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FILLING THE GAPS: THE IRON AGE IN CARDIFF AND THE VALE OF GLAMORGAN

Abstract

Over the last 20 years interpretive approaches within Iron Age studies in Britain have moved from the national to the regional. This was an important development which challenged the notion that a unified, British, Iron Age ever existed. However, whilst this approach has allowed regional histories to be told in their own right there has been far too much focus on 'key' areas such as Wessex and Yorkshire. Our knowledge of the 'gaps' in-between these regions is uneven across the country and seriously distorts our understanding of the period. This situation is particularly acute in Wales where there is a paucity of very large material and structural assemblages. As with many 'in-between' areas although developer-funded archaeology has increased the baseline dataset the interpretation of that data has not developed in parallel. This paper will demonstrate that to more fully understand the integrated regional composition of Iron Age Britain we must give detailed consideration to the evidence from these 'gaps'. By bringing together for the first time all of the available aerial photographic, chronological, faunal, palaeobotanical and excavated data in one of these 'gap' areas, southern Glamorgan, this paper will show that through the careful analysis of the *available* evidence we are able to gain an understanding of different areas' distinctive regional characters and move beyond our over-reliance on a small number of key regions.

Introduction

Our perception of the Iron Age in Britain has changed dramatically over the last 100 years. The archaeologists of the early twentieth century were primarily concerned with amassing collections of artefacts that they used to define Iron Age cultures or peoples, which by the end of the period had coalesced into the historical entities known to the Classical authors. These cultures were at first interpreted within invasionist frameworks, but in the 1960s these were replaced by alternative narratives emphasising insular Iron Age developments. However, this not to say that these revisionist models immediately discarded the idea of Iron Age 'cultures'.

In his seminal paper attacking Hawkes' 'ABC' nomenclature for instance, Hodson (1964) grouped together the whole of the southern British Iron Age under the heading of a 'Woodbury culture' with the exception of 'the Aylesford-Swarling culture' of Kent and the 'Arras culture' of East Yorkshire where the distinctive burial rites were argued to indicate the arrival of migrants from the continent. In *Iron Age Communities in Britain* Cunliffe (1974) used settlement morphology, the characterisation of pottery styles and coinage to define regional cultural groupings. These regional cultural groups however were usually interpreted as resulting from ecological or environmental factors (Fox 1932; Piggott 1966; Cunliffe 1974) and the underlying assumption was that systems of settlement, beliefs and social organisation across Britain were closely related and defined a common, British, Iron Age 'society' characterised by the roundhouse, the bone weaving comb and the ring-headed pin (Hodson 1964).

In the early 1990s a number of studies began to question the notion that a unified Iron Age ever existed in Britain (Collis 1996; Ferrell 1995; Hill 1995). In particular they highlighted the over reliance on evidence derived from southern Britain, principally Wessex, the Thames

Valley and the south-east, for the formation of interpretations and models which were extended across the country (Bevan 1999). To some extent this situation was to be expected – many of the early archaeologists, and therefore much of the early work, were concentrated in southern Britain. However, as more data was accumulated and differences in settlement patterns and social organisation between regions became evident it was impossible to sustain a standard model of a unified British Iron Age.

The uncoupling of preconceived links between the north and west of Britain and the south and east was an important step which allowed for the identification and interpretation of regional Iron Age societies in their own right. However this approach has itself become problematic. Inter-regional trends such as social forms and hillfort sequences have tended to be overlooked in favour of regional frameworks. Equally, regional biases have seriously distorted the understanding of the period. There has been far too much focus on ‘key’ regions such as Atlantic Scotland and Yorkshire, at the expense of the areas in between. While much new data in these ‘gaps’ is being collated through rescue archaeology, this is uneven across the country.

This situation is particularly acute in Wales. Although Wales is noted for the excellent survival of later prehistoric earthworks and in particular its dense concentration of hillforts (Savory 1976), the study of the Iron Age has lagged behind other areas of Britain. In the first half of the twentieth century there was a strong tradition of field survey (e.g. RCAHMW 1911; 1912; 1913; 1914; 1917; 1921; 1925; 1937), but discoveries were seldom followed by extensive excavation. The cause was primarily a lack of resources – the small numbers of archaeologists working in the country were simply spread too thinly – but the effect was a significant dearth of recovered later prehistoric material assemblages. This situation fostered a sense of peripherality and backwardness unhelpfully reinforced by Sir Cyril Fox (1932), then the director of the National Museum of Wales, who placed the whole of the country into his culturally retarded ‘Highland Zone’.

In the decades following the Second World War this perception became a self-fulfilling prophecy. Academic archaeologists tended to focus their efforts in areas such as Wessex where large datasets were expected. Whilst a small number of research excavations were undertaken in Wales (e.g. Castell Henllys, Mytum 2013; Llawhaden, Williams and Mytum 1998), long-term, large-scale, projects that had the potential to produce large assemblages of cultural material were not prevalent. Excavation was primarily undertaken in response to pressures of development, industry or agriculture and resulted in unevenness of coverage and scale.

Our interpretation of the Iron Age in Wales is therefore heavily reliant on a small number of extensively excavated sites primarily located in the Welsh Marches (e.g. Dinorben, Moel Hirraddug, the Breiddin) and west Wales (e.g. Castell Henllys, Walesland Rath, Coygan Camp). Surprisingly the heavily urbanised areas of south-east Wales, particularly southern Glamorgan (now divided into the two districts of Cardiff and the Vale of Glamorgan) have seen few large-area excavations. This is chiefly a symptom of the major periods of urbanisation which were concentrated in the nineteenth and early twentieth century before the formal establishment of rescue archaeology. Inevitably it has led to a weak chronological framework and a poor understanding of later prehistoric settlement and landscape exploitation (for detailed discussion of the state of later prehistoric archaeology in Wales see Driver 2013; Gwilt 2003).

Southern Glamorgan can therefore be caricatured as one of the ‘gap’ areas in Iron Age Britain, sandwiched between the two more well-known regions of west Wales and the Welsh Marches. Little effort has been given to defining its regional character and the interpretation of later prehistory in the region has tended to be lumped in together with west Wales or the south-west peninsular of England. The uncritical merging of poorly understood local histories with better-known regional narratives is problematic and this is primarily what this paper seeks to address. It will demonstrate that in order to more fully understand the regional mosaic of Britain we need to consider the gaps in-between the better-known regions in their own right. By bringing together for the first time all of the available aerial photographic, chronological, faunal, palaeobotanical and excavated data in southern Glamorgan this paper will establish a coherent synthesis of the later prehistoric archaeology of the region from the sixth century BC to the beginning of the Romano-British period. It will show that even without extensive excavations through the careful and critical analysis of the *available* evidence we are able to begin to move beyond our over-reliance on a small number of key regions.

Narratives, paradigms and current understanding

In order to understand the current accepted narratives for later prehistory in southern Glamorgan it is important to examine the history of research. From the earliest stages the interpretation of later prehistoric evidence in the region has drawn deeply from culture-history paradigms and these approaches have been difficult to shake off. Within the last decade Ray Howell has attempted to describe the region on a tribal basis (2006), while the recent Cadw-funded excavations at Llanmelin Hillfort near Newport, were described as ‘a search for the tribal capital of the Silures’ (www1). The reason for this is not straightforward, but it appears that despite the increase in the bulk of evidence over the last 40 years, the interpretation of that evidence has not developed in parallel. In other words, unlike in England, the revisionist theories for the region were never written to replace the culture-history conceptual framework.

This situation is partly a symptom of the nature of academic study in the region which tends to be characterised by short periods of intensive research followed by long periods of relative inactivity, often failing to capitalise on previous gains. Detailed field survey of earthworks in the early part of the twentieth century for instance was rarely followed up with excavation to test observations and theories (Gardner 1935; Fox 1952; Fox 1937; cf. Fox and Thriepland 1937). Primarily this was the product of the very small number of archaeologists working in the region at the time, but it meant that large material and structural assemblages were not accumulated for subsequent analysis. By the early 1970s the quantity of published excavated detail was so small that the Vale of Glamorgan received only two sentences of consideration – a short description of the excavation by Savory at Mynydd Bychan – in the first edition of Cunliffe’s *Iron Age Communities in Britain* (1974, 195).

A major advance was the extensive rescue excavations and subsequent publication of three small enclosed sites – Whitton (Jarrett and Wrathmell 1981), Coed y Cymdda (Owen-John 1988a) and Biglis (Parkhouse 1988) – in the 1970s and early 1980s. These excavations have been highly influential principally because for the first time large assemblages of material and structural remains were recovered and rigorously analysed. Unfortunately there has been little work to critically appraise the interpretations offered by the excavators and they are often taken to represent the typicality of Iron Age settlement in the area despite the fact that

Coed y Cymdda has been shown to be Mid-to-Late Bronze Age and occupation at Whitton and Biglis did not begin until the first century AD. They remain the type-sites for the region partly as a result of the quality of the excavations, but largely because of the paucity of other major extensive excavations against which the data could be tested. Despite the instigation of PPG16 in the early 1990s for instance, it was not until 2003 that another enclosure was excavated on a significant scale – that at RAF St. Athan (Barber *et al.* 2006). The majority of other excavations have been small-scale evaluations, producing limited structural and material assemblages, frequently leading authors of the reports to cite uncritical and inappropriate comparisons with these regional type sites (e.g. see comparison of the oval enclosure at Tredogan, North-West with the sub-rectangular enclosure at Whitton (Howell 2000, 129)).

The excavations at Whitton, Biglis and Coed y Cymdda in the 1970s coincided with the publication of the RCAHMW's *Glamorgan Inventory* (1976) which included a survey of all earthworks then known or suspected to be Iron Age in date. Inevitably the evidence presented was dominated by enclosed sites and it was argued that Iron Age social organisation in the region was characterised by 'defended settlements' defining single family groups with their dependents (RCAHMW 1976, 10). The instigation of an intensive aerial photographic reconnaissance program by the RCAHMW in 1986 as well as Cadw-funded fieldwalking surveys and resource assessments by the Glamorgan and Gwent Archaeological Trust has enormously increased our stock of potential later prehistoric sites since the publication of the *Inventory* from fewer than 30 to more than 140. Yet, the small number of more recent academic syntheses have tended to follow the frameworks outlined in the *Inventory* rather uncritically and the lack of consideration for unenclosed settlements and the potential asynchronicity of enclosures in the narratives is particularly striking (Cunliffe 2010; Howell 2006; Davies and Lynch 2000).

We are therefore left with a situation where a large number of sites have now been identified through survey or excavation, but not on a large enough scale to support either a credible chronological framework or a detailed understanding of Iron Age activity in the region. In particular we are still largely reliant upon comparative analysis with other areas. The Vale of Glamorgan and Cardiff sit rather ambiguously at the eastern extent of Cunliffe's 'south-western zone' which stretches from Cornwall to north Wales (2010, fig. 21.2), and at the western extent of his hillfort dominated zone (2010, fig. 4.3), while the region is bisected by the boundary separating a clientage from a redistribution economy (2010, fig. 16.15) (Figure 2). It has long been recognised that the area does not contain the very large hillforts and enclosures in excess of 10 ha as can be found in the Marches and central southern England, but has a mix of small (< 2 ha) and medium to large (2-6 ha) sized examples (RCAHMW 1976). A weak chronological framework derived from the small-scale sampling of only a handful of sites means that hillforts in Cardiff and the Vale are frequently considered as relative late-comers. Savory (1984) has argued that as opposed to the Marches, Glamorgan was not part of major hillfort building in the Early Iron Age. Similarly, Davies and Lynch (2000) have suggested that hillforts in the region probably emerged in the Middle or Late Iron Age. While many sites show architectural complexity such as multivallation this is also considered a late development possibly dating to the Late Iron Age or Romano-British period (Driver 1995; Howell 2006, 36).

Settlement in the region is often likened to that of west Wales and the south-west peninsula of England where there is a prevalence of small, family-sized enclosures and little evidence of open settlements (Cunliffe 2010, 292-3; Savory 1984, 239; Driver 1995; RCAHMW 1976).

The pattern of enclosures is fairly well-known mainly as a result of survey by the RCAHMS for their *Glamorgan Inventory* (1976) and subsequent aerial reconnaissance. A gazetteer of sites was recently produced by GGAT as part of a Cadw-funded pan Wales project studying prehistoric ‘defended’ enclosures in order to assist their management (Evans *et al.* 2006). Basic comparisons of site morphology, scale and landscape setting were undertaken, but little consideration was given to development and occupation through time. Subsequent examination of the pattern of enclosures has been undertaken by Lancaster (2014) who claims to be able to recognise clusters of sites, which he suggests may represent clan groupings of a tribal confederation. The argument is particularly unconvincing as the study does not consider the contemporaneity and variable morphology of sites, or the relationship between enclosed and unenclosed settlement.

The physical aspects of enclosure such as size, multivallation or entrance complexity, has been considered to indicate grades of status within a settlement hierarchy (Cunliffe 2010; Davies and Lynch 2000). The absence of large hillforts is taken as proxy evidence for the absence of large concentrations of population and to indicate a decentralised socio-political structure (Savory 1984; Lancaster 2014). Hillforts in the region therefore tend to be interpreted as the homesteads of aristocrats with lower status families inhabiting the non-hillfort enclosures (Cunliffe 2010, 305). Cunliffe (2010, 594) has even suggested that here as in the south-west, hillforts and enclosures were constructed by predominantly pastoral communities particularly as they appear to lie in areas apparently devoid of field systems.

The perception that prehistoric communities in south-east Wales were primarily pastoralists is particularly strong. Faulkner describes ‘ancient Siluria’ as “...a land of boggy uplands, wooded slopes and narrow valleys and plains, where arable was limited and most land was pasture or wilderness” (2001, 37-8). This seems at odds with the modern reality in which the Vale of Glamorgan represents some of the most productive arable land in all of Wales. Other scholars who are more open to acknowledge the agrarian potential of the land also tend to fall back to a position in which they assert pastoralism as dominant (e.g. Cunliffe 2010, 49 and 107; Howell 2006, 52; Davies and Lynch 2000, 170 and 176).

The reluctance to give prominence to agrarian agriculture within the later prehistoric economy has deep roots. In the *Description of Wales* the twelfth century churchman Gerald of Wales (c.1146-1223) stressed the pastoralism of Medieval Welsh life in contrast to the agrarian and civilised nature of English society. Drawing from these observations, nineteenth and early twentieth century English historians have tended to portray the Welsh as uncivilised using pastoralism as a proxy for barbarism (Marsden 2011). This position has been very influential, particularly within the academic consciousness. When defining the character of prehistoric Britain for instance, Fox (1932) placed south-east Wales firmly within his highland zone, contrasting its wild barbarism and untamed landscape with the civilised, agrarian lowlands - principally south-east England. In more recent years Cunliffe (2010, chapters 7-9) has used the presence of coinage to divide Late Iron Age Britain into a culturally advanced coin-issuing ‘core’ (south-east England) and a peripheral pastoral ‘beyond’ (Wales, the south-west and the north) along almost the same geographical lines. In this context, the notion of Welsh pastoralism is equated with concepts of marginalisation and peripherality. That such notions have not been forcibly challenged by Welsh archaeologists is interesting and almost certainly a product of the continued influence of culture-history, particularly the idea of Welsh ‘Celticness’ (cf. Davies 1995, 686). Early 20th century Welsh historians re-cast pastoralism in positive terms, romanticising Celtic societies past and present in an effort to invoke Welsh nationalism and emphasise distinctiveness with Anglo-Saxon

dominated England (Marsden 2011, 340). The archaeological interpretation of prehistoric pastoral lifeways appears to fit with this stereotype of the Celt providing a conceptual narrative that corresponds well with the modern perceptions of Welsh nationhood.

The accepted narratives can therefore be summarised:

- The chronological framework for the region is not well understood, but hillforts are likely to be relative late-comers to the region emerging in the Middle or Late Iron Age
- Hillforts are the homesteads of aristocrats and do not see large concentrations of population
- The settlement pattern is dominated by small, family-sized enclosures similar to the pattern observed in Devon and Cornwall
- Open settlements are virtually absent
- The later prehistoric economy is dominated by a pastoral agricultural regime

Each of these points is open to question and that is what I want to explore in this paper.

The settlement evidence

This study brings together for the first time the extensive range of material that is available through an examination of data derived from the National Monuments Record (NMR), regional Historic Environment Record (HER), and all published and unpublished sources. All enclosed sites and some unenclosed sites, where features were visible, have been transcribed either from aerial photographs, LiDAR, geophysical survey data or earthwork surveys at 1:1,000. This study then provides the first published gazetteer and transcription of all known or suspected Iron Age settlement evidence in the region.

One of the immediate problems in undertaking the study is the variable definitions of site types, particularly ‘hillfort’ and ‘enclosure’. In their *Glamorgan Inventory* the RCAHMS (1976) used location, size and earthwork morphology to classify hillforts and enclosures into eight categories. I prefer a more straightforward nomenclature that groups sites simply according to topographic location. The morphological difference between a hillfort and an enclosure is often not immediately apparent, but the topographic position of sites provides the most striking contrast. The most important characteristic that separates hillforts from other sites is their visual dominance in the landscape (Sharples 2010, 61). Elevated positions on the crests on hills, ridges or promontories provide prominent locations from which sites could see or be seen. This contrasts dramatically with the restricted viewsheds of enclosures on hill slopes or valley bottoms and suggests deliberate decisions were taken for the location of sites acknowledging the importance of hill tops.

A hillfort therefore is specifically an enclosure sited on the crest of a hill or ridge. I use promontory fort to denote an enclosure where at least one edge is defined by a cliff or slope – distinction here is made between those located on the coast and those inland. All other enclosed sites, whether situated on hillslopes or valley bottoms are labelled simply enclosures. Recent studies by the Welsh Archaeological Trusts (e.g. Evans *et al.* 2006) have begun to distinguish between ‘defended’ enclosures and ‘non-defended’ enclosures. The term ‘defended’ will not be used here principally because it makes assumptions about the supposed defensive capabilities and function of later prehistoric sites. I will use the term ‘open settlements’ to describe those occupation areas which are not enclosed by a boundary,

and ‘possible open settlement’ to classify potential occupation areas indicated by the recovery of occupation debris from fieldwalking, but for which no cropmark boundaries have been identified.

General distribution of sites

In total 152 sites probably dating to the Iron Age have been identified (Figure 3 and Appendix 1), the majority from aerial photography. Noticeably almost 85% of all sites (127) cluster into the southern half of the region. Undoubtedly this is a recovery bias since it appears to coincide with a broad change in underlying geology (Figure 4). The southern half of the region is dominated by limestone, while the northern half is mudstone and old red sandstone which has weathered to form a clay subsoil. It has long been considered that clay soils are difficult for aerial photography and gains from aerial survey are often very low (Mills and Palmer 2007). Aerial survey and observation has shown that cropmarks forming over clay appear later than those on ‘easier’ soils such as limestone (Mills and Palmer 2007, 11) – this is likely to mean that flights to the Vale of Glamorgan during the usual cropmark season are inclined towards identifying sites on the limestone rather than clay.

In the southern half of the region where cropmarks have been identified there are some observable patterns. In the south and east enclosures and open settlements appear to cluster along the lower river valleys. Conversely, in the centre and west sites appear to show a preference for the heads of river and stream systems or cluster near to the coast. There are curiously ‘blank areas’, particularly on the higher ground in the west of the region around modern Llandow and Wick. Open settlements are conspicuous by their absence in the west of the region and it may be that they await discovery here and would fill in these perceived under-populated areas.

Iron Age sites in the district of Cardiff are clearly under-represented almost certainly as a result of large-scale urban development in the early part of the twentieth century. Work by Martin Bell (2013) on the Severn Levels in Gwent has demonstrated that low-lying landscapes were intensively used in the later prehistoric period and similar occupation and activity should be expected on the mudflats and moors at the mouths of the Rivers Ely, Taff and Rhymney. The Late Iron Age enclosure under Ely Roman villa at Trelai Park suggests that settlement along the lower river valleys of these rivers should also be expected similar to that observed along the Thaw.

Chronology

At the turn of the millennium Davies and Lynch argued that the lack of a strong chronological framework for the region was a result of a lack of modern excavation (2000, 156). Fifteen years later the number of excavations of later prehistoric sites has almost doubled (33 sites), but we are no closer to a reliable chronological framework. The issue is not the number of excavations, but rather it is a problem with the scale and nature of those excavations. Only two large-scale research excavations have been undertaken in the region in the last 50 years – at Caerau Hillfort (Davis and Sharples 2014; 2015) and Llanmaes (Lodwick and Gwilt 2007) – but both are still ongoing and neither is yet fully published. The vast majority of other recent excavations have been evaluations undertaken in advance of development. The nature of such excavation, with small margins of profitability for the

commercial companies undertaking the work, mean that usually only small areas are excavated producing equally small artefactual assemblages while the post-excavation funding for radiocarbon dates is often not forthcoming. In other cases there have been missed opportunities. The excavations at RAF St Athan (Barber *et al.* 2006) for instance were generously funded by the MoD resulting in both large-area excavation (including a coherent interior plan) and excellent specialist reports, including 17 radiocarbon dates, but a poor sampling strategy meant that only a very small assemblage of cultural material was recovered for analysis.

Our present understanding of Iron Age settlement then is based upon just 42 radiocarbon dates from eight sites (RAF St Athan, Biglis, Coed y Cymdda, Great House Farm, Llanmaes, Llanmaes Midden, Darren Farm, Castle Field Camp and Beech Court Farm). Only three radiocarbon dates currently exist from hillforts or coastal promontory forts in the published literature (all from secondary deposits within the enclosure ditch fills at Castle Field Camp, see Wellicome and Connolly 2011). The vast majority of excavated sites have been dated from the recovery of pot sherds often from the fills of enclosure ditches (see Appendix 2). However, most of the ceramic assemblages are very small which lowers the confidence in the dates since the sherds could be intrusive. Worryingly the presence of proxy evidence such as carbonised spelt wheat grains is beginning to be used to suggest Late Iron Age dates without a clear understanding of the chronological framework for its introduction into the region (e.g. Cae Rhyngell, Wessex Archaeology 2014; Nurston, Evans and Swords 2001; Batslays, Tremains Farm, MoD St Athan Airside Trenching, Wessex Archaeology 2010).

Nonetheless, the chronology of the later prehistoric sites in the Vale of Glamorgan and Cardiff is summarised in Figure 5. Given the limitations outlined above, the diagram should not be allowed to suggest any precision, but it does provide a broad sequence as currently understood. In summary, the vast majority of excavated sites appear to belong to the Late Iron Age and Romano-British period with little evidence for earlier settlement. The paucity of settlements dating to the Early Iron Age is striking with only three sites, Caerau Hillfort, Darren Farm and Cwm George (Dinas Powys), apparently occupied at this time. That the majority of the Early Iron Age population lived within hillforts like Caerau is a possibility, but an entirely depopulated countryside is difficult to accept. Perhaps sites dating to this period remain to be discovered within the corpus of known, but not excavated, non-hillfort enclosures. Although a significant number of enclosures have now been sampled, more extensive excavations combined with the recovery of larger pottery assemblages and C14 dates would help clarify whether some were established much earlier than thought, particularly if our current understanding of pottery styles has seriously underestimated the duration of their use (see consideration of pottery assemblage from RAF St. Athan by Webster *et al.* 2006). However, we should now consider the possibility that settlement in the Early and Middle Iron Age was primarily unenclosed. Ephemeral settlement evidence such as the post-rings of roundhouses is not easy to identify from current remote sensing techniques like aerial photography and it is likely that they are seriously under-represented in the archaeological record.

It is also interesting to note a lack of settlement continuity. Only Caerau Hillfort appears to retain a long-lived significance as a focal point of occupation over a considerable period of time. The majority of other small enclosures appear to show relatively short periods of occupation of one or two centuries often punctuated by periods of apparent abandonment, particularly during the latter half of the first century AD around the time of the Roman

conquest. This could suggest a serious dislocation of population around this time, but it may more likely reflect the misleading nature of current ceramic dating in the region.

Hillforts and promontory forts

Ten hillforts, eight coastal promontory forts and twenty-one inland promontory forts have been identified in the region (Figure 6). The vast majority enclose less than 1 ha, but five sites are large and enclose more than 3 ha – Dunraven, Caerau Hillfort, Castle Ditches, Llancarfan, The Bulwarks and Caer Dynnaf. It is likely that Castle Ditches, Llantwit Major can also be added to this group as a significant amount of the interior may have been lost to coastal erosion (Whittle 1992). The only site to have been excavated on an extensive scale is Caerau Hillfort (Davis and Sharples 2014; 2015). This has demonstrated that the hillfort was probably constructed in the Early Iron Age (c. 500 BC) and was intensively occupied, possibly until the first century BC.

Several of the others have been subject to excavation, but only on a small-scale and the nature of occupation is difficult to interpret. Dr Jeffrey L. Davies conducted a rescue excavation at The Bulwarks in advance of development for Cardiff Airport (Davies 1973). Two, long, narrow trenches exposed around 220 m² of the interior. A number of gullies, post-holes, metallised surfaces and small walls were encountered, and a small pottery assemblage of Late Iron Age and Roman sherds was recovered. Unfortunately the area excavated was too small to elucidate the exact character of the remains, but presumably they represent a number of buildings of Iron Age and Romano-British date.

Davies also conducted small-scale excavations at Caer Dynnaf but focussed principally on later field system and enclosures and recovered little Iron Age material (Davies 1966; 1967a; 1967b). Castle Ditches, Llancarfan, was subject to an excavation by A.H.A. Hogg (1976) in preparation for the *Glamorgan Inventory*. The objective was to recover cultural material lacking from previous excavations of large hillforts in the region. Hogg demonstrated that the large hillfort rampart replaced an earlier stone-walled enclosure of different plan and smaller size. Sherds of Glastonbury ware, animal bones and iron-working debris were recovered as well as the plan of a stone-built roundhouse, although less than 0.5 % of the interior was exposed.

Apart from Caerau then we know little of the internal occupation and layout of these large hillforts and promontory forts from excavation. However, in the late 1990s three partial geophysical surveys were conducted at Dunraven, the Bulwarks and Castle Ditches, Llantwit Major as part of a Cadw-funded exercise to assess sites under threat of coastal erosion. At Dunraven, the interior has not been extensively ploughed and at least 21 circular hut platforms are still visible as earthworks, but geophysical survey of an area of 40 m by 40 m in the northern area of the fort revealed the presence of at least two more houses that have no topographic relief (Barker and Mercer 1999c). Magnetometry survey at the Bulwarks of an area 60 m by 60 m in the south-west of the fort revealed a complex of linear and pennanular anomalies representing at least 11 roundhouses and other enclosures and pits (Barker and Mercer 1999e). Geophysical survey of an area of 60 m by 60 m in the south-east corner of Castle Ditches, Llantwit Major also identified a number of pits and a complex of linear ditches probably representing several phases of activity. The implication is that all of the large hillforts and promontory forts were intensively occupied, probably by large communities.

How the smaller hillforts and promontory forts relate to the larger sites is not well understood. Only five of these have seen any excavation – Cwm George (Dinas Powys), the Southern Banks, Beech Court Farm, Castle Field Camp and Castle Wood. Recent excavation at the Southern Banks have shown that the site dated to the Middle to Late Iron Age, but was likely only short-lived and probably unfinished (Lane and Seaman 2013). Excavation of a single trial trench over the boundary ditch at Castle Wood produced only a very small ceramic assemblage of Romano-British second to third century AD sherds, but the enclosure ditch was not bottomed (Evans 2001c). Beech Court Farm, Ewenny, was originally considered to be Neolithic, but a radiocarbon date from charcoal recovered from the enclosure ditch suggested the enclosure was constructed in or before 195-50 cal BC (Bayliss *et al.* 2011, 525). Four narrow evaluation trenches have been excavated at Castle Field Camp (Wellicome and Connolly 2011), but the development of the enclosure is not well understood. Three radiocarbon determinations from secondary enclosure ditch fills gave a date between 60-10 cal. BC. However, the ditch was not bottomed and the dates do not relate to the construction of the hillfort rampart, which in any case appeared to seal a posthole possibly relating to an earlier phase of enclosure (Wellicome and Connolly 2011, figure 7). That at least some of these sites date to the Early Iron Age is suggested by Leslie Alcock's excavations at Cwm George (Dinas Powys) (Alcock 1966). Late Bronze Age/Early Iron Age pottery was recovered from underneath the inner rampart of the Early Medieval promontory fort suggesting occupation during the ninth to sixth century BC, although the nature of occupation and activity is not well understood (Alan Lane pers. comm.)

The diversity of morphology and location suggests that not all hillforts and promontory forts were built for the same purpose. There appears to be a clear difference for instance between those coastal promontory forts whose boundaries have been erected to deliberately section off an available and projecting promontory, and those where the cliff is merely used as an edge with the banks not put across the narrowest point, but specifically designed to enclose a very large area. In both cases the association with the coast was of primary importance, providing liminal spaces between land and sea, but the size of the enclosures indicates different functions. Dunraven, the Bulwarks and Castle Ditches, Llantwit Major, are likely to be settlements of large communities, but others were probably not primarily for occupation. At Nash Point, four lines of bank and ditch cut off a promontory just 20 m wide which narrows to less than 5 m. Geophysical survey of the interior indicated the presence of pits and linear anomalies, but no houses (Barker and Mercer 1999d). Cwm Bach and Whitmore Stairs are similarly precipitous and even allowing for loss of internal area through coastal erosion it is difficult to understand them as practicable settlements. Barker and Driver (2011, 82-3) have argued that some of the more precipitous promontory forts in Pembrokeshire were ill fitted for daily life and so could have had ritual or ceremonial purposes rather than domestic functions and a similar interpretation of some promontory forts in the Vale of Glamorgan is possible.

Dating evidence is sparse which makes it difficult to interpret the use of these sites through time. However, if Caerau can be taken as typical then we might expect all of the large sites in excess of 3 ha to have been occupied throughout the Iron Age. The identification of a smaller enclosure beneath the hillfort rampart at Castle Ditches, Llancarfan, suggests that some may have started as smaller sites and only expanded at a later date, probably in the Middle Iron Age, perhaps because households were moving into the hillfort from the surrounding farmsteads. This situation would closely resemble that observed in Wessex where the large number of closely-spaced Early Iron Age hillforts were replaced by a small

number of intensively occupied and monumentally enclosed Middle Iron Age hillforts (e.g. Palmer 1984; Sharples 1991). It is noticeable that the large sites in Cardiff and the Vale are fairly evenly spaced around 5-9 km apart and it is likely that they represented centralised foci of large, Middle Iron Age, hillfort communities which controlled large areas of agricultural land and other resources.

Enclosures

The settlement record in the region is dominated by enclosures. Sixty-nine have been identified (c.45 % of all sites) principally from aerial photography (Figure 7). Just 17 (c.25 %) still exist as earthworks, the vast majority have been either plough-levelled or destroyed through development or quarrying. Despite the large number, only eleven have been excavated (c.15 %) and just four on an extensive scale – Whitton (Jarrett and Wrathmell 1981), Coed y Cymdda (Owen-John 1988a), Mynydd Bychan (Savory 1954; 1955) and RAF St. Athan (Barber *et al.* 2006).

Most sites tend to be small with only two examples (Hilton Farm and Pentrehwnt) enclosing more than 1 ha, yet morphology is variable. From the transcription of aerial photographs at least seven morphological types can be recognised:

- Univallate, medium-sized – this group of sites tend to be oval or rounded in shape and enclose more than 0.5 ha.
- Univallate, small-sized – enclosing less than 0.5 ha, this group is characterised by a variety of morphologies, but shapes tend to be rounded or oval.
- Univallate with elaborate entrance-way – these sites tend to be small, enclosing less than 0.5 ha, but they exhibit complex entrance arrangements, usually single or double antennae banks or ditches. One enclosure, Seaview, possesses a short funnel entrance and possible concentric annexe. Such an arrangement is extremely common in south-west Wales with over 50 examples recognised (Murphy and Mytum 2011).
- Bivallate with closely-spaced boundaries – a number of other sites are defined by two boundaries. Seven sites exhibit closely-spaced concentric boundaries. There are a variety of shapes, but three are broadly circular (e.g. Llantrithyd Camp)
- Bivallate with wide-spaced boundaries – just two sites (Llanquian Wood and Hilton Farm) fall into this category. Both enclose more than 0.5 ha. The outer boundaries could be regarded as concentric annexes.
- Rectangular, univallate – 29 enclosures are rectangular in shape, 23 of which are univallate. They tend to be small, enclosing less than 0.5 ha. There is variability in form – some are square (e.g. Whitton, Brychau) for instance while others are more elongated (e.g. Pant y Groes).
- Rectangular, multivallate – six rectangular enclosures exhibit multivallation. The majority are bivallate, but one, Ely, is trivallate.

Given the paucity of excavation, it is difficult to understand the significance of this variability. One possibility is that it reflects chronological differences although this is not easy to disentangle. The majority of excavated enclosures appear to date to the first century BC and Romano-British period. The exceptions are Coed y Cymdda, which was likely to have been constructed in the Late Bronze Age (c.700 BC), and Darren Farm, which suggests that at least some enclosures may be early.

An interpretation favoured by several scholars is that enclosure morphology reflects functional concerns such as stock control or social differentiation (Davies and Lynch 2000; Howell 2006; Cunliffe 2010). Davies and Lynch (2000, 174-6) have argued that some internal features such as fencelines, or external features such as wide-spaced concentric boundaries, may indicate the pastoral functions of some enclosures. However, neither of these features is prevalent in the region. Only two sites possess wide-spaced boundaries, Llanquian Wood and Hilton Farm, although neither has been subject to excavation. The two enclosures with complete internal plans are Whitton and RAF St. Athan. Both exhibit a concern with the ordering of internal space, but this is more likely to reflect cosmological and architectural principles rather than functional concerns.

At RAF St. Athan the excavators (Barber *et al.* 2006) asserted that the enclosure was the homestead of a single family unit with the interior divided into three zones: a residential zone in the north containing a large house (roundhouse 1) which probably replaced a smaller house (roundhouse 2); a central strip devoid of features possibly for stock corralling; and a southern area largely given over to storage (Figure 8). However, this division of space is not as clear-cut as the excavators suggest since the structural evidence is open to question. The excavators postulated the presence of two roundhouses in the north-west of the enclosure based upon surviving lengths of curving gullies and an off-centred oval feature interpreted as a hearth. A curving gully to the south-east of the enclosure entrance was not considered to be a roundhouse despite exhibiting similar structural remains. If we accept this gully as the surviving remains of a house (roundhouse 3) then the enclosure can in fact be divided into two equal halves with houses and storage buildings situated on either side of an open space which ran from the western-facing entrance to the middle of the eastern side. This dualistic pattern of spatial segregation is reflected in the distribution of pottery which is concentrated in the northern enclosure ditch adjacent to roundhouse 1 and from a posthole situated next to roundhouse 3.

As well as dividing the enclosure into a northern and southern half there also appears to have been a concern with distinguishing between west and east (front and back) and inside and outside. The 2 m wide western entrance was marked by a pair of large postholes presumably defining a gate structure controlling access in to and out of the enclosure. Upon entering, the residential areas flanked either side of the entrance in the western (front) half of the enclosure while the storage buildings were located behind them, out of sight, in the eastern (back) half. A shallow circular pit containing the disarticulated leg bones of a juvenile inhumation was located opposing the entrance and marked the back of the enclosure.

The arrangement of internal space at Whitton during Phase 1 (early first century AD) is somewhat different, although a similar concern with marking the cardinal compass points and distinguishing between front and back and inside and outside is also apparent (Figure 9). The entrance here faces east, but it is again marked by a pair of large postholes defining a gate structure. Within the interior of the enclosure a fence-line divided the internal area into an eastern (front) and western (back) half. Two roundhouses (C and E) with eastern-facing entrances were situated at the northern and southern ends of the fence. Neither house contained evidence for a hearth which may suggest that they were residential or locations where food was consumed, rather than prepared. Located between roundhouse C and E just inside of the entrance was a well, more than 7 m in depth, which the excavators argue was in use throughout the life of the site (Jarrett and Wrathmell 1981, 43). Deep well shafts are not common features on settlement sites in the southern British Iron Age and its central focus within the eastern half of the enclosure is likely to be significant. Unfortunately the well

appears to have been thoroughly cleaned out before the abandonment of the site in the fourth century AD (Jarrett and Wrathmell 1981, 45) so its Iron Age date is not clear. The western (back) half of the enclosure appeared to have been kept largely clear and did not contain evidence of storage buildings. However, a third roundhouse (B2) was located in the south-west corner. Noticeably the entrance was differently orientated (to the south-east) and it contained a large, central hearth suggesting this structure may have been associated with food preparation.

The layout of space at these enclosures is interesting and appears to exhibit a pattern of basic spatial segregation of activities such as food storage or preparation away from areas where guests were greeted, food was consumed or the inhabitants slept. Such division of activity suggests that approach, presentation and spatial graduation were important concerns. These concepts have been suggested to have been structuring principles of the Iron Age (Parker Pearson and Richards 1994; Hill 1995) and the pattern of activity at these enclosures does seem to create a binary structure which had considerable wider significance in the Iron Age.

While the internal architecture may have reflected particular cosmological or other structuring principles the morphology of enclosures themselves has been argued to symbolise the status of the inhabitants. Cunliffe (2010, 301) has asserted that rectangularity of enclosure form was deliberately chosen in south Wales to reflect the elite status of the occupying lineage. Such simple correlation is problematic. The argument appears to derive from the observation that the rectangular Late Iron Age enclosure at Whitton was succeeded by a villa in the second century AD implying that the Iron Age occupants were an aristocratic class who maintained their position in the Roman period. However, can the situation at Whitton be considered as typical? Elite status presumably refers to small numbers of people or households with considerable political and economic power (Hill 2012). Yet, if rectangularity was deliberately chosen as a symbol of such status, then how do we explain the large numbers of rectangular sites in the region? Twenty-nine rectangular enclosures have now identified (almost 43 % of all enclosures) which seems to suggest far too many 'chiefs' and not enough 'Indians'. Furthermore, the recent excavations at RAF St. Athan produced a remarkably impoverished artefactual assemblage when compared to Whitton, suggesting the inhabitants never reached a particularly high status.

How should we interpret the role of enclosures within the pattern of settlement in the region? The chronological evidence suggests that most were created in the Late Iron Age and may only have been relatively short-lived. The arrangement of internal space appears to have varied although specific activities were spatially segregated and perhaps organised according to cosmological structuring principles. It is also interesting to note the absence of storage buildings at some enclosures such as Whitton, although quernstones for crop processing were recovered there. Storage buildings were identified at RAF St. Athan, but quernstones were not. This could imply that certain activities, such as storage and crop processing, were shared across enclosure communities, while others such as food consumption were to remain distinct from the larger group. This seems to challenge the notion that the enclosures represent socially or agriculturally independent households and it was likely that they were tied in to a web of mutually dependent relationships and obligations.

Open settlements

The RCAHMW stated in the 1970s that unenclosed or open settlements were unknown in the region (1976, 8), but at least 13 now exist in the archaeological record. That a large number of other such sites existed in the Iron Age is very likely, but the problem has always been one of identification. Nine of the known open settlements have only been identified by excavation through sampling by evaluation trench in advance of development (e.g. Batslays, Temains Farm and RAF St. Athan, Airside (Wessex Archaeology 2010)) or the excavation of enclosed sites which have subsequently been shown to have had unenclosed phases of occupation (e.g. Biglis (Parkhouse 1988), Mynydd Bychan (Savory 1954; 1955) and Crickhowell Road (Brett *et al.* 2009)). Only four have been identified from aerial photography on the rare occasions that pennanular ring ditches, suggestive of roundhouses, have been recorded as cropmarks (e.g. Penmark, Llancadle South, Kenson Wood East and West and Tredogan Road North and South).

The issue may well be one of the poor survival of remains as much as it is the difficulty of spotting ephemeral structural evidence from the air. Six low mounds for instance had been identified from 1950s vertical aerial photography at Pencoedtre Wood, but by the early 1990s after only a single recorded ploughing event only three remained. Trial trenching in advance of a housing development showed that the surviving mounds were likely to be lightly-built roundhouses but they were heavily disturbed and little artefactual material was recovered (Bashford and Hughes 1998).

It is clear that later prehistoric open settlements are particularly vulnerable to subsequent arable agricultural practices, and unfortunately the Vale of Glamorgan is one of the most heavily cultivated regions in Wales. The ploughed-out remains of lightly-built structures being very slight are unlikely to give rise to cropmarks, and this may account for their scarcity in the region. That other survey techniques might provide better returns is indicated by the fact that a further seven possible open settlements were identified as part of an intensive fieldwalking program by GGAT around Penmark and Porthkerry, west of Barry (Evans 2001a; 2001b). This suggests that large-scale fieldwalking throughout the region could produce significant new data.

Given the paucity of data it is difficult to interpret the role of open settlements within the pattern of Iron Age settlement. However, it is interesting to note in some cases the close association of unenclosed occupation with enclosed settlement (Figure 10). At Penmark, Llancadle South, Kenson Wood East and West and Tredogan Road North and South the remains of unenclosed roundhouses can be observed situated around 100 m or so from enclosed sites. This suggests two possibilities – either that open settlement was contemporary with the enclosure, or that we are seeing a shifting settlement pattern where enclosure may only have been a short-lived experiment defining the nucleus of occupation at a particular time. That this latter interpretation is more likely is indicated by the situation at Mynydd Bychan, where in the mid first century AD open settlement spilled out beyond the limits defined by the earlier enclosure (Savory 1954; 1955). The converse was observed at Biglis and Crickhowell Road with open settlement replaced by enclosed (Parkhouse 1988; Brett *et al.* 2009). In none of these cases did the relative wealth of the inhabitants appear to dramatically change. This seems to go against the notion of a settlement hierarchy in which the physical aspects of settlement related to grades of status (cf. Cunliffe 2010, 305).

The later prehistoric agricultural economy

The paucity of evidence for 'celtic' field systems, so prevalent in Wessex (e.g. Palmer 1984), has long been stated (Savory 1984; Gwilt 2007). The beginnings of field survey in the Vale of Glamorgan had been optimistic. In 1935 Cyril and Aileen Fox published a short note in the *Bulletin of the Board of Celtic Studies* identifying "[A]n extensive range...of square steading sites, associated cultivation terraces and square fields...on a plateau-like ridge at Corrwg...[T]he lay-out of the fields resembles that seen in Pre-Roman fields on the South Downs, Salisbury Plain" (Fox and Fox 1936, 85). However, a year later, a retraction was published in the same journal after survey and trial excavation showed the banks were "...not of great age" (Fox and Thriepland 1937, 201). Little subsequent effort it seems was placed upon exploring other areas of potential prehistoric fields, and as recently as forty years ago, the RCAHMW in their *Glamorgan Inventory* declared for the region that "[T]here are no convincing examples of early field systems" (1976, 8).

This assessment was challenged by Vyner (1987) after receipt of a grant from the Cardiff Naturalists' Society Archaeological Section to examine the possibility for the survival of later prehistoric agricultural remains in the Vale of Glamorgan. From analysis of aerial photographs taken in advance of the construction of the M4 motorway he proposed eleven potential field systems of prehistoric or Romano-British date (Vyner 1987, fig. 1). Although eight of the eleven proposed systems were subsequently dismissed as Medieval or later after further investigation, mainly of historic maps (e.g. Evans 2001a), Vyner's analysis indicated that significant gains might be achieved through intensive aerial photographic survey.

Yet, despite regular reports over the last 30 years of newly identified potential Iron Age settlements and field boundaries, mainly as a result of the RCAHMW's ongoing aerial reconnaissance program (e.g. Driver 1995; 2006) the perception of a lack of evidence for later prehistoric agricultural remains has persisted. This is reflected in the dearth of articles and monographs referring to recent discoveries of potential field systems. Such a state of affairs is manifested in the few syntheses published about the Iron Age in south-east Wales in more recent years. In their overview of the period for instance, Davies and Lynch dedicate only a single paragraph to later prehistoric fields in the entirety of Wales (2000, 173), while Ray Howell does not consider fields at all in his book *'Searching for the Silures'* (2006).

The perceived scarcity of later prehistoric field systems has been interpreted by many to reflect a similar scarcity of arable agriculture (RCAHMW 1976; Savory 1984; Cunliffe 2010; Howell 2006; Gwilt 2007; Davies and Lynch 2000). When taken together with an apparent lack of complementary evidence such as quernstones from settlement sites, this has been used as evidence to argue for a predominantly pastoral economy in the region (Gwilt 2007, 313; Davies and Lynch 2000, 176). This assumption seems strange given that today the Vale of Glamorgan represents some of the most productive arable land in all of Wales and would surely have also done so in the Iron Age. Also, the argument assumes that prehistoric arable agriculture *required* the delimitation of small fields. It has been pointed out elsewhere that field boundaries are in fact not necessary for arable agriculture (Fowler 1983, 107; Sharples 2010) while more recently it has been convincingly argued that the emergence of permanent prehistoric field boundaries such as drystone walls or deep ditches has more to do with the social organisation of the landscape rather than agricultural necessity (Giles 2007; Sharples 2010).

The understanding of later prehistoric farming practices in the region then is not well developed, but the accepted narrative can be summarised by the following:

1. There is a lack of evidence for prehistoric field systems
2. Boundaries defining small square fields are required for arable cultivation
3. There is a paucity of complementary evidence on settlement sites for arable cultivation (e.g. quern stones, four-post structures) before the Roman conquest
4. Therefore the later prehistoric economy in the Vale of Glamorgan is predominantly pastoral

This argument can be attacked at each stage and this is what I want to explore in the next section.

Identification and dating of field systems in the Vale of Glamorgan

Following an analysis of HER and NMR records, grey literature and aerial photographic data 23 field systems, or at least elements of field systems (e.g. linear boundaries) probably dating to the later prehistoric period have been identified (Figure 11). They are distributed throughout the region even in the western and southern Vale of Glamorgan where Driver (1995, 7) has highlighted that the linear marks of the underlying limestone bedrock make identification of boundaries from aerial photographs difficult.

Earthworks, defining complexes of enclosures, fields and paddocks, survive at Twyn Bwm began, Ysgubor Goch, Caer Dynnaf, Dinas Powys Common and Penllyn. Both Caer Dynnaf and Dinas Powys Common have been subject to small-scale excavations. In the late 1970s Dinas Powys Local History Society conducted trial excavations on Dinas Powys Common. Few details of the excavations have been made available and the results remain unpublished although a short note in the journal *Morgannwg* (Thomas 1979) revealed that the excavations had encountered a rough drystone wall 1.5 m thick. The topsoil produced an assemblage of 2nd to 4th century AD pottery, but the wall could be seen to overlie a line of rock-cut postholes suggesting a longer history.

Three seasons of excavations from 1965-7 were undertaken by Dr Jeffrey L. Davies on the earthwork enclosures within the interior of the hillfort of Caer Dynnaf. This was part of Ph.D. research on Romano-British native settlements in Wales, and although the excavations still await full publication, interim reports indicate the enclosures date from the late 1st to early 4th century AD and sealed Iron Age deposits presumably associated with the occupation of the hillfort (Davies 1966; 1967a; 1967b).

Evidence for prehistoric fields is also apparent at Penllyn, north of Cowbridge. Here, a complex of small fields defined by lynchets extends over an area of 24 hectares. The entire system is broadly aligned north to south and situated on a north-facing slope across which runs the modern A48. This stretch of road is considered to be on the original Roman alignment of the Cardiff to Neath Roman road (Sherman and Evans 2004, 24). Since the lynchets clearly lead up to, and are cut across by, this road they must pre-date its construction, although that need not be by a very considerable period of time.

The majority of possible field systems however do not survive as earthworks and have been identified from cropmarks, geophysical survey, excavation, or a combination of all three. Often, these field systems and boundaries are in close association with settlement components such as enclosures. Aerial photography has identified short lengths of ditch surrounding probable settlement enclosures at Colwinstone, Moulton Enclosure, Cliff House

I and II, Wick, Nurston North, Tredogan North-West, Penmark Place and Kenson South. The date of these field systems is not clear, but two small trial trenches at Nurston North (Evans and Swords 2001) produced Late Iron Age and Roman pottery (1st to 4th century AD) from the ditch fills.

The most convincing evidence of Middle Iron Age fields is at RAF St Athan. Excavated in 2002-3 in advance of the construction of a new aircraft maintenance facility a 2.7 ha area was stripped by machine revealing a diamond-shaped enclosure set within a field system. The excavator favoured a Middle Iron Age date for the establishment of the enclosure (c.200 BC) although a first century BC date is more likely (see discussion above). Although no dating material was recovered from the surrounding field system, the distinctive shape of the enclosure is almost certainly determined by, and set out upon, the alignment of pre-existing field boundaries. Middle Iron Age dates for burials (400-200 BC) within shallow graves contained within the field system may suggest contemporary unenclosed settlement amongst fields.

At Cae Rhyngell geophysical survey in advance of development identified several linear features, possibly field boundaries or droveways converging on a polygonal enclosure. Trial trenching of the enclosure ditch did not produce any dateable material, but a trench across the possible droveway to the north-west of the enclosure produced five plain body sherds in an unoxidised fabric considered to be Late Iron Age (Wessex Archaeology 2014, 5).

Other excavations have produced tentative evidence of fields. Traces of what are described as field boundaries were noted leading away from the north-west and south-east corner of the 3rd to 4th century AD banked enclosure excavated at Biglis, although they were not depicted in the final report (Parkhouse 1988, 10-12). A possible field boundary was also noted during the excavations at Coed y Cymdda (Owen-John 1988a, 50) where a shallow ditch truncated the upper fill of the enclosure ditch along its northern edge possibly defining faint traces of terracing below. Clearly post-dating the Late Bronze Age enclosure, no finds were recovered from this feature and it remains undated, although the excavator favoured a Roman date (Owen-John 1988a, 76).

Geophysical surveys in the region have also been informative. Magnetometry and resistivity at Glebe Farm (Barker and Mercer 1999b) revealed a complex of ditches, possibly part of a vestigial field system to the south-west of the larger, presumably prehistoric, oval enclosure. Another geophysical survey at Llanmihangel (Barker and Mercer 1999a) also identified a number of linear features apparently defining a relict field system. Here a series of ditches ran in an east to west direction and abutted a north to south linear. Interestingly, the remains of buildings suspected to be part of a Roman villa complex appeared to sit on top of the relict field system in places (Barker and Mercer 1999a, 7).

One of the most complex and extensive areas of fields was recorded as a cropmark by the RCAHMW in 2006 at St Donat's (Driver 2006; in prep). Covering an area of around 18 hectares the remains comprise a series of enclosures of various sizes seemingly extending off a trackway aligned east to west. Ploughed out ring-ditches, presumably Bronze Age, are located on the north-west periphery of the settlement and one at least may have been used to set out the corner of a rectangular enclosure. That some elements of the system appear to be on a slightly different alignment, north-north-east to south-south-west, may suggest more than one phase of development. Without excavation dating is difficult, but it appears to be

overlain by cropmarks of a former ridge and furrow field system running north to south, which suggests a possible pre-Roman origin.

Other systems of fields appear to exist without evidence of obvious major settlement enclosures. Aerial photography has identified cropmarks presumably defining small fields and trackways at Rhoose Airport, Llanvithyn and Ham Wood. Geophysical survey and trial trenching in advance of development around RAF St Athan at Batslays identified a trackway surrounded by, and partially overlain by, a field system (Wessex Archaeology 2010). Romano-British black-burnished wares and greywares were recovered from the field system ditches suggesting a second to fourth century date although earlier origins are possible. To this group the earthwork remains at Twyn Bwm began and Ysgubor Goch can also be added. The remains of possible roundhouses survive at Ysgubor Goch (RCAHMW 1982, 63) which may suggest that similar houses of unenclosed settlements may have been scattered amongst these other field systems.

Evidence for prehistoric arable cultivation

However, the evidence for agrarian agriculture cannot simply be related to the presence or absence of fields. We must also consider the various artefacts of agriculture, particularly those associated with the processing of crops – e.g. querns; the various structures on which our current narrative of prehistoric farming is based – e.g. four-post structures; and the palaeobotanical evidence – e.g. pollen and seeds.

Let us examine each of these in turn. Over the last 40 years palaeobotanic evidence has played a key role in advancing understanding of the crops that were grown in later prehistoric Britain. Since 1970, carbonised plant remains have been identified from all of the excavations of later prehistoric sites in the region when suitable soil samples have been taken and processed. The majority of assemblages are dominated by spelt wheat, but emmer and oats were also identified at Caerau Hillfort (Wessex Archaeology 2013) and Whitton (Wilson 1981). A small assemblage of carbonised plant remains from Nurston North produced bread wheat and barley (Evans and Swords 2001). Barley was also present at RAF St Athan Airside (Wessex Archaeology 2010) and Biglis (Parkhouse 1988). That many of these crops were being grown during the later prehistoric period and are not later intrusive elements is indicated by an unidentified carbonised cereal grain from the basal fill of the enclosure ditch at RAF St Athan which produced a radiocarbon date of 760-370 cal. BC.

Unfortunately there is a dearth of pollen analyses to support the palaeobotanical studies of carbonised plant remains in the region. Such palynological work has tended to be biased towards upland zones in Wales rather than lowland regions such as the Vale of Glamorgan (Caseldine 2009). This seriously inhibits our understanding of later prehistoric agricultural practices. However, assessment of pollen sequences from lowland waterlogged deposits has recently been undertaken by Tudur Davies as part of the multi-period Eastern Vale of Glamorgan Environs Project (Davies *et al.* forthcoming). This work has demonstrated high pollen concentrations and excellent preservation from five cores taken around the sites of Caerau Hillfort and Cwm George (Dinas Powys) indicative of anthropogenic activity, including cereal-type pollen. The study is still at an early stage, but radiocarbon samples from the base of four of the cores produced primarily prehistoric dates ranging from the mid-sixth to mid-first millennium BC, suggesting they cover date ranges relevant to the later prehistoric period.

If we accept then that crops were being grown during the later prehistoric period, can we also see evidence for the storage of grain? It is clear that the deep grain-storage pits ubiquitous in Wessex were not a feature of settlement sites in Wales, but four-post rectangular structures are common (Davies and Lynch 2000, 174). Stanford (1974) has suggested that some of the larger examples were dwellings, but the general consensus is that they are raised structures for storing grain. Significantly such four-post structures have been identified at several sites in the region. At least three four-posters have been recorded at Caerau Hillfort (Wessex Archaeology 2013; Davis and Sharples 2014; forthcoming) and four were noted at RAF St Athan (Barber *et al.* 2006). A carbonised oat from a post-pit of one of those four-posters produced a date of 400-200 cal. BC (Warman 2006, 90). Four-posters were also identified at Biglis (Parkhouse 1988) and Atlantic Trading Estate (Sell 1998).

While this sample may appear small, the scale of excavations in the region may be important here, since if trenches are too small or narrow, patterns of postholes may not be fully understood. The vast majority of excavations in the region have been of areas of less than 300 m², often excavated in long, narrow evaluation trenches unsuitable for identifying coherent plans of structures (e.g. Wessex Archaeology 2010; 2014; Evans and Swords 2001). It should be noted that at all sites where excavation has been in excess of 1,000 m², four-post structures have been identified. The exception is Coed y Cymdda (Owen-John 1988a) where no cut features at all were recognised within the enclosure suggesting it may have had a specialised function perhaps for corralling livestock or periodic gatherings.

What of the evidence for the processing of crops? A decade ago Adam Gwilt argued that "...the marked scarcity of querns from hillforts and settlements perhaps suggests a pastoral emphasis" (2007, 313). However, since then the number of identified querns or quern fragments has increased to more than 30. Rotary querns, thought to have been introduced into Britain in the Middle Iron Age (c. 400-100 BC) (Watts 2014) dominate the assemblage and have been recovered from Caerau Hillfort (Wessex Archaeology 2013), Atlantic Trading Estate (Sell 1998), Crickhowell (Brett *et al.* 2009), Coed y Cymdda (Owen-John 1988a), Great House Farm, Llanmaes (Lodwick and Gwilt 2011), Llanmaes Midden (Gwilt *et al.* 2006) Biglis (Parkhouse 1988), Mynydd Bychan (Savory 1954; 1955) and Whitton (Jarrett and Wrathmell 1981). Three of the recorded saddle querns have been recovered from Caerau Hillfort (Wessex Archaeology 2013; Davis and Sharples 2014), but this is hardly surprising given that it is the only confirmed Early Iron Age site in the region excavated on a large scale. Three fragments of saddle quern were also identified within the midden at Llanmaes (Gwilt *et al.* 2006).

While the assemblage is relatively small the absence of querns from the other excavated sites in the region is most likely to be a bias of recovery given the small-scale nature of those excavations, since querns do in fact appear on all sites where the area of excavation has been greater than 300 m². The exception is their absence from the assemblages at RAF St Athan and Cwm George (Dinas Powys). Their absence from these sites is interesting, particularly given that both carbonised cereal grains and chaff were identified at RAF St Athan. This could suggest that some stages of food processing took place outside of some enclosures, however, such depositional practice may not relate to simple utilitarian or practical reasons. In recent years it has been convincingly argued that the fragmentation and deposition of querns may have been part of complex acts related to their significance as symbols of life, fertility and productivity (Buckley 1993; Heslop 2008; Bruck 2006; Chapman 2000). Chapman (2000) has even argued that querns may have been deliberately broken and pieces

taken off site for curation and eventual deposition elsewhere as part of an enchainment process linking people and places.

Animal husbandry

Undoubtedly livestock management would have played a key role in the Iron Age agricultural economy in the region, but most likely as part of a mixed farming regime. The issue however is that any arguments concerning animal husbandry are based upon a tiny sample from only a handful of excavated sites. Currently only ten animal bone assemblages from the region exist in the literature (Figure 12). Animal bone is reported as being recovered from a further nine sites, but no quantification or scientific analysis has been undertaken. In some cases this is due to poor preservation as a result of underlying acidic soils – for instance animal bone is described as too fragmentary to identify to species at Cae Rhyngell (Wessex Archaeology 2014), Castle Wood (Evans 2001c) and Atlantic Trading Estate (Sell 1998). Other sites situated on limestone outcrops mainly in the south and west of the region offer a better chance of good preservation, but many of those that have been excavated, such as Mynydd Bychan, were done so before modern excavation techniques and it is not clear what percentage of bone was retained.

The majority of the published assemblages are small (fewer than 200 NISP), but in general where excavations have been on a large scale, such as at Whitton, Llandough and Biglis, a large animal bone assemblage has also been recovered. The issue however is that these large assemblages may not be reflective of strictly Iron Age farming practices – the bones at Whitton and Llandough for instance are not separated into Iron Age and Romano-British phases (Kinnes 1981; Whitbourn 1988b) while at Biglis although more than 1,800 animal bones were identified to species, only 5% of those recovered belonged to the Late Iron Age phase of occupation (Whitbourne 1988a).

This leaves us with only very limited assemblages on which to base our interpretation of animal husbandry and consequently significant gaps exist in current knowledge. Understanding of Early Iron Age livestock management is particularly poor. The only published assemblage is that from the recent excavations at Caerau Hillfort (Jones 2014; Madgwick and Hodgkinson 2015) although this is problematic. Whilst the excavations have been on a relatively large scale, the underlying geology is clay and bone preservation is poor. Cattle can be seen to be the most prominent species at Caerau, with lesser frequencies of sheep and pig. In general the southern British zooarchaeological evidence from hillforts is dominated by sheep so the assemblage from Caerau stands out as unusual. The findings may be distorted by the small NISP values and preservation may have favoured the more robust bones of larger domesticates, but that they may reflect broader patterns is suggested by the recent excavations at Llanmelin Hillfort, Newport where cattle also accounted for over 50% of identifiable bones (Jones 2013). This could indicate a degree of specialisation at hillforts, such as dairying, which is suggested by the dominance of mature animals in the assemblage at Caerau (Jones 2014).

The paucity of evidence from non-hillfort sites dating to the Early Iron Age is problematic and means that questions about Iron Age animal husbandry, in particular seasonal regimes, are not well understood. Survey and excavation by Martin Bell on the Severn Levels has identified temporary camps and shielings dating to the Middle Iron Age (Bell 2013; Bell *et al.* 2000). These were likely to be connected with seasonal movements of people and

animals, but how these wetland sites relate to the dryland occupation of hillforts and non-hillfort settlements in the region is not clear. By far the most important faunal assemblage from a non-hillfort site is that from Llanmaes Midden where over 70,000 fragments of animal bone have been recovered (Gwilt and Lodwick 2009a). Likely to date between the seventh century BC and first century AD the site is not yet fully published, but interim reports indicate that over 78% of the faunal assemblage comprises pig bones, particularly the right fore-quarters. The excavators suggest this pattern is a result of feasting rather than farming practice however (Gwilt and Lodwick 2009a, 32-3; see also Madgwick and Mulville 2015).

That changes may have been occurring in livestock management during the latter half of the first Millennium BC is indicated by the faunal assemblages from RAF St. Athan and Llancarfan where sheep are most highly represented and there is evidence of the exploitation of horses (Higbee 2006; Hogg 1976). That some sites may have been highly specialised is suggested by the almost complete dominance of sheep within the faunal assemblage at Biglis (Whitbourne 1988a). A change in focus from cattle to sheep farming was also noted at Caerau Hillfort during the Romano-British period (Jones 2014).

Assessing later prehistoric Cardiff and the Vale of Glamorgan

A review of the later prehistoric period in the region has been long overdue. Stepping back from the detail what can we say about nature of later prehistoric activity and settlement? A central theme has been one of chronology. It is clear that a concerted program of radiocarbon dating is desperately needed in order to establish a convincing chronological framework for the Iron Age in the region. Recent work at Llanmaes (Gwilt and Lodwick 2009b) and at Caerau Hillfort (Davis and Sharples 2014; 2015) will go some way to rectify this situation, but a retrospective campaign assessing the dating evidence of old assemblages could also bear significant fruit.

Nonetheless, as it currently stands, it is possible to identify some patterning. Iron Age occupation in the region has tended to be interpreted within a hierarchically ordered settlement system. Hillforts have been considered to have emerged in the Middle to Late Iron Age as the homesteads of aristocrats with lower-status families inhabiting the non-hillfort settlement. This interpretation is problematic. First, there is no reason to assume that hillforts were relative latecomers to the region. If Caerau and Cwm George (Dinas Powys) can be taken as typical then the establishment of hillforts and promontory forts from the Early Iron Age should be expected. Some actually appear to have only been short-lived, but others like Castle Ditches, Llancarfan, were expanded in the Middle Iron Age while a few, such as Caerau and Caer Dynnaf, became aggrandised.

Second, the physical aspects of enclosure such as large size and multivallation have been taken to indicate elite status (Cunliffe 2010; Davies and Lynch 2000). Six sites, Dunraven, Caerau Hillfort, Castle Ditches, Llancarfan, The Bulwarks, Caer Dynnaf and Castle Ditches, Llantwit Major enclosed a relatively large area in excess of 3 ha. Yet, excavations at Caerau have not produced evidence of marked social distinctions within the hillfort and there seems little reason to suppose that it was the home of an Iron Age aristocrat and his entourage. Geophysical survey at several of these sites suggests that they were actually intensively occupied probably by large, permanent communities of several hundred people. Such scale was unprecedented and would surely have been a shocking sensory experience for Iron Age peoples used to living in small-scale groups of extended family. Rather than indicating the

status of an individual, the size of the enclosed area is more likely to reflect the status of the hillfort community – the groups of people who lived in and visited a particular hillfort. The construction of the boundaries as well as permanent residence was a means of creating a physical expression of a communal identity (Davis 2015; Sharples 2010).

Iron Age occupation in the region has been widely reported as dominated by small enclosures – it often seems in the literature as though Iron Age people did little else than build and live in enclosed settlements. This too is problematic. The available dating evidence would appear to suggest that many of these were only constructed in the last few decades of the first millennium BC. Open settlements have been harder to locate, but around 20 are known and their presence should now be assumed rather than discounted.

The absence of enclosed settlements dated to the Early and Middle Iron Age may suggest that the majority of the population lived in the large hillforts or unenclosed settlements surrounding them. The massive increase of evidence for enclosed settlement in the Late Iron Age is interesting and seems to follow the patterns observed in Wessex (Davis 2013; 2015). It is not clear whether this represents a population expansion, a population movement, or both – a point to which we will return below. This appearance of large numbers of enclosures in the countryside surrounding hillforts does appear to also coincide with an increase in the availability of material culture including high-status metalwork and finely-made pottery (Gwilt 2007). This suggests the emergence of new mediums for creating links and alliances between people and groups with certain individuals, rather than communities, able to closely control production and exchange relationships. It is interesting that much of this material, such as horse and chariot fittings and jewellery is associated with personal display as if the capacity to distinguish important individuals within communities was now much more important.

It is likely that the importance of hillforts as large centres of population had diminished at this time. Excavations at Caerau have shown that a small oval-shaped enclosure was set up within the interior of the hillfort in the first half of the first century AD (Davis and Sharples 2014). An assemblage of Late Iron Age pottery and iron working debris was recovered from the enclosure ditch with little similar material identified elsewhere on the hill suggesting occupation at this time was confined to this small enclosure.

It is clear that arable agriculture is a significant part of the later prehistoric economy in the region. Contrary to the accepted narrative there is evidence of later prehistoric field systems as well as the artefacts of arable agriculture such as quernstones, four-post storage structures and carbonised cereal grains. An economy based around a mixed farming regime rather than a pastoral one seems more likely. The field systems tend to be relatively small in extent enclosing a maximum of a few tens of hectares, but often much less. Such systems are often closely associated with settlement, either enclosed, such as at RAF St Athan, or unenclosed, such as at Ysgubor Goch. They appear to represent the conglomerations of a handful of farms, rather than the large-scale ordering of the landscape. However, the paucity of excavation makes interpretation difficult, and dating in particular is problematic. The current overall impression though is that most date to the Late Iron Age and Romano-British period.

It is difficult to understand the nature of later prehistoric livestock management since the majority of the bone assemblages are small and date to the Late Iron Age. However some broad patterns can be recognised. In most cases the proportions of cattle and sheep tend to be similar. That some sites may have specialised is suggested by the relatively large assemblage

of sheep at Biglis and cattle at Batslays/Tremains Farm/RAF St. Athan Airside although the assemblages are small ones. There is an indication that there may have been a change in the nature of the economy over the period. At Caerau the Iron Age assemblage is dominated by cattle, but is reorganised towards sheep by the first century AD. The reason for this is not clear, but it may be related to an increase in the hectareage of land under cultivation. To maintain fertility, manuring is essential. Cunliffe (2010, 416) has argued that sheep are the obvious choice for providing manure since they are relatively easy to maintain over the Autumn and Winter and could be turned onto the stubble from September to December.

Various possible causes can be offered for these social and economic changes. The relative absence of boundaries, particularly those dated to the Middle to Late Bronze Age (Fasham *et al.* 1989; Woodward 1991; Barrett *et al.* 1991; Thomas 2005; Fowler 2000), may be a product of archaeological invisibility – perhaps boundaries were relatively ephemeral, such as unmarked hedges or fences which would not be easily identified. However, the possibility should also be considered that a social and agricultural system was in operation which did not require the division of the landscape into small enclosed fields. That arable agriculture was an important part of the later Early Iron Age economy is indicated by the presence of querns, four-post structures and carbonised cereal grains from sites such as Caerau Hillfort and Atlantic Trading Estate, but there is no evidence of the creation of fields at this date. M. Davies (1955) has highlighted that in the mid-nineteenth century the arable land around Dinas Powys lay partly in unfenced strips and a similar open field pattern may have been in place in the early to mid-first millennium BC. Sharples has argued that an open field pattern in Early and Middle Iron Age Wessex indicates communal ownership and control of agricultural resources (2010, 42-3) and a similar system may have been in operation from an earlier date in the Vale of Glamorgan.

Only at the end of the prehistoric period does there seem to be a desire to differentiate the landscape. This was probably a result of the culmination of long-term processes such as a gradual intensification of agriculture, an increasing population and an increased ability to produce agricultural surplus. Indeed, population pressure may have meant that more land was required to be agriculturally productive and that this was located beyond that which was practicably exploitable from the large populations living in large hillforts. This meant that some households were obliged to move back into the countryside where it was more difficult to exert social and economic control over their lives. It is noticeable that this period coincides with a general increase in material culture visible in the archaeological record. It is interesting that much of this material, such as horse and chariot fittings and jewellery is associated with personal display as if the capacity to distinguish important individuals within communities was now much more important. The production and acquisition of this material may have facilitated new forms of social display and interaction which also helped to undermine the communal hillfort system.

That the creation of field systems appears to coincide with the emergence of many small enclosures and the diminished importance of hillforts as large, communal settlements may suggest a greater desire to emphasise individual status and divide up previously communal land into smaller, possibly family holdings. Such ‘controlled landscapes’ differentiated insiders from outsiders and controlled the freedom of movement (Sharples 2010, 43). Some enclosures, such as RAF St. Athan, appear to be fitted into an existing field system pattern. In part this may help to explain the prevalence of enclosures of squarish shape at this time – a result of squeezing them into available field corners – but it also suggests an attempt to create

physical links between settlement and particular tracts of land which could indicate the emergence of ideas of individual ownership.

Conclusion

The interpretation of ‘in-between’ areas like southern Glamorgan which fill the gaps between the more intensively studied regions is crucial to our understanding of the period. Yet too often their distinctive regional character has been given little consideration or simply subsumed into the narrative of the better-known ‘key’ regions. Southern Glamorgan is located on the boundaries of various economic or settlement ‘zones’ which have been used to divide up Iron Age Britain (Fox 1932; Cunliffe 2010). As such it has often been fitted into the narrative of neighbouring regions because of preconceived notions rather than a critical analysis of the available evidence in its own right. This study has shown that the later prehistoric evidence in the region is ambiguous. In some respects it shares characteristics with Wessex and the Marches – the general trajectory of hillfort occupation for instance – but in others the evidence is closer to that observed in west Wales such as with the prevalence of small enclosures. This ambiguity has sometimes fostered a situation of generalisation, when a detailed critical interpretation of the evidence was needed to provide a better understanding of the area’s distinctive regional character.

In part this is a result of the perceived ‘quality’ of evidence from the region. As with many ‘in-between’ areas there is a paucity of large animal bone and palaeobotanical assemblages and few complete settlement plans when compared to Wessex or Yorkshire for instance. However, with the advent of developer-funded archaeology in the 1990s the quantity of available data has increased although the interpretation of that data has not been developed correspondingly. We are left with a situation then where synthetic interpretation of the areas that fill the gaps between the intensively-studied regions is desperately required. By examining all of the available evidence together for such areas we can begin to move beyond the self-perpetuating situation of repeating previously published generalisations and towards a nuanced understanding of the integrated regional mosaic of Iron Age Britain.

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