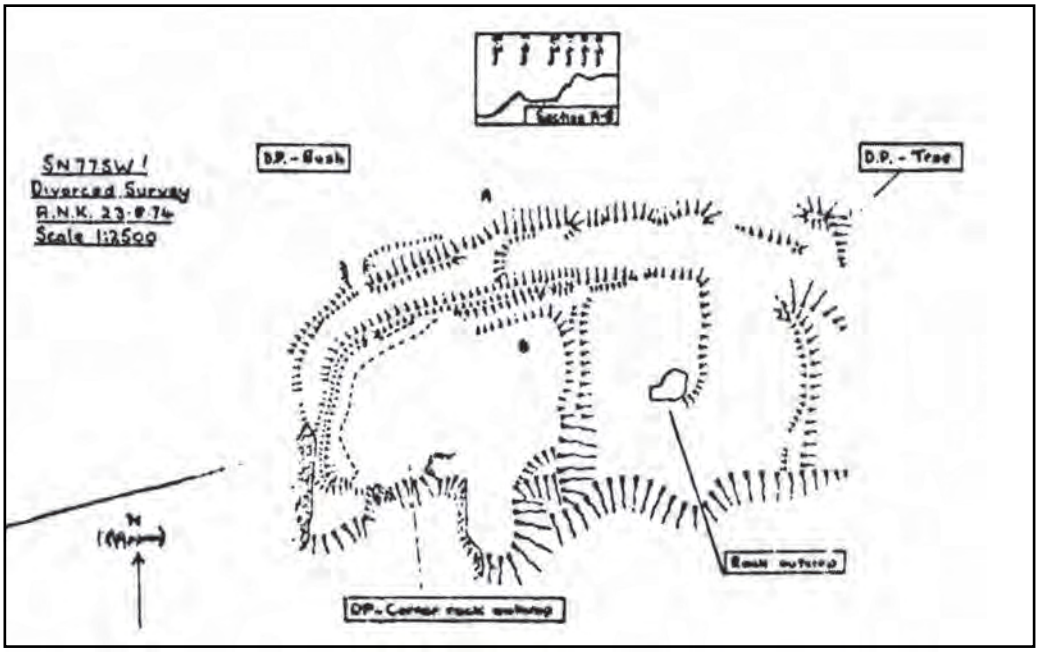
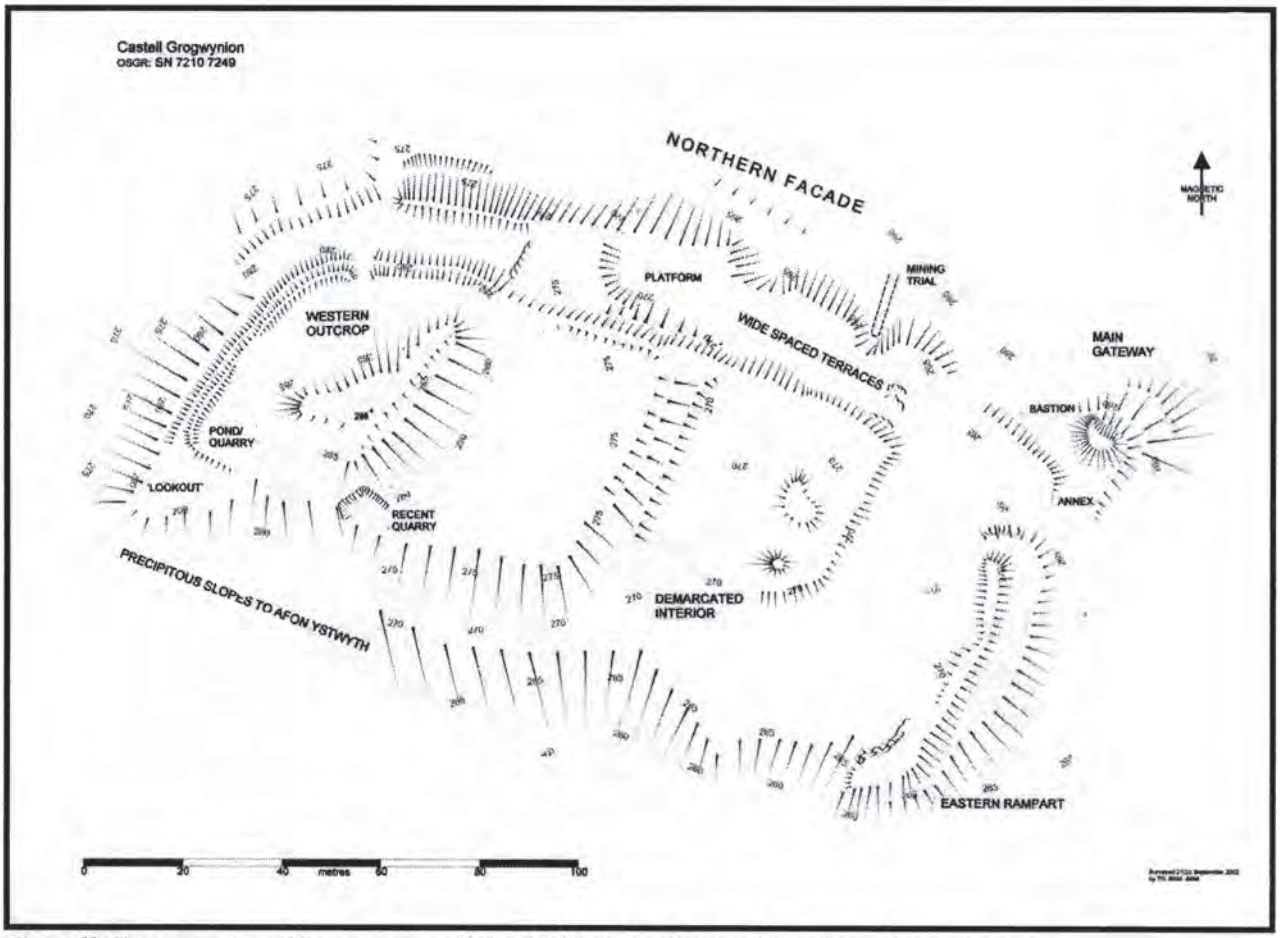


Fig. 2 Castell Grogwynion, Ceredigion: Ordnance Survey plan 1974



Castell Grogwynion: New survey of the hillfort. Individual contour lines are not shown for clarity. (© T Driver/RKM Archaeological Surveying)

Fig. 3 Castell Grogwynion, Ceredigion: Survey by T. Driver and RKM Surveying, 2002

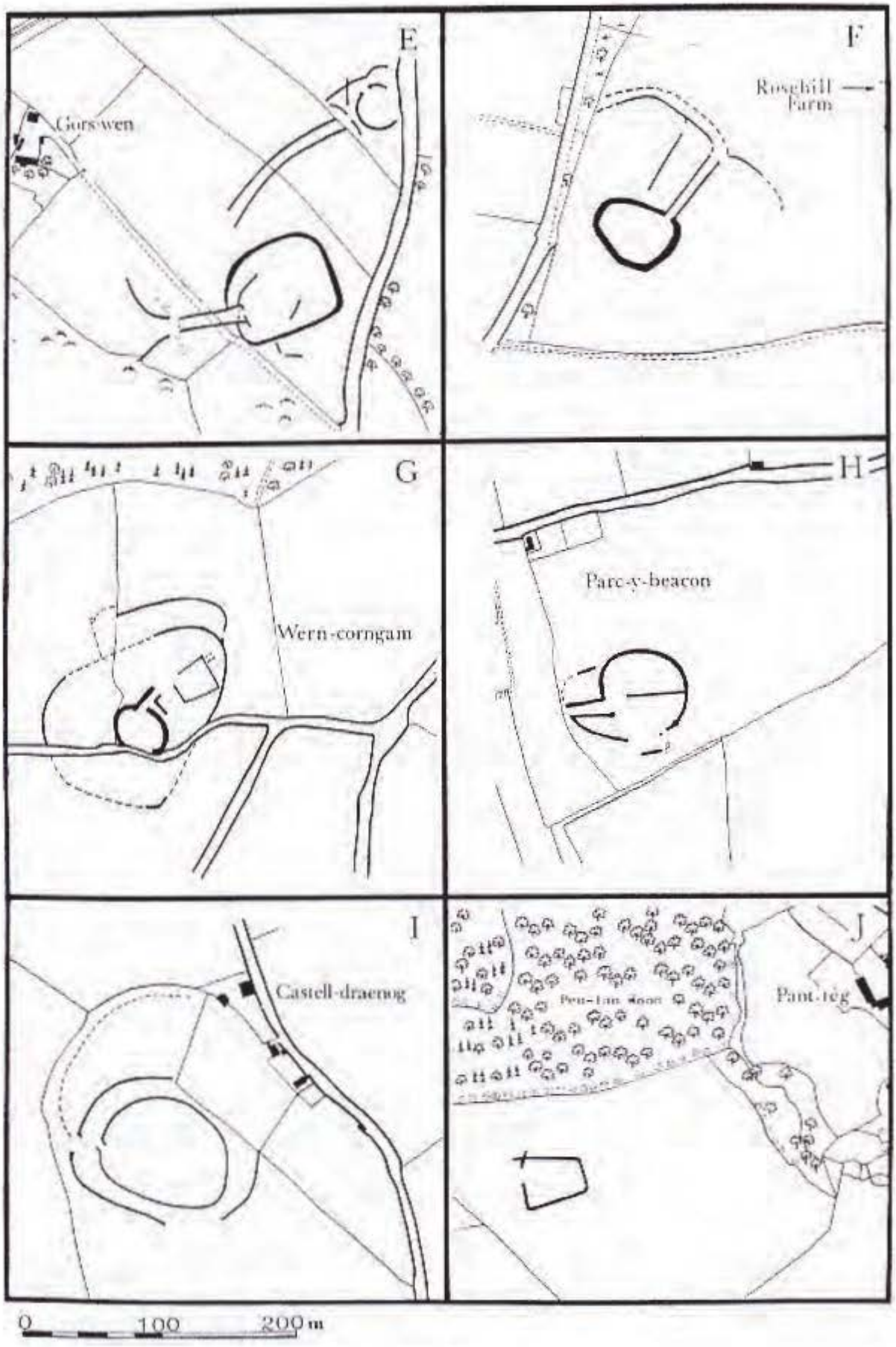


Fig. 4 Prehistoric defended enclosures in south-west Wales discovered and plotted from aerial survey (James 1984, 20, Fig. 3). North at top of page

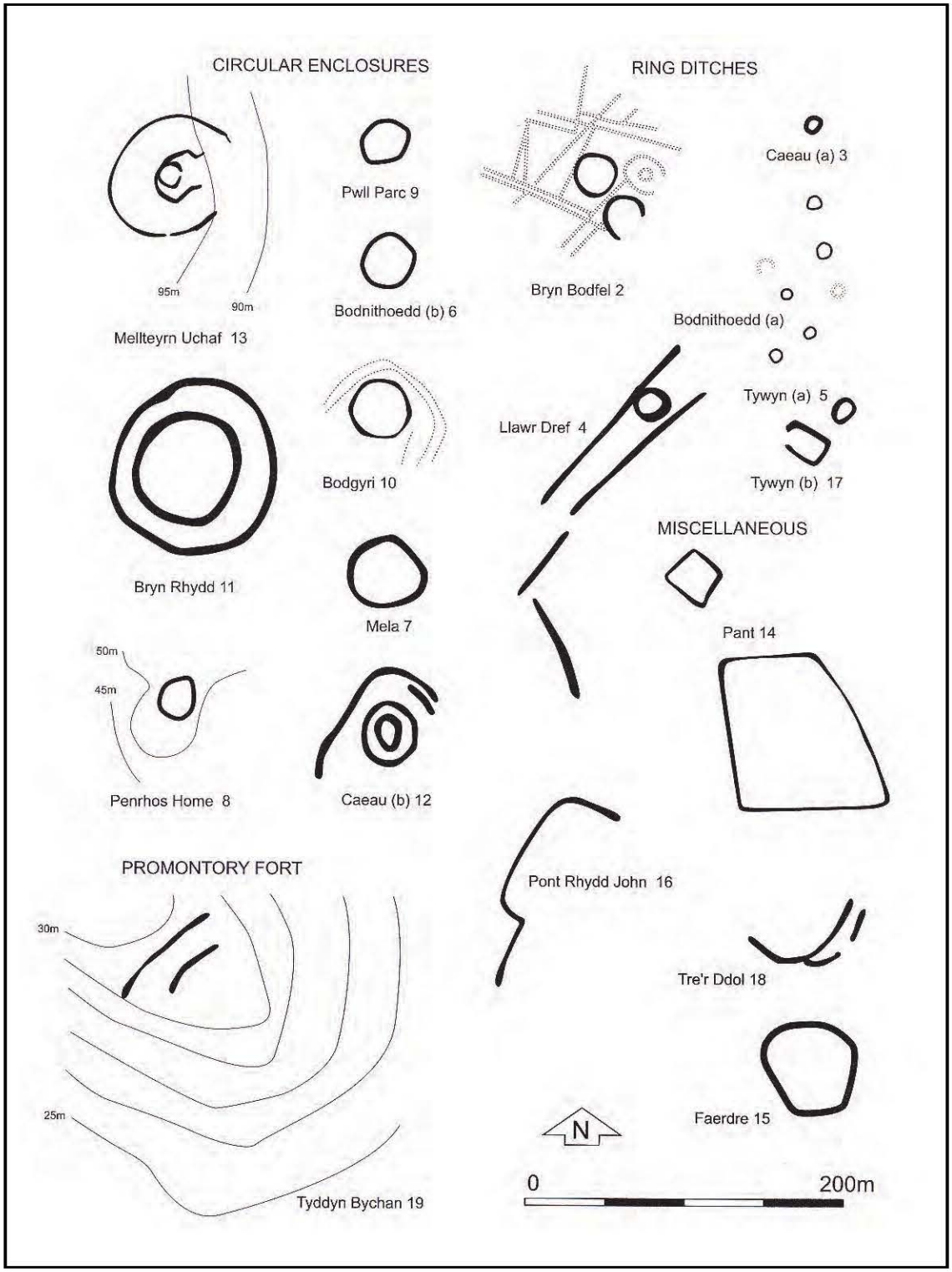


Fig. 5 Enclosures and other site types recorded as crop marks by aerial survey in north-west Wales (Ward and Smith 2001, 7, Fig. 2)

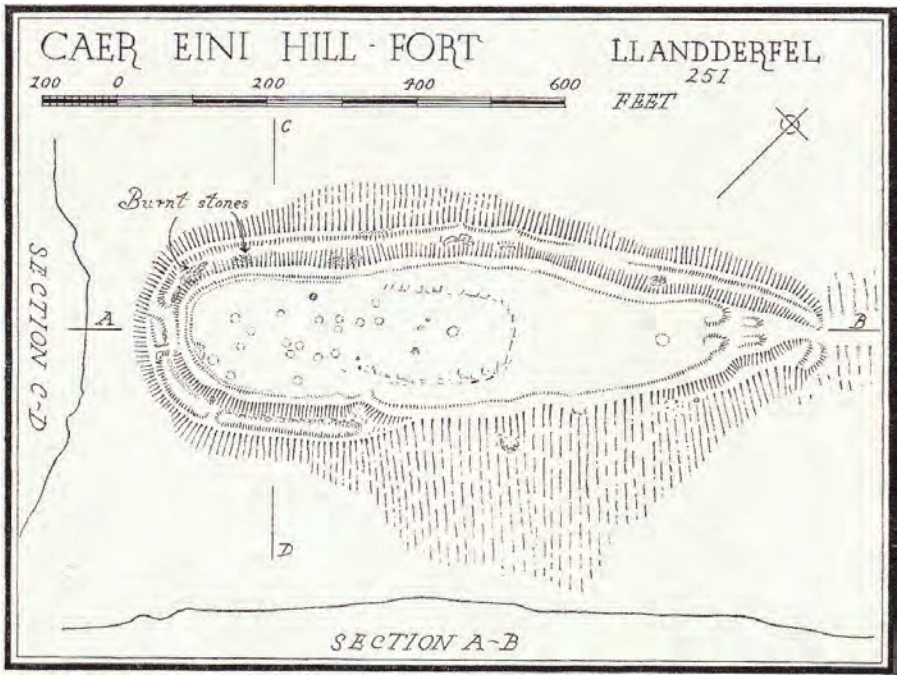


Fig. 6 Caer Eini hillfort, Meirionnydd (Bowen and Gresham 1967, 138, Fig. 53)

Fig. 7 Caer Eini hillfort, Meirionnydd. Aerial photograph after light snow, 1986, showing additional enclosures (GAT SMR, 86-MB-107))

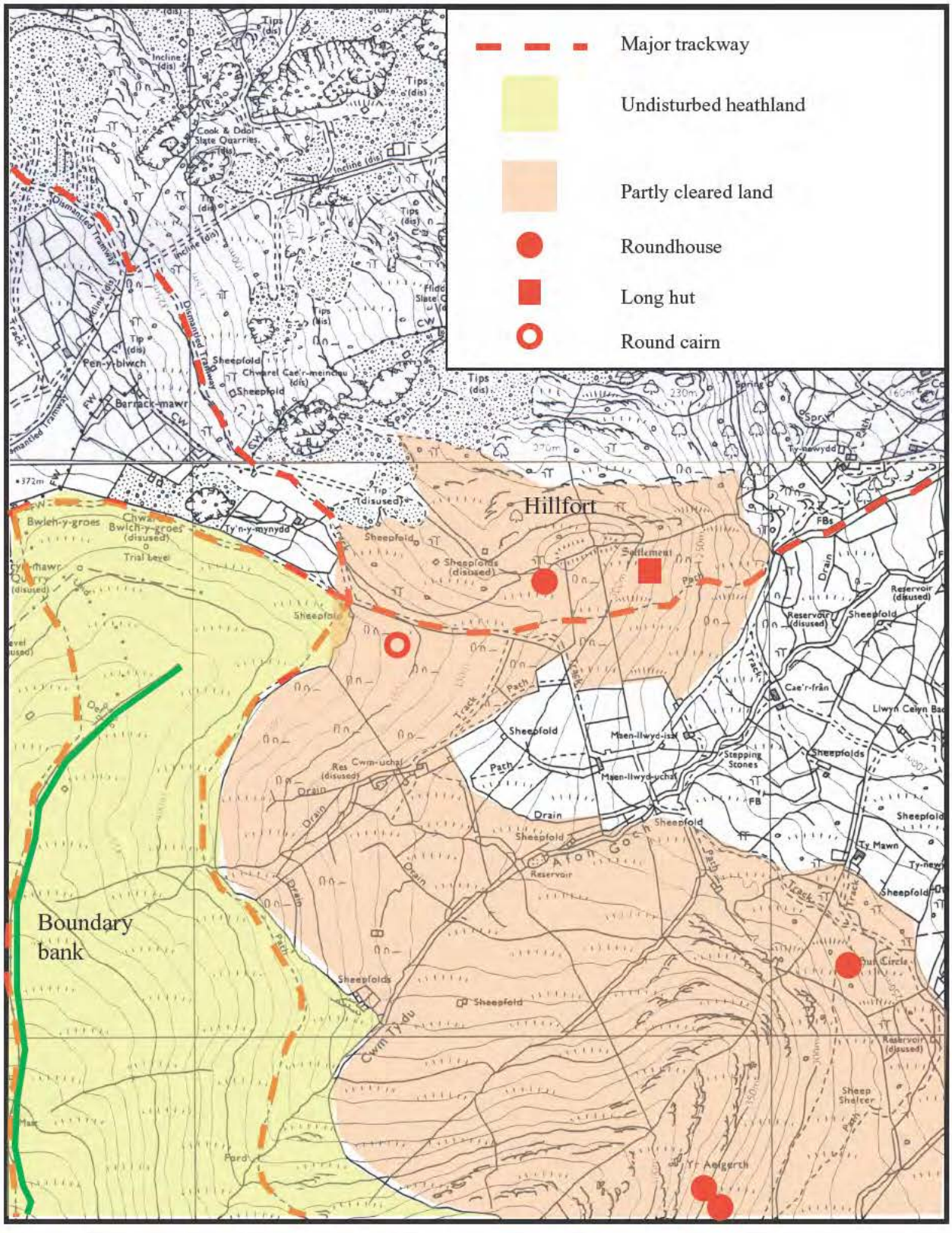


Fig. 8 Dinas Ty-Du hillfort, Llanberis, Gwynedd: Landscape features

Fig. 9 Dinas Ty-Du hillfort, Llanberis, Gwynedd. View from south-west

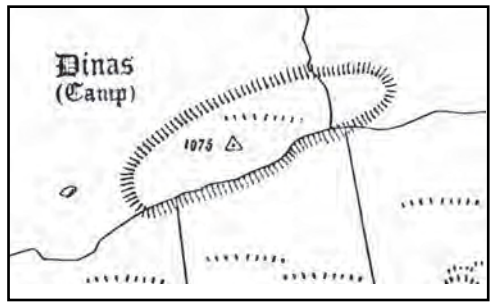


Fig. 10 Dinas Ty-Du hillfort, Llanberis, Gwynedd. OS 1:2500, 1900

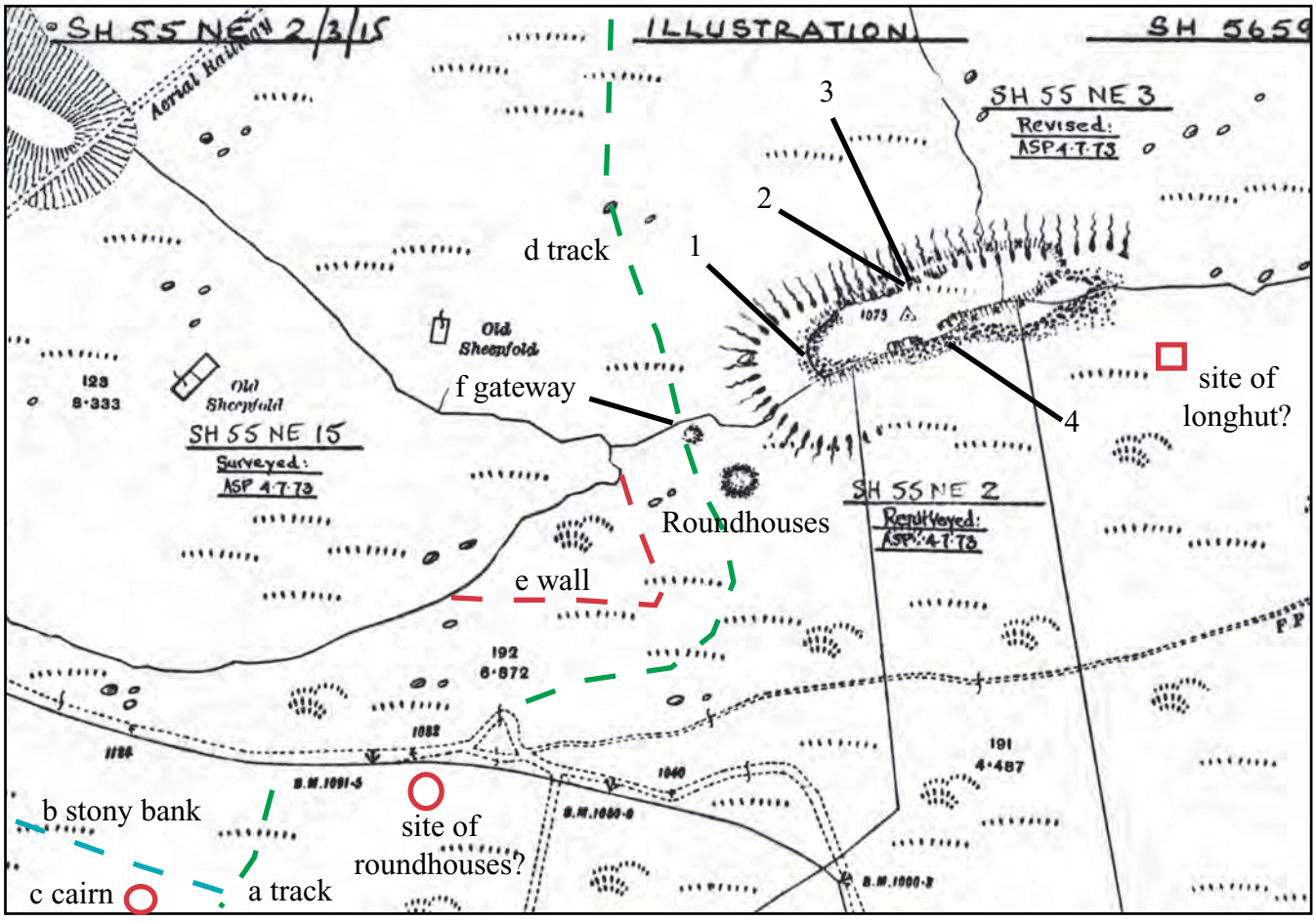


Fig. 11 Dinas Ty-Du hillfort, Llanberis, Gwynedd: OS 1:2500 Revision 1973
and sketch plan of additional features 2003

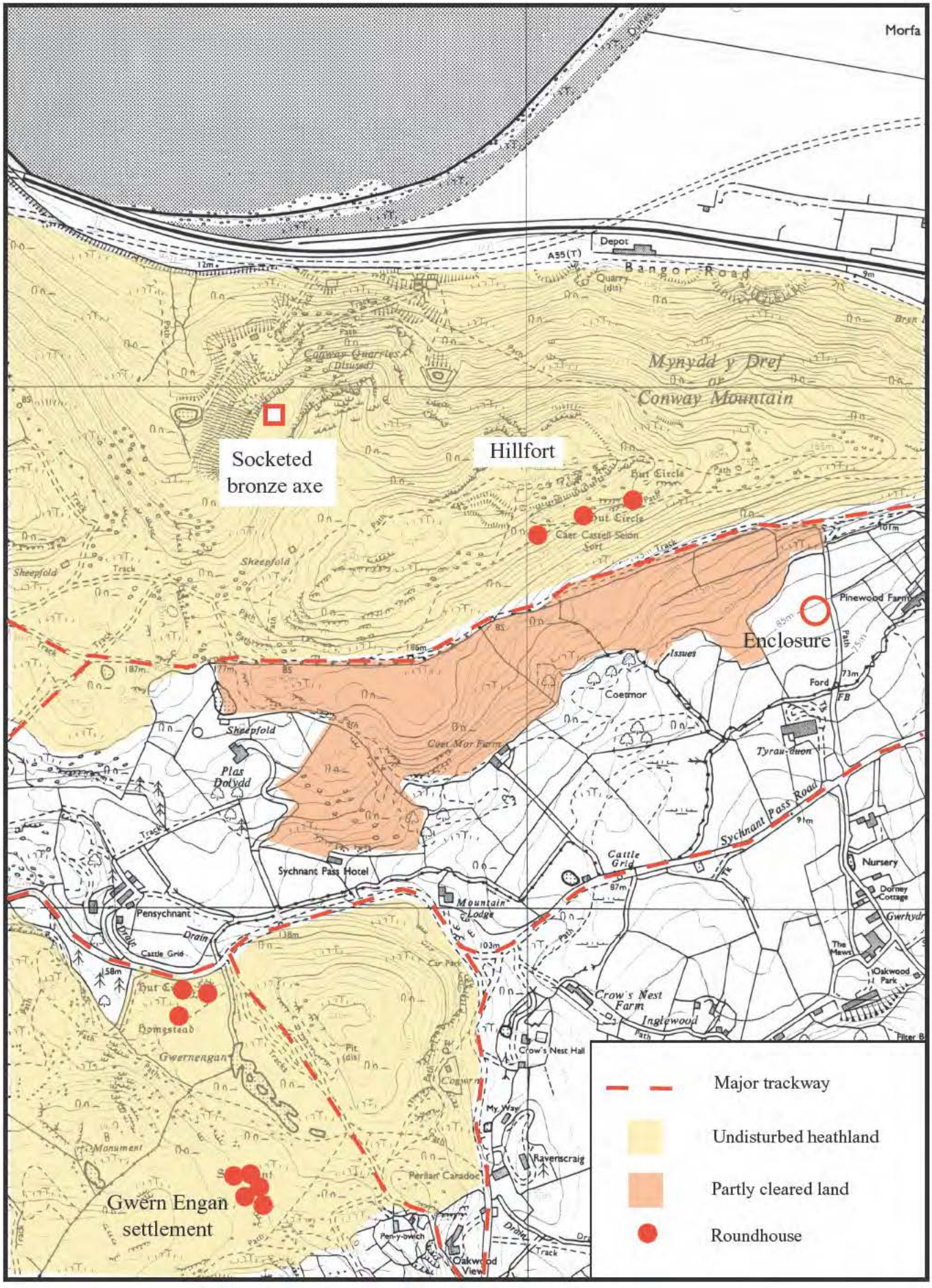
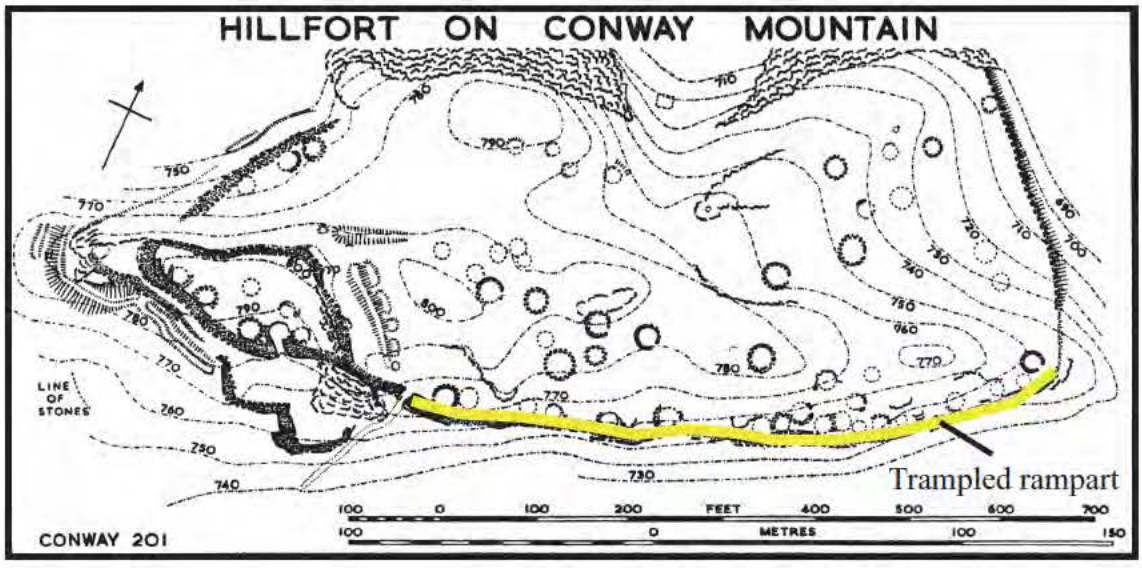


Fig. 12 Castell Caer Seion hillfort, Conwy: Landscape features

Fig. 13 Castell Caer Seion, Conwy. Ramparts of inner enclosure eroded by footpath.
View from south-east. 1m scale



(Crown copyright ; published by permission of the Controller of H.M. Stationery Office).

Fig. 14 Castell Caer Seion hillfort, Conwy: General plan (RCAHMW) with addition of areas of erosion 2003

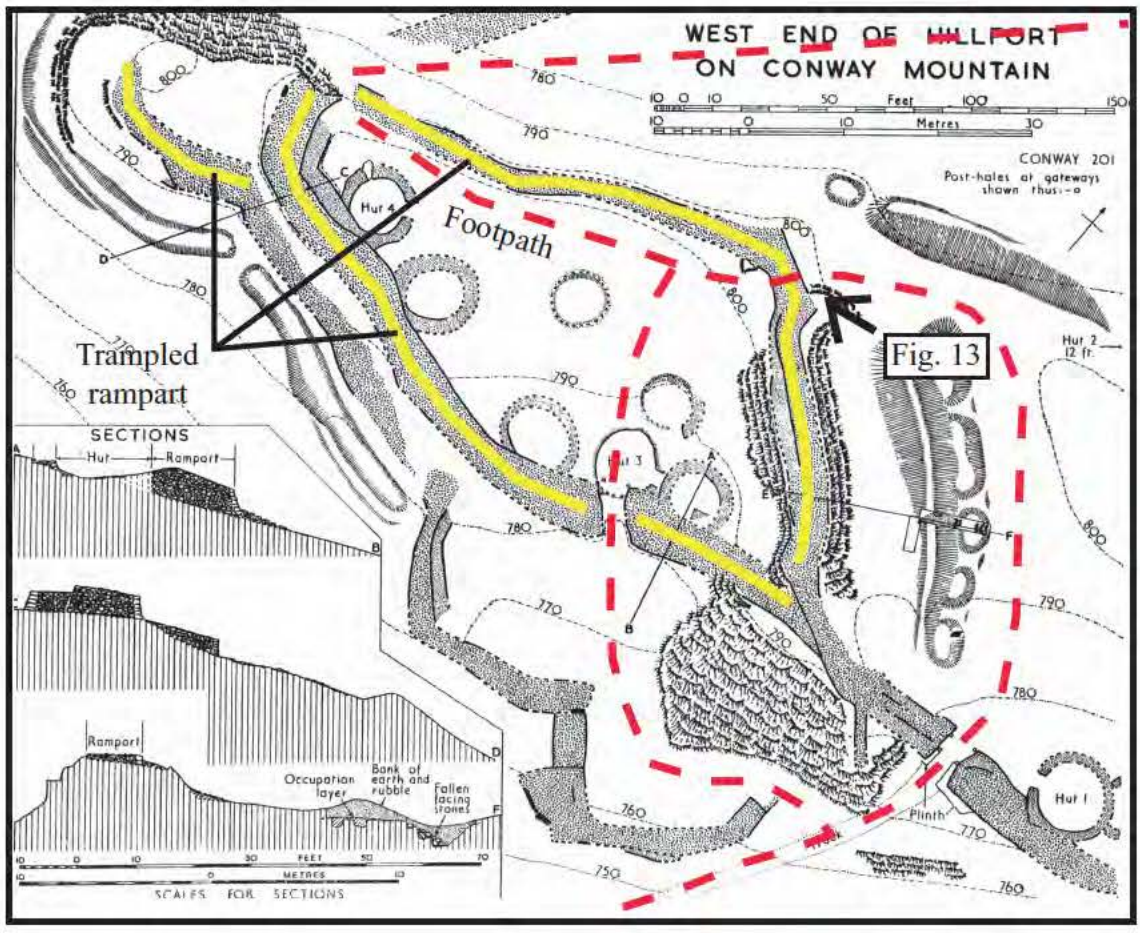


Fig. 15 Castell Caer Seion hillfort, Conwy: Detail plan of inner enclosure (RCAHMW) with addition of areas of erosion 2003

REGISTERED IFA ORGANISATION

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