SETTLEMENT AND SOCIETY IN THE WELSH MARCHES DURING THE FIRST MILLENNIUM BC

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ABSTRACT

The Welsh Marches, here defined as extending from the Dee and Mersey Estuaries in the north, to the Severn Estuary and Cotswold fringe in the south, are a poorly understood area of later prehistoric Britain. Individual excavated sites, and individual's research, are occasionally noted in discussions of the first millennium BC, but rarely is there offered any coherent or comprehensive view of settlement and society in the region. This thesis comprises the collation and analysis of relevant archaeological evidence with the intention of 'filling in' this conspicuous void in our knowledge.

There is an emphasis on exploring the relationship between hillfort and non-hillfort settlement throughout the thesis, reflecting the importance of the Marches as a northern extension of the 'hillfort-dominated zone' (Cunliffe 1991a) which traditionally centres upon Wessex to the south. In addition, the extent to which we can recognise homogeneity across what is an extensive and geographically diverse region, is explored. Both questions are addressed through chronological and spatial analysis, as well as through detailed examination of artefactual and structural evidence to obtain insight into aspects of society such as subsistence, production and exchange, warfare, and ritual and religion. The results reveal a highly complex picture where distinct, if intricately interconnected regions/groups can be identified, and in which considerable variation can be detected through time. It is argued that there were fundamental changes in the organisation of society through the course of the first millennium BC, from a situation in which large communities and co-operation prevailed in the late Bronze Age/early Iron Age, to one which was becoming increasingly specialised, competitive and individual-centric in the middle and late Iron Age.

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CHAPTER 1

INTRODUCTION

This thesis is the product of full-time research conducted in the Department of Archaeology, University of Durham, and funded by the Humanities Research Board of the British Academy.

AIMS AND OBJECTIVES

The primary aim of this research is to obtain an understanding of the organisation of settlement and society in the Welsh Marches during the first millennium BC. More specifically, this will involve the collation and analysis of a wide range of archaeological data in order to be able to identify patterns and intra-regional contrasts within an area which broad based studies of British later prehistory have frequently regarded as homogenous in nature. As well as being important in its own right, it is also hoped that this approach will enable constructive comparison with the interpretations of first millennium BC settlement and society which have been proposed for other parts of the British Isles.

BACKGROUND TO THE RESEARCH

Various reasons make the undertaking of this research project at the present time both important and worthwhile. To begin with there is the region itself and its place within the visible archaeology of first millennium BC Britain. The Welsh Marches form the northern half of what has come to be called the 'hillfort-dominated zone' (e.g. Cunliffe

1991a). In spite of this, it has suffered from a lack of consideration in terms of fieldwork and analysis relative to that of the more 'fashionable' area of Wessex to the south. The inevitable result of this uneven investigation has been the uncritical application of models developed on the basis of the Wessex evidence onto the Welsh Marches. The need for some redress of this imbalance is highlighted by the fact that the last comprehensive synthesis of the first millennium BC evidence for the Welsh Marches as a whole was undertaken almost twenty years ago (Stanford 1980). Although this work has been comparatively recently revised and updated (Stanford 1991), it still does not take into account the full extent of the evidence now available. It therefore maintains a model of first millennium BC society in the area, which can, in many respects, be challenged.

Against this background, the last decade has seen several major programmes of long-term fieldwork and research which are either recently concluded, for example the Marches Uplands Survey, the North West Wetlands Survey for Cheshire (Leah *et al* 1997), and Shropshire (Leah *et al* 1998), or are near completion, for example the Wroxeter Hinterlands Project and Survey. These tackle specific questions about the archaeology in particular areas of the Welsh Marches. Where possible the results need to be brought together and considered in the light of a broader based study that aims to consider the Welsh Marches as a whole.

A further justification for this research is that the wealth of actual and potential evidence for first millennium BC activity in the region is not widely recognised in general studies of later prehistoric Britain. This is clearly highlighted by both the poor consideration of the region in books and articles on the Iron Age (e.g. Cunliffe 1991a; Hill 1995a), and in its poor representation in recent monographs containing collected papers on the British Iron Age (e.g. Gwilt and Haselgrove 1997, although see Bevan 1999 for an exception). Admittedly, this under-representation is to an extent a result (again with some exceptions), of the failure to publish important excavations and analyses. It is also partly a consequence of a tendency for work that has been published (predominantly in local journals which may not always achieve a wide circulation) to be considered only within their local environs, rather than within the region as a whole. However, the increasing number of regional projects that have been undertaken in other areas of the country (e.g. Ferrell 1995, 1997), makes a comprehensive examination of the Welsh Marches evidence essential if the region is to have the impact it merits on future thinking about the first millennium BC of Britain.

THESIS OUTLINE

Chapter 2 discusses in detail the study area chosen for this research, outlining its modern urban and administrative position, before proceeding to analyse it geographical and environmental characteristics, both in the modern day and in the first millennium BC. Chapter 3 provides a critical review of previous archaeological investigation into the later prehistoric period of the region, showing how research conducted in southern England, particularly Wessex, has served to shape both the approaches and interpretations adopted over the past hundred years. In recognition of the importance of both hillforts, and enclosure generally, to our understanding of settlement patterns in the Welsh Marches, Chapter 4 will focus upon the widespread adoption of enclosure in the later prehistoric period and the reasons for its adoption. This will be followed by a critical investigation of the principal interpretations of hillfort function, and of 'hillfort-societies', and a summary of the archaeology of hillfort sites. Chapter 5 lays down a chronological framework for the study area by analysing the types of dating evidence to be found and its usefulness in setting sites within their chronological context. Chapter 6 focuses upon the hillforts of the Welsh Marches, examining, often from a spatial perspective, a wide range of evidence in order to pinpoint both broad, general patterns, and potential intra-regional contrasts in site distribution. This is followed in Chapter 7 by a discussion of non-hillforts in the Welsh Marches. Attention is directed in particular towards a study of form and the distribution pattern as it currently exists, and an attempt is made to integrate the results of this analysis into a discussion of non-hillfort enclosure from southern England generally.

Following these discussions on the form and distribution of settlement types, Chapter 8 proceeds to chronologically locate, where possible, excavated sites and then to trace patterns of occupation and enclosure through the first millennium BC. Chapter 9 considers the types of domestic dwelling/structure that have been excavated from the study area, while Chapter 10 evaluates the artefactual and non-settlement data, moving from a discussion of the agricultural evidence, through to an analysis of the evidence for production and exchange, including the evidence for domestic crafts (spinning, weaving, woodworking, leatherworking); pottery, salt and metalwork manufacture and distribution; and the evidence for the presence of 'exotic' goods within the Welsh Marches. This is followed by a discussion of the evidence for warfare and weaponry within the study area, and a discussion of the ritual and religious aspects of first millennium BC society. Settlement patterns within two selected 20 km2 areas within the study region will be explored in Chapter 11 in order to add focus to the previously regional-orientated chapters. Chapter 12 brings together key aspects of the evidence and seeks to reach some conclusions about settlement and society in the Welsh Marches during the first millennium BC, particularly how social organisation and social structure transformed during the period. The study is concluded with some suggestions concerning possible avenues for future research into the later prehistory of the Welsh Marches.

Through the course of this thesis, reference will be made to numerous archaeological sites. The first time a site is mentioned within the main text, the county within which it is located will also be noted; thereafter, however, county references will be omitted.

NOTES ON RADIOCARBON DATING

Radiocarbon dating is of fundamental importance to consideration of individual sites and areas within this study. In order to ensure the cross-comparability of dates, all carbon-14 determinations (appendix 2) have been calibrated afresh using the CALIB calibration programme v. 3.03 (Pearson and Stuiver 1993; Stuiver and Pearson 1993). Where calibrations are included within the main text they will be presented in the format of the following example:

(769) 754 cal BC - 392 (235) cal BC (HAR-5609, 2400 ± 70 bp)

where the bracketed calibrated dates represent the 2 sigma (95% probability) range, and the unbracketed calibrated dates the 1 sigma (68% probability) range.

CHAPTER 2

THE WELSH MARCHES STUDY AREA

BOUNDARIES

Despite the fact that the 'Welsh Marches' has become a common term for which to describe the general geographical area on and around the border between England and Wales (which extends from the mouth of the River Dee in the north to the Severn Estuary in the south), it does not refer to any precisely defined region. In the absence of any established boundaries the area adopted for the purposes of this study (figure 2.1) is in some respects arbitrary, although influenced by archaeological considerations. This is most noticeable in the south-east of the region where the border has been extended eastwards to encompass several important excavated sites relevant to the first millennium BC in the Welsh Marches (especially Droitwich, Bredon Hill and Beckford in Hereford and Worcester, and Crickley Hill in Gloucestershire), and also to include the source areas for temper used in the making of particular ceramic vessels (discussed further in Chapter 5 and Chapter 9), which are fundamental to the understanding of the region during the later prehistoric period. At its maximum extent, therefore, the study area extends some 80 kilometres west to east, and 200 kilometres north to south, encompassing a total area of approximately 11,900 square kilometres. The administrative counties that fall entirely or partially within the study area are Clwyd, Powys, Gwent, Cheshire, Shropshire, Hereford and Worcester, and Gloucestershire. The region is not particularly heavily urbanised, but does include several major towns and cities: Chester, Wrexham, Shrewsbury, Telford, Hereford, Worcester, Gloucester and Cheltenham.

TOPOGRAPHY AND DRAINAGE

The Welsh Marches straddle the boundary between the so-called upland and lowland zones as defined by Fox (1938) (figure 2.2). This geographical division of Britain has been of considerable influence to archaeological study and interpretation for many years, and it is only relatively recently that its generalised assumptions have been challenged. In spite of its exaggerated simplicity, however, Fox's division does serve to highlight the geographical contrasts that exist within the study region (figure 2.3). In the far south, situated between the River Usk to the east and the River Wye to the west, is the low-lying coastal plain of the Caldicot Levels, an area of reclaimed land which would regularly have been inundated during prehistoric times (Bell and Neumann 1997, 95). To the north and north-east of the Levels are the Wentwood and Trelleck uplands, hill ranges which on occasion exceed 300m in height, though are mostly confined to altitudes below 250 m OD. Across the south-flowing River Wye and between it and the lower Severn valley, lie the Forest of Dean and the Dean uplands. Beyond the River Usk to the west, the south Welsh moorlands rise, consistently exceeding 300 m OD, and at times reaching close to 600 m OD. These are separated from the Black Mountains by the south-east flowing Usk, before it swings southwards towards the mouth of the Severn. The southern part of the study region itself is cut off from the areas to the north by the un-navigable River Monnow, a tributary of the River Wye which originates from within the Black Mountains. It has been suggested that this southern area, bordered on the east by the broken upland of Wentwood, Trelleck and the Forest of Dean, and the north by the River Monnow, may have been relatively isolated from the south central Marches during the prehistoric period, despite the presence of the two major rivers, the Wye and the Usk, which transverse it (Stanford 1980, 23).

North of the River Monnow, lies Herefordshire, a gently undulating, and agriculturally rich county lying between 60 m and 180 m OD, which is interrupted by numerous hills that in some instances rise in excess of 250 m OD. Through this landscape flows the River Wye, running west to east from its source in the Cambrian Mountains before swinging southwards towards the River Severn. Several tributaries of the Wye confluence south-east of Hereford: the Rivers Frome and Lugg, the latter with its own tributary, the River Arrow also issuing from the eastern fringes of the Welsh Mountains to meet the Lugg just south of Leominster.

The eastern border of Herefordshire is marked by the north-south running Malvern Hills, rising up steeply in excess of 400 m OD. The Suckley Hills, Bromyard Downs and Abberley hills continue the northward extension of the Malvern faultline. This hilly strip marks an important and dramatic topographical divide between the gentle upland of Herefordshire to the west and the low-lying clay lowlands of Worcestershire to the east which rarely manage to rise above 60 m OD. The few areas of altitude which do exist within Worcestershire are outlying or cut off projections of the Cotswolds, such as Bredon Hill in the east of the county, which reaches to almost 300 m OD. The Cotswolds themselves, a chalk upland expanse, can be found in the south-east corner of the study area, mostly within the county of Gloucestershire. At their highest they reach close to 300 m OD, although in no instance surpass that altitude. The Vale of Berkeley and the Vale of Gloucester, the broad river valleys of the lower Severn pass through this quarter of the study region. The River Severn itself descends from the north, meeting its tributary, the River Teme, south of Worcester, and changing to a north-east to south-west direction at its confluence with the River Avon, the latter having circled around the north of Bredon Hill from the direction of Warwickshire.

The west and north-west of Herefordshire is topographically at variance with the relatively gentle Herefordshire Basin described above. The river valleys of the Lugg and Arrow thread through broken upland, which gives way to the more consistent mountainous terrain of the eastern edges of the Welsh Mountains in central Powys. This pattern continues northwards into south and central Shropshire and east and north-east Powys. The landscape of the central Marches has a fragmentary appearance with numerous upland areas, such as the Clee Hills, Caer Caradoc, the Long Mynd, Wenlock Edge, the Long Mountain, and Criggion hill, which can rise in excess of 450 m OD, divided from one another by winding river valleys. Most of the rivers - for example the Onny, the Clun, the Corve and the Rea - are tributaries of the River Teme which flows west-east through the southern third of this broken landscape and which is itself a tributary of the River Severn. The west central Marches are more solidly upland, with the central Welsh Mountains again infringing into the study area. This upland region is in the most part poor in terms of agricultural potential. In all probability, cross-land communication between the northern and southern Marches would have been hampered by the broken nature of the landscape, although the river valleys and rivers themselves would perhaps have allowed access from north to south and vice versa.

The disrupted landscape of the central Marches gives way to significantly gentler and lower-lying terrain some 10 to 15 km south of the River Severn which flows west to east out of the study area, resembling a boundary dividing the central Marches from the north of the region. Past the south flowing tributaries of the middle Severn: the River Perry, the River Roden and the River Tem, the drainage system becomes somewhat less complex and changes from essentially north to south flowing, to south to north flowing. The principal rivers of this northern third of the Marches are the Rivers Dee with its tributary the River Alyn, and the River Weaver with its tributary the River Dane. Between the two drainage systems lies Ellesmere Moraine, an area of land which suffers from poor drainage. This has led to the formation of lowland peat bogs, such as Fen's Moss, Whixall Moss, Wem's Moss and Ellesmere Mere. Several of these bogs have been subject to palaeoenvironmental analysis (c.f. Leah *et al* 1997 and Leah *et al* 1998), and have yielded important information regarding the vegetation and climatic history of this part of the Welsh Marches (see below). The topography of Cheshire to the north of Ellesmere Morraine rarely rises above 120 m OD, and large parts of the county lie below 60 m OD. East Clwyd, however, in the north-west corner of the study area is a hilly region, dominated by the Clwydian range, Halkyn Mountain, Cryn-y-Brain and Ruabon Mountain where heights can exceed 450 m OD in some instances. These uplands do not reach the coast, however, and access to north Wales along the coastal fringe is possible.

SOILS

A generalised soil map of the study area is depicted in figure 2.4. Bearing in mind that the zones depicted at this scale will mask considerable local variety, it can be observed that well-drained brown earth soils dominate much of the south and also the westernmost fringe of the region, whilst heavier and less well-drained stagnogleys dominate much of central and north Shropshire, Cheshire and the lowlands of east Clwyd. The flood plains of the main drainage systems are marked by stretches of poorly drained soils: especially alluvials, gleys and also at times stagnogleys again, whilst the broad expanse of the lower Severn Valley is characterised by extensive spreads of pelosols. The Cotswolds to the south-east of the Severn are almost entirely dominated by rendzinas, not found anywhere else in the Marches except on Bredon Hill which is itself a dislocated extension of the Cotswolds into Worcestershire. The areas of highest ground within the region, such as the Black Mountains in the south-west, the Malvern Hills on the border between Herefordshire and Worcestershire, the Clee Hills and the Long Mynd in Shropshire, and the Clwydian Range, Ruabon Mountain and Cyrn-y-Brain in Clwyd are dominated by various classes of podzolic soil.

Although soil-type is inextricably linked with agricultural potential, it is not the sole determining factor. Drainage, gradient, soil-depth and the prevailing climate are also important variables. A more useful guide to late prehistoric agricultural potential in the study area, therefore – bearing in mind changes through time - is provided by the 1944 Ordnance Survey map of land capability classification (e.g. Chapter 6, Chapter 11 and Jackson 1999).

GEOLOGY

Solid

The solid geology of the region is depicted in figure 2.5. A diverse range of rocks is represented. Jurassic limestones and sandstones are restricted to the Cotswold Hills and Bredon Hill in the south-east of the region, whilst Jurassic clays are a little more widespread, occurring in north Shropshire and Worcestershire beyond the Cotswold ridge. Permo-Triassic mudstones form an extensive swathe in the north-east of the study area, extending through Cheshire and into central Shropshire, and are also to be found in central and west Worcestershire and Gloucestershire east of the Malvern Hills, with further occurrences evident along the Severn Estuary. Permo-Triassic sandstones are particularly common in an irregular strip stretching from the northern most limits of the region, south into Shropshire and then east towards Staffordshire. Carboniferous shales and sandstones are fairly widespread throughout the northern and central Marches, whilst Carboniferous limestones have a more limited distribution on the border between Powys and Shropshire, in Clwyd and in south-east Gwent. Devonian siltstones and mudstones form a large block in the central Marches, with Devonian sandstones dominant across much of the south central Marches. Silurian rocks can also be identified within the study area, jutting out of central Wales in a band extending south-west to north-east across the central Marches with further outcrops in the west and south-east of the region. Ordovician outcrops are generally quite restricted, being found in the central west part of the Marches on the border between England and Wales only, whilst Cambrian rocks are extremely rare, evident only in a small outcrop in the east central Marches. Pre-Cambrian rocks are also scarce within the study area, being restricted to south Shropshire.

Drift

In terms of drift geology the Welsh Marches can be divided broadly into a northern and southern region, the former fairly well covered by glacial deposits, the latter only patchily so (figure 2.6). Dominant is Reddish till which stretches in a band from the Wirral south and south-eastwards out of the study area. A second large spread of Reddish till can be located in central and south-west Herefordshire. Other till and head is distributed across much of the north central and west Marches, with some patchy extension southwards into Herefordshire. Otherwise the only significant glacial deposit that can be identified in the study region is Glaciofluvial and river terrace drift which can be found throughout the north of the study area and along the Severn and Avon River valleys in Worcestershire. Minor drift deposits include alluvium which is present along the lower Dee, at the confluence between the Severn and Vyrnwy, along the lower Severn and across the Caldicot Levels, and also Glaciolacustrine clay which is restricted to east Cheshire.

CLIMATE PAST AND PRESENT

Discussion of climate in Britain during the first millennium BC has focussed upon stratigraphical analysis of upland and lowland peat bogs (e.g. Bell 1995a, 1996; Turner 1981). These have shown that the degree of peat growth can be dependent upon the prevailing local climate. Rapid, pale unhumified peat accumulation is the result of wet conditions, whilst darker, highly humified peat accumulation results from drier conditions, essentially marking a contrast in the precipitation/evaporation ratio. The contact between the two types of peat growth is known as the *recurrence surface*. The importance of the recurrence surface as a climatic indicator was first noted by Weber (1900), who coined the term *Grenzhorizont*, and dated the phenomenon in Europe to the start of the first millennium BC through artefact association. Since Weber's findings, it has been shown that more than one recurrence surface can occur in any one bog (e.g. Caseldine 1990, 55-56), giving rise to questions of whether recurrence surfaces across different bogs could be correlated to the same climatic episode, and even whether non-climatic i.e. anthropogenic influences, may have contributed to the formation of such horizons. It was not until the advent of radiocarbon dating that some of these complications began to be resolved (Turner 1981, 253).

In most cases stratigraphical analysis of peat bogs has lain in the hands of individual workers studying individual sites within a (university) research framework. The results of these individual studies have been considered in various macro-analyses of the prehistoric climate within Britain (e.g. Bell 1995a, 1996; Lamb 1980; Taylor 1980; Turner 1981), but less often have there been deliberately designed projects aimed towards examining past climate within particular regions and localities. There therefore remains a degree of generalisation regarding our understanding of past climate in Britain, and indeed within the parameters of this research, the Marches specifically, although there has been a reasonable amount of work conducted within the area (e.g. Beales 1976; Brown 1983; Leah *et al* 1997, Leah *et al* 1998; Gregory *et al* 1987; Twigger 1988). This is important to remember in discussing the evidence which does exist, because local variation which may have been significant in specific regions, will frequently be undetectable.

Evidence suggests that the climate began to deteriorate from a sub-boreal optimum as early as *c.* 3500/3000 BC, falling in a series of shifts interspersed with periods of temporary improvement. Throughout the third and second millennia BC the worsening weather, perhaps especially when combined with anthropogenic interference, resulted in the development of blanket peats in some upland areas of the country including Wales. However, from the beginning of the sub-Atlantic period - late Bronze Age (*c.* 1200 - 1000 BC), and perhaps particularly in Britain the late Bronze Age/early Iron Age (*c.* 900/800 BC) - the evidence indicates a more dramatic and rapid deterioration in the prevailing climate, beginning in the extreme west of the country, and progressing eastwards (Tinsley and Grigson 1981, 216), so that the study area was presumably affected by the relatively sudden worsening of the weather sooner than parts of eastern Britain. It has been estimated that the fall in the mean average temperature could have been as great as 1 - 2 °C, with precipitation also increasing (Bell 1995a; Grove 1988). The result of this, as already discussed, would have been increased peat growth in both upland and lowland areas, with the consequent loss of habitable land, increased run off, impoverishment of soil due to leaching, and a shortened growing season. Although it may be considered that upland regions would have suffered the most from these developments, work on low-lying wetland sites has shown that they too were adversely affected, the inhabitants of some such areas often having to construct wooden trackways over wet areas in order to maintain lines of communication which do not seem to have previously warranted such attention (e.g. Coles and Coles 1986).

The peat bog evidence suggest an improvement in climatic conditions around 450 - 250 BC, in that there is an apparent lack of recurrence surfaces and a decline in peat growth. This appears to continue well into the first millennium AD, although there are also indications of a turn towards colder weather in the late Iron Age/early Romano-British period (e.g. Barber and Coope 1987, 211-212). Indeed, in the Welsh Marches. Taylor suggests a drop in the average Summer temperatures from 15.1/15.2 °C in the late Bronze Age and Iron Age to 14.7 °C in the late Iron Age/Romano-British period (Taylor 1980, figure 3.3)

This is how most general discussions see climate development in the first millennium BC (e.g. Barber and Coope 1987; Barber and Twigger 1987; Bell 1995a, 1996; Lamb 1980; Turner 1981; Turner and Grigson 1981). The environmental evidence from the study area which can be shown to be to be relevant to this problem (essentially radiocarbon-dated peat stratigraphies), is relatively limited, but it is interesting to examine it against the above generalised picture of later prehistoric climatic deterioration.

At Chat Moss, on the Lancashire/Cheshire border (Birks 1963-1964; Turner 1981, 259), a recurrence surface that is believed to be equated to the *Grenzhorizont* - the recurrence surface signifying a sharp climatic decline at the beginning of the first millennium BC - is radiocarbon dated to (1006) 894 cal BC - 767 (413) cal BC (Q-683, 2645 ± 100 bp), which would certainly support the argument for wetter conditions during the first few centuries of the first millennium BC. At Lindow Moss, just outside of the study area in north Cheshire, a wet phase superseding a relatively dry, tree-dominated period is dated to (768) 759 cal BC - 407 (398) cal BC (UB-3240, 2447 ± 43 bp) and (690) 405 cal BC - 384 (234) cal BC (UB-3239, 2345 ± 45 bp) (Branch and Scaife 1995, 20). These also suggest a climatic deterioration during the first half of the first millennium BC.

However, the picture is not so clear at Whixall Moss, Shropshire. Here Hardy's 'pine-stump layer' (Hardy 1939), a distinctive band of pine remains which is thought to indicate growth during a relatively dry period, is radiocarbon dated to (765) 476 cal BC - 205 (55) cal BC (Q-383, 2307 ± 100 bp). A date of (382) 353 cal BC - 102 (52) cal BC (SRR-3074, 2180 ± 50 bp) has been obtained from the mire growth which overlays the pine forest, and is thought to have led to its extinction. These dates do not easily fit into the picture outlined above in that they suggest a dry period in the early to middle Iron Age and a wet period in the middle to late Iron Age, the reverse to what might be expected. An explanation may be that the peat covering the pine-stump layer does not relate to the traditional *Grenzhorizont* horizon, but perhaps instead reflects the middle to late Iron Age climatic recovery, the subsequent peat accumulation a result of the possible late Iron Age/early Romano-British deterioration described above. This, however, seems to be better represented by another recurrence surface in the same bog, which has a *terminus post quem* of (42 BC) cal AD 67 - 325 (421) cal AD (1842 ± 100 bp) and a *terminus ante quem* of (2 BC) cal AD 256 - 538 (639) cal AD (1670 ± 110 bp). It has, however, been suggested that the sample used to date Hardy's pine-stump layer may have been contaminated by later material (Chambers *et al* 1996, 32), and that it should actually date to the middle Bronze Age because of an associated palstave (the date to which Hardy originally assigned this horizon). The Whixall Moss evidence is therefore ambiguous, and should be regarded with caution until further work is conducted.

Evidence relating to the later prehistoric climate from the study area is very slight, and is certainly not enough to contradict the accepted view of climatic deterioration at the beginning of the first millennium BC, which will therefore be maintained for the purposes of this study. It must, however, be remembered that there were probably local variations within the study area, especially considering the topographical contrasts which have been discussed above. A brief analysis of modern day climate may also provide some insight into such variations. In terms of annual rainfall (figure 2.7), a broad division can be detected between the west of the study area where rainfall levels average over 800 mm, and often 1000 mm in any one year, and the east where levels tend to stay below 800 mm, or in the case of Worcestershire and Gloucestershire under 700 mm. In addition there is a 'wet' zone extending across the central Marches from east to west which corresponds to south and central Shropshire. The rainfall pattern closely reflects the topographical contrasts within the study region, as is to be expected, with the highlands subjected to higher rainfall averages than the eastern lowlands. In terms of the mean annual accumulated temperature (figure 2.8), a similar pattern can be detected, with the highlands in the west and central Marches rarely receiving a median accumulated temperature above 1350 day °C and often below 1250 °C, whilst much of the lowland east receives over 1400 °C, or in Worcestershire and parts of Gloucestershire, Herefordshire and Gwent over 1450 °C. Based upon this information, the growing season is likely to be longer in the east of the Marches than in the west, with the south-east quarter particularly favoured.

VEGETATIONAL HISTORY

Analysis of vegetational change in the prehistoric and historic periods has to a considerable extent relied upon pollen cores taken from peat and lake deposits, where the anaerobic and/or acidic nature of the surrounding environment offers the most advantageous conditions for pollen survival. Where the local environment is alkaline in nature, molluscan evidence can provide an alternative means of analysis. In both cases, and as with studies of peat stratigraphy to interpret past climate, it is essential to tie the relative stratigraphical sequences into an absolute (normally radiocarbon-derived) chronological framework. Before going on to consider vegetation change in Britain generally, and the Marches specifically, it is worth mentioning the potential difficulties associated with constructing models based upon pollen evidence. Principal among these is the extent to which the pollen record, based upon cores from upland, or poorly drained lowland areas, is representative of more intermediate lowland areas. In many cases it is feasible that the evidence which we are generalising from is actually untypical of the landscapes we are attempting to understand, and this should be borne in mind in the following discussion.

Several general studies of vegetational change in Britain are relevant to the first millennium BC (e.g. Bell, 1995a, 1996; Tinsley and Grigson 1981; Turner 1980, 1981). These draw together the available evidence from numerous individual studies to interpret broad developments in the later prehistoric period. As was mentioned with regard to climatic change, blanket mire spread in upland areas, including parts of Wales, the Pennines and the Lake District, during the third and second millennium BC. Though this may partly have been a result of the gradually deteriorating conditions through the late Holocene period, it was probably also emphasised by the reduction of forest cover through human activity. In certain areas there may have been partial, long-term forest clearance as early as the Neolithic, particularly those parts of the country, such as southern England and the North York Moors, where much of the local geology was chalk and limestone and where light calcareous soils predominated (Bell 1996; Turner 1981). However, it was during the middle and late Bronze Age that more widespread forest clearance is indicated in the pollen record. Much, though not all, of the landscape of the south and east of England is believed to have been open in nature by the beginning of the first millennium BC, and certainly before the Iron Age; this also appears to have been the case in parts of Fox's 'Upland Zone', such as north-east England. The vegetation of the Thames and Tame river valleys was dominated by species indicative of an open landscape by the beginning of the first millennium BC (Lambrick and Robinson 1979; Smith 1979), and Dartmoor saw widespread clearance with the construction of the Dartmoor reaves (Bell 1996, 7-8; Macguire *et al* 1983), before some regeneration when the uplands were abandoned by the turn of the millennium (Balaam *et al* 1982; Bell 1996; K. Smith *et al* 1981). Elsewhere, Neolithic and Bronze Age clearance is thought to have been small-scale and temporary in nature, with mixed oak woodland persisting. Extensive forest clearance in many parts of north and west England apparently begun in the mid first millennium BC, or shortly after, and continued well into the first millennium AD (Bell 1995a, 151; Turner 1981, 275). This has been shown to be the case at Tregaron in Wales, where an increase in the proportions of grass species over tree species begins around 400 BC, and in parts of Lancashire and Derbyshire as well (Turner 1981, 268-269). In wetland areas, such as the Somerset Levels, there is evidence for a number of clearance episodes followed by regeneration through the Bronze Age, in turn followed by more widespread and permanent clearance from the late Bronze Age, and extensive clearance through the Iron Age and later (Bell 1996, 7).

Although there is certainly more evidence from the study area for vegetational change during the first millennium BC than there is for climate change, the dataset must still be considered poor overall. Much of the work undertaken to date has focused upon the various meres in Shropshire (e.g. Barber and Twigger 1987; Beales 1976; Turner 1964; Twigger 1988) – not all of it yet published - although there have also been various palaeoecological studies conducted in the south of the study area, in Hereford and Worcester (e.g. Brown 1982; Shotton 1978). Although these provide information relating to local change, any attempt to project interpretations onto the wider region must be regarded with considerable caution. Evidence for sporadic and temporary vegetational change arising as a result of human activity is apparent in various parts of the Marches from the Neolithic and early Bronze Age. During the early part of the middle Bronze Age more notable impacts are detected in the environmental record in the form of a sharp decline in the evidence for lime *(Tilia)* in pollen cores, although this still probably only accounts for select open areas within otherwise wooded surroundings. Samples obtained from relevant stratigraphic layers at Boreatton Moss and New Pool, Shropshire, provide radiocarbon dates in the late third/early second millennium BC for this initial lime decline. A further date from Crose Mere, Shropshire calibrates to (2469) 2285 cal BC - 1889 (1695) cal BC (Q1234, 3714 ± 129 bp). It was originally believed that this date was far too old, probably because of the inwashing of old carbon into the Mere as a result of soil and vegetation disturbance caused by clearance and ploughing (Beales 1976). However, the dates from Boreatton Moss and New Pool would seem to suggest this was not necessarily the case (Leah *et al* 1998, 53), and possibly support the argument for (limited) clearance in the mid Bronze Age in central/north Shropshire.

Subsequent to this small and localised clearance, another lime decline can be identified in the pollen record from several sites. At Whixall Moss, this clearance episode is radiocarbon dated to (1766) 1681 cal BC - 1405 (1134) cal BC (Q-467, 3238 ± 115 bp) (Turner 1964, 85); at Fenmere it is dated to (1601) 1501 cal BC - 1406 (1264) cal BC (SRR-2923, 3190 ± 60 bp) (Twigger 1988, 131); and at Top Moss a radiocarbon estimation of (1676) 1518 cal BC - 1412 (1324) cal BC (OxA-6639, 3220 ± 50 bp) was obtained (Leah *et al* 1998, 67), in combination suggesting a mid-Bronze Age date. These clearances are also believed to have been relatively small-scale and short-lived due to the fact that, although lime declines, and there is a peak in the evidence for species such as *Gramineae* (indicative of an open landscape), there is no clear overall fall in total tree pollen (Barber and Twigger 1987, 239).

Following this second restricted clearance activity, a much more marked and extensive vegetation change can be detected at various sites when the percentages of *Gramineae* and other open habitat species steadily increase, at Fenmere to 30%, at Berth Pool and Birchgrove Pool, Shropshire, to 40% (Barber and Twigger 1987, 239). Two carbon-14 dates from Fenmere, Shropshire were obtained at separate stages in this episode. The earlier calibrates to (1516) 1488 cal BC - 1323 (1262) cal BC (SRR-2922, 3160 ± 50 bp), the later to (1370) 1242 cal BC - 1012 (923) cal BC (SRR-2921, 2940 ± 60 bp). Barber and Twigger (1987, 239) suggest these dates are actually too early, because of the inwashing of old carbon into the Fenmere pool as was argued by Beales (1976) in his study of Crose Mere. They propose, by extrapolation, that the early stages of this clearance activity should instead be dated to around 800 BC, i.e. the late Bronze Age/early Iron Age transition. Without more widespread dating it is not possible to confirm or deny their interpretation, although we should remember that Beale's initial theory concerning the contamination of the radiocarbon sample (Q1234) which yielded the date, has now been called into question as a result of subsequent corroborating dates from other sites within Shropshire (see above).

Later in the Iron Age, forest regeneration apparently occurred around some, though certainly not all sites. At Fenmere this is dated to cal (cal AD 5) 67 - 223 (318) cal AD (SRR-2920, 1890 ± 50 bp); at Crose Mere considerably earlier: (757) 406 cal BC - 211

(168) cal BC (2310 ± 85 bp). The validity of the latter has been again called into question because it would seem to coincide with periods of major clearance elsewhere in the Severn Basin; once more inwashing of old carbon is suggested as having contaminated the radiocarbon sample (Beale 1976). A final, major clearance of the area around Crose Mere has been dated to (354) 198 cal BC - cal AD 15 (74) (Q-1232, 2086 ± 75 bp). This coincides with a date obtained from Rostherne Mere in Cheshire where periods of entrophication are thought to reflect agricultural activity within the locality: (353) 198 cal BC - cal AD 1 (66) (SRR-1891, 2090 ± 70 bp) (Nelms 1984).

The Shropshire evidence, therefore, suggests that, after a series of short-term and spatially restricted forest clearances, a more extensive campaign of clearance began sometime in the late Bronze Age/early Iron Age to middle Iron Age. As the first millennium BC progressed, more and more of the landscape would have become open. Although there are indications of land abandonment in the late Iron Age/Romano-British period, this does not seem to have been a region-wide phenomenon, and was probably restricted to specific localities, perhaps those which were especially marginal and susceptible to the drop in temperature which appears to have affected the country towards the end of the millennium (see above).

Palaeoecological work in Hereford and Worcester by Brown (1982) indicates a similar pattern in the south Marches. Four sites were examined, all within the study area, and two distinct vegetational zones were identified: the river terraces where lime dominated before human interference, and the river floodplains where alder dominated. Pollen diagrams from the study sites showed that the terraces were cleared first. No absolute dates are available, but through correlation with the evidence from Shropshire and particularly Whixall Moss, it is argued this may have begun in the first half of the second millennium BC, and continued through to the early Iron Age (Brown 1982, 102). Based upon the Shropshire evidence, we can perhaps expect intensified and more widespread clearance from the late Bronze Age/early Iron Age onwards. The floodplains were deforested sometime after the river terraces, with an initial clearance phase followed by regeneration (thought to perhaps indicate some form of woodland management), then a second clearance phase eventually resulting in the complete disappearance of alder. This clearing of the floodplains is suggested to have begun in the early/middle Iron Age and to have continued late into the first millennium AD (Brown 1982, 102), although again there are no absolute dates available to corroborate this theory.

As well as pollen studies, other palaeoenvironmental approaches have yielded information concerning landscape use, and indirectly vegetation change in the first millennium BC. One such is the study of alluvial stratigraphy in the Severn and Avon river system (Shotton 1978). Only one of the three sites analysed falls within the study area (the River Severn at Worcester), however the other two sites (Pilgrim Lock, Warwickshire and the River Arrow at Ipsey) lie only a small distance outside of the area and are likely to be relevant to this discussion. At all three sites, a sudden change from old grey, organic-rich alluvium to red clay/clayey, organic-free silt was identified, and interpreted as indicating a change in agricultural practice and particularly the advent of ploughing after extensive deforestation. It is argued that the grey alluvium formed when the rivers broke their banks and carried over the slowly accumulated organic rich and iron-reduced sediments of the surrounding land, whilst the organic-free red alluvium formed with the rapid transfer of sediment without time for organic decay to reduce the ferric iron (Shotton 1978, 31). The explanation for this, it is suggested, lies in a significant increase in ploughland following widespread forest clearance and erosion of soil from the surrounding terrace slopes into the rivers. A total of five radiocarbon dates were obtained during the course of Shotton's research, all stratified within the organic-rich grey alluvium underlying the red clayey silt (table 2.1)

BIRM-613	2770 ± 250 bp	(1516) 1287 cal BC – 593 (262) cal BC	Pilgrim Lock, 3-3.5 m below surface
BIRM-632	2890 ± 100 bp	(1374) 1236 cal BC – 903 (813) cal BC	Pilgrim Lock, *c.* 4 m below surface
BIRM-651	2880 ± 100 bp	(1373) 1211 cal BC – 1015 (898) cal BC	Pilgrim Lock, 4-4.5 m below surface
BIRM-247	3006 ± 117 bp	(1496) 1406 cal BC – 1015 (898) cal BC	Pilgrim Lock, 4.5 m below surface
BIRM-160	2710 ± 90 bp	(1068) 969 cal BC - 794 (594) cal BC	Ipsey, directly beneath red clay

Table 2.1: Calibrated radiocarbon dates from alluvium in the River Severn/Avon system (n.b., the red clay at Pilgrim Lock lay 0-0.3 metres below current surface).

The estimations closest to the horizon between grey alluvium and red clay (BIRM-613 and BIRM-160), suggest the latter began to accumulate sometime in the first half of the first millennium BC, and Shotton suggests a date around 650 BC for the change in sediment type (1978, 27). He does emphasise that the change in alluviation does not necessarily signify the advent of agriculture in the region, pointing to the recovery of beetles indicative of open land from the bottom of grey silts at Pilgrim Lock. However, it would seem that the sediment change marks the advent of intensive ploughing, the landscape before this perhaps being used for pastoral purposes.

The results of Shotton's analysis would seem to confirm the occurrence of fairly widespread late Bronze Age/early Iron clearance in the Welsh Marches as suggested by the pollen studies conducted on sites in Shropshire.

SUMMARY

Geographically, the Marches can be divided both east and west, and north and south. The west is topographically upland and broken in nature and subject to higher rainfall averages and lower mean annual temperatures than the more lowland east. The south Marches are separated from the north by an extension of the uplands eastwards into the central part of the study area. North of this extension, the drift geology is dominated by Reddish Till, and the soils by heavy well-drained stagnogleys; to the south drift geology is only patchily present, and soils tend to be of the generally well-drained brown soil group.

In terms of later prehistoric climatic change, the limited evidence available from the Marches area itself means we are heavily reliant upon more wide ranging studies. These suggest that the late Bronze Age/early Iron Age period (*c.* 1200 BC – 800/700 BC) saw rapid climatic deterioration with increased rainfall and a drop in the mean annual temperature. This deterioration is likely to have impacted hardest upon upland areas and aided in the formation of blanket peat and consequent loss of agriculturally exploitable land, although it may also have resulted in increased flooding of susceptible lowland areas such as the Severn Valley. From the middle Iron Age (*c.* 400/300 BC) we can detect an improvement in the climate which continued into the first millennium AD, although there are indications for a turn towards colder weather in the late Iron Age (first century BC/first century AD).

Somewhat more evidence for later prehistoric vegetational change is available from the study area, although we are still reliant upon studies conducted outside of the region to fill in the gaps in our data. From the late Bronze Age, there was an increase in forest clearance, which appears to have intensified in the early Iron Age, leading to a clearance of the main river valley terraces by the middle Iron Age. Continued activity through the latter first millennium BC and into the first millennium AD resulted in the progressive clearance of river flood plains throughout the study area.

CHAPTER 3

ARCHAEOLOGY OF THE FIRST MILLENNIUM BC IN THE WELSH MARCHES: PAST APPROACHES

Archaeological excavation in the Marches has a history extending back to the mid-nineteenth century (appendix 1 provides a list of the principal excavated and published sites within the study area), but this work has almost always been overshadowed in scale and perceived importance by the work carried out in Wessex. As I have already mentioned, the Welsh Marches are frequently identified with central southern England, and Wessex in particular, in that at first glance it appears to form a northern extension of a hillfort-dominated zone (page 2). It is hardly surprising, therefore, that the early twentieth century archaeological studies of the later prehistoric period in the region mirrored the contemporary situation in southern England, with campaigns of excavation focusing upon hillforts. The principal reason for the interest in such sites lay in the fact that they were visible, upstanding and often impressive monuments, which were known about through the writings of geographers, historians and antiquarians. Perhaps forecasting the archaeological climate that was to persist throughout the twentieth century, the excavation of southern hillforts commenced a little earlier than on Marches' sites, bar a few exceptions, and was conducted on a more extensive scale, with the activities of Pitt-Rivers (1881, 1881, 1888) and Cunnington (1908, 1911, 1913, 1917) of notable importance. Some early work was undertaken in the Marches, however, for instance the small-scale investigations of hillforts in Clwyd and Powys such as Moel Arthur and Moel y Gaer, Llanbedr by Foulkes in 1849, but the first major hillfort excavation within the study area to be published was conducted by Mortimer Wheeler at Lydney Park hillfort, Gloucestershire, between 1928 and 1929 (Wheeler and Wheeler 1932), which was actually primarily concerned with the much later Romano-British temple site located within the hillfort interior. The interest in Wessex hillforts continued to grow during the first quarter of the twentieth century, and was given added impetus by the work of Hawkes and his colleagues, both in terms of fieldwork, and in the theoretical explanations advanced for the appearance and development of hillforts. Invasion from the Continent was seen as the principal mechanism of change, early hillforts being the response of native peoples against incursions in the Halstatt period, later hillforts the work of invaders in the La Tène period, and a third migration from the Continent, the Belgae, occurring during the late La Tène (Hawkes 1931, Hawkes and Dunning 1931, Hawkes *et al* 1930). This ABC framework dominated archaeological fieldwork and interpretation until the late 1950s and early 1960s, particularly in encouraging the pursuit of questions associated with identifying the archaeological traits of these successive waves of invaders, and fixing them firmly in their chronological context. As a result, excavations at hillforts concentrated on the analysis of rampart and entrance structure in order to identify architectural change. The period also saw renewed enthusiasm for pottery studies, the most ubiquitous material culture of the first millennium BC to survive in those areas where the most work was being conducted, namely the hillfort-dominated zone.

The growth of interest in hillfort studies, and indeed later prehistoric archaeology generally for which Hawkes' ABC framework was in no small part responsible, was rapidly projected out of southern England to areas further afield. It was during this period, from the 1930s to 1950s, that first millennium BC archaeology (i.e. hillfort archaeology) in the Welsh Marches really established itself. A considerable number of hillforts were excavated, the published examples including Llanmelin (Nash-Williams 1933) and Sudbrook (Nash-Williams 1939) in Gwent; the Breiddin (O'Neil 1937) and Fridd Faldwyn (O'Neil 1942) in Powys; Dinorben (Gardner and Savory 1964) in Clwyd (just to the west of the study area); Maiden Castle (Varley 1935, 1936) and Castle Ditches, Eddisbury (Varley 1950) in Cheshire; Titterstone Clee (O'Neil 1934), the Wrekin (Kenyon 1943) and Old Oswestry (Hughes 1994; Varley 1948) in Shropshire; Bredon Hill (Hencken 1938) Sutton Walls (Kenyon 1953), Poston (Anthony 1958) and Danes Camp, Conderton (Thomas 1959) in Hereford and Worcester, and Leckhampton Camp (Burrow *et al* 1925) in Gloucestershire. The majority, although not always all, of the excavations at these sites focussed upon the sampling of rampart and entrance structures, in this respect dramatically increasing the database of available information compared to what had been accumulated through the first thirty years of the twentieth century. Indeed, enough information existed for a regional review of hillfort (architecture) to be written as early as the late 1940s (Varley 1948).

The analysis of material culture, and particularly pottery when it was found, was inevitably dictated by contemporary research in southern England. Results were fitted into the ABC scheme with the interpretation for change relying heavily on the concept of invasion (e.g. Chitty 1937). Hencken (1938), in her excavation of Bredon Hill, and subsequent examination of the site's pottery, was the first to distinguish two major ceramic groups based upon decorative design. The first, which she identified as stratigraphically earlier, was decorated with stamped 'duck-like' motifs, often poorly executed; the second group, which seemed later in date, was decorated with linear-tooled motifs. Following Hawkes' change of mind, hillforts in southern England were thought to be 'late', the earliest originating in the third century BC. Hencken therefore saw the stamped pottery from Bredon Hill as representing the incursion of peoples derived from the Continent in the third/second centuries BC, particularly by way of Cornwall and the Bristol Channel. The linear-tooled pottery on the other hand was seen as representing a native tradition that gradually came to dominate as the invaders were integrated within native society. This western English adaptation of the scheme developed in southern England was further modified by Kenyon (1953), who suggested that both the stamped and linear-tooled wares were evidence for foreign incursion into the Midlands and Marches area during the Iron Age. The scheme remained extremely influential in all the work and analysis conducted within the area through the 1960s, and, as shall be seen, beyond.

The 1960s themselves, however, saw the first indications of disillusionment with the existing system. This was despite Hawkes' review of the ABC model, which attempted to incorporate evidence that had accumulated over the previous thirty years, by creating a complex picture, in which southern Britain was divided into five provinces, which in turn were subdivided into a total of thirty regions (Hawkes 1959). The principal critic of the original and the revised ABC framework was F H Hodson (1960, 1962, 1964). His criticisms were threefold. First, that by imposing strict and closed Iron Age categories (ABC), all interpretation of Iron Age sites and artefacts, and by extension Iron Age peoples, were automatically associated with cultural/ethnic groupings: Hallstatt (A), La Tène (B) and Belgic (C). Second, the strict imposition of 'provinces' and 'regions', without regard for similarities or differences in the archaeological evidence, potentially served to either cut through cultural homogeneity or to amalgamate cultural diversity. Third, Hodson objected to the absolute dating of the ABC groups and their various subdivisions by reference to the Continent, and dates there which in themselves were not necessarily reliable. This disagreement with the fundamental tenets of the ABC system led Hodson to argue that the classification of 'groups' in the Iron Age should be based upon careful analysis of type-sites and type-fossils, and that it should be the identification of these sites and artefacts that defined cultural boundaries, not the static lines of provinces and regions. This resulted in a shift of emphasis away from models of invasion as various 'insular' categories of evidence were detected and built up into cultural groupings, for example the 'Woodbury Culture' (Hodson 1964).

Ultimately these criticisms resulted in the framework upon which all later prehistoric archaeology in Britain had been built upon since the early 1930s being comprehensively modified. This development was also in part a consequence of the fact that archaeologists' fields of interest had begun to change, with increasing concern for investigating social organisation, the economy and eventually the more abstract aspects of society such as ritual and religious belief (Cunliffe 1991a, 14). This directed attention to hillfort interiors rather than earthworks, and indeed to non-hillfort sites, of which awareness was steadily growing as the impact of aerial photography made itself felt and as rescue excavation came to the forefront of archaeological fieldwork. Hodson's view of how British later prehistory should be approached can only have added impetus to this general trend in Iron Age studies.

Unsurprisingly, these changes again originated in the most part through consideration and debate of the evidence from southern England. Even more unsurprisingly, where archaeology in southern England led, archaeology elsewhere in the country followed, though perhaps with a slight delay, and the situation in the Welsh Marches was no exception. Whereas the 1930s to 1950s had laid the archaeological groundwork in the region, the 1960s and 1970s marked a vast increase in the amount of evidence gathered, and indeed significant advancement in the interpretations and theories which evolved as a result. Numerous hillforts were excavated, some of them on a relatively extensive scale with significant sampling of site interiors. The principal sites investigated included the Breiddin in Powys (Musson 1991); Moel y Gaer (Guilbert 1975a, 1976, although not fully published), Dinorben (Guilbert 1979, 1980; Savory 1971a, 1971b) and Moel Hiraddug (Brassil *et al* 1982) in Clwyd (the latter two a little beyond the western boundary of the study area); Beeston Castle (Ellis 1993) in Cheshire; the Wrekin (Stanford 1985a) in Shropshire; Credenhill (Stanford 1970), Croft Ambrey (Stanford 1974), Midsummer Hill (Stanford 1981) in Hereford and Worcester, and Crickley Hill (Dixon 1969, 1972, 1973, 1976, 1994) and Leckhampton Camp (Champion 1971, 1976) in Gloucestershire. Some of these excavations were conducted on a research basis, but many were initiated due to the threat of development. The role of rescue archaeology within the study area has become increasingly important during the past 30/40 years, with units such as the Rescue Archaeology Group (RAG) undertaking many important excavations which have yielded invaluable results. These have included both hillfort and non-hillfort sites. Despite the fact that the former dominated the work of the 1960s and 1970s, and to an extent still do, as in southern England there has been considerably more attention directed towards non-hillfort sites than was the case in the previous decades. This is a direct reflection of the massive impact that aerial photography has had in (parts of) the study area (Chapter 7). Although aerial sorties by the RAF had been detecting cropmark sites since the 1940s, the 1960s saw significant increases in the number identified as a result of the work of units (e.g. Cambridge University Committee for Aerial Photography) and individuals (particularly Baker and Pickering). Through the 1970s and into the 1980s and 1990s, the numbers of known sites fairly exploded in particular areas, especially the central Marches, due to the intensive flights undertaken by Chris Musson on behalf of the Clwyd-Powys Archaeological Trust. This work, combined with the development of rescue archaeology and professional archaeological units, has meant several important excavations were conducted on non-hillfort sites in the study area during the 1960s and 1970s, e.g. Caldicot in Gwent (Vyner and Allen 1988); Beckford (Britnell 1974; Oswald 1970; Wills forthcoming) and Holt (Hunt *et al* 1986) in Hereford and Worcester, and Sharpstones Hill in Shropshire (Barker *et al* 1991), as well as in adjacent regions e.g. Wasperton (Crawford 1981, 1982, 1983, 1984, 1985), Barford (Oswald 1969) and Ryton-on-Dunsmore (Bateman 1976) all in Warwickshire, and Fisherwick in Staffordshire (C. Smith 1979).

The approach to archaeology within the study area, as elsewhere in the country, became more thorough and scientific from the 1960s, with carefully recorded and published excavation reports, and the development of specialist studies. Area excavation became increasingly widespread, Moel y Gaer being a key example exhibiting the benefits of such an approach to archaeological fieldwork (Guilbert 1976). It was also in the 1960s that radiocarbon dating was first used in the dating of sites, fitting in well with the prevailing archaeological climate set by Hodson's criticism of the ABC framework and its reference to 'absolute' Continental dates. Its impact in the Marches, as is explored in more detail in Chapter 5, was - and still is - greatest in the northern half of the study area, where traditional dating material, principally pottery, is relatively scarce. This led to some sites, like the Breiddin and Moel y Gaer, benefiting from extended and invaluable carbon-14 sequences which have allowed detailed and relatively reliable chronological site histories to be established, despite the problems resulting from the flatness of the calibration curve from *c.* 800 to 400 cal BC (Chapter 5).

The development of specialist artefact studies from the 1960s has also notably benefited the Welsh Marches, although both the small-scale of many excavations (compared to southern England) and at times detrimental conditions (particularly soil acidity) has meant its impact has been patchy and often restricted to a local, site-specific level. This is particularly the case with regard to the analysis of agricultural remains, as we shall see in Chapter 10. Bone preservation is generally poor in acidic soils, and botanical sampling has always been of secondary importance, at least until comparatively recently. Even when detailed environmental sampling was undertaken the subsequent analysis has tended to be fairly cursory (e.g. Greig 1974 and Colledge 1981). Metalwork studies have benefited from more attention because the region is quite rich in finds, both chance and through excavation, from the late Bronze Age period. Burgess has been influential in analysing the typological distribution of bronzes throughout the Marches and Wales (e.g. Burgess 1980), whilst from the late 1970s Northover began scientific analysis into the composition of Bronze Age metalwork in the area. This yielded, and continues to yield, important results including evidence for the apparent mining and regional distribution of ores, or artefacts made from particular ores traceable to a specific source in the central Marches (e.g. Northover 1980; Chapter 9) - although it perhaps should be noted that the reliability of using trace element impurity patterns to determine ore source has recently been called into question (e.g. Dungworth 1996, 1997).

The most significant area of artefact study to develop in the Marches has undoubtedly been ceramic, and more especially petrological, analysis. The first major contribution in this field was made by Peacock, who published two extremely important and influential papers. His 1968 paper was concerned with the identification and distribution of pottery fabrics within western England, and was followed in 1969 by one concerned with the identification and distribution of pottery fabrics within south-west England. The first paper illustrated that certain types of pottery vessel were manufactured (or at least the temper originated) from certain specific areas within the Marches area, and were subject to regional distribution. The latter illustrated a similar phenomenon with regard to certain fabrics in the south-west of England, and more importantly with respect to the current discussion, that the majority of Marches' pots were made from different tempers than those found in the south-west, thereby to an extent weakening the argument that the 'stamped and linear-tooled' cultures were the result of incursions of people from the south-west peninsula of England. His suggestion that central production and regional distribution of pottery in the Marches represented some sort of exchange, even 'trade' (Peacock 1968, 424), was a direct challenge to the preconceived view that change and development within the study area was the result of invasion.

Peacock's work was extended and elaborated upon by Morris during her PhD research (Morris 1983). The initial aim of her work was to study another form of pottery: crude, unusually shaped containers which had come to be called VCP (very coarse pottery), and were interpreted as 'field ovens' (Gelling and Stanford 1965; Chapter 9). Morris showed that these vessels were in fact briquetage, designed for the storage and distribution of salt (Morris 1985). Two principal types were identified, one originating from the Droitwich area in Hereford and Worcester, the other from the Nantwich/Middlewich area in Cheshire. The regional distributions of this briquetage, and more specifically the salt which they contained, appeared to support the findings of Peacock that developed exchange systems existed within the Marches during the (second half of the) first millennium BC.

The increase in fieldwork, particularly the carefully recorded examination of site interiors, together with the development of artefact studies, encouraged discussion of later prehistoric society in the Marches, and the development of models to explain that society. Interestingly, however, despite the advances in archaeological techniques and analyses and the shortcomings these exposed in traditional theories for social change (i.e. invasion), and despite disenchantment with such theories in southern England, the dominant models proposed for the Marches in the first millennium BC were still concerned with population movements into the region (e.g. Savory 1976a; Stanford 1974, 1980, 1981). The Croft Ambrey excavation report (Stanford 1974), in spite of an extensive discussion of pottery fabric types based upon the petrological analyses conducted by Peacock, still makes use of terms such as Western Second B, a nomenclature directly derived from the ABC model. Wider discussions of later prehistoric society in the Marches also often assumed that all, or certainly most, of the Iron Age population inhabited hillforts (Stanford 1972), and hillfort size was therefore directly equated to population size and territory size. This argument gained credence despite the increasing evidence for non-hillfort settlement in the form of cropmark enclosure (such sites were presumed to have been post-Conquest in date), and excavated evidence of contemporary extensive Iron Age non-hillfort evidence in southern England.

During the 1980s various aspects of these theories were criticised (e.g. Guilbert 1981a), not least because Iron Age non-hillfort occupation was confirmed in areas where hillforts were apparently most densely distributed (e.g. Wilmott and Rahtz 1985). In most cases archaeological excavation continued to be small scale in extent, in spite of the fact that rising concern for monument protection and heritage management in the face of the destruction due to industrial activity such as mineral extraction and road construction, necessitated a fair amount of archaeological investigation. Research archaeology, in common with many other parts of the country, decreased due to a general lack of funds. However, the new approaches which had begun and developed through the 1960s and 1970s continued into the 1980s. Where excavation did occur, published reports included sections on the faunal and botanical remains, as at Collfryn (Britnell 1989), Aston Mill Farm (Dinn and Evans 1990) and Kenchester (Wilmott and Rahtz 1985). Pottery studies, including the petrological examination of thin-sections with the aim of identifying temper source, continued and served to elaborate on the framework already established by Peacock and Morris (e.g. Hurst 1992; Rees 1992; Wills forthcoming). Analysis of Bronze Age metalwork from the Marches and surrounding areas also advanced as additional data from newly excavated sites, for example Llwyn Bryn Dinas, Powys (Musson *et al* 1992) was added to the existing database, thus enabling a detailed consideration of the area within wider-reaching discussions on Bronze Age metalworking within Britain (e.g. Northover 1984). Alongside these artefact studies, aerial sorties continued to clarify the detail of previously photographed sites, and added new sites to County SMR records. The impact of aerial reconnaissance was particularly marked in the central Marches and resulted in the area being selected for closer assessment and examination by English Heritage (Whimster 1989).

The 1990s have seen important archaeological developments. In terms of British archaeology generally, the publication of Planning Policy Guidance: note number 16 (PPG 16) by the Department of the Environment effectively meant that the onus for rescue archaeology was transferred from central Government to local Planning Authorities. The document provides guidance for Planning Inquiry Inspectors on whether and under what circumstances a development proposal should be allowed proceed, and the result has been a growth in rescue archaeology and increased opportunity for archaeologists, as well as the provision of finance (normally by the developers) for fieldwork upon threatened sites.

In terms of the study area, the position and understanding of later prehistoric archaeology in the Welsh Marches benefited tremendously from the somewhat belated publication of several important sites which had been excavated as early as the 1960s, notably the Breiddin (Musson 1991), Beeston Castle (Ellis 1993), Bromfield (Stanford

1995) and Sharpstones Hill (Barker *et al* 1991). Unfortunately, others have still not been published, or at least not completely including Beckford, Crickley Hill (but see Dixon 1994) and Moel y Gaer.

The consequence of developments since the 1960s has been to substantially increase the evidence available for the first millennium BC, and to an extent, our understanding of (some) aspects of society during the period. Compared to the situation in southern England, the advances must still, however, be considered modest at best. If anything, this progress has served to highlight how little we actually know of a very complex picture, and how much remains to be investigated. Against this background several long-term research projects were initiated in the 1990s, aimed at directing resources towards the investigation of specific questions about the archaeology of various parts of the Welsh Marches. The Wroxeter Hinterlands Project (subsequently the Wroxeter Hinterlands Survey), based at the Birmingham University Field Archaeology Unit (BUFAU), is investigating the Roman city of Wroxeter and its surrounds through the application of a comprehensive battery of remote sensing techniques as well as more traditional fieldwalking and excavation. Although focusing on the post prehistoric period, one of the objectives of the Project is to study the process of Romanisation, or lack of Romanisation, in the vicinity of the Roman city. The results are as yet unpublished, but preliminary indications suggest that they will add significantly to our understanding of later prehistoric settlement in the north Shropshire region (e.g. Ellis *et al* 1994).

The North-west Wetlands Survey (NWWS), based at Lancaster University Archaeology Unit, encompassed a study area which extended from Cumbria in the north, south through Lancashire, Merseyside, Shropshire, Cheshire and Staffordshire. The prime aims of the Wetlands Survey were to collate and analyse existing work, and new survey on the wetland areas within north-west England. The results for Cheshire and Shropshire have both been published (Leah *et al* 1997; Leah *et al* 1998). The Survey was not restricted by a chronological timespan, and did not focus particularly on the first millennium BC. Nevertheless, the results do illustrate the potential for environmental studies in the region's wetlands, and emphasise how the late prehistoric inhabitants were attracted to wetland areas.

The Marches Uplands Survey, undertaken by the Hereford and Worcester County Archaeological Service on behalf of the National Monuments Record, involved rapid field survey (principally fieldwalking) of the uplands on the English side of the border region, and the collation and plotting of all relevant air photographs. The results of this Survey are not published, but are available for consultation at the NMR. As well as helping to 'fill in' gaps in the archaeology of the area, the computer plotting of aerial photographs permits clear and easy clear analysis of sites, whilst the decision to plot on A1 sheets at a scale of 1:10,000 enables consideration of the sites within the 'landscape' rather than in isolation.

In the south of the region numerous projects and investigations on either side of the Severn Estuary have been conducted over recent years under the auspices of the Severn Levels Committee for Archaeology (Bell 1992a, 1992b, 1993, 1995b). These have been diverse, both in nature, ranging from environmental analyses through to archaeological excavation, and in terms of the period covered. Those particularly relevant to the first millennium BC include the excavations at Goldcliff, Redwick and Chapel Tump. As well as revealing evidence for rectangular stake-built structures of a kind not previously identified anywhere in the British Isles (Chapter 9), both Goldcliff and Redwick, Gwent, have provided invaluable insight into the activities and occupation of marginal wetland areas, perhaps only seasonally occupied, in the later prehistoric period.

Such long-term projects, bringing modern archaeological techniques to the analysis of specific areas and to the answering of specific questions, add significantly to the evidence accumulated through the inevitably more haphazard and undirected activities of rescue archaeology, not least in that they provide a focus that is otherwise often lacking. However, they are directed and often emphasise a particular locality or aspect of evidence. There has been no comprehensive discussion of the Welsh Marches as a whole since Stanford's work (1980) and this was concerned with the archaeology of the area generally, from the Palaeolithic to the twentieth century, rather than the later prehistoric period *per se*. Indeed, although there have been various, and occasionally extended, discussions of the first millennium BC in the Marches, there has never been a comprehensive review of the full range of evidence now available.

CHAPTER 4

ENCLOSURE AND THE HILLFORT

DEFINITION AND INTERPRETATION

It has been established that the primary recorded evidence for first millennium BC activity in the Welsh Marches comprises sites possessing, in one form or another, an enclosing boundary (open sites certainly existed - Chapter 7 - but by their very nature are difficult to identify). The foremost sites in terms of upstanding earthworks and complexity are the 'hillforts'. The term 'hillfort' has become synonymous with the Iron Age in many regards, a fact attributable both to the tradition of archaeological focus upon southern England, where such sites are characteristic of much of the Iron Age landscape, and because the hillfort is the principal feature of the Iron Age, particularly in southern, south-western and northern Britain and the Welsh Marches (figure 4.1), to survive to the present day in visible form. However, 'hillfort' is an ambiguous word, ill-defined and perhaps unfortunate in the preconceptions it imposes. Initially adopted in the last century to refer to the presupposed military nature of the earthworks which surround the various large sites distributed across southern England, it has since become a commonly, but rarely critically, used term to describe a diverse range of sites. The only real constant is that they are all, completely or partially, enclosed and in this they differ little from many other Iron Age sites.

Enclosure - A Late Prehistoric Phenomenon

It has long been recognised that settlement enclosure is characteristic of the late Bronze Age and the Iron Age in Britain (e.g. Thomas 1997). Prior to this, present understanding suggests domestic sites were generally open and perhaps ephemeral in nature. Enclosure, where it has been shown to occur in earlier prehistoric periods, was primarily associated with bounding ritual and/or ceremonial monuments. Together with funerary monuments, these dominate the landscape of the Neolithic and early/middle Bronze Age period. Unsurprisingly then, the middle/late Bronze Age transition (*c.* 1500-1200 BC) has been viewed as particularly significant in British later prehistory, and an understanding of the function(s) of enclosure would seem to be critical in the study of first millennium BC society (c.f. Barrett *et al* 1991).

Traditionally the bounding of a site with palisade, wall or rampart has been interpreted primarily in functional and practical terms. Barriers were to keep things out and to protect what lay within. Hence hillforts, with their often formidable earthworks and complex entrances (pages 42-46), were interpreted as strongholds against hostile attack, as were smaller enclosures whose boundaries were in some instances noticeably disproportional to the area enclosed. The enclosure boundary also protected against wild animals, and on some sites may have been used in the control and corralling of domestic stock e.g. the *multiple enclosure forts* of south-west England and Wales (Fox 1953, 1961).

Within the last 15 years, attention has focused increasingly upon the symbolic nature of enclosure and its possible social implications (Bowden and McOmish 1987; Hill 1995b, 1995c; Hingley 1984, 1990a, 1990b). Rather than being solely functional, boundaries are argued to have been a means by which the identity and independence of an enclosure's inhabitants could be affirmed and reinforced, and as a medium through which status could be expressed. They were also a way of delimiting space, of not just secluding one social group from another, but of isolating the inside of the enclosure (domesticated), from the outside (natural/wild).

Evidence to support such arguments has been offered through detailed contextual analysis of boundary features, particularly in southern England. This has revealed complex sequences in the recutting and redefinition of ditches (Hill 1995c), and the ritual deposition of various items, ranging from human and animal remains to quern-stones and currency bars, beneath and within ramparts and in enclosure ditches (Bowden and McOmish 1987; Hill 1995c; Hingley 1990b). Entrances, by their very nature, are the most important points in any boundary and this is often emphasised in the treatment they received. They were frequently monumentally constructed beyond what would be required for effective defence, as at Maiden Castle, Dorset (figure 4.2). This exaggerated elaboration may have been to both impress and perhaps to accentuate the crossing of a liminal area between the outside of the enclosure and the inside. The ditch terminals to either side of many entrances often seem to have been a focus for 'special deposition', whilst there is an overriding tendency for entrances to be orientated towards the east/south-east. It is also possible that the burning of some hillfort entrances and ramparts was ritual in nature, rather than the result of a hostile attack, perhaps associated with concepts of renewal or abandonment (Bowden and McOmish 1987).

Though these ideas are current in the study of the Iron Age in Britain, it is also important to understand the dynamics which led to the widespread adoption of enclosure in the first place. It is somewhat surprising then, that investigation into possible causative factors has received much less attention since the 1960s to 1970s. Where explanations have been sought, they inevitably equate permanence of settlement (as illustrated by enclosure) with agricultural intensification and changing perceptions to property. Bradley (1972) argued the development of (particularly hillfort) enclosure was the result of population increase and consequent land shortage, leading first to a need to protect pastoral resources, and ultimately the success of sites advantageously located for an intensification of arable agriculture. Cunliffe (1990) has argued that enclosure may be a consequence of a shift from communal to private land ownership, which would have entailed significant reorganisation of the landscape indicative of a central authority. Thomas (1997) proposes the bounding of settlement sites was ultimately a consequence of agricultural intensification. This created a need to maintain land productivity over a prolonged period of time which was achieved through greater labour investment upon the land, probably, though not specifically argued by Thomas, investment spanning successive generations. The result was a stronger sense of land ownership by groups, leading to a fundamental change in kinship relations where an 'insider/outsider' mentality evolved, and where enclosure was a physical and symbolic means by which this concept could be reinforced. The motivations behind this are unclear, though it has been suggested that ownership of land in the first millennium BC replaced prestige bronze metalwork as the prime means of status display, at least in southern England (Thomas 1989).

Such discussion linking agricultural intensification with contemporary settlement patterns generally is hampered on the one hand by a lack of comprehensive and uniformly collected applicable data (i.e. botanical and faunal remains) from a range of sites over a range of periods, and on the other by a lack of uniformity in the evaluation of such data (c.f. Hambleton 1999). The main exception is a study of botanical remains from north-east England (Van der Veen 1992), where it is suggested that agricultural intensification may have actually preceded enclosure rather than vice versa. There is also a failure to consider the diversity of sites that were enclosed, or the different meanings/emphases which the boundaries around different types of site may have implied. With respect to hillforts, it is worth emphasising certain points which are possibly important in attempting to interpret the function(s) of their boundaries. Bearing in mind the work of Bowden and McOmish (1987), the *functional* military nature of some hillfort ramparts might perhaps be questioned; nevertheless, it would be unwise to disregard the martial argument completely. Analysis such as that conducted by Avery (1993) shows military influence in the design of many hillforts, whether in a functional sense or not. The ideology of martial power in a period where aggression is often thought to have been endemic may be relevant in terms of status and prestige.

The occurrence of ritual deposition associated with hillfort ramparts is paralleled with non-hillfort boundaries, suggesting that a symbolic function (the reinforcement of group independence, isolation, and the delimiting of 'inside' from 'outside') was maybe common to both. However, analysis of these practices hints at differences in both the quantity and the nature of objects deposited (Hill 1995c; Whimster 1981), indicating potentially important variations in the symbolic meaning of the enclosing boundary. It must also be significant that many hillfort ramparts enclose ritual monuments of earlier, and indeed in some cases, later periods (c.f. Hingley 1996). This strongly indicates continuity in the significance attached to specific areas. It may be that during the Iron Age, this significance was simply expressed through the construction of large earthworks. Or it might signify an attempt to emphasise or legitimise the function or importance of the hillfort by using boundaries to contain and isolate from the outside, an area that was historically significant.

When is a Hillfort not a Hillfort?

Alternatively, when *is* an enclosure a hillfort? Later prehistoric studies in Britain have suffered from the erroneous application of the term 'hillfort' to describe any number of surviving enclosed sites in upland positions, without any consideration of differences in the most evident of morphological traits: size. In this respect sites enclosing a fraction of a hectare have been compared in name with sites enclosing six, twenty even fifty or more hectares. This is partly the result of a legacy, that still persists into the present day, of uncritically employing interpretations and terminology derived from the Wessex evidence to understand the archaeology from other regions. There is also variation in the *siting* of hillforts, a fact most likely attributable to variations in local topography rather than function. The 'type'-hillfort site is readily recognised: the so-called *contour fort* (figure 4.3a), a site situated on the crest of a hill and entirely enclosed by one or more earthworks following the line of the contour. These tend to be characteristic of areas of relatively gentle topography such as the downlands of southern England. Aside from this, almost all other sites which have been classified 'hillfort' are variations of the *promontory* type and are characteristic of areas where the local geography comprises more sharply defined slopes. The true promontory fort (figure 4.3b) is protected by artificial earthworks on one side only where the approach is relatively easy, the remaining sides relying upon natural steepness as a defence (e.g. the coastal 'cliff castles' of Cornwall and south-west Wales, and inland examples such as Poston, Hereford and Worcester, and Philpots Camp, Sussex). Variations result from more than one side of the hillfort being accessible and therefore meriting artificial defence (figure 4.3c-e). Less credibly, sites located in hillslope positions, and even valley bottom positions (figure 4.3f and g) have also been described as 'hillforts' in the past.

What then should be the criteria against which sites in the present study are compared in assessing whether they belong to the 'hillfort' class of monument or not? Is this indeed, a useful exercise at all? It is difficult to base any decision on comparison with other parts of the country, because the definition varies from region to region. Many distribution maps (e.g. Avery 1976, figures 1 and 2; Stanford 1974, figure 2), as well as the most comprehensive available index of British hillforts (Hogg 1979) include the multitude of small enclosures in south-west England (rounds) and south-west Wales (raths) as hillforts. These sites are overwhelmingly under 1 ha in enclosed area, often univallate and situated in defensively weak positions. Whether status distinctions existed between them or not, the overall impression is that they were domestic settlements of nuclear or extended households. *Multiple enclosure forts* (Fox 1953, 1961) are also often regarded as characteristic of these two regions. They possess multivallate, wide-spaced ramparts and again their positioning is predominantly defensively weak (hillslopes). What is more, the central enclosure of such site - where speculation, occasionally supported by excavated evidence (e.g. Killibury), has suggested the focus of domestic activity concentrated - is again rarely more than one hectare in extent. It has been proposed that these were the settlements of, possibly high status, domestic households whose wealth was based upon livestock (Quinnell 1986, 117).

The majority of the sites described as hillforts in north-east England and south-east Scotland are similarly small, if at times enclosed by impressive multivallate earthworks. Many were positioned in defensive locations, though this was certainly not a universal rule and a good many were situated in positions that offered poor natural defensive potential. In all likelihood they again represent small domestic farmsteads and it is questionable whether they fulfilled any function particularly relevant to the organisation of society beyond the needs of the immediate household (Ferrell 1997, 230).

Elsewhere across Britain, such small 'hillforts' are comparatively rare, even after taking account of the fact that the survival pattern is biased towards upland areas which are marginal to intensive modern agriculture. The unavoidable conclusion is that differences in topography have resulted in differences in the classification of hillforts, or perhaps more accurately, differences in the understanding and interpretation of the term 'hillfort'. Due to local geography, many small farmsteads in south-west and northern Britain were situated on high ground and hence have been regarded as defended sites, whilst in southern and eastern Britain small domestic settlements tend to be found in lower-lying areas. Of course, when there is a real concentration of large enclosures in an area, in Wessex, the Sussex Downs and parts of the Welsh Marches, classing sites which *are* evidently farmsteads with sites very obviously *not* farmsteads becomes all the more implausible.

Consequently, it is necessary to define a basic division between single or extended household settlements, and sites whose enclosed area suggests something different in terms of either population size or function. As is evident from the above discussion, most enclosures regarded as domestic farmsteads are under 1 ha in extent, therefore the conventional Ordnance Survey limit of <1.2 ha would seem an appropriate range to adopt. This group will be further divided to differentiate between enclosures generally and *defended enclosures*, which, by nature of their positioning and/or artificial earthworks, imply a deliberate consideration for defence above the norm. The term 'hillfort', therefore, should be reserved for those sites whose enclosed area is >1.2 ha, which were situated in a prominent elevated position, apparently with a concern for defence. Excluded from the category are other large, but low-lying fortified sites that have previously been referred to as hillforts, such as Salmonsbury, Gloucestershire, a good many of which appear to be late Iron Age in date and therefore to have post-dated the main period of hillfort activity (see below).

As it stands, this classification remains inadequate because it fails to take any real account of the eclectic range of sites that still can be termed hillfort. Due to the fact that the majority of potential 'hillfort' sites remain unexcavated, further sub-categorisation must necessarily rely upon data that has been collated through non-intrusive methods and analysis. This data must also be reasonably comprehensively available across Britain as a whole, so that as many sites as possible can be classified and compared. The most useful classes of information available within these confines are vallation - whether a site is univallate, bivallate or multivallate (page 45) - and size in terms of internal area (though see page 61 for potential difficulties with both these). Figures 4.4a and 4.4b illustrate a plot of hillforts (%) against area enclosed (ha) for sites from the Welsh Marches and the rest of Britain. Due to the fact that the vast majority of sites are under 6 ha in extent, the standard Ordnance Survey size range of 1.2 – 6 ha will be subdivided into those hillforts between 1.2 – 3 ha (c.f. Cunliffe 1991a, Chapter 5) and those between 3 – 6 ha. Further size categories will include 6 - 20 ha and >20 ha. One further element of classification will be to distinguish between single enclosure and multi-enclosure sites.

Interpretations of 'Hillfort Societies'

The hillfort has been the focus of attention in late prehistoric archaeology throughout the last century. However, the question of hillfort *society* has only comparatively recently received the attention it merits. The change in emphasis has been largely a consequence of large-scale hillfort excavations in southern England, such as Danebury, Hampshire and Maiden Castle, Dorset, which have enabled us to explore the nature of hillfort development and function - and by implication the relationship between hillforts and non-hillfort settlements - for the first time. One inevitable bias to arise from this is the consolidation of the existing emphasis upon Wessex: interpretations of 'hillfort-society' are almost all derived from models based upon the Wessex evidence. Nevertheless, any attempt to understand a social pattern in which hillforts play a role must entail some consideration, though not necessarily wholesale adoption, of the theories developed for central southern England.

Central places and central functions

Discussion over the past quarter of a century has been dominated by the interpretation of hillforts as sites occupying the highest tier of the Iron Age settlement and social hierarchy. The principal advocate of this argument is Cunliffe, who has combined the evidence from extensive excavations conducted at both Danebury, and non-hillfort settlements within the hillfort's hinterland (Cunliffe 1984a, 1991b, 1994b, 1995), with evidence obtained from other hillforts in the surrounding region to propose a model of development spanning almost the entire first millennium BC (Cunliffe 1984a, 1990, 1991b, 1994a, 1995). Cunliffe's model begins sometime between *c.* 1000 - 800 BC, with the re-organisation of the landscape through the construction of linear ditches, and the founding of enclosures either in association with these linears (e.g. Danebury), or on hilltops (e.g. Balksbury). In the most part, this chronology is theoretical and unsupported (the Danebury carbon-14 chronology only starts in the fifth century BC). Where dating evidence does exist, it seems to suggest a late Bronze Age/early Iron Age for the appearance of these early hilltop enclosures. At Balksbury Camp, for example, the first enclosure is dated by the occurrence of plain/early decorated pottery, perhaps dating to the late ninth/eighth centuries BC).

Internal activity on these early sites appears to have been limited in nature. At Balksbury, excavated evidence was restricted to a series of 4-posters and a number of miscellaneous post holes, pits and possible hearths (Wainwright and Davies 1995, 13-15), and at Danebury it has been proposed that the early hilltop enclosure contained a number of 4-post structures (Cunliffe and Poole 1991, 234). This has been taken to suggest that these early enclosures were associated with communal stock management (Cunliffe 1990, 333), although supporting evidence is at present limited. The late Bronze Age/early Iron Age transition (*c.* 800 - 550 BC) seems to have represented a period of major change in which enclosures, some of which it is hypothesised may have been palisaded (Cunliffe 1990, 333), were constructed at specific points in the landscape associated with the pre-existing linear boundary systems (Cunliffe 1990, 333). Through the early-middle Iron Age these were enclosed by vertical fronted and then dump ramparts (see pages 43-45), though by the fourth/third century BC it is suggested that many had been abandoned to leave just an evenly spaced few dominating the landscape (Cunliffe 1990, 334). It is these latter, characterised by evidence for intense activity, that represent the so-called Iron Age 'developed hillfort' indicative of Cunliffe's redistributing chiefdom society (Cunliffe 1984a, 552). The specific function(s) of these sites as a whole, are expounded by Cunliffe through reference to evolutionary theory, combined with reference to later Celtic history, combined with interpretations reached through the analysis of the Danebury evidence (Cunliffe 1994a).

Economically, it is argued that the developed hillforts possessed a grain storage capacity, in the form of pits and post structures (see pages 49 and 50), beyond both the needs of the site's inhabitants and their ability to produce. This, it is suggested, indicates a central storage function with agricultural surplus (tribute?) being brought in from the surrounding hinterland. The surplus would have been both redistributed to 'clients' including resident craftsmen (thereby allowing specialisation to occur and establishing the hillfort as a centre of production), and used in exchange for products not available within the immediate area (thereby establishing the hillfort as a focus for exchange).

Politically, hillforts may have been the residence of an elite or 'king', or at least have symbolically represented an elite power. Evidence for this is limited and conjectural, largely resting upon the assumption that the interior organisation of

Danebury (in the form of different structural features separated into distinct zones and regular lines of 4-posters), as well as the monumental earthworks with which many hillforts were furnished, implies the presence of a powerful, controlling presence.

Ritually, hillforts appear to have been sites upon which the deliberate deposition of certain groups of artefacts occurred (bearing in mind that our knowledge of ritual deposition is biased towards such sites in that they have attracted archaeological attention, whereas other areas of the wider landscape have not). In itself this is not significant and is a feature of the Iron Age in central southern England and Britain as a whole. Of clearer significance, according to Cunliffe, are the rectilinear slot buildings excavated in Danebury which it is suggested represent 'shrines', despite the lack of any associated 'ritual' deposits. These structures, together with possible 'ritual' buildings identified on other hillforts (e.g. Cadbury Castle, Somerset) are used to argue that hillforts served as religious foci for Iron Age society, although attention should be drawn to the problems inherent in the identification and classification of Iron Age ritual or religious structures (c.f. Downes 1997).

Though remaining the most widely accepted model for hillfort society in the first millennium BC, almost all aspects of Cunliffe's model have come under attack in recent years. These criticisms serve both to emphasise the ambiguous nature of much of the evidence cited to support his model (e.g. Hill 1995b; Stopford 1987), and to underline the dangers of using processualist evolutionary theories, and historical Celtic sources to explain the evidence (Hill 1995b). To this must be added the danger of transposing models developed from the evidence of one hillfort (Danebury) onto unexcavated hillforts in the same and adjacent regions, and also regions further away (e.g. Cunliffe 1991a, 357-364).

A community based society

A further model for hillfort society in the Dorset area of Wessex has emerged as a result of the most recent excavations conducted at Maiden Castle, Dorset, combined (importantly) with survey and excavation in the surrounding area (Sharples 1991a, 1991b). The presence of a redistributing elite is rejected (due to the absence of any indication of hierarchy in the archaeological assemblages between sites) in favour of a community-based society competing for agricultural resources. It is only the hillforts themselves, a form of site that constitutes a break from the previous and continuing occupation of non-hillfort settlements, which stand out. The origin of the hillfort in the early Iron Age is argued to have resulted from the introduction of iron into the area, causing a disruption in the established means of achieving status through the control of the circulation and production of prestige goods. This void was filled by communities attempting to control a diversity of agricultural resources, which led to aggressive competition between communities and the spread of hillforts upon the boundaries of agricultural zones. Some communities, such as that of Maiden Castle, were successful, increasing in power and size and absorbing nearby settlements into the hillfort - as indicated both by the apparent emptying of the landscape surrounding Maiden Castle in this period, and the organisation of houses within the hillfort into distinct clusters which reflect the previous individual farmsteads (Sharples 1991a). Others were not and may have been abandoned (e.g. Poundbury, Dorset). The expanding size and elaboration of Maiden Castle's earthworks are argued to have been both a reflection of the community size and resources, and an ostentatious expression of its success and status. The construction and maintenance of the defences is suggested to have been the result of seasonal activity involving a large proportion of the community and extending over several centuries, and not, as commonly assumed, a series of isolated building phases. The large storage capacity evident within hillforts in the form of pits and 4-posters is therefore regarded as representing the stockpiling of grain in order to feed the rampart builders. The grain may have been obtained by levying dependent settlements, thus forcing them to contribute labour in order to feed themselves, and as a result firmly integrating them into the community as a whole (although this is a purely conjectural argument). This would imply a degree of stratification within the community. However, the archaeological assemblages do not reflect any such hierarchy, thereby indicating either Sharples' (1991a) suggestion that social control was masked behind attempts to emphasise the community, or that social hierarchy was exhibited in non-archaeologically visible ways, or that it did not exist.

The continual elaboration of Maiden Castle's defences came to an end around the second century BC, roughly coinciding with increased density and organisation of occupation and the emergence of distinctive regional pottery styles. Sharples suggests that this can be interpreted as reflecting a fundamental change in the mechanisms by which society reproduced itself. Warfare and competition was no longer conducted on an inter-community scale and may have been transferred to an inter-regional level. The grain used to support the rampart workers would have been freed and perhaps used to develop specialised, regional industries (e.g. metalworking at Hengistbury Head, Dorset, glassworking at Meare, Somerset, pottery manufacture at Poole Harbour, Dorset). This is offered as a possible reason by Sharples for the re-organisation of settlement within hillforts into functional zones. The hypothesis can be questioned to an extent due to recent research into the so-called 'Durotrigian Ware', which suggests that there was present neither the uniformity nor standardisation often argued (Brown 1997), thus possibly negating it as evidence for increasing 'regionalisation'.

The late Iron Age saw further developments, due to the establishment of trade networks, which allowed the individual to express status in ways other than through traditional community based control of agricultural reproduction (e.g. coinage, burial). As a consequence hillforts were abandoned, or, as in the case of Maiden Castle where extensive metalworking has been identified in the eastern entrance, changed in function.

Egalitarian and independent

Hill takes a fundamentally different approach from Cunliffe's in proposing an alternative model for Iron Age Wessex society by examining the basic building blocks of society - the non-hillfort settlements - and how they interacted (a 'bottom-up' approach) as opposed to interpreting society through analysing the largest enclosures - hillforts (a 'top-bottom' approach) (Hill 1995b). This is achieved through exploring how the prevailing mode of production infiltrated and influenced the social relations between people in the Iron Age of central southern England. It is suggested that evidence from excavation does not support the notion of an hierarchical stratified society with hillforts fulfilling a pivotal role as economic, political and religious foci. Simple numerical comparisons of structures and artefacts reveal that Danebury does not, proportionately, exhibit significant differences in terms of storage capacity, craft production, artefact exchange or status compared to contemporary non-hillfort settlements such as Gussage All Saints, Dorset. Rather, the ubiquitous occurrence for a wide variety of evidence is given to indicate that the household was the focus of economic activity in the Iron Age, and largely self-sufficient (atomised relations of production). This self-sufficiency is translated by Hill into a sense of idealised 'independence' between settlements, expressed through boundary enclosure which visibly and symbolically served to isolate sites (as reflected by the strict east/south-east orientation and elaborate nature of house and enclosure entrances, and the special deposits placed in earthwork boundaries). The society is thus viewed as essentially egalitarian and lacking the strong bonds often envisaged in social structures dominated by a lineage-based clan or tribe structure. Affiliations with other settlements are argued to have been based upon locality, rather than kinship. Such affiliations would have been necessary in certain circumstances: the management of communal land resources, defence and biological reproduction (Hill 1995b). A possible function of (some) hillforts was to serve as seasonal meeting places during certain times of the year, when individual households from an area could address matters that were of concern to the wider community. Hillforts are consequently seen as complementing society rather than dominating it.

Hill's model adopts many of the ideas current in Iron Age archaeology to provide an alternative to Cunliffe's picture of an hierarchical chiefdom. However, some details of the archaeological record are overlooked in generalising about the self-sufficient egalitarian nature of society. Particularly, there do seem to be instances of specialised activity on some sites which would contradict the impression of economic independence, most notably perhaps the mould fragments for up to 50 horse harnesses found in pit 209 at Gussage All Saints. The production of quern stones, shale and salt also, even if, as argued by Hill (1995b), part time in nature, would suggest a certain amount of inter-dependence in the production and acquirement of particular products. Additionally, as Hill himself points out, different hillforts are likely to have served different functions at different times, and different social structures may have existed between geographically close areas (Hill 1995b; c.f. also Barrett *et al* 1991). Comparing sites such as Danebury, to sites such as Gussage which is situated outside the hillfort's hinterland therefore, may be comparing sites from differing localised social systems. The results from the *Danebury Environs Project* should provide a more valid basis for comparison of sites and hence interpretation of the social organisation of which the hillfort was a part (indeed, initial impressions from the Danebury Environs Project are more supporting of a model like Sharples' for Maiden Castle (1991a, 1991b), rather than Hill's, in that it indicates a lack of occupied sites in Danebury's hinterland when the hillfort was at its most massive in the middle Iron Age).

Society in crisis

The preceding interpretations of hillfort society in southern England are united by their authors' consideration of excavated evidence to construct their hypotheses. An alternative is to develop a series of theoretical models against which the archaeological data can be tested. It is the deductive method of analysing hillfort society that Collis adopts in his 'crisis' model (Collis 1981). In this, he proposes applying spatial analysis techniques, such as thiessen polygons, to specific morphological groups of hillfort in an attempt to make sense of a site record confused by over a millennium of development, during which time different hillforts would have been constructed, occupied and abandoned at different times. To maintain objectivity in addressing certain fundamental questions (such as the nature of the population resident in a hillfort) he suggests that theoretical models should be set up which can then be compared with the excavated evidence. He also argues that periods of hillfort construction, reconstruction and destruction, of use and disuse, represent breaks or 'crises' in the settlement system as opposed to forming a single step in a continuous process of social evolution. Three primary phases are identified: pre-hillfort society (pre-crisis), hillfort society (crisis) and post-hillfort society (post-crisis). In order to be able to understand each of these Collis again suggests setting up a series of hypothetical models which can then be tested against the archaeological dataset.

This approach is useful in attempting to analyse regions in which there has been only limited archaeological excavation, as is the case in the Welsh Marches, although there must be enough data available to be able to justify the selection of one theoretical model over another. The application of Thiessen polygons and other spatial analyses to sites which have not been firmly dated, however, is problematical, even if restricted to hillforts of apparently similar morphological character. Excavation has shown that individual hillfort histories are highly complex, often involving frequent reconstruction and refurbishment, expansion and contraction. It cannot therefore be assumed that superficially similar sites were in use at the same time, nor can it be assumed they served similar functions. Also, Thiessen polygons define territories. To presume that all hillforts represent territorial sites may in itself be inaccurate. A further disadvantage to the approach relates to the large number of possible theoretical situations that can be imagined to explain the population and function of a hillfort at the pre-crisis, crisis, and post-crisis stages. The consideration of an adequate number of models to justify a claim to objectivity may make the approach too unwieldy and time-consuming. In addition, subsequent determination of whether the excavation evidence agrees or disagrees with any particular model, is itself a subjective process.

HILLFORT ARCHITECTURE

Earthworks

Traditionally, hillfort excavation has tended to focus upon the sectioning of ramparts in order to identify their method of construction. Even though trenching suffers numerous disadvantages compared to area excavation (Guilbert 1975a), this has allowed a fair understanding of rampart typology and chronology to be achieved. The various building techniques employed (c.f. Avery 1993, 6-64; Cunliffe 1991a, 312-329) can be divided into two broad groups: those that present a vertical outer face ('wall-and-fill ramparts') and those that present a sloping outer face (dump or glacis ramparts).

Vertical-faced earthworks

Palisades

The palisade form of boundary will be discussed here, even though it is not a rampart as such, because it presents a vertical outer face. Also, despite the fact that sites in hillfort positions which were surrounded by palisades are often labelled enclosures or hilltop enclosures, there is increasing evidence to suggest that many later hillforts proper were preceded by palisaded enclosure sites. This has been illustrated in various parts of Britain e.g. Blewburton Hill (Oxfordshire), Bindon Hill (Dorset) Woodbury Castle (Devon), Moel y Gaer (Clwyd), Castle Ditches (Cheshire), Fenton Hill (Northumberland) and Hownam Rings (Borders) from which the term the 'Hownam Sequence' is derived. The Hownam sequence, though subject to various criticisms (e.g. Hill 1982) and proved by subsequent excavations to be overly simplistic, is still an important model for the development of sites in northern Britain and broadly reflects the sequence believed to have existed in many parts of southern Britain also. It states that unenclosed settlement preceded palisaded settlement, which preceded settlements possessing univallate ramparts, which preceded settlements possessing multivallate ramparts.

In no instance has it been shown that a palisade possessed an accompanying ditch, although there is no reason why they should not have. Palisade posts themselves were set either in individual holes or in a continuous trench. On some sites, for example Moel y Gaer, Rhosemor (Guilbert 1975a), there is evidence to suggest a small bank covered the lower part of the posts, creating a so-called stockaded bank, or embanked palisade. In northern Britain a further variation was the double palisade where two concentric fence-like structures existed simultaneously (e.g. Hayhope Knowe).

The chronological range of palisades is generally believed to lie within the first half of the first millennium BC. Absolute dates are few in number, and of those that exist many are only indirectly associated with the palisade structure itself. However, it is possible that in some regions palisades were being constructed as early as the ninth/eighth century BC.

Vertical-faced ramparts

Vertical-faced ramparts, that is substantial earthwork banks retained behind a vertical outer face, are regarded as being later in date than palisades although there need not have been any sudden change from palisades to ramparts, nor should it be assumed that all rampart sites possessed a palisaded enclosure precedent. Despite the variations of construction in this type of rampart, two broad groups can be identified: those where upright timbering was of prime importance in the retaining of the earthwork fill, and those where stone was the fundamental material used (Avery 1993). These contrasting construction methods seem to reflect the building potential of locally available stone. Timber-dominated ramparts, found mostly in chalkland areas, comprise ramparts of timber-framed type (also known as box ramparts) and those of timber-walled type. Timber-framed ramparts are composed of two lines of parallel postholes, with front and rear pairs secured together by transverse timbers. The fill of the rampart was retained within the body of this 'box' structure as at, for example, Grimthorpe (East Yorkshire), Ivinghoe Beacon (Buckinghamshire) and Hollingbury (Sussex). Timber-walled ramparts on the other hand were designed to allow a front timber wall retain most of the weight of the rampart, although there could still be a rear row of uprights present. The individual posts in this type of construction were more likely to have been set in a continuous trench rather than individual post holes, and seem to have been more closely spaced than was generally the case with timber-framed ramparts (Avery 1993, 33). Excavated examples include Poundbury (Dorset) and Cissbury (Sussex). Whichever technique was employed the height of the structure would have rarely exceeded 2 m.

The ditches which can be shown to have accompanied both timber-framed and timber-walled ramparts possessed a similar range of dimensions, being generally between 2 and 4.5 m deep and between 3 and 8 m wide at ground level. Two forms seem to predominate: those v-shaped in section and those with steep sides and wide flat bottoms, with the inner lip in both cases being separated from the rampart face by a berm the width of which could vary though it was rarely under 2 m (Avery 1993, 29, 31 and 34).

Ramparts where dry-stone walling was used to retain the fill of the earthwork show a distribution that emphasises areas where good building stone was locally available (Avery 1993, 26). Some may also have utilised timber to reinforce the rampart structure, either in upright or, as was the case at Crickley Hill, horizontal form. There are a number of stone-retained ramparts which were not associated with a ditch, mostly to be found in areas of west Wales. It has been proposed that the these structures were higher than those which did possess a ditch, perhaps reaching from between 3.5 and 4.5 m as opposed to around 2 to 2.5 m high (Avery 1993, 47). Where ditches were present, their dimensions tended to be between 1.5 and 3 m deep and between 2 and 7 m wide at ground level. In section the most common form of ditch was either v-shaped, or steep-sided with a wide flat bottom and berms ranged from 1.5 to 5 m in width (Avery 1993, 38-39).

The chronological range of timber and stone vertical faced ramparts is widely assumed to be restricted to the early and early/middle Iron Age, although later examples have been identified such as the third century stone rampart at the Breiddin (Musson 1991), and the late Iron Age, stone-faced dump rampart at Stanwick, North Yorkshire (Haselgrove *et al* 1990).

Dump (*glacis*) ramparts

The dump rampart is distinguished from the vertical-faced rampart by the absence of a front retaining wall. Instead the outer face of the rampart forms a continuous slope with the inner side of the ditch, thus excluding the presence of a berm. The occurrence of dump ramparts is generally accepted as being a middle Iron Age phenomenon. Consequently, they would appear to succeed vertical-faced ramparts. Although it would be premature to suggest that there was any widespread and instantaneous replacement, sites where the dump form of rampart did supersede the vertical-faced form include Dinorben, Danebury, Poundbury, Maiden Castle and Winklebury. There have been attempts to divide this rampart group into two sub-groups (Avery 1993, 51-61). The first corresponds to low, asymmetrical dumps (the rampart between 1 and 3 m in height), the second to high symmetrical dumps (the rampart between approximately 3.1 and 7 m in height). In both cases the pre-dominant ditch profile was the v-shape, while its dimensions tended to range from between around 2 m and 6 m in depth and between approximately 6 and 15 m in width at ground level. The low dump is considered earlier and to have had a somewhat wider distribution than the high dump (Avery 1993, 51-61).

Vallation

The number of ramparts with which a hillfort was furnished also varies widely. Quantification of a site's ramparts is not without its difficulties. To begin with there are differing views on whether a count of the number of banks or the number of ditches is more valid. The preferred method here is to consider the number of ditches as this will exclude a count of counterscarp banks (the upcast resulting from the digging and cleaning of an outer ditch) which are not regarded as being true ramparts as such. There is also the problem of chronologically distinct ramparts to be taken into account. A site may initially have been enclosed by a single earthwork, but subsequently have had others added (c.f. Hingley 1992). Such a site will therefore essentially represent two (or more) hillforts (of perhaps different sizes). The question of multivallation or multi-phase has been raised by Hingley (1992) with respect to Scotland, and it is a point which needs to be borne in mind. For example, at Broxmouth, there appears to have never been more than two of the five circuits of earthwork in use at any one time (Hill, P. 1982). There are in fact several examples from the Marches where the non-concentricity of site earthworks (e.g. Gaer Fawr) and/or excavation (e.g. Croft Ambrey, Ffridd Faldwyn, Bredon Hill), seem to imply the possibility of multi-phase construction. If later ramparts represent a contraction in the utilised area of the site or if the earlier rampart was slighted/ditch infilled, it may even be that true bi/multivallation was never intended, but rather successive phases of univallation. Unfortunately, the development details are difficult to identify and impossible to prove without excavation (and indeed, often with excavation), and sites may be presently classified as possessing more than one rampart when in fact they should not be.

As a general rule bivallation and multivallation were more commonly associated with sites possessing dump ramparts and were therefore largely a development of the middle Iron Age or later. However, this is not to exclude those vertical-faced hillforts which have been shown to be bivallate/multivallate nor those hillforts with dump ramparts which have been shown to be univallate.

Entrances

The importance of hillfort entrance(s) is reflected by the considerable amount of attention with which they were frequently treated. At its most basic, the entrance takes the form of a simple gap in the circuit of a rampart, across which a gate may have been hung. Examples are widespread across the country and were often associated with vertical-faced ramparts. The approach to the gate could sometimes be lengthened by increasing the width of the rampart terminals to produce a 'club' and setting the gate at the inner end of this enlarged earthwork. On many sites the gap is likely to have been the earliest design of entrance subsequently modified by more complex arrangements, as has been shown to be the case at Danebury and Hollingbury.

Around the mid first millennium BC, and mostly in association with dump ramparts, evidence for a change in entrance architecture becomes apparent. This involved an elaboration of the artificial approach to the gate itself, primarily involving the gate being set back within artificial earthworks, thus creating a 'passage' that had be passed through before access to the interior of the hillfort could be gained. The most common method by which this was achieved was to inturn the rampart terminals back into the hillfort and to set the gate at the inner end of the corridor that was formed. Such an arrangement can be found over a wide geographical area, though predominating in southern England and the Welsh Marches. The inturned rampart ends were revetted to create a vertical face on either side of the entrance passage and, as appears to have been the case with vertical-faced ramparts, the retaining material used largely depended upon local geology.

Variations of the same theme include out-turning the rampart terminals away from the interior, inturning one terminal and out-turning the other, and also continuing the line of one rampart so as to create an overlap. Such arrangements appear to have been less common than the 'inturned' design, but served a similar function in that a corridor was created between artificial earthworks which would have to be passed through in order to gain access into the hillfort. On some sites the development of long entrance passages also saw the appearance of double gates, one at the inner end of the passage, and one nearer the outer.

A development of the later middle Iron Age in some areas seems to have been the construction of outworks. These comprise additional banks and ditches around the entrance, independent of or attached/continuous with the hillfort ramparts proper. They provided added complexity to the hillfort entrance, extending again the approach through artificial earthworks. Some arrangements simply serve to provide an elongated approach corridor by flanking the entrance (as for example at Hod and Hambledon Hill). Others seem to have been specifically designed to both conceal the gate and to make approach convoluted and indirect. One of the most impressive examples of this is the western entrance of Maiden Castle in Dorset.

Two further components of hillfort entrances worth mentioning are the 'guardroom' and the 'bridge'. The former comprise rectangular or circular chambers recessed either immediately behind the ramparts or at the end of an inturned entrance passage. They occur most often in pairs, one on either side of the entrance, and appear to have had a fairly widespread distribution across southern England, the Marches and north Wales. At Croft Ambrey, Hereford and Worcester, a radiocarbon date obtained from the burnt timbers of a guardroom structure at the south-west entrance calibrates to around the fifth century BC. The function of such chambers is difficult to assess. The term 'guardroom' conjures martial preconceptions but their usefulness in an actual assault is doubtful. However, they were obviously associated with passage from the outside to the inside of the hillfort and/or vice versa, and their purpose may have involved the enforcement of rules relating to who or what could enter or exit. Alternative explanations might perhaps include the collection of some form of tribute or toll, or, more abstractly, they may have fulfilled some role in a ritual or tradition relating to the departure from, and the arrival to, the hillfort.

Post holes in the entrance passage of a hillfort not associated with the gate or with any revetment of the rampart terminals, are often interpreted as providing evidence for some kind of structure overlooking and spanning the entrance passage. It is impossible to confirm or refute this hypothesis. Sites on which bridges are thought to have been present are again largely to be found in the main hillfort-dominated area of southern England and the Welsh Marches (e.g. Midsummer Hill, Bredon Hill and Danebury). Dating is somewhat problematical. Avery suggests bridges were predominantly associated with hillforts possessing vertical-faced ramparts and generally not dump ramparts, which would suggest an early to middle Iron Age date. However, in southern England bridges are apparently found with long elongated entrance passages dated to the third/second century BC, while at Midsummer Hill an example is radiocarbon dated to around the second/first century BC. The function of such structures is again often linked with defence of the gateway. However, all that can be said with any surety is that they were associated with passage into/out of the hillfort. This may reflect defensive strategy, or alternatively simply an aid to the regulation of who or what entered/exited the site. It is also worth bearing in mind that the evidence need not imply a bridge at all, a feasible alternative perhaps being a watchtower.

Interior

Surface survey of a hillfort's interior will more often than not produce only limited, if any, evidence for archaeological features relating to the first millennium BC. This is a reflection of both the insubstantial nature of such features, and in many instances damage caused to the site by subsequent activity, particularly ploughing and quarrying. Where evidence does exist it may include a hollow running behind the rampart which is the result of the quarrying of material for that rampart, or evidence relating to possible hut sites. This latter can take the form of footings for round houses if constructed from stone, artificial 'hut platforms' scarped into a hillslope or 'hut depressions'. Geophysical survey can yield results, particularly of substantial structures such as storage pits or, in some circumstances, house sites or heavily utilised areas (as shown by English Heritage's geophysical survey of southern England hillforts). However, only excavation can realistically provide insight into the range of structures which may have existed within any particular hillfort. Foremost in shedding light upon such evidence are the excavations of sites in Wessex, for example Maiden Castle (Sharples 1991a, 1991b; Wheeler 1943) and Danebury (Cunliffe 1984a, 1991b, 1995). It has become apparent from such excavations that the type of structures which existed within hillforts, are largely analogous to those which are found on contemporary non-hillfort settlements. It has also been shown that the nature and intensity of activity can vary both between hillforts, and upon any one hillfort through time. It should not be assumed, therefore, that all hillforts served the same function(s), or that one particular hillfort fulfilled the same function(s) throughout its life

Rectilinear post structures

There is now widespread evidence from hillforts for distinct groupings of four (and sometimes six or more) large postholes arranged in rectilinear shapes (see Chapter 9). The function(s) of such settings are still not entirely understood though it is generally assumed that they represent raised structures designed for storage, particularly of (consumption?) grain (Gent 1983), but feasibly for other goods also. Alternative interpretations have included funerary/excarnation platforms (Ellison and Drewett 1971), huts for domestic occupation (Stanford 1972) and watchtowers (see Poole 1984, 92-95) for a general discussion of the possible function of rectilinear post structures). Though identified on both hillfort and non-hillfort sites, the numbers present appear to be disproportionately large on some hillforts at least, while there is also evidence from several hillforts to suggest a degree of organisation in layout which has not yet been recognised on non-hillforts, e.g. Danebury (Cunliffe 1984a, 1991), Croft Ambrey (Stanford 1974) and Midsummer Hill (Stanford 1981).

Round structures

The presence of round structures has been recognised on hillforts across most of Britain both from surface survey, and excavation. Indeed, the roundhouse has been long regarded as one of the most characteristic features of later prehistoric Britain (e.g. Hodson 1964). However, there is considerable variety in construction technique and size (see Chapter 9), and although almost always assumed to represent sites of domestic occupation, it is possible that they performed a range of other purposes also, including functioning as guardrooms (c.f. Guilbert 1981a, 106), work huts or animal pens. They often seem to have been situated within the sheltered rampart quarry hollows of hillforts, although to what extent this reflects functional zoning as opposed to the biases of preservation is open to question.

Other structures

The dominance of rectilinear post structures and round houses in the first millennium BC archaeological structural record cannot be doubted, however the (unspoken) assumption that these were the sole form of building is evidently wrong. There is increasing evidence for the existence of a range of other, apparently less common walled constructions also. These will be fully analysed in the light of the Welsh Marches evidence (Chapter 9), but they include slots or trenches in rectilinear plan (e.g. Danebury, Midsummer Hill), stone spreads defining walls of apparent sill construction (Moel y Gaer), and lines of post holes representing rectangular 'aisled' buildings (Crickley Hill).

Miscellaneous features

As well as revealing recognisable structures, excavation on almost any first millennium BC site will uncover a large number of post and stake holes which do not fit readily into any recognisable building form. The functions of such features are not understood, although pairs of posts are often interpreted as representing racks for the drying of skins and grain. It is possible that some at least represent the remains of structures otherwise destroyed by subsequent building or ploughing (c.f. Guilbert 1975a, 214). This could include certain round houses which were constructed with porches as defined by two post holes outside the line of the round house wall (see Chapter 9). These were often set more deeply than the other structural timbers of the house and consequently would be more likely to survive subsequent damage.

Other features identified in excavation include large depressions, often ambiguously labelled 'working hollows' (e.g. Bersu 1940), and perhaps associated with activities such as the threshing of grain. Alternatively they may simply represent areas where the subsoil has been quarried away. Gullies are frequently identified, perhaps signifying fences and/or internal partitioning. Hearths also, not lying within a definable building, are a feature of many hillfort and non-hillfort sites, and could represent either domestic or industrial activity.

Storage pits

Storage pits are a feature of some hillfort and non-hillfort sites, especially across southern England and areas of chalkland where they can exceed 2 m in depth. Cylindrical, conical and square varieties have been excavated, but the most frequently found type is circular in plan with either vertical or more commonly undercut sides where the base of the pit is wider than the top (the 'beehive pit'). This latter kind is widely believed to have been for the storage of (seed?) grain, because their shape would allow an airtight seal to be made more readily than a pit with a broader opening. Other goods may have been stored in pits also, including, perhaps, water, as relatively few hillforts possess a water source within their earthworks. As with 4-posters, there is evidence to suggest that some hillforts possessed a disproportionately large number of storage pits compared to non-hillfort sites.

Roads

Some hillforts possessed roads or tracks that passed through the interior of the enclosure. Perhaps the clearest examples identified so far (due to the extensive area excavated), are at Danebury where up to six have been proposed (Cunliffe 1984a, 128). Road 1 (the main road between the east and west gates) is especially evident on plans of the excavation despite the lack of surviving metalling, due to the fact that it was uncluttered by features on an otherwise cluttered site. In the early to middle Iron Age, this road apparently marked a dividing line between two areas of activity within the hillfort, with storage pits dominating to the north, and 4-posters and roundhouses to the south.

CHAPTER 5

THE CHRONOLOGICAL FRAMEWORK

INTRODUCTION

The accurate dating of archaeological sites in the Welsh Marches is hampered by a range of difficulties, foremost of which is the general scarcity of excavation, particularly large-scale excavation, and stratified sequences within the study area. This has made it difficult to create a reliable and precise order of development for key typological categories such as pottery. In the most part the construction of relative sequences has had to depend upon the somewhat problematical comparison of limited samples from a range of small, and often old, excavations. In addition, the subsequent fixing of these sequences to calendar dates has relied upon what would now be considered dubious absolute chronological frameworks devised for certain specific sites (page 63), aided by comparison of developments with better dated sequences in other parts of the country. In the light of these difficulties, it is all the more unfortunate that the extensive rescue excavation at Beckford, Worcestershire, from which a large quantity of material evidence was recovered and analysed (including over 160,000 g of pottery from first millennium BC phases, representing a minimum of 720 vessels) has not been published.

A second problem relates to the nature of the later prehistoric archaeology of the Welsh Marches itself. It will become apparent in later chapters that models assuming a cultural continuum over the study area as a whole are simplistic and inaccurate. Different areas followed different cultural traditions and were integrated into different networks of interaction. For example, in the middle Iron Age, one characteristic of the southern Marches was the widespread use of pottery, a marked contrast to the situation which prevailed in the northern Marches. This has resulted in an imbalance in the emphasis laid upon particular dating techniques in different areas (page 55). Furthermore, even areas that superficially resemble one another may have been subject to different mechanisms of economic and social interaction. Maintaining the pottery example, petrological analysis of assemblages from sites in the southern Marches has illustrated variations through time in the distribution of particular fabrics, and the proportions of local compared to regional wares in various areas (Morris 1982, 1983, 1985). It is clear; therefore, that a chronological framework devised for one part of the study area cannot necessarily be assumed to be directly applicable to another, and this inevitably makes comparing sites dated using different methods potentially very difficult.

The main techniques and forms of evidence used in the dating of first millennium BC sites in the Welsh Marches are critically discussed below. They are ordered under three categories: evidence from which absolute dates can be obtained; evidence whose chronological significance is derived from insular British frameworks and research (although ultimately derived from the Continent); and evidence whose chronological significance is more directly derived from comparison with Continental frameworks and research.

ABSOLUTE DATING

Radiocarbon

Since the 1960s radiocarbon has become an essential and widespread means of dating later prehistoric sites over much of Britain. Despite this, there is an ongoing debate as to the extent of its usefulness for the first millennium BC due to the flatness of the calibration curve between the eighth century and the end of the fifth century BC. This 'plateau' results in the lengthening of the 1 sigma (68 per cent probability) and 2 sigma (95 percent probability) chronological ranges of any date that falls within the affected period, thereby reducing the precision of that date. In spite of this, the value of radiocarbon dating should not be summarily dismissed. On the one hand samples which post-date the end of the fifth century BC are not too adversely affected by the limitations of the calibration curve, allowing one to differentiate earlier and later Iron age sites, while on the other, even those samples which fall within the problem period provide a general idea of date which in many instances is more than would be obtained otherwise.

The influence of radiocarbon dating in the Welsh Marches has been uneven, its application varying widely between sites from which just a single date has been obtained.

to a limited number where between 10 and 35 samples were collected. All told, there are some 177 dates available from the study area (excluding examples associated with environmental evidence) which are of certain or possible relevance to the first millennium BC. These are derived from a total of 32 archaeological sites (appendix 2). Figure 5.1 depicts the distribution of these dates by county and site type.

There is a slight emphasis upon hillforts. This is, to an extent, a reflection of the bias of excavation towards such sites, although the large numbers of dates evident from Clwyd, Powys and Cheshire derive from the excavations of just 5 hillforts: Moel y Gaer (18 dates), The Breiddin (34 dates), Llanymynech Hill (2 dates), Beeston Castle (15 dates) and Maiden Castle (5 dates), giving an overall average of 14.8 dates per radiocarbon-dated site. This compares with a total of 23 dates from 9 hillforts from the remaining counties (an average of just 2.6 dates per radiocarbon-dated site). This contrast is partly a result of the more extensive hillfort excavations at Moel y Gaer, the Breiddin and Beeston Castle compared with most hillfort sites to the south, and partly the result of the nature of the archaeology between the north and the south Marches. As noted above, the former is characterised by a relative scarcity of pottery from the middle Iron Age to the Roman-British period, while the reverse is true with respect to the latter. Ceramic typologies remain the prime means of dating later prehistoric sites in southern Britain generally (e.g. Cunliffe 1991a, chapter 4). The scarcity of pottery in the northern Marches in the latter half of the first millennium BC, therefore, represents a blank spot in terms of traditional dating evidence. This void has had to be filled by the adoption of methods that are not dependent upon material culture typologies and inevitably reliance has been placed upon carbon-14 dating.

In terms of non-hillfort enclosure the same phenomenon is also illustrated by the excavation at Collfryn, a hillslope enclosure, where 13 dates were obtained during excavations (no first millennium BC non-hillfort sites have been excavated in those parts of Clwyd and Cheshire lying within the study area). The results of this sampling strategy in areas where the material culture does not provide detailed indications of date have been fundamental to our understanding of the development of sites. The more extensive application of radiocarbon dating on several recently excavated non-hillforts in the south of the study region would seem to confirm its importance, even in areas where traditional ceramic dating techniques can be employed.

A Radiocarbon Chronology for Rampart Architecture

The typological development of hillfort ramparts from the vertical-fronted type to the dump type was summarised in Chapter 4. Conventional dating of different construction techniques relies upon stratified pottery evidence. There are, of course, inherent problems associated with the dating of one form of typological evidence by reference to another, the main one being the assumption that the dating of the initial category (pottery in this instance) is accurate. In the Marches this is not necessarily the case (page 63). Ideally, a form of absolute dating should be used to set relative sequences in their chronological context. Techniques such as thermoluminescence are obviously of importance in this respect, but the method of greatest impact at present is radiocarbon dating. With this in mind, a chronological framework for hillfort rampart constructions based on radiocarbon will be constructed to test whether the accepted opinion of their chronological development is accurate. In order to create an adequately sized and usable database, carbon-14 dated sites from outside the study area will have to be included. Inevitably this will assume contemporary usage of different rampart structures across England and Wales, which in actuality cannot necessarily be justified. Therefore, although this analysis is primarily concerned with the macro-picture, results from key individual sites in specific areas will be picked out for discussion as and when necessary.

The dates included in the study (appendix 3) are derived from those samples which can be *directly* associated with the earthworks in question, and unless otherwise stated should be considered as *termini post quos*. The distribution of relevant dates across Britain as a whole is not even: Wales, south-west England and the Midlands in particular are comparatively lacking in dates, while the Welsh Border counties possess by far the largest concentration. Several reasons can be offered to explain this inequality: first, the distribution of hillforts over England and Wales is by no means regular (figure 4.1). Second, excavations have tended to focus in the 'hillfort-dominated' zone extending from southern England into the Welsh Marches and north Wales (figure 4.1). And third, the increasing use of radiocarbon dating techniques generally in the 1960s and 1970s coincided with the excavation of numerous hillforts, some of which, especially in the Welsh Marches, produced little if any pottery evidence. It was only logical, therefore, to turn to carbon-14 dating to place sites in their chronological context (see above).

Analytical methods

The calibrated dates will be analysed using frequency diagrams. This involves dividing the period 1500 BC - AD 200 into 17 sub-periods of 100 years. For each 100 years, the number of radiocarbon ranges *active* or in existence, will be counted and plotted. This analysis is intended to show those periods where radiocarbon dates have a high probability of falling, and therefore reflect the prominent periods of construction. It is important to assess what effect the first millennium BC plateau in the calibration curve will have on the radiocarbon dates used. With this problem in mind a 'test' frequency diagram has been plotted (figure 5.2), by calibrating a series of hypothesised dates spread at 25 year intervals between 3400 bp and 1675 bp, using a standard deviation of ± 80 (the rounded up mean of the standard deviations used to date ramparts in this analysis).

If the calibration curve was a straight line then the frequency curves should be flat, representing a constant distribution of active dates over all periods. That they are not reflects the unevenness of the calibration curve. Two peaks in particular are noticeable - in the ninth/eighth and fifth/fourth centuries BC. These correspond to the beginning and the end of the plateau in the calibration curve and must therefore reflect the broad ranges which will result from the calibration of dates within the period *c.* 800 - 400 BC. Consequently, coincidental peaks in the frequency diagrams to be examined below *may*, to an extent at least, represent artificial concentrations of dates.

Dating the ramparts

Timber-fronted ramparts

This category encompasses all those ramparts with a timber palisade forming the front revetment of a rampart, or those where timber posts play an important part in retaining the core of the earthwork. A total of 39 dates have been calibrated from 11 sites. The distribution of dates across the country suggests that timber-fronted ramparts had an origin in the very beginning of the first millennium BC in the Welsh Marches (note the Breiddin especially), and perhaps also in southern England (e.g. Needham and Ambers' 1994 redating of Rams Hill, Berkshire). The early dates from Cadbury Castle are from sub-rampart contexts; the only date from a timber rampart is SRR-448, considerably later than these, therefore the results are ambiguous. Otherwise, the main bulk of dates appear to begin not much earlier than the ninth/eighth century BC

As for establishing a terminus ante quem for the construction of timber-fronted ramparts, the evidence as it currently exists would suggest in the most part a prefourth/third century BC date, although a rampart enlargement phase at Woodbarn Rath, Dyfed indicates repair of timber-fronted ramparts at least, could post-date this chronological horizon.

Figure 5.3 is a frequency diagram derived from the calibrated dates for timber-fronted ramparts. The plateau between the two highest points of the curve lies between the eighth century and fifth century BC, suggesting this may represent the most intensive period of timber-fronted rampart construction. However, it is possible that the pattern is exaggerated by the flatness of the calibration curve as identified in figure 5.2, the eighth century cal BC starting date in particular coincides with one of the proposed artificial peaks noted above. Bearing this in mind, the sharp fall after the fifth/fourth century BC indicates a quite distinct break or decrease in the construction of timber-fronted ramparts. In contrast, the significant number of dates in the later second millennium BC might suggest that the adoption of this architectural technique was the result of a more gradual and extended process. Whether this represents a real phenomenon is, however, open to question in that the shape of the curve at this point may just reflect a few long radiocarbon ranges extending back into the middle and late Bronze Age. In order to test the validity of the results, therefore, a frequency graph comprising only dates which appear to be derive from material actually used in the construction of the timber-fronted ramparts (20 dates in all from 8 sites) was plotted (figure 5.4). These included samples taken from timbers burnt *in situ*, post pipes and charcoal from postholes. Although this should present a more accurate indication of the period during which timber-fronted ramparts were constructed, it must be remembered that the use of mature timbers and/or re-use of old timbers in rampart construction, may still result in the observed picture being somewhat 'earlier' than the real picture.

The frequency of dates previously evident in the later second millennium BC has substantially reduced and the curve steepened, indicating these may have created a false picture, perhaps actually relating to activity pre-dating the construction of the ramparts themselves. The graph clearly illustrates an increase in rampart construction from the beginning of the first millennium BC, reaching a plateau between the eighth to fifth/fourth centuries BC, and then decreasing rapidly (bearing in mind, once again, the effects that the flatness of the calibration curve may have on these results).

This method of using frequency diagrams can be criticised in that they will reflect the biases of radiocarbon sampling. For instance, a rampart that has had five dates obtained from it may create an artificial peak, if those dates roughly agree, because any one 100 year period could be represented by up to five separate dates. In order to try and rectify this potential problem, figure 5.5 is a frequency diagram in which just a single calibration (associated with rampart *construction*) is taken from each applicable site, this being the maximum range between the earliest and latest date. As might be expected, the peaks are flattened somewhat. Nevertheless, it is still possible to see the increase in active dates from the beginning of the first millennium BC, reaching a peak between the eighth to fifth centuries BC, after which the curve falls off again.

Stone-fronted ramparts

This category comprises all those earthworks where a vertical front stone face was instrumental in retaining the fill of the rampart. A total of 37 dates were calibrated, from 16 sites. The geographical distribution of dates again makes it difficult to make worthwhile comparisons between regions. Killibury and Llwyn Bryn Dinas potentially appear to be the earliest sites (thirteenth to ninth centuries and tenth/ninth centuries BC respectively), although their dates can only be considered as being terminus post quem in nature. Most sites appear to begin not earlier than the ninth/eighth centuries BC. A terminus ante quem for the construction of stone-fronted ramparts is not so easily distinguishable, but several sites (e.g. Hascombe, Surrey; Brough Law and Dod Law, Northumberland), could feasibly have been constructed quite late into the second half of the first millennium BC, as seems to have been the case at Stanwick, although no carbon-14 dates are available from this site. Figure 5.6 provides a frequency plot of all the calibrated dates.

There is a noticeable increase in the number of active dates around the eighth century cal BC, and a quite sudden fall from a second peak beginning within the fourth century cal BC. This time span broadly reflects that for timber-fronted ramparts (figure 5.3), suggesting the two forms of earthwork were *roughly* contemporary. There is, however, some indication that the most intense period of stone-fronted rampart construction was actually around 500/400 cal BC, somewhat later than timber-fronted types which clustered between the eighth and fifth centuries cal BC. 17 of the dates associated with stone-fronted ramparts (from 6 sites) are derived from structural features within the earthworks themselves (predominantly charcoal representing the burnt remains of timber lacing). A frequency plot of just these calibrations (figure 5.7) emphasises the observations already made:

Figure 5.8, a frequency diagram in which just a single calibration (associated with rampart *construction*) is taken from each applicable site (page 77) again supports an early-middle Iron date range for stone-fronted ramparts as a whole, with a particular emphasis on the fifth/fourth centuries BC, although the small number of relevant sites (only 6 in all), has resulted in a somewhat less clear pattern than was evident in figures 5.6 and 5.7.

As with the calibrations associated with timber-fronted ramparts, it is important to stress a degree of caution. The highest points identified in figures 5.6 to 5.8 once again roughly coincide with the peaks argued to represent a distortion caused by the flatness of the calibration curve in figure 5.2. To an extent, therefore, the results may be falsely exaggerated.

Dump ramparts

Dump ramparts possess a sloping outer face which is normally continuous with the inner slope of an adjacent ditch. They are thus fundamentally different from the vertical faced timber and stone-fronted ramparts already examined. A total of 16 dates associated with the dump form of earthwork, from 10 sites were calibrated. The comparative lack of dates (reflecting the absence of timber in the construction of such earthworks) makes any kind of geographical comparison difficult. However, the calibrated ranges from most sites appear to cluster in the fourth to first century BC range, indicating they were a phenomenon of the middle to late Iron Age, although it should be borne in mind that some of the dated charcoal may be residual, which would tend to create the impression for an earlier date of origin that was actually the case.

The frequency diagram for dump ramparts (figure 5.9) strongly supports these conclusions. In the fourth century there is a very sharp rise in the number of active dates, signifying that it was from this period that the construction of dump ramparts became most prevalent (although it again coincides with the second peak in figure 5.2). The decrease in active radiocarbon dates is more gradual, and there is no real plateau or prolonged period of dump rampart construction (on the 1 sigma curve at least), as was apparent with timber and stone-fronted ramparts. Again this may reflect the artificial bias caused by the flatness of the calibration curve (figure 5.2). Alternatively it could indicate that the most intense period of dump rampart construction was restricted to a relatively short period of time (the fourth century BC).

No dates could be identified which were derived from any structural feature of a dump rampart. Figure 5.10 is a frequency diagram in which a single calibration is taken from *all* sites which have radiocarbon estimations associated with dump earthworks. As is to be expected, the curves become flattened. However, the same basic patterns recur, implying that the previous conclusions remain valid. The main peak of activity still begins in the fourth century BC, after which there is a steady decrease with little sign of any prolonged period of construction activity.

Conclusions

These results clearly support a progression of vertical-fronted to dump ramparts through the first millennium BC, and also suggest that there was generally little overlap between the two fundamental architectural techniques (c.f. Avery 1993, 153). The main period of timber-fronted earthwork construction probably began around the eighth century BC and continued to around the fifth/fourth centuries BC. Stone-fronted ramparts also seem to have been a feature of the early Iron Age, but their principal period of construction was in the fifth/fourth centuries BC. The main phase of dump rampart construction appears to have been in the fourth/third centuries BC. Unfortunately, these 'start' and 'finish' dates coincide with the beginning and end of a plateau in the calibration curve. It must be acknowledged, therefore, that the trends may be exaggerated, although this certainly does not divert from the relative chronology of vertical-fronted ramparts preceding dump ramparts, which has been emphasised here.

INSULAR DATING

Pottery

Pottery remains the primary means by which first millennium BC sites in the Welsh Marches are dated. This reflects a tradition within the study area extending back to the 1930s (Chapter 3). Sequences have been constructed, based upon fabric, form and decoration, through analysis of (mostly) small assemblages from a large number of sites. Despite the inevitable difficulties associated with the analysis of such a dataset, some confidence can be placed in the established *relative* dating framework due to the repetition of patterns across sites, and the support offered by the rare larger ceramic assemblages (e.g. Ford and Rees forthcoming).

Late Bronze Age and early Iron Age

The quantity of earlier first millennium BC pottery from the Welsh Marches is limited when compared with the overall quantity of middle and late Iron Age pottery recovered, and chronological refinement of the period must, in the most part, rely upon patterns identified in other parts of the country. Appendix 4 lists those sites from which late Bronze Age and/or early Iron Age assemblages have been identified. Herefordshire, in particular, appears deficient, and this has led to the suggestion that the area was aceramic during the early first millennium BC, before the introduction of regionally distributed middle Iron Age pottery vessels (e.g. Morris 1983, 120). The absence of pre-middle Iron Age pottery from sites such as Croft Ambrey, whose origins may very well lie in the earlier Iron Age if not before (page 123), gives some support to this assertion, although the general lack of excavation upon non-hillfort sites in the region may bias the picture.

The late Bronze Age and early Iron Age pottery from the study area that has been examined is typical of the Post-Deverel Rimbury types discussed by Barrett (1980, 302-306). Coarse and fine jars (Barrett classes I and II) are predominantly barrel or bucket-shaped and slack-shouldered, with a range of rims, including upright and everted, rounded, flattened and internally bevelled types. Bowls, again coarse and fine varieties (Barrett classes III and IV) are also present on various sites, but there is as yet no evidence for the rarer 'cup' (Barrett class V) in any Welsh Marches' assemblage.

Petrological analysis has shown that, across the study area as a whole, pottery vessels of the earlier first millennium BC were predominantly the result of local production (Morris 1983, 99). There are, however, a limited number of exceptions where apparently non-local fabrics are present, although the proportion of these to the overall site assemblage is small. At Beeston Castle sherds derived from the Wrekin area in Shropshire have been identified (Royle and Woodward 1993). At the Breiddin, there is evidence for a very limited amount of pottery with an origin on the Cheshire Plain (Morris 1991a), while at Sharpstones Hill, Shropshire, two sherds were recovered tempered with dolerite from the Clee Hills area (Morris, 1991b). The production and (limited) regional distribution of vessels in this latter fabric type, also recovered from the late Bronze Age barrow cemetery at Bromfield, seems to have been a feature of the middle Iron Age period (page 90). It cannot yet be determined with certainty whether there was uninterrupted continuity between the earlier and the later first millennium BC, although it has been suggested that typological links are detectable between the Bromfield vessels and the possible early Iron Age vessels recovered from Caynham Camp, Shropshire (Gelling and Stanford 1966). In addition to these regionally distributed vessels, there is evidence from a limited number of sites (e.g. Old Oswestry, Twyn y Gaer, Gwent and Crickley Hill), for the importation of fineware vessels (class II jars and class IV bowls) from outside the study area. It can be tentatively argued, therefore, that limited regional distribution of vessels began in the late Bronze Age period (although only the Clee Hills dolerite fabric appears to have persevered into the middle Iron Age, and even this was apparently of secondary importance compared to various fabrics originating from further south in the study area – page ( ).

The main varieties of decoration include fingertip or fingernail impressions and haematite coating, and also, in the south-east of the study area, incised geometric motifs, sometimes inlaid with white paste. Barrett has suggested that the Deverel-Rimbury pottery tradition was succeeded by a plain ware tradition at the turn of the first millennium BC. This, in turn, was succeeded by a tradition (at least in Wessex and the Thames Valley), in which increasing amounts of decoration was employed (Barrett 1980, 314). Evidence for decoration on the late Bronze Age vessels from the Breiddin hillfort is rare. Based upon carbon-14 evidence, the hillfort was constructed around the ninth/eighth century BC and abandoned an unknown period after, but substantially before the end of the fourth century BC; the implication is that the adoption of decoration on early first millennium BC vessels, in the northern Marches at least, occurred only shortly before the Breiddin was abandoned. At Moel y Gaer, a number of decorated late Bronze sherds were recovered from contexts which related to the first phase of occupation, dated by carbon-14 from around eighth to fifth centuries BC, suggesting the decorated tradition had evolved by the time the hillfort was constructed. The transitional phase between the undecorated and decorated tradition would therefore seem to lie around the eighth/seventh centuries BC. Further refinement can be suggested for the south-east of the study area. At Crickley Hill, excavation has shown that vessels decorated with fingertip decoration were succeeded by vessels decorated with incised decoration. The limited radiocarbon evidence from the site is unfortunately not clear, but an early Iron Age date (sixth/fifth century BC) has been suggested for the incised vessels (Elsdon 1994, 216).

Middle and late Iron Age

The chronological framework for pottery in the later first millennium BC is considerably more complex than the preceding period due to the amount of material recovered, and the resulting level of analysis conducted. This necessitates a more extended discussion than was the case with the late Bronze Age and early Iron Age pottery. Although a relative sequence can be constructed with reasonable confidence, transforming this into an absolute chronology is problematical because there are very few absolute dates *directly* associated with pottery from the region. Indeed, as already emphasised, the paradox is that those sites which have been the subject of extensive radiocarbon dating are in areas where pottery is relatively scarce. An absolute chronology (for regionally distributed pottery) has instead had to rely primarily upon the interpretations reached through the excavation of two hillforts: Croft Ambrey (Stanford 1974) and Midsummer Hill (Stanford 1981). They represent the only well-excavated (and published) sites from which a reasonably sized and stratified pottery assemblage, incorporating most of the elements of the relative sequence, has been recovered. However, the dating of the sites themselves can be criticised. Neither benefited from a significant programme of radiocarbon sampling, and those dates which were obtained (five in total), all possessed very high standard deviations. The basis for establishing the site chronologies, therefore, depended upon the detailed recording of complex gateway sequences, and cross-correlation of certain structural features between the hillforts. Conversion of this relative framework into calendar dates was attempted by adopting beginning and end dates from key historical events, and dividing the number of intervening years by the number of gateway reconstructions. The historical events in question were the sacking of Rome by Celts in the early fourth century BC (from which it was assumed there was also significant population movement from Europe into Britain), and the Roman Conquest. There is, however, no convincing evidence for incursions into the Marches during the fourth century, and the absence of Roman evidence from both Croft Ambrey and Midsummer Hill suggests that they were abandoned before the Romans arrived in the area. With respect to the former, the absence of La Tène III brooches from the site, bearing in mind the reasonably sized assemblage of La Tène I and II types, would suggest occupation had ceased by the first century BC (chapter 6). The absolute gateway chronologies cannot, therefore, be regarded as reliable. Consequently, neither can the chronologies proposed for the excavated contexts within the hillforts being as these were dependent upon the gateway chronologies. Figure 5.11 illustrates the distribution of brooches from Croft Ambrey in relation to their main periods of circulation in Britain, and their supposed date of deposition according to the original site chronology. It is impossible to determine if and for how long specific brooches may have remained in circulation beyond their main period of use, but at least three, according to the Croft Ambrey chronology, seem to have been deposited at a later date than might be expected. It is more than possible therefore, that the site chronology is unreliable, which may have ramifications for the dating of Welsh Marches pottery as it currently stands. Only the future development of a range of absolute dates associated with pottery assemblages will reveal accurately to what extent this is the case, although some indications of broad trends may be observed from the evidence which is presently available (page 92).

The relative sequence

A contrast can be noted between regionally distributed and locally distributed fabrics. The proportion of particular regional fabrics, or of regional fabrics generally compared to local fabrics, in any one site's assemblage has been shown through petrological analysis to be influenced by both spatial and chronological factors (Morris 1982, 1983). Regional fabrics dominate in the north and south central Marches, and a mixture of local and regional fabrics occurs on sites in the south.

Regionally distributed fabrics

Group A

This fabric, characterised by the presence of igneous and metamorphic rock fragments, was first defined by Peacock (1968), who identified a likely source as the pre-Cambrian deposits of the Malvern Hills. As with most Iron Age pottery in the region, Group A vessels were predominantly of saucepan-type, or barrel-shaped jars without or with a slight neck. The earliest are argued to have had a local distribution and were predominantly undecorated (Morris 1983, 116), although some possessed (often poorly executed) stamp motifs located below the rim. This form of decoration is typical of Group B1 pots (see below), however, unlike many B1 vessels, the motifs were rarely bordered both above and below by a linear-tooled groove. On present evidence it is impossible to determine whether these poorly stamped examples emerged after the first appearance of the Group A plain vessels, or at the same time. Rims of early Group A pots took various forms, including complex types (Stanford 1981, figure 63.1), slightly out-curved, and incurved types.

The second stage of Group A pottery production is marked by an extension in its distribution, apparently coinciding with the widespread application of linear-tooled decorative motifs below the vessel's external rim, although it is evident from sites like Croft Ambrey that poorly stamped motifs were still in circulation at this point, as were plain Group A pots. Vessel rims included upright types, either flattened and occasionally thickened, or rounded. Beaded rims make an appearance during this stage, and internal bevelling occurred on some vessels.

Increasing proportions of plain ware become apparent in Group A assemblages in succeeding periods, and as well as the beaded and flat-topped rims that have been noted, everted types also begin to appear. The fabric itself seems to have become finer in many instances, and vessels were often very heavily burnished.

The production of vessels in Group A fabric seems to continue into the Romano-British period. The appearance of 'tubby' cooking pots has been noted on several sites which span the latest pre-Roman Iron Age and early Roman period, for example Collfryn (Britnell 1989) and Droitwich (Woodiwiss 1992). And although many of these vessels may date to the early Roman period, their origins could well lie in Iron Age pottery traditions.

Group B1

Group B1 was the second fabric-type defined by Peacock (1968), and was tempered with Palaeozoic limestone with a source probably in the Woolhope region to the south-east of Hereford city. The typical vessel form was the barrel-shaped jar. The earliest distribution of B1 pots concentrated in the south-central Marches, but there was apparently some extended distribution to certain sites further afield (e.g. Croft Ambrey). Decoration was in the form of well-executed stamps below the rim (including 's' shapes and chevrons) on their own, or with a linear-tooled groove below and/or above. B1 vessels are also often characterised by the presence of one or two grooves on the inside of the rim. The rims themselves were normally inturned, or at times quite complex in form.

B1 vessel production then seems to have entered into decline. This would appear to coincide with the expansion of Group D (see below) vessels on the one hand, and Groups A and C linear-tooled decorated vessels on the other.

At a later stage B1 pots re-emerge in a new range of forms, including beaded, everted and upright, thickened rimmed jars. There was also the appearance of bowls with heavy rims. Unlike the earlier stage of production, these vessels were undecorated except for the frequent occurrence of heavy vertical burnishing.

Group C

Group C represents the third main petrological group defined by Peacock. The fabric's inclusions have been identified as Llandovery sandstone, with a probable origin from the Llandovery (Silurian) deposits in the Malverns. The dominant vessel form was again the barrel-shaped jar. The earliest vessels could have poorly executed stamped decoration very like that adopted on some Group A pots. Subsequent to this linear-tooled decoration was applied upon vessels with upright, thickened rims with external bevels. The last stage of production is characterised by an increasing proportion of plain ware with flat-topped or beaded rims. In general, the development of Group C vessels follows very closely that of Group A.

Group D

The classification of Group D was made by Morris (1981, 1982). The fabric contains mudstone inclusions and is thought to be derived from the Martley area near to the Herefordshire/Worcestershire border. The typical forms correspond to those identified for groups A - C; however, there is very limited evidence for plain Group D vessels with unusual high shoulders and everted rims as recovered from Midsummer Hill (Stanford 1981, figure 62.1) and Collfryn (Britnell 1989, figure 27.1). These are suggested to have been early Iron Age in date (Morris 1981, 139-140; Morris 1989). It is difficult to prove or disprove this assertion, but it perhaps should be noted that the Collfryn example is unstratified, and the Midsummer Hill example is only speculatively from an early pit. In addition, a similar vessel form has been identified in Group A fabric from Preston Farm, Shropshire (Woodward 1994, figure 35.2), which, if the sequence outlined on page 86 is correct, will have reached the area in Group A's extended distribution phase, therefore suggesting a date firmly within the middle or even late Iron Age.

The earliest Group D pots appear to have had a core distribution in Worcestershire and east Herefordshire, with some extension further afield (it first appears at Croft Ambrey in early Main Camp contexts). They included both plain and stamp decorated types, although, like Group A stamped vessels, the stamps themselves were not normally bounded by more than one linear-tooled groove.

A second stage of production is marked by an enlarged sphere of distribution. Again vessels could be plain or stamped, and there was also some linear-tooling. Rims tended to be of upright type.

Subsequent to this jars were made with thick, everted rims and could be very highly burnished. It is also possible that the production of vessels made in Group D fabric continued into the early Romano-British period which may account for the 'Belgic-style' vessels identified at Collfryn in a fabric classified as a subgroup of the main Group D fabric (Morris 1989).

Group E

Group E was also identified by Morris (1983), and contains of Llandovery Quartzose and sandstone indicative of the Llandovery (Silurian) deposits of the Malvern Hills. Vessels in this fabric probably first appeared in the latter part of the Iron Age and like the previous fabrics were generally made in barrel forms, although they are characterised by flat or pedestal bases, unusual linear-tooled decoration, highly burnished surfaces and beaded or everted rims.

Clee Hills dolerite

This fabric was first identified during the excavations of Caynham Camp, Shropshire (Gelling and Peacock 1966), and is derived from the vicinity of the Clee Hills. Unlike the other fabrics, it had its origins in the late Bronze Age/early Iron Age, and was used to make vessels in forms typical of that period. During the second half of the first millennium BC vessels were of the characteristic barrel shape with either a rounded or a bevelled edge rim. Decoration is very rare, at present only identified on a sherd from Bromfield (Stanford 1995, figure 10.107) where a line of oval stamps can be detected below the upright, slightly thickened rim. Dating evidence is otherwise very poor, although the presence of both inturned and upright, thickened and flat-topped rims suggests a fairly long period of use during the second half of the first millennium BC.

Calcite and 'Eye-Brow' vesicular mudstone fabric

These final two regionally distributed fabrics were also identified by Morris (1983) upon sites in south Wales. The first corresponds to Group 3 Glastonbury fabric (Peacock 1969), with a source either in the Mendips or the Bristol area. Forms include barrel-shaped jars with vertical rims or beaded edges. The second is thought to derive from the vicinity of Sudbrook or Lydney in the south of the study region.

Locally distributed fabrics

Vessels made from fabrics which did not achieve regional distribution, included similar forms (barrel-shaped jars, saucepan pots with vertical, flat-topped or bevel-edged rims) to those made from the regional fabrics outlined above, but tended to be of inferior quality and were frequently undecorated (Morris 1983, 100-111). The most significant occurrence of locally produced wares is in the south of the study area. Between approximately a quarter and a third (by weight) of many site assemblages in Gloucestershire and east Worcestershire seem have been made up of local fabrics (e.g. Bredon Hill, Danes Camp, Beckford, Aston Mill Farm, the Knolls). The extensive excavations at Beckford have furthermore illustrated changes through time in the proportions of local to regional fabrics (Ford and Rees forthcoming). In ceramic phase B (the site's first middle Iron Age phase), local fabrics dominated over regional fabrics (at a ratio of about 3:2). By ceramic phase C (the site's second middle Iron Age phase) the trend had been reversed and regional fabrics dominated (at a ratio of about 2:1). The vessel forms in ceramic phase B were dominated by barrel-shaped and globular jars/bowls with inturned rims and stamped decoration; ceramic phase C was dominated by barrel-shaped jars/bowls with complex rims and some upright rims with stamping and linear-tooled decoration; between ceramic phase C and ceramic phase D (which is interpreted as a middle to late Iron Age phase) the upright-rimmed form became dominant with linear-tooling, while ceramic phase D proper was typified by fine everted jars, either plain or with scratched linear and geometric designs. This general pattern is repeated at Aston Mill Farm, a site situated 3.5 km away from Beckford (Dinn and Evans 1990), suggesting it represents a reliable chronological progression, at least for east Worcestershire.

The situation in south Wales is less clear. As noted above, Morris identified a regionally distributed fabric from several sites which was not derived from the central Marches as the majority of the other regional fabrics were (indeed the presence of central Marches fabrics in south Wales generally is very rare). Recent work at Thornwell Farm, Gwent (Woodward 1996) confirms the possible presence of the Mendips-derived calcite fabric, but alternatively proposes that the inclusions may have had a local origin. The fabric in question (Thornwell Farm fabric 4) is associated with vessels thought to be of late Bronze Age/early Iron Age type, which may perhaps support this suggestion. In both the late Bronze Age and Iron Age periods, the majority of vessels at Thornwell Farm were manufactured using locally-derived fabrics - a characteristic maintained throughout south Wales generally. In terms of vessel form, the general development appears to be similar to that already summarised above, with barrel-shaped and saucepan jars dominant, and a progression from inturned rims, to upright and 'proto-bead' rims and bead-rim jars (representing Cunliffe's 1991 'Lydney-Llanmelin' style pottery), to everted rims and jars with cordoned shoulders and footring bases.

The central and northern Marches have previously been regarded as largely lacking in purely locally distributed pottery (Morris 1983, 111). However, recent excavations at sites such as Bromfield (Stanford 1995), Preston Farm (Ellis 1994) and Sharpstones Hill site E, Shropshire (Barker 1991) suggest that widespread, though perhaps mostly limited, production did occur. In terms of dating, there is not enough evidence yet to determine any trends in the use of local pottery within the area. It should be noted, however, that all the evidence so far recovered does *not* seem to date to the early stages of the middle Iron Age. This is important with regard to those sites which were occupied in the early middle Iron Age in the central and north Marches, and which were not situated within the early core distributions of the regional distributed wares, became it implies they may have been mostly aceramic during this period.

Absolute dating

The main features of the middle and late Iron Age ceramic development discussed above are summarised in figure 5.12. It must be emphasised that this does *not* represent a rigid or precise framework and, as shall be explored below, a considerable degree of overlap is evident. Neither is it a comprehensive description of all the vessel characteristics that have been identified. The intention is only to offer a general idea of how the *main* fabrics, forms and decorative motifs related to one another through time. Bearing this in mind three broad phases, based upon the relative stratigraphical relationships of pottery recovered through excavation of sites across the study area, seem to define themselves and are represented by the dashed horizontal lines on figure 5.12.

Putting calendar dates to these phases is difficult primarily because of the general lack of radiocarbon dates obtained from secure contexts which also contained pottery. Those which do exist are detailed in table 5.1:

Site	Code	Date	Calibration	Description
Old Bowling Green	HAR-5885	2790 ± 90 bp	(1210) 1048 cal BC - 827 (792) cal BC	Group A plain saucepan-pot
Beckford	HAR-3944	2240 ± 70 bp	(404) 352 cal BC - 173 (61) cal BC	Group B1 stamped pot
	HAR-3945	2330 ± 60 bp	(753) 405 cal BC - 262 (206) cal BC	Group B1 stamped pot
	BIRM-432	2110 ± 120 bp	(397) 352 cal BC - cal AD 48 (132)	Stamped pot
Coed y Cymdda	CAR-206	2250 ± 70 bp	(406) 391 cal BC - 174 (94) cal BC	Barrel-shaped stamped pot
Breiddin	BM-881	2429 ± 55 bp	(769) 757 cal BC - 401 (388) cal BC	Group D
	BM-964	2244 ± 40 bp	(393) 382 cal BC - 205 (171) cal BC	Group D
	BM-1158	2151 ± 31 bp	(351) 343 cal BC - 118 (54) cal BC	Group D
	BM-1159	2142 ± 31 bp	(349) 336 cal BC - 94 (51) cal BC	Group D
	BM-1160	2141 ± 28 bp	(348) 201 cal BC - 95 (53) cal BC	Group D
	BM-1161	2108 ± 31 bp	(339) 170 cal BC - 51 (2) cal BC	Group D
	HAR-1617	2050 ± 80 bp	(349) 168 cal BC - cal AD 54 (129)	Group D
Friar Street	BM-733	2130 ± 100 bp	(393) 352 cal BC - cal AD 0 (77)	Group B1
	BM-734	2210 ± 130 bp	(754) 395 cal BC - 53 (cal AD 65)	Group B1
	BM-735	2060 ± 110 bp	(378) 200 cal BC - cal AD 64 (222)	Group B1
Collfryn	CAR-563	2080 ± 60 bp	(351) 198 cal BC - 1 (cal AD 52)	Group A sherd - from tubby pot?

Table 5.1: Radiocarbon dates associated with pottery in the Welsh Marches (dates in brackets represent 2 sigma ranges

The Old Bowling Green date is from a phase 1 late Bronze Age/Iron Age context and presents an unexpectedly early date range. Indeed, an earlier first millennium BC context does not fit with our understanding for when typical Iron Age saucepan pots became common in southern Britain. Together with the fact that the majority of the other Group

A vessels from the site appear to be late types, either jars with everted rims or tubby cooking pots, it perhaps might be suggested that the pottery was intrusive into an earlier context.

The Beckford and Coed y Cymdda dates relate to phase 1/phase 2 on figure 5.12. The Breiddin dates should reflect the Group D extended distribution (i.e. phase 2) as the site lies over 70 km away from the fabric's source in north-east Worcestershire. The Friar Street dates, associated with a sherd of B1 used for cross-section, are believed to relate to phase 3 because other vessels from the site exhibit characteristics of either phase 2 (during which B1 was declining) or phase 3. The date from Collfryn is associated with a body sherd of Group A. Being as the only Group A rim sherds from the site are from tubby cooking pots, it seems likely the date belongs to the latter part of phase 3.

Obviously, on its own the radiocarbon evidence is too limited to provide much information on the detailed chronological development of particular ceramic characteristics; there are certainly not adequate numbers of dates to attempt the kind of analysis undertaken above with respect to hillfort ramparts. However, further refinement is possible through the examination of brooches directly associated with pottery. The assemblages from Croft Ambrey and Beckford, in particular, are important because of the relatively large numbers recovered from securely stratified contexts within which pottery was also identified [i] (tables 5.2 and 5.3).

Site Find	Type	Main Period of Usage	Context
299	1Ca	*c.*3rd century BC	Site J, T89, layer 4. Site period VIF.
29	1Cb	*c.*3rd century BC	Site I, B19, layer 3. Site period VI.
117	2Ca	*c.* Mid 3rd - 2nd century BC	Site K, T17, layer 9. Site period VID.
124	2Ca	*c.* Mid 3rd - 2nd century BC	Site G, T31, layer 1. Site period VID.
171	2Ca	*c.* Mid 3rd - 2nd century BC	Site A, T55, layer 7. Site period VIF.
21	2Cb	*c.* Mid 3rd - 2nd century BC	Site J, B14, layer 2. Site period VII.

Table 5.2: Stratified brooches from Croft Ambrey with pottery associations.

By and large the sequence of brooch deposition at Croft Ambrey accords well with the relative site chronology, if not necessarily with the absolute framework (see pages 84-85). The exception is SF 299, which would appear to have entered the archaeological record later than expected, or have been redeposited after original deposition. This brooch was associated with sherds of Groups A, B1 and D, as well as some possible examples of local fabric. None of the sherds were decorated, and rim forms included inturned and upright rounded forms. Earlier contexts were dominated by stamped sherds, predominantly of B1 fabric. Later contexts were dominated by Group A sherds, mostly plain although two examples possessed linear-tooled decoration. Rim forms were generally upright or, in two cases, everted.

The other La Tène I brooch, SF 29 was recovered from a context containing a substantial assemblage of B1 pottery, of which the majority was stamped. This would indicate it was deposited earlier than SF 299, and perhaps support the evidence suggested in table 5.2 that SF 299 was deposited later than would be expected.

Three type Hull and Hawkes (1987) type 2Ca brooches were found in stratified contexts. SF 117 was contemporary with a linear-tooled Group A sherd, and also preceded contexts in which this fabric and decoration were prevalent on vessels with beaded rims. SF 124 was contemporary with Group A and B1 sherds, most of which were plain (although one stamped B1 sherd is present). Rims were of beaded, upright or bevelled form. Earlier contexts were heavily dominated by stamped and plain B1 sherds with inturned rims. SF 171 was associated with two Group D body sherds. Earlier contexts contained B1 stamped pottery, with inturned rims and internal grooves, although there was one example of a complex rim with unusual stamping, and one example of an upright plain rim. Groups A, B1 and D were present in later contexts, as was a dolerite sherd. Decoration of these sherds was rare, but of linear-tooled type when present; two sherds were also heavily burnished. Rim forms were mostly either flattened upright thickened forms or bead forms

The fourth La Tène II brooch (SF 21), probably the latest deposited brooch on the site, was contemporary with Group A, B1 and C and Dolerite fabrics, either plain (including a burnished B1 example) or linear-tooled, with beaded and flat upright rims. Earlier contexts contained B1 sherds, and occasional examples of Groups A and C. Decoration included stamping, linear-tooling and burnishing, although the majority of rims were plain. Rim forms included incurved and upright types.

The evidence strongly suggests that stamped B1 vessels with incurved rims were prevalent at Croft Ambrey up to the point when La Tène II brooches came into circulation, after which Groups A, C and D vessels became dominant, either without decoration, or with linear-tooled decoration, and with upright and beaded rims. Highly burnished and everted rims are present, but not particularly common, suggesting these ceramic trends were a factor post-dating the main periods of La Tène II brooch circulation.

Six of the brooches from the unpublished excavations at Beckford were recovered from reliably stratified contexts and associated with pottery (table 5.3). SF 58 represents the remnants of a plate brooch; however, because it lacks typical Roman features and was recovered from a pre-Roman context, the possibility that it may be of late Hallstatt Group L type has been suggested (Macreth forthcoming).

Site Find	Type	Date	Context
58	L?	*c.* 5th - mid-5th century BC	65034. Site phase D.
305	2Ca	*c.* Mid 3rd - 2nd century BC	74312. Site phase B.
141	3B?	*c.* 2nd century BC	65070A. Site phase C.
30	Early - mid La Tène 3	*c.* 1st century BC	5452. Site phase C/D.
77	Aucissa - Hod Hill	*c.* Early - mid 1st century AD	75264B. Site phase G.
60	Langton Down	*c.* mid 1st century AD	65019. Site phase F-G.

Table 5.3: Stratified brooches from Beckford with pottery associations.

If this is so, then it must have continued in circulation long after its main period of use as phase D is thought to have been middle to late Iron Age in date. The pottery associated with the brooch includes an upright rim from a Group A barrel-shaped vessel with duck-stamps, and Group A body sherds with evidence of linear-tooling. Also present is the upright rim of a Group B1 barrel-shaped pot, and a Group E everted rimmed jar.

SF 305, stratified from a phase B context (first middle Iron Age period) was associated with a Group A barrel-shaped vessel with inturned rim and duck stamps, Group B1 sherds and an upright rim of a barrel-vessel made from local fabric.

SF 141, thought to date to the second century BC was associated with a Group A rim from a barrel-shaped pot with evidence for linear-tooling, a barrel-shaped vessel with upright rim of local fabric, and an open bowl of local fabric.

SF 30 is the remains of an iron brooch which has parallels with examples recovered from pre-Conquest contexts at Hengistbury Head, probably dating to the end of the first millennium BC (Macreth forthcoming). Associated pottery includes a Group A tubby-shaped pots and Group A ovoid jars with bead rims. There is also evidence for Group B1 body sherds.

The two remaining brooches are from Roman contexts, SF 60 from the Conquest period, and SF 77 the mid to late first century AD. This early to mid first century AD date would seem to be confirmed by the pottery evidence. SF 60 is associated with vessels in Group A fabric, including large storage jars with heavy rims, jars and cooking pots with everted rims, 'lid-seat' jars, and also some barrel-shaped jars with upright rims. SF 77 is associated with a Group A ovoid jar with bead rim, and various Group B1 vessels, including cooking pots and storage jars with everted rims and large storage jars with heavy rims.

Apart from the Group L type brooch which is an anomaly, the Beckford brooches are obviously important with respect to dating various pottery characteristics. In particular they continue (in chronological terms) from where the Croft Ambrey brooches cease. So in the second century BC linear-tooling and vessels with upright rims still seem to have been in use, but by the late first century BC tubby pots, which are characteristic of the early Roman period, may have begun to be manufactured. Based upon the Croft Ambrey evidence, jars with bead rims and everted rims were probably being produced by the end of the second century BC, and the Beckford assemblage would suggest they continued to be so at least until the Conquest period.

The brooch evidence emphasises that ceramic development in the Marches was not a neat progression. Although general phases can be identified, the beginnings and ends of each blur into the preceding and succeeding phases. Nevertheless, it is possible to suggest some chronological structure. Ceramic elements characteristic of phase 1 on figure 5.12 were apparently dominant when type 1C brooches were in circulation (third century BC). Unfortunately there is no good evidence as yet to determine when phase 1 began. A radiocarbon date from Midsummer Hill which calibrates to (892) 770 cal BC - 203 (cal AD 45) (BIRM-142, 2370 ± 185 bp), has traditionally been used to mark the beginning of the phase (although not directly associated with any pottery), but the range is obviously so large as to be useless. The other radiocarbon evidence, particularly HAR-3945 (table 5.1), indicates the pottery in question was current in the fourth century BC. The end of phase 1 is also difficult to pinpoint, but apparently relevant ceramic elements were still being used (though comparatively rarely) when type 2C brooches were in circulation. It perhaps may be suggested that pottery characteristic of phase 1 was in decline during the second half of the third century BC.

The radiocarbon evidence suggests that extended Group D circulation was occurring by the beginning of the third century BC. Although Group D vessels can be found large distances from the fabric's source from early on, extended distribution is generally regarded as being a phenomenon roughly contemporary with the extended distribution of Groups A and C, and the introduction of linear-tooled decoration. However, the brooch evidence suggests this did not occur until type 2C brooches were introduced (mid third - second century BC), therefore indicating extended Group D circulation was somewhat earlier and can be regarded as transitional between phases 1 and 2. The beginning of phase 2 proper, then, was somewhere in the earlier third century BC. No certain end date can be determined because various features continued into stage 3 and the two cannot be cleanly separated. Key characteristics of phase 3 (for example increased plain wares, burnishing, everted rims etc.) first make their appearance while type 2C brooches were in use, though in relatively small numbers. A date sometime around the beginning of the first century BC is therefore perhaps likely. The brooch evidence form Beckford suggests Romanised forms, using native fabrics and methods. (for example the tubby cooking pot) appeared towards the end of the first century BC/beginning of the first century AD. The radiocarbon evidence from Collfryn would support this. Pottery characteristic of phase 3 seems to have continued up to, and into the early Roman period.

Briquetage

The remains of salt containers are one of the most common forms of evidence to be found on later prehistoric sites in the Welsh Marches. Two main sources have been identified through petrological analysis (Morris 1983, 1985), one at Droitwich, the other probably in south-east Cheshire, perhaps near Nantwich or Middlewich. Refined dating is very difficult because of the uniform nature of the vessels through time. One possible exception is a division in the fabric of Droitwich briquetage between sandy (fabric I) and organic (fabric II) types. The excavations at Droitwich (Woodiwiss 1992) suggest that the latter became increasingly dominant in the latest Iron Age. A further possible chronological indictor relates to the distribution spheres of both Droitwich and Cheshire briquetage which seem to have changed within the Iron Age (Morris 1985). The Cheshire material began with a core distribution in the northern third of the study area which subsequently expanded into the central and even towards the southern Marches. The Droitwich material began with a quite far-reaching distribution to both the north (up to around 60 km) and the south (up to around 48 km), but at a later period, thought to be roughly contemporary with the extension of the Cheshire briquetage, focussed primarily upon the southern area.

Only one radiocarbon date directly associated with Droitwich briquetage was identified from published reports: HAR-4452 2340 ± 70 bp, calibrated to (757) 409 cal BC - 262 (204) cal BC, although presumably a number of the dates obtained from excavations at Droitwich (Woodiwiss 1992) were also taken from contexts in which briquetage was present.

The evidence is a little more substantial with respect to Cheshire briquetage with a total of 13 dates available from four sites (table 5.4). The first two dates from the Breiddin are associated with fragments that *may be* Cheshire VCP, recovered from Bronze Age contexts. The evidence suggests that stony VCP was being produced and circulated at least from the fourth century BC (Morris' extended distribution phase), and probably before (core distribution phase).

Breiddin	HAR-1223	2660 ± 80 bp	(971) 892 cal BC - 787 (448) cal BC
	HAR-1224	2560 ± 90 bp	(893) 804 cal BC - 434 (402) cal BC
	HAR-1286	2320 ± 80 bp	(757) 407 cal BC - 214 (171) cal BC
	BM-884	2188 ± 70 bp	(393) 359 cal BC - 118 (2) cal BC
	BM-1158	2151 ± 31 bp	(351) 343 cal BC - 118 (54) cal BC
	BM-1159	2142 ± 31 bp	(349) 336 cal BC - 94 (51) cal BC
	BM-1161	2141 ± 31 bp	(349) 202 cal BC - 94 (51) cal BC
	BM-965	2122 ± 45 bp	(350) 200 cal BC - 52 (cal AD 0)
Collfryn	CAR-562	2310 ± 70 bp	(707) 403 cal BC - 214 (172) cal BC
	CAR-535	2290 ± 70 bp	(496) 399 cal BC - 209 (169) cal BC
	CAR-575	2100 ± 60 bp	(351) 198 cal BC - 1 (cal AD 52)
Beeston Castle	HAR-4406	2280 ± 80 bp	(672) 399 cal BC - 205 (118) cal BC
The Wrekin	HAR-4452	2340 ± 70 bp	(757) 409 cal BC - 262 (204) cal BC

Table 5.4: Radiocarbon dates associated with Cheshire briquetage

Querns

Quernstones are one of the most frequently recovered stone objects from later prehistoric settlement contexts in the Welsh Marches and Britain generally. Their usefulness for dating purposes is limited and depends upon a basic two-fold division between saddle and rotary types, the latter succeeding the former. Exactly when this change occurred in the Iron Age is not precisely understood, although the appearance of rotary querns, based upon the Danebury evidence (which lacks detail) has been dated to around the fourth/third centuries BC in the south of Britain (e.g. Brown 1984, 418), and probably should not be regarded as much later in the north. The situation in the Marches is unfortunately even less clear. Saddle querns are plentiful from first millennium BC contexts; however, almost all rotary querns from sites upon which later prehistoric activity occurred are unstratified or derived from otherwise unreliable or Romano-British contexts. The impression given by the identification of rotary querns from various hillforts whose main period of activity was in the Iron Age is that they may have been introduced into the area in the late or latest Iron Age. This is supported by an example recovered from a possible late Iron Age (or Romano-British) context at the Old Bowling Green site, Droitwich (Woodiwiss 1992).

CONTINENTAL INFLUENCED DATING

Brooches

Brooch, and particularly bow brooch typologies, provide an important means by which sites can be dated. In the most part, British sequences have been placed in their chronological context by reference to dated sequences established on the Continent. This has generally enabled fairly narrow chronological ranges to be established for many brooch types, although there is some debate as to how slowly or quickly Continental forms will have been adopted in Britain. Potential problems exist for the La Tène II, or Continental La Tène C, period (*c.* third century BC to second century BC), when the British series begins to diverge from that of the Continent, culminating in the purely insular 'involuted-type' brooch (Hull and Hawkes 1987, Types 2B - 2D), which cannot be closely dated. Prior to this, during Continental Hallstatt D and La Tène A-B1, periods (*c.* sixth century to fourth century BC), and also after during Continental La Tène D and early Roman periods (*c.* late second century BC to Roman Conquest), British types closely follow sequences identified on the Continent. Early and middle Hallstatt brooches recovered from Britain are imported and not of native manufacture. The provenances of a number of these examples may be spurious and result from attempts to establish the antiquity of modern imports for commercial purposes (Haselgrove 1997, 53). In the Marches, the two pre-La Tène brooches supposedly from Chester, a Roman town, may represent such questionable examples, or alternatively they may possibly reflect a tradition in which early objects were deposited as offerings at later Roman sacred sites. The pre-La Tène brooch supposedly from the locality of Bredon, Worcestershire, where there is a well known Iron Age hillfort should also perhaps be regarded with some suspicion (Hull and Hawkes 1987, 14, 17, 19).

A full list of prehistoric brooches from the Marches, together with early Roman types derived from sites where Iron Age occupation has been identified, appears in appendix 5. Figure 5.13 depicts the frequency distribution of identifiable brooches by chronological group and site type. Because the purpose of the figure is not to date specific sites, or contexts from specific sites, no attempt has been made in this instance to distinguish between brooches recovered from Iron Age and early Romano-British contexts, nor between those brooches which were reliably stratified and those recovered from residual or unstratified contexts.

As was the case with respect to the distribution of radiocarbon dates (figure 5.1), there is an apparent bias in the distribution of brooches towards hillforts. To an extent this again reflects a tradition in the Marches for excavation, at least up until relatively recent times, to focus upon such sites. All but one of the brooches from non-hillfort (predominantly enclosed settlement) sites in figure 5.13 have been recovered during the last twenty five years (the excavations at Beckford dominate the non-hillfort assemblage with a total of 22 brooches). In contrast, the earliest brooches recovered from a hillfort were during the excavations of Lydney Park hillfort (Wheeler and Wheeler 1932) in the second quarter of the twentieth century. Bearing these points in mind, however, a (relatively) respectable number of non-hillfort sites have been sampled by excavation over recent years (appendix 1). The generally small numbers of brooches recovered from such sites, particularly before the late La Tène III/early Roman period, is therefore a little surprising, although this does in fact follow a wider British pattern.

A number of further points arise from consideration of figure 5.13. To begin with there is an almost complete absence of pre-La Tène brooches (the Hull and Hawkes Hallstatt Group D brooch from Bredon, and the two Hallstatt Group B brooches from Chester, have been discounted for the reasons discussed above). This is not unexpected, with the majority of late Hallstatt brooches in Britain concentrating in eastern England, with the exception of one distinct class (Hull and Hawkes Group K) distributed in the south-west of the country (Haselgrove 1997). The number of La Tène I brooches from the study area is more marked, with nine identifiable from a total of six sites. Although the sample is far too small to put any confidence in simple statistical analysis, this works out at only about 0.045 brooches per year (assuming the La Tène I period extends for around 200 years from *c.* 470/450 BC to *c.* 270/250 BC) compared to 0.65 for the whole of Britain (Haselgrove 1997).

A total of fourteen La Tène II brooches, from just four sites in the study area, can be confidently identified. Again the sample is very small, but it equates to approximately 0.093 brooches per year (assuming a 150 year duration for La Tène II from *c.* 270/250 BC to *c.* 100 BC), twice as many as in La Tène I, but still under-represented when compared with the country as a whole where a figure of 0.55 (excluding grave finds) has been reached (Haselgrove 1997, 55). When set against the decrease in the number of sites from which brooches were recovered compared to La Tène I, this does suggest that the rise in the deposition of brooches in La Tène II is a real phenomenon. If so, it would seem to go against the trend observed across the country generally (Haselgrove 1997, 55).

The La Tène III period is divided into an early (La Tène IIIa) and later (La Tène IIIb) period for the purposes of this study. Brooches of la Tène IIIa, corresponding to Continental D1-D2, include types believed to date to the late second/early first century BC. Brooches of La Tène IIIb, equivalent to the 'Lexden' horizon, comprise types dating from the late first century BC, including Nauheim derivative and Colchester types. This division is based on a phenomenon observed in the Welsh Marches study area (appendix 5; figure 5.13) as well as southern England where there is a very marked increase in the deposition of brooches within archaeological contexts from the late first century BC onward (Haselgrove 1997, 51-53; Hill 1997, 98).

The La Tène IIIa period in the Welsh Marches is interesting in that it marks a distinct break in the increase of brooch deposition through time as indicated on figure 5.13. Only five examples are known, of which two are from Roman towns (Chester and Wroxeter), and therefore were perhaps deposited in the Roman period. Numerous explanations may be put forward to explain this phenomenon. To begin with there is the propensity for excavation to occur on hillforts. In Wessex, work carried out on sites such as Danebury (Cunliffe 1984a, 1991b, 1995) and Maiden Castle (Sharples 1991a, 1991b), suggests that activity was either significantly reduced or subject to a change in character during the first century BC. If this was the case on hillforts in the Welsh Marches also, the scarcity of early La Tène III brooches may be due to the fact that sites occupied in the first century BC activity have simply not be excavated. This may be true in part, but as noted, an increasing number of non-hillfort excavations have been conducted in recent years. These include sites which were occupied throughout the middle and late Iron Age periods, although, admittedly, there are indications that the nature of activity may have changed during the first century BC (e.g. Beckford, Collfryn, Sharpstones site E). A third possibility is that brooches of the period just did not reach the Marches (e.g. Stanford 1974, 164). In fact a few did, although, with the exception of the Chester and Wroxeter examples, these are confined to the south of the study area. Also, just outside the region, at Salmonsbury, there is an assemblage of seven brooches of La Tène D form, while at Glastonbury and Meare a combined total of 42 relevant brooches have been recorded (Haselgrove 1997, figure 8.3).

This contrast between adjacent areas may reflect powerful cultural restrictions, or it may represent cultural differences, either in deposition practices or in the preferences for specific brooch types, with La Tène II brooches perhaps continuing to be used within the study area where they were not outside of it. This contrast between the south-east of the study region, and the rest of the Marches coincides with other differences in, for example, coinage distribution (page 166) pottery manufacture/distribution (page 214) currency bar distribution (page 169) and the date of the introduction of rotary querns (page 102). This suggests that some form of cultural boundary did exist, perhaps within the vicinity of the River Severn.

From the latter part of La Tène III (period IIIb) there is a clear increase in the deposition of brooches in the Welsh Marches, a phenomenon which is reflected across the country as a whole (Haselgrove 1997, 61; Hill 1997, 98). For the first time deposition on non-hillforts noticeably outnumbers that on hillforts. Generally this would appear encouraging in terms of setting sites in their chronological context. Unfortunately, many brooches are unstratified or from residual deposits on sites which show evidence for both Iron Age and Roman occupation, and therefore may belong to either period.

Coinage

The south-east of the study area falls within the distribution zone of one of Britain's late Iron Age (*c.* 100/50 BC) coinage groups. The distribution patterns of coinage during this period are often interpreted as reflecting the approximate boundaries of tribal entities, with the 'Western Coinage' relevant to this study representing a people who, in the Roman period, were known as the Dobunni (Chapter 9 and appendix 6). There is the potential, therefore, for coinage to provide some indication of date, particularly if recovered from a secure context during excavation. Unfortunately, there are various problems associated with the dating of sites by reference to coinage generally, and Dobunnic coinage specifically. Difficulties arise in establishing relative sequences for recognised classes of coin, let alone fixing those classes to absolute date ranges. Dobunnic coins were produced in either gold or silver. The former were inscribed with the name of a ruler with the exception of a type stylistically influenced by coins from southern England and regarded as the earliest class in the Dobunnic sequence ('British R'); the majority, although not all, of the latter were uninscribed.

The first attempt to systematically examine Dobunnic coinage was undertaken by Allen (1961), who identified a system of classes according to inscription or typological trait. These classes are largely maintained to the present day, as is the relative chronology with which Allen ordered the silver coinage of the Dobunni. However, some uncertainty remains as to the relative sequence of the inscribed gold coinage because, unlike the silver, there is little stylistic variation between different types (except for that of BODVOC). Figure 5.14 illustrates various frameworks that have been proposed, including correlation with the silver coinage classes where possible or attempted, and absolute dates if proposed. The major discrepancy lies in whether the gold staters inscribed CORIO and BODVOC, should be placed at the end of the sequence or at the beginning of the inscribed issues. The argument for the former rests on stylistic grounds in which it is argued that BODVOC's coins show considerable Roman influence and similarity with the late issues of other British coin-producing tribes (Allen 1961, 87; Hobbs 1996, 26). The argument for an earlier date lies primarily in metallurgical and metrological analyses through which it has been shown that the coins of CORIO and BODVOC were intrinsically more valuable than those of the other inscribed coinages, and bear strong weight and fineness similarities with uninscribed British R, the earliest

Dobunnic coinage (Haselgrove 1993, 45; Van Arsdell 1989, 266-268; 1994, 5). Combined with some typological support (Van Arsdell 1994, 5) and the fact that coins from other regions generally became more debased over time rather than vice versa, a place early in the Dobunnic sequence for CORIO and BODVOC staters is perhaps most likely.

The second main difficulty with dating sites by coinage lies in the chronological limitations of the evidence. The first coins in circulation within (south-eastern) Britain were imported from the Continent in the second century BC. The first coins probably manufactured within Britain ('potin') date to the late second/early first century BC and are entirely confined to the south-east of England. Hence coinage is only useful for dating purposes from the second century BC. This situation is emphasised with respect to the study area, in that Dobunnic coinage was not minted before the mid first century BC (figure 5.14), although the coinage of adjacent regions may have been circulated within Dobunni territory prior to this.

The spatial confines of coinage distribution are also a major limitation of their usefulness for dating purposes. The coin producing 'tribes' of late Iron Age Britain seem to have been confined to the south-east of a line running from the mouth of the Severn to the Humber, although a distribution 'overspill' does infringe beyond this 'boundary'. This is particularly important with relation to the present research, as the study area straddles this apparent border. Consequently Dobunnic coinage is only really found in the south-east of the region (figure 10.14). Even here, however, its use as a dating medium can be called into question. Out of some 113 Dobunnic coins that have been recovered from within the confines of the study area, only 43 are recorded as coming from excavated contexts. Consequently, the presence of a Dobunnic coin within the region will rarely provide information more reliable than that some sort of activity occurred on the site in question after the mid first century BC.

Other Metalwork

Several other forms of first millennium BC metalwork can be assigned to general periods through the identification of distinctive typological traits. These include various examples of fine weaponry, tools and personal ornament. The majority of such metalwork in the Welsh Marches belongs to the later Bronze Age period (appendix 7), and has been recovered by chance from non-settlement contexts (chapter 10). The main exceptions are three assemblages of artefacts excavated from the Breiddin (Musson 1991), Beeston Castle (Ellis 1993) and Nottingham Hill (Hall and Gingell 1974) hillforts. All three of these assemblages are characteristic of the 'Ewart Park' metalworking tradition, conventionally dated from *c.* 900/800 to 700 BC (Burgess and Coombs 1979; Gerloff 1981). Recent work by Needham *et al* (1996), radiocarbon dating Bronze Age metalwork assemblages from associated organic residues, has shown that the traditional dating framework needs to be stretched backward. This particularly applies to metalwork of Wilburton type which, instead of beginning around 1000 BC as previously argued, should begin around the mid twelfth century cal BC. The effect on the dating of the Ewart Park tradition is less marked, however, the apparent hiatus between Wilburton and Ewart Park being filled by a tradition typified by finds from the Blackmoor hoard (Needham *et al* 1996, illustration 15), and the ending of the typological period modified to nearer *c.* 800 cal BC.

A number of Iron Age currency bars have been recovered from settlement, and some non-settlement contexts in the south-east corner of the study area (Chapter 9). In the first comprehensive discussion of these 'ingots', Allen proposed they dated to the first century BC (Allen 1967, 322). Subsequent excavation and analysis, however, suggests that their deposition began as early as the third century BC, and continuing into the first century BC (Hingley 1990b). Barring these artefacts there are almost no chance single finds or hoards of iron metalwork from the study area (appendix 7). The few finds known are all derived from excavation and comprise a limited number of distinctive La Tène weaponry and personal ornament including brooches.

DISCUSSION

Establishing a chronological framework for the Welsh Marches as a whole is problematical despite the availability of several categories of evidence. This is primarily because the usefulness of that evidence is affected by spatial and chronological limitations, restricted quantity, poor stratification and poor association. This has resulted, at least until comparatively recently, in different degrees of reliance being placed on different forms of evidence in different areas (especially, radiocarbon in the north as opposed to pottery in the south), thus making the construction of a 'Marches-wide' chronological framework unfeasible. In addition, the Marches itself is extensive in terms of area, and chronological patterns observable in one region are not necessarily applicable to another without adjustment. This is particularly evident with respect to the chronologically different 'core' and 'extended' distributions of certain middle Iron Age pottery (pages 64-67 and 74-75).

As a result the chronological structures proposed in this Chapter should be regarded with caution. On the other hand, it is important not to be overly pessimistic. The relative pottery sequence is reasonably comprehensive, although it will doubtless require some refinement as more evidence becomes available. Equally, although based upon only a limited number of radiocarbon and brooch associations and therefore unavoidably 'approximate' in nature, the absolute framework upon which this sequence has been pinned is unlikely to be excessively inaccurate. Combined with the carbon-14 based chronology for hillfort rampart architecture it is consequently possible to reasonably accurately determine the chronological context of many sites, whilst more precise dating of certain of others is possible due to the extensive radiocarbon sequences that have been obtained. Even where 'precise' dating is not feasible, activity observed activity still can be set within broad horizons (e.g. early, middle and late first millennium BC) on the basis of the other categories of evidence discussed in this chapter.

CHAPTER 6

HILLFORT ENCLOSURE IN THE WELSH MARCHES

INTRODUCTION

As has been emphasised in earlier chapters, hillforts are an important aspect of later prehistoric evidence in the Welsh Marches and, rightly or wrongly, have been traditionally regarded as being fundamental to an understanding of the mechanisms by which society was reproduced. Because hillforts survive in upstanding form (page 30 and below), they have received a disproportionate amount of attention compared to non-hillfort sites, and as a result there is a reasonably comprehensive body of data on their morphological attributes. Indeed, the quantity of information is too extensive to allow comprehensive analysis of every site in a body of work such as this which is aimed towards examining a wide cross-section of evidence for first millennium BC society in the Welsh Marches. Consequently it is necessary to be selective in establishing the objectives of this chapter, and by implication the approaches adopted in attempting to achieve those objectives. It was therefore decided to adopt methods which would allow the hillforts within the study area to be analysed as a broad group. This necessarily involved concentrating on morphological characteristics obtained through surface survey which were available for the majority of sites. This chapter therefore concentrates on examining the morphological variations of hillforts within the Welsh Marches, particularly from a spatial point of view with the aim of identifying intra-regional contrasts. Additionally, in recognition of work which has emphasised the importance of landscape continuity (e.g. Barrett *et al* 1991; Cunliffe 1990) there needs to be some consideration of the significance of earlier prehistoric activity on the siting of hillforts. It is appropriate to consider this while examining the spatial distribution of hillforts, because the presence of pre-existing monuments, or the knowledge of areas of pre-existing importance, may well have influenced the positioning of later prehistoric sites.

In focussing on hillforts generally rather than individually, and by concentrating on morphological evidence, there is a risk of missing important patterns. This potential problem is recognised, and will be addressed in Chapter 11, where two particular landscapes within the study area are analysed.

HILLFORT SURVIVAL

Before examining the distribution of hillforts in the Marches, it is important to first consider the degree to which the existing archaeological record is a true reflection of the original picture. Hillforts, as defined within the parameters of this research, are elevated, enclosed sites over 1.2 ha in internal area, more often than not surrounded by monumentally proportioned earthworks, and in locations elevated above the surrounding landscape and/or in locations which are defensively strong. Consequently, they are more likely to have survived to the present day in upstanding form than contemporary non-hillfort enclosures which, by nature of their smaller size, slighter earthworks, and greater tendency to be located in lower-lying regions, will have been more vulnerable to the destructive processes of agriculture, mineral extraction and urban development. Generally this assumption holds true (contrast for instance, figures 7.5 and 7.6). Nevertheless, the evidence for the distribution of hillforts in the Welsh Marches as it presently exists (figure 6.3) may not be complete. In many instances, the destructive processes associated with modern day industry and agriculture are relevant to hillfort as well as non-hillfort survival. Just outside of the study area, the site of Dinorben, Clwyd was completely removed as a result of mineral extraction in the 1970s, although not before a campaign of rescue excavation could be carried out (Gardner and Savory 1964; Guilbert 1979, 1980; Savory 1971a, 1971b), while numerous sites across the Marches have been partially obliterated through quarrying. Agricultural activity, particularly repeated ploughing, can also accelerate the destruction of hillfort earthworks and interiors. This may result in either significant mutilation of a site, perhaps to such a degree that confident classification cannot be made (e.g. figure 6.1 earthwork evidence). It can sometimes lead to the complete demolition of a site, as at the Ditches, Gloucestershire (Trow 1988a), and perhaps also some of the documented hillforts on figure 6.1 for which there is no longer surface evidence.

A third point to consider is that the presence of large upstanding ramparts, coupled with the defensively commanding location, made these sites potentially attractive to the builders of succeeding periods. This is especially true of the Medieval period and the appearance and development of castle architecture in Britain. There are several examples from the study region where mottes are suspected of having being constructed by raising existing prehistoric barrows, such as St Weonards and Thruxton, Herefordshire, Llansantffraid Deuddwr and Wollaston, Shropshire (Cathcart King 1983). The same is true with respect to hillforts, where the circle of the ramparts presented a ready-constructed enclosure for castle builders. This is known to be the case at Beeston Castle (Ellis 1993) and Herefordshire Beacon, Herefordshire, and was almost certainly also the case at Castell Dinas Bran, Powys. Other suspected examples are Knucklas Castle, Powys; Cause Castle and Ritton Castle, Shropshire; and Elmley Castle, Worcestershire (mapped as reused enclosure on figure 6.1). There may well be other such sites which do not reveal themselves so clearly in the surface evidence, which only excavation will identify. In terms of numbers of castles, the Welsh Marches, together with the Scottish Borders (where a similar phenomenon can be detected), is the most densely packed region of the country. Within the study area itself, there are approximately 310 extant castle fortifications of all forms and dates. It would be surprising, therefore, if more than the handful already identified did not utilise pre-existing hillfort earthworks. This same argument applies to church precincts. At Little Ness, Shropshire, a church was built within a castle bailey; there is little reason to doubt that hillfort enclosures may have been similarly exploited. A possible example from Worcestershire is Church Coppice, Hanbury, where a plan of the earthworks which surround Church Hill suggests a prehistoric fortification (figure 6.1).

Figure 6.1 illustrates the distribution of sites classified on SMRs as being possible hillforts. Bearing in mind the criteria for hillforts reviewed above, the number involved may seem quite large, and the nature of the evidence merits some discussion. Places which suggest a nearby fortified or defended site, for example *castell* meaning castle, must be considered with caution. Even if an archaeological site was ever associated with the area in question - there is generally a lack of supporting evidence - the name itself is not normally period-specific, and given the density of castles in the Marches, may refer to a medieval rather than prehistoric site. The concentration of placename evidence on the Welsh side of the border in the northern part of the study region, particularly around river valleys giving access into Wales proper, is interesting. It may in part be a result of the recording preferences of the local SMR personnel; the importance of those river valleys, especially that of the River Severn, in the conflict between England and Wales during the Medieval period is also potentially relevant. With respect to hillforts identified from documentary sources, the lack of surviving evidence is problematical, because there is a very real chance that the sources are referring to mis-sited extant hillforts, or that they have mis-interpreted natural or 'human-made' features.

The cropmark evidence on figure 6.1 concentrates around the Shropshire/Montgomeryshire border in the central Marches. This is matched by a dense clustering of non-hillfort cropmark enclosures in the same area, and is a direct consequence of the intense campaign of aerial reconnaissance in this part of the Marches over the last 25/30 years (Chapter 7). Given the same attention, other parts of the study region will probably yield similar results. Many of the earthwork sites on figure 6.1 have also only come to light through aerial photography, because the denuded nature of the supposed ramparts has made them difficult to identify from the ground

Even if some of the sites plotted on figure 6.1 do represent genuine prehistoric enclosures, one final point to bear in mind is that many would perhaps be classified, under the criteria set out in chapter 4, 'defended enclosures' (sites under 1.2 ha in area), and hence should not be regarded as true hillforts.

SPATIAL ANALYSES

In studying the distribution of various hillfort features for potential patterns, 'eyeballing' may not always provide enough information, nor objectivity. As a consequence, some more rigorous approaches will be employed where believed appropriate and worthwhile.

'Nearest Neighbour Analysis'

This form of spatial analysis was first employed by Clark and Evans (1954) as a means of looking at the distribution of different plant species. Since then it has been used by archaeologists to study various forms of evidence, ranging from artefact types (e.g. Whallon 1974) to hillforts (Newcomb 1970; Hodder and Orton 1976, 44-46). Its purpose is to measure the amount of 'randomness' in any given distribution. First, the density of points, p, is calculated:

$$p = (n - 1) / A$$

where n is the number of points (in this instance hillforts), and A is the number of units in the area of study. The mean nearest neighbour distance, ro, is given by

$$ro = \sum r / n$$

where r is the distance between nearest neighbours. The expected mean nearest neighbour distance, re, is given by

$$re = 1 / (2 \sqrt{p})$$

and the 'randomness' of the distribution, R, is given by

$$R = ro / re$$

It has been shown that, in a totally random distribution, the index R will equate to 1, whilst in a clustered distribution R would be less than 1 (reaching zero in extreme cases), and in a uniform or regular distribution R would be greater than 1 (to a maximum of 2.1491 in extreme cases) (Clark and Evans 1954, 450). For the results of the nearest neighbour analysis to be considered valid, it is useful to test whether ro differs significantly from re. This involves calculating the standard error of re, $\sigma(re)$:

$$\sigma(re) = 0.26136 / \sqrt{(np)}$$

and then the test statistic:

$$C = (ro - re) / \sigma(re)$$

This can be compared with the standard normal distribution to establish levels of significance. For the purposes of this research the 5% level (where $C = 1.96$ or more) and the 1% level (where $C = 2.58$ or more) will be considered significant.

Various problems are associated with nearest neighbour analysis. The first is that the value of R will vary according to the size of the study area (A) around any particular pattern. For instance, a regular spaced set of sites would actually produce a value indicative of clustering if a large area was included around their distribution. This can be overcome to an extent by, admittedly subjectively, 'eyeballing' the distribution of sites within the overall study area and, if required, recalculating *R* with an area, *A*, more appropriate to the site distribution being studied. The second problem relates to the boundary of a study area itself which can serve to distort the value of *R* because the nearest neighbours of points close to the boundary may actually lie beyond the limits of that boundary and hence not be counted. This 'boundary effect' (which applies to natural borders such as coastlines, as well as artificially created borders) has been shown to be quite considerable (e.g. Hodder 1971; 1976, 41-43). In order to try and overcome the problem, hillforts outside the Welsh Marches study area were included when undertaking nearest-neighbour analysis, and measurements taken to them if they corresponded to the nearest neighbour of any site within the study area. Also, if any site was nearer to a coastline than the nearest relevant neighbour, it was discounted from the analysis[ii]. The third problem relates to two assumptions. The first is that all the sites involved in the analysis are contemporary. Although a certain amount of confidence can be placed in the first millennium date of most, if not all, of the hillforts being considered, it is impossible to establish their exact date ranges (see Chapter 8). The second assumption is that the archaeological record is complete; again this is not necessarily the case.

'Site Catchment Analysis'

Research in human geography has shown that agricultural settlements often intensively exploit land up to 1 km away. Beyond this, distance will become a determining factor, with anything beyond 3 or 4 km increasingly less likely to provide sufficient returns to justify the time and effort of travelling (Chisholm 1962). This phenomenon gave rise to the term 'site catchment' to describe the area of exploited land around any specific site and has been applied by archaeologists in looking at archaeological landscapes (e.g. Ellison and Harriss 1972; Vita-Finzi and Higgs 1970). The site catchments used here in the analysis of hillforts in the Welsh Marches will be circular and of 2 km radius. It should be borne in mind that this shape, though theoretically ideal, is subject to various criticisms. The principal one is that differences in terrain could distort the shape of the catchment area in that it will take longer to travel over, for example, 1 km of rugged, hilly country, than it would over 1 km of a flat, featureless plain. The 2 km radius was selected because it should reflect the land most intensively exploited by a site, although not necessarily the total extent of the land exploited.

The 1944 Ordnance Survey map of land capability classification at scale 1:625,000 (OS 1944) was used to produce the site catchment areas of the hillforts examined in this study. This looks at soil drainage, gradient, depth etc. to evaluate land fertility and seemed more relevant than looking at past land use as a means of classifying areas. This is because it became clear whilst examining land use surveys undertaken in the 1930s and 1940s (which record figures and observations for land use during previous periods also), that the percentage of land in any one county devoted to arable, grass, rough grazing etc. was often dependent upon factors other than the fertility and nature of the land itself (especially economic factors which are unlikely to have been relevant to the first millennium BC of the area).

The 1944 map of land capability classification has a total of 12 land categories dispersed over 3 broad groups: Good, Medium and Poor quality land. The categories are often given a prefix of A or G, reflecting greater suitability for arable or grassland respectively, and H which denotes heathland. Those categories to be found in the Welsh Marches are listed in table 6.1. In using this map as a means of analysing the distribution of hillforts, it is important to consider the extent to which land quality in the mid twentieth century AD can be equated to land quality in the first millennium BC. The climatic and vegetational history of the study area during the later prehistoric period was discussed in Chapter 2. The deterioration of the climate in the earlier first millennium BC would perhaps indicate that less land was available than in the present day, particularly in the uplands where the formation of blanket peats has been recognised (page 15-16), and in lowland areas liable to flooding.

Good Quality Land		
1. First class land	Level or gently undulating: deep, fertile easily worked loams, silts, mild peats	1A
2. Good, general purpose farmland	Well drained soils of good depth, workable for much of the year	2A, 2AG
3. First class land	Similar to (1) but with a high water table or liable to flood	3G
4. Good but heavy land	Fertile but the period of working is restricted	4G
Medium Quality Land		
5. Downland	- and allied areas with shallow, light soils	5A
6. Medium quality farmland	Productive, but by reason of slope, climate or soil, not first class; often very mixed	6AG
Poor Quality Land		
7. Poor quality heavy land	With very heavy wet soils	7G
8. Poor quality mountain land	Thin, poor, stony soils, often with rock outcrops or patches of peat	8H
9. Poor quality light land	Very sandy or gravelly, light soils	9H
10. Poorest land	Shingle, sand, salt marsh etc	10

Table 6.1: Land Capability categories in the Welsh Marches

The situation in the later first millennium BC, where improvement brought the prevailing climate more in line with that of the present day (Lamb 1980, 56), may make the land classification map used for this study a more accurate representation of the situation in the late first millennium BC. Indeed, the evidence for extensive land clearance on river terraces and valleys (page 19) at this time is a possible reflection of improving land quality, although it could also be a result of other factors such as increasing use of iron allowing heavy soils to be more effectively worked (Haselgrove 1989), or pressures on existing land (due to, for instance, population growth (e.g. Cunliffe 1982)), necessitating expansion into previously unexploited areas.

Thiessen Polygons

The imposition of Thiessen Polygons onto a distribution of sites is intended to define theoretical territories for 'centres' within a landscape. They are produced by drawing perpendicular lines at midpoints between each centre and all its neighbours. A variation that tries to take account of the relative importance of different centres is to 'weight' the size of the polygons by drawing the perpendicular lines at a distance which is calculated according to the relative sizes of one centre over its neighbour (Hodder 1976, 187-188). Thiessen polygons have been used widely to investigate sites in different countries and of different periods, including British hillforts (e.g. Cunliffe 1971, 1991a; Stanford 1972). In recent years, criticisms of 'Central Place Theory', and the assumptions it makes concerning sites' function and contemporary usage, has meant that thiessen polygons are no longer regarded as valid in many circumstances. These arguments are particularly relevant to the Welsh Marches where excavation has been limited. However, in select circumstances, careful application of the principles underlying thiessen polygon analysis may be beneficial to understanding the distribution of hillforts in the study area (e.g. page 96.).

SIZE AND VALLATION

The characteristics of size and vallation are the principal means by which hillforts have been and are classified by archaeologists, because it is information that can be readily obtained through the field survey of surviving monuments. The intention here is to look generally at the complete distribution of hillforts within the study area, and then to look in detail at each specific size category as defined in chapter 4.

All Hillforts

Figure 6.2 shows the proportions of different hillfort groups within the study area. Excluding the 20 ha+ category, for which the sample is only small, the impression is one of consistency. Both the total number of hillforts, and the total number of different vallation classes, decreases as size increases. In addition, the proportion of bivallate to multivallate sites in each size category is approximately equal, whilst the proportion of bivallate and multivallate sites to univallate sites is fairly consistent. Very roughly, the numbers of bivallate and multivallate sites combined is equivalent to the numbers of univallate sites within each size class. Although it would be dangerous to draw any conclusions from this evidence, it is perhaps safe to acknowledge the regularity of the hillfort size and vallation structure across the Welsh Marches as a whole. A further point, made in Chapter 4 and worth reiterating here, is the degree to which bi- and multivallation actually reflect multi-phasing (c.f. Hingley 1992, 30), rather than a single construction event. This question may be significant in interpreting the results of hillfort distribution, and will be discussed below.

Figure 6.3 shows the distribution of all sites classified as hillforts within the study area, whilst table 6.2 provides details of nearest neighbour calculations.

	A	*n*	*p*	*re*	*ro*	*R*	*σ(re)*	*C*	*Result*
All hillforts	1867	117	0.062	2.006	1.760	0.878	0.097	-2.530	Clustered (5% significance)
Univallate hillforts	1867	62	0.033	2.766	2.283	0.825	0.184	-2.631	Clustered (1% significance)
Multivallate hillforts	1867	53	0.028	3.000	2.690	0.897	0.215	-1.433	Clustered (Not significant)

Table 6.2: Nearest Neighbour analysis for all Welsh Marches Hillforts

Although hillforts are widespread across the Marches, their density varies significantly. Some areas are relatively devoid of sites, most notably the Cheshire/Shropshire border and the south-west of the region, whilst others, particularly central Herefordshire, Gloucestershire, Gwent, and south Shropshire extending into north-east Powys, attracted considerable hillfort activity. The results of nearest neighbour analysis support this observation with the value of *R* corresponding to a clustered pattern with a 5% level of significance. The distribution can be explained, in part at least, by considering the nature of the landscape across the study area. The fringes of many major river valleys seem to have been chosen for the siting of hillforts, most notably the Wye in Herefordshire, but also the upper Teme and its tributaries in west Shropshire. Further north the drainage system becomes noticeably less complex; combined with the drop in altitude marking the north Shropshire and Cheshire Plain, this may imply a landscape less suited to the construction of hillfort sites than further south. The high, mountainous terrain which characterises much of the extreme west of the study area also seems to have been avoided by the hillfort builders. The densest concentration of sites in this part of the Marches is to be found in the more broken and less consistently high terrain around the Severn Valley.

There is a high ratio of univallate to bi/multivallate sites in the region extending from Gloucestershire through to Herefordshire and south-east Shropshire. This is also reflected by nearest neighbour analysis, where a clustered pattern with a 1% level of significance is recorded. The distribution of bi/multivallate sites is also clustered according to nearest neighbour analysis, but not to any significant degree. 'Eyeball' observation of figure 6.3, however, would suggest that this result has been distorted by the size of the study area. There certainly seems to be a distinct group of multivallate sites in south Gwent, another in north-west Herefordshire and south-west Shropshire, and possibly one in both east Powys/west Shropshire and Clwyd also.

Hillforts Between 1.2 and 2.9 ha

The distribution of hillforts of this size range is illustrated on figure 6.4; the results of nearest neighbour analysis are given in table 6.3. The latter indicates that, though generally clustered, the distribution of both univallate and bi/multivallate hillforts does not reveal any significant pattern.

	A	*n*	*p*	*re*	*ro*	*R*	*σ(re)*	*C*	*Result*
All hillforts	1867	48	0.025	3.151	2.674	0.849	0.238	-2.008	Clustered (5% significance)
Univallate hillforts	1867	23	0.012	4.606	4.598	0.998	0.502	-0.016	Clustered (Not significant)
Multivallate hillforts	1867	22	0.011	4.714	4.164	0.883	0.525	-1.048	Clustered (Not significant)

Table 6.3: Nearest Neighbour analysis for Welsh Marches Hillforts between 1.2 and 2.9 ha

Despite this, simple observation of figure 6.4 reveals some potential points of interest. There appears to be a certain amount of uniformity in the evidence for univallate sites in Hereford and Worcester and Gloucestershire, implying that a pattern *within* the study region is being masked by considering the region as a whole (see above). To test this theory, nearest neighbour analysis can be applied where *A* covers only the relevant part of the southern Marches (table 6.4). The results from this analysis suggest very strongly that univallate sites were uniformly distributed in Herefordshire, and perhaps also Worcestershire and Gloucestershire.

A	*n*	*p*	*re*	*Ro*	*R*	$\sigma(re)$	*C*	*Result*
704	11	0.014	4.195	6.059	1.444	0.661	2.819	Uniform (1% significance)

Table 6.4: Nearest Neighbour Analysis for univallate hillforts between 1.2 and 2.9 ha in the south of the study area

There is some indication of a similar pattern in northern Shropshire and east Powys, although the numbers of sites involved is only small and cannot be tested.

With respect to bivallate and multivallate sites, the main point is the very distinct group of fairly evenly distributed multivallate hillforts in Gwent, which the results of nearest neighbour analysis (table 6.3) did not identify. Such sites are relatively rare in Hereford and Worcester, certainly more so than univallate sites. There is a total absence from north Herefordshire which gives the impression of a break, marked by a line of four univallate hillforts, before a comparatively dense distribution (of bivallate hillforts particularly) in central and north Shropshire and east Powys. These appears to be relatively uniformly distributed, although nearest neighbour analysis focusing on the area in question rather than the whole study region, does not indicate any significant pattern.

The site catchment analysis results for hillforts in the 1.2 - 2.9 ha size range are summarised in table 6.5 and figure 6.5.

		Present within 2km radius	**50%+ of land type within 2 km radius**
	Good	77%	25%
Total Hillforts	**Medium**	83%	67%
	Poor	27%	2%
	Good	72%	32%
Univallate	**Medium**	84%	56%
	Poor	36%	4%
	Good	81%	15%
Bivallate/Multivallate	**Medium**	81%	74%
	Poor	19%	-

Table 6.5: Site Catchment Analysis of Hillforts 1.2 - 2.9 ha

For univallate sites, medium quality general farmland is of primary importance, being found within 2 km of most hillforts, and dominating the catchments of over half. However, good quality land, particularly general farmland but also land suited to pasture, also seems to play a potentially important role in the hillfort distribution, comprising the major land type around a third of all univallate sites. Poor land seems to have been generally avoided; although it occurs within 2 km of 36% of all univallate hillforts, in most cases it accounts for less than 30% of the total site catchment area.

This overall picture contrasts to that presented by bivallate and multivallate sites. Medium quality farmland is again present in the majority of hillfort catchments, but it dominates in around three quarters, a somewhat larger figure than for univallate sites (table 6.5). Furthermore, although most hillforts also possessed good quality land within their catchment areas, only in 15% of cases was good land predominant within the catchment, a figure significantly lower than with univallate hillforts. An emphasis is observable with respect to bivallate forts on land most suited to pasture, whilst general farmland appears slightly more important with respect to multivallate forts. Poor land is again not well represented, and was apparently not a significant aspect of most site catchments.

Hillforts Between 3 and 5.9 ha

Table 6.6 provides information relating to nearest neighbour analysis. This implies that the overall distribution of sites is not significantly patterned, although, once again, non-rigorous examination of the distribution (figure 6.6) does reveal some interesting trends.

	A	*n*	*P*	*re*	*ro*	*R*	σ(*re*)	*C*	*Result*
All hillforts	1867	36	0.019	3.652	3.367	0.922	0.318	-0.896	Clustered (Not significant)
Univallate hillforts	1867	20	0.010	4.956	3.830	0.773	0.579	-1.944	Clustered (Not significant)
Multivallate hillforts	1867	15	0.007	5.774	5.080	0.880	0.779	-0.891	Clustered (Not significant)

Table 6.6: Nearest Neighbour analysis for Welsh Marches Hillforts between 3 and 5.9 ha

Univallate sites between 3 and 5.9 ha have a generally easterly distribution throughout the length of the region, and in Gloucestershire dominate hillforts in the 3 - 5.9 ha size range.

Bivallate and multivallate sites of this size category cluster most notably in the central Marches, although a scatter is traceable southwards along the River Wye. There is an overall concentration of sites of the 3 - 5.9 ha range in north Herefordshire and south Shropshire. This would appear to mark the presence of a distinct, but overlapping pattern, to the univallate distribution of 1.2 - 2.9 ha sites in Herefordshire, and the bivallate/multivallate distribution of 1.2 - 2.9 ha sites in central and north Shropshire and east Powys (figure 6.4).

		Present within 2km radius	50%+ of land type within 2 km radius
	Good	84%	49%
Total Hillforts	**Medium**	70%	43%
	Poor	14%	5%
	Good	80%	60%
Univallate	**Medium**	55%	30%
	Poor	15%	5%
	Good	88%	35%
Bivallate/Multivallate	**Medium**	82%	59%
	Poor	12%	6%

Table 6.7: Site Catchment Analysis of Hillforts 3 - 5.9 ha

The results of site catchment analysis on hillforts between 3 - 5.9 ha (table 6.7 and figure 6.7) show that, in overall terms, good quality land was more important, and medium quality land less so, than for hillforts between 1.2 - 2.9 ha (table 6.6 and figure 6.5). This is most evident with respect to univallate hillforts where good land dominated the catchments of more than half the sites. In contrast, good land comprised the dominant land type in under a third of bivallate/multivallate sites, although present within 2 km of almost all hillforts. Medium quality land appears to have been subsidiary to better quality land with respect to univallate sites, whilst it was of most significance to bivallate and multivallate hillforts. Curiously, although the trend is towards higher proportions of good quality land with hillforts between 3 - 5.9 ha, the pattern identified for hillforts between 1.2 - 2.9 ha - in which univallate sites are more likely to be associated with significant proportions of good land than bivallate or multivallate sites - is repeated.

Poor land, though located within the vicinity of several hillforts, was rarely a significant component of any one hillfort catchment.

Hillforts Between 6 and 19.9 ha, and Hillforts Over 20 ha+

The distribution of hillforts between 6 and 20 ha is shown on figure 6.8; the distribution of hillforts over 20 ha on figure 6.9. There are only six of the latter within the study area, making it unrealistic to attempt nearest neighbour analysis. However, the results of this analysis with regard to the former size range are given in table 6.8.

	A	*n*	*p*	*re*	*ro*	*R*	σ(*re*)	*C*	*Result*
All hillforts	1867	25	0.013	4.410	4.100	0.930	0.461	-0.672	Clustered (Not significant)
Univallate hillforts	1867	16	0.008	5.578	3.925	0.704	0.779	-2.268	Clustered (5% significance)
Multivallate hillforts	1867	7	0.003	8.820	7.443	0.844	1.743	-0.790	Clustered (Not significant)

Table 6.8: Nearest Neighbour analysis for Welsh Marches Hillforts between 6 and 19.9 ha

The clustering of univallate sites, which revealed itself at a level of 5% significance with nearest neighbour analysis, is very apparent, virtually all examples being in Herefordshire and Gloucestershire. There are grounds for arguing that the two bivallate sites in east Herefordshire and Worcestershire (Herefordshire Beacon and Bredon Hill Camp), had univallate phases which, if true, would obviously only serve to strengthen the pattern. Credenhill, a univallate site of 20 ha should perhaps also be considered within this overall distribution, as it falls only narrowly outside the 6 - 19.9 ha size range, and is clearly located within the area in question. There is evidently, therefore, a distinct hillfort pattern, comprising very large univallate sites in Herefordshire (possibly extending into parts of Worcestershire and Gloucestershire), which is not apparent anywhere else in the Marches. Many of these sites are distributed along the Wye valley. Moreover, the spacing of hillforts along the valley appears fairly uniform, as if each was occupying its own block of land abutting onto the river.

Due to the overall similarities in size and vallation of hillforts in this area, and all excavated examples having revealed signs of middle Iron Age activity (figure 8.1), it is worth using Thiessen polygons to estimate possible theoretical territories for each site over 5.9 ha (figure 6.10). Several of the polygon boundaries can arguably be seen to approximately coincide with the routes of the major rivers. This is most evident along the Wye where the boundaries actually change direction to follow the course of the river. In this region of the Marches, the main waterways would therefore have marked the borders between various landscape units, each of which may have been associated with a major hillfort (c.f. Cunliffe 1991a, figure 10.1). A further observation is that many (though certainly not all) of the subsidiary hillforts are located on, or relatively near, the boundaries predicted by the Thiessen polygons. This hints at a deliberate spacing equidistant between major hillfort sites, for which several explanations can be proposed. The first is so as to give equal access to two or more major hillforts and whatever functions they fulfilled; the second is so as to escape the control of such sites by being located as far away from the centres of their influence as possible. A third alternative is the 'rise to dominance' model where a block of land could only support one major hillfort.

Little can be said concerning bivallate and multivallate hillforts over 6 ha, because relatively few are to be found within the study region. Such sites are predominantly located in the northern half of the study area (especially bearing in mind that two in Hereford and Worcester may have been multi-period univallate sites), and appear to be distinct from the univallate settlement pattern centred on Herefordshire. In addition, the examples situated in north-east Shropshire avoid the distribution of smaller hillforts identified above, possibly implying two different patterns of distribution, whilst the two sites on the Powys/Shropshire border, the Breiddin and Llanymynech Hill (which are the third and first largest sites in the study area at 28 ha and 57 ha respectively) are located within, although on the periphery, of that same small hillfort distribution.

The site catchment results are presented in tables 6.9 and 6.10 and figures 6.11 and 6.12.

		Present within 2km radius	**50%+ of land type within 2 km radius**
	Good	92%	62%
Total Hillforts	**Medium**	77%	27%
	Poor	19%	4%
	Good	94%	76%
Univallate	**Medium**	71%	24%
	Poor	12%	-
	Good	89%	33%
Bivallate/Multivallate	**Medium**	89%	33%
	Poor	33%	11%

Table 6.9: Site Catchment Analysis of Hillforts 6 - 19.9 ha

The increase in size seems to be associated with a rise in the importance of good quality land relative to medium quality land, continuing the trend identified on page 94. Once again univallate sites are particularly associated with the better quality land, and land suited to arable agriculture seems to have been of greater significance than land suited to pasture. Medium quality land, though often located near univallate sites and sometimes comprising significant proportions of a site catchment, was not as significant as good quality land. The pattern is reversed somewhat, as previously, when considering bivallate and multivallate hillforts, where medium quality land becomes more important and good quality land becomes less important. Poor land, although clearly secondary to both good and medium land, is also not insignificant with respect to the site catchments of some bivallate/multivallate sites.

		Present within 2km radius	50%+ of land type within 2 km radius
	Good	67%	17%
Total Hillforts	**Medium**	100%	83%
	Poor	17%	-
	Good	50%	-
Univallate	**Medium**	100%	100%
	Poor	50%	-
	Good	75%	25%
Bivallate/Multivallate	**Medium**	100%	75%
	Poor	25%	-

Table 6.10: Site Catchment Analysis of Hillforts 20 ha+

Because of the limited numbers of hillforts over 20 ha, it is difficult to put confidence in any patterns which are observed. It is obvious, however, that medium quality land dominates the catchments of both univallate and bivallate/multivallate hillforts.

The preceding analysis of hillfort size and vallation has identified a number of regions within the Welsh Marches as a whole, where different forms of site tend to dominate. These areas will be reviewed in more detail, after there has been consideration of other key hillfort morphological features. The analysis has also shown a clear correlation between increasing site size and an increasing importance of good quality land in site catchments. Furthermore, there is apparently a tendency for univallate sites to be situated nearer to significant quantities of good quality land than bivallate/multivallate sites.

ENTRANCES

Orientation

Hillfort entrances, together with non-hillfort enclosure and round house entrance orientation, has been subject to widespread analysis and debate over recent years (e.g. Hill 1995b, 1995c; Guilbert 1975a; Oswald 1997). A pattern has been recognised in which the north-east to south-east arc seems particularly significant. Initial functional interpretations for this orientation with respect to houses, such as an intention to avoid the prevailing wind, have been challenged (e.g. Oswald 1997). Instead, explanations rooted in the ritual beliefs embedded within the life of Iron Age peoples have come to the fore (e.g. Hill 1995b, 1995c). Figure 6.13 depicts the distribution of hillfort entrance orientation in the Welsh Marches, compared with an analysis of that undertaken in southern England (Hill 1995c, figure 8.7).

Though not dissimilar, there are clearly different emphases between the areas. An easterly orientation is particularly important in Wessex, as it is in the Welsh Marches, but in the latter it is secondary to a north-east orientation, which is of only limited significance in south central England. On the other hand, west is very important in Wessex, and not so much so in the Marches. This east/west dominance in Wessex reflects hillforts which possessed two opposing entrances rather than a significant group of sites with just a single west entrance. Interestingly, a related pattern emerges in the Welsh Marches if the evidence is analysed in a little more detail. Figure 6.14 shows the entrance orientation of those hillforts which possess just one entrance. North-east is again very important, but slightly less so now than east, whilst all other directions appear relatively insignificant.

Figure 6.15 shows the entrance orientation of those hillforts which possess two entrances. 0North-east, east and south-east entrance orientations are prevalent, but so are their opposites and in almost equal proportions. It must therefore be concluded that, though the north-east to south-east arc was clearly of paramount importance to the hillfort builders, where a site was furnished with two entrances, they were often set so as to oppose one another. Whether this design was functional (accessibility from more than one side of the hillfort), or based upon more abstract beliefs embedded within the society, is uncertain.

Entrance Architecture

The identification of hillfort entrance features is subject to two main problems. The first is that most of the evidence we possess is derived from surface survey of upstanding remains rather than excavation. Obviously, therefore, many details of the original entrance layout may be missed, with those features not likely to survive in upstanding form most liable to under representation. In addition, the destructive processes discussed on page 84 have frequently led to extensive mutilation and destruction of hillfort entrance areas.

Certain comments can be made, however, concerning the overall distribution of the principal architectural features across the study area (figure 6.16). Inturned ramparts are widespread and are associated with hillforts of all sizes and vallation, although the density falls off towards the south and south-west of the region. Guard chambers also have a wide distribution, with particular concentrations observable in the north (several sites to the west of the study area extend the pattern further into Wales: Moel Hirradug, Dinorben, Castell Cawr and Pen-y-Corddyn) and in the central Marches, with limited extension into central Herefordshire, Worcestershire and Gloucestershire. Guard chambers are often regarded as particularly characteristic of the Welsh Marches (e.g. Cunliffe 1991, 337). Though certainly a feature of the region, they have also been identified further afield, for example at Rainsborough Camp, Northamptonshire (Avery *et al* 1967) and St. Catherine's Hill, Hampshire (Hawkes *et al* 1930; Hawkes 1976). They are generally believed to be an early to middle Iron Age phenomenon (*c.* fifth century BC). However, their presence at Leckhampton Camp, Gloucestershire and Castle Ditches, Cheshire, which both seem to have been abandoned before the middle Iron Age, suggests an earlier origin. From the evidence of Croft Ambrey, Midsummer Hill and possibly Beeston Castle, guard chambers probably ceased to be used in the middle Iron Age, perhaps in the fourth/third centuries BC.

'Bridges' (see Chapter 4) are only likely to be identified with excavation, hence little can be said about their distribution. The six sites in the Marches at which they are recorded are all situated in the southern half of the study area. As noted in Chapter 4 (page 64), the dating of such structures is uncertain. The examples at Croft Ambrey and Midsummer Hill (the latter of which has an associated radiocarbon date which calibrates to (347) 157 cal BC – cal AD 127 (241) (Birm-143, 2000 ± 100 bp)), support Cunliffe's suggestion of a third/second century BC date (Cunliffe 1991a, 339). However, the bridge at Crickley Hill – which was abandoned before the middle Iron Age - would appear to support Avery's assertion that bridges were a feature associated with wall-and-fill ramparts (Avery 1993). These have a predominantly late Bronze Age/early Iron Age date range (Chapter 5). Overall, therefore, the evidence suggests prolonged usage of bridges throughout the Iron Age period.

The distribution of hornworks and related outwork features is densest in the central west of the study area, where the terrain is fairly rugged and broken, although there is some extension down into the more gently undulating landscape of central Herefordshire. Generally, they are associated with bivallate and multivallate hillforts. This could suggest they were a feature of sites which date to the middle Iron Age and later (e.g. Cunliffe 1991a, 333), although dating sites by vallation is dangerous (c.f. Chapter 4). In addition, excavations at Crickley Hill (Dixon 1994), revealed evidence for an entrance hornwork in Period 3, showing that such structures were being constructed before the fifth century BC. Although there are some impressive hornworks within the Marches, overall they generally do not seem to have reached the level of complexity found at some hillforts in southern England, such as Maiden Castle, and Danebury.

SINGLE AND MULTI-ENCLOSURE HILLFORTS

The simplest, and most common, type of hillfort comprises a single enclosure surrounded, or partially surrounded, by a set of earthworks. However, there are examples of sites comprising more than one enclosure. Three principal categories can be identified in the Welsh Marches:

1) Annexed Enclosures. This represents the simplest type of multi-enclosure hillfort, where there is (usually) a main enclosure to which is attached one, or occasionally more, subsidiary enclosures (figure 6.17a and 6.17b).
2) Internally Divided Enclosures. Also sometimes referred to as 'cross-bank enclosures', this group comprises what appears to be a single enclosure, divided by some form of internal earthwork (figure 6.17c and 6.17d). This may often reflect the contraction or expansion of a single enclosure hillfort, for example Twyn y Gaer (Probert 1976), and Conderton Camp (Thomas 1959).
3) Wide-spaced rampart forts. This group can be divided into two sub-categories:

   a) 'Concentric enclosure forts'. Forts of this morphological group were first extensively discussed by Fox (1953, 1961) in her analysis of sites in south-west England and Wales. They are characterised by a central enclosure surrounded at some distance by a second, concentric enclosure. The precise type examined by Fox is rare in the study area (although it does occur more frequently further west in Dyfed and Glamorgan). However, it is questionable whether such sites should be considered hillforts anyway. They tend to be non-defensively situated on hillslopes, while the central enclosure – seemingly the focus for domestic occupation - is almost always under *c.* 1 ha in internal area. The study area does however have some examples of hillforts proper possessing wide-spaced and concentric ramparts (figure 6.17e and 6.17f), although – like the internally divided enclosures discussed above - they may represent the expansion or contraction of a single enclosure site, rather than wide-spaced concentric ramparts being an intentional aspect of the hillfort design.

   b) Non-concentric rampart enclosure forts. These comprise bivallate and multivallate sites where an enclosure outside the main interior of the hillfort has been created between two ramparts. Often this may result from one earthwork diverging from the line of an adjacent earthwork (figure 6.17g), or, as at the Breiddin, Powys, of an earthwork folding back on itself (figure 6.17h). In neither case does the additional enclosure extend around the whole circumference of the hillfort's inner rampart.

Figure 6.18 shows the distribution of single and multi-enclosure hillforts within the Welsh Marches. The latter are absent from the northern third of the study area and south-east of the River Severn in Gloucestershire, whilst single enclosure sites have a widespread distribution throughout most of the region. Annexed enclosures (type 1) and non-concentric rampart enclosures (type 3b) can be divided into two groups, one concentrating in the south of the region, the other north Herefordshire and south Shropshire. The terrain is broken in nature in both instances, and the sites seem to either cluster close to rivers and/or the 180 m contour. This may imply specific strategies for exploiting both lowland and upland zones, the nature of 'multi-enclosure' perhaps lending itself towards animal husbandry regimes where livestock could be protected and controlled within an area separated from the main domestic space. However, a degree of caution is necessary, since the majority of single enclosure hillforts are also situated near to rivers and often on or near the 180 m contour, presumably also to exploit upland and lowland resources (c.f. Haselgrove 1982 for similar patterns in the distribution of small enclosures in north-east England). The clustering of multi-enclosure sites in the south and in the central Marches, therefore, may as much reflect different cultural traditions/groups as different agricultural/economic practices.

PREVIOUS ACTIVITY

The influence of a pre-existing landscape on later landscape development has been shown to be considerable in many periods and areas of Britain (e.g. Barrett *et al* 1991). Discussion of this phenomenon within the first millennium BC has varied, often being confined to consideration of individual sites, such as Maiden Castle (Sharples 1991a, 1991b). More wide ranging studies, such as that conducted by Hingley in Atlantic Scotland and elsewhere (1996, 1999), have served to emphasise more generally the importance of pre-existing monuments on the development of the Iron Age landscape. Some consideration of the impact of previous activity on the distribution of hillforts in the Welsh Marches is thus appropriate. Most obviously this would relate to monuments which were still upstanding at the time of hillfort construction. In addition, other locations may have retained some inherent importance which had its roots in earlier prehistory, and was conveyed through time in a non archaeologically visible way. These will generally be impossible to identify with certainty. A number of hillforts in the Marches occupy sites, which have produced finds suggesting activity in the early/middle Bronze Age and Neolithic periods. This could, however, reflect the attractiveness of one particular location for occupation at different periods, rather than or as well as, any symbolic or ritual importance attached to the area.

In examining the association of hillforts with earlier prehistoric earthwork monuments, the problems of survival must again be considered. In all probability, the examples which can be identified will not reflect the true extent of the original picture. Taking this into account, however, it is apparent that a number of hillforts were located in positions, which were also used in earlier periods for monumental construction. Crickley Hill, is the only certain hillfort so far identified in the study area constructed upon the same site as a Neolithic monument – a causewayed enclosure, which, after a complex history culminating in a strongly defended settlement, seems to have been destroyed. Later a long mound was constructed on the hilltop which similarly appears to have been long-lived and to have undergone a series of developments. The inherent importance of the site is therefore obvious, and may have been instrumental in its selection as a location for the construction of a hillfort in the first half of the first millennium BC, although this should not detract from its 'natural' advantages also. The link is emphasised by considering Maiden Castle which appears to have undergone a strikingly similar development (Sharples 1991a, 1991b; Wheeler 1943). It has also been proposed that Ffridd Faldwyn, Powys, was constructed over a pre-existing Neolithic monument (Arnold 1987). Excavations revealed evidence for Neolithic occupation (O'Neil 1942), although no structural features were identified. More recently, reassessment of the excavation evidence has led Arnold (1987) to propose the existence of a Neolithic ditch, which may hint at a possible causewayed enclosure beneath the Iron Age hillfort.

Several hillforts in the study area enclose possible/probable Bronze Age round barrows/cairns. They include Beacon Ring, Ffridd Faldwyn (Powys), Titterstone Clee (Shropshire), Little Doward, Midsummer Hill, Brandon Camp, and possibly Croft Ambrey and Capler Camp (Hereford and Worcester), Sudbrook (Gwent), and Nottingham Hill (Gloucestershire). This suggests deliberate reference back to sites that were important in the earlier prehistoric period, perhaps even more specifically funerary sites. Establishing links with these earlier monuments may have served to emphasise the importance of the hillfort and/or the functions it served, or even to legitimise a claim to territory through connection with ancestral sites and remains.

Limited evidence is also beginning to emerge for pre-existing land boundaries being influential in determining the location of first millennium BC hillforts in the region. A similar pattern has been convincingly recognised in central southern England where several sites seem to overlie land boundary junctions (Cunliffe 1990). The clearest example is Brandon Camp, Herefordshire. Aerial photography has revealed that the defences were constructed over a pre-existing land boundary, possibly over a junction between land boundaries which follow different alignments (figure 6.19). Another potential example is Welshbury Camp, Gloucestershire, where a recent earthwork survey has established the presence of a field system underlying the hillfort (McOmish and Smitt 1996). More tenuous evidence exists from Caer Caradoc, Church Stretton, Shropshire, where a gently curving linear cropmark extends north-eastwards from the south-east entrance of the hillfort, although its chronological relationship with the hillfort is uncertain. These three examples suggest that future work will recover more widespread evidence for a relationship between land boundaries and hillforts. At present it is difficult to draw any firm conclusions; based upon the evidence from central southern England, it is possible that (some) hillforts in the Marches developed in a situation, where demarcation of the landscape was becoming more visible, and territoriality was increasing. In this light, those sites occupying landscape boundaries were presumably central to the process of landscape division, competition and consolidation.

SUMMARY

This chapter has highlighted some important patterns in the distribution of hillforts and has identified several cases of intra-regional variation. In broad terms, the intra-regional diversity which has been identified approximates to areas of geographical diversity discussed in Chapter 2. In particular, multivallate hillforts between 1.2 - 2.9 ha predominantly occur in a region relatively isolated from the rest of the Marches by the Rivers Wye, Usk and Monnow (page 6). A high proportion of these sites are of multi-enclosure type, entrances tend to be fairly simple, although there are several instances where rampart ends have been inturned. The idea that this area possessed some different cultural traditions from those to the north is reinforced by certain material culture distributions, particularly pottery and briquetage, which will be discussed in detail in Chapter 10.

The south central Marches is dominated by the Herefordshire Basin, a gently undulating and agriculturally rich landscape within which can be identified a broad range of hillfort types. Most characteristic are univallate sites over 6 ha in internal area, whilst univallate sites between 1.2 and 2.9 ha exhibit a uniform distribution. The Malvern Hills, which mark a topographical contrast between Herefordshire and lowland Worcestershire, may mark a boundary in the hillfort pattern, since east of the Severn there is a better 'mix' of hillfort types and not such a clear domination of large sites. In addition, there is evidence for late Bronze Age/early Iron Age hillfort activity in this area, whereas in central Herefordshire, sites seem predominantly to have originated in the middle Iron Age. Other forms of evidence, such as pottery, coinage and currency bars (Chapter 10) imply some form of division approximately along the line of the Severn and Malvern Hills.

North Herefordshire and south Shropshire is characterised by broken uplands through which numerous river valleys, such as the Upper Wye and Teme, wind. The majority of hillforts within this landscape are between 3 - 5.9 ha in size and there is a broad division between bivallate/multivallate sites to the west, and univallate sites to the east. Most sites in this area possessed guard chambers and/or hornworks.

In the central Marches, particularly central Shropshire and east Powys - which overlaps topographically with the north Herefordshire and south Shropshire region discussed above - are a concentration of hillforts in the 1.2 - 2.9 ha range, predominantly of univallate and bivallate type. There are numerous exceptions, including three large sites over 6 ha to the east of the area and two sites over 20 ha to the north-west. These could feasibly represent differing hillfort distributions. Alternatively, if their size signifies a specific function or status, they may have been positioned on the periphery of the main distribution for a particular reason (c.f. Sharples 1990 etc.). Once again, the material culture in central and north Marches implies differing cultural traditions than the south central and east Marches (Chapter 10).

The north of the study area, defined by the River Severn and the Ellesmere Morraine, marks a topographical contrast to the central Marches. It is generally low-lying and in terms of drainage less complex, with rivers orientated south to north as opposed to north to south. The distribution of hillforts, disrupted from the distribution of sites in the central Marches by a topographically-enforced 'void', focuses in Cheshire, the confluence of the River Alyn with the River Dee, and towards the upper Alyn and the Vale of Clwyd. Univallate, bivallate and multivallate sites are present, and there is a general mix of hillfort sizes with sites between 1.2 and 2.9 ha being particularly common.

Many of the sites were provided with guard chambers at one stage or another of their history.

This chapter serves to emphasise that the Welsh Marches is not an homogenous zone in terms of its hillforts. Specific hillfort distributions appear to coincide with broad geographical divisions within the study area. As geography is closely linked to land capability, *general* links between hillfort-types and land capability classes have been established through site-catchment analysis, which seems to indicate that larger, univallate sites are associated with better quality land than smaller, multivallate sites. It is possible to propose models to explain these apparent relationships, and relate them to differences in social structure. For instance, it was perhaps the case that, as Hingley (1992, 30) has suggested, bi-/multivallation actually represented multi-phase construction, implying increasing tensions through time. An avenue of future fieldwork and research may be to attempt to evaluate whether this model is supported by an increase in the number of bi-/multivallate sites in areas of poor land capability. This growing stress, perhaps a result of something like population increase, could not be manifested by an expansion in any one site's population (as represented by internal area?), because the agricultural potential of site catchments was inadequate to support such an increase. This would eventuate in the founding of more densely spaced small sites which were in competition for resources. A part of this competition may have manifested in the redefinition of the inhabited area by ever more elaborate earthwork enclosure, which would also have been a means of asserting the isolation and independence of the group (c.f. Hill 1995b), the small size of which was a necessity of survival. On the other hand, areas where productivity was high may have promoted co-operation, whether there was a catalyst such as population increase or not, leading to the construction of large sites the populations of which could be supplied by the surrounding catchment. Being as competition for resources was low in these areas, there was not the need for competitive display and elaborate enclosure beyond the definition of the inhabited areas, hence univallation prevailed. It is important to stress, however, that such models are perhaps too simplistic and overly reliant on speculation. Patterns in the distribution of hillfort-types may have been dictated by particular geographical features or land quality classes, but these relationships may also be coincidence, or not the main dynamic. Differences in (some) cultural traditions/groups could also have been an important factor in explaining intra-regional variation in the distribution of hillforts. These will be discussed further in Chapter 10.

CHAPTER 7

NON-HILLFORT SETTLEMENT IN THE WELSH MARCHES

INTRODUCTION

The increasingly extensive and intensive application of aerial photography within the Welsh Marches, particularly over the past quarter of a century has radically altered our understanding of potential first millennium BC settlement within the region (Chapter 3). No longer do hillforts and defensively-sited earthwork enclosures numerically dominate the archaeological record. Instead, the landscape is, at times densely, dotted with the cropmark remains of non-hillfort, mostly non-defensively sited, ditched enclosures. In addition, evidence of unbounded later prehistoric settlement has been gradually accumulating. The aims of this Chapter are two-fold. The form of non-hillfort settlement within the Welsh Marches will be discussed and compared to selected regions elsewhere in southern Britain in an attempt to identify any areas with which the Marches share affinities. Secondly, the distribution of enclosures within the study area will be analysed to determine what biases and factors have led to the formation of the current picture.

FORM

Enclosed Settlements

Morphology

The work of Whimster (1989) in analysing air photographs and earthwork sites in the central Welsh Marches is essential, both in publishing the quantity of evidence for potential first millennium BC non-hillfort settlement in the region, and in producing a simple but comprehensive framework by which air photographic evidence can be uniformly analysed. His study showed that single enclosures were the dominant visible form of settlement, dispersed, mostly in isolation, across the landscape. The central Marches thus appear to resemble regions in the Midlands, such as Warwickshire (Hingley 1989, 1996) and Leicestershire (Hartley 1989). Accurate plotting of the air photographs allowed a morphological framework to be constructed based upon shape and vallation (figure 7.1). Within the central Marches, univallation is more common than bivallation, which is more common than multivallation, while rectilinear enclosures dominated in terms of numbers, followed by curvilinear and hybrid enclosures respectively. This general pattern is reflected in the evidence for enclosure from other parts of the country, although hybrid sites tend to be slightly better represented than curvilinear sites (table 7.1). Although Whimster was only concerned with the central Marches, and despite the evidence that has accumulated since his study, the basic morphological framework he devised is still relevant to a study of the Welsh Marches generally, and will be used when analysing specific areas in detail (Chapter 11).

		Univallate	Bivallate	Multivallate	*Total*
	Curvilinear	18%	5%	3%	*26%*
Welsh Marches	**Hybrid**	12%	4%	2%	*18%*
n = 449	**Rectilinear**	45%	9%	2%	*56%*
	Total	*75%*	*18%*	*7%*	*100%*
	Curvilinear	5%	-	-	*5%*
Leicestershire	**Hybrid**	13%	2%	-	*15%*
n = 105	**Rectilinear**	78%	2%	-	*80%*
	Total	***96%***	***4%***	-	***100%***
	Curvilinear	8%	6%	-	*14%*
Hertfordshire	**Hybrid**	9%	-	-	*9%*
n = 90	**Rectilinear**	73%	4%	-	*77%*
	Total	***90%***	***10%***	-	***100%***
	Curvilinear	25%	1%	-	*26%-*
Southern England	**Hybrid**	26%	-	-	*26%*
n=108	**Rectilinear**	48%	-	-	*48%*
	Total	***99%***	*1%*	-	*100%*

Table 7.1: Morphological distribution of enclosures across selected areas of Britain (sources: Whimster 1989; Hartley 1989; Hunn 1996; Palmer 1984)

Size

In terms of area enclosed, the majority of non-hillfort enclosures in the central Marches were found to be less than 0.5 ha in extent. When compared with similar analyses conducted by Hingley (1989) for enclosed sites in Warwickshire, Hunn (1996) for Hertfordshire and Palmer (1984) for the environs of Danebury, the results of Whimster's analysis (Whimster 1989, figure 30) reveals some interesting patterns (figure 7.2). The size distribution of sites between the Welsh Marches and Warwickshire suggests a degree of similarity. The one notable discrepancy occurs in the <0.1 ha range, which forms a significantly greater percentage of sites in Warwickshire than in the central Welsh Marches, or indeed either of the other two regions. This may indicate a real contrast, or it may instead reflect different biases associated with the identification of small and/or insubstantial cropmarks through aerial photography (e.g. differing soil sensitivity). In Hertfordshire, the percentage of sites between 0.2 and 0.50 ha is smaller than in either the Marches or Warwickshire, but a significantly larger percentage of sites enclose more than 0.6 ha. A similar pattern is evident in central southern England, with a noticeable concentration of sites exceeding 1.2 ha. These contrasts may be exaggerated by differences in the interpretation and definition of sites, particularly whether a site should be termed an enclosure or a hillfort (page 45). Nevertheless, it is unlikely that this is the sole explanation for the visible differences in size distribution, especially between central southern England, with its high percentage of enclosures above 1.2 ha, and the Welsh Marches and Warwickshire. It would therefore appear that the Marches form a continuum with the pattern of enclosure identified in the Midlands generally, presenting a contrast with central southern England, where non-hillfort settlements of Little Woodbury type, enclosing areas greater than 1.2 ha, are common (c.f. Cunliffe 1991a, 236).

Survey of non-hillfort enclosures in Warwickshire also revealed possible variations in site size between different regions within the county, which Hingley (1989, 136, 146-147) suggested might represent contrasts in population size and social organisation (Hingley 1989, 136, 146-147). Whether similar contrasts can be identified in the Welsh Marches is addressed in the detailed analysis of specific areas in chapter 11.

Conjoined and complex enclosures

Although isolated enclosures provide most of the evidence for non-hillfort settlement in the Marches, more complex enclosures are scattered throughout the study area (see Chapter 11). Due to the limited numbers, morphological classification of such sites remains extremely basic. For the purposes of this research, two different groupings were identified.

Conjoined enclosures

Though relatively scarce compared to individual enclosures, sites composing two or three attached enclosures (figure 7.3a) are found over most of the study area. Excavation has been very limited, and it is rarely possible to determine through the study of aerial photographs and plots whether the enclosures of any one particular site were constructed simultaneously; or whether they represent an expansion of a single enclosure; or indeed the abandonment of one enclosure and movement of activity to an adjacent area. There is apparently no correlation between 'conjoining' enclosures and any specific morphological shape, though generally the phenomenon is restricted to univallate enclosures (Whimster 1989, 51). Conjoined sites are found in the Midlands, in Northamptonshire, Leicestershire and Warwickshire, and are dated to the Iron Age and Romano-British periods, e.g. Ryton on Dunsmore (Bateman 1976) and Wakerley, (Gwilt 1997; Jackson 1978). They are also evident in the cropmark record further afield (e.g. Hunn 1996, figure 3: 0504C).

Complex enclosures

Sites composed of multiple attached/adjacent enclosures (figure 7.3b), normally extending over *c.* 1 ha in total area. Such sites are, on present evidence, very rare in the study region and are generally regarded as a more characteristic feature of eastern England where excavation has revealed extensive Iron Age occupation, e.g. Dalton Parlours (Wrathmell and Nicholson 1990). As with conjoined enclosures, it is generally impossible to determine any sequence of development without excavation. The rescue excavations on the Iron Age multi-enclosure, 'strip settlement' of Beckford, (figure 7.3) are particularly important in this respect, although not as yet been fully published. It should be noted that application of the term 'enclosure' is not straightforward with these sites, as it is with the categories already referred to. In some instances they may be regarded more as 'open' sites, the enclosures being a means for separating households within a larger overall social group (e.g. Haselgrove forthcoming).

Entrance orientation

The orientation of later prehistoric non-hillfort enclosure entrances has been subject to similar analyses to those conducted upon hillfort and round house entrances in recent years (see Chapters 6 and 9). As with these other categories, there is a tendency for non-hillfort enclosure entrances to be orientated towards an easterly/south-easterly direction (e.g. Hill 1995b, 1995c). To assess whether this pattern was a feature of the first millennium BC in the Welsh Marches, the orientation of 257 enclosure entrances in the study area were compared to those of 139 enclosures in Wessex (figure 7.4). Some caution is necessary in considering these results as the majority of plans from the Marches are derived from aerial photographs. This raises two problems: the interpretation of gaps in cropmark features as entrances may not always prove to be accurate (indeed the accuracy of the plot itself may not be accurate), and it cannot be assumed that all cropmark enclosures date to the later prehistoric period.

The data compares very closely with that from Wessex. An easterly/south-easterly orientation is clearly dominant in both areas, though there is also strong evidence to suggest that variation from this general rule was not uncommon (c.f. Hill 1995c, 81). The results are not dissimilar to hillforts in that an easterly orientation is clearly significant to both, but whereas north-east was significant to hillforts, instead south-east appears more significant to enclosures. This could indicate a specific association between hillforts and the direction of the Midsummer sunrise and/or between non-hillfort enclosures and the Midwinter sunrise. Whether this is a reflection of the specific function of the respective site-types or, perhaps, the beliefs of different populations or both, is impossible to tell.

Unenclosed Settlements

Whereas there is now abundant evidence for enclosure across parts of the Welsh Marches, the nature and extent of unenclosed settlement remains a poorly comprehended feature of the later prehistoric occupation of the region, as it is elsewhere in Britain (Haselgrove 1999, 266). Current understanding is restricted to a handful of sites, the majority of which have been incidentally detected during the course of excavations conducted upon enclosed settlements which they mostly seem to precede (see below). This scarcity of unenclosed occupation is unlikely to be a true representation of the original settlement record for various reasons. Aerial photography, will always be biased towards the identification of sites enclosed by a substantial boundary ditch. Although various factors such as current land use and soil type influence the quality and quantity of detail recovered through aerial photography (see below), insubstantial features will inevitably have less effect on the growth of crops and are therefore always less likely to be visible from the air. The point is clearly emphasised by considering aerial photographs of enclosures in the Welsh Marches (e.g. Whimster 1989, figures 22-28), and indeed other regions of Britain (e.g. Hartley 1989, figure 6.5; Hingley 1989, figure 9.9; Hunn 1996, figures 3-8). In many cases, very little *but* the enclosure ditch is apparent, and when internal features are detected, they are often incomplete or amorphous in nature. Since unenclosed settlement is composed of precisely these kinds of internal features, the limitations of aerial photography are evident.

The difficulties of detecting unenclosed occupation is at times exacerbated by problems inherent in the interpretation of the air photographic evidence. Comparatively small structures in the form of ring ditches identified in the cropmark record are frequently interpreted as ploughed out or otherwise levelled round barrows. In many cases this is probably an accurate assessment; however some, especially the smaller, less distinguishable examples, might well represent the gullies of round houses (see Chapter 9). When ring ditches are identified within an enclosure, such an interpretation would be readily accepted, despite numerous later prehistoric enclosures having been constructed over the sites of earlier round barrows, as at Holt (Hunt *et al* 1986) and Sharpstones Hill site A (Barker 1991). It is dangerous, therefore, not to allow the possibility that isolated ring ditches occasionally indicate an unenclosed occupation site. A further problem with identifying open settlement in the Marches is that underground storage, as shall be seen in Chapter 10, is comparatively rare. In regions where such evidence can be identified, such as eastern Scotland where souterrains are often found, unenclosed occupation may be more readily recognised.

A further problem relates to the development of archaeological sites. Most of what we presently know of unenclosed settlement in the Welsh Marches , and in many parts of Britain, is derived from the excavation of enclosed settlements which appear to have had an earlier (and sometimes later) unenclosed phase, for example Sharpstones Hill site A (Barker 1991), Bromfield (Stanford 1995) and Thornwell Farm (Hughes 1996). Unfortunately, it is rarely possible to distinguish such an open phase of occupation through the examination of air photographs. In all likelihood, a considerable number of the enclosed settlements known in the Welsh Marches, at one stage or another, did not possess an enclosing boundary. It is only through excavation that we will be able to estimate the extent of multi-phase and multi-character settlement in the study area.

A final cautionary point to consider concerns the definition of 'enclosed' and 'unenclosed' settlement. Any one site could have moved through phases of enclosure and non-enclosure. In addition, particular areas of occupation, which we would classify as representing a single settlement site, may be characterised by evidence for domestic activity occurring both within and outside the boundary of an enclosing feature at the same time. In the Upper Thames Valley, Hingley distinguished between an area of isolated enclosed settlement in the Oxford Uplands, and an area of open settlement in the Oxford Clay Vale (Hingley 1984). Although it was acknowledged that enclosures did occur in the latter, he argued that they represented components of a larger settlement system, rather than areas of bounded domestic occupation (Hingley 1984, 85). At Wakerley, Northamptonshire, excavation has shown that the site developed through a number of phases including one period in which differing domestic activity took place both within the enclosure and outside of it (Jackson 1978; Gwilt 1997). At Rollright Stones, excavation has revealed evidence for Iron Age pits located both within, and outside the enclosure ditch (Lambrick 1988, 82-84).

Whether similar forms of open/enclosed settlement occurred within the Welsh Marches remains difficult to determine because of the lack of excavation; however, there are indications that they may. Two 4-post structures (Chapter 9) were identified outside the enclosure at Bromfield; although these were interpreted as representing a phase of open settlement post-dating that of the enclosure (Stanford 1995, 128-129), there is no firm dating evidence to support this. In Gloucestershire, excavations of cropmarks east of Birdlip House Farm (Gloucestershire sites and monuments record 7185) revealed a middle Iron Age settlement incorporating a rectilinear enclosure with storage pits on its external periphery. These were cut in a later middle Iron Age phase by a ditch forming a conjoining enclosure.

It cannot therefore be assumed that the line of a boundary ditch defines the limits of any particular settlement. The excavated record probably underestimates the extent of activity external to enclosure because excavation has, naturally enough, been concentrated *within* the boundaries of enclosed sites. The introduction of modern non-intrusive methods of archaeology, such as geophysical survey, which allow economic and rapid investigation of large areas, may in the future show that external occupation was more widespread than evidence would at present suggest (e.g. Bewley 1994; Biggins *et al* 1997; Lambrick 1988 and c.f. Haselgrove 1999).

DISTRIBUTION

Upstanding Earthwork Enclosures

Surviving earthwork enclosure in the Welsh Marches is dominated by hillforts as defined above and what may be termed 'defended enclosures': sites under 1.2 ha in extent, which, due to the complexity of their earthworks and/or location, imply a concern with defence or visibility beyond the norm (figure 7.5). The combination of size, monumentality and location has resulted in their survival over much of the study area, even in fertile relatively low-lying regions where arable cultivation can be expected to have been most intensive. The distribution of less monumental earthwork enclosures, however, is more restricted. Such sites predominate in upland areas where destructive agriculture has been less of a threat, for example east central Powys, the Long Mynd in Shropshire and Halkyn Mountain in Clwyd. A fairly dense scattering can also be identified in Gwent, due both to increased field survey over the last quarter of a century, and the prevalence of grassland agriculture in the region.

Cropmark Enclosure

The balance of hillforts/defended enclosures to non-hillforts in the surviving earthwork record has strongly influenced the interpretations put forward to explain first millennium BC settlement and society in the Welsh Marches (Chapter 3). This has been in spite of the increasing evidence for non-hillfort settlement, in the form of cropmark enclosure, brought to light through aerial reconnaissance since the 1960s (figure 7.6[iii]). As is evident, the distribution of cropmarks across the study region is not even; significant variation can be detected both between and within specific areas. The densest concentration of sites occurs in the central part of the Marches, corresponding to Shropshire, north Powys and north Herefordshire. Within this zone, particular clustering is evident along various river valleys: the Severn (most notably around Wroxeter and Shrewsbury), the Tanat and the Vyrnwy in the west, and the Roden and Perry in the north. In the south, dense scatters can be identified in the river valleys, which cut through the broken landscape of south Shropshire and north Herefordshire: the Clun and its confluence with the Teme, the Lugg and the Arrow, and also around the confluence of the Corve, the Teme and the Onny. Other notable concentrations occur in the Montgomery area; upon the Long Mountain, between the River Severn and Perry; between the Severn and the Long Mynd; and along the south-eastern fringe of Wenlock Edge.

The cropmark evidence decreases in the southern third of the study area, although important concentrations still can be identified. Particularly notable are the dense clusters in Worcestershire, along the Severn Valley north of Tewkesbury; along the Avon Valley; and along the Carrant Brook to the south of Bredon Hill. A number of sites have also been identified in central Herefordshire, generally in and around the river valleys of the Wye and Lugg. A dispersed scatter of cropmarks has been recorded on the low-lying land between the Wye and the Monnow, while small concentrations occur to the north-east of Hereford and to the east of Ross-on-Wye. Present evidence for cropmark enclosure in Gwent is limited; the sites that have been identified are located east of the River Usk, or on the peripheries of the Caldicot Levels. The evidence for Gloucestershire is also somewhat limited, though a spread of sites is evident along the fringes of the Cotswolds with some extension into the Vales of Berkeley and Gloucester.

The northern third of the study area is poorly represented by cropmarks. A few sites dispersed along the River Dee are apparent, and a small cluster has been recorded in the southern reaches of the Vale of Clwyd.

It is apparent that various biases have been instrumental in creating the uneven cropmark distribution pattern illustrated by figure 7.6. Bearing in mind the erroneous presumption in the past that 'absence of evidence means evidence of absence', it is important to consider the nature of these biases, and to make some judgement as to how far they go towards explaining the differential distribution of cropmark enclosure across the study area.

Intensity of aerial reconnaissance

An important factor influencing the nature of the extant cropmark distribution is the disparity in investigation between various regions. Air photography in the Marches has been undertaken by different organisations and individuals for over fifty years, with a marked increase in the regularity and intensity of flights over the past twenty-five years or so. But the coverage has not been even. On the one hand, particular historical sites have been the focus of intense and repeated coverage, most notably the Roman city of Wroxeter and its hinterland; on the other, particular regions and geographical areas have been singled out for attention. For instance, both Baker and Pickering have focussed primarily on the Severn and Avon Valleys, whilst Musson flew intensively over the Montgomeryshire (north Powys)/Shropshire border between the mid-late 1970s and early 1990s. These concentrated programmes of study, allied with the work undertaken by various other organisations such as the Cambridge University Committee for Aerial Photography (CUCAP), go far towards explaining the concentrations of sites in the central part of the Marches and in east Worcestershire. Elsewhere, coverage has been conducted on a less intensive basis, although the last twenty-five years or so have again seen more concerted and regular campaigns undertaken in most regions. In the southern third of the study area there has been a marked increase in the number of sites identified in Herefordshire, especially in the north-west border region and around the town of Hereford itself. This is mainly a result of flights undertaken by Musson and by other individuals such as Woodiwiss. Similarly in Gwent, the quantity of cropmark enclosures has risen over the last two decades as a consequence of more systematic air photography. In the northern third of the Marches the results of aerial survey are less impressive.

Evidence for cropmark enclosure in Clwyd is slowly increasing as a result of the organised though limited work undertaken over the last two decades (Manly 1990; Frost 1995) but the evidence from south-western Cheshire is poor, despite programmes of reconnaissance organised by Cheshire County Council since the mid 1970s.

Topography and land use

Although differential air photographic coverage helps explain some of the diversity in the distribution of cropmark enclosures *between* parts of the study area, it may not be sufficient to explain contrasts *within* those same regions. As figure 7.6 shows, the vast majority of identified cropmark enclosures are located below 180 m OD. The number of sites above 180 m OD are comparatively rare. This is to be expected and reflects the cultivation of crops sensitive to aerial photography (especially cereals) in suitable lowland areas. The likelihood of soilmarks/parchmarks revealing themselves in uncultivated upland pastures is considerably smaller. Results may only be expected in such areas during particularly severe droughts. An upland/lowland divide in cropmark identification is best illustrated in the central part of the study area where aerial reconnaissance has been most intensive. Cropmark enclosures are dense across much of the lowland landscape, but rarer upon the uplands of east Powys, south Shropshire and north Herefordshire. Comparison with figure 7.5, however, implies that this is unlikely to be a result of original site distribution, as earthwork enclosures, 'defended' enclosures and hillforts, have been recorded in these upland areas. It is, however, worth emphasising that uncultivated uplands are not 'closed' to aerial photography. Cropmark enclosures have been identified, particularly on the fringes of such landscapes (e.g. Wenlock Edge and the Long Mountain), under favourable conditions.

The other areas of the landscape that are most unresponsive to air photography include woodland such as the Forest of Dean which covers a large expanse of land to the south-west of Monmouth, and urban centres. Significant gaps in the cropmark record resulting from the existence of towns and cities are apparent in the central third of the study area, where Shrewsbury marks a void in the dense distribution of sites along the River Severn, and in the east, where Worcester similarly represents a break in the distribution of cropmarks along the lower Severn.

Soil type

Figure 2.4 illustrates the distribution of the principal soil groups across the study area. The first thing to notice is the diversity of soil types which exist even at such a small scale, and the second the broad division between the north of the study area where stagnogley soils predominate, and the south where brown earths predominate. With regard to the distribution of cropmarks it is evident that there is some correlation between soil type and cropmark density, especially in the central part of the region where air reconnaissance has been most intensive. Particularly sensitive are the well-drained, fertile soils upon which arable cultivation is widespread. The brown earths and argillic brown earths are prime examples of such soils and have provided the majority of cropmark evidence within this central area of the Marches. Also important are the brown sands which, although restricted in distribution to the north-east and north-west of Shrewsbury, have also yielded good results. The deeper and less permeable soils - alluvials, stagnogleys, gleys and peats - have proved to be very markedly less responsive to the formation of cropmarks, as have the podzolic soils which show a distribution towards upland areas. One exception is Cambic stagnogley, confined to the west of the region, particularly the area east of Montgomery, upon which a surprising number of cropmarks have been identified in recent years. Explanations for this are unclear, although it has been suggested that under certain conditions such as a severe drought, some stagnogley soils may become sensitive to the identification of cropmarks (Whimster 1989, 16).

The dense distribution of cropmark sites in east Worcestershire along the Severn and Avon river valleys emphasises the particular sensitivity of brown earths and argillic brown earths with only a small number of sites situated off these soil sub-groups. In central Herefordshire, the vast majority of identified cropmarks are located on brown earths, and the same pattern is repeated further south in Gwent. In Cheshire, the few known sites are almost all located on brown sands, while those in Clwyd again tend to be situated on brown earths. The predominance of stagnogley soils in the northern part of the study area has undoubtedly had a negative effect on the identification of cropmark enclosures, especially when combined with the fact that much of the region is dominated by pastoral agriculture. The absence of cropmark enclosures in Clwyd and Cheshire cannot realistically be taken to reflect the original distribution of such sites.

Data sources

Some comment must be made on the sources from which the cropmark data was obtained. In the most part this involved the consultation of the seven SMRs within the study area. Inevitably, there is some variation in how sites were classified, depending upon the type(s) of enclosure found within a particular county or counties; the form of database used; and the individual preferences of the SMR staff. However, the broadly uniform nature of enclosure across most of the study area, made cross-comparison of the information obtained from each SMR database relatively simple. As such, it is believed that figures 7.5 and 7.6 reflect reliably both the extent of accessible information and the whereabouts of that information in the landscape.

This brief investigation of the biases which affect the identification of sites through aerial photography serves two purposes. With regard to understanding the extant evidence, it helps explain the distribution of the known cropmark sites. Beyond this, it provides valuable insight into how effective future aerial reconnaissance may be across particular areas of the Welsh Marches. The majority of cropmarks are located below *c.* 180 m OD on well-drained soils under arable cultivation, especially brown earths/sands. Future air photography in the south of the study area, particularly Herefordshire and parts of Gwent, seems likely, therefore, to yield good results. The distribution of brown earths and sands in the north of the study area is, however, noticeably more patchy amidst extensive swathes of stagnogley soils. Despite the low-lying nature of much of the central and eastern parts of the region, it is therefore probable that cropmarks will be less easily identified than in the south. A prolonged campaign of systematic and intensive aerial photography, making particular use of periods of drought, will be needed to fill the void that currently exists within this area.

CHAPTER 8

SITE SPECIFIC CHRONOLOGY

INTRODUCTION

The aim of this Chapter is to examine the chronological sequences of hillforts and non-hillforts within the Welsh Marches, both on a site-specific basis where the evidence allows, and also in wider terms. This is essential in attempting to gain insight into the relationship and interaction between hillforts and non-hillforts, and in reaching an understanding of how settlement and society developed in the study area during the first millennium BC.

HILLFORT CHRONOLOGY

As I have noted, hillfort excavation has been fundamental in formulating chronological frameworks for the whole of the Welsh Marches (e.g. Hencken 1938; Stanford 1974, 1981). However, accurate and reliable dating of individual excavated sites remains problematical and beset by uncertainties. Principally this is because excavations have tended to be limited in scale, with earlier twentieth century projects in particular following the wider trend of concentrating on the earthworks, at times to the exclusion of all else. Also, by definition (chapter 4), hillforts are extra-ordinarily large sites, so that the proportion of the excavated area compared to total site area is often very small compared to excavations on non-hillfort settlements. The problem is exacerbated by the results of excavation of hillforts in other parts of Britain, which have shown that the histories of many individual sites were long and complex, involving abandonment(s), reoccupation(s) and changes in function (see below). Added to the fact that the entire internal area of a hillfort cannot be assumed to have been utilised at any one point in time, excavation which explores only the smallest fraction of a hillfort's interior runs the risk of revealing no more than a window in the site's overall history, and may very well miss completely evidence for earlier and/or later activity. Consequently, we cannot presume that the evidence used to date a particular hillfort (figure 8.1), necessarily embraces the full length of hillfort-activity on the site. Indeed, in the Welsh Marches, we can be confident that comprehensive hillfort chronologies are available in only a handful of instances, and even then some reservations must be maintained.

The Chronologies of Individual Marches Hillforts

Table 8.1 provides a summary of the dating evidence available for hillforts in the Welsh Marches. The sites can be cross-referenced with appendices 2 to 7 and figure 8.1 for more detailed information on specific categories of evidence.

	C14	Pottery	Briquetage	Brooch	Coinage	Other Metalwork	Rampart Architecture
Beeston Castle	*	*	*			*	*
Castle Ditches		*					*
Helsby Hill							*
Woodhouse							*
Moel y Gaer	*	*					*
Breiddin	*	*	*	*		*	*
Ffridd Faldwyn		*					*
Llanymynech	*	*					?
Berth		*	*				
Burgs							?
Burrow Hill		*	*				
Caynham Camp	*	*	*				*
Ebury Hill			*				
Old Oswestry		*	*				*
Roveries Hill							*
Titterstone Clee							*
Wall Camp	*	*	*				
Wrekin	*	*	*				*
Aconbury		*					
Brandon		*	*				
Credenhill		*	*				
Croft Ambrey	*	*	*	*		*	*
Dinedor		*	*				
Sutton Walls		*	*	*			*
Bredon Hill		*	*			*	*
Conderton Camp		*	*				*
Midsummer Hill	*	*	*	*		*	*
Poston		*					*
Coed-y-Bwnydd	*	*					*
Llanmelin		*					*
Sudbrook		*	*	*			*
Twyn-y-Gaer	*	*	*	*			*
Churchdown Hill		*					

Cleeve Hill		*					
Crickley Hill	*	*	*	*			*
Ditches		*		*	*		?
Leckhampton		*					*
Lydney Park		*	*	*			
Nottingham Hill						*	
Symonds Yat		*					

Table 8.1: Summary details of dating evidence associated with hillforts in the Welsh Marches

It is apparent that ceramic material, both pottery vessels and briquetage, makes up the majority of the evidence, with rampart architecture also frequently contributing.
Although some (tentative) chronological structure can be derived from the pottery (Chapter 5), little chronological precision can be attributed to different rampart types beyond a probable (though not certain) late Bronze Age to middle Iron Age date for palisades and wall-and-fill ramparts, and middle to late Iron Age date for dump ramparts (Chapter 5). The value of sites dated by rampart structure alone is therefore limited in considering the overall picture of hillfort chronology in the Welsh Marches.

Accepting these points, figure 8.1 summarises the potential chronological ranges for those sites in the study area with some form of dating evidence. It must be reiterated that this reflects current evidence only. For the reasons discussed above, the figure may therefore simply represent 'snapshots' of activity and not the full chronological history of individual sites.

The evidence from Cheshire and Clwyd, in the northern quarter of the study area, certainly seems to imply an early phase of hillfort activity in the late Bronze and/or the early Iron Age (although in two cases this is implied by the presence of wall-and-fill ramparts alone). Indeed, there appears to be a pattern of palisaded hilltop enclosure preceding the founding of hillfort earthworks (Castle Ditches, Beeston Castle, Moel y Gaer), which also seems to be a feature of hillforts such as Dinorben (Gardner and Savory 1964; Guilbert 1979, 1980; Savory 1971a) to the west of the study area. There is also evidence for disruption of activity during the earlier first millennium BC in the form of the burning of wall-and-fill ramparts and/or associated gates at Castle Ditches and Beeston Castle (where both the phase 2B timber revetted and the phase 3B stone revetted? ramparts were burnt), and in the apparently abrupt change from post hole to stake hole round house types at Moel y Gaer, Rhosemor (Guilbert 1976). In addition, the mid-nineteenth century excavations at Moel y Gaer, Llanbedr, revealed burning close to the north-east hillfort entrance. Hillfort activity of the later first millennium BC is difficult to identify because of the aceramic cultural tradition of the area. Reliance must therefore be placed on the radiocarbon sequences from Beeston Castle and Moel y Gaer, Rhosemor. At the former, the 3B (possibly stone wall-and-fill rampart) appears to have been constructed in the fifth century BC, and there is also some middle Iron Age artefactual evidence. The lack of decorated latest Bronze Age/early Iron Age pottery, as was found at Moel y Gaer, Rhosemor (Guilbert 1976), may suggest a period of abandonment prior to this (coinciding with the burning of the 2B rampart?), although the excavation publication (Ellis 1993) proposes continuity between the late Bronze Age and middle Iron Age. At Moel y Gaer, Rhosemor, the dump rampart B seems to have been constructed in the fourth or third century BC. At neither site is there evidence for Roman hillfort activity, implying abandonment before substantial Roman influence in the area.

Late Bronze Age hillfort activity is also apparent at the Breiddin, and possibly Ffridd Faldwyn (based on the evidence for a double stockade pre-dating a wall-and-fill rampart), and to the west of the study area at Llwyn Bryn Dinas (Musson *et al* 1992). Due to the relatively extensive excavations at the Breiddin, reasonable confidence can be placed in a period of abandonment between the seventh/sixth century and fifth/fourth century BC, following the burning of the late Bronze Age timber wall-and-fill rampart. The evidence from Ffridd Faldwyn is not adequate to determine whether a similar disruption occurred, although phases of abandonment have been proposed for both the inner and outer fort based upon analysis of the earthwork evidence (Avery 1993). It may be significant that these 'abandonments' follow the burning of wall-and-fill ramparts. Though unprovable at this stage, this suggests that at least one of the proposed discontinuities roughly coincided with the abandonment of the Breiddin (and indeed the possible abandonments noted in Clwyd and Cheshire above), in the late Bronze Age/early Iron Age.

Middle and late Iron Age hillfort activity seems to have occurred at the Breiddin, Ffridd Faldwyn and Llanymynech Hill, although it probably ceased before the Roman influence arrived in the area. The same also appears to have been the case with regard to the site of Llwyn Bryn Dinas to the west.

Although a relatively substantial number of Shropshire hillforts have provided dating evidence, the quantity and quality of that evidence is generally poor, often being restricted to the rampart architecture. However, from the pottery recovered from both the Wrekin and Old Oswestry, in central and northern Shropshire suggests that they date to the late Bronze Age/early Iron Age. The assemblage from the former site is largely undecorated, therefore most likely early, whilst the pottery from the latter site is more typical of later assemblages. The Wrekin appears to have been subject to firing at least once which may indicate a discontinuity in activity, whilst the lack of decorated late Bronze Age/early Iron Age ware might also imply a period of abandonment before radiocarbon dated reoccupation in the middle Iron Age. Dump ramparts have been excavated at Old Oswestry, and the complexity of the earthworks indicate development into the later first millennium BC, although it is impossible to ascertain with any confidence whether this was continuous or interrupted. The evidence from Caynham Camp suggests possible late Bronze/early Iron Age activity in the form of a wall-and-fill rampart. It has been argued that this phase of activity was separated from that of the middle Iron Age by a period of abandonment (Avery 1993), which, if true, recalls the abandonment of certain hillforts in Powys, Cheshire and Clwyd. The suggestion of discontinuity is perhaps supported by the burning of the vertical-faced earthwork which preceded the later dump rampart at Caynham. Various other Shropshire sites have evidence for later first millennium BC activity in the form of small pottery assemblages; none as yet have produced reliable evidence for continuation of hillfort activity into the Roman period.

The evidence for late Bronze Age or early Iron Age activity on hillforts in Herefordshire is limited, possibly reflecting the apparent scarcity of late Bronze Age and early Iron Age pottery from the area (Morris 1983, 89). It is likely that Croft Ambrey originated early. Though no artefactual evidence definitely relating to the earlier first millennium BC was recovered, excavation did produce considerable evidence of earthwork construction before the first appearance of early middle and middle Iron Age pottery. This included the dismantling of an early 'plateau camp', and subsequent construction of a larger 'main camp'. On current evidence the length of time, if any, which separated these two constructions cannot be determined, but they certainly imply some form of 'break' or discontinuity in the late Bronze Age/early Iron Age.

Excavations on several other hillforts in the county have demonstrated the presence of wall-and-fill ramparts. At Poston one of these was subject to burning, while at Sutton Walls, a possible palisaded enclosure preceded the construction of the first hillfort earthwork (Kenyon 1953, 10). These may indicate an early date, although the evidence from Midsummer Hill, where early middle Iron Age pottery was already in circulation when the site's stone wall-and-fill rampart was constructed, suggests that wall-and-fill ramparts could be constructed towards the end of the early Iron Age in this area (note also the fifth century stone wall-and-fill rampart at Beeston Castle, and the even later fourth century example at the Breiddin).

Middle and/or late Iron Age activity has been identified on all excavated hillforts in Herefordshire. In most instances this probably ended before the arrival of the Romans in the area, but there are a couple of possible exceptions. Late Iron Age and early Roman material has been recovered at both Poston and Sutton Walls, although it is not altogether clear whether the Roman activity was continuous with that of Iron Age date, or whether it can be regarded as 'hillfort activity' as such. Since the Marches were a Roman military zone into the third quarter of the first century AD, it may be safer to assume that it was not. The Roman occupation at Brandon Hill was associated with the military (Frere 1987) and cannot be proved to be related to the previous hillfort activity.

The two excavated hillforts on Bredon Hill, Conderton Camp and Bredon Hill Camp, both produced characteristic middle Iron Age pottery, whilst no finds attributable to the earlier first millennium BC were recovered. Both had stone wall-and-fill ramparts, which, in the case of Bredon Hill's inner rampart, were subject to intensive burning. The rampart was then reconstructed in dump form, although it is uncertain whether there was any period of abandonment. Bredon Hill seems to have been occupied into the late Iron Age, with little evidence for activity beyond the second/first century BC. The occurrence of burning, and the apparently mutilated remains of around fifty individuals at the hillfort's inner entrance, is often taken to imply that the site's occupation ended with an attack, either by Roman invaders (Avery 1993; Hencken 1938) or even by native aggressors. The possibility that the burning related to an act of ritual 'closure' should perhaps also be considered (Haselgrove forthcoming; Hingley 1990a, 100; Chapter 10).

The evidence from Gwent is very limited. Twyn y Gaer, close to the border with Herefordshire, is the only site from which late Bronze Age/early Iron Age finger-nail decorated pottery has been identified. A possible La Tène I brooch was recovered from Sudbrook where there is also pottery which recalls early Iron Age situla forms (Nash Williams 1939, 57). Otherwise, the only evidence for early activity is restricted to wall-and-fill ramparts. It may, however, be significant that at Llanmelin and perhaps Sudbrook, multi-phase constructions are evident, perhaps suggesting an extended period of activity. All the excavated sites were apparently occupied in the middle Iron Age, whilst, based on pottery, brooch and coin evidence, Llanmelin and Sudbrook may have been occupied in the early Roman period also, although the form of this activity is again uncertain.

Hillfort activity in Gloucestershire is separable into two stages. The first centred on the late Bronze Age/early Iron Age with occupation of sites like Crickley Hill, Leckhampton and possibly Nottingham Hill where, following the chance discovery of some late Bronze Age swords, an Ewart Park metalwork hoard was recovered by excavation (Hall and Gingell 1974). At Crickley Hill and Leckhampton, activity had apparently ceased by the middle Iron Age, with substantial burning of the earthworks and the interior. Middle Iron Age activity occurred on several other sites, but in most cases excavation was not has not been sufficient to determine whether these were also occupied in the earlier first millennium BC. Several more southerly sites may have been occupied in the late Iron Age, and perhaps even into the Roman period, including Ditches, Symonds Yat, Lydney Park, although in the latter case, activity may have been centred upon the Romano-British temple.

Although periods of activity can be identified, the full chronological history of any one hillfort can thus only be determined with any confidence in a small number of cases. This makes contrasts and similarities between areas very difficult to identify. Nevertheless, some broad points can be noted. Hilltop activity in the form of palisaded enclosures appears to begin especially early in the northern Marches. There is also fairly extensive evidence in this area for early hillfort activity in the late Bronze Age and earliest Iron Age, after which several hillforts were apparently abandoned, for example the Breiddin, Beeston Castle, Ffridd Faldwyn and The Wrekin. Early hillfort activity can also be detected further south, as at Twyn y Gaer (Croft Ambrey?, Sudbrook?), but the evidence is not strong until we reach Gloucestershire where several sites were occupied in the late Bronze Age/early Iron Age (e.g. Crickley Hill). These seem to have been abandoned before the middle Iron Age.

The Breiddin was reoccupied in the middle Iron Age, and several other sites in the northern Marches which may have been abandoned in the earlier first millennium BC, show signs of activity then. Even if these latter hillforts were not abandoned in the late Bronze Age/early Iron Age, the picture is still one in which middle Iron Age activity occurred at sites where earlier activity is evident. This is not the case further south. Croft Ambrey, which probably had an early Iron Age origin, was occupied in the later first millennium BC, but the hillfort itself had been drastically remodelled. Twyn y Gaer was also subject to extensive alteration during this period. Other sites in the south central Marches with middle Iron Age occupation, have not produced conclusive evidence for earlier *hillfort* activity. This may at least partly reflect the nature of the late Bronze Age/early Iron Age evidence in the area. Alternatively it could suggest that middle Iron Age hillforts were founded on different sites to their predecessors, or that hillfort activity in the south central Marches was largely a middle Iron Age phenomenon. East of the

River Severn in Gloucestershire, there are a number of hillforts with middle Iron Age occupation, but these do not seem to be the sites where late Bronze Age/early Iron Age activity occurred.

Most Welsh Marches' hillforts seem to have been abandoned by or in the late Iron Age (*c.* 100/50 BC), very few yielding evidence of possible continuity into the latest Iron Age and early Roman period. Such examples are restricted to the south central (e.g. Poston, Sutton Walls), and southern Marches (e.g. Sudbrook, the Ditches). In many instances the late activity appears to be associated with specific functions or status, which were not apparent in the middle Iron Age. The Ditches seems to have become a high status site whose faunal assemblage consisted of a high proportion of cattle (Hambleton 1999; Chapter 8), whilst the post Iron Age activity at Lydney Park is apparently mainly associated with the late Romano-British temple (Wheeler and Wheeler 1932).

Continuity or Discontinuity?

At several points in the preceding discussion, the question of continuity and discontinuity arose. Although this concept is also applicable to non-hillfort settlement, the perceived central position of hillforts in the settlement pattern (whether in an hierarchical sense or not), means that such disruption may be regarded as being of greater relevance to society as a whole. As a result, the phenomenon of interrupted hillfort activity is worthy of more detailed discussion. Of course, identifying possible disruption is difficult. Ideally it would involve a break in the deposited sequence of artefact groups with well-established typologies. Unfortunately, for the reasons discussed earlier (e.g. Chapter 5), such a situation rarely applies to the Welsh Marches. There are, however, several sites where an interval can be postulated from the excavated evidence. At the Breiddin, a period of abandonment following the burning of the Bronze Age rampart is supported by the extensive radiocarbon sequence (Musson 1991, 177). At Crickley Hill, an interval, though argued by the excavator to have been short-lived, divided the burning of the period 2 rampart from the construction of the period 3A rampart (Dixon 1994, 186). The hillfort was abandoned again, this time permanently, after the burning of the period 3B rampart. Similarly, the broadly contemporary activity at Leckhampton, approximately 3 km north-east of Crickley Hill, ended with the burning of the stone wall-and-fill rampart and entrance (Champion 1971, 1976). At Croft Ambrey, the period VB guardrooms at the south-west entrance were destroyed by fire (Stanford 1974, 51). The excavator's assertion that the entrance was rebuilt, apparently without noticeable delay, is challenged by Avery who proposed a period of abandonment on the grounds of a turf line overlying the burnt material and preceding the construction of the phase VI entrance (1993, 117-129). Analysis of the chronological deposition of artefacts from the hillfort would support the argument for some form of change from what went before, in that the quantity of material entering the archaeological record very markedly increases in period VI compared to period V (Jackson 1994, 35-36).

The burning of a hillfort's earthworks is traditionally interpreted as representing attack by an aggressive force, although in the absence of supporting evidence, the argument is purely speculative. Alternative suggestions can be proposed, particularly associating fire with a ritual of abandonment or closure (e.g. Haselgrove forthcoming). It is also perhaps not unreasonable to associate conflagrations identified in other contexts such as storage pits with the same concept; if given credence, this implies there was a close link between burning and 'end' in Iron Age society generally, not just with relation to hillfort abandonment. Not every example of earthwork firing need be, or should be, associated with closure, but it is interesting to note that 28% of all excavated hillforts in the study area have evidence for burning of ramparts and/or entrances. In the majority of cases these firings were associated with wall-and-fill ramparts. This is perhaps to be expected as such evidence will generally only apply to structures which contained flammable material; even where stone was the principal means of maintaining the vertical outer face, the majority of wall-and-fill ramparts contained timber. The evidence for firing associated with certain dump ramparts (Croft Ambrey, Bredon Hill), is focused on the gateway of the hillforts.

Periods of abandonment and reoccupation can also be suggested, based on the dilapidation of earthworks and/or the identification of 'turf-lines' between rampart reconstructions. Evidence of this sort exists for a number of Marches' hillforts, including Croft Ambrey, Sutton Walls and the Wrekin. The argument does, however, presume a certain amount about the builders' motivation to maintain the condition of the earthworks after their initial construction, and should be considered with caution without additional supporting evidence. The suggestion that the ramparts at Maiden Castle were subject to continuous modification over the hillfort's lifetime (Sharples 1990) should perhaps be borne in mind, in that it suggests, at least some instances, that the deterioration of a site's earthworks may well represent short or long-term abandonment of that site.

Finally, evidence for abrupt change, whether related to abandonment or not, should be considered within the context of discontinuity. As already indicated, the disparate quantity of deposited artefacts at Croft Ambrey between periods V and VI implies a disruption between one period of time and another. At Moel y Gaer, Rhosemor (Guilbert 1975b, 1976), the apparent replacement of one architectural technique (post ring round houses associated with a palisaded enclosure), by another (stake hole round houses associated with a wall-and-fill rampart), also implies significant disruption whether or not this be related to a period of abandonment, or alternatively something more functional such as a depleted wood supply.

Despite the limited amount of extensive hillfort excavation within the study region, there is sufficient data to indicate interrupted histories at many sites. This necessitates additional circumspection when considering hillfort chronologies, even those where evidence for discontinuity has not been identified. Even when potential disruption is evident, accurately determining the date of that disruption, the form it took and how long it lasted is extremely difficult. Nevertheless, it is worth pointing out at this stage that the identification of 'breaks' points tentatively towards the kind of 'crisis model' hypothesised by Collis (1981; chapter 4; c.f. Hill 1995a), which has obvious implications for the relationship between hillfort and non-hillfort sites, and the role(s) that hillforts served within society as a whole.

NON-HILLFORT CHRONOLOGY

The dating of non-hillfort (principally cropmark enclosure) sites in the Welsh Marches suffers from the extreme scarcity of excavation. Those which have occurred have been mostly rescue in nature and conducted on a very limited scale. A few sites may be assigned to a specific period on the basis of characteristic traits (such as the 'playing card' shape of Roman marching camps), but, in theory at least, the chronological range of most could extend from prehistory to the post-Medieval period. In fact, a large proportion are likely to be of first millennium BC and/or Roman date. This supposition is supported both by the limited excavation conducted within the Welsh Marches, and by reference to other regions of the Britain.

Single Enclosure Sites

Figure 8.2 illustrates the plans of published single enclosures in the study region which excavations have shown to date to the later first millennium BC. Most sites are examples of Whimster's univallate rectilinear category (figure 7.1), the dominant morphological group in both the Welsh Marches and adjacent areas (table 7.1). This is not in itself adequate grounds for presupposing all such sites are necessarily of first millennium BC date. There have been excavations on various similar enclosures, where no evidence for later prehistoric domestic activity was detected, but where evidence for Romano-British occupation in particular was extensive. In addition, the vast majority of finds recovered through fieldwalking and metal detecting on enclosure sites in the Marches are of Romano-British rather than Iron Age date, although this partly reflects the increased quantities and more widespread distribution of pottery and coins in the Roman period. On the other hand, the evidence for solely post-Roman activity on univallate rectilinear sites is rare, and a considerable number of excavated sites appear to have been occupied in both the Iron Age *and* Romano-British periods. This does perhaps justify confidence in suggesting that a substantial proportion of all cropmarks classified as rectilinear and univallate are of Iron Age and/or Romano-British date.

The excavated evidence for the other non-hillfort enclosure categories is limited and does not provide enough data from which to generalise. One point that can perhaps be made, is that first millennium BC evidence has been identified on bivallate and multivallate curvilinear sites, bivallate hybrid sites, and bivallate rectilinear sites (figure 8.2). None of the remaining four categories (univallate curvilinear, univallate and multivallate hybrid and multivallate rectilinear) have yet been subject to excavation, but it is not unreasonable to suppose that they will reveal evidence for later prehistoric occupation if and when excavated.

The work undertaken in Warwickshire seems generally to confirm the observations already made. The majority of sites for which dating evidence has been obtained (Hingley 1989, figure 9.9 and 9.10) correspond to the univallate rectilinear category which numerically dominates the archaeological record of the region (Hingley 1989, 136). Also apparent are bivallate rectilinear sites, and univallate hybrid sites. This pattern in which a mixture of univallate and bivallate, curvilinear, hybrid and rectilinear enclosures all exhibit evidence for activity in the first millennium BC, seems to recur across Britain as a whole, although there may be an emphasis on particular morphological categories in particular regions. For example, hybrid enclosures dominate the settlement record of England north of the Trent, whilst curvilinear enclosures predominate in south Scotland (Haselgrove forthcoming), and the east Midlands is characterised by agglomerated or nuclear sites (Willis 1997, 205).

When set against the evidence from other parts of the country, the work which has been undertaken in the Welsh Marches implies that a significant proportion of the individual cropmark enclosures identified are of first millennium BC date. More tentatively, it can also be suggested that there is a predominance of sites occupied through the later part of the Iron Age continuing into the Romano-British period (figure 8.2 and figure 8.4).

Conjoined and Complex Enclosure Sites

Excavated evidence for conjoined and complex enclosure sites is almost non-existent. This is obviously a reflection of their scarcity in the Welsh Marches. A possible example of the former category is Birdlip House Farm, which appears to have begun as a single enclosure site in the middle Iron Age with signs of activity outside the boundary ditch, subsequently expanded to include an adjoining enclosure. This perhaps bears some similarity to the sequence recorded at Wakerley, Northamptonshire (Gwilt 1997; Jackson 1978). At Ryton-on-Dunsmore, Warwickshire (Bateman 1976), there is evidence for three conjoined enclosures with an adjacent fourth enclosure. Excavation revealed the site began in the late Bronze Age when the main enclosure was constructed. Following a period of abandonment in the early Iron Age the site was reoccupied, with two additional enclosures added in the middle to late Iron Age, and the fourth in the late Iron Age/early Romano-British period.

Though limited, the evidence serves to show that conjoined enclosures were a feature of the first millennium BC in the Welsh Marches and Britain generally. There is also some indication to suggest that conjoined sites were frequently a result of successive stages of development rather than of a single phase of building activity. In all likelihood a high proportion of such sites identified from the air photographic record in the study area probably date to the later prehistoric period.

The only certain complex enclosure system excavated in the Welsh Marches is Beckford, Worcestershire (Britnell 1974, 1975; Oswald 1974). Though there are indications of early Bronze Age activity in the form of a linear ditch feature and some artefacts, and late Bronze Age/early Iron Age activity in the form of boundary features and some domestic occupation (including a possible enclosure), the main period of activity at Beckford dates from the middle Iron Age when a linear settlement, covering approximately 2.35 ha, developed along a gravel river terrace. Such 'agglomerated' sites, often interpreted as representing 'village' sized settlements with each enclosure that of an individual household unit, are generally regarded more as a feature of the later Iron Age in eastern England. As with conjoined enclosures, it is possible that many such sites evolved over a prolonged period as at Dalton Parlours, East Yorkshire (figure 8.3). Even with excavation, it is frequently impossible to determine how large particular settlements would have been at any one point in time.

Non-hillfort Settlement Enclosure in the Welsh Marches - a Middle and Later Iron Age Phenomenon?

The majority of excavated enclosures in the Welsh Marches with evidence for first millennium BC occupation were the subject of limited-scale trial or evaluation trenching conducted under rescue conditions. In most instances, little more can be said than that Iron Age activity did occur on the site. However, there are a few cases where more detailed dating evidence exists (figure 8.4). Taking account of the limited information available, enclosure across the Marches does appear to be predominantly a phenomenon of the middle Iron Age and later, with examples prior to *c.* 400/300 BC noticeably rare. The one exception is the Sabrina Cinema site, Gloucestershire, where the main boundary features apparently comprised a ditch and accompanying palisade. There is limited evidence for other palisaded sites in the Marches, for example Robury Ring and Hem Ring, Shropshire, both of which are potentially early, although dating evidence is scanty and unreliable. Palisade enclosure has been noted as a feature of the early first millennium BC in other areas of both northern and southern Britain, although such a form of construction could also continue into the later Iron Age (Hill 1982). Figure 8.4 may also imply two phases of enclosure, one in the middle Iron Age, and one in the later Iron Age/Romano British period. This might be an illusion created by the imprecise dating and extended use of particular pottery fabrics, forms and decoration by which the majority of the sites are dated, with a relatively constant process of enclosure occurring from the middle Iron Age period onwards. In Gwent, however, the late Iron Age/Romano-British enclosures from Thornwell Farm and Caldicot are paralleled in Glamorgan at Whitton (Jarrett and Wrathmell 1981) and Biglis (Parkhouse 1988). The evidence is still very limited, but whereas the enclosure of non-hillfort settlements was a prominent feature of the middle and late Iron Age in the central Marches, it may have become particularly common in south Wales during the first century AD.

The appearance of domestic, non-hillfort enclosure is often cited as being a phenomenon of the late Bronze Age (Cunliffe 1991a, Chapter 3; Chapter 4). However, in some areas, there are hints that enclosure developed, or was at least widely adopted, at a somewhat later date in the middle and late Iron Age, notably in eastern England (Champion 1994; Knight 1984) and Hertfordshire (Hunn 1996). In Warwickshire there is certainly some evidence for later Bronze Age/early Iron Age enclosure, as at Barford (Oswald 1969) and Ryton-on-Dunsmore (Bateman 1976), but the majority of all excavated enclosures are of middle Iron Age date or later (Hingley 1996, 16). On current evidence, therefore, taking into account the difficulties in establishing even general chronologies in those parts of the study area where ceramic use was uncommon, the Welsh Marches bear strong similarities with the Midlands and eastern England, in that widespread non-hillfort settlement enclosure does not apparently occur until the middle and later Iron Age. Conversely, it appears dissimilar to central southern England. These conclusions support those reached from the morphological evidence, suggesting that the Welsh Marches have as much in common with the Midlands pattern in terms of non-hillfort settlement as they do with the Wessex pattern. This is despite the fact the region is frequently directly and inextricably linked with the southern hillfort-dominated zone (e.g. Cunliffe 1991a, 364 and figure 20.6).

CONCLUSION

The nature of the evidence makes any conclusions regarding the dating of individual hillfort and non-hillfort sites in the Welsh Marches necessarily tentative. However, certain key points can be made. With regard to hillforts, the evidence suggests a broad division between late Bronze Age/early Iron Age activity and middle to late Iron Age activity, with a strong possibility in many cases of periods of abandonment/disuse between the two phases. There is also some evidence for differentiation across the study area, in when and where hillforts became common. In the north, palisaded hilltop enclosures, followed by hillforts proper, are apparently a feature of the early first millennium BC, with middle Iron Age phase of activity occurring after a period of abandonment. In the south, early hillfort activity, where identified, seems generally to occur at different sites to those where late first millennium hillfort activity has been identified.

With non-hillfort sites, enclosure seems to be overridingly a middle Iron Age phenomenon, with earlier settlements most probably open in nature (and therefore difficult to identify). Indeed, the bounding of non-hillfort settlements appears to approximately coincide with the advent of middle Iron Age hillfort activity in around 400/300 BC.

Based upon these observations, a simple framework can be suggested for site development in the Marches during the first millennium BC:

Late Bronze Age/early Iron Age

Construction of hillforts (at times succeeding pre-existing open sites and/or palisaded hilltop enclosures), perhaps occurring earlier in the north (late Bronze Age) than in the south of the study area (early Iron Age). Open non-hillfort settlements probably existed throughout the Marches.

Early Iron Age to middle Iron Age

Abandonment of some/many hillforts across the study area. Continuing open non-hillfort settlement.

Middle Iron Age to late Iron Age

Reoccupation of abandoned hillforts, especially in the north. Construction of hillforts on 'new' sites in the south. Enclosure of pre-existing open non-hillfort settlements and probably new non-hillfort settlements except in south Wales.

Late Iron Age

Abandonment of most hillforts, although some may have developed specialised functions and continued in use. Intensified enclosure of non-hillfort sites involving both site foundation and new boundary construction in all areas (including south Wales), as well as a change in the nature of evidence for occupation on some non-hillfort sites.

The importance of boundaries to social interaction and reproduction was discussed in detail in Chapter 4. Taking this into account, the patterns summarised in the preceding paragraphs very possibly reflect changing social structures and relations. The implications of these patterns are discussed further in Chapter 12.

CHAPTER 9

DOMESTIC DWELLINGS

INTRODUCTION

This chapter offers a critical discussion and analysis of the evidence for domestic dwellings in the Welsh Marches. Three broad categories have been identified: circular structures, rectilinear post structures, and miscellaneous (again inevitably rectilinear) structures; each category comprises a range of buildings constructed using different techniques. It should once again be emphasised (and will become clearer through the course of the discussion) that the evidence represents only that which survives, not that which was originally in existence. Certain building types and methods of construction are probably much under represented in the archaeological record, others over represented, and others still mis-categorised.

CIRCULAR STRUCTURES

Round 'houses' and round huts have been recognised as a significant component of later prehistoric settlement in the British Isles ever since the excavation of Little Woodbury during the 1930s (Bersu 1940). The belief that such structures were the culmination of a long-standing insular tradition led to Hodson classifying them as a type-fossil of his 'Woodbury Culture' (Hodson 1964). Since then, the validity of maintaining a British round house tradition as wholly separate from a Continental rectilinear house tradition has been questioned (e.g. Harding 1972, 1974), primarily because of the identification of rectilinear buildings (other than 4-, 5-, or 6-post structures) on certain British sites (see below) and circular structures on some Continental sites, especially in Normandy and the

Seine Valley. Nevertheless, the ubiquitous distribution of round structures in the surviving archaeological record of Britain is a clear indication that they were an important, if not the sole form, of domestic structure in the later prehistoric period. It perhaps should be emphasised, however, that not all round buildings were necessarily dwellings. Some may have been ancillary structures in which various craft and cooking activities took place (for example, metalworking appears to have been undertaken in circular structures at the Breiddin and Collfryn); some may have been storage buildings, others even livestock pens. Indeed, the kinds of evidence, if any, to be found within round structures (e.g. pits, post holes, stake holes, hearths, various small finds etc.), will rarely in themselves categorically allow classification as a domestic dwelling. In this, the term 'round house' may not always be helpful, and the possibility that some structures served alternative functions must be considered.

Over 130 examples of circular building are recorded in the study area, encompassing at least 150 separate phases of building construction (appendix 8). Much of the evidence comes from just five sites: Moel y Gaer, Rhosemor (36 structures), Beeston Castle, (9 structures) the Breiddin (14 structures), Collfryn (9 structures) and Beckford, (26 structures). In addition, ongoing excavations at Trostry Castle, Gwent have recovered over a dozen buildings so far. All other sites within the study area have produced evidence for between 1 and 5 structures at most. Neither the surface remains, nor the excavated evidence, is sufficient to allow the kind of analysis employed by Ferrell (1995, 233-235) in examining settlement in north-east England. At the Breiddin hillfort, however, all 14 structures could feasibly have been in existence simultaneously (Musson 1991, 190), and at Moel y Gaer, 16 or 17 of the phase 1 post ring buildings, and 11 or 12 of the phase 2 stake ring buildings could have been occupied at the same time. This contrasts with the early Iron Age hillfort of Crickley Hill, where excavation of a substantial proportion of the interior uncovered evidence for just one (large) round structure, and with non-hillfort sites such as Collfryn, where only 3 buildings are likely to have been in existence simultaneously, although 9 were identified and Sharpstones Hill sites A and E where just one round building was occupied at any one point in time. Beckford is the only non-hillfort settlement with evidence for dense occupation, but in any case is hardly comparable to the single enclosure sites prevalent in the Marches.

Round buildings are known from every part of the study area. Though this may seem unsurprising, it had been previously argued that they were absent from the central Marches, particularly Herefordshire and Shropshire, and that dwelling structures took the form of rectilinear post buildings (e.g. Stanford 1974, 230). Discussion of whether the latter buildings were houses will be saved for later; however, the identification of circular structures from the Iron Age non-hillfort enclosures of Kenchester (Wilmott and Rahtz 1985), and Sharpstones Hill sites A and E, Shropshire (Barker *et al* 1991), as well within the hillforts of Wall Camp, Old Oswestry and possibly Caynham Camp and Brandon Camp, clearly refute the argument that the Iron Age peoples of the central Marches did not construct such buildings.

Circular structures rarely survive to any degree in upstanding form (the exception being stone footings on sites further afield such as Garn Boduan and Tre'r Ceiri, Carnarvonshire (Hogg 1960), North Wales, the brochs of Atlantic Scotland, and the timber remains of a circular building at Goldcliff, on the Severn Estuary, preserved due to the exceptional environmental conditions). Recognition and reconstruction more often than not must depend upon the identification of negative features during excavation. There have been numerous discussions of round building architecture (e.g. Cunliffe 1991a, 242-246; Harding 1972, chapter 3; 1974, chapter 3; Reynolds 1995), and also some consideration of specific architectural features (e.g. Guilbert 1981b, 1982), which have allowed the basic construction techniques to be recognised. One of the simplest types comprises a single ring of post holes, either set straight into the ground or within a wall gully (as opposed to a drainage gully which could be dug outside and concentric to the outer wall of the building).

Such structures had a long period of use and examples can be identified throughout the first millennium BC. In the Marches single post-ring structures dating to the late Bronze Age and/or early Iron Age have been identified at the Breiddin, Beeston Castle and Old Oswestry hillforts, and at the non-hillfort site of Thornwell Farm. Structures thought to date to the middle Iron Age and/or late Iron Age have been identified at Old Oswestry where posts were set within a stone footing were identified, and also at Kenchester, Beckford, Thornwell Farm and Caldicote, and possibly Sharpstones Hill site A. The possible, though peculiar single-ring post structure at Caynham Camp is worth mentioning (figure 9.1v), in that the wall gully into which the posts were set does not extend into a full circle. The excavator interpreted the structure as semi-circular (Gelling 1962-3, 98), as did Stanford in his re-analysis (Stanford 1980, 92 and figure 17). If accurately interpreted, the structure would be unusual both in the Marches and in Britain as a whole. However, the possibility that it was a round building. with half the post holes set in a wall gully, and the others, for whatever reason, individually into the ground surface - or that the other half of the structure was constructed using non ground-penetrating methods - must be considered. This raises the question of post ring houses surviving in the archaeological record. Because the post holes are themselves fairly substantial, it can be assumed such structures will mostly be located if an adequate area is excavated. Indeed, this was shown to be the case in early excavations such as Little Woodbury (Bersu 1940) and Bredon Hill (Hencken 1938).

However, it is not always straightforward to classify a building as of single post-ring type. In some cases where preservation and excavation has been good, it has been possible to locate a second outer ring of timber uprights, often relatively insubstantial in nature and perhaps better regarded as stakes rather than posts (Guilbert 1981b). Double-ring post structures have been identified from late Bronze Age/early Iron Age contexts at Moel y Gaer, Crickley Hill and Chapel Tump (Gwent), and possible examples has been identified from middle Iron Age contexts at Beckford and Wall Camp. The (often) slighter dimensions of the outer ring timbers means their presence may sometimes only be recovered under certain conditions. Consequently, some single post ring circular structures may actually be misclassified double ring structures, where the outer ring was not detected, a problem which has been noted elsewhere, for instance Normandy (Ralston *pers comm*)..

The principal ground penetrating alternative to a post-ring wall was the stake-built wall, again either set directly in the ground surface or in a wall gully, with a large post set either side of the entrance. Stakes are obviously less substantial than posts, and stakeholes are therefore generally less likely to survive in the archaeological record and/or to be recognised during excavation. As Guilbert illustrates, when ploughing has intervened, the only evidence of such structures recovered may be the two large post holes of the entrance timbers (or, as shall be discussed below, the four posts of a porch), and such features may often be interpreted as something other than evidence for a round house (c.f. Guilbert 1975a). For instance, do any of the paired 'hay posts' at Bromfield (figure 9.2) mark the presence of a stake-built round building, rather than corn-drying racks? Despite the inherent problems of survival and recovery of stake-built buildings, numerous examples have been identified in the study area. Two possible structures that may be early Iron Age in date have been recorded at Old Oswestry. Otherwise all examples appear to be middle Iron Age or later, and have been identified at the hillforts of Moel y Gaer, the Breiddin and possibly Wall Camp, and the non-hillfort sites of Collfryn and Beckford.

As well as detecting a circular pattern of stake or post holes, it is often possible to identify round house sites through the presence of a circular gully. This may represent a wall gully from which all evidence of the structural timber of the building has been lost, or it may represent a drainage gully, or merely an eaves drip gully, in which case the round house itself would have been situated inside the line of the trench. Without additional information, it is generally impossible to determine which was the case, and indeed whether the house was of post or stake construction.

So far, discussion has primarily focused upon the wall timbers and the circular-set roof supports. Some round houses, however, were furnished with additional architectural features. First there may be additional roof supports. Often this took the form of a single post located in the centre of the building. In the study area, examples are associated with single post-ring structures (Thornwell Farm, Kenchester) and stake-built structures (Collfryn). There are also several instances where settings of 4 post holes occupy the interior of buildings. Such an arrangement has been identified outside the region, at Little Woodbury - where Bersu interpreted it as the principal means of supporting the roof - but it does not appear to have been a particularly common feature of round buildings in Britain. Indeed Musson (1970), questions whether the Little Woodbury 4-post setting was of the same phase as the round house. Possible examples in the Marches have been detected at Sharpstones site E and Wall Camp, and possibly also Sharpstones site A, in all instances associated with annular or penannular gullies.

Other internal features, such as post or stake holes, could be associated with internal partitioning. This may relate to a functional division, for example between a sleeping area and an area for other domestic activities (e.g. Cunliffe 1991a, 242), and/or may relate to a more symbolic partitioning (e.g. Fitzpatrick 1997, 77-78; Oswald 1997). That such division occurred within round houses is illustrated by an example from Old Oswestry (figure 9.1u) where the survival of stone footings clearly shows a north/south partition. It is noteworthy that had the stone footings not survived, or been used, as is the case with most British round houses, this division would not have been so clearly evident.

The final feature to be discussed is the porch. Often this can be identified by two postholes outside the line of the round house wall, or four postholes outside the line of the inner ring of a two-ring structure (e.g. figure 9.1t). In the Marches, porches are associated with single-ring post buildings at Beeston Castle and Bredon Hill camp, but they occur most often in two-ring buildings, as at Moel y Gaer and Crickley Hill, and in some stake-built structures, as at the Breiddin and Collfryn. A further point to emphasise is that porch postholes, as with entranceway postholes discussed above, may survive to be detected in the archaeological record, where less substantial features may not. Consequently, groups of 4 postholes (c.f. 4-posters below), as with the pairs of postholes referred to above, could in some instances represent the remains of a round structure, but not be interpreted as such.

The diameter of circular structures in the study area varies considerably, from under 4 to over 14 m. No particular trends are revealed when size is set against chronology, although this is perhaps not unexpected considering the difficulty of accurately dating individual structures. When hillfort sites were compared to non-hillfort sites, a possible, though not clear-cut, pattern emerges (figure 9.3).

There is a tendency for larger round buildings to be situated in non-hillforts, and for smaller examples to be situated in hillforts. This trend, however, is potentially misleading in that figure 9.3 is significantly influenced by just two sites: Collfryn and the Breiddin, where there was a clear contrast between the round house sizes of the non-hillfort and those of the hillfort site (Musson 1991, 190). If the two sites are excluded from the analysis then the pattern is markedly less apparent (figure 9.4). Even so, the pattern is not without some interest since, if round house size can in any way be regarded as signifying a particular function(s) or status, then different hillforts, and indeed different non-hillfort settlements, must have fulfilled different roles and maintained different social positions in society.

The entrance orientation of both hillfort and non-hillfort enclosures in the Welsh Marches has been shown to be significant and to reflect a general pattern identified across the Britain as a whole (Chapters 6, 7). Figure 9.5, presents the results of a similar analysis conducted upon the entrance orientation of round houses, again with comparison to a study undertaken in southern England.

The significance of the east/south-east arc is evident in both regions, though the emphasis varies, east being more important in Wessex (as was the case with respect to non-hillfort entrance orientation), and south-east in the Marches. The pre-eminence of a south-east orientation in the Marches, as opposed to the easterly one apparent in southern England, may be significant. It perhaps indicates a greater concern with the cosmology of the Midwinter sunrise in the former and the equinox in the latter, although it is clear that if cosmological phenomena were paramount in dictating round house orientation, as is frequently argued (e.g. Fitzpatrick 1997; Oswald 1997), the Midwinter sunrise and the equinox were significant (if to differing degrees) in both areas. This reinforces the general easterly preference for entrance orientation observed with respect to hillforts and non-hillforts, though the subtle variation in relative significance (hillforts north-east, non-hillforts east and circular structures south-east), is interesting.

RECTILINEAR POST STRUCTURES

Rectilinear post structures, normally possessing 4, but occasionally 5, 6 and even 9 posts, set in a square or rectangular shape, are a common feature of Iron Age sites throughout much of southern Britain. Interpretations have been various, with that of a raised granary generally finding most favour (e.g. Bersu 1940; Gent 1983), but alternative suggestions have included shrines, excarnation platforms and watchtowers (Bersu 1940, Carr and Knusel 1995, Ellison and Drewett 1971, Poole 1984). As such these structures could, and perhaps should, be discussed in a section other than one dealing with domestic dwellings. However, there has been considerable discussion in the literature relating to the Welsh Marches, particularly the central Marches, on whether these 'buildings' can be considered houses (e.g. Guilbert 1981; Stanford 1970, 1972, 1974, 1981, 1985, 1995). This debate was instigated by the fact that, until comparatively recently, no round houses had been detected on sites in Herefordshire and Shropshire, despite careful excavation. Consequently, there is perhaps some justification in discussing rectilinear post structures, and their functions, here. In addition, as noted above, some rectilinear settings of 4 posts may be all that remains of the porch, or even the central support, of a round house.

198 examples of rectilinear post built structures are included in this study, encompassing over 280 separate phases of construction. Given the extent of excavation, considerable numbers have been found at several hillforts, particularly Croft Ambrey, Midsummer Hill, Moel y Gaer and the Breiddin, but also Credenhill Camp, the Wrekin and perhaps Ffridd Faldwyn. The majority of rectilinear structures from these sites are from middle Iron Age and later periods; where late Bronze Age/early Iron Age activity was present, earlier examples nevertheless seem to be lacking, perhaps implying a fundamental change in function between the first and second half of the first millennium BC. The numbers of post-structures recovered from non-hillfort excavation are comparatively small, reflecting the disparity in the number of excavations, and particularly the extent of the excavations on non-hillfort sites. However, no rectilinear post structures were recovered from Sharpstones Hill site A (apart from 4 postholes internal to a round house); Holt site D; or Thornwell Farm where much of the interior was stripped; nor were any detected at other sites where excavation was not as extensive, such as Sharpstones Hill site E (again apart

from one example internal to a round house); Preston Farm; Calcott Farm, Kenchester; and Aston Mill Farm. Just one, not necessarily of pre-Roman date, was identified from Caldicot, and only two were identified at Beckford. The only non-hillfort site to reveal any number of rectilinear post structures is Collfryn, where over 30 were detected, of which no more than 12 are likely to have been standing at any one point in time (Britnell *et al* 1989); at least some of these may have been Romano-British in date.

There is some indication, therefore, of a division, from the middle Iron Age at least, between hillfort and non-hillfort sites, although we should be cautious in turning this observation into a blanket pattern for the Marches, since several hillfort sites have produced no rectilinear post structures, although mostly, those which were excavated in the first half of the century when methods were not as stringent as the present day, and where work tended to concentrate on the earthworks and entrances.

The foremost ways of classifying these proposed buildings is by area (where wall lines are measured from posthole centres); numbers of posts (the Welsh Marches has only very limited examples of structures with more than 4); and shape. Figure 9.6 shows the overall size distribution of 4-posters in the Welsh Marches, where series A represents all the proposed construction phases of all the buildings from which measurements could be made, and where series B represents the average of the construction phases for each particular structure.

There is little significant variation between the two forms of quantification, with the exception of the 7.6 - 8 m2 range, and the 8.6 - 9 m2 range. Whichever method is used,, it is evident that the majority of 4-posters in the region are sized between 5/5.5 and 8.5/9 m2, with very few examples measuring under 4 m2, although a larger measure over 10 m2.

Figure 9.7 shows the size distribution of 4-post buildings on the five sites in the study area where more than 15 examples have been excavated. Quantification is achieved by considering each individual phase as a separate building (i.e. the series A method on figure 9.6). The main tendency is that the vast majority of structures from Croft Ambrey, Midsummer Hill and Moel y Gaer are over 6.5 m2, whereas the majority from the Breiddin and Collfryn are below 6.5 m2, and almost all are below 9 m2. It is interesting, if coincidental, to note that Stanford's lower size limit for what he suggested were rectilinear post structure dwellings, is *c.* 7 m2 (Stanford 1970, 112). Rather than signifying a division between houses and granaries - after all, a large number of round houses contemporary with 4-posters were excavated at Moel y Gaer - the difference more probably reflect a regional tradition: both Collfryn and the Breiddin are situated in the broken uplands of north-east Powys, within approximately 7 km of one another. Although it has been suggested that many small 4-posters date to the early Iron Age (Poole 1984, 93), the size difference is unlikely to reflect site chronology since the majority of structures from the Breiddin (large and small) and all the Collfryn structures date from the fourth century BC.

Figure 9.7 includes a histogram depicting the size distribution of 4-post buildings from Danebury, where over 300 probable or certain structures were recovered. The distribution is more even across the size ranges than on any of the Marches sites, perhaps as a result of the larger sample size. So, whereas in the Marches two contrasting patterns can be emphasised – a 'large' pattern where 4-posters tend to be over 6.5 m2 (Croft Ambrey, Midsummer Hill, Moel y Gaer), and a 'small' pattern where there is a clear distribution under 5.5 m2 (Breiddin and Collfryn) – the evidence from Danebury would appear to span both.

The majority of 4 post structures from the study area are rectangular, rather than square in shape. This contrasts with the pattern at Danebury and other sites in southern England, where the reverse is true. On present evidence it is unclear whether this reflects a functional or cultural diversity. Post structures in southern England are generally interpreted as granaries (although see Poole 1984), whereas in the central Marches they are traditionally interpreted as both granaries/storage buildings *and* domestic dwellings (Stanford 1972, 1974, 1981). Much of the argument for the latter interpretation rested on the supposed absence of round buildings from the central Marches (Stanford 1974, 124). Such structures are, however, known from the area, whilst the evidence from sites such as the Breiddin, Moel y Gaer (period 2) and Danebury, suggest that many round houses on hillforts were comparatively flimsy structures, made from slender wooden stakes, with the doorway or porch the only substantial component. Identification of such structures will therefore often be very difficult (see above). To assess further whether there is any justification in viewing the post structures of the central Marches as different in terms of function from those identified on hillforts elsewhere, it is worth briefly considering similarities/contrasts in other aspects of the structural evidence.

The results from several extensively excavated hillforts suggests round buildings were frequently - though not always (as at Moel y Gaer) - located around the periphery of the site in the quarry hollows, and/or located in different areas to those in which post-structures were located. This in itself implies a degree of specific zoning of structures, and presumably the functions which they served and the activities with which they were associated. On certain hillforts, such as Moel y Gaer (Guilbert 1976), there is evidence for the deliberate laying out of post structures in a gridiron pattern. In some instances, as at Danebury (Cunliffe 1995, figure 9), this orderly layout was apparently structured around several internal roadways. On other sites with structural zoning, like the Breiddin, there seems to be structural zoning, there is no indication of such specific, strictly controlled organisation (Musson 1991).

The evidence from Croft Ambrey, Midsummer Hill and Credenhill conforms to the picture of a carefully laid out post structure pattern (Stanford 1970, 1974, 1981). Also, on the basis of the limited excavation conducted, the evidence for such buildings was mostly restricted to the hillfort interiors, *not* the quarry hollows (Jackson 1995, 36; Stanford 1981, 116). Furthermore, the fact that no round structures were identified within these quarry hollows, does not mean to say that none existed. Various post holes were detected which could not be interpreted as serving any particular function, as were hearths (at site J, Croft Ambrey, a succession of 14 hearths were excavated, with a 'drain' located to the north-west), and even areas of stone 'flooring' which were not explained (e.g. Stanford 1974, figure 42 and 43). There are potential similarities, therefore, between the Herefordshire sites, and hillforts elsewhere, in the zoning, organisation and size of post-structures, and in the presence of domestic occupation (and dwellings?) in the quarry hollows. Consequently, there is little reason to suggest that the post-structures of the central Marches served different role(s) from similar post-structures elsewhere. This is not to say that some were not dwellings, nor that they all served the same function; only that there is little evidence to suppose they were particularly different. In terms of their actual functions they are often assumed to have been elevated granaries (Gent 1983), and indeed charred grain has been recovered associated with post-structures from Croft Ambrey, Midsummer Hill and Caynham Camp. Some may have been dwellings, although the presence of 'sub-hearths' at Midsummer Hill cannot be taken as evidence for such, since there is no indication that their floors of the structures were at ground level. The hearths could therefore have preceded/succeeded the buildings, or been used to warm or help keep dry whatever was contained within them.

MISCELLANEOUS STRUCTURES

This section will encompass possible buildings whose ground plan does not conform to either the round house or rectilinear post structure traditions discussed above. The evidence for such 'other' structures on first millennium BC sites in Britain is notoriously slight, or at least the impression is that such evidence is slight. To what degree this is a perception restricted by the traditional British/round house and Continental/rectangular house dichotomy is unclear; it may be that a systematic search for 'different' (i.e. non-round) buildings from British Iron Age sites will bring to light rather more than might be expected. The evidence from the Welsh Marches certainly hints that this could be the case. Though certainly not widespread, non-circular buildings are not as uncommon as might be expected, especially for a region with comparatively little excavation. In total, some 50 possible examples, from 12 sites, can be identified (appendix 10), taking account of the fact that the evidence is often sufficient only to allow speculation that a building once existed. Where an outline can be detected, the shape of the structures is always rectangular. Construction techniques vary, and the nature of many of the buildings means that details are sketchy or lacking altogether. However, four potential categories can be identified.

Slot/Trench Buildings

Four possible trench built structures, in which a single continuous slot, or several slots, define the likely wall line of a building, are known from the study area: two from Holt site D (figure 9.8a and 9.8b), and one each from Midsummer Hill (figure 9.8d), and Collfryn. In all cases, spaced posts also seem to have been integral to the building structure, set within and cut deeper than the trench itself. In addition to these, the possible building from Sharpstones Hill site A is characterised by parallel trenches (figure 9.8c), but the post holes in this instance are internal, rather than set within them. This may imply that the trenches were for drainage purposes, and that the building should be categorised with the type of rectilinear post structure recovered from Crickley Hill (9.8f and see below). That the Sharpstones Hill features are the remains of a building is perhaps supported by an internal pit, which was filled with pot boilers, indicating some form of heating or cooking function.

Rectangular trench structures have been identified elsewhere in southern Britain, for example at Danebury (Cunliffe 1984a, 81-87), Cadbury Castle (Alcock 1972), Lancing Down (Bedwin 1981) and Heathrow (Grimes and Close-Brooks 1993), and are frequently been interpreted as religious or ritual 'shrines'. This classification has been based upon one or more of a number of criteria, ranging from the 'different' nature of the architectural form to the identification of supposed votive offerings associated with some buildings (c.f. Wait 1985, Downes 1995, 1997). However, there is nothing from the

Welsh Marches examples to suggest any religious significance bar their architectural form, which is not, on its own, adequate grounds for arguing a religious function.

In terms of size, there is sufficient evidence to calculate the approximate internal floor area of the Holt structures, which were approximately 30 and 50 m2 respectively. This compares with 79.2 m2, 16 m2 and 9 m2 for three of the trench built structures from Danebury and approximately 9 m2 for the Cadbury Castle building N5.

Post Built Aisled Buildings

Excavations within the interior of Crickley Hill, Gloucestershire, revealed evidence for six sets of parallel rows of post holes orientated along a roadway that ran from the entrance of the hillfort. The excavator interpreted this evidence as rectangular aisled buildings (Dixon 1973, 1976), discounting the alternative that they represented a series of 4-post structures partly because a hearth was detected in the centre of 'House 1'. It has been argued that 4-posters on some Marches sites contained hearths (Stanford 1974, 1981), and there is good evidence from various sites that such buildings lined roadways (see above). Consequently, it would be unwise to discount completely the 4-post structure argument in advance of full publication. If the post holes do represent aisled buildings, they are the only examples so far recognised within the study area (with the possible exception of the Sharpstones Hill site A structure noted above), and compare with the possible prehistoric example detected at Gorhambury, Hertfordshire (Neal *et al* 1990). The similarity between the Crickley Hill buildings and rectangular buildings excavated in central Europe has been noted elsewhere (e.g. Harding 1974, 52 and figure 13), although without additional evidence it is impossible to speculate on any direct contact.

Stake Built Buildings

Excavations along the Severn Estuary at Goldcliff and Redwick revealed evidence for buildings unlike any other recovered from a British first millennium BC site, although this feasibly reflects the local wetland environment and its preservation qualities rather than any original geographical restriction The structures are rectangular in shape, and in the case of Redwick building 4, bow-sided, and range from approximately 20 m2 to almost 50 m2 in size. The walls are constructed of closely spaced roundwood stakes with wattle woven in between. Several buildings have substantial internal supporting posts running through the long axis, and there are also indications of internal partitioning. In the case of Goldcliff building 1 (figure 9.8g), the subdivisions at one end resemble cattle stalls found on the Continent (Bell and Neumann 1997, 103). The identification of cattle prints around various buildings supports the suggestion that some of the structures, or some parts of the structures, were used to keep animals. The nature of the local environment has also led to the proposal that the sites were associated with seasonal exploitation of riverine resources, and that transhumance to inland sites occurred during the months when the area was subject to the risk of flooding. This would imply that the building type may have evolved under specific circumstances to satisfy specific functions. Its apparent absence from inland sites, therefore, where the local environment and resources were very different, need cause no surprise.

Sill Beam Structures

It is entirely credible that the apparent scarcity of rectangular buildings (excluding 4-posters) compared to circular buildings is, in part at least, a result of construction techniques that leave no, or little archaeological trace. At Moel y Gaer, Rhosemor, excavation revealed some twenty uniform and approximately rectangular stone spreads that were interpreted as the floors of timber-framed structures built on sill beams which did not require any earth-fast timbers (Guilbert 1976; figure 9.8e). Although the proposed structures were not accurately dated, they could have belonged to the later prehistoric period. Stone surfaces that may be the remains of similar constructions have been tentatively detected at the Breiddin in a late Bronze Age context (Musson 1991, 32 and figure 15), and at Aston Mill Farm and Beckford in middle Iron Age contexts. In the latter case, stone free strips along one or more edges of the spreads have been argued to represent the positions of the original timbers (Wills forthcoming). A further possible example of sill beam construction has been recognised at Coed y Bwnydd, where there may have been additional earth-fast posts at the building's corners. This spatially and chronologically widespread evidence supports the idea that rectangular buildings were not as rare on British Iron Age sites as has been asserted, and that their apparent scarcity is more a product of the limitations of archaeology than original construction preferences.

FUNCTION

Determining the function of the various structures which have been discussed is far from simple. The usual assumption is that the circular buildings were all dwellings, although as noted earlier, this should not exclude consideration of alternative functions. Figure 9.9 shows the numbers of both circular and rectilinear post structures from the study area associated with specific forms of archaeological evidence.

It is important to stress that these results should be viewed with a good deal of caution. First, they largely, though not solely, reflect the collation of published data and there are numerous examples of sites in the Marches which have not been fully published in adequate detail. Second, parts of the study area for the whole or part of the first millennium BC, appear to have been relatively poor in terms of surviving material culture, therefore we should not necessarily expect to find reliable indicators of function in the artefactual record. Thirdly, survival and methods and objectives of excavation will affect what information is recovered and recorded. On the one hand, destructive processes such as ploughing have in most instances completely destroyed the original ground surfaces of sites, and removed trace of features such as hearths. On the other hand, as noted in Chapter 3, only relatively recently have many types of archaeological evidence, particularly environmental remains, been consistently collected, recorded and published, so evidence of function is particularly under-represented. Bearing these points in mind, the relatively high proportions of circular structures associated with pottery, briquetage and hearths suggest that many were indeed domestic dwellings (although, of course, hearths need not be associated with cooking). This should not, however, be presumed to be their sole function. A (minority?) may have housed craft or industrial activity, such as metalworking, spinning and weaving, particularly on those sites where more than one structure was in existence at any one time, and *perhaps* even where there is a noticeable size differentiation of contemporary structures on the same site.

There are by and large fewer artefacts associated with rectilinear post-structures than with circular structures, which in itself may be significant, perhaps suggesting a less domestic role, or a role involving less continuous activity, which the low percentage of hearths may support. Only botanical remains are more frequently associated with rectilinear post buildings than circular buildings, lending support to the hypothesis that the former were granaries, although it is difficult to determine how much can be read into such limited evidence.

Not enough artefactual evidence was associated with the other miscellaneous structures to determine their possible function, beyond what has already been said in the preceding sections. What can be said, perhaps, is that, as with circular and rectilinear post built structures, no one sole function need be applicable.

CONCLUSION

Various types of building of possible first millennium BC date have been identified, including both circular and rectilinear post structure, widely accepted as typical of the Iron Age, and forms not often recognised as being a feature of the later prehistoric period in Britain. The overall proportions of the various building types can be seen in figure 9.10, there being almost twice as many rectilinear post structures as circular structures, and three times as many circular structures as miscellaneous structures. This 'order' of frequency is probably an accurate reflection of the original situation, although the exact proportions need not necessarily be, due to problems of survival and identification. The point must be reiterated that we have evidence for what has survived, not necessarily what was originally in existence. Those buildings constructed of substantial timbers, particularly rectilinear post structures, are more likely to survive and be identified in the archaeological record than less substantial, or non-ground fast, buildings such as stake-built circular structures or sill-beam structures.

CHAPTER 10

ARTEFACTUAL AND NON-SETTLEMENT EVIDENCE

INTRODUCTION

A variety of non-settlement evidence has been unearthed from within the Marches, although, as with the settlement information already discussed, lack of widespread excavation means it is frequently somewhat limited in extent. This chapter will analyse this data with the aim of gaining insights into such topics as subsistence, production and exchange, inter-site and inter-community relations and the ritual practices of the later prehistoric peoples inhabiting the Marches.

AGRICULTURE – FOOD PRODUCTION, PROCESSING AND STORAGE

The evidence for prehistoric agriculture in the Welsh Marches is very limited, and reliance has to be placed on the information obtained from a small handful of sites, itself far from adequate. The reasons for this deficiency are the same as those identified in the evidence already discussed, principally a lack of extensive excavation under modern conditions and a failure to exploit the full battery of archaeological practices now available. However, additional factors have served to magnify these problems. Most significant is the acidic nature of the soil over many parts of the Marches, which has meant poor bone preservation. On many of the larger excavated sites, such as the Breiddin and Midsummer Hill, the only bone remains were odd burned fragments. Botanical remains also are unlikely to survive unless subject to processes that enhance archaeological preservation: primarily charring. This, in itself, biases the record in favour of cereals and against legumes. As a consequence, the evidence reviewed below must be considered with extreme caution, and represents only a patchy outline of agricultural activity in the Welsh Marches during the first millennium BC.

Crop Husbandry

Systematic sampling for botanical remains has been very limited, despite the fact that charred wheat was being identified on sites excavated in the 1950s and 1960s, such as Caynham Camp (Gelling 1963) and Croft Ambrey (Stanford 1974). Evidence for cultivated crops has been recovered from a mere ten published sites (six hillforts and four non-hillforts), and only for seven of these has identification and quantification been attempted. In only five cases does the quantity of cereal remains exceed 1000 individual fragments, and the only site where anything like a comprehensive and deliberate sampling strategy has taken place is Beeston Castle, where 800 samples of 40 litres were collected. In addition, in many cases only grain and chaff remains (the latter being the remains of the cereal plant other than the seed, normally interpreted as representing the processing of cereals for food production), are recorded, not weed remains. Consequently we have less information with which to answer questions such as whether particular sites were especially concerned with the production or consumption of grain. Full details of the botanical remains of each site are provided in appendix 11.

Emmer, spelt, barley and oats have all been identified, although the latter are possibly the remains of wild oat (*Avena fatua*) rather than cultivated oat (*Avena sativa*). Very small amounts of bread/club wheat has also been recognised from Beeston Castle, the Breiddin and perhaps Collfryn, but this may represent intrusion from Romano-British period activity in that all three sites exhibit activity from this period and bread/club wheat is otherwise absent from Iron Age sites. In many instances identification to species was not possible, especially with respect to differentiating between emmer and spelt. This makes it more difficult to establish whether the trend identified on sites in southern and eastern England, whereby emmer gives way to spelt through the Iron Age, is also relevant to the Marches. It has been suggested that emmer continued to be used longer in western than in eastern Britain (Jones 1981, 120). To an extent, the limited evidence available from the study area supports this view, since emmer and spelt have been differentiated, emmer always dominates. This is particularly evident at Collfryn (Jones and Milles 1989), where there is almost five times as much emmer as spelt, and the Breiddin where there is over thirty-five times as much (Hillman 1991). However, the evidence from Beeston Castle emphasises the need for additional work in the area. This is the only site where an extensive and deliberate sampling strategy has occurred and here botanical remains positively identified as emmer account for 22.3% of the total cereal remains, spelt for 17.7% and wheat not clearly identifiable to species 36.5%. The dominance of emmer is therefore by no means clear-cut, whilst there is considerable evidence that spelt was being cultivated within the vicinity of the site during the first millennium BC.

Barley, though present on several sites, tended to comprise a small percentage of the total cereal remains. The one exception is the middle Iron Age phase at Aston Mill Farm, where barley accounts for 70.5% of the recovered cereal assemblage. In the late Iron Age phase, no barley was identified with confidence (although the sample size was very small), and emmer/spelt dominates. This would seem to imply a significant change in the preferred crop at the site between the middle and late Iron Age.

Other evidence for arable crops is just as limited across significant parts of the study area. The increasing application of aerial photography has revealed evidence for field systems in the south-east of the region, some of which may be first millennium BC in date (Saville 1980). Elsewhere, the evidence for field systems is fragmentary and few coherent examples have been identified, although exceptions have been detected (figure 10.1). There is no reason to presume that the lack of widespread evidence for field systems reflects an original scarcity. Arable cultivation was evidently very important in the Marches during the later prehistoric period, and intensive aerial photography will undoubtedly identify evidence which will help to 'fill in' the agricultural landscape between the enclosures which have already been identified.

The evidence for crop processing and storage is more extensive than that for crop production, though insufficient to permit anything but tentative conclusions to be drawn. With regards to the botanical evidence, figure 10.2 plots the percentages of grain against chaff for wheat species (spelt, emmer and indeterminate wheat in appendix 11) identified on hillfort and non-hillfort sites (bread wheat is excluded on the basis of its insignificant proportion, and possible Romano-British date). A possible pattern is evident in which hillfort sites seem to have high percentages of grain and low percentages of chaff (c.f. also for instance Pembrey Mountain, Dyfed, where a similar phenomenon has been observed – Caseldine 1990, 76), and non-hillforts high percentages of chaff and lower percentages of grain. This may imply that the wheat reaching hillforts had already undergone certain basic processing. On the other hand, at Danebury the more extensive evidence is argued as indicating spatial separation of crop processing activities (Jones and Nye 1991, 413), reaffirming the problems that may arise from over-interpreting evidence from small-scale excavations, although the identification of recurrent patterns should not be undervalued because of this. Bearing these points in mind, the large amounts of chaff provide some evidence for such threshing, pounding, winnowing and cleaning taking place on non-hillfort sites. One possible explanation is that cultivated crops were harvested by the residents of non-hillfort settlements, readied for storage, and then the surplus transported to hillforts (assuming contemporaneity in the occupation of hillfort and non-hillfort sites). Though such a model would fit the evidence, some cautionary points are required. First, the quantity of evidence is very small and certainly insufficient to generalise for the whole of the study area. Second, the one site where wide-ranging sampling took place, Beeston Castle, is also the site which fits the model least well, since although grain accounted for 57% of the wheat remains, chaff accounted for 43%, indicating a considerable amount of processing did occur. Third, the field system associated with the Breiddin hillfort implies that the site's inhabitants did cultivate the surrounding land (unless the system was associated with the New Pieces enclosure), whilst the presence of sickles on several hillforts in Hereford and Worcester, including Croft Ambrey, Sutton Walls, Midsummer Hill and Bredon Hill, indicates harvesting. No sickles have been recovered from non-hillfort sites; indeed, the overall scarcity of sickles in the Welsh Marches, and indeed Wales generally (Davies 1995, 683) may imply they were not widely used during the first millennium BC outside Hereford and Worcester.

If for the moment we hypothesise that surplus, partially processed, grain was transported to (some) hillforts from the surrounding hinterland, the question of 'why' has to be addressed. The obvious answer is that hillforts were central grain storage places. Evidence for storage, as mentioned above, may take the form of rectilinear post structures (c.f. Gent 1983). These occur in abundance on numerous hillfort sites in the region, but are relatively rarely on non-hillfort sites, with the exception of Collfryn (page 146). Even at the latter site there were proportionally four times fewer post-structures than were excavated on the Breiddin, 7 km to the north-west, despite the greater area excavated (Musson 1991, 189). If rectilinear post structures were granaries, the presence of 'hearths' within the post settings of some at Midsummer Hill and Croft Ambrey may indicate 'under-floor heating' to help keep the grain dry (it has been observed that it was necessary to dry grain before bulk storage) (Hillman 1981), rather than domestic occupation.

In southern England, the presence of large storage pits may also indicate grain storage (Whittle 1984, 128-146). Such features were predominantly of 'beehive' type, where the base was broader than the mouth, but could also be cylindrical or sub-rectangular in section, and in some instances exceed 2 m in mouth diameter and depth.

Though possibly serving a variety of functions, they have been interpreted as underground grain silos since the excavations at Little Woodbury in the 1930s (Bersu 1940). Over most of the study region, there is little evidence to compare with the pits of the south English chalklands, perhaps primarily because the ground conditions are generally unsuitable for crop storage. 'Pits', in the Marches tend to be little more than shallow scoops in the subsoil. At Croft Ambrey, three examples over 1 m in depth were identified, two of which contained carbonised grain, perhaps implying a grain storage function. At Midsummer Hill one at 1.2 m depth was detected. The only other convincing examples are to be found east of the River Severn, at Conderton Camp, where features up to approximately 2 m deep were excavated, some apparently lined with wattle-work, and at Beckford where 13 pit groups, totalling over 800 pits were identified, although not all were excavated. These were frequently over 1.5 m deep, although the average depth was usually under 1 m. The large number of pits at Beckford (perhaps in part explaining the small number of 4-post structures?) may argue against a central storage role for hillforts, in that it was a non-hillfort site with a considerable capacity for storage. However, in terms of overall size and form Beckford is not a typical non-hillfort site in the Marches, and cannot be used as a template from which to generalise about such sites.

On present evidence, it can be suggested that many Welsh Marches hillforts possessed a storage capacity in excess of that of non-hillforts. Together with the tenuous botanical evidence reviewed above, this suggests that some at least represented central storage sites.

The last form of evidence to be considered are quern stones, used to grind grain into flour. The apparent predominance of saddle querns in the study area until the late Iron Age or even Romano-British period was noted in Chapter 5. Again the evidence is not particularly extensive, with the exception of the Breiddin and Croft Ambrey, where 48 and 31 saddle querns respectively were recovered, and Beeston Castle where 10 were identified. No non-hillfort has produced anything like these quantities. Indeed, Collfryn, where a larger area was excavated than the Breiddin, Croft Ambrey or Beeston Castle, produced just 5 quern fragments, all unstratified; 4 of these were of rotary querns and, being as no rotary quern has been recovered from a secure Iron Age context in the Marches, indeed they have only been recovered from Iron Age sites which also show Romano-British activity, they possibly relate to Romano-British activity. The implication is that the advanced processing of grain was concentrated on some hillforts, a concept which is perhaps supported by the idea that various hillforts were central storage places for ready-prepared grain. The evidence is still too limited to allow the idea to be explored further. Indeed, the absence of querns altogether from some hillforts like Midsummer Hill, Sutton Walls and Bredon Hill, together with the other limitations already outlined, cautions against generalising from limited evidence from a small sample of sites.

Animal Husbandry

The faunal database from first millennium BC sites in the Welsh Marches is scarcely better than that of botanical remains. This is due to the relative lack of extensive excavation and/or soil acidity, but also to a general disinterest by earlier excavators towards animal remains compared to other categories of find. As a result, even basic quantification was rarely attempted (the excavations of Sutton Walls (Kenyon 1953), provide a rare exception). Consequently, any discussion of the data must be regarded with extreme caution.

Due to the small size of faunal assemblages from the study area (appendix 12), the only realistic method of quantification (also used in most reports), is the number of identified specimens per taxon (NISP) (Lyman 1994). To get the most out of the information, all quantified and published assemblages were included (nine sites in total, encompassing 13 assemblages) even those which broader based studies (e.g. Hambleton 1999) have excluded on the basis of their small size. This further emphasises the need for circumspection in judging the results of any analysis.

As at most first millennium BC sites in Britain, faunal assemblages in the Welsh Marches are dominated by the three main domesticates: cattle, sheep (and goat) and pig. Figure 10.3 shows the proportions of these species in assemblages from the study region. With the exception of two outliers, a fairly tightly defined, coherent group can be identified where there is normally 40 - 50% cattle, generally slightly less sheep (between 35 - 50%), and between 10 - 20% pig. There is some indication of slightly less sheep, and slightly more pig on hillfort sites compared to non-hillfort sites. The two outliers appear significantly different from the norm. The first comes from the Old Bowling Green site, Droitwich (Woodiwiss 1992), where there is a preponderance of sheep compared to other assemblages, and noticeably less cattle and pig. As a salt production site, Droitwich cannot be considered a typical non-hillfort settlement, so perhaps its atypical faunal assemblage reflects its social position and function.

The other outlier is Croft Ambrey. This assemblage comprised a noticeably smaller proportion of cattle compared to other sites in the region (under 30%), a similar proportion of sheep to several (38%), and a significantly greater proportion of pig (33%). Indeed, the quantity of pig is very unusual for British Iron Age sites as a whole, where more than 20% is outside the norm (Hambleton 1999). In many ways, the Croft Ambrey assemblage is more characteristic of Iron Age assemblages in northern France (Hambleton 1999; Lepetz 1996; Meniel 1987, 1990). This may imply that Croft Ambrey fulfilled a specific role in the local agricultural regime, or held a specific social status, particularly as the sizeable faunal assemblage - although not huge in comparison to many other sites from around the Britain - is less likely to be affected by small sample bias than are most assemblages from the study region.

The representation of the three main domestic species from first millennium BC sites in the Welsh Marches can be compared with that from other parts of the country (Hambleton 1999). Most importantly, sites from Wessex (including hillforts), have a higher proportion of sheep and smaller proportions of cow and pig than sites from the study region, suggesting some differences in the agricultural economy between the two 'hillfort zones'. Marches sites tend to have higher proportions of pig than sites from across Britain generally, although, apart from Croft Ambrey, this should not be over-emphasised without the support of more and larger faunal assemblages from the area.

It is possible to look at first millennium BC faunal assemblages from the study area in more detail by plotting late Bronze Age/early Iron Age, middle Iron Age and late Iron Age assemblages separately, as in published reports (figure 10.4). This involves making small assemblages even smaller, but may be useful in identifying some general points. Where assemblages were not phased, or unreliably phased, in the published reports, they are plotted according to when their main phase of activity concentrated. Sutton Walls, for example, despite showing some evidence for late Iron Age occupation, was probably most intensely occupied in the middle Iron Age, and was therefore plotted as a middle Iron Age assemblage.

The distribution of points is not as tight as in figure 10.3, suggesting some change through the first millennium BC on a site specific basis, if not on a regional basis. Otherwise, no certain patterns can be identified. Sheep were possibly less important in the middle Iron Age than in the late Bronze Age/early Iron Age and perhaps late Iron Age period, but this is by no means clear, and there are two late Iron Age sites which appear to go against this observation.

The proportions of other species in Welsh Marches faunal assemblages is predictably low. The only significant species is horse, which generally comprises between 0.5 - 6% of total faunal assemblages. There are, however, a few exceptions. The two published Droitwich sites, the Old Bowling Green and Friar Street, both produced 14% horse. Bearing in mind the small sizes of both these assemblages (333 and 35) and the effects this may have on species proportions, the proportion of horse is significantly greater than pig. At the one published enclosure in the Beckford complex (Oswald 1970), horse forms 36% of the total faunal assemblage, the highest proportion of any species (cattle: 31%, sheep: 27%, pig: 6%). This is highly unusual, and implies a specific function. However, it should be remembered that these results represent the evidence from a small part of an extensive 'strip settlement', where cattle and sheep bones apparently predominate (Britnell 1974). This area may have fulfilled a particular function within the overall settlement, the faunal remains of the settlement as a whole being more characteristic of other Iron Age sites. Still, in itself, this poses some interesting possibilities in terms of intra-settlement diversity.

Other evidence for animal husbandry rests on the morphology of certain sites. As noted in Chapter 6, various hillforts have multiple enclosures, formed in a variety of ways, which are often thought to be associated with the corralling of livestock (e.g. Musson 1991, 187). In addition, several non-hillfort sites, particularly in the west of the study area, have wide-spaced earthworks, for example Collfryn (figure 8.2). These are frequently attributed to a specific interest in livestock farming. Further evidence may be the linear features identified at Brandon Hill Camp (figure 6.19), which may have been intended to aid the rounding up and driving of animals, perhaps particularly cattle (e.g. Davies 1995, 686), supporting the idea that cattle were more important than sheep in many site assemblages. The linear boundary associated with Danebury, which is similar in many ways to that at Brandon Camp, has also been interpreted as an aid for the control of livestock (Cunliffe 1984, 3 - 4). Finally, the rectangular, stake-built structures at Goldcliff, Gwent (Bell and Neumann 1997), may have been cattle stalls (see above). It has been suggested that the Goldcliff site may be seasonal. If this is so, it is perhaps the best example for specialist animal husbandry in the Marches.

Although the evidence for later prehistoric agriculture in the Welsh Marches is relatively slight, it is possible to identify some potential patterns. In particular, it is obvious that both arable and pastoral farming occurred, and that, on most sites, a mixed agricultural regime was practised. Whether there were biases towards one form of farming, or a particular stage of the farming process on particular sites, is difficult to say for certain. but there is some evidence in the botanical remains (non-hillfort production/primary processing sites, and hillfort consumer and/or storage and secondary processing sites), and perhaps in the species proportions (Croft Ambrey), to suggest that some sites had different agricultural practices than others.

PRODUCTION AND EXCHANGE

Pottery

Pottery production and distribution was examined in chapter 5 with respect to its usefulness for dating purposes. The intention here is to review the evidence from a social and economic perspective. Assuming that pottery manufactured with local temper (as in the south-east and south areas of the study region and in parts of the central Marches (page 91)), was domestically produced and used, it is the middle and late Iron Age regionally distributed fabrics which are of particular interest. Figures 10.5 to 10.10 show the distribution of these fabrics in and within the immediate surrounds of the study area. No actual manufacturing sites have been identified. The sources marked on each figure correspond to those localities with the best correlation between the results of the petrological analysis conducted upon the various pottery fabrics, and geological data for the area (Peacock 1968; Morris 1981, 1982, 1983). As such, they should be considered approximations only. A further uncertainty concerns the nature of what is being distributed. Petrological analysis examines the inclusions within pottery fabric, not the actual clay itself. It does not categorically prove that pottery vessels were being distributed from a specific area, only that the temper was. If certain tempers were particularly important for whatever reason, it is possible that they were deliberately included in domestically manufactured pots. On the whole, however, this seems unlikely for typological reasons. Although the study area falls within the 'saucepan-pot continuum' (Cunliffe 1991a, 79-85), there are certain features on Marches' pots which are characteristic of some fabrics but not generally of others (see pages 64-67). This indicates a link between fabric and form/decoration which is more likely to occur with the regional distribution of pots, rather than the regional distribution of tempers and domestic production of pots.

Group A vessels (figure 10.5) are widely distributed throughout Hereford and Worcester, Gloucestershire, south and north Shropshire, but there is particular emphasis on the area east and north-east of the fabric's proposed source in the Malvern Hills, and also perhaps to the north-west in north Herefordshire/south Shropshire. Group B1 pots (figure 10.6) are also well-represented in the south central and south-east part of the study area, again especially south-east of the River Avon, but unlike Group A are present in high proportions west of the Malvern Hills as well. Group D pottery (figure 10.8) is comparatively rare south-east of the Avon exists in high proportions to the west of the Malverns and also in north Shropshire and east Powys. Evidence for vessels of Groups C and E is comparatively rare (figures 10.7 and 10.9) and rarely comprises significant proportions of site assemblages, perhaps because they were not produced in the same quantities as vessels in other fabrics, but also because they originated at a later date. However, both have widespread distributions, despite their limited quantity. The final fabric, Clee Hills dolerite, is often regarded as a 'coarseware' compared to the other regionally distributed 'finewares', principally because it is rarely decorated, and only crudely so when it was. Proportions are greatest in the immediate vicinity of the fabric's proposed source in the Clee Hills of south Shropshire and (although it has been identified on sites further afield) it rarely seems to have penetrated into the south-central Marches, where the other regionally distributed fabrics dominate.

Regression analysis has been undertaken on the distribution of those regional pottery fabrics where adequate evidence was available (Morris 1983, chapter 8). This showed that the distribution of Group A vessels was affected by distance in an area east to south-west of the fabric's source, but not in the west to north-west sector where a 'plateau effect' can be identified. The distribution of Group B1 and Clee Hills Dolerite was also affected by distance, but Group D apparently was not, and a similar 'plateau' to the northern distribution of Group A pottery is evident. The effect of distance on fabric distribution has been interpreted as representing classic 'down the line exchange' (Morris 1994, 378); the plateau effect of Group A and D distribution in the north of the study area is more difficult to interpret, but may partly be explained by use of the River Severn as a means of transport, or alternatively a boundary between differing cultural zones (Morris 1983, 361). No patterns were identified between distribution and site type or site rank (rank dependent on size); however, it was noticed that only hillforts over 3 ha in area possessed more than 45% decorated pottery.

Although there is considerable overlap between the various fabric groups, there are indications that vessels of particular fabrics dominated some areas and not others. On the evidence of figures 10.5 - 10.10, it is perhaps possible to define four very broad regions:

1. East of the Malverns where Groups A and B1 predominate (together with significant proportions of locally produced pottery)
2. West of the Malverns where Groups B1 and D predominate
3. South Shropshire where Groups A? and Clee Hills dolerite comprise most of site assemblages
4. North Shropshire where Group A, and particularly Group D, are most common.

In addition, the distribution of possible regional wares in south Gwent (where the central Marches' fabrics rarely reach), including chevron/'eyebrow-decorated pottery with a possible source in the Sudbrook/Lydney Park area (Morris 1983, 145; Davies 1995, figure 35.10b), and Group 3 south-western decorated ware with a source in the Mendips (Peacock 1969, 48; Davies 1995, figure 35.10b), suggests another definable region in the south of the study area. To this it may be legitimate to add a sixth zone corresponding to Clwyd and Cheshire which is almost entirely aceramic during the Iron Age.

Explaining these groupings is difficult, particularly as they are rarely strictly defined. They may simply reflect the vicinity of particular access routes. For instance, the source of Fabric B1 is relatively close to the river Wye (figure 10.6), and high proportions of B1 vessels are to be found on several sites along the waterway. Group D is situated between the Severn and the Teme (figure 10.8), allowing transport of pots into north Shropshire and east Powys. Similarly the nearest major waterway to the source of Group A is the Severn (figure 10.5), allowing distribution south via the Avon into south-east Worcestershire and Gloucestershire, north along the Severn into north Shropshire, and north-west along the Teme into south Shropshire. Chronological variation and the development of extended distributions is also likely to have been a significant factor influencing the observed pattern. Group B1 vessels apparently underwent a decline sometime in the middle Iron Age (before recovery in the late Iron Age), and it has been argued that Group D vessels may have filled the resulting void (Morris 1982), thus significant proportions of both B1 and D pots are found in the same area west of the Malverns. The decline of B1, and the expansion of Groups A and D in the middle Iron Age also explains the absence of the former from north Shropshire. It is perhaps also relevant to the high proportions of both Groups A and B1 south-east of the River Avon.

An alternative interpretation is that the distribution of different fabric groups was dictated by contemporary cultural/political boundaries. There is evidence in several cases for distance being a significant factor in determining variation in the proportions of different fabric types in site assemblages ('down the line exchange'), which possibly implies this was not the case. On the other hand, the 'plateau' in the distribution of Groups A and D in north Shropshire beyond which there is almost no record of Iron Age pottery, may indicate the presence of a boundary, unless it reflects the use of the Severn as a transport route. The almost complete absence of central Marches fabric types in south Gwent where alternative fabrics and decorative techniques dominate (figure 10.11), is more convincing, and implies a social divide (c.f. Chapters 6 and 7). The abrupt change at Twyn y Gaer, Gwent, from pottery derived from Herefordshire in one period, to pottery identical to that found in south Gwent in the next (Probert 1976, 118), supports the idea that the two traditions were mostly exclusive of one another, and that the boundary between them was not firmly established, but in a state of flux.

One last point of interest is that the fabric groupings noted above roughly correspond to the hillfort groupings observed in Chapter 6. It is possible that different pottery 'production centres' originated in order to supply different communities. To begin with, these were confined to the south central Marches, but, in the middle Iron Age, other communities, particularly in north Shropshire, were drawn into the distribution (and exchange?) network.

The status of the pottery 'production centres' is impossible to answer on current evidence, and without the identification and excavation of such a site. Most of the proposed source areas are located on agriculturally marginal land (Morris 1983, 359). Group A and C vessels are thought to have been produced on the Malvern Hills (typical brown podzolic soil); Clee Hills dolerite on the Clee Hills (typical brown podzolic soil); and Groups B1 and E on the Woolhope Hills (typical brown podzolic, and pelo-stagnogley soils). Only the source of Group D is situated on better quality soils. This is all the more surprising, since the majority of the central southern Marches can be classified as being of good quality farmland. The development of a pottery industry may, therefore, reflect an attempt by inhabitants of marginal areas to gain access to larger exchange networks (Morris 1983, 359), and perhaps to secure agricultural goods which they were not necessarily able to produce themselves. An alternative explanation can be suggested based on Sharples' re-evaluation of late Iron Age society in Dorset (Sharples 1990). According to this model, the manufacture of regional pottery would have been a specialised or semi-specialised process, aimed towards emphasising a regional or group identity. Control of pottery production would have enabled control of social reproduction. Because the nature of such an industry necessitated wide-ranging contacts, the craftsmen threatened the society's status quo; hence they were excluded to the marginal land on the periphery of group territories, where their influence would be minimised. Another possibility is that pottery production was a seasonal industry, and perhaps not as specialised as the term 'production centre' may imply. Indeed, the use of 'iron dogs' or staples to repair pottery at sites in Hereford and Worcester, has been invoked to support the argument for an intermittent supply (Stanford 1974, 190-191).

It is also difficult to speculate upon the mechanics of the distribution of regionally distributed pottery; especially as this may depend upon the nature of the production sites. Based upon the distributional evidence, it is fair to say that river transport was a significant means of dispersion. Current understanding of later prehistoric society suggests that a system of reciprocal exchange was involved, perhaps involving alliance networks. Morris (1983, 378) has argued that the 'fall-off pattern' in the south implies that there was no particular control over distribution. Whether this was the case in the north is uncertain due to the distorting effect that the River Severn had on the distribution pattern; however, there appears to have been a bar to the spread of Herefordshire wares into south Gwent.

Salt

Evidence for the production and distribution of salt can be traced through the characteristic briquetage used in its transportation. Sherds of these coarseware vessels are ubiquitous on first millennium BC sites throughout the Welsh Marches. Their crude nature gave rise to the term VCP (Very Coarse Pottery), and the frequency with which they are found led to them originally being interpreted as Iron Age field ovens (Gelling and Stanford 1965). However, subsequent research, particularly by Elaine Morris, established their true function as a means of transporting, and perhaps helping to produce, salt cakes (Morris 1983, 1985). Three major fabrics have been identified: organic and sandy tempered (both derived from the inland salt springs in the vicinity of Droitwich), and stony tempered (derived from the salt springs in north-east Cheshire, possibly near Nantwich or Middlewich). In the case of the Droitwich briquetage, production sites have been identified through excavation (Woodiwiss 1992). There is some evidence that briquetage from both Droitwich and Cheshire was being produced from at least the early Iron Age, but the main period of salt exploitation appears to have been the middle and late Iron Age, with continuing - at least in the case of the Droitwich 'industry' - into the early Roman period (Chapter 5). Figures 10.12 and 10.13 show the overall distribution of

Droitwich and Cheshire briquetage in the Marches and the surrounding area. There is clearly a contrasting, though complementary pattern. Droitwich vessels particularly concentrate south-east of the source in Worcestershire and Gloucestershire, but are also found with some frequency in Herefordshire and as far north as Bromfield in Shropshire, and also as far south as Sudbrook in Gwent (though see below). The Cheshire briquetage, on the other hand, dominates the north of the study area, the abundant distribution in north Shropshire reflecting excavation activity, with a significant extension into south Shropshire and Herefordshire, and west along the north Welsh coast. More detailed analysis has shown that the northern distribution of Droitwich briquetage was curtailed by the expansion of the Cheshire industry in the middle Iron Age (Morris 1983, 1985). Regression analysis established no evident fall-off pattern with distance in the case of Droitwich briquetage, but there was one with respect to Cheshire briquetage, particularly for sites within a 90 km radius of the proposed source (Morris 1983, 322-325). It has also been suggested that Midsummer Hill acted as a secondary distribution site for Droitwich salt, as the excavations recovered twice as much briquetage as on any other site except Droitwich itself (Morris 1983, 353). Bearing in mind the limits on the excavation in the Welsh Marches, it would be inadvisable to accept this argument without some reservation.

There appears to be two 'markets', one to the north of the study area, and one to the south-east, with some overlap in the central Marches, although it is difficult to determine whether this reflects 'competition'. The filtering down of Cheshire briquetage into the central Marches (roughly coinciding with an expansion in the distribution of Groups A and D pottery up the River Severn), perhaps supports the suggestion that its distribution was not determined by social boundaries, and the central mechanism was 'down the line exchange' (Morris 1983, 356), with initial distribution from source across the north of the study area, and subsequent redistribution further south in reciprocal exchange for the pottery coming north. Alternatively, Groups A and D may have been redistributed as a result of Cheshire briquetage moving south. That Droitwich briquetage appears more strictly controlled in its distribution - no fall-off with distance (figure 10.12) - implies a different exchange mechanism, perhaps related to social boundaries or some other form of distribution restriction. This contrasts with the distribution of regional pottery derived from Herefordshire (pages 157-159), possibly indicating different modes of exchange (see below).

The primary factor influencing location of salt production sites is the source of the salt itself - inland brine springs, or coastal areas. In this, it differs from the factors which influence the location of pottery production, because the raw materials necessary for the manufacture of pots are more widespread. Consequently, salt supply sites will be more limited than pottery supply sites. This is clearly seen in the number of different regional and local fabrics found in the region, compared to just the two salt sources. The actual status of the production sites is difficult to assess. Production at Droitwich is believed to be seasonal, due to the lack of evidence for long-term occupation at the site (Morris 1983, 333), although there are a number of enclosures within the general vicinity (figure 7.6), but it is also believed to be specialised, or at least semi-specialised, because of the uniformity in vessel form. The value of salt itself is also difficult to ascertain, but was not necessarily regarded solely as a necessity of domestic subsistence. It may also have had prestige, or symbolic value.

These factors suggest that, although regional 'finewares' and briquetage may have been distributed within the same macro exchange system, they may have occupied different levels, and been subject to different rules. The fact that briquetage was manufactured and distributed in the northern Marches, when domestic pottery was not, and the differences identified by regression analysis in the distribution of Droitwich briquetage compared to the south central Marches regional pottery, support an argument for considerable complexity in the exchange of different products within the Marches during the first millennium BC. One final point of interest is that whatever the barriers that prevented Herefordshire regional pottery types entering south Gwent, they were almost as strong in stopping briquetage infiltrating the region. Evidence has been recovered from Sudbrook only, and comprised just 29 Droitwich sherds, weighing 424.5 g. In the rest of the study area, internal differences - as exemplified by hillfort distribution (Chapter 6), pottery (pages 157-161) and metalwork (page 163-171) - appear to have been overcome to an extent by the distribution of salt, presumably because limited supply meant it could cross boundaries, which other more readily available commodities could not. South Gwent was perhaps able to resist, because salt could be obtained, although less efficiently because of the lower salt concentration levels, from the Severn Estuary. Hence there was no need to participate in the exchange networks which linked the rest of the Marches and indeed areas beyond.

Metalwork

Bronze working

There is evidence for bronze working during the first millennium BC on various sites in the Welsh Marches (appendix 13). Its composition has been analysed by various researchers, particularly Northover, providing important insight into the industry (Craddock and Werner 1991; Musson *et al* 1992; Musson and Northover 1989; Northover 1980, 1984, 1991), although evidence for the late Bronze Age and early Iron Age is limited. The most important remains come from the Breiddin hillfort, where a 'metalworking complex' was identified, possibly enclosed within a circular building (Musson 1991, 178). Excavation recovered evidence of late Bronze Age bowl hearths, hearth-lining, crucible fragments, mould fragments, and copper alloy melting slag, together with bronze scrap waiting to be resmelted and bronze artefacts which could have been produced on the site. There is no indication for primary bronze smelting (Musson 1991, 178; Tylecote and Biek 1991, 149). Metallurgical analysis of the stratified items revealed that the bronze composition was typical of Wilburton and Ewart Park artefacts throughout southern England and Wales, containing between 5 - 15% lead, and supports the suggestion that they were made from re-used scrap metal (Craddock and Werner 1991; Northover 1991), perhaps originally derived from the Continent or even Ireland (c.f. Northover 1980, 1984).

The only other site in the study area with possible evidence of Bronze Age metalworking activity is Beeston Castle. Various refractories associated with bronze working were identified, including crucibles and mould fragments which - though not clearly stratified - are late Bronze Age in character rather than Iron Age (Hook and Needham 1993, 47; Howard 1993, 54-55). In addition, late Bronze Age hearths were found, as well as a quantity of bronze waste and 'metalworking' debris, and various finished late Bronze Age artefacts. The distribution of most of this evidence in the Outer Ward area, has been interpreted as signifying a metalworking production site (Ellis 1993, 90), possibly similar to the 'metalworking complex' at the Breiddin. Metallurgical analysis of the Beeston Castle bronzes revealed distinct groupings (Hook 1993; Hook and Needham 1993). The majority appears to be leaded tin bronzes, typical of the late Bronze Age (see above). However, there is also a small group of undiagnositic tin bronzes without deliberate addition of lead. Within the context of the overall site chronology, this would implies a date in late Bronze Age III or the earlier Iron Age, when analysis has shown the lead content of bronze work decreased (Northover 1980, 236 and figure 4).

Although no other Welsh Marches site has produced evidence for late Bronze Age metalworking activity, a link has been suggested between some hillforts and metalworking during this period (Northover 1995, 289). Both the Breiddin and Beeston Castle have produced sizeable bronze assemblages. The Guilsford hoard, comprising Wilburton artefacts, was detected very close to Crowther's Camp (Musson 1991, 178), and a Ewart Park hoard was recovered from Nottingham Hill (Hall and Gingell 1974).

The Breiddin hills are a source of copper ore (although there is no evidence of Bronze Age exploitation), as is Llanymynech Hill, a 57 ha hillfort, where limited excavations have as yet only revealed evidence for Iron Age occupation (during which time the ore apparently was exploited). Sources of copper ore are known from the base of Beeston Castle Crag; again there is no evidence for Bronze Age extraction, but the possibility has been commented upon (Hook and Needham 1993, 48; Tylecote 1987, 29). The evidence is very limited, therefore, and there is certainly no definite link between hillforts specifically and metalworking (especially in the light of the general scarcity of non-hillfort settlement in the region during the late Bronze Age (Chapter 7)), although the location of some sites could feasibly have been related to ore sources. As to the scale of metalworking activity on the Breiddin and Beeston Castle, evidence does not immediately suggest large-scale production. However, the Beeston Castle bronze assemblage is regarded as somewhat atypical of the period in that there is an absence of small tools, implements and ornaments. This has been used to suggest that the excavated part of the hillfort was involved in specialist metalworking during the late Bronze Age (Hook and Needham 1993, 47).

The evidence for non-ferrous metalworking during the middle Iron Age is more widespread. Crucible fragments, generally of triangular type (c.f. Northover 1995, 292), have been found at a number of sites, both hillforts (the Breiddin, Old Oswestry, the Berth, Llanmelin, Sutton Walls, Ditches, Beeston Castle, Sudbrook and Twyn y Gaer) and non-hillfort (Collfryn, Aston Mill Farm, Kenchester, Beckford), while mould fragments have been recovered from middle Iron Age contexts at Beckford and the Breiddin, but no other sites. Evidence for bronze slag and waste, again comes from both hillforts (Llanymynech, Ditches, Midsummer Hill, Croft Ambrey) and non-hillforts (Aston Mill Farm, Beckford), while hearths are known at Four Crosses, Llanymynech and Beckford. Hammers recovered from Bredon Hill may have been used in sheet bronze working (Northover 1995, 290). Metallurgical analysis of various bronze artefacts from Wales and the Marches has shown significant quantities of zinc and lead, which is characteristic of the copper ores of Llanymynech Hill, a site where second/first century BC bronze working has been detected by excavation (Musson and Northover 1989; Musson *et al* 1992, 279). This implies a fairly intensive extractive industry in the central Marches from around the fourth/third century BC, with copper supplies perhaps then being regionally distributed to sites for working into artefacts. It is perhaps no coincidence that pottery from the Malvern and Martley area in Hereford and Worcester was reaching the upper reaches of the Severn Valley at about the same time, perhaps reflecting the existence of reciprocal exchange networks.

The evidence suggests that many sites, both hillfort and non-hillfort, were practising bronze working during later first millennium BC. This implies a domestic scale industry in terms of artefact production, where settlements catered for their own needs, but in terms of ore extraction/distribution, the implication is of a more intensive industry. However, the possibility of a more complex situation is worth considering, based on the work conducted by Northover (1984, 1995). He suggests that, as the Iron Age progressed and the evidence for bronze working activity becomes more widespread, different types of metalworking were conducted on different types of site. In particular, sheet bronze working is argued to have taken place predominantly on hillforts, and cast bronze working on non-hillforts. Though an interesting proposal, the problem with the argument is that it is based upon a limited number of developed hillforts, particularly Danebury, Maiden Castle and Cadbury Castle. Whether the same pattern applies to all developed hillforts, to all hillforts generally, and to all hillforts throughout their length of activity in the Iron Age period can only be addressed with a good deal more work. Unfortunately the evidence from the Marches is not adequate to tackle the question.

Coins

The mid to later first century BC saw the development of gold and silver coinage in western England, which is generally attributed to the Dobunni (e.g. Allen 1981; Van Arsdell 1994; Chapter 5). The manufacture of these coins is argued to have been strictly controlled, as shown by the steady debasement of the gold coinage through the first century BC and first century AD (Van Arsdell 1989). Minting sites have been identified outside of the study area, principally at Bagendon (Clifford 1981).

Figure 10.14 shows the distribution of Dobunnic coinage within the Welsh Marches. As noted in Chapter 5 (page 80), only a small number of these finds are derived from stratified contexts; of those which are, the greater proportion were deposited after the arrival of the Romans in the area. This is particularly important with respect to Wroxeter, the northernmost site where Dobunnic coinage has been recovered, Kingsholm, and Weston under Penyard, all of which have yielded relatively large numbers of coins. Bearing these observations in mind then, various points of interest emerge from figure 10.14.

1. With the exception of Wroxeter and the possible CORIO stater from Pontesbury Hill, Shropshire, the coinage is restricted to the south of the study area.
2. The densest distribution of coins is confined to the south-east of the River Severn and the River Avon.
3. North-west of the Severn there is a predominance of gold coinage (remembering the large assemblage from Weston under Penyard may well date to the Roman period), whilst to the south-east a mixture of both gold and silver is apparent, with emphasis on the latter.

This evidence adds support to the suggestion in earlier chapters, that the Rivers Severn and Avon marked boundaries between social/cultural groups in the Iron Age. There is no obvious reason to reject the idea that the area to the south-east was part of the 'territory' of the Dobunni, and that the Severn and Avon marked the western and perhaps northern periphery of that territory (if the Dobunni are accepted as being a coherent tribal group before the first century BC, which there is no evidence for, but also no evidence against). The distribution of gold coinage into Herefordshire and also into Gwent, was possibly the result of interaction and exchange between neighbouring groups in the late Iron Age. An interesting question is why gold, rather than silver, coinage was the preferred medium of this interaction? Modern day valuing of gold over silver is not necessarily helpful. Neither the gold nor the silver coins of the Dobunni should be assumed to have fulfilled the role of money as it is currently understood: as a medium of exchange for goods and services that in itself has no intrinsic value. Coinage is more likely to have occupied a higher tier of interaction relating to gift exchange and relations of power between individuals and settlements. The predominance of gold over silver west of the River Severn perhaps relates to what is on the coins, rather than necessarily what they were made of. Dobunnic gold coins were inscribed with what are thought to be the names of Dobunnic chieftains, whereas many silver coins were not. Gold coinage was therefore more personalised than the silver, which may explain its predominance outside Dobunnic territory. It may have represented interaction at a more personal level than silver coinage, between influential individuals of neighbouring tribal areas. It may foremost have been a means of spreading the name and reputation of a particular individual outside his sphere of influence, rather that of the tribe as represented by non-personalised silver coinage. Conversely silver coinage, through its less personalised nature, though presumably issued by the same individuals as gold coinage, may have been intended more as a means of emphasising tribal identity within the tribal area, rather than individual identity. This may even relate to manipulation of social relations, an attempt to mask an increasingly hierarchical society through the emphasis of the tribe as whole. A similar concept has been explored by Sharples in discussing the material assemblage of Maiden Castle during the middle Iron Age (Sharples 1991a). There seems little reason to believe that such a process could not have continued into the late Iron Age in this adjacent geographical area.

Iron working

Iron enters the archaeological record in Britain in the eighth century BC, after the Ewart Park phase of the late Bronze Age. The 'type-find' for this period is the Llyn Fawr hoard, recovered from a lake in Glamorgan (Savory 1976b, 1980), 30 km west of the study area. The hoard was composed of various artefacts of the latest Bronze Age, including socketed axes, sickles, harness fittings, razors and gouges, but also incorporated objects of Bronze Age type wrought from iron, particularly a socketed sickle and spearhead. The hoard also included an imported Hallstatt C sword. The first appearance of iron in Britain, however, does not appear to herald its widespread adoption. The process by which the metal came into common use was apparently gradual, and it is not until the middle Iron Age - the fourth and third centuries BC - that it occurs with any frequency in the archaeological record (Cunliffe 1991a, 452). This may well have been the case in the Welsh Marches as well, though how far the evidence is biased by the scarce excavation and rarity of early Iron Age sites is difficult to determine. The proximity of the Llyn Fawr hoard implies that iron was known in the region early in the Iron Age, so perhaps we are simply seeing a lack of deposition rather than use. There may also have been inadequate investigation of certain contexts (the River Thames, for instance, has yielded a quantity of Halstatt C iron swords). As previously stated, there is little certain evidence of iron working before the fourth/third centuries BC. This is mostly comprised of iron slag, found on a number of hillforts (the Breiddin, Croft Ambrey, Midsummer Hill, Ditches, Sudbrook, Twyn y Gaer, Ffridd Faldwyn, Beeston Castle and Castle Ditches, Eddisbury), and non-hillfort sites (Thornwell Farm, Kenchester, Bromfield, Preston Farm, Sharpstones Hill site A, Beckford and Holt site D). In most instances it is interpreted as smithing slag, although at Croft Ambrey and Midsummer Hill it is suggested that iron smelting was taking place on site (Crooks 1981, 132). The evidence from Thornwell Farm is also interpreted in terms of smelting as well as smithing waste. Other evidence for iron working includes hearth bottoms (from Beeston Castle and Beckford); furnace lining; an unstratified iron 'anvil' from Sutton Walls; and material regarded as scrap intended for recycling, particularly the 'large collection of miscellaneous iron objects' from Bredon Hill - unfortunately unquantified in the report (Hencken 1938, 71).

Evidence for iron working, particularly smithing, is, however, widespread across all types of site in the study area, and appears somewhat more common than the evidence for bronze working during the same period. Again the implication is of a domestic industry, each site fulfilling its own needs. The position of primary iron production, however, is more difficult to establish. Iron ore sources are considerably more numerous than copper ore sources, therefore logically iron would be more freely available, and perhaps not subject to the potential control of production and distribution that copper extraction from sites such as Llanymynech Hill was. However, as with pottery production, the availability of raw materials does not necessarily determine the extent of centralised production and regional distribution. A large number of ore sources does not necessarily equate to a large number of extraction sites. The evidence from Bredon Hill and Beckford suggests that extensive recycling may have been taking place. This implies that, even in the middle Iron Age, iron was still a relatively rare and valuable commodity, if not as rare as in the early Iron Age. This perhaps changed in the later middle and late Iron Age, when the deposition of iron on several sites in the Marches (see Chapter 11), as well as in Britain generally, increases.

The problem of primary iron production is made more difficult by the absence of evidence in the Marches. This perhaps implies iron smelting sites have not yet been identified. To gain insight into how primary iron production may have been organised, it is perhaps beneficial to look outside the area. Recent excavations at Crawcwellt West, a dispersed upland settlement in north-west Wales, have revealed extensive iron production, which is suggested as the prime economic basis of the site in the late Iron Age (Crew 1989, 1991). This suggests that certain sites specialised in iron production (at least in the late middle/late Iron Age), which was then redistributed over a wide area through reciprocal exchange. The spread of Cheshire briquetage along the north Welsh coast and into the north-west of the principality is perhaps significant in this respect (Davies 1995, 688). Why the copper extraction site of Llanymynech Hill was enclosed by imposing multivallate earthworks, whilst the settlement of Crawcwellt West was not, is also interesting. It could reflect a number of things: the specific social conditions of the central Welsh Marches compared to north-west Wales, temporal contrasts, or the relative significance and status of bronze compared to iron in the middle and late Iron Age.

Currency Bars

A much discussed Iron Age iron artefact is the so-called currency bar (e.g. Allen 1967; Crew 1995; Ehrenreich 1985; Hedges and Salter 1979; Hingley 1990b; Tylecote 1962). These 'ingots' of iron can be divided into four basic classes: sword-shaped, plough-shaped, spit-shaped and leaf-shaped. They have a comparatively widespread distribution within central southern England and the Midlands, but are rarely found in the south-west, the south-east, East Anglia, northern Britain or Wales. Each class of bar appears to concentrate within a specific area of the overall distribution (see Hingley 1990b, figure 1). Metallurgical analysis of three currency bar hoards from Beckford, Danebury and Gretton, showed that each was derived from a separate source, possibly indicating that iron extraction had become a specialised industry and that its products were being regionally distributed by the late middle/late Iron Age (Hedges and Salter 1979). The appearance of currency bars in the third century BC, also apparently coincides with an increase in the amount of iron deposited in the archaeological record, and an increase in iron production, as indicated by sites like Crawcwellt West. This implies that intensified production led to specialisation (or vice versa), resulting in an increase in the quantity of iron in circulation and a decrease in the necessity to recycle.

Various interpretations for the function of currency bars have been proposed. Traditionally, they are viewed, as their name suggests, as a form of currency or medium of barter, of standardised weight and shape, with the iron being intrinsically valuable. This interpretation is at least partly derived from a reference by Caesar referring to the use of iron bars as a medium of exchange in south-eastern Britain during the first century BC. Recently Hingley has emphasised the need to consider the symbolic importance of currency bars and the context within which they were deposited (Hingley 1990b).

Figure 10.15 Shows the distribution of currency bars within the Welsh Marches and the immediately surrounding region (appendix 14). As is apparent, they are restricted to the south-east of the study area. Spit-shaped bars dominate, although there is some limited intrusion of sword-shaped forms. Apart for two very large hoards of 150 bars each found in 1856 and 1857 in a steep valley on the east side of the Malvern Hills, they all come from excavated archaeological sites, four hillforts (Crickley Hill, Midsummer Hill, the Ditches and Bredon Hill) and one non-hillfort (Beckford). The distribution pattern suggests that the Malvern Hills/lower Severn Valley marked some sort of social or cultural boundary between Herefordshire, and Worcestershire and Gloucestershire. It is possible, of course, that the absence of currency bars from the remainder of the Welsh Marches is not a reflection of original distribution, but only of deposition practices and/or recovery biases. Yet the analysis of various other forms of evidence also implies some sort of boundary between these two areas. Added to the geographical contrast marked by the Malvern Hills (Chapter 3), it is not unreasonable to consider the boundary implied by the archaeological evidence as a real one. Indeed, the Malvern hoards themselves, the only ones in the study area recovered from a 'natural context' (c.f. Hingley 1990b, 97-98), located on the eastern side of the hills, may have been intended to emphasise symbolically the actual boundary between two areas or groups of people. All other currency bars from the Marches, and from the immediate vicinity are associated with settlement boundary contexts, with the exception of a hoard from a pit in the interior of Salmonsbury Camp. This would seem to emphasise the association between the deposition of currency bars and 'boundaries', whether small-scale settlement, or large scale territory boundaries, in the study area (c.f. Hingley 1990b).

Domestic Crafts

Wool production and processing

The spinning and weaving of wool is best represented in the archaeological record by the presence of spindle whorls, normally of stone but sometimes of clay, and loom weights, mostly of clay. The evidence for these, together with sheep remains as a percentage of the three main domesticated species, is shown in table 10.1.

Site	Settlement Type	Spindle Whorls	Loom Weights	Weaving Combs	% sheep bone
Aston Mill Farm	Non-hillfort				43%
Beckford (Published)	Non-hillfort	2			42%
Beeston Castle	Hillfort	8	7		-
Bredon Hill	Hillfort	8			-
The Breiddin	Hillfort	23	3		-
Castle Ditches	Hillfort		1		-
Collfryn	Non-hillfort	2			40%
Croft Ambrey	Hillfort	13	9	2	38%
Ditches	Hillfort	3	2		38%
Droitwich – Friar Street	Non-hillfort				47%
Droitwich – Old Bowling Green	Non-hillfort				57%
Ffridd Faldwyn	Hillfort	2			-
Holt	Non-hillfort	1			-
Kenchester	Non-hillfort	1			-
Midsummer Hill	Hillfort	4	2		-
Poston	Hillfort	3		1	-
Prehistoric settlement	Non-hillfort		3		-
Sharpstones Hill site E	Non-hillfort	1			-
Sudbrook	Hillfort	3			-
Sutton Walls	Hillfort		5	1	37%
Thornwell Farm	Non-hillfort				47%
The Wrekin	Hillfort	2			-

Table 10.1: Wool production and processing evidence from the Welsh Marches

Seventy-five spindle whorls recovered from excavated sites are included in this study, a surprisingly small number considering the ubiquitous distribution of such artefacts elsewhere in Britain. The limited extent of excavations conducted within the Marches is undoubtedly one reason, but it also reflects the general scarcity of artefacts recovered from sites in the region, particularly of non-hillfort sites, which will be discussed further below. Sixty-eight of the spindle whorls came from a total of 10 hillforts (22 came from the Breiddin and 13 from Croft Ambrey), whilst the remaining 7 came from 5 non-hillfort sites. Twenty-eight were unstratified, but very possibly of first millennium BC date. All of the remaining 47 were Iron Age, mostly middle Iron Age, with the exception of 2 examples from late Bronze Age contexts at the Breiddin. On face value, therefore, it would seem that the spinning of wool was an activity predominantly carried out on (some) hillforts, with only very limited evidence from non-hillfort sites. To what extent this is a true reflection of the original picture is difficult to evaluate; certainly the figures for sheep proportions do not indicate any particular emphasis on hillforts as opposed to non-hillforts (table 10.1)

Two types of loom weight can be identified on Marches sites: triangular shaped examples, and 'roll-shaped' examples. The latter tend to be less common than the former within the context of the first millennium BC in southern England (Musson 1991, 158; Stanford 1974, 182), although in the study area the reverse is true, with 12 triangular weights, and 20 'roll-shaped' weights being recovered from excavated sites. Again the number is surprisingly small. The 'roll-shaped' weights come from Croft Ambrey (9), the Breiddin (3), Beeston Hill (7) and Castle Ditches (1). The triangular weights have a more southerly distribution, with examples from Midsummer Hill, Sutton Walls, and a non-hillfort settlement in Gloucestershire (SMR 9712). This may indicate differing cultural traditions although with such limited evidence this suggestion can be little more than speculative. The concentration upon hillforts again suggests such sites were the focus for weaving activity, though the scarcity of non-hillfort excavation must be in part responsible for the disparity.

Weaving combs are extremely rare from Welsh Marches sites. Only 4 have been recovered through excavation, 2 from unstratified contexts at Croft Ambrey, and 1 each from Iron Age contexts at Sutton Walls and Poston. The only other evidence for wool manufacture are bone gouges, which may possibly have been used as weaving shuttles. Four have been identified from Croft Ambrey, and 1 from Beckford.

Though limited, therefore, there is evidence for both the spinning and weaving of wool on first millennium BC sites in the Welsh Marches, reinforcing the impression received from analysis of the faunal remains that sheep, though perhaps not the dominant domesticated species for meat, did nonetheless play an important role in the economic regime of the region.

Woodworking

Woodworking and carpentry were undoubtedly important crafts, although the evidence is not particularly plentiful. A number of relevant tools have been recovered, most notably iron knives (29 in total, 22 from hillforts), but also a limited number of adzes, chisels, saws and gouges. Several bronze axes have been recovered from excavated contexts, but no iron examples. Survival of a limited number of wooden artefacts under favourable, waterlogged, conditions, provides the most insight into the skill of woodworkers during the first millennium BC. Various artefacts were recovered from Buckbean Pond at the Breiddin, including a wooden sword, bowls, a pestle, mallet, various pegs or dowels, and timber possibly intended to be used in the construction of a building (Britnell and Earwood 1991, 170). There is also possible evidence for basketry in the forms of split d-shaped rods between 5 - 13 mm in width, and twisted wooden ties, perhaps the remains of rope. Interestingly, some of these objects show working, not just by knives (of which there are some examples from the Breiddin), but also with saws, gouges and chisels (for which no evidence was recovered in the excavation of the site). Very obviously, wooden artefacts were fundamental to the everyday life in the later prehistoric period within the region, and woodworking was a developed skill. The scarcity of pottery and finds generally on sites in the north of the study area should not be regarded as evidence for 'backwardness' or under development. There is every reason to suppose that wooden artefacts were included within the same network of exchange as more visible items such as pottery and briquetage, and were valued products within those systems of interaction.

As well as being essential to the production of domestic artefacts and buildings, the use of timber in the construction of boats should be considered. The importance of the drainage system in the Marches for the location of sites, and the distribution of goods, has been commented upon several times in this thesis. Boat-building was almost certainly an important craft in the region. Although several boats thought to be prehistoric have been found in waterlogged contexts within the study area, subsequent radiocarbon dating has often suggested a medieval date (Leah *et al* 1998, 126). This is not always the case. A long boat found in Whittal Moss, Shropshire, in the 1860s has been radiocarbon dated to the fourth/third centuries BC: (398) 388 cal BC - 208 (172) cal BC (Q-3050, 2260 ± 45 bp); (478) 401 cal BC - 261 (208) cal BC (Q-1246, 2320 ± 50 bp). There is also evidence for dugout canoes, such as that found in 1911 at Baddiley Mere, Cheshire, a craft approximately 6 m long and 1 m wide, which is thought to be Iron Age in date (Leah *et al* 1997, 135; McGrail 1978). It is perhaps possible, therefore, to envisage a range of boat types and sizes being used within the later prehistoric period, dependent upon the functions they were intended to fulfil.

Leatherworking

Although leatherworking must have been an important craft in later prehistory, there is little specific evidence from the Marches. Knives, particular punches (c.f. Saunders 1991, 145), awls and perhaps also some bone objects such as scrapers that have been identified, may relate to, or have been used in, the processing and working of leather.

Exotic Goods

Glass

Over 20 possible/probable Iron Age glass beads have been recovered from first millennium BC (again mostly hillfort) sites in the Welsh Marches. However, no glass manufacturing evidence has been recovered. Indeed, such evidence is rare across Britain during the later prehistoric period and it is argued that production was restricted to a very limited number of sites and was a specialised process, the beads themselves perhaps very high status items (Cunliffe 1991a, 461). The main manufacture site thus far identified is at the middle Iron Age 'village' of Meare, where glass bead moulds, semi-formed glass beads and glass droplets have been found (Henderson 1987a, 1991). Possible late Iron Age glass working has also been identified at Hengistbury Head (Henderson 1987b), and analysis of beads excavated from burials at Wetwang Slack, east Yorkshire, also suggests a local manufacturing site, but its location is unknown (Henderson 1991). During the main period of activity at Meare, the distribution of beads from the site appears to have been fairly restricted, largely confined to the area thought to roughly correlate with the later territory of the Dobunni (Henderson 1991, 125). Some outliers are known within the study area, however, including Midsummer Hill (Stanford 1981; Henderson 1991) and possibly the Breiddin (Musson 1991, 159), and a good many more of the examples from the Marches could be derived from Meare, or from other unknown production sites outside of the region. This would imply that sites in the Marches were tied in to quite extensive, complex and wide-ranging exchange networks that extended far beyond their immediate environs.

Shale

Some 23 shale objects, mostly rings/bracelets, have been excavated from first millennium BC sites in the Marches (14 from hillforts), examples from Beeston Castle apparently being derived from late Bronze Age/early Iron Age contexts. These also would have been imported from outside of the study area. The best known source of shale exploited in the Iron Age is on the Isle of Purbeck, Dorset, where extensive evidence for exploitation has been identified (e.g. Cunliffe 1968). Although some of the shale found in the Marches may have been derived from elsewhere, a large proportion is likely to have come from the south coast. This again emphasises the extent of the exchange networks which the Marches were tied into, possibly from as early as the late Bronze Age/early Iron Age period. It is notable that pottery from southern England also occasionally reached sites in the study area during the earlier first millennium BC (Chapter 5), presumably via the same mechanisms of exchange as the shale.

WARFARE AND WEAPONS

The dense distribution of hillforts throughout the study area, together with the historical association of the Marches with conflict between England and Wales, have often promoted the view that warfare and conflict were endemic in the region during the first millennium BC. However, much of the archaeological evidence from the Marches that can be cited to support this assertion is ambiguous in nature, and subject to various alternative interpretations.

The Hillforts

The hillfort phenomenon in later prehistoric Britain generally, and within the Welsh Marches specifically, has already been considered (Chapters 4 and 6). Traditional interpretation of hillfort sites has focussed upon them as defended strongholds, often associated with the movement of invading forces (e.g. Hawkes 1931; Stanford 1980), native defence again external aggression (e.g. Hawkes 1931; Savory 1976a), reaction against environmental stress/population increase (Bradley 1972), or the focal points for an elite's military power (e.g. Cunliffe 1984a). More recent discussions stress the central importance of ritual in the layout of hillforts and the activities conducted within them (c.f. Chapter 4), and the military aspect less. There has also been some discussion of the impracticality of some hillforts as defensive sites, such as the defensively useless nature of some earthwork designs (Bowden and McOmish 1987), and the lack of a natural water supply within most hillforts (although this assumes rather a lot about later prehistoric warfare, and especially the employment of siege techniques). The sheer size of some hillforts will have made them very difficult to defend effectively. On the other hand, it is impossible to ignore the image of strength and power that hillforts will have projected over a surrounding landscape, and whether always practically effective or not, the size of hillfort ramparts, and the employment of multivallation and complex gateway designs, all seem to be intended as a show of strength, as well as perhaps a show of resource control and as a means of emphasising the distinction between the activities which occurred inside and outside the hillfort. It is likely that the martial aspect of life in later prehistoric society was closely inter-linked with other aspects of the day to day existence. It would be wrong to regard military concerns and imagery as separate from other aspects of everyday life, just as it has been argued that it is wrong to separate ritual from the activities of everyday life (e.g. Gwilt and Haselgrove 1997; Hill 1995c).

Weaponry

The evidence for Iron Age weaponry in the Welsh Marches is various, although not particularly common. For the late Bronze Age, numerous swords and spears have been found by chance in non-settlement contexts, and also from late Bronze Age activity upon hillforts. Fragments of two bronze swords and a socketed spear head were recovered from the Breiddin; a bronze dagger, sword and spear head from Beeston Castle; and three swords and a scabbard chape from Nottingham Hill, all of Ewart Park or Guilsford types. The deposition of weaponry, and of metalwork generally (see above), in non-settlement contexts, almost entirely ceases by the early-mid first millennium BC. Within the Iron Age, much of the evidence for weaponry comes from hillforts (appendix 15), including 22 daggers and dagger chapes (8 from Bredon Hill); 21 spear heads (9 from Bredon Hill); and 4 swords/scabbard chapes. The evidence is therefore limited if warfare and conflict was a frequent occurrence in later prehistory. At Bredon Hill, the only site to produce any real quantity of weaponry, the majority of the evidence comes from the 'massacre level' and could feasibly be the result of a single event or episode of deposition. The excavator's view is that this event was a battle at the hillfort's inner gate (Hencken 1938, 54). If this was the case, the implication is that weaponry was considerably more common than the surviving archaeological record suggests, but can rarely have been removed from circulation by deposition in the ground, other than in extreme circumstances. This may be a result of its value, perhaps both intrinsically, and as a piece of crafted metalwork (see above).

Eight hillforts have produced evidence for sling stone caches (appendix 15), normally located near to the site entrances. Three are from possible late Bronze/early Iron Age contexts, the rest from the middle Iron Age and/or late Iron Age. Such artefacts also occur at numerous hillforts in southern England, such as Maiden Castle and Danebury, and were once thought to be closely linked to the occurrence of multivallation (Wheeler 1943, 48-51). This no longer finds extensive support; indeed, 5 of the hillforts from which sling stones have been found in the Welsh Marches are univallate. In terms of their distribution, the absence of sling stones from both Croft Ambrey and Midsummer Hill is a little surprising considering the extensive entrance excavations there, but is hardly conclusive evidence that sling stones were not used in the south central Marches.

Even though the evidence is limited, and unlikely to reflect the true state of affairs during the first millennium BC, there is one apparently quite clear-cut distinction: where weaponry is found from the Iron Age period at least, it is almost always from hillfort contexts, not non-hillforts. The extensive excavations at Beckford only produced a single possible dagger fragment and spear head, in sharp contrast to the evidence from Bredon Hill, a few kilometres to the north. Most significant, perhaps, bearing in mind the fact that iron weapons do not seem to have entered the archaeological record easily, is that sling stones are only found at hillforts despite being intrinsically without value. Obviously, any interpretations are going to be highly speculative, but this implies that hillforts did fulfil some military role within society that was not undertaken by contemporary non-hillfort settlements.

The Evidence for Conflict

If there was an inextricable martial influence on later prehistoric society in the Welsh Marches, as the nature of hillfort design and the frequency of hillfort construction within the region may imply, the degree to which this influence materialised into actual conflict must be addressed. We are disadvantaged by the scarcity of excavation in the area, but there are some points which can be made. If, as has been suggested, many hillforts were symbolically, and perhaps actually, monuments of martial strength, it is perhaps to be expected that they would be attacked by hostile forces. A large proportion of excavated Welsh Marches hillforts were apparently subject to firing at one stage or another and traditionally such evidence is interpreted in terms of an attack. However, as was noted in Chapter 8, burning could have been a means by which 'closure' was symbolically emphasised. There is nothing, with possible rare exceptions (see below), to suggest that the burning of hillfort earthworks was necessarily initiated by aggressors.

The only other possible evidence for actual conflict are the bodies of potential war casualties. Remains recovered from two sites within the study area, both hillforts, are particularly worth comment. At Bredon Hill, remains of up to fifty individuals were uncovered at the inner fort's entrance (Hencken 1938, 55). An estimated age of between 25 - 35 was given for the majority of the bodies, but their condition did not allow determination of sex. Intermingled with the bones was an assortment of weaponry, including spear heads and daggers, and tools such as hammers, together with some possible armour and chariot fittings. This evidence comprised over 80% of all weaponry recovered from the site (Jackson 1994). The bodies were also apparently subject to dismemberment. Limbs were separated from trunks, and widespread decapitation apparently occurred, with at least some of the skulls located near the gateway itself and away from the other skeletal remains. In addition, the whole area was subject to burning.

Hencken interpreted the remains as an attack on the fort by native aggressors. The evidence, as far as it is described, does seem to support that assertion, and 'head-taking' is described in numerous classical sources (c.f. Ritchie and Ritchie 1995, 54). However, no illustration of the human remains is presented, which would have aided the exploration of alternatives. As far as can be determined, we do not seem to be seeing a formal burial rite, as Sharples' argues for the human remains recovered from the east gate at Maiden Castle (Sharples 1991, 100 - 101), once interpreted as a 'war-cemetery' (Wheeler 1943, 118 - 120). But mutilation of the bodies is not necessarily indicative of an attack, and the deposition of incomplete skeletal remains under probable ritual conditions, is a frequently observed phenomenon on hillfort and non-hillfort sites in Britain (e.g. Cadbury Castle) and beyond (e.g. the sanctuaries in northern France). Consequently, the possibility that the Bredon Hill evidence represents something other than the remains of a battle, perhaps as suggested with the evidence for rampart and entrance burning, a ritual of closure, must be at least born in mind (c.f. Haselgrove forthcoming; Hingley 1990a)

The remains of approximately 25 individuals were also recovered from the ditch-end at the west entrance of Sutton Walls hillfort (Kenyon 1953, 66 - 75). The excavator's interpretation was that they represents the casualties of an attack by the Roman army. They were all male, aged from late teens to forties, but with occasional younger and older individuals. Many had succumbed to violent deaths. The assemblage includes no less than 8 probable decapitations, and 5 partial/attempted decapitations, with various wounds to other parts of the body. It is by no means clear that these were war casualties. The severing of heads is reminiscent of the evidence from Bredon Hill (above), and from numerous other sites in the Marches, and cannot be assumed to be indicative of death met in combat. Indeed, there is some evidence to suggest that decapitation was part of a burial rite (below). 82% of the bodies where orientation could be established where orientated NW - SE, with the head towards the NW. All the bodies were also either extended, or slightly flexed. In addition, some had been given special treatment. At least seven were placed in slight gullies or hollows, one had stones placed over his lower body and pelvis, and another's legs were laid over a pile of stones. In three of the decapitated skeletons, the head was deliberately placed near to the body on the left side, in one case by the knee, in another by the elbow, and in another by the foot. This has strong similarities with a rite often presumed to be late Roman in date, but there are indications from the Marches that it could have had a late Iron Age ancestry (see below).

The excavator suggests that there was no significant interval of time between successive burials. However, the published photographs show that there was soil accumulation, at times quite deep, between various bodies. This must indicate either a time lapse (although the duration cannot be estimated), or - if the excavator's interpretation is to be believed - that some bodies were deliberately covered with soil, before others were thrown into the ditch. Although it is difficult to disprove categorically the 'war causality' explanation, there are numerous indications from Sutton Walls to suggest that a more deliberate burial rite was involved.

RITUAL AND RELIGION

Disposal of the Dead

As with most of Britain in the first millennium BC, evidence for the disposal of the dead in the Welsh Marches is very limited. This is unlikely to be due simply to the scarcity of excavation, but probably has much more to do with the archaeological invisibility of later prehistoric mortuary practices. As such, considerable reliance has to be placed on speculation and hypothesis, with perhaps some consideration of ethnographic parallels to provide solidity to proposed arguments (c.f. Carr and Knusel 1997, 167-169; Huntingdon and Metcalfe 1979; 1995, 491). Though restricted, the Marches' evidence points towards some considerable variation in mortuary rites (appendix 16). It would be unwise to underestimate the complexity of this aspect of first millennium BC society, despite its physical absence. Beliefs, intentions and the consequent funerary ritual, may well have varied with time, and between the disposal of different individuals.

Disposal within the domestic sphere

There is considerable evidence, particularly in central southern England, for the deposition of human remains in domestic contexts (e.g. Wait 1985, 83-121, 1995, 492-495; Whimster 1981, 4-36; Hill 1995c). This mostly occurs in pits or in boundary ditches, and there is a degree of variation according to the treatment of the remains, particularly in whether they were deposited articulated or disarticulated, and whether they represent whole or only parts of bodies. Several sites in the Marches have produced evidence for a continuation of this tradition north-west of Wessex, the majority being restricted to the south and south-east of the study area - which may in part reflect soil properties adverse to bone preservation on the larger excavated sites in the north.

Burials Internal to Settlements

The Beckford excavations revealed the remains of 20 individual bodies in the interior of the settlement. Six of these derived from storage pits, and one from another shallow pit. All were dated to the middle Iron Age period of the site's occupation, bar one which was of uncertain date. Most seem to have been complete, although 3 were in fragmentary condition and their original completeness was difficult to confirm. Three of the bodies were male, 1 was female and the remainder were unsexed. Ages, where they could be determined, varied from between 5/12 years of age to 'elderly'. Where the information was available, most seemed to have been laid in the pit in a crouched position, orientated either north/south, north-east/south-west or north-west/south-east. There is therefore considerable similarity with the burials found in Wessex and Oxfordshire (Wait 1995, 492-495). Interestingly, the burial in the presumably non-storage, shallow pit was somewhat different in that the body (of an elderly male) was orientated east/west, and the feet had been bound. The female burial also differed slightly in that the body was laid in a flexed rather than crouched a position.

Twelve bodies were recovered from 'graves' dug within the settlement. Two seemed to have been middle Iron Age in date, 1 was dated to the general Iron Age, 1 was undated, and the remainder were from late Iron Age/Romano British and Romano British features. There therefore seems to have been a change in pit burial in the middle Iron Age to specially dug graves in the late Iron Age and Romano British period. This change is further emphasised by other characteristics of the burials. The 2 middle Iron Age examples are crouched (as was the case in most of the pit burials), but all the other burials, where information was available, were either extended or slightly flexed. There often seems to have been specific treatment of the head in the later late Iron Age and Romano British periods. In two instances (both LIA/RB) skulls are missing completely, and in three further cases (one late Iron Age/early Romano British, two Romano British), decapitation had occurred and the head had been placed either between the knees or feet. This is reminiscent of the proposed war casualties at Sutton Walls, while the possible late Iron Age date suggests it may have evolved as a burial ritual in the latest pre-Roman Iron Age, rather than in the late Roman period as is generally assumed (see below). In other respects the burials resemble those of the middle Iron Age pit burials. Six of the bodies were sexed and all were male except for one, ages varied from under 1 year of age (a middle Iron Age burial), to between 30 and 40, but the majority were aged between 17 and 20. Orientation was also similar to pit burials, with the exception of one Romano British male adult, orientated east/west.

The final burial to be recovered from the interior of the Beckford settlement was of a child 0-6 months of age, who had been laid at the base of a post hole.

Six burials were excavated from the non-hillfort settlement of Thornwell Farm. Five were from pits, although they generally shallow features compared to examples from southern England and Beckford, and perhaps should not be classified in the same light. All bodies were under a year in age, which is a marked contrast to the pattern observed at Beckford in both the middle and late Iron Age. The sixth burial from the interior of Thornwell Farm was unstratified. There are also various burials from the unpublished excavations at Frocester, Gloucestershire, including a headless female in a contracted position from a late Iron Age context (Price 1983, 145). At Bredon Hill, human remains were excavated from within a small round hut, and a complete infant burial was recovered from the bottom of a post hole (Hencken 1938, 45).

Burials within the boundary features of settlements

As discussed on pages 110 , complex settlements such as Beckford are difficult to classify in terms of enclosed or unenclosed in that bounding ditches may simply divide family units within an overall open settlement pattern. However, it is appropriate to include those burials recovered from the boundaries of enclosures *within* the Beckford complex within this section, as it is possible that they were perceived in a similar fashion to the boundaries surrounding single enclosure sites. Sixteen burials were recovered from such features. Four have been classified as middle Iron Age, three as middle-late Iron Age, six as late Iron Age-early Romano British, two as Romano British and one was undated. Several were in badly fragmented condition; bearing this in mind most appear to have been complete burials, although several may have been incomplete. Nine were recorded as crouched, 1 as extended (one of the Romano-British burials), and 1 as flexed (a late Iron Age-early Romano British burial). This accords well with the development from crouched to extended burials discussed above, although it should be noted that the second Romano-British body was deposited in a crouched position. Orientations were seemingly less strict than with respect to pit and internal grave burials, with 6 orientated generally north/south, and four east/west, although there is a tentative pattern in that the former is more characteristic of the late Iron Age and Romano British period, and the latter of the middle Iron Age. Six of the boundary burials were sexed, and five were female. This is a significant variation from the internal burials, where most seem to have been bodies of males. A further important point of difference is that nine of the burials were aged under 17, and indeed, five were neonatals; the vast majority of bodies from the interior were over 17 years of age.

The large number of bodies recovered from the rampart ditch at Sutton Walls have already been discussed (page 172-179). As I have shown, there is a good case for not considering the remains as war casualties, especially in the light of the current realisation that boundaries (and indeed entranceways) were often the focus for burial (although the Sutton Walls evidence is different from the Beckford evidence in that all were male and all but one aged over 17). This is a trend that has been observed in many other parts of the country, and not just with reference to the deposition of human remains, but the deposition of 'ritual' objects generally (e.g. Hill 1995c; Hingley 1990a, 1990b). The evidence for decapitation of the Sutton Walls bodies and other late Iron Age burials at Beckford and Frocester is also worth noting (see above). One other burial was excavated at Sutton Walls: the body of a crouched male aged about 20, laid into a hollow, the fill of which was integral to the rampart material, thereby implying he was buried while the rampart was being constructed. Objects incorporated, or associated with, ramparts have been recovered from other sites (c.f. Hingley 1990b). This suggests that the Sutton Walls burial was important to the raising of the hillfort's rampart, perhaps symbolising some kind of construction sacrifice. It perhaps should also be noted that the C-vertebra of the skeleton was cut, resembling the attempted decapitations of the bodies recovered from the rampart ditch. A similar burial has been identified at Ffridd Faldwyn, perhaps of a female aged in her mid twenties, and also apparently incorporated within the rampart material. There are two further examples of bodies being deposited in association with boundary features. At Thornwell Farm, a child of 37 weeks was excavated from the base of the north-west bank. At Bredon Hill, the body of an infant who was apparently "thrown down" on the stone paving of the north-west entrance was also found (Hencken 1938, 63 - 64).

There is obviously, therefore, a tradition of burial on domestic sites in the Welsh Marches resembling the one identified on first millennium BC settlements in some other parts of Britain. Where storage pits were a feature of domestic occupation, they were also employed as a means of disposing of human remains (Beckford); otherwise, and as well as, specially dug graves, or smaller pits/hollows and postholes could be used. Boundary ditches and ramparts were also a focus for burial, and there is some indication from Beckford for a contrast between 'boundary' and 'interior'. Although a good deal more evidence is needed before conclusions can be drawn regarding this observation, it may be that the area of a site dictated the type of person buried there and/or vice versa. Finally, there also appears a change in the treatment bodies received on settlement sites between the middle Iron Age and late Iron Age/Romano British periods, from predominantly crouched burials to predominantly extended, and sometime decapitated burials.

Bog bodies

Bog bodies are predominantly associated with Germanic contexts (Glob 1969; Webster 1995, 450), but numerous finds have been recorded from Britain also. On the Continent prehistoric examples are often dated to the Iron Age period, but in Britain they appear mainly of Bronze Age or Roman date (Turner and Briggs 1986, 63). The most famous example from this country is Lindow man, recovered during peat cutting in Lindow Moss, Cheshire, situated a few kilometres north of the north edge of the study area (Stead *et al* 1986; R.C. Turner 1995a, 1995b). The body, and the surrounding peat (rich in *Sphagnum* which appears to represent the best conditions for preservation) were subject to extensive and specialist examination (Stead *et al* 1986). The remains were those of a man in his mid-twenties, apparently disposed of in the marsh after being subject to a number of violent injuries. He had been struck twice on the head with a sharp weapon, garrotted and also had his throat cut (West 1986, 80). The 'threefold death' has been argued to suggest human sacrifice (Ross 1986), although this interpretation has by no means received universal acceptance. The dating of Lindow Man has been beset by problems. Radiocarbon dating of the body has produced dates which suggest either a late Iron Age/early Romano British date, or a fifth/sixth century AD date. Radiocarbon dating of the surrounding peat suggests a middle Iron Age date (Gowlett *et al* 1986; Otlet *et al* 1986). The contrasts between the body dates are difficult to explain, although the difference between these and the peat dates may be a function of the peat stratigraphy

(Stead *et al* 1986). Most recent interpretation favours a date for the body in the latest pre-Roman Iron Age, or the early Romano-British Iron Age (R.C. Turner 1995b, 189).

Three bog bodies have been identified within the study area, all from Whixall Moss in north-west Shropshire, and all discovered in the second half of the nineteenth century (Turner and Penney 1996). The first body (found in *c.*1867) is recorded as being that of an adolescent male, either sitting or lying extended in the peat. Associated with the body was a three or four-legged stool, a leather apron and some fabric remains. It has been suggested that the remains may date to the late Iron Age/Romano-British period. This is based on stratigraphical arguments in that the body was located higher than the last body discovered in 1889. This was an adult male, lying extended and face down in the peat without any sign of associated clothing or finds. In the same peat deposit level was a looped bronze palstave, suggesting the body was of middle Bronze Age date. However, a carbon-14 date taken from the same level in the peat calibrates to (765) 476 cal BC - 205 (55) cal BC (Q-383, 2307 ± 110 bp), suggesting an Iron Age date (Turner 1964). The situation is ambiguous, therefore, most recent arguments have suggested that the original middle Bronze Age dating is probably accurate and that the sample used for radiocarbon dating came from a later layer (Chambers *et al* 1996). A third body recovered from Whixall Moss, in *c.* 1875, is thought to have been the incomplete remains of an adult female. It was located approximately 200 yards from the body discovered in 1889, and there is no available dating evidence.

At least two of the Whixall Moss bog bodies seem to be genuinely ancient. As such, they may be part of the wider prehistoric and early historic bog body phenomenon identified in other areas of north-western Europe. What this phenomenon as a whole represents is difficult to say. It obviously spans a considerable period of time and space, and consequently the reasons for the disposal of any one specific body in a bog may differ from the reasons for the disposal any other body. Although the injuries inflicted upon individuals such as Lindow Man, Cheshire, and Tollund Man, Denmark, suggest a deliberate assault of whatever form and for whatever reason, followed by disposal into a marshy area, the lack of recorded evidence for any such injury on the Whixall Moss bodies (admittedly, the remains were almost entirely skeletal so only certain forms of injury would be detectable) means accidental death cannot be ruled out. If their presence in the bog was the result of a ritual or sacrificial process, various reasons for such offerings can be proposed.

Formal burials

The other main evidence for disposal of the dead in the Welsh Marches comes from burial in formal contexts, particularly barrows. Several potential examples exist within the study region. Outside Leckhampton Camp is a barrow 10 m in diameter lying within a square enclosure *c.* 18 x 18 m (which has unfortunately not been proven contemporary). Human skeletons were recovered from the barrow in the nineteenth century, apparently "buried in a very remarkable manner, with the heads resting on the knees", and in 1925 a small excavation was conducted. Barrows located within square enclosures are a characteristic Iron Age tradition in some parts of Europe, such as East Yorkshire (Stead 1991) where burials tended to be tightly crouched, as was apparently the case at Leckhampton; the Hunsruck-Eifel area in Gaul, and the Aisne-Marne region of France where the burials were generally extended (Wait 1995, 502). Such an association may imply an Iron Age date for the Leckhampton barrow also, although without further evidence, this cannot be affirmed.

The best known Iron Age burial in the study area was discovered in 1879 during stone quarrying between Birdlip and Crickley (Bellows, 1880; Fox 1958; Green 1949; Staelens 1982). Three skeletons were identified, inhumed within graves that were lined and covered with large limestone slabs. All the bodies were extended, laid east/west with their heads orientated to the east. The central burial was that of an adult female, the two outer burials adult males. Only the former was accompanied by grave goods, including a mirror, assorted bronze artefacts including rings, a bangle, tweezers and beads, together with a silver gilt brooch, dated to the latest pre-Roman Iron Age, and two bronze bowls, the larger of which was placed over the face of the corpse. It is possible that all three burials were originally covered by a barrow. Approximately 18 m away another burial was detected, reportedly within a few days of the discovery of the burials already described. This fourth interment was of an adult male; although he was not placed in a cist, there are similarities with the other burials; he was laid east/west with his head orientated to the east, and his face was covered by a bronze-rimmed bucket. He was also accompanied by an iron sword. Within the vicinity a gold torque was found in 1947 which may have come from a fifth grave.

The east/west orientation and extended posture of these burials is reminiscent of later Hallstatt and La Tène burials on the Continent, except for the fact that on the Continent the head tended to point towards the west (Wait 1995). The evidence from the female burial at Birdlip, implies the Birdlip group date to the late La Tène which is at variance with the contemporary tradition found on the Continent where inhumation mostly disappeared by the third/second century BC to be replaced by cremation, a conspicuous rite in south-east England during the late Iron Age also (e.g. Stead and Rigby 1989).

Other evidence for first millennium BC formal burial from Gloucestershire comes from Barnwood. This is a multi-period cemetery, with interments dating from the Bronze Age, Iron Age and Romano-British periods (Clifford 1934). A female inhumation, aged around 16/17 years of age, was discovered in a pit in a tightly contracted posture, orientation east/west with the head pointing to the east, accompanied by a handmade vessel characteristic of the third/second century BC. This burial would seem to resemble the Birdlip burials in orientation, but the pit burials of the middle Iron Age in posture. Other evidence for first millennium BC burial from Barnwood comes in the form of a cremation associated with 'Belgic' beakers and a bronze bead. From around 300 BC, cremation as a funerary rite spread southwards on the Continent from northern France (Wait 1995, 505). In Britain the most notable example of this tradition are the Aylesford-Swarling cremations of the late Iron Age.

Outside Gloucestershire, there is little evidence for formal burial in the Welsh Marches during the first millennium BC. The only reasonably certain examples come from Bromfield in Shropshire. This burial complex, which seems to have originally comprised around 20 round barrows and a flat cemetery of approximately 130 cremation pits, is situated on a level lowland gravel terrace between the Corve, Onny and Teme rivers (Stanford 1980, 67 - 71; Stanford 1982, 299 - 319). It was obviously a focal location throughout a long period of prehistory. One radiocarbon date from the cremation cemetery shows use in the early Bronze Age: (2399) 2107 cal BC - 1535 (1409) cal BC (3510 ± 180 bc, BIRM-64), and two in the late Bronze Age: (1207) 1047 cal BC - 831 (805) cal BC (2800 ± 71 bc, BIRM-63); (1046) 967 cal BC - 799 (769) cal BC (2712 ± 75 bc, BIRM-62). Stanford (1980, 69) argues for continued, though presumably non-intensive, use throughout this period. Most of the pits contained cremated bone; in only two cases was this contained within an urn, although in numerous other examples broken pot was also deposited in the graves. The pottery was made with Clee Hills dolerite temper, derived from the Clee Hills some 10 km to the east of Bromfield (Stanford 1980, 71), which developed into a 'coarseware' in the middle Iron Age with a limited regional distribution (Chapter 5 and figure 10.10). Further evidence from Bromfield comes in the form of a barrow centrally located within a ring ditch and containing an Iron Age inhumation (Hughes *et al* 1995, 64-75). It is possible that this structure was intrusive into an earlier Bronze Age barrow. Due to the adverse soil conditions, no bones remained; however, the body was apparently laid in an extended position, orientated north/south, and possibly within a coffin. Grave goods comprised a hollow bronze pendant, and iron bracelet and an iron La Tène 1a brooch, suggesting a date sometime in the fifth or early fourth century BC. The orientation would certainly correlate with the middle Iron Age pit burials found at sites such as Beckford, but the nature of the burial, possibly in a coffin, under a barrow and with grave goods, resembles much more closely the burials at Birdlip, Barnwood and Leckhampton, discussed above.

No other certain evidence for first millennium formal burial is known from the Marches. Square barrows identified by the Marches Uplands Survey to the west of Brandon Camp may be of Iron Age date, given the occurrence of Iron Age square barrows elsewhere, but this must remain highly conjectural without excavation.

As with much else concerning the first millennium BC in the Welsh Marches, the evidence for the disposal of the dead is limited but eclectic in nature. Various broad burial categories can be identified (figure 10.16 depicts the relative proportions of these categories within the study area), extending from the start of the period right up to the arrival of the Romans in the mid first century AD. Chronological development may have been one factor determining this diversity (see discussion of the Beckford evidence above), but it is unlikely to be the sole explanation. In terms of the association between particular types of site and particular types of burial rite (figure 10.17), patterns are not especially clear, but internal burials appear to be more associated with non-hillforts (particularly bearing in mind the 'ditch' burials at Beckford derive from boundaries internal to the site as a whole, if not to individual enclosures within it), whilst peripheral or boundary burials seem preferentially associated with hillforts (once more taking account of the limited excavation etc.). It is difficult to draw any firm conclusions about the frequency of burial on settlement sites, both because of the limits of excavation, the often limited or undetailed publication, and the poor bone preservation in many cases due to soil acidity.

Burial rituals must have been highly complex, with chronological and social factors influential in how an individual was disposed of. The evidence from the Marches emphasises just how little is known. The evidence we possess represents the smallest fraction of the total first millennium BC population of the area, and we know nothing of how the majority were disposed of. It is often suggested that excarnation was practised, perhaps occurring in places outside the domestic domain (e.g. Carr and Knusel 1997); if so it is of little surprise that the population of Iron Age Britain is generally invisible in the archaeological record. However, this argument is largely circular in that it is based on the absence of evidence for burials. More solid foundations exist - and have to an extent been exploited - for analysing why certain individuals were disposed of in ways apparently different than the majority of the population. Arguments put forward include propitiation and the agricultural cycle (Cunliffe 1992); an attempt to define a cultural group (e.g. Stead 1991); and the burial of important or powerful classes and figures (e.g. Niblett 1992). That the Welsh Marches share aspects of many of the first millennium BC burial traditions identified throughout Britain implies all these explanations and others may be relevant to the area. The obvious contrasts within the study area should also be borne in mind. Although the evidence is limited everywhere, Gloucestershire appears comparatively rich, reinforcing the pattern already identified with respect to coinage and close contact with the south and south-east of Britain during the first millennium BC.

Places of Ritual and Religious Importance

Formal 'shrines'

A number of cult sites or shrines are known from first millennium BC contexts in Britain, although they are by no means frequent. Several criteria have been used to identify such structures: a difference in form and/or construction compared to domestic buildings, the presence of artefacts and features of symbolic/ritual importance, an easterly orientation, and association with a later Romano-British shrine or temple (Downes 1997, 145; Wait 1985, 156). Well known examples include Heathrow (Grimes and Close-Brooks 1993), Hayling Island (King and Soffe 1991), Uley (Ellison 1980, 305 - 309), Harlow (Selkirk 1968, 287 - 90), Gosbecks (Wait 1985, 157), Cadbury Castle (Downes 1995) and Fison Way, Thetford (Gregory 1991). Other structures, such as the rectangular trench buildings at Danebury, have also less convincingly been suggested as religious buildings (Cunliffe 1984a, 81 - 87). No certain examples of first millennium BC shrines have been identified in the Welsh Marches, but three sites are worth mentioning briefly. The first is a circular structure at Moel y Gaer, comprising seven large post holes with a large sub-rectangular pit located within and a possible central support. The excavator suggests this building, based upon its architectural differences with stake-built and other post-ring buildings identified on the site, may represent a 'sanctuary' (Guilbert 1976, 311-312). The second site is the 'sanctuary mound' located within the annexe of Croft Ambrey hillfort (Stanford 1974, chapters 7 and 8). This site appears to have originated in the form of an artificial terrace upon which fires were lit and numerous artefacts deposited, including a large quantity of early Romano-British Group A coarseware and some samian, and various bronze and iron objects including one La Tène 1 brooch, four Colchester derivative brooches, a bell and a socketed spear head. Also discovered were burnt animal bone, a number of stake holes set in a spread of distinctive red clay supposedly brought down from the hillfort, and crude 'heart-shaped' objects formed of the same clay. In a subsequent phase a roughly square mound was built over the terrace, bounded on by a rectilinear stone kerb, which only survived on the south, west and part of the east side. The nature of the site certainly suggests something was occurring there that was not necessarily domestic. The extensive evidence for fire, pottery and animal bones, including part of a pig skull deposited in a pit, perhaps suggests activities associated with feasting, while the presence of various artefacts such as brooches, and the clay 'hearts' may indicate votive or ritual associations. Despite the fact that the main focus of activity was Romano-British, it is also possible that there was an Iron Age antecedent, as at numerous other sites where Romano-British temples have been recognised (Wait 1985).

The final site to be considered is Lydney Park where, in the late Roman period, a Romano-British temple complex developed. Although no certain evidence for an Iron Age forerunner is known from the site, several potentially significant objects have been recovered, including an iron bowl with unusual bull-headed ornamentation (Wheeler and Wheeler 1932, 74).

Ritual deposition and the importance of natural places

The importance of natural places to 'Celtic' societies has been frequently discussed either as a general phenomenon (e.g. Bradley 1990; Webster 1995, 448-452), or in relation to discussing specific forms of evidence, for example, bog bodies (e.g. Glob 1969; Ross 1986; Turner and Briggs 1986); other human remains (Bradley and Gordon 1988); or metalwork (e.g. Fitzpatrick 1984). The catalyst behind this interest is ultimately the descriptions of Celtic religion in classical texts, most of which do not date before the first century AD (Webster 1995, 448). There are of course difficulties in locating natural sites which held sacred significance. Such sites are, by their nature, dislocated from domestic settlement and will therefore always be difficult to identify by excavation. Consequently, much of the archaeological evidence for the importance of natural locations derives from chance finds, and some account must be taken of the reasons why specific areas and types of location appear especially significant. For instance, do the numerous finds from the Thames, including human remains and metalwork (Bradley and Gordon 1988; Fitzpatrick 1984) signify the river held particular ritual significance to later prehistoric people, or do they simply reflect the intensity of dredging that has taken place?

Figure 10.18 shows the distribution of isolated finds of metalwork (excluding coins and currency bars which are shown on figures 10.14 and 10.15) within the study area (appendix 7). Due to the fact that many of the artefacts on SMR databases are not classified to specific chronological and morphological groups, and it was beyond the scope of this research to analyse the metalwork in detail, all Bronze Age and Iron Age items are included. Consequently, not every artefact depicted on figure 10.18 will be of first millennium BC date, although the increased evidence for metalwork deposition and hoarding in the late Bronze Age from around Britain generally (e.g. Haselgrove forthcoming), implies a large proportion should date to the early part of the period in question.

Two principal points are immediately obvious. First, with the exception of a handful of artefacts including a bronze figurine, harness ring, pin, trumpet mount, and the Long Rake hoard, Clwyd, there is a general scarcity of objects datable to the Iron Age. A fall off in the deposition of metalwork and hoarding after the late Bronze Age appears to have affected Britain as a whole. Nevertheless, numbers of artefacts still have been recovered, particularly from wet places such as bogs (e.g. the Llwyn Cerrig Bach hoard, Anglesey), or rivers such as the Thames (c.f. Fitzpatrick 1984), and from the late pre-Roman Iron Age the trend towards metalwork deposition and hoarding seems to markedly increase again (Haselgrove forthcoming). The scarcity of Iron Age deposition in the study area, compared to southern and eastern England, is curious, and presumably represents differing social/economic circumstances or ritual activities.

The second point to make concerning figure 10.18 relates to the distribution of the deposited artefacts. There is a clear emphasis on lowland regions, particularly rivers, river valleys or areas close to river valleys, and an apparent avoidance of the upland regions. To an extent this must reflect recovery biases in that many artefacts have come to light through the dredging of rivers, the draining of land, or similar management activities of low-lying areas which are not applicable to the uplands. However, the importance of wet places in the ritual practices of later prehistoric peoples is a well-attested phenomenon from Britain, as well as Europe (c.f. Bradley 1990), and therefore the pattern is unlikely to be purely a result of recovery bias. In the late Bronze Age, the ritual significance of wet places in the study area is expressed through the deposition of metalwork, both in rivers (such as the various finds from the Severn), and bogs/marshy land (e.g. the Broadward hoard, Shropshire). Does the scarcity of Iron Age artefacts recovered from wet places indicate that such locations did not hold the same ritual importance during the later first millennium BC? In all likelihood probably not. As already mentioned, there is a widespread drop off in metalwork deposition in the later first millennium BC, if not a virtual cessation as appears to have been the case in the study area, but this is generally interpreted as resulting from the collapse of Bronze exchange networks because of the introduction of widely available iron (Cunliffe 1991a), although this interpretation has been questioned (Thomas 1989), not as the result of wet places losing their ritual significance. The possible Iron Age date for one of the Whixall Moss bog bodies, and that of Lindow Man just outside of the study area, suggests continuing interest in wet places.

In addition, the specific association of some Iron Age sites with wet places also hints at the continuing significance of such locations. Several Marches' hillforts show such an association, either through enclosing areas of marshy ground (e.g. Credenhill, Midsummer Hill), or being sited adjacent to wet areas (e.g. Oakmere, Risbury). Numerous other examples are located close to waterways, and indeed the confluence between waterways (e.g. Eaton Camp). Most striking of all are two hillforts from Shropshire: the Berth and Wall Camp. The former is located on an glacial sand outcrop surrounded by marsh, linked by causeways to a small enclosure to the north-east and solid ground to the south (Leah *et al* 1998, 51-52; Gelling and Stanford 1967); the latter is located on a mineral soil island surrounded by a wetland environment (Bond 1991; Leah *et al* 1998, 69 - 70). In a recent study of the Shropshire wetlands, this choice of location was interpreted largely in the context of defensive and economic concerns (Leah *et al* 1998, 122 - 123). However, it is necessary to consider whether there might have been ritual reasons for the choice of location, particularly in the light of recent discussions which have linked the proximity of marshy ground to major Iron Age sites elsewhere in Britain, such as Stanwick, North Yorkshire and Verulamion, Hertfordshire, with ritual considerations (Haselgrove and Millett 199, 284).

CHAPTER 11

TWO ARCHAEOLOGICAL LANDSCAPES

INTRODUCTION

Earlier chapters have analysed various aspects of the archaeological evidence in the Welsh Marches by focussing, in the most part, on the study area as a whole. Although this has enabled some important insights into patterns and contrasts within the region, such an approach is less well suited to detailed examination of specific archaeological landscapes. Consequently, this chapter will look at certain areas of particular interest within the Marches, both to increase the depth of the understanding already achieved and to gain a more realistic perspective on how the archaeological evidence that has been discussed was located within the landscape. Also, an objective from the outset was to study the relationship between hillfort and non-hillfort sites. The size of the study areas chosen is 20 km2, an area not too small to restrict the identification of patterns, but also not too large to render the objectives of the analysis unreachable. Originally the intention was to examine a minimum of four study areas (figure 11.1) in order to give a reasonable basis for comparison between different landscape zones, and the work was undertaken with this in mind. However, for a number of reasons, attention was eventually focussed upon just two. These were located through consideration of a number of factors, the most significant being:

1. the location of the archaeological evidence
2. the location of excavated sites
3. the intensity of non-excavation archaeological investigation (principally air photographic mapping)
4. the presence of interesting and potentially important geographical/topographical features/contrasts

5. the identification of potentially important patterns identified in the archaeological evidence in previous chapters

Areas 3 and 4 were initially considered for analysis because they included important excavated hillfort and non-hillfort sites (Area 3: Credenhill, Kenchester; Area 4: Bredon Hill, Conderton Camp, Beckford, Aston Mill Farm), and a fairly dense distribution of cropmark sites. In addition, they sampled geographically interesting and contrasting regions (Area 3 was located in the gently undulating landscape of Herefordshire, Area 4 in the lowland landscape of Worcestershire, although incorporating the important expanse of Bredon Hill). Finally, they were located in order to examine in more detail the large univallate hillfort dominated zone of the central southern Marches (Chapter 6), and the potential 'Dobunnic' territory east of the Malverns/River Severn (Chapters 6 and 10). Ultimately, however, both areas were discarded because they were situated in regions which had not been subject to a mapping project in recent years. It was beyond the time and resources of this research project to embark upon such a programme for the study areas in question; work was therefore limited to visual examination of aerial photographs. It soon became apparent, however, that the resultant data was not reliable enough to undertake any useful analysis. These two areas were therefore discarded. In addition, it was realised that the length restrictions of this thesis only realistically allowed for a study of two areas.

AREA 1

Area 1 is situated in the west central Marches, straddling the border between England and Wales, and Powys and Shropshire. The drainage system within the 20 km square is dominated by the River Severn initially flowing north-eastwards from the south-west corner of the region before swinging to an easterly route just before its confluence with the River Vyrnwy which maintains a winding though generally easterly flowing course across the north-western quarter of the sample area. These two rivers essentially divide the region into three: a north-easterly area, a south-easterly area, and a westerly area (further complicated by the Rivers Tanat and Cain, both tributaries of the Vyrnwy). These three areas very approximately coincide with topographically contrasting regions also. The west is dominated by the foothills of the Welsh Mountains, generally exceeding 100 m OD in height and cut through by the various west to east flowing tributaries of the River Severn which originate in the Welsh interior. These uplands give way to lower-lying land, rarely reaching above 100 m OD, in the fork created by the Rivers Severn and Vyrnwy and particularly in the north-east of the study area. To the south of the Severn the terrain is again more upland in nature, rising from a general elevation of over 100 m OD to as high as 350 m OD in the far south of the region. This southern quarter also includes the Breiddin Hills, a characteristically shaped range of peaks situated almost in the centre of the area as a whole and overlooking the River Severn as it swings eastward towards Shrewsbury and the English Midlands.

Non-Hillfort Settlement

In total, some 229 non-hillfort settlements have been identified from relevant SMRs within Area 1. With a few exceptions the majority are single enclosures, in the most part surviving in the form of cropmarks, although there are a number of enclosures surviving as earthworks in the upland west of the area. In order to classify the sites, basic data was acquired from SMR entries. This was followed by analysis of mapping data compiled during four separate, independent projects. The first was Whimster's consideration of the central Marches, from which the basic morphological framework (figure 7.1) was devised. Sites were plotted at a scale of 1:10,000 on A4 sheets, and were accompanied by notes detailing the air photographs themselves, as well as data regarding the height in metres OD of the sites in question. The second project was the Marches Uplands Survey, carried out by Hereford and Worcester County Archaeological Service on behalf of the Royal Commission for Historic Monuments in England. This involved the plotting of air photographs of the 'uplands' on the English side of the Welsh border at a scale of 1:10,000 on A1 sheets. Eight quarter sheets (SJ 22SW, 22SE, 32SW, 31NW, 21SE, 31SW, 30NE, 30NW) were situated within area 1. The third previous project relevant to Area 1 was the Montgomeryshire small enclosures project, undertaken by the Clwyd-Powys Archaeological Trust (Frost, 1995). The data available included plots of cropmark enclosures and illustrations of earthwork enclosures at a scale of 1:10,000 collated on A4 sheets, together with associated notes detailing site characteristics (e.g. form, shape, size, height, vallation etc.). The last source of information was the Welsh Mapping Project, carried out by Clwyd-Powys Archaeological Trust, on behalf of the Royal Commission for Ancient and Historic Monuments in Wales. This was consulted in digital form, the plotted results laid over Ordnance Survey digital map data. Inevitably these different projects overlapped to varying extents, but all were studied in the hope of obtaining as accurate information as possible. Since they involved computerised transcription of aerial photographs, some confidence can be placed in the data itself, and hence in the classification of that data, bearing in mind the subjective decisions that morphological classifications inevitably involve. Unfortunately, accurate information regarding site size was only available for sites included in the Montgomeryshire small enclosures project, despite size data having been used in the RCHME-funded Welsh Marches Project (Whimster 1989, figure 30).

Figure 11.2 shows the proportions of different enclosure types within area 1. Univallate sites clearly dominate within the region, accounting for 73% of all classifiable single enclosures, followed by bivallate (22%) and multivallate sites (5%). Rectilinear enclosures account for 45% of all classifiable sites, hybrid sites 28%, curvilinear sites 23%, conjoined enclosures 3% and complex sites 1%. Although the same general trend can be detected across curvilinear, hybrid and rectilinear enclosures of univallate sites predominating, followed by bivallate and multivallate enclosures, the relative proportions of differing vallations within each shape category varies noticeably (table 11.1). In particular, there is a tendency for curvilinear and hybrid sites to be provided with more than one boundary circuit, whereas the majority of rectilinear sits are univallate.

	Curvilinear	**Hybrid**	**Rectilinear**
Univallate	67%	65%	81%
Bivallate	23%	35%	13%
Multivallate	10%	-	6%

Table 11.1: Percentage proportions of single enclosure morphological characteristics

The complex site at Llandrino is of special interest as it provides evidence for a type of settlement that would not conventionally be expected to be found in the Welsh Marches, but has possible parallels in eastern England. The Llandrino complex has been accurately mapped as part of the RCAHMW mapping programme (figure 7.3b). It comprises numerous, very small, hybrid and circular shaped enclosures. Interestingly, they appear distinct from one another and do not share common boundaries as if often the case in 'agglomerated' sites in eastern England, and indeed the strip settlement of Beckford (figure 7.3a). The complex is defined on the south-west by a linear ditch, which turns at right angles at each end, perhaps suggesting the site as a whole was bounded by a (rectilinear-shaped?) enclosure. Overall the site is small, certainly compared to sites such as Dalton Parlours (Wrathmell and Nicholson 1990) and South Ferriby (May 1984) in eastern England. It may nevertheless be valid to propose some form of agglomeration of family units into a nucleated settlement, while apparently maintaining the distinctions of nuclear settlement enclosure that predominates within Area 1, and the Welsh Marches generally.

Figure 11.3 illustrates the distribution of enclosures within Area 1. There is a clear concentration in the north-east corner of Area 1, running parallel and some 4 to 5 km beyond the Rivers Severn and Vyrnwy. A cluster of sites can also be detected in the triangle created by the confluence of those rivers but elsewhere in the west of the region the distribution of non-hillfort enclosures is rather more dispersed though still tending towards rivers and river valleys. In the south-east, River Severn-defined, third of the region, a group of sites can be observed on the high ground near the southern boundary of Area 1, but there is otherwise a noticeable absence of evidence for enclosure within this area, bar the odd dispersed site.

Table 11.2 shows a numerical distribution of non-hillfort enclosure according to altitude.

	Curvilinear			Hybrid			`Rectilinear			Conjoined	Complex
	U	B	M	U	B	M	U	B	M		
60-80	///// /////	////	/	///// ///// ///// /	///// //		///// ///// ///// ///// ///// /////	/////	//	///	
80-100	///// ///// /	/////		///// /////	///// /		///// ///// ///// ///// ///// //	///		/	/
100-120	//	/	/	/////	//		//	//			/
120-140	/			//	/		//				
140-160	//		//				/		///		
160-180	//		/		/				/		
180-200	/			///							
200-220							/	/			
220-240							//				
240-260							/				
260-280					/						
280-300											
300+	///	/		/	/		///			/	

Table 11.2: Altitude (metres OD) of site types in area 1

The majority of sites (69%) are situated below 100 m OD, despite the fact that a large proportion of Area 1 lies above that altitude. If it is accepted that a significant percentage of these enclosures are late prehistoric, and more specifically middle Iron Age or later in date (Chapter 8), it may be that upland regions were avoided as places of permanent, bounded habitation in the second half of the first millennium BC. This is a pattern which appears to be repeated in Area 2 (below). Why uplands should be avoided is not clear, unless it is accepted that access to lowland resources was the prime consideration in determining sites for habitation. An alternative explanation may be that the climatic deterioration which affected Britain during the earlier first millennium BC (Chapter 2) resulted in land at higher altitudes becoming uninhabitable, although upland land loss through the spread of blanket peat is perhaps unlikely to have occurred much below 300 m OD (Taylor 1980, 261).

No immediate patterns present themselves with regard to the relationship between different morphological enclosure groups and altitude. There is a slightly greater likelihood of rectilinear sites being situated below 100 m OD (77%) than either hybrid sites (69%) or curvilinear sites (64%). 67% of all univallate sites are situated below the 100 m contour, as are 73% of all bivallate sites, but only 27% of multivallate sites are sited below 100 m which - bearing in mind the small sample size of the latter group - is interesting. It could feasibly reflect a specialised, economic function, perhaps with multivallate enclosures associated with livestock agriculture in upland pastures. Alternatively, it might signify significant differences in the social dynamics between upland and lowland areas, social units in the former perhaps emphasising very strongly their independence and isolation from one another through elaboration and display of multiple earthworks.

More detailed analysis of the relationship of morphological enclosures to altitude emphasises these general patterns, and highlights some additional points of interest (table 11.3).

	Curvilinear	Hybrid	Rectilinear
Univallate	65 %	69 %	81 %
Bivallate	82 %	68 %	73 %
Multivallate	20 %	-	33 %

Table 11.3: Percentages of sites in area 1 situated below 100 m OD

The high percentages of univallate (and bivallate) sites located below the 100 m contour are obvious, as are the low percentages of multivallate sites. Additionally, there is a significantly greater likelihood for univallate rectilinear sites to be situated below 100 m OD than either curvilinear or hybrid sites. The pattern is by no means clear, and there is a considerable degree of overlap between the two groups, but it is a pattern repeated more clearly in Area 2, perhaps suggesting this part of the Marches, on the geographical border between the uplands of Wales and lowlands of England, also straddled a border between different settlement groups (and cultural/social groups?) in the first millennium BC.

In terms of the spatial distribution of different morphological groups within Area 1, patterns are again a little difficult to identify. However, the majority of multivallate sites, and a large proportion of bivallate sites, are located in the central west part of the study area, particularly on the fringes of upland and lowland zones. The distribution of these enclosures is notably regular, being sited between 1 and 3 kilometres apart. This fact perhaps argues for their contemporaneity, and may even signify the division of the landscape between small, locally powerful, nucleated groups. There is also a greater tendency for enclosures on the west edge of the region to be curvilinear, than for instance in the north-east where the dense distribution of sites are predominantly rectilinear. Hybrid sites are found in both areas, though there is an apparent a concentration in the region around the confluence of the Vyrnwy and Severn. These tentative points perhaps emphasise that Area 1 straddles a (somewhat diffuse) boundary between two differing settlement patterns, the first in the upland west characterised by bivallate and multivallate and curvilinear sites dispersed across the landscape, the second in the lowland east characterised by closely spaced univallate and rectilinear sites.

In order to evaluate the extent to which the distribution of sites depicted on figure 11.3 reflects the original settlement pattern, the evidence can be compared with a generalised soil map of the region (figure 11.4). Brown earths, as a general rule conducive to the formation of cropmarks, are found all over Area 1 particularly the north-east and west, but they are somewhat patchy in nature, interrupted by swathes of stagnogley and alluvial gley soils which are less likely to reveal buried features identifiable from the air. There are also areas of podzols/stagnopodzols and peat in the north-east of the region. Figure 11.5 shows the distribution of cropmark enclosures within area 1 with relation to soil type:

The responsiveness of the brown earths is apparent, suggesting that the cropmark record as it stands should be regarded with some caution. On the other hand, aerial reconnaissance has been particularly intensive within this area (as emphasised by the not insignificant numbers of sites found on soils regarded as poor for cropmark formation), which should perhaps restore some confidence that the site distribution depicted on figure 11.3 does reflect broadly the nature of the original distribution, if not its full extent.

Table 11.4 provides a numerical count of morphological enclosure groups set against land capability categories (figure 11.6).

	Curvilinear			Hybrid			Rectilinear			Conjoined	Complex
	U	B	M	U	B	M	U	B	M		
2AG	//	/		/////	///		///	//			
3G	/			/	/		/				/
4G	//	/	/	///// /	////		///// ////	///			
2A/4G	///// ///// ///// /	/////		///// ///// ///// /	/////		///// ///// ///// ///// ///// ///// ///// ///// /////	/////	//	////	
6AG	///// ///// //	////	////	///// ///// //	///// ///		///// ///// ///// ////	//	////	/	/

Table 11.4: Distribution of morphological enclosure groups with relation to land capability in area 1

The majority of all sites (69%) are situated on good quality land as opposed to medium quality (6AG). There is a slight contrast between curvilinear sites and rectilinear sites, with 62% of the former and 74% of the latter located on good land; hybrid sites fit between the two at 67%. In terms of vallation, the figures for univallate and bivallate sites are similarly biased in favour of better quality soils (72% and 68% respectively), which differs sharply from the situation with regard to multivallate sites where only 27% of the eleven sites within area 1 are situated on good land. This reflects, perhaps predictably, the observations made with regard to altitude, and reinforces the suggestion that enclosures with multivallate earthworks may have served some specialist role with regard to (livestock?) agriculture. Table 11.5, providing a more detailed analysis of specific morphological enclosure groups against land capability classes serves to emphasise this point further:

	Curvilinear	Hybrid	Rectilinear
Univallate	67 %	70 %	75 %
Bivallate	64 %	62 %	83 %
Multivallate	20 %	-	33 %

Table 11.5: Percentages of sites in area 1 situated on good quality land

Hillforts

Six sites within Area 1 are classified as hillforts (figure 11.3), of which four fall within the smallest size category (1.2 to 2.9 ha): Soldier's Mount (1.6), Gaer Fawr (2.7), Beacon Ring (1.8) and Blodwel Rock (1.8). Soldier's Mount and Beacon Ring are univallate, Gaer Fawr is bivallate, although it is very possibly a multi-phase site, the first phase of which comprised a univallate enclosure of 1.2 ha, thus not dissimilar in nature to Soldier's Mount and Beacon Ring. Blodwel Rock is bivallate, but again is a site with certain complications: it is situated very close to Llanymynech hillfort and may have links with that site. Llanymynech itself is an extremely large hillfort, the largest in the

Marches, encompassing 57 ha and enclosed at points by multiple earthworks. The last site, the Breiddin, is another extensive site at 28 ha, the third largest in the Marches; it too is surrounded by multiple, relatively wide-spaced earthworks at some points.

The distribution of hillforts in Area 1 (figure 11.3) reveals a generally westerly distribution. The sites are dispersed, with the exception of the close proximity of Llanymynech and Blodwel Rock in the north of the area. This could be used to argue that such sites were territorial in nature, whatever their exact function, and that their territories were defined by river routes (in most cases, each site occupies a block of land separated from adjacent blocks by the path of a major waterway). However, this would imply some similarity in function between the sites, which must surely be questioned given huge size differentiation between Llanymynech and the Breiddin, and remaining hillforts. The Breiddin has been subject to relatively extensive excavation, although still small-scale in terms of the site's overall size. This revealed two phases of prehistoric enclosure, perhaps preceded by a phase of open or (speculatively) palisaded enclosure. The first phase, dated to the late Bronze Age, consisted of a timber-fronted wall-and-fill rampart and internal activity characterised by a collection of bronze metalwork comprising both weapons, tools and an assortment of pins, rings etc., evidence for some metalworking and perhaps the presence of (limited) rectangular post structures. No certain evidence for domestic dwelling was identified, although of course this does not mean such did not exist.

Following a period of abandonment in the late Bronze Age/early Iron Age, the hillfort was refurbished with a stone wall-and-fill rampart without ditches in about 300 BC. Internal activity was relatively extensive, comprising round structures, rectilinear post structures (apparently not as strictly ordered as identified on some other Iron Age hillforts such as Moel y Gaer and Danebury) and a wide range of domestic refuse. There is also possible evidence for rearrangement of the site's internal organisation during this phase of middle Iron Age activity, an occurrence not uncommon on British hillforts during this period. Hence, at the Breiddin, we seem to be seeing a possible phase of somewhat elusive pre-hillfort activity, following by the enclosure of the whole 28 ha hilltop in the late Bronze Age which must be indicative of some major event or reorientation in the dynamics of social organisation/reproduction. Activity is not obviously intensively domestic in nature, and the site may have served a specialised purpose, or have been only sporadically/seasonally occupied (c.f. the evidence from early hillforts in Wessex). The hillfort then appears to have been largely abandoned at the end of the late Bronze Age/early Iron Age, again indicating some change within the local society, or 'crisis' as Collis would put it (Collis 1981; Chapter 4). Further development is indicated in the middle Iron Age by renewed activity on the site, this time suggestive of domestic occupation. Interestingly, there are relatively few non-hillfort enclosures within the vicinity of the Breiddin. Since enclosure does not appear to have become widespread in the Marches until the middle Iron Age, could it be that the reoccupation of the Breiddin in c. 300 BC represents the movement of people from the site's hinterland into the hillfort, explaining the relative lack of non-hillfort enclosure in the region? This was perhaps the response of the local population to the social developments which elsewhere caused the widespread adoption of enclosure in the middle Iron Age (as at Collfryn, approximately 7 km north-west of the Breiddin across the River Severn, a site which appears to have been founded as an enclosure at approximately the same time the Breiddin was reoccupied).

The only other excavated hillfort within Area 1 is Llanymynech, where rescue investigations were limited in extent. However, they revealed some interesting findings, not least evidence for Iron Age copper working. Llanymynech Hill has been a focus for ore extraction, at least from the Roman period, and there is little reason to suppose it did not happen earlier as well. The activity within the hillfort has been dated to the middle/late Iron Age, but bearing in mind the small-scale of the excavations, it very possibly had earlier origins, perhaps, like the Breiddin, undergoing various periods of activity and abandonment. It is tempting to link the extra-ordinary size of the site, with its implications for resource control and expenditure and the presence of copper ore, which must have been a highly important raw material. As noted in Chapter 10, objects deriving from the Llanymynech area have been recovered from sites across the Marches indicating that the metal was exported, in either raw or worked form, from at least the middle Iron Age.

Unfortunately, none of the other hillforts in area 1 have been subject to excavation which might throw some light onto their date and function. Nevertheless, some potentially important points can be made, especially with respect to Beacon Hill in the south of the region, which may help in attempting to interpret their purpose, bearing in mind their morphological similarity. Figure 11.7 illustrates Beacon Hill hillfort in its surrounding archaeological landscape. Of initial interest is the intermittent linear feature which traces a line eastwards from the north-west corner of 11.8 before swinging north to south and finally beginning to curve around south-westwards towards Beacon Hill itself. It is impossible to determine whether the different fragments of ditch are part of the same overall feature, but the orientation and morphology of the individual parts are alike enough to argue that they were. If we are correct in suggesting that the linear feature does begin to arc towards Beacon Hill hillfort, then similarities can be drawn with the imposition of Brandon Hill Camp, Herefordshire, on a pre-existing linear feature (page 104 and below) as well as Welshbury (page 104), and various hillforts in Wessex (Cunliffe 1990). It thus seems plausible to suggest that Beacon Hill hillfort was constructed upon the route of an earlier landscape boundary. If this was the case, it is interesting that the linear feature itself passes very close to a group of ring ditches and round barrows (especially noticeable on the eastern side of figure 11.7). Since landscape boundaries are generally thought to not date before the mid/late Bronze Age, whilst round barrows are normally dated to the early/mid Bronze Age, it may be suggested that the linear feature followed a line previously defined by the construction of funerary monuments. The idea of a link between the line of this linear feature and the location of earlier funerary monuments is supported by evidence from elsewhere (figure 11.8), which shows a close spatial link between the two forms of monument This is obviously important in emphasising continuity within the landscape, but it is also significant in that the two methods of demarcating the landscape imply essentially different ideologies. The use of round barrows suggests reference back to ancestors and, importantly, particular individuals within society. By contrast, the use of an extensive and continuous linear feature - and the (presumable) community co-operation that this entailed - emphasises the community as a whole and not (at least not obviously) any one individual person. Are we therefore seeing, in the way the landscape was demarcated and divided, a change from an essentially hierarchical society in the earlier and middle Bronze Age, to a more egalitarian society in the late Bronze Age and early Iron Age (c.f. Chapter 12). In this light, early first millennium BC hillforts (sites which rarely reveal any overt or categorical evidence for social stratification), should perhaps be seen as expressions of the community, not an individual or elite. Many enclose earlier funerary monuments (including Beacon Hill and Brandon Hill hillforts), again suggesting the imposition of the community over that of the individual, whilst also utilising the obvious significance attached to specific areas in preceding periods. Their association with linear earthworks similarly emphasises a connection with the community and community territory. They often exhibit little sign of domestic activity, so were possibly intended as seasonal meeting places for one particular community, or, being as they were located on landscape boundaries, perhaps neutral places where members of different communities could meet. Alternatively, they might have played an important role in the economic activities of the community, being places where livestock or other produce could be stored.

Given the level of excavation, it is impossible to say that these relatively small, univallate hillforts remained in use. It is worth repeating the observations made above with respect to the Breiddin, regarding an apparent 'crisis' during the late Bronze Age/early Iron Age. when many hillforts across the Marches as a whole appear to have been either permanently or temporarily abandoned (c.f. Chapter 6). If this was as widespread within the Marches as initial impressions imply, it may well be that sites like Beacon Hill, built on landscape boundaries, ceased to be used relatively shortly after they were founded. As will be explored in more detail in Chapter 12, this must have implications for the nature of the prevailing social organisation. Whether such hillforts remained permanently out of use is impossible to say, but it may be that it was sites such as Gaer Fawr and Croft Ambrey (discussed below), which appear to have been elaborated upon - often gaining additional lines of earthwork or being expanded in terms of internal area - which were reoccupied in the middle Iron Age when 'crisis' or development in society seems to have provided a catalyst for the re-use of old, and the construction of new hillforts.

AREA 2

Area 2 is located mostly in north-west Herefordshire, although it overlaps into Powys in the west and Shropshire in the north. The major waterways include the River Teme, a tributary of the Severn, flowing west to east and defining the northern third of the area, with its own tributaries the River Clun, flowing north to south, and the River Onney, flowing north-west to south-east, further subdividing this area. The River Corve, another tributary of the Teme, also intrudes upon the far north-east of the region. The southern quarter of the study area is defined by the River Lugg, a tributary of the River Wye, flowing west to east, with Hindwell Brook joining it in the south-west corner of the region. The topography of Area 2 rarely drops below 100 m OD except occasionally in the lowest levels of the major river valleys. There are extensive areas above 200 m OD bordering these river valleys; occasionally, and especially in the west and the north-west of the region, altitudes can exceed 300 m, even 400 m OD. The region is therefore quite consistently 'upland' in nature, although there is some significant variation between the more rugged, and sharply broken landscape in the west compared to the east and the south.

Non-hillfort Settlement

138 non-hillfort settlements are know in Area 2, the majority single cropmark enclosures identified through aerial photography. Classification of the sites using Whimster's framework, involved consultation with the relevant SMRs, together with analysis of the Marches Uplands Survey air photograph plots and textual data. The air photographs were transcribed at a scale of 1:10,000 on 5 km2 overlays. Some confidence can therefore be placed in the classification of cropmark enclosures, taking into account the subjective decisions that such categorisation can at times entail. Unfortunately the textual data associated with the plots was somewhat limited, and did not include details of the internal area of sites. Figure 11.10 depicts the relative proportion of different morphological enclosure groups within area 2.

Single enclosures of rectilinear form are clearly dominant, followed by hybrid, then curvilinear types. Bivallate and multivallate sites are rare overall, accounting for just 13% (16) of the total number of non-hillfort enclosures in the region. There are five conjoined enclosures (3.6%), and just one example of a complex enclosure (0.7%). The latter site, which is located between Pinsley Brook and the River Arrow, is curious, and its classification is perhaps open to question. It comprises what appear to be conjoined and adjacent small rectilinear and hybrid shaped enclosures, bounded within a large encircling oval enclosure (figure 11.11a). As a whole, the site is significantly smaller than 'typical' agglomerated settlements such as those found in eastern England, and likewise cannot compare with the agglomerated strip settlement of Beckford (figure 7.3b). It is, however, more comparable in size with the Llandrinio settlement complex, which is situated adjacent to the River Severn (figure 7.3a and Area 1 above). As discussed, Llandrinio also seems to have an overall enclosing feature, in that instance rectilinear in shape. Though the evidence is slight, it does seem that this class of relatively small site, composed of an agglomeration of enclosures encircled by a larger overall enclosure, may be a feature of the western Marches.

A further non-hillfort site of particular interest is illustrated in figure 11.10b. This is a very large (350 m by 220 m) sub-oval enclosure with an antenna or funnel entrance on its north-west side. Its situation on a south-east facing hillslope at about 200 m OD, means it cannot be convincingly interpreted as a hillfort, although it is certainly of adequate size. Its position overlooking the River Lugg may be significant, as may be its relative proximity to the Lugg's confluence with Hindwell Brook. Without excavation it is of course impossible to realistically propose an interpretation of the site's function and status; but it is maybe worth considering various forms of similarly positioned hillslope enclosures, which developed during the late Iron Age in parts of southern England, such as Bagendon (Clifford 1961) and Braughing, Hertfordshire (Trow 1988b). Such sites are often thought to be of high status and closely associated with trade and exchange. There seems little reason why similar sites, given the development of the various 'industries' and complex exchange networks already discussed (Chapter 10), could not have evolved in parts of the Welsh Marches as well.

Figure 11.12 depicts the spatial distribution of enclosures within Area 2. Rivers and river valleys are again very obviously the focus for activity. Particular concentrations can be identified in the south of the area, along the River Lugg and Pinsley Brook, in the central region along the River Teme and in the north along the River Clun. A scatter of sites can also be identified in the east of the region. The more upland regions, particularly areas above *c.* 200 m OD, are mostly, though not completely, devoid of identified enclosures. Table 11.6 provides details of the distribution of sites according to metres OD.

	Curvilinear			Hybrid			Rectilinear			Conjoined	Complex
	U	B	M	U	B	M	U	B	M		
60-80	/						/				
80-100	/				/		////////////			//	
100-120				//		/	//////				
120-140	/			//			////////////		/	/	/
140-160	//		/	//			////////////// //				
160-180	/	/		///			///	/	/	/	
180-200	/			/	/		//////	/		/	
200-220	//			///	/		////	/			
220-240	/			/			///	//			
240-260							////				
260-280		/		//			/		//		
280-300	//										
300+	/				//		////				

Table 11.6: Altitude (metres OD) of site types in area 2

Most sites are situated below 160 m OD, almost all below 200m OD, despite the abundance of land above this height within Area 2. If a significant proportion of the enclosures are accepted as prehistoric, and dating to the later first millennium BC (c.f. Chapter 8), then from the middle Iron Age at least - when enclosure of non-hillfort settlement sites appears to become common in the Marches (Chapter 8) - the uplands do not appear to have been chosen for enclosed habitation. No clear relationship between the different morphological categories and height emerges, and all types of enclosures appear to have been constructed at a broad range of altitudes. However, a couple of points of interest can be made. First, the majority of univallate rectilinear sites (68%) are located below 160 m OD; conversely, the majority of univallate curvilinear sites (62%) and the majority of univallate hybrid (63%) are located above 160 m OD. Second, the majority of bivallate and multivallate sites of all types are located above 160 m OD (78%). A contrast between upland curvilinear and lowland rectilinear enclosure was noted with respect to different areas of north-east England by Ferrell (1995; 1997). Although not as clear cut in Area 2 the same general phenomenon does seem to be occurring. A further important observation is that the proportions of curvilinear sites outside of the study area to the west, in the uplands of eastern Wales, increase markedly and the numbers of rectilinear sites decrease (Jackson in prep.). It is tempting to suggest that the greater proportions of bivallate and multivallate sites in upland regions relate to economic regimes, particularly animal husbandry and the corralling of livestock. An alternative interpretation would be to associate it with social/political factors such as status and display. A final observation with respect to site altitude is that four out of the six conjoined/complex sites are situated below 160 m OD, and indeed all are below 200 m OD.

Little can be said about the spatial distribution of different morphological groups except for the general prevalence of rectilinear sites wherever enclosures have been identified. Of possible interest is the concentration of hybrid sites between the River Clun and the River Teme in the north of the area, with some continuation across the River Onney. Perhaps this represents a particular cultural tradition (it is also interesting to note the lack of any hillfort within this river-defined piece of landscape - although admittedly Norton Camp, a 6.6 ha bivallate fort does lie approximately 2 km outside of the study area to the north). A further observation is the cluster of seven bivallate/multivallate sites west of the River Clun in the north-west of the region, a small area within the overall 20 km2 dominated by land over 200 m OD. Indeed, it is noticeable that the bivallate/multivallate sites are situated predominantly on the outer fringes of the river valley where univallate sites predominate, perhaps suggesting differing social/economic systems (e.g. Hingley 1984).

How much the present cropmark evidence in Area 2 reflects the original site distribution can be evaluated by comparison with a generalised soil map of the area (figure 11.13). The majority of the region is composed of brown earths, soils that are frequently responsive to aerial photography. However, there are significant amounts of less responsive soils, predominantly stagnogleys and alluvial gleys associated with the main rivers and river valleys. In addition, in the north-west are some expanses of podzolic soils, corresponding to various steep upland areas. Figure 11.14 illustrates the distribution of cropmark enclosures within Area 2 with relation to soil type:

The responsiveness of the brown earths is evident, and the apparent scarcity of sites on the other soil types may indicate that the distribution of enclosures on figure 11.12 does not accurately reflect the original distribution. However, accepting that the areas dominated by stagnogleys and gleys may be under represented, it is important to emphasise that beyond them, soil type cannot be used to explain the enclosure distribution, particularly the avoidance of the upland areas. It is perhaps more likely that land utilisation will bias the picture, with non-arable activities, especially on the steep slopes in the west of the region, at least partly responsible for the poor cropmark record. Equally, however, it may be that such regions were genuinely avoided in terms of permanent boundary-defined habitation in the first millennium BC.

Table 11.7 Provides details on the distribution of enclosure types with respect to land capability categories (figure 11.14).

	Curvilinear			Hybrid			Rectilinear			Conjoined	Complex
	U	B	M	U	B	M	U	B	M		
2AG	//					/	//////////////// //	//	/	//	/
2AG/4G				//			//				
3G			/	/			/////				
4G	///	/		//		/	//////////////// ////////		/	/	
5A				///			/				
6AG	/////// //	/		/////////	////		//////////////// //////////////// ////	///	//	//	
8H											

Table 11.7: Distribution of morphological enclosure groups with relation to land capability in area 2

Univallate rectilinear sites can be found on all land types, with a slight bias towards the better quality (58%), as opposed to the medium quality (52%) categories. This contrasts with the picture presented by the univallate curvilinear sites, 64% of which are located on medium quality land, and just 36% on good quality. In terms of univallate hybrid sites, roughly equal numbers are situated upon good land (47%) and medium land (53%). Bivallate and multivallate sites display no clear patterns, with roughly equal numbers on good and medium quality land with respect to curvilinear, hybrid and rectilinear sites. Bivallate hybrid sites do tend towards medium quality land, although with only five sites in total, no significance can be attached to this. Overall, it is apparent that good quality soils were more important than the medium quality soils, despite slightly greater proportions of the latter within the study area (figure 11.14). There are significant quantities of poor heathland present within the region (8H), but these were evidently avoided by enclosures, suggesting their poor potential was recognised.

Hillforts

Six sites can be classified as hillforts (figure 11.12). All, except Pyon Wood, are between 3 and 6 ha internally, while four are bivallate and multivallate. The more complex earthworks tend to be situated at higher altitudes, while the simpler sites are located on lower land; Brandon Camp and Pyon Wood, situated 122 m OD and 190 m OD respectively, are univallate, Coxall Knoll and Croft Ambrey, situated at 262 m OD and 306 m OD are bivallate, and Wapley Camp and Caer Caradoc, Clun, situated at 320 m OD and 396 m OD are multivallate. Coxall Knoll and Croft Ambrey were furnished with annexes, whilst Wapley Camp possessed wide-spaced ramparts on its south-western side. To an extent rivers may have served as boundaries between hillfort 'territories'. For instance, perhaps the River Lugg separated Croft Ambrey from Wapley Camp, and the River Teme, Coxall Knoll from Brandon Camp. There is no clear division between Coxall Knoll and Caer Caradoc, although perhaps it is possible that Caer Caradoc was situated in a territory west of the River Redlake and Coxall Knoll to the east, while the River Clun may have delimited a territory between Coxall Knoll and Norton Camp outside of Area 2 to the north. Whether such territories can be considered valid must remain open to debate. The lack of hillfort centrality to the proposed areas need occasion no undue surprise, since proximity to major waterways appears to have been an important factor influencing the distribution of hillforts throughout the Marches (chapter 6). Also, centrality automatically invokes central place functions - whether applicable or not – leading to the further assumption that equidistance to all parts of its territory was the overriding factor in determining the location of the central site. There can be little doubt that sites like Wapley Camp and Caer Caradoc especially, were in at least part expressions of resource control, status and strength.

The presence of bivallate and multivallate earthworks, together with annexes, suggests a complex process of development, with at some sites increasing elaboration through time. This has been illustrated through excavation at Croft Ambrey (Stanford 1974). This hillfort appears to have originated as a univallate site, approximately 2.2 ha in internal area, probably during the late Bronze Age/early Iron Age. Close parallels can be drawn with Pyon Wood Camp, just over 2 km to the west. There is little to suggest any intensity of internal occupation at this time, finds being restricted to a few fragments of briquetage, and some 4-post buildings. This 'plateau camp' was succeeded by a bivallate 'main camp', 3.6 ha in size, perhaps in the early middle Iron Age. It is tempting to suggest that this represented a growth in Croft Ambrey's power, perhaps at the expense of the nearby Pyon Wood, which does not show any evidence of similar expansion. It would be interesting to investigate Pyon Wood to determine whether the hillfort was an earlier first millennium BC site which was abandoned by the middle Iron Age, reflecting pattern of hillfort evolution in south central England (e.g. Cunliffe 1990; Sharples 1991a). Alternatively, following the model proposed with respect to Area 1, both sites may have been occupied in the late Bronze Age/early Iron Age but after a period of abandonment, only Croft Ambrey was chosen for reoccupation in the middle Iron Age. This hypothesis would fit the evidence from Croft Ambrey where, the artefactual record shows a sudden increase in deposition in the fifth/fourth century BC (table 11.8; figure 11.15). This indicates a development beyond a simple increase in depositional practices, and can be interpreted either as a fundamental change in function or/and reoccupation after a period of disuse.

There are relatively few recorded non-hillfort enclosures within the vicinity of Croft Ambrey, which might indicate that there was little non-hillfort settlement in the Croft Ambrey's hinterland from the middle Iron Age period, when enclosure became widespread in the Marches. Perhaps, therefore, some crisis or development led to the surrounding population moving into the hillfort in the fifth/fourth centuries BC. This would explain both the lack of enclosure in Croft's hinterland, and the dramatic increase in artefact deposition at about this time.

The only other excavated hillfort in Area 2 is Brandon Camp (Frere 1987). The main objective of Frere's investigations was to gain insight into the Roman activity there in the mid of the first century AD, but they also revealed evidence for middle Iron Age activity, including briquetage, regionally distributed pottery, and various structural features. Like Beacon Hill hillfort in Area 1, Brandon Camp seems to have been linked with pre-existing land boundaries; indeed there is good evidence to suggest that Brandon Camp site was constructed upon a pre-existing linear boundary juncture (figure 6.19). As Cunliffe (1990) has noted, the siting of hillforts in such locations is likely to reflect a concern with land, and land resources. The location of Brandon Camp on a junction of possible land division may imply a deliberate intention to gain access to more than one pre-existing territory, in order to establish control over various tracts of land and resources. Alternatively, such a location would have provided a place of neutrality, where neighbouring groups could meet at the boundaries of their territories.

Three ring ditches which have been identified within Brandon Camp, may signal the site of round houses, but might alternatively indicate the original presence of round barrows, particularly as excavations recovered an early Bronze Age plano-convex knife. If so, it may indicate a similar history of development to Beacon Hill in Area 1 (page 273), which has important implications in assessing social development within the Welsh Marches (Chapter 12 below).

CONCLUSION

Although the analysis of these two 20 km2 sample areas has been unavoidably brief, a number of interesting points have emerged which potentially serve to deepen our understanding of the period. With regard to non-hillfort enclosures there are indications that the (west of) the study area, straddles a settlement/social/cultural boundary as well as a geographical one, there being hints of a change (although by no means a clear cut change) from lowland univallate rectilinear sites to upland multivallate curvilinear sites. There are also indications of small, agglomerated settlèments, which exhibit both similarities and differences with agglomerated sites in eastern England, which have not previously been regarded as characteristic of the region. Unfortunately, none of these sites has been excavated, and it is impossible to speculate convincingly upon the date and function.

The evidence from the hillforts can be interpreted as reinforcing the argument for at least two successive phases of activity, the first in the late Bronze Age/early Iron Age, the second in the middle Iron Age, separated by a period of inactivity. The evidence also supports an association between (some) early hillforts and pre-existing land boundaries, which in turn seem to be associated with preceding funerary monuments. This progression in the way the landscape was defined may well reflect changing and developing social structures, as we shall see in Chapter 12.

CHAPTER 12

DISCUSSION AND CONCLUSIONS

INTRODUCTION

A considerable body of evidence, covering numerous facets of first millennium BC settlement in the Welsh marches, has been examined in the preceding chapters. Merely to reiterate and summarise these previous discussions would seem a somewhat pointless exercise. Instead, I shall set out a tentative and generalising model for the social developments during the first millennium BC, incorporating the conclusions reached through these earlier analyses where appropriate. I will conclude with an evaluation of the current state of later prehistoric archaeology in the Welsh Marches, and offer suggestions about what future work should entail to maximise our understanding of the period.

THE LATE BRONZE AGE/EARLY IRON AGE

The later Bronze Age in Britain is often cited as the period when the makeup of the archaeological landscape radically changes from one where funerary and ritual monuments were prevalent, to one dominated by landscape boundaries and domestic settlements (c.f. Chapter 4). In terms of visible archaeological monuments, the early first millennium BC in the Welsh Marches is characterised by the appearance of enclosure, more precisely hillfort enclosure; by contrast, non-hillfort enclosure, in common with the adjacent Midlands and in contrast to southern England (Cunliffe 1991a), seems to have been a middle Iron Age feature (c.f. Chapter 8). In order to interpret the appearance of these late Bronze Age/early Iron Age hillfort enclosures in social terms, it is important to avoid treating such sites as isolated within the landscape. Similarly, just because hillforts are a new form of site, they, and their place within society, should not be regarded as isolated from the past.

Analysis of the wider landscape is unfortunately hampered by poor site survival and identification. However, though still somewhat limited, there is evidence to suggest that, in the late prehistoric period, certain areas within the Marches were being defined by extensive landscape boundaries during the late prehistoric period. In southern England, where the surviving evidence is more widespread, similar linear features have been dated to the late Bronze Age. Cunliffe (1990) has noted that in Wessex, early hillforts and hilltop enclosures succeeded this bounding or enclosing of the landscape, and appear to be closely associated with it. More specifically, he has shown that hillforts were constructed at key points along the length of landscape boundaries, either at their ends, or at nodes where major boundaries joined subsidiary boundaries (Cunliffe 1990). The evidence from the Marches is not as comprehensive, but there are certainly indications that the same phenomenon was occurring at sites such as Brandon Hill Camp (c.f. Chapters 6 and 11).

Cunliffe interprets the bounding of the landscape as a movement from communal to private land ownership, accompanying a shift from an essentially egalitarian to an increasingly hierarchical society (Cunliffe 1990; c.f. Chapter 4). This is not necessarily the case, however. This model assumes a very definite and apparently quite abrupt break in peoples' perception from land as a communal resource that did not need to be defined, to an increasingly private resource that did. However, it is possible to identify continuity from the middle through to the late Bronze Age, as illustrated, for example, by regard to Beacon Hill hillfort (c.f. Chapter 11). Fragments of what seems to have been an extensive boundary system were traced through air photographic evidence. This system, based upon morphological similarities, appears to curve across the landscape towards Beacon Hill itself, indicating an association between the two forms of earthwork (page 201). If the Wessex evidence is any guide, the landscape boundary seems likely to be the earlier feature, perhaps constructed in the late Bronze Age, whilst Beacon Hill hillfort was constructed subsequently in the late Bronze Age or early Iron Age. Importantly, at various stages the linear feature seemed to be associated with ring ditches and upstanding round barrows, as linear features associated with Danebury and Suddern Farm in Hampshire also seem to have been (figure 11.9). Could it not be, therefore, that the linear boundaries of the late Bronze Age defined territories which, in the early and middle

Bronze Age, were defined by the construction of funerary monuments. This implies a change in how landscape claims were organised, rather than a sudden injection of concern for the concept of land ownership itself implied by Cunliffe's model.

If this hypothesis holds true, we have to analyse what the successive changes from round barrow definition to linear-earthwork definition to the construction of substantial enclosures, often along landscape boundaries, suggests. Round barrows, with their focus upon individual burial, have often been regarded as reflecting a society dominated by a powerful minority, i.e. a stratified society. The use of (some) barrows to mark territorial divisions, therefore, may indicate that land was organised and controlled by a minority, or alternatively that groups used reference to powerful ancestors to legitimise claims to land. Either way, a degree of social stratification is implied.

The change in the late Bronze Age towards re-defining existing landscape boundaries through the construction of extensive linear systems suggests a significant reorientation in the fundamental beliefs and organisation of society. These earthworks were frequently large scale and monumental in nature and would have required huge resource mobilisation and expenditure. This in itself indicates communal effort on a fairly extensive level. The systems themselves may even have been community symbols, expressions of co-operation on a huge scale. This is at odds with the situation in the early and middle Bronze Age, where the focus was on the individual, although it may also be argued that the landscape earthworks were a production of coercion rather than communal co-operation. However, if the latter model is given some credence, rather than seeing a movement from an egalitarian/communal society to a stratified/individual society as argued by Cunliffe, we may instead be witnessing a movement from a stratified/individual society to a more egalitarian/communal one.

The hillforts constructed within the late Bronze Age would have required the harnessing of substantial resources, focused this time on defining and isolating a very specific and comparatively limited space rather than an extensive tract of land. The effort necessary in constructing such sites, together with their size and association - at least in some instances - with large linear earthwork systems, again implies an occasion of communal co-operation rather than the organisation of labour to construct an elite central place.

Due to the limited excavation which has taken place, the function of these early hillforts is unclear. It is unlikely that any one function is dominant, nor that any one site necessarily fulfilled the same function throughout its life. Based upon the arguments set out so far, it can be suggested that they were a focus for communal activity, emphasised by their location at key points on communal boundaries. The enclosing earthworks will have been critical to their function. There has been considerable reaction against interpreting such boundaries in military terms, but it would perhaps be premature to disregard the argument completely. They may very well have symbolised strength, whether in a functional military sense or not. Quite possibly, they were at least partly a response to inter-community rivalry/competition, perhaps even being located on the boundaries between community territories. In addition the earthworks may have served to isolate and conceal the interior of the site from the surrounding landscape, implying that the activities occurring within the hillfort lay outside the bounds of everyday life (c.f. Hill 1995b, although see Bowden and McOmish 1989 regarding examples when this may not be the case).

From the excavation which has taken place, some early hillforts, like Moel Y Gaer, may have been relatively large settlement sites in their initial phases, whilst others, like the Breiddin and Croft Ambrey were perhaps only sporadically used. They might have been, as J.D. Hill (1995b) has proposed for Wessex hillforts, foci for communal gatherings at certain times of the year, where issues relating to the community as a whole were negotiated.

The change towards the large-scale construction of communal monuments in the late Bronze Age may reflect 'crisis', a conflict within society at the turn of the first millennium BC that led to the decline of a hierarchical system and the rise of an egalitarian one. This perhaps accounts in part for the disappearance of individual (elite?) burial as exemplified by the interments beneath round barrows, towards burial rituals that are archaeologically invisible during the Iron Age (this should not automatically lead us to infer that disposal of the dead was uniform in practice or treatment). A further archaeologically *visible* indication of social instability is the very large quantity of bronze objects ritually deposited during the late Bronze Age (c.f. Chapter 10). This activity has previously been interpreted as representing a reaction to some form of social conflict (c.f. Bradley 1990). According to the model advocated here, this conflict may have taken the form of an elite attempting to maintain or reinforce traditional power relationships against a movement towards communal resource control, through elaborate conspicuous consumption. Alternatively, it was a ritual conducted by the newly established communal order, a symbolic closure of the previous social organisation where the maintenance of power relied upon control of the acquisition and distribution of prestige objects (e.g. Sharples 1991a). The formation of these large-scale, cohesive communities at the turn of the second millennium BC can perhaps be detected in Burgess' identification of possible regional groups through analysis of late Bronze Age metalwork (figure 12.1).

The question as to why social conflict arose in the late Bronze Age has been the subject of wide debate in recent years, explanations ranging from climatic deterioration at the end of the sub-Boreal period causing pressure on land, perhaps exacerbated by population increase (Bradley 1972), to the displacement of bronze by iron in the latest Bronze Age/early Iron Age which robbed the elite of their traditional means of maintaining power through the acquisition and display of prestige goods (e.g. Thomas 1989). Unfortunately, the Marches' evidence does not add substantially to the debate. The climatic deterioration which occurred within the first few hundred years of the first millennium BC (c.f. Chapter 2) may well have impacted harder on the upland fringes of the Welsh Marches than in lower-lying regions. The formation of blanket peat and resulting loss of high altitude land perhaps resulted in a tightening of community cohesion and the bounding of large tracts of land together with the construction of focal sites for communities, rather than a fragmentation of society. However, it is likely that this was just one factor with other conflicts - perhaps extending back into the middle Bronze Age - also instrumental in causing the changes that occurred at the end of the second millennium BC.

THE MIDDLE IRON AGE

During the early Iron Age, around the seventh and sixth centuries BC, there is evidence that a number of hillforts were abandoned. This is most comprehensively illustrated by the extensive radiocarbon sequence obtained during excavations at the Breiddin, but there are signs that the pattern was repeated across much of the Welsh Marches. This abandonment can be viewed in two ways, either as an ending of the 'crisis' which caused the use of hillforts in the first place, or as the beginning of another 'crisis'. The evidence cannot prove or disprove either alternative. In support of the former, there are indications that forest clearance became extensive during the sixth/fifth centuries BC in the study area, first on the river terraces and later on the flood plains (c.f. Chapter 2). This might well have released some of the pressure on land, if land pressure was indeed a causative factor in late Bronze Age/early Iron Age hillfort construction. On the other hand, climate deterioration appears to have intensified during this same period, perhaps making some hilltop sites uninhabitable, therefore forcing their abandonment.

The situation changes again at the start of the middle Iron Age, *c.*400/300 BC. Some hillforts were reoccupied and elaborated (e.g. Croft Ambrey? Gaer Fawr? The Breiddin), whilst other new hillforts were built in previously unoccupied locations (e.g. Midsummer Hill) (Chapter 8). Coinciding with this renewed interest in substantially enclosed, large hilltop sites was the first widespread construction of non-hillfort enclosure the Welsh Marches, again often - though certainly not always - on sites which show evidence for earlier unenclosed settlement (e.g. Sharpstones site A).

Once again, these acts of enclosure would appear to indicate significant change, crisis or disruption, but not in the same way, or for the same reasons, as in the late Bronze Age/early Iron Age. There is large-scale, presumably communal activity, in the construction of large, often very elaborately bounded hillforts, but there is also extensive smaller-scale enclosure activity focused upon individual nuclear or extended households. The latter would not have necessitated as intense interaction with the wider community and might even have served to exaggerate isolation from that wider community (c.f. Hill 1995b).

In order to interpret these changes, we need to look again at what was happening within the society generally. A fundamental difference between the late Bronze Age/early Iron Age, and the middle Iron Age is the greater number of archaeologically visible long distance contacts, and interactions between communities. These include the development of a pottery industry, involving central production and region distribution; of a salt industry similarly involving centralised manufacture and regional dispersal, and of a metalwork industry, where ores were being mined in the central Marches and distributed throughout the area, either in raw or worked form (Chapter 10). In addition, in the south-east of the Marches, we see the appearance of artefacts, such as currency bars and coinage in the middle and late Iron Age, which indicate contacts with regions and peoples, directly or indirectly, outside the study area.

The development of specialist/full-time, or semi-specialist/seasonal industries may have evolved as a way of culturally reinforcing the cohesion of the communities formed in the preceding centuries. But the consequences of such industries would be far-reaching, as Sharples has argued with respect to the later Iron Age in Dorset (Sharples 1990). The manufacture of some products would have required control of specific resources and raw materials, while their distribution - whether by direct or indirect exchange - would have required an established network of interaction across the Welsh Marches, and entailed contact with external communities (c.f. Matthews 1999). These external contacts may have threatened the community *status quo* established in the late Bronze Age/early Iron Age. Increasing contact and reciprocal exchange with adjacent communities would in effect have broken down the cohesion of the community as a united and self-contained body, especially if this contact also involved inter-regional population movement through, for example, marriage.

The concept of communal land ownership, which was dependent upon co-operation and cohesion, and perhaps more importantly the ideology, of the community would therefore have begun to be broken down, and more interest with private land ownership may have resulted. Hence, we see the development of non-hillfort enclosures, their boundaries subject to repeated redefinition and special deposition (c.f. Hill 1995b, 1995c), as a means of establishing the cohesion and importance of the family unit. Perhaps they also emphasised a level of isolation from the wider community, thereby making easier the development of private concerns which were in direct contradiction to the established structure. Such an environment would have been conducive to the emergence of the individual again, and in so doing would have encouraged increasing social stratification, especially if some form of control or participation could be gained in the inter-community contacts promoted by the development of regional industries. We should also bear in mind the possible contribution of the improving climate during this period, and the evidence for expanding land clearance and agriculture (Chapter 2). These factors, together with technological development, would have enabled and encouraged agricultural intensification, perhaps leading to the production of larger surpluses. Communal co-operation may no longer have been necessary to produce sufficient agricultural produce, leading to a mode of production focussing upon the family or small group rather than the community, and again providing room for individuals to grow in wealth and power.

The fifth/fourth century BC inhumation at Bromfield should perhaps be seen in the light of these possibilities (although this date is based solely upon a La Tène I brooch; it may be argued that this was actually an heirloom, and the burial itself was more likely to be late Iron Age, perhaps similarly to those from Birdlip discussed below). The burial was intentionally, intrusive into an earlier Bronze Age barrow, and was perhaps deliberately referring back to the originally interred *individual*. It included a coffin, hollow bronze pendant, iron bracelet, as well as the rare iron La Tène I brooch. This all points towards a strong emphasis upon a particular person, and is in sharp contrast to the earlier cremation cemetery at Bromfield which was in use during the late Bronze Age, and which was made up of around 130 undifferentiated cremation pits (c.f. Chapter 10).

If there was some break down of the kind of egalitarian community cohesion which was established in the late Bronze Age/early Iron Age, what was the function of hillforts which were reoccupied and built anew at this time? They may, have been places where individual households could meet in order to negotiate matters that needed interaction with the wider community, such as the organisation of marriages, as Hill (1995b) has argued in his reinterpretation of the Wessex evidence. They may also have been an attempt to maintain existing power structures, as the intensive deposition of prestige bronze work in the late Bronze Age might also have been intended to do. Perhaps they were an attempt to disguise the increasingly hierarchisation of society through the organisation of communal undertakings. They could reflect the increasing fragmentation of the community social structure, with small groups within the previous large communities vying for status and prestige through elaborate earthwork display. There is certainly, admittedly limited, evidence that they indicate increasing social complexity. What botanical data we have from the Welsh Marches suggests that hillforts were sites which predominantly consumed/stored grain, whilst non-hillfort settlements produced it. Morris, in her analysis of pottery and salt production and distribution, suggests that certain hillforts were secondary distribution centres for goods (Morris 1983, 1985, 1994). Wider studies, such as Northover's (1984) review of metalworking techniques, have concluded that craftsmen at hillforts specialised in sheet bronze working, whilst cast bronze was worked at non-hillforts, although his conclusions rest on the evidence of only a handful of sites. We should also bear in mind that, as in Wessex, there is more evidence for internal domestic occupation during this period than in the late Bronze Age/early Iron Age. This implies that some hillforts at least were habitation sites for fairly sizeable communities.

It is difficult to interpret these communities, but there are hints that some cases the movement of people from hinterland into a central site. Again, interpretation of what this may mean is very much open to question, but it could reflect reactions within particular localities or regions, against the rise of individuals in surrounding areas. In this context, we should also bear in mind that various intra-regional contrasts in hillfort distributions can be observed (c.f. Chapter 6). This being so, we should perhaps avoid tarring all hillforts with the same brush. Different hillforts may have served different functions in different regions, and even within the same region. Even so, the flurry of hillfort development during the middle Iron Age, if reflecting various social situations, is perhaps most likely to reflect a reaction to increasing social stratification.

THE LATE IRON AGE

By, or early within, the first century BC, it is likely that the majority of hillforts were again abandoned, or certainly less intensively used. Although numerous examples exhibit evidence for Romano-British activity in the first and second centuries AD, in most cases it is impossible to trace any continuity with late Iron Age activity. There are a handful of exceptions, for instance Poston where late Iron Age finds were recovered in the 1950s excavations (Anthony 1959; Chapter 8), and The Ditches, where a significant quantity of late Iron Age material was recovered (Trow 1988a; Chapter 8). Other possible examples include Sudbrook, Llanmelin and Sutton Walls. In all likelihood, however, intense hillfort occupation/activity in the late Iron Age was the exception rather than the rule, and when it did occur, it cannot be assumed that it was similar to the activity in preceding periods.

The late Iron Age also appears to have heralded another phase of non-hillfort enclosure construction, with previously open sites being surrounded by an archeologically visible boundary (particularly in the south of the study area), and new sites being founded (Chapter 8). On some non-hillforts which were already enclosed during the preceding period, changes in the internal organisation of the sites has been identified through excavation, notably at Beckford, where the middle Iron Age settlement - characterised by a system of large rectangular enclosures containing domestic occupation - was succeeded in the late Iron Age by a series of small-ditched enclosures, with no evidence for domestic occupation (Wills forthcoming). At Collfryn, the multivallate defences were no longer maintained to their former scale in the first century BC, round houses ceased to be constructed and evidence for domestic architecture generally, except for rectilinear post structures (Chapter 9) is scarce (Britnell *et al* 1989, 119).

Hence the late Iron Age, between the first half of the first century BC and the arrival of the Romans in the mid first century AD, appears to herald another major change in the settlement pattern. This coincides with other potentially important developments, such as the introduction of coinage, particularly south-east of the River Severn in Gloucestershire, but with a limited distribution also extending into Gwent and Herefordshire (Chapter 10), and the introduction of new pottery forms, new decorative techniques and expanded regional distributions (Chapter 5). Traditionally these developments have been seen within the context of 'pre-Roman Romanisation' and the spread of Roman or 'Romanised' products, the Welsh Marches being situated largely within what Cunliffe has labelled the peripheral zone (Cunliffe 1991). Whether this is as important as has been postulated in the past, is perhaps open to question (e.g. Haselgrove 1989; Hill 1995a). There is no conclusive evidence that Roman goods were finding their way to the Welsh Marches in any significant quantity before the arrival of the Roman army, while products which might have developed at least partly as a result of contact with the Roman world (for example coinage) are mostly restricted in distribution to the south-east edge of the study area. An explanation for the late Iron Age changes referred to above, therefore, should perhaps be sought within the processes of indigenous development extending back into preceding centuries, although with reference to developments in other parts of Britain at this period.

The most fundamental development in this respect is the proposed gradual breakdown of the preceding community-orientated society, as a result of individuals or groups exploiting the growth of specialised and semi-specialised industry, and the increasing social complexity that this implies. There is little reason why this should not have continued throughout the middle and into the late Iron Age. Consequently, large sites, indicative of communal effort which in the middle Iron Age were used as a means of disguising increasing social stratification, became obsolete. We should perhaps also see the apparent cessation of domestic occupation at Beckford, as the result of similar processes; though comprising individual enclosures the site is apparently indicative of a community without any clear internal specialisation or hierarchy (c.f. Britnell 1974).

The continuing, and very possibly intensifying move towards settlement enclosure in the late Iron Age suggests concern for land control and ownership remained important, perhaps supported by the evidence for intensifying land clearance throughout this period (Chapter 2). Again, this emphasises the breakdown of the communal social ideology envisaged as dominant at the start of the millennium, and underlines the increasing concern for individual interests. The extent to which any one individual or small group actually achieved any degree of dominance is for the most part impossible to evaluate. Control over the resources underpinning one of the regional industries which flourished from the middle and into the late Iron Age would obviously be important in securing a position of power over others, but proving that the development of these industries provided the opportunity for such exploitation is at present impossible. Only in the south-east of the study area, where Dobunnic coinage circulated, can we be more confident of the social significance of those individuals named on various gold and silver issues. The rich late Iron Age burials at Birdlip, in an area where burials were still almost entirely archaeologically invisible, are another clear indicator of 'elite' individuals within the region in the period immediately preceding the arrival of the Roman army.

Therefore, by the end of the first millennium BC, we can envisage a society fundamentally different from that which existed at the beginning. The reasons for the change were probably various, perhaps including improving climate and expanding forest clearance leading to the availability of more land, the development of regional industries, and technological development (for instance the increasing use of iron from the middle Iron Age; (Chapter 10). The result was the evolution from an egalitarian, community-based society, to one where individuals or nuclear groups became the focus of social organisation. This inevitably resulted in competition, and the rise (and presumably fall) of certain individuals or groups, perhaps through the exploitation of the regional industries. In the years prior to the Roman invasion, at least in the south-east of the study area, some individuals achieved control over sizeable areas, while throughout the Marches society was (primarily through processes of internal development), stratified and fairly well developed.

FUTURE ARCHAEOLOGICAL INVESTIGATION

Undertaking a project such as this, inevitably throws up questions about what direction future archaeological investigation within the Welsh Marches should take. One of the most important points to emerge (although due to time and space restraints necessarily played down in the preceding interpretations), is the degree of diversity within the study area, both geographical and archaeological. This cautions against assuming a regional homogeneity, (or indeed homogeneity with the rest of the so-called 'hillfort-dominated' zone stretching into Wessex), although, as the evidence currently stands, a degree of generalisation is inevitable if interpretations and models are to be proposed. More positively, however, the fact that a relatively broad-based study can identify intra-regional diversity, should allow future investigations to be more focussed, particularly with respect to identifying areas for close analysis with a set of firmly formulated questions in mind. This should enable insight into discrete geographical and archaeological landscapes, thus highlighting differences and similarities within the region.

Realistically, most future fieldwork will be conducted under rescue conditions, its extent and location dictated by development schedules. Bearing this, and the cost of organising and undertaking large-scale research excavation, in mind, the advantages of non-intrusive investigation should be emphasised. Geophysical survey in particular would provide a relatively cheap way of obtaining data over large areas (c.f. the ongoing English Heritage project surveying the interiors of selected hillforts in southern England and current work by Birmingham University Field Archaeology Unit in the Marches). Considering the range of hillfort and non-hillfort sites which have been identified in the region, the aim should be to examine a variety of morphological types. The results of geophysical survey and other non-intrusive techniques could then be used to pinpoint areas for limited, relatively low-cost excavation. One objective of such work must be to obtain dating evidence from a range of hillfort and non-hillfort sites. Emphasis should be laid firmly at building up the database of absolute dates, which, despite the flatness of the carbon-14 calibration curve in the earlier first millennium BC, has been shown to be of considerable use (Chapter 5). In addition to dating specific sites and specific types of site, there should be a concerted attempt to obtain absolute dating samples from contexts containing artefactual material, especially pottery. This is essential if a coherent and reliable chronological framework is to be constructed for the Welsh Marches as a whole, as well as its constituent regions (c.f. Jackson 1995).

Although increasingly standard practice in archaeological excavation, whether rescue or research, the collection of samples for environmental analysis should also be emphasised in future fieldwork. Given time, and publication to a sufficiently high standard, such analyses, especially if combined with non-archaeological palaeoenvironmental studies, should provide the same kind of insights into the development of agriculture in the Welsh Marches in the first millennium BC, as has been achieved for north-east England (Van der Veen 1992).

Another priority is the collection, computer-aided transcription and preliminary analysis of all aerial photographic evidence across the whole of the study area. This is essential in directing fieldwork and in formulating specific questions, as well as providing useful insights in its own right. The work of Whimster (1989) clearly highlights the fundamental importance of the digitisation and analysis of aerial photographs. Over significant areas of the Welsh Marches, relevant work has, and is in the process of being, conducted (e.g. Marches Uplands Survey, Wroxeter Hinterlands Project and Survey, and the RCAHMW-funded Welsh Mapping Programme). Such projects do not always involve analysis of the transcriptions however, while at times the textual information leaves something to be desired (e.g. accurate size calculations in terms of internal area are essential for each enclosure plotted). An aim of future research to obtain, collate, analyse and publish such information.

Despite being somewhat handicapped by a comparative lack of excavation, first millennium BC archaeology in the Welsh marches has been at the forefront of many areas of artefact study, particularly ceramics (Peacock 1968; Morris 1980, 1981, 1983, 1985), but also metalwork (Northover 1980). It is important that this continues in the future, perhaps within an academic-research environment, but also on a site-specific basis, with the results being published to a standard which enables their incorporation into regional analyses and syntheses such as this.

ENDNOTES

[i] I am indebted to Elaine Morris for providing details of pottery recovered from brooch contexts at Croft Ambrey.

[ii] It should be noted that this may result in a discrepancy between *n* for *All hillforts*, and the combined total of *n* for *Univallate* and *Multivallate hillforts* in tables 6.2, 6.3, 6.6 and 6.8.

[iii] Also included in figure 7.6 are a small number of enclosures identified through rescue excavation and classified as 'buried remains' in SMR databases; not all such sites were necessarily recognised by aerial photography prior to excavation.

SETTLEMENT AND SOCIETY IN THE WELSH MARCHES DURING THE FIRST MILLENNIUM BC

PART 2

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Thesis submitted for the degree of Doctor of Philosophy

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PART 2

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APPENDICES

APPENDIX 1

Published Excavations

SITE	SITE TYPE	NGR	COUNTY	PUBLICATION
Aconbury	Hillfort	SO 5035 3305	Here/Worc	Kenyon 1943
Arddleen	Non-hillfort	SJ 2608 1602	Powys	Britnell and Musson 1984
Aston Mill Farm	Non-hillfort	SO 9462 3537	Here/Worc	Dinn and Evans 1990
Barnwood	Funerary		Gloucestershire	Clifford 1934
Beckford	Non-hillfort	SO 9814 3605	Here/Worc	Britnell 1974, 1975;Oswald 1970; Wills forthcoming
Beeston Castle	Hillfort	SJ 5380 5920	Cheshire	Ellis (ed.) 1993
Berth	Hillfort	SJ 4305 2363	Shropshire	Gelling and Stanford 1967
Birdlip	Funerary	SO 9310 1530	Gloucestershire	Bellows 1880; C. Green 1949; Staenlens 1983
Brandon Camp	Hillfort	SO 4000 7240	Here/Worc	Frere 1987
Bredon Hill	Hillfort	SO 9576 4022	Here/Worc	Hencken 1938
Breiddin	Hillfort	SJ 2930 1430	Powys	Musson 1991
Bromfield	Non-hillfort; Funerary	SJ 4235 1890	Shropshire	Hughes et al 1995; Stanford 1982
Burgs	Hillfort	SJ 4895 0875	Shropshire	Tyler 1983, 1984
Calcott Farm	Non-hillfort	SJ 4370 1441	Shropshire	Ellis et al 1994
Caldicot	Non-hillfort	ST 4830 8740	Gwent	Vyner and Allen 1988
Capler Camp	Hillfort	SO 5930 3290	Here/Worc	Kenyon 1943
Castle Ditches	Hillfort	SJ 5530 6930	Cheshire	Varley 1950
Caynham Camp	Hillfort	SO 5450 7370	Shropshire	Gelling 1959, 1960, 1963; Gelling and Peacock 1966
Churchdown Hill	Hillfort	SO 882 1890	Gloucestershire	Hurst 1977
Coed y Bwnydd	Hillfort	SO 3650 0680	Gwent	Babbidge 1977
Collfryn	Non-hillfort	SJ 2220 1735	Powys	Britnell et al 1989
Credenhill	Hillfort	SO 4510 4460	Here/Worc	Stanford 1970
Crickley Hill	Hillfort	SO 9270 1610	Gloucestershire	Dixon 1969, 1972, 1973, 1976, 1994
Croft Ambrey	Hillfort	SO 4440 6680	Here/Worc	Stanford 1975
Danes Camp	Hillfort	SO 9714 3834	Here/Worc	Thomas 1959
Dinedor	Hillfort	SO 5236 3635	Here/Worc	Kenyon 1953
Ditches	Hillfort	SO 9959 0938	Gloucestershire	Trow 1988a
Droitwich - Friar Street	Salt working site	SO 8980 6300	Here/Worc	Woodiwiss 1992
Droitwich - Old Bowling Green	Salt working site	SO 8980 6300	Here/Worc	Woodiwiss 1992
Ebury	Hillfort	SJ 5460 1645	Shropshire	Stanford 1985
Ffridd Faldwyn	Hillfort	SO 2169 9694	Powys	Arnold 1987; Guilbert 1981; O'Neill 1942
Frocester	Non-hillfort	SO 7850 0290	Gloucestershire	Price 1983
Holt - site D	Non-hillfort	SO 8300 6100	Here/Worc	Hunt et al 1986
Kenchester	Non-hillfort	SO 4475 4250	Here/Worc	Wilmott and Rahtz 1985
Leckhampton	Hillfort	SO 9470 1830	Gloucestershire	Burrow et al 1925; Champion 1971, 1976
Llanmelin	Hillfort	ST 4620 9270	Gwent	Nash-Williams 1933
Llanymynech Hill	Hillfort	SJ 2650 2215	Powys	Musson and Northover 1989
Lydney Park	Hillfort	SO 6160 0267	Gloucestershire	Wheeler and Wheeler 1932
Maiden Castle	Defended	SJ 4977 5289	Cheshire	Varley 1935, 1936
Midsummer Hill	Hillfort	SO 7610 3740	Here/Worc	Stanford 1981
Moel y Gaer, Rhosemor	Hillfort	SJ 2111 6903	Clwyd	Guilbert 1975, 1976
New Pieces	Non-hillfort	SJ 2976 1399	Powys	O'Neil 1937
Nottingham Hill	Hillfort	SO 9830 2840	Gloucestershire	Hall and Gingell 1974
Old Oswestry	Hillfort	SJ 2955 3100	Shropshire	Hughes 1994
Poston	Hillfort	SO 3590 3765	Here/Worc	Anthony 1958
Preston Farm	Non-hillfort	SJ 5230 1140	Shropshire	Ellis et al 1994
Sharpstones Hill - site A	Non-hillfort	SJ 5085 1042	Shropshire	Barker et al 1991
Sharpstones Hill - site E	Non-hillfort	SJ 4950 1040	Shropshire	Barker et al 1991
Sudbrook	Hillfort	ST 5055 8732	Gwent	Nash-Williams 1939
Sutton Walls	Hillfort	SO 5256 4640	Here/Worc	Kenyon 1953
Symonds Yat	Hillfort	SJ 5637 1569	Gloucestershire	Parry 1994

Thornwell Farm	Non-hillfort	ST 5390 9190	Gwent	Hughes 1996
Titterstone Clee	Hillfort	SO 5948 7799	Shropshire	O'Neil 1934
Twyn y Gaer	Hillfort	SO 2940 2195	Gwent	Probert 1976
Wall Camp	Hillfort	SJ 6810 1780	Shropshire	Bond 1991
Wrekin	Hillfort	SJ 6290 0820	Shropshire	Kenyon 1943; Stanford 1984

APPENDIX 2

Calibrated carbon-14 dates

SITE NAME	LAB	DATE	DEVIATION	1 SIGMA	2 SIGMA
Thornwell Farm	UB-3673	2333	71	408 BC - 260 BC	756 BC - 202 BC
	UB-3674	2483	48	766 BC - 412 BC	789 BC - 403 BC
	UB-3837	1890	60	AD 34 - AD 229	15 BC - AD 321
Droitwich-Old	HAR-5872	2000	70	50 BC - AD 76	170 BC - AD 215
	HAR-5873	2000	80	87 BC - AD 111	199 BC - AD 223
	HAR-5874	1930	70	AD 4 - AD 209	AD 51 - AD 317
	HAR-5875	2200	80	378 BC - 119 BC	400 BC - 1 BC
	HAR-5876	2000	70	50 BC - AD 70	170 BC AD 215
	HAR-5882	2020	80	158 BC - AD 70	341 BC - AD 215
	HAR-5885	2790	90	1048 BC - 827 BC	1210 BC - 792 BC
Droitwich-Friar	BIRM-733	2130	100	352 BC - AD 0	393 BC - AD 77
	BIRM-734	2210	130	395 BC - 53 BC	754 BC - AD 65
	BIRM-735	2060	110	200 BC - AD 84	378 BC - AD 222
	HAR-2263	1950	70	1288 BC - 1012	1375 BC - 914 BC
Croft Ambrey	BIRM-144	3000	250	1498 BC - 835 BC	1858 BC - 590 BC
	BIRM-185A	2410	135	768 BC - 263 BC	814 BC - 168 BC
	BIRM-185B	2377	136	762 BC - 214 BC	804 BC - 93 BC
Midsummer Hill	BIRM-142	2370	185	770 BC - 203 BC	892 BC - AD 45
	BIRM-143	2000	100	157 BC - AD 127	347 BC - AD 241
Beckford	BIRM-431	3360	200	1882 BC - 1411	2194 BC - 1111
	BIRM-432	2110	120	352 BC - AD 48	397 BC - AD 132
	HAR-3097	2440	90	765 BC - 396 BC	796 BC - 235 BC
	HAR-4440	1870	80	AD 34 - AD 316	39 BC - AD 380
	HAR-3944	2240	70	389 BC - 173 BC	404 BC - 61 BC
	HAR-3945	2330	60	405 BC - 262 BC	752 BC - 206 BC
	HAR-3951	2970	130	1381 BC - 945 BC	1493 BC - 828 BC
	HAR-3096	2430	100	771 BC - 399 BC	808 BC - 235 BC
	HAR-65071	2080	70	196 BC - 16 BC	351 BC - AD 72
	HAR-3094	2270	70	395 BC - 205 BC	409 BC - 123 BC
	HAR-3947	2130	80	349 BC - 3 BC	386 BC - AD 54
	HAR-3955	1990	70	47 BC - AD 112	AD 168 - AD 220
	HAR-3950	2310	110	477 BC - 205 BC	786 BC - 56 BC
Birdlip Bypass	OxA-2544	2700	100	969 BC - 791 BC	1075 BC - 449 BC
Crickley Hill	HAR-391	2520	90	793 BC - 411 BC	828 BC - 394 BC
	HAR-392	2590	60	805 BC - 594 BC	830 BC - 432 BC
	HAR-393	2310	70	403 BC - 214 BC	707 BC - 172 BC
	HAR-394	2350	80	479 BC - 262 BC	763 BC - 202 BC
Dorstone Hill	BIRM-129	1910	90	AD 4 - AD 236	90 BC - AD 340
Wall Fort,	HAR-6392	2110	90	347 BC - AD 1	385 BC AD 77
Leintwardine	HAR-8677	1910	70	AD 28 - AD 222	45 BC - AD 321
	HAR-8678	2020	70	90 BC - AD 65	199 BC - AD 130
Beeston Castle	HAR-4401	2620	90	829 BC - 595 BC	969 BC - 412 BC
	HAR-4402	2380	100	756 BC - 264 BC	789 BC - 174 BC
	HAR-4405	2860	80	1206 BC - 907 BC	1289 BC - 826 BC
	HAR-4406	2280	80	399 BC - 205 BC	672 BC - 118 BC
	HAR-5609	2400	70	754 BC - 392 BC	769 BC - 235 BC
	HAR-5610	1890	120	AD 2 - AD 319	168 BC - AD 418
	HAR-6459	2480	100	790 BC - 405 BC	826 BC - 379 BC
	HAR-6462	5140	90	4074 BC - 3800	4221 BC - 3713
	HAR-6464	2300	80	403 BC - 210 BC	753 BC - 168 BC
	HAR-6465	2430	70	760 BC - 398 BC	787 BC - 379 BC
	HAR-6468	2290	70	399 BC - 209 BC	496 BC - 169 BC
	HAR-6469	2370	80	680 BC - 380 BC	766 BC - 207 BC
	HAR-6503	2350	70	477 BC - 264 BC	759 BC - 206 BC
	HAR-6504	2310	70	403 BC - 214 BC	707 BC - 172 BC
	HAR-8102	2480	70	770 BC - 408 BC	796 BC - 394 BC
Arddleen	CAR-571	1895	60	AD 33 - AD 224	17 BC - AD 320
Collfryn	CAR-459	2110	70	338 BC - 2 BC	357 BC - AD 54

	CAR-460	2190	60	377 BC - 62 BC	401 BC - AD 17
	CAR-461	1790	60	AD 134 - AD 340	AD 80 - AD 414
	CAR-561	1960	70	39 BC - AD 129	160 BC - AD 237
	CAR-562	2310	70	403 BC - 214 BC	707 BC - 172 BC
	CAR-563	2080	70	196 BC - AD 16	351 BC - AD 72
	CAR-564	2160	60	351 BC - 62 BC	381 BC - 1 BC
	CAR-573	2050	70	166 BC - AD 51	346 BC - AD 126
	CAR-574	2070	70	169 BC - AD 45	349 BC - AD 77
	CAR-575	2290	70	399 BC - 209 BC	496 BC - 169 BC
	CAR-576	2100	60	198 BC - 1 BC	351 BC - AD 52
	CAR-812	2010	60	50 BC - AD 65	168 BC - AD 129
	CAR-813	2060	70	168 BC - AD 48	348 BC - AD 119
Moel y Gaer	HAR-603	2190	80	362 BC - 113 BC	398 BC - AD 0
	HAR-1562	2110	70	338 BC - 2 BC	357 BC - AD 54
	HAR-604	2530	90	795 BC - 413 BC	829 BC - 396 BC
	HAR-605	3590	80	810 BC - 454 BC	879 BC - 411 BC
	HAR-606	2570	70	802 BC - 451 BC	829 BC - 411 BC
	HAR-1122	2210	70	378 BC - 168 BC	398 BC - 49 BC
	HAR-1125	2430	140	786 BC - 381 BC	829 BC - 170 BC
	HAR-1126	2510	100	793 BC- 400 BC	829 BC - 387 BC
	HAR-1127	2660	70	888 BC - 789 BC	969 BC - 592 BC
	HAR-1293	2350	90	501 BC - 260 BC	766 BC - 172 BC
	HAR-1294	2380	70	682 BC - 387 BC	765 BC - 213 BC
	HAR-1353	2390	80	754 BC - 388 BC	770 BC - 211 BC
	SRR-494	2320	45	400 BC - 262 BC	476 BC - 210 BC
	SRR-495	3610	40	2025 BC - 1834	2126 BC - 1778
	SRR-496	1878	45	AD 76 - AD 227	AD 29 - AD 318
	SRR-498	2965	35	1244 BC - 1053	1367 BC - 1013
	HAR-1249	2380	70	682 BC - 387 BC	765 BC - 213 BC
	HAR-1295	2220	80	387 BC - 168 BC	404 BC - 4 BC
Coed y Bwnydd	HAR-546	2390	70	752 BC - 390 BC	767 BC - 233 BC
	HAR-547	2350	90	501 BC - 260 BC	766 BC - 172 BC
Sharpstones Hill	BIRM-206	3205	130	1676 BC - 1317	1765 BC - 1055
	BIRM-207	2970	130	1387 BC - 945 BC	1493 BC - 828 BC
Caynham Camp	BIRM-553	2310	300	793 BC - AD 15	1076 BC - AD 379
Wrekin	BIRM-530	2290	100	405 BC - 203 BC	758 BC - 56 BC
	BIRM-531	2470	180	804 BC - 381 BC	995 BC - 113 BC
	BIRM-532	1960	90	44 BC - AD 132	170 BC - AD 318
	HAR-4454	2360	80	501 BC - 264 BC	764 BC - 204 BC
	HAR-4452	2340	70	409 BC - 262 BC	757 BC - 204 BC
	HAR-4451	2160	70	353 BC - 56 BC	388 BC - AD 2
	HAR-4450	2070	90	198 BC - AD 51	357 BC - AD 129
Breiddin	BM-798	2704	50	897 BC - 804 BC	970 BC - 791 BC
	BM-878	2750	41	968 BC - 828 BC	1005 BC - 806 BC
	BM-882	3826	106	2462 BC - 2043	2566 BC - 1931
	HAR-1761	2690	80	965 BC - 793 BC	1008 BC - 594 BC
	CAR-998	2170	60	353 BC - 95 BC	386 BC - 3 BC
	BM-879	2778	71	1007 BC - 828 BC	1186 BC - 798 BC
	BM-880	2818	64	1048 BC - 835 BC	1207 BC - 812 BC
	BM-881	2429	55	757 BC - 401 BC	769 BC - 380 BC
	BM-883	2059	105	199 BC - AD 62	363 BC - AD 219
	BM-884	2188	70	360 BC -117 BC	394 BC - 2 BC
	BM-885	3024	62	1373 BC - 1111	1429 BC - 1016
	BM-963	2325	63	405 BC - 260 BC	752 BC - 204 BC
	BM-964	2244	40	382 BC - 205 BC	393 BC - 171 BC
	BM-965	2122	45	200 BC - 52 BC	350 BC - AD 0
	HAR-467	2410	100	762 BC - 388 BC	794 BC - 207 BC
	HAR-468	2190	80	362 BC - 113 BC	398 BC - AD 0
	HAR-469	2120	70	346 BC - 3 BC	360 BC - AD 52
	BM-1158	2151	31	343 BC - 118 BC	351 BC - 54 BC
	BM-1159	2142	31	336 BC - 94 BC	349 BC - 51 BC

	BM-1160	2108	31	170 BC - 51 BC	339 BC - 2 BC
	BM-1161	2141	28	201 BC - 95 BC	348 BC - 53 BC
	HAR-842	2270	80	397 BC - 203 BC	496 BC - 94 BC
	HAR-1223	2660	80	892 BC - 787 BC	971 BC - 448 BC
	HAR-1224	2560	90	804 BC - 434 BC	893 BC - 402 BC
	HAR-1414	4220	90	2905 BC - 2604	3036 BC - 2489
	HAR-1616	2760	70	996 BC - 814 BC	1076 BC - 794 BC
	HAR-1615	2690	70	898 BC - 794 BC	999 BC - 767 BC
	HAR-1415	2510	60	787 BC - 414 BC	800 BC - 404 BC
	HAR-1286	2320	80	407 BC - 214 BC	757 BC - 171 BC
	HAR-1287	2320	70	405 BC - 234 BC	753 BC - 174 BC
	QL-1080	2220	90	389 BC - 124 BC	407 BC - 1 BC
	HAR-1413	2180	80	359 BC - 62 BC	396 BC - AD 1
	HAR-1617	2050	80	168 BC - AD 54	349 BC - AD 129
	HAR-470	3500	100	1924 BC - 1643	2126 BC - 1526
Four Crosses		2130	60	346 BC - 50 BC	358 BC - AD 18
Bromfield Quarry -	HAR-6544	2400	80	756 BC - 390 BC	785 BC - 214 BC
	HAR-6545	2130	70	347 BC - 4 BC	363 BC - AD 49
	HAR-6546	1800	70	AD 131 - AD 340	AD 66 - AD 416
Bromfield Quarry -	HAR-6547	3460	90	1881 - 1626 BC	2012 - 1514 BC
	BIRM-64	3510	180	2107 - 1535 BC	2399 - 1409 BC
	BIRM-63	2800	71	1047 - 831 BC	1207 - 805 BC
	BIRM-62	2712	75	967 - 799 BC	1046 - 769 BC
	OxA-4209	2970	100	1370 - 1010 BC	1432 - 898 BC
Rendwick	SWAN-225	2930			
	SWAN-226	2940			
	SWAN-227	3060			
	SWAN-228	2950			
Chapel Tump I	CAR-402	2910	70	1211 BC - 944 BC	1368 BC - 897 BC
Cold Harbour	CAR-991	2900	60	1209 BC - 944 BC	1290 BC - 899 BC
Goldcliff	GU-2912	2120	90	349 BC - AD 0	387 BC - AD 71
	CAR-1352	2220	60	378 BC - 171 BC	396 BC - 61 BC
	CAR-1437	2200	70	362 BC - 124 BC	396 BC - 4 BC
	CAR-1435	2140	60	347 BC - 53 BC	360 BC - AD 2
	SWAN-26	2150	70	351 BC - 53 BC	386 BC - AD 17
	SWAN-27	2380	70	682 BC - 387 BC	765 BC - 213 BC
	CAR-1503	1930	50	AD 28 - AD 130	39 BC - AD 233
	SWAN-106	1990	60	45 BC - AD 76	164 BC - AD 132
	CAR-1436	2140	60	347 BC - 53 BC	360 BC - AD 2
	SWAN-105	2140	60	347 BC - 53 BC	360 BC - AD 2
	CAR-1564	2200	50	357 BC - 170 BC	388 BC 61 BC
	CAR-1349	2260	60	391 BC - 205 BC	404 BC - 168 BC
	CAR-1350	2290	60	397 BC - 212 BC	410 BC - 172 BC
	CAR-1346	2100	60	198 BC - 1 BC	351 BC - AD 52
	CAR-1348	2160	70	353 BC - 56 BC	388 BC - AD 2
Twyn y Gaer	BM-1118	2236	38	375 BC - 204 BC	391 BC - 170 BC
Llanymynech	CAR-534	2020	70	90 BC - AD 65	199 BC - AD 130
	CAR-535	2170	70	354 BC - 62 BC	390 BC - AD 0
Maiden Castle	UB-2614	2130	70	347 BC - 4 BC	363 BC - AD 49
	UB-2615	2435	70	761 BC - 399 BC	788 BC - 381 BC
	UB-2617	2350	60	409 BC - 380 BC	755 BC - 211 BC
	UB-2618	2360	100	754 BC - 262 BC	787 BC - 172 BC
	UB-2619	2620	95	830 BC - 594 BC	970 BC - 411 BC
Trostrey Castle	OxA-6205	2275	60	394 BC - 208 BC	407 BC - 170 BC
	OxA-4032	2490	65	771 BC - 410 BC	796 BC -170 BC

APPENDIX 3

Calibrated carbon-14 dates associated with ramparts

Timber-fronted ramparts

SITE NAME	COUNTY	LAB CODE	SAMPLE	DATE	1 SIGMA	2 SIGMA	DATE TYPE
The Breiddin	Powys	BM-878	Charcoal	2750 ± 41	968 BC - 828 BC	1005 BC - 806 BC	Construction
		HAR-1761	Charcoal	2690 ± 80	965 BC - 793 BC	1008 BC - 594 BC	Construction
		BM-879	Charcoal	2778 ± 71	1007 BC - 828 BC	1186 BC - 798 BC	Construction
		BM-885	Charcoal	3024 ± 62	1373 BC - 1111 BC	1429 BC - 1016 BC	TPQ
		HAR-1616	Charcoal	2760 ± 70	996 BC - 814 BC	1076 BC - 794 BC	Construction
		HAR-1615	Charcoal	2690 ± 70	898 BC - 794 BC	999 BC - 767 BC	Construction
		HAR-1415	Charcoal	2510 ± 60	787 BC - 414 BC	800 BC - 404 BC	Construction
Dinorben A	Clwyd	V-123	Charcoal	2895 ± 95	1236 BC - 909 BC	1374 BC - 827 BC	TPQ
		V-122	Charcoal	2845 ± 95	1206 BC - 834 BC	1292 BC - 804 BC	Construction ?
		V-125	Charcoal	2715 ± 85	969 BC - 797 BC	1049 BC - 766 BC	Construction ?
Dinorben B	Clwyd	CAR-119	Charcoal	2390 ± 45	499 BC - 395 BC	758 BC - 382 BC	Construction
		CAR-120	Charcoal	2405 ± 55	753 BC - 396 BC	764 BC - 380 BC	Construction
		CAR-121	Charcoal	2410 ± 60	754 BC - 396 BC	767 BC - 378 BC	Construction
		CAR-122	Charcoal	2450 ± 60	762 BC - 405 BC	787 BC - 391 BC	Construction
		CAR-128	Collagen	2500 ± 70	787 BC - 411 BC	802 BC - 398 BC	TPQ
		CAR-167	Collagen	2470 ± 60	766 BC - 408 BC	791 BC - 396 BC	TPQ
Moel y Gaer, Rhosemor	Clwyd	HAR-604	Charcoal	2530 ± 90	795 BC - 413 BC	829 BC - 396 BC	Construction
		HAR-606	Charcoal	2570 ± 70	802 BC - 451 BC	829 BC - 411 BC	TPQ
		HAR-1122	Charcoal	2210 ± 70	378 BC - 168 BC	398 BC - 49 BC	TPQ
Llanstephan		HAR-475	Charcoal	2450 ± 90	769 BC - 399 BC	799 BC - 261 BC	Construction ?
		HAR-476	Charcoal	2460 ± 70	766 BC - 405 BC	792 BC - 389 BC	TPQ
Woodbarn Rath		CAR-826	Charcoal	2060 ± 60	166 BC - AD 45	342 BC - AD 72	TPQ
		CAR-825	Carbonised branches	2100 ± 60	198 BC - 1 BC	351 BC - AD 52	Construction

South Cadbury	Somerset	SRR-443	Charcoal	2820 ± 110	1186 BC - 828 BC	1366 BC - 791 BC	TPQ
		SRR-451	Charcoal	2905 ± 140	1366 BC - 898 BC	1434 BC - 795 BC	TPQ
		I-5973	Antler	2935 ± 90	1289 BC - 973 BC	1406 BC - 835 BC	TPQ
		SRR-450	Charcoal	2061 ± 50	164 BC - AD 16	200 BC - AD 60	TPQ?
		SRR-448	Charcoal	2214 ± 110	392 BC - 93 BC	498 BC - AD 47	Construction
Hunsbury		HAR-10568	Charcoal	2390 ± 70	752 BC - 390 BC	767 BC - 233 BC	Construction
		HAR-10569	Charcoal	2420 ± 100	764 BC - 390 BC	796 BC - 209 BC	TPQ
		HAR-10570	Charcoal	2310 ± 70	403 BC - 214 BC	707 BC - 172 BC	Construction
Castercliff	Lancashire	HAR-287	Charcoal	2460 ± 60	764 BC - 406 BC	789 BC - 393 BC	Construction
		HAR-286	Charcoal	2460 ± 70	766 BC - 405 BC	792 BC - 389 BC	Construction
Thwing		HAR-1398	Charcoal	2900 ± 70	1210 BC - 941 BC	1366 BC - 837 BC	TPQ
		OxA-2581	Antler	2590 ± 90	813 BC - 451 BC	966 BC - 408 BC	TPQ
Rams Hill	Berkshire	HAR-232	Charcoal	3010 ± 70	1372 BC - 1054 BC	1429 BC - 1008 BC	TPQ
		HAR-461	Charcoal	2980 ± 70	1367 BC - 1023 BC	1407 BC - 943 BC	TPQ
		BM-2788	Bone	2840 ± 60	1074 BC - 900 BC	1209 BC - 829 BC	TPQ
		BM-2789	Antler	3030 ± 50	1373 BC - 1114 BC	1427 BC - 1052 BC	TPQ

Stone-fronted ramparts

SITE NAME	COUNTY	LAB CODE	SAMPLE	DATE	1 SIGMA	2 SIGMA	DATE TYPE
Breiddin	Powys	BM-880	Charcoal	2818 +/- 64	1048 BC - 835 BC	1207 BC - 812 BC	TPQ
		QL-1080	Charcoal	2220 +/- 90	389 BC - 124 BC	407 BC - 1 BC	Construction
Beeston Castle	Cheshire	HAR-5609	Charcoal	2400 +/- 70	754 BC - 392 BC	769 BC - 235 BC	TPQ
		HAR-5610	Charcoal	1890 +/- 120	AD 2 - AD 319	168 BC - AD 418	Construction
		HAR-6464	Charcoal	2300 +/- 80	403 BC - 210 BC	753 BC - 168 BC	Construction
		HAR-6465	Charcoal	2430 +/- 70	760 BC - 398 BC	787 BC - 379 BC	TPQ
		HAR-6468	Charcoal	2290 +/- 70	399 BC - 209 BC	490 BC - 169 BC	Construction
		HAR-6469	Charcoal	2370 +/- 80	680 BC - 380 BC	766 BC - 207 BC	Construction
		HAR-6503	Charcoal	2350 +/- 70	477 BC - 264 BC	759 BC - 206 BC	Construction
		HAR-4405	Charcoal	2860 +/- 80	1206 BC - 907 BC	1289 BC - 826 BC	TPQ
Maiden Castle	Cheshire	UB-2617	Charcoal	2350 +/- 60	409 BC - 380 BC	755 BC - 311 BC	Construction
		UB-2618	Charcoal	2360 +/- 100	752 BC - 260 BC	785 BC - 171 BC	Construction
		UB-2619	Charcoal	2620 +/- 95	830 BC - 594 BC	970 BC - 411 BC	Construction
Crickley Hill	Gloucestershire	HAR-392	Charcoal	2590 +/- 60	805 BC - 594 BC	830 BC - 432 BC	Construction
		HAR-393	Charcoal	2310 +/- 70	403 BC - 214 BC	707 BC - 172 BC	Construction
		HAR-394	Charcoal	2350 +/- 80	479 BC - 262 BC	763 BC - 202 BC	Construction
Dinorben A	Clwyd	V-124	Charcoal	2485 +/- 85	787 BC - 406 BC	807 BC - 388 BC	Construction?
		V-176	Charcoal	2370 +/- 70	662 BC - 385 BC	763 BC - 211 BC	Construction
		V-175	Charcoal	2100 +/- 80	338 BC - AD 1	360 BC - AD 71	Construction
Dinorben B	Clwyd	CAR-123	'Burnt deposit'	2425 +/- 60	757 BC - 399 BC	770 BC - 385 BC	TPQ
		CAR-124	Charred twig	2360 +/- 60	477 BC - 385 BC	757 BC - 213 BC	TPQ
		CAR-125	Charcoal	2300 +/- 60	399 BC - 214 BC	478 BC - 173 BC	TPQ
Llwyn Bryn Dinas	Powys	CAR-802	Charcoal	2710 +/- 60	965 BC - 803 BC	1001 BC - 788 BC	TPQ
		CAR-803	Charcoal	2750 +/- 70	971 BC - 811 BC	1070 BC - 792 BC	TPQ

Killibury	Cornwall	HAR-1952	Twig charcoal	2880 +/- 70	1207 BC - 919 BC	1289 BC - 832 BC	TPQ
		HAR-2191	Twig charcoal	2790 +/- 70	1046 BC - 830 BC	1205 BC - 802 BC	TPQ
Brean Down	Somerset	BIRM-719	Bone	2260 +/- 150	409 BC - 114 BC	771 BC - AD 59	TPQ
South Cadbury	Somerset	SRR-445	Charcoal	2222 +/- 45	362 BC - 174 BC	391 BC - 123 BC	TPQ
Hascombe	Surrey	HAR-1698	Charcoal	2240 +/- 70	389 BC - 173 BC	404 BC - 61 BC	TPQ
Oldbury	Kent	BM-2290R	Charcoal	2610 +/- 130	891 BC - 446 BC	1047 BC - 396 BC	TPQ
Brough Law	Northumberland	I-5315	Charcoal	2195 +/- 90	381 BC - 94 BC	402 BC - AD 2	TPQ
Castle Hill, Almondbury	West Yorkshire	HAR-84	Charcoal	2470 +/- 130	792 BC - 394 BC	888 BC - 207 BC	Construction
		HAR-183	Charcoal	2480 +/- 110	790 BC - 401 BC	827 BC - 259 BC	Construction
		I-5931	Charcoal	2540 +/- 95	800 BC - 414 BC	889 BC - 396 BC	Construction
		I4542	Charcoal	2505 +/- 95	792 BC - 408 BC	827 BC - 388 BC	Construction
Dod Law West	Northumberland	GrN-15674	Charcoal	2235 +/- 35	363 BC - 204 BC	390 BC - 170 BC	TPQ
		GrN-15675	Charcoal	2215 +/- 35	357 BC - 174 BC	386 BC - 168 BC	TPQ
Ingram Hill	Northumberland	I-5316	Charcoal	2170 +/- 90	359 BC - 53 BC	398 BC - AD 48	Construction

Dump ramparts

SITE NAME	COUNTY	LAB CODE	SAMPLE	DATE	1 SIGMA	2 SIGMA	DATE TYPE
Dinorben B	Clwyd	CAR-131	Collagen	2170 +/- 60	353 BC - 95 BC	386 BC - 3 BC	TPQ
		CAR-132	Collagen	2050 +/- 60	163 BC - AD 48	201 BC - AD 106	TPQ
Llwyn Bryn Dinas	Powys	CAR-708	Charcoal	2160 +/- 70	353 BC - 56 BC	388 BC - AD 2	TPQ
		CAR-800	Charcoal	2210 +/- 70	378 BC - 168 BC	398 BC - 49 BC	Construction?
Moel y Gaer, Rhosemor	Clwyd	HAR-603	Burnt twigs	2190 +/- 80	362 BC - 113 BC	398 BC - AD 0	TPQ
	Clwyd	HAR-1562	Burnt twigs	2110 +/- 70	338 BC - 2 BC	357 BC - AD 54	TPQ
Court Wood	Dyfed	CAR-105	Grain	2285 +/- 45	394 BC - 214 BC	403 BC - 203 BC	TPQ
Merlin's Hill	Dyfed	CAR-958	Charcoal	2310 +/- 60	401 BC - 233 BC	497 BC - 175 BC	TPQ
		CAR-959	Charcoal	2100 +/- 70	200 BC - AD 0	355 BC - AD 60	TPQ
Walesland Rath	Pembrokeshire	NPL-245	Charcoal	2160 +/- 90	357 BC - 50 BC	396 BC - AD 51	TPQ
Woodbury Castle	Devon	HAR-235	Charcoal	1930 +/- 200	167 BC - AD 339	393 BC - AD 552	TPQ
Danebury	Hampshire	HAR-2030	Charcoal	2290 +/- 60	397 BC - 212 BC	410 BC - 172 BC	TPQ or Construction?
		HAR-4372	Bone	2300 +/- 90	405 BC - 207 BC	757 BC - 118 BC	TPQ or Construction?
Castle Hill	Kent	BM-809	Charcoal	2178 +/- 61	354 BC - 117 BC	388 BC - 3 BC	TPQ
		BM-810	Charcoal	2265 +/- 50	390 BC - 208 BC	401 BC - 171 BC	TPQ
Nadbury	Warwickshire	HAR-5887	Charcoal	2410 +/- 90	760 BC - 390 BC	790 BC - 211 BC	TPQ

Appendix 4

Pottery

SITE	LBA/EIA	GP A (g) weight	GP B1 (g)	GP C (g)	GP D (g)	GP E (g)	CLEE HILLS (g)	OTHER (g)	DROITWICH (g)	CHESHIRE (g)	UNKNOWN
Beeston Castle	Yes									152	A lot of later prehistoric pottery as well as VCP.
Castle Ditches	Yes										Iron Age pottery sherds - poss. just EIA.
Maiden Castle	Yes										Iron Age pottery sherds - possibly just EIA.
Moel y Gaer, Rhosemor	Yes										
Old Oswestry	Yes									90	
Breiddin	Yes	104			616	10				3,136	
Wrekin	Yes								53.5	7	
Bury Walls										7	
Midsummer Hill		24,317			6,370				27,314	22	
Twyn-y-Gaer		86			1,340			Unknown	9,518	838	
Crickley Hill	Yes								Unknown		
The Knolls		624	1,674					Unknown	264		
Kings Beeches		186	66								
Leckhampton	Yes		100								
Beckford	Yes?	10,515	13,324		216	90		Unknown	3,818 (5,145)	(35)	
Bredon Hill		18,087	3,785		25			Unknown	1,053		
Danes Camp		16,377	7,694			97.5		Unknown	8,911	38	
Bromfield		250			72		551	Unknown	212	106	
Stables Quarry		35									
Mathon		Unknown									
Poston		2,627	5,360								
Kenchester		620	1,578?		5				4	3	
Credenhill		72			190				1,235	35	
Sutton Walls		957	27,344	72			36		Unknown	38	
Croft Ambrey		6,840	10,382	205	2,310	257	773		189	454	
Astley		Unknown									
Caynham Camp		231			59.5		321.5				

Berth		134		25	81.5		10.5			1,100	
Newdix Court-Worcester		26			48				1,967		
Oldbury			21								
Churchdown Hill			231								
Burrow Hill					10		37.5			18	
Holt-site D					31						
Ffridd Faldwyn					10						
Collfryn					99	9	10			13,285	
Llanmelin								Unknown			
Sudbrook								Unknown	424.5		
Sidbury-Worcester									47.5		
Lydney Park									11		Yes
Ebury Hill										28	
Llanymynech											Pottery from Malverns
Aston Mill Farm		10,594	2,288		78	2			482		
Wall Camp					12					272	
Preston Farm		32			32				1	37	
Brandon Camp		Unknown			Unknown					Unknown	
Thornwell Farm	Yes		<10%					Unknown			
Ditches			1104								
Dinedor		35	287	20	375				25	34	
Droitwich (Friar St)		731	25		9.5	4	15.5	Unknown	31,989		
Droitwich (Old Bowling Green)		<10%	<10%			Unknown			Unknown		
Sharpstones Hill - site A	Yes						32		14	216.5	
Sharpstones Hill - site E		94			176			109		179	
Symonds Yat											Yes
The Bulwarks, Minchampton											IA B sherds
Nottingham Hill Camp											Pottery
Cleeve Hill											Malvern duck-stamped

Camp											
Haresfield Hill Camp (The Bulwarks)											Featureless handmade sherds
Ring Hill											IA sherd of bead-rim pottery with limestone grit temper.
Painswick Hill (Kimsbury)											IA pottery
IA Occ site 3470											LIA pottery
Sandy's Lane											Mostly IA A, and pottery with incised geometric motifds, with some white inlay.
Pinbury Camp											Unidentified frags. of handmade pot
IA settlement 5239											IA BC pottery
Lilliesfield											IA A bowl
Sabrina cinema site											Coarse sherds of IA character - EIA
Prehistoric settlement 9712 (Saintbridge)											IA pottery
Abbeymead											Fragments of dec. Glastonbury-type ware and pottery similar to Saintbridge assemblage).
OS Parcel 2800											IA pottery
OS Parcel 3346											Sherds of handmade pottery
OS Parcel 1400											LIA pottery
OS Parcel 7634											IA pottery
Hilltop Enclosure 5036											Sherd of W2 B pottery.
HWCM 00845											IA pot sherd - Halstatt with finger decoration
HCWM 07581											1 IA sherd from fieldwalking
HWCM 09447											5 IA sherds from fieldwalking
HWCM 07143											Fair quantity of course pot sherds

HWCM 05460											IA pottery
HWCM 01392											Large quantity of IA pottery
Marden Quarry, Wellington		c. 19	440		c. 4						
Madeley Heath HWCM 20917 (SO 95277102)									2,825		
Arddleen										Unknown	

Appendix 5

Brooches

Early to late Iron Age brooches

SITE	TYPE B	GROUP L	LA TENE 1	1A	1B	1Ca	1Cb	LA T 1 OR 2	2C	2Ca	2Cb	3B	3B var	3C	3D	TYPE 6	LA TENE 3	NAUHEIM
Bromfield				/														
Croft Ambrey			/?			/	/		/	////	/							
Sutton Walls				/														
Sudbrook					/(?)													
Crickley Hill				//														
Breiddin										////(/)								
Midsummer Hill										/							/(?)	
Twyn-y-Gaer										?								
Lydney Park													/					
Birdlip																	/	
Caldicote																/	/	
HWCM 23793																	/	
Beckford (Wills)		/(?)	/					//		//		/					/ (?)	
The Berth																	/	
Bredon (locality)	/																	
Chester (locality)	/																	
Chester (locality)	/																	
Chester														/				
Wroxeter															/			

Possible **late Iron Age pre-Roman brooches**

SITE	NAUHEIM DERIV.	COLCHESTER	COLCHESTER DERIV.	DRAHTFIBEL DERIV.	LANGTON DOWN	ROSETTE	STRIP	EARLY "AUCISSA"	PLATE	BAGENDON	HOD HILL
Croft Ambrey			////								
Sutton Walls	/	/	////								
Sudbrook	//		/////								
Lydney Park		/	///		/				/////?		
Droitwich		/									
Ditches		////	////	////	/			////	/////		
Kenchester	/		/								
Caldicote			//								///
Thornwell Farm			///	//					//////		
Beckford (Oswald)	///	//									/
Beckford		////		//	//			///			
Collfryn			///								
Droitwich - Friar Street			//								
Barnwood		//									

APPENDIX 6

Dobunnic Coinage

SITE	GR1	EAST1	NORTH1	METAL	INSCRIPTION	FIND TYPE	NUMBER	TYPE
Madley	SO	42	38	Gold	Uninscribed		1	British RA
Dinas	SO	17	30	Gold	Uninscribed		1	British RA
Weston under Penyard	SO	645	239	Gold	Uninscribed		1	British RB
Worcester	SO	8564	5692	Gold	Uninscribed		1	British RB
Llanthony Abbey	SO	288	278	Gold	CORIO		1	CORIO stater
Bishop's Frome	SO	66	48	Gold	CORIO		1	CORIO stater
Hereford	SO	51	40	Gold	CORIO		1	CORIO stater
Stretford Bridge	SO	439	558	Gold	CORIO		1	CORIO stater
Withington	SO	567	420	Gold	CORIO		1	CORIO stater
Worcester	SO	85	55	Gold	CORIO		1	CORIO stater
Pontesbury	SJ	39	06	Gold	CORIO		1	CORIO stater
Wroxeter	SJ	565	087	Gold	CORIO	Excavated	1	CORIO stater
Bredon Hill	SO	97	35	Gold	CORIO		1	CORIO quater stater
Hanbury	SO	950	665	Gold	CORIO		1	CORIO quater stater
Birdlip	SO	92	14	Gold	BODVOC		1	BODVOC
Sapperton	SO	94	03	Gold	BODVOC		1	BODVOC
Kingsholm	SO	83	19	Gold	ANTED	Excavated	1	ANTED
Chepstow	ST	533	940	Gold	ANTED		1	ANTED
Dingestow	SO	447	110	Gold	ANTED		1	ANTED
Tintern	SO	53	00	Gold	ANTED		1	ANTED
Bewdley	SO	78	75	Gold	ANTED	Metal Detector	1	ANTED
Wroxeter	SJ	565	087	Gold	ANTED	Excavated	1	ANTED
Bisley	SO	90	05	Gold	COMVX		1	COMVX stater
Hardwicke	SO	787	121	Gold	EISV		1	EISV stater
Newent	SO	72	25	Gold	EISV		1	EISV stater
Droitwich	SO	897	638	Gold	EISV		1	EISV stater
Hanbury	SO	951	644	Gold	EISV	Metal Detector	1	EISV stater
Leominster	SO	49	59	Gold	EISV	Metal Detector	1	EISV stater
Leominster	SO	49	59	Gold	EISV		1	EISV stater
Wroxeter	SJ	565	087	Gold	EISV	Excavated	1	EISV stater
Chepstow	ST	533	940	Gold	CATTI		1	CATTI stater
Mynydd Twyn-glas	ST	28	94	Gold	CATTI	Metal Detector	1	CATTI stater
Dorstone	SO	31	41	Gold	CATTI		1	CATTI stater
Newnham Bridge	SO	64	69	Gold	CATTI		1	CATTI stater
Bisley	SO	90	05	Gold	INAM	Metal Detector	1	INAM stater
Kidderminster	SO	83	76	Gold	Inscribed		1	?
North Cerney	SO	996	095	Silver		Fieldwalking	1	Dobunnic A

Weston under Penyard	SO	645	239	Silver			1	Dobunnic A
Worcester	SO	85	55	Silver		Excavated	1	Dobunnic A
Worcester	SO	85	55	Silver		Excavated	1	Dobunnic A
Forest of Dean	SO	60	10	Silver			1	Dobunnic B
Frocester	SO	785	029	Silver		Excavated	1	Dobunnic B
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic B
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic B
Moreton Valence	SO	78	09	Silver			1	Dobunnic B
Bredon Hill	SO	976	373	Silver			1	Dobbunic B
Bredon Hill	SO	976	373	Silver			1	Dobunnic B
Hanbury	SO	954	644	Silver			1	Dobunnic B
Weston under Penyard	SO	645	239	Silver			1	Dobunnic B
Weston under Penyard	SO	645	239	Silver			1	Dobunnic B
Weston under Penyard	SO	645	239	Silver			1	Dobunnic B
Worcester	SO	85	55	Silver		Excavated	1	Dobunnic B
Wroxeter	SJ	565	087	Silver		Excavated	1	Dobunnic B
Henley	SO	90	16	Silver		Excavated	1	Dobunnic C
Kingsholm	SO	83	19	Silver		Excavated	1	Dobunnic C
North Cerney	SO	996	095	Silver		Excavated	1	Dobunnic C
Weston under Penyard	SO	645	239	Silver		Excavated	1	Dobunnic C
Weston under Penyard	SO	645	239	Silver			1	Dobunnic C
Worcester	SO	852	545	Silver		Excavated	1	Dobunnic C
Wroxeter	SJ	565	087	Silver		Excavated	1	Dobunnic C
Cleeve Hill	SO	98	26	Silver		Metal Detector	1	Dobunnic D
North Cerney	SO	996	095	Silver		Excavated	1	Dobunnic D
Sapperton	SO	94	03	Silver			1	Dobunnic D
Tewkesbury	SO	89	32	Silver			1	Dobunnic D
Weston under Penyard	SO	645	239	Silver			1	Dobunnic D
Worcester	SO	85	55	Silver			1	Dobunnic D?
Frocester	SO	785	029	Silver		Excavated	1	Dobunnic E
Bredon Hill	SO	976	373	Silver			1	Dobunnic E
Weston under Penyard	SO	645	239	Silver			1	Dobunnic E
Weston under Penyard	SO	645	239	Silver			1	Dobunnic E
Weston under Penyard	SO	645	239	Silver			1	Dobunnic E
Worcester	SO	85	55	Silver		Excavated	1	Dobunnic E
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic F
Weston under Penyard	SO	645	239	Silver			1	Dobunnic F
Gloucester	SO	83	18	Silver	ANTED		1	Dobunnic G
Kingsholm	SO	836	198	Silver	ANTED	Excavated	1	Dobunnic G

North Cerney	SO	996	095	Silver	ANTED	Excavated	1	Dobunnic G
Kingsholm	SO	83	19	Silver	EISV	Excavated	1	Dobunnic H
Kingshom	SO	836	198	Silver	EISV	Excavated	1	Dobunnic H
Kingsholm	SO	834	196	Silver	EISV	Excavated	1	Dobunnic H
North Cerney	SO	996	095	Silver	EISV	Excavated	1	Dobunnic H
North Cerney	SO	996	095	Silver	EISV	Excavated	1	Dobunnic H
Caldicot	ST	474	893	Silver	EISV		1	Dobunnic H
Weston under Penyard	SO	645	239	Silver	EISV		1	Dobunnic H
Worcester	SO	85	55	Silver	EISV		1	Dobunnic H
Worcester	SO	85	55	Silver	EISV	Excavated	1	Dobunnic H
Dymock	SO	70	31	Silver		Excavated	1	Dobunnic I
Forest of Dean	SO	63	10	Silver			1	Dobunnic I
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic I
Kingsholm	SO	834	196	Silver		Excavated	1	Dobunnic I
Wroxeter	SJ	565	087	Silver		Excavated	1	Dobunnic I
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic J
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic J
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic J
Kingsholm	SO	836	198	Silver		Excavated	1	Dobunnic J
Kingsholm	SO	829	200	Silver		Excavated	1	Dobunnic J
Beckford	SO	984	364	Silver		Excavated	1	Dobunnic J
Ross on Wye	SO	59	24	Silver			1	Dobunnic J
Weston under Penyard	SO	645	239	Silver			1	Dobunnic J
Weston under Penyard	SO	645	239	Silver			1	Dobunnic J
Weston under Penyard	SO	645	239	Silver			1	Dobunnic J
Weston under Penyard	SO	645	239	Silver			1	Dobunnic J
Wroxeter	SJ	565	087	Silver		Excavated	1	Dobunnic J
Bredon Hill	SO	97	35	Silver	BODVOC		1	Dobunnic K
Cheltenham	SO	94	22	Silver			1	Dobunnic L
Worcester	SO	85	55	Silver		Excavated	1	Dobunnic Mx
Weston under Penyard	SO	645	239	Silver			1	Dobunnic O
Kingsholm	SO	836	198	Silver		Excavated	1	Uncertain
Kingsholm	SO	836	198	Silver		Excavated	1	Uncertain
Wroxeter	SJ	565	087	Silver			1	Uncertain
	ST	434	874	Silver			1	Dobunnic B?

APPENDIX 7

Metalwork

GR1	EAST1	NORTH1	PERIOD	TYPE
SO	8496	5780	Iron Age	Torc
SO	6300	2300	Bronze Age	Palstave
SO	8473	5312	Bronze Age	Sword, spear (class VI)
SO	3080	3758	Bronze Age	Unlooped palstave
SO	3090	3730	Bronze Age	Axe, arrowhead
SO	3500	3600	Late Bronze Age	Socketed Axe
SO	3283	5550	Late Bronze Age	Dagger
SO	3600	3600	Middle Bronze Age	Palstave
SO	3700	3570	Middle Bronze Age	Socketed and looped spear
SO	3326	3328	Late Bronze Age	(Hoard). 2 socketed axes
SO	3100	4100	Late Bronze Age	(Hoard) 2 socketed and looped axes
SO	6322	4336	Bronze Age	Spear
SO	6900	4300	Iron Age	Bell
SO	3910	6698	Bronze Age (early)	Ribbed palstave
SO	4900	5700	Mid-late Bronze Age (Broadward)	Hoard (4 spear heads)
SO	8210	6342	Iron Age	Pin
SO	8232	6333	Bronze Age	Socketed and looped axe
SO	5492	1582	Late Bronze Age	Spear (class V)
SO	7711	4450	Bronze Age	Sword
SO	7635	4630	Bronze Age	Axe
SO	4000	7400	Bronze Age	(Early) Ribbed palstave
SO	957	402	Middle Bronze Age	Socketed and looped spear, axe
SO	8210	6924	Bronze Age	Axe
SO	9900	4400	Bronze Age	Flat Axe
SO			Bronze Age	Hoard (including 6 looped palstaves; 3 socketed an
SO	3800	7400	Bronze Age (early)	Palstave
SO	3680	7290	Bronze Age	Palstave
SO	3600	6300	Iron Age	Figurine
SO	4177	4333	Bronze Age	Axe
SO	4378	4479	Bronze Age	Spear
SO	511	470	Iron Age?	Finds
SO	6860	2370	Bronze Age	Sword
SO	6170	2850	Bronze Age	Hoard
SO	6324	6077	Bronze Age	Hoard
SO	4627	3330	Bronze Age	Axe
SO	5880	2140	Late Bronze Age	Spear
SO	9100	4300	Bronze Age	Axe
SO	9520	7350	Bronze Age	Hoard
SO	6505	3112	Middle Bronze Age	Hoard
SO	8370	5960	Bronze Age	Axe
SO	7	7	Bronze Age	Sword
SO	7700	7600	Bronze Age	Axe, 'implement'
SO	782	775	Bronze Age	Axe
SO	8400	7600	Bronze Age	Axe
SO	4880	4060	Late Bronze Age	Hoard
SO	475	636M	Iron Age?	Finds
SO	632	326	Bronze Age	Axe
SO	6000	2400	Bronze Age	Axe
SO	3730	3570	Bronze Age	Hoard
SO	3900	7240	Bronze Age	Spear
SO	6001	3625	Middle Bronze Age	Axe
SO	850	543	Bronze Age	Axe
SO	3300	5600	Late Bronze Age	Knife
SO	8660	4470	Bronze Age	Axe
SO	0636	3904	Bronze Age	Axe, dagger
SO	8722	7522	MBA Bronze Age	Dagger
SO	976	449	Bronze Age	Axe
SO	970	707	Bronze Age	Axe
SO	8300	6730	Bronze Age	Axe
SO	4179	3788	Bronze Age	Hoard
SO	854	462	Late Bronze Age	Axe
SO	679	244	Bronze Age	Axe

SO	5	1	Bronze Age	Hoard
SO	841	485	Bronze Age	Spearhead
SJ	7145	4539	Bronze Age	Hoard
SJ	5100	4900	Bronze Age	Hoard
SJ	4880	4790	Bronze Age	Hoard
SJ	4800	5400	Bronze Age	Hoard
SJ	2476	1114	Bronze Age	Hoard
SO	2396	7331	Middle Bronze Age	Hoard
SJ	2215	0823	Bronze Age	Hoard
SO	2162	9571	Bronze Age	Hoard
SJ	348	518	Early? Bronze Age	Hoard
SJ	1239	7122	Bronze Age	Hoard
SJ	1931	7134	Iron Age	Hoard
SJ	1954	6288	Iron Age	Harness Ring
SJ	224	113	Iron Age	Link
SO	3590	3300	Bronze Age	Hoard
SO	4500	3800	Iron Age?	Hoard
SO	4447	3899	Bronze Age	Hoard (2 axes)
SO	9845	2817	Late Bronze Age	Hoard
SO	5770	1000		Palstave
SJ	22	20	Bronze Age	Palstave
SJ	2152	2353	Bronze Age	Palstave
SJ	2729	1593	Bronze Age	Axe
SO	247	252	Bronze Age	Axe
SO	215	050	Middle Bronze Age	Palstave
SJ	216	235	Middle Bronze Age	Palstave
SO	22	20	Bronze Age	Palstave
SJ	207	270	Bronze Age	Socketed Axe
SO	215	050	Middle Bronze Age	Palstave
ST	54	94	Middle Bronze Age	Palstave
SJ	297	289	Bronze Age	Palstave
ST	224	894	Bronze Age	Palstave
ST	34	87	Bronze Age	Palstave
SO	330	026	Bronze Age	Palstave
SO	172	837	Bronze Age	Palstave
SO	41	10	Bronze Age	Palstave
ST	464	900	Bronze Age	Palstave
ST	229	802	Bronze Age	Axe
SJ	385	465	Late Bronze Age	Axe
SJ	232	435	Late Bronze Age	Axe
SO	288	279	Bronze Age	Axe
SO	332	072	Bronze Age	Axe
ST	339	896	Bronze Age	Axe
ST	22	98	Bronze Age	Axe
SO	42	15	Bronze Age	Spear
SO	205	491	Bronze Age	Dirk
SJ	315	346	Early Bronze Age	Hoard
SJ	643	083	Late Bronze Age	Hoard
SO	348	131	Late Bronze Age	Hoard
ST	534	972	Bronze Age	Hoard
SJ	278	312	Bronze Age	Hoard
ST	535	978	Bronze Age	Hoard
SJ	4685	1122	Bronze Age	Hoard
SO	4739	9508	Bronze Age	Rapier
SJ	819	020	Bronze Age	Knife
SJ	6452	0440	Bronze Age	Hoard
SO	7377	9093	Bronze Age	Sword
SO	5911	7615	Bronze Age	Hoard
SJ	38	18	Bronze Age	Palstave
SJ	64	04	Bronze Age	Hoard
SO	59	78	Bronze Age	Palstave
SJ	40	06	Bronze Age	Palstave
SO	32	83	Bronze Age	Hoard
SO	318	918	Bronze Age	Hoard
SJ	6723	0338	Bronze Age	Flat axe
SJ	6748	1489	Bronze Age	Hoard
SJ	67	12	Bronze Age	Socketed axe
SJ	6454	1011	Bronze Age	Palstave

SO	3900	7625	Bronze Age	Hoard
SJ	6567	1882	Bronze Age	Spear
SJ	4758	0399	Bronze Age	Knife
SJ	4427	2648	Bronze Age	Spear
SJ	3834	2128	Bronze Age	Spear
SJ	308	344	Bronze Age	Hoard
SJ	3999	3417	Bronze Age	Sword
SJ	4625	3202	Bronze Age	Sword
SJ	3460	2606	Bronze Age	Palstave
SJ	395	275	Bronze Age	Socketed axe
SJ	546	409	Bronze Age	Adze
SJ	665	170	Bronze Age	Axe
SJ	4027	3536	Bronze Age	Socketed axe
SJ	4924	3603	Bronze Age	Palstave
SJ	51	28	Bronze Age	Spear
SJ	4890	1339	Bronze Age	Palstave
SJ	57	29	Bronze Age	Hoard
SJ	5667	3721	Bronze Age	Palstave
SJ	6877	3462	Bronze Age	Socketed axe
SJ	6166	2384	Bronze Age	Adze
SJ	614	237	Bronze Age	Adze?
SJ	6657	2634	Bronze Age	Hoard
SJ	69	27	Bronze Age	Palstave
SJ	721	265	Bronze Age	Palstave
SJ	64	08	Bronze Age	Hoard
SJ	63	09	Bronze Age	Hoard?
SO	3060	9812	Bronze Age	Palstave
SO	3998	9204	Bronze Age	Hoard
SO	2447	8481	Iron Age	Spear
SJ	34	25	Bronze Age	Socketed axe
SJ	51	17	Bronze Age	Hoard
SJ	65	14	Bronze Age	Palstave
SO	615	796	Bronze Age	Socketed axe
SJ	32	27	Bronze Age	Spear
SJ	566	136	Bronze Age	Spear
SJ	33	22	Bronze Age	Palstave
SO	51	74	Bronze Age	Palstave
SO	39	78	Bronze Age	Spear
SJ	32	27	Bronze Age	Flanged axe/flat axe
SJ	32	27	Bronze Age	Socketed axe
SO	230	840	Bronze Age	Flat axe
SJ	496	140	Bronze Age	Socketed axe
SJ	381	305	Bronze Age	Rapier
SJ	399	299	Bronze Age	Knife
SO	16	84	Bronze Age	Flat axe
SO	16	84	Bronze Age	Spear
SJ	4600	3265	Bronze Age	Palstave
SJ	5387	1462	Bronze Age	Palstave
SO	36	73	Bronze Age	Spear
SJ	442	164	Bronze Age	Axe
SJ	29	29	Bronze Age	Socketed axe
SJ	49	12	Bronze Age	Palstave
SJ	58	10	Bronze Age	Spear
SJ	540	329	Bronze Age	Palstave
SJ	695	215	Bronze Age	Socketed axe
SJ	361	305	Bronze Age	Sword
SO	6559	9098	Bronze Age	Palstave
SJ	793	069	Bronze Age	Socketed axe
SO	35	73	Bronze Age	Spear
SO	3712	8050	Bronze Age	Flat axe
SO	353	898	Bronze Age	Hoard
SO	5	8	Bronze Age	Flat axe
SO	727	899	Bronze Age	Hoard
SJ	477	323	Bronze Age	Palstave
SO	47	76	Bronze Age	Spear
SJ	3903	3131	Bronze Age	Socketed axe
SJ	64	24	Bronze Age	Palstave
SJ	4575	1375	Bronze Age	Palstave

SO	59	78	Bronze Age	Palstave
SO	690	9581	Bronze Age	Battle axe
SO	56	76	Bronze Age	Spear
SJ	690	028	Bronze Age	Sword
SJ	2887	3127	Bronze Age	Socketed axe
SJ	788	869	Bronze Age	Palstave
SJ	29	29	Bronze Age	Flanged axe
SJ	29	29	Bronze Age	Palstave
SJ	29	29	Bronze Age	Palstave
SJ	29	29	Bronze Age	Palstave
SJ	29	29	Bronze Age	Palstave
SJ	29	29	Bronze Age	Palstave
SJ	29	29	Bronze Age	Palstave
SJ	29	29	Bronze Age	Socketed axe
SJ	49	12	Bronze Age	Socketed axe
SJ	49	12	Bronze Age	Hoard
SO	9830	2840	Prehistoric	Hoard (spear, knife, sword, palstave)
SO	8510	0410	Bronze Age	Hoard (spears)
SO	9200	0400	Bronze Age	Flanged axe
SO	9400	1800	Bronze Age	Spear
SO	9550	0500	Iron Age	Torc
SO	8501	1732	Bronze Age	Spear
SO	5810	0810	Bronze Age	Hoard? (axes)
SO	5770	1000	Bronze Age	Palstave
SO	6530	0670	Early Bronze Age	Axe
SO	6000	1600	Bronze Age	Axe
SO	6950	2450	Bronze Age	Hoard
SO	7202	2450	Bronze Age	Palstave
SO	9800	2600	Bronze Age	Dagger
SO	8900	3300	Iron Age	Jug
SO	8700	2800	Bronze Age	Spear
SO	8450	2580	Bronze Age	Palstave
SO	5700	1000	Bronze Age	Axe
SO	5400	1200	Early Bronze Age	Axe
SO	9035	1742	Bronze Age	Rapier
SO	8885	2040	Bronze Age	Hoard (rapiers)
SO	6328	0318	Bronze Age	Palstave
SO	8297	0863	Bronze Age	Knife
SO	8300	0400	Bronze Age	Palstave
SO	8100	1900	Bronze Age	Axe
SO	8000	0000	Iron Age	Knife
SO	8900	3200	Bronze Age	Palstave
SO	8900	3200	Bronze Age	Spear
SO	8400	2500	Bronze Age	Palstave
SO	8950	3210	Bronze Age	Spear
SO	5777	1012	Prehistoric	Hoard?
SO	8590	2280	Iron Age	Trumpet
ST	5400	9400	Bronze Age	Palstave
SO	7940	0120	Prehistoric	Hoard?
SO	6426	1538	Bronze Age	Palstave
SO	6426	1538	Bronze Age	Axe
ST	343	874	Bronze Age	Unlooped Palstave
ST	464	900	Bronze Age	Palstave
ST	52	93	Late Bronze Age	Socketed axe
ST	225	091	Bronze Age	Palstave
ST	215	807	Bronze Age	Unlooped Palstave
SO	2885	2785	Bronze Age	Looped and Socketed axe
SO	330	026	Bronze Age	Unlooped Palstave
ST	23	79	Bronze Age	Looped and Socketed axe
SO	3769	0109	Bronze Age	Socketed axe
ST	2198	6498	Late Bronze Age	Socketed axe
SO	3988	0291	Bronze Age	Looped Socketed axe
SO	2895	0310	Bronze Age	Socketed axe
ST	2277	7723	Middle Bronze Age	Spear
SO	3481	0845	Bronze Age	Socketed axe
SO	396	033	Late? Bronze Age	Socketed and looped axe
SO	455	105	Bronze Age	Looped Palstave

SO	32	06	Middle Bronze Age	Unlooped Palstave
SO	512	131	Bronze Age	Flat axe
ST	28	95	Bronze Age	Looped Palstave
ST	297	867	Middle Bronze Age	Unlooped Palstave
ST	429	883	Late Bronze Age	Looped Palstave
SO	325	046	Bronze Age	Palstave Palstave
SO	362	049	Bronze Age	Hoard (fragments)
ST	23	93	MiddleBronze Age	Unlooped Palstave
ST	4829	9312	Bronze Age	Socketed axe
ST	330	938	Middle Bronze Age	Palstave
ST	4271	9331	Late Bronze Age	Socketed axe
ST	522	941	Bronze Age	Unlooped Palstave
SO	311	196	Bronze Age	Palstave
ST	3931	8245	Middle Bronze Age	Looped Spear
ST	418	832	Middle Bronze Age	Unlooped Palstave

APPENDIX 8

Circular Structures

SITE	ROUND HOUSE	CONSTRUCTION	DIAMETER (m)	ENTRANCE
Breiddin	R1 (phase 1)	Gully and door phs.	5	E
	R1 (phase 2)	Gully and door phs.		E
	R1 (phase 3)	Stale hole lines and door phs.		E?
	R1 (phase 4)	Stake hole lines and door phs.		SW
	R1 (phase 5)	Gully? and door phs.	6.5	SW
	R2 (phase 1)	Probable wall gully	5	?
	R2 (phase 2)	Gully	6	?
	R2 (phase 3 +4)	Wall lines	7	?
	R3 (phase 1)	Wall gully and poss. phs.	5	NE?
	R3 (phase 2)	Wall gully and poss. phs.		NE?
	R3 (phase 3)	Wall gully + stake holes and poss. Door phs.	6	NE?
	R4 (phase 1)	Wall gully and poss. door phs.	5	E
	R4 (phase 2)	Wall gully and poss. door phs.		E
	R5 (phase 1)	Rock-gully + traces of stake hole and poss. Door phs.	6	NE?
	R5 (phase 2)	Rock-gully + traces of stake holes and poss. Door phs.	6	W?
	R6	Incomplete ring of similar post holes and door phs.	5.9	E
	R7	2m of stake built wall.	8.5	?
	R8	Stone packed wall gully and porch phs.	6.3	E
	R9 (phase 1)	Wall gully and door and porch phs.	6.8	E
	R9 (phase 2)	Wall gully and door and porch phs.	6.8	E
	R10	Base of gully? and poss. door phs.	6.5?	E
	R11 (phase 1)	Gully and poss. Door phs.	6	SE?
	R11 (phase 2)	Gully and poss. Door phs.	6	SE?
	R12	Band of stones - wall line? and poss. door phs.	4.4	E
	R13	Wall gully	6.5?	?
	R14	Wall gully	6.5?	?
Kenchester	Building BC (phase 1)	Post hole ring (7 surviving). Central ph?	9.5	S?
	Building BC (phase 2)	Peannular trench-no phs found.	9.5	S
Thornwell Farm	Structure 1	Ph ring-linked by gully on E. Central ph also.	12.4	SE
	Structure 5	5-6 post pits.	5	?
	Structure 6	9-10 post pits.	9	?
	Structure 7	7 post pits.	4.5	?
	Structure 8	5 post pits.	5	?
Sharpstones Hill (site A)	F6	External gully, sub-divided by internal gully.	7	Probably SE-NW arc
	F1	Gully with gullies leading NE+W. Internal phs indicate superstructure?	10	E
	F6?	Post hole structure.	?	?
Sharpstones Hill (site E)	F8	Gully + phs in centre indicating either superstructure of 4-P. Possible porch also.	12.7	SW
Wall Camp	R1?	Stake holes and possible adjacent internal phs - double ring structure.	11	?
	R2 (61)	Gully + internal phs either part of structure or 4-P?	11	W
	R3? (179)	Arc of a gully; 2 phs within this arc - gully poss. Drainage while post support roof?	11	?
Collfryn	R1	Ring ditch (drainage gully) + door phs. No trace of walls.	10.5	SE
	R2 (phase 1)	Ring ditch arc + door phs	12	W
	R2 (phase 2)	Ring ditch arc + door phs.	12.25	W
	R3 (phase 1)	Ring ditch arcs + door phs.	9.5	W/SW
	R3 (phase 2)	Ring ditch arc + door phs.	9.5	W/SW
	R4 (phase 1)	Drainage ditch, fragments of wall line + door phs. Possible internal support. Internal porch?	13	W
	R4 (phase 2)	Drainage ditch, fragments of wall line + door phs. Possible internal support. Internal porch?	13	W
	R4 (phase 3)?		13?	W?
	R4 (phase 4)?		13?	W?
	R4 (phase 5)?		13?	W?
	R5 (phase 1)	Drainage ditch, fragments of wall line, door phs + poss. internal	9	W

		supports or internal porch.		
	R5 (phase 2)	Drainage ditch, fragments of wall line, door phs + poss. internal supports or internal porch.	10	W
	R5 (phase 3)		9?	W
	R5 (phase 4)?		9?	W
	R6	Fragments of wall line and door phs.	9.5	SE
	R7	Fragments of drainage ditch and wall line and door phs.	7.5	SE
	R8 (phase 1)	Drainage ditch, wall line and door phs.	9	W
	R8 (phase 2)		9	W
	R8 (phase 3)		9	W
	R9	Drainage ditch and door phs.	10.5	W
Bredon Hill	Hut 1	6 phs set in 3 pairs. Porch phs, gully around E side.	3.7	W
Brandon Camp	Roundhouse?	Part of rock cut trench excavated.	7.3	?
Crickley Hill	Roundhouse	26 phs + porch?	14.8	W
Moel y Gaer	R1	Post ring. Porch phs.	8.2	SE
	R2	Post ring. Porch phs.	6.5	SE
	R3	Post ring. Porch phs.	7.6	SE
	R4	Post ring. Porch phs.	7.6	SE
	R5	Post ring. Porch phs.	8.1	SE
	R6	Post ring. Porch phs.	9.6	SE
	R7	Post ring; no evidence of porch surviving.	7.2	SE
	R8	Post ring. Porch phs.	7.8	SE
	R9	Post ring. Porch phs.	11	SE
	R10	Post ring. Porch phs.	6.9	SE
	R11	Post ring; no evidence of porch surviving.	8.3	SE
	R12	Post ring but porch outside of excavated area.	7.9	SE
	R13	Post ring. Porch phs.	7.4	SE
	R14	Post ring. Porch phs.	7.7	SE
	R15	Post ring but porch outside of excavated area.	10.5	?
	R16	Post ring. Porch phs.	8.9	SE
	R17	Post ring. Porch phs.	6.8	E
	R18	Post ring. Porch phs.	11.5	SE
	R19	Post ring. Porch phs.	9	SE
	R20	Post ring. Porch phs.	8.3	SE
	R21	Post ring; no evidence of porch surviving.	9	E
	R22	Post ring. Porch phs.	9.1	SE
	R23	Post ring. Porch phs.	8.8	SE
	R24	Ring of stake holes with door phs, and porch phs.	6.8	E
	R25	Post ring; no evidence of porch surviving.	6.2	E
	R26	Post ring; no evidence of porch surviving.	6.8	E
	R27	Post ring. Porch phs.	7.9	E
	R28	Post ring; no evidence of porch surviving.	5.6	E
	R29	Post ring; no evidence of porch surviving.	7.2	E
	R30	Post ring; porch outside of excavated area.	10	?
	R31	Post ring; no evidence of porch surviving.	6.9	SE
	R32	Post ring. Porch phs.	7.4	E
	R33	Post ring. Porch phs.	7.5	E
	R34	Post ring; no evidence of porch surviving.	8	E
	R35	Post ring; no evidence of porch surviving.	7.6	E
	R36	7 lge phs with lge sub-rec pit within; possible internal support.	7.4	E?
Caynham Camp	Semi-circular Building?	Phs forming semi-circular structure that across front is c3.24m. Actually circular structure?		
Beeston Castle	Building 1	Ph ring - 9 posts surviving (3 replacements therefore only 6?). Possible porch.	6	SE?
	Building 2	Ph ring - 9 posts surviving (1 replacement therefore only 8?)	7	
	Building 3	Ph ring - 9/10 posts surviving.	7	
	Building 4	Ph ring - 8 posts surviving. (1 replacement therefore only 7?) Possible porch.	5.7	SE
	Building 5	Ph ring - 9 posts surviving. Possible porch.	5	SE??
	Building 6	Ph ring - 12 posts surviving (3 replacements therefore only 9?) Possible porch.	7	SE
	Building 7	Ph ring - 6 posts surviving.	10	

	Building 8	Ph ring - 6 posts surviving.	9	
	Building 9	Ph ring - 8 posts surviving, which, unlike other buildings, are placed in pairs.	7.5	SE?
Old Oswestry	R1	Post hole structure of c14 phs up to 0.5md. Larger post apparent off centre. Very possible internal partitioning as revealed by internal post holes. Also apparently outer drainage gully visible within limits of excavation.	8.3?	W?
	R2	Stone kerb set into a gully survives in places. Within this is a band of cobbling up to 1 m wide. Possible that stone in gully is packing for a wattle and daub wall i.e. house made from stakes	7.7	W
	R3	Similar structure to R2 - stone kerb surviving showing line of outer wall. Cobbled forecourt around west and south of house cut by 3 post holes	7.6	?
	R4	Stone footings found. Interior divided into 2 compartments by interior stone wall. several post holes are incorporated into stone footings - to support roof? One pair on ether side of entrance and on either side of door through internal partition.	10.4	S
Beckford	Structure 3 (at least 4 phases)	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	c 7.5	SE
	Structure 11 (at least 2 phases)	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	7	SE
	Structure 22	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	5.5	SE
	Structure 32	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	7.5	-
	Structure 49	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	6	-
	Structure 60	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	8.25	SE
	Structure 62 3 phases	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	c 8	SE?
	Structure 103	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	c 7	SW
	Structure 107	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	c 8	
	Structure 145	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	c 13	
	Structure 150	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes.	c 4.5	N
	Structure 4	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.	-	E
	Structure 61	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.		
	Structure 104	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.	6.8	SE
	Structure 105 (phase i)	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.	7.2	SE
	Structure 105 (phase ii)	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.	8	SE
	Structure 106 2 phases?	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.	6.5	SE
	Structure 125	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or	8	E

		stakes. Situated inside small encl.		
	Structure 128	Curvilinear trench - wall trench rather rather than drainage gully because of position of ent. post holes. Walls of small posts or stakes. Situated inside small encl.	10	E
	Structure 2	Circle of individual post settings - post constructed roundhouse.	7	
	Structure 6	Circle of individual post settings - post constructed roundhouse.	6	NE
	Structure 52	Circle of individual post settings - post constructed roundhouse.	7.25	
	Structure 59?	Stone paved area of 2 phases. Double ring of postholes.	9	SE
	Structure 108?	Postholes of 2-4 phases. No wall gully survived.		SE
	Structure 46	Posthole building in small circular enclosure.	5	
	Structure 48	Posthole building in small circular enclosure.	c 5	
	Structure 61	Posthole building in small circular enclosure.	8	
Caldicote	R2	Post hole ring	7	W?
	R3	Post hole or stake ring	9	NE-SE
	R4	Post hole ring (7 survive)	8.25	SW
	R5	Rock cut gully (drainage?)	6	SE?
	R6	Series of post holes	7	
Coed y Gwnydd	L15	Construction trench	c 5	W?
	L 16	Construction trench	c 5	
	?	Drip gully and wall set on stone and clay. Possible internal roof support.	c 9	
Burrow Hill	?	Post holes of a hut excavated on a circular rock cut platform.		
Chapel Tump I		Circle of inner roof supports and outer (post/stake?) wall line.	10	
Trostrey Castle	Hut South 19	19 post holes - stakes?	4	
Aston Mill Farm (MIA)	S64	Curving gully butt-ended on west side with another 2 m to the south. Possibly a round house foundation trench and gully for a round house?	10?	
Castle Ditches, Eddisbury		Hut defined by a low stone kerb.		
Danes Camp	1	Drystone wall bases	c. 6	
	2	Drystone wall base	c. 6	
	3	Drystone wall base	c. 6	
	4	Drystone wall base	c. 6	
	5	Drystone wall base	c. 6	
	6	Drystone wall base	c. 6	

APPENDIX 9

Rectlinear Post Structures

SITE	STRUCTURE	AREA (m2)
Breiddin	F1	3.0
	F2	6.5
	F3	4.9
	F3A	7.1
	F4	7.4
	F5	7.7
	F6	5.7
	F7	7.5
	F8	?
	F9	?
	F10	6.0
	F11	6.7
	F12	4.7
	F13	6.4
	F14	8.3
	F15	7.0
	F16	7.7
	F17	5.3
	F18	5.7
	F19	4.4
	F20	8.0
	F21	8.8
	F22	6.7
	F23	5.9
	F24	5.8
	F25A	4.6
	F25B	4.1
	F26A	5.6
	F26B	6.2
	F27	5.8
	F28	4.9
	F29	8.4
	F30	4.7
	F31A	3.9
	F31B	6.5
	F32	8.4
	F33	5.6
	F34	6.9
	F35	8.1
	F36	7.7
	F37	4.5
	F38	6.2
	F39	7.8
	F40	7.3
	F41	11.7
	F42	6.3
	F43	7.2
	F44	6.4
	F45	6.1
	F46	5.2
	F47	4.7
	F48	4.5
	F49	7.4
	F50	8.2
	S1	5.7
	S2	4.8
	S3	?
Sharpstones Hill (site A)	S1?	?
	S2?	?

	S3?	?
	F1?	?
Sharpstones Hill (site E)	F1?	30.0?
Wall Camp	F1? (1)	12.0
	F2 (336)	1.8
	F3? (2)	5.4
Bromfield	Hut 1	8.4
	Hut 2	7.0
	Hut 3 (phase 1)	10.2
	Hut 3 (phase 2)	10.0
	Hut 4	6.3
Holt (site D)	F1?	39.0
Croft Ambrey	C1	7.3
	C2	5.8
	C3	5.8
	C4	7.8
	C5	?
	C6	4.4
	E1	10
	E2	7.3
	F1	9.3
	F2i	13
	F2ii	9.9
	F2iii	13
	F2iv	10.4
	F2v	13.7
	F2vi	8.8
	F2vii	8.8
	F3v	6.4
	F3vi	5.7
	F3vii	7.2
	F4iii	9
	F4iv	9
	F4v	6.8
	F4vi	10.2
	F4vii	9
	F5ii	7.8
	F5iii	8.4
	F5iv	11.9
	F5v	11.2
	F5vi	10.1
	F5vii	11.2
	F6iv	8.8
	F6v	7.3
	F6vi	8.7
	F6vii	7
	F7i	11.2
	F7ii	11.2
	F7iii	9.6
	F7iv	9
	F7v	9
	F7vi	8.1
	F7vii	7.3
	F8i	10.5
	F8ii	11
	F8iii	9.6
	F8iv	11
	F8v	12.2

	F8vi	12.3
	G1A	7.2
	G1B	7
	G1C	6.4
	G1D	5.9
	G2A	6.7
	G2B	7.1
	G3A	6.1
	G3B	7.3
Collfryn	F1	8
	F2	8.5
	F3	7
	F4	5.8
	F5	5
	F6	?
	F7	9.9
	F8	5.6
	F9	8.6
	F10	5.5
	F11	5.5
	F12	5.5 or 11
	F13	5.5
	F14	6
	F15	4.6
	F16	8
	F17	4
	F18	6.3
	F19	5.8
	F20	5.3
	F21	?
	F22	5.8
	F23	6.3
	F24	15
	F25	12.3
	F26	8
	F27	?
	F28	?
	F29	?
Credenhill	Hut 2B	8.4
	Hut 1C	9.5
	Hut 2C	8.4
	Hut 1E	8.9
	Hut 2E	8.9
	Hut 1F	8.9?
	Hut 2F	8.9?
	Hut 1G	8.9?
	Hut 2G	8.9?
	Hut 1H	8.9?
	Hut 4B	6.3
	Hut 4C	6.3
	Hut ?	6.3
	Hut 4E	6.3
	Hut 4F	6.3
	Hut 4G	6.3
	Hut 4H	6.3
Midsummer Hill	5a	15.3
	5b	13.3
	6	12.8
	7	11.1

	8a	11.9
	8b	9.3
	9	8.9
	10	8.0
	11	9.7
	12a	10.0
	12b	10.0
	13a	10.0
	13b	10.0
	14a	7.2
	14b	7.2
	14c	7.2
	15	6.1
	16a	5.1
	16b	5.1
	17a	10.8
	17b	10.8
	18	12.3
	19a	13.4
	19b	9.9
	20	8.5
	21a	11.9
	21b	11.9
	22a	?
	22b	?
	23a	?
	23b	?
	23c	?
	23d?	?
	24a	9.2
	24b	11.0
	24c	7.0
	24d	8.1
	24e	8.1
	25	11.3
	26a	12.3
	26b	9.5
	26c	9.2
	27	9.9
	28	17.4
	29	13.3
	30a	11.1
	30b	11.4
	30c	10.4
	31	9.3
	2	?
	3	?
	4	7.2
Moel y Gaer	F1	7.5
	F2	8.4
	F3	6.8
	F4	6.2
	F5	5.5
	F6	6.8
	F7	10.2
	F8	11.2
	F9	9.3
	F10	8.5
	F11	8.4
	F12	6.8
	F13	7.0

	F14	7.5
	F15	9.9
	F16	10.2
	F17	6.2
	F18	8.2
	F19	7.5
	F20	10.9
	F21	10.6
	F22	9.3
	F23	9.3
	F24	16.0
	F25	9.9
	F26	13
	F27	11.2
	F28	8.4
	F29	7.7
	F30	9.3
	F31	6.7
	F32	2.6
	F33	6.3
Ffridd Faldwyn	F1	8.4
	F2	6.2
	F3	8.4
	F4	7.5
	F5	13.1
	F6	8.4
	S1	8.4
Wrekin	Hut 1A	5
	Hut 1B	5?
	Hut 2A	8.9
	Hut 2B	8.9?
	Hut 2C	8.9?
	Hut 3A?	7.3
	Hut 3B?	9?
	Hut 4	6.4
	Hut 5A	7.5
	Hut 5B	7.5
	Hut 6	7.2
Caynham Camp	F1	6.6
	F2	8.0
Beckford	Structure 101	7.2
	Structure 102	7.3
Caldicote		3.2

APPENDIX 10

Miscellaneous Structures

SITE	STRUCTURE	CONSTRUCTION	SHAPE
Midsummer Hill	Hut 1	Rock-cut slot building of 3 sides, west side possibly lost. 2 depressions on E side may be post holes of later phase or perhaps associated with structure.	Rectilinear
Crickley Hill	Aisled Building 1	Aisled Building revealed as parallel rows of post holes.	Rectilinear
	Aisled Building 2	Aisled Building revealed as parallel rows of post holes.	Rectilinear
	Aisled Building 3	Aisled Building revealed as parallel rows of post holes.	Rectilinear
	Aisled Building 4	Aisled Building revealed as parallel rows of post holes.	Rectilinear
	Aisled Building 5	Aisled Building revealed as parallel rows of post holes.	Rectilinear
	Aisled Building 6	Aisled Building revealed as parallel rows of post holes.	Rectilinear
Moel y Gaer	Structure 1	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 2	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 3	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 4	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 5	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 6	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 7	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 8	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 9	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 10	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 11	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear

	Structure 12	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 13	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 14	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 15	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 16	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 17	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 18	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 19	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
	Structure 20	Identified by fairly uniform stone densities. No earth-fast foundations - poss. timber-framed huts constructed on sleeper beams.	Rectilinear
Goldcliff	Structure 1	Rounded corners. Substantial axial posts. constructed of closely set roundwood verticals with diagonal wattles woven in between. Roundwood flooring survived at one end. Also internal plank subdivisions at one end separating areas 0.8m wide, reminiscent of cattle stalls on the Continent.	Rectilinear
	Structure 2	Stake built structure	Rectilinear
	Structure 3	Stake built structure	Rectilinear
	Structure 4	Stake built structure	Rectilinear
	Structure 5	Stake built structure	Rectilinear
	Structure 6	Stake built-structure, poss. internal supports down long axis.	Rectilinear
	Structure 7	Stake built-structure, poss. internal supports down long axis.	Rectilinear
	Structure 8	Stake built-structure, poss. internal supports down long axis.	Rectilinear
Holt (site D)	F72	Shallow rectilinear trench interpreted as remains of a post trench. Evidence for several phs. Internal phs. poss. roof support.	Rectilinear
	F33	Shallow rectilinear trench. Not as substantial as F72. No phs found.	Rectilinear

Collfryn	Post structure 29	No. of gullies and timber features including a timber slot, packed with stone and holding up to 6 timber uprights.	?
Beckford	Structure 42	Stone surface, along NE is a 1 m strip without stones - wall of sill beam construction?	Rectangular
	Structure 54	Stone surface. Stone free strip along E edge - wall of sill beam construction?	Rectangular
	Structure 55	Stone paving in semi-circular hollow. Post impressions for wall detectable?	?
	Structure 69	Stone paving - possibly building floor	Rectangular?
Coed y Bwnydd	D6	Sill beam construction, possibly with posts at the corners.	Sub-rectangular
Redwick	1	3 large axial posts and walls of roundwood posts bow sided.	Rectilinear
	2	3 large axial posts and walls of roundwood posts bow sided.	Rectilinear
	4	3 large axial posts and walls of roundwood posts bow sided.	Rectilinear
	5	3 large axial posts and walls of roundwood posts bow sided.	Rectilinear
Sharpstones Hill (site A)		2 parallel lines of 3 irregular post holes located in excavation area, outside each of which is a parallel linear ditch.	Rectilinear?
Aston Mill Farm	S73	Stone surface, possibly akin to those found at Beckford.	
Breiddin		Levelled cobbled surface, possibly floor of a rectangular structure, though no wall lines or structural supports detected.	Rectilinear

Appendix 11

Botanical Remains

SITE	EMMER (grains)	EMMER (chaff)	SPELT (grains)	SPELT (chaff)	EMMER/SPELT (grains)	EMMER/SPELT (chaff)	IND WHEAT (grains)	IND WHEAT (chaff)
Beeston Castle	7388	6382	4304	6589	11480	11020	8230	
Breiddin	162	141		8	560	19	80	
Collfryn	11	26		8		244	5	
Aston Mill Farm (MIA)	3				15	3	11	120
Aston Mill Farm (LIA)						10	2	121
Wrekin					2147	374		
Croft Ambrey							Present	
Midsummer Hill					3762	76		
Calcott Farm			1					
Caynham Camp					Present			
Bromfield		2			5	11	8	6

APPENDIX 12

Faunal Remains

SITE	CATTLE	SHEEP/GOAT	PIG	HORSE	OTHER	TOTAL
Aston Mill Farm (LIA/RB)	35	23	9	15	-	82
Aston Mill Farm (MIA)	279	276	74	42	4	675
Aston Mill Farm (total)	314	299	83	57	4	757
Beckford (IA) (Oswald 1974)	134	115	27	156	-	432
Collfryn	102	91	34	14	3	244
Croft Ambrey (MIA)	489	573	509	?	?	1571
Croft Ambrey (MIA/LIA)	167	282	247	?	?	696
Croft Ambrey (total)	656	855	756	?	?	2267
Ditches (LIA/RB)	2028	1644	668	27	76	4443
Droitwich - Friar Street (IA)	8	9	2	5	11	35
Droitwich - Old Bowling Green (LIA/RB)	95	147	10	35	3	289
Droitwich - Old Bowling Green (total)	110	161	10	47	5	333
Droitwich - Old Bowling Green (LBA/EIA)	15	14	-	12	2	43
Sutton Walls (IA)	724	591	282	71	31	1699
Thornwell Farm (LBA/EIA)	23	30	10	-	4	67
Thornwell Farm (LIA/RB)	15	16	3	2	1	37
Thornwell Farm (total)	38	46	13	2	5	104

APPENDIX 13

Metalworking Evidence

SITE NAME	CRUCIBLE	CU SLAG	BZE WASTE	FE SLAG	HEARTH	FURNACE LINING	MOULD	FUEL ASH	MISCELLANEOUS	COMMENT
Collfryn	yes									
Thornwell Farm				yes		yes				Wide range of metalworking debris including evidence for iron smelting and smithing.
Breiddin (IA)	yes			yes			yes			Iron slag derived from smithing.
Breiddin (BA)	yes	yes			yes	yes	yes			Copper alloy working; no sign of smelting on site. Quite a lot of BA metalworking compared to IA and RB.
Old Oswestry (BA/IA)	yes									
Aston Mill (IA)	yes	yes						yes		Copper slag derived from working, not smelting.
Kentchester	yes			yes		yes				Significant distribution of iron working slag.
Bromfield				yes						Iron slag includes buns and is concentrated around entrance ditch.
Preston Farm				yes						<1kg of smithing slag suggesting might have been some metalworking outside excavated area.
Sharpstones Hill - site A				yes						
The Berth	yes									
Croft Ambrey			yes	yes						Examiners interpretation is that metalwork represents smelting.
Midsummer Hill (IA)				yes		yes				
Midsummer Hill (US)			yes	yes		yes				
Beckford (Dinn)	yes					yes	yes		Scrap	
Llanmelin	yes									
Bredon Hill									Large collection of misc. iron objects, interpreted as for resmelting	
Sutton Walls	yes								Iron anvil	
Ditches	yes			yes				yes	Spillage of leaded tin bronze and Cu alloy.	Slag is of smithing and forging type, suggesting forging and smithing of iron and working of Copper alloys.
Llanymynech					yes					
Beeston Castle (LBA - Ph 2B)					yes				"Metal working debris".	

Beeston Castle (EIA - Ph 3A)	yes			yes?	yes	yes				Heath bottom associated with iron smithing.
Beeston Castle (US)	yes		yes				yes			Moulds of sword and socket.
Sudbrook (hut 1, upper floor)				yes						
Sudbrook	yes									
Holt (US)				yes						
Twyn y Gaer	yes			yes						
Ffridd Faldwyn				yes						
Castle Ditches, Eddisbury				yes						

APPENDIX 14

Currency Bars

SITE	GR1	LOCATION	NUMBER	SPIT	PLOUGH	SWORD	UNKNOWN
Beckford	SO 9824 3613	Close to rear of rampart	10	10			
Bredon Hill	SO 9576 4022	Between ramparts	2	2			
Ditches	SO 9959 0938	Outside revetment	10	10			
Malvern 1	SO 7695 4389	Rock	150	150			
Malvern 2	SO 7695 4389	Rock	150	150			
Midsummer Hill	SO 7610 3740	Hillfort interior	1			1	
Crickley Hill	SO 9270 1610	?					2

APPENDIX 15

Weapons

SITE NAME	SCABBARD	BZE SWORD	IRON SWORD	CHAPES	BZE DAGGER	IRON DAGGER	BZE SPEAR	IRON SPEAR	ARROWHEAD	SLING STONES	CHARIOT FITTING
Collfryn (IA)											Bronze linchpin and terret
Croft Ambrey (IA)			1			2		4			
Croft Ambrey (US)						3		2			
Llanmelin											Harness fitting?
Sutton Walls (IA)								1			
Sutton Walls (US)						1					
Midsummer Hill (IA)						1					
Midsummer Hill (US)						2					
The Berth						1					
Burrow Hill								1			
Titterstone Clee								1			
Kelsborrow			1?								
Beeston Castle (EIA - Ph 3a)						1				yes	
Beeston Castle (US)		1					1	1			Harness link
Kelsborrow (US)			1								
Bredon Hill (IA)	1			4		4		9		yes	Horse bits (min. 3)
Bredon Hill (US)											Horse bit
Titterstone Clee										yes	
Thornwell Farm (period 2 LBA/EIA)											Possible horse fitting.
Thornwell Farm (US)						1					

Beckford - Oswald (US?)									1		
Twyn y Gaer								1		yes	
Ffridd Faldwyn			1								
Moel y Gaer, Rhosemor										yes	
Castle Ditches, Eddisbury										yes	
Crickley Hill										yes	
Ditches										yes	
Lydney								1			
Beckford						1					
Breiddin (BA)		2					1				
Breiddn (IA)						1					linch-pin
Breiddin (US)								1			
Beckford (IA)						2					

APPENDIX 16

Funerary Remains

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Birdlip Cemetery	IA/LIA	Inhumation	yes	yes?								
	IA/LIA	Inhumation	yes	yes?								
	IA/LIA	Inhumation	yes	yes?								
	IA/LIA	Inhumation		yes?								

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
F		E-W	Extended	Bronze bowl, mirror, brooch, bangle, beads, handle, drop handle, finial loop, tweezers, bronze rings, small bronze bowl.		Grave lined and covered with large slabs of limestone. Large bronze bowl covered face.
M		E-W	Extended			Grave lined and covered with large slabs of limestone.
M		E-W	Extended			Grave lined and covered with large slabs of limestone.
M	Adult	E-W	Extended	Metal-rimmed vessel, iron blade.		Vessel covered face.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Barnwood (SO 865179)	IA	Inhumation			yes							
		Cremation										

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
F	16-17		Contracted	Handmade vessel dated to c. 2CBC		Burials in a cemetery containing graves of BA - RB dates.
				'Belgic' beakers and small bronze bead.		Burials in a cemetery containing graves of BA - RB dates.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Thornwell Farm		Inhumation										
		Inhumation				yes						
		Inhumation				yes						
		Inhumation				yes						
		Inhumation				yes						
		Inhumation				yes						
		Inhumation							yes			

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
	Adolescent					5% complete. US.
	c. 39 weeks					
	c. 39 weeks					
	c. 31 weeks					
	c. 34 weeks					
	c. 37 weeks					
	c. 37 weeks					25% complete. Located base of NW rampart.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Bromfield	IA	Inhumation		yes (bowl?)								

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
		N-S	Extended	Hollow bronze pendant, iron bracelet, iron La Tene I brooch.		Perhaps a coffin. Sub-rectangular grave. Very possible that Iron Age barrow which centrally located in ring ditch, was intrustive into earlier Bronze Age barrow.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Beckford (Dinn)	MIA	Inhumation				yes						
	MIA	Inhumation										
	MIA-LIA	Inhumation										
	MIA	Inhumation					yes					
	LIA-ERB	Inhumation					yes					
	LIA-ERB	Inhumation					yes					

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
M	25-30	S-N(E)	Crouched		Head on 2 limestone blocks. Blade injury to skull to right side of frontal bone. Possible blade to right tibia and femur.	
	Premature/ newborn					
M	25-45	NW-SE				Recently badly fragmented. Lower part of body missing.
M	17-31	NE-SW	Crouched			Badly fragmented and partially incomplete.
M	Adult	NW-SE			Headless	Incomplete. Subrectangular grave
M	30-40	NW-SE	Prostrate/Extended		Decapitated, head placed between knees. Blade injury to left tibia.	Mandible of another individual with skull. Arms across body.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Beckford (Wills)	MIA-LIA	Inhumation								yes		
	MIA	Inhumation				yes						
	MIA	Inhumation								yes		
		Inhumation					yes?					
	MIA	Inhumation										
	LIA-ERB	Inhumation								yes		
	MIA	Inhumation				yes						
	MIA	Inhumation										
	IA	Inhumation					yes					
	MIA	Inhumation										
	MIA	Inhumation								yes		
	MIA	Inhumation				yes						
	MIA	Inhumation										
	LIA-RB	Inhumation								yes		
	MIA	Inhumation								yes		
	?	Inhumation										
	MIA-LIA	Inhumation								yes		
	MIA-LIA	Inhumation								yes		
	LIA-ERB	Inhumation					yes					
	?	Inhumation								yes		
	MIA	Inhumation						yes				
	MIA	Inhumation				yes						
	LIA-ERB	Inhumation								yes		
	MIA	Inhumation				yes						
	LIA/RB	Inhumation								yes		
		Inhumation										
	LIA-ERB	Inhumation								yes		
	LIA-ERB	Inhumation								yes		
	MIA	Inhumation								yes		
	?	Inhumation				yes						
	MIA	Inhumation					yes					
	IA	Inhumation										
	IA	Inhumation										
	Pre-Roman	Inhumation										
	RB	Inhumation								yes		
	RB	Inhumation										
	RB	Inhumation					yes					
	RB	Inhumation										
	RB	Inhumation										
	RB	Inhumation										

		RB	Inhumation						yes						
		RB	Inhumation						yes						
		RB	Inhumation						yes						
		RB	Inhumation												
		RB	Inhumation						yes						
		RB	Cremation												
		RB	Inhumation												
		RB	Inhumation												
		RB	Inhumation										yes		

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
F?	45+	NW-SE	Crouched			Incomplete and badly fragmented.
F	30-40	NW-SE	Flexed			Very fragmentary, partly complete.
	6-7	NE-SW	Crouched			Badly fragmented.
	Adult	NE-SW				Subrectangular grave. Asorted bone fragments.
F	25-35	N-S	Crouched			
F	35-45	NW-SE	Crouched			
M	Elderly	W-E				Shallow pit. Feet bound.
	foetal					
F	17-25					Sub-rectangular grave, with two infant bones.
	neonate	NW-SE	Crouched			
	13-17	E-W	Crouched			
	Adult					
F	25-35					
	4-6	N-S	Crouched			Oval grave cut into ditch.
	17-25					Lower fill of ditch of small boundary enclosure.
	Neonatal					
	Neonatal					Incomplete and badly fragmented.
	Neonatal		Crouched			Upper fill of boundary ditch.
M	25-30		Flexed		Skull missing.	Sub-rectangular grave.
	Neonatal					Badly fragmented and incomplete. Within ditch fill.
	0-6 months					At base of posthole.
M	17-25	NE-SW	Semi-crouched			Badly fragmented.
M	20-30	NW-SE	Crouched			Badly fragmented.
	5-12	NE-SW	Crouched		No skull present.	Fragmentary. Pit fill.
	Adult					Fill of ditch. Two articulating

						fragments of mostly complete human frontal bone.
						3 fragments of skull.
	Neonatal					Upper layer of boundary ditch.
F	25-35	S-N	Flexed			Subrectangular grave cut into boundry ditch.
	Neonataol	SE-NW	Crouched			Bottom of boundary ditch.
	Under 1		Crouched			Oval grave.
F	17-25		Crouched			In a sub-rectangular grave - check whether in settlment or not.
	35-45					In oval pit - check whether in settlement or not.
F?	35-45					
F	20-30	NE-SW	Crouched			Oval grave cut into ditch.
F	Elderly	N-S	Extended			
M	Adult	E-W	Extended			Sub-rectangular grave.
F?	Elderly	N-S	Extended		Decapitated and head between forearms	
	Elderly	N-S	Extended		Decapitated and head next to feet.	Head next to feet.
	Adult	N-S			Something about "across stomach" - head?	
	25-35	N-S	Extended		Decapitated and head between knees.	Subrectangular grave. forearms across stomach.
	Adult	N-S	Extended		Decapitated and head between feet.	Subrectangular grave and forearms across stomach.
	Adult		Extended			Subrectangular grave. Right arm on thigh, left arm across stomach. - some description missing.
	Adult		Extended		Decapitated and head by feet.	Some description missing.
		N-S				Subrectangular grave.
	Adult	NE-SW				Limestone block - coffin? Some description missing.
M	Adult				Decapitatd and head between knees.	
F	25-35	NE-SW	Extended			Extended on back, cut into

						boundary ditch.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Sutton Walls		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
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		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation								yes	yes	
		Inhumation							yes			

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
M	30-40		Extended			In rectangular hollow cut into quarry bottom. Bones disturbed in top layer.
M	Adult					Represented by atlas, humerus, radius, clavicle and an os coxae.
M	20-30				Fracture to skull caused by heavy blow from narrow, blunt instrument. Also pelvic wounds.	Bones considerably disturbed
	Adult					A radius.
M	c. 40	NW-SE	Extended			Beneath no. 9 and over no. 18 and no. 20.
	c. 12	NW-SE	Extended		Partially decapitated?	Legs bent. Fairly high in the fill
M	16-18	NW-SE	Extended		Neck partially severed.	With no. 22 in slight hollow in natural, overlain by gravel layer, probably spread from the causeway.
	c. 20	SW-NE	Extended?			High up in fill, head on 9 inches of fill above left arm of no. 3. Upper part of body only excavated.
M	20-30	NW-SE	Extended		Decapitated, skull resting beneath left knee.	Legs not together and bent
M	20-30	NW-SE	Extended		Head partially severed, deep wound cut across back of skull and a cut to the mandible.	Upper part of body alone excavated.
	Adult				Skull missing.	Fragments of bones high up in fill. A small collection, chiefly vertebrae and ribs.
M	50+	NW-SE	Extended			
	<16					Among long bones of no. 10 found immature ulna and radius.
M	17-18				Decapitated? with head on left hip of no. 7.	Fragmentary skeleton above no. 7. Collection of bones containing some remains of three closely-associated individuals (7 and 11a).

	20-30					Few fragments of skull, presumably from filling above no. 11.
	Adult	NW-SE	Extended			In gully on west lip of ditch with feet above pelvis of no. 19. Lower body only cleared. At least 4 individuals represented in the collection (12, 12a, 12b, 12c)
M	16-17					Immature long bones.
M	c. 35	NW-SE	Flexed/Extended			Above 20 and legs of 21. Lying on left side.
M?	40+					Represented only by the right half of a mandible and maxilla, with some other skull fragments.
M	c. 40	NW-SE	Extended		Cut C-vertebra - neck not cut through, though spinal column severed.	
M	45-55	NW-SE	Extended		Cut C-vertebra - partially severed. Blow from pointed weapon to the head	Pile of stones placed over lower body on the pelvis, above which are legs of 21 and pelvis of 13. . Head to left.
	Adult					
	Adult					Fragmentary humerus and tibia.
M	35-40					Mandible and some skull fragments.
M	20-25	NW-SE	Crouched?			Not fully cleared.
	Adult				Knee wound.	
M	18-20	SW-NE	Extended?			Beneath legs of no. 3. Skull crushed. Lower part not excavated.
M	20-25	NW-SE	Extended		Decapitated and head resting on left elbow.	In gully on west lip of ditch.
M	c. 19	NW-SE	Extended		Skull missing.	Beneath no. 3 and no. 13.
						Heavily built left femur (same body as no 17a?).
	Adult	NE-SW	Extended		Skull missing.	Legs on pile of stones over no.16 and beneath pelvis of no.13, body beneath no. 3.
M	20-25	NW-SE	Flexed/Exte		Cut C-vertebra	With no. 5, chest resting on

			nded		(severed). Head by toes of left foot.	arm of latter.
M	25-30					Only skull excavated.
	Adult					
	Adult				Skull missing - severed and not found.	To the right of no. 17. Right side of the body not excavated.
M	c. 20		Crouched		Parietal sword cut. Cut C-vertebra.	In hollow the fill of which was integral with rampart material, therefore burial made in course of rampart construction.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Crickley Hill	Iron Age?	Inhumation										

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
				Various iron articles, pot, hook, bracelet and 2 pointed rods - currency bars?		Reported in 1883.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Leckhampton Camp	Iron Age?	Inhumation		yes (square)								

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
					"Heads resting on knees" - decapiation?	Square barrow (11md) within square enclosue 24m across. Orientated N-S. Human skeletons found shortly before 1883. Excavated in 1925. Enclosure not necessarily contemporary with barrow. TBGAS 1925, 81+113. Ant J 1925, 1961.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Whixall Moss	MBA-LBA?	Inhumation										yes
	LIA/R-B?	Inhumation										yes
	?	Inhumation										yes

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
M	Adult		Extended			Face down, no evidence for clothing or associated artefacts. Discovered in 1889. Dated by stratigraphy - MBA looped palstave in same level of peat (although this level C14 dated to 2307+/-110 BP (Q-383). Q-467 dates lower level to 3238 +/-115 BP.
M	Adolescent		?	3 or 4 legged stool, piece of leather (leather apron?), fabric remains.		Differing accounts as to whether in sitting position or extended. Discovered 20-22 years before Whixall Moss 1. Body stratigraphically higher than 1.
F	Adult?					Discovered c. 12-14 years before 1. Approx. 200 yds from 1. Incomplete remains.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Ffridd Faldwyn	IA?	Inhumation							yes			

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
F?	25-27					Incomplete human skeleton, possibly female. Interpreted as originally being incorporated into rampart which slid into ditch when rampart collapsed.

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMEN T ENTRANCE	BOG
Frocester	LIA					y?						

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
F			Contracted		Headless	

SITE NAME	DATE	TYPE	CIST	BARROW	PIT	SETTLEMENT PIT	SETTLEMENT GRAVE	POSTHOLE	RAMPART	DITCH	SETTLEMENT ENTRANCE	BOG
Bredon Hill	IA	Inhumation									yes	
	IA	Inhumation						yes				
	IA	Inhumation										

SEX	AGE	ORIENTATION	POSTURE	GOODS	TRAUMA	COMMENT
						Remains of up to 50 individuals.

FIGURES

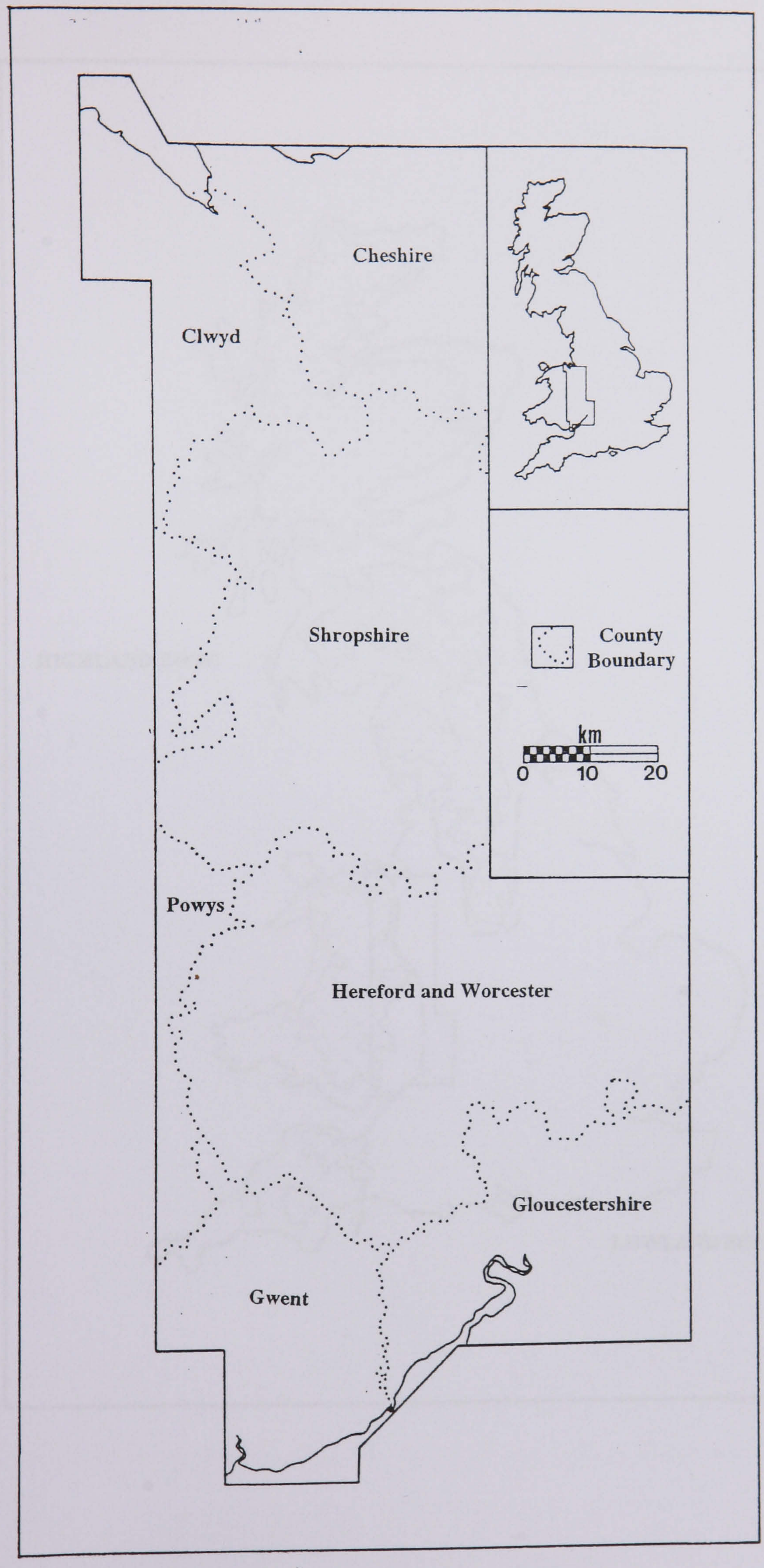

Figure 2.1: The Welsh Marches study area

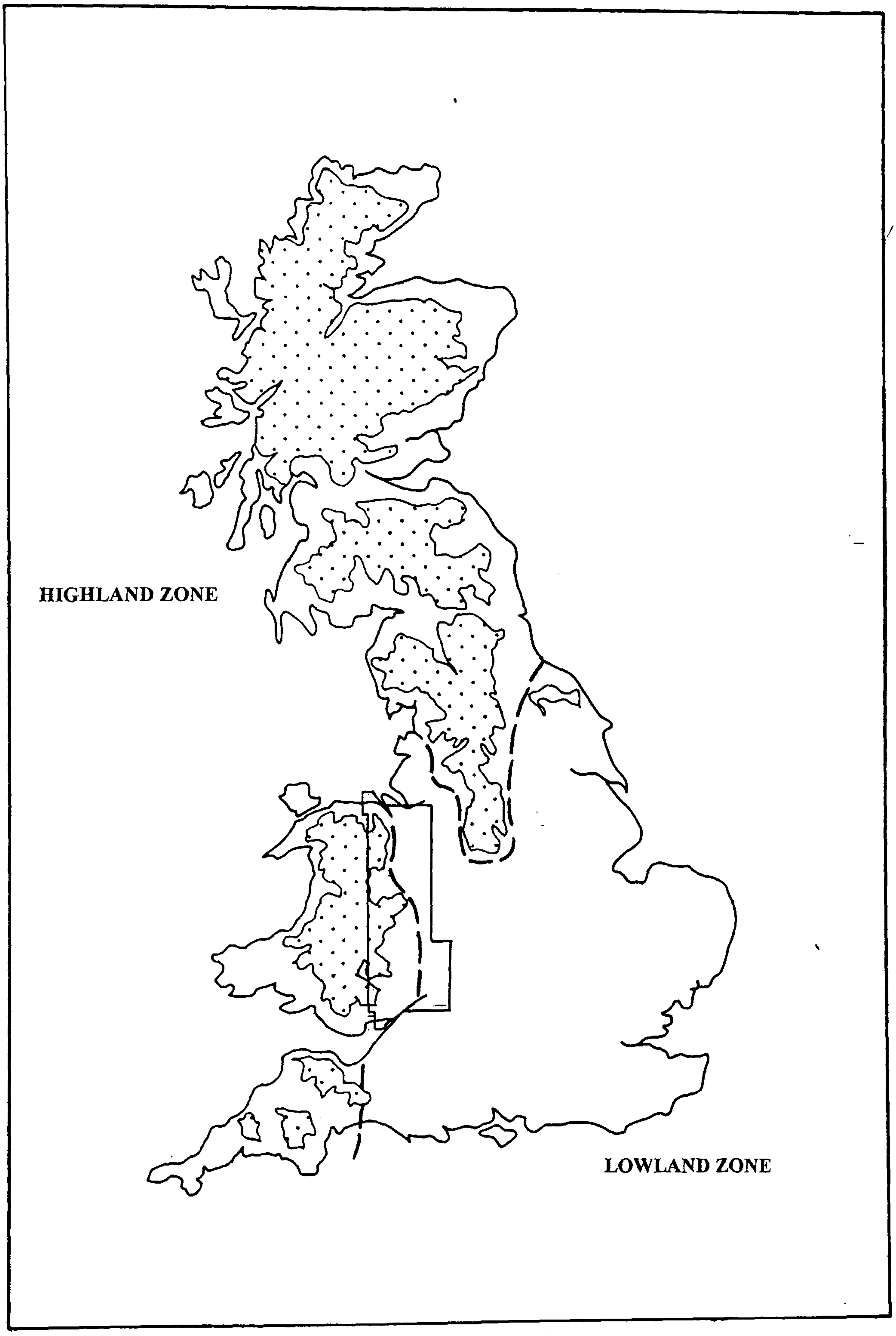

Figure 2.2: The 'Highland' and 'Lowland' zones of Britain (after Fox 1938)

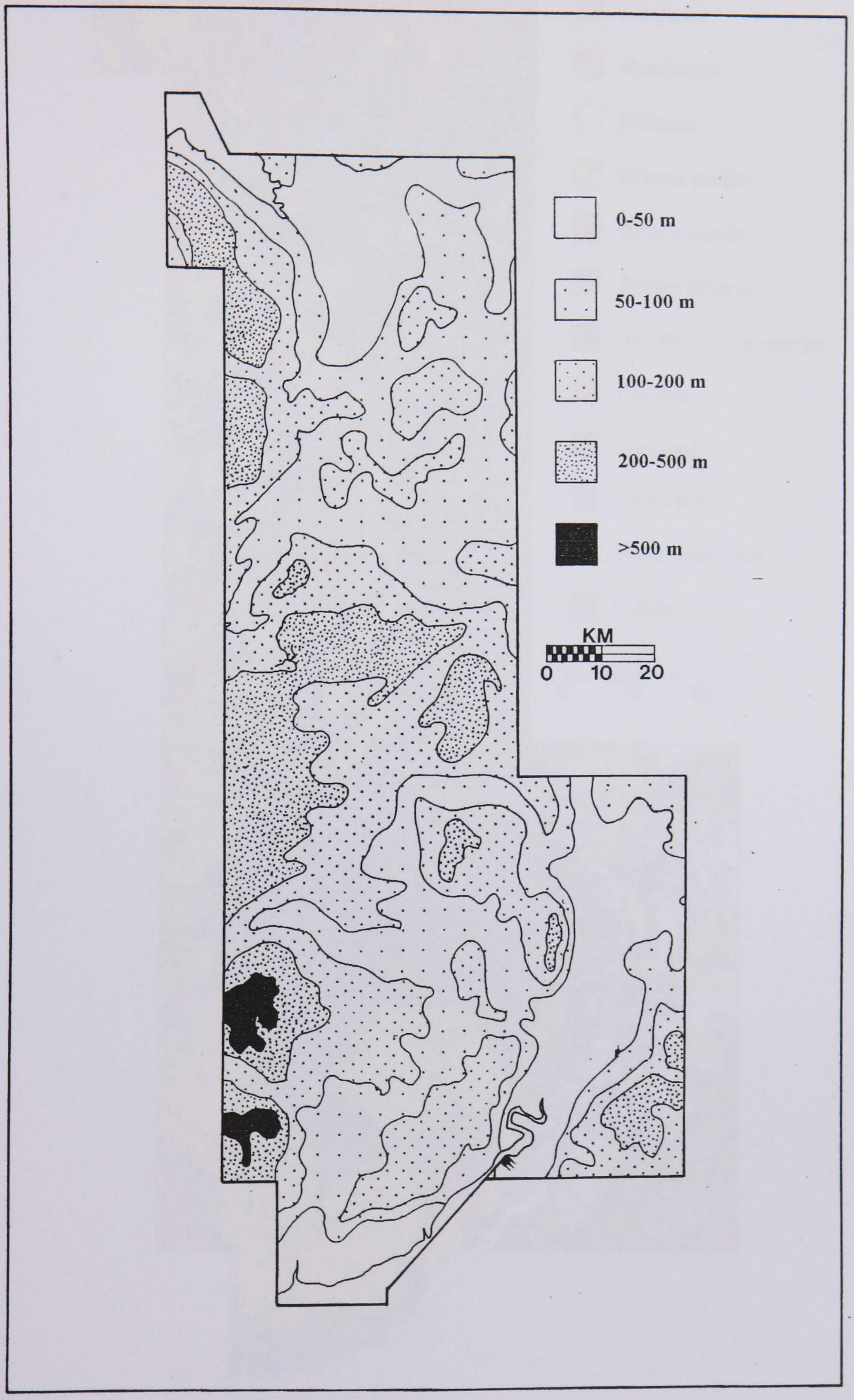

Figure 2.3: Topographical map of the Welsh Marches

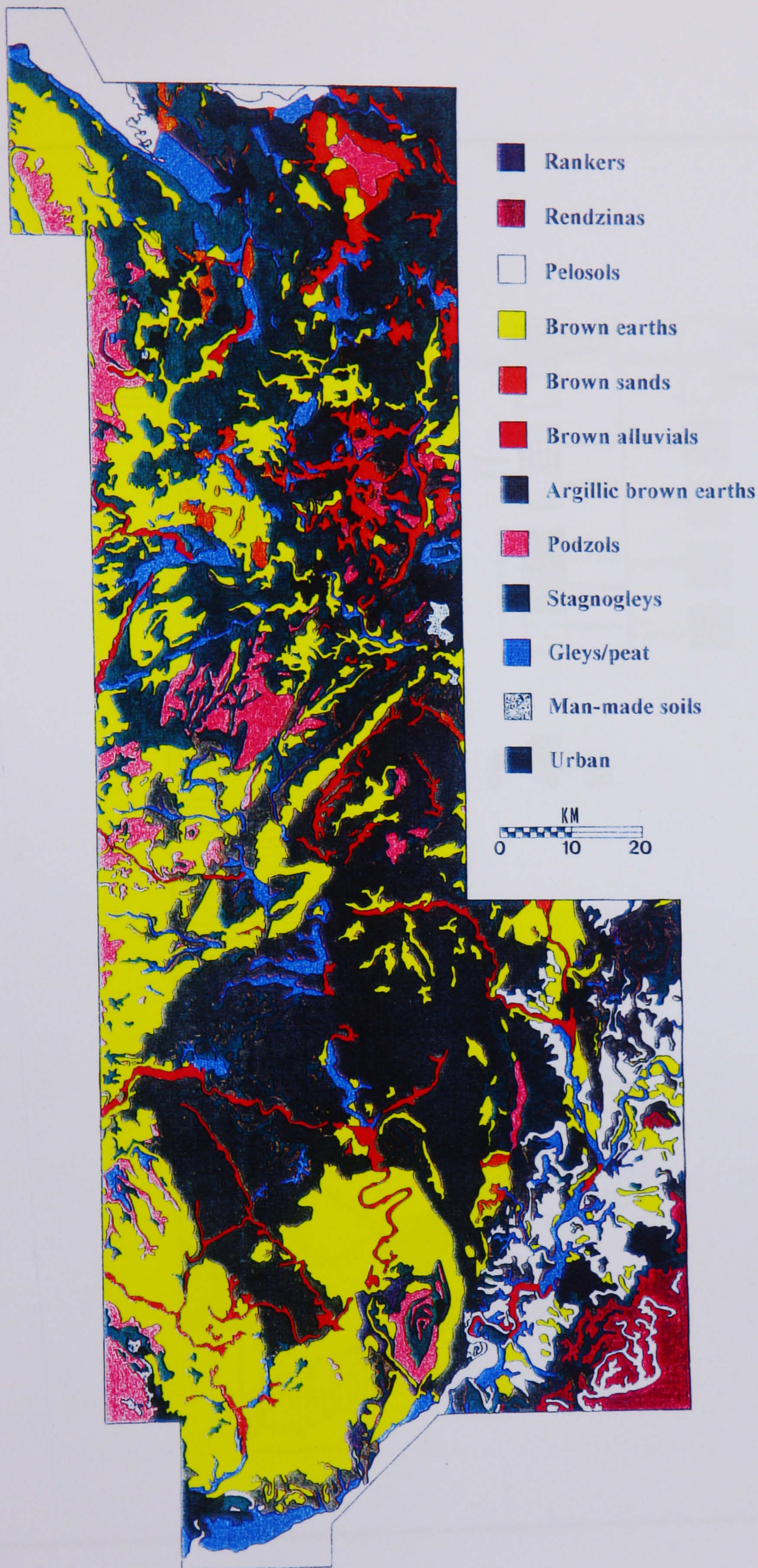

Figure 2.4: Generalised soil map of the Welsh Marches

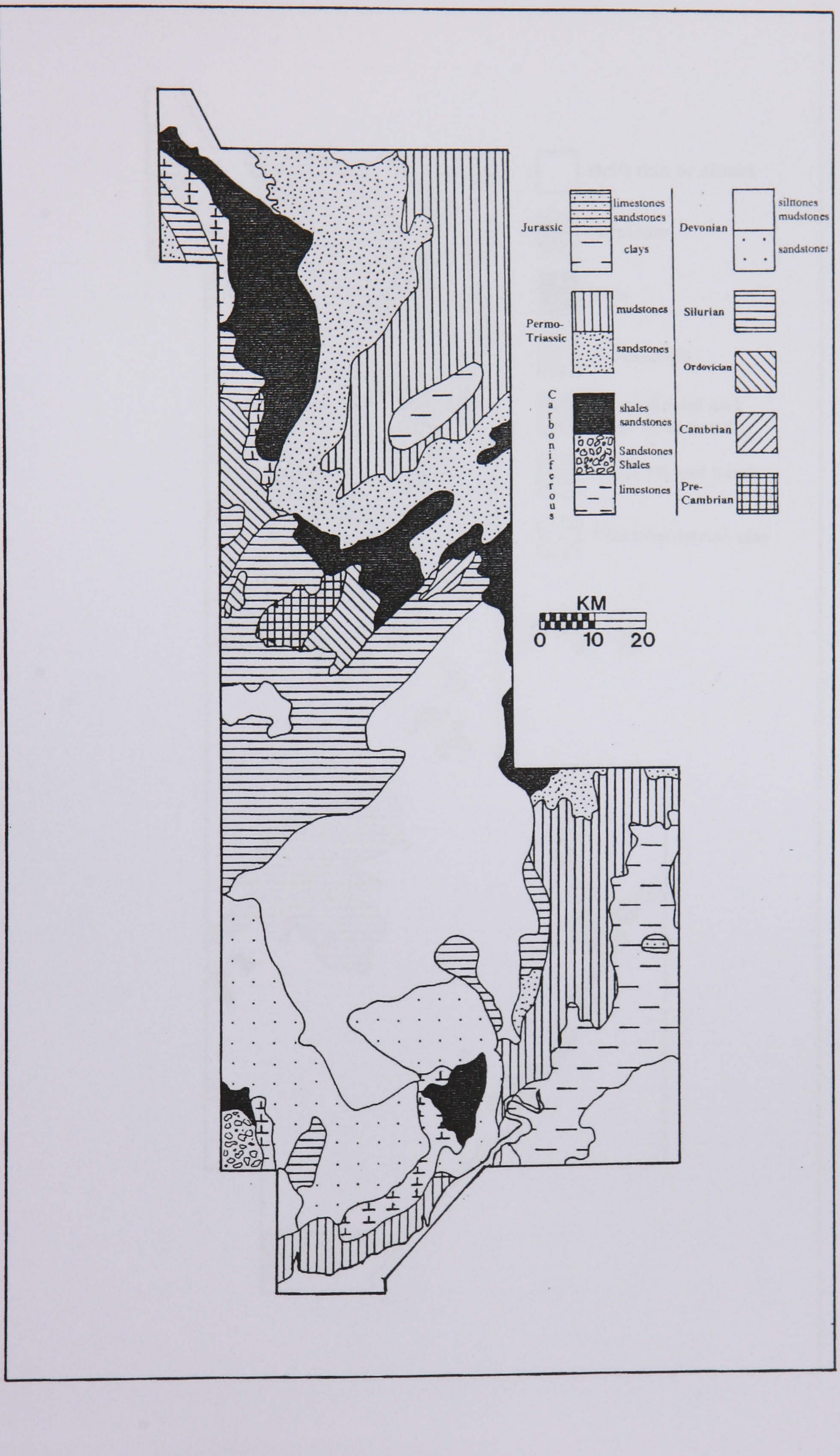

Figure 2.5: The solid geology of the Welsh Marches (after Ragg *et al* 1986 and Rudeforth *et al* 1986)

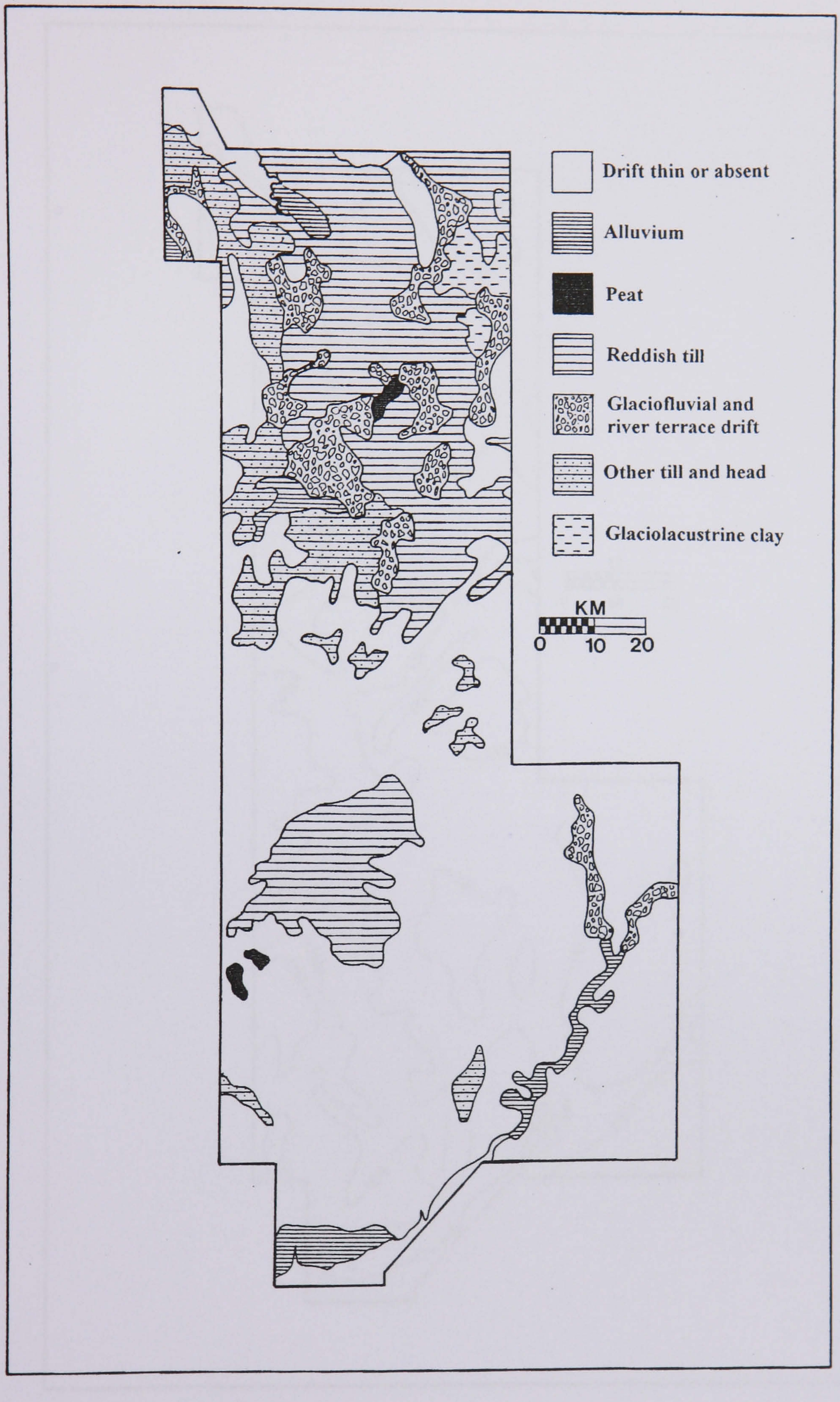

Figure 2.6: The drift geology of the Welsh Marches (after Ragg *et al* 1986 and Rudeforth *et al* 1986)

Figure 2.7: Average annual rainfall levels in the Welsh Marches (after Ragg *et al* 1986 and Rudeforth *et al* 1986)

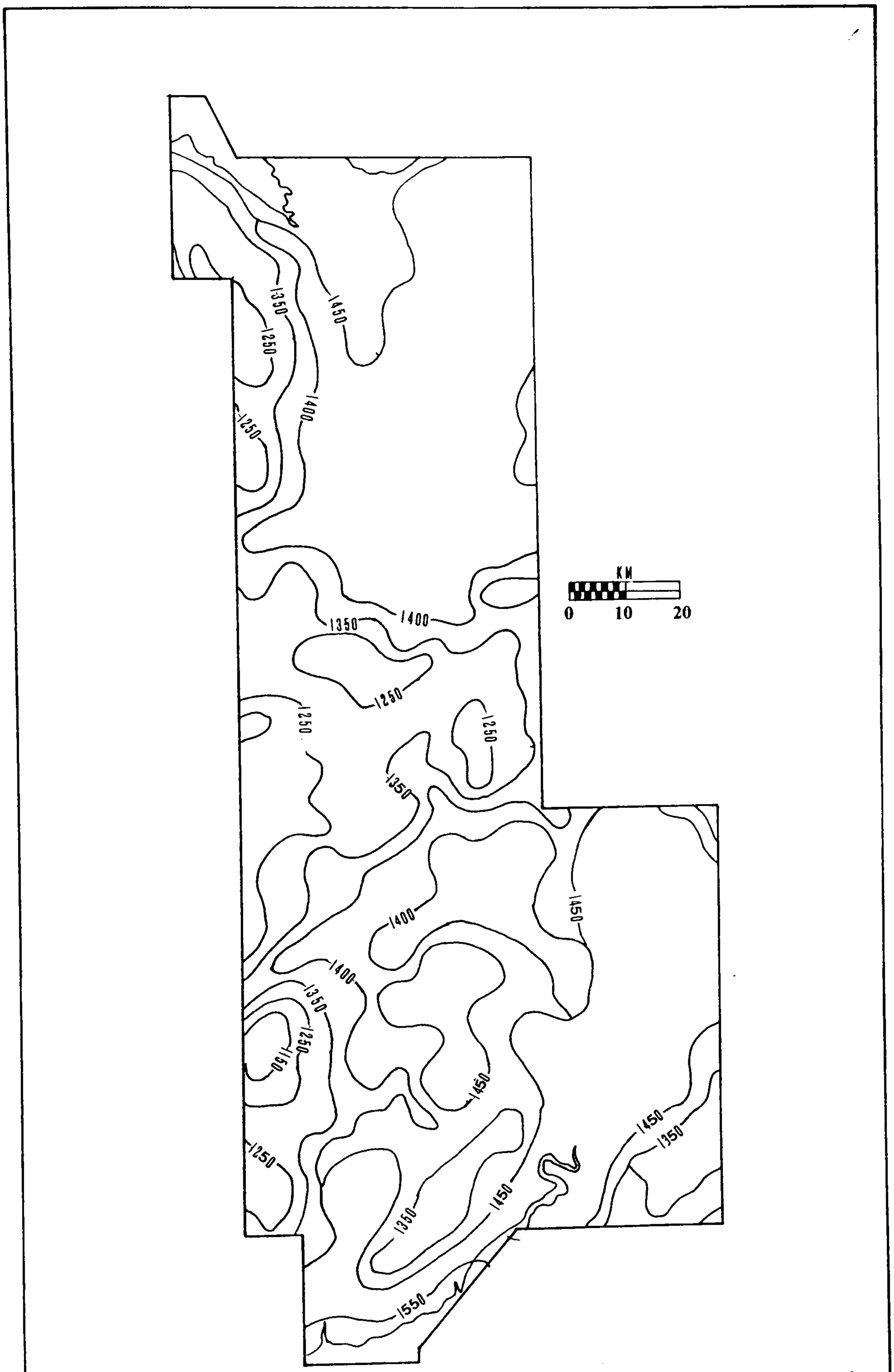

Figure 2.8: Mean annual accumulated temperature in the Welsh Marches (after Ragg *et al* 1986 and Rudeforth *et al* 1986)

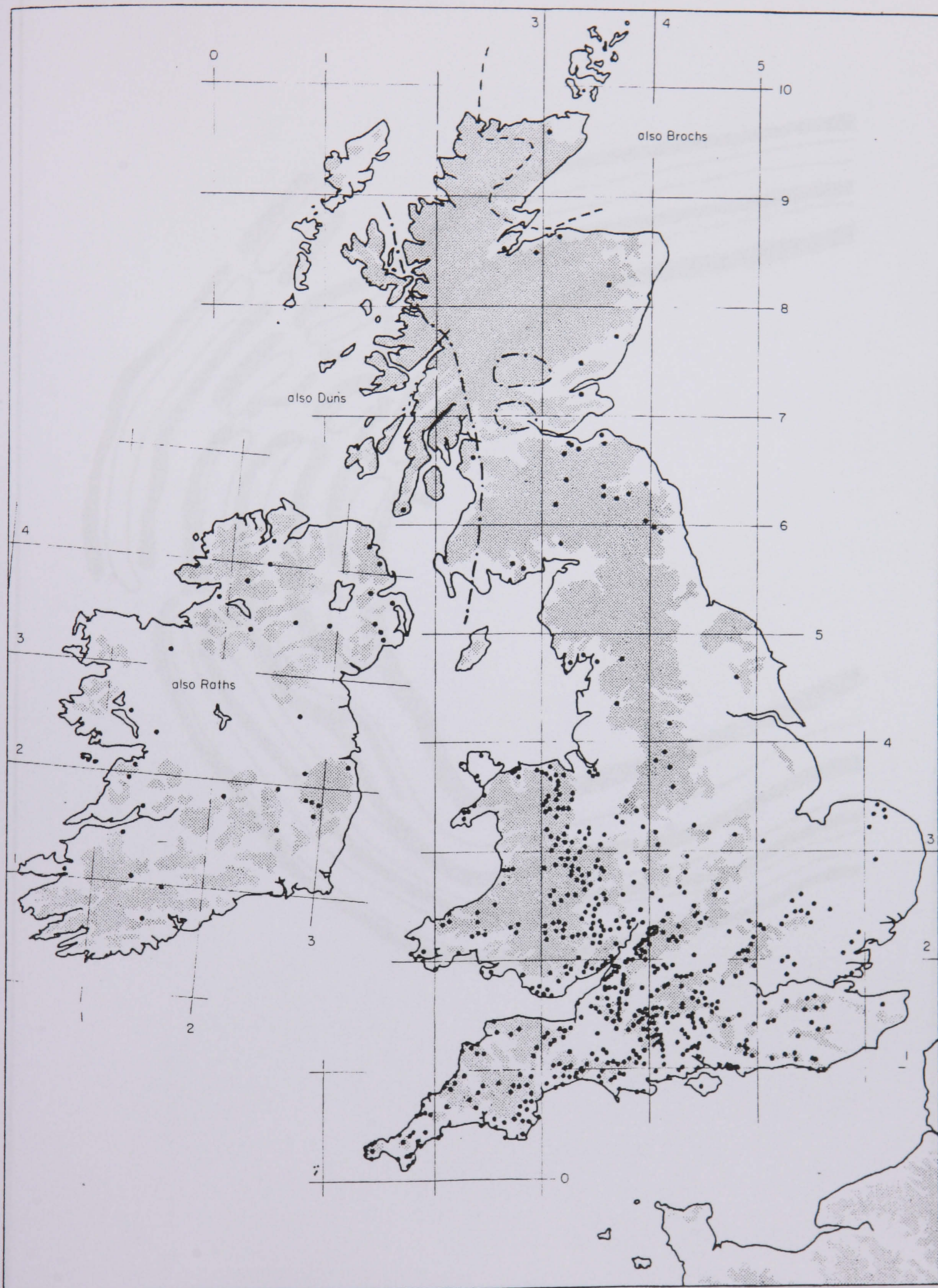

Figure 4.1: Distribution of hillforts in Britain (after Avery 1976)

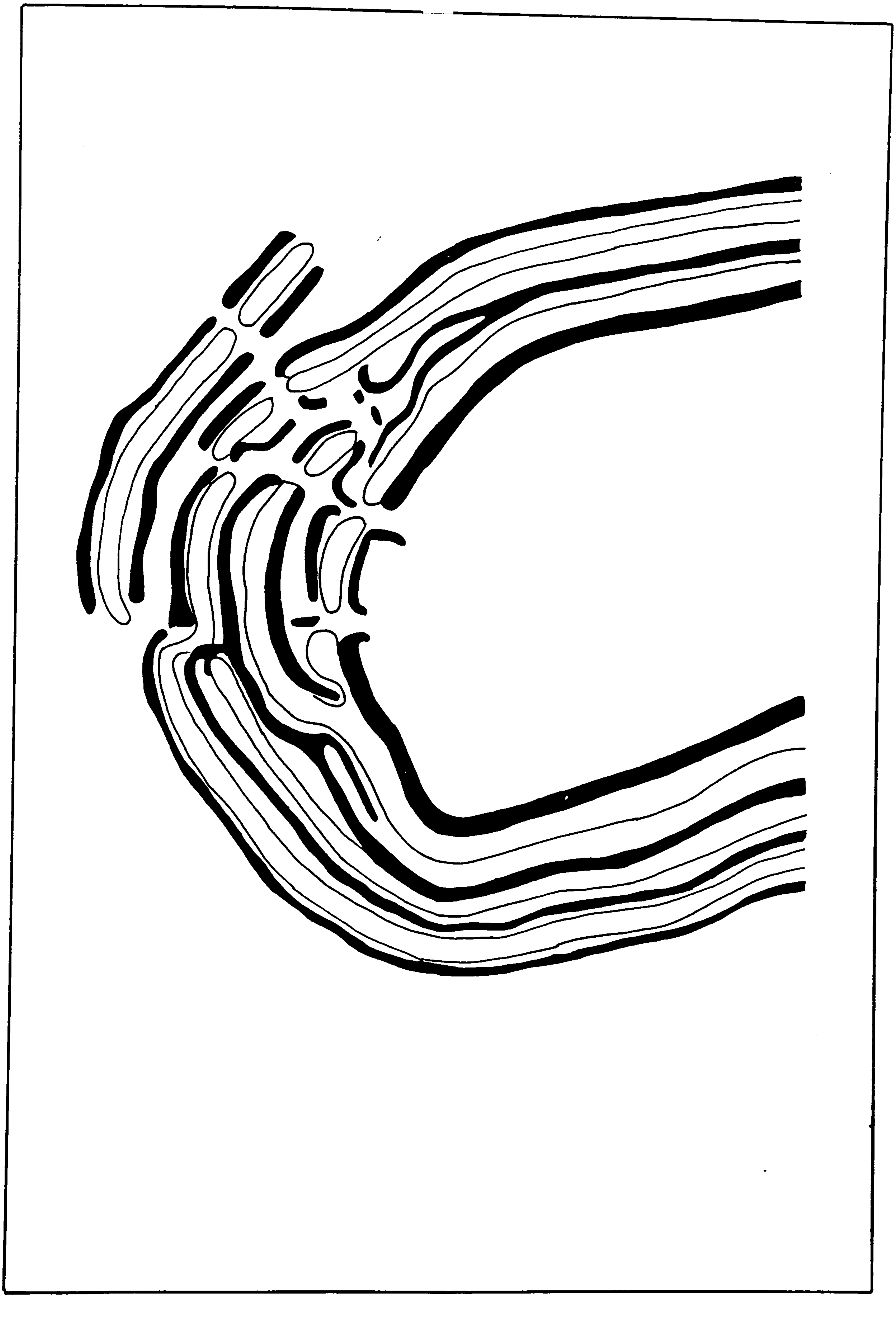

Figure 4.2: Western entrance at Maiden Castle, Dorset (after Sharples 1991b)

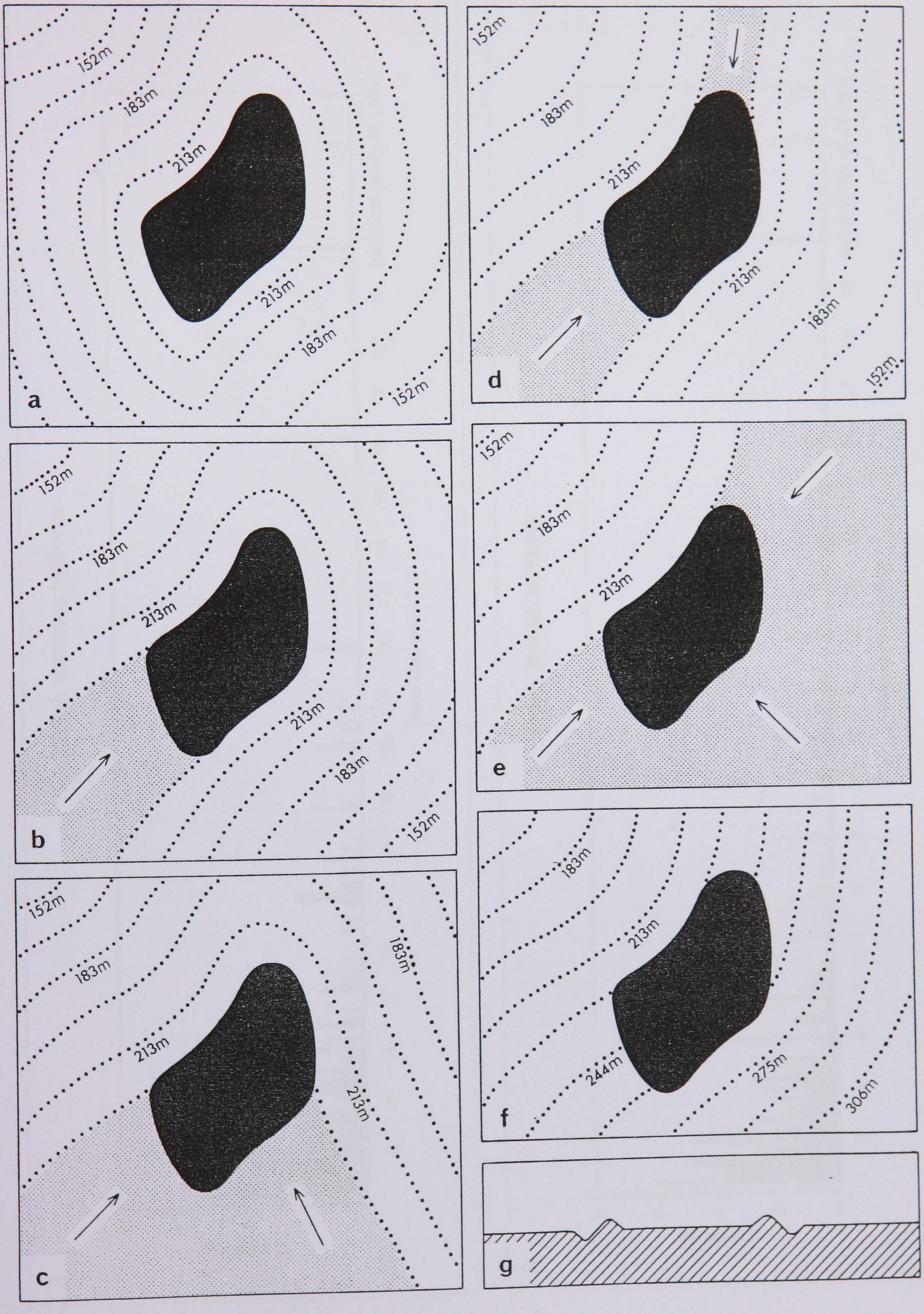

Figure 4.3: Hillfort types (after Forde-Johnston 1976)

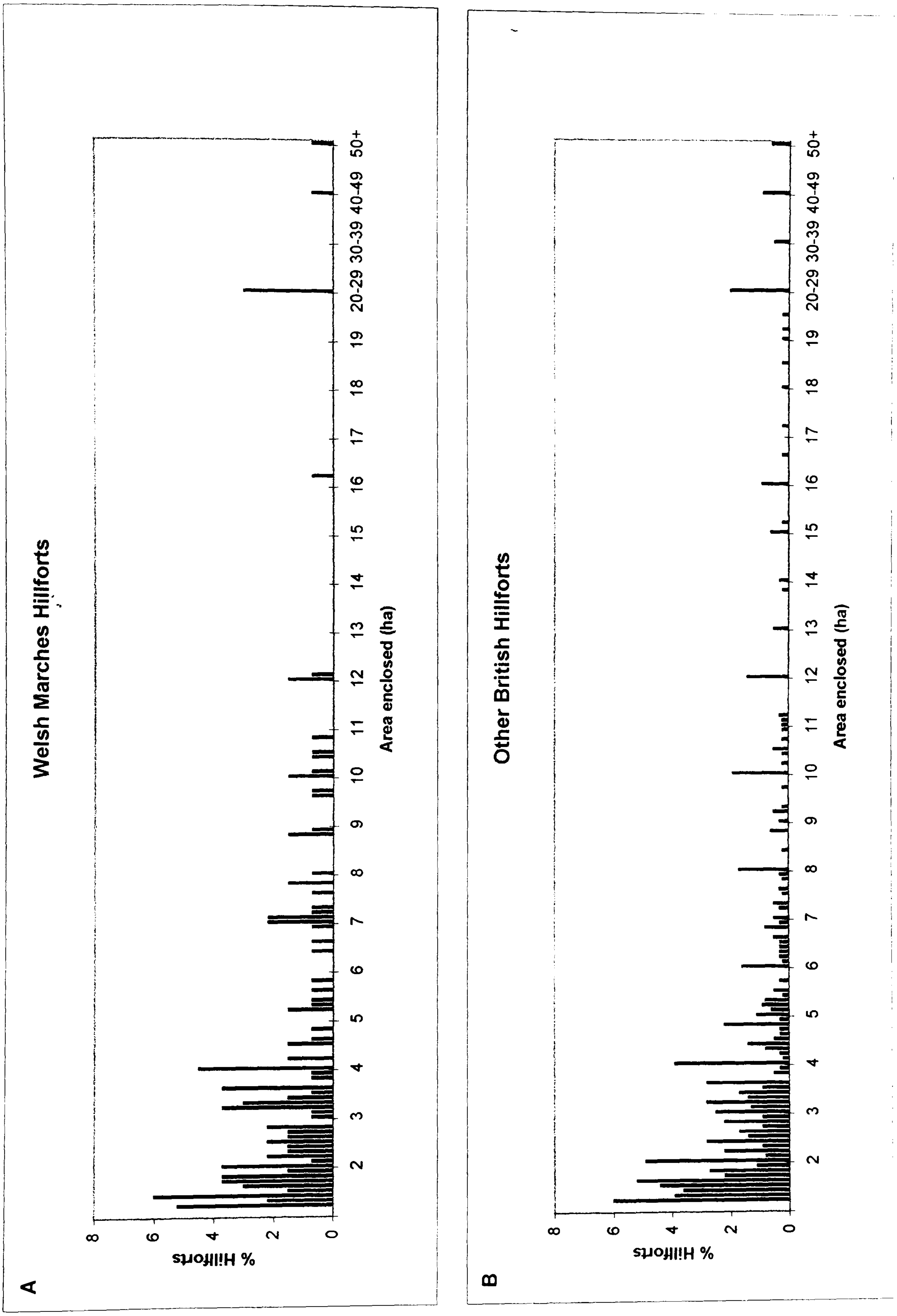

Figure 4.4: Percentage distribution of hillforts by size in a) the Welsh Marches and b) the rest of Britain (data derived from Hogg 1979)

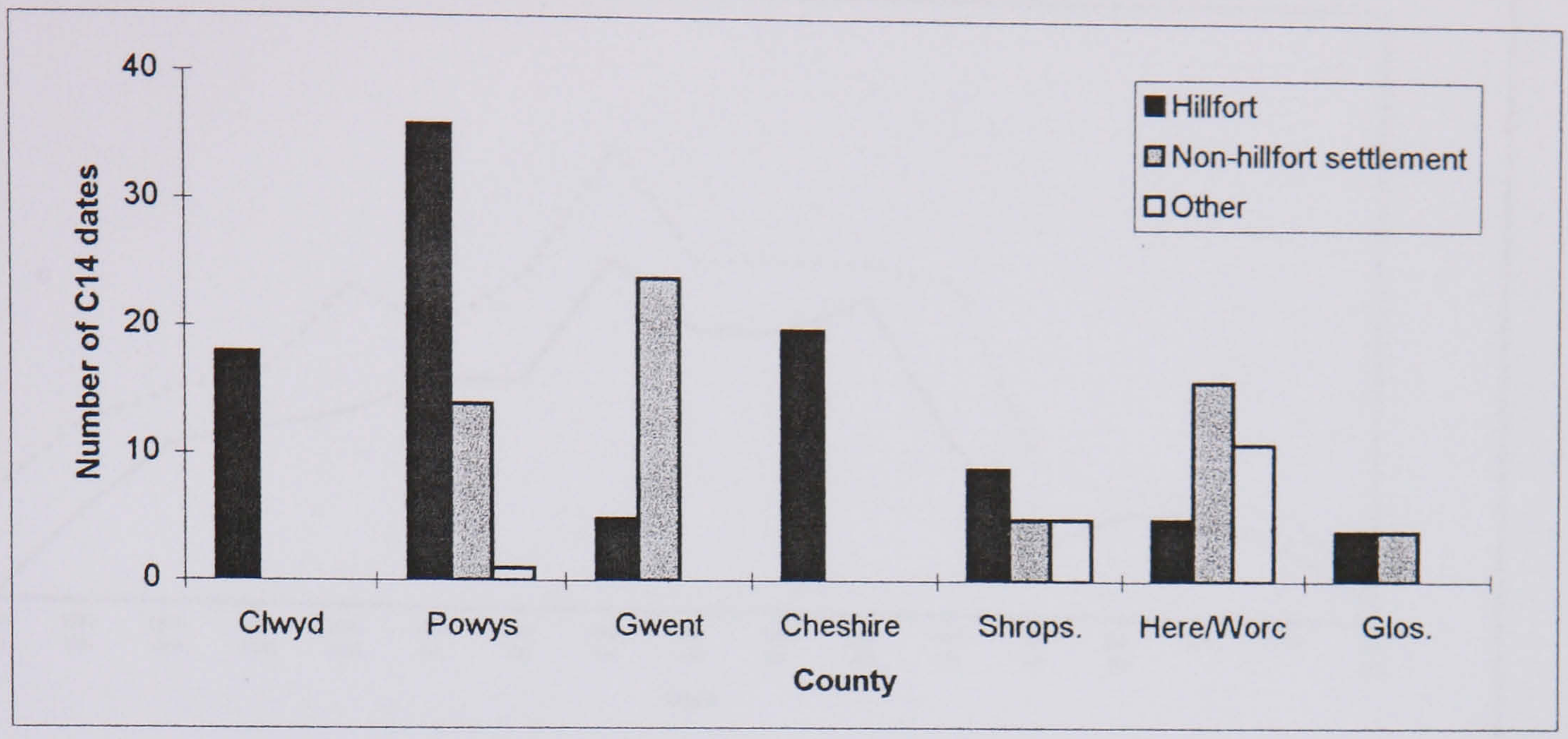

Figure 5.1: Distribution of C14 dates in the Welsh Marches by county and site type

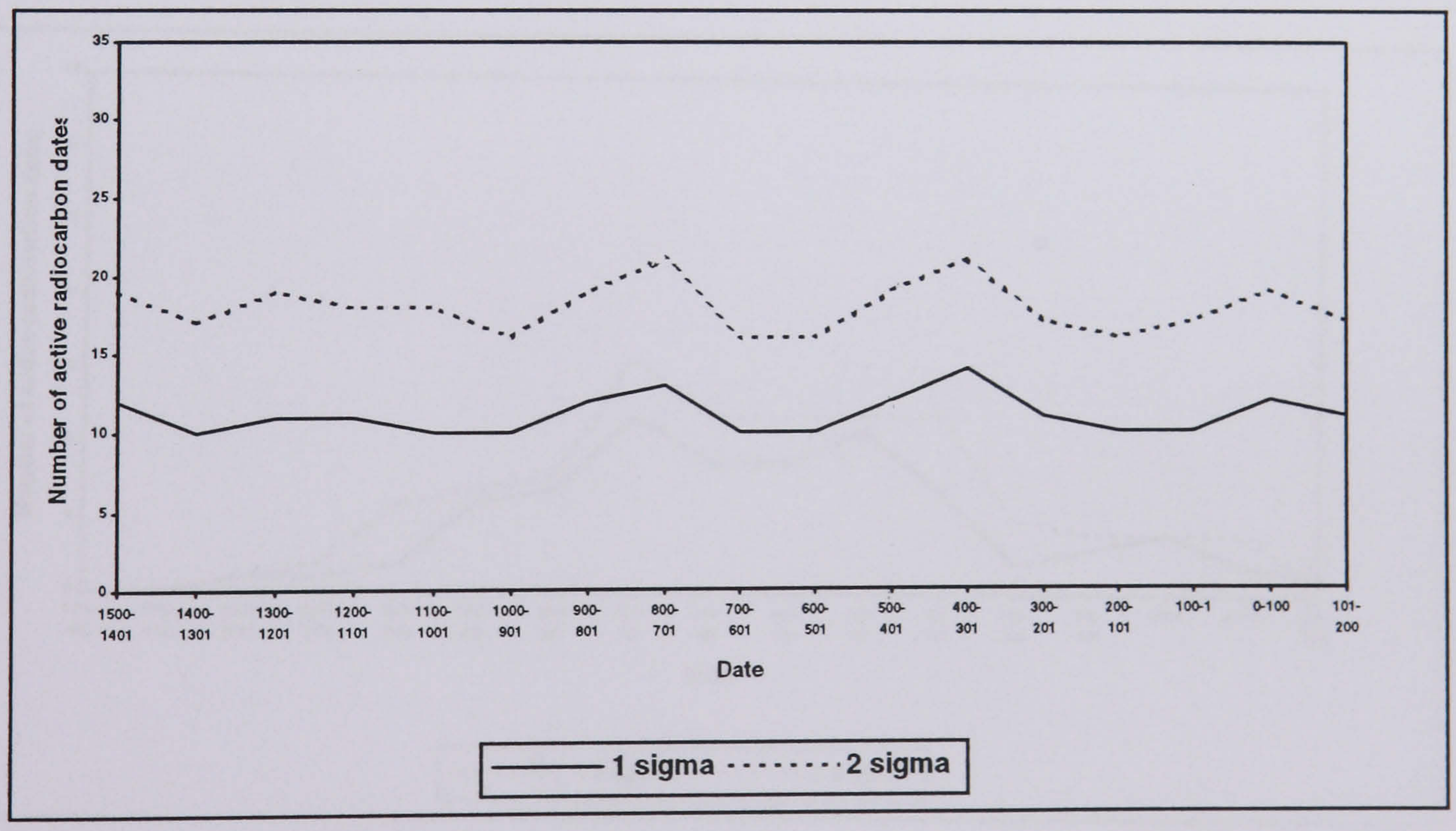

Figure 5.2: Frequency diagram showing the number of radiocarbon dates active over 100 year periods

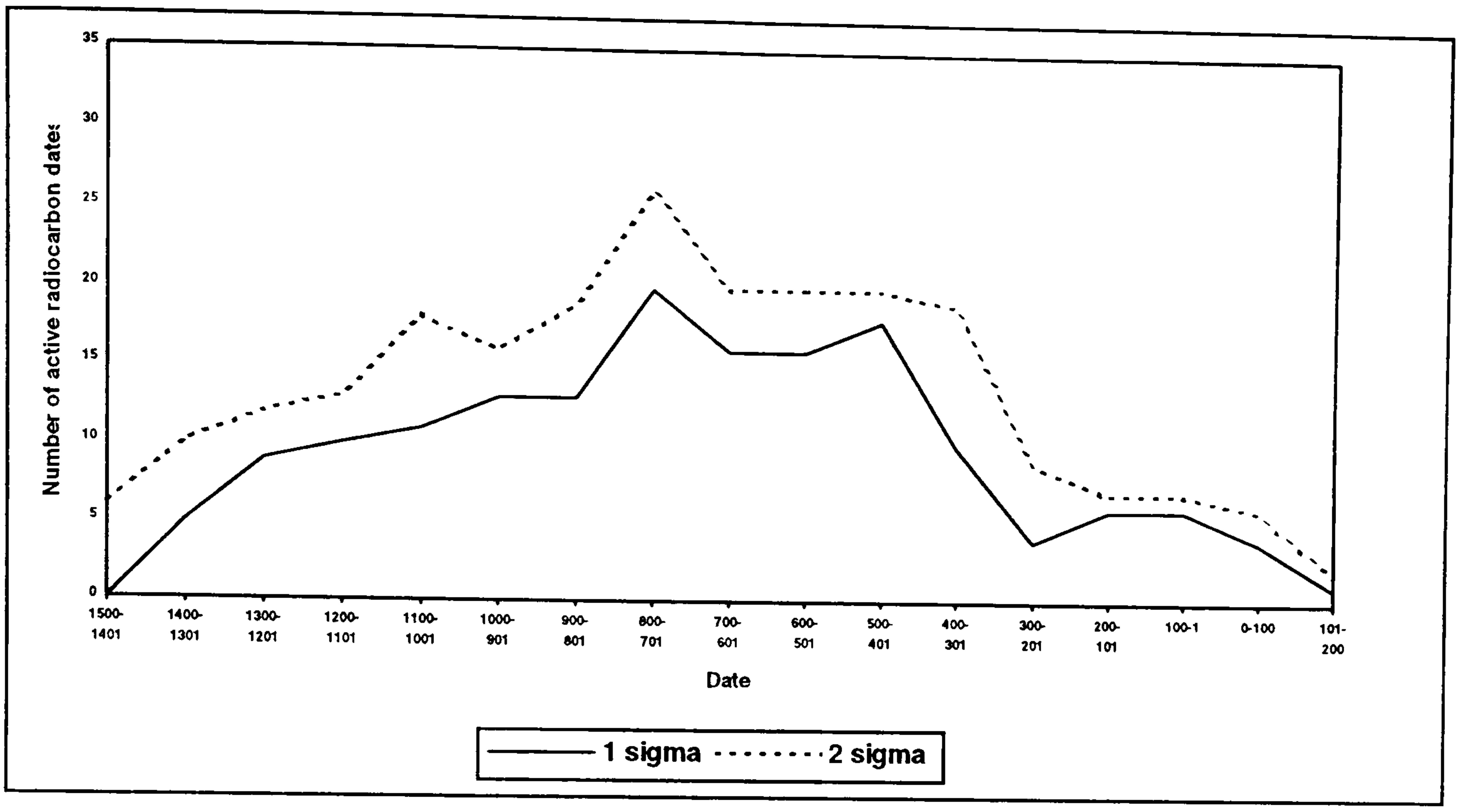

Figure 5.3: Frequency diagram showing the number of radiocarbon dates, associated with timber-fronted ramparts, active over 100 year periods

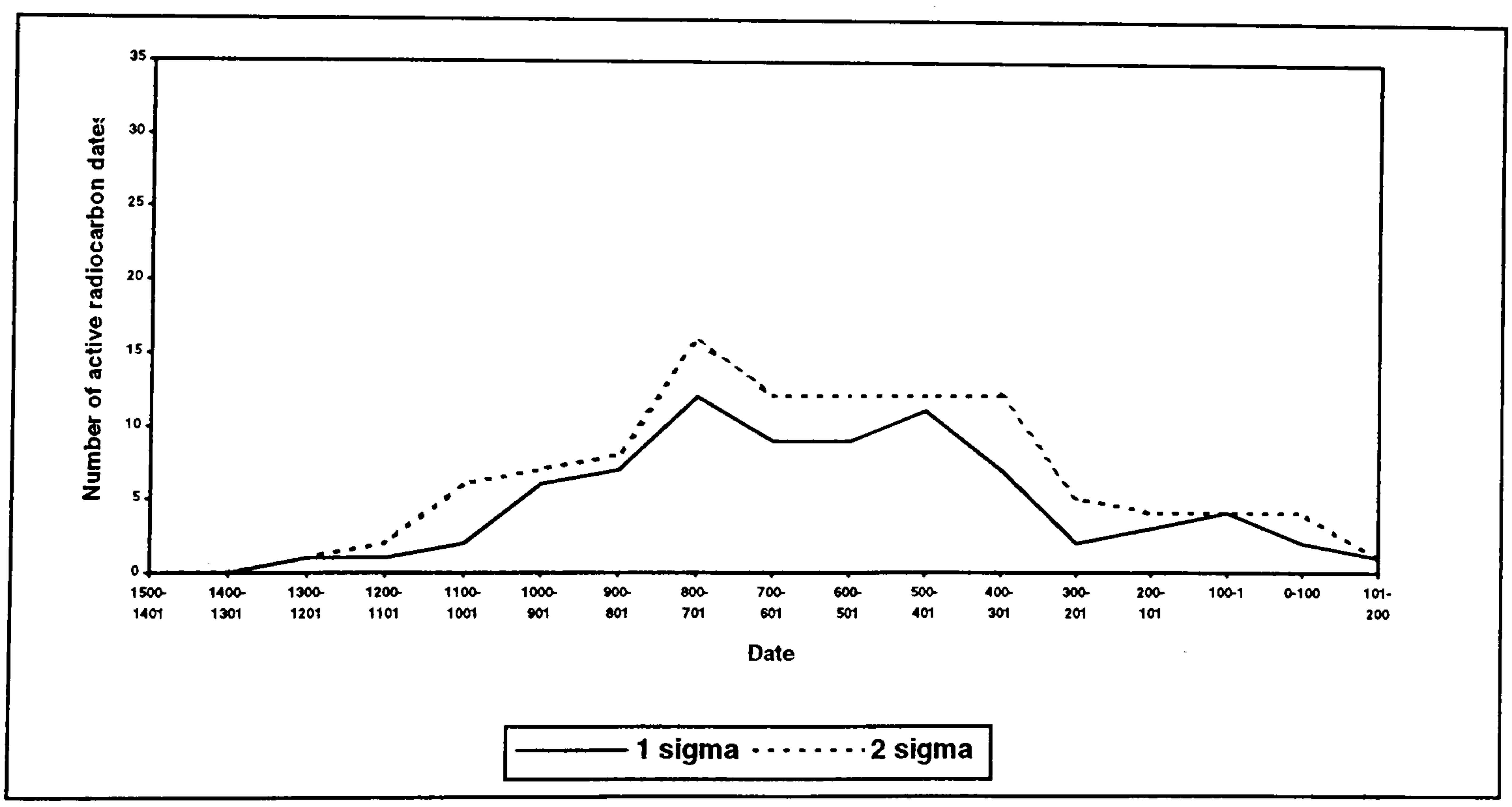

Figure 5.4: Frequency diagram showing the number of radiocarbon dates, associated with the construction of timber-fronted ramparts, active over 100 year periods

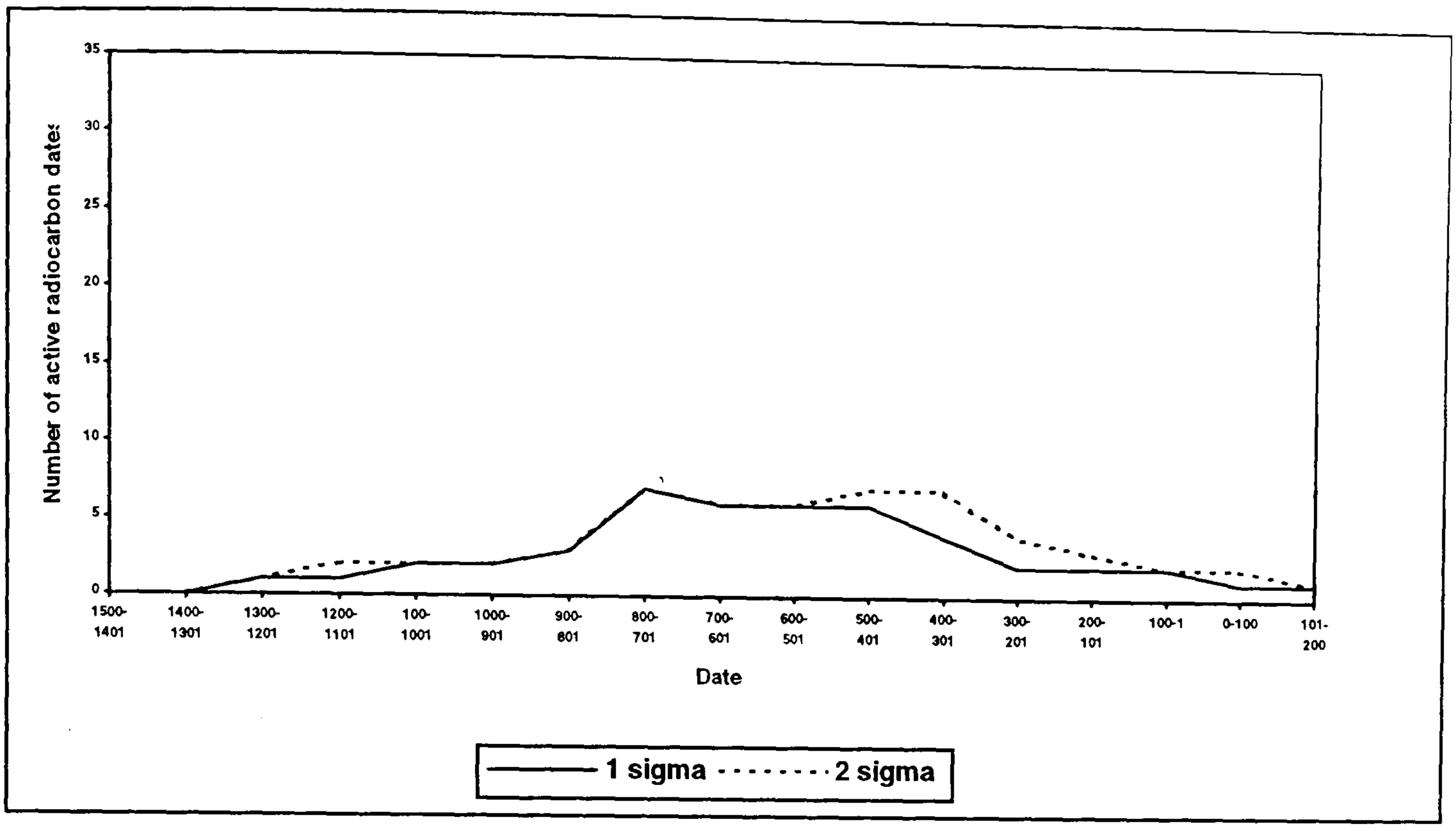

Figure 5.5: Frequency diagram showing the number of radiocarbon dates, associated with the construction of timber-fronted ramparts, active over 100 year periods where a single date is taken from each relevant site

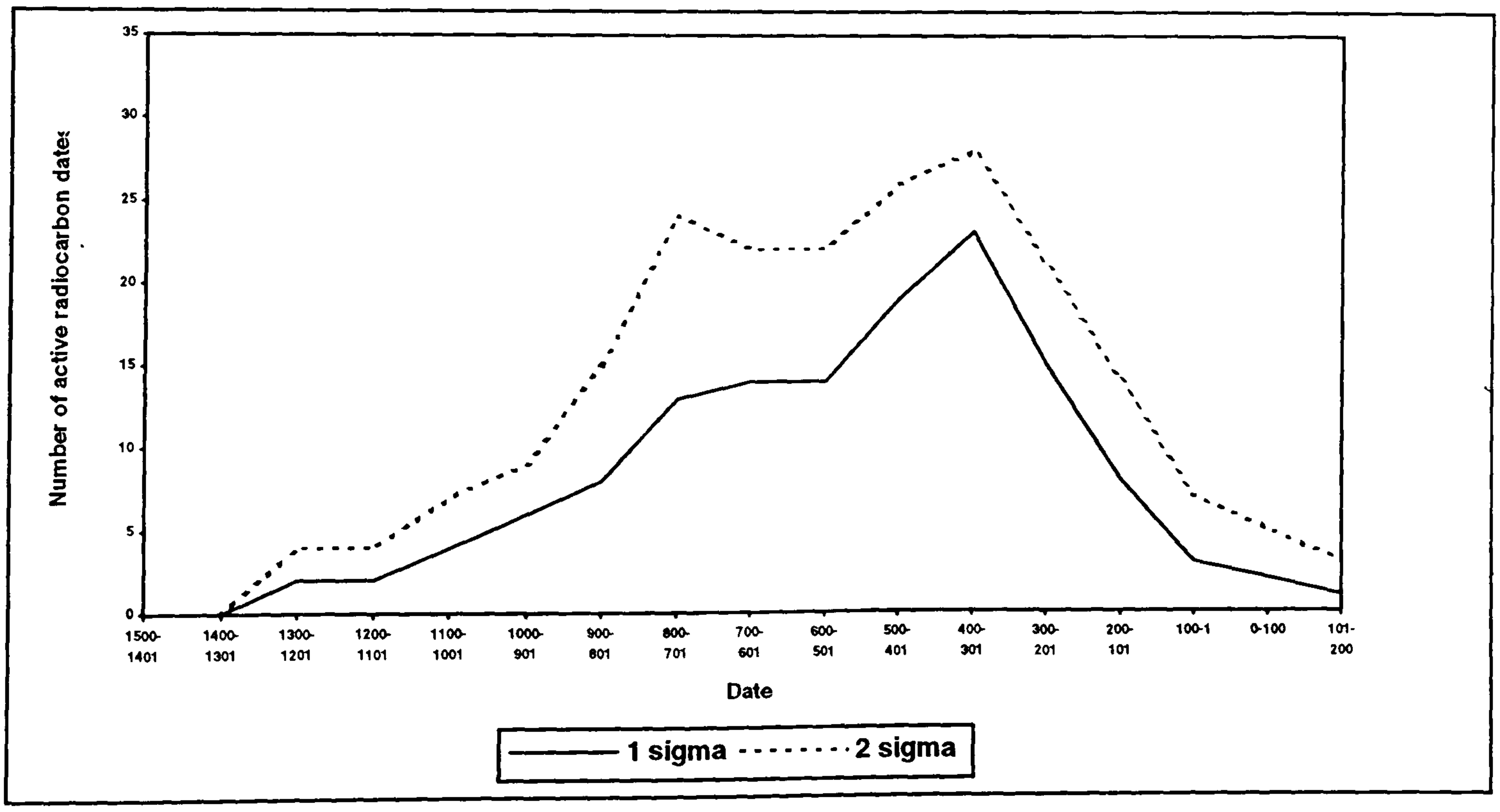

Figure 5.6: Frequency diagram showing the number of radiocarbon dates, associated with stone-fronted ramparts, active over 100 year periods

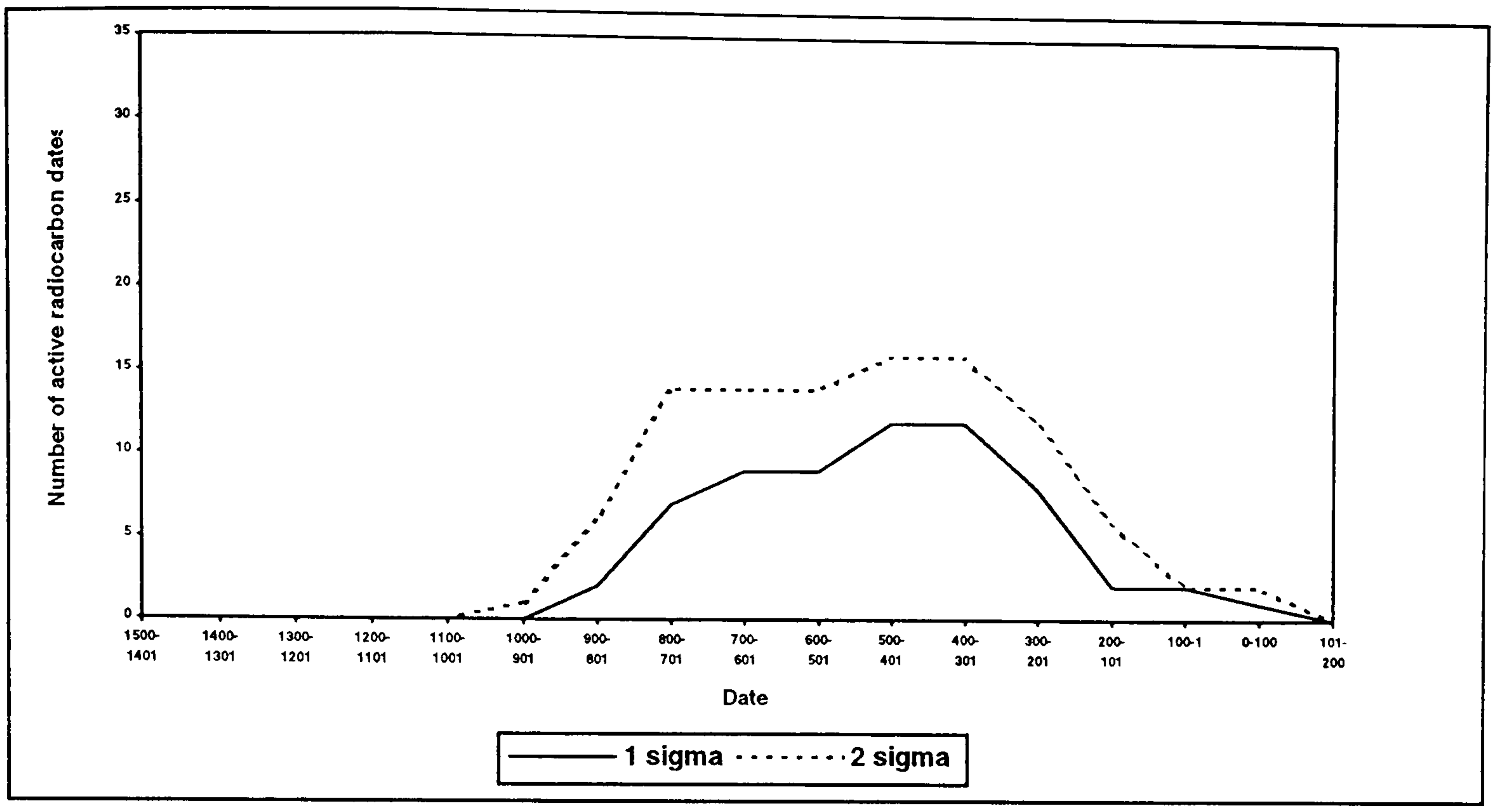

Figure 5.7: Frequency diagram showing the number of radiocarbon dates, associated with the construction of stone-fronted ramparts, active over 100 year periods

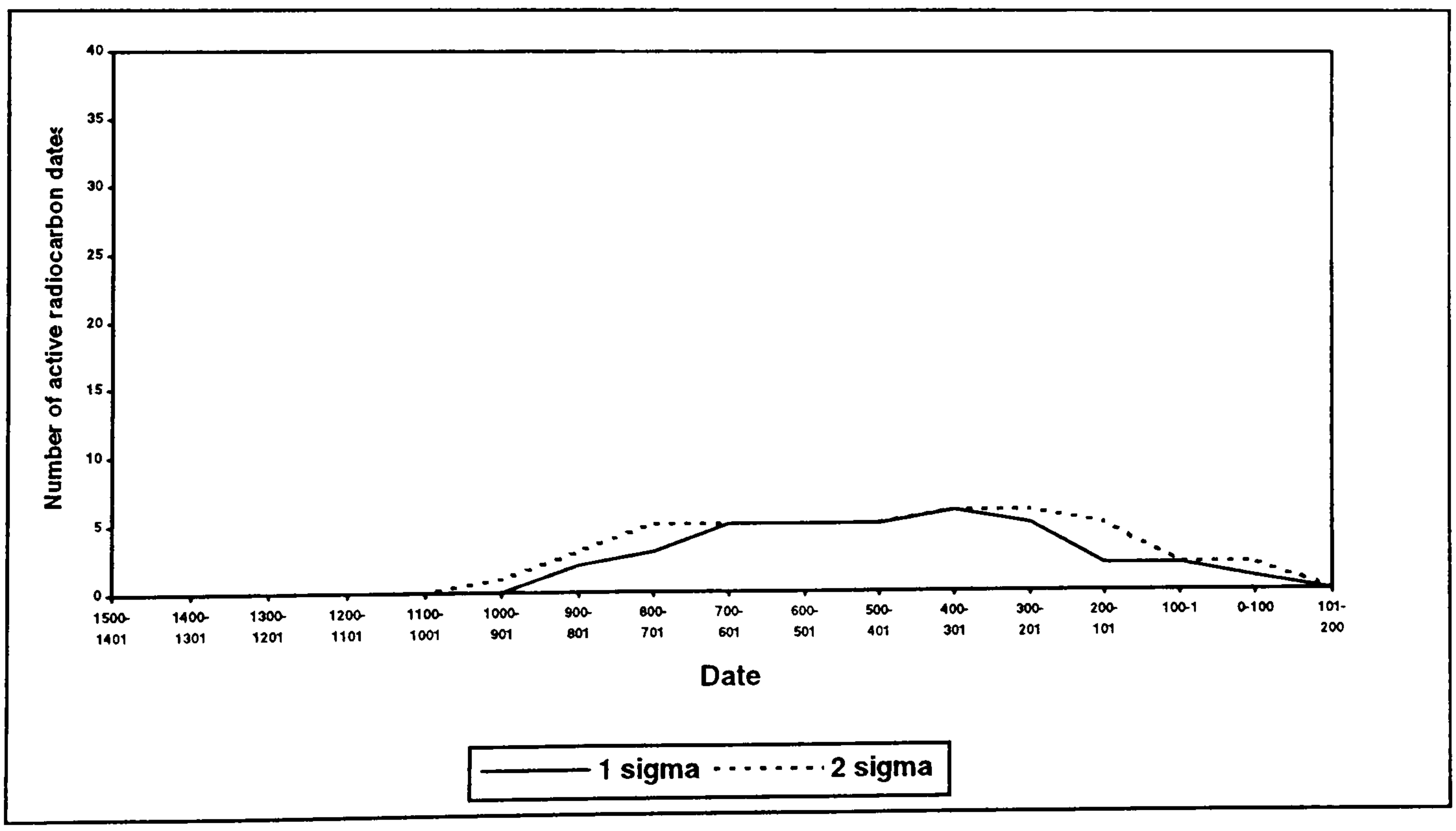

Figure 5.8: Frequency diagram showing the number of radiocarbon dates, associated with the construction of stone-fronted ramparts, active over 100 year periods where a single date is taken from each relevant site

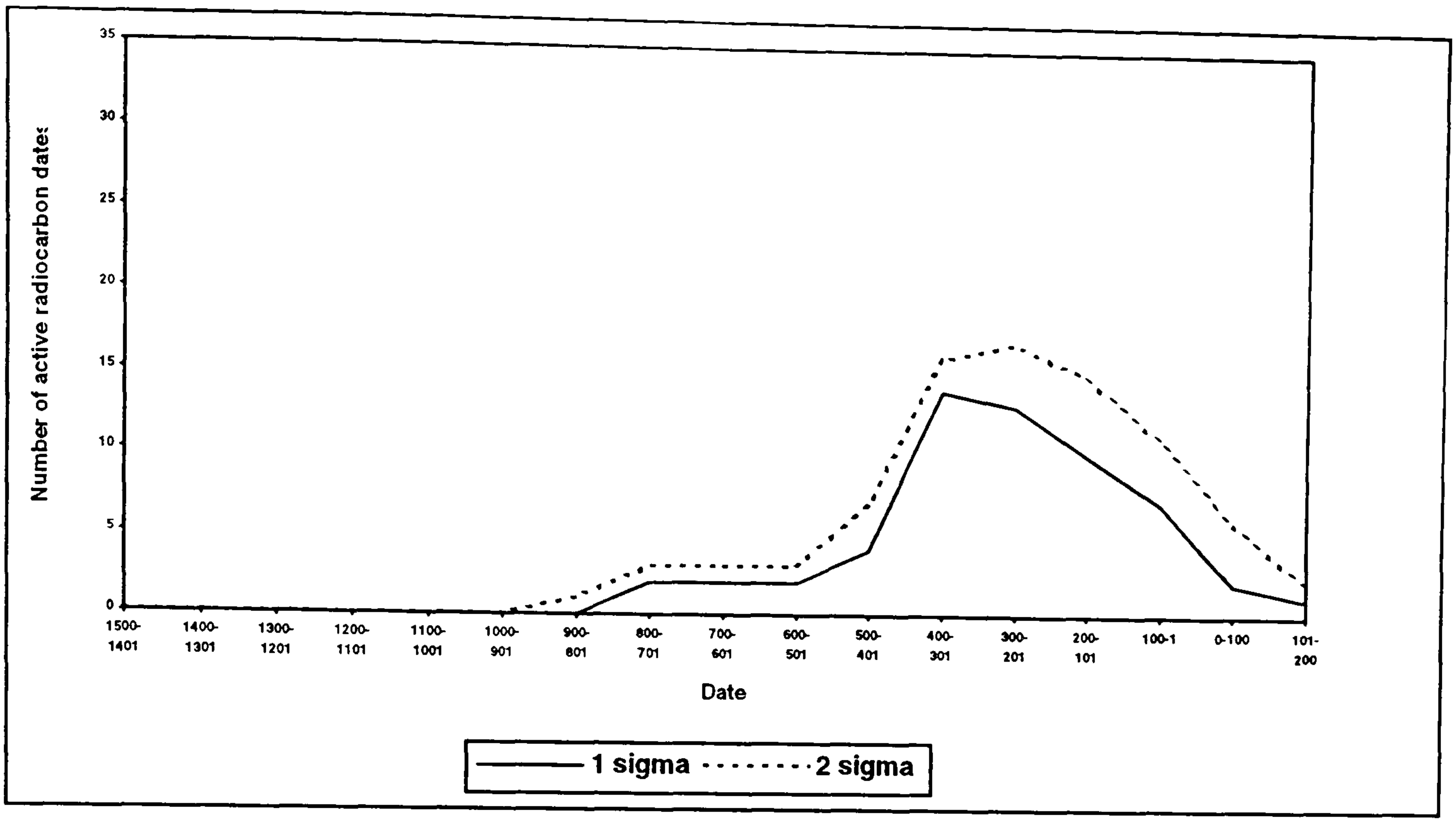

Figure 5.9: Frequency diagram showing the number of radiocarbon dates, associated with dump ramparts, active over 100 year periods

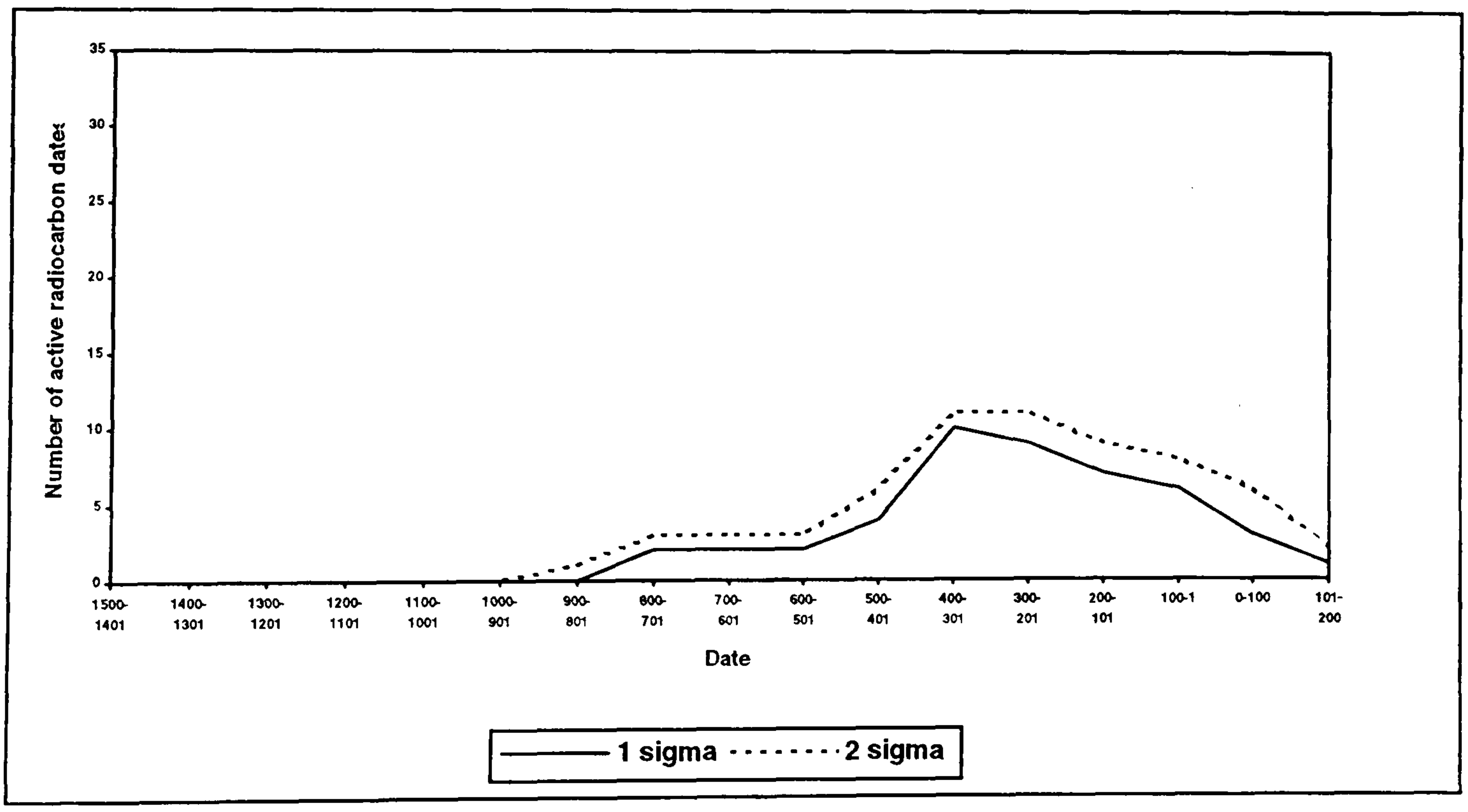

Figure 5.10: Frequency diagram showing the number of radiocarbon dates, associated with dump ramparts, active over 100 year periods where a single date is taken from each site

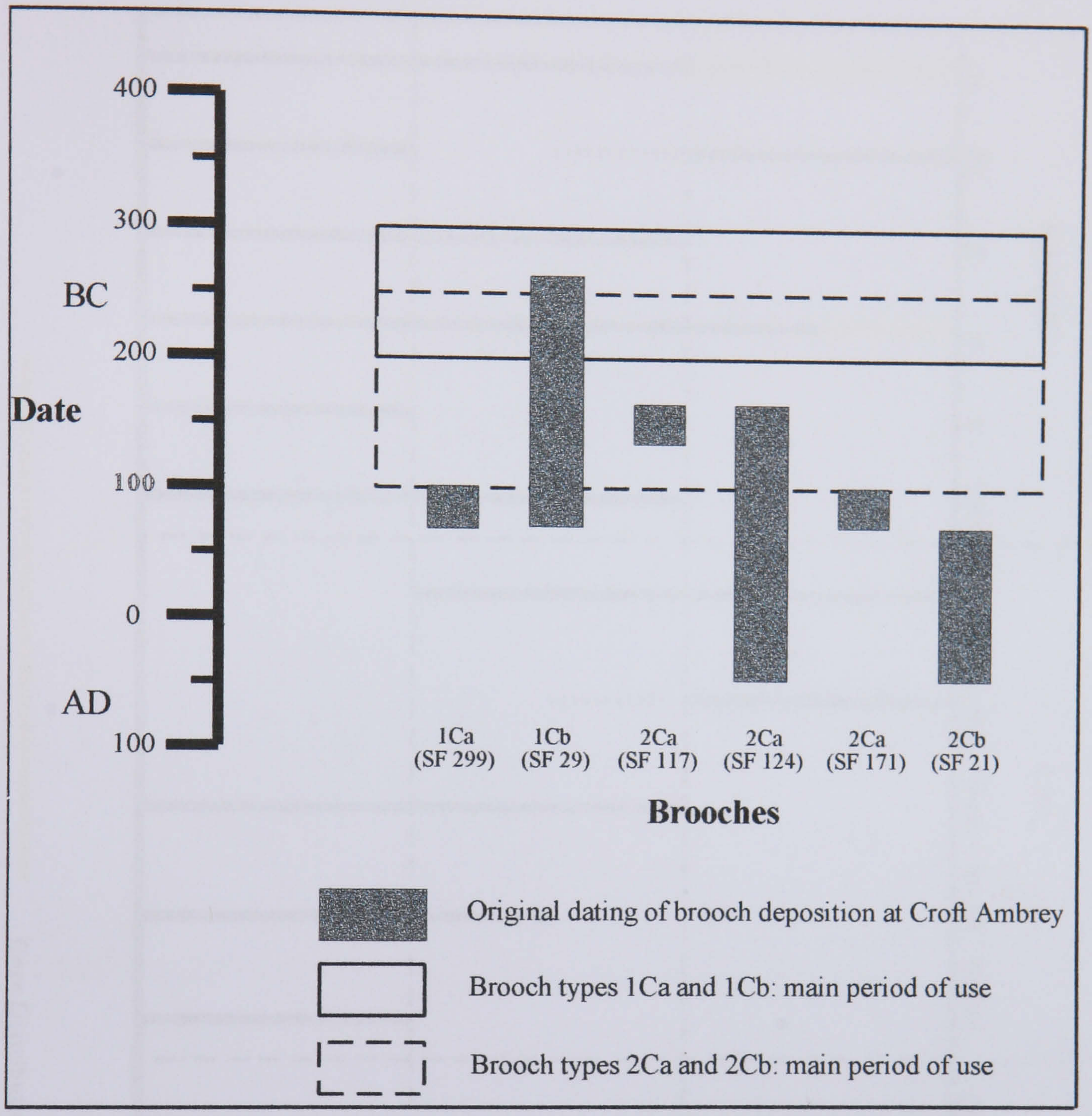

Figure 5.11: Distribution of stratified brooches from Croft Ambrey with relation to their main periods of usage in Britain

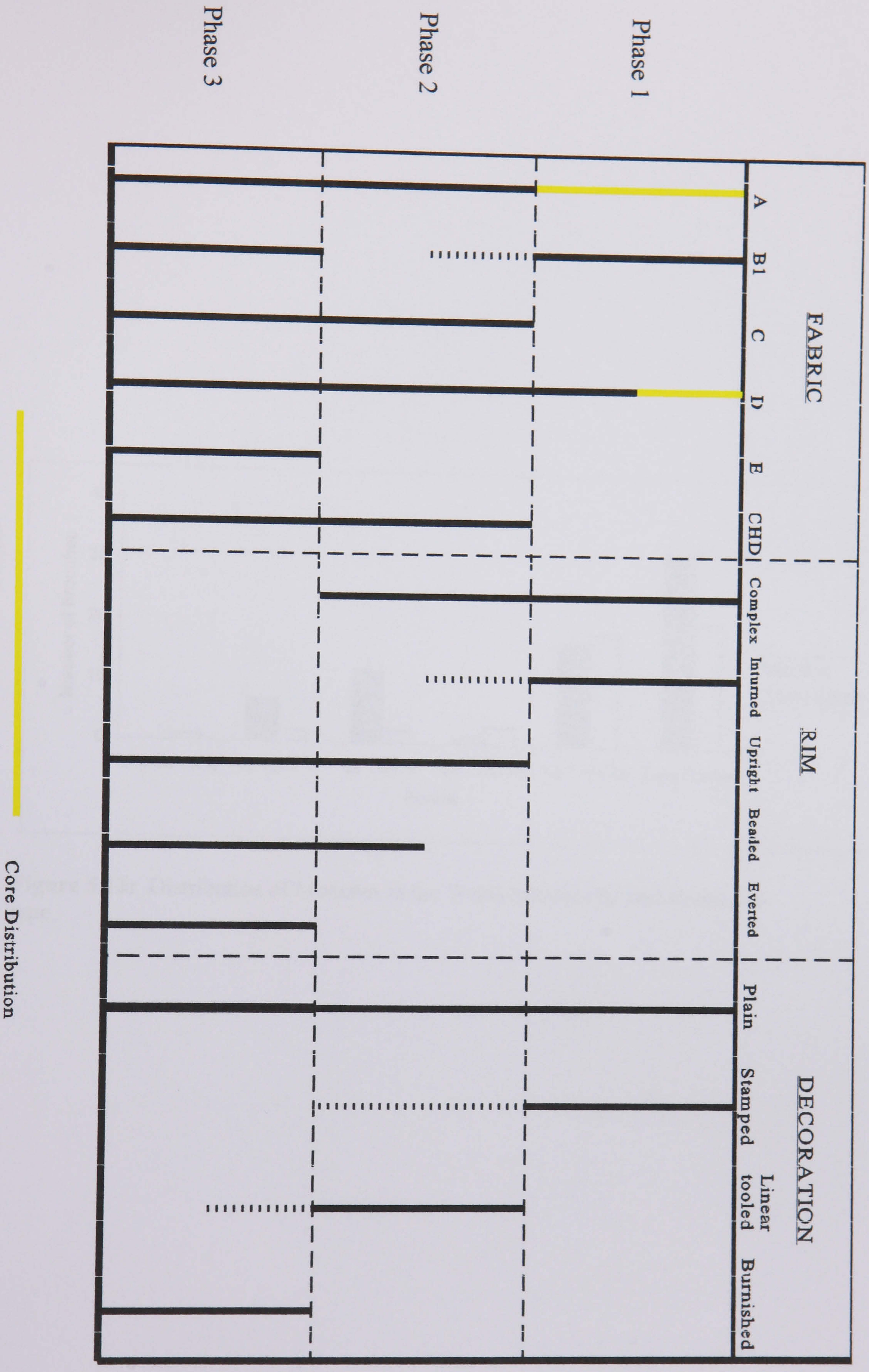

Figure 5.12: Summary of the main features of ceramic sequences in the Welsh Marches

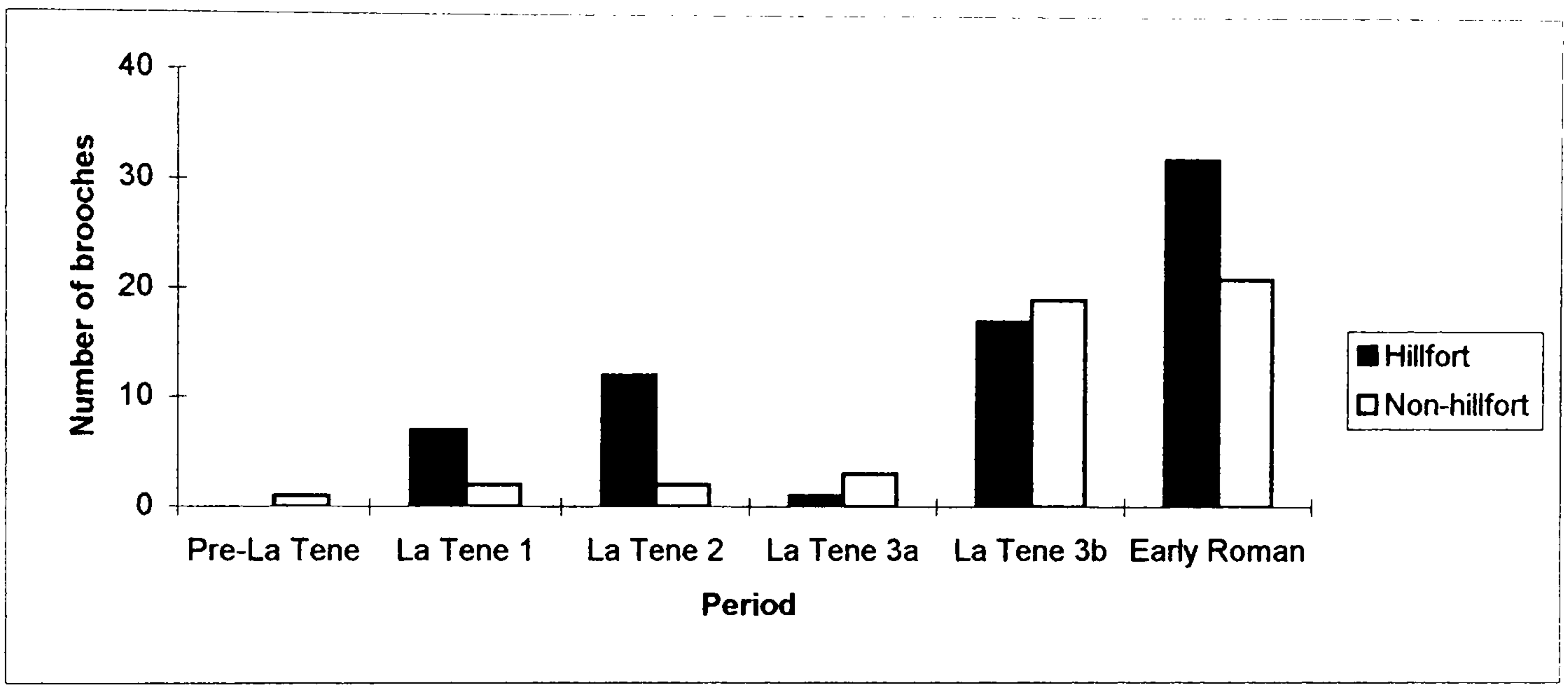

Figure 5.13: Distribution of brooches in the Welsh Marches by period and site-type

Allen 1961			Van Arsdell 1989; 1994			Hobbs 1996			de Jersey 1996		
Gold		Silver	Gold		Silver	Gold		Silver	Gold		Silver
British R (Uninsc.)	C. 25 BC	A-F	British R (Uninsc.)	C. 35 BC		British R (Uninsc.)	Mid to late 1st century BC		British R (Uninsc.)		
ANTED		G (Insc.)	CORIO	C. 30 BC	B, C, D	ANTED	Late 1st century BC	G (Insc.)	CORIO		
EISV		H (Insc.) MX	BODVOC	C. 15 BC	K (Insc.)	EISV		H (Insc.)	BODVOC		K (Insc.)
CATTI	C. AD 43		ANTED	C. 10 BC	E, F. G (Insc.)	CATTI			COMMUX		
COMMUX		I, J	COMMUX	C. AD 10	MX	COMMUX			CATTI		
CORIO			EISV	C. AD 15	H (Insc.)	CORIO			ANTED		G (Insc.)
BODVOC	To C. AD 47	K (Insc.)	CATTI	C. AD 10 - AD 61	I, J	BODVOC	Early 1st century AD	K (Insc.)	EISV		H (Insc.)

Figure 5.14: Relative and absolute frameworks that have been proposed for the development of western/Dobunnic coinage

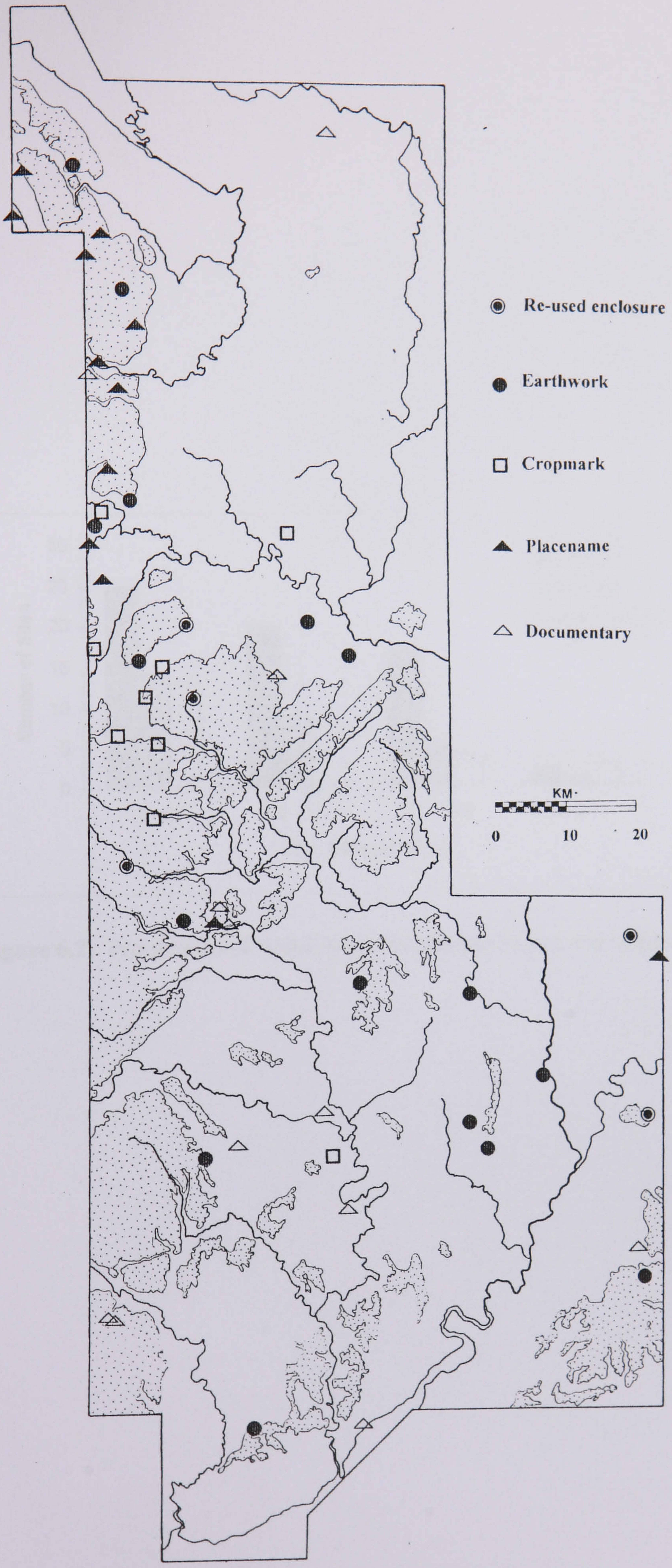

Figure 6.1: Distribution of 'possible' hillforts within the Welsh Marches

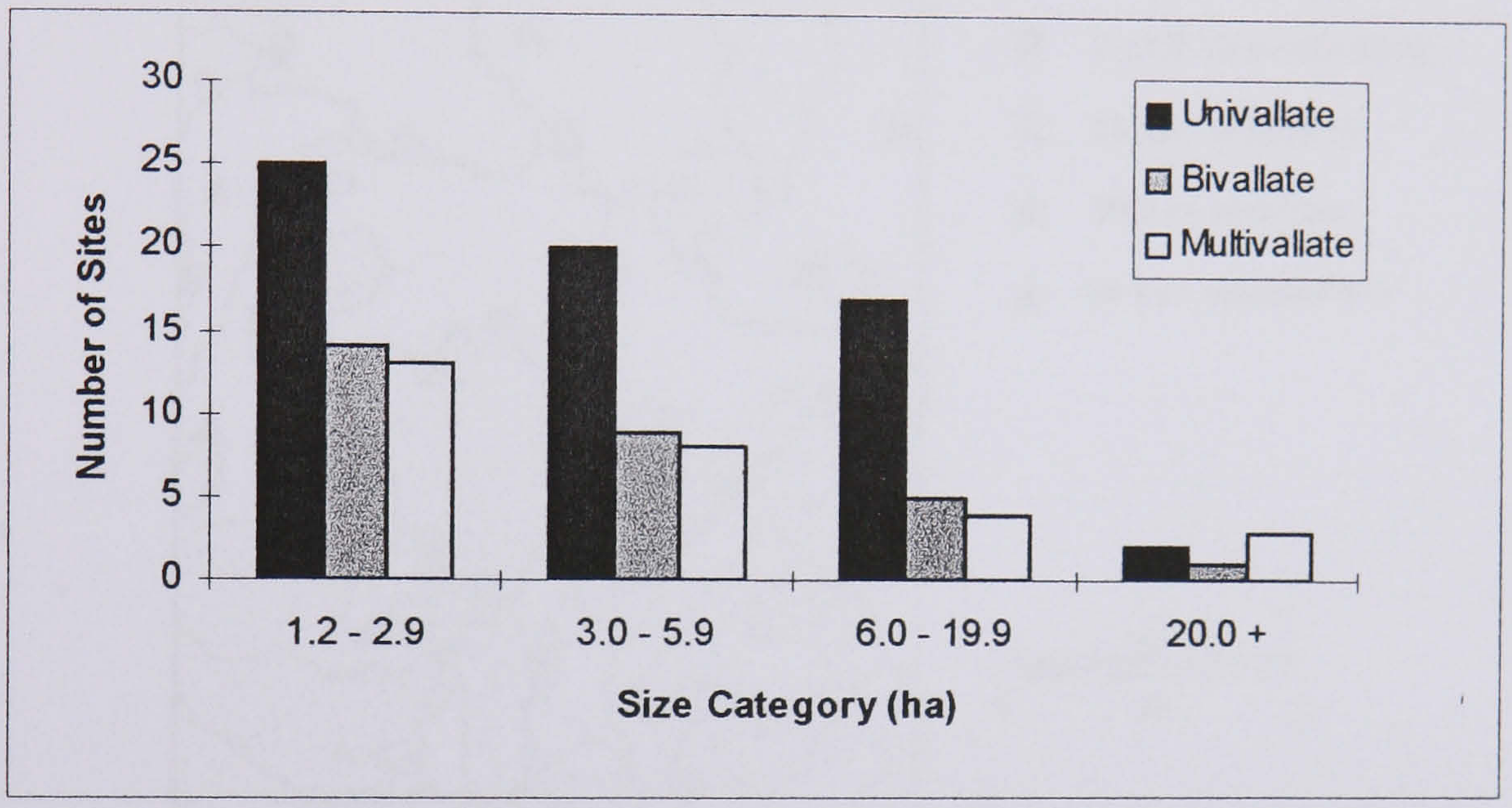

Figure 6.2: Proportions of Welsh Marches hillforts by size and vallation

Figure 6.3: Distribution of hillforts within the Welsh Marches

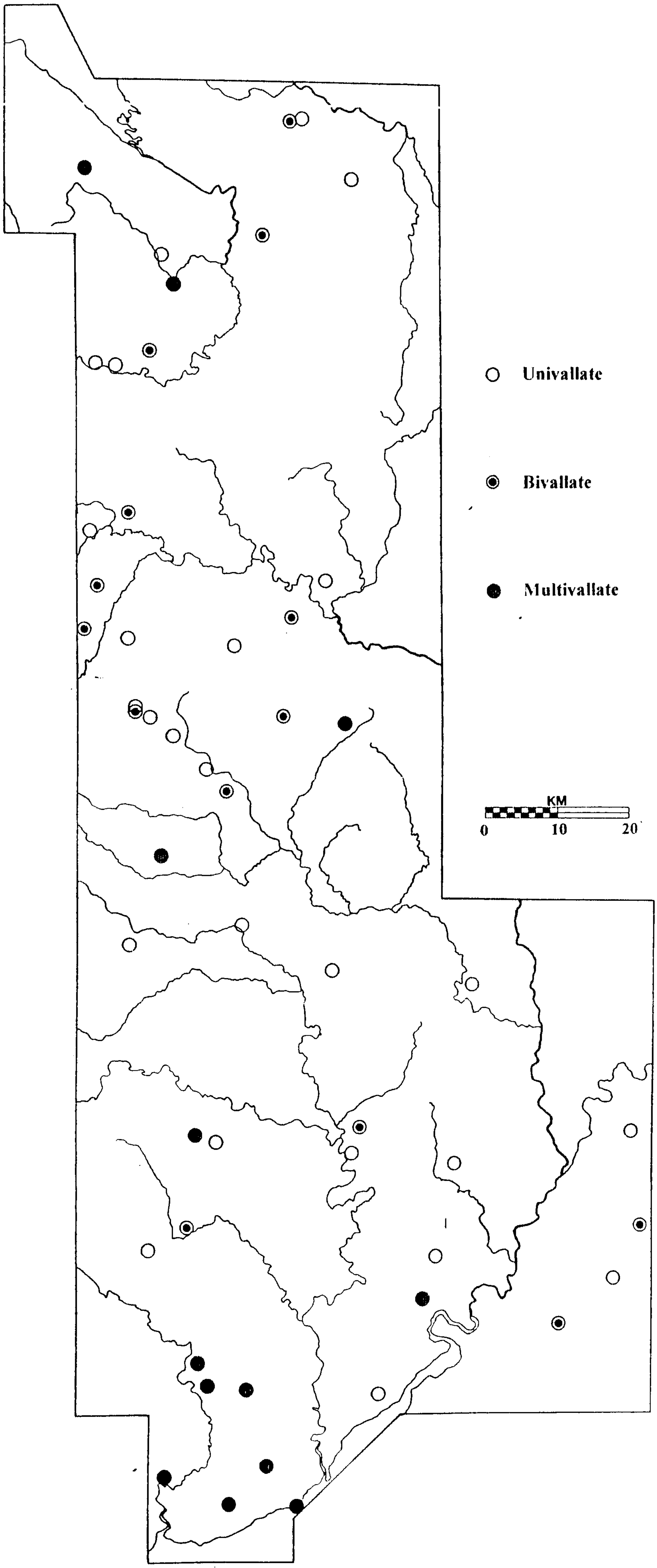

Figure 6.4: Distribution of hillforts between 1.2 and 2.9 ha in the Welsh Marches

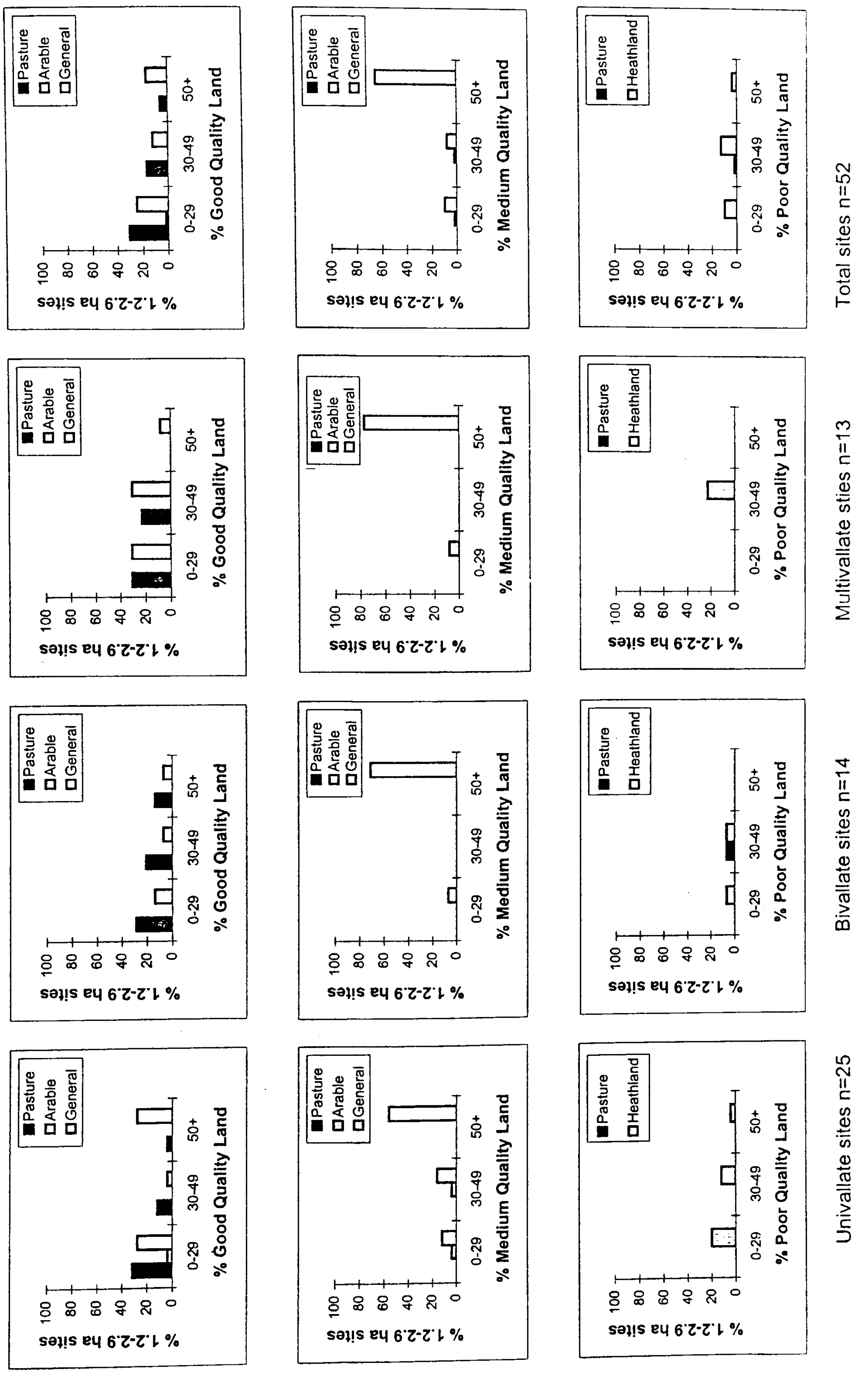

Figure 6.5: Site catchment analysis of hillforts between 1.2 and 2.9 ha in the Welsh Marches

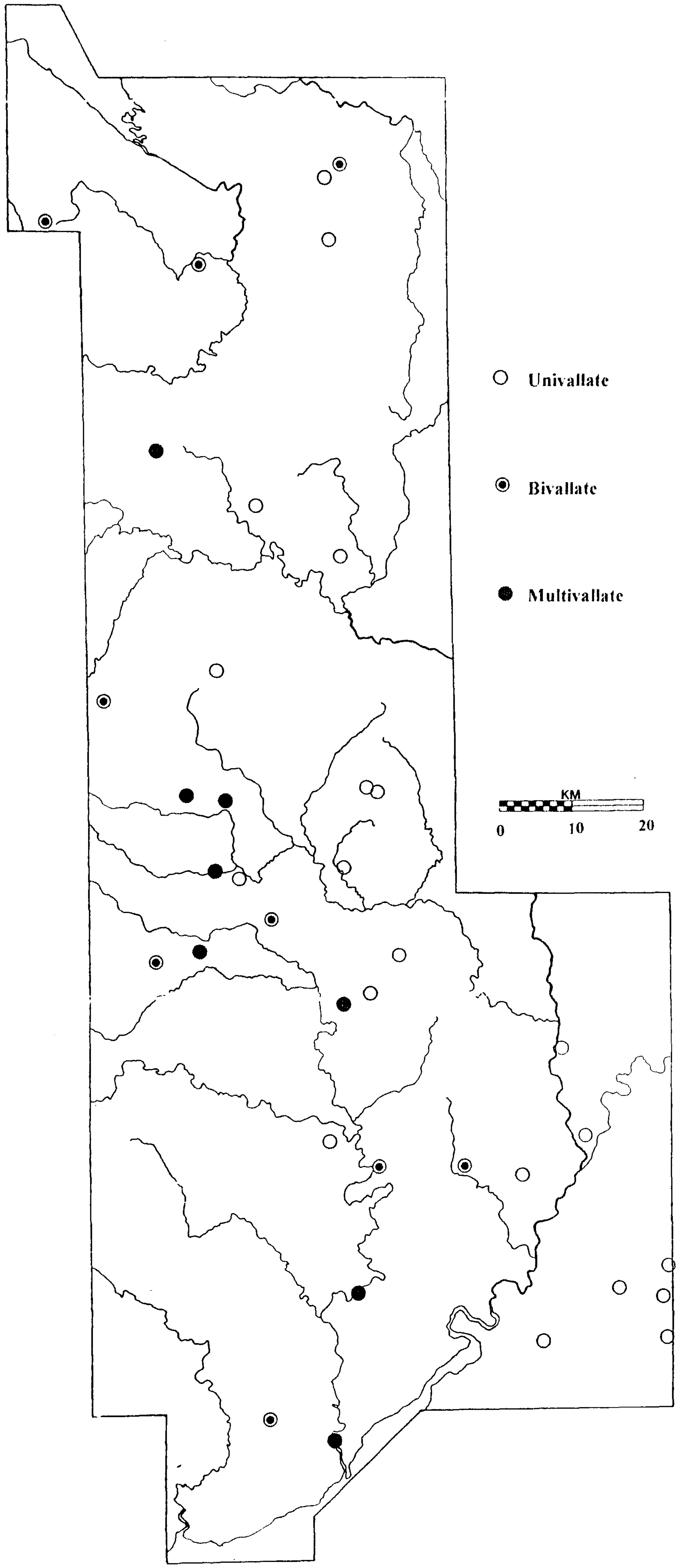

Figure 6.6: Distribution of hillforts between 3 and 5.9 ha in the Welsh Marches

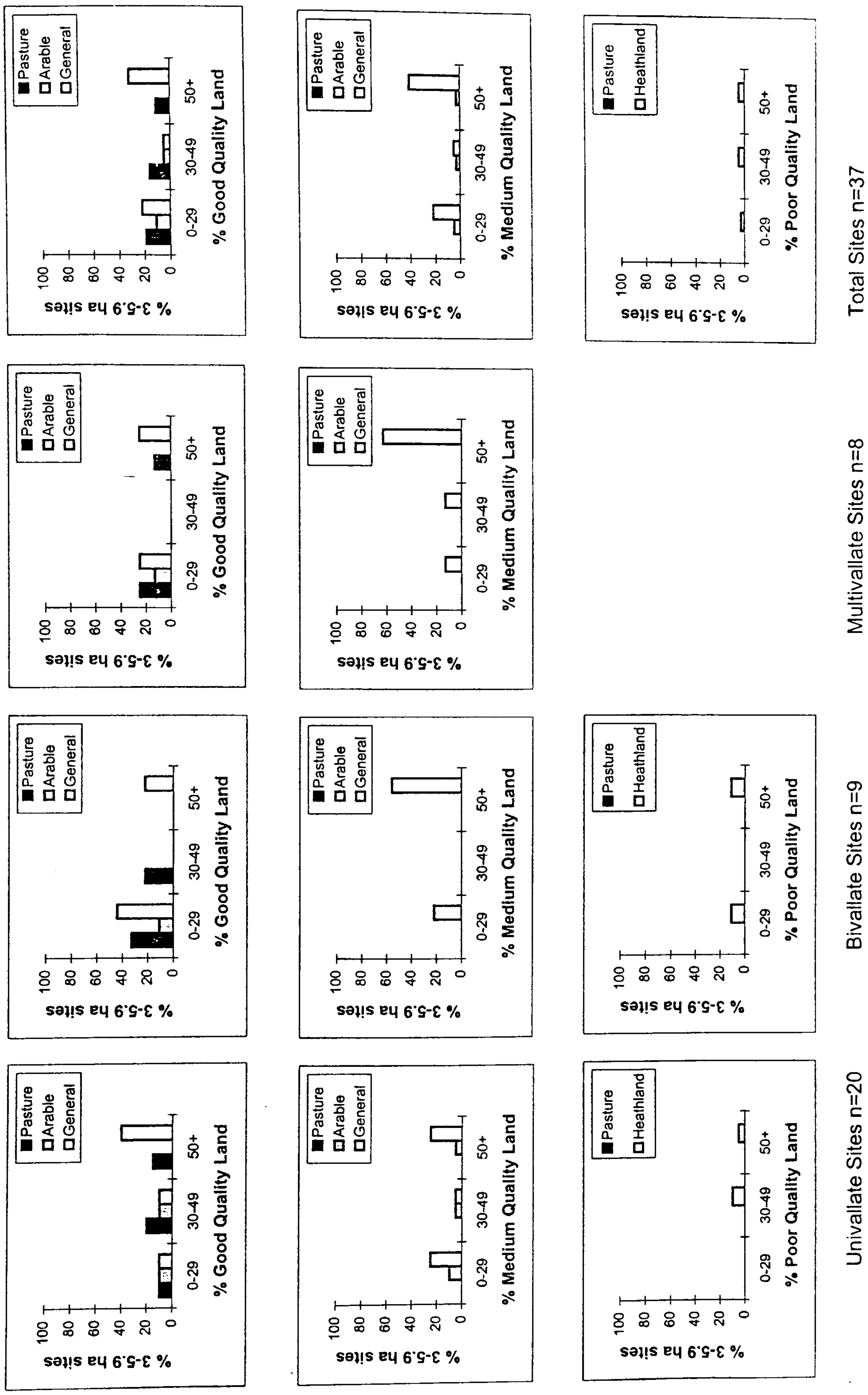

Figure 6.7: Site catchment analysis of hillforts between 3 and 5.9 ha in the Welsh Marches

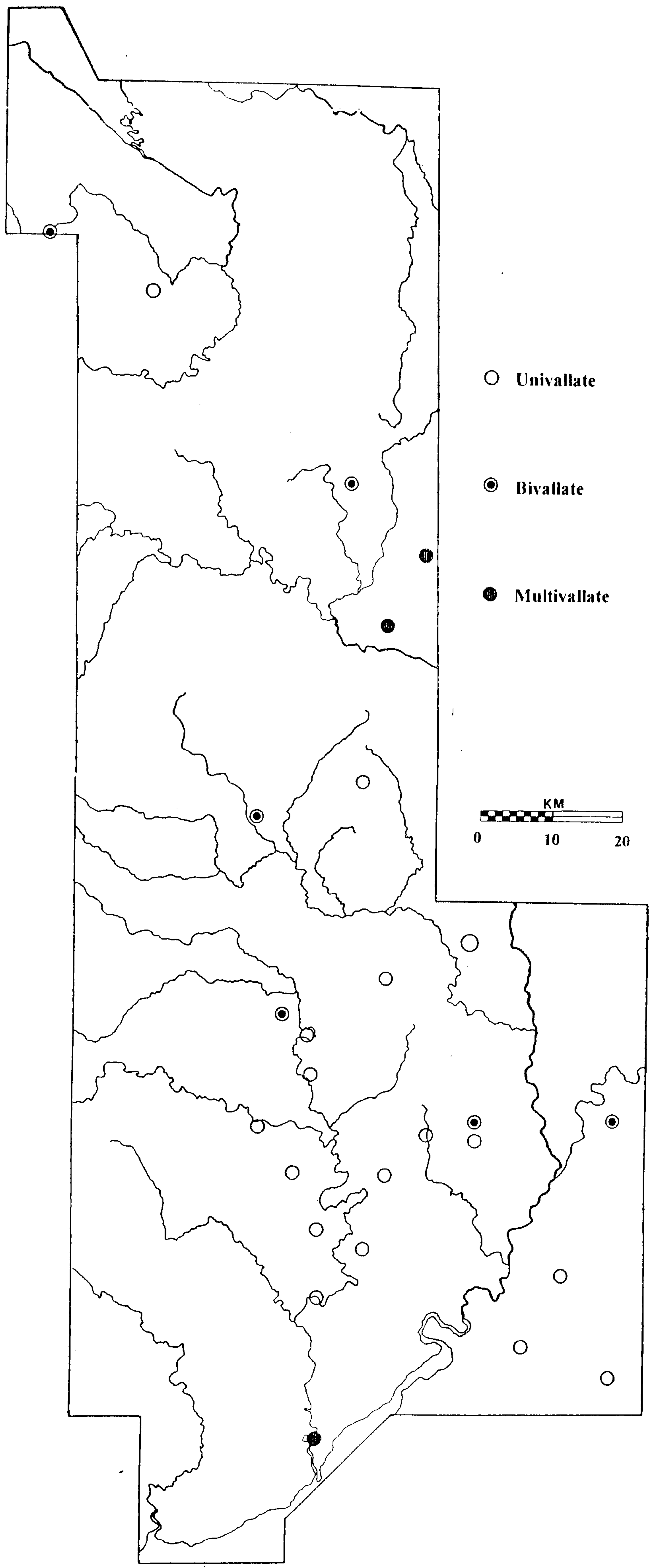

Figure 6.8: Distribution of hillforts between 6 and 19.9 ha in the Welsh Marches

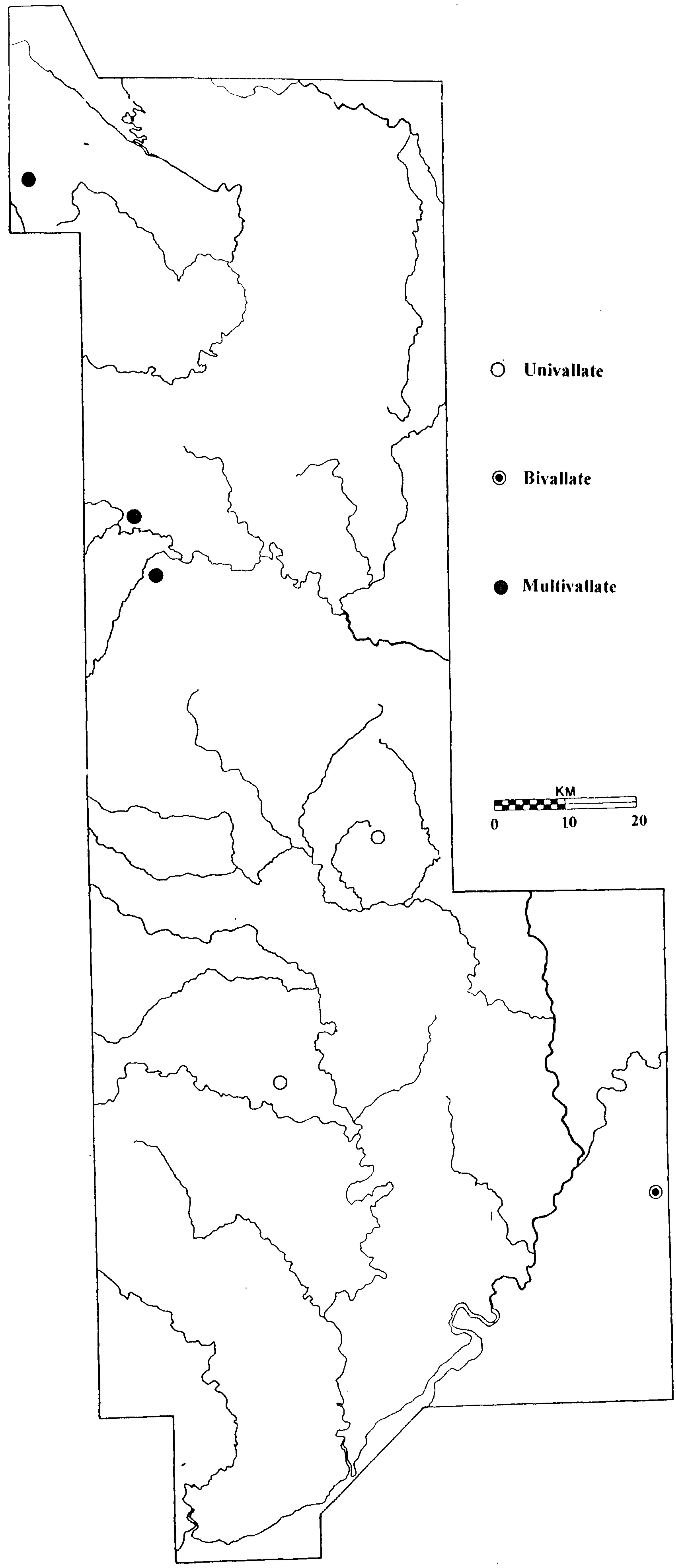

Figure 6.9: Distribution of hillforts over 20 ha in the Welsh Marches

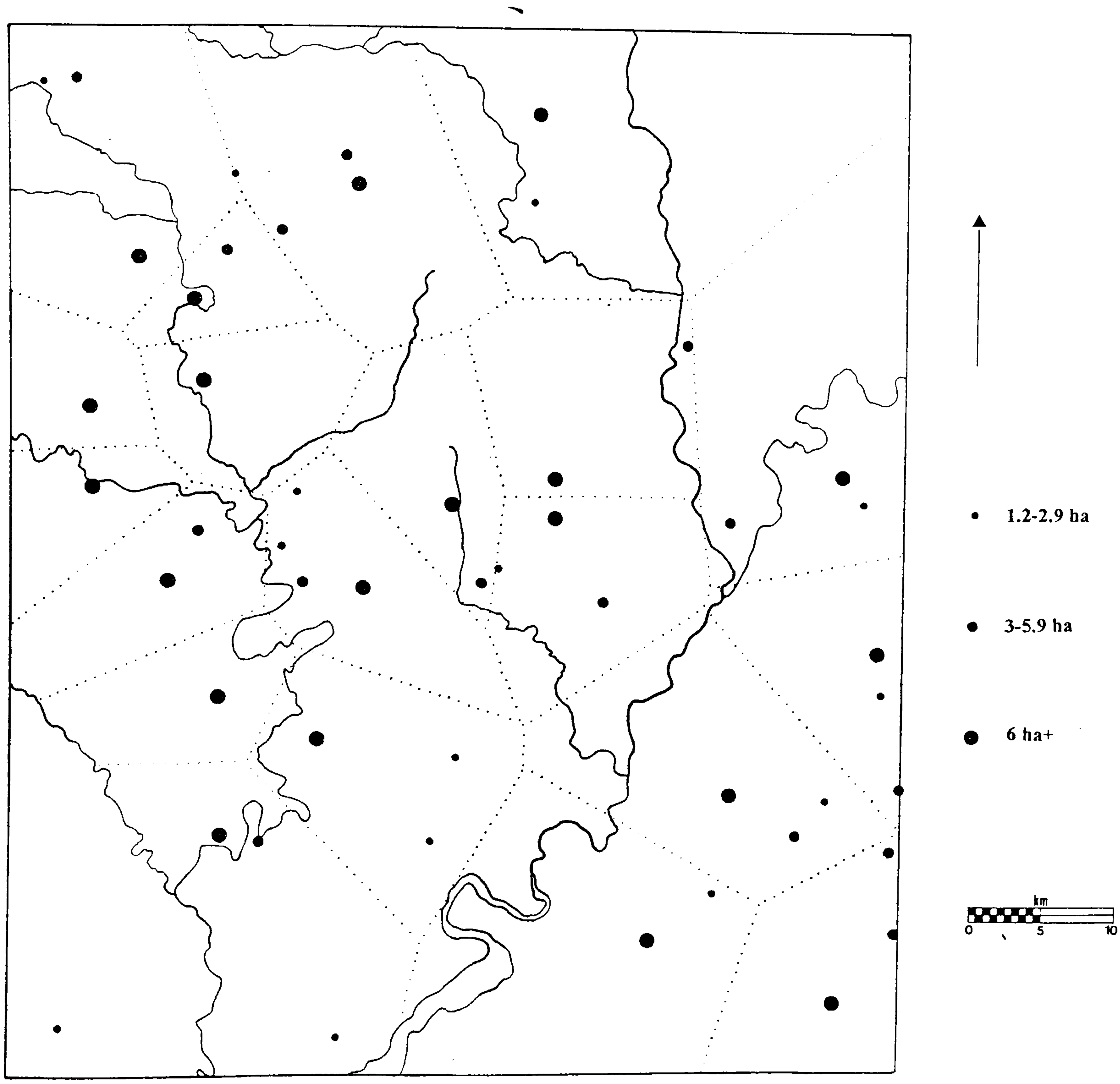

Figure 6.10: Imposition of thiessen polygons on the distribution of hillforts over 6 ha in the south central Marches

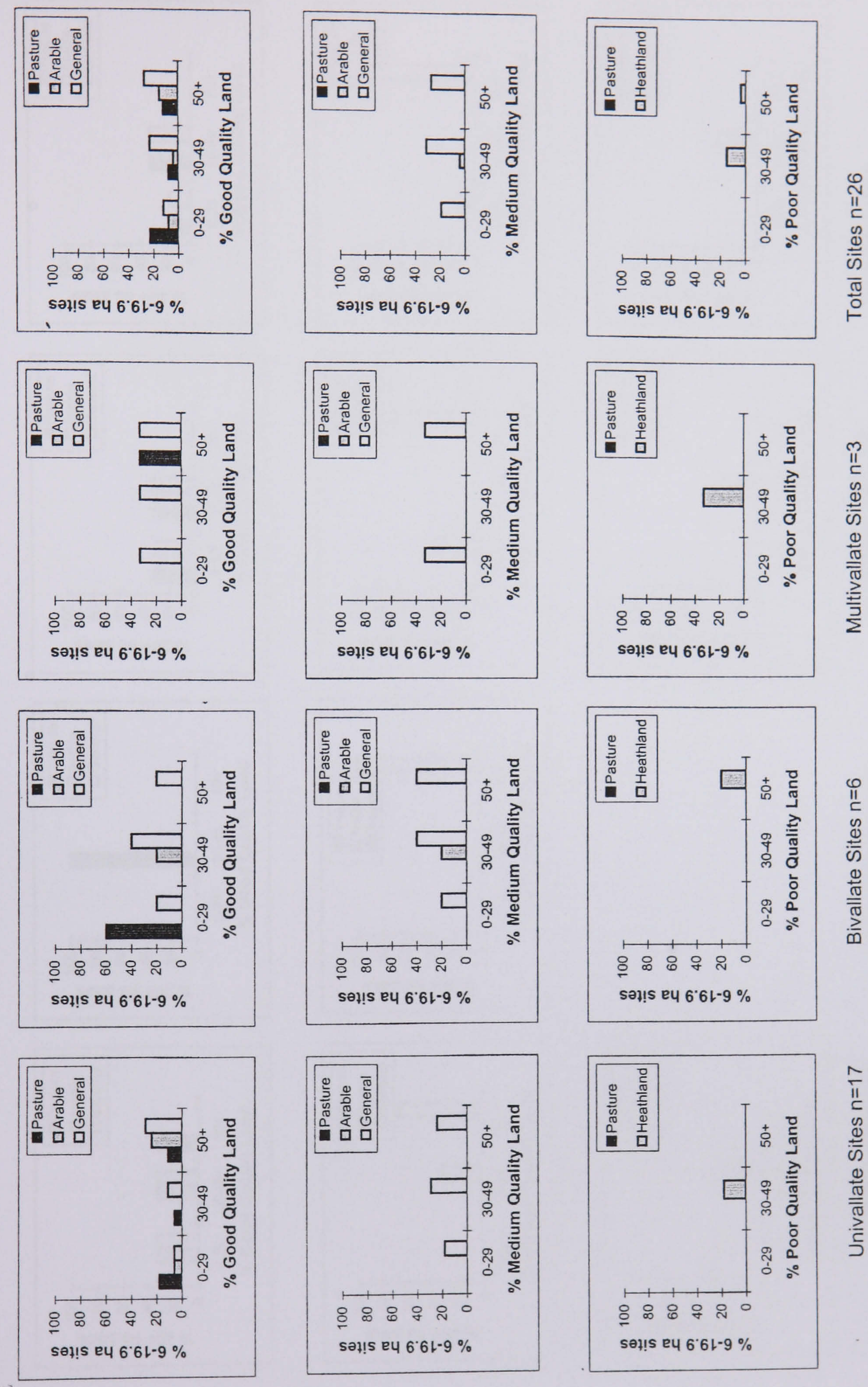

Figure 6.11: Site catchment analysis of hillforts between 6 and 19.9 ha in the Welsh Marches

Figure 6.12: Site catchment analysis of hillforts over 20 ha in the Welsh Marches

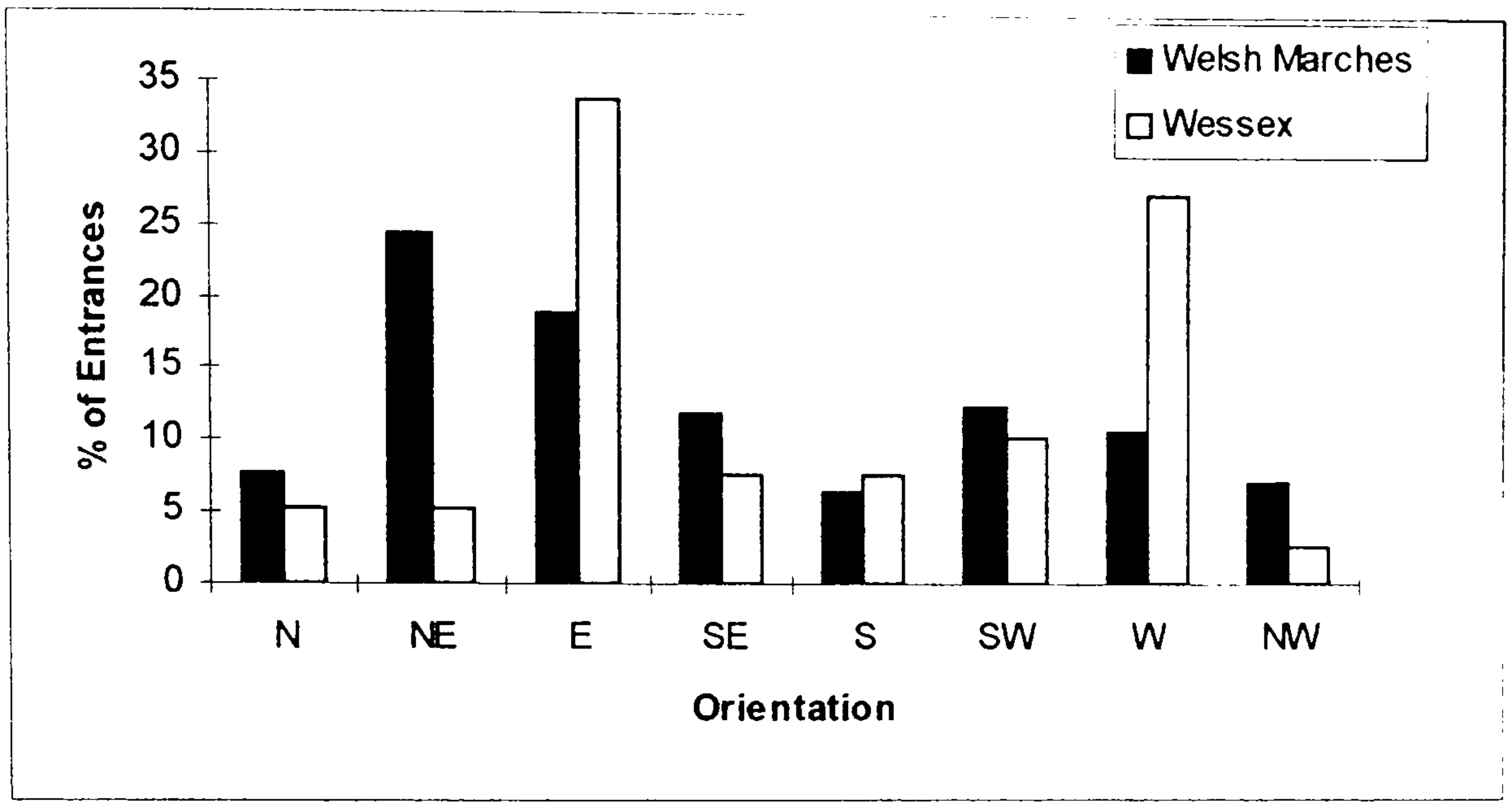

Figure 6.13: Hillfort Entrance Orientation in the Welsh Marches and Wessex (data for the latter derived from Hill 1995)

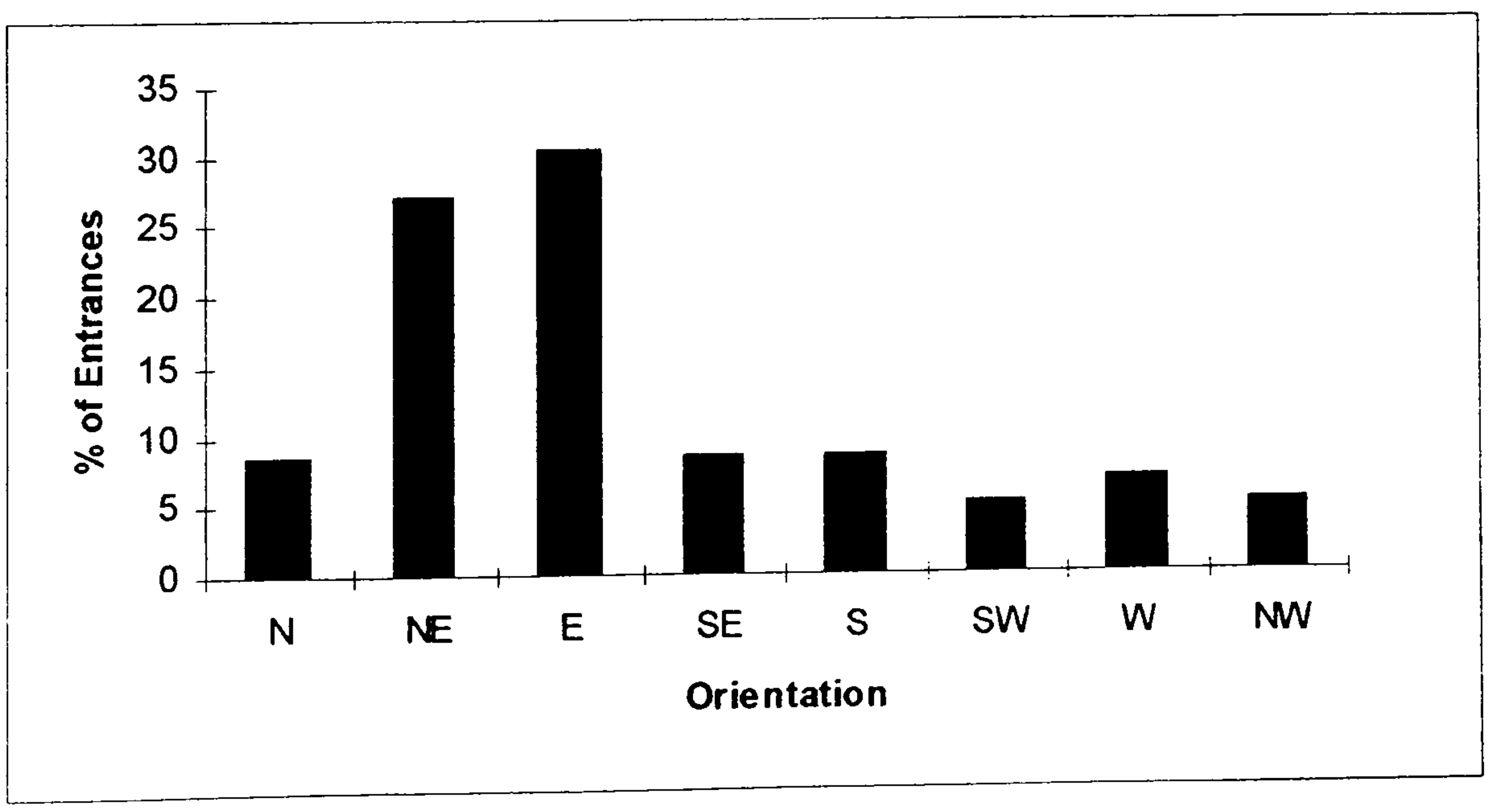

Figure 6.14: Entrance Orientation of Hillforts in the Welsh Marches with one Entrance

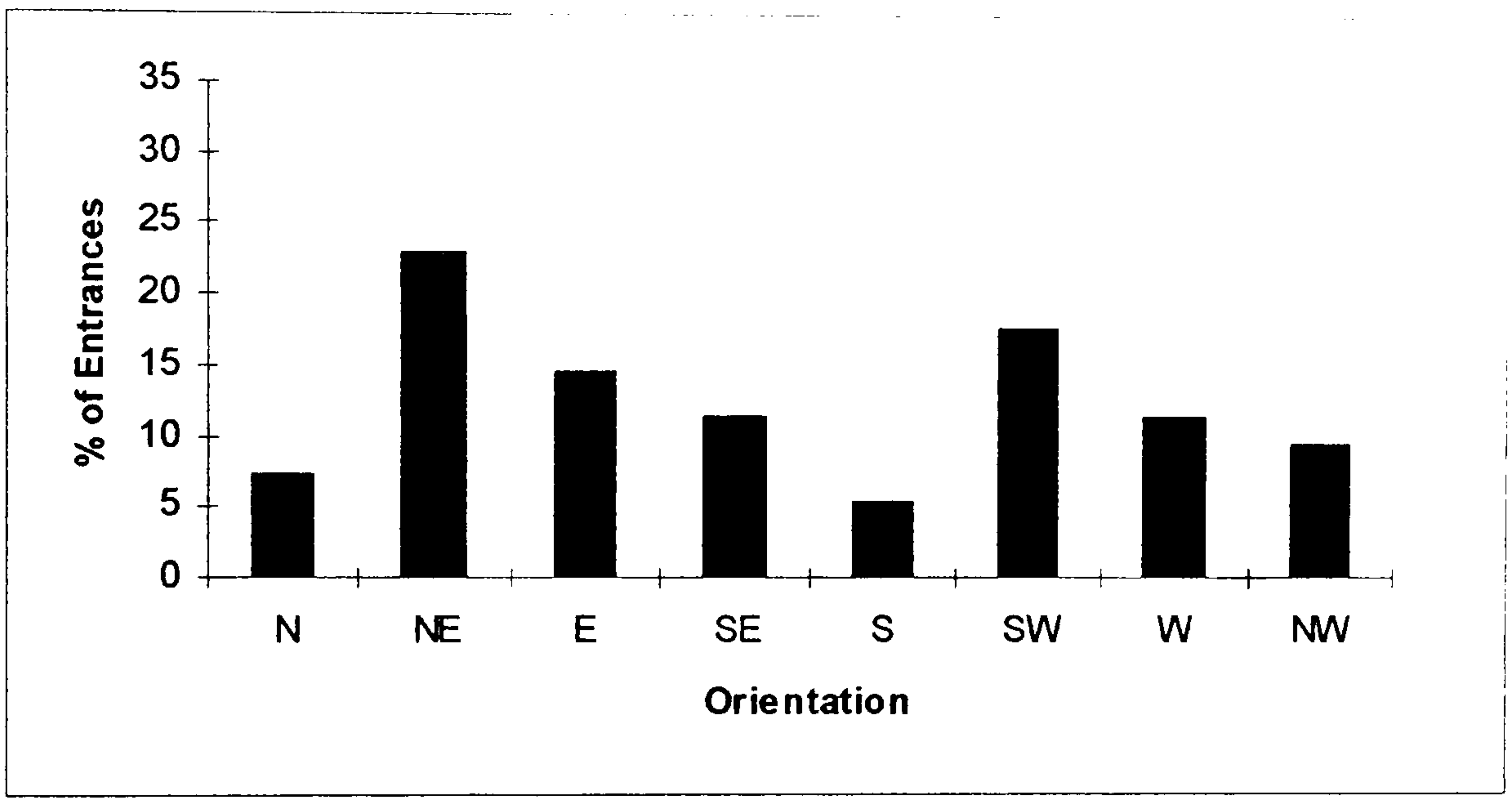

Figure 6.15: Entrance Orientation of Hillforts in the Welsh Marches with two Entrances

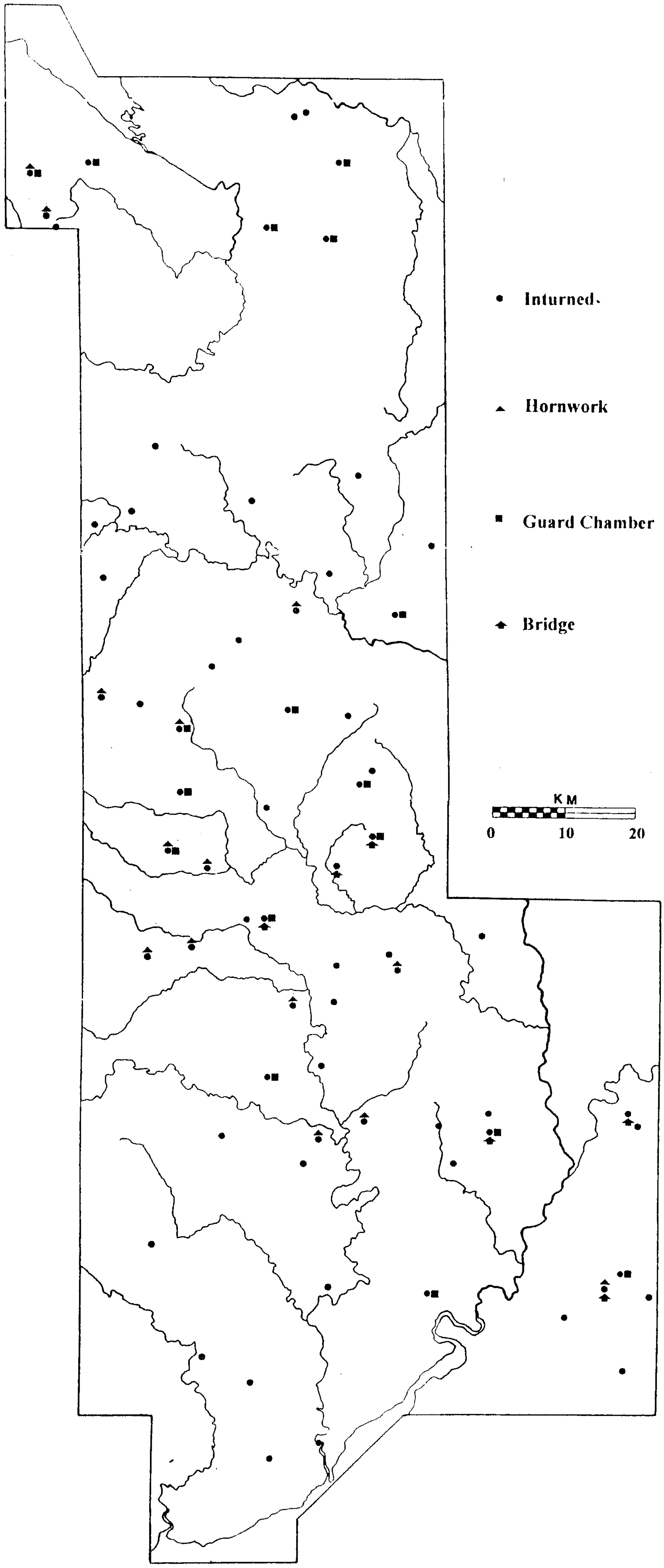

Figure 6.16: Distribution of principle hillfort entrance architectural features in the Welsh Marches

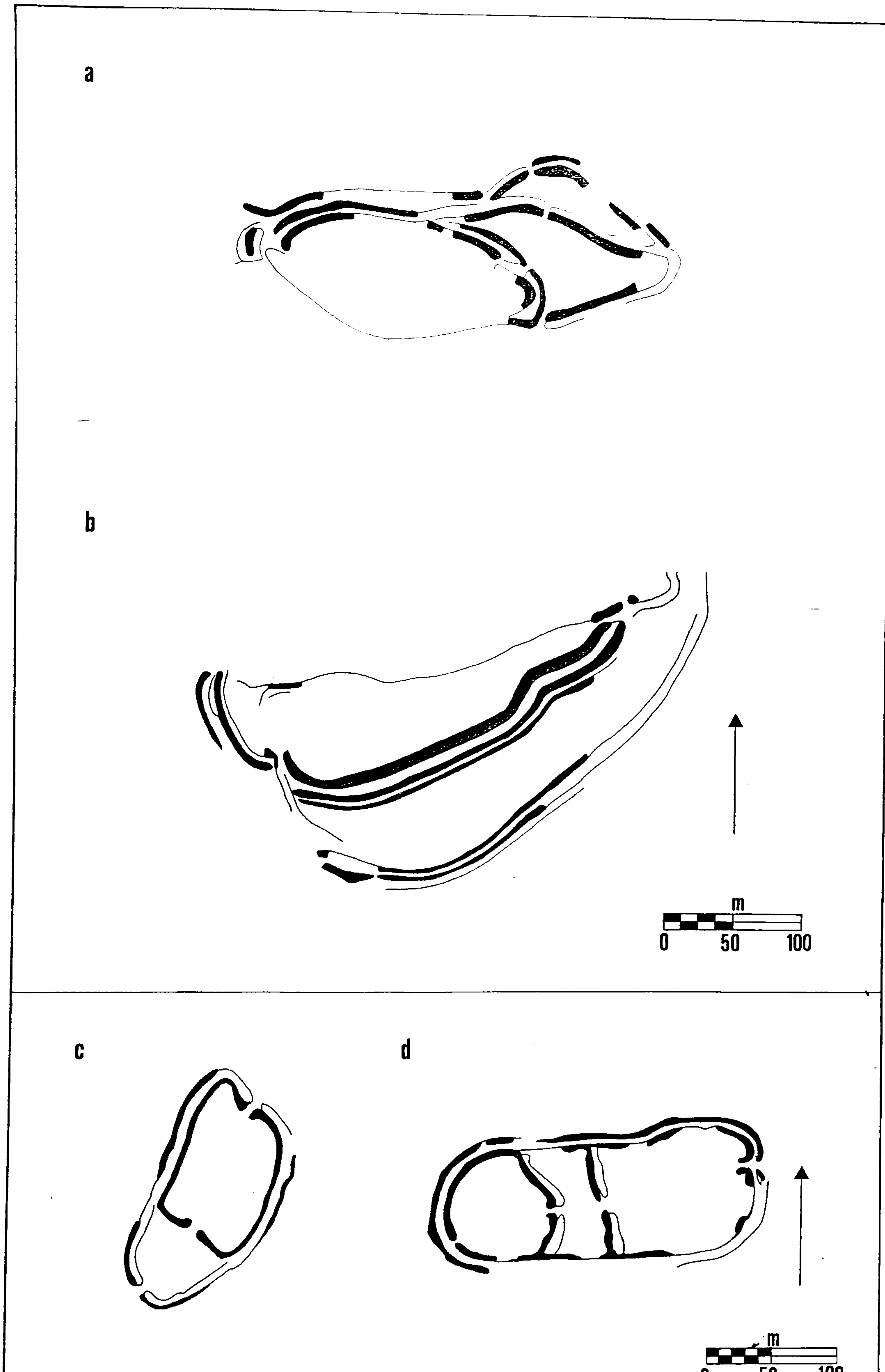

Figure 6.17: Types of multi-enclosure fort in the Welsh Marches

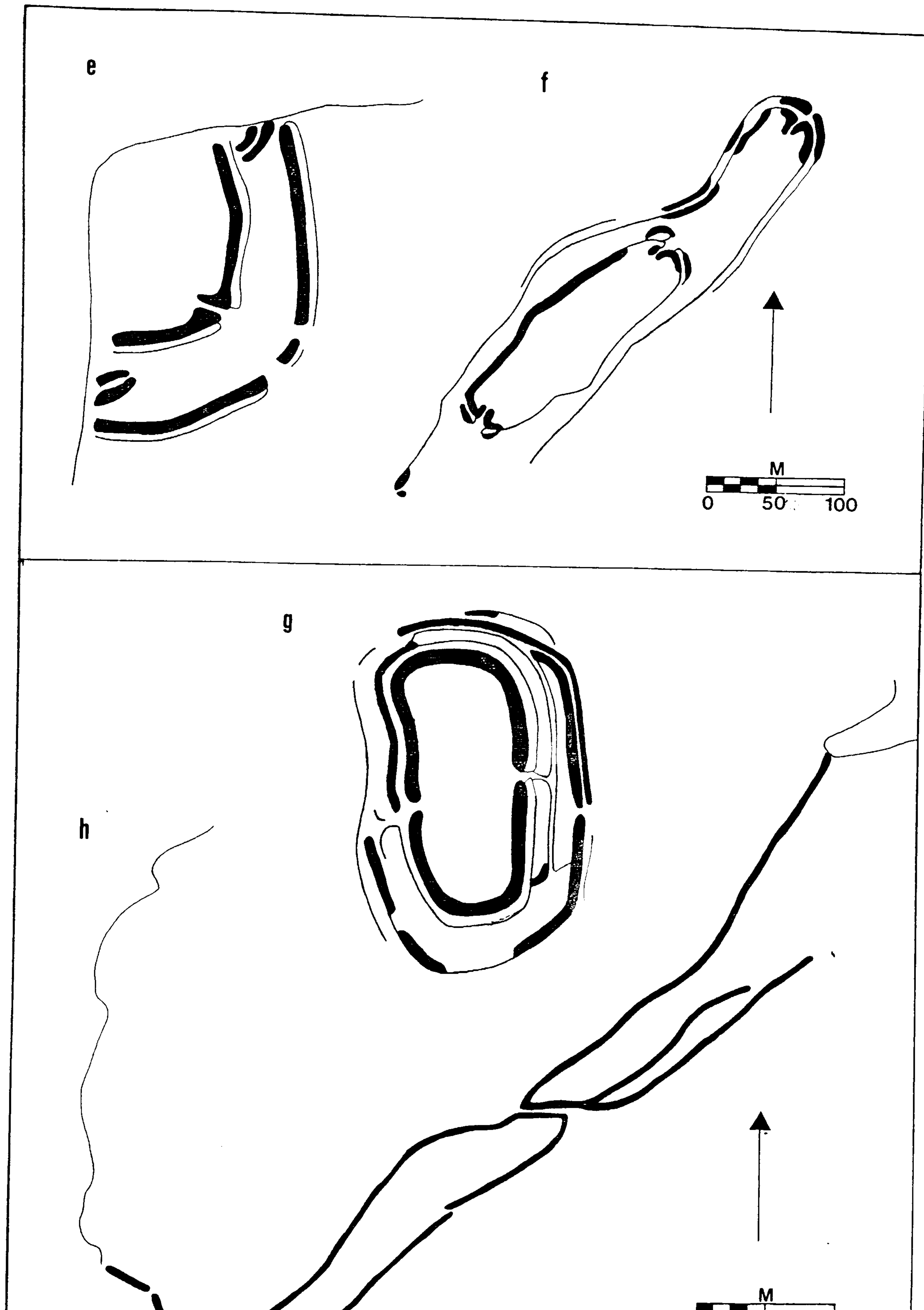

Figure 6.17: Types of multi-enclosure fort in the Welsh Marches

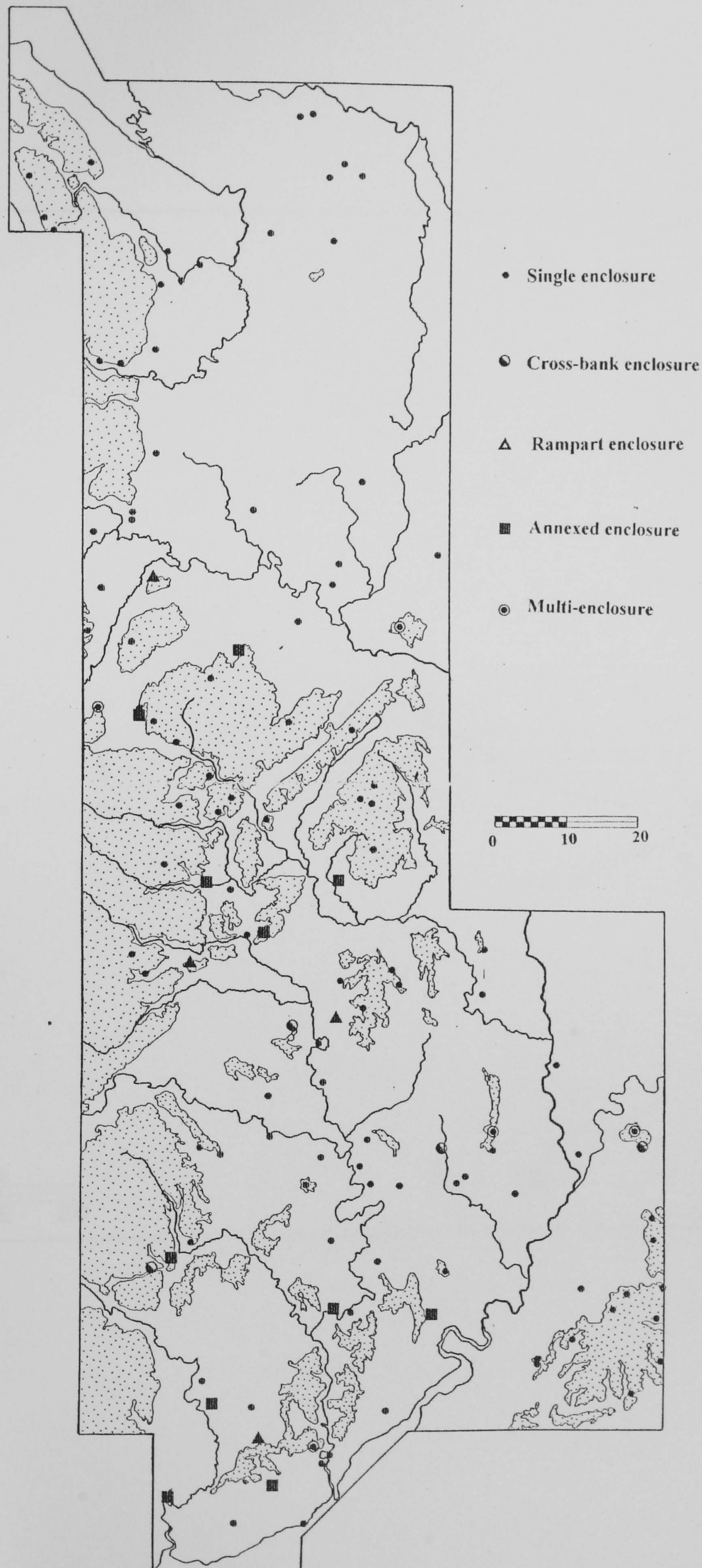

Figure 6.18: Distribution of single and multi-enclosure forts in the Welsh Marches

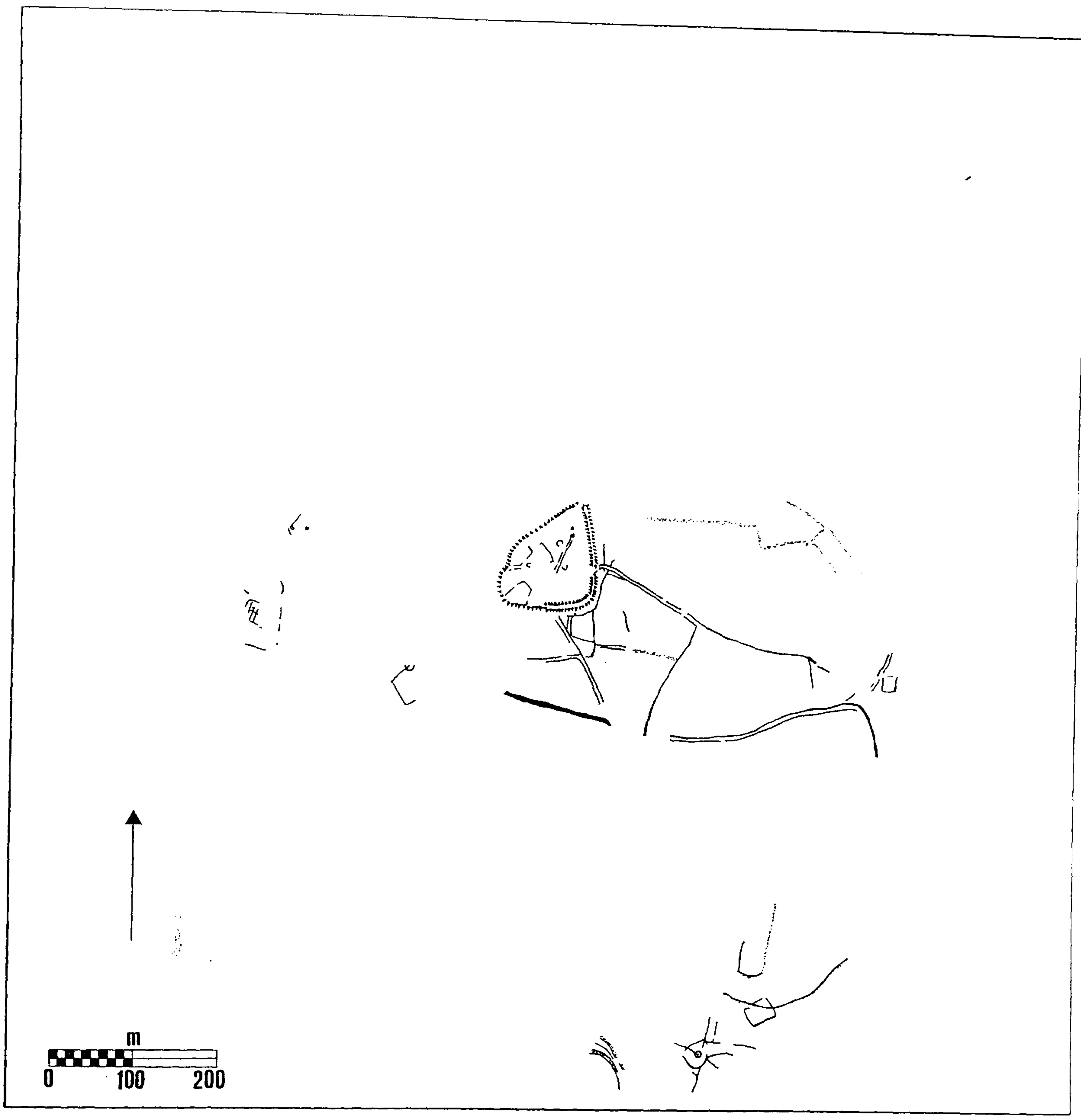

Figure 6.19: Brandon Camp, Herefordshire, showing the hillforts imposition onto an earlier linear-earthwork system

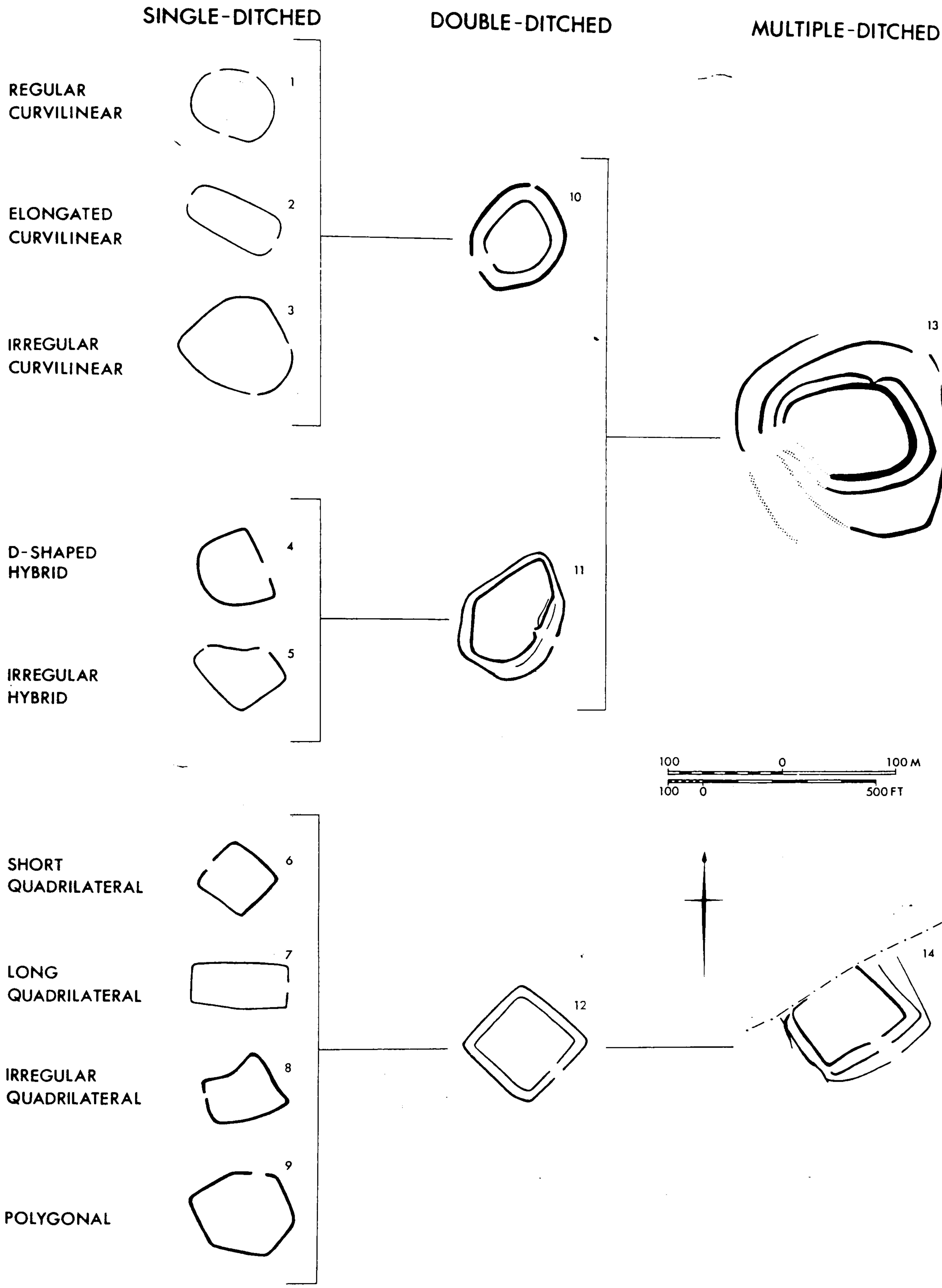

Figure 7.1: A morphological framework for non-hillfort enclosure in the Welsh Marches (after Whimster 1989)

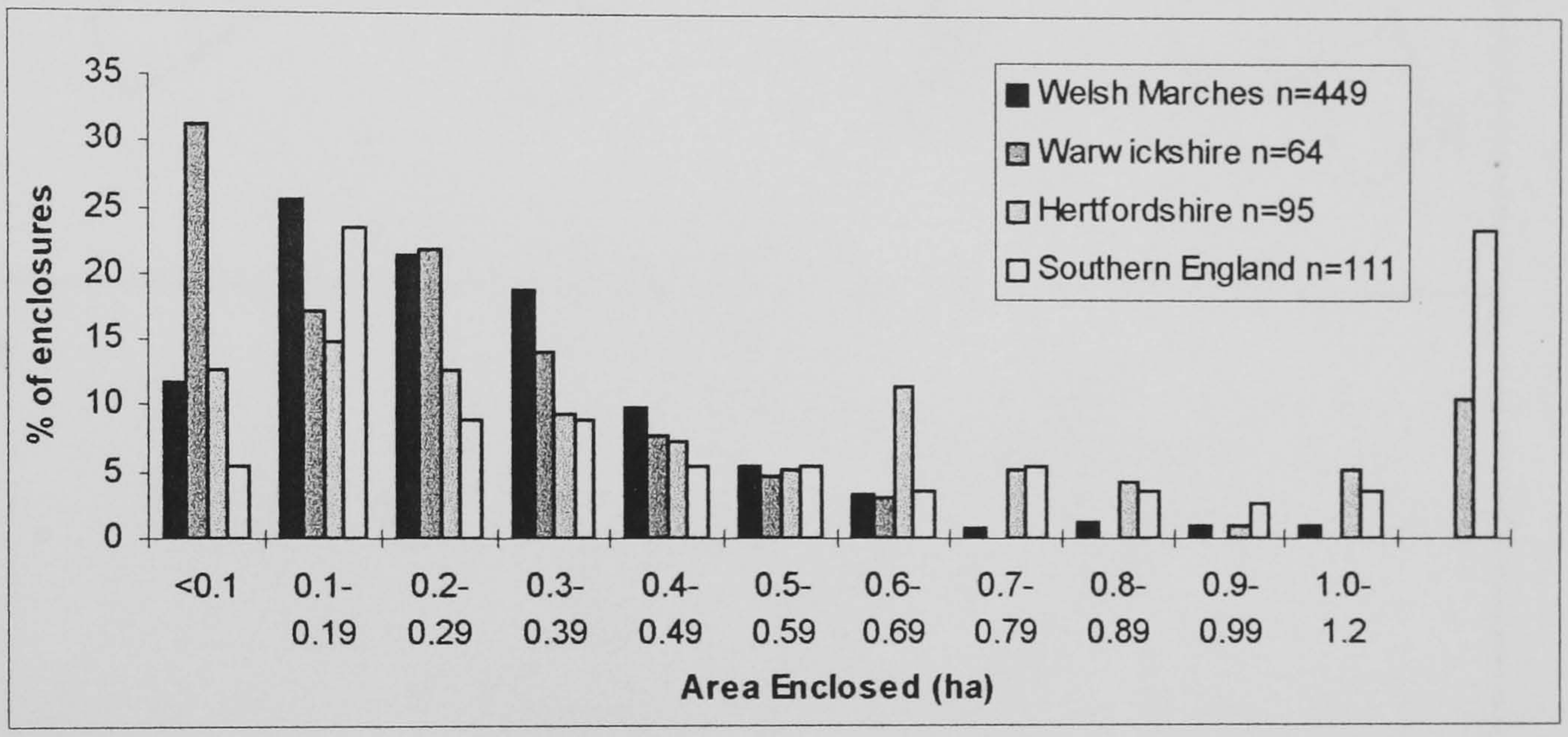

Figure 7.2: Size distribution of non-hillfort enclosures in the central Welsh Marches, Warwickshire, Hertfordshire and central southern England

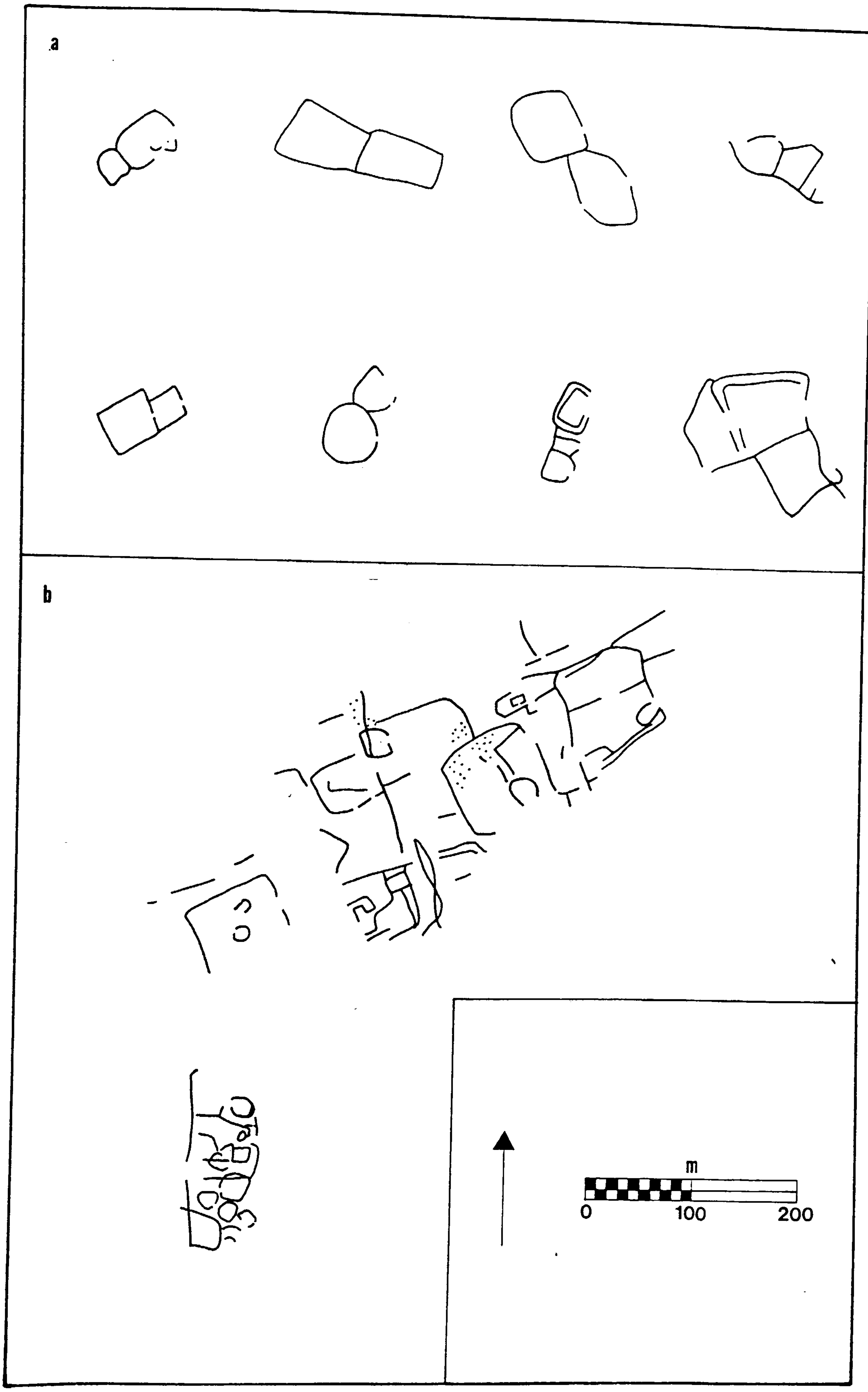

Figure 7.3: Examples of a) conjoined enclosures and b) complex enclosures from the Welsh Marches

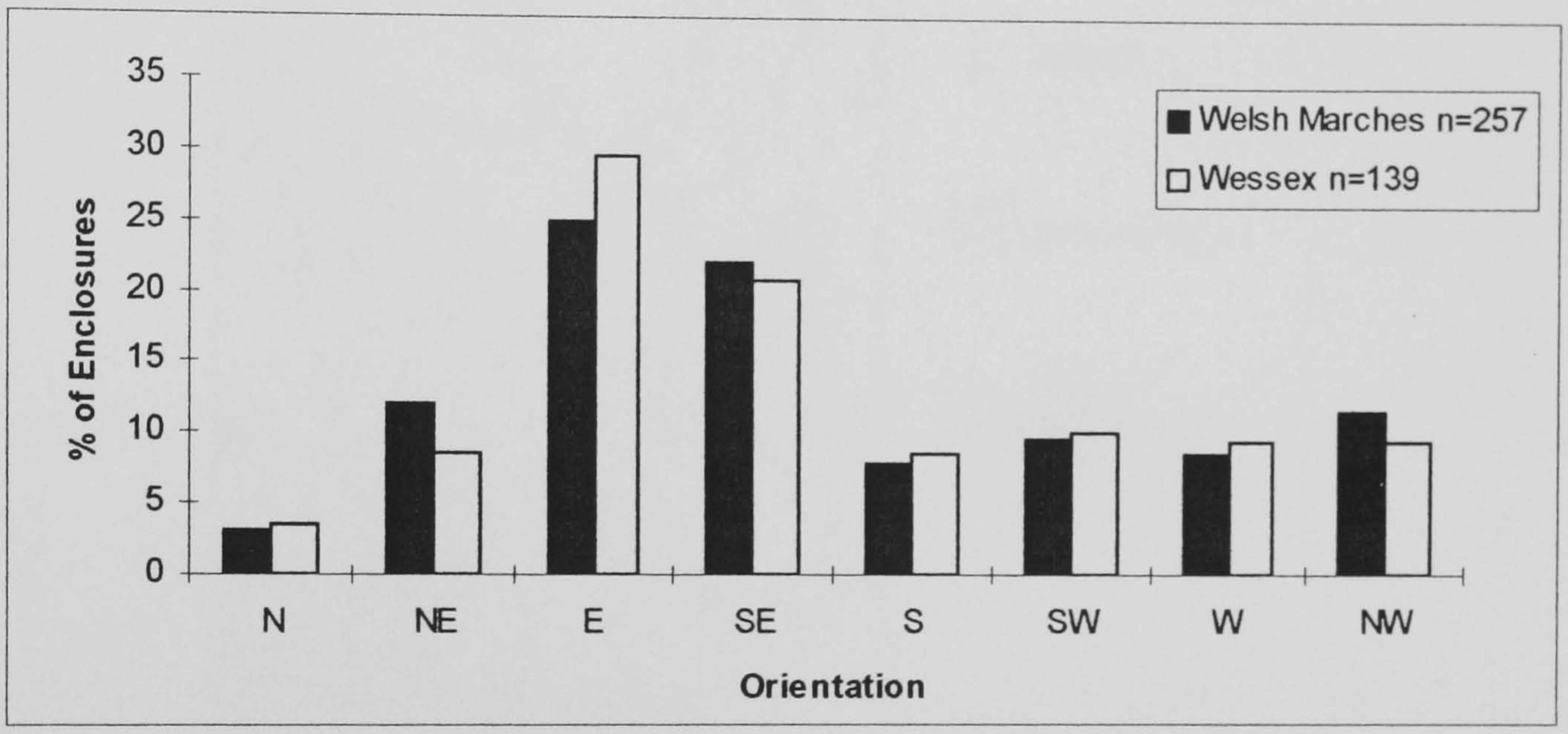

Figure 7.4: Enclosure entrance orientation in the Welsh Marches and Wessex (data for the latter obtained from Hill 1995)

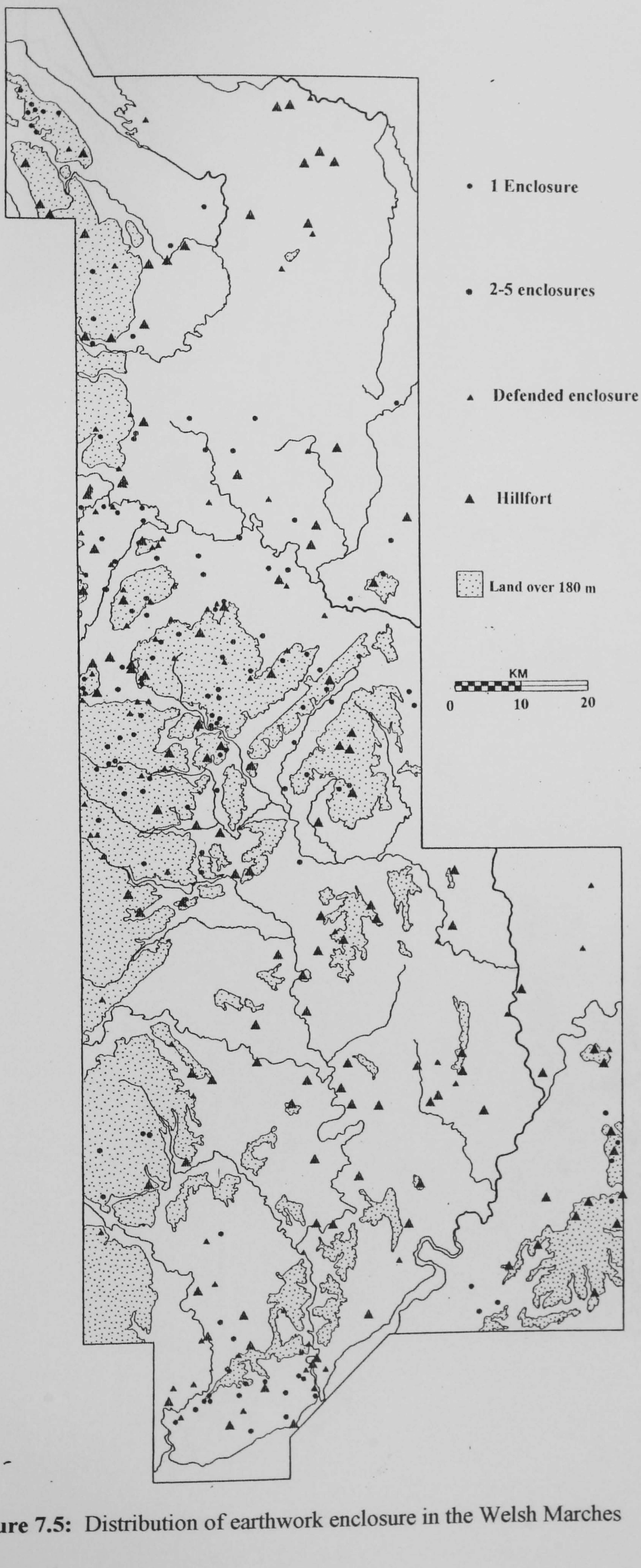

Figure 7.5: Distribution of earthwork enclosure in the Welsh Marches

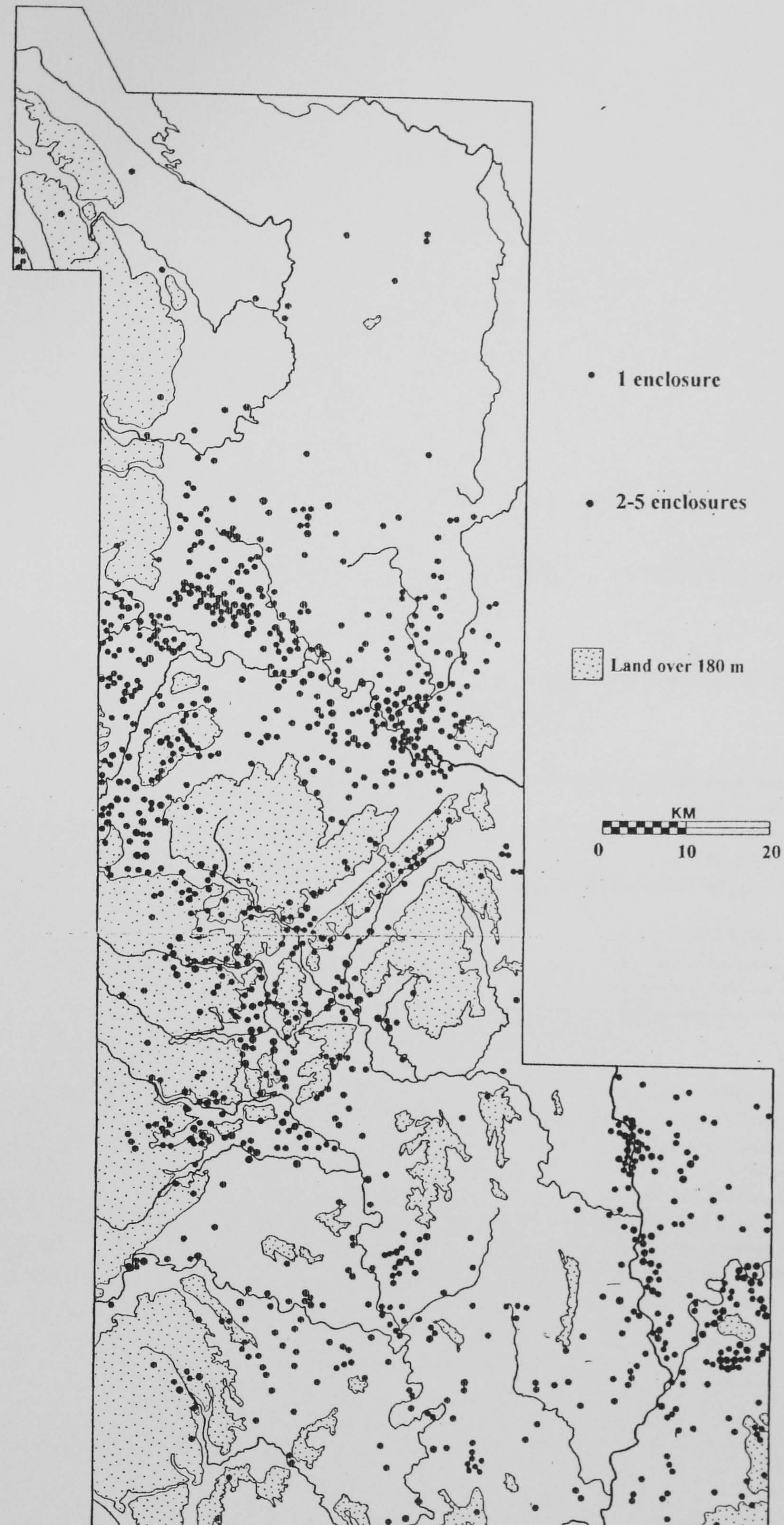

Figure 7.6: Distribution of cropmark enclosure in the Welsh Marches

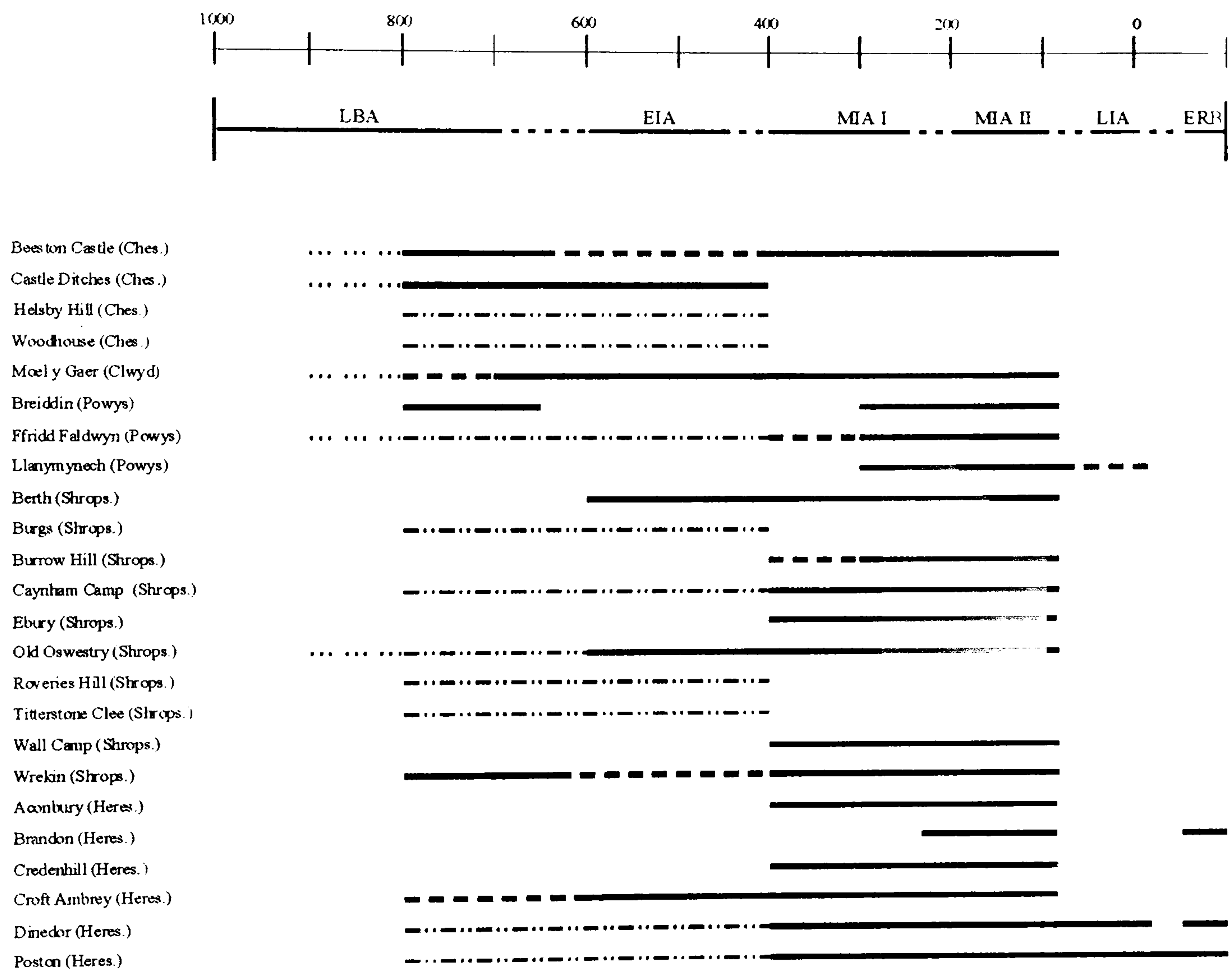

Figure 8.1: Potential chronological ranges for selected hillforts from the Welsh Marches

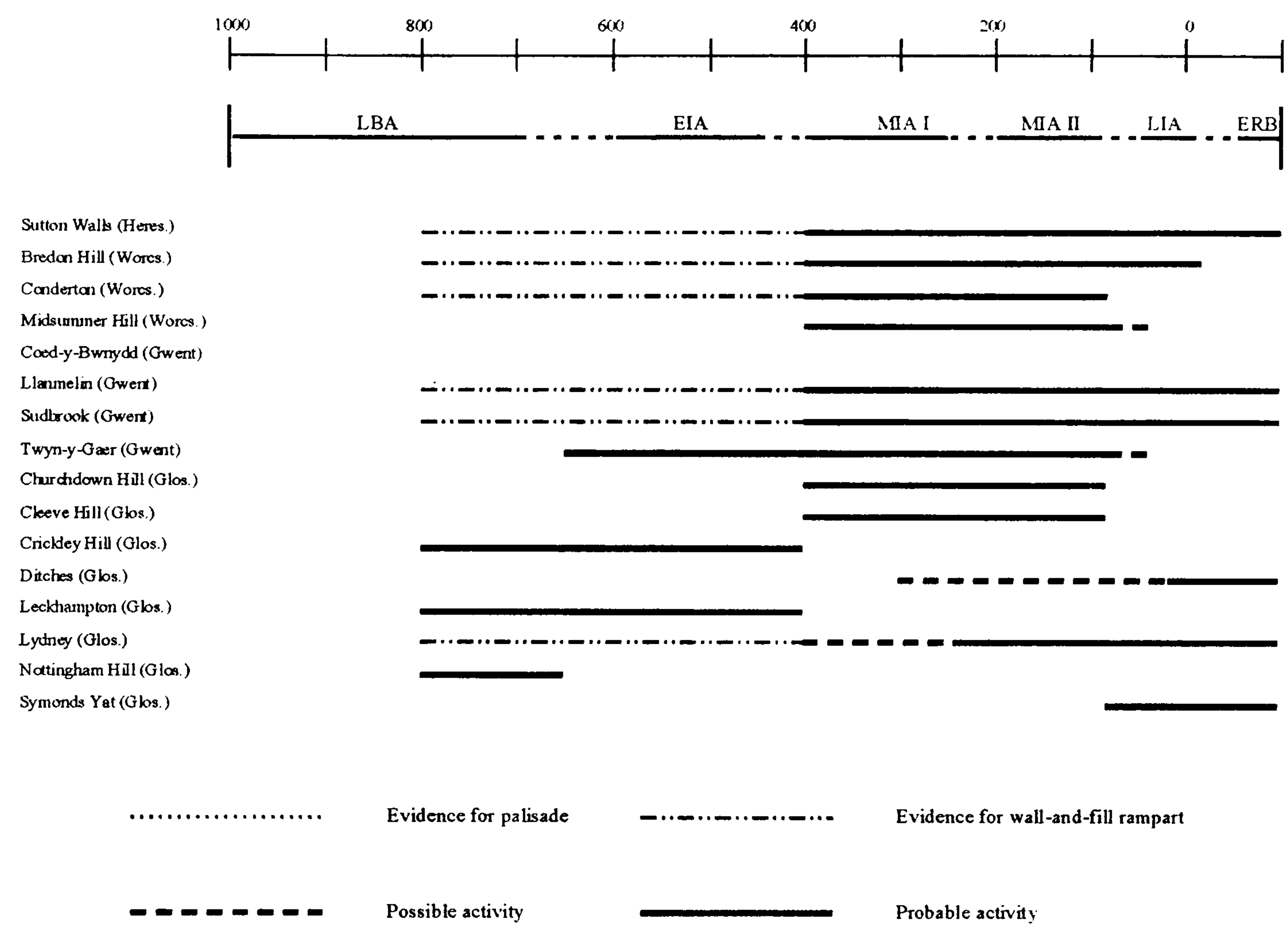

Figure 8.1: Potential chronological ranges for selected hillforts from the Welsh Marches

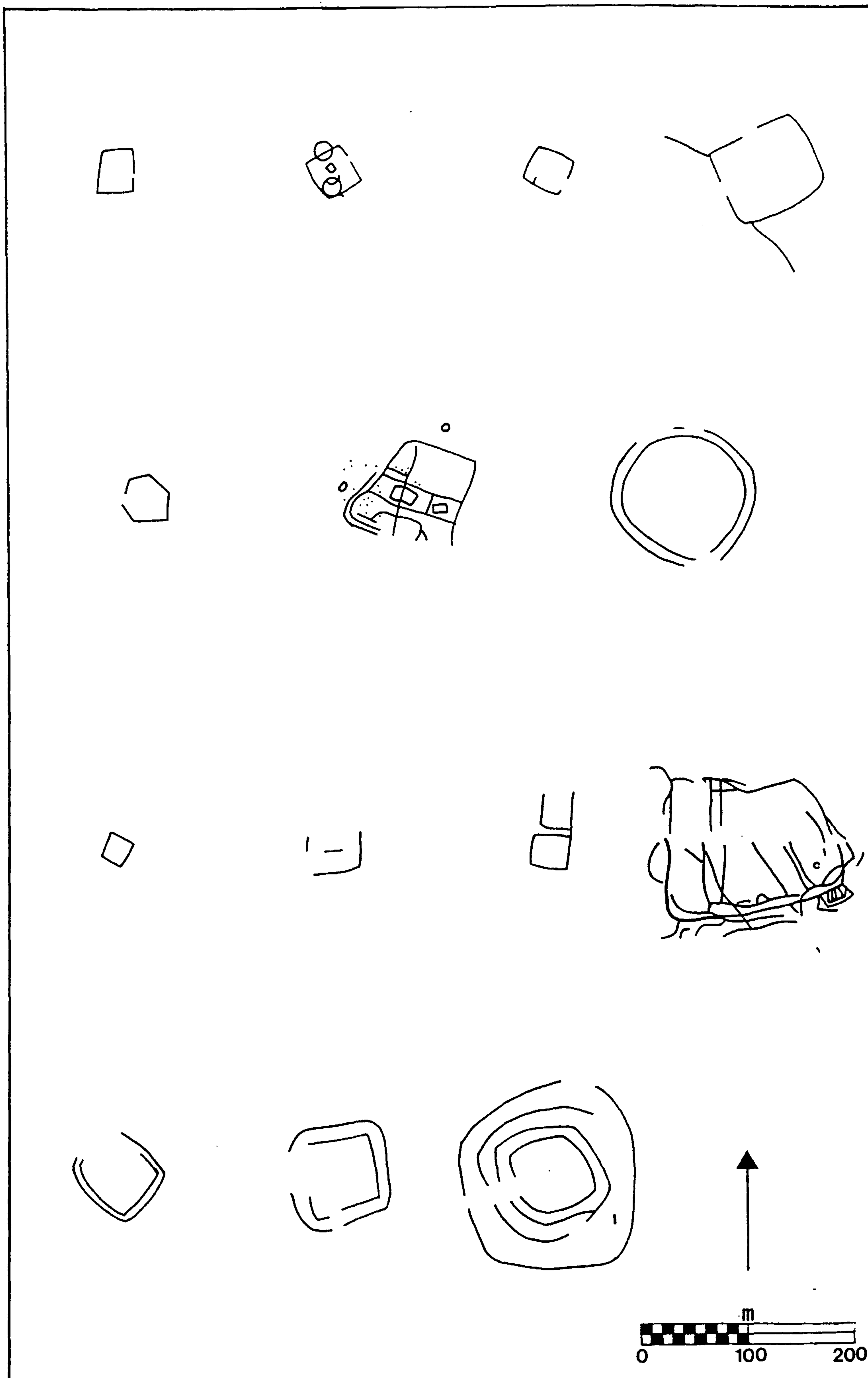

Figure 8.2: Plans of published excavated single non-hillfort enclosure sites from the Welsh Marches

Figure 8.3: Suggested devlopment of the complex site of Dalton Parlours, East Yorkshire (after Wrathmell and Nicholson *et al* 1990)

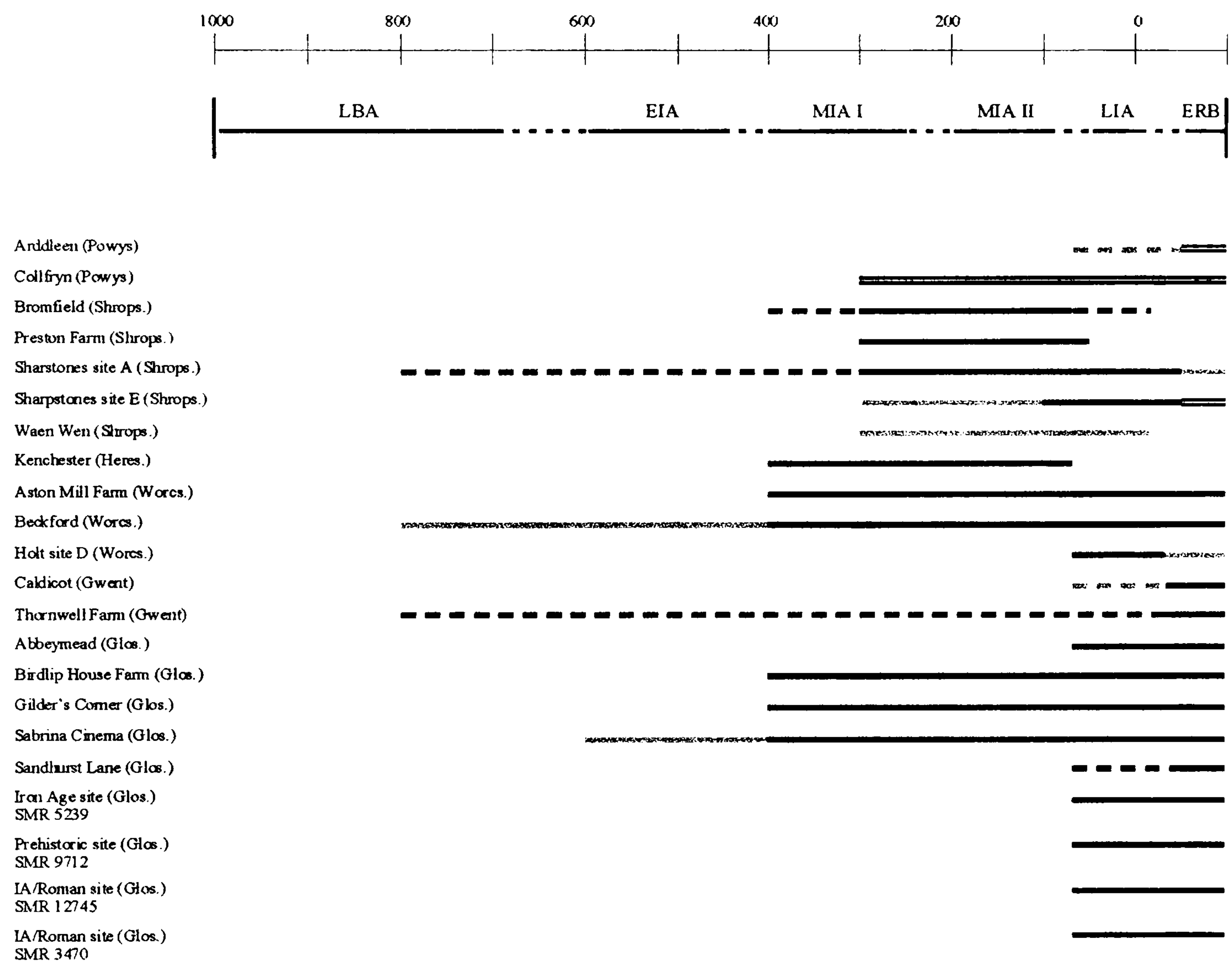

Figure 8.4: Potential chronological ranges for selected non-hillfort sites from the Welsh Marches

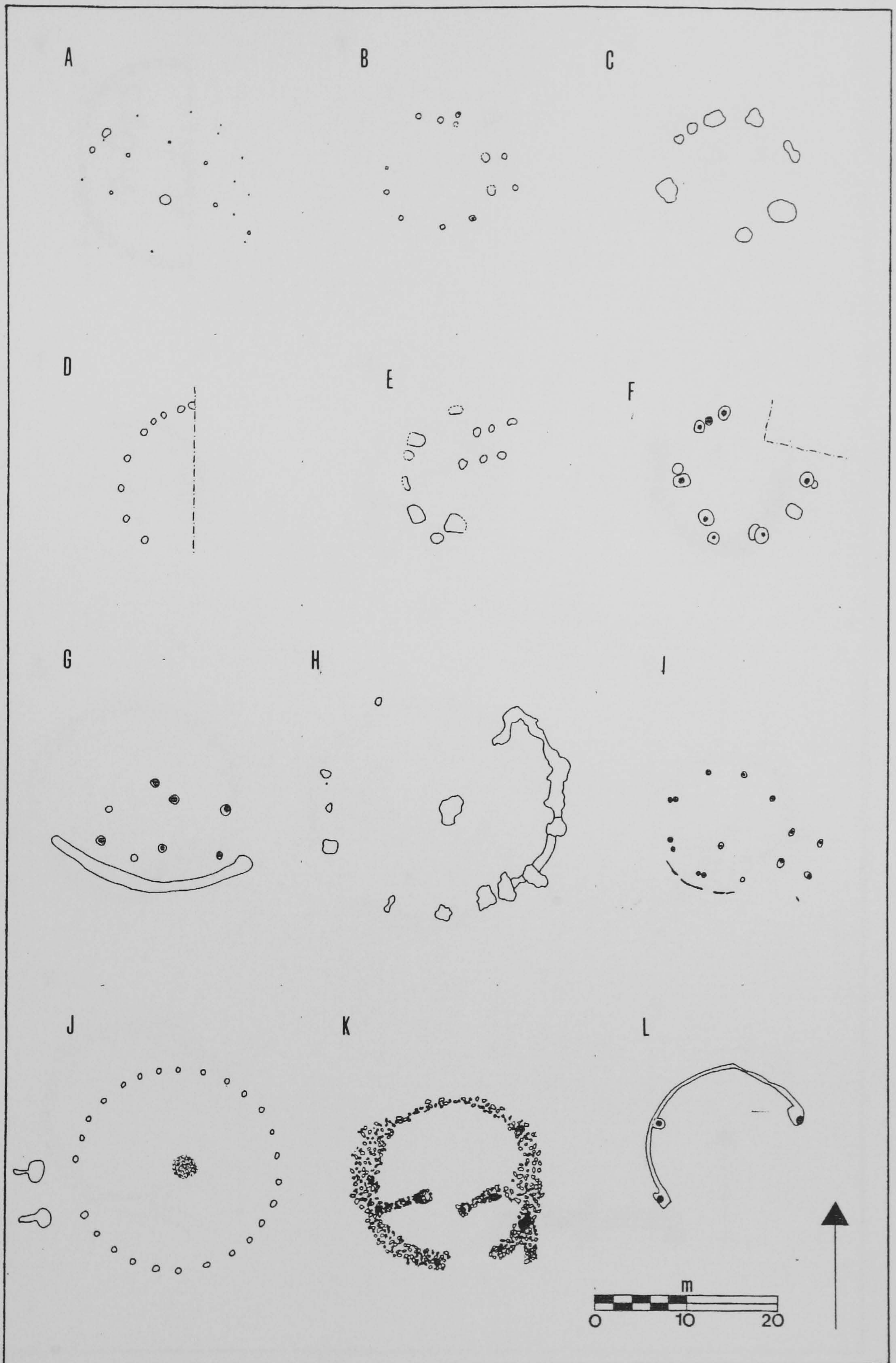

Figure 9.1: Plans of selected excavated round houses from the Welsh Marches

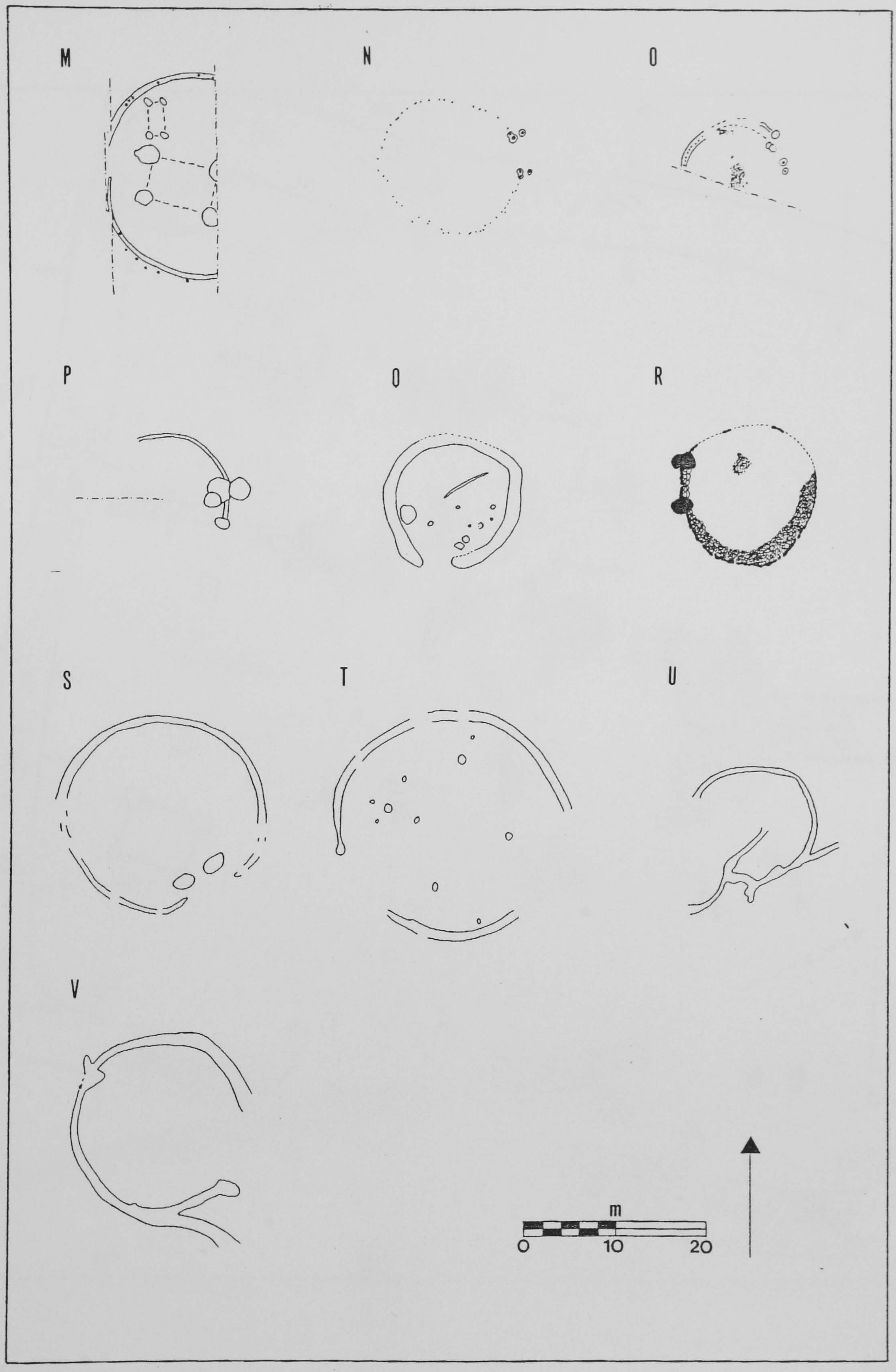

Figure 9.1: Plans of selected excavated round houses from the Welsh Marches

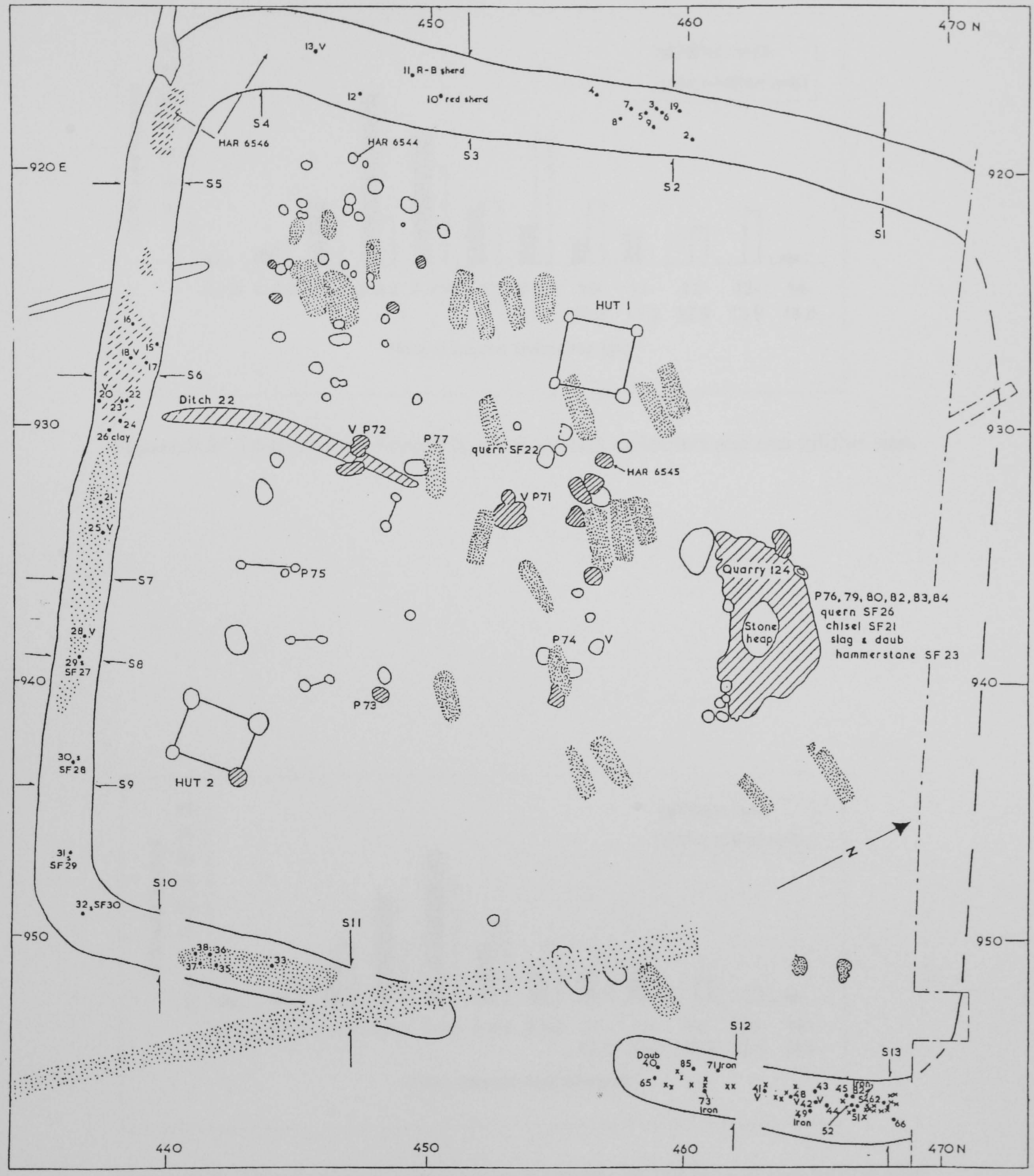

Figure 9.2: Plan of the internal features of Bromfield enclosure, Shropshire (after Stanford 1995)

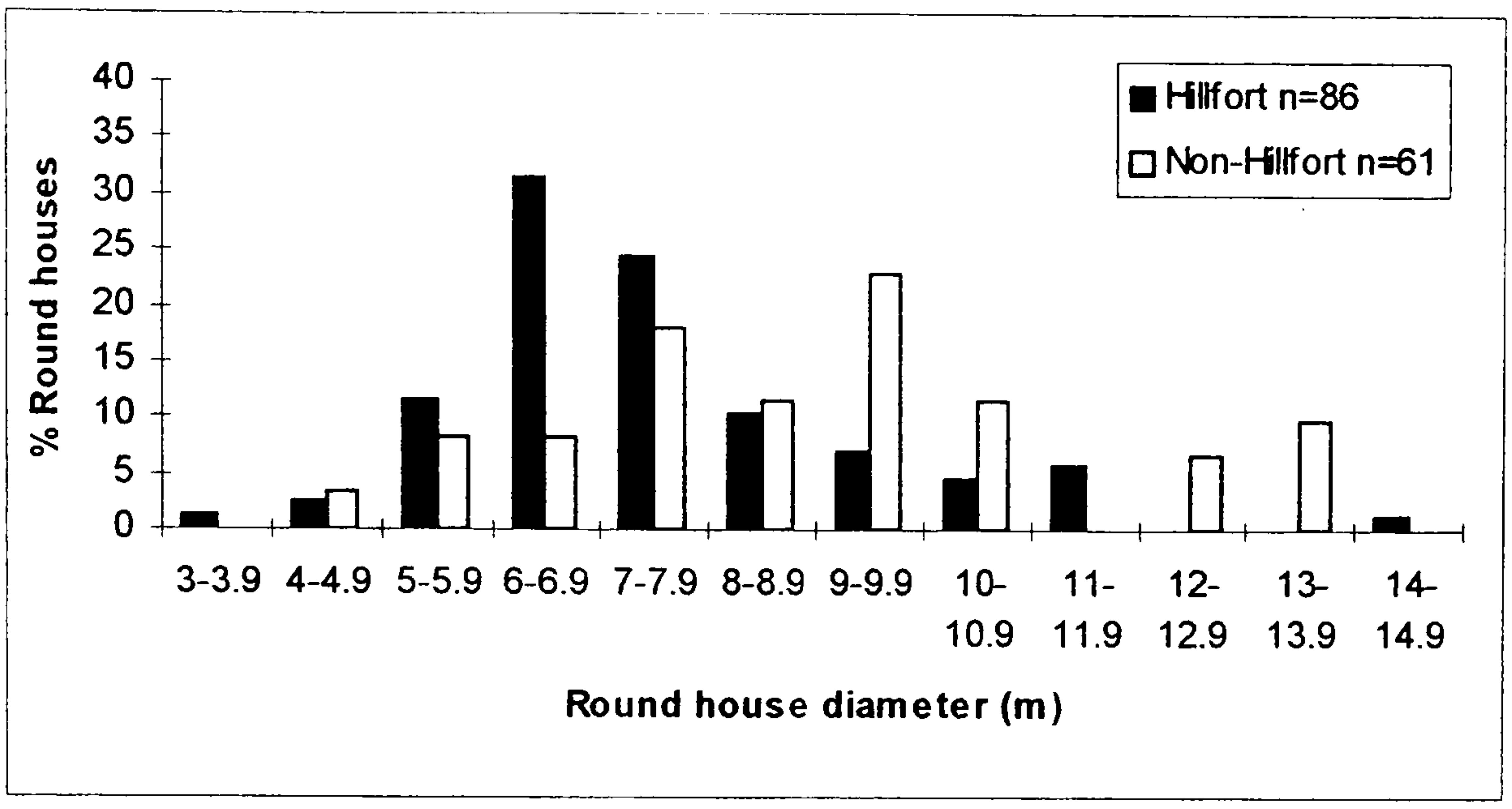

Figure 9.3: Distribution of round house diameters on hillfort and non-hillfort sites

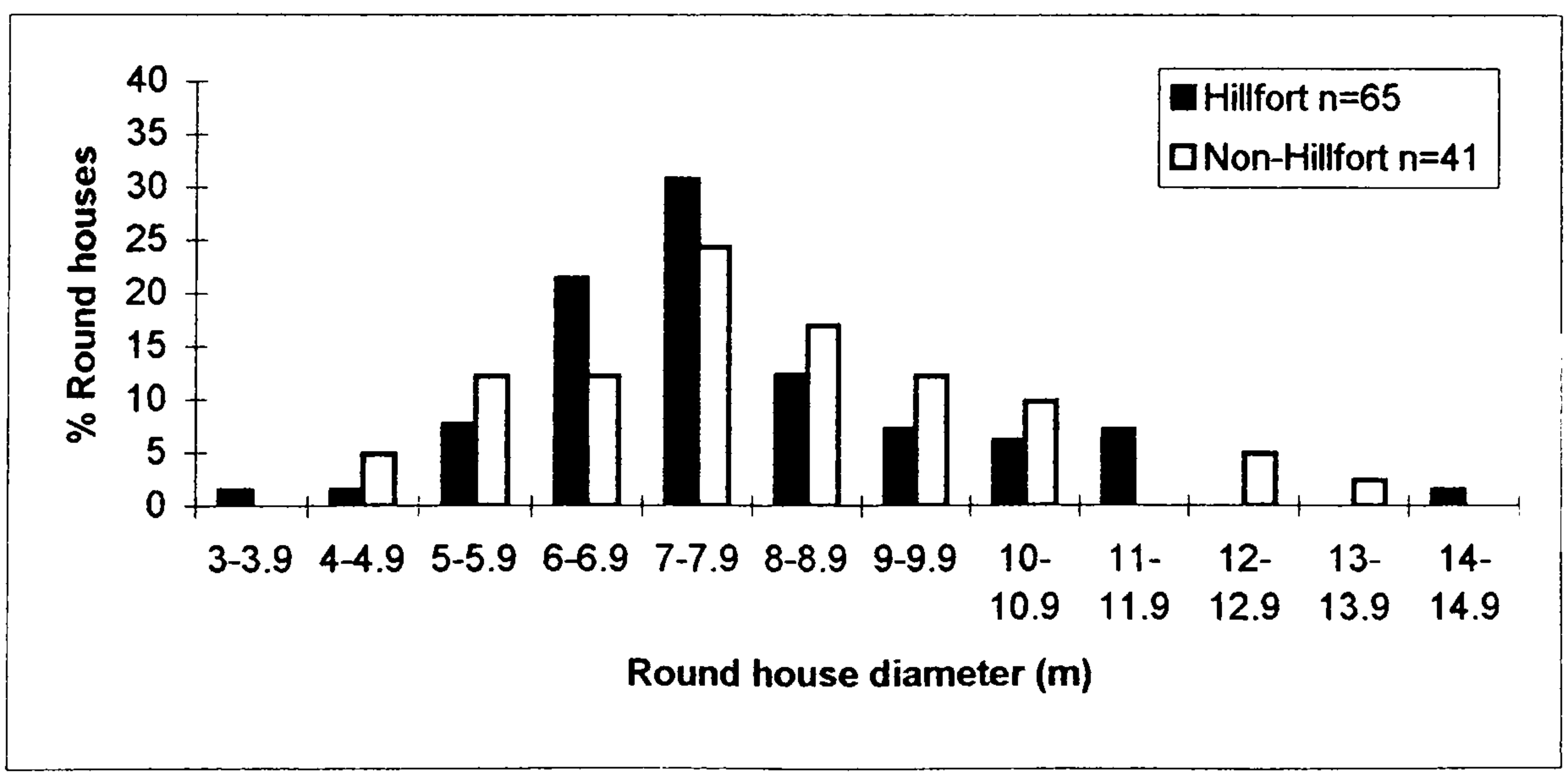

Figure 9.4: Distribution of round house diameters on hillfort and non-hillfort sites excluding the Breiddin and Collfryn

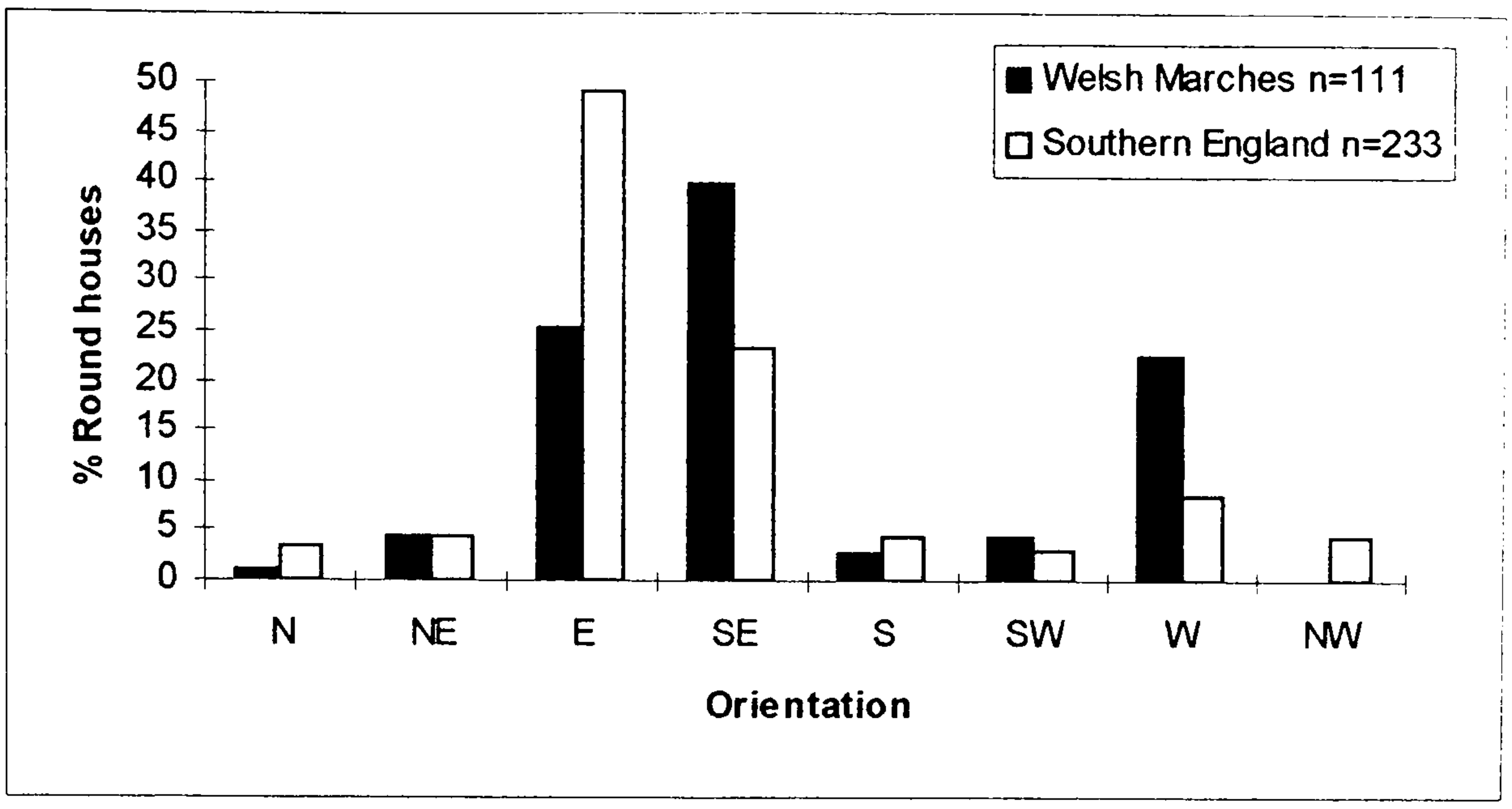

Figure 9.5: Entrance orientation of round houses in the Welsh Marches and Southern England.

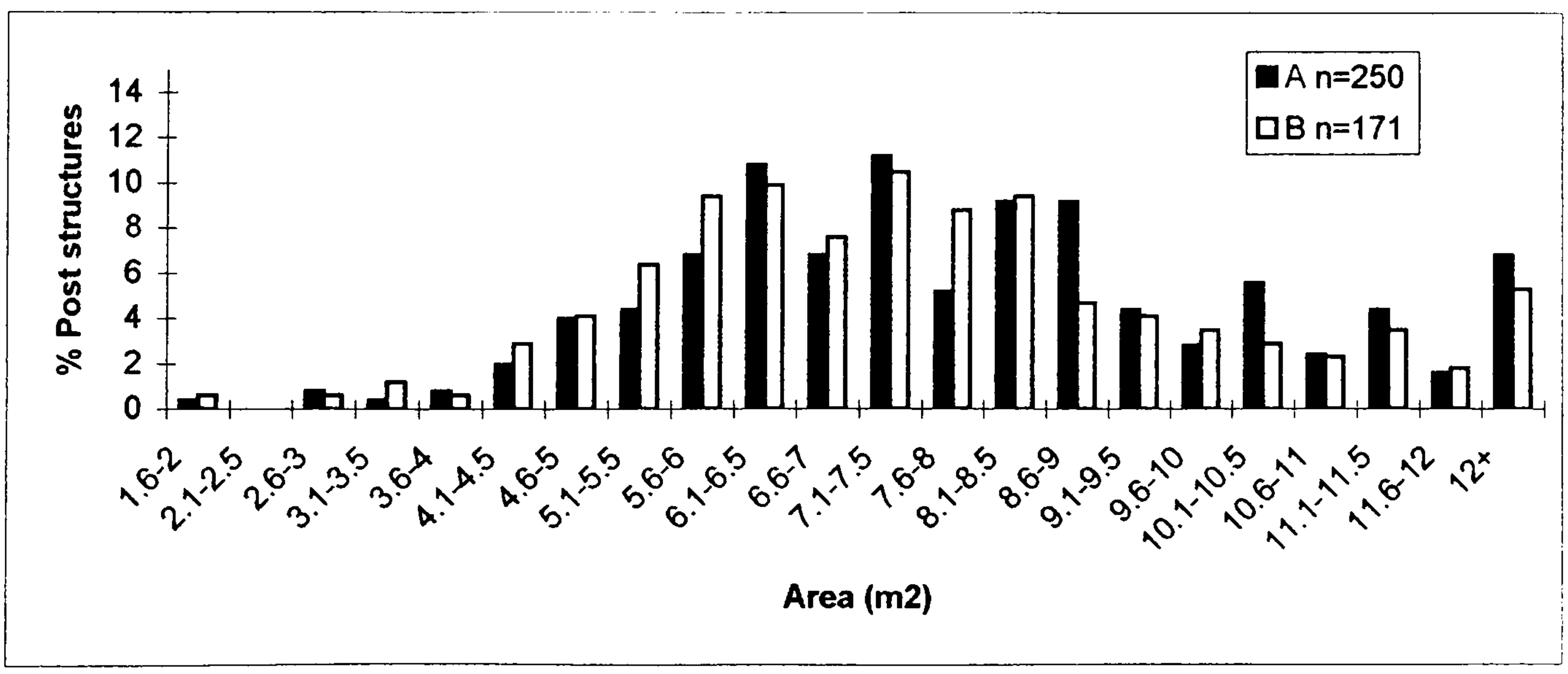

Figure 9.6: Size distribution of 4-post structures in the Welsh Marches.

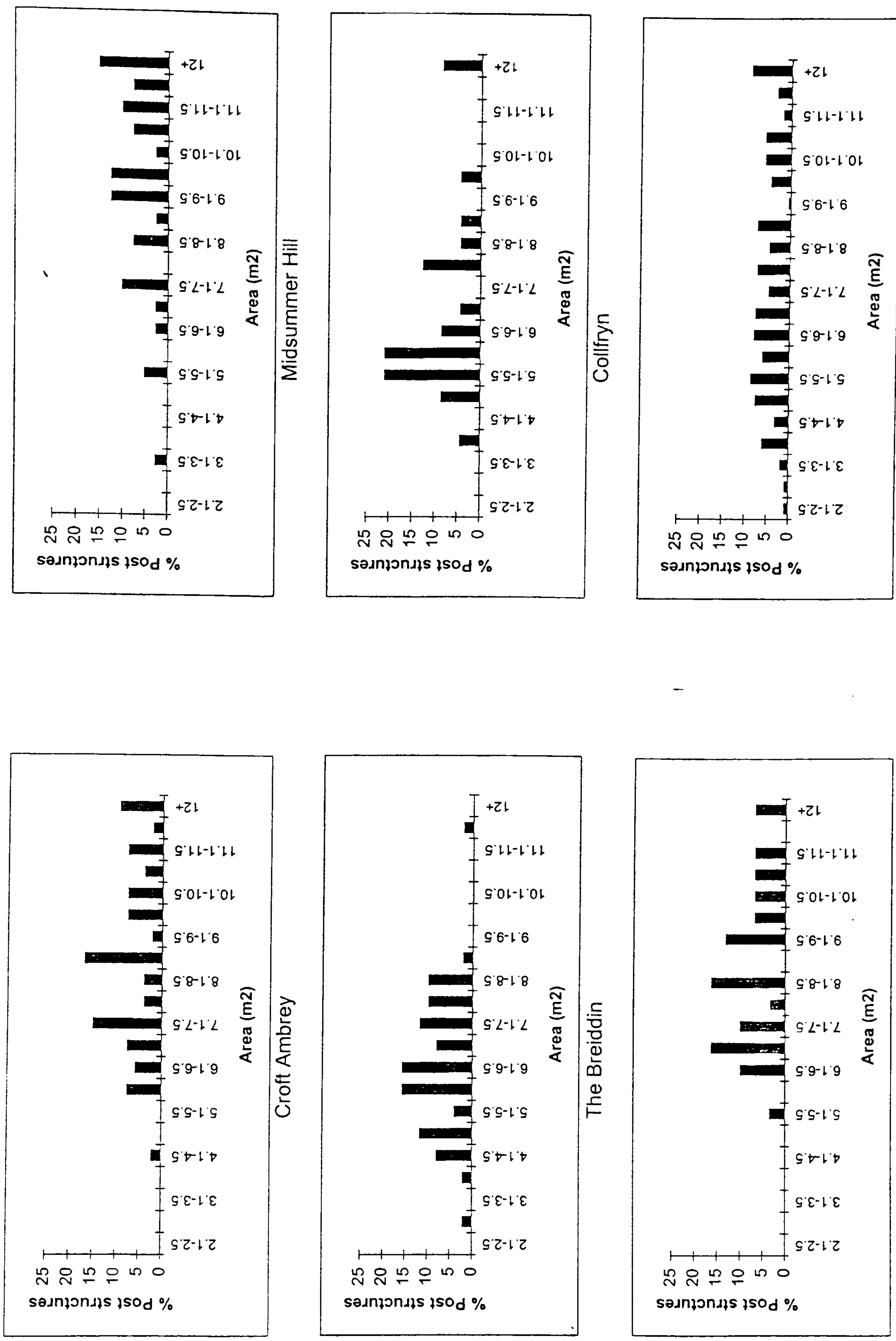

Figure 9.7: Size distribution of 4-post structures from five sites in the Welsh Marches, and Danebury, Hampshire

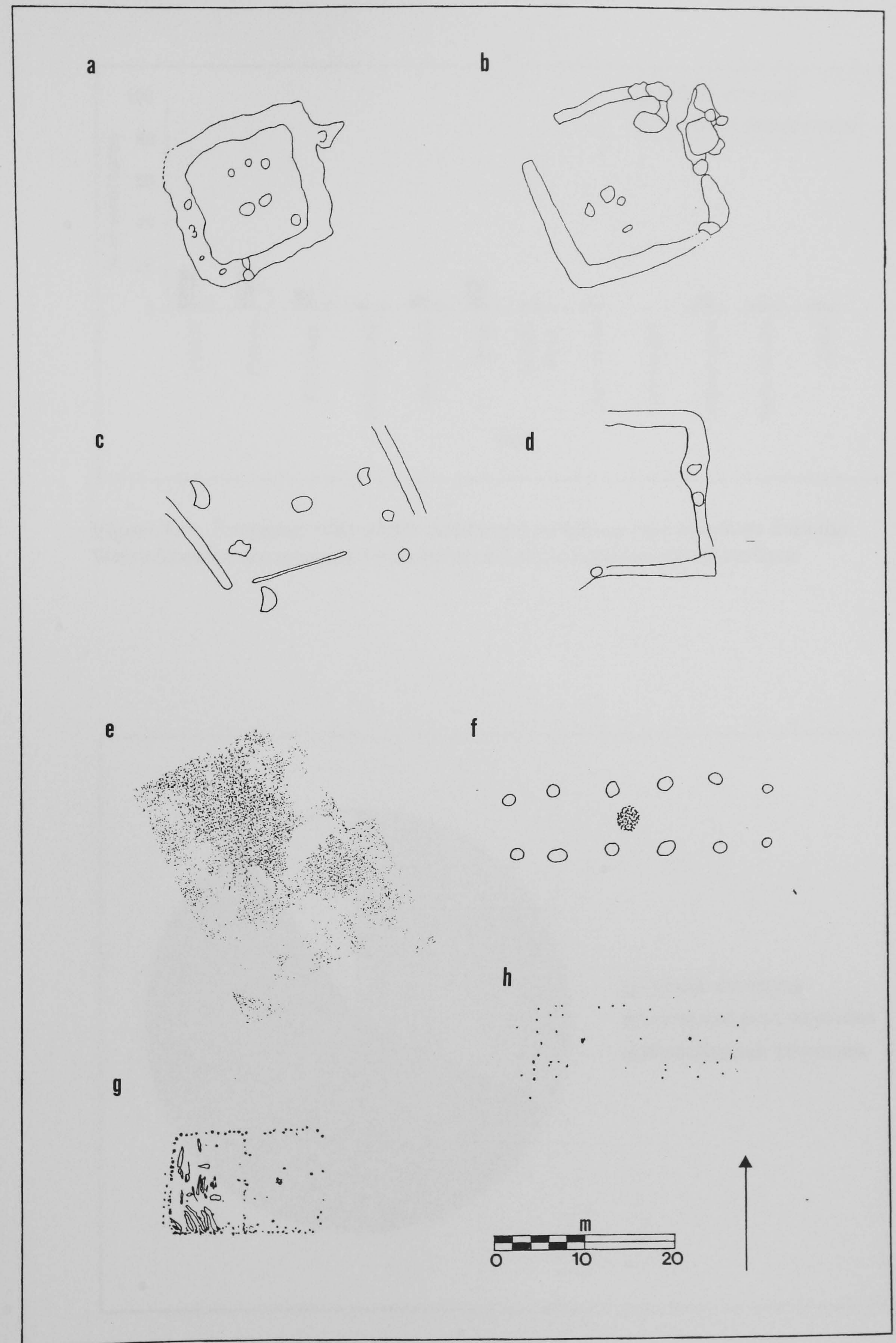

Figure 9.8: Plans of selected 'miscellaneous buildings' from the Welsh Marches

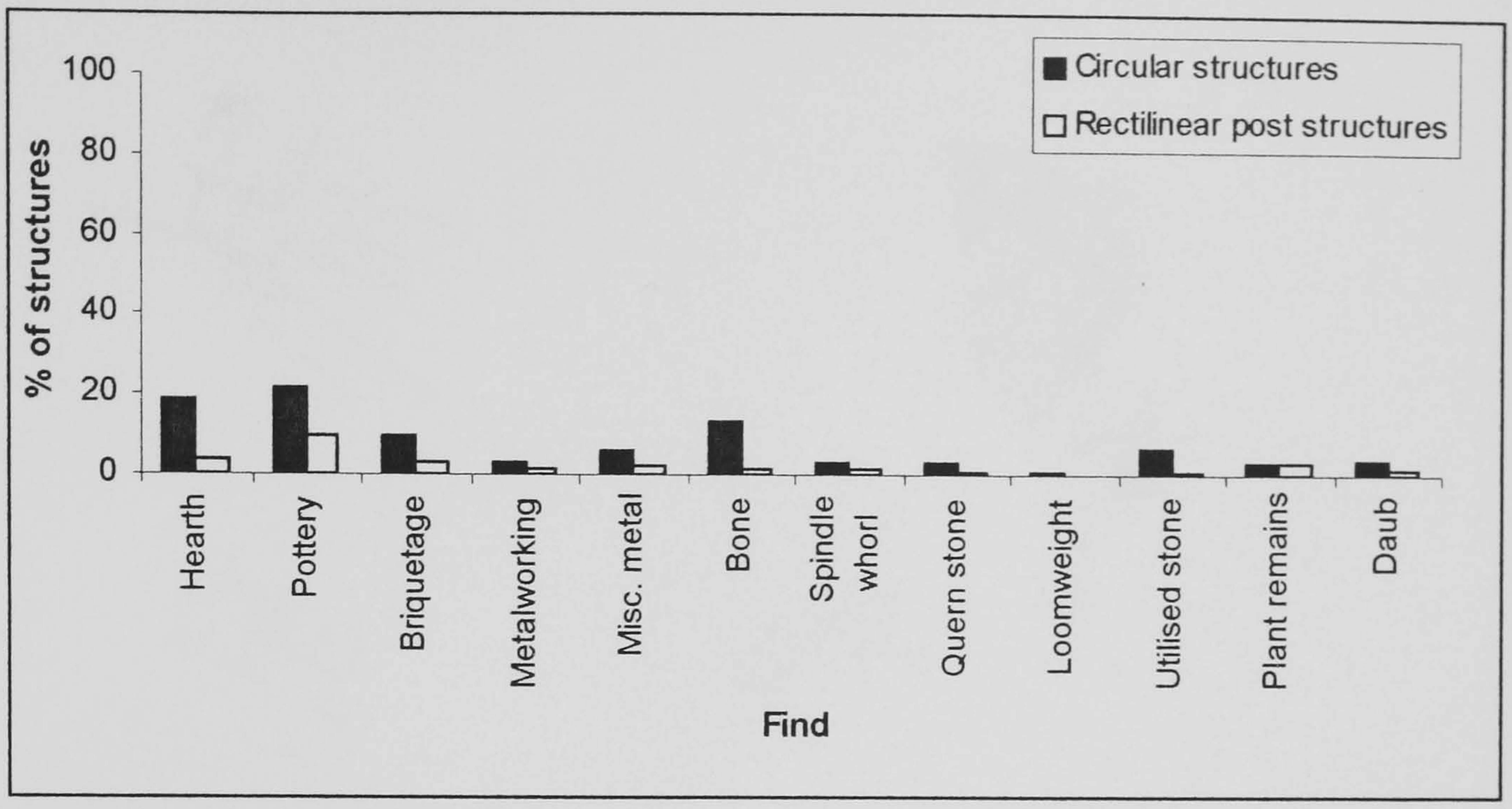

Figure 9.9: Frequency with which circular and rectilinear post structures from the Welsh Marches are associated with selected forms of archaeological evidence

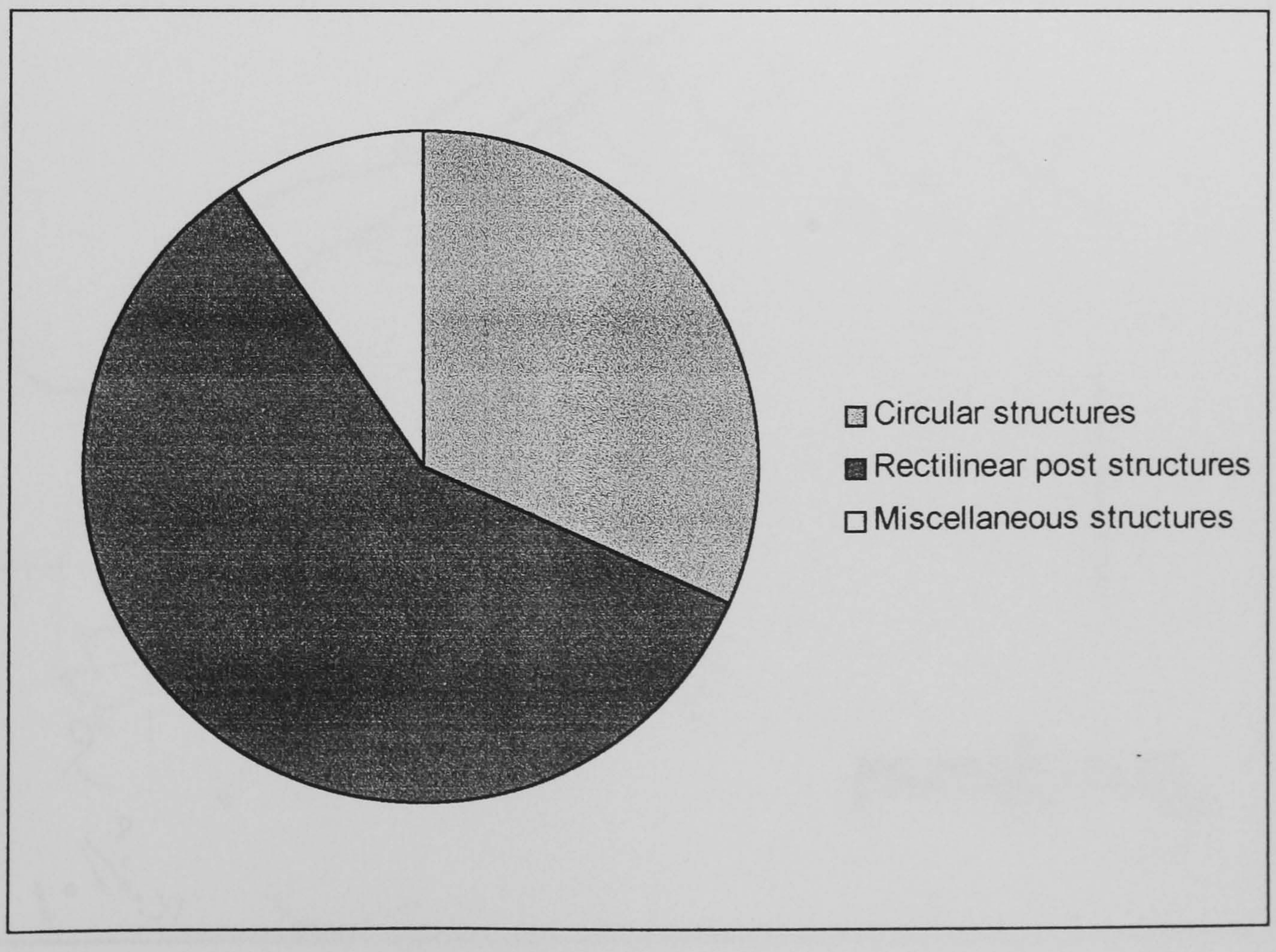

Figure 9.10: Proportions of different building types in the Welsh Marches

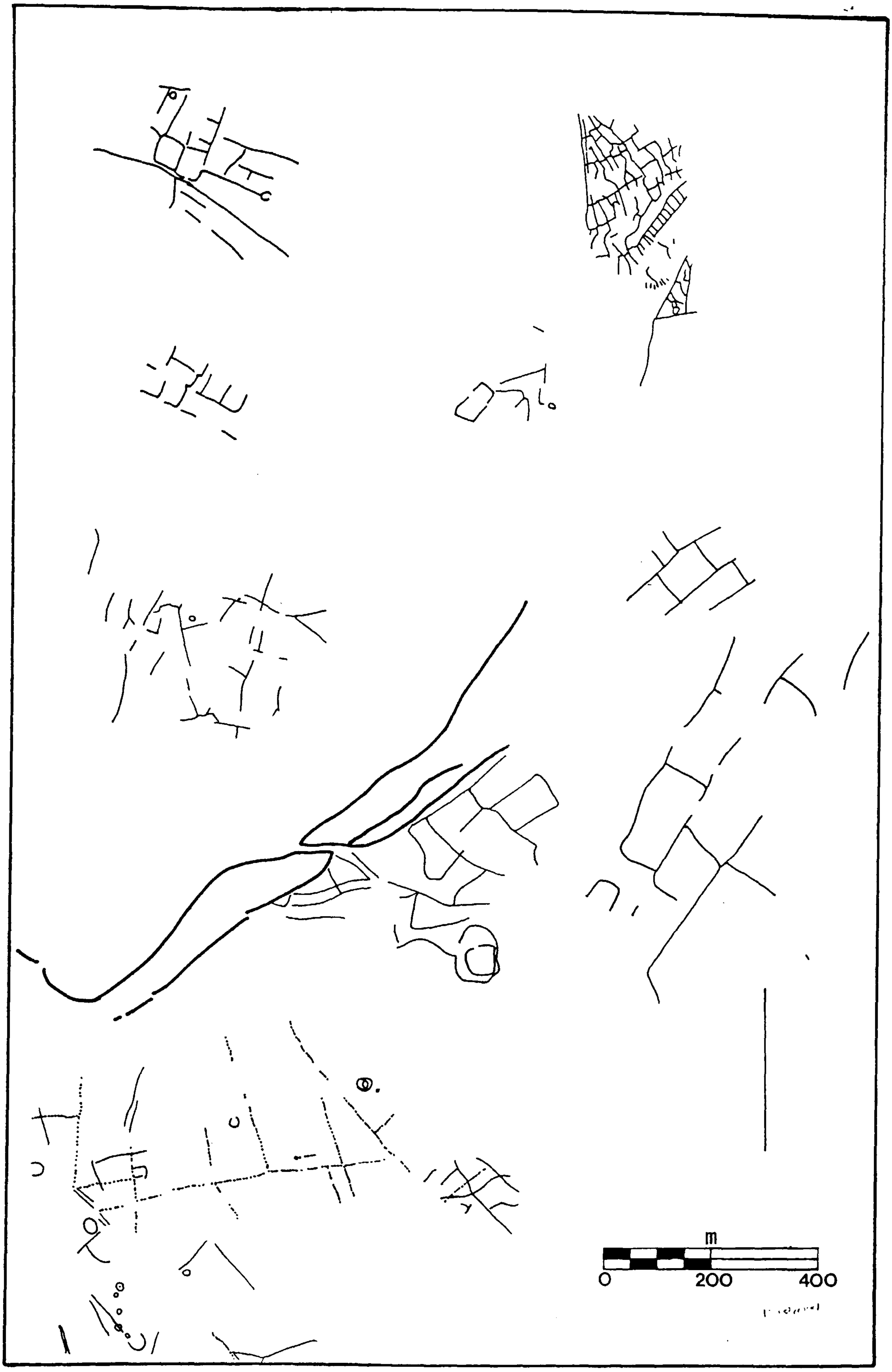

Figure 10.1: Examples of possible first millennium BC field systems from the Welsh Marches

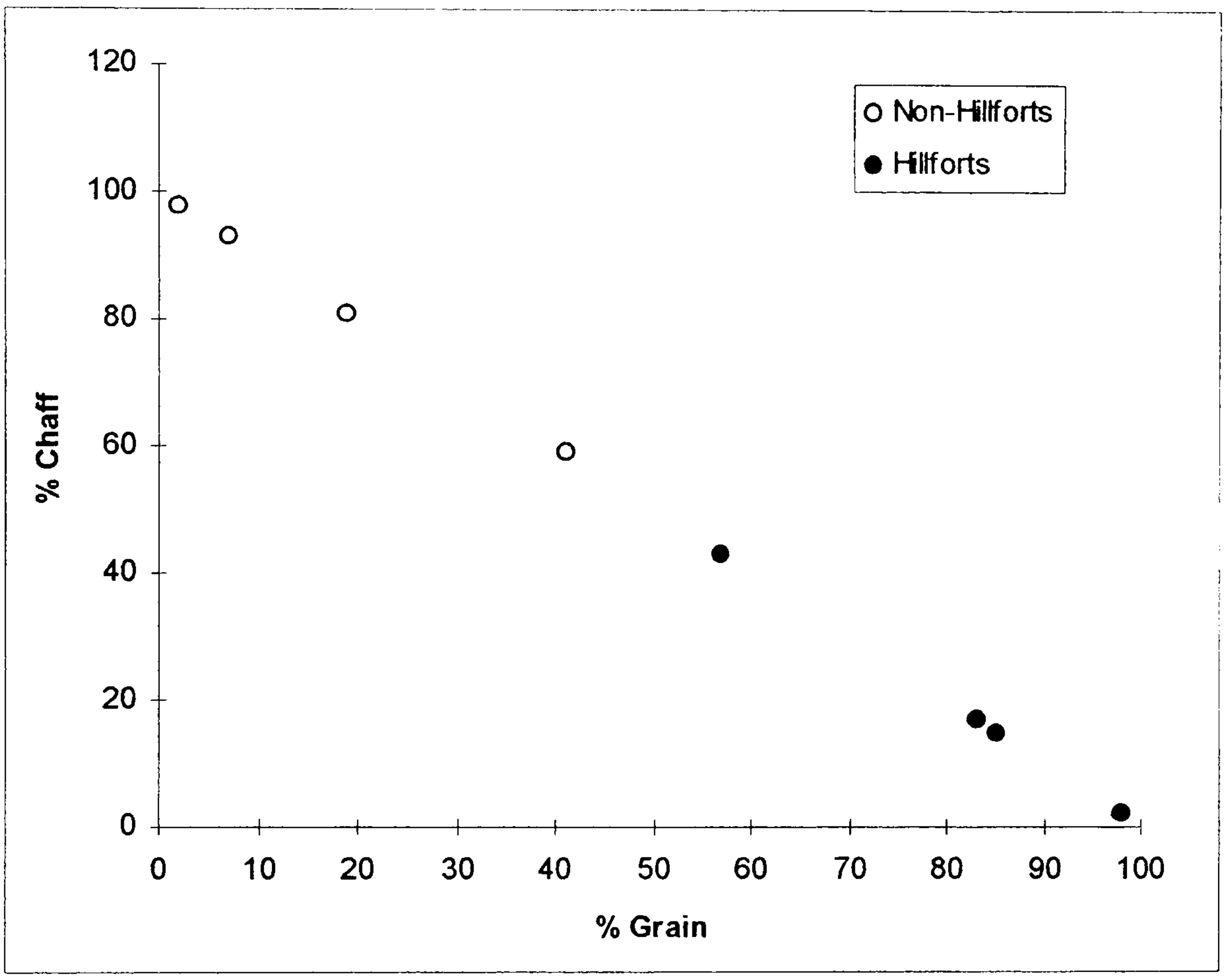

Figure 10.2: Percentages of grain against chaff for wheat remains recovered from hillfort and non-hillfort sites in the Welsh Marches

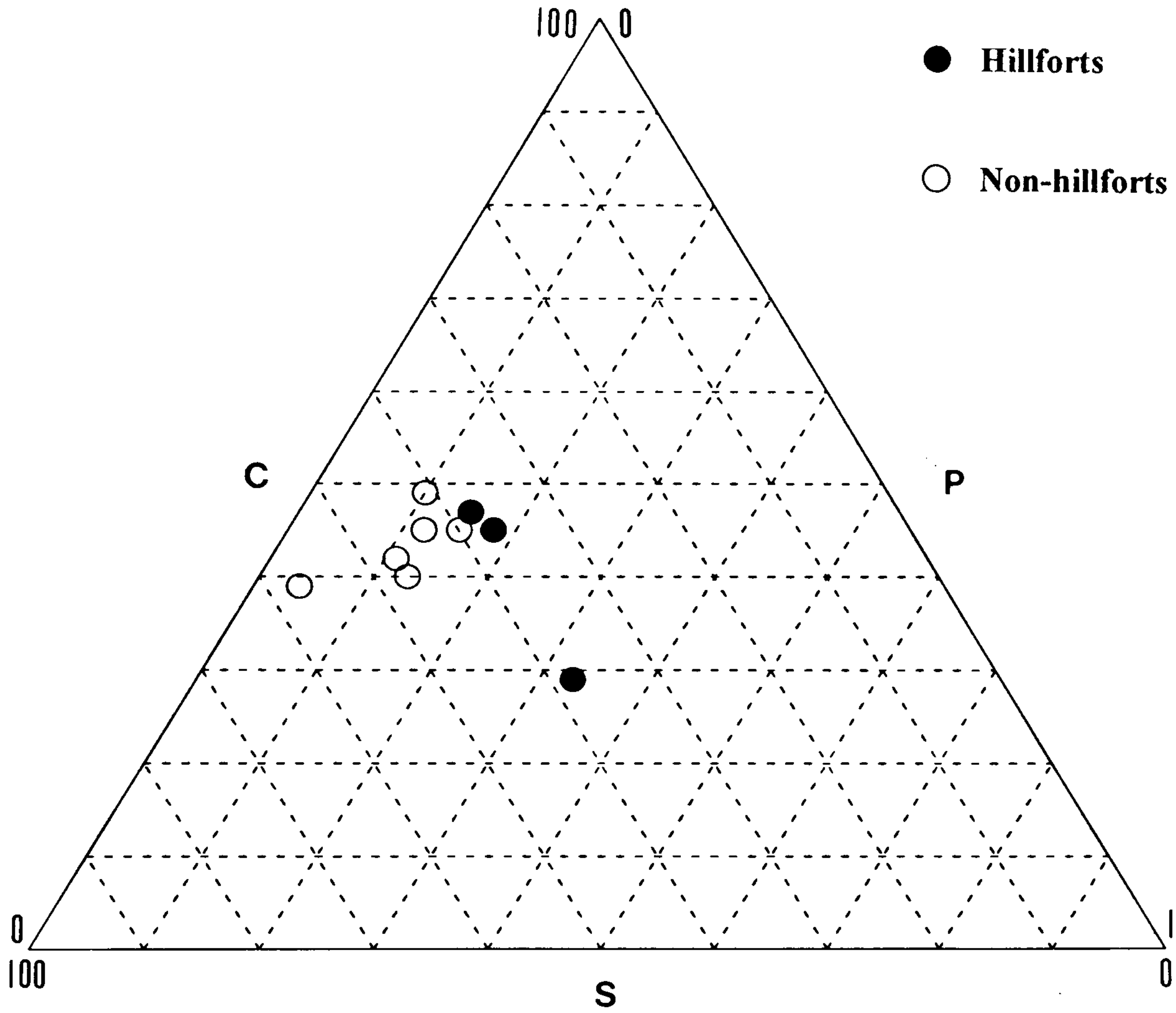

Figure 10.3: Proportions of cattle, sheep and pig from total site assemblages in the Welsh Marches

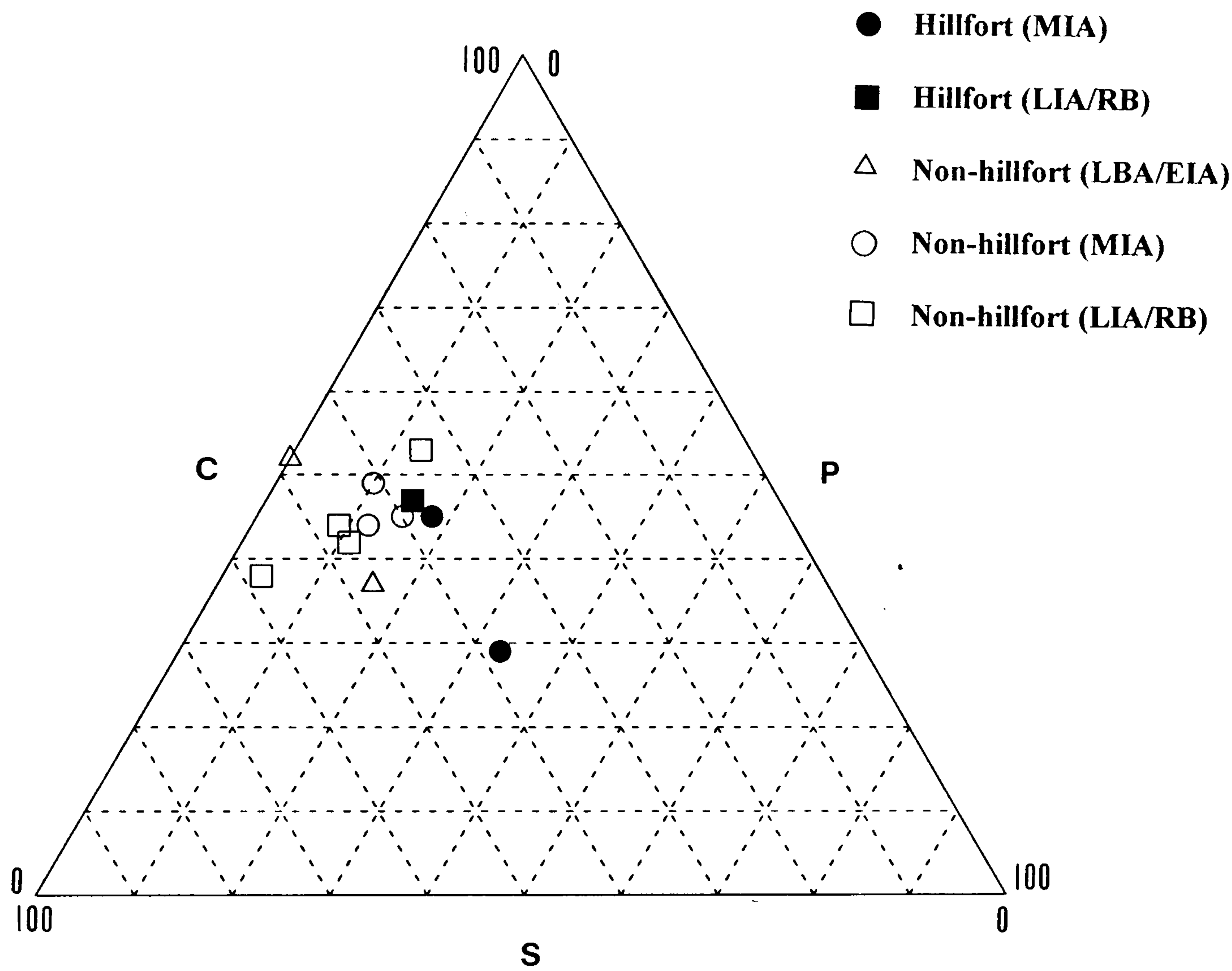

Figure 10.4: Proportions of cattle, sheep and pig from phased site assemblages in the Welsh Marches

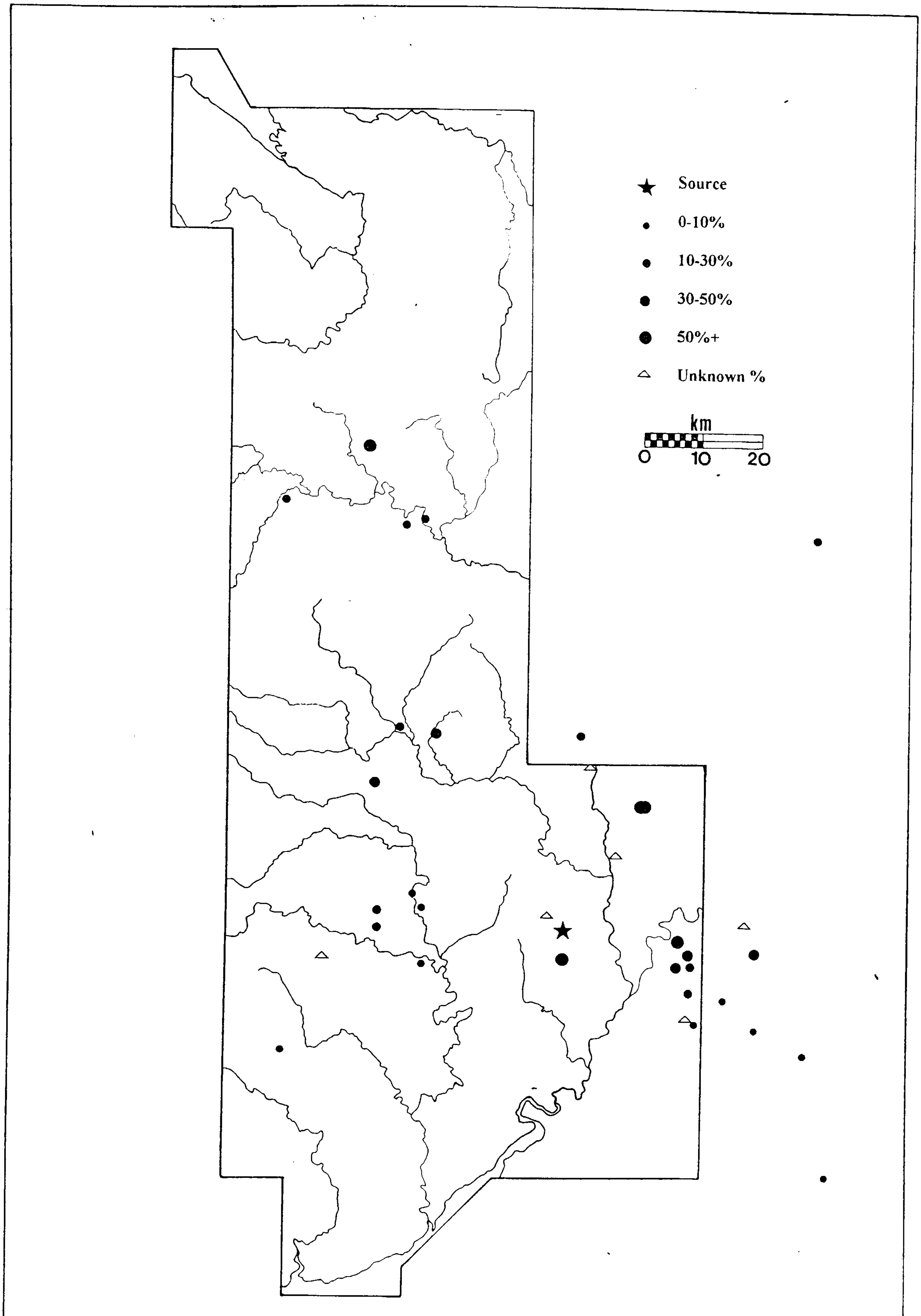

Figure 10.5: Distribution of group A fabric in and within the environs of the study area

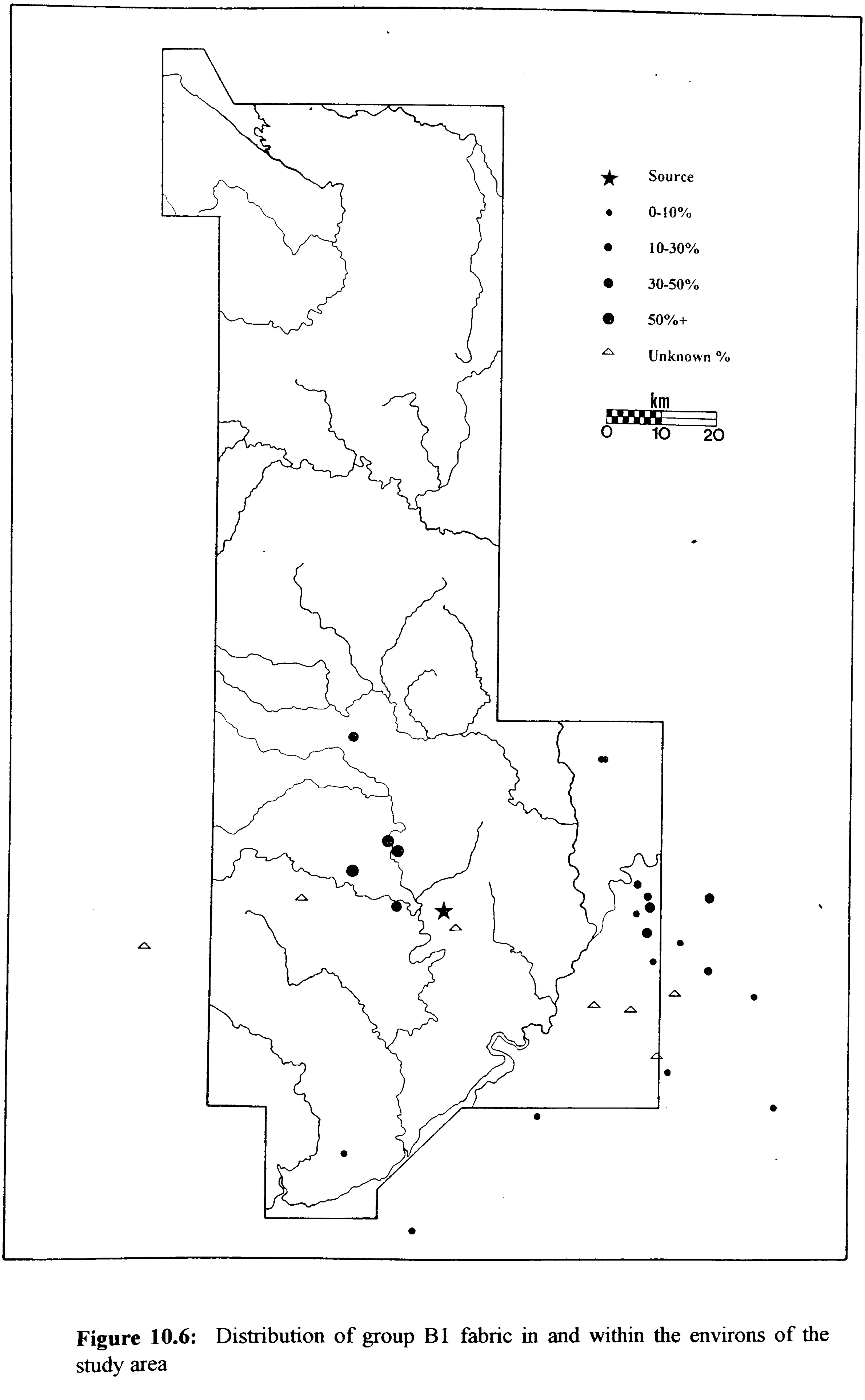

Figure 10.6: Distribution of group B1 fabric in and within the environs of the study area

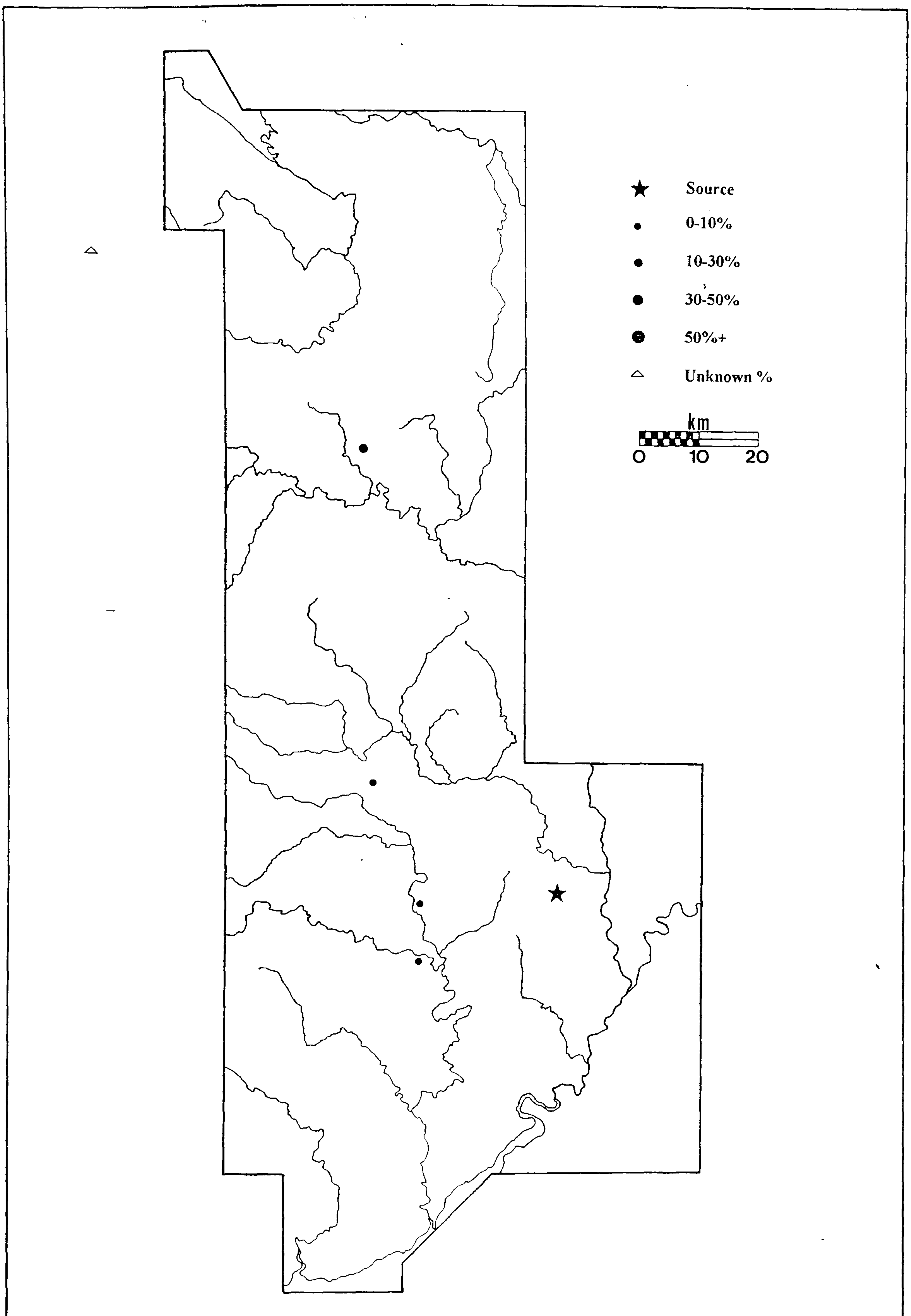

Figure 10.7: Distribution of group C fabric in and within the environs of the study area

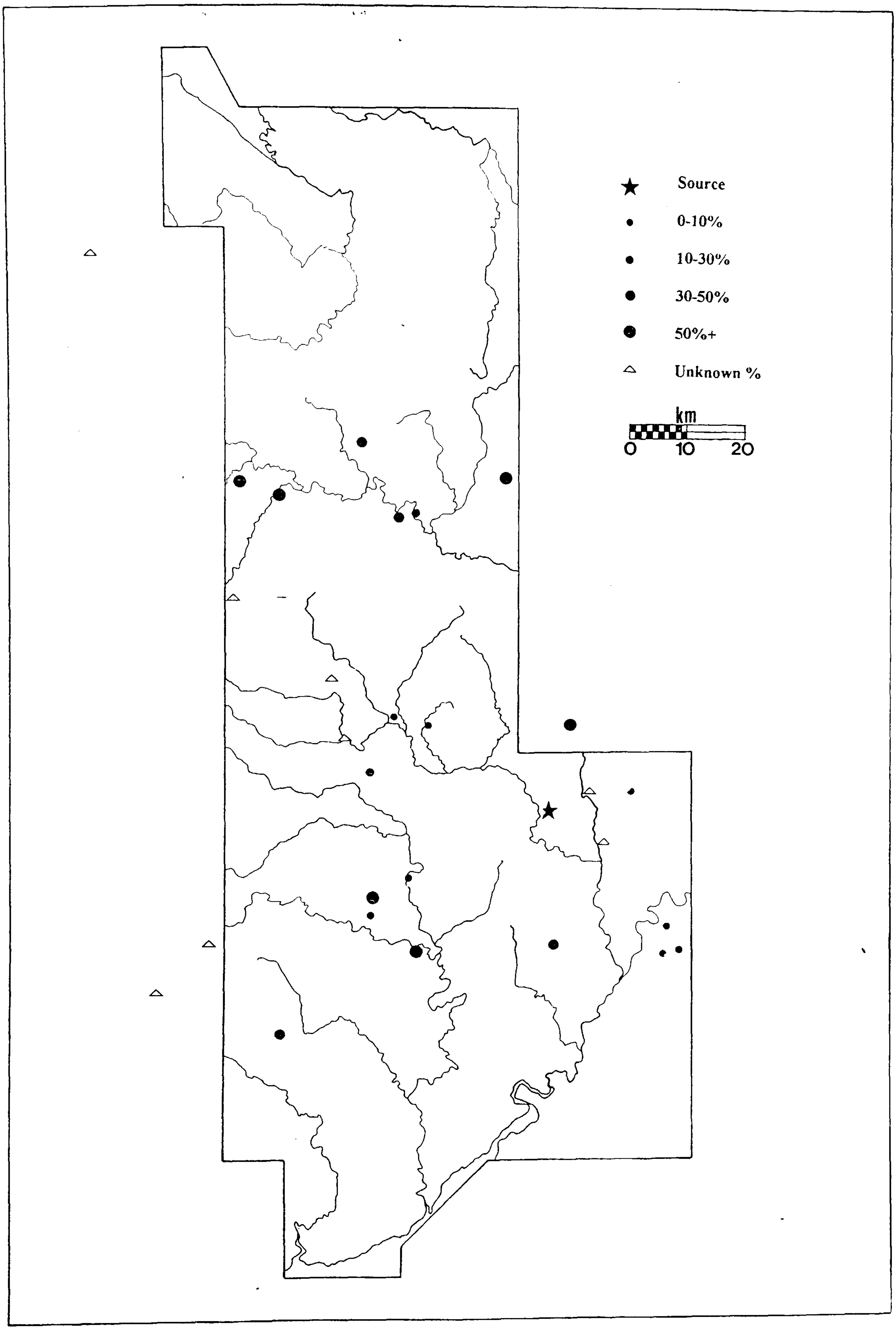

Figure 10.8: Distribution of group D fabric in and within the environs of the study area

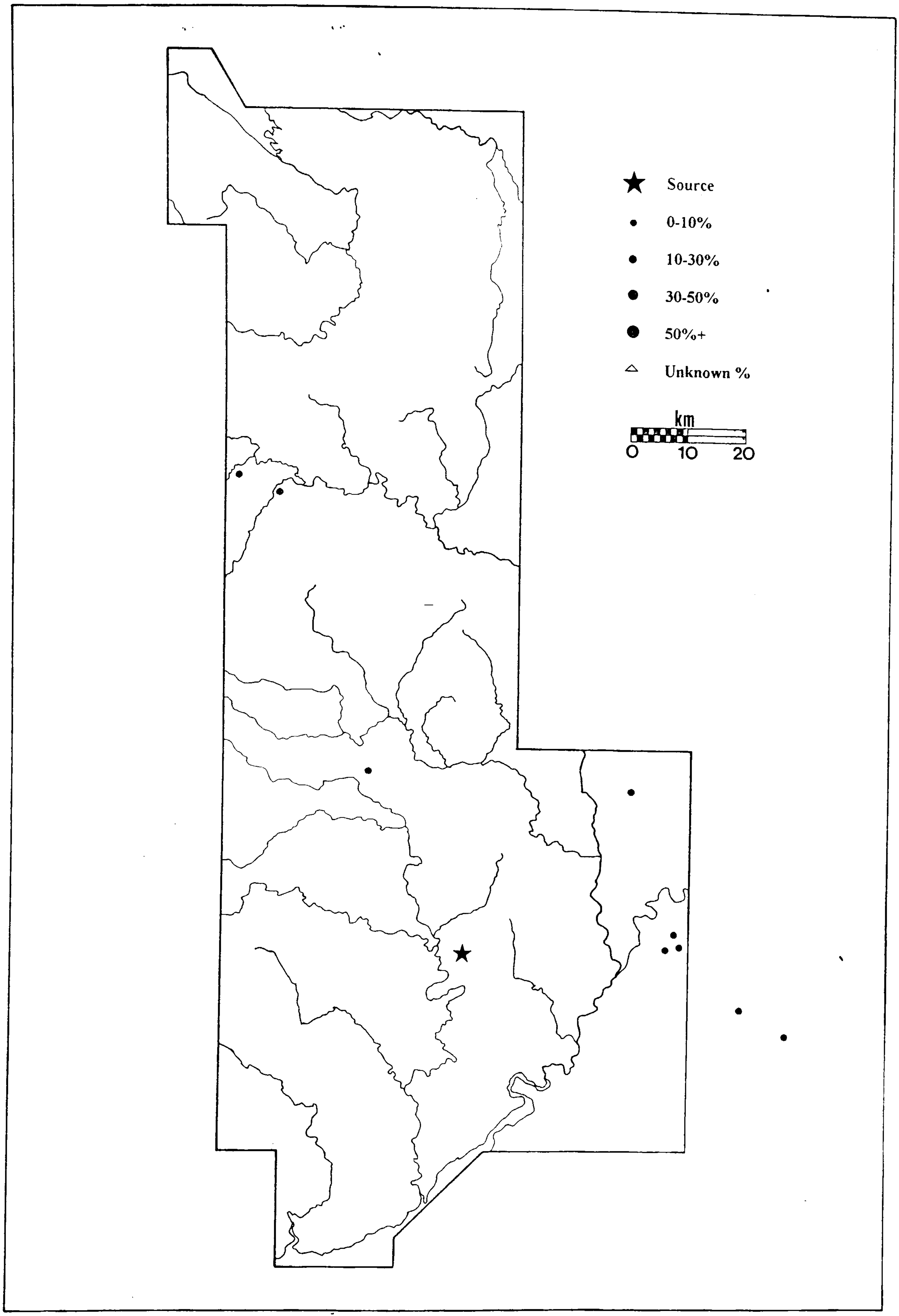

Figure 10.9: Distribution of group E fabric in and within the environs of the study area

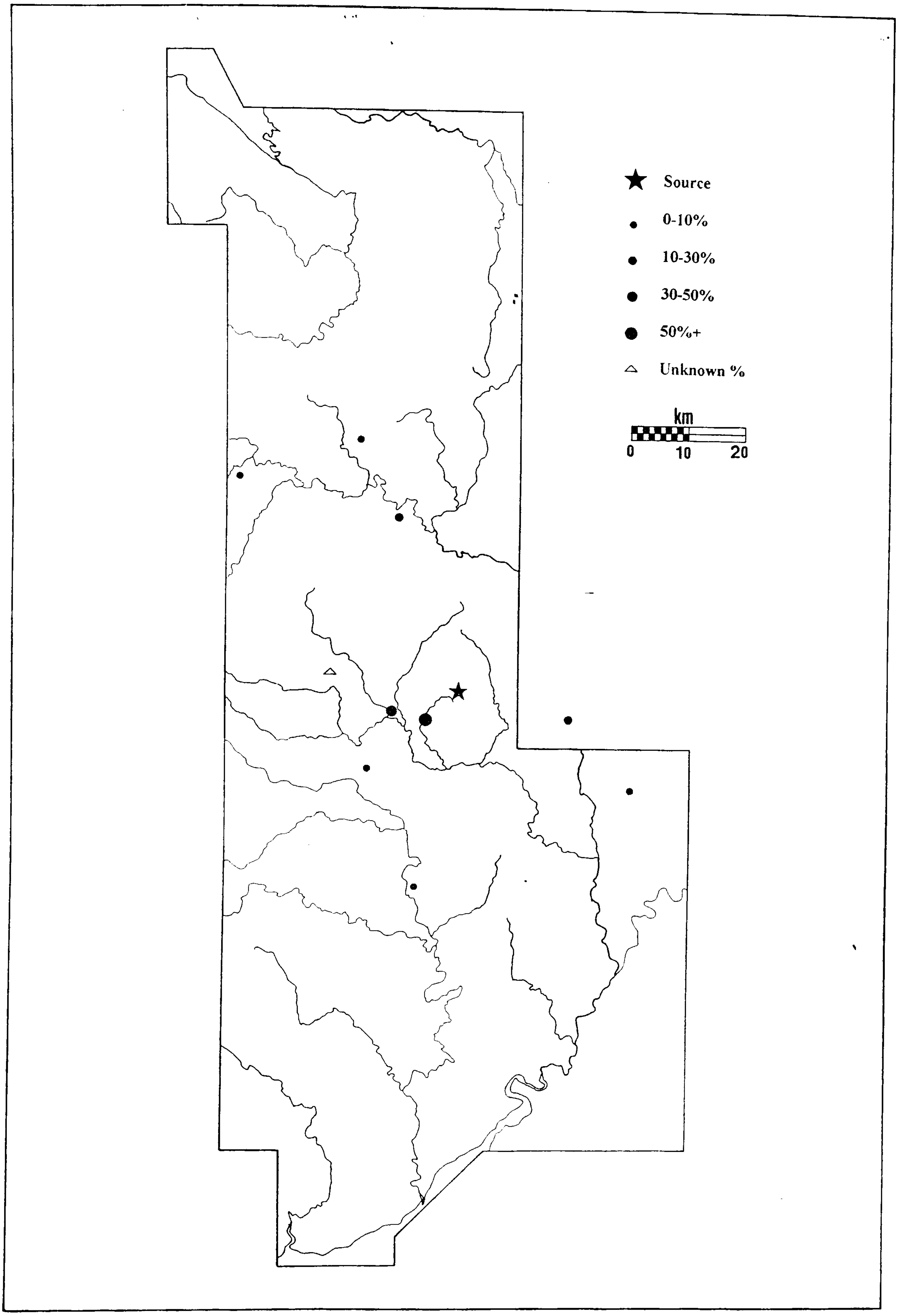

Figure 10.10: Distribution of Clee Hills dolerite fabric in and within the environs of the study area

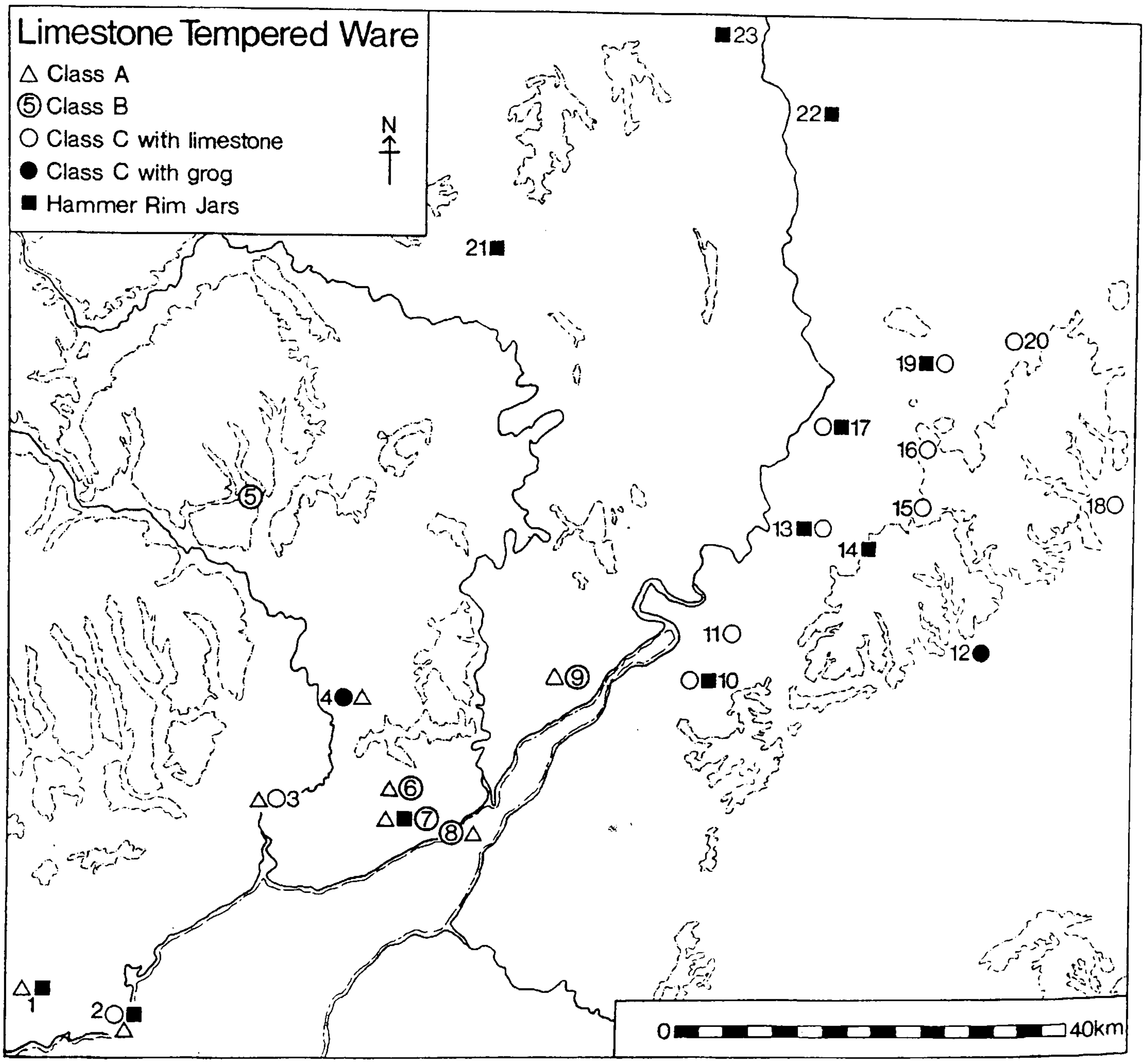

Figure 10.11: Distribution of regional wares in south Gwent (after Spencer 1983)

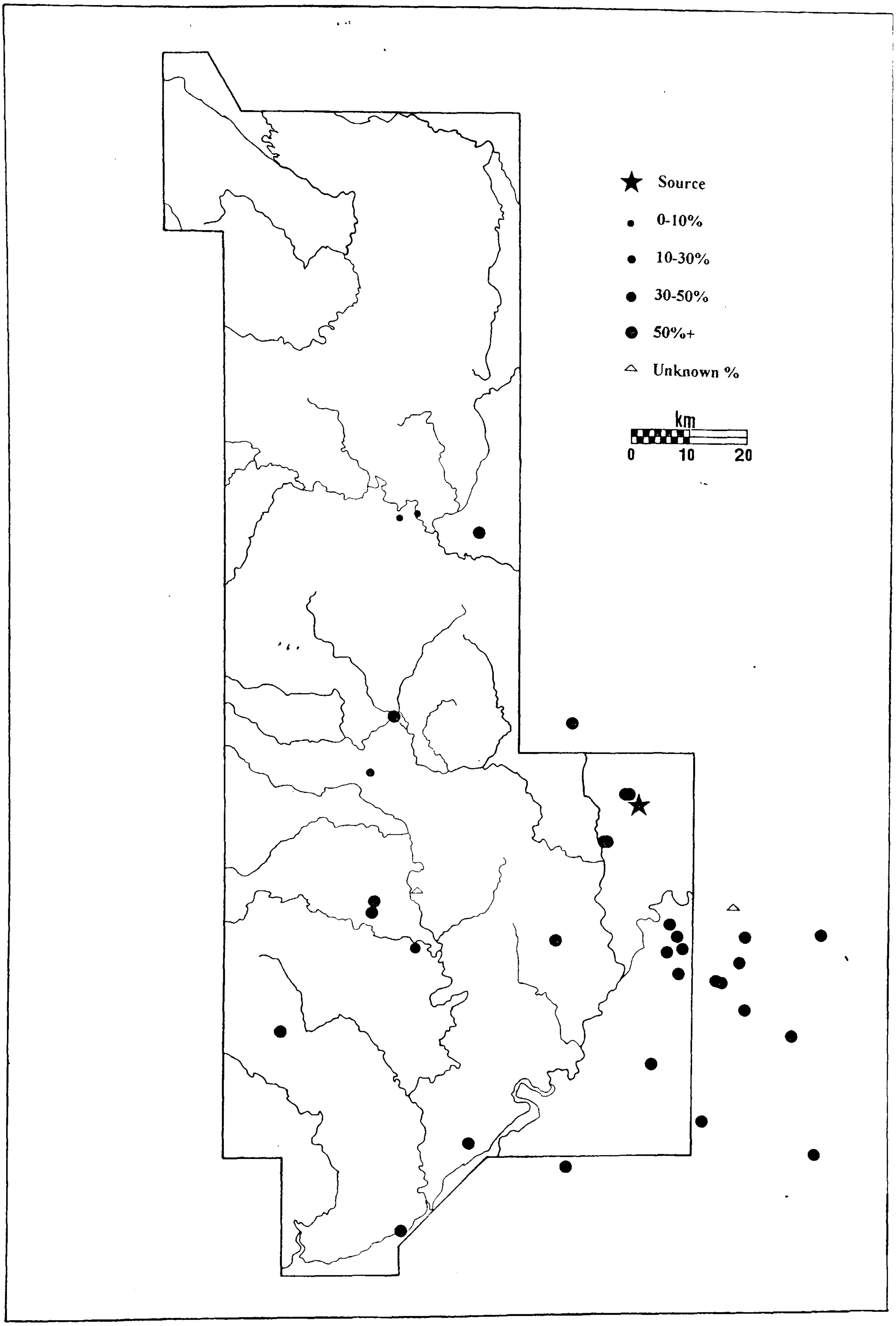

Figure 10.12: Distribution of briquetage derived from Droitwich in and within the environs of the study area

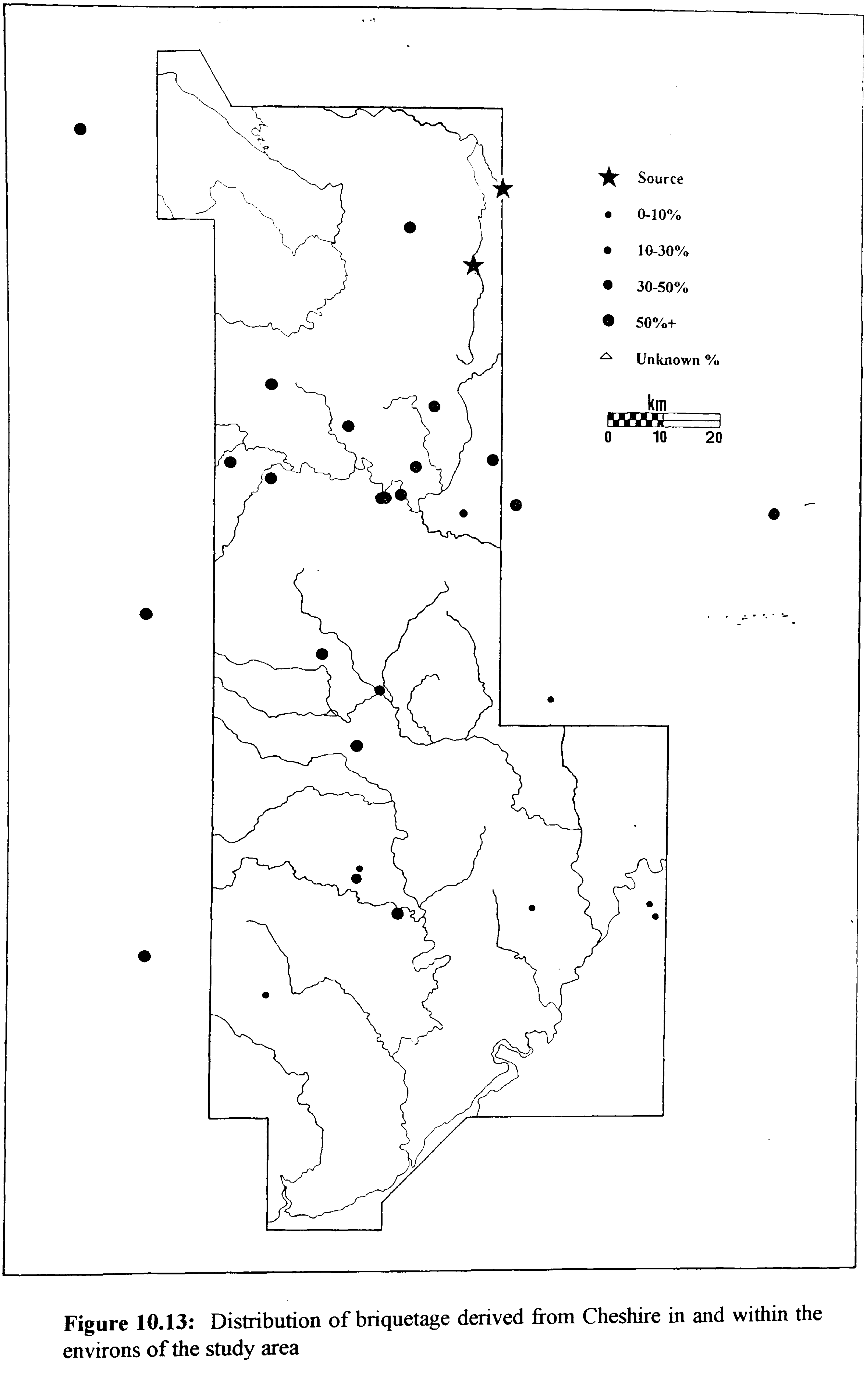

Figure 10.13: Distribution of briquetage derived from Cheshire in and within the environs of the study area

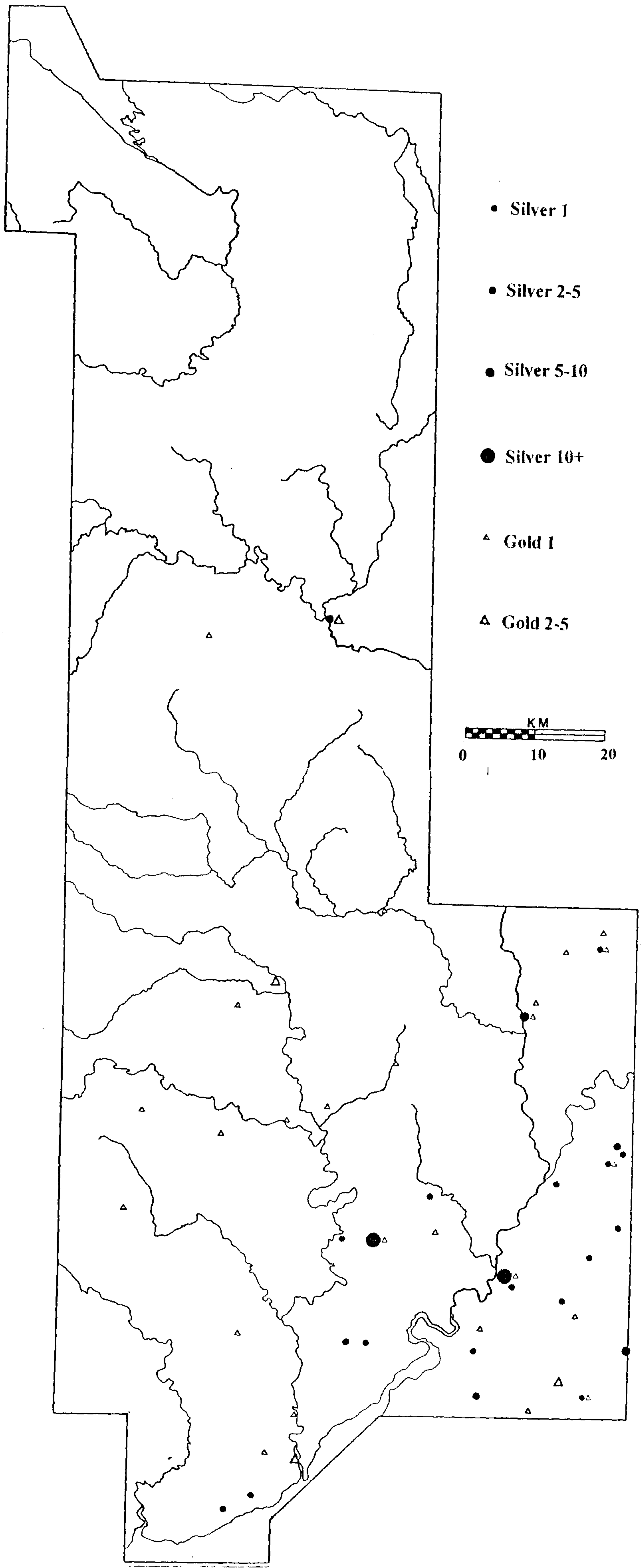

Figure 10.14: Distribution of 'Dobunnic' coinage in the Welsh Marches

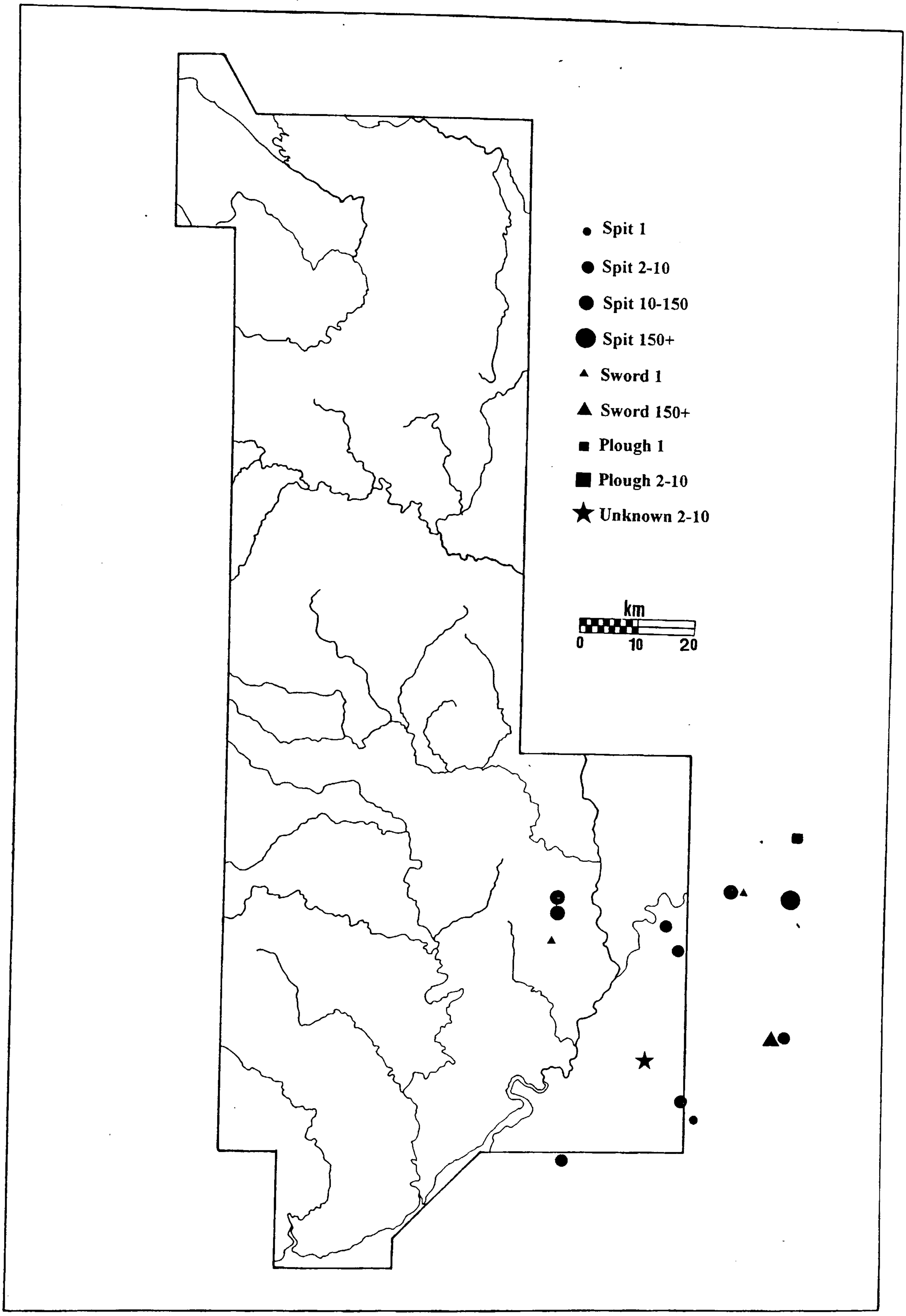

Figure 10.15: Distribution of currency bars in and within the environs of the study area

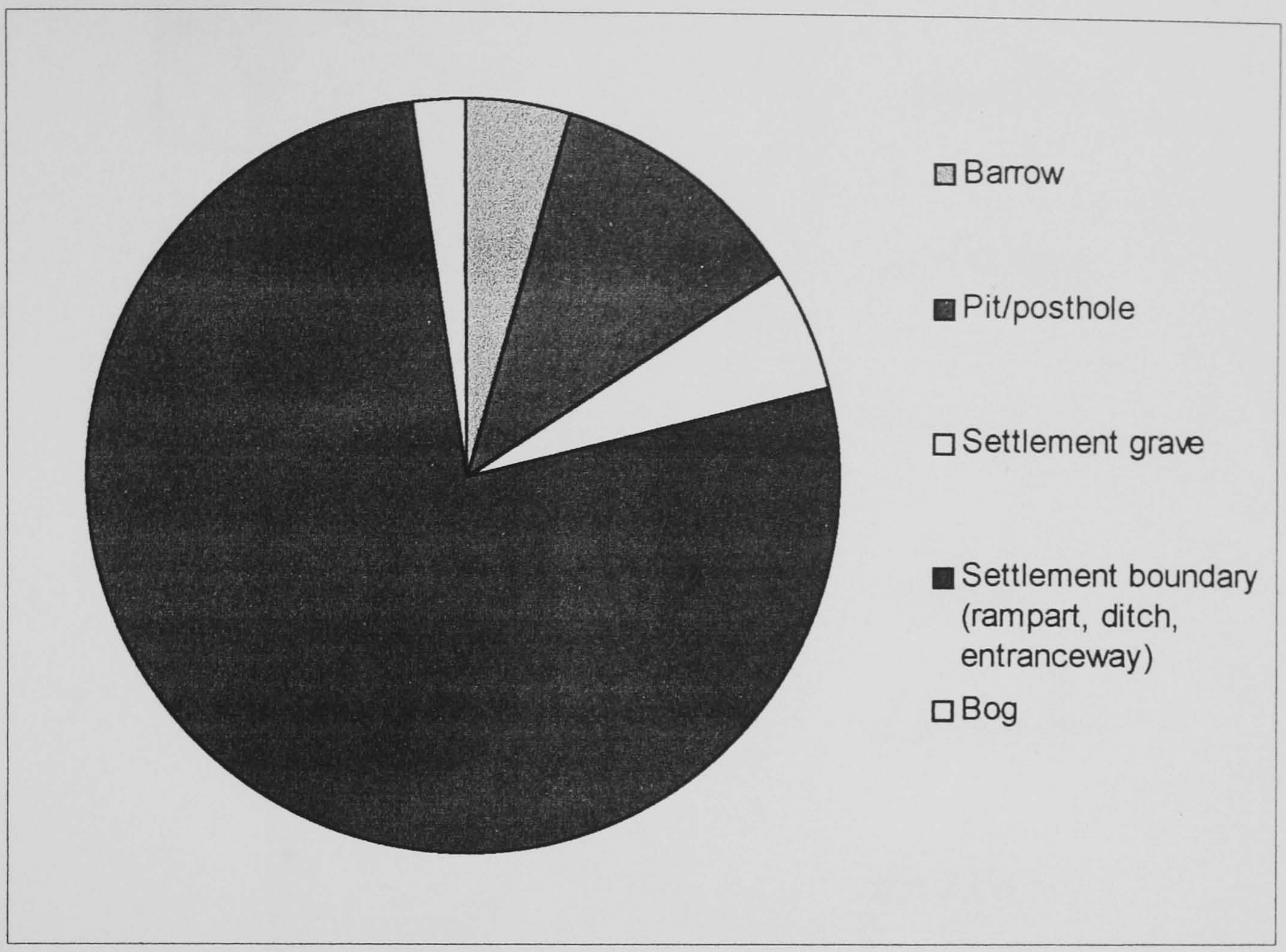

Figure 10.16: Proportions of different burial rite practiced in the Welsh Marches during the first millennium BC

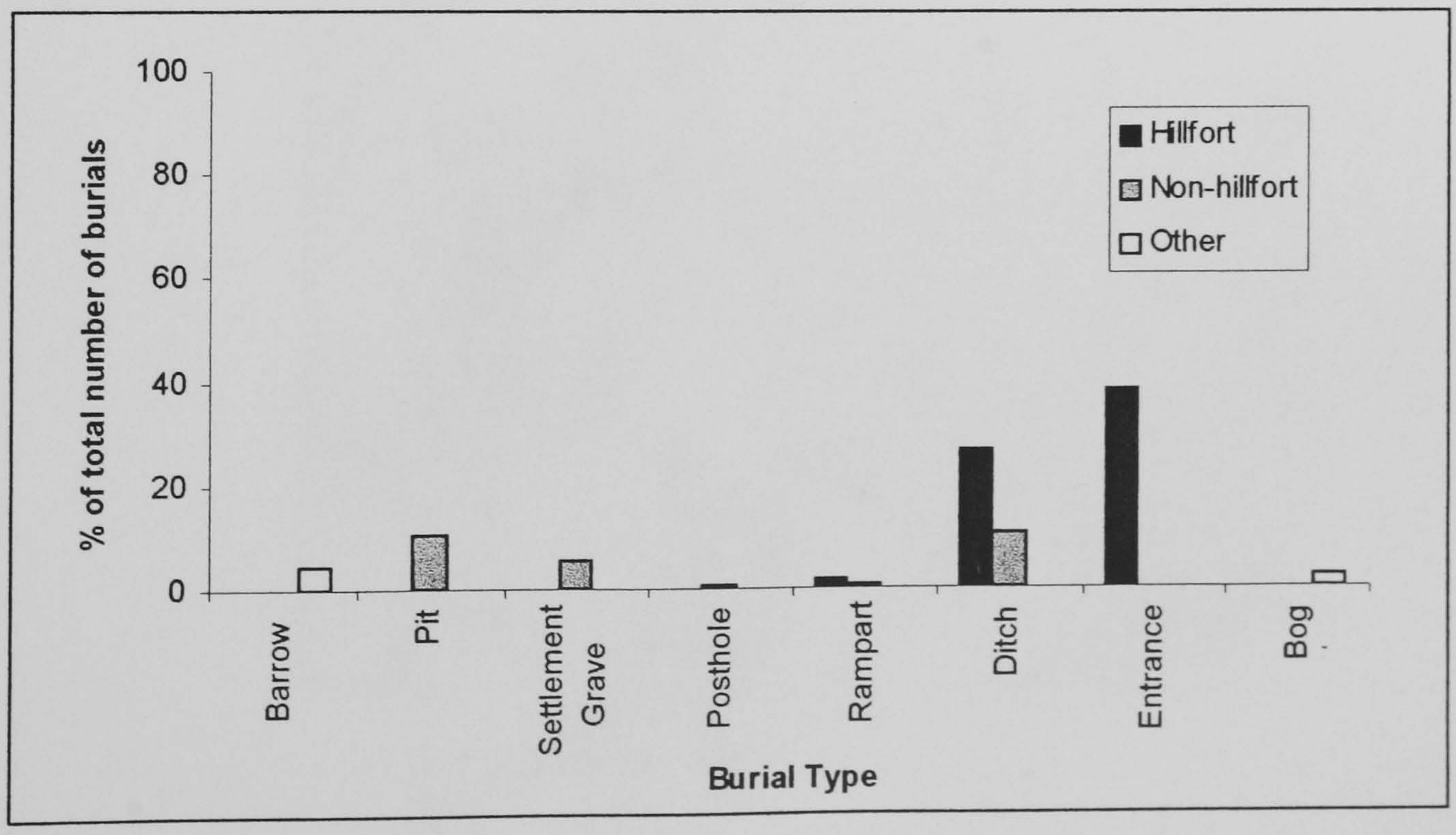

Figure 10.17: The association between burial rite and site type

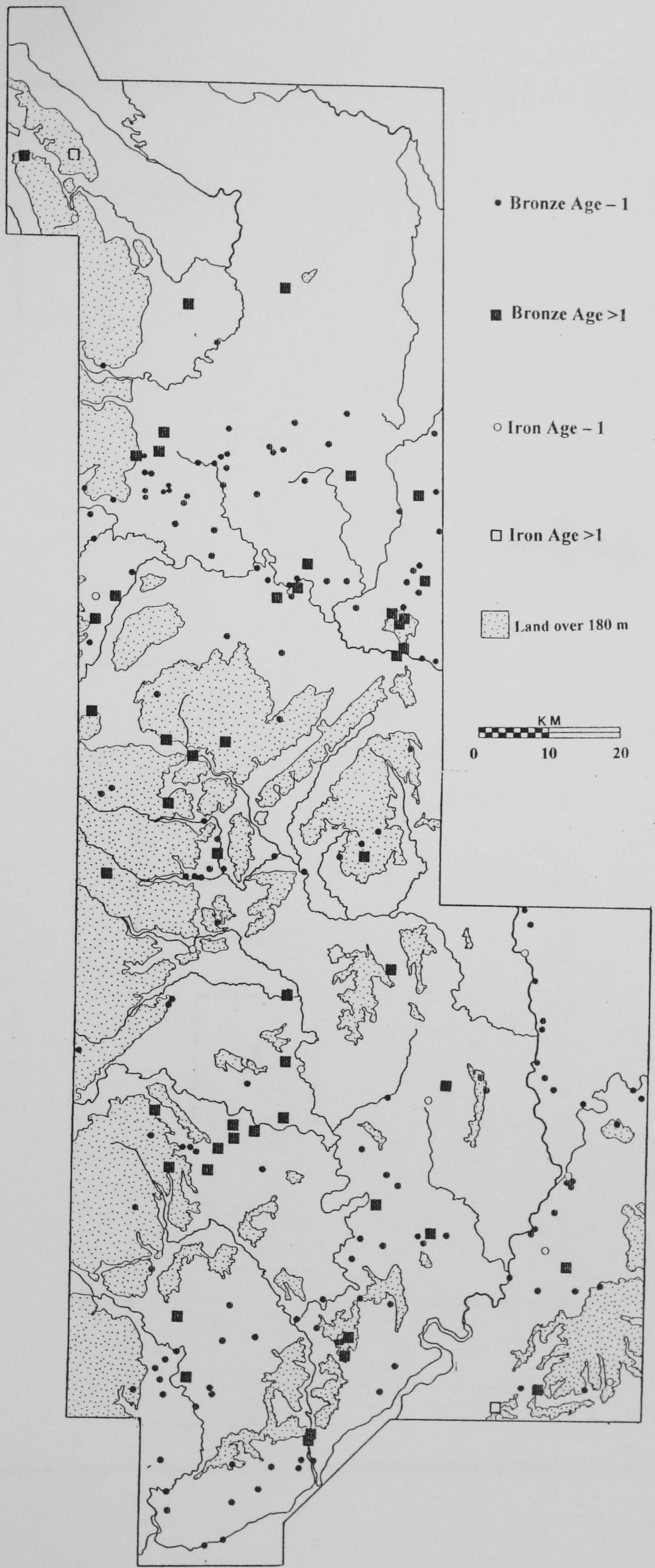

Figure 10.18: Distribution of chance finds of metalwork (excluding coins and currency bars) from the Welsh Marches

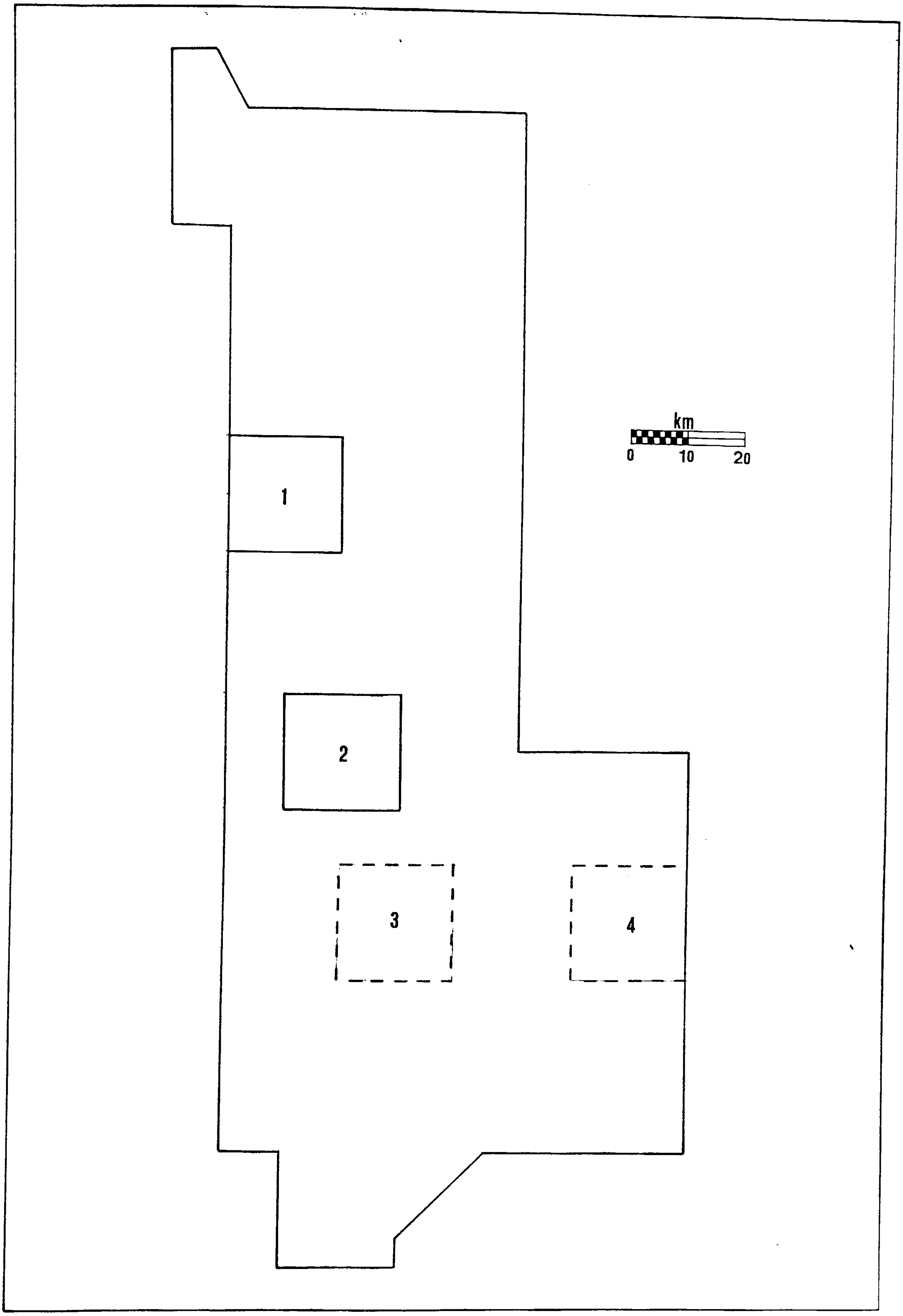

Figure 11.1: Location of area 1 and area 2 within the Welsh Marches

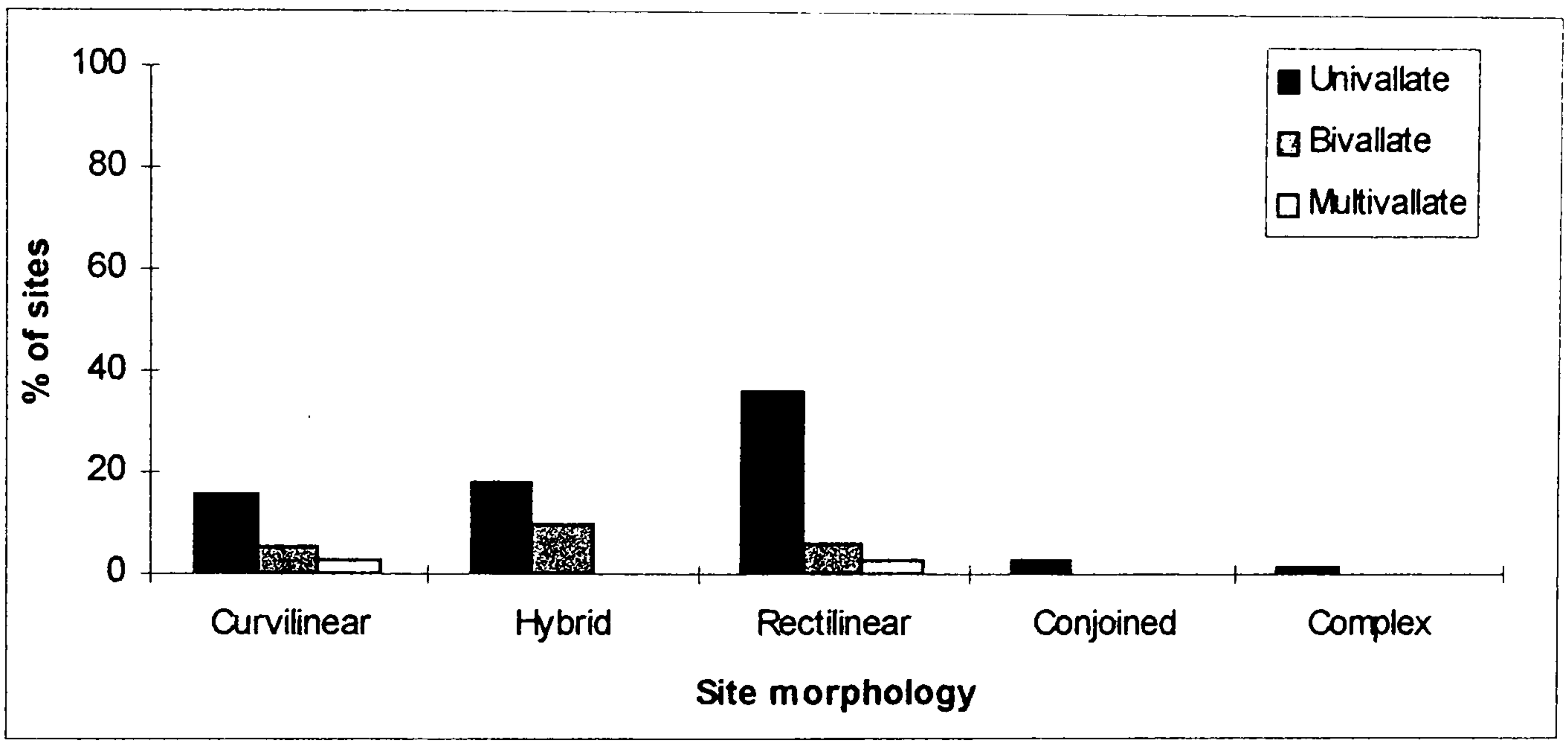

Figure 11.2: Proportions of different non-hillfort enclosure types in area 1

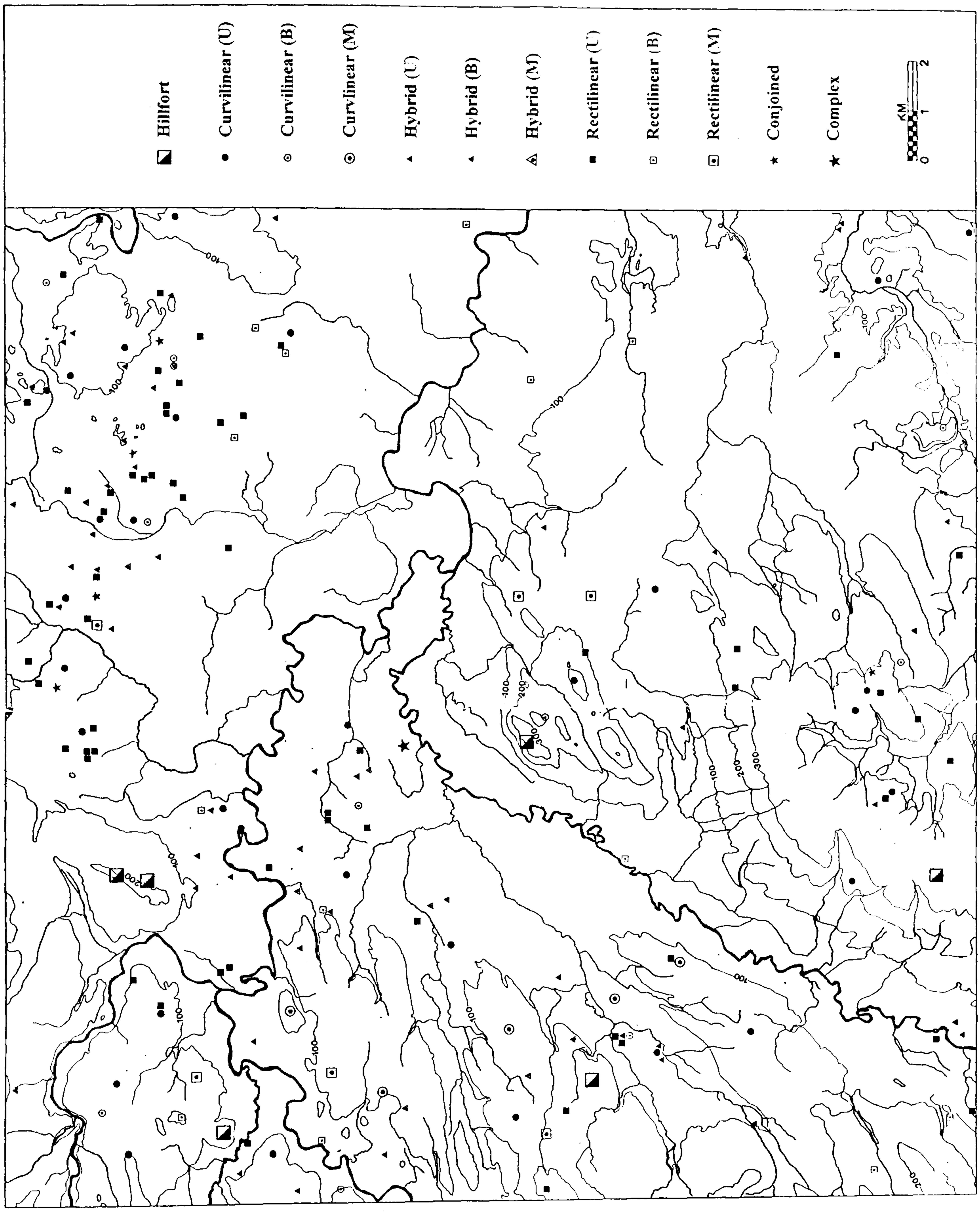

Figure 11.3: The distribution of enclosures within area 1

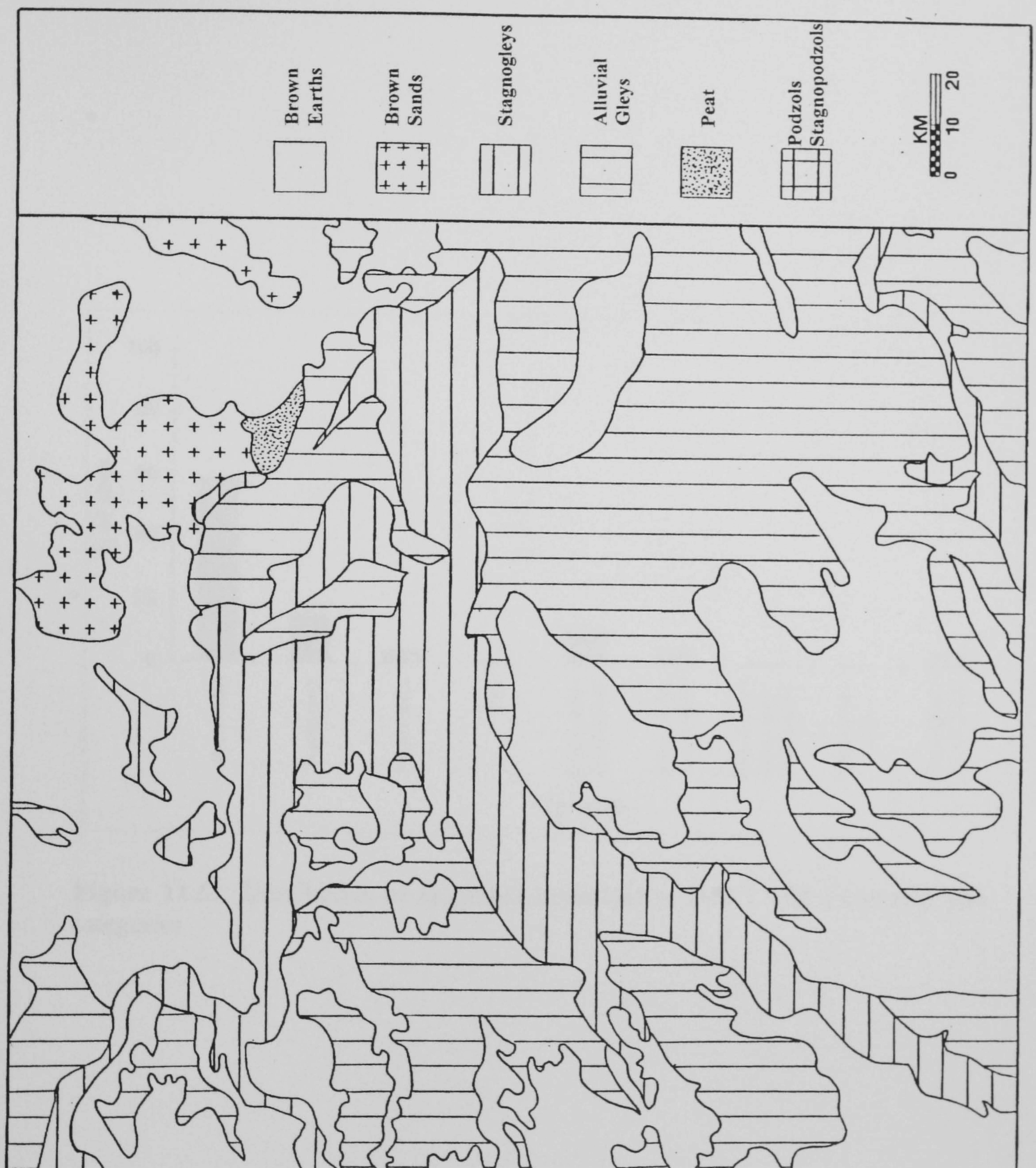

Figure 11.4: Generalised soil map of area 1

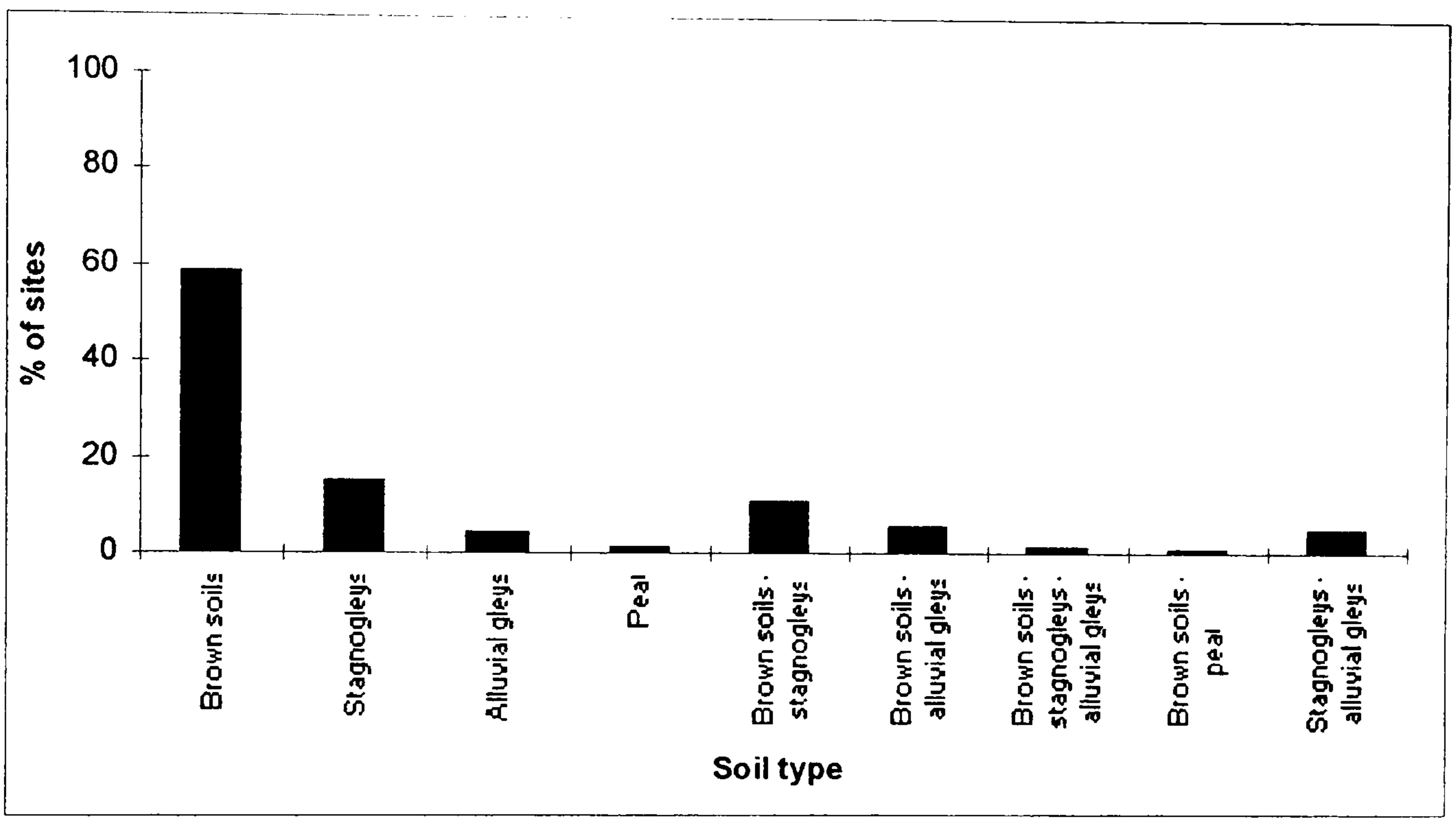

Figure 11.5: Distribution of cropmark enclosures in area 1 with relation to soil categories

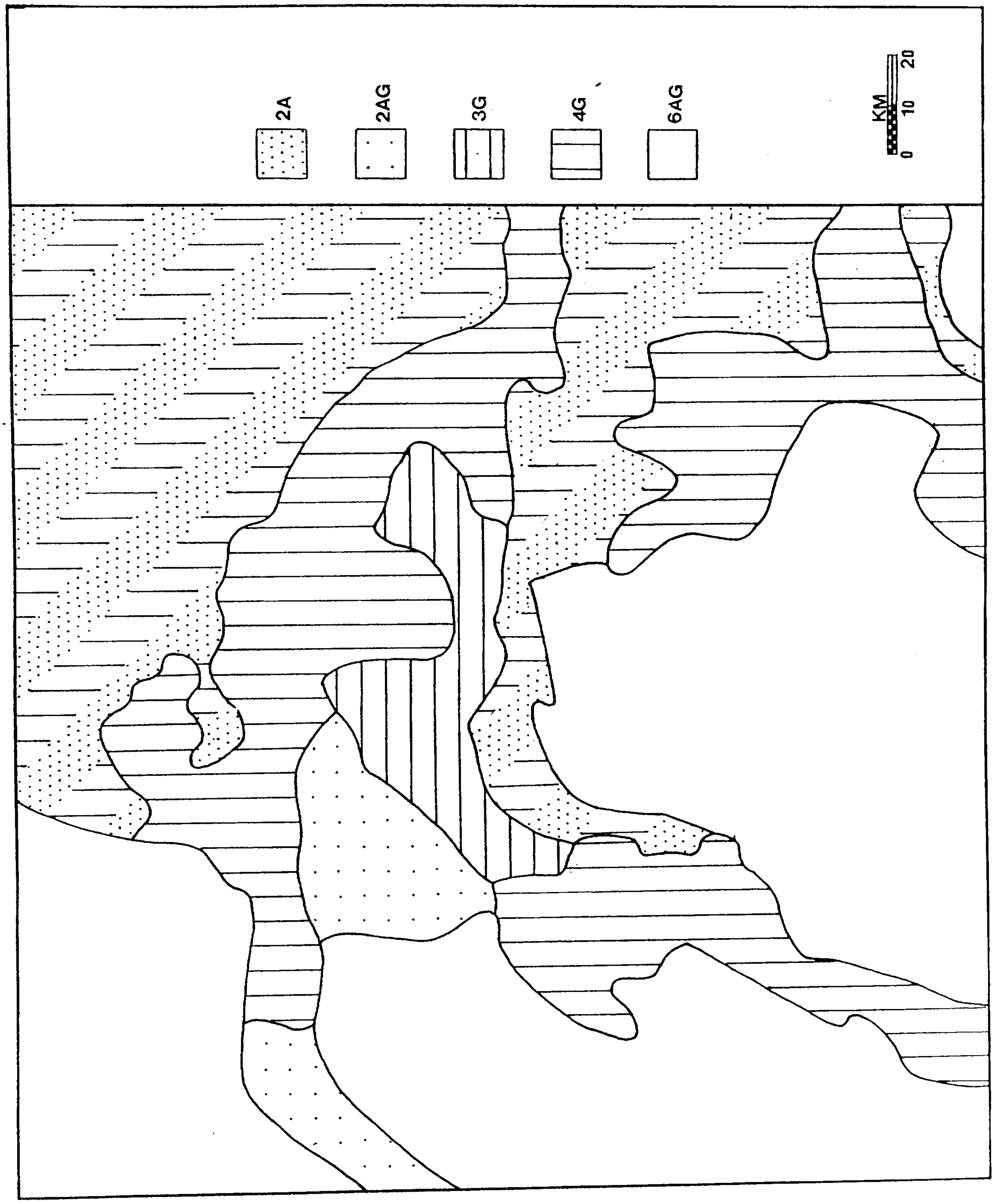

Figure 11.6: Land capability map of area 1

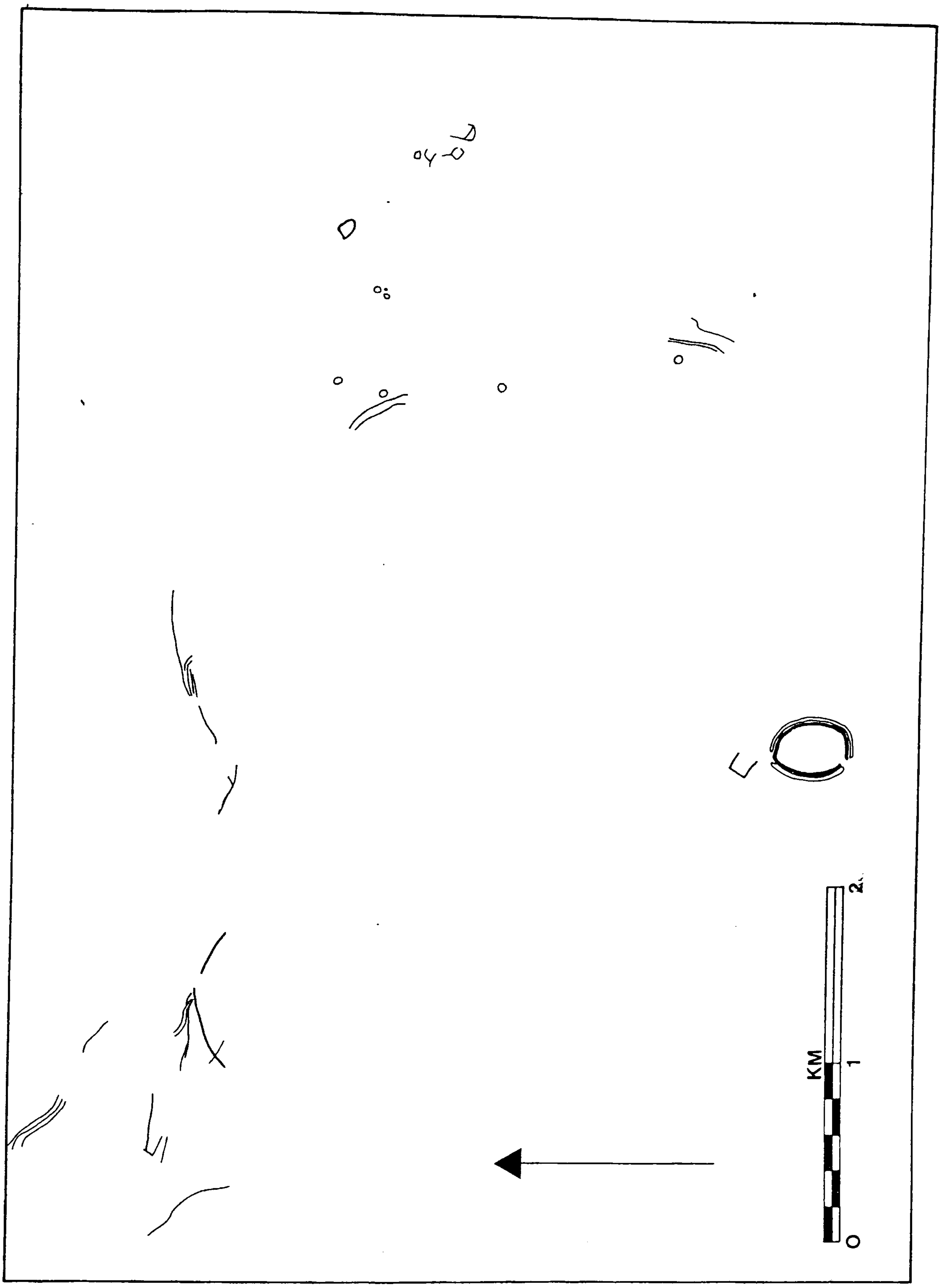

Figure 11.7: Beacon Hill hillfort in its archaeological surroundings

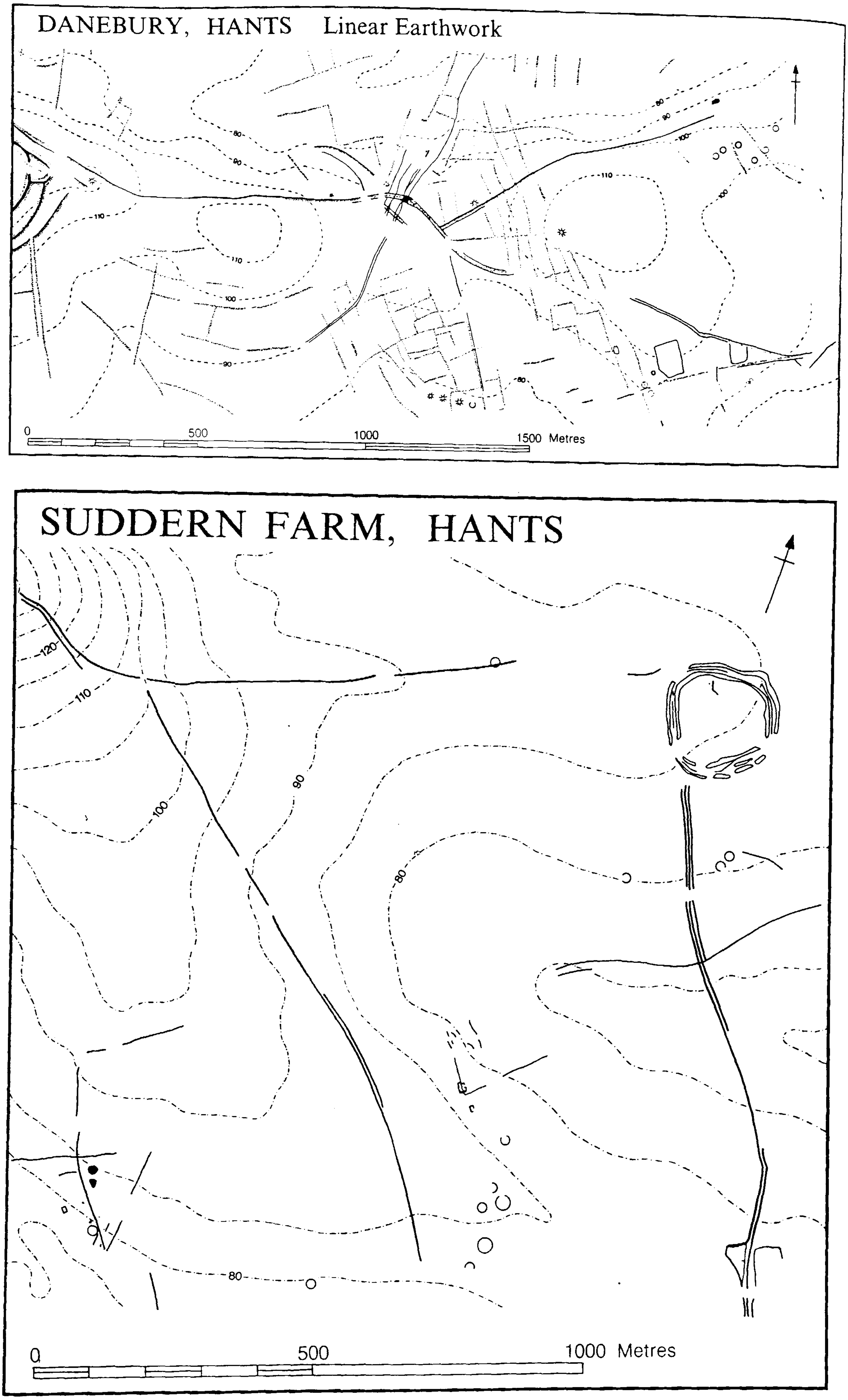

Figure 11.8: Association between linear earthworks and funerary monuments at Danebury and Suddern Farm, Hampshire (after Cunliffe 1990)

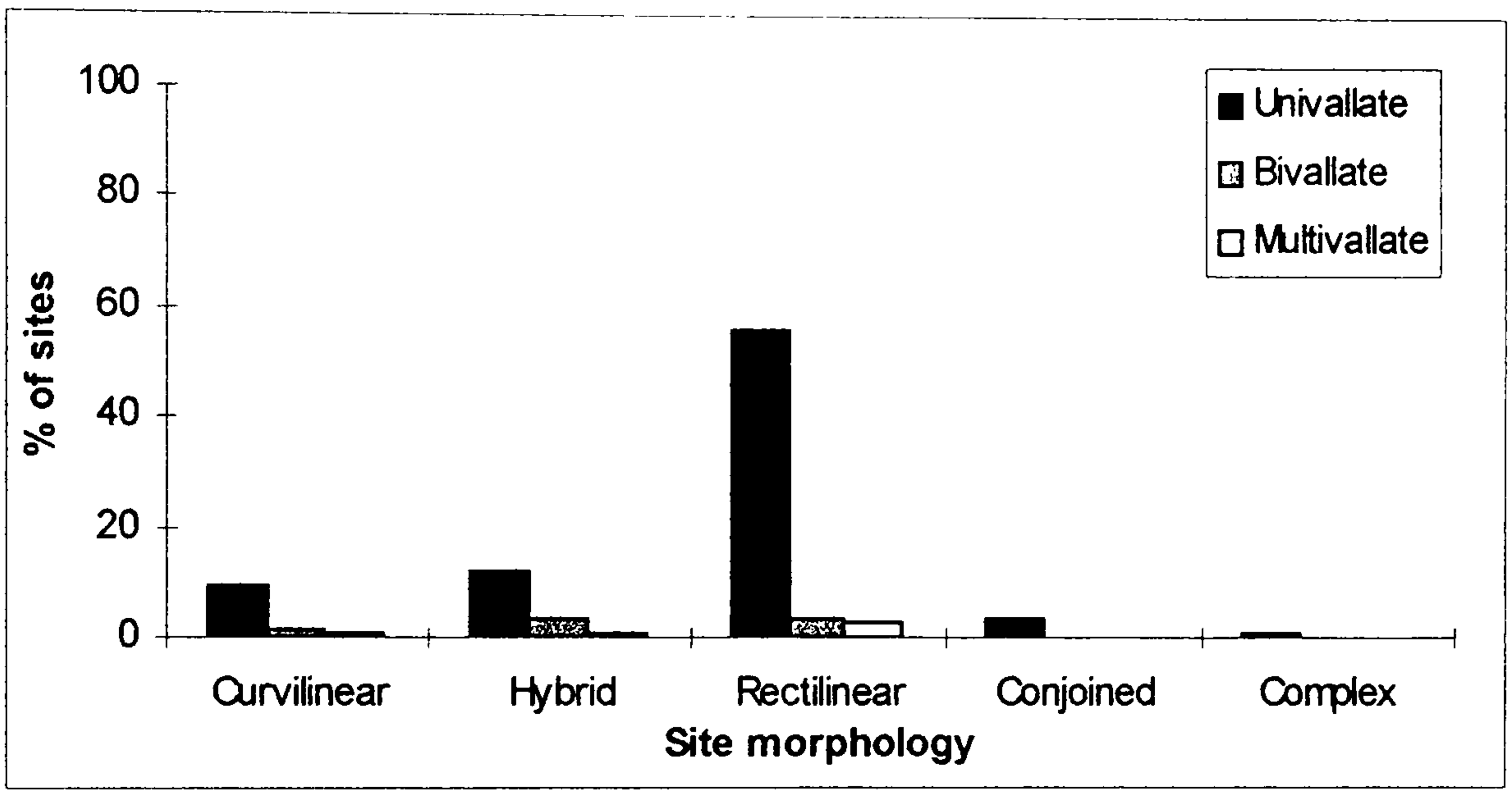

Figure 11.9 : Proportions of different non-hillfort enclosure types in area 2

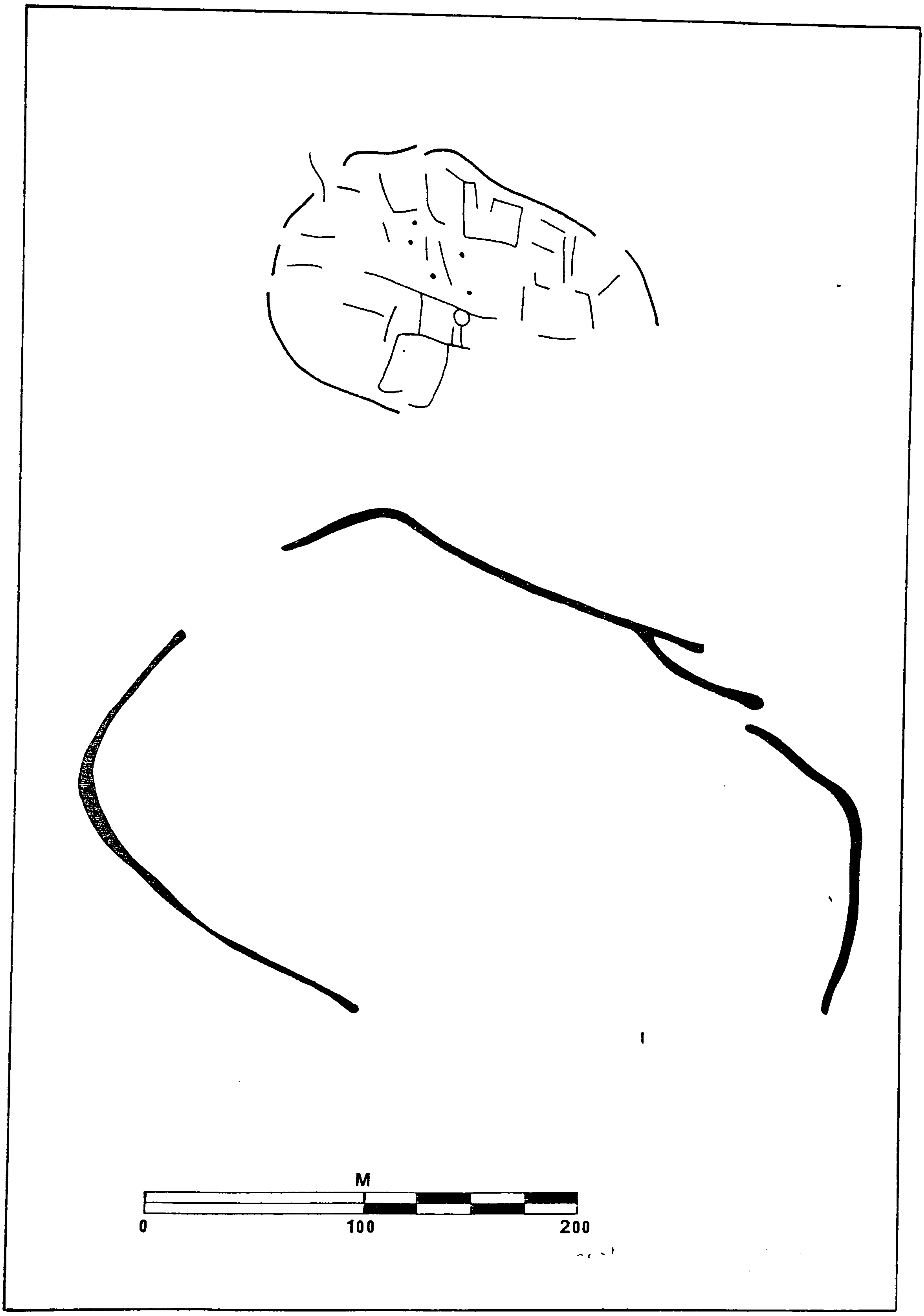

Figure 11.10: a) Complex site and b) enclosure in area 2

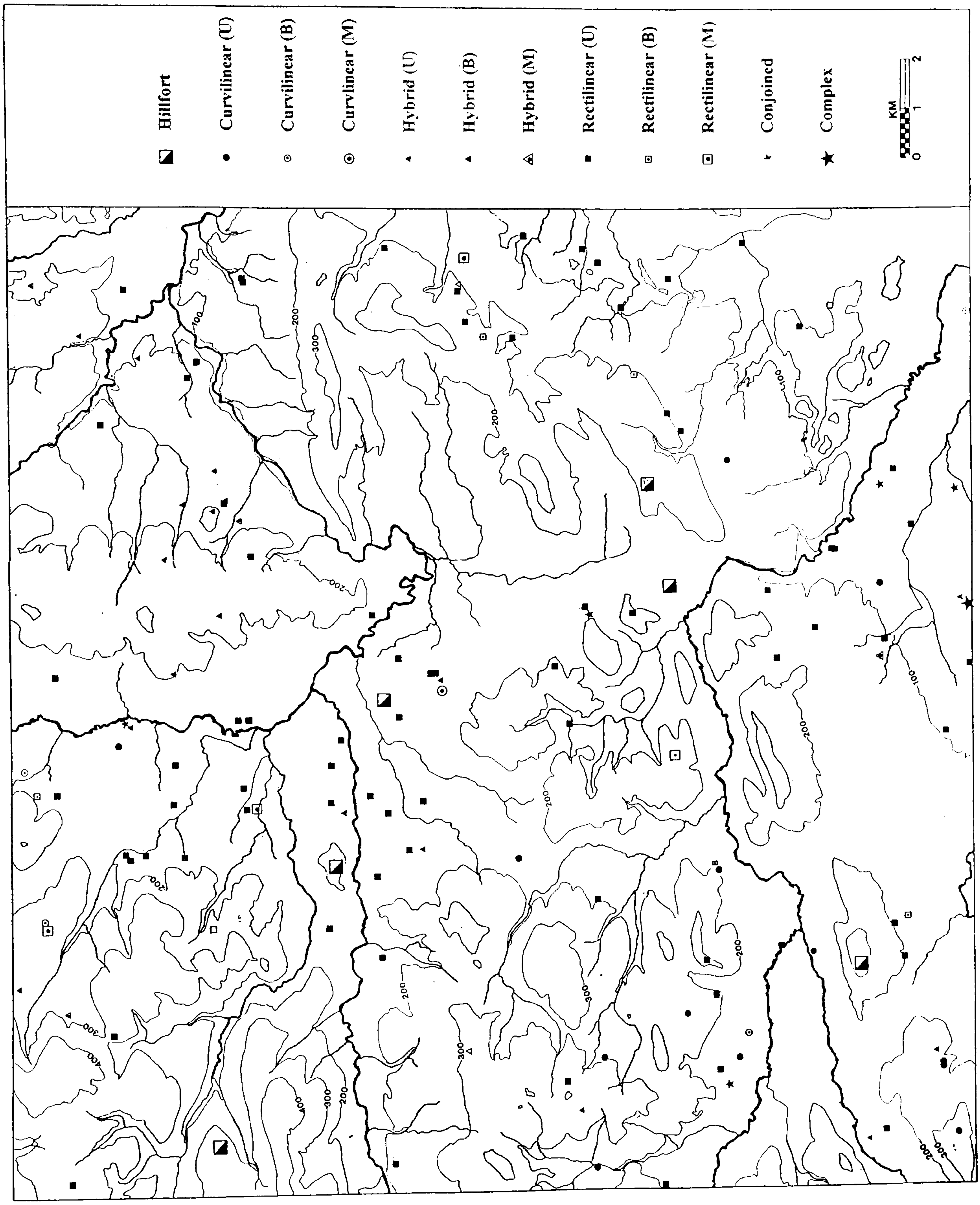

Figure 11.11: The distribution of enclosures in area 2

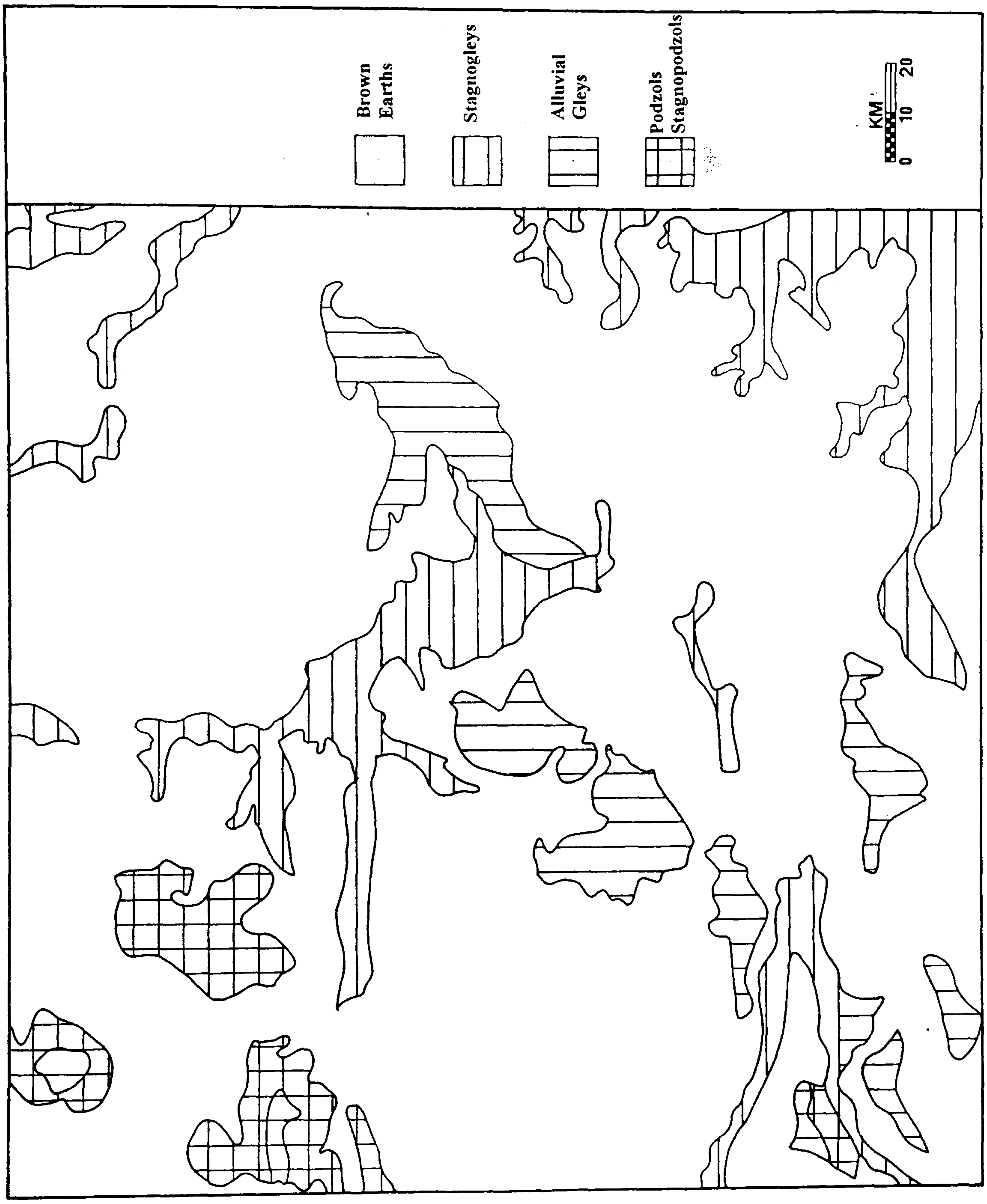

Figure 11.12: Generalised soil map of area 2

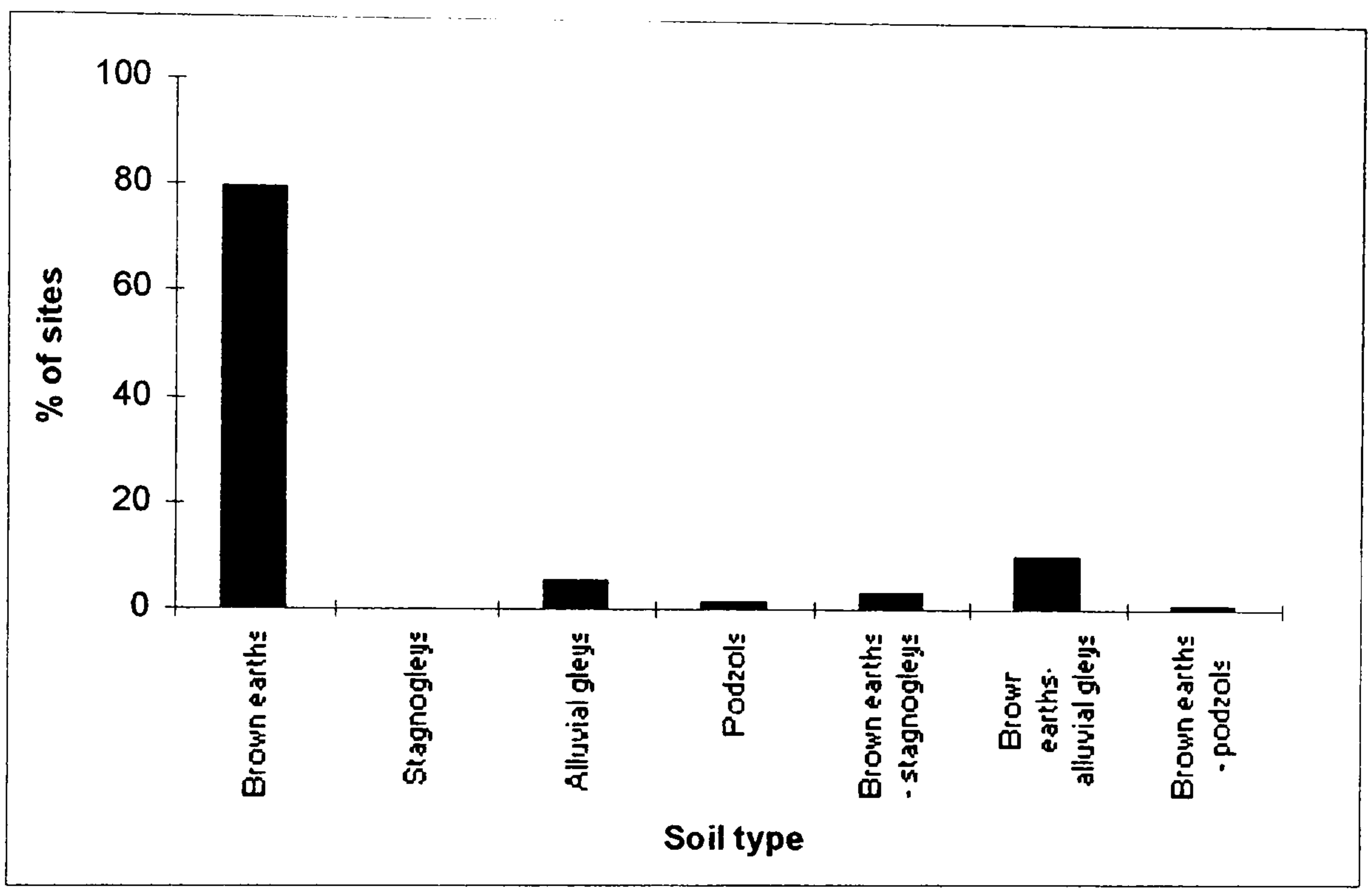

Figure 11.13: Distribution of cropmark enclosures in area 2 with relation to soil categories

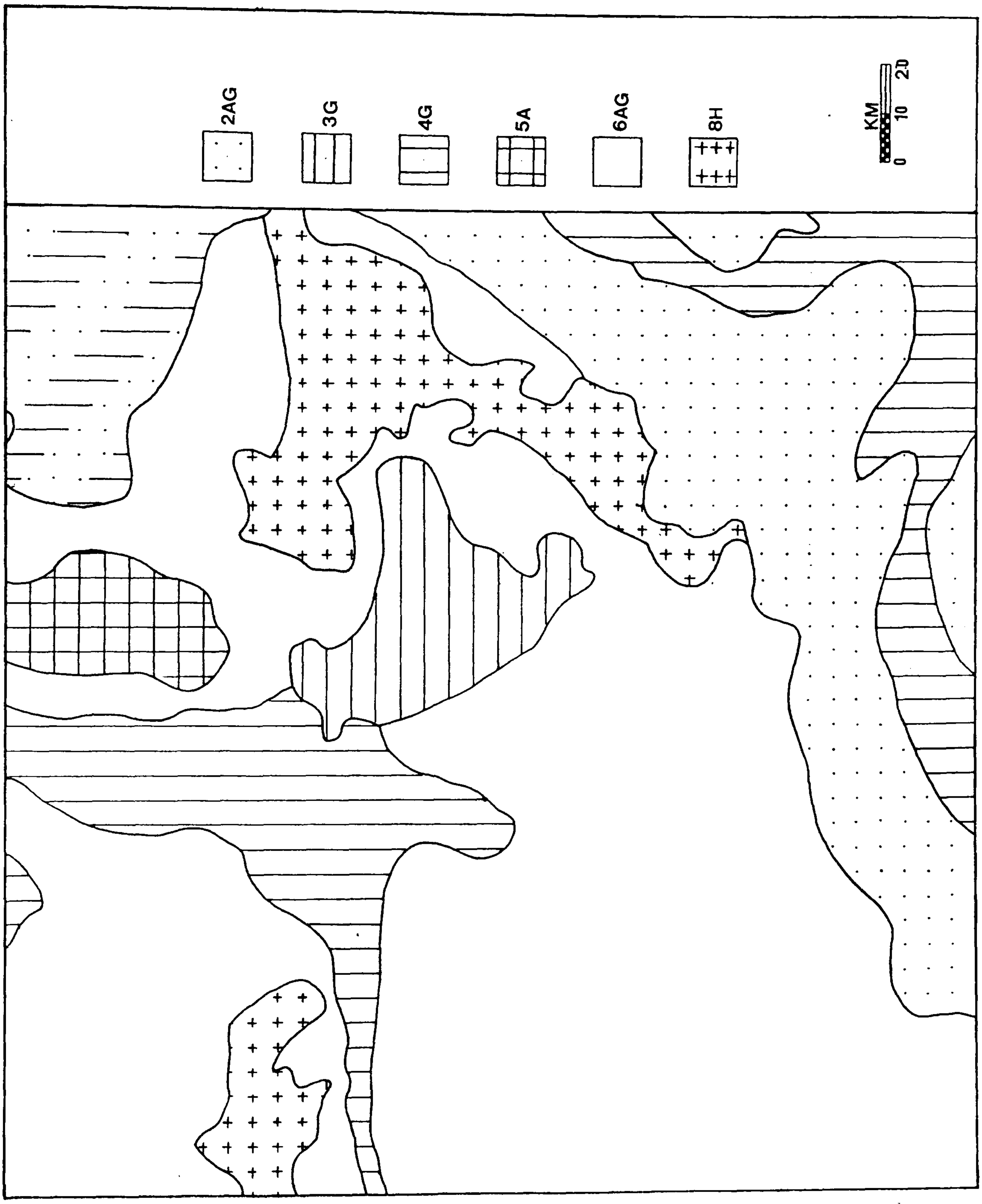

Figure 11.14: Land capability map of area 2

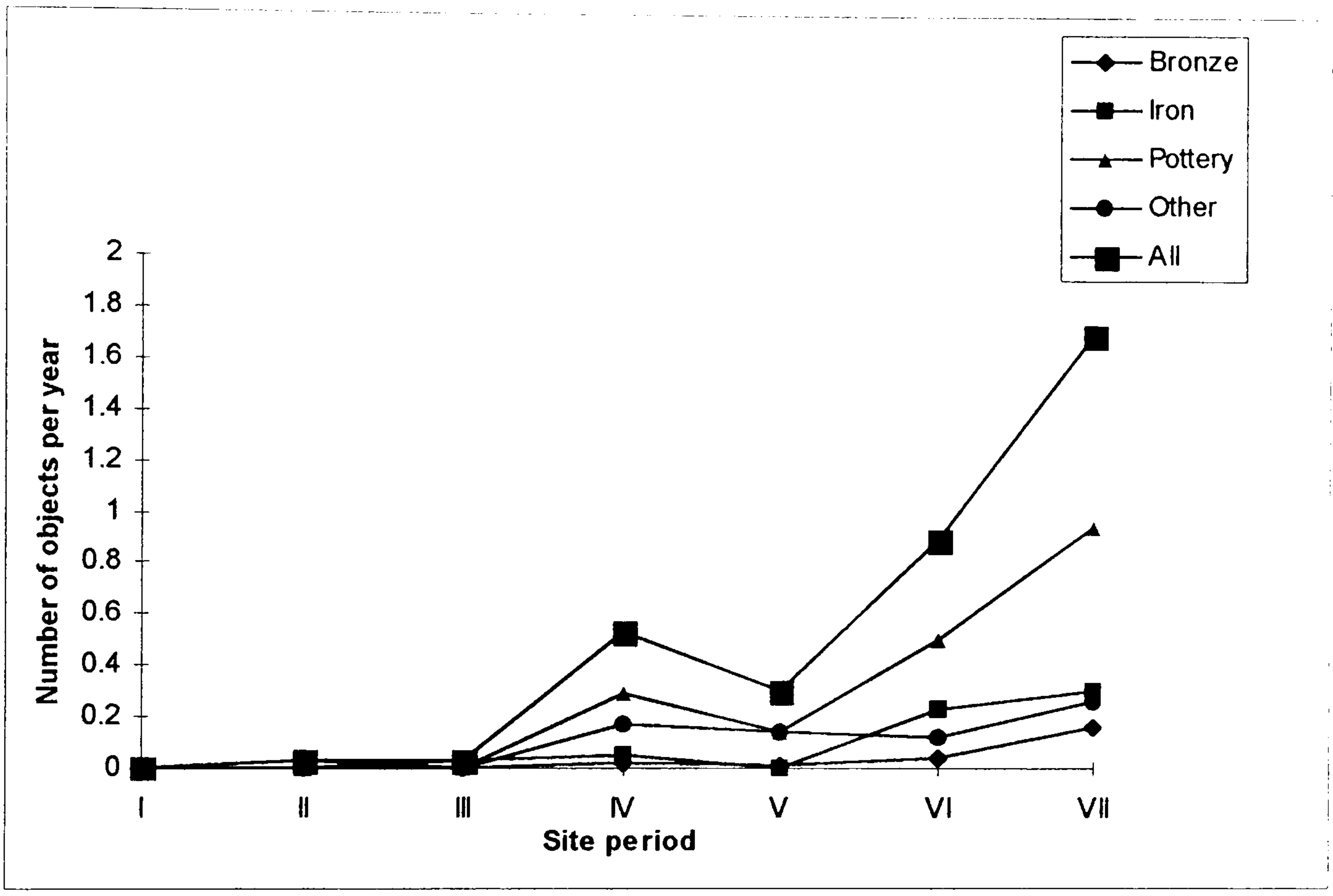

Figure 11.15: Artefact deposition by period at Croft Ambrey

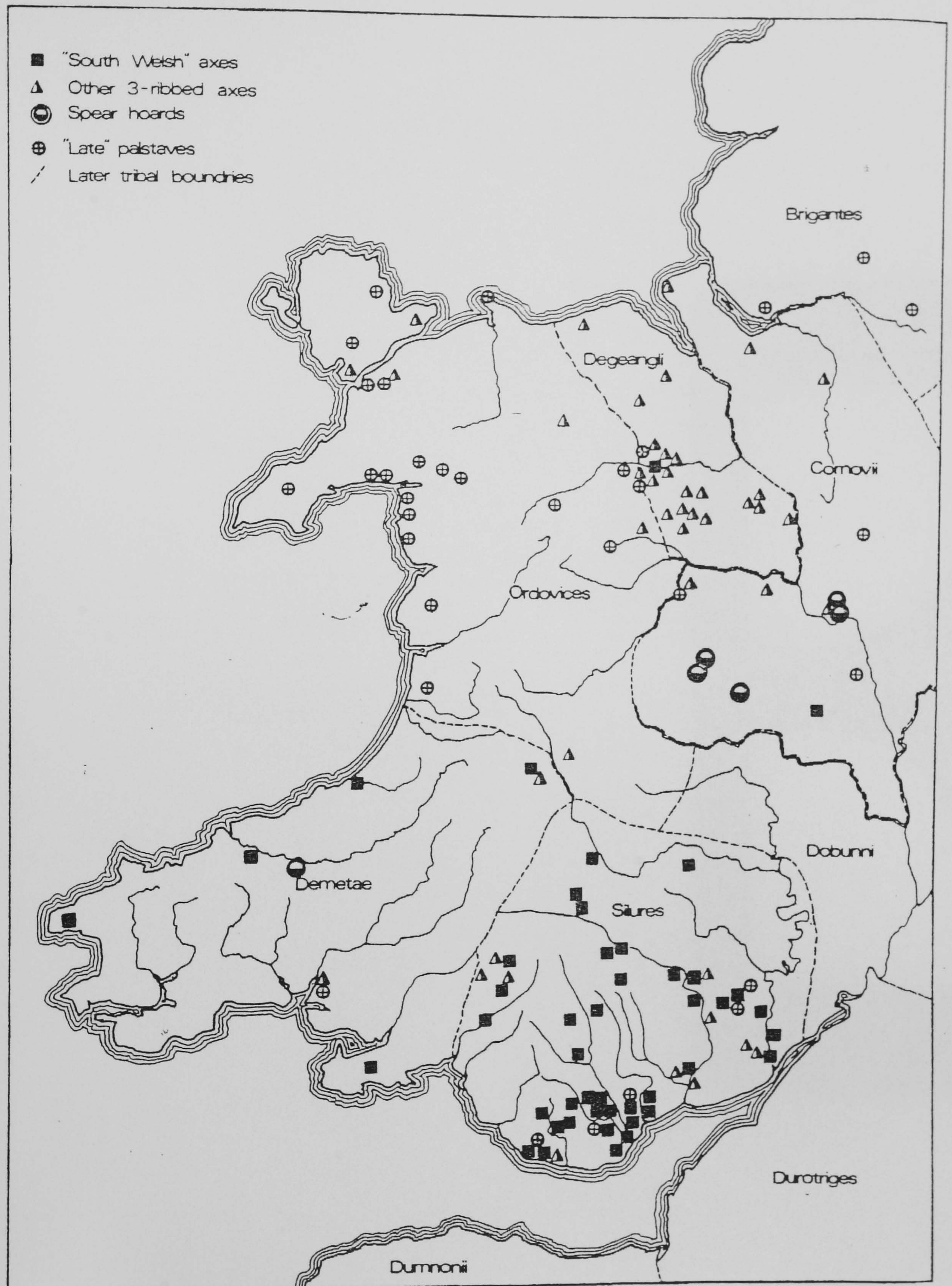

Figure 12.1: Regional groupings in the Welsh Marches identified by the distribution of late Bronze Age metalwork (after Burgess 1980)