Unknown, unfamiliar and abnormal worlds: Engaged knowing in the Late Neolithic to Early Bronze Age of the Irish Sea region

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Summary

This thesis explores how focusing on knowledge formation can enable theoretical development beyond recent thematic analyses of prehistoric lives (such as materiality and identity). It prioritises the elucidation of specific rather than generalised concerns which emerged and disappeared from constantly re-worked psyches during the Late Neolithic to Early Bronze Age of the Irish Sea region (*c.* 3000-1600 cal BC). By focusing on the three specific concerns of knowledgeability, familiarity and normality, discerned from widespread or durable patterns in the form and nature of past performances, pocketed glimpses into the world-views of past peoples are offered. These concerns were not present, prominent or relevant to all people, all of the time, but instead wove in and out of various configurations of how life was differentially understood. In this way, the true relativity of past meanings is addressed.

After initial discussion about the social relativity of knowledge, and its dialectical formation through engagement, past comprehensions of two 'entities' (taskscapes and practices) are considered. A 40 x 40km study area (the north-western Clun Hills) and mining and herding are explored to this end, generating insights into how shifts in the form and nature of dwelling were inextricably interlinked with changing knowledge. This thesis therefore attempts a fully contextualised appreciation of past lives, building on the dwelling approach by foregrounding the consideration of knowledge. It also offers a fresh consideration of wider ideas which have been side-lined in most recent analyses (such as social change and ethnicities). Such topics are considered in a multi-scalar manner, where a single, engaged re-configuration of meaning can be linked to cascading changes in social life. In this way, past worlds are presented as complex, multi-faceted, fractured and dynamic realities.

Declaration and statements

Declaration

This work has not previously been accepted in substance for any degree and is not concurrently submitted in candidature for any degree

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Date.....22/12/09.....

Statement 1

This thesis is being submitted in partial fulfilment of the requirements for the degree of PhD.

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Statement 2

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1. Introduction

Prelude

Many recent approaches to prehistoric lives have focused, albeit often not expressly, on active manifestations of the dialectic between agency and social structure (Giddens 1976; 1984; Bourdieu 1977; 1990; Whittle 2003: 9-13). Themes such as identity, emotion, landscape, performance, corporeality and materiality are theorised as both means and mediums of interactions between past people, things, places, circumstances and animals (e.g. Barrett 1994; Pearson & Shanks 2001: 212-3; Fowler 2004: 37; Cipolla 2008). By considering each as constituted and assertive through dynamic, multi-layered and recursive relationships between social norms and human will, the nature of those relationships, and therefore prehistoric lives, supposedly becomes clearer. My problem with such works is that they have been used to produce detached insights of, rather than into, prehistoric societies (Harris 1979: 32). Themes like identity have become reified analytical tools for the ethno-archaeologist (Kuper 1994: 551; Bloch 1998: 110); generalised constructs which are treated as socially irrelative through their presumed cross-cultural relevance. When, or even if, 'applied'[1] to often de-contextualised archaeological features and finds, the result is usually greater understanding of the theme rather than an illumination of past lives as lived. For example, Bradley (2000a: 117-31) considered material and spatial inter-relations in later Neolithic structured deposits, drawing from a number of abstracted (i.e. not clearly related) examples to suggest that the constitutive performances "encapsulated basic ideas about the world". Not once did Bradley (2000a: 127) suggest or even intimate what these ideas may have been beyond broad sub-themes of origins, ontologies and intra-regional connections, arguing that "it is unwise to insist on a single reading". He instead explored the temporal and spatial structuring of this practice in more depth, supposedly establishing the nature of this "phenomenon" rather than the meanings negotiated through it (Bradley 2000a: 127).

Crucially, and sometimes deliberately (e.g. Holtorf 2005), very few recent archaeological works offer any description of what specifically it was like to 'be' in the past. In part and perhaps at the more particular level (although we should reject the false dualism between

[1] (as opposed to 'extrapolated from')

"a long term structural history and the short term event" [2]: Barrett 1994: 3; ch1: p9[3]), this is the forte of the dwelling perspective (ch3: p62-75). In this approach, life is so immersed in taskscape (ch3: p61-2), that both agents and their worlds are inescapably and continually re-created through one another (Ingold 2000: 153). However, I argue that *if* the aim is to understand past lives, knowledge should be as prominent as engagement and agency within the dwelling perspective. World-views, as reflexive bodies of knowledge through which life is ordered, given meaning and encountered (ch2: p21-4) (Bloch 1998: 110; Whittle 2003: 15), remain unpopular foci of analysis because previous deployments depicted them in an ideological, deterministic manner (Robb 2008: 57). I will seek to demonstrate how anthropological, sociological and psychological approaches to knowledge provide an envisagement of world-views which is highly useable in archaeological interpretation. Constantly reacting to (and with) engagements between agency and social structures (figure 2:1), world-views are simultaneously individual and social (figure 3:4) and constitute all scales of reality. The actualisation of these engagements (e.g. materially, architecturally, performatively) provides an insight into world-views, more easily obtainable by archaeologists when the form or nature of these engagements is recurrent or widespread (ch2: p31). By identifying common concerns in the past, it is possible to begin to colour what it meant to 'be', and therefore to be specific about certain understandings without homogenising world-views (c.f. Bradley 2000a: 127). Unlike other popular archaeological themes, these unusual exceptions in constantly changing, re-aligning and individualised (albeit overlapping; figure 3:4) world-views are truly embedded since they derive from the archaeology rather than current theoretical or socio-cultural preoccupations[4].

Outline of chapter 1 and aims of the thesis as a whole

After providing the setting for my thesis at the start of this chapter, I briefly outline why greater criticism of current approaches is necessary. This expands on the discussion

[2] See ch1: p9 for further discussion of the inseparability of action from the so-called *longue durée* (Braudel 1958)

[3] This cross reference style will be adhered to throughout. ch1: p9 refers to chapter 1, page 9, App B: p345 refers to Appendix B, page 345

[4] For example in Britain, New Labour's policy of devolution associated with the media-endorsed rise in patriotism during the mid-late 1990s has been linked to the ongoing shift in archaeological emphasis from generalisation to individuality, regionalism and specificity in prehistoric studies (Kohl & Fawcett 1995)

above and explores how certain tenets of the 1980s-90s archaeological revisionism (e.g. cultural relativism, empathy, contextualisation, multi-scalar agency) are still being insufficiently addressed (Shanks & Tilley 1987a; Hodder 1982; 1989; Tilley 1991). These arguments are played out through a case study which is critically interpreted according to recent trends in archaeological discourse. An alternative interpretation of this case study is proposed in chapter 6 (ch6: p298-302), following ideas developed in chapters 2-5. I also outline the themes and structure of my thesis, introducing three bodies of past knowledge which are archaeologically accessible, and which I will argue occasionally rose to prominence in prehistoric world-views[5]. These common concerns were always temporary, rarely consensual and associated with a mass of differential meaning, but crucially they were relevant to enough people, for long enough, to be discernible now.

This work is not intended to provide an alternative or new approach to prehistoric research. My aim instead is to highlight why and how archaeologists should and can stop evading specific understandings of past lives. I equally do not propose a definitive nor a pluralist interpretation of the archaeology, instead offering various pocketed insights into how world-views may have been aligned at certain times and places. In one sense, I am less interested in the 'validity' of these insights, although they will all be vigorously supported. Of primary importance is that they challenge the idea that agent-driven, truly reflexive, explicit understandings of the prehistoric world are irrecoverable (c.f. Barrett 2000: 25-6).

Setting

My thesis centres on the Late Neolithic to[6] Early Bronze Age of the Irish Sea region. For the purposes of analysis, these are designated as *c.* 3000-1600 cal BC[7] and the wider coastal areas from the Severn Estuary, to the Kintyre Peninsula and East Ireland (figure 1:1) (AppB: p340-3). The association of these centuries and places has an extensive historiography (e.g. Piggott 1954; Moore 1970; Parker Pearson 1993: 11; Tilley 1996: 168; Lynch *et al* 2000: 79; Cummings & Fowler 2004), and has previously been justified on the

[5] These common concerns retained core definitions (otherwise they would be analytically inaccessible), but meanings associated with them varied geographically (chapter 4), temporally (chapter 5) and inter-personally (ch4: p125-32). They are therefore socially relative (ch2: p32)
[6] See Appendix B: p342
[7] See Appendix A1: p316

basis of numerous widespread shifts in the nature and form of practices and materiality at the start of the Late Neolithic, and again by the end of the Early Bronze Age[8] (e.g. most timber circles were erected, used and abandoned between *c.* 2800-2000 cal BC; Gibson 1998a: 54-8; AppB: p382-3). My adherence to this association is discussed in the appendices (AppB: p340-3), which in their entirety offer supportive data (AppA1-6: p316-37) and a chronological frame-work (AppB: p340-425) to the thesis as a whole. The appendices are referred to throughout chapters 1-6, providing referential (but not exhaustive) detail on contemporary materials and practices mentioned as well as a wider setting for the case studies addressed (figure 1:1).

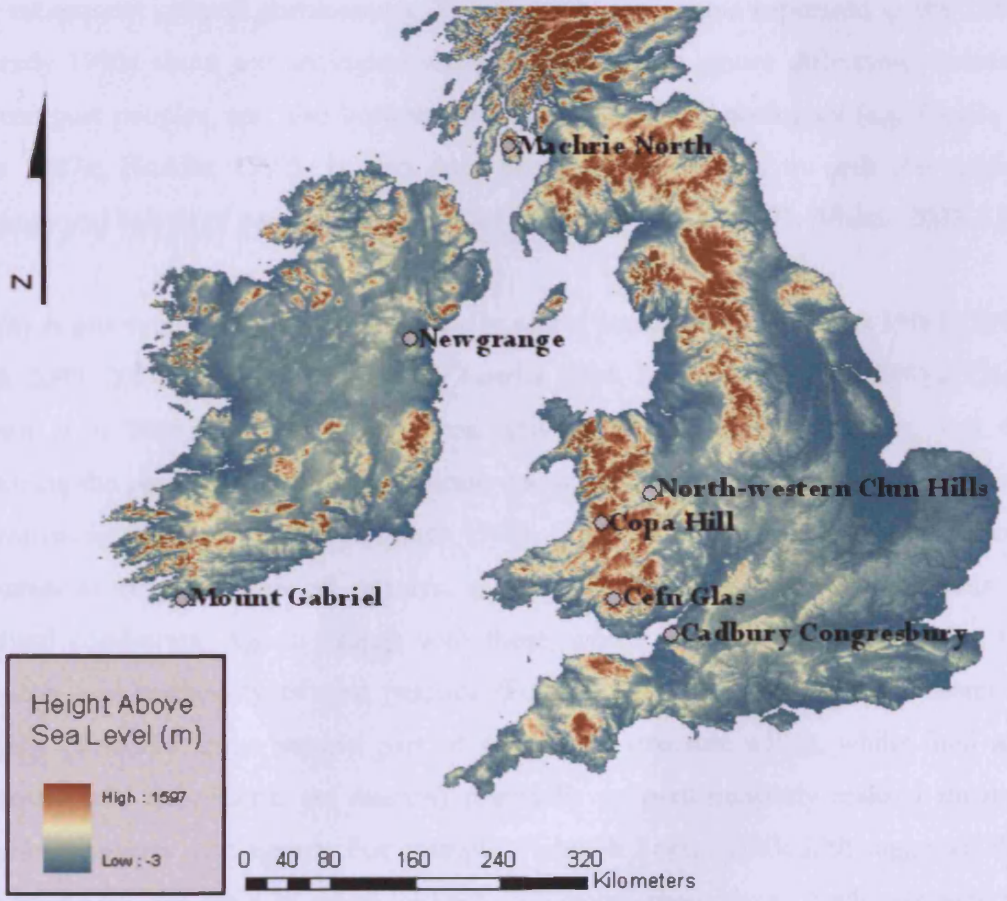


Figure 1:1 Elevation map depicting sites discussed in detail in this thesis. Their distribution illustrates the regional scope of the work

[8] See Appendix A1: p316

Central areas addressed by this thesis

Cultural relativity and empathy

I have already mentioned that most popular thematic approaches from the last fifteen years of archaeological study fall short of empathetically addressing how people experienced living in the past (ch1: p1-2). Describing how such foci are treated as active manifestations of a hybrid structuration framework based on Giddens (1976; 1984) and Bourdieu (1977; 1990; Whittle 2003: 13-5), I argued that the emphases of works such as Bradley (2000a) examine the process of living, rather than past realities[9]. The consequence is, to greater or lesser extent, the reification of such themes, irrespective of their subsequent cultural absoluteness. This flouts key concerns expressed in the 1980s and early 1990s about archaeological interpretations which ignore differential meaning between past peoples, and also between past peoples and archaeologists (e.g. Shanks & Tilley 1987a; Hodder 1992). It also does not meet aspirations to seek the explicit meanings and beliefs of past peoples (Hodder 1982; 1989; Tilley 1991; Whittle 2003: 15).

Identity is one such theme which is prolific in recent literature (e.g. Thomas 1996b; 2000; Brück 2000; 2004; Parker Pearson 2003; Fowler 2004; Brück 2004; Jones 2005b; Díaz-Andreu *et al* 2005, Cipolla 2008). Often advocated as a useful analytical tool for addressing the particular, identity intrinsically considers how people perceived themselves and others in relational terms (Strathern 1998). Conceptual identities and their various permutations (e.g. personhood, gender, caste) are seen as transmutative features of structural conditions. Agents engage with these, whilst simultaneously negotiating the memories and materiality of past practice (Fowler 2004: 37). Identities are therefore generally perceived as an integral part of *every* social structure which, whilst fluid and circumstantially dependent, are *inevitably* materially or performatively realised through dialectical relations with agency. For example, Fisher & Loren (2003: 229) suggested that by focusing on the ways in which individuals created themselves, "archaeologists are better able to comprehend them as culturally-specific, multiply-constituted social beings". There is little consideration that ideas of self may not be universal or may be far less prominent or bounded for others. Morley & Robins (1995: 45) argued that identity has no essence; there are only differences and no positive terms, whilst Gilroy (1997)

[9] For an exception, see Tilley (2004), who explicitly addressed the necessity to seek world-views in his work on prehistoric landscapes. He proposed specific ideas concerning peoples living in Neolithic and Early Bronze Age Brittany (e.g. fertility and growth), Neolithic Malta (e.g. death and life) and Bronze Age Sweden (e.g. the living and emerging sun)

suggested that the current academic preoccupation with identity is ethnocentric since it derives from contemporary concerns over 'who we are' following the global geo-political upheavals of the twentieth century AD. Kuper (1994: 538) expressly criticised anthropological emphases of ethnicity and gender as politically, culturally and personally motivated, suggesting that feminist ethnography comprises a "theoretical enterprise, contribution to female emancipation and an exercise in self-definition".

In addition, most recent approaches concentrate upon the realisation of identities, where understanding examples of the ways in which past societies constituted themselves is the ultimate goal[10]. Ironically in view of the scope of identity, attempting to consider explicitly what these examples meant to relational lives is ignored altogether, or dismissed as unobtainable. For example, MacGregor (2002: 156) sought to examine how colour enabled cultural and individual expression at north-east Scottish recumbent stone circles, concluding that these monuments "provided a conduit for meanings...to (support) explicit statements", without proposing a single depiction.

Fowler (2001) drew from Butler's (1993) ideas about actions generating personhood when considering how persons produced themselves through practice in Manx prehistory. He cited various examples of Mid-Late Neolithic mortuary deposits (e.g. Ballaharra, where several pit deposits contained skeletal remains from numerous individuals). After proposing various interpretations (e.g. that the Ballaharra deposits evoked a type of personal relationship based on dividuality), he then suggested that as agents recited, subverted or reiterated such permutations of identity, they became marked as a specific type of person (Fowler 2001: 148). In this way, permutations of identity (e.g. dividuality) are 'regulatory fictions', or structuring principles which agents negotiate through action. Fowler (2001: 157) suggested that any number may have been in operation at any one time, or that a dominant one was liberally reinterpreted and subverted. Therefore, whilst Fowler (2001: 159) initially emphasised specific actions themselves as the means through which people recapitulated their worlds, he was ultimately interested in how these fitted into wider processes of identity construction. There is no consideration of what dividuality actually meant to the people at Ballaharra, and the assumption that composite skeletal remains equated to expressions of identity is not clearly justified. I believe this approach is, to a certain extent, absolutist because it

[10] For an exception, see Tilley 2004 (explored in footnote 9; ch 1: p5)

unquestionably uses current, western logic to make sense of the past. It also resurrects the culturally irrelative 'etic' analytical perspective by rejecting the 'emic' and prioritising the archaeologist's interest in process over the practitioners' thoughts and acts (Harris 1979: 219; Clifford 1988: 15; Kuper 1994; Tilley 2004: xiii).

I argue that focusing archaeological research entirely on the discursive relationship between social structures and agency misses the reality of past lives. Existence is not about constitutive processes; from an actor's understanding it is packed with fluid, messy, unpredictable, multi-layered, often immediate and adaptable meaning (Bloch 1998; Brück 2001: 663; Whittle 2003: 133-4). Reasoning behind action is always socially relative, meaning rigidly pre-conceived themes are unlikely to hold much insight.

Context-driven worlds and the multiplicities of agency and meaning

Whilst Fowler (2001) and others (e.g. Edmond 1999; Tilley 2004; Jones 2009) offer admirable exceptions, there is a trend for archaeological case studies cited within recent works to be abstracted from their social contexts. This is justified, albeit usually not expressly, because they provide insight into the aforementioned pre-determined, fairly rigidly conceived themes (e.g. identity, materiality). For example, Jones (2005b) explicitly worked at the macro-scale to establish broad patterns in the negotiation of relational identities across the European Neolithic. He described how the fragmentation and re-articulation of bodies, architecture and materialities reinforced, commented on and challenged ongoing networks of alliance and association between peoples, and between peoples and their worlds (Jones 2005b: 211). This was achieved by mentioning numerous practices (e.g. the circulation of *Spondylus* shells in the Central European LBK, the incorporation of parts of earlier structures at Knowth, Ireland and the building of successive overlying houses in the South Balkans *c.* 6500-4500 cal BC). Whilst his search for wider narratives is certainly commendable, Jones' (2005b: 216) claim that he has found these by considering "complex practices of citation and reiteration" is not substantiated because none of the case studies were related to their differential, embedded practitioners. This drawing of archaeological interpretation from disconnected practices contradicts the current envisagement of agents as completely immersed within their taskscapes; their physical, temporal and social *habitus* (Bourdieu 1977; 1990; Ingold 1993; Tilley 2000: 77-8; Johnson 2000: 225) (ch2: p44-5; ch3: p72-4). Without detailing

the worlds from which these practices derive, any noted similarities are surely insufficiently founded, if not superficial (Jones 2002: 62[11]).

Despite frequent calls for the centrality and complexity of agency (e.g. Shanks & Tilley 1987b: 116-34; Brück 2001: 663; Whittle 2003: 133-4), I also believe that many archaeologists are still failing to fully address the multiplicity of fractured, fluid, co-existent, heterogeneous and discursive scales of experience. Kirk (2004: 233) attempted to address "dynamic networks of memories and dispositions" in his work on lived experience in later prehistoric Scilly. Following the premise that traditions are pre-existing cultural ideas, reformulated to fit better with contemporary values, Kirk (2004: 243-4) considered examples of re-worked Neolithic ideas from the second millennium cal BC (e.g. re-capitulated fertility symbolism in later entrance graves) [12]. He subsequently advocated studying citation of tradition through lived-experience as one way of envisaging the "mutuality of agency, material resources and long-term processes of social reproduction and change" (Kirk 2004: 244). Bloch (1998: 107) would fundamentally argue against this perspective, pointing out the multiplicity of representations which can be generated by the same people, at the same place and time. Concurrent narratives can be directly contrasting and there is no all-pervading or dominant construction of the past at any one particular time or place because ultimately, "narratives talk in different ways about what is known. They are not knowledge itself" (Bloch 1998: 110). Kirk (2004) therefore missed the complexity of both intra- and inter-agent meanings by not addressing multiple scales of experience.

Building knowledge into dwelling

Archaeological explorations of the dwelling perspective (e.g. Whittle 2003; Richards *et al* 2005; Pollard 2006) move beyond these failings by drawing on specific dialectical engagements between socially bound agents and taskscapes. The way in which social practice coloured what it was like to live in the past is emphasised over how that social practice was actualised. However, world-views, as the pulsating, recursively changing bundles of knowledge through which agents order and give meaning to life (Bloch 1998:

[11] Ironically, Jones (2002: 62) made this exact point, adhering to it in Jones (2009) but completely ignoring it in Jones (2005b)

[12] Although again, Kirk (2004: 233) does not even attempt to generate an understanding of "lived experience", instead focusing on how traditions were passed down

110), are largely lacking from such analyses[13]. The consideration of engaged knowledge provides an outlet for assessing the allocation and renegotiation of explicit meaning at the moment of its concession[14]. Without wishing to impose a false dichotomy of scale, it also offers a discursive bond between these moments and wider characterisations of life; something which is lost or blurred when focusing entirely on the intimate moments of dwelling.

For some time, archaeologists have differentially struggled with the validity of summarising the past through the incomplete material component of quite specific relationships and situations (e.g. Binford 1978: 45; Hodder 1982). Braudel's (1958) influential division of historical time into interconnecting but distinct short term events, and medium term conjectures, topped by the *longue durée*, effectively, and problematically, subordinated the event in 1960s-70s archaeological analyses. For example, Renfrew (1976) considered increasing territoriality on Arran and Rousay, Orkney by focusing entirely on the distribution of megalithic funerary architecture rather than occupation debris or mortuary practice. This type of approach received subsequent criticism based on the omission of thoughts and beliefs, subsequent 'sub-structural', agent-free determinism and an incapacity for explaining change (e.g. Hodder 1987: 6[15]). In fact, the duality of the short-term event with the long-term 'process' is false because practice always dialectically manifests the agent and social structure dialectic (ch1: p5), meaning the event is inseparable from the history to which it belongs (Barrett 1994: 3). However, many archaeological works of the 1990s and 2000s have been heavily influenced by Bourdieu's (1977) notion of *habitus* (ch1: p1), which is limited in its formulation of history beyond the cumulation of one act after another (Jenkins 1992: 60-1). The resulting perceived incompatibility between the day-to-day (the supposed 'source' of archaeological remains) and the long term has rendered understanding societies in their entirety (e.g. concepts of continuity and change; ch6: p308-13) difficult or even obsolete (Shennan 1993; Fleming 2004: 144).

Combined with the hermeneutical problems of extracting broad social trends (Hodder 1992: 176-7), as well as an appreciation of the essentialism of viewing societies

[13] For an exception, see Tilley 2004 (explored in footnote 9, ch1: p5)
[14] The 'concession' of knowledge is discussed in depth in chapter 3: p75-7. At present, this should be taken to mean an (albeit perhaps momentary) consensus on understanding
[15] Although Hodder (1987: 2) was influenced by Braudel's (1958) ideas about historical process

chronologically (Gell 1992), sequential, wide-reaching prehistoric syntheses are still currently unpopular (Thomas 2004a: 224-7; Robb 2008: 57-8). Ultimately however, world-views change and vary. More than ever, these changes and variations demand interpretation and understanding in prehistory. I argue that the fluid dimensions of world-views are therefore not only valid but essential fields of study. Obtainable by searching through and between practices rather than above them, the interpretive focus moves away from an unhelpful dichotomy between the etic constitution of practice versus the emic understanding of life (Clifford 1988: 15; Kuper 1994), and towards a more holistic target. By exploring these ideas further through particular taskscapes, I will demonstrate how archaeology can examine specific concerns that permeated, and dialectically impacted upon, life engagements.

Machrie North: a case in point

Introduction

Machrie North is a low ridge of land approximately 1km square on the north-west coast of Arran, south-west Scotland (figure 1:2 & 1:3). Extensively surveyed and excavated, a complex history of occupation from the Mesolithic is apparent (Barber *et al* 1997: 135). During the Late Neolithic to Early Bronze Age, earlier rectangular stone-walled fields and cultivation terraces on the higher moorland slopes just below the peat moss of the uplands were intensively cleared of stone clitter. Localised clearance cairns were built with the debris, some of which held Beaker cist interments (Barber *et al* 1997: 77-112). An Early Neolithic funerary barrow was drastically altered, with clearance stones stacked over it and the interior obliterated. Further field walls were constructed to augment existing stone-walled boundaries, increasingly demarcating larger, vaguer land units (figure 1:4). Some unenclosed areas were cultivated so intensively that ard marks are still visible beneath subsequent peat cover (figure 1:5). Barber *et al* (1997: 145) proposed a shift from arable farming to more extensive pastoralism in the Terminal Neolithic, although the smaller earlier fields were still maintained.

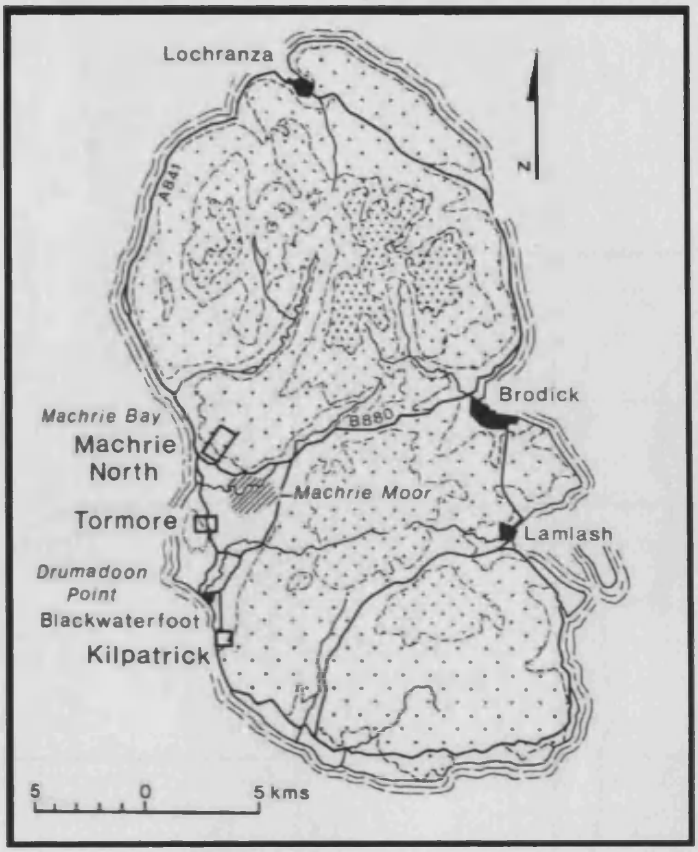


Figure 1:2 Location map of Machrie North survey area, with higher elevations more densely shaded and Machrie Moor labelled (*from* Barber *et al* 1997: 1)

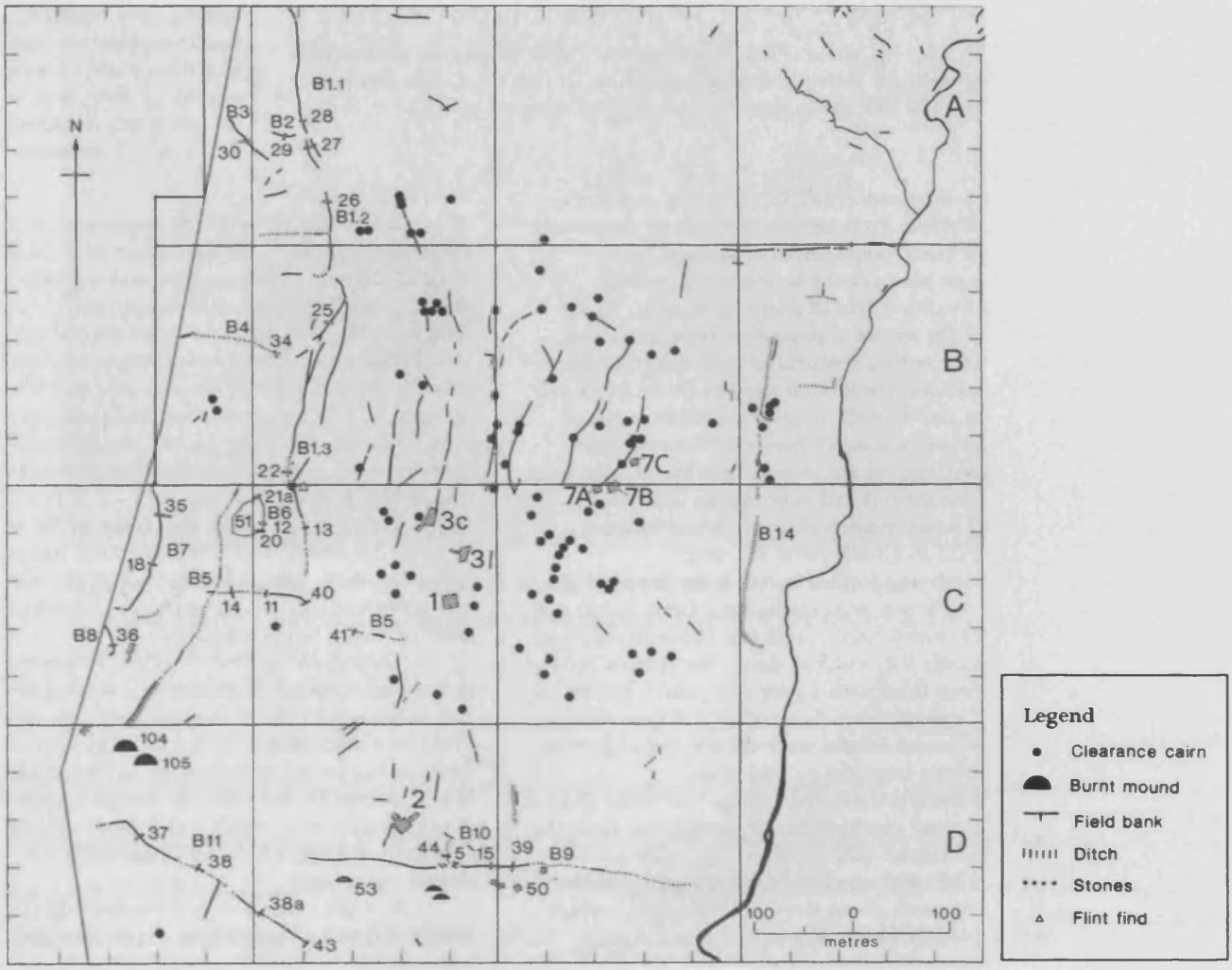


Figure 1:3 Plan of excavated sites and field boundaries in Machrie North (*from* Barber *et al* 1997: 77)

Figure 1:4 Photograph of an exposed length of Boundary Dyke 14, which runs roughly east-west for approximately 400m in the west of the Machrie North survey area (figure 1:3) (*from* Barber *et al* 1997: 97)

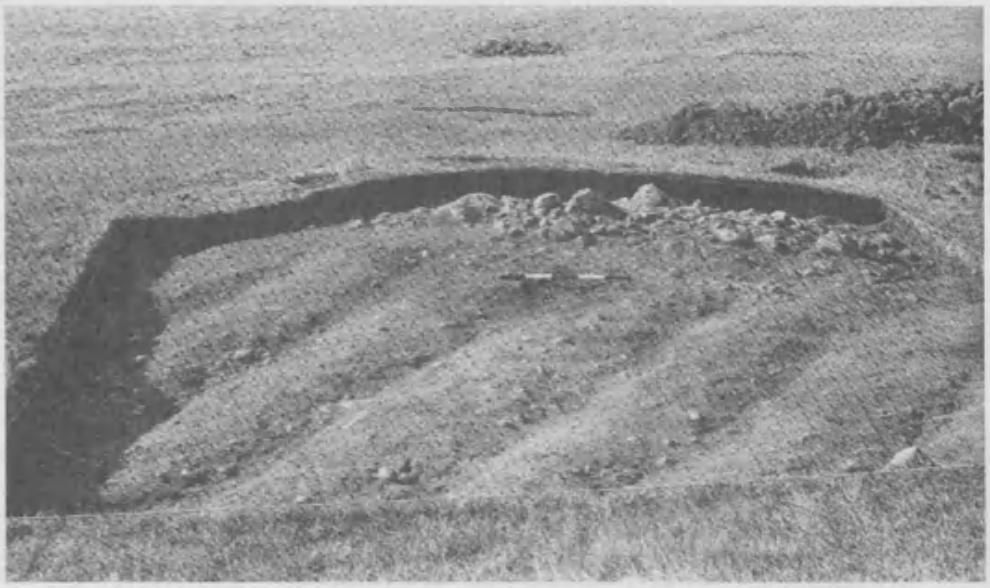


Figure 1:5 Photograph of ard marks in Machrie North running up to and in to a clearance cairn, immediately to the south of Boundary Dyke B14 (figure 1:3 & 1:4) (*from* Barber *et al* 1997: 97)

The lower, wetter and wooded slopes in the south-west of the survey area experienced fluctuating oak, alder and pine levels, as well as increased heather coverage throughout the Late Neolithic (Barber *et al* 1997: 117-8). Some barley pollen and high values of charcoal were recorded in the Machrie Moor pollen core, approximately 4km to the south (Barber *et al* 1997: 118). This is consistent with a scheme of shifting slash and burn agriculture associated with pastoralism, and/or regular coppicing or pollarding of tree cover with localised, intermittent cereal cultivation (Barber *et al* 1997: 117-8). However, at *c.* 3370-2493 cal BC[16] (GU-1424; Barber *et al* 1997: 113; 118), elm and oak species recovered alongside the heather for around 300 years, indicating a period of reduced agricultural activity in the woodland, probably during the Terminal Neolithic. At around 2000 cal BC (Barber *et al* 1997: 118), tree cover once again decreased as heath encroachment accelerated, suggesting woodland usage resumed or increased (although there is no evidence for cereal cultivation). During the Early Bronze Age, a series of burnt mounds were constructed in these lower, wooded slopes, probably the remnants of hunters' cooking camps in persistent forest clearings (Barber *et al* 1997: 131).

[16] All radiocarbon dates are detailed in Appendix A2: p317-34

One of the extensive field walls [F5], built in the Late Neolithic[17] just north of the contemporary wooded area[18], was robbed to build a sub-rectangular structure [F8] in the early Terminal Neolithic (figure 1:6) (Barber *et al* 1997: 81). It comprised a small, evenly-packed cobble wall enclosing compacted occupation layers, and was partly re-built at least once. A probable entranceway in the eastern corner was surfaced with evenly packed cobbles covering an earlier charcoal-flecked layer which extended outside of the hut and underneath an exterior hearth. Also beyond the structure, a large oval pit [19] with two distinct fills was dug through colluvium which had accumulated over wall [F5] (figure 1:7). Charcoal from its fill[19] was radiocarbon dated to *c.* 2472-2202 cal BC (GU-3527; Barber *et al* 1997: 83). A Food Vessel sherd found under wall [F5] fitted another sherd discovered in pit [19], suggesting the latter was open when structure [F8] was built or mended. The lower fill contained re-touched pitchstone, flint flakes, scrapers, Grooved Ware, Beaker and Food Vessel sherds (AppB: p344-52), and charred barley, emmer, field weed, grass, woodland and scrubland pollen (Barber *et al* 1997: 85-7). Mixed species chaff and barley rachises were the dominant cereal elements found, suggesting crop processing occurred on-site.

[17] The Late Neolithic date of Boundary F5 relates to a pit [19] (figure 1:7) which cut colluvial layers overlying [F5]. The pit fill contained charcoal which was radiocarbon dated to *c.* 2472-2202 cal BC (GU-3527; Barber *et al* 1997: 83), providing a *terminus ante quem* for the boundary

[18] The exact location of this boundary and the house structure [F8] is not depicted on figure 1:3, nor specified in Barber *et al* 1997:77-8

[19] Barber *et al* 1997:83 do not state where in the fill this charcoal came from

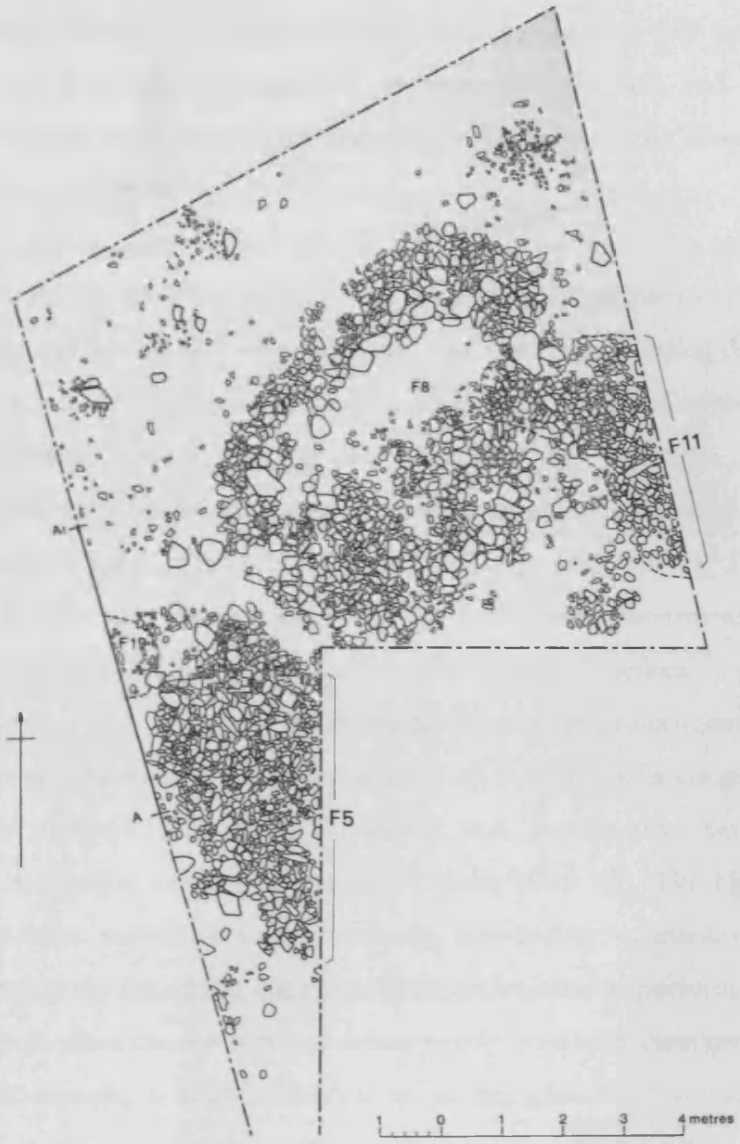


Figure 1:6 Plan of Site 24/3, Machrie North including [F5] and [F8] (*from* Barber *et al* 1997: 79)

Dwelling and knowing at Machrie North

At Machrie North, the complexity of dwelling in a 1km square of landscape can be demonstrated. Throughout the Late Neolithic to Early Bronze Age, people returned to the lower forest for hunting, foraging, coppicing, herding and occasionally cropping, and visited the upper moorland for herding and ard cultivation. A grand narrative can be extracted, of an increasingly pastoral landscape which became more extensively bounded; not just through the large field networks but through a heightening intensity in interactions with the forest after a period of abstinence in the Terminal Neolithic. This

accelerated encroachment into the woodland was closely paralleled by its transformation into scrub and the probable cessation of arable farming there at this time (ch1: p10). Semi-permanent and temporary occupation punctuated the hillside, and death was re-incorporated through fresh interments and the re-working of the abandoned earlier Neolithic funerary monument.

However, following the dwelling perspective, the nature of people's engagements was extremely diverse and interwoven with the fabric of their lives. Pulsating taskscapes were constructed and became constructors within the patterns of transitory movement, meaning certain places came in and out of focus at different moments. I have already discussed how recent archaeological works have attempted to examine past lives by abstracting predetermined themes from past practices (ch1: p5-7). Following this approach, the person who decided to mend the old stone structure may have been drawing from ongoing relationships with the rest of the group, animals and materialities on the hillside at that time, and from less immediate but more omnipresent relationships with others. The structure itself may have been tied up in stories of a kin group known to the person, and through performing the repair, this person may have initiated or relinquished an obligation to their affines (e.g. Fowler 2004: 27). The high visibility of their work may have materially embodied them, reinforcing an interconnectivity and passing commentary on the earlier cobbling. Their willingness to perform the work may have justified their place on the trip and subsequently entwined their generation's lives with those of the animals, tools and pottery they had brought.

All of this may be 'valid', but I argue that the relevance of these theoretical considerations to the people perpetuating such moments is entirely questionable (Bloch 1998: 110). The discursive processes integral to why and how people intentionally or subconsciously manifested, asserted, hid or challenged their identities at any one time and place is only insightful to the observer, not to the participant (Overing & Passes 2000: 2). The person who chose to mend the structure probably would not have considered that they were materialising themselves or re-working existing relationships. Their decision may not have been a decision at all since they probably perceived their act as the way things were done, irrespective of whether external observers deemed their actions strategic, symbolic or significant. To focus on the archaeologist's ideas of what is important in this way is akin to resurrecting the culturally irrelative 'etic' perspective in

analyses (Harris 1979: 219; Clifford 1988: 15) (ch1: p5-7); it also does not sufficiently engage with archaeological context (ch1: p7-8).

So where does this leave our understanding of Machrie North in prehistory? Re-focusing the research lens on to actions rather than processes simply leaves a succession of disjointed moments. Similarly, I do not aim for an 'emic' interpretation since, aside from both the impossibility and political context of such a position (Kuper 1994), the surviving archaeology only offers momentary, fragmented and individualised materialisations of constantly re-capitulating world-views (ch3: p76-7). Instead, I will look at patterns in the forms and nature of numerous engagements through the Machrie North taskscapes, identifying a few common concerns; rather than performative strategies; which filled people's daily thoughts (Edmonds 1999).

This alternative interpretation of Machrie North is presented in chapter 6 (ch6: p298-302).

Themes and structure

My thesis is structured across six chapters which successively focus the reader theoretically (chapters 2 & 3) before exploring two case studies in depth (chapters 4 & 5). Past perceptions of taskscapes (in the north-western Clun Hills, Powys & Shropshire) and two practices (herding and mining) are considered in the light of my ideas about knowledge formation through engagement. Three knowledge bundles which are introduced in full in chapter 2 (ch2: p34-53), are differentially drawn from these case studies. These three: knowledgeability, familiarity and normality—have core definitions for analytical purposes (what is known about, what is recognised and what is usual, respectively), but their presence as concerns within Late Neolithic to Early Bronze Age world-views was highly variable. Equally, meanings associated with them were culturally relative and contrasted to fluctuating extents between different people, peoples and circumstances. My work is summarised in chapter 6, before the perspective is broadened once again to discuss the wider implications of this thesis. I consider other taskscapes, practices, periods and knowledge bundles to demonstrate how focusing on what exactly flavoured world-views enables far greater understanding of the past. I also relate

knowledge formation to issues of ethnicity and social change (ch1: p9-10), highlighting how more traditional archaeological interests can be re-addressed.

Beyond a central focus on knowledge formation through being, numerous themes extracted from the archaeology are explored throughout. These range from an explicit interest in how engagements can be differentially structured (e.g. experiences in proximate, or distal taskscapes) to pollution taboos and their frequent association with containment and burning performances in Late Neolithic to Early Bronze Age Britain and Ireland. Most of these themes interweave through all chapters, but in many different contexts, illustrating how, I believe, archaeological interpretations can be specific about past knowledge without contradicting the key tenets of cultural relativity and multi-scalar agency.

The ideas explored in this thesis draw from anthropological, psychological and ethnographic, as well as archaeological, sources. First and foremost they derive from specific past engagements within prehistoric taskscapes (ch1: p7-8), and a frustration with current approaches.

Conclusion

In conclusion, I argue that if archaeology is to sit comfortably within the current academic climate which rejects essentialism and embraces cultural relativism, it must be cautious about the automatic relevance of fluid, but ultimately predetermined themes such as identity. Considering common concerns within the world-views of the people who dwelt through the Late Neolithic to Early Bronze Age of the Irish Sea region focuses research directly on to completely contextualised themes. It also moves beyond theorising how existence was perpetuated, and towards the daily realism of life. Building on the dwelling perspective, patterns in the form and nature of practice belie certain truths which, whilst associated with differential, multi-faceted meaning, held persistent significance for a number of people. In this way, a flavour of how life was comprehended is obtainable, and I believe this is far more interesting than current discussion concerning, for example, the manifestation of personhood.

Elaborating on the three themes I think variably coloured the world-views of some Late Neolithic to Early Bronze Age people, some of the time (knowledgeability, familiarity and normality; ch1: p17), my thesis will consider agency in a truly multi-dimensional manner. This work will also examine practices and practitioners as completely embedded in taskscape, meaning extra-societal factors such as changes in vegetation cover can be incorporated in social analysis without being environmentally deterministic (ch6: p280-1). Ultimately, as already stated (ch1: p3), I aim to produce an archaeological work which overcomes the conservatism of recent years.

2. Knowing: The social construction of knowledge and implications for knowledgeability, familiarity and normality

Introduction

Whilst its permutations vary, the broad theorem of the social construction of knowledge has prevailed within the humanities since the 1970s. Selected works by social philosophers such as Nietzsche (1888), Scheler (1925), Heidegger (1927a), Husserl (1929; 1931) and Wittgenstein (1958) were drawn upon by early so-called 'post-modernists' such as Berger & Luckmann (1967), Foucault (1966; 1969), Bourdieu (1977) and Lyotard (1979). Despite general consensus on the relativity of most 'truth', broad schools of thought have emerged, contending over issues such as whether knowledge exists beyond that which is communicated (e.g. Hacking 1975) and whether some knowledge is still 'objective' i.e. it is what it is irrespective of epistemology (e.g. Searle 1995). These differences can be slight or discipline-wide. For example, psychologies of knowledge traditionally focus on agents forming meanings *within* social contexts (social constructivism), whereas anthropologies of knowledge tend to consider agents forming meaning *through* being (social constructionism). The historiography of the social construction of knowledge has been well-documented, and I will explore some dimensions of it below in relation to my central argument: that much of the archaeological literature continues to make assumptions about prehistoric knowledge.

The unknown provides the cornerstone example in this discussion. In its various guises it threads throughout humanities texts, the mass media and contemporary journalism alike. The classic *Kula vaygu'a* bracelets and necklaces exchanged around the Trobriand Islands were imbued with wild and dangerous potency, their acquisition in 'unknown lands' dominated by a fear of foreign sorcery (Malinowski 1922: 92). Horror blockbusters utilise the 'around the corner' cliché with great if indelicate success, whilst newspapers initiate and then perpetuate moral panics through folk devils (Cohen 1972). In essence, 'the unknown' entails a prescribed lack of knowledge about those times, places, cultures, materialities, animals, spirits, ideas, mindsets or peoples designated as 'other'. As an ascribed descriptive status it is entirely socially constructed, its meaning and 'logical' allocation bound to agent relations. I believe that this relativity is lost in archaeological discourse; the unknown has become a conceptual bundle (including the distant, wild,

sacred, dangerous, enigmatic and exceptional) which does not require justification (Feld & Basso 1996). For example, whilst it might be considered reasonable to infer that caves are universally viewed as symbolic boundaries between the known and the unknown worlds (e.g. Tilley 1996: 218; Bradley 2000a: 43; Barnatt & Edmonds 2002: 125; Dowd 2008: 312), multiple examples can be found where their meaning is not so conversant with western rationale. The Yirawa of Western Australia depict animal tracks in crevices and behind rocks purely because they were convenient hiding spots near water sources, the art acting as hunting magic to induce the prey closer (Gould 1969: 153).

To start, I analyse the social construction of knowledge in terms of the perpetual establishment of meanings and realities. I explore the manner in which agency is embedded in this process, outlining a broad approach for addressing comprehension. In the subsequent sections of this chapter and within the pretext outlined above, I develop the idea that dimensions of life can become characterised through analytical knowledge (what people know they know), introducing the notions of knowledgeability, familiarity and normality in full. I propose that such knowledge exists irrespective of the degree to which agents experience life, arguing that subject knowledge (what people know) can become known, familiar and normal even if it has never been encountered before. Finally, I consider how taboos fit into this schema of knowledge characterisation, using this example to demonstrate how other forms of knowledge link to analytical forms. This analysis will work alongside chapter 3, in which the mechanics of knowledge formation through dwelling will be presented.

Philosophies of knowledge

The allocation of meaning

Epistemology was of central interest to archaeological theoreticians during the 1970s-90s since it informed on why a 'logical' positivist rationale cannot justifiably be used to understand the past (e.g. Shanks & Tilley 1987b: 23). Western scientific philosophy constituted one hermeneutic, or knowledge paradigm, which was most successful in understanding aspects of cultural life which were closely integrated with the 'natural' environment (e.g. deforestation patterns). It did not help archaeologists understand social relations, ideology or symbolism (Hodder 1992: 11). Writing about his earlier materialist

works (1982; 1987), Hodder (1992: 12-5) describes how meanings are allocated within complex and often internally contradictory conceptual schema which together constitute world-views. These are "at least partly arbitrary"; meanings cannot be determined from "cross-cultural scientific stud(ies) of the material properties and functions" of the world (Hodder 1992: 14). They are instead dialectically linked to practice, and are only pre-determined by temporal context in the sense that meaning is partly shaped by its previous constitution. I will return to ideas of dwelling explicitly in chapters 3 and 4, and of temporality later in this chapter, and again in chapter 5.

The aforementioned rejection of positivism occurred across the humanities. Recent sociologies of knowledge have been founded on Berger & Luckman's (1967) proposition that knowledge and social reality exist in a dialectical relationship of mutual constitution (McCarthy 1996: 2). It follows that cultural knowledges, in the form of languages, beliefs, behavioural norms and customs, guide the comprehension of experiences: this negotiation thereby comprising one of the ways in which social reality is generated. Everything that social beings experience is selected, arranged, interpreted and 'significance weighted' through the knowledge (intellectual, moral and linguistic judgements) of its active actors (McCarthy 1996: 2). Conversely, the reality created by this process impacts back on to knowledge form and content, facilitating its renegotiation and reformulation. Reality is therefore a variable representation of the world about which only reciprocally linked (and therefore as equally as variable) knowledge can inform (Durkheim {1909} 1982: 238). In this way, the social agent is embroiled in a 'structuration-type' (Giddens 1984) web of relatedness between their capacity to act and the structures of dialectically bound knowledge and reality they have generated (figure 2:1). Individuals, affines, groups, kinfolk, institutions, classes, communities and cultures all participate as authorities and arbitrators in the process of generating and directing knowledge and discursively, reality. Knowledge therefore arises out of people's confrontations with their changing realities (McCarthy 1996: 3), and it is the particularities of these situations which are critical in understanding what people know, and also what they know they know (i.e. how subject and analytical[20] knowledge arise and persist).

[20] These different knowledge forms are explained in chapter 2: p29-31, and in figure 2:3

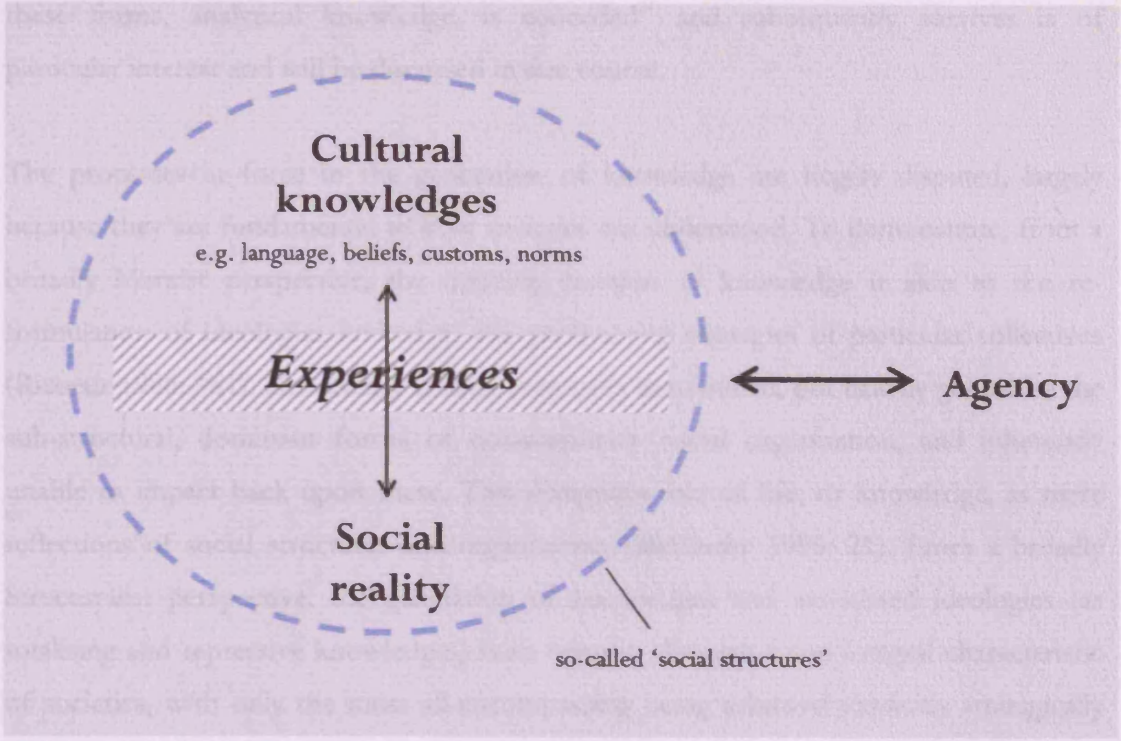


Figure 2:1 Depiction of how understandings / world-views are generated dialectically. The double-headed arrow to the right depicts the discursive relationship between agency and ongoing structural processes

Knowledge can integrate a social order, cohere and make sense of reality, create and institutionalise identity and legitimate or challenge action and authority. By (intentionally or otherwise) employing knowledge, the position of agencies can be mystified, distorted and justified. This is in essence how power is exercised. For example and rather crudely, in present-day Britain the use of the so-called 'Queen's English' is a means by which the middle and upper classes can communicate their education, social spheres of interaction, professional employability and general higher status (Bernstein 1971). The knowledge of this linguistic style and of its elevated prestige is socially constructed and actively maintained, presumably to the benefit of its protagonists. How this kind of knowledge formulation and in this case, upholding happens is far more complex because at any given point it incurs multiple layers of consensual comprehension of experience; what constitutes an upper class dialect, what social contexts this signifies, what identity this entails and how it is recognised are all variables which have become temporarily fixed and subsequently designated as 'knowledge'. In addition and importantly, within this example, various forms of knowledge can be extracted as separate entities; the linguistic technique, what this entails and the awareness of your mastery of it. How the latter of

these forms, analytical knowledge, is conceded[21] and subsequently survives is of particular interest and will be discussed in due course.

The processes at force in the generation of knowledge are hugely disputed, largely because they are fundamental to how societies are understood. To demonstrate, from a broadly Marxist perspective, the ongoing creation of knowledge is akin to the re-formulation of ideologies limited to the profiteering strategies of particular collectives (Ricoeur 1986: 161). Knowledge is seen as socially determined, but heavily guided by the sub-structural, dominant forces of contemporary social organisation, and inherently unable to impact back upon these. This denigrates mental life, or knowledge, as mere reflections of social structures and organisation (McCarthy 1996: 21). From a broadly Structuralist perspective, the generation of knowledges and associated ideologies (as totalising and repressive knowledges) is an organic, discursive and integral characteristic of societies, with only the most all-encompassing being achieved explicitly strategically (Althusser 1969: 232). Subscribers to this idealism would perceive mental life as the determining constructor of society, social structures and organisations, with knowledges being generated by a complex language of symbolism which in turn constitutes society.

Sahlins' (1976: 206-7) critique of both of these philosophies argued that structures of knowledge and mental conception are products of both agency and action's presuppositions. Knowledge is therefore continually reproduced from socialised consciousness; what and how we know is irrevocably symbolic and discursively bound to, and nestling in, agency and the relevant contextual social structures. Sahlins (1976) believed that knowledge, as the social generation of meaning, is indistinguishable from social and material existence; the worlds people live through are constituted and therefore only meaningful in their entirety and not as composite summations. Action is fundamentally symbolic; all entities are perceived *as* something following a logic which is manifested, negotiated and re-confirmed through that very act of perception. Knowledge production and dissemination are therefore not just derived from social order but comprise major factors in its constitution (Williams 1981: 12-13). In this way, discussing knowledge formation and communication can only ever be context-based, as demonstrated below.

[21] The 'concession' of knowledge is discussed in depth in chapter 3: p75-7. At present, this should be taken to mean an (albeit perhaps momentary) consensus on understanding

An example: Yoruba knowledge

The Yoruba are an ethnic-linguistic group, originating in West Africa but now also resident as Diaspora communities in Sierra Leone, Brazil, Puerto Rico, Cuba and Trinidad. Yoruba ritual specialists practise divination using a body of esoteric knowledge which underlies world beliefs so fundamentally that Durkeim & Mauss ({1903} 1963: 77) viewed it as a system of metaphysical classification. This source knowledge is thought of as fundamental truth which can only be accessed through divination. Diviners are therefore custodians of cosmological knowledge, and are charged with rendering these truths relevant in an ever-changing world. Diviners communicate with the gods and ancestors, generating occult revelations. These reassure patrons of their stance in relation to one another, society as a whole and the cosmological order (Akinnaso 1995: 236). Their methods are numerous, usually engaging ritual objects and the incantation of oral texts. One such method, *èèrìndínlógún*, requires casting sixteen *owó èró méèrìndínlógún* (ritually treated cowry shells) on to a tray (figure 2:2), and then reciting the relevant, out of seventeen possible, *odù*. Each of these seventeen *odù* comprise various historical or mythological divining consultation narratives (*ese*). The client will select whichever *ese* they believe most relevant to their predicament and the diviner then elaborates on the chosen *ese*, offering prognoses, prescription, consequence and even a meta- and moral-analysis of the *ese* itself (Akinnaso 1995: 238). Once this is completed, under interrogation the client expands on the relevance of the chosen *ese* to them personally, allowing the diviner to determine the exact significance of the cast. The cowries are sometimes re-cast to gain further specific insights using an *odù* ranking system, called *ìbò*. The diagnosis of the problem then established, the diviner will use *ìbò* again to provide a solution, usually entailing some sort of sacrifice (Akinnaso 1995: 240).

Figure 2:2 Photographs of Yoruba divination accoutrement: sixteen ritually treated cowry shells (left) and a divining board (right)

The diviner therefore draws upon a secret body of knowledge communally accepted as 'truth'. They act not only as protector and translator of the innumerable *ese* tales, but are also enlightened on the ordering, significance and meaning of the *ese*. Diviners' access to, and comprehension of, source information results from ten-fifteen years of schooling. This is compounded by regular secular discourse at meetings, during ongoing apprenticeships with specialists and through vocational learning at actual consultations with clients (Akinnaso 1995: 240-2). Diviners also draw divining knowledge from the social roles which complement their standing as ritual specialists. They often engage in communal affairs as advisers, dispute settlers and influential heads of families: experiences which enrich their wisdom and expertise. Divination knowledge is therefore constantly re-worked throughout the diviner's life and entirely composite in nature. It is established but still flexible in terms of exact meaning and application. In this way, divination knowledge, as the interpretation of cosmological facts, is a social narrative which constantly re-works what is known to be true, but is not the body of truth itself (Bloch 1998: 110). It is analytical rather than subject knowledge[22].

Crucially, diviners are engaged in a network of agencies and social structures which cumulatively influence how metaphysical truth is presented. However, the diviner never recognises these varied processes, always attributing their own esoteric knowledge to a divine source. Whilst divining knowledge can be described as a form of symbolic capital which, outside of capitalist economies, is used as a means of control (Bourdieu 1977), at any one moment and place it is more likely to derive from multiple levels of interconnected yet contentious (although not necessarily wilful) discourse. The nature of knowledge is determined relative to how it discursively sits amongst interpretations of past experiences and applications, perceived consequences and desired outcomes. When forming knowledge, the diviner therefore creatively manipulates and is manipulated by cultural and structural agents, such as divining texts, the institution of the divining school and their audience (Akinnaso 1995: 255). The complexity of this process in its entirety is indeterminable, but critically, divining knowledge is generated through social negotiation in which the agent and cultural structures (including memories, norms and institutions) are inextricably bound (Giddens 1984).

[22] These different knowledge forms are explained in chapter 2: p29-31, and in figure 2:3

Diviners know they have divining knowledge not through the acquisition of technical or cosmological truths, but through their interpretive ability to creatively utilise these in narratives (Akinnaso 1995: 254). Diviners' enthusiasm and the relevance of their interpretations are critical to establishing their authority, and in turn the generation of the knowledge that they have divining knowledge. This professional acceptance is won via broad communal acknowledgement, and therefore incurs all of the complexities of social negotiation with which the formation of the knowledge itself was engaged. Crucially therefore, authority is achieved through practice, meaning that divining is not only a performative forum for the re-capitulation of knowledge, but also for the re-conceptualisation of the social persona and creative potential of diviners as ritual specialists (Akinnaso 1995: 255). The awareness of one's custodianship of knowledge is therefore based on an interplay between ideology and practice; for religious authority to be acknowledged and objectified, both the performer's and audience's expectations and interpretations must concur (Bourdieu 1991: 116). Subsequent interactive performances indicate the extent to which this has been achieved, and thereby inform the diviner of their commandment of the known.

The constitution and re-iteration of reality

This illustrates what was first explicitly expressed by Marx in 1869 and reiterated by Mannheim in 1924; people actively constitute reality, but do so under the circumstances transmitted from those constitutions of the past. The 1920s and 30s saw the first consideration of knowledge formation which moved beyond the idealist vs. socialist/empiricist discourse. Pragmatists in the United States (e.g. Mead 1936) and advocates of the sociology of knowledge (*Wissenssoziologie*) in Germany (e.g. Scheler 1924; Mannheim 1924) considered how people think within their social environments, how this is ongoing from social and historical contexts and how collective dispositions decisively generate accessible social objects such as norms and values (McCarthy 1996: 65). Despite their differences in terms of scale of focus (*Wissenssoziologie* was more interested in knowledge context, whilst pragmatism highlighted the specifics of its generation) both schools of thought approached action as key. Knowledge was seen to neither precede experience (Platonic idealism) nor follow from experience, being based on correspondence with an objective world (Aristotle's empiricism). Instead, social existence and mental life were inextricably bound and in continual change and emergence, with knowledge located within action. Typified by Mead's 'theory of emergence' ({1924-5}

1964: 278), the individual and its social world mutually determine one another, where change always involves reconfiguration. Any act of knowing incurs transformation in both the known world and the knower because active minds generate new meanings and new things which in turn, reshape those whose lives are touched by them. Hence "whenever new knowledge appears, something old will have been rejected" (Douglas 1995, 16). In this way, the Yoruba diviner is locked in discourse throughout their life; their specialist knowledge is initiated and perpetually in flux in relation to the rest of social existence. However, this process is not passive or predetermined. It is interjecting, unpredictable and multi-faceted. Whilst Mead and the early protagonists of agency theory appreciated the complexity of social life including the agency of non-human subjects (Blumer 1969: 80), they did not consider the intricacies of this process in any depth or application.

Knowledge is power

In his discussion of the post-modernist world, Lyotard (1979) attempted to search within the process and custodianship of knowledge formation by considering the process of legitimation. He argued that world-views (as all-encompassing paradigms such as science in this instance, but also Yoruba cosmologies) dwell within their own, constructed logics, pragmatisms, rationales, perimeters and rules which necessarily legitimate one another (Lyotard 1979: xxiii). Such paradigms also construct complementary philosophies as metanarratives with which to engage in a discourse of legitimation. Agents utilise and are utilised by these constructs of legitimacy to the extent that they become diluted into a host of networks and relations, within which contradictory codes and interfering messages reside (Lyotard 1979: xix). Agency is therefore not the ability to act in order to self-promote as some crude applications of agency theory would have it (e.g. Barrett 2001: 150), but is simultaneously compromise, directionless and aimed. Habermas (1970) suggested that legitimacy can be found in consensus obtained through discussion, and yet Lyotard (1979: 65) argued that paradigms (e.g. the scientific world-view) and their associated meta-narratives (e.g. modernist philosophy) continually struggle with one another in a perpetuation of instability. This discourse works to undermine from within the very framework in which those legitimative structures were originally derived, ultimately resulting in paradigm-shift. For example, Lyotard (1979: 4) cites how genetic knowledge transforms as the mechanics of the learning process within the scientific paradigm change; as cybernetics revolutionises the way in which intracellular research

and information transmission occur, genetic knowledge must adapt to be legitimised, or risk being abandoned as wrong. Agents producing and using genetic research must be able to translate it into a format compatible with cybernetic advancements in order to learn or invent more.

The relationship of suppliers and users of knowledge to the knowledge they supply is likened by Lyotard (1979: 5) to capitalist supply and demand; knowledge is produced in order to be consumed, and consumed in order to be valorised in a new production. Knowledge is therefore generated to be exchanged, or perhaps only exists when in discourse (which is all the time). Following Francis Bacon's infamous proclamation that 'knowledge is power', Lyotard (1979) remarks that access to and negotiation of knowledge is key to securing socio-political authority. Although his argument is founded in the post-modern world, this is an interesting concept with which to approach actual forums for the establishment of knowledge, including how we know what we know.

As already alluded to, such forums are always practice-bound, and as such, this discussion will continue in chapter 3. I will now return to a few key topics which have already been referred to, but require further elucidation.

Forms of knowledge

Analytical and subject knowledge

For ease of analysis I have categorised knowledge into two forms: analytical and subject. The former derives from explicit or at least unsubtle and intended analytical discourse on the existence of that knowledge (e.g. "I know that the winter is cold"). This form is opposed to subject knowledge, which is derived from less noted discourse (e.g. "winter is cold"). All knowledge is either one or the other; it is either acknowledged (albeit to a lesser or greater extent) or unacknowledged as fact. However, both forms work through one another by association to consolidate meaning (e.g. "I know that the winter is cold" as analytical knowledge is associated with "coldness requires a coat" as subject knowledge). Analytical knowledge is generated through engagements in which the inherent dialectical reference to subject knowledge is remarked upon, or introspected, resulting in the awareness that you know about something. It can therefore be identified

in English by the prefix "I know...", as well as by the associated meaning of certain 'analytical characterisations' entailing introspection (e.g. ambiguity - "This is ambiguous" in western, twenty-first century AD culture means that knowledge is unclear). Notification of the referential process need not necessarily be directly or indirectly communicated to exist, but it must be consciously acknowledged to become knowledge in its own right. In terms of Yoruba diviners, they are aware of their knowledge of divining because of explicit and repeated references to this comprehension during study and practice. The depth of their commandment is based on engagements with members of the community in which the level of respect for the diviner is both negotiated and displayed. Therefore, the initial awareness that you know about something necessitates that this awareness, as an affiliated but distinctly different form of knowledge from the truth it relates to, is formulated in its own right. Subsequent awareness (and therefore re-constitution) of the existence of this analytical knowledge, and indeed its nature (i.e. scope) requires further discursive references to it via social interaction (ch3: p75-7).

Analytical knowledge is usually descriptive and characterising rather than designative: the equivalent of linguistic adjectives (e.g. "I know that the winter is cold") rather than nouns (e.g. "I know it is winter"). This is probably because descriptions stand aside from labels as somehow more flexible and less entrenched 'social facts'. World-views would have to shift more substantially for the winter not to be winter, than if the winter becomes known to be hot. Knowledge which changes is more likely to be 'noted' than that which is rigid, and descriptions are therefore more likely to have analytical knowledge associated with them. The degree of openness to re-interpretation is of particular interest when considering how knowledge becomes established and remains static (figure 2:3).

Subject Knowledge	Analytical Knowledge
Non-introspective 'fact' e.g. "It is winter"	Introspective 'fact' e.g. "I know the winter is cold"
Usually designative – definite classification	Usually descriptive – on a spectrum of possibilities
Usually more entrenched truths – 'closed' to re-interpretation	Usually less rigid truths – 'open' to re-interpretation
BUT – its vulnerability to re-interpretation can be affected by the strength of associated analytical knowledge	**BUT** – the more polemic this knowledge, the less 'open' it is to re-interpretation e.g. "I know the winter is extremely cold"
If associated with polemic analytical knowledge, it can become thought of as 'well understood'	If polemic, related subject knowledge can be thought of as 'well understood'

Figure 2:3 Chart depicting the differences between subject and analytical knowledge

Closed and open knowledge

That certain cultural phenomena persisted in the same form for centuries, whilst others were in perpetual flux, has long dominated grand-narratives and thematic analyses of prehistory alike. Such approaches (e.g. Darvill 1987; Lynch *et al* 2000 and Bradley 1998b; Pollard *et al* 2008 respectively) rarely offer an explanation for such trends, instead and usually justifiably, deconstructing the integrity of each. For example, Jones (2008) convincingly articulated why the traditional opposition between communal inhumation in the Neolithic, and individual cremation in the later Early Bronze Age is simplistic and misrepresentative (ch6: p310). Subtler trends still exist however, such as the fragmentation, dispersal and transformation of human bone in the Early and Middle Neolithic, superseded by the fragmentation, dispersal and transformation of material culture during the Late Neolithic to[23] Early Bronze Age (Jones 2008: 194). Clearly these three practice-based themes retained significance for over a millennium, presumably within dynamic world-views. Their recurrence and relative consistency as concepts related to their stability as knowledge, even if their realisation and meanings varied.

[23] See Appendix B: p341-2 for chronological framework of this thesis

I believe the stability of subject knowledge is partly linked to the strength of the analytical knowledge associated with it. The spectrum of potential stances within one example of analytical knowledge can be vast, with innumerable increments lying in between (e.g. "I know the winter is extremely cold"; "I know the winter is fairly cold", and so on until; "I know the winter is extremely hot"). The more polemic analytical knowledge is, the less open the meaning of associated subject knowledge is (regarded as being[24]) to change (e.g. coldness requires a coat). This may be because the magnitude and depth of understanding about subject knowledge are also linked to the strength of associated analytical knowledge. Being aware that you know something is descriptively extreme may equate to understanding it particularly well. As a result, the combined body of subject and analytical knowledge is less likely to be challenged; it is (regarded as being[25]) closed to reinterpretation (figure 2:3).

Critically, this level of understanding about a subject *does not* necessarily relate to a quantitative measure of previous interactions with that subject. You can know that winter is extremely cold irrespective of the intensity or duration of 'Indian summer' experiences you have had. This is because, as analytical knowledge, its coldness is an allocated status rather than a formative measure of cumulative awareness. The generally accepted temperature of winter is repeatedly and consciously renegotiated in daily life, occasionally becoming established as fact (the mechanisms for which are explored in chapter 3). The more extreme it is established as being, the deeper the understanding about the winter is considered and the more closed this is (regarded as being[26]) to reinterpretation, even in spite of other contradictory bodies of knowledge. Knowing that subject knowledge is a certain increment of analytical knowledge does not automatically change if it is engaged with to the contrary, especially if that increment is extreme.

To illustrate this point further, Turner (1969: 96) described how the Ndembu of Zambia considered the *lukanu* (a bracelet which metonymically represented Ndembu chiefly political office) to be an object of great mystery and intrigue (figure 2:4). Traditionally made of human genitalia and sinews soaked in the sacrificial blood of male and female slaves, the bracelet was treated to daily invocations at sunrise and sunset and only hidden during interregna. Its biography was well-testified as entwined with the celebrated

[24] See chapter 3: p74-5; p85-6
[25] See chapter 3: p74-5; p85-6
[26] See chapter 3: p74-5; p85-6

political history of the origin of the Ndembu people, and it could be used by Kanongeshas (senior chiefs) to curse (Turner 1969: 97). Its publicised mystique, source of witchcraft and absence during liminal rites all suggest that the *lukanu* was publicly thought of as 'unknown' (not well known about). This status persisted despite both its centrality in daily rites and its history being well-documented in oral tradition. People knew it was unknown in the face of the seemingly contradictory concurrent knowledge that it had been well-engaged with. The accepted depth of information about the bracelet established this meaning as fixed and un-negotiable, and its presence in diplomatic terminology (e.g. *Chiwikankanu*; 'the one who dresses or puts on the *lukanu*') demonstrates the rigidity of this meaning.

Figure 2:4 Photograph of a metal lukanu

Following this conjecture, by understanding a lot about something due to the extremity of its characterisation, a subject becomes less open to custodianship and the manipulability which this entails. The *lukanu's* mystical power as a symbol of office and Ndembu cultural identity is considered less easily harnessed by others due to it being extremely unknown. I am not suggesting however, that the designation of the extent of analytical knowledge is a pre-meditated tool for the social restriction of agency. I do not regard characterising knowledge in the extreme as a means by which some sort of social 'status quo' can be maintained. In practice, all strengths of analytical knowledge seem to be equally open to renegotiation (or at least their openness to re-working is not determinably related to their extremity). What is key is that being designated as either renders knowledge 'officially' fixed, rather than actually.

The relativity of analytical knowledge irrespective of the extent of engagement with it draws this discussion towards three key examples of characterisations which are used without justification in the archaeological literature: knowledgeability, familiarity and normality.

Knowledgeability

Introduction

The Ndembu analysis above introduces my first example of an analytical characterisation (i.e. analytical knowledge which is inherently self-aware; ch2: p29-31[27]): knowledgeability. This is essentially 'what you know is *known* about' (e.g. "I know winter is *known* about"), or simply what is *known* about (e.g. "winter is *known* about"). It can be likened in type but not definition to familiarity (what you know you recognise; e.g. "Winter is familiar") and normality (what you know is usual e.g. "Winter is normal"), and ranges from the 'known' to the 'unknown' (e.g. "Winter is known about"; to; "Winter is unknown"). An entity or circumstance is characterised as known, unknown, or anything in between because it has been considered 'sufficiently so'[28]. Whilst I will argue that this characterisation is entirely socially constructed, the fact that I have already assigned it with a cross-cultural definition requires a little explanation. Knowledgeability is not apparent in every psyche; it can surface and re-surface as significant, or it can never appear. As a descriptive ascribed status it can be transient, permanent, unstable, omnipresent, ingrained, generic, specific and/or multi-dimensional. Its associated meanings, whilst often found in supposed dichotomies of darkness : light :: frightening : safe :: wild : domestic :: sacred : secular and so on, can be unrecognisable between two world-views. Essentially, knowledgeability is a body of concepts which can be extracted as a common psychological theme only by the fact that it entails a prescribed lack or profundity of knowledge about those times, places, cultures, materialities, animals, spirits, ideas, mindsets or peoples designated between 'other' or 'not-other'.

[27] Analytical characterisations (e.g. "This is *ambiguous*"; "This is *popular*") convey their inherent introspection, in contrast with other forms of analytical knowledge which, in English, need the prefix "I know..." to distinguish them from subject knowledge (e.g. "*I know this is grey*"; "*I know this is Swedish*"); ch 2: p29-31

[28] This is explored further in chapter 2: p44

In this section I will explore how the association of this definition with other bodies of knowledge generates meaning. I will develop a strategy for accessing knowledgeability cross-culturally, exploring what can comprise the known and unknown (as polemic forms of the characterisation) on multiple levels and in various social environments. Focusing on elements of knowledgeability which may have been relevant in the Late Neolithic to Early Bronze Age, I will introduce liminality as the mid-point on the spectrum. The logistics of assigning the knowledgeability of entities through practice will be addressed in chapter 3. This subsequent discussion will also illustrate how the unknown, liminal and known can be seen to become conceptually expansive and more widely engaged at certain times and places (ch3: p87-8).

In the beginning

Present in so many guises and on so many levels, knowledgeability is an immense topic for discussion precisely because it is inherently bonded to senses of being; by constantly redefining what constitutes that which is unknown, that which is known becomes apparent. However, when the conceptual and linguistic components of these two socio-psychological constructs are considered, it becomes clear that there is no easy definition. Often associated with 'the unknown', the distant, wild, sacred, dangerous, enigmatic and exceptional do not neatly mirror their diametrical opposites, the local, domesticated, secular, safe, straight-forward and mundane respectively (Feld & Basso 1996). Their meanings are instead integrally bound to multiple other conceptual constructs and the specific social scenarios in which they act. Similarly, as parallel conceptual bundles, abnormality and unfamiliarity do not easily equate to or fit within the unknown, since the respective processes of memory, experience and knowledge formation are not one and the same. The understanding of such characterisations is made manifest by social discourse and although associated, follow their own trajectories of construction. To reiterate my earlier point (ch2: p32), characterisations do not automatically change as experiences accumulate and as Highmore (2002) suggested, the 'non-everyday' can be found at the heart of the everyday. The unknown therefore does not inhabit universal dimensions or meanings. It is a fluid and context-specific concept, continuously constructed and deconstructed, applied, reapplied and exhausted. That which is unknown can be rendered known through daily life, but it can alternatively and contradictorily be reinforced or expanded through regular interactions with it (Highmore

2002: 2). Rather than converge into the known the very instant the unknown is unravelled, its elucidation can amplify its future mystique.

The unknown and known are indefinable. They are both everything and nothing; whatever they are designated as being, but this meaning can be momentary. They are never simply given, never just found or encountered, but made (Fabian 1991: 208). It is not enough to consider the unknown as anything about which nothing is known because, as already asserted (ch2: p21-8), knowledge is not a given, objective fact (Wittgenstein 1958). Social beings do not either have or not have knowledge; it is by its very nature constructed by and through them via the interpretation and structuring of experience. Knowledge itself is a historical construct, forever changing its forms and the ways in which it contextualises peoples and their worlds. Even if you accepts Popper's (1999: 58-9) philosophy that objective knowledge (science) exists and therefore that the unknown is anything before it is discovered, scientific facts are still perpetually constructed (and re-constructed due to 'mistakes'). Scientists may believe themselves ignorant about a progressive topic, but become immediately enlightened once it is linked to another they are knowledgeable about. Knowledge is not the undeniable obtained from engaged experience since both are coterminous; knowledge and experience arise and develop simultaneously in human acts (McCarthy 1996: 4). Knowledge is therefore a prescriptive entity, meaning that the state of knowing, or not knowing, about something is also prescribed (either/both self-, communally- or socially-). Knowing the unknown is therefore not a paradox (cf. Klein 1965; Paine 1995: 47).

Finding the unknown amongst the known

With these points in mind, and as already mentioned (ch2: p34), it is awkward to assume that knowledgeability can be easily identified cross-culturally and temporally. For example, in contemporary British society we tend to comprehend death as an exceedingly unknown topic; it is the 'other' from life; conceptually and materially divorced from the everyday (Ariès 1976; Barley 1995: 40-1). Prehistoric mortuary contexts have subsequently been romanticised; their 'mystical' ambience articulated or implied to heighten interest. Tilley (1996: 218-221) repeatedly evoked a sense of mysticism in his discussion of southern Scandinavian Early and Middle Neolithic passage graves, employing phrases such as "hallowed sacred space"; "special domain"; "inner ritual sanctum"; "sentiment and awe"; "spiritual forces" and the "muffled sound of chanting

and flickering of rush torches". Death has become a common denominator for the 'un-earthly'; within interpretive syntheses it frequently forms an interface between two realms. Edmonds (1999: 59) described how fragments of Early Neolithic bodies became cult objects for shamen to mediate with "other worlds". Barnatt & Edmonds (2002) similarly characterised the Late Neolithic/Early Bronze Age Gop Cairn in Clwyd: a large round barrow built in direct association with a cave. Whilst they argued against a conceptual opposition between monuments and natural features, they drew ideas of seclusion, restriction, darkness, wildness, death, irregularity and unpredictability from the cave environment to interpret both monument and cave as places to commune with the spirit world and seek revelation (Barnatt & Edmond 2002: 125).

Of course, these characterisations of prehistoric death as unknown draw exclusively from our own world-views. They are responses which are almost entirely based on preconception, and they recur in the literature despite the well-attested contrast between prehistoric and present-day funerary practices (Thomas 2000; Cooney 2000a: 86; Fowler 2001). We should question understandings of knowledgeability which use dichotomies of meaning, reasonable in our world-views but potentially alien in the past. I argue that the lack of appreciation of the totally social embedded nature of anything designated as unknown or known renders *assumptions* about what constitutes its manifestation questionable.

Critically, rather than considering superficially common denominators cross-culturally, only manifestations of my core definition can be satisfactorily linked to the relevance of knowledgeability within a society. I believe that the active containment or control of seemingly transitional circumstances can alert us to the characterisation of people, materialities, places, events and so on as 'other' and 'not-other'. This is because the definition or re-definition of that which constitutes *neither* the known nor unknown can precisely illuminate the composition and extent of the entire spectrum of knowledgeability. Being aware of what lies between other and not-other can ultimately highlight what concerns were characterised as parallel, and therefore what comprised known and unknown circumstances.

Liminality

Liminality is therefore a useful characterisation with which to investigate knowledgeability in other societies because transgressions into it seemingly force a momentary specification of exactly what constitutes the known and unknown worlds. Originally envisaged by van Gennep (1909) in his seminal work on rites of passage, its anthropological definition derives from phases of transition and was inspired by the Latin for threshold (*limen*). Specifically, van Gennep ({1909} 1960: 1) intended liminality to infer the state of being neither one thing nor another, of being intermediary and between discernible values. However, van Gennep ({1909} 1960: 186) conceived of these 'discernible values' as manifestations of only the known world, with liminality comprising a brief interlude of the other. My concept of liminality as a distinctly transitional characterisation amidst the other and not-other more closely follows Turner's (1974; 1982) concept of the 'liminoidal', which defines liminality as a separate state of abstraction from all worlds. Its position mid-way between the two polemics of knowledgeability renders it extremely open to re-interpretation and not well understood at all (figure 2:5). In this way, through its ambiguity as betwixt and between, liminality defines that which is clear and that which it is not: the known and unknown.

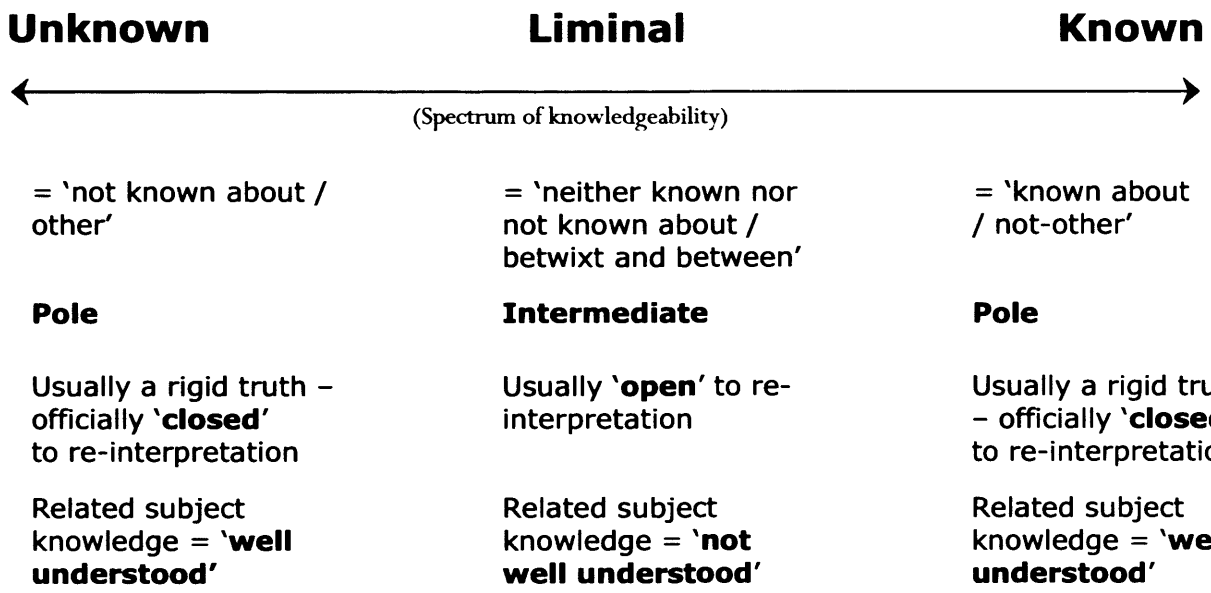


Figure 2:5 Chart depicting the spectrum of knowledgeability and associated characteristics

The identification of transitional entities and circumstances is a common theme within anthropological texts. Gluckman (1963), Douglas (1966), Leach (1976) and Turner (1974)

have all engaged with the concept and applied it to their various research interests with noted success. For example, in his research of 'African kingdoms', Gluckman (1963) concluded that periods of monarchic succession constituted phases of liminality. During times of interregna, behavioural practices were reversed or irregular (e.g. hierarchies of power were temporally abandoned as women, commoners and slaves were able to hold authority over chiefly statesmen). Gluckman (1963: 84-109) argued that these periods of anarchy reinforced the nature and necessity of the known world. Van Gennep ({1909} 1960: 186) also considered liminality as a delineator of the not-other because initiates within it are outside of the known conditions of existence. For example, initiates are often carried aloft to spatially symbolise their abstraction from the realm of the known, also underlined by accompanying 'un-worldly' rites (initiations are almost always embedded in religious belief systems) (figure 2:6). Such phases of liminality in rites of passage are usually buffered by rites of separation and reincorporation (van Gennep {1909} 1960: 11), further defining the exact form of the known world as everything which lies before and beyond.

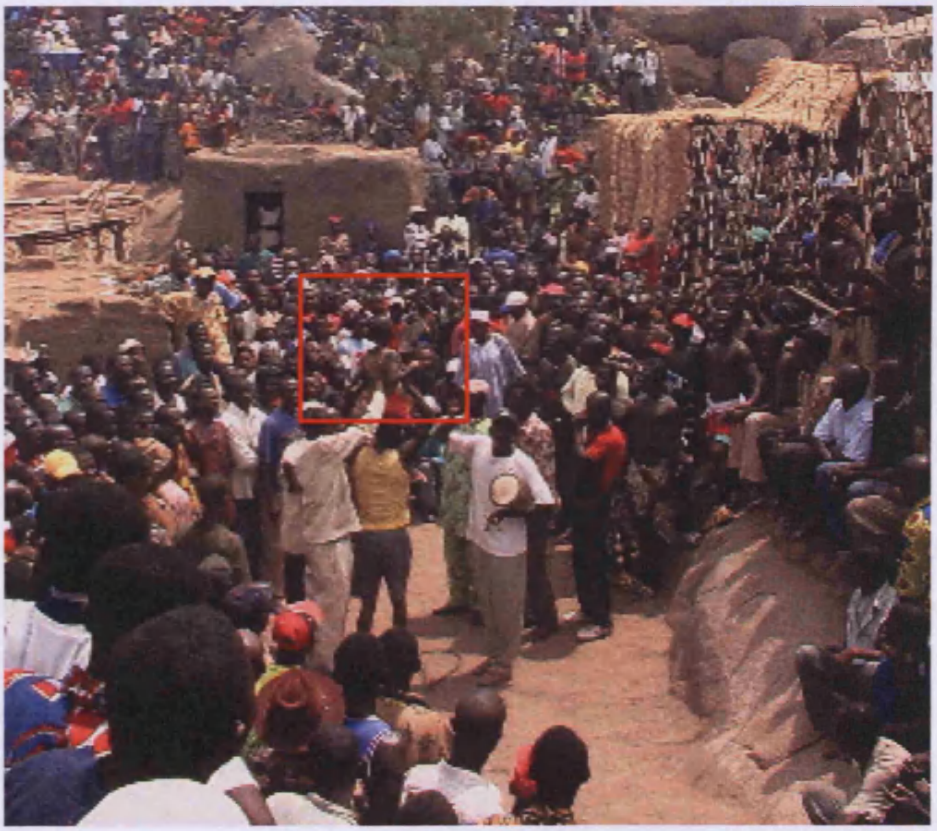


Figure 2:6 Photograph of a Bobo initiate being held aloft in Koro, Burkina Faso

However, aside from the key definition of liminality as transitory, the variable nature of associated meanings is rarely fully appreciated. Rapport & Overing (2000: 230) stated that by passing beyond the threshold of one way of being, initiates step "...beyond *normal*, everyday socio-cultural categories, beyond *normal* conceptions of routine identities, and also conceptions of behaviour rule, time and space...(and into)...a zone of socio-cultural non-identity, non-existence...(my emphases)". They argued that it offers a temporary and infrequent abstraction from routine life within which *normal* rules are abandoned or deliberately flouted, leading to the attainment of esoteric knowledge (Rapport & Overing 2000: 233). Douglas (1966: 119-20) asserted that "danger lies in transitional states" which are policed by the supernatural, and leave re-incorporated initiates "charged with power (and) hot". In effect, and in contrast to my definition, liminality has been taken to automatically entail situations which are fundamentally abnormal, unfamiliar *and* unknown based on their sometimes inverted nature. Instead of focusing on the truly intermediary nature of this state between other and non-other, the usual set of meanings associated with the unknown (e.g. ambiguity, marginality and danger) has also been linked to liminality. This may relate to the common assumption that phases of liminality are exceptional, which compounds the supposed relevance of their own repertoire of meanings.

The assumed opposition between liminality and the known, familiar and normal world becomes self-perpetuating because social observers use their own 'objective' notions of these concepts to distinguish between them. In practice, what constitutes either world is socially embedded and can be irrespective of the frequency and duration of interactions with them. I do not believe that liminality also lies between the normal and abnormal, familiar and unfamiliar because elements of liminality can be engaged with regularly, continuously and at the same time as normality and familiarity. For example, there are many ethnographic examples where menstruating women are physically, emotionally and behaviourally distanced from their community (La Fontaine 1985: 127). They become temporarily taboo and must follow strict guidelines on practice (e.g. the Wogeo Islanders of New Guinea must sit in isolation in their huts, keeping warm, eating specified foods with particular utensils and wearing a special skirt) (figure 2:7). However, menstruation affects just under half of the community on different days throughout the month, meaning that at least one woman must be 'liminal' at any one time. This is hardly conducive to liminality's 'exceptional' status if this is indeed determined by the

magnitude of interactions with it. Despite the extrication of menstruating women from daily interactions, there is a frequent and systematic engagement with liminality through its constant, publicly-known presence within the community. In this way, entering and exiting liminality can be seen as an intrinsically common occurrence.

Figure 2:7 Photograph of a Wogeo Island menstruation hut

Indeed, Turner (1974; 1982; 1987) deconstructed the understanding of liminality as predominantly found in sacrosanct practices, demonstrating how it can be present throughout wider and narrower social scenarios. He argued that his liminoidal state of being betwixt and between is permanently present in innumerable forms within the on-goings of daily life. For example, Turner (1982: 132-53) suggested that new age travellers represented a group identity of resistance to, or rather abstinence from, the known world of late twentieth century AD western culture (figure 2:8). Refraining from participating in social life by stepping aside of it incurs a condition of 'sacred marginality', but this subculture was encountered regularly in 1980s and 1990s British society. As an omnipresent social milieu, Turner (1982) argued that the liminoidal offers an alternative to the status quo, and as such is constantly 'policed' by dimensions of social structure through co-optation (e.g. by the early 1990s, new age travellers had become an established sub-culture). This assimilation results in the ongoing institutionalisation of liminality back into the routine world, dialectically bonded to its re-birth elsewhere (e.g. the emergence of other sub-cultures). As diametrically opposed, but dialectically linked, to the norms of structure, the liminoidal becomes malleable by all agents during daily life; "...every individual life had the potential to see beyond the conventionally normative and discursive, and every individual life shared in the necessity to experience this otherness at some time and to some extent..." (Rapport & Overing 2000: 235). Liminality is therefore very much part of the everyday, and as such, it is clearly socially constituted rather than

an inevitable, pre-destined consequence of cumulative social experience. Moving away from earlier works which believed liminality to be controlled states of disorder that served to delineate and reinforce pre-existing frameworks of order (e.g. Gluckman 1963), Turner (1982) demonstrated the complexity of liminality in the ongoing dynamic reconstitution of social life.

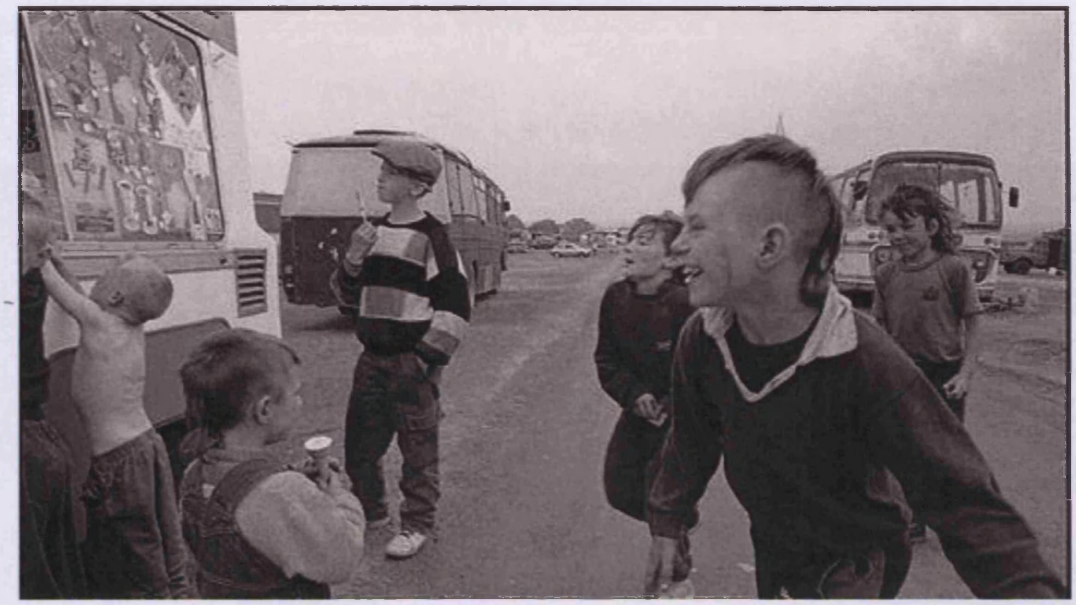


Figure 2:8 Photograph of new age traveller children buying ice cream, taken in 1993

Ultimately, knowledge characterised as liminal may (as in the current western world-view) or may not be associated with other knowledges such as marginality, ambiguity, unfamiliarity or abnormality but, in practice, this has nothing to do with the magnitude of interactions with it during daily life (ch2: p32-3). Assuming that anything considered liminal is also exceptional and abstracted is insufficiently ethnocentric. Critically, liminality is pivotal between the known and unknown but, as its meaning is drawn from the most recent resolution of this analytical knowledge, it is recursively subject to their definition. Its identification within social contexts is therefore not reliant on the discovery of inverted or marginal circumstances, but depends on the isolation of separation and reincorporation symbolism (since these buffer the threshold between other and not-other). In this way liminality can yield insights into knowledgeability which do not depend on present-day, western understandings. This will be returned to in the final section of this chapter (ch2: p54-6).

Thresholds

Thresholds seemingly provide a means of identifying liminality within social knowledges. These can take many forms including linguistic, architectural, conceptual, geographical, somatic and temporal (figure 2:9). Thresholds demarcate one entity or circumstance from another, symbolising transition between the two (van Gennep {1909} 1960: 19-25; Douglas 1966: 141). They can be a focus of political agency since they mediate within and therefore delineate or challenge whole paradigms of knowledge (see ch3: p75-7 for further discussion).

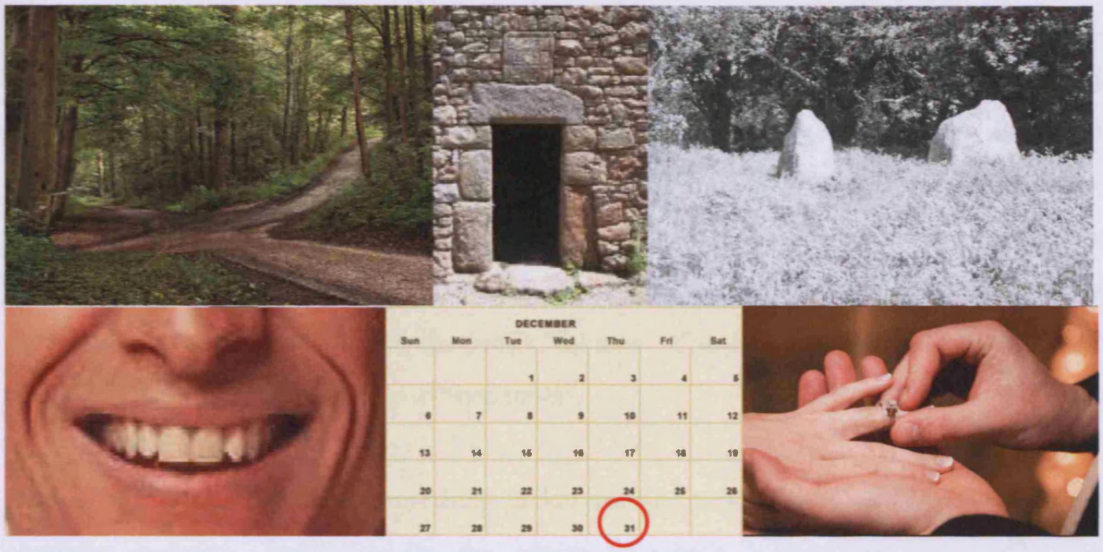


Figure 2:9 Photographic montage of thresholds

Following my understanding of knowledgeability, thresholds can delimit other from not-other, although this is in no way their only meaning. For example, crossroads are symbolic thresholds. They can be metonyms for journeys or decisions just as easily as marking the transition from the known to unknown. The emphasis need not necessarily be on the knowledgeability of the start point and destination, especially since both may be known, unknown or neither. Indeed, many examples of thresholds mediate the passage between other characterisations in which knowledgeability is a less fore-grounded or even irrelevant concern (e.g. carrying a bride through a doorway symbolises the transition between supposed virginity and matrimony). This may be why van Gennep ({1909} 1960: 186) viewed liminality as a temporary abstraction between two known worlds rather than the interface between other and not-other (ch2: p38-9). In this way, thresholds hint at rather than indicate the presence of knowledgeability as a social

concern. They must be taken in association with other suggestive indices rather than in isolation.

Familiarity and normality

Introduction

As already mentioned (ch2: p35-6), normality/abnormality and familiarity/unfamiliarity are two conceptual bundles frequently linked to the known and unknown. Both are analytical characterisations similar to knowledgeability because they incur introspection on the negotiation of knowledge. Knowing that something is familiar, unfamiliar, normal or abnormal derives from the explicit or at least unsubtle and intended analytical discourse on the nature of the subject knowledge in question. People therefore know what is familiar/unfamiliar or normal/abnormal because *they are aware* (to a greater or lesser extent) that their interactive constitution of reality has, most recently, resolved this as the case[29]. As with the known, the prefix "I know..." is unnecessary; "This is familiar" and "This is normal" both imply introspection.

Just as the knowledge that something is known about is bound within processes of cognitive ordering, familiarity (as the extent to which entities are *recognised*[30]), and normality (as the extent to which they are *usual*[31]) are again linked to your understanding of experience. Entities or circumstances must be considered 'sufficiently' recognised to be considered familiar, and 'sufficiently' usual to be considered normal. The criteria or level which constitutes 'sufficient' is entirely relative since neither of these characterisations is determined by the magnitude or frequency of experience; they are instead derived from discursive relationships between cultural knowledges, social reality and agency (figure 2:1). In this section I will explore these assertions and offer possible means of identifying familiarity and normality as recurrent concerns within world-views.

Familiarity as a measure of dwelling?

Ingold (2000) has published extensively on how humans make themselves at home in the world. The implications for knowledge formation through practice will be addressed in

[29] This will be discussed in depth in chapter 3: p75-7
[30] See chapter 2: p34
[31] See chapter 2: p34

full in chapter 3. As Ingold (2000) and many theorists before him asserted (e.g. Heidegger 1945-51; Merleau-Ponty 1945; Geertz 1973: 44-5), agents dwell in the worlds they create and those worlds in turn generate the principles which dwelt agents navigate. The lived-in world becomes both constitutor and constituted by the practices woven through it to the extent that agents cannot be considered detached from their dwelt environments. However, Ingold (2000: 186) described how dwelling in a landscape incurs the generation of familiarity by proxy. The interaction between agents and their worlds (as matrices of knowledge and materials) is seen to perpetuate an ever-changing reality with, and within, which familiarity and knowledgeability pervade. For Ingold (2000) therefore, being familiar with and knowledgeable on a landscape is implicitly attributed to the frequency and depth of acquaintance with it. Familiarity and knowledgeability both become passive products of experience, where dwelling in a taskscape (ch3: p62-3) incurs the generation of each as an inevitable by-product. For example, to quote Ingold (1993: 153): "...the novice hunter travels through the country with his mentors, and as he goes, specific features are pointed out to him...Other things he discovers for himself, in the course of further forays, by watching, listening and feeling. Thus the experienced hunter is the knowledgeable hunter. He can tell things from the subtle indications that you or I, unskilled in the hunter's art, may not notice...". Here, the hunter's mounting experience renders him more familiar with, and knowledgeable on, his companions, skills and the places he frequents until he becomes truly at home in the world he inhabits.

There are many examples of this use of the terminology within the archaeological literature of the past fifteen years, perhaps in part due to the influence of Ingold's (2000) work. For example, Thomas (2001: 175) stated "...The landscape is the familiar world within which people perform their everyday tasks...". This approach effectively reduces familiarity into an extra-social fact, since it is treated, although never directly expressed, as measurable according to some kind of definitive time and space. The accumulation of familiarity becomes an unalterable and invariable consequence of human life. In contrast, Bender (2001: 83-5) described how phenomenological accounts have failed to explore how world-views are also formed outside of familiar and known places. For example, to quote, "...If we think about...prehistoric people from Stonehenge traversing unfamiliar landscapes as they search for and bring back the sacred stones from South Wales or North Wiltshire,...we have to envisage them moving through unfamiliar landscapes and dealing with unfamiliar people..." (Bender 2001: 83). She explained how 'familiar' places

can be 'on the move' as characterisations of the landscape and highlights how a settled landscape can be both familiar and unfamiliar. However, Bender (2001: 84) still seemed to envisage familiarity and knowledgeability as terms with cross culturally-applicable meanings; she talked of seasonal pathways as part-familiar, part-known because experiences of walking down them are less frequent and therefore more prone to the unpredictable.

This kind of attitude to place is embedded in much of the literature; unfamiliar and unknown, familiar and known prehistoric places are identified and interpreted by archaeologists using present-day, western definitions of what each means. For example, characterisations of safety, light and routine are frequently associated with prehistoric places sited in sweeping river valleys and lowland coastal environments. The channel confluence henges in Cumbria (e.g. Mayburgh), were seen by Edmonds (1999: 145-8) as familiar gathering places at crossing points between areas of higher ground. Riede (2007: 8-13) referred to 'unfamiliar landscapes' in the Late Palaeolithic Hamburgian period of southern Scandinavia as "dangerous...inhospitable...risky and unstable". I am not suggesting that recent works embracing the dwelling approach are in any way ethnocentric or positivist; obviously they are quite the contrary. Almost all advocates would reject an objective/subjective dichotomy when considering any form of knowledge. However, it is paradoxical to retain the suppositions that experience breeds familiarity, and that this familiarity is similarly understood cross-culturally, when agents, places and knowledge constitute one another through dwelling. If we accept that all facets of knowledge are socially compiled and substantiated, then the concession of places as familiar, known or indeed normality needs to be re-emphasised as social process rather than given status.

Familiarity at Men-an-Tol

To illustrate the social construction of familiarity, I will now briefly consider recent comprehensions of Men-an-Tol stone alignment, Cornwall. Located on undulating gorse moorland, the site is famous for its centrally perforated stone, which is flanked either side by two slightly taller orthostats (figure 2:10). These three stones may have originally been constituents of a stone circle of 19-20 monoliths, a portal-entranced chambered tomb or, as Tilley & Bennett (2001) suggested, a complete row associated with the

nearby Boskedan circle. Visitors to the site are numerous both now and in the past; herders, cultivators and tourists have been present for millennia (Johnson & Rose 1994).

Figure 2:10 Photograph of Men-an-Tol stone alignment

However, Men-an-Tol is and always has been unoccupied in the sense that people do not engage with the monument continuously. Visitors walk to the stones, touch them, enact performances through them, perhaps rest for a meal and then move on. Each and every experience in this place is transitory and understood through the most recent constitution of social reality. A tourist may classify and understand Men-An-Tol as an attraction alongside others they have seen; as a pagan temple, a focus of ley lines or an early astronomical calculator. A local eighteenth century farm-hand may have considered it a place of witchcraft, ancestral burial or perhaps where their mother was cured of rickets as a child. Tilley & Bennett (2001: 353) understood it through their growing realisation of the interconnectivity of death, rebirth, fire and water in local Bronze Age psyches. Each visitor comprehends Men-an-Tol by re-configuring it with their current world-view, and I argue that re-determining its familiarity parallels this process. Every day, Men-an-Tol becomes very, fairly or un-familiar to visitors according to whether they believe their past engagements with it to be 'sufficient'. This familiarity, as a relative level

of recognition, perpetually changes and is entirely situation-specific, but it is most certainly not dependent on the sum of experiences. A person who travels there every midsummer sunrise may feel more familiar with it than the shepherd who pauses there daily to scan the moor. Similarly, an archaeologist may be able to generate an hour of discourse on the site but feel less familiar with it than a tourist who has read an excerpt of a guidebook. Critically, familiarity depends entirely on what one's most recent constitution of social reality deems 'sufficient'. Therefore, every moment knowledge *about* the place is re-determined, familiarity with this knowledge is also re-conceded.

Bourdieu's familiar world: a means of objectification

Bourdieu (1977: 3) situated familiarity within phenomenological knowledge, arguing that the latter is one of three theoretical knowledges which, alongside objectivist knowledge (as fact-like, or in my terms, 'subject' knowledge) is directly opposed to practical knowledge (as skill-type knowledge). He suggested that familiarity makes explicit the truth of the primary experience of the social world and therefore links phenomenological and objectivist knowledge as recursively co-dependent. To render something familiar is to apprehend the social world without question, and therefore to not reflect on life and the conditions of its possibility which in turn become fact. Bourdieu (1977: 3) suggested that knowledge of familiarity is generated through the ongoing relationship between agents and their *habitus*. Therefore, as with the knowledge that something is known or unknown, people know what is familiar or unfamiliar because their most recent experiences have outlined it as so. In turn, this generation and perpetuation of familiarity are linked to wider processes which sustain social reality, where "...every established order tends to produce...the naturalization of its own arbitrariness..." (Bourdieu 1977: 164).

Bourdieu (1977) considered the most important and best hidden of various mechanisms which substantiate the world to be the objectification of knowledge. This is where agent aspirations are dialectically locked with social possibilities to generate a sense of limits, or reality. So, as agents operate within their worlds following the logic set out before them, they re-affirm that logic and the reality which ensues. In this way, a sense of objective (and possibly subjective[32]) knowledge arises. For example, by dividing moments into

[32] Jenkins (1992: 61-2) criticised Bourdieu (1977) on this point, arguing that actors are more knowledgeable about their worlds than Bourdieu (1977) proposed

standard units which are institutionally recognised and substantiated by the 'logic' of astronomical science, a linear sense of time is taken as irrefutable in the present-day western world-view. Multiple ethnographic examples of other modes of conceptualising time, or indeed not conceptualising time at all, are apparent (e.g. classically, both the Nuer and Maya conceived of time as cyclical). Yet linear time is so entrenched in current western lives that its complete derivation, albeit dialectically, from social life is seldom even considered by the agents who propound it (Durkheim {1915} 1976: 9-11; Gell 1992: 3-4). Bourdieu (1977: 164) termed this experience *doxa*, meaning an adherence to a world whose limits, order and ordering principles are taken as self-evident. He then described how the nature of what constitutes these objective knowledge can be influenced for political gain.

For Bourdieu (1977: 72) therefore, familiarity is a constituted form of knowledge which outlines what is known to comprise the acquainted world, and in turn, legitimates the truth of this world by denying the necessity for further apprehension. It therefore fits within his idea of *habitus* by being an example of practice in that it is both a consequence of and influence upon ongoing discursive relations between social agents and their realities. The *habitus* of an agent is the principles which generate and structure practice without being the initiator or governor of them; it is the malleable *modus operandum* of the agent. As such, *habitus* enables agents to cope with unforeseen and ever-changing circumstances, but is both dynamic and entirely dependent on agency in the sense that it outlines multiple possibilities which agents may then negotiate (Bourdieu 1977: 72-6). These ongoing relations produce practices which in turn affect changes in *habitus*, and which objectify the world in which agents dwell. Following Bourdieu (1977), as an example of practice, familiarity facilitates the stability of the field of *doxa* (that which is taken for granted) by explicitly delineating what is well-understood, and therefore what can go un-questioned.

In actuality, as already argued (ch2: p32-3), the degree to which analytical knowledge is open to interpretive renegotiation is not directly linked to the strength of its characterisation, and this certainly relates to familiarity. Despite being thought of as closed to re-interpretation (figure 2:11), meanings associated with the polemics of familiarity (familiar and unfamiliar) constantly recursively shift. An unfamiliar colleague can therefore become familiar, or at least their familiarity is no longer a concern, if and

when that person is re-characterised as 'sufficiently' engaged with. This shift would happen as a result of ongoing social discourse, and is largely irrespective of how well-established their previous unfamiliarity was.

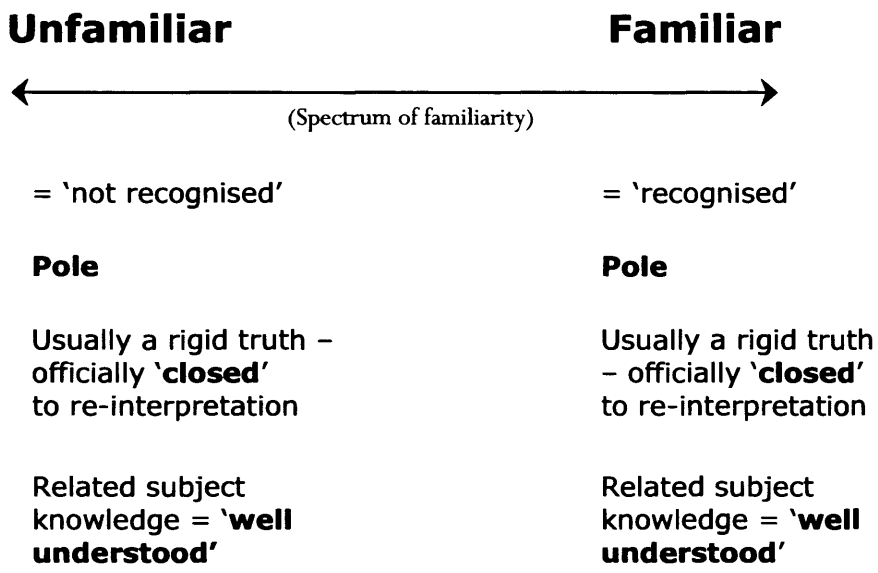


Figure 2:11 Chart depicting the spectrum of familiarity and associated characteristics

Finding the familiar within the known?

Edmonds (1999: 118) associated familiarity with the known world. I envisage familiarity as an analytical characterisation (ranging from 'familiar' to 'unfamiliar') which is sometimes connected to knowledgeability, but in an erratic rather than formulaic manner. An entity or circumstance characterised as known is not necessarily henceforward familiar; a linkage between the two is simply more common in twenty-first century AD western society than others. Entities and circumstances can be known yet unfamiliar, or unknown and familiar, or they can be known when their familiarity is irrelevant. To illustrate, a spider's web encountered on a walk may be comprehended as a familiar material form, even if that specific example has not been engaged with before. In western present-day ontologies, spider's webs have been characterised as unknown, meaning the web can be simultaneously understood as both familiar and unknown. How these comprehensions are formulated is discussed in chapter 3.

Like knowledgeability, familiarity can appear, re-appear or never appear within world-

views. It is a characterisation which occasionally holds significance within ongoing social discourse. As already discussed, bodies of meaning associated with familiarity are context-bound, and as such, the identification of familiarity in social psyches must, in the first-place, relate to my core definition. To reiterate (ch2: p34; p44), familiarity and unfamiliarity are essentially what is known to be recognised, or not recognised respectively. Unlike knowledgeability, the two poles of familiarity (familiar and unfamiliar) do not seem to be mediated by a clear betwixt and between construct. Being neither familiar nor unfamiliar with something simply denotes the insignificance of this concept in that circumstance. Liminality and thresholds are therefore not indicators of the presence and nature of the two extremes. Instead, I propose that repetitive action can formulate and perpetuate the conception of an entity or circumstance as familiar. Conversely, erratic and diverse action can generate characterisations of unfamiliarity. By repeatedly engaging with a circumstance or entity in the same way, agents may be initiating or commenting on its recognisability. They would therefore be temporarily manifesting the extent deemed 'sufficient' enough to warrant the characterisation that it is familiar (ch2: p34; p44). Conversely, by engaging with a circumstance or entity in a noticeably disparate manner, agents may be dispelling any sense of recognition, and therefore initiating or commenting on its unfamiliarity. This would thereby momentarily establish the level at which a lack of recognisability may be determined. This indicator for the relevance of familiarity as a social concern will be discussed in application in chapters 4 and 5.

The normal

Normality fits similarly within this perspective as an analytical characterisation (ranging from 'normal' to 'abnormal'), often associated with both knowledgeability and familiarity in both the present-day, western world-view and humanities literature. The concept is repeatedly mentioned and discussed by anthropologists, sociologists and social psychologists in the form of norms (e.g. Sherif 1935; Schütz 1953; Kelly 1955; Deutsch & Gerard 1955; Berger & Luckman 1967; Bourdieu 1977; Musgrove 1977; Giddens 1984; ch3: p71-2). These are 'aspects of consciousness' that underlie the feeling that the world makes sense and that the actions of others are plausible (Goodnow 1981: 91). They constitute a fluid 'stock of recipe knowledge' which enables the usual routines of daily life to be lived with the minimum of conscious reflection (Schütz 1953). Determining norms is seen as a crucial part of social interaction because the merger of

individual perspectives into more general consensuses enables group life (Sherif 1935). Early analyses of social norms focused on the ability of this process to reinforce social equilibrium, where norms comprise the 'rules' of custom, and essentially of governance within social interaction (e.g. Mauss 1954). Such structural-functionalist stances were criticised for neglecting the transient, agent-embedded and entirely dialectical nature of norms, for assuming that some sort of conforming force overlies social systems, and for general failing to appreciate the complexity of social life (Bourdieu 1977: 19). In particular, Jones & Nisbet (1971) demonstrated that people constantly deviate from normative cognitive behaviour, meaning norms are often communally established but rarely communally followed.

I conceive of norms, like knowledgeability and familiarity, as socially and temporally specific analytical characterisations which incur introspection on the way in which something is understood. To know something is normal is for it to be known to be *usual*, or 'commonly upheld', irrespective of the depth or frequency of this upholding. This normality is not a given, but is socially determined based on the most recent determination of reality. Norms are not necessarily intentionally generated, maintained or skewed and equally they do not exist to enforce some sense of social status quo. In fact, the complexity of social norms, and ab-norms (if you will) is such that searches for explanations of their existence must consider the nature of ongoing social discourse rather than abstracted elements of it such as legitimation.

As analytical knowledge, its 'official' openness to re-interpretation (ch2: p34), and how well understood associated subject knowledge is thought to be (ch2: p32-4), both depend on how polemic characterisations are; the more normal or abnormal, the more closed and better understood the entity is considered (figure 2:12). This fits well with Schütz's (1953) description of norms as conditions of existence which require the minimum of reflection. As poles on the spectrum of normality, norms and ab-norms are knowledge which tends to not be questioned, and which enables the sense that associated subject knowledge is well understood. However, and as expressed in the contrast between normative (supposed) and descriptive (actual) models of social behaviour (Sabini 1992: 155), in reality normality knowledge is open to re-negotiation. Similar to familiarity, the spectrum of normality knowledge does not include an intermediary characterisation (ch2:

p51); if an entity or circumstance is neither normal nor abnormal then its normality is irrelevant.

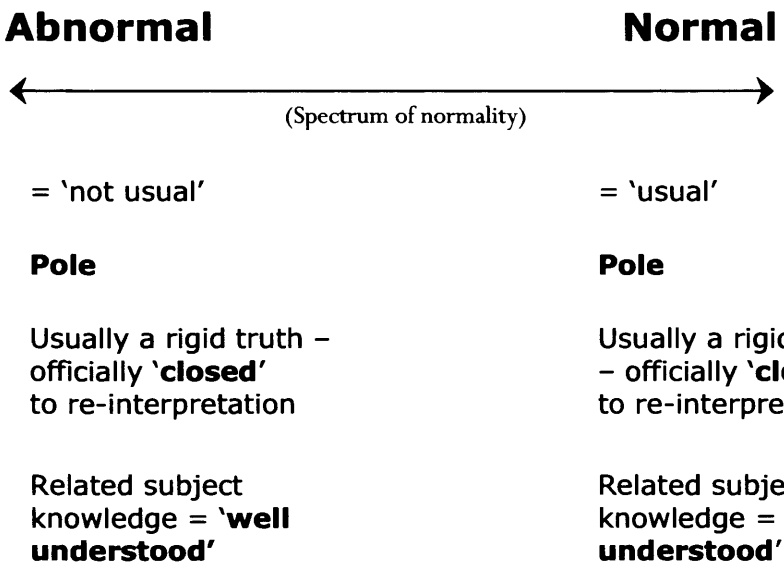


Figure 2:12 Chart depicting the spectrum of normality and associated characteristics

Normality has also become associated with the same set of meanings which flavour present-day western comprehensions of familiarity and knowledgeability. Normal is taken to constitute that which is safe and comfortable, whilst all which is abnormal is also dangerous and un-nerving. Again, its meaning beyond my core definition is socially relative; and again normality is not necessarily also familiar and known. Identifying entities thought of as normal or abnormal in non-western societies therefore depends on the emphasis, or de-emphasis, of how 'usual' they are. One possible indicator of this might be the extent to which circumstances, materialities, animals and so on are openly engaged with. By overtly and publicly interacting with an entity on repeated occasions, agents may initiate or consolidate the association of the knowledge that it is sufficiently normal (usual). Conversely, by covertly interacting with it, the sufficient level for abnormality (not usual) could be simultaneously established and achieved. This indicator for the relevance of normality as a social concern will be discussed in application in chapters 4 and 5.

Taboo

Introduction

As a final concern, I address taboos as an example of subject knowledge which is often linked to liminality. This will demonstrate that other forms of knowledge can bond with analytical forms such as knowledgeability, thereby building context-specific repertoires of meaning for these characterisations (ch2: p32). It will also highlight a means through which knowledge is classified, and therefore illustrate one way in which non-current, western meanings can be discerned. This section will prepare the reader for the more embedded discussion of knowledge construction in chapter 3.

Taboo as knowledge

Steiner's (1956: 147) classic work concluded that taboos are constructs with a discernible 'function': that of classifying and identifying danger to 'social harmony'. This isolation itself diminishes the threat, which is further diluted through institutionally-followed restrictions. Temporarily overlooking his structural-functionalist stance, Steiner (1956) highlighted how the imposition of a taboo immediately re-worked the affected entity's status into 'something to be avoided'. Taboos are therefore a form of knowledge, readily associated with other bodies of knowledge, with the effect (definition) of seemingly restricting and regulating interactions with the latter truths. Despite being descriptive, they are forms of subject rather than analytical knowledge because they tend not to be self-aware ("winter is taboo" rather than "I know winter is taboo"), are supposedly 'closed' to re-interpretation and critically, are independent rather than variables on a spectrum of possibilities (i.e. entities can only be taboo; they cannot be partly or 'not' taboo) (figure 2:3). The core definition of a taboo is always broadly dangerous, polluting and restricted profanity. It is a socially-specific ascribed status; common but by no means universal within world-views. Just like knowledgeability, familiarity and normality, taboo can be defined, but its associated meanings (e.g. linked to overt sexuality) are always socially specific and can never be assumed.

Having said this, entities characterised as taboo are necessarily also bonded to the analytical knowledge that they are liminal. Every entity designated as taboo is therefore also thought of as betwixt and between other and not-other, and is essentially not well-understood, ontologically unclear and beyond recognition (ch2: p42). For example, the

ceremonial house of the Iatmul of Papua New Guinea is encumbered with numerous taboos; women, walking directly from one end to the other and the marking any of its interior are all strictly prohibited (figure 2:13). The house is simultaneously characterised as liminal through its abstraction from both the known and the unknown worlds; performances within it are exaggerated and theatrical and often mediate with the ancestors (Bateman {1936} 1980: 123-7). This does not work conversely; liminal entities are not necessarily also taboo. In present-day British society for example, interaction with liminality is often actively sought (e.g. the emphasis of women's mouths through beauty products, the acceptability of crossing geo-political borders). There is also no correlation between the extremity of the characterisation and the strength of the taboo; entities are not understood as more profane the more liminal they are deemed to be.

Figure 2:13 Photograph of an Iatmul ceremonial house, Papua New Guinea

Despite being subject knowledge associated with the centre of the knowledgeability spectrum, the meaning of taboo is widely conceded as closed to renegotiation. Again in practice, how a tabooed entity is understood can be easily re-worked, but critically, its meaning is outwardly set. For example, Steiner (1956: 40) recorded that betrothed women in Polynesian society were widely considered taboo. Every time an engagement was made, freshly negotiated subject knowledge ("due to be wed is taboo") was therefore linked to the woman, along with the associated analytical knowledge that she was

henceforward liminal ("she is due to be wed, this is taboo and I know she is betwixt and between"). Officially, the taboo and its closed status should have inhibited sexual intentions towards or encounters with the betrothed woman for the entire community. In practice, whilst knowledge about a betrothed woman was widely thought of as closed, her community continued to renegotiate the connectivity and ultimate meaning of the knowledge matrix which defined her. Whilst a man would 'officially' be punished for attempting to seduce a betrothed woman, in actuality he could appeal to powerful friends to redefine knowledge about the nature of the woman's betrothal, and therefore excuse his behaviour (Steiner 1956: 48). This negotiation of the non-negotiable would simultaneously nullifys the taboo (as subject knowledge), its liminal status (as analytical knowledge) and the bond between the two.

Determiners of the 'status quo'?

Mary Douglas (1966) famously addressed taboo in her ethnographic work on purity and defilement. She broadly concurred with Steiner's (1956) socially deterministic understanding of why taboos exist cross-culturally. Douglas (1966: 173) believed they convert external threats to the status quo (or flouts of imposed order) into means for fostering solidarity within by simplifying, clarifying and formalising the issue in question. Despite conceding that this process can be self-defeating because it can empower danger, Douglas (1966) still argued that social systems are active in their attempts to constrain threats to social harmony. This stance is clearly highly problematic and epitomises a long-since outdated theoretical basis. It grossly neglects agency by oversimplifying the complexity of human engagement within and through their worlds (Klawans 2003: 90). Douglas (1966: 176) did however recognise that despite the enforcement of a taboo, "individuals can to some extent follow their own personal whims, because the social structure is cushioned by fictions of one kind or another". This fits well with my argument that taboos are 'officially' interpretively closed, but in practice the meaning of the tabooed entity and its tabooed status is still open to re-interpretation (although perhaps to a lesser extent).

Douglas (1966: 196-7) repeatedly contended the role of taboo in publicly asserting the boundaries of social world-views and therefore preventing their transgression. She maintained that many societies incorporate deliberate, institutionalised and infrequently sanctified ruptures of imposed taboos as highly controlled means of coming into contact

with danger. She argued that such staged experiences are necessary because this danger resonates with power that 'ritual' can harness (Douglas 1966: 199), and that "it is necessary to have black in any depiction whatsoever" (Douglas 1966: 220). Whilst I reject Douglas' (1966) implication that a necessity for the preservation of the social equilibrium governs, or at least guides, the actions of social agents, her description of taboos as delimiters of world-views is insightful. By manifesting and publicising that which is prohibited, everything else (as that which is acceptable) is revealed. This synchronises well with my assertion that taboos are always linked with liminality characterisations; liminal entities outline what is betwixt and between and not well understood, and therefore illuminate everything to the converse. The identification of taboos in non-western cosmologies could therefore constitute a means of also revealing the presence and nature of the unknown, liminal and known.

Moving away from reified social structures, I believe that the highly embedded interactions between agents, their cosmological knowledges and social realities construct taboos (figure 2:1). Specifically, I argue that this process always occurs through the malleable and context-specific concept of knowledgeability. The characterisation of an entity as liminal is infrequently also linked with taboo knowledge through their shared definition as not being well understood. This association is not 'motivated' by, or 'purposeful' for, extra-somatic societal structures, but instead derives from the imposition of order incurred when something is characterised in terms of its knowledgeability. This is not to suggest that taboos are random offshoots of social process, but simply that the contradictions Douglas (1966) struggled with (e.g. taboos often empower pollutants), are no more intended than the imposition of the taboo in the first place. Taboos and their deliberate transgression therefore do not need a function, but are instead an integral part of the process in which knowledge in the widest sense is constructed.

Mānuš taboos

The Mānuš people of the Auvergne and Limousin regions of central France are a case in point. Whilst their settlement pattern is mobile, Mānuš communities usually frequent a small territory, venturing into others occasionally to visit kinfolk (figure 2:14). They number around 3000 in total and prefer to remain endogamous (Williams 2003: 3). Mānuš knowledge about death is irrevocably entwined with taboo; everything associated

with the deceased should be destroyed, even if this results in dire poverty for the widow or widower. Any jewellery or money is buried with the corpse or used to pay for the funeral, and trailers are set on fire. Occasionally, trailers are sold to pay for the funeral, but these transactions are only to non-Mānuš (Gadzos) and must not involve haggling. Particular objects or animals are also sometimes kept, either for daily use or preservation as an heirloom, but these are always conceded as *mulle*, or 'dead'. Any *mulle* object or animal must be 'treated with respect'; they can never be neglected, lost, insulted or mistreated, and one should never swear near them. *Mulle* animals should be kept until their natural deaths and if *mulle* objects in daily use are no longer needed, they must be destroyed and never exchanged, sold or discarded (Williams 2003: 5). However, in terms of usage and storage, these objects and animals are not obviously distinguishable from their non-*mulle* counterparts because their *mulle* status is never vocalised. This silence is observed even at the point of causing offence for refusing to justify why the object cannot be lent (Williams 2003: 6). Equally, the deceased's name must never be mentioned by close kin and through subsequent years, more distant kin also stop talking of the deceased. Close kin eventually come to sporadically reminisce, but only by observing great care in the language they use. Names are still never explicitly voiced, meaning the living never directly interact with the dead and their material worlds.

Figure 2:14 Photograph of a Mānuš family with their trailers at Puy-de-Dôme, taken in 1969 (*from* Williams 2003: photograph 1)

I argue that first and foremost, death, the departed and their past environs are all characterised as liminal by the Mānuš. Taboo knowledge has become associated with this conceptual bundle ("I know death is liminal, it is also taboo"), and I believe this occurred because the Mānuš emphasise death as not being well understood. Discussing death, and all affected by it, has become actively avoided. Indeed, the absence of discourse on the subject eventually results in the confusion of specific memories until deceased people are actually forgotten about. Williams (2003: 11) concludes that "the Mānuš choose oblivion over memory...the dead do disappear- and in the end they disappear rapidly...The forgotten dead who used to be known...become anonymous" (Williams 2003: 11). Through the absence of discussion and therefore reinterpretation of the meaning of the dead and death in general, both become very vague knowledges for the Mānuš. This perpetuated the liminality of death and the dead because they become thought of as increasingly less well understood. Most meanings associated with the dead become disassociated through the lack of re-engagement with them. At some point, this refusal to discuss death became a prohibition, and as a taboo, the meaning of death became 'officially' closed to re-interpretation. In this way, I argue that the strict taboos colouring Mānuš death derive from its initial characterisation as liminal and critically, the emphasis of its 'not well understood' status. The subsequent ordering of life which this entailed, or the ongoing negotiation of what it means for death to be liminal, generated the strict taboos that Williams (2003) observed.

However, Mānuš taboos are not extra-somatic societal agents, generated to nullify the disruptive influence death has on social equilibrium. Constantly labelling entities as *mulle* actually reinforces the permeation of death throughout life, even if the afflicted people are forgotten. In addition, whilst prohibitions are officially inviolable, they are fairly malleable in practice. For example, certain food or drink can be considered liminal because the deceased was particularly fond of it. Because the *mulle* status of entities is never uttered, individuals choose their own prohibitions and can equally choose if and when to end them. The dead and (in this instance) therefore liminal status of something has to be actively observed to be maintained and Williams (2003: 10) stated that he had never heard anyone refuse a dish or drink with the excuse that it is *mulle* to them, perhaps partly because this must not be uttered, but also because taboos can be manipulated. If death was so dangerous to social perpetuation, agents would not be able to consciously ignore prohibitions. Instead, the imposition of, and adherence to taboos is the dynamic

result of ongoing discourse on what it means for entities to be liminal. Taboos are neither intended nor subconscious, and instead form part of the ongoing reformulation of knowledge. I will discuss this in application in chapters 4 and 5.

Conclusion

In this chapter, I have offered one way in which socially constructed knowledge can be classified; highlighting how introspective forms (analytical) can become associated with subject knowledge to form bundles of meaning. The characteristics of these analytical knowledge forms have been outlined as a way of understanding how agents order entities within prevailing cosmologies. As examples of analytical forms, knowledgeability, familiarity and normality have all been introduced as spectra of 'truth', each with a core definition (ch2: p34-53). Whilst in no way cross-culturally or temporally present, these characterisations can hold relevance in certain contexts, and their emergence, longevity and nullification will be discussed further in chapter 3. I argued that such knowledge exists irrespective of the degree to which agents experience life (ch2: p32; p44), highlighting the truly socially embedded nature of their existence. Possible means of identifying knowledgeability, familiarity and normality have been suggested (ch2: p43-4; p51; p53; p54-60), all of which focus on their core definitions and disassociate wider culturally-specific meanings which are not universal. Concentrating on knowledgeability, I presented thresholds and taboos as examples of other bodies of knowledge which readily become associated with liminality, thereby generating culturally-specific meaning (ch2: p43-4; p54-60). The durability of these augmented bundles is addressed in chapter 3, which focuses on how knowledge is established through being.

3. Knowing through Being: How dwelling enables knowledge

Introduction

For some time, anthropologists have advocated the primacy of sociality and experience within peoples' lives, over grand frameworks of mind or culture (Overing & Passes 2000: 2). Metanarratives such as structural-functionalism and interactionism; the fodder of early-mid twentieth century sociological discourse; are absent within postmodernist social disciplines (Thomas 2004a: 232). Ensconced instead within much recent archaeological and anthropological literature are undercurrents of Giddens' (1976; 1981; 1984) ideas about the process of structuration, Mauss' (1979: 101) and Bourdieu's (1977; 1990) concept of *habitus*, phenomenological thought (e.g. Husserl 1900; Heidegger 1927a; 1927b; Merleau-Ponty 1945; Berger & Luckmann 1967; Garfinkel 1984) and various post-structuralist semiological works (e.g. Barthes 1967; 1985; Derrida 1976). This disparate body of thought outlines how elements of both agency (individual, material, symbolic, dividual etc) and social knowledge (values, memories etc) incessantly and integrally impact upon each other through momentary realisation: a dialectic which always occurs through the medium of experience (figure 2:1). In this way, people actively constitute themselves and their society through their actions, meaning they negotiate cultural life rather than determine it, or become determined by it.

This interpretive core is implicit in the dwelling approach, which has emerged as a more intimate and relational mode of understanding how people and their environments are dynamically co-joined (Heidegger {1927a} 1962: 79; Levinas 1969; 1978; Relph 1985: 16; Ingold 1993; 2000: 153; Harrison 2007: 627-8). The dwelling approach embraces 'practice', i.e. ways of operating (Bourdieu 1977: 87; de Certeau 1984: xi) or existential skill (Ingold 2000: 162), as the primary or exclusive research focus because emphasis is placed on the practitioner over the observer, and on the thought-act over the process behind it (James 2003: 194). Concurrently, by considering practice as the realisation of the dialectic between agency and structure (Bourdieu 1990: 52), theoreticians combat the criticism that an abandonment of the grand narrative equates to an inability to

understand both long-term changes[33] and broad sociological themes such as kinship or poverty (Barrett 1994: 3). The dwelling approach explicitly addresses both daily and cultural contexts, as well as commonalities and diversity between world-views (Whittle 2003: 1). It also envisages landscape as a dynamic, multi-sensual cultural process which is "constantly oscillating between a 'foreground' of everyday lived emplacement and a 'background' of social potential" (Feld & Basso 1996: 6).

Within archaeology, this perspective has been primarily advanced in prehistoric contexts (e.g. Richards *et al* 2003; Whittle 2003; Whitehouse & Hamilton 2006; Pollard 2006), possibly because what predominantly remains of these lives (architecture and structured deposits) particularly suits experiential analysis. This chapter will critically consider how the dwelling approach can guide us towards a better understanding of Late Neolithic to Early Bronze Age knowledge formation. After an introduction to the historiography of the constitution of world-views through dwelling, I will explore the mechanics of *how* knowledge is created, re-negotiated and abandoned by employing applied examples. This will highlight how individual comprehension can become concessionary[34] group, and even institutionalised knowledge. Variables in this process (e.g. group size, recorded truths) will be briefly discussed as a precursor to chapters 4 and 5. Focusing on knowledgeability, familiarity and normality, I will outline how the relevance, durability and flexibility of analytical characterisations can gain and lose momentum. This elasticity will be related to political agendas, linking with the discussion of legitimisation in chapter 2 (ch2: p28-9). Themes integral to this thesis such as taskscape, performance and engagement will be presented, alongside a general appreciation of the intricate yet messy nature of intra-cultural perception.

Dwelling is knowing

Introduction

To dwell is to be so immersed in taskscape (ch3: p63) that both agent and their world are inescapably and continually re-created through one another (Ingold 2000: 153). This

[33] Although Jenkins (1992: 60-1) has criticised Bourdieu (1977; 1990) for forumulating a limited understanding of history beyond the cumulation of one act after another (ch1: p9)
[34] The 'concession' of knowledge is discussed in depth in chapter 3: p75-7. As in chapter 2: p24, this should be taken to mean an (albeit perhaps momentary) consensus on understanding

follows Heidegger's (1927a) conception of humanity as always inextricably embedded in its constructed worlds (*'dasein'*; or being there). Rather than inhabiting a world to which meaning has already been attached, people perpetually re-constitute life by 'being', or through *dasein*. In Ingold's (2000: 168) words, "meaning is immanent in the relational contexts of people's practical engagement with their lived-in environments". Furthermore, taskscapes and people embedded therein hold significance through their incorporation in regular patterns of life. It is through the repetition in form and context that materialities, architectures, behaviours, identities and knowledge become, and are sustained as, recognisable entities (Ingold 2000: 173). This perspective moves beyond the idea that people culturally exist by configuring life according to dominant ontologies. Instead, it advocates the ongoing constitution of ways of being through daily life, whereby world-views are dialectically, and critically exclusively, bonded to their realisation through practice (Cloke & Jones 2001: 651). Thought and knowledge are actively engaged; they occur through incessant, recursive and inseparable interactions between people, and between people and environments (Ingold 2000: 133; Wylie 2007: 159). In this way there is no mind/matter duality, nor are reflective thought, performance, signification and practical action distinguishable in isolation (Wylie 2007: 161). This is why Ingold's (1993) 'taskscape' is not diametrically opposed to landscape (as the world as it is known to those who dwell therein); tasks are locked with conception, making 'landscape' the congealed form of taskscape (ch3: p72-3) (Ingold 2000: 199).

However, beyond example-bound discourse (e.g. Cloke & Jones 2001; Obrador-Pons 2003), consideration of *how* people specifically conceptualise within these complex matrices has been largely under-investigated in recent years. Perhaps justifiably, few recent social philosophers are willing to detach analysis from context, resulting in little cross-applicable discussion (for an exception, see Harrison 2000). This section will address aspects of past works on culture, perception and cognition which are relevant to my subsequent discussion of the mechanics of knowledge formation and re-formation. Without intending to provide a summary of being-in-the-world, it will provide some background to the tone of chapters 4 and 5.

Daily knowing

Everyday life as emplaced practice has been much addressed both within the dwelling perspective (e.g. Ingold 1993; 2000: 191; Harrison 2000; James 2003), and by various

social theoreticians previously (e.g. Schütz 1932; Lefebvre 1947; Goffman 1959; Simmel 1968; Bourdieu 1977; de Certeau 1984; Garfinkel 1984). Schütz ({1932} 1974: 134-5) first proposed everyday experience as fundamental to understanding societies through his concept 'life-world' (*Lebenswelt*). This term represented both social reality as continually re-constructed, and the actual process behind this re-constitution. The continuous flow of experience drawn from everyday life and the social action of ordinary people facilitates the life-world, which Schütz suggested is structured around pre-conditioned 'commonsense' knowledge (Schütz {1932} 1974: 142-3). Whilst reducing action to 'automatic habits', Schütz (1932) fore-grounded daily life as an inter-subjective, relative, relational and symbolically referential matrix for life. Goffman's (1959: 231) discourse on performance (see ch3: p67-9) also located the human condition, founded on the discursive re-working of malleable (behavioural) knowledge, in and through the day-to-day. He focused on social establishments (any situation where regular practice is communally determined) as nodal points in the negotiation of knowledge through performance (Goffman1959: 231), considering the deployment and manipulation of social etiquette as the fundamental generator of daily life. Both Schütz (1932) and Goffman (1959) focused on the renegotiation of behavioural knowledge through practice as the key progenitor of world-views, somewhat reifying other forms of knowledge from daily life as a result. However, albeit to different effects, they both also emphasised the everyday as the forum for experience at the heart of where intra-social discourse is realised.

The everyday can therefore be thought of as both the context and the medium for ongoing dialogues, and yet its clear definition is resisted by most, if not all of its protagonists (Highmore 2002: 17). Whilst there exists a "dominant understanding of the everyday" (Highmore 2002: 18) which evokes a range of adjectives founded on contemporary western comprehensions of the familiar (e.g. mundane, humble, routine, common and ordinary), the ambiguity of the concept reflects the internal contradiction of the subject matter. Despite its very nature being self-evident and taken-for-granted (Heidegger {1927a} 1962: 79), the body of work dedicated to its elucidation characterises the everyday as conceptually irreducible beyond all non-exceptional practice and experience. However, and as highlighted by my discussion on the social relativity of terms such as known, familiar and normal (ch2: p32-4), no practice is socially characterised in terms of absolutes; 'non-exceptional' is an endowed rather than achieved

characteristic. Spirituality permeates the everyday, and domesticity can be highly ritualistic (Thomas 2001: 175-6). The concept of the 'day' itself is also problematic since it is founded in Neo-Classical, astronomical frameworks where time is structured as linear, successive and therefore socially abstracted (ch2: p48-9) (Gell 1992: 149-55). Ingold's (1993; 2000: 194-8) 'temporality' envisages comprehensions of time as inherently locked to social actors engaging with landscape through tasks (hence 'taskscape'). From this perspective, the every*day* is socially relative and embedded in experience, meaning its cross-applicability as a term is limited. As a result of this vague, somewhat flawed and ethnocentric conceptualisation of the everyday within the humanities, responses to its ambiguities are diverse. All explore the everyday as an inexhaustible, un-systematisable and distinctly extra-disciplinary notion, meaning the manner in which it is employed and discussed varies considerably. Trajectories range from Simmel's (1968) assertion that the general quality of social life can be found by focusing on the incidental (Highmore 2002: 30), to Lefebvre's (1947) critique of daily life as both a setting and tool for the stranglehold of capitalism.

Strategic and tactical knowing

Considering ways of operating within and through one's surroundings was seen as the equivalent of studying culture by de Certeau ({1980} 1984: xvii), and he apologetically approached these through the relations between consumers and the mechanisms of production. In this way, de Certeau (1980) suggested that people and communities constitute themselves through their situated actions and their inter-relatedness. He described how people pursue wandering trajectories obeying their own logic, and following desires and interests that are "neither determined nor captured by the system in which they develop" (de Certeau {1980} 1984: xviii; c.f. Latour 1992[35]). Everyday life is therefore viewed as the socially embedded pursuance of both strategy (as pre-determined, generalised will e.g. political or economic rationale) and tactic (as contextualised will e.g. cooking, cunning, discovery). De Certeau (1980) argued that both practice and *modus operandi* constitute tactics which are so tightly bound to circumscribed community on a daily basis that an abstraction from context renders them meaningless. Strategies are, in contrast, linked to undercurrent 'objective calculations' and are therefore cross-culturally recognisable and sustainable (de Certeau {1980} 1984: xx).

[35] Following the Actor-Network theory partly developed by him, Latour (1992) argued that actions exist entirely in context; all surrounding factors retain and assert agency, meaning actors should only be considered through networks of relations

In a way therefore, de Certeau's (1980) tactics as both practices and ways of operating can be seen within Foucault's (1975) work on socially integral subversive mechanisms. He suggested that the everyday entails "ways of using the products imposed by a dominant economic order" (de Certeau {1980} 1984: xiii) and that this scene of use is constructed by a social system imposed upon people by the past. The creativity involved in tactically engaging with this pre-existing, although dynamic material world is, for de Certeau ({1974} 1997: 49), the underlying character of the everyday (Highmore 2002: 148). The ensuing rearrangements of products, or *bricolage*, subsequently combine individual will and social structures including cultural histories and communal memories. The everyday is therefore a scene of resistance and tension where people struggle with the current social structure.

De Certeau's (1974; 1980) obvious continuation from Lefebvre (1947) in employing post-Marxist overtones has its inherent and well-trodden problems (e.g. Habermas 1979: 98-100). The role of agency is too formulaic and based in the idea that agents necessarily deviate from logic and social norms, re-aligning the latter in the process. Whilst de Certeau (1980) recognised and expanded on ideas such as conscious, unconscious, communal, extra-somatic, partible and inanimate objects' agency, the un-regimented complexity of engagements is lost by his focus on a polemic between strategy and tactic. Most examples employed to demonstrate the everyday as a forum for negotiation adopt the form of direct resistance against the 'system' (Highmore 2002: 160-1). For example, de Certeau ({1980} 1984: 53) suggested that securing one's offspring's marriage is strategic since it navigates structural rules, whereas decisive 'ruses' and 'tricks' in daily practice such as cooking or moving are tactical because they constitute calculated actions (1984: 40). These fairly crude demonstrations of agency detract from the intricacies of day-to-day life for the subjects themselves, who undoubtedly do not conceptualise their thoughts and actions in such an etic and calculative manner (Clifford 1988: 15). The very rationale of strategies and tactics is founded in capitalist notions of gain, and is probably incompatible with much of human existence, including in the present-day, western world. Equally, the complexity of an ever-changing and differentially understood social structure is not entertained, superseded by a suppressive and somewhat extraneous body of rules: "the dominant order established by the strong" (de Certeau {1980} 1984: 40). The depth and intricacies of communication between divergent elements of structure and agency

are ultimately lacking, and there is a general and noticeable omission of the unpredictability of human life.

By concentrating on the ongoing discursive roles which subjects constantly engage with, Goffman (1959) preceded de Certeau (1974; 1980) in portraying daily life as tactical and calculating (albeit in a more implicit and less neo-Marxist tone). The form of performance adopted is based on a sustained definition of the situation the subject faces, and this momentary crystallization of world-view is, for Goffman (1959), equivalent to social structure because it has been generated through reference to morality. By trying to affect the definitions others make of the same situation, performers initiate a subtle contest of wills in which the audience is morally obliged, but by no means forced to accept the role the performer adopts. By rejecting or contesting such roles, audiences flout their moral ties and can challenge the norms and values of society. Similarly, performers can appeal to morality to project themselves and their agendas to the detriment of accepted social procedure. For example, Goffman (1959: 22) described how a skilled restaurant server will assert their authority over their clientele by immediately taking charge of the table, clearing the previous occupant's dishes by asking permission but not waiting for a response (figure 3:1). Goffman (1959: 22) therefore proposed that "in everyday life...first impressions are important" and "getting off on the right foot" is critical. Interestingly, Goffman (1959: 28-9) discussed whether subjects 'believe' their roles or are aware of their 'deception', describing the 'cynical performers' who wittingly pursue gain through the delusion of their audience.

Figure 3:1 Photograph of a waitress 'taking charge' of the table

Goffman's (1959) legacy is therefore the realization that the initial engagement in every interaction employs multilayered discourse between and within social norms, values and obligations, and subjects' performances. However, his strive for a universal if abstract 'framework' for understanding social interaction on a daily basis (Goffman 1959: 232) detracts from the innovativeness of his observations. Despite critiquing himself with the assertion that other societies are "sometimes less earnest about the whole civic drama than we are" (Goffman 1959: 237), he still maintained the cross-applicability of his interpretation of daily life. This misguided reductionism is compounded by his intrinsic functionalism (e.g. he believed that performances supplement technology, politics, culture and strata as a fifth dimension of society; Goffman 1959: 232-3). The intertwinement of the agent and structure is nicely realised by Goffman (1959) but again, the complexity of existence is too neatly compartmentalised. Within his work, every decision is strategic and self/communally-aware (e.g. he talks of "overall team objectives"; Goffman 1959: 141), and every consequence is allocated a degree of significance which denies the intricacies of social discourse including the agency of

material culture, memories, places and times. For example, Goffman (1955: 179) describes how piano accompanists can bring singers back into tune by playing harmonic notes more dominantly, thereby subtly regaining control of the performance, facilitating unity amongst performers and preventing deviance (figure 3:2). Missing in this interpretation are the innumerable more disparate understandings of this scenario. By asserting the piano onto the performance, the pianist may be viewed as (wittingly or unwittingly) seizing this opportunity to promote their or its significance, recall past performances, emulate their predecessor and/or satirise their perceived role. Goffman's (1959: 243-4) work lends itself to such deeper discursive appreciations of social life, but he neither achieved nor recognised it himself (e.g. giving ultimate primacy to the "basic dialectic" between performers and morality).

Figure 3:2 Photograph of a piano accompanist interacting with the performer

However more fundamentally for the topic of daily life, Goffman (1959), de Certeau (1980) and many of its other protagonists (e.g. Lefebvre 1947, Garfinkel 1984) failed to recognise that far from representing manifestations of structure and agency, the moral values and interpersonal relations which permeate daily life, constitute daily life (Overing & Passes 2000: 7). For the subject, far from being a negotiation of rules, daily life is evocative, emotional, immediate and often unpredictable. The value of over-arching social paradigms and universally identifiable tactics is therefore questionable to practitioners who engage in reactive and interactive lives. Why and how people intentionally or subconsciously assert, perpetuate or challenge social structures at any one time and place is entirely context-specific (Overing & Passes 2000: 2). Existence is not easily systematised from a perceptual perspective; from an actor's understanding it is

messy, unpredictable, multi-layered, often immediate and adaptable rather than strategised (Brück 2001: 663). Reasoning behind action is always socially relative, meaning that whatever framework a social commentator works through to unravel the social discourse behind practice is unlikely to hold much insight into lives as they are lived. The knowledge of process itself is formulated through the observer's personally implicit ideas of what is important and what can be discerned, but this is arguably irrelevant to anyone but the theorist and misses the reality of living. I argue instead that people's understanding of their worlds through being is far more interesting and obtainable (ch1: p5-7). Crucially, it is the world as lived which should colour social commentary, and this has been acknowledged in more recently published anthropologies (Overing & Passes 2000: 12).

Knowing performers

Performances, as reciprocal and reflexive acts within social structures, have therefore often been fore-grounded by social analysts (e.g. Singer 1972; Schechner 1977; Turner 1982; 1987; Carlson 1996). Like approaches to daily life, these vary considerably based on differential understandings of what 'performance' entails. Singer (1972: 71) defined performances as overt dramas (e.g. plays, lectures) as well as religious or ritualised ceremonies which are also overly staged (e.g. prayers, festivals). However Turner (1987: 75) considered transformative performances (rituals) to be "a complex sequence of symbolic acts", conscious or otherwise, whilst Schechner (1977) and Goffman (1959); as mentioned above (ch3: p67-9); both viewed them as intended standardised units of action which could be secular or sacred.

Turner (1987) cited his concept of performance, rather than daily life, as the forum for social negotiation. He argued that world-views, as values, beliefs and language, are continually re-formulated through practice (as a series of associated performances). Daily life is therefore constituted by, rather than the focus of, the performances which permeate it (be they direct or indirect engagements). Social actors have an actively malleable understanding of social knowledge and play out, with varying levels of care, their support, submission, conformity, endurance and resistance to it through their adopted roles in daily life. Turner (1987: 24; 74-7) described how all performances incur rearrangements of social reality and therefore discursively, social knowledge[36], but asserts

[36] See further into this paragraph for this description

that dramas (breaches of 'normal' relations followed by a widening of the breach, 'redressive' action and reintegration) embrace a readjustment of the entire social schema (e.g. rites of passage, arguments, combats). The structure, or rules of the performance, equates to knowledge of social etiquette and the history of its application, and is itself transformative. This perspective considers all of social reality as entirely performative and therefore views knowledge of the world as recursively locked to reality via agent interaction. For example, linguistic 'slips of tongue', mispronunciations and slang are all examples of performance phenomena which, intentionally or otherwise, may generate new options, realities and ultimately, knowledge (Turner 1987: 77). As mentioned above, Turner (1987: 83) subscribed to the Freudian notion that human personality takes on various inter-related dimensions (e.g. ego, superego, id) involving unconscious, preconscious and conscious levels of awareness. The generation and regeneration of knowledge, even on an interactive basis, are therefore far more complex than a progressive series of challenges to the norm, endlessly persevering towards a harmonious goal. Knowledge reconstitution derives more from a social reality of perpetual variability, transience, indeterminacy, manipulability and ambiguity, with arenas of both continuous competition and improvisation, as well as others of stagnation and contradiction (Moore 1978: 39-41). It proceeds in a context of social customs and etiquettes which, due to their own transformability, renders order a nonsensical chimera.

Giddens' (1984: 26) structuration theory discussed the knowledge of actors as integral to the patterning of social life, and provides the discursive mechanism for understanding its formation. Giddens (1984) pointed out that knowledge regeneration combats both functionalism's and structuralism's suppression of agents' reasoning by considering their action as derived from extraneous factors, and also addresses idealists' reduction of social structures as a secondary consequence of human life. He concurred with work on performance theory in stating that social structures have no existence independent of the knowledge that actors have about what they do in their everyday lives. Forms of knowledge such as norms, rules, world-views, languages and meanings therefore only transpire through their interrelatedness with reality. For example, the belief that you are knowledgeable about something (e.g. "I know winter is known about") therefore requires *repeated manifestation* to subsist as knowledge. Giddens (1984: 29) explained how actors not only monitor their own activities and those of others, but also monitor that monitoring via structuration. He set interpretive schemes (as modes of typification within

knowledge) recursively between signification (as an element of social structure) and communication (as an element of interaction). Therefore communication is meaningful by delving inside prearranged knowledge stocks, which are themselves reflexive to the process. Communicative intent and the constitution of the meaning via signification systems exist in duality, and are not mutually exclusive. For example, an actor might express an interpretation of a recent event, their audience then referencing this with their own formulated version of the event, itself the transient product of discourse. The original opinion then takes on intended and unintended meanings, themselves discursively linked and therefore enabling further analytical discourse between agents.

Giddens (1984) built legitimation and domination into this model, the latter being the less subtle form of two ways in which signification can be deliberately skewed. He drew from Habermas' (1970) criticism of Gadamer's (1960) semiotic approach for failing to demonstrate the influence of differentials of power on meaning. Giddens (1984) argued that domination (as another element of structure) exists in discourse with power (as another element of interaction) via knowledgeable facilities such as knowing how/whether to mobilise resources or wield command. This dialectic does not distort communication but is integral to it since both domination and power are inherent, although not pre-given, in all human action (Giddens 1984: 31-2). Similarly, legitimation (as yet another element of structure) exists in discourse with sanction (as an element of interaction) via norms (as a formation of knowledge). Norms legitimate sanctions and vice versa. Throughout social reality therefore, knowledge structures exist between action and meaning, being constantly referenced and realigned through encounters with varying degrees of intentionality.

Knowledge, however, is not inherently consensual in nature no matter how transitory its existence. It can be disputed within communities, groups or even individuals throughout and after its concession[37].

Knowing as taskscape?

Such approaches to social existence all maintain a differentiation between performances and daily life, with one, the other or both highlighted as arenas for the manifestation of social reality. Returning to Ingold ({1993} 2000: 194-5), taskscape is the embodiment of

[37] See chapter 3: p75-7

both practice and daily life, meaning the dwelling perspective envisages the absolute merger of these two constructs. Through engagement, practice, its linkage to perception, and temporality become fundamentally and recursively linked to place (Heidegger 1977: 332; Ingold 1993: 208). Within this perspective, landscape is conceived as a network of related places which have come into fruition through the habitual activities and interactions which form the basis of all social negotiation (Thomas 2001: 173). The lived body is seen as integrated with its immediate environment and people therefore live in places through perception, whilst places live in people through their own 'operative intentionality': their response to the perceiving subject (Merleau-Ponty 1962: 208). The inseparability of thought from action from place is emphasised because life is relational and embedded. We are immersed in our worlds through complex webs of interaction whereby meaning is always derived from relationships between and within landscapes, places, emotion, dwelling, practical activity and movement.

This perspective has been developed and applied within prehistoric research (Thomas 2001; Whittle 2003). In particular, the characterisation of thought, action and place as inherently and indistinguishably synthesised has led to a number of interesting works on landscapes as 'dwelt-in' (e.g. Richards *et al* 2003). Landscapes are differentiated from taskscapes; rather than comprising a panorama of meaningful space, the world is viewed as networks of places fused with people's motions and relations (Ingold 1993; 2000: 198-9). Everyday practical activity as embodied experience exists through the world and vice versa, meaning that taskscapes occur only through engagement and not as externalised, inert constructs. By engaging with the world through the tumultuousness of daily existence, you gain a "habitual and inconspicuous" intimacy (Thomas 2001: 173) with the interlocked networks of places inhabited. Through regular embodied activity and emplaced relationships, networks of places co-joined by routine enter perception as habituated landscapes, i.e. 'home' (Thomas 2001: 173; Highmore 2002: 1).

The inter-linkage of sociality within the lived landscape is critical to the embodied experience, and many works which embrace the dwelling approach specifically investigate identity as continually reconstituted by emplaced referential acts. As Bender (1993: 3) asserted, as landscapes are re-worked in daily life, identities are created and disputed through the fabric of taskscape. For example, Tilley *et al*'s (2000) work on the clitter of the Dartmoor hills emphasised this interconnectivity of person with place by considering how identities and world views are constantly recapitulated through practice

(figure 3:3). They described how social worlds coexist with the stones that punctuate the hillsides, which themselves "anchor an experience of place" (Tilley *et al* 2000: 140). The practice of moving stones, creating patterned formations, revealed the cosmic order inherent within the clitter (Tilley *et al* 2000: 141) and in doing so, people's *modus operandi* was materialised and discursively forged with their surroundings.

Figure 3:3 Photograph of a glacial boulder, Leskernick Hill, Dartmoor, Devon. During the Bronze Age, a small ring of stones was placed adjacently (foreground) (*from* Tilley 2000: 216)

Summary

'Being in the world' therefore involves 'getting along' without too much confusion; making sense of things without having to think too much because our dwelling naturalises our world (Heidegger {1927a} 1962: 79). Heidegger (1927a) first conceived the concept of dwelling around a figure 'being-at-home-in the world', and this has been increasingly fore-grounded in recent conceptions of social life. So-called phenomenological accounts in particular have emphasised how life can only be understood through living; nothing is extraneous to the human condition (e.g. politics, geomorphology, sex) because everything is constructed, or is meaningful, through it (Merleau-Ponty 1945; Tilley 2004: 2). Whilst taskscapes constitute the first conceptual entity to enmesh performance, materiality and daily life, Giddens' (1984) work highlights how the recursive construction of knowledge rather than renegotiation of social 'rules' is central in the perpetuation of existence. Such realisations have enabled movement beyond abstracted foci as the nexuses of social existence and therefore progenitors of knowledge. Practice, the everyday, roles, strategy and tactics, legitimation and

domination, materiality, the body, landscape and taskscape are all forged into an indivisible whole of being-in-the-world. Through engagements, understandings of the world are constantly re-created in a mess of witting, unwitting, disparate and shared trajectories. How some of these comprehensions become communally consistent, widely established, durable and ultimately debunked will now be discussed.

The mechanics of knowing through being

Introduction

Since knowledge formation is inherently bonded to dwelling as the crucible of practice, daily life, taskscape and so on, how people understand specific entities and circumstances (e.g. material forms, identities) will always be founded in being. People know what they know because their interactive constitution of reality has, most recently, resolved this as the case. Rather than overtly governing this process, agents negotiate innumerable strands of consciously, pre-consciously and subconsciously flavoured discursive references to contemporary, pulsating and perpetually re-configuring knowledges (Van Dyke 2009: 221-22). The complexity of this process is immeasurable and barely comprehensible. The nature of each and every perception within a spiralling dialectical mass of shared and individual knowledge is clearly impossible to predict, which is partly why humans cannot be systematised (Merleau-Ponty 1945). Critically, each momentary resolution is generated through experience (figure 2:1); by engaging you simultaneously concede and communicate your comprehensions of life (Tilley 2004: 3; 10).

In this second part of chapter 3, I will critically explore *how* certain comprehensions have been created ('conceded'), contested, re-negotiated ('re-conceded') and abandoned ('forgotten') using ethnographic examples. Highlighting how individual understandings can become group knowledge, and even institutionalised fact, the extent to which truths are closed or open to re-negotiation (ch2: p31-4) will be further developed. Focusing on analytical knowledge, I will consider how the significance of characterisations can gain and lose momentum in world-views. Several variables dialectically influencing knowledge concession (e.g. group size, recorded truths, changing taskscape, changing practice) will then be briefly discussed as a precursor to chapters 4 and 5.

Towards knowing

Conceding an understanding of any entity, be it a confrontation with another person, a recently acquired tool or a witnessed eclipse, incurs engagement (ch3: p79-80). This engagement can take the form of un-communicated introspections, or it can be a performed debate (i.e. through the body using verbal and non-verbal signifiers) (Berger & Luckmann 1967). The difference between the two will be discussed shortly. All such engagements reflexively process pre-existing knowledge (memories) to generate meaning (Mischel 1979: 741): a conscious, pre-conscious and subconscious exercise which, as mentioned in chapter 2 (ch2: p28), can be simultaneously directionless and pointed. For a conceded knowledge to persist beyond the moment, it requires constant and inevitably discursive reference in the interactive constitution of daily life (Lyotard 1979). This ongoing mass of dialectical engagements therefore constantly re-concedes knowledge, meaning most understandings shift rapidly and are forgotten in their previous forms. For understandings to subsist in the same form long enough to be noted as knowledge, discursive engagements must occur with other examples of non-contradictory knowledge (Lyotard 1979: 4-5). The resultant recursive bonds which are generated strengthen all composite knowledge until a body of hard-to-question truth emerges (of which a cognitive paradigm is the extreme example).

To return to the earlier point about individual and communal knowledge, conceding knowledge does not necessarily always involve interaction with other agencies. Knowledge can be formed/re-formed from an introspective concession, especially if entities are encountered when agents are in isolation (Mischel 1979: 741-3). Whilst the generation of knowledge always engages with pre-existing knowledge which, as interlinked and therefore more substantial truths, are far more likely to have been communicated in part, momentary concessions can be introverted and not immediately (or ever if rapidly forgotten) expressed. In contrast, durable knowledge, even with differential meaning associated, is increasingly likely to be communicated (again verbally or otherwise) and indeed has to be for it to persist beyond a lifetime (Harré 1981: 212). Once expressed (intentionally or otherwise), perhaps as an articulated opinion, a raised eyebrow or through a material form, knowledge can be contested. This can range from a direct challenge to a shift un-noted by all engaging agencies. Critically, such engagements generate various degrees, trajectories and linkages of intended, unintended and intentionally irrelevant meanings (Giddens 1984: 29). Knowledge concession and re-

concession therefore depends on much more than political intent, but conversely, intentional manipulation is inevitable and inherent (Giddens 1984: 31-2; Van Dyke 2009: 221-22). However, as mentioned above, if knowledge is repeatedly expressed consensually between agents, meaning it has become bonded to other certain communal truths, it becomes increasingly hard to contest in lieu of a total paradigmatic shift (Lyotard 1979: 65). Such truths can, if widespread, consistent and particularly long-lived, become institutional facts, meaning they are *actually* almost entirely closed to re-negotiation (ch2: p31-4) and are completely socially accepted (e.g. capitalism would have to be abandoned before 'thou shalt not steal' could become 'wrong' in contemporary western society). In spite of this, the vast majority of durable (i.e. not soon-forgotten) communal knowledge does not become too entrenched or too widespread. Agents socially co-exist with mainly disparate knowledge, or understandings of that knowledge, and very little overlap (figure 3:4) (Harré 1981: 216). The degree of similarity between agents' knowledges may relate to cultural or ethnic affiliations (ch6: p306-8).

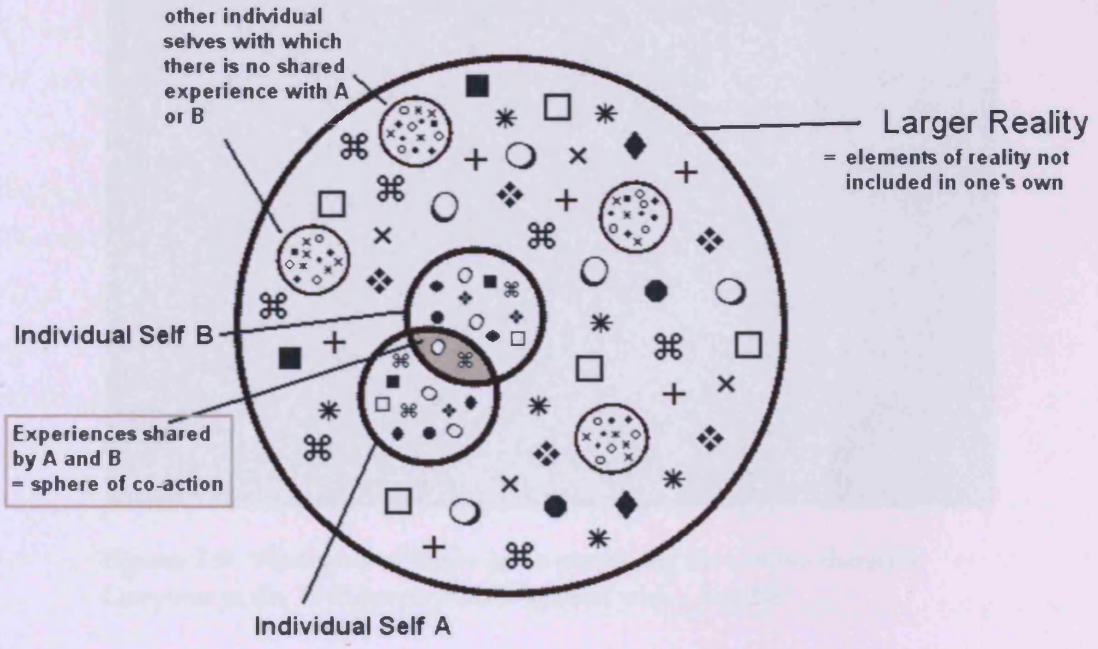


Figure 3:4 Depiction of how individuals' knowledge exists in larger realities and in partial association with others'. Each small symbol represents a different conceded truth

McCarthyist knowing

The existence of zombies in contemporary Impalahoek, Bushbuckridge in the South African lowveld, can be used to illustrate points raised so far and knowledge concession

as a whole (figure 3:5). A vast number of witchcraft accusations are currently known by the villagers, and the overall topic of zombies punctuates daily discourse (Niehaus 2005: 193-5). Some of this knowledge is held individually, whilst other elements are more communally shared. Of the latter, some comprehensions are consistent between villagers and kin, whilst others are more disparately understood (Niehaus 2005: 196). All agree that zombies are omnipresent but invisible, and that witches perform zombie transformations at night and can induce amnesia in witnesses (Niehaus 2005: 203). One tale, repeated in the 1990s by several villagers independently, described how an old farm labourer under threat of redundancy had weeded an entire farm in one night by deploying an army of a hundred zombies (Niehaus 2005: 197). Dwelling in Impalahoek incurs the constant renegotiation of such definitions and accounts.

Figure 3:5 Photograh of Darby Jones portraying the zombie character Carrefour in the 1943 horror film 'I Walked with a Zombie'

Any circumstance, materiality and so on encountered in daily life will be related to this body of knowledge if it can be/is associated with any of the more durable truths about zombies. For example, when Victor Maboyi died in a road traffic accident, his uncle believed he had actually been turned into a zombie because the body was not bruised and had not undergone rigor mortis (Niehaus 2005: 203). Here, comprehensions of witches as operators of misfortune, and of victims of zombie magic displaying 'abnormal' post-

mortem characteristics, were reflexively associated with the death to generate understanding. This engagement may have initially been introspective, and it may have been directed with some intentionality since the deceased's family could gain social recognition and economic protection as victims of witchcraft (Niehaus 2005: 207). The accusation, as knowledge, was soon communicated and thereafter discursively re-conceded with other agents through their own knowledge formation processes. Such re-concessions dialectically drew from other overlapping but ultimately unique world-views, themselves derived from differential dwelt-in-lives. The accusation was then verbalised in the form detailed above to the anthropologist Isak Niehaus (2005: 203). It has durability as truth because it has been repeatedly re-conceded in daily life, and because it was rapidly bonded to closed knowledge such as core definitions of zombie victims and the nature of zombie witchcraft. For the accusation to be successfully contested and subsequently forgotten, the entire body of zombie-related knowledge would have to shift.

Towards knowing through being

The centrality of dwelling in this process has so far been under-emphasised to enable a concise description of knowledge formation processes. However, by using the term 'engagement' I have referred to the manner in which concessions and re-concessions are founded in being-in-the-world (ch3: p76-7). Perception, as synesthetic and kinaesthetic engagement, cannot be considered a medium for conveying neutral sensory data (Kant {1787} 1950: B1) because sensing is not an abstracted or universal phenomenon (Heidegger 1927a; Merleau-Ponty 1945; Husserl {1900-20} 1973; Bourdieu 1977; Geertz 1983: 12; Casey 1996: 18; Thomas 2004a: 200). It is not enough to suggest that the mind renders sensory information compatible with cultural world-views, translating it into expressible representations (Durkheim {1915} 1976: 433-4; Leach 1964: 34), because perception is always primarily emplaced and embodied (Merleau-Ponty {1945} 1996: 206). Perception therefore occurs through 'being' and it is perception as practice which determines how and what you comprehend. Perception is simultaneously constituted by, and constitutive of the discursive streams of agency and cultural knowledge which pervade social existence, and these moments are embedded in dwelling (Casey 1996: 19). People from different backgrounds therefore perceive differently not because they are applying alternate cultural schemata, but because "due to their previous bodily training, their senses are differentially attuned to the environment" (Ingold 2000: 162). However,

perception also employs a pre-given sense of what being is all about derived precisely from the very taskscape inhabited (i.e. Merleau-Ponty's 'depth'; 1945). This means that the perceiver is already emplaced as well as actively informed when they sense. Taskscapes are not added to knowledge, because knowing is integral to being (Casey 1996: 18).

Toren's (1996) work on Fijian villagers' daily lives (figure 3:6) provides an example of an approach which has conceived of knowledge formation as inextricably bound to taskscape. In the Fijian villagers' mindsets, all places in Fiji are known to be bound to certain people, both living and dead, even if the details of this knowledge are unclear or guarded (Toren 1996: 171). It is common for people to routinely utter seemingly banal commentary on ordinary place-events throughout their day (e.g. "Here come the women from fishing" or "Here is the school"). These statements communicate knowledge about those circumstances, places and people, asserting one understanding and enabling contestation to occur. Toren (1996: 164) described how the idea of people being rooted in their place of birth is so strong that people become material manifestations of their homeland. The linguistic term *'vanua'* serves as a prefix for a country, region or confederation of villages, but this compound (e.g. *'vanua ko Sawaieke',* the eight villages of Sawaieke) can also be interchangeable as a term for the people who occupy Sawaieke, a subset of these people, a certain place within it or a point on a local person's body (Toren 1996: 164). Fijian villagers do not just identify with their natal place, they literally consider themselves a part of it, and this is also perpetuated by the emphasis of recycling in their customs and stories. The dead are returned to be buried in their place of birth, umbilical cords are buried with trees planted over them and in pre-colonial times, taboos about fishing and foraging rights were observed in a reversal of the usual consumption of the land (Toren 1996: 170). Subsequently, their perception of their world is attuned to this indivisibility and reciprocity with the land; smelling, touching, seeing and hearing as acts of consuming the land explicitly permeate experience and all subsequent comprehensions of it (Toren 1996: 176). The everyday is therefore sedimented in taskscape, and knowledge formation as practice is dialectically tied to experience through the utterances, narratives, skills and customs of its people.

Figure 3:6 Photograph of women gathered for a chat whilst washing clothes in Malevu village, Fiji

Becoming knowledgeable

Knowledgeability (ch2: p34-44) (like familiarity and normality) slots neatly into my presentation of knowing through being since it is a conceded knowledge which requires constant discursive reference in the constitution of daily life to subsist beyond the momentary. Knowing you do or do not know about something therefore needs to be conceded (and constantly re-conceded) through practice to become durable. The formation of the awareness of the knowledgeability of something parallels the re-formation of knowledge about that something; at the same time as understandings *of* that entity are conceded, an acknowledgement of the process by which agents achieved these meanings is formed. Therefore, knowing that an entity is unknown incurs the concession of numerous knowledges: definitions of the unknown and the entity itself, the 'fact' that the two are linked and critically, the awareness of this linkage. It is this latter truth, rather than socially relative definitions of the unknown, which constitutes analytical knowledge (ch2: p29-31), since it requires an awareness of knowledge formation processes (hence "The unknown means x"; "The entity means x"; "The entity is unknown" versus "*I know* that the entity is unknown"). There is no awareness of the process during the formation of subject knowledge.

Each daily interaction with the lived-in world is therefore discursively bonded with a matrix of ever-changing knowledges. Occasionally during this process of perception, subject knowledge becomes linked with the knowledge that it is, to a certain extent, known about. The meaning of this subject knowledge therefore becomes dialectically linked to the meaning of whichever increment of knowledgeability it has become characterised as. For this 'truth' to exist beyond the moment, this bond has to be constantly re-conceded within psyches. Indeed, the durability of this subject knowledge becomes inter-linked with the analytical knowledge it is bonded to. So, if entity x becomes known as extremely unknown (which is closed as polemic analytical knowledge; ch2: p31-2), understandings of entity x will also be (thought of as) extremely closed. Similarly, if the meaning of the concept of knowledgeability shifts, so understandings of entity x will change. The more often this body of knowledge is engaged with, the more likely it is to become widespread, long-lived and consistent between agents (ch3: p76-7). These ideas will now be explored in relation to known and unknown entities within Muang cosmology.

Knowledgeability amongst the Muang

The Muang live in North Thailand as the northern-most member of the cultural and linguistic group known as the Tai. Muang cosmology draws from a number of sources, including Indian and archaic traditions, aboriginal Mon-Khmer lore and Theravada Buddhism. It forms a large, heterogeneous and often contradictory body of knowledges about the way in which the world works. Davis (1984: 73) argued that Muang cosmology has retained prominence in modern times because its disharmonious nature provides a spectrum of frequently conflicting theories of causality which can be selectively chosen. He suggested that the prevailing order-lessness of the universe is appealing because it out-sources responsibility for people's welfare: its uncontrollability therefore providing an inexhaustible supply of explanations for daily events. Whether or not this interpretation is a little deterministic, it is interesting in terms of the reformulation and reclassification of knowledge through practice. Muang cosmology draws from a number of Theravada Buddhist literatures and recitable texts (Davis 1984: 73). One such text, entitled 'The Three Worlds' (*Thainyaphuum*) outlines the existence of trillions of universes, each of which is set-out around a central giant mountain named Sineru and bounded by a great Wall of the Universe. The deity Inda lives at the summit of Mount Sineru encircled by seven annular mountain chains called the *Sattabhanda* (figure 3:7). Between each of

these chains is an ocean, and between the last *Sattabhanda* and the Wall of the Universe extends a final vast ocean, containing four giant continents and their satellite islands due south, north, east and west from Mount Sineru.

Figure 3:7 Representation of Inda on Mount Sineru, surrounded by oceans and *Sattabhanda*

Three of these continents are inhabited by righteous and blissful peoples but the fourth, to the south of Mount Sineru and named Jambu, is occupied by selfish people with low morals (Davis 1984: 74). Including the Muang, a hundred cultures are thought to occupy this continent, and they are conceived on a sliding scale of how 'known' each is. For example, the nearest neighbours (some only identified by name due to geographical proximity, others more deeply understood due to historical contacts) are all considered to be known about (e.g. the Burmese, Siamese, Vietnamese). Their characterisation as 'the known' is not pre-determined due to the frequency or magnitude of interactions with these more local peoples (ch2: p32). Some are in fact still considered known despite a lack of detail about them or contact with them. Key is that they are considered cosmologically close and therefore extremely well known about; a social fact which is

henceforward well understood and closed (ch2: p31). Subject knowledge of these peoples has been formed alongside an analytical (i.e. noted) bond with the known (ch3: p83).

Peoples determined as more distant are thought of as unknown, despite in some instances a great deal of subject knowledge having been formed about them. For example, Europeans may be from more distant lands but are increasingly present as travellers in Northern Thailand. They are considered "exceedingly tall, hairy and evil-smelling..., given to prolonged education and the accumulation of riches. Their women, although large and somewhat bulbous, are extraordinarily beautiful" (Davis 1984: 75). Again, irrespective of the detail of available subject knowledge, Europeans have been conceded as unknown and therefore also well understood. The location of Europe is cosmologically unclear; they are considered inhabitants of 'the outside Muang'. Some Muang believe this to be within Jambu, whilst others say it is another continent altogether. At the point of analytical knowledge determination therefore, subject knowledge about Europeans was classified as closed (ch3: p83-4). Again, this determination bears no definitive connection with the intensity of interactions with Europeans, instead stemming from the dialectical resolution of Europe as a distant, non-Muang place.

Although these processes of analytical knowledge constitution are ongoing and recursive, it is relevant that the knowledge has been textually recorded since these classifications are therefore less likely to be incessantly re-defined through practice[38]. 'The Three Worlds' (figure 3:8) records the dialectic as it was resolved by its author/s at the time of writing, but its use for recital situates the negotiated meaning firmly in the moment. The classification of Europe as categorically 'unknown' can therefore be inferred from the text, but the exact nature and extent of this analytical knowledge must be constantly negotiated. Agents incessantly inter-relate with, and instantly re-configure, bodies of pre-existing knowledge, thereby generating various degrees, trajectories and linkages of intended, unintended and intentionally irrelevant meanings. From this arise constantly re-aligning understandings of the nature of Europeans as unknown. Through practice (as conversations, unspoken communication and actions), the disposition of this knowledge becomes a momentarily determined reality. Furthermore, through this determination, innumerable implications are generated for other constantly re-aligning knowledge

[38] The agency of text as a variable in knowledge concession is discussed further in chapter 3: p88-9

including the nature of what is known, and what 'knowing' about something entails. In application therefore, the resolution of subject and analytical knowledge is extremely complex and entirely dependent on the agency and cultural knowledges inextricably engaged in ongoing practice (figure 2:1).

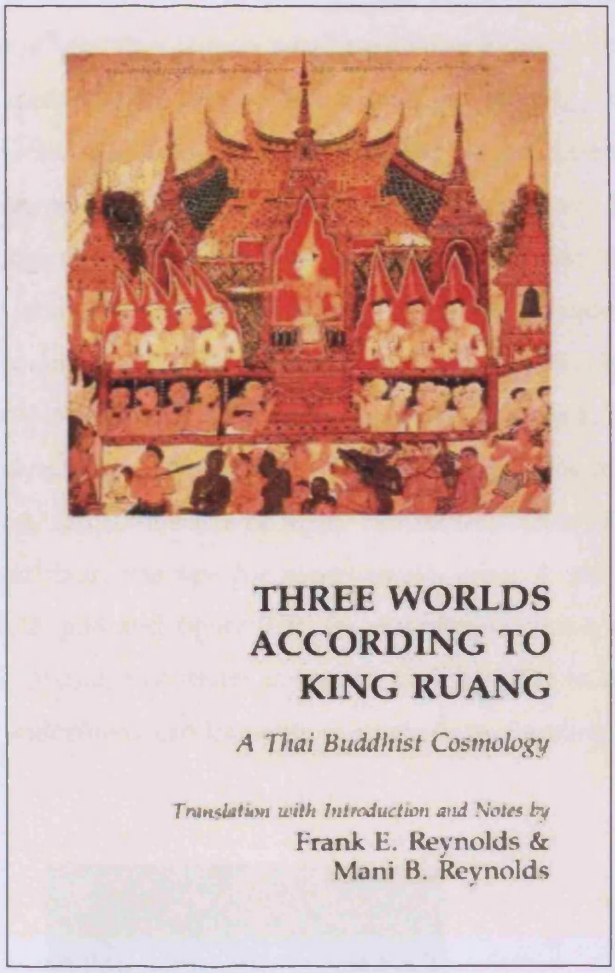


Figure 3:8 Front cover of a recent translation of 'The Three Worlds' (*from* Reynolds & Reynolds 1982)

Gnau knowing

Returning to a point raised earlier (ch3: p76-7), bodies of knowledge can sometimes be largely intentionally re-conceded by agents. The Gnau people of the West Sepik Province of Papua New Guinea consider illness an affliction of bad luck or misfortune, always with a traceable cause (Lewis 1995: 171). When someone is struck down ill, Gnau medicine men (figure 3:9) will consider a number of questions which incorporate two opposed spheres of knowledge: the internal elements of that person including their strengths and vulnerabilities, and the external fields of place, powers and activities. These

questions always incur the 'reconstruction' of the case history of the patient, and therefore the retrospective utilisation and re-working of knowledge of the past. Food is often drawn into this complex interplay, and can be re-classified as safe (with known effects) or dangerous (with neither known nor unknown; i.e. liminal effects) to the sick person, according to the situation preceding their infirmity (Lewis 1995: 172). The ensuing dietary taboos[39] for that person serve to reinforce this identification. However, whichever status is applied at the time of illness is entirely open to future reclassification. A case in point: a Gnau man told the anthropologist Gilbert Lewis (1995: 173-4) that mushrooms were dangerous to him because they made him vomit, but later stated that he was considering trying a little to see if he could do so without harm. Whilst specific foods are therefore classified as liminal entities for specific people's well-beings, their status is constantly under re-negotiation in relation to a plethora of other knowledges concerning how that person and their lives are currently construed. The man was willing and able to effectively challenge the liminal effects of mushrooms on his karma through his structurally-bound, recursive sense of logic. The liminal status of mushrooms meant that knowledge about them was ripe for renegotiation (since it was both open and not well understood; ch 2: p38 and figure 2:5). Its association with a taboo (typically less open to change; ch2: p55) demonstrates my earlier assertion that in actuality, exactly how a tabooed entity is understood can be easily re-worked; its meaning is only *outwardly* set (ch2: p55-6).

Figure 3:9 Photograph of a Gnau medicine man

[39] This linkage between liminality and taboos supports my earlier discussion (ch2: p54-5)

Knowing as an unstable concern

One issue so far left un-discussed is how the significance and relevance of specific knowledges, especially descriptive forms, can both gain and lose momentum in world-views. In terms of analytical knowledge, certain characterisations can become conceptually expansive and more widely engaged with at certain times and places, and conversely, rapidly retreat into insignificance. For example, Paine (1995) has described how, during the fifteenth to seventeenth century AD, European Catholic world-views were dominated by the characterisation of the known. Discoveries made during trans-oceanic voyages were rapidly perceived as known through direct reference to a tight canon of theological and classical texts (Pagden 1993: 12; 52; Paine 1995: 48) (figure 3:10). This understanding was so frequently conceived and communicated, and so tightly bonded to Catholic logic, that the meaning of the known was entirely closed and completely uniform. When 'experience' (i.e. differential understandings) contradicted the chosen corpus of biblical and Greco-Roman texts (or, more specifically, the conceded understanding of these texts), the former was obscured or denied (Pagden 1993: 53). This preoccupation with knowledgeability occurred because the legibility of the external world and all human life (*secundum scriptura*) was essential to, and therefore legitimised, widespread literal belief in creationism. The concept of the known had been bonded to Catholic understandings of the word of God, and its durability, popularity and relevance must have been linked with fervent theological discourse at this time of religious unrest (typified by the contemporary Spanish Inquisition) (MacCulloch 2003). As people subscribed more heavily to the notion of transparent godliness, the known became a common medium for perceiving life in an overtly Catholic guise. Following the demise of both the early explorers and the necessity for demonstrating all-pervading religious devotion, the known became less relevant as a characterisation. Occasionally rather than incessantly bonded to understandings of the Book of Genesis, preoccupations with the classification of life as known diminished in the Catholic world.

Figure 3:10 Portrayal of Columbus discovering America, painted by Jan van der Straet in the late sixteenth century AD. Note the centrality of the crucifix and the numerous depictions of 'unknown' creatures

Characterisations therefore gain and lose momentum as significant, durable and uniform concerns through their inter-relatedness with other bodies of knowledge. Because truths have to be constantly re-conceded to persist beyond the moment (ch3: p76), and be bonded to other truths to become consistent and long-lived, they are always susceptible to being undermined. A single re-concession can shift entire paradigms in its implications, although it is far more common for changes to have slight rather than catastrophic effects. The fluctuation of knowledge popularity will be further explored in relation to Late Neolithic to Early Bronze Age knowledge formation in chapters 4 and 5.

Variables in knowledge concession

One final point already alluded to in the discussion of the Muang text 'The Three Worlds' (ch3: p84-5), is the engagement of 'non-individual nor group based' agency in exact configurations of conceded knowledge. Whilst re-emphasising the absolute integrity of knowledge formation processes with taskscape (ch3: p79-80), extra-somatic

variables can have a notable effect on how life is understood. Factors such as group size (ch4: p131-2; ch5: p209), intra-group perceptibility (ch4: p125-32), recorded knowledge (ch3: p82-5), changing taskscape (chapter 4) and practice (chapter 5) can all recursively affect ongoing re-negotiations of truths. For example, comprehensions of a noticeably warmer climate could become increasingly influential if crops fail from drought. These variables are clearly only existential and meaningful through cognition (Tilley 2004; Ingold 2007: 13-5), and therefore do not retain their own, isolatable animism (Ingold 2007: 11-2). However, their presence beyond the intentional or unintentional will of embodied humans extends agency within knowledge concession to a truly taskscape-bound domain. The engagement of such variables within knowledge formation processes will be explored in application in chapters 4 and 5.

Conclusion

This chapter has outlined the entirely embedded nature of knowledge formation, focusing specifically on how analytical characterisations such as knowledgeability are endowed through being-in-the-world. Working alongside philosophical works which have developed, refined and challenged concepts of daily life, performance and taskscape (ch3: p62-75), I explored specifically *how* knowledge is constantly re-created. Highlighting engagement as the discursive interface for all conceded truths, I described how meaning is ascribed and re-ascribed to every momentary encounter (ch3: p75-82). The simultaneously witting and unwitting, directed and directionless trajectories of these concessions were emphasised, hinting at the un-systematisable nature of the process (ch3: p75). I also discussed how knowledge must be perpetually re-conceded in the same form to become recognisable fact, and how the sustainability of truths is linked to their relationships with other knowledges (ch3: p76-7). Moving on to the communicated versus introspective nature of engagements, I explored how the consistency and longevity of knowledge also relate to the extent to which it is shared, occasionally leading to the establishment of institutional facts (ch3: p76-9).

The constant re-concession of knowledge combined with the existence of un-communicated knowledge provides some explanation of why agents' world-views overlap rather than match others' (figure 3:4). This is compounded by the absolute

ingratiation of perception within taskscape; as agents dwell differentially they perceive and therefore know differently, although greater affiliation occurs through greater association. The generation of knowledgeability knowledge alongside subject knowledge was addressed (ch3: p81-2), linking to ideas of closed and open forms developed in chapter 2 (ch2: p31-4). Finally, I introduced knowledge as both depreciating and mounting in popularity (ch3: p87-8), as well as suggesting that non-group nor individual-based agency can recursively affect the trajectory of social facts (ch3: p88-9). This discussion will have prepared the reader for my subsequent interpretations of specific Late Neolithic to Early Bronze Age taskscapes and practices in chapters 4 and 5. Emphasising the complexity and messiness of the means of knowing (ch3: p75-7), I have also illustrated how certain ideas and themes can still be drawn out of ethnographic, sociological and archaeological examples.

4. Characterising Taskscapes: Understanding places in the Late Neolithic to Early Bronze Age of the north-western Clun Hills

Introduction

The prehistoric archaeology of the north-western Clun Hills in central-east Powys and south-west Shropshire has been extensively surveyed, excavated and discussed in recent decades. Carving through the region, the Camlad/Severn confluence valleys (Britnell 1982; Gibson 1994) became foci for third millennium cal BC activity, with densities of Late Neolithic material culture and Terminal Neolithic[40] to Early Bronze Age funerary monumentality far surmounting that found to the east. Within the 40km^2 study region ranging from Welshpool in the north-west to Bishop's Castle in the south-east (figures 4:1 & 4:2), four 'complexes' of activity have been mooted. These are the pit-grave, so-called 'house' and barrow sequence at Trelystan; the henge, stone circle, outlier and barrows sites at Carreg-Beuno, the six stone circles surrounding Corndon Hill to its north-west; and the Sarn-y-bryn-caled penannular ring-ditch and timber circle complex (AppA5: p336). Many 'isolated' sites also existed in the area, including repeated-return occupation spots (determined by flint scatters), a henge (Chirbury), stone quarry and possible track-way. Numerous de-contextualised finds of material culture have been recorded, including polished stone axes, axe hammers, barbed and tanged arrowheads, bronze flat axes, a flat axe mould, flint knifes, blades and scrapers, worked cores and a wrist-guard (AppA6: p337-9). Probably mostly ploughed out from barrows or 'hoards', other known surface finds include expansive debitage and lithic tool scatters. Excavation has revealed *in situ* ceramics, hearths and carbonised timber posts.

[40] See Appendices A1: p316 and B: p341-3 for chronological framework of this thesis

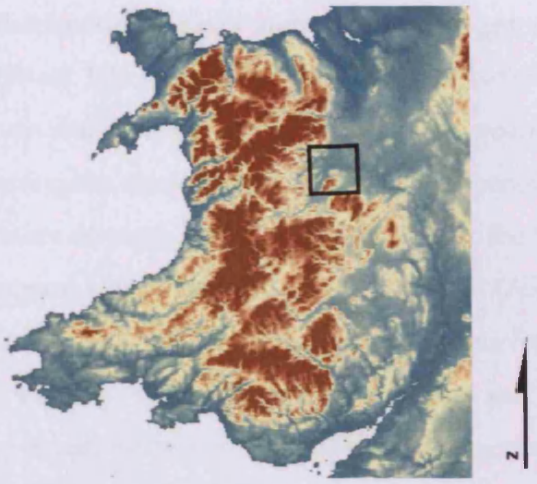


Figure 4:1 Elevation map depicting the location of the study area. Scale unknown

Figure 4:2 OS map of the study area

0 10 20 Kilometres

To contextualise the distribution of finds and sites, I have generated a series of maps ranging from 3000-1600 cal BC (figures 4:3-5). These are based on various estimates regarding the approximate date of the construction and engagement with different places and objects, often following the chronologies outlined in Appendix B (e.g. the inclusion of wrist-guards in mortuary contexts dates to 2250 cal BC at the latest; AppB: p349). A broad chronological diagram is also provided in Appendix A (A5: p336). However, my intention is not to extract static artefact or monument patterns from this data. Instead I will envisage possible ways in which the multiple layers and dimensions of active taskscapes through the north-western Clun Hills were experienced during the Late Neolithic to Early Bronze Age.

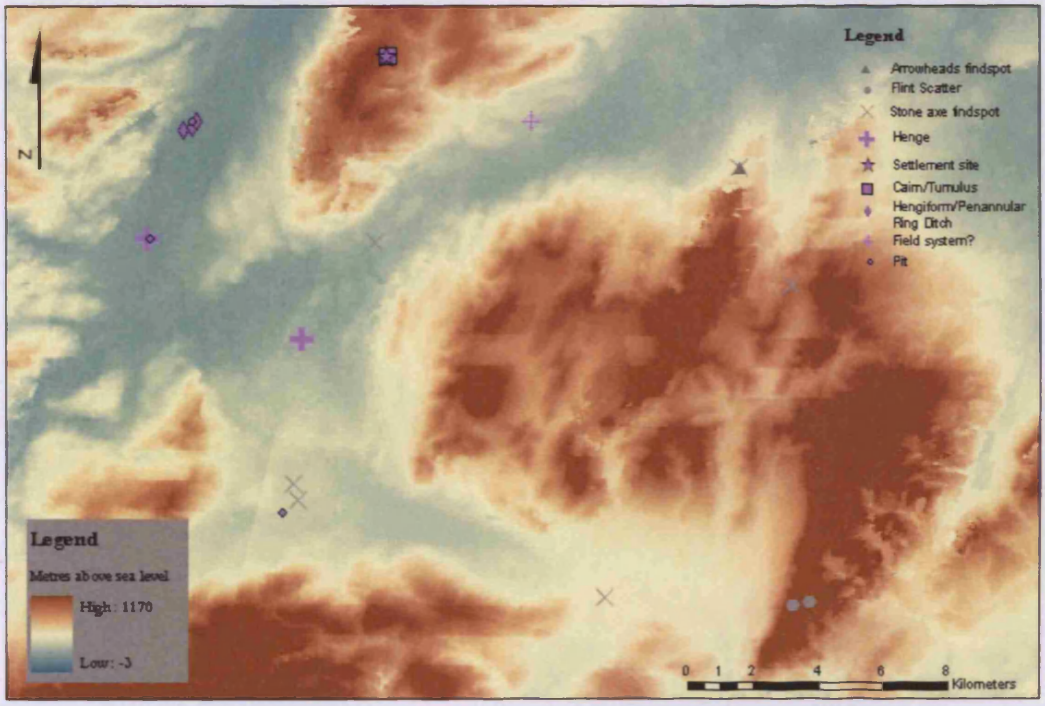


Figure 4:3 Elevation map of Late Neolithic (*c.* 3000-2500 cal BC) sites (purple) and stray finds (grey) within the study area

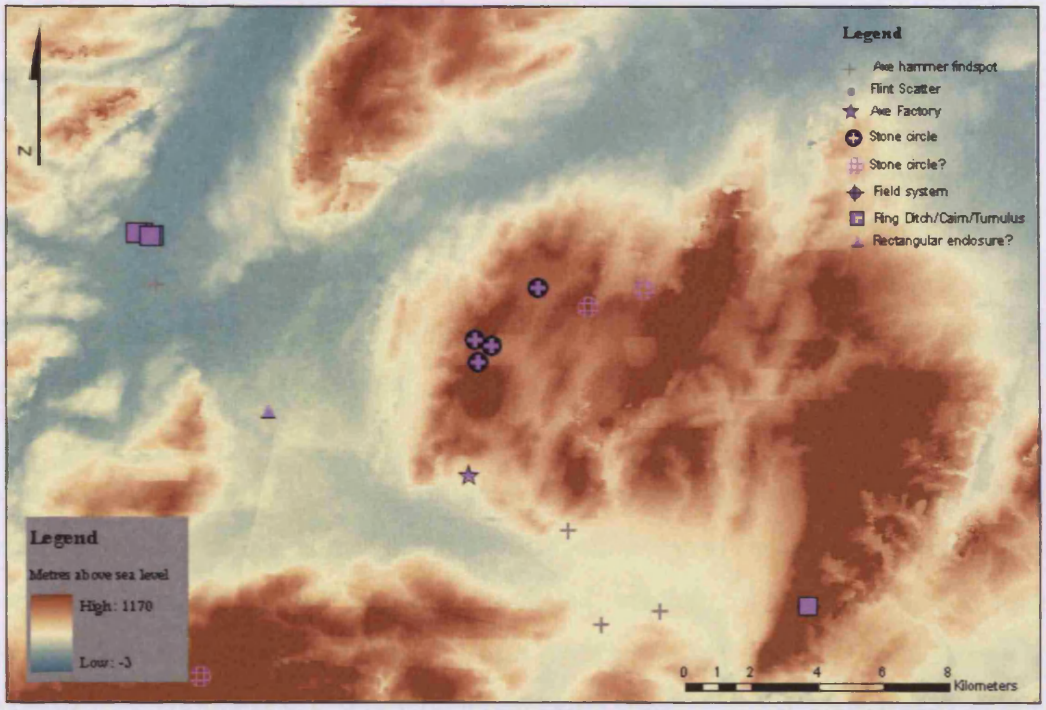


Figure 4:4 Elevation map of Terminal Neolithic (*c.* 2500-2200 cal BC) sites (purple) and stray finds (grey) within the study area

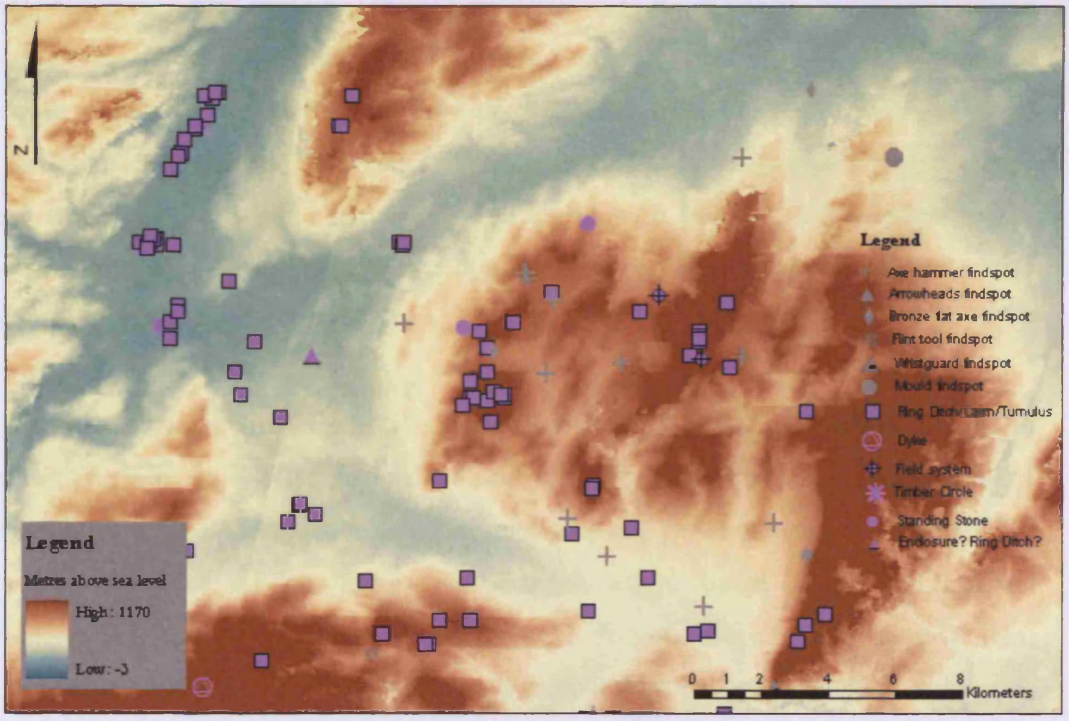
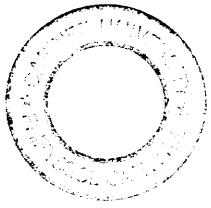


Figure 4:5 Elevation map of Early Bronze Age (*c.* 2200-1600 cal BC) sites (purple) and stray finds (grey) within the study area

By linking the excavation detail of certain sites with surveys of others, environmental and topographical information, as well as distribution maps of material culture, I will examine the few materialised moments which have survived. These moments were almost certainly neither the more significant nor representative of the contemporary ebb and flow of human existence. Yet they each manifest one, albeit transitory configuration of a world-view. In this way, commonalities between these often disjointed moments can be understood as indicative of widespread and entrenched trends in comprehensions of the world: that is, nuances of understanding life which commonly and persistently appealed to many different people's logic.

This chapter will be founded on the premise that people creatively act through their dynamic knowledge of the world (ch3: p62-75). I will propose one means by which this re-formulating knowledge was openly contradicted, resulting in its re-concession into more prevailing, widespread and durable truths (ch2: p31-4; ch3: p76-9; p87-8). This will be explored by considering a series of interlocking themes in the archaeology which fluctuated in importance as the nature of life engagements changed (e.g. containment, fire, the body). I will propose that the characterisation and re-characterisation of life in terms of the unknown and the known, and the familiar and unfamiliar both links these themes together, and explains their prevalence or diminishing popularity within contemporary world-views (ch3: p88-9). This recurrent act of characterisation was recursively enabled by the ebb and flow of daily lives through these valleys, hilltops, moorlands, rivers, clearings, forests, fields, settlements, pastures and architectures. Indeed, it facilitated how life itself was viewed at this time, relating to wider frameworks of knowledge, and specifically how materialities, taskscapes and practices were cognitively ordered.

I do not intend to provide a definitive interpretation of the third millennium cal BC in the north-western Clun Hills region. I simply offer a route into the complexity of knowledge formation as an active, creative and ongoing process using the materialised moments which have survived there. Interpretation will be based on one fundamental assumption: that some people moved between the floodplains and valley spurs at least once, and probably repeatedly, during their lifetimes. Movement obviously occurred in other directions, from other positions within and outside of the study limits. However, recent strontium isotope studies of other contemporary journeys confirm that people



moved well over 20km in their lifetimes (e.g. Montgomery *et al* 2000; Fitzpatrick 2004). It therefore seems reasonable to presume that during the Late Neolithic to Early Bronze Age, some of the people living locally would have frequented all of the local taskscapes.

All interpretive discussion in this chapter is summarised in figures 4:6 and 4:7 below, and replicated in the discussion and conclusion of this thesis (ch6: p278-9). These will be referred to throughout this chapter.

Knowledgeability in the north-western Clun Hills

	Upper Severn valley	Long Mountain
c. pre 3000 cal BC	Primary forest mainly intact = disparate world-views	
c. 3000-2750 cal BC	Pocketed forest clearance *c.* 2900-2500 cal BC = Less disparate knowledge **K - "The Upper Severn Valley is neither known nor unknown"** M - Betwixt and between = fairly taboo E - Focus of monumentality at fording points and locations mediating movement between surrounding valleys and hills. Containment of specific deaths at Penannular Ring-Ditch 1.	Extensive forest clearance *c.* 3-2500 cal BC = More consensual knowledge **K - "Long Mountain is known"** M - Constancy E - No taboo funerary deposits after the Pit Grave.
c. 2750-2100 cal BC	Increased forest clearance and scrub growth *c.* 2500-2000 cal BC = More consensual knowledge	Pasture and scrub growth maintained *c.* 2500-2000 cal BC = Consensual knowledge **K - " Long Mountain is known"** M - Constancy E - Constancy of engagements through Grooved Ware and Beaker period. The pollution of the earliest funerary internments is only partial; greater variability of burial form and less concentration on containment
c. 2100-2000 cal BC	**K - "The Upper Severn Valley is liminal"** M - Intermediary state of its own = highly taboo E - Management of taboo through monument form, thresholds, burning, containment, grouping of tainted items	
c. 2000-1700 cal BC	Forest regeneration begins *c.* 2000-1500 cal BC = Less consensual knowledge **K - "Knowledgeability is irrelevant"** E -The termini of Coed-y-Dinas Ring-Ditch II are empty, and its ditches discontinuous. No further monumentality at the fording points *c.* 1800 cal BC onwards	Forest regeneration begins *c.* 2000-1500 cal BC = Less consensual knowledge **K - "Knowledgeability is irrelevant"** E - Loss of pasture to re-growth. Even greater variety of funerary rites, limiting their symbolic capital, which cease *c.* 1750 cal BC

Figure 4:6 Chart depicting predominant knowledgeability characterisations of taskscapes in the north-western Clun Hills *c.* 3000-1700 cal BC. Text in green describes changing vegetative cover and its discursive relationship with the degree of consensus between world-views, ranging from disparate to less disparate, to less consensual, to more consensual, to consensual. K = Knowledge, M= Meaning and E = Evidence

Familiarity in the north-western Clun Hills

	Upper Severn valley	Long Mountain
c. pre 3000 cal BC	Primary forest mainly intact = disparate world-views	
c. 3000-2750 cal BC	Pocketed forest clearance *c.* 2900-2500 cal BC = Less disparate knowledge	Extensive forest clearance *c.* 3-2500 cal BC = More consensual knowledge
	K - "The Upper Severn Valley is familiar" E - Monumental accentuation of past architectures at Lower Luggy Enclosure and Penannular Ring-Ditch I and II.	**K - "Long Mountain is unfamiliar"** E - Pit Grave does not reference previous performance or architecture
c. 2750-2100 cal BC	**K - "The Upper Severn Valley is familiar"** E - Monumental accentuation of routeways at Berriew Henge and later stone circle	**K - " Long Mountain is familiar"** E - Sustained returns to the ridgeway, followed by the establishment of cross-referencing fence-lines and then mortuary structures
	Increased forest clearance and scrub growth *c.* 2500-2000 cal BC = More consensual knowledge	Pasture and scrub growth maintained *c.* 2500-2000 cal BC = Consensual knowledge
c. 2100-2000 cal BC	**K - "The Upper Severn Valley is familiar"** E - Performative referencing of past architectures at Sarn-y-bryn-caled Timber Circle	
c. 2000-1700 cal BC	Forest regeneration begins *c.* 2000-1500 cal BC = Less consensual knowledge	Forest regeneration begins *c.* 2000-1500 cal BC = Less consensual knowledge
	K - "The Upper Severn Valley is familiar" E - Monumental accentuation of past architectures at Coed-y-Dinas ring ditches and Carreg Beuno barrows which ceases *c.* 1800 cal BC	**K - "Long Mountain is familiar"** E - Further fence-lines and interments in barrows, which cease *c.* 1750 cal BC, then Middle Bronze Age spearhead

Figure 4:7 Chart depicting predominant familiarity characterisations of taskscapes in the north-western Clun Hills *c.* 3000-1700 cal BC. Text in green describes changing vegetative cover and its discursive relationship with the degree of consensus between world-views, ranging from disparate to less disparate, to less consensual, to more consensual, to consensual. K = Knowledge and E = Evidence. Meaning is not listed as it remained constant throughout ('sufficiently engaged with'), albeit with differential secondary and tertiary meanings

Overview of the study region

Introduction

The Clun Hills are a designated 'Natural Area' of Britain, transcending current national and county boundaries through central-east Powys, north-west Herefordshire and south-west Shropshire (English Nature 1997). My study area focuses on the north-western area of this region, encompassing modern Welshpool and Montgomery. It comprises various broad river valleys radiating from the confluence of the Upper Severn and Camlad rivers, as well as intermittent uplands (figure 4:8). The Camlad and its tributary brooks have carved a series of deep and wide flood plains running east-west until they meet the Upper Severn valley just south of Welshpool. Promontories between these corridors reach as

high as 523m AOD at Corndon Hill and 408m AOD at Long Mountain. To the south-east of these fluvial features, a relatively flat lowland stretches eastwards, whilst to the south-west, the Clun Hills resume uninterruptedly southwards. For ease of mapping, I have outlined a 20 x 20km zone of the landscape as the limits for this study (SO 200 069, SO 400 069 to SO 200 870, SO 400 870) (figure 4:2). These borders are obviously entirely artificial. Just as the current 'Natural Area' boundaries are transitional, there is no suggestion that this region held any unified socio-political, socio-environmental or cultural identity in prehistory.

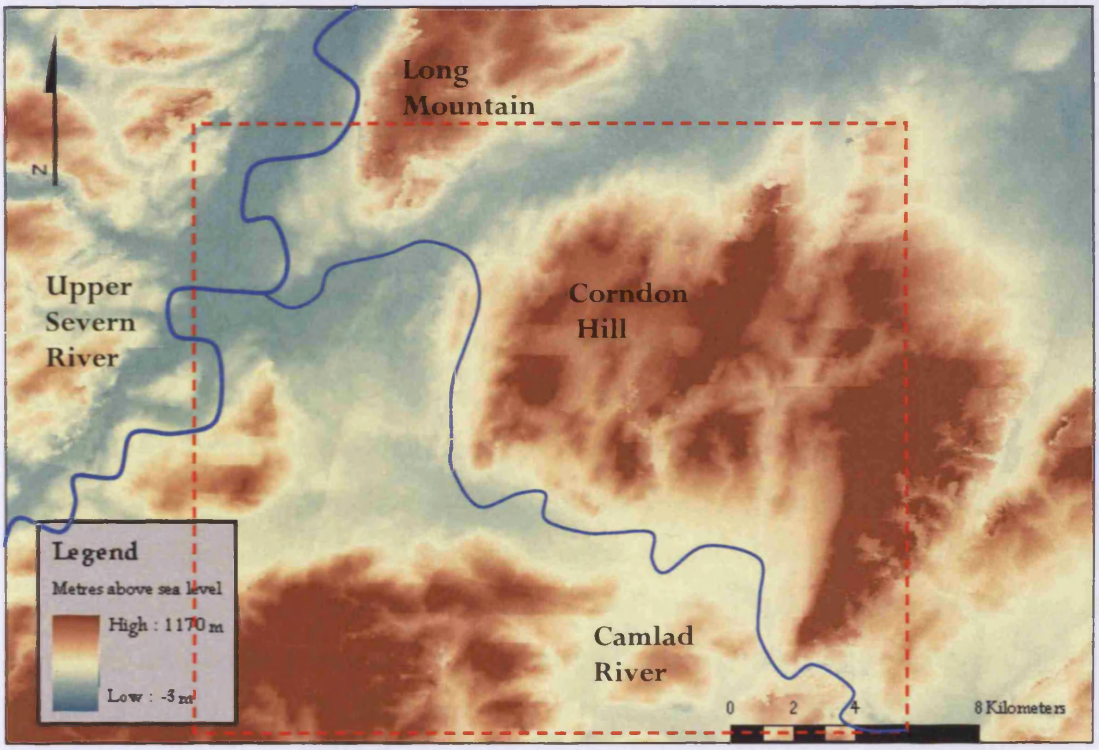


Figure 4:8 Elevation map of the topography and geography of the locality, with the study area delimited in red

The geology of the area is dominated by Silurian-aged strata which are mainly deep-water sediments, consisting of mudstones, shales and siltstones. The Church Stretton fault runs diagonally north-east to south-west through the region, producing several outcrops of volcanic picrite on the hillside just north of Cwm-mawr farm, Hyssington (SO 302 942); the Group XII stone source commonly used for Early Bronze Age shafthole axe hammers. Younger exposed sediments are Devensian Series sands and gravels, deposited during the last glaciation. Current land-use on the hill-slopes predominantly comprises

sheep and cattle husbandry, but the lower-lying areas, such as to the east of Bishop's Castle, are cropped.

Socio-environmental context

There is clear evidence for cereal production during the Late Neolithic to Early Bronze Age in the wider region. Pits associated with the curvilinear roofed structures at Upper Ninepence, Powys, 25km to the south of the study limits, contained small amounts of carbonised domestic plant species, including emmer wheat, in both Peterborough and Grooved Ware contexts[41] (Gibson 1999: 143). However, other plant macrofossil evidence from within the study area suggests that people were still gathering a lot of their food from forested habitats well into the terminal Neolithic and Early Bronze Age. For example, contexts associated with the two structures underneath the Trelystan barrows radiocarbon dated to *c.* 2876-2207 cal BC (CAR-275 & 276)[42] and *c.* 3086-2288 cal BC (CAR-272 & 274), yielded carbonised hazel nutshells, an apple and a raspberry pip, whilst cereal grain was completely absent (Britnell 1982: 191). At Coed-y-dinas Ring-Ditch I, oak, hazel, field maple, poplar type, rowan type and blackthorn charcoal were found in the early ditch fill, alongside charred hulled barley which was radiocarbon dated to *c.* 2135-1889 cal BC (BM-2837) (Gibson 1994: 165). This material has been interpreted as indicative of localised open woodland and cropped clearings (Gibson 1994: 165). Primary broadleaved elm, hazel, ash and oak forest cover continued to penetrate both lowland and upland river catchments throughout the third and second millennia cal BC and it would certainly be ill-founded to assume that land-use followed a lowland/upland divide similar to that of today. At the hilltop site of Trelystan again, carbonised taxa of hazel, rowan, poplar, sloe and hawthorn from pits associated with the structures support the existence of a deforested, or at least open-forested local landscape during the early-mid third millennium cal BC (Britnell 1982: 195; Gibson 1996b: 139).

By the later third millennium cal BC, the upper part of the soil profile buried beneath the two Trelystan barrow mounds supports the prevalence of uncultivated grasses (Keeley 1982: 198). Grassland or scrubby pasture were inter-mixed with the woodland alongside localised clearances for crop there, and it has been suggested that the popularity of animal husbandry particularly escalated in upland Wales during the Terminal Neolithic

[41] For dates, see Appendix B: p343-8

[42] As mentioned previously, radiocarbon dates are all tabulated in Appendix A2: p317-24

and Early Bronze Age (Briggs 1985). Indeed, at the relatively flat low-lying 'occupation site' of Upper Ninepence, 25km to the south of the study area, pits dating to around 3000 cal BC contained weed species indicative of a local grassland environment with some hazel scrub, oak wood and cultivation nearby (Gibson 1999: 35). Pollen cores from the upland Buckbean Pond, 8km to the north of the study area, demonstrate a marked decline in oak and elm and rises in the prevalence of weed taxa *c.* 2900 cal BC (Gibson 1994: 191). The much-discussed Middle to Late Neolithic (*c.* 3200-2800 cal BC) phase of forest regeneration, or at least reduced clearance activity (Whittle 1978; Bradley 1978b) (AppB: p406-7), does not fit clearly into the north-west Clun Hills' environmental history. Pastures derived from deforested and then grazed land were commonplace across the region before the Terminal Neolithic, irrespective of topography.

Prior to the Late Neolithic

Within this matrix of fluctuating but ever-present woodland cover, pasture and arable plots, engagements with taskscape often respected those of the Early and Middle Neolithic. Charcoal from immediately above the initial loose silting of the eastern ditch of the Sarn-y-bryn-caled Cursus was radiocarbon dated to *c.* 3943-3641 cal BC (OxA-3997) (Gibson 1994: 170-1). This is categorically Early Neolithic in date, and represents some of the limited amount of evidence for fourth millennium cal BC construction in the wider region (Hindwell and Walton Green cursuses, both Powys, stood 25km to the south of the study area). Indeed, using Bayesian statistical methodology on the earliest radiocarbon data available for the region, Bayliss *et al* (*forthcoming* a) have calculated that the Neolithic began in the Welsh Marches between 3795-3655 cal BC. Only two or possibly three causewayed enclosures are currently known within and 25km beyond the study area.

Situated within the Carreg Beuno complex of monuments was the Lower Luggy oval 60 x 10m ditched 'mortuary enclosure' or 'short-elongated ditch type' cursus (Gibson 1995: 53; 2006b: 189). Hazel twigs from the charcoal deposit at the base of its south-east ditch terminal have been radiocarbon dated to *c.* 3645-3377 cal (Beta-177037) (Gibson 2006b: 178). Lower Luggy Long Barrow (figure 4:16) was situated 40m to the south-east, and although broadly contemporary, may have been initiated slightly earlier than the enclosure since primary contexts have been radiocarbon dated to *c.* 3704-3521 cal BC (BM-2954) and *c.* 3633-3372 cal BC (BM- 2955) (Gibson 1995: 2000; 2006b: 186). A

substantial and possibly solitary hole (Feature 198) containing a carbonised oak post was located approximately two hundred metres north-east of the enclosure (Gibson 1994: 159). Its burning was dated to *c.* 3637-3377 cal BC (BM-2829) (Gibson 1994: 159). This post-hole, and later activities at the Lower Luggy monuments, mark the final known use of the Severn/Camlad confluence area for construction prior to renewed activity after 3000 cal BC. A small quantity of de-contextualised Early-Middle Neolithic material culture has been found within the study area, including leaf-shaped flint arrowheads and some diagnostic re-touched flint tools. Far greater numbers of contemporary finds were recovered during the Walton Basin project excavations and surveys, 25km to the south. Polished stone axes are numerous as stray finds within the study area, although their production and deposition dates from the Early Neolithic until around 2500 cal BC (Bradley & Edmonds 1993: 199).

Contemporary lives in the wider area

Immediately beyond the Upper Severn and Camlad confluence valleys and hills, Late Neolithic to Early Bronze Age archaeology is varied and extensive, if not quite as dense in terms of four proximate multi-period complexes. Two possible henges exist to the south of the study area, whilst Glanmule 'Henge' is sited to the immediate west (Gibson 1998d). Four other mooted henge sites occur to the east, and a fifth to the north (at Four Crosses, Powys), but these all remain un-excavated and may be later ring-ditches. Numerous possible stone circles are situated to the immediate west of the Clun Hills (e.g. Kerry Hill and Garth Eilun, both Powys), although there are no clusters comparable with the Corndon Hill complex. No stone circles are known in the 30km to the east of the study region and only one is sited within 30km to the north (Llanerch Emrys, Powys). Similarly, only one example is known within 30km to the south (Four Stones, Powys). One Late Neolithic palisaded enclosure is known nearby at Hindwell Enclosure, Powys. Samples from the carbonised outer-rings of posts 1 and 4 were radiocarbon dated to *c.* 2835-2208 cal BC (SWAN-116) and *c.* 2872-2471 cal BC (SWAN-117) respectively (Gibson 1996a: 344-5) (AppB: p386; p401). To the south-west of the case study area, a 36-post timber circle with a central hearth and cremation deposit was discovered underneath a barrow at Gwernescob, Powys (Jerman 1933). Approximately 30km to the north-west of Welshpool, two possible timber post circles existed at Llanrhaeadr-ym-Mochnant, Powys (St. Joseph 1980).

Early Bronze Age funerary monumentality is present in all directions from the study area limits. The fairly high number of known and possible sites within the study area (approximately 92) overwhelms those known to the east and south, but is exceeded by those known to the west. The national Archaeology Data Service database lists 122 definite and likely cairns, round barrows and ring ditch sites in the 60 x 20km stretch to the east of the study region, whereas in a similar area to the west, higher concentrations of approximately 312 sites focus on the river terraces of the Wye and Teme valleys and also on widened basins such as the Edw valley (Dunn 1988: 29). Similarly, in the 20 x 60km area to the south of the case study region only 103 cairns, barrows and ring-ditches are recorded. Destructive modern deep-plough farming, more commonly employed in the flatter land to the east and south of the Clun Hills than in the uplands to the west, may explain some of this contrast, although many barrows survive on cropped land as ring-ditches. Interestingly, the number of sites known to the north is 194, similar to that known from within the study region. In eastern Montgomeryshire to the north of the study area, a multiple ring-ditch representing several phases of construction between 3000 and 1800 cal BC was located in river gravels at Four Crosses (Warrilow *et al* 1986) (AppB: p373; p378). Forming part of a dispersed cemetery, the monument's central pit grave containing several inhumed bodies and pottery was enlarged in a series of successive stages.

Recent excavations 52km to the south-east of the study area at Rotherwas Industrial Estate, Herefordshire, have uncovered a 60 x 10m linear feature provisionally dated to the third millennium cal BC (Ray 2007: 4-5). Situated overlooking the floodplain of the confluence of the Lugg and Wye, the linear feature comprises one to two successive laid surfaces of local fire-cracked stone accompanied by post-holes built at intervals along it. Finds from overlying primary silts include struck flints and Early Bronze Age pottery. A pit containing roughly contemporary cremation debris was constructed alongside the course of the feature. Approximately 1km to the west, a multi-phase occupation site spanning the fourth and third millennium cal BC included Beaker period houses. Indeed, mooted occupation sites (based on concentrated scatters of worked flint and tool forms) are fairly numerous throughout the wider region. For example, to the immediate south of the western Clun Hills at Dorstone Hill, Herefordshire, over 4000 flints and surface finds were spread across the top of the hill. They covered an area of up to 18 acres and ranged from the Early Neolithic to the Early Bronze Age in date (Pye 1958). A line of stakes and

a low wall cut across the spur of Dorstone Hill during the fourth millennium cal BC, reminiscent of the type of enclosed peak sites found at Crickley Hill Gloucestershire and Carn Brea, Cornwall. Like Dorstone Hill, these places were also re-visited throughout the third and second millennium cal BC.

Stray and *in situ* finds of Late Neolithic to Early Bronze Age material culture are relatively common throughout Powys, Herefordshire and south-west Shropshire, especially in comparison to further south on the Glamorgan seaboard (Savory 1963: 33). Beakers and Collared Urn/Food Vessel forms (AppB: p348-52) are also fairly common in central-east Wales and the West Midlands, as are associated accoutrements like the flint dagger which was buried in association with a Beaker at Tŷ-du, Llanelieu, Powys. However, Grooved Ware, and to a lesser extent Peterborough Ware (AppB: p343-8), are both fairly rare in the Welsh Marches and beyond, despite the thorough excavation of a number of 'occupation sites' dating from this period. For example, at Breiddin Hillfort, Powys, Late Neolithic to Early Bronze Age occupation layers contained contemporary flints, but were aceramic until a late floor context yielding Food Vessel fragments (Musson 1991).

Summary

The taskscapes which permeated the prominent spurs, alluvial plains and undulating foothills of the study area during the Late Neolithic to Early Bronze Age fitted into a wider setting of enmeshed lives. Whilst not standing out as a distinct 'territory', I will argue that during the third millennium cal BC, the study area marked a transitional point in journeys northwards, southwards, eastwards and westwards. I will explore some of the many different interpretations of what this could have meant for contemporary comprehensions of the area, based on alternative temporal and site-specific contexts.

Carreg Beuno complex

Introduction

Immediate north-west of the current position of the confluence between the Severn and Camlad rivers (SO 209 007), an area of alluvial gravel became the focus of prehistoric construction (figure 4:9). This Carreg Beuno 'complex', Berriew, Montgomeryshire is situated on a terrace just above the floodplain of the Severn about 6km to the south of

modern Welshpool (Gibson 1995: 41). It straddles Dyffryn Lane which led to the one of the more important fording points of the Severn during the Middle Ages. Numerous third millennium cal BC monuments were sited on this terrace following a hiatus in local construction which began after the Lower Luggy Long Barrow and Lower Luggy Ditched Enclosure were built (radiocarbon dated to *c.* 3704-3521 cal BC; BM-2954; and *c.* 3640-3370 cal BC; Beta 177037; respectively) (Gibson 1995: 56; 2006a: 186). Situated around 550m and 650m north-west of Dyffryn Lane respectively, two currently unexcavated timber halls could have also been contemporary.

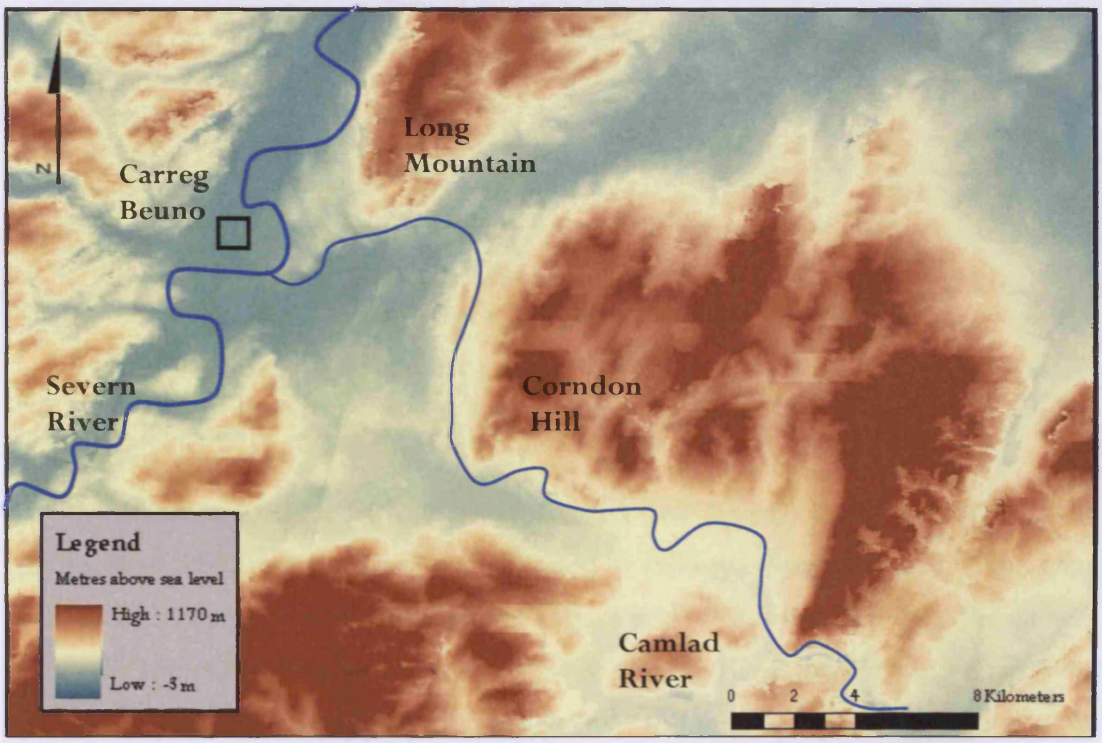


Figure 4:9 Elevation map depicting the location of the Carreg Beuno complex (see figure 4:14 for more detailed map)

Pit (5090)

At the beginning of the Late Neolithic, a 1m diameter pit (5090) was dug within the perimeters of the earlier Lower Luggy Enclosure (figure 4:10) (Gibson 2006b: 177). Cremated bone from an adult female was placed inside the pit, along with seven pieces of flint, six of which were burnt. A sample of the cremated bone was radiocarbon dated to *c.* 3022-2706 cal BC (GrA-29332) (Gibson 2006b: 178).

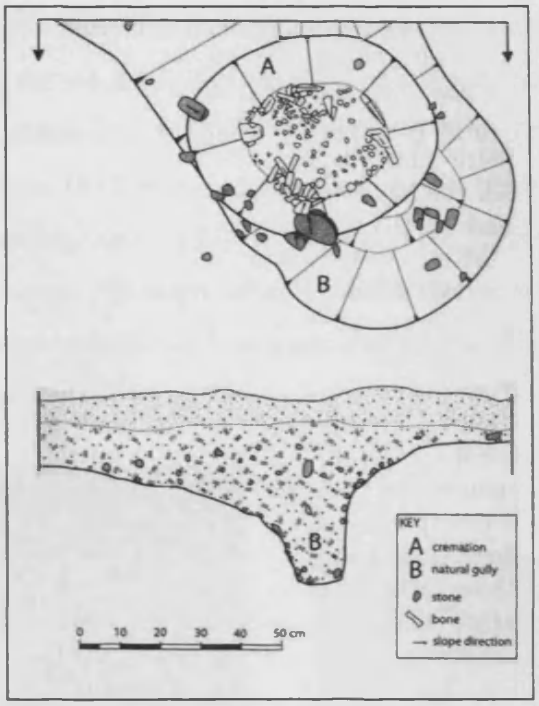


Figure 4:10 Plan and section of Pit 5090, Lower Luggy Enclosure (*from* Gibson 2006b: 177)

Berriew Henge

A single-entranced henge, with an external bank and internal ditch, was built to the south-east of the Lower Luggy monuments, and to the immediate north of Dyffryn Lane close to its fording point with the Severn (figure 4:11) (Gibson 1995: 44). The circular bank was 15m wide with an external diameter of 85m. One causeway penetrated the bank to the north-west, facing away from the Severn but roughly in the direction of its downstream flow (Richards 1996a). Based on analogies with other sites, Gibson (1995: 51) has interpreted the monument as a Class I henge, built between *c.* 3000-2500 cal BC (AppB: p379-86). Berriew Henge has been extensively surveyed (by aerial photography, ground and geophysical survey) and was first excavated in 1857 when the find-spot of three upstanding and fallen monoliths was explored (Lewis 1857; Gibson 1995: 42-3). Peaking at 1.68m tall, these large stones were all of the same dark igneous rock type not found locally, and were positioned at various intervals in the arc of a circle which would have originally been 10-11m in diameter (Gibson 1995: 43, 51). A fourth 1.1m tall stone was removed from the centre of the henge in 1971, and a possible fifth monolith was identified in the henge ditch by a 1992 geophysical survey, possibly having been re-deposited there post-construction (Ovendon 1992; Gibson 1995: 48-51). Gibson (1995:

51-2) proposed that these monoliths formed part of a stone circle setting erected within the henge limits during the second half of the third millennium cal BC, such as at Stipple Stones, Cornwall and classically, Avebury, Wiltshire. Gibson (2006a) has recently re-opened and extended the 1857 trench, confirming the presence of broken and fallen stones from a central setting (figure 4:12). A round pit 10m in diameter has been located about 50m east of the henge. Although unexplored and therefore undated, it is strikingly similar to a pit associated with Sarn-y-bryn-caled Penannular Ring-Ditch 1 (ch4: p115), 6km to the north (Gibson 1995: 55).

Figure 4:11 Photograph of Berriew Henge during excavation (*from* Gibson & Britnell 1992)

Figure 4:12 Photograph of Berriew Henge stone setting (*from* Gibson *et al* 2006)

Maen Beuno standing stone was positioned around 100m west of Berriew Henge (figure 4:13). It may be an outlier of the central setting since it is similar in height (1.6m) and geology to the henge monoliths. However, Gibson (1995: 53) has expressed concern that the only comparable example locally, (the Hoare Stone, situated 2km south at Forden Gaer on the route of a Severn fording point), probably post-dates the Roman fort ramparts in which it sits. At least eleven barrows were constructed within 350m of Berriew Henge from *c.* 2000 cal BC, including one which was built over the stone circle setting itself. Many are ploughed out and survive only as ring-ditches (figure 4:14), and at least three appear to be multi-period monuments with appended, re-cut or re-aligned ditches similar to those at Four Crosses, Powys, as already discussed (ch4: p102). Gibson (1995: 55) suggested that these tumuli and ring-ditches constituted a dispersed cemetery, focused on Berriew Henge, which was constantly re-visited and altered over the

centuries. Based on both its proximity to the fording point and the well-propounded connection between henges and flowing water (Burl 1991; Richards 1996a), he concluded that Berriew Henge and its environs was a seasonal meeting point.

Figure 4:13 Photograph of 'Maen Beuno' Berriew Henge outlier

Figure 4:14 Geophysical survey plot of two barrows in the vicinity of Berriew Henge (copyright Stratoscan) (*from* Gibson *et al* 2006)

Familiarity at the heart of the Upper Severn?

The Carreg Beuno complex certainly seems to constitute a junction in many senses of the term (figure 4:9 & 4:15) (Gibson 1995: 56). It marks the approximate position of the Severn and Camlad confluence, two highly navigable rivers. It is also situated at the end or start of the wider valleys and flat plains to the east, the hills to the west and south, and the lowland floodplain cutting through the hills downstream to the north. A possible fording point of the Severn was situated immediately south-eastwards, and movement in any direction locally was channelled either along or intersecting the flat Severn valley floor. This area was clearly fairly commonly crossed by travellers engaged in journeys of different durations and intensities. The alignment of the henge's entranceway with the flow of the Severn may have reinforced the importance of riverine movement through this area, as has been mooted elsewhere in Wessex (Sherratt 1996). Similarly, the positioning of the stone circle outlier Maen Beuno on the track-way to the south-west, rather than on the henge's entranceway axis, may have referenced intersecting pedestrian movement across the valley (figure 4:16). The pit, relevant if contemporary with Berriew

Henge, is aligned roughly with Maen Beuno on the opposite side of both henge and track-way, rather than orientated on the henge's entranceway. This marking of a second axis to the henge, at right angles to the first, may have actively symbolised a wider perception of the valley as a cosmological crossroads.

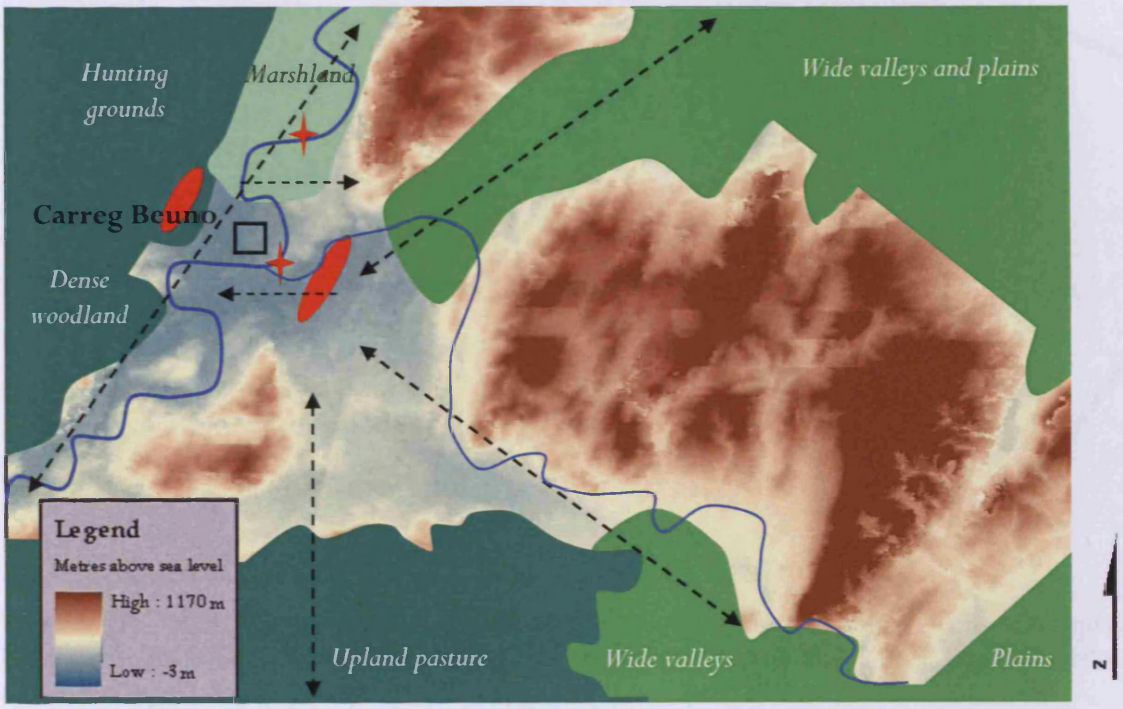


Figure 4:15 Map of Carreg Beuno as a juncture between taskscapes in the third millennium cal BC

Fording point Directions of movement Valley openings

0 2 4 10 Kilometres

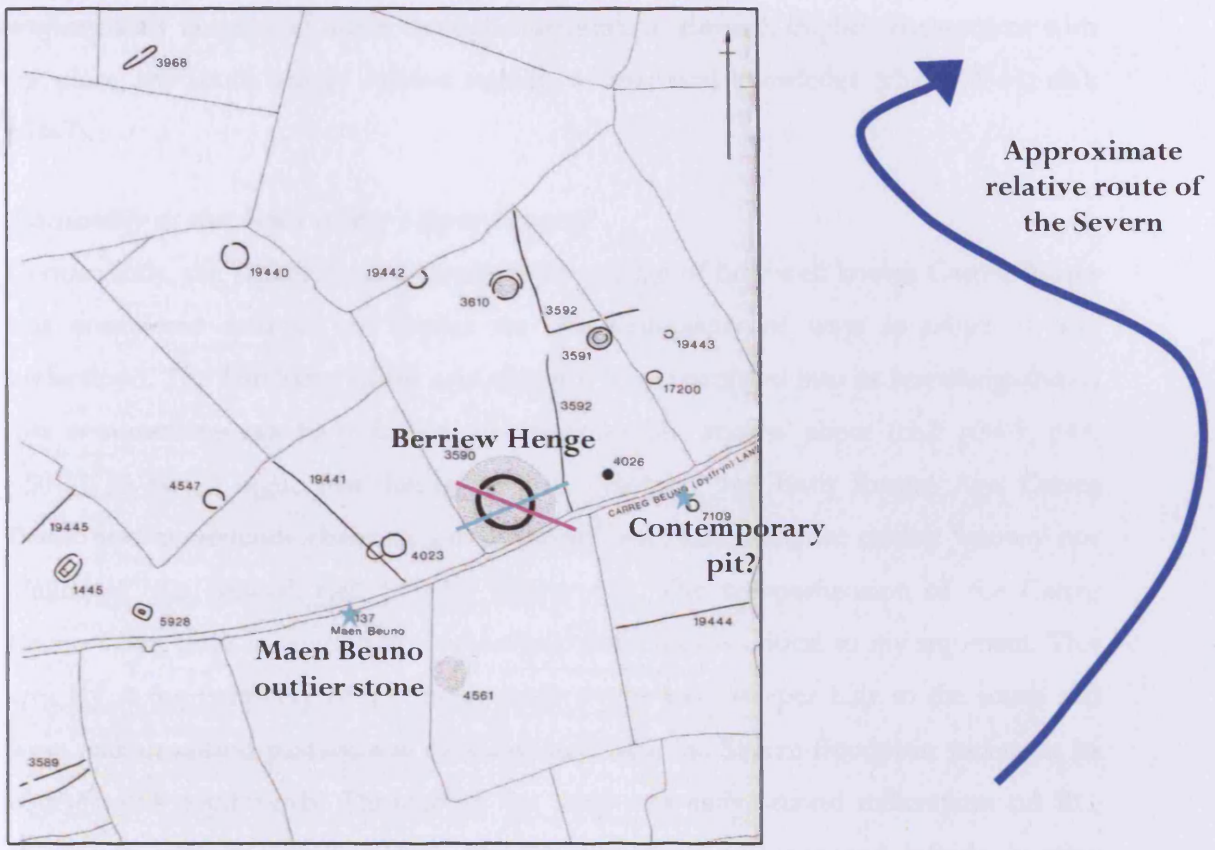


Figure 4:16 Map of Berriew Henge axes - Late Neolithic (pink) and Terminal Neolithic (turquoise). Note surrounding Early Bronze Age barrows and ring-ditches. Lower Luggy Enclosure lies north-west of Lower Luggy Long Barrow (3968). Not to scale

Such physical statements about these directioned movements may have contributed to the juncture being thought of as 'familiar' during the third millennium cal BC (ch2: p44-50), but this was not because visitors could bodily or anecdotally recall it (ch2: p32; p35). That people had been to the Carreg Beuno fording point before in no way necessitated the area's distinction as familiar. It was familiar because people 'knew' that Carreg Beuno had been engaged with to an extent 'sufficient' enough to warrant this characterisation (ch2: p44; p49-50). How they knew this, and in particular what exactly determined its familiarity, depended entirely upon ongoing relationships between agents and their worlds (ch2: p21-4). However, the symbolic accentuation of routes of movement through the landscape using monumental architecture spanning 500 years implies a sustained emphasis, or reinforcement, of the recognition that it had been 'sufficiently' engaged with in the past (ch2: p49-50). Indeed, the contemporary decision to emplace a cremation in a pit (5090) within the probably disused Lower Luggy Enclosure directly referenced the past (ch4: p104). Whether the knowledge of Carreg Beuno's familiarity

was explicitly taught and learnt through discourse, or through implicit engagement with the place, the result was its relative stability as analytical knowledge (ch2: p29-31; ch3: p76-7).

Liminality at the heart of the Upper Severn?

Concurrently, the repeatedly re-negotiated knowledge of how well known Carreg Beuno was considered instructs us further on the multiplicity of ways in which it was understood. The familiarity of the area may not have translated into its knowledgeability; just as something can be unfamiliar but recognisably 'known' about (ch2: p34-5; p44; p50-1). In fact, I argue that during the Late Neolithic and Early Bronze Age, Carreg Beuno was consistently characterised as 'transitional', and therefore neither 'known' nor 'unknown' (i.e. liminal; ch2: p38-43) (figure 4:6). The comprehension of the Carreg Beuno valley floor in relation to surrounding taskscapes is critical to my argument. This area lay at the periphery of the flatter lands to the east, steeper hills to the south and west, and an upland passage-way to the north where the Severn floodplain widens as its course turns southwards. Throughout the third and early second millennium cal BC, fluctuating upland pasture, dense primary woodland and exposed hillside hunting grounds were situated to the west and south, whereas marshier riverine taskscapes lay to the north and east. This part of the Severn valley would have marked the end, start, acceleration or deceleration of pedestrian and riverine travel, depending on the direction of travel (figure 4:15). I believe that, based on its pivotal position for trans-valley movement, this part of the floodplain was considered inherently transitional, although, of course, the intensity of this characterisation must have varied through time and according to social context (ch3: p87-8). Whilst people lived in as well as passed through the area during the Late Neolithic and Early Bronze Age, performances within, exiting and entering it increasingly interplayed with a common consensus about its liminality. Indeed, this characterisation became increasingly focused at regularly frequented fording points on the river, which symbolised the passing of a threshold at the heart of intermediateness (ch2: p43-4). The monument complex was not only near a probable prehistoric ford over the Severn, but was positioned centrally between the entrance/exit to the Camlad valleys to the east, and the narrower Rhiw valley to the west. Any east-west pedestrian movement beyond the floodplain and within this vicinity would have almost certainly been channelled within sight of the henge.

Noble (2007) has recently described how contemporary Scottish monument complexes were often built in locations where medium-long scale movement was focused. For example, the cursus, palisaded enclosures, timber circle, ceremonial hill and post-hole deposits at Dunragit are positioned on the land-bridge linking the Rhins of Galloway to the mainland, Dumfries and Galloway (figure 4:17). Any sea journeys north or south along this part of the western Scottish coastline would have encountered especially dangerous currents around the peninsula. Pedestrian journeys across the 10km wide land bridge would have been considerably easier and quicker. Noble argued that locations like Dunragit were deemed appropriate for ceremonial attention because they were conceived of as 'en route'; i.e. they were betwixt and between two places rather than permanently dwelt-in locations. Indeed, just as Carreg Beuno was centrally positioned on the route-way between the Rhiw and Camlad valleys, Dunragit would have been encountered roughly in the middle of the journey between the north coast at Loch Ryan and the southern coast at Luce Bay. Examples of the marking of thresholds at the heart of journeys can also be found ethnographically. The Gawa islanders of the northeast Massim region of Papua New Guinea distinguish between two broad spatial areas: the land (the hamlets on higher ground and the bush extending down to the cliffs) and the sea (Helms 1988: 25; Munn 1977). The littoral zone in between is considered a "liminal threshold" (Helms 1988: 25): the contact point between Gawan and overseas visitors, and the place where Gawan move from one cosmological dimension to the other. This margin of movement and identity is regarded as anomalous, potentially dangerous and inherently betwixt and between. Practice within it is subject to taboo, and travelling through it is marked by purification rites (Helms 1988: 25; Munn 1977: 40-41). This manifestation of profanity at the centre of geographical transition may not be as accessible in the architecture at Carreg Beuno, but its symbolic capital may be similar.

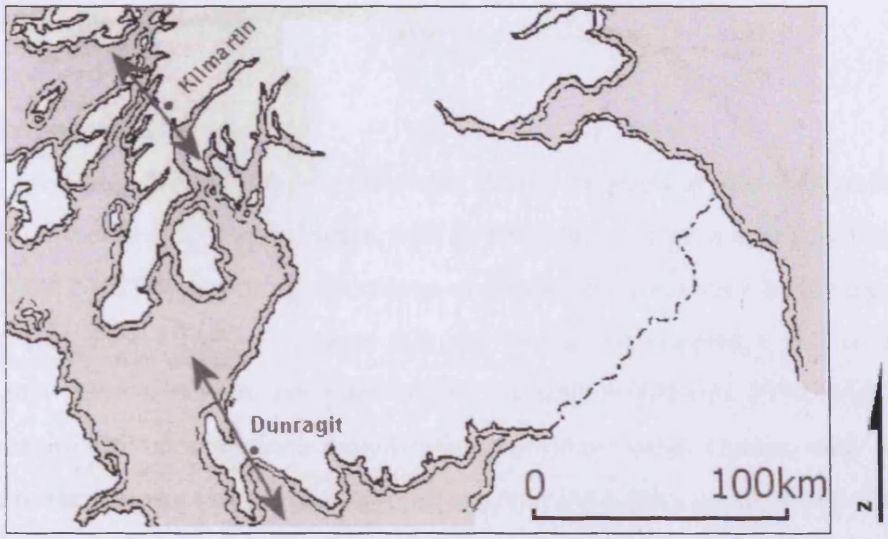


Figure 4:17 Map of the trans-peninsula routes adjacent to the Dunragit and Kilmartin monument complexes, Scotland (*from* Noble 2007: 68)

However, the characterisation of the Carreg Beuno floodplain as transitional, intermediate and liminal due to its enclosure by various contrasting taskscapes is conjectural, mainly based on the identification of thresholds[43]. Limited excavation or survey detail is available at present and without further detail to work from, it could just as easily have been a well-known, sheltered and fertile lowland valley. Indeed, people may not have conceived of the various different topographies and vegetation surrounding the valley, or even the valley itself, as separate or separable taskscape entities. Places may not have been conceptually bounded in the same way as they are today, and they may not have been typologically arranged at all. I will now extend my analysis to the Sarn-y-bryn-caled complex of monuments, 4km upstream to the north. Arguing in greater depth that this part of the Severn floodplain was inherently transitional throughout the Late Neolithic and Early Bronze Age, I will suggest how and why this characterisation gained momentum as common knowledge.

[43] In chapter 2: p43-4 I warned against exclusively relying on thresholds as indices of liminality

Sarn-y-bryn-caled complex

Introduction

An even greater concentration of prehistoric activity survives at Sarn-y-bryn-caled, 2.5 km south of Welshpool, Powys (figure 4:18 & 4:19). Situated on a relatively flat spur of gravel terrace currently opposing the course of the Severn, the river's highly meandering nature in this upper stretch indicates that the prehistoric channel/s and its tributary streams may have occupied any part of the floodplain (Gibson 1994: 146). Fourth millennium cal BC constructions include the Sarn-y-bryn-caled Cursus, with a *terminus ante quem* of the silting of its primary ditch dated to *c.* 3943-3641 cal BC (OxA-3997), and the substantial solitary post-pit (Feature 198) *c.* 3637-3377 cal BC (BM-2829), both previously mentioned (ch4: p100-1) (Gibson 1994: 170-1; 159). Pollen cores from Buckbean pond 8km to the north (ch4: p100) indicate that penetrations into primary forest cover only began in the 38th century cal BC, meaning both of these monuments would have been originally located in fairly isolated clearings (Gibson 1994: 191). Extensive modern excavation of the sites at Sarn-y-bryn-caled enables far greater analytical potential compared to the Carreg Beuno complex.

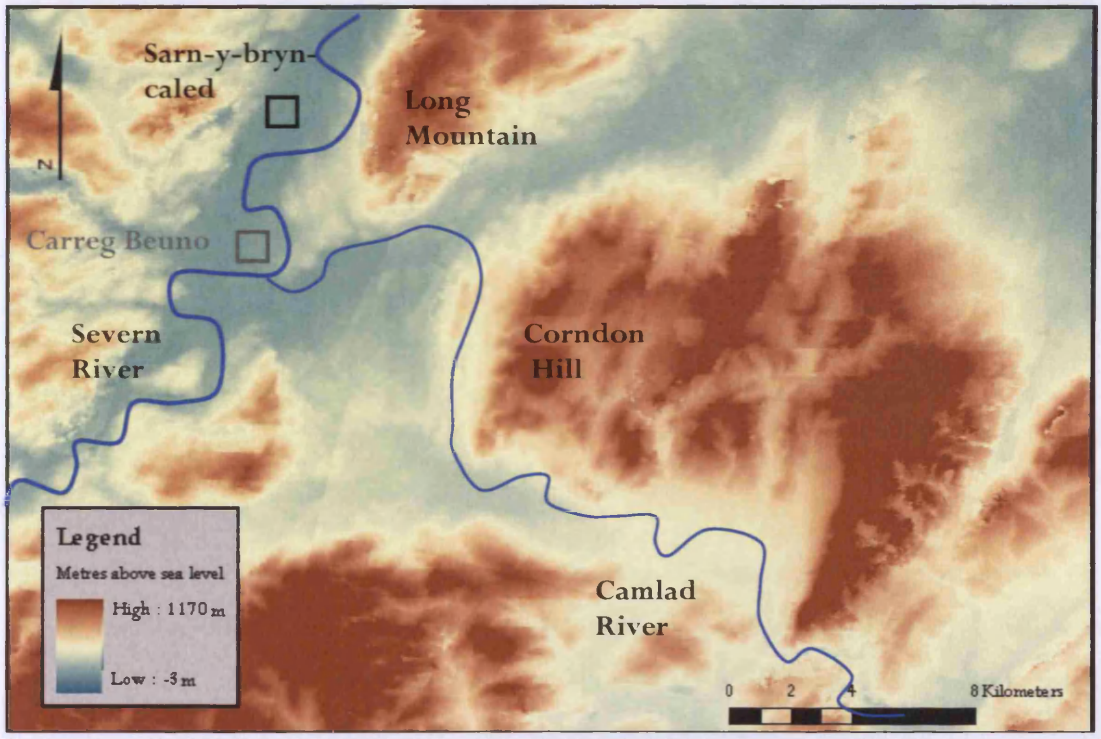


Figure 4:18 Elevation map depicting the location of the Sarn-y-bryn-caled 'complex'

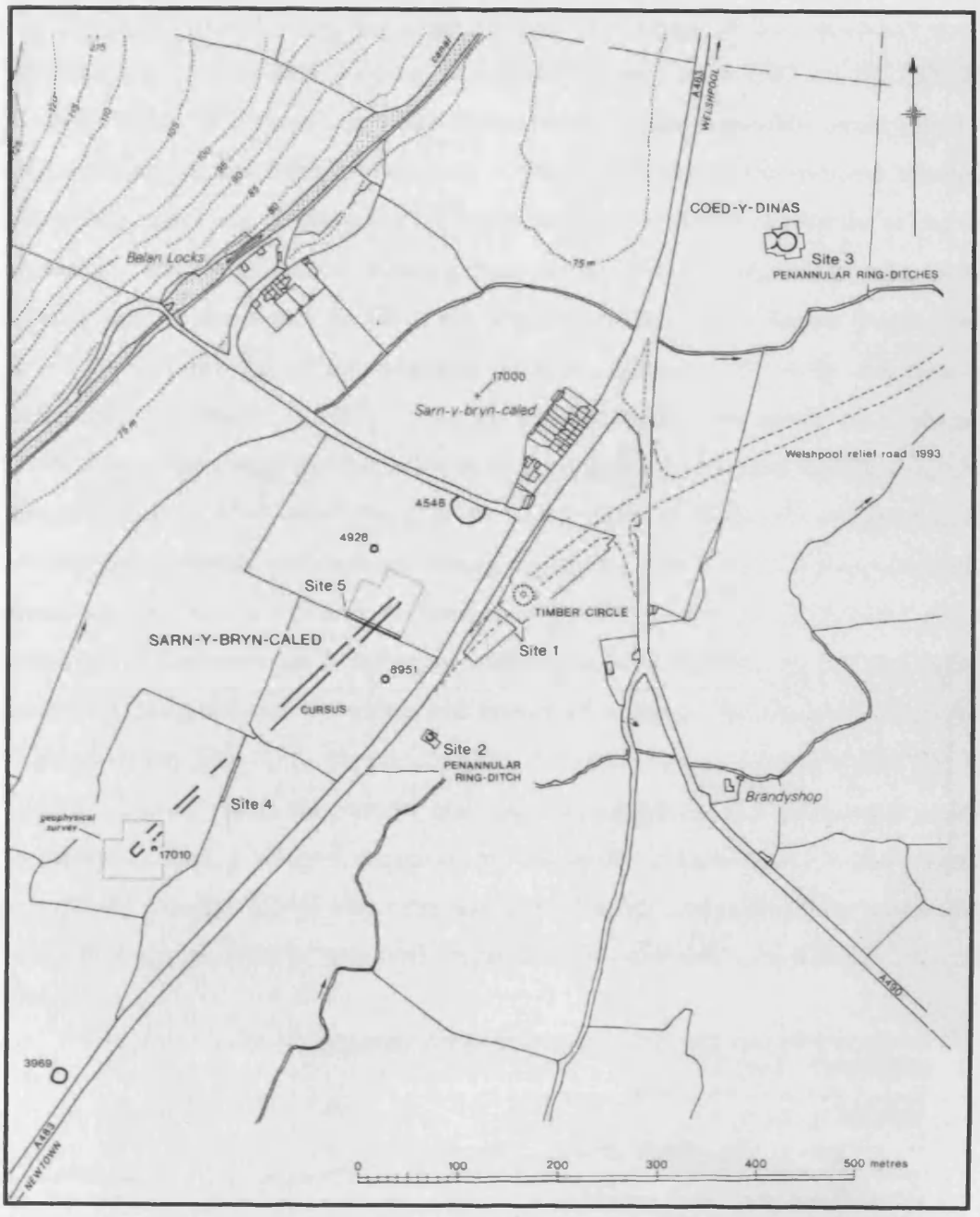


Figure 4:19 Plan of the Sarn-y-bryn-caled 'complex' (*from* Gibson 1994: 145)

Penannular Ring-Ditches 1-3

During the early third millennium cal BC, a horseshoe-shaped penannular ring-ditch (1; Site 2) was dug 90m south of the northern cursus terminal (figure 4:19 & 4:20). Probably built within an enlarging scrubby woodland clearing (Gibson 1994: 191), the ring-ditch measured around 8 x 7m externally, with its north-west opening facing the cursus. This entrance was flanked by two 0.6m and 0.8m wide post-holes which had originally held substantial oak trunks (Gibson 1994: 159). The ring-ditch was re-cut, probably following

slip from its external bank, and charcoal from the silting of this secondary cut was radiocarbon dated to 2899-2638 cal BC (BM-2819) and 3325-2907 cal BC (BM-2820) (Gibson 1994: 161). Some cremated bone from a young, possibly female adult was deposited, with a flint flake, into the side of the original base of the southern terminal of the primary ditch-cut. Three other cremation deposits were placed into the re-cut ditch, including a three year-old child near the base of the southern terminal, a young (possibly female) adult in the top of the fill of the southern terminal and a fourth (possibly adult) in the top of the fill of the northern terminal (Gibson 1994: 159). Remains of a carbonised oak 'object', possibly a burnt stake, was found in the middle fill of the re-cut ditch, diametrically opposite the entrance to the ring-ditch. Abraded Peterborough Ware sherds (AppB: p343-4) were found in the re-cut ditch fill, probably constituting older surface debris which accumulated during the ditch silting. Contemporary within the wider locality were a 0.55m wide (probable) post-hole (context 115) which also had accumulated Grooved and Peterborough Ware sherds in its fill (116), and the (possible) base of a ploughed out pit which had contained a whole Peterborough Ware vessel (Gibson 1994: 159; 171) (AppA5: p336). A second possible penannular ring-ditch (17010), located near the south end of Sarn-y-bryn-caled Cursus and currently unexcavated, had a ditched causeway to the south (figure 4:17). A third similarly unexplored example (4546) may have also existed north-eastwards of the cursus (figure 4:19), although its diameter was much larger than the other two sites (Gibson 1994: 190).

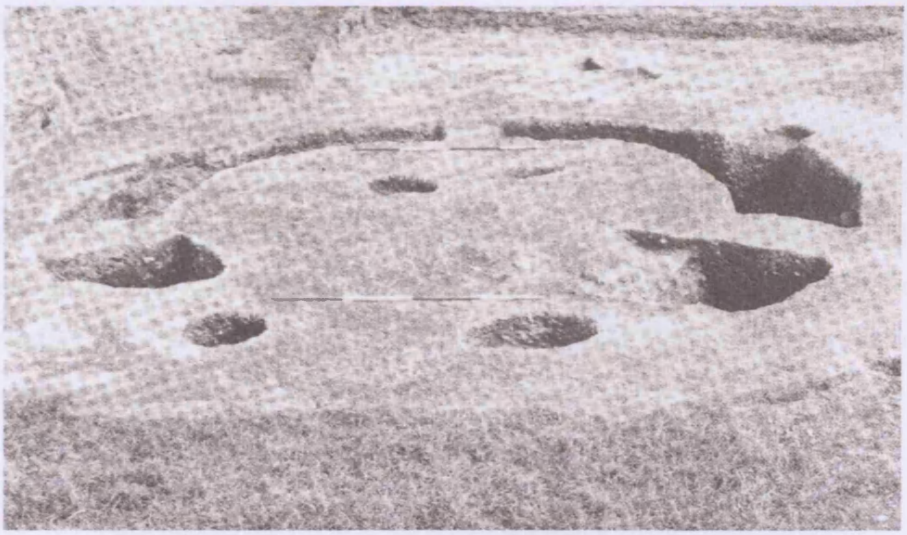


Figure 4:20 Photograph of Sarn-y-bryn-caled Penannular Ring-Ditch 1 (*from* Gibson 1994: 161)

Sarn-y-bryn-caled Timber Circle

Approximately 200m north-west of Penannular Ring-Ditch 1, a 17.5m diameter timber circle was situated within exposed scrub, surrounded by large tracts of forest (figure 4:19; 4:21 & 4:22). Twenty outer post-pits spaced 2.6m apart surrounded an inner circle of another six, flanked by two large post-holes to its east (Gibson 1994: 146-7). The outer circle comprised oak posts averaging 0.32m in diameter, whilst two adjacent posts in the southern arc (13 and 14) were 0.63 and 0.75m thick, probably marking an entranceway. Several post-pits had the tops of erection ramps dug into their sides. The timbers rotted *in situ*, and charcoal from the outer growth-rings of two of them (11 and 12) was radiocarbon dated to *c.* 2276-1980 cal BC (BM-2808) and *c.* 2201-1889 cal BC (BM-2807) respectively (Gibson 1994: 150). A small fragment of cockle shell was placed in the packing of post-pit 17, on the eastern outer arc of the circle. Such a marine species must have been brought to the site, and contrary to the excavator's explanation that a bird coincidentally dropped it into the hole during construction (Gibson 1994: 154), the shell is likely to have been deliberately emplaced. The inner circle comprised six oak posts averaging 0.66m wide that had been burnt *in situ* (figure 4:23). Their post-pits were originally deeper than those of the outer circle, suggesting that these trunks were originally taller as well as wider than the outer posts. The carbonised outer growth-rings of two of the inner posts (F and E) were radiocarbon dated to *c.* 2281-1985 cal BC (BM-2805) and *c.* 2195-1939 cal BC (BM-2806) respectively, confirming that the two circles were built at roughly the same time (Gibson 1994: 155). An obvious entranceway to the inner circle was not apparent to excavators, although several have been proposed based on the outer pair of flanking posts to the east, the gravel 'causeway' to the west and a larger gap between posts to the south-west. The two flanking posts, or 'two-poster setting' were again oak and originally 'D'-shaped, based on their pit shape. Spaced 2.4m apart and each with a diameter of 1m, these posts were not set as deeply into the ground compared to the two circles. They may have originally been short and stocky, holding a mantle timber as a portal, or even 'altar' setting (Gibson 1994: 157). A thin stretch of burnt gravel surface reached between these two posts.

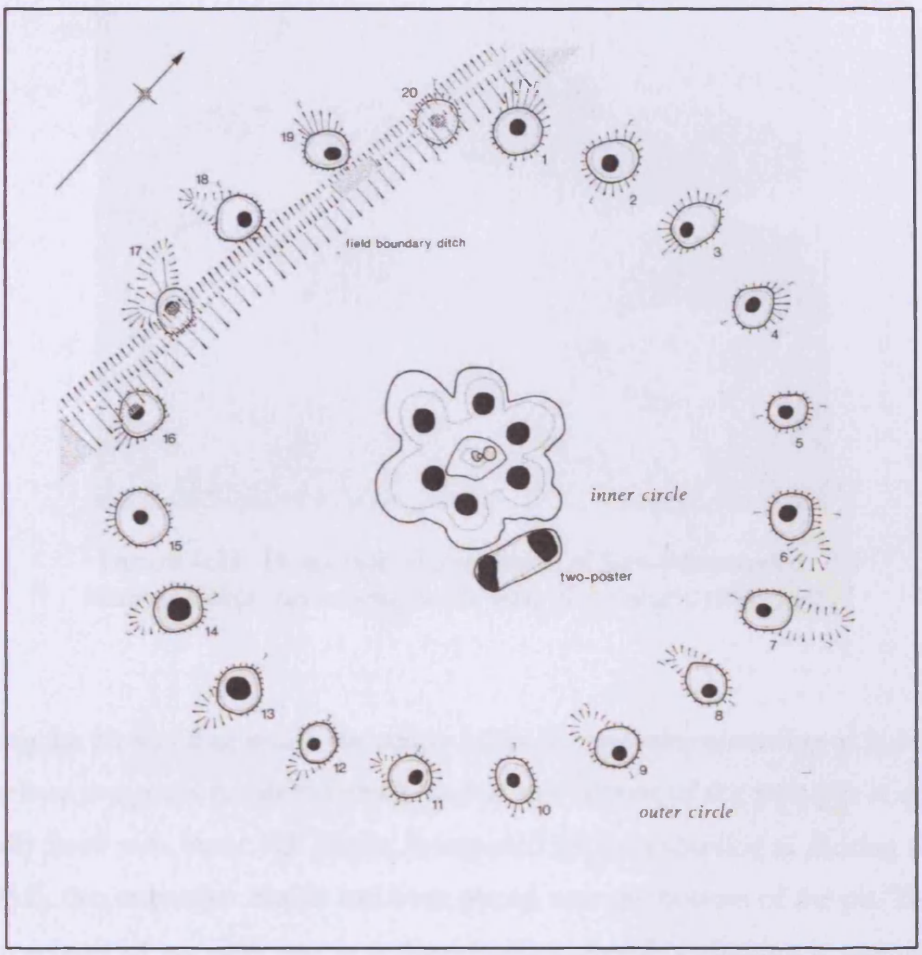


Figure 4:21 Plan of Sarn-y-bryn-caled Timber Circle (*from* Gibson 1994: 149)

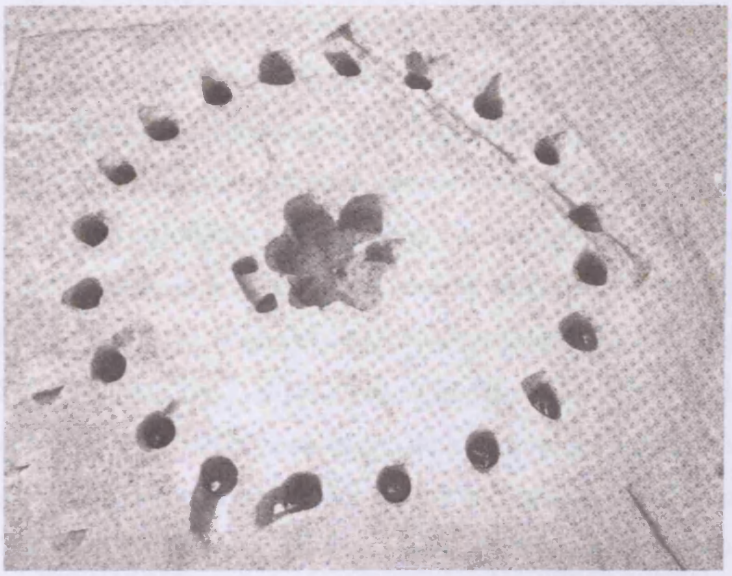


Figure 4:22 Photograph of Sarn-y-bryn-caled Timber Circle, taken facing south-west (*from* Gibson 1994: 5)

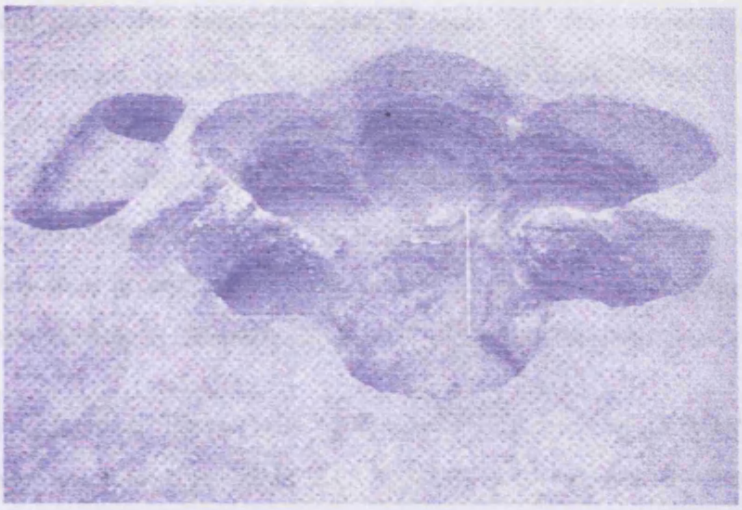


Figure 4:23 Photograph of inner circle of Sarn-y-bryn-caled Timber Circle, taken facing south-west (*from* Gibson 1994: 154)

A rectangular pit was dug within the centre of the inner circle, narrowing as it deepened until its base at approximately the same level as the bottom of the post-pits it inter-cut. Originally lined with burnt oak planks, interpreted by the excavator as shoring (Gibson 1994: 155), two cremation burials had been placed near the bottom of the pit. The basal primary deposit of an adult was in a discrete pile, possibly indicating it was originally contained in an organic receptacle. Four finely manufactured barbed and tanged Conygar type arrowheads (AppB: p353) were distributed amongst the cremated bone, two of which had impact fractures. All four arrowheads were calcined but not completely burnt, possibly because they were in the body when it was cremated, perhaps precipitating death. Two further flakes, and various pig forelimb and rib fragments situated amongst the collection of bone were also calcined but not completely burnt. A left petrous temporal from a second individual was placed at the top of the primary cremation pile, interpreted by the excavator as encroached debris (Gibson 1994: 155). A piece of carbonised oak (possibly pyre material) associated with the deposit was radiocarbon-dated to *c.* 2833-2342 cal BC[44] (BM-2810) (Gibson 1994: 155). This situates the cremation event between 550-100 years earlier than the upper limit of the radiocarbon dates for the post-holes through which the central pit stratigraphically intersects (e.g. *c.* 2281-1985 cal BC for the burning of inner post F; BM-2805) (Gibson 1994: 155).

[44] This radiocarbon date is incorrectly cited as BM-2809, *c.* 3900 ± 40 BP in Gibson 1994: 155. This is corrected in the CPAT Research Framework for the Archaeology of Wales East and Northeast Wales database, created 22/12/2003 (http://www.cpat.org.uk/research/enrad.htm) as BM-2810, *c.* 3990 ± 50 BP

Indeed, it would make the primary deposit at least 150 years older than the earliest known date for Conygar arrowheads which, based on their almost exclusive association with Food Vessels (AppB: p351-2), are typologically phased to around 2200-1700 cal BC (Green 1980: 138-9; Needham 1996: 128-32; Sheridan 2004a: 243). BM-2810 is most probably erroneous however; perhaps derived from old wood being used in the pyre, heartwood rather than juvenile wood being dated, or earlier material being incorporated with the deposit (possibly associated with the left temporal fragment).

The secondary cremation deposit was of a young, possibly female adult, placed 30cm higher than the first. It was probably also originally contained as the bone was tightly clustered. A large lump of fired clay was situated within the pile, alongside pig forelimb and rib fragments, again similar to the primary deposit. An oak charcoal inclusion, presumably from the pyre, was radiocarbon dated to *c.* 2190-1926 cal BC (BM-2809) (Gibson 1994: 155-6). This is contemporary with the radiocarbon dates for the burning of the timber circle and suggests that the central pit was contemporary with its lifespan (Gibson 1994: 156). A small bipartite Food Vessel containing charred food residues was placed adjacent to the secondary cremation. Small fragments of calcined bone (human and animal) were present throughout the higher pit fill. Some may represent elements of a second body placed with the secondary cremation, whilst other scatters may have derived from a third disturbed deposit or surface debris accumulations when the pit was silting-up. A significant amount of fired clay was also found in the upper fill of the pit, probably derived from the apparent burning of the inner circle which surrounded it. A thermoluminescence date of *c.* 1800 ± 350 BC (Gibson 1994: 156) confirms the possible contemporaneity of the pit and inner circle. There are no wattle impressions in the clay, although burnt-out organics are visible. Unlikely to derive from pyre material due to the quantity present, this fired clay was interpreted as the remains of wattle and daub screening set between the inner circle posts (Gibson 1994: 156). The clayey fill of the entire pit may have resulted from the gradual denudation of this daub, whilst the remnants of the screening were fired when the circle was alight (the highest concentration of burnt clay is associated with the most carbonised post-pipe of the surrounding inner circle).

Sarn-y-bryn-caled Pit Circle

A circle of seven oval pits was located 200m north-east of the timber circle (figure 4:24) (Blockley & Tavener 2002: 43). The pits were generally filled with mixed loam and gravel

and may have originally held posts. Some pits also contained charcoal flecks, fire-cracked stones and very small amounts of burnt bone, and a few were re-cut. Three Peterborough Ware sherds, one Beaker, one Grooved Ware sherd, and an Early Bronze Age flint scraper were also found in the fills. These inclusions date the circle to around *c.* 2000 cal BC, with the pits remaining open long enough for the earlier surface debris pottery to accumulate (Blockley & Tavener 2002: 63). Three other pits (17, 19 and 28) surrounding the pit circle were also broadly contemporary. They contained multiple sherds of Beaker pottery, another five diagnostic Early Bronze Age flint scrapers and one flint core. Around 100m to the north-west of the pit circle, 66 sherds of undecorated Neolithic pottery, and one sherd of Peterborough Ware were found at the base of a probable relic palaeo-B soil horizon. This concentration may have resulted from ploughed-out Neolithic occupation surface (Blockley & Tavener 2002: 46).

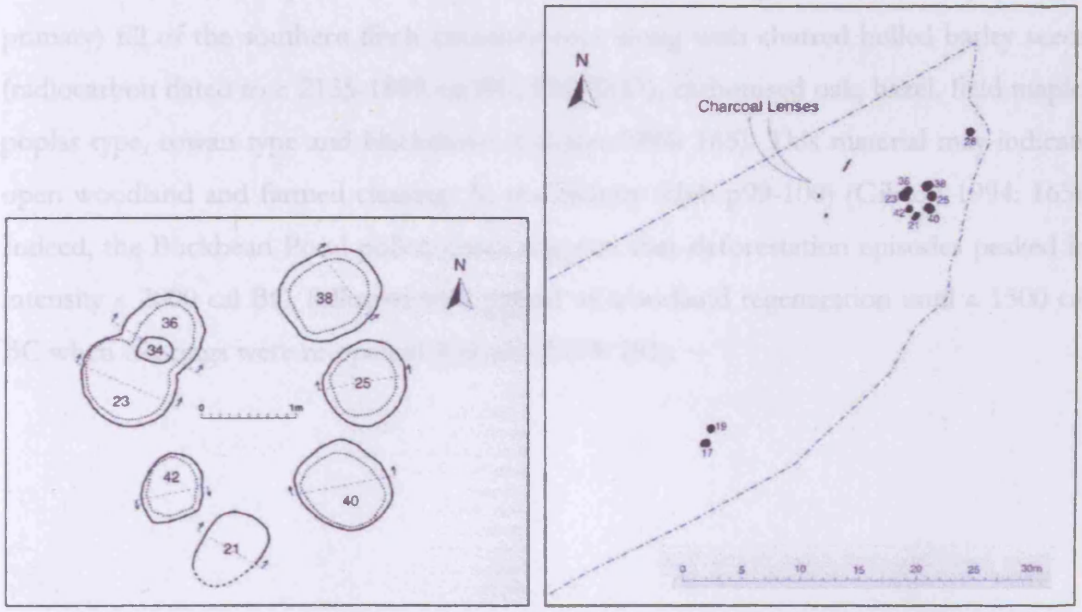


Figure 4:24 Plans of the pit circle to the north-east of Sarn-y-bryn-caled Timber Circle (left) and contemporary adjacent features (right) (*from* Blockley & Tavener 2002: 45-7)

Coed-y-dinas Ring-Ditches I and II

At least six ring-ditches existed in the area (figure 4:19). Two at Coed-y-Dinas were built 500m north-east of the northern cursus terminal within increasingly enlarged clearings on a gravel terrace spur (figure 4:25). Ring-Ditch I overlay a narrow curving U-shaped ditch to the east, and when it had almost completely silted up was itself inter-cut to the west by Ring-Ditch II (Gibson 1994: 165). The U-shaped ditch probably originally comprised a *c.*

16m diameter circle and may have been a palisade slot, although poor depth of preservation limits further interpretation. Ring-Ditch I had an original inner diameter of 19m and average width of 1.9m. It was allowed to silt naturally, partly from slipped material from the internal bank or revetted mound confirmed by geotechnical analysis (Gibson 1994: 181). Two almost diametrical causeways crossed the ditch, with rounded ditch terminals flanking the north-west opening. The second causeway was in the eastern arc, but was probably not visible from the surface and may have derived from two ditch-digging efforts joining (Gibson 1994: 162-3). A large post-hole situated internally about 4.5m from the north-west entranceway contained a Beaker sherd in the post packing material. Several smaller, possibly contemporary post-holes were sited along the internal ditch circumference. If contemporary, many of these posts would have been contained within the central mound or ring-shaped bank. Beaker sherds were spread sparsely within the silted fill of the ring-ditch, although a concentration was placed in the early (but not primary) fill of the southern ditch circumference along with charred hulled barley seeds (radiocarbon dated to *c.* 2135-1889 cal BC; BM-2837), carbonised oak, hazel, field maple, poplar type, rowan type and blackthorn (Gibson 1994: 165). This material may indicate open woodland and farmed clearings in the vicinity (ch4: p99-100) (Gibson 1994: 165). Indeed, the Buckbean Pond pollen cores suggests that deforestation episodes peaked in intensity *c.* 2000 cal BC, followed by a period of woodland regeneration until *c.* 1500 cal BC when clearings were re-opened (Gibson 1994: 191).

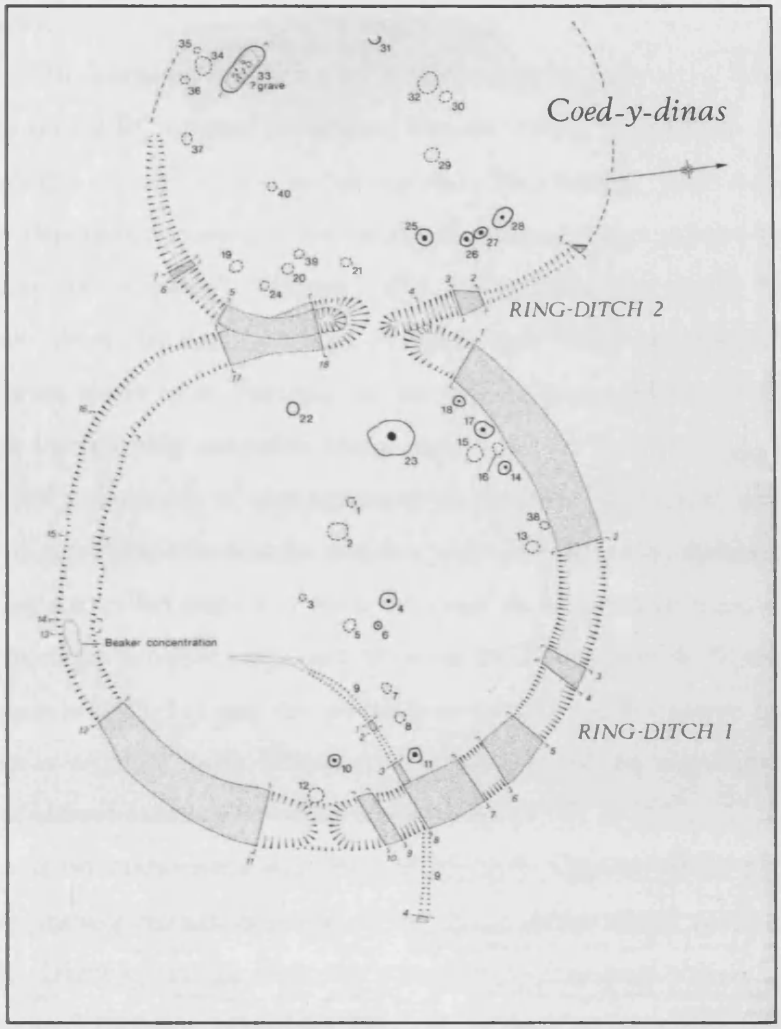


Figure 4:25 Plan of Coed-y-dinas Ring-Ditches I and II (*from* Gibson 1994: 164)

Ring-Ditch II was poorly preserved. It had an internal circumference of 16.5m east - west and approximately 19m south - north, with a discontinuous ditch in the south-south-west. Overlying the almost completely silted-up eastern arc of Ring-Ditch I, Ring-Ditch II was also allowed to silt-up naturally. Nineteen internal features were visible including shallow bowl-shaped pits and four post-holes, one of which (25) contained charcoal which was radiocarbon dated to the Late Iron Age *c.* 351-4 cal BC (BM-2838) (Gibson 1994: 167). However, excavators still favoured an early second millennium cal BC date for the initial phases of this monument since it is both typologically analogous and located in close proximity to other dated ring-ditches (Gibson 1994: 190).

Initial interpretations

Gibson (1994: 179) described the Sarn-y-bryn-caled complex as a "ritual landscape" with fourth millennium cal BC origins. He argued that the cursus established the sanctity of this section of the Upper Severn gravel terraces. Monuments were repeatedly sited respecting this degrading earthwork, facilitating its "continued augmentation...almost a millennium after its inception" (Gibson 1994: 190). Beaker-associated deposits were situated farthest from the cursus, whilst Peterborough Ware and Food Vessel finds occupied positions closer to it. Focusing on the timber circle, Gibson (1994) suggested that its design intentionally excluded visual access to the interior through both the (probable) off-set positioning of the entrances to the inner and outer circles, and the wattle and daub screening between the interior posts. Bodily access would have entailed movement along a spiralled route-way from the outer to the inner settings, similar to that proposed for both the multiple rings of timbers at the Durrington Walls southern circle (Parker Pearson *et al* 2005: 71), and the (possibly archaic) helical track-way around Silbury Hill (Chadburn *et al* 2005), both Wiltshire. The location of the entrance to the outer timber circle at almost exactly due south was also proposed as demarcating the highest point of the sun on midwinter's day (Burl 1994: 188). Gibson (1992: 91; 1994: 186) interpreted the primary cremation at the centre of the timber circle as the remains of a sacrificed male. Drawing on the Iron Age association of archery with a cultic warrior ethos, he suggested that the (probable) presence of four arrowheads within the body during cremation indicates not only that the individual was murdered, but that the shots were fired in a premeditated manner (i.e. that the individual was executed rather than killed in conflict). A parallel was drawn with the skeleton placed in the ditch at Stonehenge, Wiltshire. This individual had four arrowheads embedded in its ribcage, including one lodged in the underside of the sternum which was probably fired through the heart from behind at close range (Evans 1984; Gibson 1994: 187).

Towards knowing through being in the early third millennium cal BC of the Upper Severn valley

Gibson's interpretation of the Sarn-y-bryn-caled complex can be furthered to acknowledge that the lives of these monuments were entwined with peoples' daily performances (ch3: p62-77). As practice in the forested floodplain altered, taskscapes responsively shifted, in turn affecting future life engagements. Knowledge was inherently

bonded to these changes, and as daily lives transformed, so understandings of those lives fluxed (ch3: p79-80).

Changing taskscapes

The construction of Penannular Ring-Ditch I (ch4: p114-5) probably involved the felling of trees, or at least clearance of hazel, poplar and hawthorn scrub, a short walk eastwards from the presumably overgrown, silted-up and eroding cursus monument (Gibson 1994: 190). Digging through this clearance layer to carve out the ditch required a combination of endurance and precision: a continuous grasp of the overall plan was essential to maintain the orientation of the ring-ditch's entrance towards the cursus. Although we do not know whether contemporary vegetation cover enabled inter-visibility between these two sites, the Buckbean Pond pollen cores demonstrate a marked decline in oak and elm species and a rise in weed taxa locally *c.* 2900 cal BC (ch4: p99-100) (Gibson 1994: 191). The carbonized remains of fast-grown oak was also found in the ring-ditch's fill. Gibson (1991: 191) therefore suggested that the valley sides remained wooded throughout the early third millennium cal BC, whilst the floodplain was increasingly cleared into merging stretches of scrub and grassland. It is possible that the construction of Penannular Ring-Ditch I did not merely coincide with these mounting acts of deforestation (Gibson 1994: 191), but was integral to them. Perhaps the opening-up of floodplain woodland reignited oral histories about the older, degrading cursus which became exposed to the light for the first time. Engagements with the cursus were no longer flavoured by the enveloping forest. Similarly, experiences moved beyond direct, bodily and temporary encounters en route elsewhere. It could now be viewed from afar and visited without proximity, and this may have re-defined the manner in which it was understood. Interestingly, the cursus ditch was not re-cut, and its bank was not reinforced. Whilst the overgrowth may have been cleared, the six hundred years or so since it was built were not interrupted nor utilised directly. Instead, the architecture of Penannular Ring-Ditch I referenced it through axial emphasis. Its horseshoe-shaped ditch, original terminal cremation and entrance flanking posts all funnelled attention north-east towards the cursus. This ditch *was* re-cut, only to embellish the north-easterly focus with clearer ditch termini, three further terminal cremation deposits and a back-site post diametrically opposite the entrance. Such monumental accentuation of the cursus was echoed in the wider, broadly contemporary landscape by the positioning of the other two penannular ring-ditches, pit and solitary post.

During the fourth millennium cal BC, the wooded floodplain of this part of the Upper Severn was embedded within routines of life; its braided and tributary channels were used for drinking, watering animals, fishing, hunting, navigating and gathering reeds, whilst its wet woodland enabled shelter, coppicing, hunting, fuel and gradually, grazing and arable plots. The transformation of this taskscape throughout the early third millennium cal BC certainly altered what engagements were performed there, perhaps foregrounding knowledge of what was explicitly known and familiar, and conversely unknown and unfamiliar about it. Dwelling through a changing taskscape necessarily incurs simultaneous shifts in knowledge about it, and consequently life itself (ch3: p88-9). Clearings are no longer clearings but parts of scrubby terraces; memorable trees are no longer vantage points or places of cover but stumps and portable firewood; glacial outcrops are no longer secret sources of quartz but visible and available to all. This process of re-conceptualising life was inherently entwined both with acts of clearance, and subsequent engagements with the transformed and transforming taskscape. Agents reconfigured their knowledge of the world dialectically through their ongoing action (ch3: p79-80). Encounters with new places, situations, skills and possibilities were perceived through pre-existing frameworks (ch2: p21-2; ch3: p76), and this new knowledge in turn re-aligned those frameworks.

Knowing through being in proximate taskscapes

Prior to its destruction, engagements with and through the floodplain forest were intimate[45], both in terms of the proximity of the material world and the likelihood that fairly small groups were sharing these experiences[46] (Ingold 2000: 252-3). Agents probably had very specific and localised knowledges of what parts of the wood they knew about, and which others were unknown. Similarly, what was familiar and conversely, unfamiliar, was apparent on a direct, personal and perhaps mainly un-communicated basis. This knowledge was of course irrespective of the frequency or intensity of their interactions with different parts of the forest (ch2: p32; 35-6), instead constructed around their own interpretations of the places with which they engaged. Whilst these configurations of knowledge were obviously inherently linked with agents' social frameworks (ch3: p76-7), the detail of their manifestation may not have been

[45] For an exception, see chapter 5: p208-9

[46] Even if large groups were moving through the forest, the closeness of vegetation, especially in the summer and autumn, necessitates that awareness of one another would be limited to a small percentage of the group

widely shared, meaning each understanding of the world may have differed a little. For example; that is the pool which my companions and I can drink from because it is known; that is the glade around which I should walk as the light dances in an unknown manner within it. Similarly, this fording point is familiar, whilst that notch in that outcrop is not. I argue that because such knowledges were not necessarily communicated or even overt in practice (ch3: p75-7), they were somewhat emancipated from social convention. Indeed, a common normative knowledge of many of these places may not have even existed, especially if they had not been experienced in shared contexts (figure 4:26).

Lizot (1985: 64-6) has described a group of Yanomami women's daytrip into the forest from Karohi village, near the Shitoyo River, Venezuela (figure 4:27). They walked unhurriedly in single-file with children running between their legs, leaving the main trail to follow a route well-trodden before. Dodging and weaving past the "old stump in the last stage of decay" and the "leaning tree studded with thorns", the women quickly became aware of, and simultaneously reinforced, their familiarity with this taskscape through their replication of the motions of past trips. Conversation revolved around current scandals and general social "chatter", rarely if at all communicating about the practices they engaged in (Lizot 1985: 64). Line and net fishing, termite catching and the opportunistic gathering of firewood and vines for basketry were narrated by ongoing, usually jovial discourse. Amusement was found at the expense of a friend at the front of the column who was stung by a wasp, and by idle attempts to squash mosquitoes which pestered them. The discovery of *Bothrops atrox*'s tracks, a viper whose bite is often fatal, concerned them. The ensuing debate about whether to chase and kill it was finally resolved by the decision to move on. Occasionally, the women pointed out ripened palm fruits to one another, lamenting the absence of their machetes. Despite entering the forest as a group, most en route experiences lacked an audience as the line of women snaked through the trees. Only at pointed places did the group reform and explicitly discuss their situation (e.g. waterholes, streams, fruiting trees, termite nests, snake tracks), conceding a communal interpretation of each event as a result. As they walked, fished and tugged at vines, their experiences were rarely communicated or witnessed, and therefore the understanding of most places they engaged with did not become public, consensual knowledge (ch3: p75-7). The knowledge that the route was familiar was an exception, since its concession was based on previous conversations about past trips. Re-workings of such memories clearly still rendered the route as 'sufficiently engaged with'

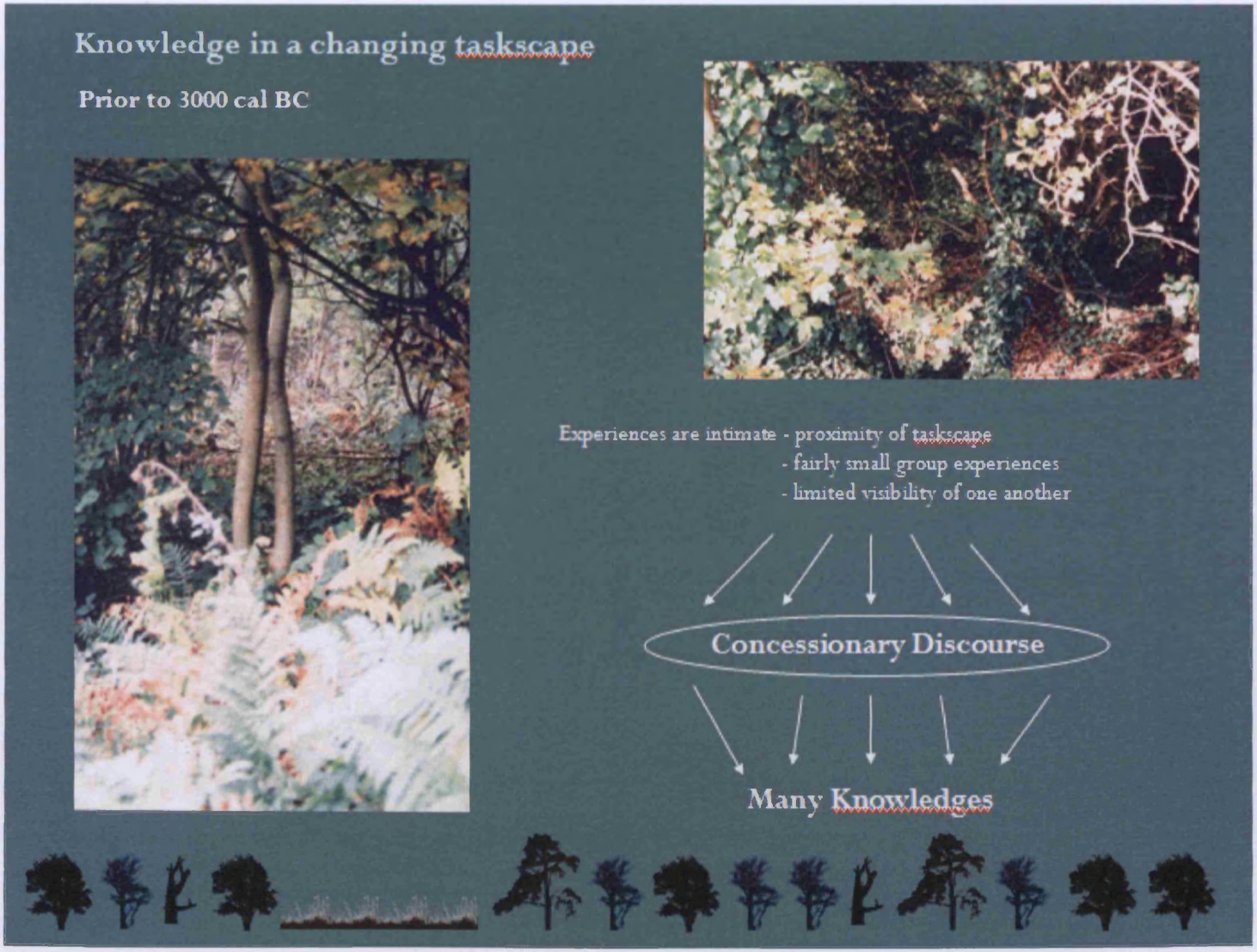


Figure 4:26 Depiction of knowledge formation processes in forested taskscapes (e.g. pre 3000 cal BC in the Upper Severn valley or Yanomami daily life)

(ch2: p44), and glimpses of others in the group negotiating tree trunks with experienced ease corroborated this knowledge. However, the familiarity and knowledgeability of other un-discussed dimensions of the taskscape were not so explicitly settled. Each woman or collective agency within the group may have understood the monkeys which passed overhead, the fruit they passed and roots they witnessed floating downstream in a different way. Such knowledge was based on their own lives, and the sheer number of such concessions rendered most of them 'un-noteworthy'. As long as they remained un-communicated, the comprehension of such knowledge could only be re-aligned by the agents themselves as they re-negotiated their own worlds (ch3: p75-7).

Figure 4:27 Photographs of Yanomami taskscapes

Knowing through being in open taskscapes

When the forest cover was lifted at Sarn-y-bryn-caled, such maps of knowledgeability and familiarity were necessarily re-aligned, but I argue in a more explicit and therefore institutionalised manner (ch3: p75-7). Knowledge of how well known and familiar certain places were moved into openly public forums as interactions with taskscapes became inter-visible over far greater distances. People no longer traversed single-file or just two abreast and were not visually impaired by the vegetation (Gell 1995: 236-40), meaning agents' relations with places were now on display to a much wider audience. Engagements with spaces occurred through different permutations of sensory fields; as

the medium of vision became just as effective, perceptions of opened spaces were no longer dominated by hearing and smelling. Ingold (2000: 251) pointed out that it is false to assume a cross-cultural dichotomy between vision as an abstract means of engagement, and hearing as a more intimate process. Determining how places should be understood as a collective and in open ground was certainly not more abstract an experience than similar concessions amongst smaller company and in closer surroundings. However, it did involve more explicit and therefore open discourse on how those places should be conceded and re-conceded (ch3: p75-7). In contrast, by their very nature introspective experiences incurred fewer channels for interpretive negotiation, meaning knowledge was configured and re-configured to more limited effect. Therefore, and linking to chapter three, as woodland clearance communalised daily experiences, agents could engage with knowledge formation processes to longer-lasting and wider-reaching effect. Interpretations of experience became less fluid and more overtly political because they were more likely to be conceded by multiple rather than singular agencies. The opportunity for co-existing contradictory comprehensions of taskscape within one community, and therefore a multiplicity of communal norms and values, diminished considerably. Ultimately, the heightened exposure of the taskscape and therefore engagements with it rendered action more accountable as performance (figure 4:28).

Keith (2006: 28) described how !Kung hunters of the Kalahari Desert, Bostwana and Namibia, construct knowledge about their world. Since individual experiences vary, individual knowledge usually differs initially too. One hunter's comprehension of tracks in the scrub may differ entirely from another's. However, knowledge is asserted and re-worked through action, and these contradictory 'ways of understanding' become apparent when agents engage with taskscapes in full view of one another. Kung! communities aggregate around permanent watering holes during the April to September dry season, when most adult activities take place in the general area of the camp (Keith 2006: 37). Hunting and foraging expeditions almost always occur in groups within open, scrubby plains (figure 4:29). Unlike the inhibited view of the Yanomami women weaving along the forest trail, the majority of !Kung practice is enacted in communal forums, for all to perceive. The opportunities for individual knowledges to openly conflict or diverge from others are therefore far more numerous in !Kung daily life than Yanomami. Whilst the origin of knowledge in both groups is a personal comprehension, heightened public

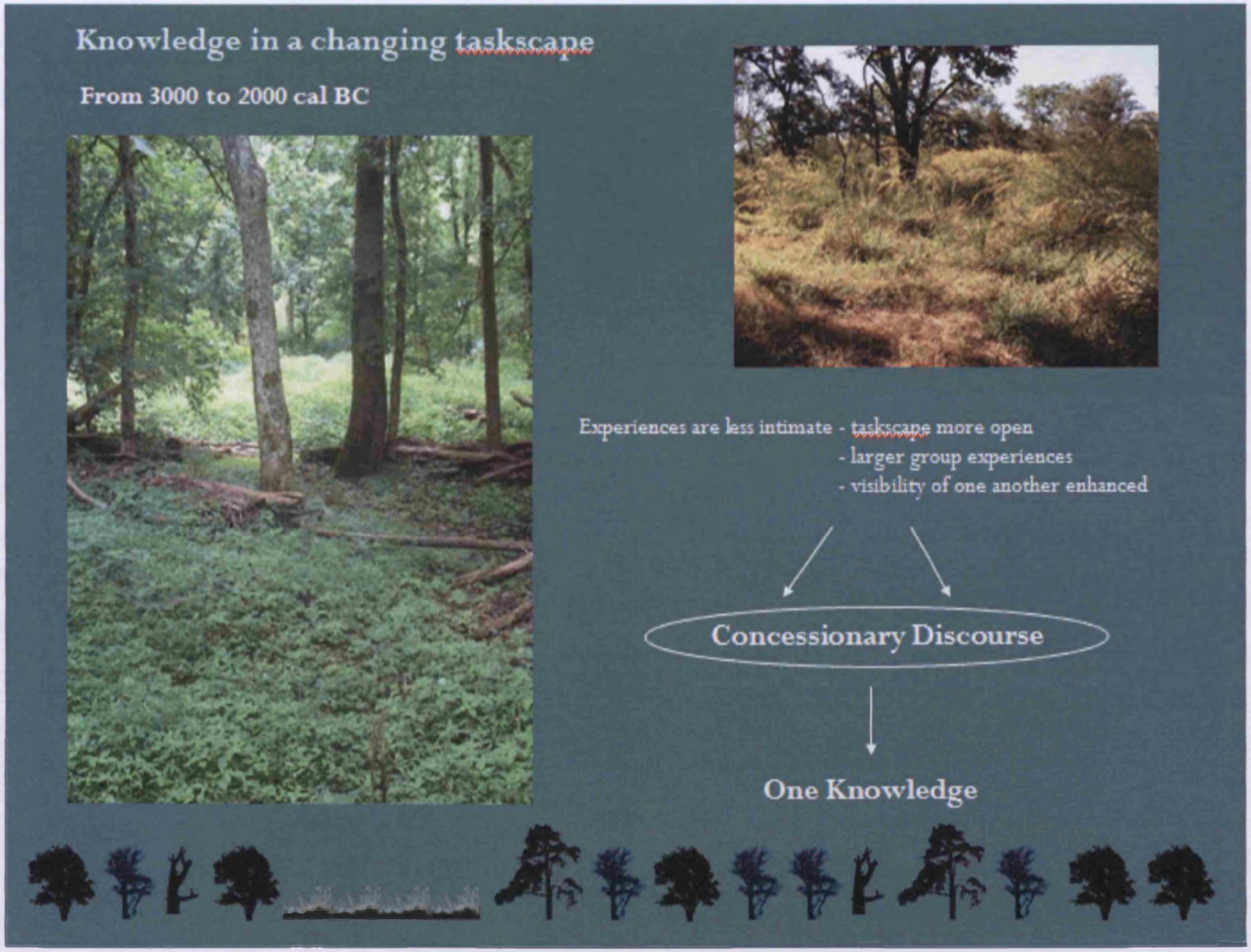


Figure 4:28 Depiction of knowledge formation processes in open taskscapes (e.g. 3000-2000 cal BC in the Upper Severn valley or !Kung daily life)

practice in !Kung life means more discursive situations are encountered. !Kung knowledge is therefore more likely to be re-worked into a group consensus.

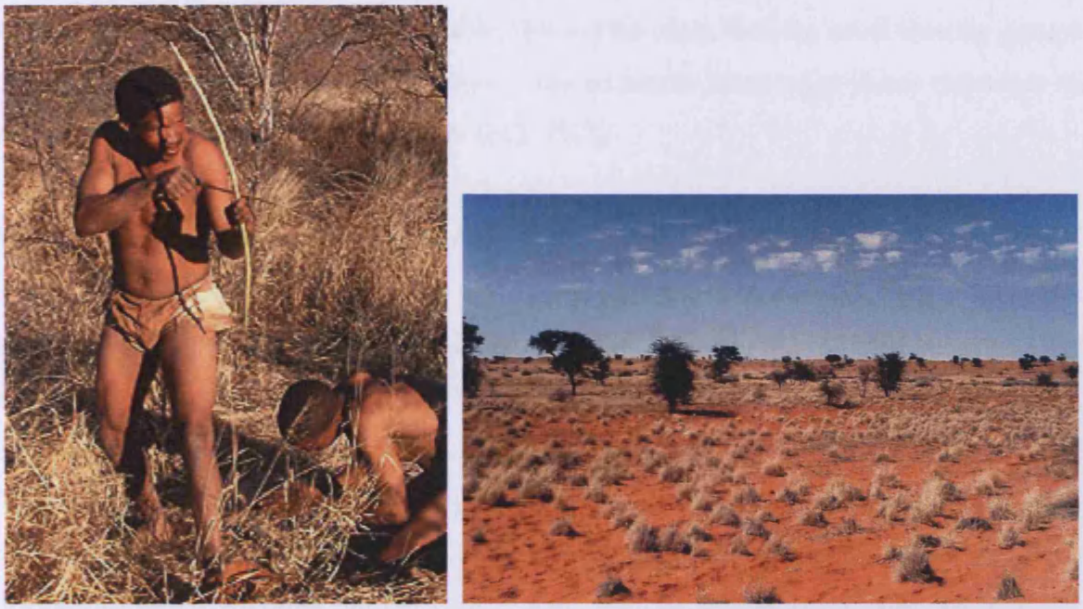


Figure 4:29 Photographs of !Kung taskscapes

Whilst the Yanomami women *occasionally directly* discuss experiences (e.g. at the termite feast or fruit trees), !Kung daily life incurs countless moments of reflection in which knowledge is explicitly conceded through open debate. For example, !Kung hunters are careful observers of animal behaviour and continuously compile information they believe may be of use in the future. They rarely communicate this knowledge abstractly, offering it later when specific situations, such as the discovery of game tracks or setting traps, require evaluation on how best to proceed (Keith 2006: 28). In the arid Kalahari plains, these engagements are generally communal experiences, meaning far more of !Kung than Yanomami life is understood through open negotiations of personal knowledges. Furthermore, in between such overt moments of concession, 'non-noteworthy' !Kung engagements are also communicated, whether verbally or not, through the openness of the taskscape. Following Bourdieu (1977: 94), the homogenisation of !Kung mannerisms illustrates this point; the hunters all move in a similar manner having, consciously or otherwise, perceived one another's movements in the past and adjusted their actions accordingly. Whilst a !Kung hunter's knowledge about their taskscape is therefore just as individually derived as a Yanomami woman's, its greater publicity results in the standardisation of more of it as common knowledge (ch3: p75-7). Johnson (1982) argued

that common knowledge is most likely to be stable when conceded amongst groups numbering around six. Any larger, and the probability of extensive disparity and open dispute increases considerably, rendering conceded knowledge far more prone to realignment. If culturally cross-applicable, this would mean that the small hunting groups of the !Kung provide the optimal context for common knowledge about taskscape to become established as institutional fact (ch3: 75-7).

Knowing through being in the changing taskscapes of the third millennium cal BC in the Upper Severn valley

I argue that the increasing intensity of deforestation episodes during the first half of the third millennium cal BC in the Upper Severn valley similarly resulted in the communalisation of experience there. I believe that as open debates became increasingly frequent, knowledge of the Sarn-y-bryn-caled and Carreg Beuno area became noticeably more uniform. That people lived in and through this taskscape in different ways and through different rhythms before, during and after deforestation is clear. However, I argue that the nature of the floodplain in terms of its general knowledgeability and familiarity became more prescribed during the early third millennium cal BC as people engaged with it in a more public way (figures 4:6 & 4:7). Clearance episodes brought the understanding of specific places to the fore where, for the first time, this knowledge was negotiated and determined communally. In this public sphere, specific definitions became established where they had not existed so rigidly before.

Some of these truths became entrenched in world-views. Drawing on my discussion in chapters 2 and 3, performances such as access taboos, prescribed ceremonies and emplaced mythologies can reinforce and perpetuate specific understandings. This can lead to certain knowledges becoming institutional facts; their active absorption into cultural life renders them therefore increasingly closed to re-interpretation. Most of such intra-social change is indeterminable in prehistoric Powys and Shropshire. However, certain performances were recognisably repeated at Sarn-y-bryn-caled, providing us with an insight into how this part of the Severn valley was repeatedly re-characterised during the third millennium cal BC.

Increasing senses of liminality in the early third millennium cal BC

I believe that the choice and treatment of individuals interred are very revealing. Just as the contemporary cremation deposit within the Lower Luggy enclosure at Carreg Beuno was of an adult female with flint flakes (ch4: p104), the original cremation deposit at Sarn-y-bryn-caled Penannular Ring-Ditch 1 was of a young, possibly female adult (ch4: p115). Also accompanied by a calcined flint flake, this deposit was placed in the base of the southern terminal ditch (figure 4:30). The re-cut of this terminal contained cremated bone of a three-year-old infant near its base, with the cremated bone of another similar young, possibly female adult situated in its upper fill. A fourth possible adult of indeterminable sex was placed in the upper fill of the northern terminal. All cremation deposits were tightly heaped, suggesting they were originally contained within an organic receptacle. As discussed in Appendix B (AppB: p377-9), mortuary practices at the start of the third millennium cal BC were diverse, but were probably dominated by the scattering of cremated bone into non-sealed contexts since so few contemporary funerary deposits are known.

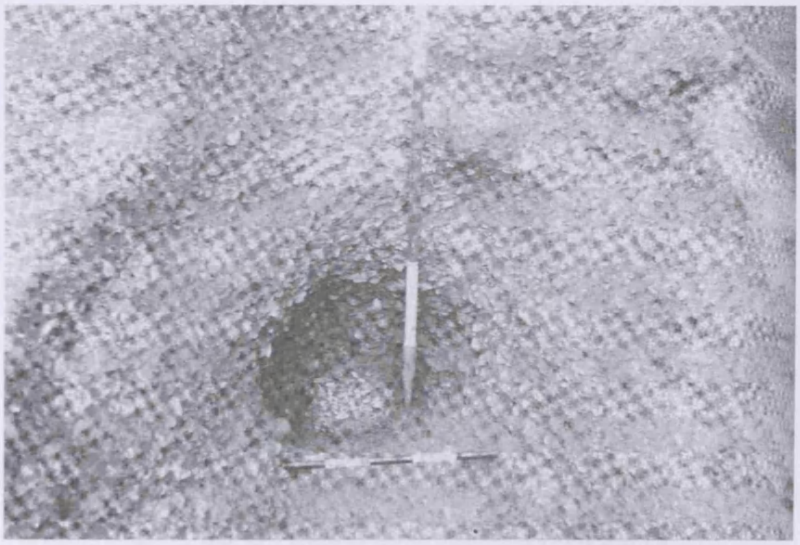


Figure 4:30 Photograph of the excavated southern terminal of Sarn-y-bryn-caled Penannular Ring-Ditch 1 (*from* Gibson 1994: 162)

The decision to contain rather than scatter these people's remains was enacted at Sarn-y-bryn-caled Penannular Ring-Ditch I on at least three separate occasions (the two latest deposits may have been synchronous). This is not to say that these people were 'special' (Barrett 1994), but perhaps that the circumstances at the time of death rendered this

differential treatment appropriate. It is possible that the three young adults, two of whom may have been female and the third of unknown sex, were chosen for inclusion at this site because they died in childbirth or whilst pregnant. This cause of mortality is often treated with very specific avoidance taboos in modern and past cultures because it incurs the failed transmission of one person into two, the aborted transferral of the inside to the outside or a faltered rite of passage (Douglas 1966: 49-50). Douglas (1966: 119) stated: "Danger lies in transitional states, simply because...it is indefinable. The person who must pass from one to another is himself in danger and emanates danger to others". For example, the Toraja of South Sulawesi, Indonesia, believe that death in childbirth is 'unnatural', inhibiting the spirit from reaching *puya* (the land of the ancestors) unless it is treated in specifically respectful ways (Tsintjilonis 2004). The decision to include the infant in the ring-ditch might similarly have been because the child had not undergone appropriate initiations by the time of death or because their mother had died giving birth to them. Amongst the Toraja again, babies who die before their teeth erupt are entombed in living trees so the tree will continue the baby's life (figure 4:31) (Tsintjilonis 2004: 390).

Figure 4:31 Photograph of Toraja baby grave tree at Sarapung, Indonesia. It contains infants who died prior to the eruption of their first teeth

This interpretation of the interments at Sarn-y-bryn-caled Penannular Ring-Ditch I is clearly speculative. However, despite shifting contemporary logic during the early part of the third millennium cal BC, on three or four separate occasions these individuals, or perhaps their deaths, were deemed 'appropriate' for interment in the same place and in the same manner. Indeed, the performances involved in emplacing the remains into the ditch terminals materialised this logic. The body and pyre were prepared, lit, kept alight and subsequently sorted; the remains were transferred and, perhaps at a later date, selected for enclosure in a bag; a hole was dug through the ditch fill, the bag was positioned and then covered. These performances were enacted for an audience, whether small or large, and they actively disassociated the deceased (or rather perceived 'circumstances' connected to the deceased), from the rest of the dead. I argue that the sorting, containment and entombment of each of the four cremation pyres publicly manifested taboo in the Upper Severn valley (ch2: p54-60). Instead of scattering, or facilitating the disintegration of the bodies (Fowler 2004: 99), these deaths were permanently demarcated and contained, thereby characterising them as potentially polluting within an openly communal forum. Brück (2004: 318-9) and Jones (2009) have also noted the recurrence of containment in funerary rites throughout Britain and Ireland, focusing instead on the Terminal Neolithic and Early Bronze Age. Shrouds, textile and leather bags and wooden boxes were used to enclose bodies (cremated or inhumed), as well as grave goods. Brück (2004: 319) similarly argued that this practice protected and hid mourners from contact with certain tainted material substances.

Containment symbolism also interwove the cosmologies of the Tlingit people of south-east Alaska during the nineteenth century AD (Kan 1989: 63-4). The Tlingit conceived of the body, house and wooden boxes as homologous; all could contain knowledge, life and material substance. They also believed that the spirit of self was one's dry bones. Encased with wet flesh, this essence required constant maintenance to prevent it from softening. As a result, the Tlingit both periodically and as part of rites of passage, fasted, bathed in cold water, abstained from sexual practices and drank sea water. The potential pollution of skin and organs was particularly apparent upon death, where the inside was no longer able to harden the outside. During up to eight days of lying in state, the body was considered extremely vulnerable to evil forces and subject to numerous taboos which forbade direct contact with the corpse (Kan 1989: 51). During this time, it was wrapped with blankets and watched over indoors by mourners who were consequently thought of

as between life and death; in a 'liminal' state of being (figure 4:32) (Kan 1989: 138). After the last night of this wake, the body was carried out of the house contained in a mat, placed within a receptacle built into the pyre, and then covered with more skins and blankets. Following cremation, all of the ashes were collected, wrapped again in furs and placed in a wooden box which was then deposited in an ancestral grave house (Kan 1989: 37). This repeated wrapping, enclosure and boundedness ensured the body's desiccation, controlling the potential pollution of death and thereby enabling the spirit's successful re-birth.

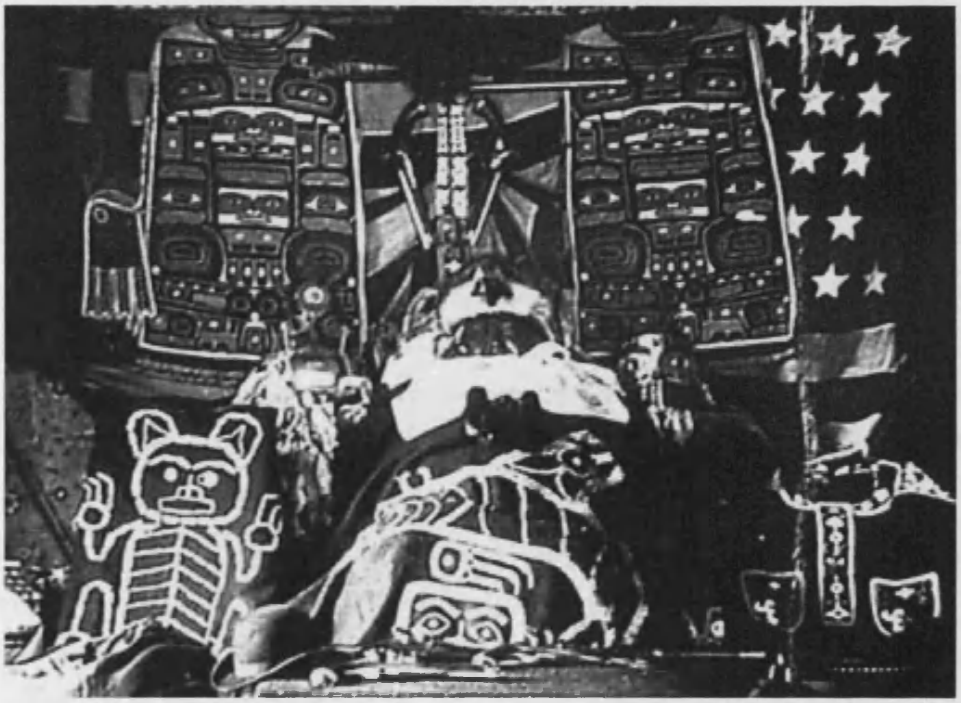


Figure 4:32 Photograph of a Tlingit man lying in state, his body wrapped and enclosed

Whilst I do not believe that death was similarly regarded during the Late Neolithic of the Welsh Marches, it is possible that certain circumstances surrounding certain deaths (e.g. during childbirth) were taboo. The Tlingit perception of bones as the corruptible essence of self may have held similarities with contemporary world-views. The inner fleshy body may have been considered dangerous, and any contact with it had to be managed to nullify this threat. This might have linked with other practices during daily life such as consumption and defecation. Indeed, Longworth's (2005) suggestion that a "strong taboo" prevented facial depictions on Neolithic pottery might derive from the eyes, ears

and mouth being perceived as gateways to the inner body. Maternal mortality may have therefore been considered a failed effort of the inner body to reach the outside, and this may have polluted both the mother's and prenatal child's remains. Within contemporary cosmologies, such circumstances may have rendered the unborn child, as an uninitiated person and an incomplete expulsion of within, as betwixt and between; the manifestation of the inner and outer body in limbo. The deceased may have therefore constituted an inherently liminal entity which was institutionally taboo (ch2: p38-42; 54-60). By sorting and containing the ashes of such deaths, the dispersal of a highly polluting substance was prevented. In turn, the taboo was respected and the framework of cosmological knowledge reinforced. This consequence was neither the direct product of agency nor of an extra-somatic functioning social system (c.f. Douglas 1966: 196-7). It instead derived from the imposition of order incurred when something is conceded as liminal.

I believe that the people or deaths entombed in the terminals of Sarn-y-bryn-caled Penannular Ring-Ditch I were considered manifestations of liminality. The choice to bury them there and at those moments was, critically, logical because of a heightening perception of the wider valley floor as ephemeral. In turn, these funerary performances re-defined what this place and those taboos meant for the performers involved. When the penannular ring-ditch was cut and re-cut I propose that, like the Carreg Beuno complex upstream (ch4: p110-2), this part of the Upper Severn valley was becoming consensually re-defined as transitional; neither known nor unknown (figure 4:6). Removal of the tree cover would have visually emphasised the linearity of the sunken valley and in turn its position as a conduit for movement by foot, by boat and also panoramically (figure 4:33). Like further upstream, its location was bordered in all directions by very different taskscapes (figure 4:15). River fording points marked the apex of transition into each, and such a crossing may well have existed at Sarn-y-bryn-caled. However, both the establishment of the valley floor as liminal and its endurance as conceded knowledge (e.g. the three/four funerary performances at Penannular Ring-Ditch I were consistent in form) were not just associated with practice in this increasingly exposed taskscape. Recursive links may have formed with other frameworks of knowledge within changing contemporary cosmologies. Liminality itself may have been re-defined as people became increasingly mobile as herders (Thomas 1996a: 4), and were therefore engaging with places, people and things they had not previously encountered. Other elements of the world could have become widely conceded as symbolically

'liminal', thereby re-aligning existing comprehensions of everything else. For example, heather could have become a metonym for thresholds as it usually forms in upland or littoral locations. Any heathland may thereafter have been thought of as liminal, and this in turn altered the meaning of liminality. As such, the characterisation of this part of the Upper Severn valley as liminal fitted into ongoing re-configurations of other knowledge, recursively re-defining and being re-defined by the concept of liminality itself.

Figure 4:33 Photographs of the cleared taskscapes of the Upper Severn valley today, looking west (left) and east (right) towards the base of Long Mountain (author's own)

Increasing senses of familiarity in the early third millennium cal BC

Whilst I argue that the Upper Severn valley was becoming increasingly understood as liminal within daily lives, I also propose that it was simultaneously being characterised as familiar (ch2: p44-51) (figure 4:7). This is suggested by the repeated orientation of early third millennium cal BC architecture towards the cursus (ch4: p114-5). The penannular ring-ditches' entrances, internal features and cremation deposits, and the surrounding pits and posts successively conversed with the increasingly exposed cursus. Through these sustained emphases of a decaying monument, rather than its actual revival, people actively engaged with understandings of past experiences in distinctly 'contemporary' contexts. I believe that this both initiated and reinforced the common comprehension of this area as 'sufficiently engaged with' (ch2: p44; p48). As discussed earlier (ch4: p123-32), local deforestation at this time was gradually enabling the re-configuration of knowledge about places into singular narratives on much broader scales than before. Once the awareness that this place was familiar was fore-front within group discourse, it became a consensual 'truth' (ch3: p75-7). This knowledge then became increasingly explicit as more and more local monuments focused upon the cursus as the

materialisation of past experiences, and ultimately familiarity. Engagements with taskscapes continued to be sustained at very particular and intimate levels, but a more extensive, unified knowledge of these places began to colour the nature of these engagements as the forest floor was opened up. Because these new knowledges were supported and therefore legitimated by a communally conceded framework of past action and knowledge, they were less easily re-aligned and therefore lasted longer than before.

That oral traditions were lasting hundreds of years at this time is perhaps exemplified best by petrological analysis of Peterborough Ware from both Penannular Ring-Ditch I and the isolated pit to the north-west (Gibson 1994: 159; 171). Sherds from both contexts were manufactured using clay which was compositionally and geologically indistinguishable from that used for the Coed-y-dinas Ring-Ditch I Beakers (Gibson 1994: 176). This implies a continuity of tradition, whereby the knowledge that a certain clay source was appropriate persisted in local world-views for at least 700 years. And so, I argue that by the time the Sarn-y-bryn-caled Timber Circle (ch4: p116-9) was built around 600 to 1000 years after the containment of the cremations at Penannular Ring-Ditch I, it is plausible that characterisations of the floodplain as liminal and familiar were still present in local psyches. What these characterisations actually meant to people at the time may have been very different however, since no matter how seemingly fixed knowledge is, comprehensions are always founded within ever-changing frameworks (ch3: p75-7).

Differently manifested familiarity at the turn of the third millennium cal BC

With an external entranceway to the south, and an internal entranceway (most likely) to the east (ch4: p116-9), the timber circle does not clearly reference the cursus in the same way as the earlier monuments of the floodplain (ch4: p138). Indeed, the axes of the circle seem to deliberately avoid alignment towards or away from the cursus, or any other previously existing monument. At the nearby and roughly contemporary Coed-y-dinas Ring-Ditch I (ch4: p120-1), an entranceway to the north-west-north, also back-marked by a large post, would also not have channelled vision towards earlier monuments.

This does not necessarily mean that the area had become unfamiliar. Perhaps its familiarity was manifested differently compared to earlier in the third millennium cal BC.

If the timber circle's inner ring was indeed accessed by moving in a spiral from the outer entranceway (Gibson 1994: 185-6), a clockwise direction would have maximised the duration of the performance and in turn maximised the amount of sites perceivable through the gaps in the post settings (figure 4:34). Indeed, assuming that sensory perception of the older monuments was possible at distance through the exposed scrub and tracts of forest (Gibson 1994: 191), the circle was ideally located. From its interior, all of the penannular ring-ditch sites and the cursus itself were visible between roughly 220° and 40° (if 0° is due north). Instead of directly referencing these places through static architectural pointers, the familiarity of this area of the Upper Severn valley may have been dialectically emphasised by performances both within and through the circle. This practice re-conceded the meaning of these monuments and familiarity itself, re-establishing the sustained 'noteworthiness' of the older sites and in turn, re-affirming the familiarity of the area as 'sufficiently engaged with' (ch2: p44).

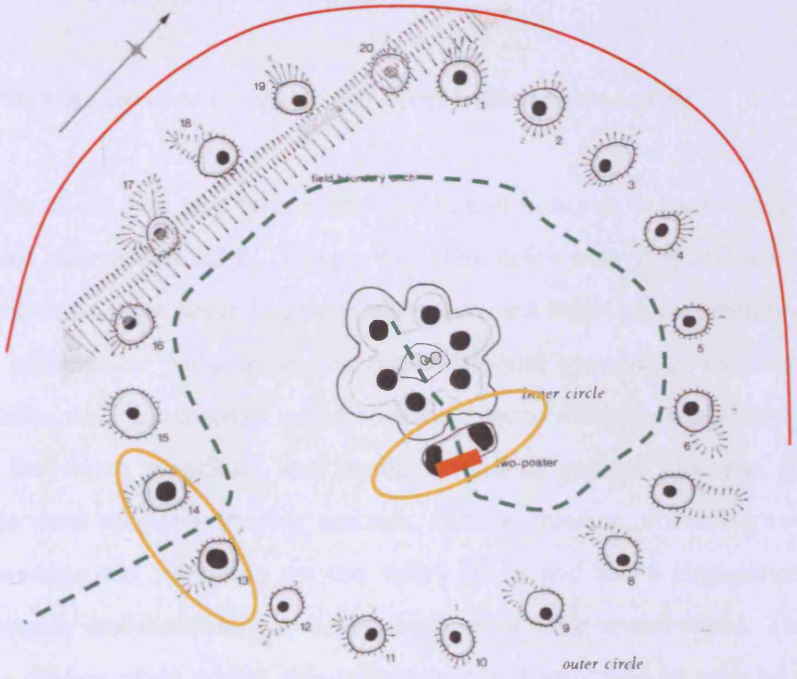


Figure 4:34 Plan of Sarn-y-bryn-caled Timber Circle, with probable entrances (yellow), likely path of movement between them (green), vista of surrounding older monuments (red) and burnt patch (orange) highlighted (*from* Gibson 1994: 149)

This is not to suggest that what it meant for somewhere to be 'sufficiently engaged with' was specifically linked to knowledge of experiences in the 'past'. The antiquity of these

places and indeed the 'past' itself may have been conceptually incongruous in this social context. Perhaps the familiarity of the floodplain was increasingly determined through timeless narratives which were set in the area, or were at least thought to hold some resonance locally. The focus of these narratives may have been enactments perpetuated through architectures, rather than the monuments themselves. This adds depth to our knowledge of how characterisations were communicated (ch3: p75-7), and suggests that the familiarity of this area of the Upper Severn valley during the later third millennium cal BC may have been more established. Its truth was negotiated through performances with architectural traces, rather than rigidly-enforced (e.g. the flanked entrance and back post of penannular ring-ditch 1), perhaps because it was more secure, and therefore less prominent. Whereas familiarity was still defined as 'sufficiently engaged with', it is important to note that numerous further meanings were always held by different agencies in multiple contrasting circumstances. Perhaps the reduced rigidity of its communication at this time enabled more disparate secondary and tertiary understandings within consensual core truths (ch3: p75-7) (figure 4:7).

'Entitised' liminality at the turn of the third millennium cal BC

Introduction

The liminality of the area also remained a prominent concern in local world-views during the later third millennium cal BC (figure 4:6). The holes were dug and posts erected in a taskscape which had not altered considerably since the burst of deforestation in the early part of the millennium. Substantial oak trees were still growing in the area, possibly on the valley sides, and the terraces and floodplains were still punctuated by poplar, hazel, rowan and hawthorn woodland and scrub, as well as grassed clearings (Gibson 1994: 191). People were probably grazing animals, fishing, hunting, collecting reeds, foraging, washing, weeding and sheltering on the valley floor, and these engagements may have altered seasonally and according to other rhythms of their social world. The decision to emplace the timber circle within this taskscape fitted into, and in turn re-aligned, these rhythms and contemporary life knowledges. As the valley floor continued to be considered liminal, neither known nor unknown, these engagements worked through the knowledge of what this meant. Indeed, I argue that in the centuries since the heightened acts of deforestation, liminality had changed from a sense of betwixt and between to a state of being in itself. This may have been linked to the increasing communalisation of knowledge, whereby its engagement in more public forums of discourse had enabled the

concept to become more established and conceded as 'common knowledge'. Certainly references to it were more overt and atemporal, as opposed to the 'one-off' nature of cremation interment events at Penannular Ring-Ditch I. Whilst these performances held meaning as re-interpretable memories, the timber circle provided a more enduring forum for the negotiation and assertion of knowledge.

The detail of the timber circle's architecture simultaneously choreographed and materially echoed on-site performances in a more rigid, explicit and omnipresent manner than the deposits, mound, ditch and back-post of the penannular ring-ditch. In turn, although highly pliable (e.g. the burning of the inner setting; ch4: p116), the detailed physicality of the timber circle rendered the comprehension of engagements within and through it (seemingly) less open to disparity. For example, if the floodplain was still perceived as the intersection between four very different taskscapes, the inner circle may have symbolised the valley itself (Richards 1996b). The central post settings were not the monument's focus, but the delineation of intermediateness within its perimeters. Both the valley and the inner circle were therefore characterised as neither one place nor the next within a wider world; they lay between different realms and as such were liminal, and also subject to taboo (ch4: p133-7). Access to the inner circle was permissible, but managed through the performance of approach and the concealment of its interior with daub fencing (ch4: p119). Entrances to both post settings were marked as definite thresholds by taller and/or wider uprights, and the gravel between the inner circle's D-shaped entrance posts was burnt (figure 4:34). This choreographing of contact with liminality may have symbolised and acted out ongoing taboos affiliated with practice within, approaching and leaving the valley. Perhaps the fording points of the river were treated similarly as thresholds, and perhaps the descent on to and away from the floodplain required numerous abstentions, incantations and exorcisms (van Gennep 1960: 11; La Fontaine 1985: 24; Helms 1988).

Indeed, the winding movement towards the inner circle (ch4: p140) may have paralleled both the meandering, abraded, waxing and waning river at the heart of the liminal valley, and the journey crossing from one side of the floodplains to the other. By microcosmically representing knowledge about the area through the composition and location of the timber circle, the nature of 'appropriate' engagements with the valley became more prescribed. The ensuing impression of this knowledge as fact may not have been politically driven (ch3: p76-7); it may have simply resulted from the increasing

communalisation of knowledge formation processes following the opening-up of the forest cover (ch4: p128-32). However, such a consensus on normative practice and values was easily employable (intentionally or otherwise) to legitimise, challenge, distort, reinforce or undermine other action, norms and values (ch2: p28-9). In this way, knowledge of the liminality of the Upper Severn valley became so integrally linked with other knowledges that entire world-views, including what liminality meant, had to shift for the area to be understood in a different way (figure 4:6).

Purification, transformation and re-birth: burning

The repeated interplay of fire at the site may add depth to what liminality actually meant to the people living locally during the late third millennium cal BC. The outer posts' ends were burnt prior to their erection, after which the trunks were left to decay *in situ* (ch4: p116) (Gibson 1994: 150). The inner posts' ends may have been similarly carbonised, but these trunks were burnt *in situ*, along with their wattle and daub screening, at some point after their erection (Gibson 1994: 156). Charred oak planks lined the central pit, cremations were included at the site and, as mentioned above (ch4: p118), a gravel strip between the D-shaped inner circle entrance post settings was also set alight. Fire can be considered a transformative entity: a powerful, purifying, magical and renewing force (Rossotti 1993: 239-54; Tringham 2005: 98; 105; Noble 2006). It converts to ash, fumigates, enlightens and can facilitate future growth. In Eneolithic and Neolithic Europe, many house structures were deliberately set alight, and Tringham (2005: 105) linked this act to the death of a house, household or a specific person synonymous with both. The complete ignition of a house effectively killed it, but by ending it and the histories associated with it, the passing of a household was controlled, its pollution purified and the process of re-birth initiated (Tringham 2005: 106-7).

Fire may have therefore been deemed 'appropriate' for involvement in practices at Sarn-y-bryn-caled Timber Circle because it was a force which controlled liminality. By igniting the inner circle as both the delineator and embodiment of liminality, both the barrier between the liminal, the known and the unknown, and the essence of liminality itself were destroyed. Far from dispersing the danger, this process neutralised it. The burning of a strip across the threshold to the inner circle is particularly poignant in this instance, since it purified the point of entry and exit. Placing the fragment of cockle shell (ch4: p116) in one of the outer setting post-pits may echo similar concerns over the control of

liminality. The sea may equally have been considered a transformative force, capable of both destruction and renewal, and the shell fragment may have been a talisman for this purpose. During the late third millennium cal BC therefore, liminality may have been perceived as an increasingly polluting and infectious state which necessitated regulation.

Protection: containment

The central pit of the inner circle was dug shortly after the erection of the posts, possibly within a generation[47] (figure 4:35) (Gibson 1994: 156). It therefore fitted into ongoing re-workings of perceptions of liminality, the valley itself and the taboo of the inner body *c.* 2100-2000 cal BC (ch4: p141-2). The pit was lined with charred oak planks and sealed with in-filled fired clay which was dated to *c.* 1800 ± 350 BC (Gibson 1994: 156). As mentioned (ch4: p119), this may indicate that the inner circle was burnt not long after the pit's construction. Drawing on both the fired planking and the very substance of the recently neutralised inner circle to seal the pit's fill, the pit's outer casing emanated purification. The organic receptacle which probably contained the two intact cremation deposits provided a second layering. Furthermore, I argue that the cremation events themselves drew upon the transformative, purifying nature of fire (ch4: p143), adding a third skin of protection through the calcination of the bone and flint inclusions. This triple layering to the pit constitutes containment on a grander scale than the insertions into the earlier Penannular Ring Ditch I, and perhaps manifests the more consensual and institutionalised nature of knowledge about the taboo of these deaths (ch4: p141-3).

The composition of the whole pit passed comment on dimensions of knowledge about the cosmos at a level of intricacy incomparable with the earlier ditch terminal insertions. It drew upon and re-worked common symbolism which was, by then, accessible to a wider audience due to the ongoing communalisation of knowledge (ch4: p128-32). The interplay of fire throughout utilised conceptions of purification, transformation and re-birth. Containment was also thematically prominent, symbolising control by recalling and re-asserting specific cosmological orderings. Through the sealing of so many substances and layers, access and egress were highlighted as the actualisation of contact with danger. The repetition of these common themes reinforced the comprehension of certain deaths/places/circumstances as liminal and taboo, and therefore validated the necessity for their management. Ultimately however, the openly public forum for these

[47] See chapter 4: p118-9 for discussion of dating this feature

performances and the relative durability of their traces (the pit cut, its upper fill and the burnt and decaying stumps would have remained visible for some time), recursively conceded the nature of liminality as a more permanent, wider-reaching and prescribed concern (ch4: p141-3).

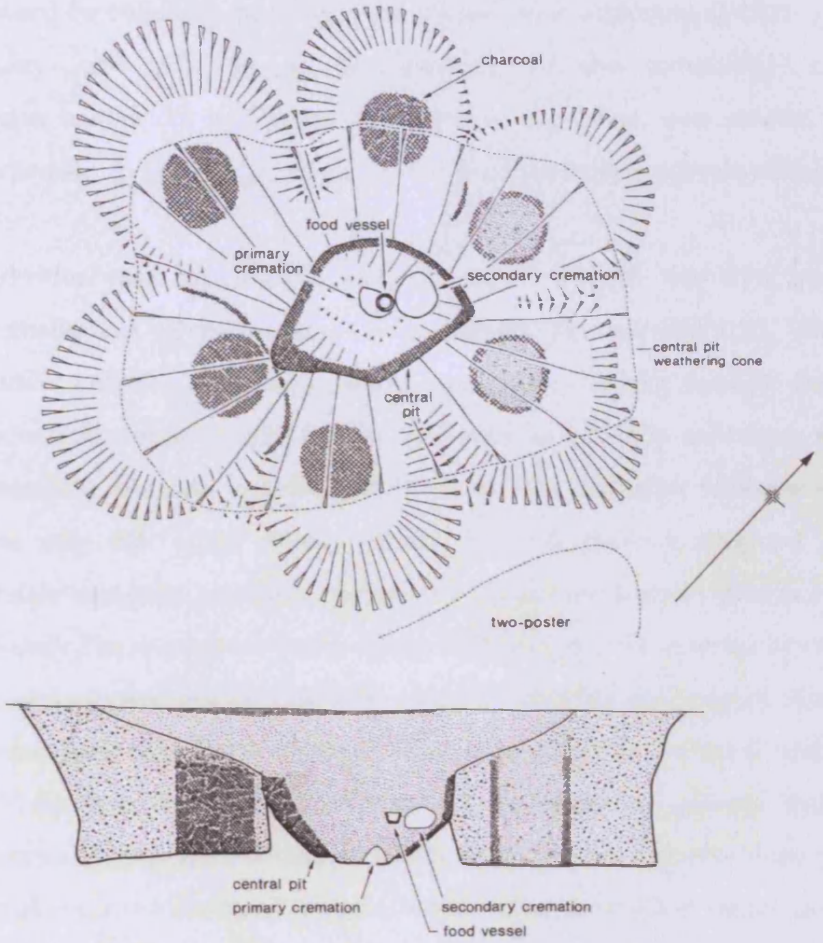


Figure 4:35 Plan of the inner circle of Sarn-y-bryn-caled Timber Circle (*from* Gibson 1994: 153)

Taboo: the inner body

The content of the pit deposit added to the themes expounded in its composition (ch4: p118-9). The primary cremation was that of an adult of unknown sex who had clearly suffered a traumatic, violent and deliberate death through archery (Gibson 1992; 1994: 155). The second cremation, of a possibly female adult, was accompanied by a lump of fired clay and associated with a small bipartite Food Vessel. Both cremations were also

mixed with cremated pig bone and a small selection of another person's burnt remains. Gibson (1992: 91) suggested that the setting of these interments and the use of the 'prestigious' Conygar arrowheads makes it unlikely that the primary cremated adult died by murder, accident or in war. However, I believe that both cremations fitted into an increasingly established and wider-reaching ideology where the internal human body was highly taboo. I have already argued that during the third millennium cal BC, the profanity of deaths caused by childbirth had become entwined with a growing consensual concern over liminality (ch4: p133-5). As the meaning of this increasingly established characterisation held wider and wider implications, the taboo over deaths caused by childbirth expanded to any deaths where the inside of the body externalised itself.

The first individual may have died in conflict, and their death may have involved the graphic externalisation of their innards (e.g. perhaps disembowelment). The second, probably female individual may have died in a way which equally brought the inside of her body outward; perhaps again during childbirth or by such afflictions as chronic weakness caused by vomiting or sustained diarrhoea. The deliberate inclusion of parts of other people may also relate to this taboo. The left petrous temporal and other indistinguishable anatomic portions may all have been accidentally detached from the body during daily life, causing the inside of the body to enter the external world, perhaps through the catastrophic loss of blood or dispersal of other vital organs. Alternatively, the ear portion may have been detached from a mourner to be burnt and therefore purified with the dead body, as is customary for the fingers of grieving Dani women, Papua, Indonesia (figure 4:36) (Gardner 1968). Such practice has also been argued for Upper Palaeolithic cave art hand stencils which have incomplete digits (e.g. Gargas, France *c.* 25,000 cal BC) (Clottes 1998: 114-5). The emplacement of the Food Vessel within the pit, but beyond the confines of the contained cremations, may have publicly conversed with the taboo by containing some additional detached, non-skeletal organic material, perhaps from the participants of mortuary ceremony (e.g. faeces, hair or nails). The pig bones may also have been relevant in this context because, as a common source of irreverence cross-culturally, the pig was also considered highly taboo (Whittle 2003: 79). Perhaps in this social setting pigs were impure due to their omnivorous feeding habits; pigs eat anything that needs disposing of, including organic substances which may have been deemed 'inedible' at this time (e.g. the intestines and genitalia of butchered livestock).

Figure 4:36 Photograph of a Dani woman with two missing fingers due to traditional mourning practice

'Entitised' liminality at the turn of the third millennium cal BC: a summary

Multiple themes can be drawn from the pit deposit including containment, the profanity of the internal body (ch4: p145-7), restriction over access and egress (ch4: p142-3), fire (ch4: p143-4) and the necessity for purification (ch4: p142-4). These reinforced the increasingly prescribed understanding of liminality. Each decision on how to treat every death or mutilation interplayed with ongoing concerns in a very communal forum, and the resultant perceptions of these deaths, this valley and liminality itself became intrinsically and recursively entangled. By the early second millennium cal BC therefore, I argue that the concept of liminality had become part of people's cognitive frameworks; it was entrenched in the way in which life was understood, and its applicability at this point in the Upper Severn valley perpetuated its reality (figure 4:6).

The primacy of familiarity over liminality in the second millennium cal BC

The Buckbean pond pollen cores suggest that deforestation peaked in the Upper Severn valley *c.* 2000 cal BC (ch4: p99-100; p121). Local woodland then regenerated until around 1500 cal BC (Gibson 1994: 191). During the Early Bronze Age, several ring-ditches were built encircling the earlier monuments on the valley floor (ch4: p120-2). Coed-y-dinas

Ring-Ditch II was constructed through part of an earlier ring-ditch, its entrance orientated east-north-east and abutting that which it overlay. More compressed than the other monument, Coed-y-dinas Ring-Ditch II's termini were deposit-less and its ditch discontinuous. Daily rhythms and cosmological knowledges were changing, and I argue that the relevance of liminality locally was diminishing as the familiarity of the area became re-conceded as, once again, a more prominent concern[48]. Communal knowledge constantly re-configures (ch3: p75-7), and at some point the 'truth' that the area was inherently liminal became unravelled by agents and their comprehension of practice. It is possible that grazing and cropping were moved elsewhere at this time, perhaps to the wider eastern valleys, or to the surrounding uplands. Engagements with the Sarn-y-bryn-caled area of the floodplain were integral to this shift and the subsequent growth of secondary forest. Referencing the past through the exact and intentional positioning and forms of the contemporary ring-ditches asserted that this place was 'sufficiently engaged with' (ch2: p44; 48), once again predominantly deploying monumental architecture (ch4: p124; p139-40). These later ring-ditches resembled, encompassed and even overlaid earlier monuments in very precise ways (e.g. the entrances of Coed-y-Dinas Ring-Ditches I and II were superimposed). Such renewed emphasis of past experiences may have therefore both derived from, and initiated the increased primacy of the valley floor as familiar (figure 4:7).

Conversely, the cessation of certain practices within the area interlinked with the eventual redundancy of other knowledges (ch3: p87-8). Woodland regeneration may have also linked with changing herding routes; perhaps drovers stopped crossing this part of the Upper Severn valley, making the symbolism of the fording points obsolete. Such shifts in the way in which people dwelt in the floodplain may have subsequently undermined its characterisation as liminal. Perhaps the meaning of liminality had shifted so much within common knowledges that it no longer held relevance there; its growing entwinement with comprehensions of the inner body may have undermined its emplacement. Ultimately, shifts in how the area was conceived were all derived from the act of dwelling, and common knowledge which had held firm for so many centuries once again became open to overt re-interpretation.

[48] For earlier manifestations of familiarity in the Upper Severn valley, see chapter 4: p107-10; p138-9; p139-41

The Upper Severn valley: a summary

Acts of construction, deposition and manufacture in the Upper Severn valley were moments; transient whether they last seconds, days or months. Far more people punctuated these places during the intermediary moments which have left no archaeological trace. The comprehension of these untraceable moments were similarly context-specific, and concepts of familiarity and knowledgeability must have been predominantly re-worked in these preponderances of daily life. However, such invisible re-definitions determined the nature of those moments we do know about, and therefore the ebbing and flowing characterisation of this area as liminal and familiar can be seen, in part, in the remnants of pits and ditches (figure 4:6 & 4:7). It is clear that we have only scratched the surface of knowledge re-classification during the third and early second millennium cal BC. Whilst my interpretation is speculative, albeit based on the archaeological detail available, of greater importance is my approach. I have demonstrated how archaeologists can understand past taskscapes on multiple physical and temporal scales, moving beyond abstracted monument typologies or abstract symbolic threads which simply do not inform on how people understood their worlds (ch1: p5-7) .

Trelystan

Introduction

Approximately four kilometres north-east of the Sarn-y-bryn-caled complex, contemporary occupation and funerary activity was situated on Long Mountain, a linear spur between the Upper Severn and Aylesford Brook valleys (figure 4:37). The extended site was positioned on a ridge 370m AOD with clear views to the south, north and east. Visibility to the west, specifically of the Upper Severn valley, was inhibited by the peak of the spur. No earlier activity is known on this section of the ridge-way, although the (possible) Worthen cursus may have been visible in the valley to the east.

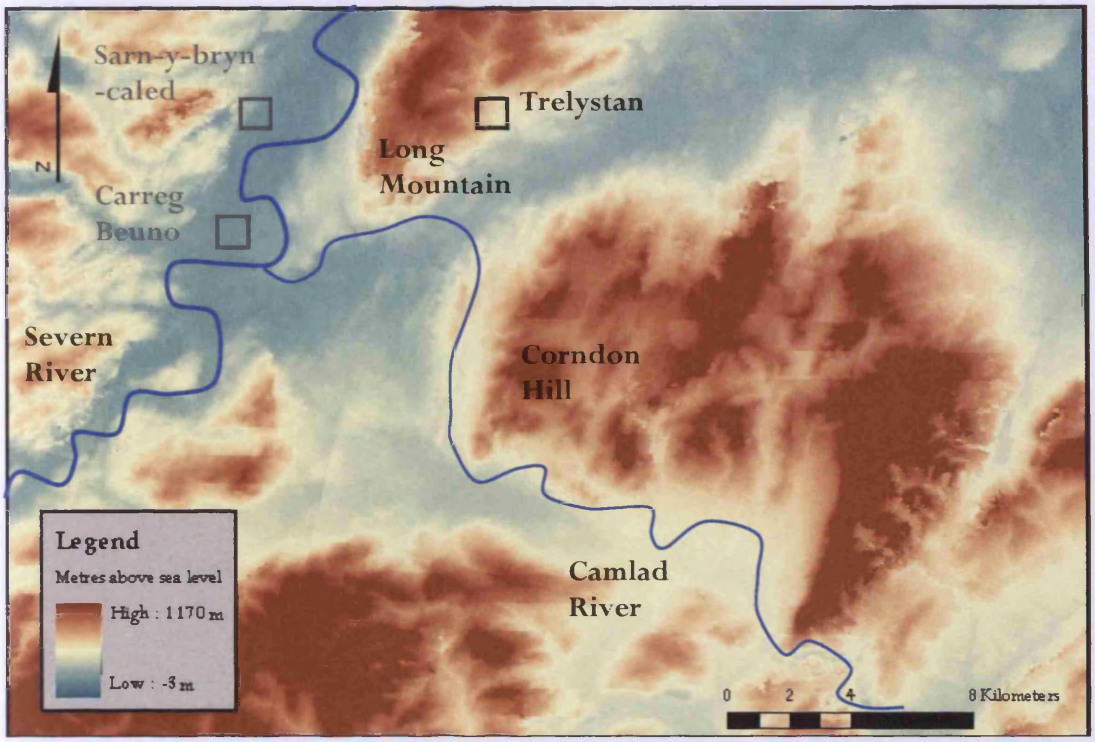


Figure 4:37 Elevation map depicting the location of the Trelystan 'complex'

Trelystan Pit-Grave

During the late fourth-early third millennium cal BC, a 1m deep pit with a stepped base was dug. The layers of collapsed cairn debris within the pit were consistent with the rotting of a 2 x 0.6 x 0.6m wooden chamber or coffin which had originally lined the inner central channel (Britnell 1982: 136; 183-4). Britnell (1982: 136) proposed that this 'coffin' originally contained an inhumation which had since decomposed entirely (figure 4:38). However, the cremation burial of a mature female (burial II:1) was found along the western edge of this inner channel, accompanied by a burnt flint knife and two other burnt, worked flints. The cremation deposit was probably originally held by a tubular organic container (since it was concentrated within a strip only 0.15m wide) which was placed within the wooden 'coffin'. Fragments of calcined tooth enamel were found towards the centre of the inner channel, but it is unclear if they were originally part of the first cremation deposit, a second cremation burial or the proposed inhumation (although their carbonised state reduces the likelihood of the latter). Small stone rubble probably overlaid the wooden 'coffin' and certainly lined the pit, since it formed the bulk of the slipped material once the wood had given way. A piece of carbonised oak found amongst

this rubble towards the pit base was radiocarbon dated to *c.* 3327-2875 cal BC (CAR-282) (Britnell 1982: 192). Larger stone was placed over the rubble fill, forming a 4m diameter cairn.

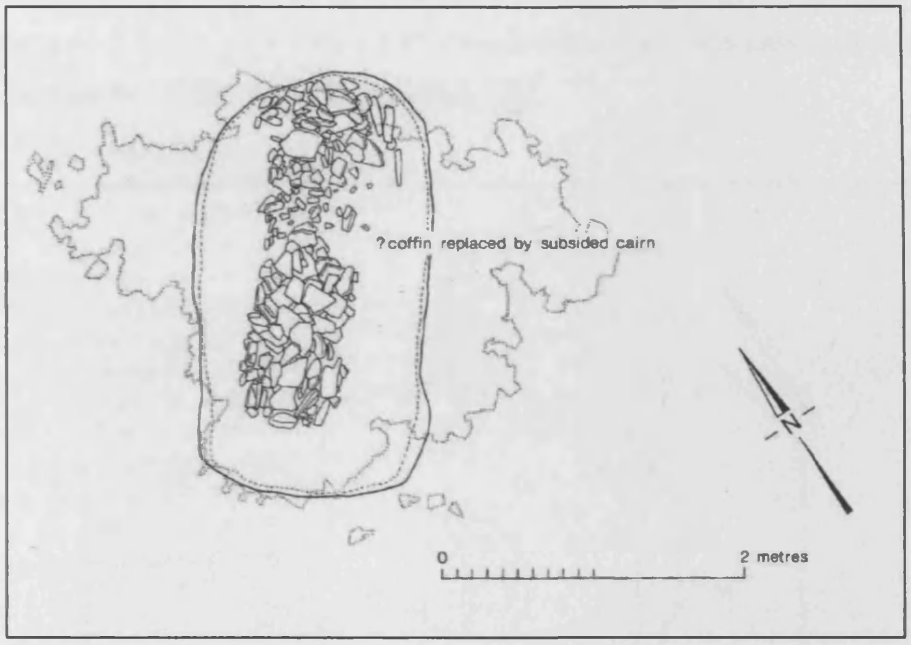


Figure 4:38 Plan of Trelystan Pit-Grave, burial II:1 (*from* Britnell 1982: 137)

Grooved Ware associated occupation

The area around this pit-grave became a focus of occupation during the first half of the third millennium cal BC (figure 4:39). Approximately 15m north-east of the cairn, around 29 narrow stakes were erected as walling to a sub-rectangular structure (A) with a 4.5 x 4m floor area and probable doorway to the east (figure 4:40) (Britnell 1982: 140)[49]. Although these stakes were duplicated in the southern perimeter, possibly for repair or re-build, the structure was probably short-lived due to its insubstantial nature (Britnell 1982: 184). Between 12 and 22 other stake-holes littered its interior, respecting a rectangular central hearth of burnt soil 1.18 x 0.7m large. Bordered on two sides by shallow slots which probably originally held edge-set stones, the rest of the hearth border was almost certainly destroyed by later ground disturbance. A burnt hazel twig from one of the surviving slots was radiocarbon dated to *c.* 2834-2207 cal BC (CAR-276), although this context may have not been secure (Britnell 1982: 184; 191). Eight pits were dug

[49] These structures are similar in form to those recently excavated at Durrington Walls, Wiltshire. See Appendix B: p391-6 for further discussion

within Structure A, possibly as post-holes although their average 300mm diameter was substantially larger than the perimeter stake-holes. These pits were arranged in two groups; north and south-west of the hearth, the latter of which were deeper. Mostly filled with black soil and charcoal derived from hazel, sloe and poplar, two small fragments of burnt clay were found in pit 5 (ch6: p289). Charcoal from pit 1 was radiocarbon dated to *c.* 2876-2459 cal BC (CAR-275) (Britnell 1982: 191).

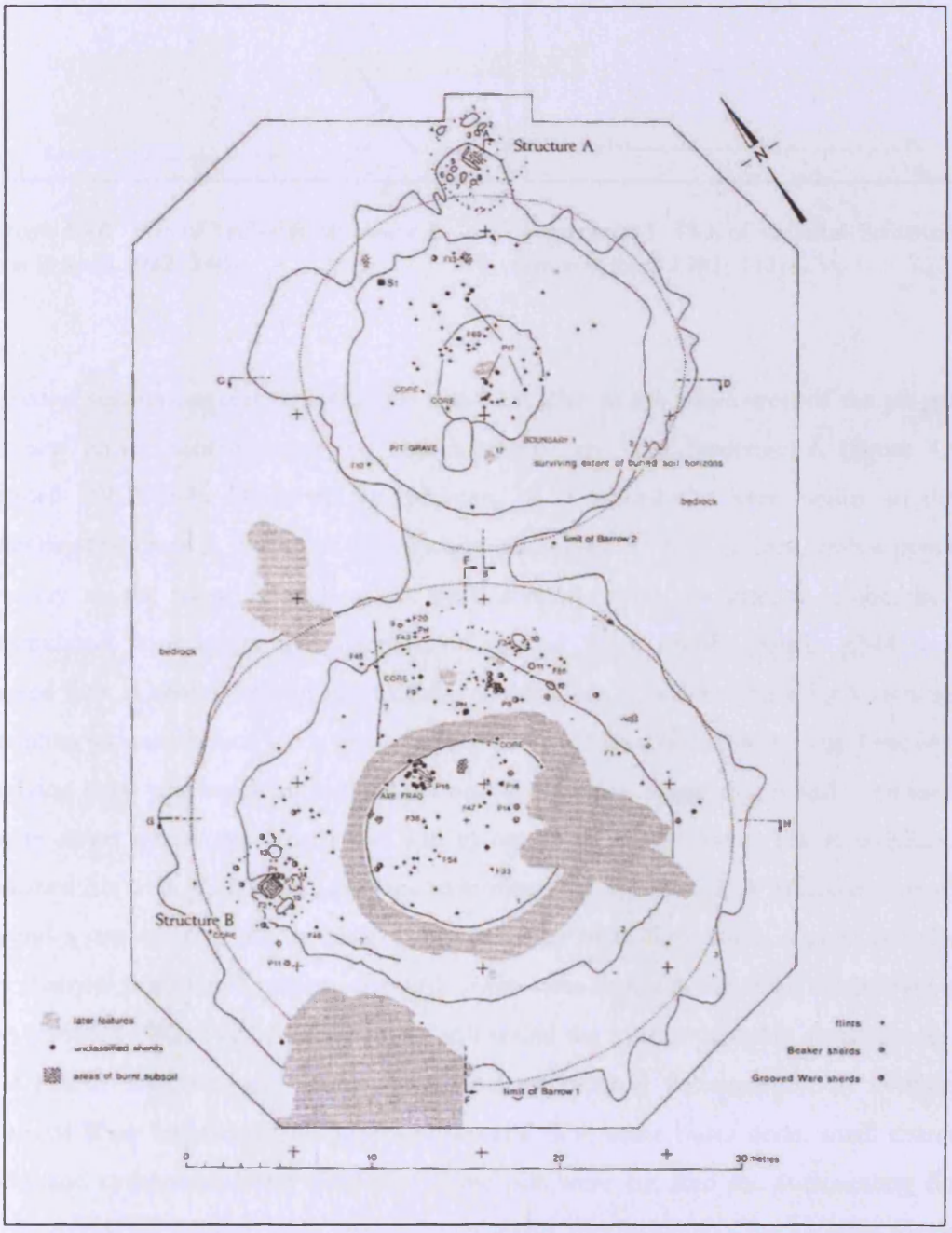


Figure 4:39 Plan of pre-barrow features, Trelystan (*from* Britnell 1982: 146)

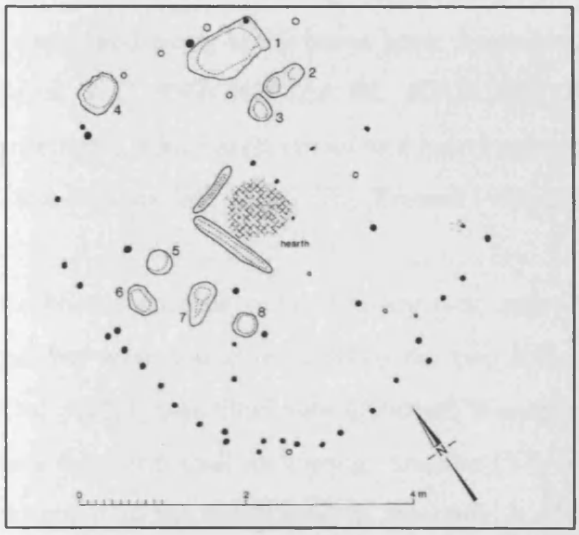


Figure 4:40 Plan of Trelystan Structure A (*from* Britnell 1982: 140)

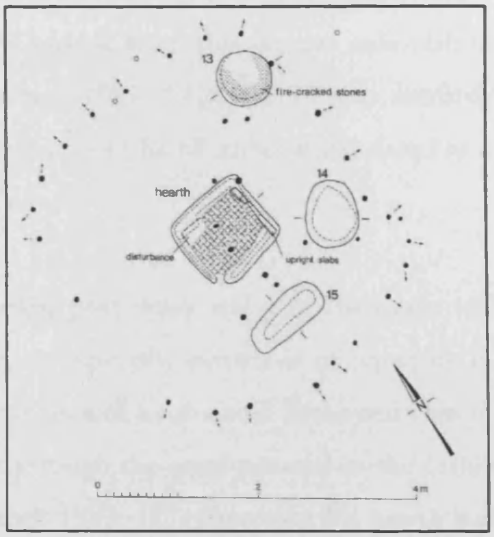


Figure 4:41 Plan of Trelystan Structure B (*from* Britnell 1982: 142)

A second sub-rectangular structure (B) was built 23m to the south-west of the pit-grave and was either contemporary, or near-contemporary with Structure A (figure 4:41) (Britnell 1982: 184). Delimited by between 22-25 stake-holes very similar to those encircling Structure A, Structure B originally enclosed a 3.9 x 4.2m area, with a possible doorway to the west. Several stakes were erected within its interior, embedded in accumulated floor layers that contained Grooved Ware sherds (AppB: p344-8) and worked flint. A central hearth, again similar to Structure A, was bordered by narrow slots extending around all four sides, two of which still contained burnt shale slabs. One of the surviving slabs was burnt on both upper and lower sides, suggesting it had been turned upside down whilst the hearth was still in use. This complements the re-building of Structure A's wall (ch4: p151), perhaps indicating that occupation at Trelystan extended beyond a one-off stay. Burnt hazel nutshells, three small flint spalls, a small pot sherd and charcoal from hazel, poplar, sloe and rowan were found in the fill of the robbed-out slots (Britnell 1982: 141). A thin layer of soil sealed the hearth: probably an admixture of final hearth materials and subsequent geomorphological accumulation. It contained Grooved Ware fragments, five pieces of worked flint, some burnt bone, small charcoal flecks and carbonised hazel nutshells. Three pits were cut into the surrounding floor layers. Averaging 600mm wide, they were probably successive cooking recesses for pots (Britnell 1982: 142-3). Pit 13's fill contained a number of burnt stones arranged around the accessible sides (the northern edge was shielded by the structure's wall), as well as

hazel and rowan charcoal, hazel nutshells, Grooved Ware sherds, flint fragments, a scraper and many small burnt bone fragments. Charcoal from this pit was radiocarbon dated to *c.* 3086-2626 cal BC (CAR-272) (Britnell 1982: 191). Pit 14 was similarly structured, with hazel, rowan and hawthorn charcoal from its fill radiocarbon dated to *c.* 2888-2500 cal BC (CAR-273) (Britnell 1982: 191).

Additional roughly contemporary pits, stake-holes, post-holes and 1 x 1m burnt soil patches were found in between the two structures, especially eastwards of Structure B. One pit (11) was filled with Grooved Ware sherds, as well as charcoal flecks and various flint flake and spall inclusions. Another (17) cut through the cairn material of the earlier pit grave, to the south-west of Structure A (Britnell 1982: 138). Structure B's hearth had two stakeholes intersecting it. These were not visible cutting through overlaying soils, which suggests they were positioned after the structure went out of use but before the floor layers were subsequently buried.

Terminal Neolithic occupation

This Grooved Ware-associated occupation ended by around 2500 cal BC (AppB: p344-8). It was followed by 200-300 years of agricultural activity which included slash and burn cultivation, and deep ploughing (Britnell 1982: 186). The preserved soil profile from this Beaker-associated period (AppB: p348-51) contained extensive carbonised hazel, hawthorn, ash, sloe, field maple, poplar and oak remains, as well as intense burning patches. Worked flint, knapping tools and residual Grooved Ware and Beaker sherds were also scattered throughout the horizons (Britnell 1982: 138-9). A turf-line associated with Beaker pottery then formed over the site (Britnell 1982: 186) and a fence-line (A) was erected running south-west, north-east along the ridge-way, perhaps indicating a switch to pastoral farming. The later mound and mound extensions which overlaid these horizons and the turf-line comprised of re-deposited soils, dug from areas immediately adjacent to each construction episode. These acts may have destroyed Beaker-date domestic contexts, since the mounds were littered with Beaker period worked flint, two cup-marked stones and pottery sherds, some of which were associated with heavily carbonised soil clods (Britnell 1982: 143-4; 186).

Early Bronze Age mortuary activity

Late third millennium cal BC:

During the late third and early second millennium cal BC, two successive phases of mortuary activity dominated the site (figure 4:42). The first of these probably started during the twenty-third century cal BC. Located south of Structure A and directly east of Structure B, a flat bottomed linear pit was dug though to the bedrock. The cremated bone of a male, aged 18-20 and pyre debris of poplar charcoal were placed on the pit base (burial I:1). Partly contained by shale slabs, it was covered with rock debris quarried from the burial pit, and overlain by a low 1.5m diameter mound of the same material. This mound was itself covered with an off-centred cairn (I) around 8m in diameter, retained by entrenched kerbing, and encircled by a ring-ditch (figure 4:43). This cairn was then capped with turf. A dense deposit of hazel charcoal in the upper turf layer was radiocarbon dated, providing a *terminus ante quem* for barrow construction of *c.* 2112-1692 cal BC (CAR-285) (Britnell 1982: 188; 192). Rubble quarried when the ring-ditch was dug was piled as a ramp between the ditch edge and the barrow kerb. The cremation burial of a mature individual (burial I:1a) was placed within the north-eastern segment of this stone structure, which may have continued over the entire cairn as a thin layer. It is unclear whether the ramp, stone capping and cremation deposit were contemporary with each other. Similarly, we cannot be sure whether the ring-ditch was constructed at the same time as the cairn, although Britnell (1982: 152) believed that it was. A second fence-line (B) was erected parallel to, and intersecting the line of the earlier one (A) at around this time. It was almost certainly constructed when the primary barrow was in place, since it bends to accommodate the western cairn perimeter at some point after the ring-ditch was dug but before it was later covered. Fence B was out of use by *c.* 2453-1956 cal BC (CAR-279), when it was carbonised in the burnt patch adjacent to burial I:3 (Britnell 1982: 161).

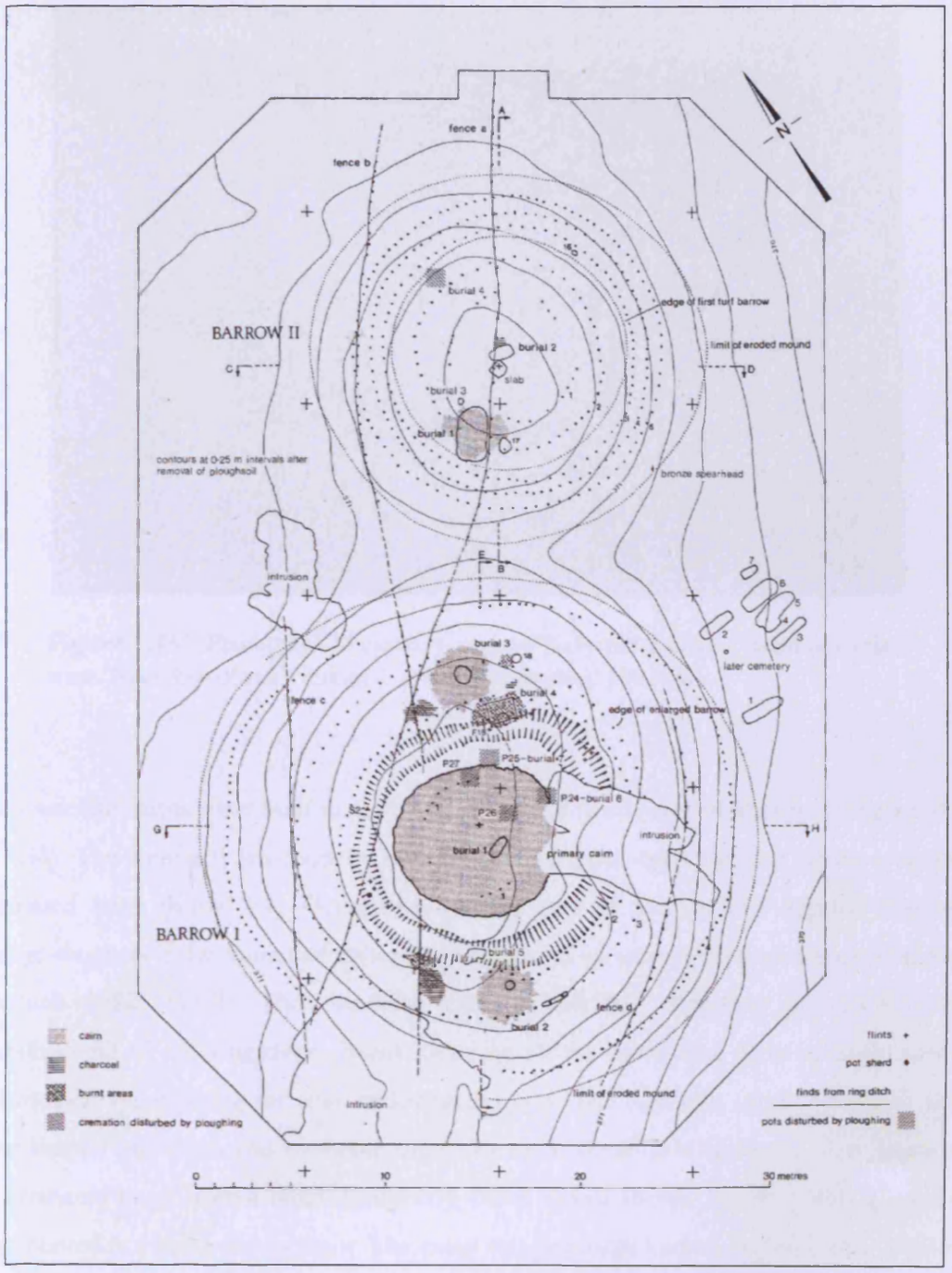


Figure 4:42 Plan of Trelystan Barrows A and B (*from* Britnell 1982: 147)

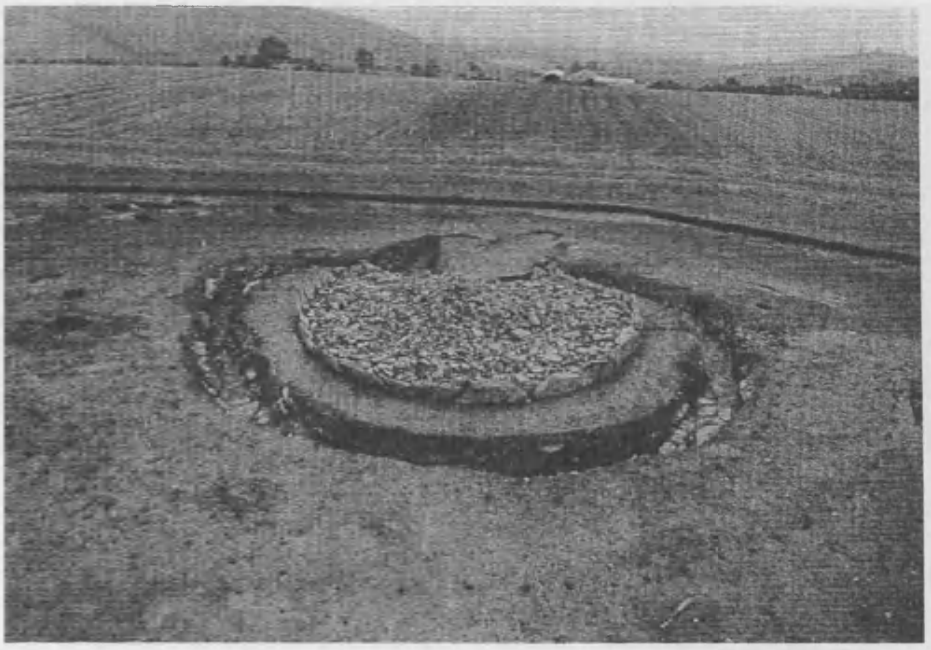


Figure 4:43 Photograph of primary cairn of Trelystan Barrow I taken from the west. Note arcs of stake circles 2 and 3 (*from* Britnell 1982: 50)

Two satellite cairns were built to the south-west and north-east of Barrow I (figures 4:44 & 4:45). The southern 3m diameter cairn covered a small cylindrical pit which contained cremated bone (burial I:2). Occupying a small area of the pit, this deposit formed a wedge-shape as if the bone had either been tipped in or retained in a rectilinear container (Britnell 1982: 152-3). The overlying cairn sealed and therefore post-dated some stabilised fill of the ring-ditch. Burnt areas lay to the immediate west of both satellite cairns, perhaps marking the sites of funerary pyres. The northern cairn overlaid a larger oval-shaped pit which was probably originally stone-lined. It contained a few fragments of cremated bone from a child (burial I:3), Food Vessel sherds (AppB: p351-2), another fragmented pot and a flint scraper. The cairn was originally kerbed and had been 'robbed' possibly in prehistory. The shaft dug into the oval pit was re-filled fairly quickly after being opened. The western side of this cairn was covered in a dense spread of hazel and hawthorn charcoal, with traces of entire burnt logs still visible. Radiocarbon dated to *c.* 2453-1956 cal BC (CAR-279) (Britnell 1982: 153), this fire also burnt either the stumps or full stakes of fence-line B (ch4: p155) and may have extended into the later silts of the adjacent section of the ring-ditch (Britnell 1982: 153).

Figure 4:44 Photograph of northern satellite cairn of Barrow I. Note central robbing hole (*from* Britnell 1982: 50)

Figure 4:45 Photograph of southern satellite cairn of Barrow I (*from* Britnell 1982: 50)

Figure 4:46 Photograph of burial I:4; a double cremation deposit inside a Food Vessel Urn (*from* Britnell 1982: 51)

A third shale-lined pit was dug north of Barrow I, just south-east of the northern cairn (figure 4:46). It contained an upright Food Vessel which held the double cremation of a man and woman and a flint object (burial I:4), and was covered with a shale capstone. This pit cut through another burnt area which also ran into the later silts of the adjacent segment of ring-ditch and disturbed the northern satellite cairn's southern perimeter. Consisting of charred grasses, charcoal (mostly oak) and residual cremated bone, this burnt matter was particularly concentrated under the capstone as if it had been swept under it (Britnell 1982: 153-4). A rectangular 1.2 x 1.5m setting of five stakes, possibly a pyre retainer, was fixed within this burnt patch and was probably contemporary with it (figure 4:47). One of these carbonised stakes was radiocarbon dated to *c.* 2271-1778 cal BC (CAR-280) (Britnell 1982: 192). No cairn overlaid this burial, although turf and pyre debris including oak logs radiocarbon dated to *c.* 2289-1898 cal BC (CAR-281) were piled over the capstone, probably as part of the contemporary mound extension (ch4: p160) (Britnell 1982: 155).

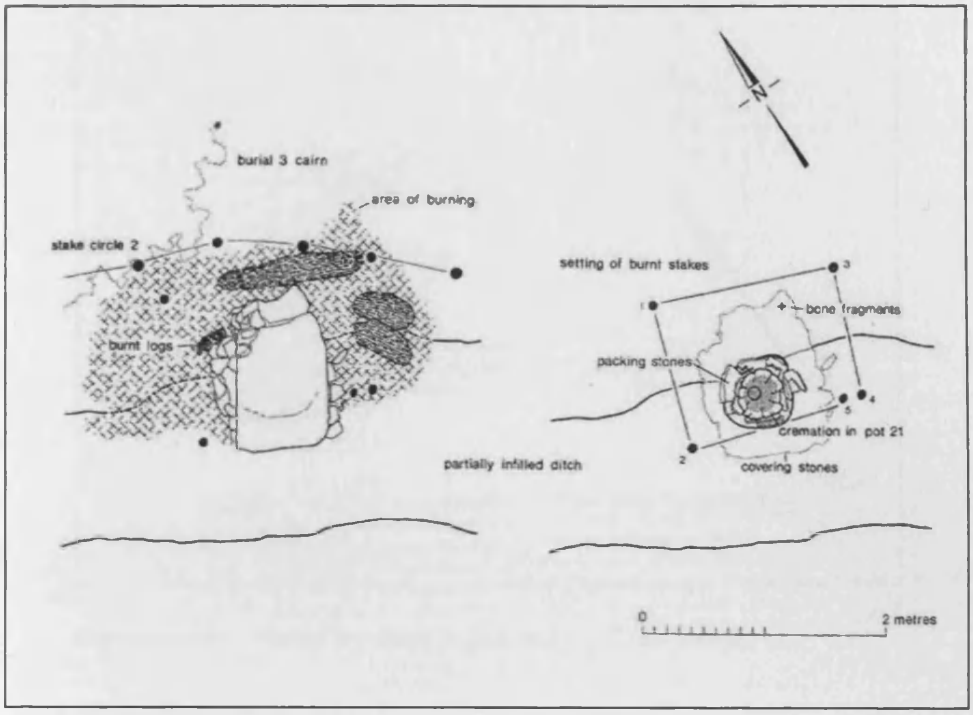


Figure 4:47 Plan of burial I:4, pre and post-excavation. Note pyre material and possible structure (*from* Britnell 1982: 155)

An ovoid pit 1.25 x 0.65m large was dug about 27m north-east of the primary burial of Barrow I. It cut through a burnt patch which was radiocarbon dated to *c.* 2120-1695 cal BC (CAR-390) (Britnell 1982: 192), providing a *terminus post quem* for its contents. The pit was lined on three sides by small slabs, and contained a Food Vessel placed alongside a central heap of cremated bone from a mature female (burial II:2) (figure 4:48). Panning had welded a fill layer over the pit, preserving a void underneath where a wooden lid may have originally lain. Sherds from a second Food Vessel were found both in the overlying packing and scattered over the contemporary ground surface surrounding the pit cut. A 10m diameter barrow (II) was heaped over this pit, incorporating the Late Neolithic pit-grave cairn. The southern edge of this earlier cairn was probably truncated to avoid it obtruding out of the later barrow. Comprised of layers of turf, topsoil, stone, subsoil and clayey loam capping, the mound reached about 1.1m above the ground surface.

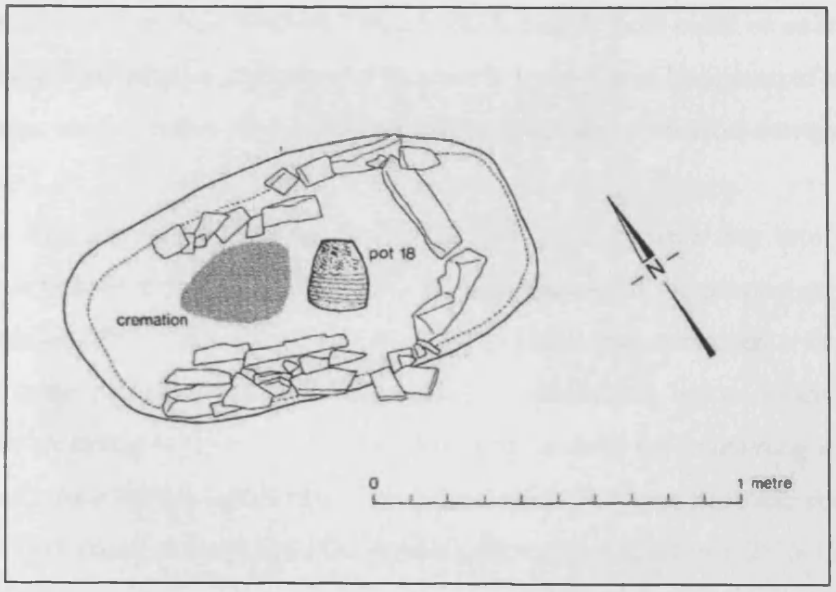


Figure 4:48 Plan of burial II:2 (*from* Britnell 1982: 158)

Early second millennium cal BC:

A second phase of mortuary activity succeeded the first, possibly in staggered continuum, during the twentieth century cal BC. A 6m diameter stake-circle (I:1) crowned the summit of Barrow I at some point after the primary mound had stabilised. Consisting of about 38 stakes at roughly 0.6m intervals, this circle was itself encircled by a second ovoid 14.8m diameter stake-circle (I:2), consisting of about 84 stakes spaced approximately 0.55m apart. Barrow I's mound was then covered with a much larger turf barrow which incorporated both satellite cairns, Structure B and probably burial I:4 (ch4: p158). Stake-circle I:2, and possibly 1, were still in place when this happened since four slender poles were found set laterally between two uprights of the former within this secondary barrow material. Stake-circle I:2 was probably therefore palisaded at some point (perhaps to retain the turfs of the later mound). The enlarged mound extended the height of the primary barrow by 0.5m, and its circumference was delimited by an 18m diameter circle (I:3) comprising up to 80 stakes. These stakes, positioned around 0.7m apart, were driven through the outer arc of both satellite cairns to seemingly enclose them within the limits of the mound. Five stake-circles (II:1-5) ranging from around 6m to 16m in diameter also encircled the peak of the Barrow II prior to its extension (ch4: p161). A fence-line (C), probably contemporary with, or just subsequent to stake-circle 3, ran parallel to the route of the earlier fences to the west of Barrow I. A similarly aligned fourth fence-line (D) probably followed, positioned along the eastern perimeter of

Barrow I's extended mound (Britnell 1982: 161). A fourth stake-circle of unknown date (I:4) lay beyond the edge of the enlarged Barrow I. It may have been erected much later than the other since it followed the circumference of the slipped barrow material.

Two Food Vessel-associated cremation burials (I:6 and I:7) were dug into Barrow I, although it is unclear if they were emplaced through the top of the primary or secondary mound (Britnell 1982: 157). A small oval pit (16) which had contained a fire was dug against the edge of Barrow II's primary mound, probably just before a new turf layer extended its diameter to 15m. At around this time, a small pit containing an inverted Food Vessel which held an adult male cremation burial (II:3) was probably dug (Britnell 1982: 188). Oak charcoal from this deposit was radiocarbon dated to *c.* 2113-1698 cal BC (CAR-283) (Britnell 1982: 192). Two more interments followed; an adult male cremation deposit (burial I:5) was placed on a shale slab lining the floor of a pit dug into the secondary mound of Barrow I. It extended almost the full length of the 0.7m long slab but occupied only 0.3m in width. At Barrow II, cremated adult bone (II:4) was scattered within the north-west side of the secondary mound. Yet another cremation deposit may have been set in the upper layers of the primary mound at the centre of Barrow II during this later phase (a thin but long shale slab was found disturbed just under the plough-soil). A pit (18), lined with shale slabs, was dug immediately to the north of Barrow I's enlarged mound. It probably originally contained a cremation burial, since small fragments of burnt bone littered its fill. Hazel nutshells also found within this fill were radiocarbon dated to *c.* 1954-1561 cal BC (CAR-277) (Britnell 1982: 191).

Initial interpretations

Britnell (1982: 184-5) interpreted the stake structures (ch4: p151-4) as 'domestic buildings' with cooking spaces in the back quarters, and in Structure B, sleeping accommodation to the right of the door. He thought the shelters were short-lived, but useful enough upon return visits to warrant turning the hearthstone, maintaining the stake wall and digging the series of cooking pits. Gibson (1996b: 137-9) concurred with the 'domesticity' of these structures, dismissing the possibility that they were associated with the later or earlier sepulchral acts. He was less sure of the longevity of occupation however, arguing that even if the stakes were bent inwards and wattled together for extra strength, they would have been highly susceptible to gales and snow in their relatively exposed location. Late Neolithic Trelystan was described by Britnell (1982: 185) as a

focus for *hafodydd* (summer dwellings) possibly associated with pastoral activity. Other contemporary structures beyond the margins of the later barrow mounds may have been lost to ploughing. Analysis of seeds found in pits associated with the structures suggests that the local area was largely un-cultivated during the first half of the third millennium cal BC. The range and age of plant species from these Late Neolithic contexts indicate that mixed open wood, grassland and scrub prevailed, with some regeneration of presumably deforested cover (Britnell 1982: 195-7). People were gathering wild foods from the forest copses (e.g. hazelnuts), exhausting cores and re-working tools during their visits.

Britnell (1982: 186) thought that the demise of the summer drovers' camp was followed by further deforestation, cropping and possible settlement (since destroyed; ch4: p154) by people using Beakers. The erection of the first fence-line (ch4: p154) suggests that field systems were laid-out during this period of Beaker-associated occupation. The longevity of this boundary enhances Britnell's (1982) idea that the later barrows were sited on land marginal to established field systems. By the time they were built, the ridge-way was grassed and grazed rather than cropped, and Britnell (1982: 199) believed the barrows were deliberately located on the periphery of this pasture. Indeed, he argued that the practically continuous usage of the site from the Late Neolithic may have resulted from a very stable comprehension of the area and how it fitted into world-views (Britnell 1982: 186). Britnell (1982) described how burial rites changed throughout the cemetery's 500 year history, suggesting they reflected shifting trends in the wider social environment. Elongated stone-lined pit graves with bagged cremation deposits (ch4: p155-7) were followed by interments in Food Vessels which became increasingly larger towards the end of the Early Bronze Age (ch4: p157-61). Britnell (1982: 189) also proposed that the site transformed from a cairn and barrow cemetery into two cemetery barrows which became receptacles for later burials. He interpreted this as a shift from the idiosyncratic to the standardised. The remains interred at the site were cited as not representing those usually associated with early agricultural communities; only one child is included and there are no infants or adolescents. Britnell (1982: 186) viewed the barrows as a cemetery re-used by the same lineage, supported by the repeated re-erection of the fence-line along the same alignment. He also suggested that this lineage's relationship with the Trelystan taskscape dated back to the Late Neolithic, which is why the singular understanding of it as marginal was long-lived (Britnell 1982: 190). This comprehension may have begun to

fade at the time of the later cremation burials, when the local area was re-foresting with maturing woodland.

Constant taskscapes?

Trelystan was clearly situated in a very different kind of taskscape to the Upper Severn valley four kilometres away (ch4: p103-49). During the first half of the third millennium cal BC, Long Mountain hilltop was covered in scrub and pockets of wooded copses. Daily lives on this upland were coloured differently than those on the valley floor. In spring and summer, grasses, new boreal growth and sprouting crops would have attracted grazing species such as roe and red deer, and therefore facilitated hunting between and through the open woodland. Predators, specifically wolves, would have been similarly drawn. Sparsely distributed streams (e.g. Rowley Brook) were probably fish-able, but these were characterised by rocky storm debris rather than reeded banks, and were probably visited by bears. People were unlikely to have passed through this taskscape en route somewhere else; the flatter lowland valleys to the south, east and west carved far more easily-traversable routes north-south and east-west. The thick mature forest cover on the steep valley sides (Gibson 1994: 191) would have made journeys up or down-hill time-consuming and arduous (figure 4:49). The lack of vegetation cover on the hilltop, 400m AOD, would have exposed the summit to harsher climatic conditions than the relatively protected valley floor. Autumnal and winter wind and snow would have curtailed hunting possibilities and threatened the young, weak and old in both domesticate herds, and peopled communities. In many ways therefore, the Trelystan environs could be conceived of as peripheral, dangerous and 'wild'. However, I believe that this hilltop became increasingly conceded as well-known yet unfamiliar, in contrast to the valley to the west.

Figure 4:49 Photograph of autumnal vegetation cover on the hillslopes of Long Mountain today

Long Mountain was clearly persistently dwelt-in; the secondary forested copses, scrub and grassland of the summit were probably linked to pastoralist clearances and grazing dating from at least the twenty-ninth century cal BC, and possibly earlier (Britnell 1982: 191-5). This taskscape had to have been maintained; full woodland succession would have been entirely probable in the thick Late Neolithic soil horizons of the hilltop (Britnell 1982). Whether grazed by managed or loose herds, the longevity of the relatively open summit directly contrasted with the densely wooded valley sides and still fairly encroached floodplain to the west *c.* 3000-2500 cal BC. Whilst the lower valley was increasingly intensely deforested, cropped and allowed to regenerate through this period (ch4: p99-100), the openness of the upland scrubby plain seemed to remain fairly stable. Therefore, whilst engaging with the transforming floodplain entailed simultaneous shifts in knowledge about it, and consequently life itself (ch3: p88-9; ch4: p123-32); dwelling through Long Mountain was a less instantly provocative experience. World-views were constantly re-negotiated on the summit just as elsewhere, but they were not repeatedly contradicted. The nature and understanding of engagements performed at Long

Mountain certainly changed, but this was not necessitated by its static, stable vegetative cover. Instead, perceptions of experiences on the scrubby upland plain became increasingly coloured by knowledge which had been conceived elsewhere and at other times.

Contemporary lifestyles in this part of Britain were certainly mobile, albeit tethered within seasonal cycles and cultural traditions. Transhumance practices, social obligations and the procurement of material culture all facilitated movement on a level beyond the local. For example, analysis of Grooved Ware, Food Vessel and Beaker sherds found at Trelystan suggest that the same source of clay was used throughout the third millennium cal BC (Darvill 1982: 194-5). Devonian Old Red Sandstone fragments were found in all three pottery types, probably derived from seams over 20 kilometres to the south-east and east of Long Mountain. It therefore seems reasonable to assume that at least some of the people moving through the surrounding valleys, including the Upper Severn, also spent time on Long Mountain. Knowledge conceived in rapidly changing taskscapes such as the Upper Severn valley would have triggered more abrupt re-workings within the ongoing comprehension of Long Mountain. These new comprehensions would, in turn, have affected the way in which the valleys below were understood when re-visited.

Known worlds in the first half of the third millennium cal BC

If the lower floodplain was becoming characterised as liminal during the Late Neolithic (ch4: p133-8), the constancy of the upland pasture may have been equated with the known world (ch2: p34-7) (figure 4:6). Trees providing good shelter were there year after year, good fruiting bushes repeatedly occupied the same locales and the regeneration of hilltop grasses after winter was reassuringly predictable. The durability of these knowledges was enhanced further by the openness of the taskscape. Practice at Long Mountain was perceivable by all, and generally had been since at least the twenty-ninth century cal BC. People watered their herds, collected firewood, fished, slept, ate and defecated in public; the majority of their engagements visibly, or otherwise, accessible to everyone in the vicinity. Following my earlier discussion (ch4: p128-32), the perceptibility of most of these engagements probably lent to their standardisation. Thus, whilst people at this time still had fairly unique knowledges of the floodplain to the west (ch4: p132), comprehensions of the upland promontory must have already been fairly singular and established.

The pit-grave and subsequent Grooved-Ware associated occupation at Trelystan (ch4: p150-4) provide some clarification on exactly how Long Mountain became characterised as known in the early third millennium cal BC. The pit-grave dates from the turn of the millennium and was therefore contemporary with the wholesale deforestation of Long Mountain summit. It may have also coincided with the funerary deposits at Sarn-y-bryn-caled Penannular Ring-Ditch I in the valley below (ch4: p114-5), and I believe that both sets of burial performances drew from the same symbolic repertoire. There are a number of similarities between the two sites; the surviving pit-grave cremation deposit was of a mature female, entombed instead of scattered, and contained by a tubular organic receptacle. However, this deposit, along with the possible two other burials alongside it, was additionally enclosed by the deeper shelving of the pit-cut, its wooden lining and two levels of covering stone rubble. The Trelystan monument commented upon a common theme in contemporary world-views; there was clearly a prevailing consensus that certain deaths should be differentially treated (ch4: p133-4). The same people who created the funerary deposits at Sarn-y-bryn-caled Penannular Ring-Ditch I, also understood the pit-grave woman's death as taboo. They referenced the same dynamic sets of knowledge and utilised the same apparatus of containment to manage this death (ch4: p133-8). I therefore suggest that the two sets of deposits were thought of as similarly circumstanced; perhaps the pit-grave woman also died during childbirth. Moreover, the symbolism of containment was manifested more complexly at Trelystan, and I believe this relates to a perception of the pit grave woman's death as particularly taboo.

However, the profanity of this death did not become entangled with the overall comprehension of Long Mountain, unlike circumstances at Sarn-y-bryn-caled (ch4: p137-8). This may have been because additional manifestations of liminality were not thought to be present at Long Mountain at this time. Unlike the Upper Severn valley, Long Mountain was not an intersection between other taskscapes. As already discussed, people probably travelled to and from, rather than through Long Mountain due to its densely wooded foothills and the flatter lowland valleys to the south, east and west (ch4: p163). Water channels on the summit were shallow and narrow enough to be crossed anywhere along their course, rather than at specific fording points. They did not dissect the taskscape or provide navigable route-ways, instead flowing downhill as tributaries. As the valleys below were rapidly changing, the constancy of Long Mountain as a taskscape may well have become accepted as well-known during the Late Neolithic (figure 4:6). This

explains the omission of any other 'liminal' funerary deposits on the summit after the turn of the third millennium cal BC.

The subsequent Grooved-Ware associated occupation (ch4: p151-4) was dialectically linked with this increasingly established characterisation of the taskscape. It provides us with some insight into what being well-known actually meant to people at the time. Pits, post-holes and burnt-patches stretched across the thirty-five metres between Structures A and B. They derive from repeated returns to Trelystan rather than specific visits to the buildings themselves. Dating from between the thirtieth and twenty-sixth century cal BC, the occupation of this area was only momentarily defined by these structures, which probably only stood for a few decades. I believe Structures A and B temporarily enclosed a portion of a place which was, for several centuries, periodically used for sleeping, cooking and working hides, wood and bone. The high proportion of exhausted cores and re-touched flint in the lithic assemblage suggests that these stays were relatively short-lived. Therefore, both Britnell's (1982: 184-5) and Gibson's (1996b: 137-9) interpretation of these buildings as *hafodydd* can be applied to the whole area; herders and foragers habitually returned to Trelystan when visiting Long Mountain. This may have been because a local copse of mature trees provided cover, protection and an excellent vantage point on the ridge-way, or perhaps because people were drawn to the earlier pit grave.

Critically however, the knowledge that Trelystan was somewhere to reside was resilient, and this harmonised with the constancy of practice in the relatively stable surrounding taskscape. From the probable omission of cropped plots, to the intensity and seasonality of herding performances enacted there, people dwelt on Long Mountain in the same way for around five hundred years. Indeed, the differential distribution of tool-types within the later barrows suggests a marked consistency in which activities were assigned to each portion of the occupation area (Britnell 1982: 183). This type of stability typified how people engaged with Long Mountain and I believe this is what it meant for something to be 'known about' at that time (figure 4:6).

Unfamiliar worlds at the start of the third millennium cal BC

In contrast to the growing comprehension of Long Mountain as known, I believe that the summit was increasingly regarded as fairly unfamiliar at the start of the third millennium cal BC (ch2: p44-51) (figure 4:7). There is limited evidence for fourth

millennium cal BC activity on this alluvial spur (figure 4:3). A few examples of portable material culture have been found (e.g. a possible Neolithic arrowhead 2.5km to the north-east near Monksfields, Shropshire; AppA6: p336-9), but no upstanding architecture is recorded. This contrasts dramatically with the profusion of sites immediately to the west (e.g. Sarn-y-bryn-caled Cursus; ch4: p113), and also more distantly to the south (e.g. Lower Luggy Enclosure; ch4: p100), east (The Roveries Causewayed Enclosure) and north (e.g. Collfryn Enclosure). From 3000 cal BC, opportunities to emphasise previous engagements were readily created in the Upper Severn valley. The Berriew Henge was orientated according to two well-traversed route-ways (ch4: p105-7), and the location and design of all three Sarn-y-bryn-caled Penannular Ring-Ditches clearly acknowledged the earlier cursus monument (ch4: p114-5). However, at Long Mountain, practice could not formally reference the past because there were no architectural remnants of it. Even though people may have still engaged with more transient residues of previous visits (e.g. burnt mounds, distorted tree growth, stray rubbing stones), the forest clearances at the start of the third millennium cal BC did not expose any overgrown constructions. The contemporary Trelystan Pit-Grave may well have formed a focus for the later Grooved-Ware associated occupation, although these two 'phases' were almost concurrent, implying that its construction was probably still in living memory. Indeed, the repeated returns to this place may have been an attempt to create a familiar past in a place where one was so clearly lacking. I argue that the inability to architecturally emphasise the distant past on Long Mountain lent to the area being perceived as unfamiliar; a characterisation that was discursively linked to the growing familiarity of the Severn valley below.

Known worlds in the mid third millennium cal BC

By the start of the twenty-fifth century cal BC, the summit was more intensively cleared using slash and burn techniques. Herds of livestock were interspersed between areas demarcated for deep-plough arable farming. Although there is no surviving arable pollen evidence at Trelystan, contemporary cereal species sown on Long Mountain could have included einkorn and emmer wheat, as well as barley. Such species required a fairly regular presence in the spring and summer, or autumn and spring months for manuring, tilling, sowing, weeding, protecting and harvesting (Bogaard 2004: 58). However, ard cultivation is notably less labour-intensive than hand cultivation, meaning long stays on-site would not have been necessary (Bogaard 2004: 35). The area of Grooved Ware-

associated occupation at Trelystan almost certainly continued to be frequented well into the Beaker period (ch4: p154). Despite the probable destruction of contemporary surfaces by the later barrows, pottery, worked flints and tools from this period were found throughout the mounds and underlying preserved soil horizons (Britnell 1982: 138-9; 186). It seems likely that people were returning to this place to dwell in the same way as the herders of previous centuries. Sheep, cattle and goat were still brought upslope to graze, and crops were now tended alongside them in plots. People then moved on; just as they had done in the past. I believe that constancy of Long Mountain (ch4: p167) was sustained rather than denuded by these actions. There is no reason why we should assume that arable farming and slash and burn practices dramatically altered the comprehension of this taskscape in people's world-views. Both practices were probably fairly localised and still compatible with short-lived stays on the summit. Long Mountain would have become more scrubby and less punctuated by wooded copses, but this was the extension of a theme rather than a marked change. Indeed, known fruiting bushes and trees may have been deliberately spared from the flames, thereby reinforcing the notion of constancy on the summit.

It seems likely that Long Mountain continued to be understood as known at this time; Britnell (1982: 186) himself argued that the relentless usage of the site from the 30th century cal BC related to a very stable comprehension of the area and how it fitted into world-views (ch4: p162). The cementing of the comprehension of the Upper Severn valley as liminal during the latter half of the third millennium cal BC would have actualised the nature of the summit even more (figure 4:6). Whilst the floodplain was becoming increasingly entangled with taboos as its transitional status grew, the fishable streams, hunting grounds and grassy plains on Long Mountain remained constant. Practice continued to be perceptible to all, meaning the characterisation of the summit as known retained prominence as standard, logical knowledge (ch3: p75-7; 87-8).

Familiar worlds in the mid third millennium cal BC?

In contrast to this stability of the known, the unfamiliar nature of the summit may well have begun to change (figure 4:7). The sustained practice of returning to Trelystan during visits upslope may have become more than habitual. As the debris of past visits surrounded them, people may have started to conceive of this place as familiar. The construction of the founding pit-grave by then belonged to distant rather than living

memories, and these communal knowledges may have become enmeshed within ancestral narratives.

By the twenty-third century cal BC, people stopped occupying the ridge-way at Trelystan and it was allowed to turf-over (ch4: p154). This grassy surface was maintained for around a hundred years, probably by domesticate herds which were still grazed in the vicinity (although deer may have also intensively grazed there). Whilst people no longer slept or cooked at Trelystan, they still dwelt through the locality as herders, and also fence-line constructors, repairers and guardians. Therefore, the summit taskscape did not really change. Ungulates maintained the scrubby, grassy plains and pocketed forest, and whilst arable plots may have been less common, continuing shifting cultivation practices had never enabled a stable fielded environment. I argued above (ch4: p168-9) that within contemporary world-views, Long Mountain epitomised the well-known at a time when the liminality of the lower valley to the west was being re-conceived as a distinct characterisation of place. However, the developing familiarity of the summit had become enhanced by the creation of the first of four intersecting fence-lines. For the first time on Long Mountain, new architecture directly evoked the old. Fence A was an upstanding and durable engagement with the past. It overlay the layers of past visits: one stake was even driven through the centre of the hearth in Structure A (ch4: p154). Its route curved to specifically run through the latter and skirt around the eastern perimeter of both the earlier pit grave and Structure B. This fence raised the visibility of Trelystan to eye height or above and in doing so, passed comment on the note-worthiness of the past in a highly public, open and meaningful manner. Its limits extended beyond the area of Britnell's (1982) excavation, so we cannot know whether it ran further than the Grooved-Ware and Beaker-associated occupation area. Rather than envisaging Fence A as a stock-managing device (Britnell 1982: 199), I suggest that it was a public manifestation of the common knowledge that Trelystan was familiar, even though it was no longer 'occupied'. It provided a timber version of the much earlier Sarn-y-bryn-caled Cursus, re-asserting old understandings of familiarity at a time when the nature of this characterisation was less prominent downslope to the west (ch4: p139-41). Far from marginal to contemporary field lay-outs (Britnell 1982: 199), Trelystan was emblematic of the prevailing understanding of Long Mountain as a known and familiar taskscape (figure 4:6 & 4:7).

Familiar worlds in the later third millennium cal BC

Fifty years later, during the late twenty-third century cal BC, this architectural emphasis of Trelystan continued as mortuary practices resumed on-site and Fence B was erected (ch4: p155-9). In the four-five hundred years which followed, at least twelve cremation burials were interred there. Britnell (1982: 186-9) argued for a contiguous shift from elongated stone-lined pit-graves with bagged cremation deposits covered by assigned cairns (Phase I), to interments in increasingly larger Food Vessels placed within two 'ancestral' mounds (Phase II). The sheer number of interments coupled with the three fence re-alignments (B, C and D), numerous mound re-shapings and successive stake circles suggests that people were repeatedly returning to Trelystan to re-work its materiality. There are marked similarities between some of the burial forms (e.g. I:1, I:3, and II:1 were all placed in elongated stone-lined pits orientated towards the east or north-east), and burial I:3 had been removed shortly after interment. Clearly, many actions on-site were orchestrated by people who were aware of, and reacting to, previous visits. This constant referencing and interaction with the past supports the persistent familiarity of the summit (figure 4:7).

Known worlds in the later third millennium cal BC

From around 2220 to 2000 cal BC (Britnell's 'Phase I'), Long Mountain was still grassed and therefore grazed. The surviving plant remains from the burnt area associated with burial I:4, dated to *c.* 2271-1778 cal BC (CAR-280), comprised charred grass species commonly found in "mountain pasture with areas of disturbance" (Britnell 1982: 200). Burnt buttercup and raspberry seeds were also identified amongst the carbonised remains, suggest that this burning episode (possibly from a funerary pyre) occurred during the summer months. Although no cereal remains were discovered, it seems likely that Long Mountain was still seasonally visited by herders who also opportunistically cropped and foraged. People continued to travel to Long Mountain rather than pass through it, engaging with the same streams, wooded copses and fruit bushes. Trelystan still constituted a place to dwell; the fence-line was maintained and re-built throughout these centuries and well into the second millennium cal BC. Hunting also still occurred on Long Mountain: a contemporary Conygar type arrowhead was found in a residual context within the enlarged mound material of Barrow I (Britnell 1982: 183). The Food Vessels from the earlier burials continued to be made from Devonian Old Red Sandstone clays (ch4: p165), suggesting the same source was being used for local pottery

for over a millennium (Darvill 1982: 194-5). The continuity of these practices were so enmeshed in this taskscape that I argue the summit was still widely regarded as known (figure 4:6). In contrast, the hazel scrub cover of the Upper Severn valley to the west was in perpetual change as it regenerated after increasingly frequent bouts of clearance. The river itself often flooded and changed course, transforming the dimensions of the valley floor further. The emplacement of the timber circle, an architectural metaphor of liminality, consolidated the changeability of the valley in people's mindsets (ch4: p141-6). Long Mountain stood out as an open plain which had a deep sense of constancy rooted within it.

So how did the Phase I burials at Trelystan (ch4: p155-9) fit into this comprehension of the wider taskscape? The earliest cremation burials (I:1; a male aged 18-20 years, I:3; a child aged 5-7 years with two pots, and II:2; a mature female with one pot), were placed in elongated pits which were lined and then contained by cairns. Beyond the carbonisation of the bodies, there was no use of fire to 'purify' these retaining layers (ch4: p143-4), although the mature female's burial pit was dug through a burning layer. Again (ch4: p104; p115; p119; p134-7; p150; p159), only the mature female cremation was definitely contained by a wooden receptacle (although we cannot know about the child's because the deposit was disturbed). The mature female's and child's pits both contained Food Vessels, but the male's did not. There seems to be subtle differences between the burial performances enacted for these three primary barrow/satellite cairn interments. Whilst all three deaths were actively disassociated from the prevailing norm by being permanently demarcated and contained rather than scattered (ch4: p133-4), the adult male deposit seems to have been treated with less concern towards its polluting potential. For example, the mature female's cremated bones were placed alongside a vessel which had previously held brewed alcohol. Alcohol has anti-septic qualities and may have been a part of contemporary healing rites. The male's remains were unaccompanied. The possible contemporary 'robbing' of burial I:3 sheds further insight. I believe this act related to a re-working of the initial understanding of the child's death, not long after the funeral. Perhaps the potency of this death was re-conceded through overt or more subtle disagreement: the exhumation performance both enabled and communicated this re-concession publicly (ch3: p75-8). Whether the child's death became more or less profane is unclear; the cremated bone may have been re-buried downslope in the liminal valley, or scattered elsewhere.

I suggest that the events surrounding these three deaths were not initially considered highly polluting. This is why their remains were neither included in the Upper Severn valley below, nor treated with the full repertoire of purification rites (as exemplified at the contemporary Sarn-y-bryn-caled Timber Circle; ch4: p141-6). However, these people were cremated, contained and entombed rather than excarnated or scattered, suggesting that the partial nullification of each death was deemed necessary. To speculate, these deaths may have only indirectly incurred the taboo of the externalisation of the inner body (ch4: p145-6) (e.g. perhaps blood ran from the mouth at the moment of death). The emplacement of these interments specifically at Trelystan may have interplayed with a belief that these deaths could be 'saved'. Its constancy and familiarity may have been harnessed to purify the uncertain profanity of these deaths and ensure the success of the burial rites; a decision which was later re-thought for the child. Perhaps returning foragers spoke of the death and the child's containment upland (ch4: p172). This circumstance may have caused concern for others within the wider group, who felt that the profanity of this death would compromise the known nature of Long Mountain. The incorporation of other deaths in the Upper Severn valley had enlivened its already growing characterisation as betwixt and between (ch4: p141-3), and perhaps the pollution of the child's death was thought too strong for the uplands to remain untainted. It is perhaps telling that no other children were incorporated into the Trelystan mortuary complex after this early interment (Britnell 1982: 189). It may be that this exhumation was recalled during decisions on how to treat later infant deaths, and indeed, the general profanity of pre-initiate deaths may have been reinforced by these stories.

Later Phase I burials at Trelystan include cremation I:2 (a probable slightly built male of advanced age) and I:4 (a double burial of a robust man aged over 30, and a slightly built woman, aged around 20 years). I:2 was enclosed in an organic container, placed within an unlined pit without a pot, and covered with a cairn. I:4 was placed in a Food Vessel, within a shale-lined pit dug into both the ring-ditch fill of Barrow I and the pyre debris directly associated with the cremation of the two individuals. This deposit was covered with slabs, and then possibly by the enlarged mound of Barrow I. Again, decisions made in the interment of I:2 do not seem to have utilised the full repertoire of purification rites. There was no Food Vessel and the burial pit was not lined, suggesting that the polluting potential of this death was only partial. However, cremation deposit I:4 does seem to have been particularly well-contained. The Food Vessel into which the bone was

placed was missing its rim and had probably been used for brewing alcohol (Britnell 1982: 200), again perhaps included for its disinfecting qualities. The vessel's rim may have been removed at the time of interment so an organic lid could be sealed over the mixture of bones and alcoholic residue. This vessel was enclosed by the shale-lining and capstone of the burial pit, which was itself 'purified' by being dug through the burnt pyre debris, and was further retained by overlying mound material.

The mixing of two people in this deposit may add another dimension to the repertoire of purification rites. Whilst the completeness of deceased bodies was clearly not a contemporary concern (most cremation deposits were token, rather than representative of the entire corpse; AppB: p378), none of the other Trelystan burials mixed two individuals' bones. It may be that one of the deaths, or indeed people, was considered particularly 'pure' whilst the other was extremely taboo. The merger of their bones enabled a particularly intricate further level of cleansing. Both individuals were probably cremated on the pyre through which the pit was dug (Britnell 1982: 154-5), and the presence of a metacarpal fragment in the surrounding pyre debris suggests that at least one of these bodies had not been left to decompose for long[50]. These two deaths must have therefore either been simultaneous, or near contemporary, and the presence of carbonised buttercup and raspberry seeds in the pyre suggests they occurred during the summer (Britnell 1982: 200). It may be that the cause or circumstance of death was therefore the same, but I suggest that subsequent comprehensions of the bodies differed. Perhaps they both died of septicaemia caused by injuries from a hunting accident, but one died peacefully whilst the other suffered from the visible externalisation of their innards. Or perhaps one was initiated in some way as they were dying, thereby reversing the profanity of the septicaemia. Burial I:4 may have also drawn from the same symbolic framework as the two basal cremation deposits at Sarn-y-bryn-caled Timber Circle (ch4: p118-9). I argued earlier (ch4: p146) that small amounts of anatomic portions from other individuals were included in these contained burials because they also required purification. Perhaps however, these fragments were talismans from deaths, or people, deemed particularly 'pure'. Detached in death rather than life, these manifestations of piety added yet another level of cleansing to the timber circle deposits. In spite of this possibility, the levels of containment within burial I:4 were still more numerous than the

[50] Metacarpal and metatarsal fragments are amongst the first anatomical parts to disassociate from the human body during decomposition

contemporary Sarn-y-bryn-caled cremation deposits. This may be because the extreme profanity of one of the deaths was redeemable through association with the other, as long as they were both particularly well-contained.

Depreciating worlds in the early second millennium cal BC

The constancy of Long Mountain may have therefore been a factor in the emplacement of partially impure deaths at Trelystan *c.* 2200-2000 cal BC. I have already argued that the taboo of the externalised body was a growing concern at this time (ch4: p136-7), and suggested that extremely polluting examples had to be publicly demarcated in places which were inherently liminal. The known nature of Long Mountain may have been so entrenched that Trelystan was deemed an appropriate place for the incorporation of polluting deaths which could be neutralised. However, by around 2000 cal BC (Trelystan Phase II burials; ch4: p160-1), lives and worlds on Long Mountain and in the Upper Severn valley were beginning to change (figure 4:6). As already mentioned (ch4: p121), it is around this time that the gradual trend towards total deforestation peaked in the river valley below. This was followed by a period of woodland regeneration which lasted until *c.* 1500 cal BC (Gibson 1994: 191). On Long Mountain, the scrubby grassland was also succeeded by tree species such as oak, ash and field maple (Britnell 1982: 197). Oak trees were particularly getting larger, and generally growing faster, suggesting people had stopped interfering with increasingly mature local woodland. The practice-related reasons behind the regeneration of forest cover could include the movement of smaller herds between fewer taskscapes, the over-hunting of wild grazing species and the reduction of slash and burn cultivation techniques. I have already argued that the relevance of liminality as a characteristic of the Upper Severn valley was diminishing at this time (ch4: p147-8), and this may have been associated with the reduced movement of livestock, and therefore people. With fewer journeys being made less regularly, the nestling of the floodplain betwixt and between various taskscapes would have been a less prominent concern. Practices which had been previously considered 'unsuitable' for the locality may have been re-introduced, rendering the valley's liminal nature even less relevant.

On Long Mountain, the regeneration of forest cover marked a more dramatic change than shifts on the floodplain below. It altered a taskscape which had remained more or less the same for around a millennium. Reliable fruiting bushes were smothered by the secondary forest growth and wooded copses disappeared. Hunting herds of deer in dense

forest required completely different skills. Indeed, the form of other long-standing engagements with the wider taskscape were also changing at this time. Despite the same Devonian Old Red Sandstone clay being used for Grooved Ware, Beakers and Food Vessels deposited at Trelystan (ch4: p165), the Food Vessel Urns stratigraphically dated to Trelystan Phase II were made using a different source material (Darvill 1982: 194-5). Darvill believed such changes were linked to a new group of people, with different cultural histories, visiting the site at this time (1982: 194-5). However, I argue that some previously static characterisations of Long Mountain were deteriorating. Perhaps recursively linked to the re-conceptualisation of the valley below, Long Mountain was no longer defined through its contrast with the liminal floodplain. People less regularly travelled to the summit for summer pasture, hunting and foraging, and new, more sporadic rhythms of practice punctuated its increasingly dense scrubland. The constancy of this taskscape was no longer inherent, and was probably losing symbolic capital as a concern anyway. In addition, the previous use of Trelystan as a purifying agent may have tainted the known nature of the summit, recursively facilitating its re-conception in people's world-views. With the growing vegetative cover, practice became increasingly intimate and less open to the perception of others. The re-categorisation of this area may have therefore resulted in more disparate and ephemeral understandings (ch4: p125-8) (figure 4:6).

These spiralling changes in knowledge form and practice were dialectically linked, and to attempt to extract a single cause for the shift is simplistic. The durability or vulnerability of conceded knowledge is always embedded in the situations in which it interplays (ch3: p87-8). What is certain is that a succession of circumstances during the twentieth century cal BC undermined both the 'truth' and significance of the liminality of the Upper Severn valley, and the knowledgeability of Long Mountain; facts which had held for around a millennium. In contrast, the familiarity of Trelystan persisted as cremations continued to be emplaced on site, the fence was re-aligned twice (C and D) and various stake circles were erected through the barrows. Indeed, even after cremations ceased to be interred at Trelystan during approximately the later eighteenth century cal BC, a stake circle was erected, followed by the deposition of a Middle Bronze spearhead in Barrow II. It would seem that the significance of the familiarity of Trelystan still resonated in these repeated references to past experience (figure 4:7).

The changes in world-knowledge at this time can be seen through a fairly stark divergence in the symbolic repertoire of funerary rites utilised at Trelystan. In the twentieth and nineteenth centuries cal BC, interments at Trelystan include I:6 (a small portion of a mature, unsexed individual), I:7 (a female, aged 40+) and II:3 (a male aged 40+) (ch4: p161). All three cremation deposits were inserted into holes dug into the top of either the primary or enlarged barrow mounds. Although deposits I:6 and I:7 were disturbed, it seems unlikely that these holes were lined since the one for II:3 was only just big enough to hold the Food Vessel Urn which accompanied the bone (Britnell 1982: 159-60). In fact, there was no evidence of an organic receptacle in intact deposit II:3, and in contrast to earlier interments contained within vessels (e.g. burial I:4), the urn in II:3 was inverted and therefore covered rather than held the bone. There was also no sealing of the interments with rubble or over-lying mounds. The deposits were placed into the existing barrows and covered with the material excavated from the hole itself. This meant that they would not have been specifically marked, unlike all of the Phase I burials. There were no clearly defined layers of containment in these interments. The bone was not retained by a leather bag, ceramic wall, shale lined pit, rubble capping or earth mound. Similarly, they were not overtly purified. There is no alcoholic residue on the Food Vessel Urns, no mixing of bodies and no incorporation of burning beyond the cremation itself. Considering the break-down and decentralisation of the concept of liminality at this time (ch4: p147-8), the profanity and containment of certain deaths may have no longer held any significance.

However, decisions to disassociate these deaths from normative funerary rites were still being made. The advanced years of these three individuals may be related to contemporary changes in world-views. Perhaps the profanity of the externalisation of the inner body (ch4: p136-7) had lost potency as knowledge and, at a time when understandings of the world were becoming more disparate, memories of this taboo were being nostalgically re-worked. Perhaps the deterioration of the body in old age was conceded by some to warrant the interment of the remains at a familiar place which had previously exposed purifying capabilities. Whilst profane deaths no longer needed to be emphatically contained, remnants of knowledge about past practice gave meaning to their inclusion at an increasingly de-characterised Trelystan. Their emplacement on-site was not to cleanse the remains, nor to disassociate these deaths from others. Instead, these divergent forms of interment acknowledged the familiarity of this practice at Trelystan in

spite of the dissipation of the body of knowledge which originally validated it. Almost akin to the continuing popularity of modern-day church marriages, despite the increasing secularisation of British people (Walliss 2002), these acts were not traditional but rather the re-working of old knowledge at a time when a standardised logic no longer existed.

The later Phase II cremation deposits, probably dating from the early to middle eighteenth century cal BC, include I:5 (a mature adult male) and II:4 (a possibly female adult). Deposit I:5 had been placed in an elongated organic receptacle, within a pit dug into the enlarged mound of Barrow I. The base of this pit was lined with shale, and it had originally been sealed with a similarly sized shale lid. Deposit II:4 was disturbed, but may have also been placed onto a basal shale slab within a pit in the centre of Barrow II. Both deposits therefore drew from the original repertoire of funerary rites, rather than the re-workings of the preceding century. Containment was re-emphasised as a concern in the pit-lining, cairn over-fill and organic container. However, both individuals were mature adults, suggesting that the taboo of their deaths may have been linked, by some, to the deterioration of the body, rather than previous concerns about the externalisation of innards. It seems likely that these deposits were created through ongoing re-workings of old knowledges, the configurations of which were unique to the cremations themselves. The lack of depth in symbolic capital, and subsequent cessation of funerary rites on-site probably meant that they held insufficient common ground within others' world-views to become normative practice. By the time the last deposit was enacted at Trelystan, perhaps even the familiarity of the summit had started to become less meaningful.

Long Mountain: a summary

Within rhythms of daily life, Long Mountain was initially conceived in relation to the Upper Severn valley (figure 4:6 & 4:7). As the floodplain became recognised as a liminal, interconnecting and highly transformative place, the constancy of the summit above it became more apparent, gradually epitomising the known world. Its familiarity was not clear, however, and this only grew as people repeatedly returned to Trelystan. The maintenance of the grasslands on the summit meant that engagements with the taskscape were evident to all, and therefore knowledge about how this place was understood and interacted with was clear and standard. Whilst varying in intensity, the same sort of practices permeated the taskscape throughout the third millennium cal BC, culminating in the re-use of Trelystan for burial. However, the old knowledge eventually lost its

impact, perhaps partly because the emplacement of profane deaths on the summit contradicted the inherent purity of the known world. The nature of practices on Long Mountain altered for the first time at the turn of the third to second millennium cal BC, and as the grassland was succeeded by secondary forest, engagements became more intimate. Knowledge about the world was less publicly experienced, and the entrenched characterisations of both the upland spur and the Upper Severn valley rapidly lost their significance. People re-worked their traditions to complement changing and more disparate understandings of the world until, eventually, even the familiarity of Trelystan was lost.

Other worlds

There are numerous other contemporary sites within the vicinity (figure 4:50). Six stone circles in two clusters were originally situated within a five kilometre square area north of Corndon Hill. These were Mitchell's Fold, Mitchell's Fold Tenement/Druid's Castle and The Whetstones in the south-west, and Hoarstones, Shelve and Pennerley in the north-east (figure 4:51). Along with the many cairns and barrows surrounding them, these circles framed the north-west–south-east pass between Stapeley and Stiperstone hills (Burl 1976: 265). Recent analysis of pollen from a paleosol underlying the barrow mound on the Old Church Stoke to White Grit bridleway on Corndon Hill (figure 4:51), suggests that woodland clearance occurred locally from *c.* 3000-2700 cal BC (Britnell 2009). By the later third millennium cal BC, hazel scrub with some alder and ash, and some grassland with weeds and ferns covered the hillside. Oak and lime woodland occurred in the wider environment, perhaps on lower ground (Britnell 2009).

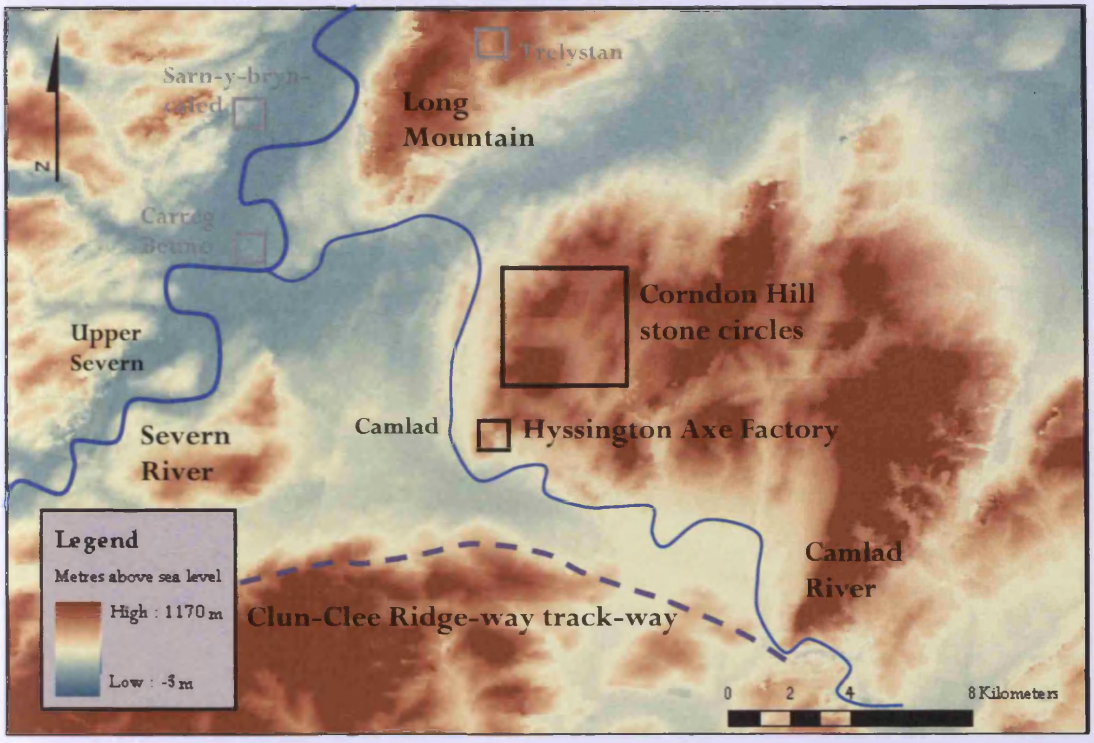


Figure 4:50 Elevation map depicting the location of the Corndon Hill stone circles, 'Clun-Clee' track-way and Hyssington Axe Factory

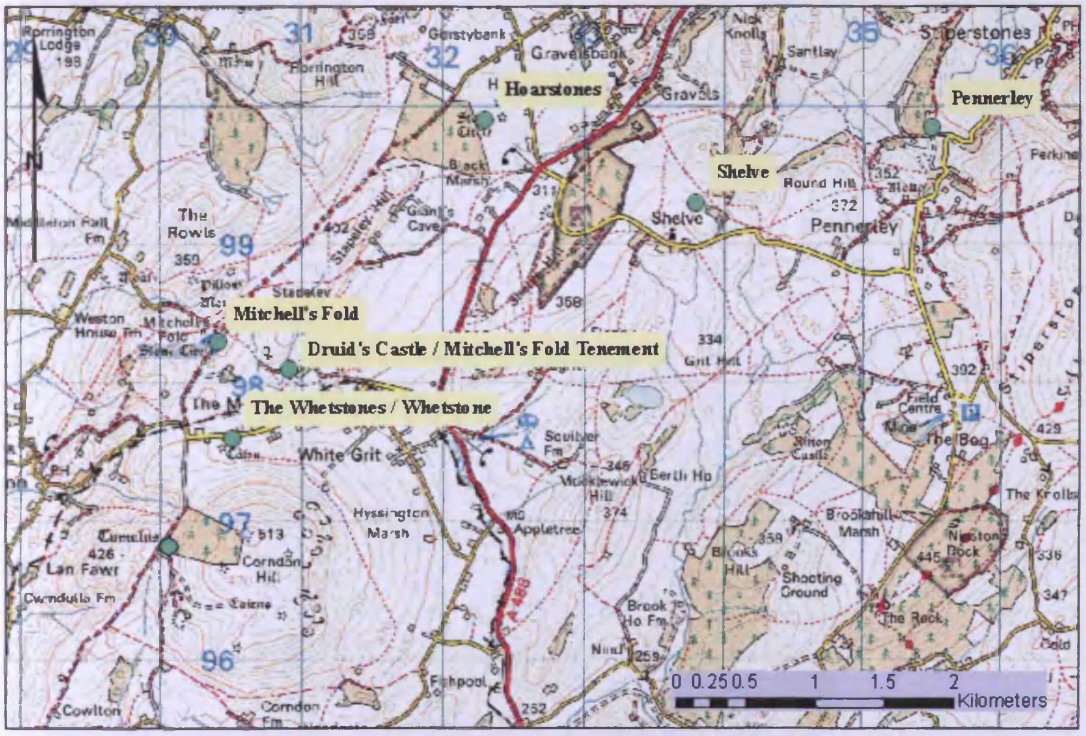


Figure 4:51 OS map depicting the location of the six Corndon Hill stone circles and the recently excavated barrow (marked 'tumulus' in the south-west of the map)

Only one stone circle, Mitchell's Fold, has been archaeologically excavated, and this was limited. However, based on the association of a bronze dagger with The Whetstones and a bronze palstave with Druid's Castle, at least some of these circles were built or frequented during the late third to early second millennium cal BC (AppB: p379-86). Of the six, Mitchell's Fold (figure 4:52 & 4:53) and Hoarstones (figure 4:54) survive to the present day. Both are large flattened rings of local dolerite which originally had central stones, whilst Mitchell's Fold also had a portal stone (Burl 1976: 265-6). The orthostats in the north, east and south-west of Hoarstones Circle are set wider apart than the others, perhaps marking sight-lines angled towards the peaks of the surrounding Broomlow Callow, Stiperstones and Corndon Hills. Chitty (1926: 251) suggested that these hills held magical qualities from which the stone circles of the area drew.

Figure 4:52 Photograph of Mitchell's Fold Portal Stone (author's own)

Figure 4:53 Photograph of Mitchell's Fold Stone Circle (author's own)

Figure 4:54 Photograph of Hoarstones Stone Circle

About a kilometre to the south of The Whetstones, Mitchell's Fold and Mitchell's Fold Tenement cluster, on the southern slopes of Corndon Hill (figure 4:55) were a series of outcrops of exposed picrite. Recent surveys and excavation have confirmed that these spots have been quarried, but a date for extraction events could not be established (CPAT 2009: 2-4). However, local picrite was definitely used during the Early Bronze Age for battle axes and axe hammers, and may have been sourced for polished stone axes during the Neolithic (Shotton *et al* 1951). Known as Hyssington or Cwm Mawr 'axe factory', Group XII axes from Corndon Hill have been found distributed throughout Wales and beyond. For example, Cwm Mawr picrite axe-hammers were found in barrows near Avebury and Stonehenge (Chitty 1963: 173), and in de-contextualised contexts in South Devon and Land's End (Burl 1976: 265). Locally, Group XII axe-hammers, as well as XIII (Preseli), VII (Graig Lwyd) and VI (Great Langdale) polished stone axes have been found in the upland vicinity of Hyssington and also the surrounding Camlad floodplain to the west. However, no examples have been found either in the stretch of the Upper Severn valley to the west, or on Long Mountain (figures 4:3, 4:4 & 4:5; AppA6:337-9).

Figure 4:55 Photograph of the location of Cwm Mawr Axe Factory (author's own)

A section of the Clun-Clee track-way runs east – west to the south of Cwm Mawr, skirting around the northern tip of the Clun Hills (figure 4:50 and 4:56) (Chitty 1963: 190; Burl 1976: 267). This track follows a route which later became the Kerry Hill Ridge-way (*Yr Hen Ffordd*, 'The Ancient Road'); barrows, cairns, standing stones, flint tool scatters and isolated axes and axe-hammers litter its route. Chitty (1963: 172-3) maintained that this, and a second more southerly track-way, were followed by Early Bronze Age "axe-hammer traders" who were travelling south-west to obtain flint nodules from the nearest source, 130 kilometres away in the Marlborough Downs.

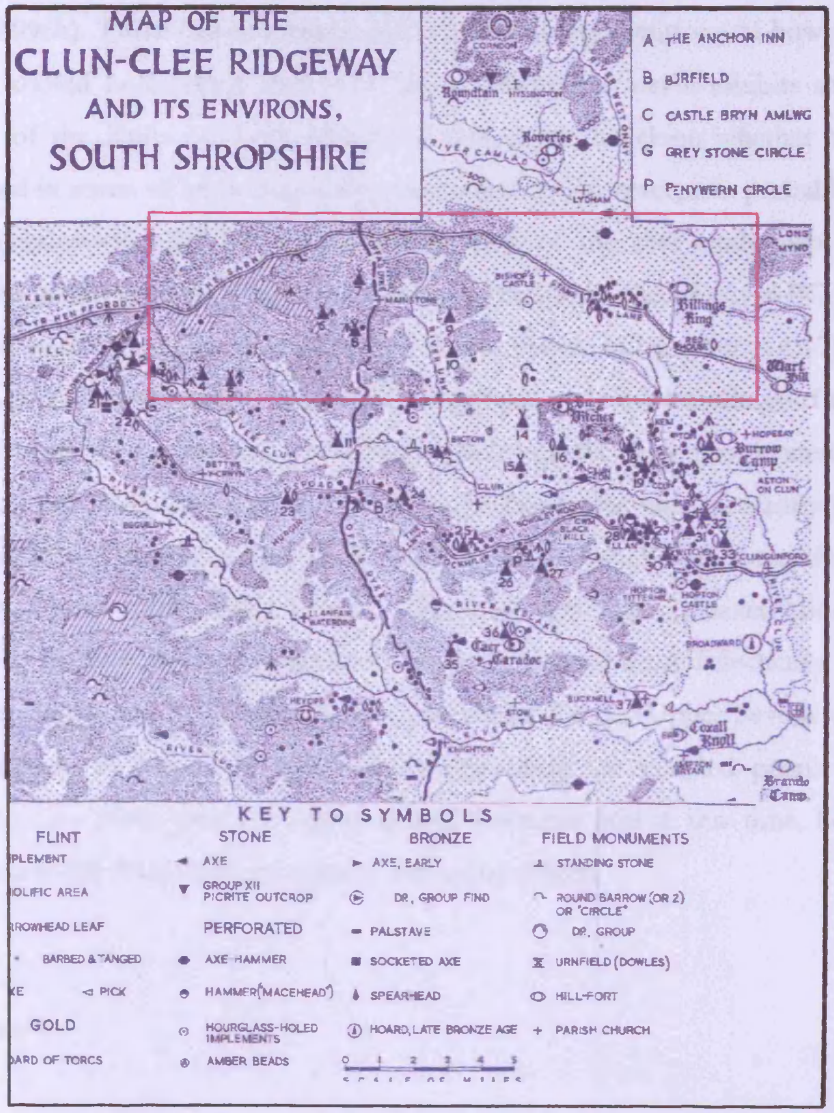


Figure 4:56 Map of the western limits of the Clun-Clee ridge-way. Note Corndon Hill to the north. The section depicted in figure 4:50 is marked with a red box (*from* Chitty 1963: 190)

These sites further our insight into how dynamic comprehensions of the valley and upland to the west of Carreg Beuno, Sarn-y-bryn-caled and Trelystan fitted into local world-views (figure 4:6 & 4:7). They reiterate that the entire case study area was visited and moved through during the Early Bronze Age, particularly along an east-west, or east-south-west trajectory. The prominence of the confluence of the Camlad and Severn becomes even clearer if one considers that journeys transgressing the pass between Stapeley and Stiperstone Hills, or along the track-way would have approached or left behind this prominent gap in the Clun Hills. The stone circles and picrite outcrops were microcosms for how the wider taskscapes in which they were situated were understood (Richards 1996b). These places focused and clarified comprehensions of how the world could and should be engaged with. The lack of excavation detail inhibits any further discussion of the limits of these prescribed taskscapes, let alone whether they were characterised in terms of knowledgeability or familiarity. However, it is probable that the moorlands, ridge-ways and floodplains of this part of the case study area were not regarded as inherently betwixt and between during the third millennium cal BC, since this would have undermined the liminality of the Upper Severn valley (ch4: p141-7). Instead, their characterisation must have dialectically complemented understandings of the nature of the taskscapes to the west since it is highly likely that the same people were dwelling through these 40 km^2. In this way, the truth of other truths was constantly re-aligned until the world made sense (ch3: p75-7). It is interesting that all sites currently recorded to the east date from the Early Bronze Age, when the rigid characterisations of the taskscapes to the west were breaking down. Perhaps their creation dialectically facilitated the rapid re-configuration of world-views conjectured for the Upper Severn valley and Long Mountain. Perhaps new ways of understanding life enabled people dwelling through the case study area to re-comprehend Corndon Hill at this time, hence new engagements in the form of stone quarries and stone circles.

Conclusion

The north-western Clun Hills were permeated by the transient movements of people throughout the Late Neolithic to Early Bronze Age. They were perceived as a series of interlocking, fluid taskscapes which came in and out of focus as characterisations of the world changed. At certain times and for different reasons, specific understandings of

particular taskscape configurations held ground as logical and meaningful (figure 4:6 & 4:7). Those characterisations considered; as formulations of familiarity and knowledgeability; occasionally endured for some time. In the probably fairly unusual case of the Upper Severn valley and Long Mountain, some of these characterisations lasted in a recognisably similar form for a millennium. As ways of understanding the world, they formed the recursive framework through which dwelling made sense. Practice was enacted, perceived, challenged and re-worked through these dynamic characterisations, so that the taskscape-embedded arguments, sexual encounters, funerals, hunts, dedications, butchery, basketry and fishing expeditions were all meaningful within this mindset. I believe that the durability of the liminality of the Upper Severn valley, and the knowledgeability of Long Mountain were dialectically linked to contemporary (practice-led) changes in vegetation cover (ch3: p88-9)[51]. As engagements became more publicly perceptible, they became more open to critique and discourse. This increased accountability meant that knowledge became more standardised. When these knowledges finally broke down, losing strength of meaning and relevance, the forest cover resumed, rendering engagements less public and therefore accountable. The complexity of these changes was clearly immense, and interconnected with other over-lapping characterisations of the world that have not been conjectured. These characterisations were not necessarily linked to taskscapes, but to other ways of ordering life such as through dimensions of time and mentality. However, by exploring one example of knowledge re-formation in context, I have demonstrated how specific dimensions of prehistoric world-views can be accessed.

[51] This will be further discussed in chapter 6: 280-1

5. Characterising Practice: Understanding herding and mining in the Late Neolithic to Early Bronze Age of the Irish Sea region

Introduction

The previous chapter addressed the formulation and characterisation of specific taskscapes within prehistoric world-views. It situated these emergent knowledges within a Cartesian spatial and temporal framework, theorising change according to the succession of local genealogies. My second case study will form an alternative approach to the same aim of understanding how subject knowledge may have been characterised in Late Neolithic to Early Bronze Age world-views. Instead of focusing on successive comprehensions of taskscapes, I will consider how specific practices were characterised, de-emphasising time and place. Just as taskscapes come into being, and cease to be, through dwelling (Ingold 1993; 2000: 194), so practices exist through the inherent interplay between knowledge formation processes and doing (Bourdieu 1977: 2; Gell 1992: 274) (ch3: p62-3; p74-5). As conceptual bundles, practices are the dialectical comprehension of action; they are the means of demarcating, substantiating and ordering dwelling. In actualisation, cross-culturally recognisable practices are reflexive performances which have *common* forms, rules and associations (Turner 1987: 22). Intra-culturally, they are *recurrently* associated performances which have a certain durability of form, and repetition of occurrence (ch3: p70). Their existence is integrally linked with taskscape, but their meaning may not relate to it. For example, how you comprehend a bout of walking in the present day is socially embedded. It relates to your understanding of life; perhaps drawing from recently re-formulated ideas about fitness, imminent time pressures or leisure enjoyment. However, this comprehension may not derive from the specific taskscape you walk through. It may instead be a relatively independent comprehension which would be formulated whether you walked up a mountain or over a bridge. Similarly, how practices are understood may not necessarily relate to past, future, present, previous or subsequent performances (Gell 1992: 269). Bouts of walking may be characterised as specific circumstances, unrelated to how they were, are or will be understood during other moments. Whilst the comprehension of practices will always nestle in the ongoing re-working of knowledges (i.e. temporality; Ingold 1993; 2000: 194)

(ch3: p63-5), the relative chronology of each may be irrelevant in the resultant characterisation.

I believe it is plausible to address the conception of specific practices across the Late Neolithic to Early Bronze Age of western Britain and still create a meaningful analysis. I will consider how different people at different times conceived of the same conceptually bounded practices, attempting to determine any commonalities or disparities between prevailing world-views. For ease of contextualising meaning within modern schema and also acknowledging that human life is a process involving the passage of time (Ingold 1993; 2000: 189), I will address broadly contemporary practices. Similarly, each practice I consider will inevitably be perpetuated in the same kinds of taskscapes (even though how these were bounded and understood will have differed cross-culturally). However, I will not consider changing comprehensions through time and place, instead focusing on alternative comprehensions of the same conceptually bounded practices. In this way, I will appreciate the relevance of knowledgeability, familiarity and normality in the comprehension of conceptual entities other than taskscapes. The presence, absence and permutation of these constructs in contemporary characterisations will broaden my understanding of prehistoric world-views.

I will consider whether herding and copper ore mining were characterised by practitioners in terms of their knowledgeability, familiarity and normality. Drawing from across the Irish Sea region (figure 5:1), the constituent performances of these two practices will be interpreted to establish how and why these characterisations may have become established concerns (ch3: p87-8). As the chapter progresses, any such identified knowledge will be related to characterisations of herding and copper-ore mining perpetuated elsewhere and at other times, thereby determining recurrent themes between world-views.

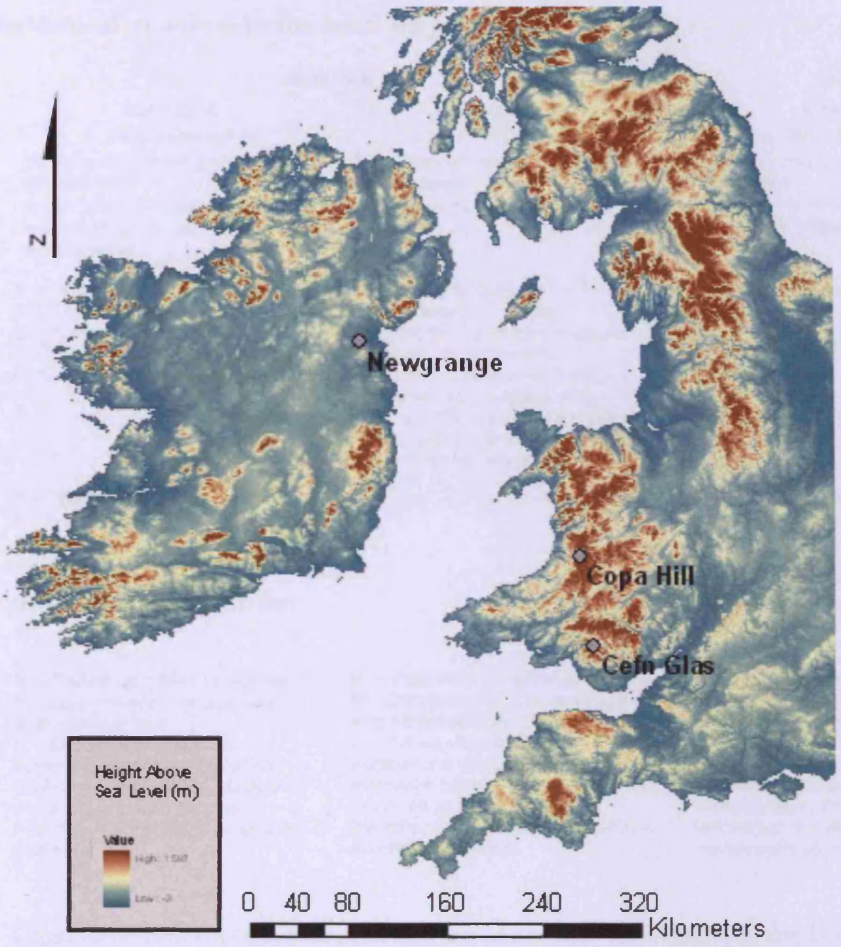


Figure 5:1 Elevation map depicting the location of the three Irish Sea sites discussed in chapter 5

All interpretive discussion in this chapter is summarised in figure 5:2 below, and replicated in the discussion and conclusion of this thesis (ch6: p285). This chart will be referred to throughout this chapter.

Characterisations of practices in the Irish Sea region

	Herding		Mining
	Cefn Glas *c.* 2900-2500 cal BC Scrubby woodland with clearances = BUT more consensual knowledge because herding is co-operative	**Newgrange** c. 2800-2100 cal BC Sparse scrub on ridge. Woodland to the south = Consensual knowledge	**Copa Hill** *c.* 2000-1750 cal B Opencast has many side trenches and angles = BUT more consensual knowledge because mining is co-operative
Knowledge-ability	**K – "Herding (life) is liminal"** M – Transitional = taboo E – Purification symbolism: burnt white flint was spread across the occupation surface several times	**K - Herding is liminal** M – Transitional = taboo E – Purification and containment symbolism: non-'herding' performances abstained from, controls on pig slaughter and butchery, differential treatment of species, burning animal bones and huts, and spreading white flint	**K – "Mining (depleting veins) is liminal?"** M – = taboo (no further detail) E – Purification and containment symbolism ONLY at exhausted fissures: burning and sealing of launders and timber buried in shafts
Familiarity	**K - "Familiarity is irrelevant"** E - Fluid movement and subsistence strategies punctuate uplands; previous engagements are not directly referenced because they comprise life itself		**K – "Mining is familiar"** M – Sufficiently engaged with E – Referencing of previous engagements through action: same veins re-exploited, same techniques and tools used, and same use of space
Normality	**K – "Herding (life) is normal"** M - Communality, co-operation and inclusiveness E – Exclusively knapping scrapers; a generic tool which everyone could create. Knapping occurred in public around hearths. Moving stock involved everyone	**K – "Herding is normal"** M –Communality, co-operation and inclusiveness E – Exclusively knapping scrapers; a generic tool which everyone could create. Knapping occurred in public around hearths. Moving **very large** stock involved everyone	**K – "Mining is normal"** M – Communality, co-operation and inclusiveness E – Public architecture created and respected, planning of spoil deposition and water management. No evidence of contention or specialism; traditionally all mined

Figure 5:2 Chart depicting specific characterisations of herding and mining in the Irish Sea region c. 2900-1750 cal BC. Text in green describes immediate taskscape and its discursive relationship with the degree of consensus between world-views, ranging from disparate to less disparate, to less consensual, to more consensual, to consensual. K = Knowledge, M = Meaning and E = Evidence

Herding

Introduction

It is generally accepted that by the Late Neolithic, many communities in Britain and Ireland were engaged in some form of pastoralist lifestyle (Cooney & Grogan 1994; Darvill & Thomas 1996a; Whittle 1997a; Thomas 1999; Gibson 2003; Brück 2008) (AppB: p398-401). Lithic, botanical and faunal remains from across the region respectively suggest a high degree of mobility, with greater reliance on wild rather than domesticated plant species and seasonally-specific routines of animal husbandry (Moffett *et al* 1989; M. Richards 1996). Recent carbon and nitrogen isotope analysis of collagen from tooth dentine and bone from a number of human remains in East Yorkshire and Scotland has confirmed that Beaker period diets were high in animal proteins (meat and

dairy products), even if the individuals sampled were buried near the coast (Jay & Richards 2007: 78). However, the nature of contemporary pastoral practices was undoubtedly highly variable, embedded as they were within ongoing relationships with taskscape (Whittle 1997a; Cooney 2000a; Whittle 2003: 40; Bamforth & Woodman 2004: 21-2) (ch3: p62). For example, and hypothetically, within one 'area' (e.g. the Mendip Hills, Somerset), some people may have stayed relatively localised within surrounding lowland river valleys: growing crops, gathering plants and keeping pigs on the fertile terraces, and hunting further afield for meat. Others may have mixed low-maintenance isolated field systems with sporadic cycles of transhumance. Neither of these subsistence practices were static nor environmentally determined, instead perpetuated by the agency of communities embedded in third millennium cal BC life. Whilst the keeping of livestock seems to have coloured daily life more readily than intensive arable cultivation at this time, we cannot assume that practices such as selective breeding, castration, hand-rearing, slaughtering and branding were comprehended in the same way across Britain. Indeed, as exemplified in chapter 4, forest regeneration occurred in some places from around 2000 cal BC, suggesting that any generalised forms of pastoral activity were changing by the start of the Early Bronze Age (Gibson 1994: 191).

Herding cattle, sheep and goat is a necessary element of pastoralism when regular field rotation is not possible, perhaps due to extensive localised forest cover, heavy rainfall, drought, the encroachment of 'buildings' or high herd numbers. Protection of domesticates from predators, both animal and human, would also encourage the regular movement of livestock (Redding 1984: 239). Cribb (1991: 372) suggested that nomadic pastoralists move according to the consumption patterns of their herd, and therefore the constant necessity for fresh pasture. In temperate regions such as southern Britain and Ireland, movements often occur between lowlands and uplands, or inlands and coastal areas (van Wijngaarden-Bakker 1986: 99). Foddering is only necessary in the harsher clines of northern England and Scotland (Schulting 2008: 97). Compared to hunter-gatherers, pastoralists are far less concerned about the diversity of plants, water sources, raw materials, animals and people within a taskscape. Instead, they tune in to a narrow band comprising the pastoral niche (Cribb 1991: 373), moving to optimise the *same* resources rather than to find a wider variety. This would entail a lack of functional variability within nomadic pastoralist sites (i.e. fewer different tasks being performed). Cribb (1991: 373), following Ingold (1987), also argued that nomadic pastoralist

movement patterns tend to be more unstable and prone to dramatic shifts than those of hunter-gatherers. Minimising risk to herds might create a more sensitive social atmosphere, causing herding camps to be more spatially constrained.

Thinking herding

Much has been written on contrasting attitudes associated with the control and nurturing, rather than hunting of animals (Ingold 1986b; Whittle 2003). With reference to Neolithic and Bronze Age world-views, themes include emerging conceptual dichotomies between culture and nature (Hodder 1990; Quinn 1995: 248), the formulation of concepts of property and ownership (Childe 1946) and the possibility of labour specialisation and trade (Sherratt 1981; 1987). More recently, archaeologists have considered the symbolic potential of livestock (Jones 1998: 315-7; Schulting 2008: 99) and their centrality and physicality within daily life (Whittle 2003: 78). Evans-Prichard's (1940) classic study of the Nuer of Sudan demonstrated the complexity of relationships between pastoralists and domesticates (figure 5:3). For the Nuer, cattle are an irreducible crucible of meaning. They are integrally linked to probably every dimension of world-knowledge, as denominators and agents of the innumerable permutations of life. Comprehensions of wealth, political and religious power, kin ties, genealogies, behavioural norms, identities, legalities, seasonality and temporality, ownership, territory and spirituality are all bound to comprehensions of cattle (Evans-Pritchard 1940: 19). Rather than triggers for the formulation of supposedly cross-cultural concepts with singular meanings (e.g. capitalist notions of property or culture), livestock are embedded in the taskscape and practices through which the world is constantly and recursively re-conceived (Abbink 2003; Harvey 2006: 210-2). Whether they are more explicitly than implicitly fore-grounded in the way in which life is comprehended, as constituents of the fabric of experience, domesticates are inescapably integral to pastoralist world-views.

Figure 5:3 Photograph of Sudanese cattle, here forming part of a Nuer bride dowry. Each animal is known by name and colouring to everyone in the community

Chadwick (2004a: 116) argued that this indivisible entwinement of domesticate and human lives occurred through seasonality, landscape and movement. Livestock need forage to graze, and regular access to water. People therefore have to herd according to perceived knowledge about taskscape and temporality (e.g. which valley is known to have luscious fodder even in the hottest months, what stream clogs with sediment after heavy rainfall). Conceded comprehensions of places and times that are suitable or unsuitable for a herding group determine the nature of the rhythms of movement. Prevailing truths govern the logic of where is a good place to go and when. For example, the tundra Eveny of eastern Siberia herd 'domesticated' reindeer throughout the year, occasionally stopping for more than a few days at one of a series of established camp-sites. The exact temporality and route of the movement result from both herder and reindeer agency; memories of past visits are acted out through every detail of the journey (Lorimer 2006: 499-501). Both know of and avoid spots which harbour deceptively dangerous snowdrifts at certain times of the year, and both know where each camp-site is and when to start moving (Vitebsy 2005: 116; 127). In an account of a late summer migration made by an extended Eveny community, Vitebsky (2005: 121) described how each daily movement largely mimicked that of the previous year, even down to the re-use of the same stones to hold down the tent. Stragglers would arrive after midnight in the dark, knowing where to go from their mental imprint of the annual journey (Vitebsky 2005:

122). The logic of returning to the same camp-sites was clear, even if traversing each daily stretch took considerably longer or shorter than in previous years. Knowledge of each successive camp was implicit in each member of the Eveny community, and practice associated with each movement followed the form of past journeys without prompting. Similarly, reindeer often wandered during the night or escaped from the fenced corrals, but always returned when they heard movement in the camp (Vitebsky 2005: 125). A few men would move on ahead of the herd to carry cargo, recalling memories of past journeys and re-animating the next camp-site when they arrived. Places where memorable animals had died were remarked upon, whilst new vegetative growth was promptly flattened and harvested for fodder. Old tent poles emerged from the ground, along with a few broken bottles and pans (Vitebsky 2005: 127). The pulsating movement of the herders and reindeer along the same routes, and their re-occupation of the same camp-sites successively re-affirmed Eveny world-views as they re-engaged with the same taskscapes, temporalities and practices. The intertwinement of reindeer and Eveny agency was so inherent that dwelling, and their perception of that dwelling, were inescapably animistic.

Ingold (1986a: 5) suggested that the relationship between 'herder' and reindeer challenges orthodox distinctions between wild and domestic, and highlights that taming, herding and controlled breeding are separate practices within the concept of faunal domestication. The Nenets of western Siberia and north-eastern Europe accompany 'wild' reindeer as the immense herds migrate south for the winter (figure 5:4). This relationship has drawn considerable academic interest because whilst the Nenets determine the structure of the journey, the reindeer follow routes which have been trodden since the late Upper Palaeolithic (Vitebsky 2005: 17). Tamed reindeer are occasionally used by Siberian hunter gatherers to act as decoys for hunting traps, as well as for traction. However, the Nenets manage the 'wild' herd as it moves south using selectively 'domesticated' animals to lead the group, for milking, traction and riding. These reindeer are sometimes ear-marked to denote ownership, but this relates to the connection of a reindeer with a human lineage, rather than its controlled breeding (Ingold 1986a: 10). Such 'domesticated' individuals co-exist with the 'wild' herd, and become more or less 'tame' according to how often they are called upon, and also their unique personalities (Ingold 1980: 99-200). Like the Nuer, the Nenets rarely kill these animals, sourcing meat and furs from the herd rather than their tamed stock, but they

seldom become emotionally attached to individual domesticates (Ingold 1980: 112). The Nenets' comprehension of life is therefore neither that of a manager nor a constituent of 'nature' (Ingold 1980: 1-2). They do not view the herds they accompany as resources or as compatriots, instead envisaging all living beings as embroiled in an world of transcendental spirits and essences (Vitebsky 2005: 259-60). Tamed and 'wild' reindeer are not subordinate to the Nenets, both relating to humans in their own distinctive ways. Their purposes are thought to run alongside their human caretakers in a symbiosis of mutual cooperation (Vitebsky 2005: 261-2). As such, the practice of herding is not really conceived as a separate mode of being, but rather as an integral dimension of life's temporal cycle. Prior to migrations the Nenets, similar to other Siberian herders, often feel a sense of pressing necessity which lifts as soon as the journeys start (Vitebsky 2005: 120).

Figure 5:4 Photograph of a reindeer herd at a Nenets camp during the spring migration, Yamal, Siberia

Transhumant lives

In the Grevena region of northern Greece, two forms of pastoral mobility strategies prevail: settled village pastoralism and long-distance transhumance pastoralism (figure 5:5) (Chang 1999: 134-5). At Megaron, a village in Grevena, goat and sheep flocks numbering around 100 animals each are kept close to the settlement throughout the year.

Heavy grazing in oak scrub and on locally cleared pastures has led to moderate soil erosion. The severity of the winter affects transhumance patterns. In mild winters, the livestock are left to graze throughout but herders usually have to house animals with fodder in barns for at least some of the harshest weeks. During the summer months, flocks are enclosed in circular milking pens (*strungas*) within the forest scrub at evening and morning milking times, and at midday to avoid the heat. Other summer corrals exist for shearing and feeding, all located in well-protected locations and respective of grazing rights (Chang 1999: 138). During spring and autumn, flocks are led further away from the village and sustained using fodder folds, which are also sometimes attached to concrete herders' huts (*kalivas*) and corrals. Watering troughs are maintained communally throughout the pastured land. Herding at Megaron therefore requires frequent short-scale movements, and seasonal journeys further afield. The architecture of the transhumant system is directly linked to these patterns of movement, and also to wider notions of ownership and tradition. The system is reflexive towards seasonal change, with *kalivas* present in more distant lands for grazing in milder winters. However, these practices exist within a contained village-centred landscape and are fairly intensive.

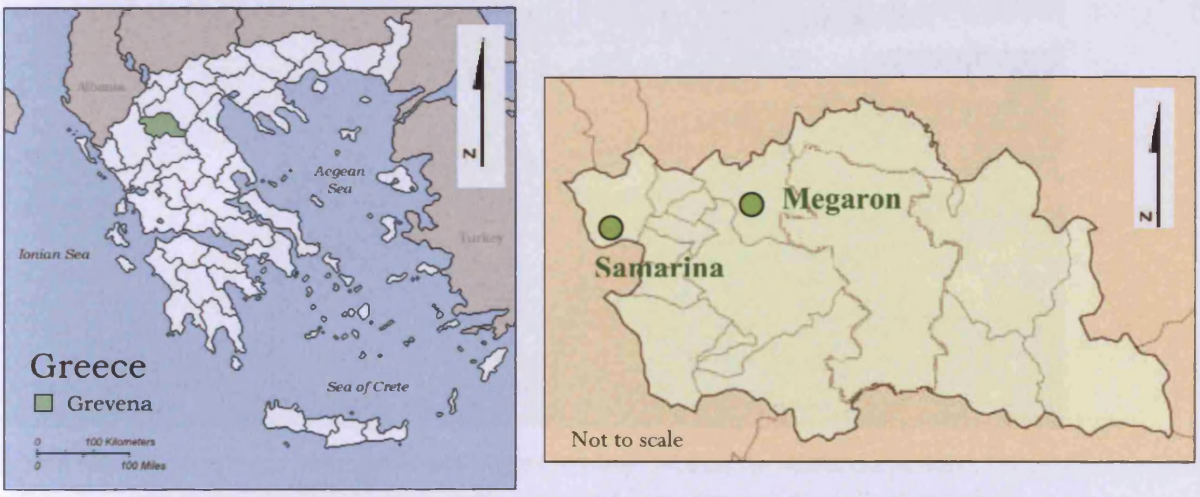


Figure 5:5 Maps of Greece depicting the location of the Grevena region (left), and the villages of Megaron and Samarina (right)

The second form of pastoralism occurs near the village of Samarina (figure 5:6). During the summer months the upland pasture of the locality supports migratory flocks of sheep and a few lead goats, sometimes totalling over 2000. Herders travel to Samarina from

lowlands over 100km away both by foot and using lorries. They move progressively uphill during their visits, cropping pasture en route to sustain any short periods of want and forestall the production of forage (Chang 1999: 139). As autumn begins, or when snow seems likely, the herders and their flocks retreat down-slope. Ramps for loading and unloading have been built near Samarina, at the base of the upland pasture. Troughs have also been constructed adjacent to springs, and both *strungas* and larger enclosures (*kordas*) exist at all latitudes of the pasture. Some *kordas* are associated with small, flimsy tin or wood herders' huts (*kalivas*). Without associated fodder barns, the facilities upslope are less substantial and are often demolished and moved elsewhere, leaving a thin scatter of artefacts, post-holes and manure layers (Chang 1999: 141).

Figure 5:6 Photographic montage of ovicaprine herding lives on the Samarina pasture, including a lorry ramp (top left), a *korda* with associated *kaliva* (top right), milking in a shed (bottom left), and a close up of a *korda* (bottom right)

In both of these Greek-based examples, pastoral sites seem to be peripheral or marginal to the villages. However, herding on the Samarina pasture requires substantial long-distance journeys to and from the locality, followed by fairly significant and regular movements up- and down-slope. The architecture of this transhumant system is directly

linked to these patterns of more substantial and extensive movement, but less to wider notions of ownership, tradition and seasonality, as at Megaron. The distances involved at Samarina do not correlate with situations where immediate action can be taken, meaning journeys back to the lowlands must start well in advance of snow.

Traditionally, and following such ethnographic examples, archaeological determinations of prehistoric land-use have considered the nature and density of roofed timber-built structures, field-systems, possible corrals/stabling, flint scatters, burnt mounds, coppicing, pollarding and forest clearance episodes (Lindholm 2009). For example, Kienlin & Valde-Nowak (2004: 39-41) considered all of these factors in their determination of the form of transhumance in the Neolithic of the Black Forest in South-west Germany. Essentially, the scarcer and more flimsy contemporary structures were, and the more common flint scatters and burnt mounds were, the more pastoral the lifestyle was (e.g. Thomas 1996a: 2-3). Irrespective of the well-founded concerns that much of the settlement evidence from the British and Irish Neolithic is either lost or remains un-excavated (Darvill 1996; Cooney 2000a) (AppB: p391-2), these assumptions are problematic (Bamforth & Woodman 2004: 22). Pivotal is the assertion of what is understood by 'settlement'. If they are places which are repeatedly used for sleeping, cooking, eating, mending and weaving, then the characterisation of contemporary roofed timber-built structures as 'houses' ignores the fact that many examples differ considerably (Thomas 1999: 33) (AppB: p392-6). The contrast between the two structures at Gwithian, Cornwall (AppB: p393), and the broadly contemporary Structure 3 at Upper Ninepence, Powys (AppB: p396), exemplifies this. Whilst the ovoid, hearthed Gwithian buildings were associated with Beaker pottery, animal bone and quern stones (Simpson 1971: 138; Gibson 1982: 42-4), Upper Ninepence Structure 3 was only associated with sepulchral features (Gibson 1999: 45-6). Systematic appraisals of what the architecture and artefact assemblages of 'houses' tell us about forms of occupation, and indeed corresponding forms of sedentism, are largely absent from the historiography (Bamforth & Woodman 2004: 22).

In contrast to houses, burnt mounds are often interpreted as the cooking sites of mobile pastoralists, although this has more recently been contested (Barfield & Hodder 1987) and revised (Buckley *et al* 1990). Again, burnt mounds vary considerably. At Carne, Pembrokeshire, fill material in pits associated with two adjacent 10m diameter burnt

mounds have been dated to *c.* 2460-2036 cal BC (CAR-292), *c.* 2833-2211 cal BC (CAR-589) and *c.* 2294-1922 cal BC (CAR-591) (Williams 1990: 132). Whilst Mound B was associated with a possible hearth and flimsy shelter, Mound A consisted only of the mound and surrounding pits. Bamforth & Woodman (2004) considered hoards of flaked stone tools in Co. Antrim, north-east Ireland, as indices for the extent of mobility during the Neolithic. They interpreted most of the constituent tools as "ready for use" (Bamforth & Woodman 2004: 37), suggesting that they were stashed collectively for easy retrieval during future visits. Lowland cache tools were less worn than their upland counter-parts, supporting Bamforth & Woodman's (2004) argument that initial blanks were brought to the lowlands before being distributed out to the uplands during transhumance-related movements. The absence of axes in upland caches suggested, for them, that the upper plains were less systematically visited and so the recovery of tools was less certain (Bamforth & Woodman 2004: 40). For Bamforth & Woodman (2004) therefore, hoards were markers and facilitators of periodic occupation, and as such, provide greater detail on prehistoric land-use than single structures. Ultimately, the lack of consistency in the materiality of 'prehistoric settlement' may not derive from an imprecise definition of the term, but instead from the genuine fluidity of dwelling at the time. Unlike the Siberian and Grevena-based herders, Late Neolithic to Early Bronze Age people in Britain were not moving around the landscape to established rhythms. Subsistence choices were perhaps more responsive and less rigid, and whilst a tendency for pastoralism prevailed, the manner in which this was practised varied considerably in both form and intensity (AppB: p398-401).

I will now consider several ways in which herding was perceived during the Late Neolithic to Early Bronze Age of the Irish Sea. I will follow Bamforth & Woodman's (2004) approach in terms of focusing beyond structures alone, whilst considering contemporary transhumant movements to be less formulaic and more temporally responsive (Cribb 1991: 373).

Cefn Glas

Introduction

An occupation horizon dating from the Late Neolithic was situated at 480m AOD on a circular hollow within a small downward sloping valley near Beili Glas, halfway between Brecon and Treherbert, Rhondda Cynon Taf (figures 5:7, 5:8 & 5:9). A broken series of

stone slabs laid both upright and flat defined a rectilinear surface 6.7 x 4.9m in area, with foundation 'walls' extending around its perimeter (figures 5:10 & 5:11). This surface was covered with a dense flint scatter that extended in smaller concentrations beyond its limits (Clayton & Savory 1990: 12-3). Many of these flints were calcined, and fragments of charcoal covered the same distribution. A hearth (A) was located in the north-west portion of the surface, and a 23cm diameter post-hole (1) was situated 0.6m to the north of the limits of the surface. Hearth A comprised a 76 x 60cm oval area of compacted fire-reddened stones and clay, resting in a depression that was lined with small stones. The surface surrounding hearth A had limited charcoal fragments but was littered with calcined flints (Clayton & Savory 1990: 15). Post-hole 1 survived to a depth of 14cm and was lined with three small packing stones and charcoal-flecked clay.

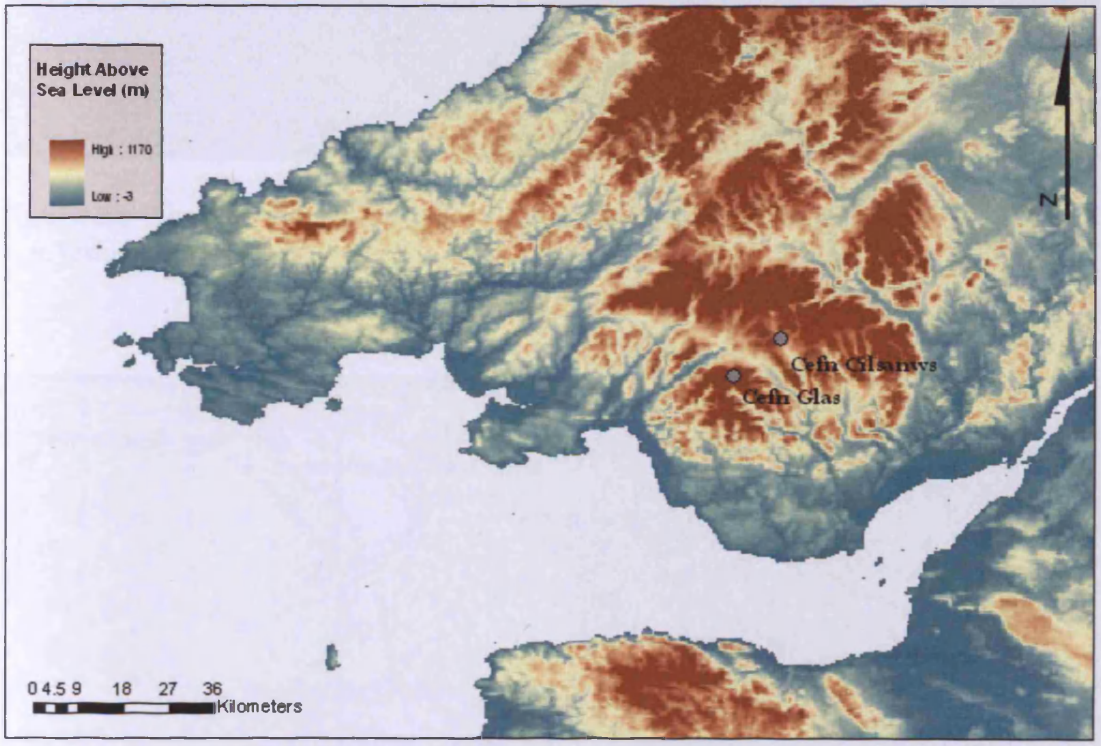


Figure 5:7 Elevation map depicting the location of Cefn Glas and Cefn Cilsanws, Rhondda Cynon Taf, Wales

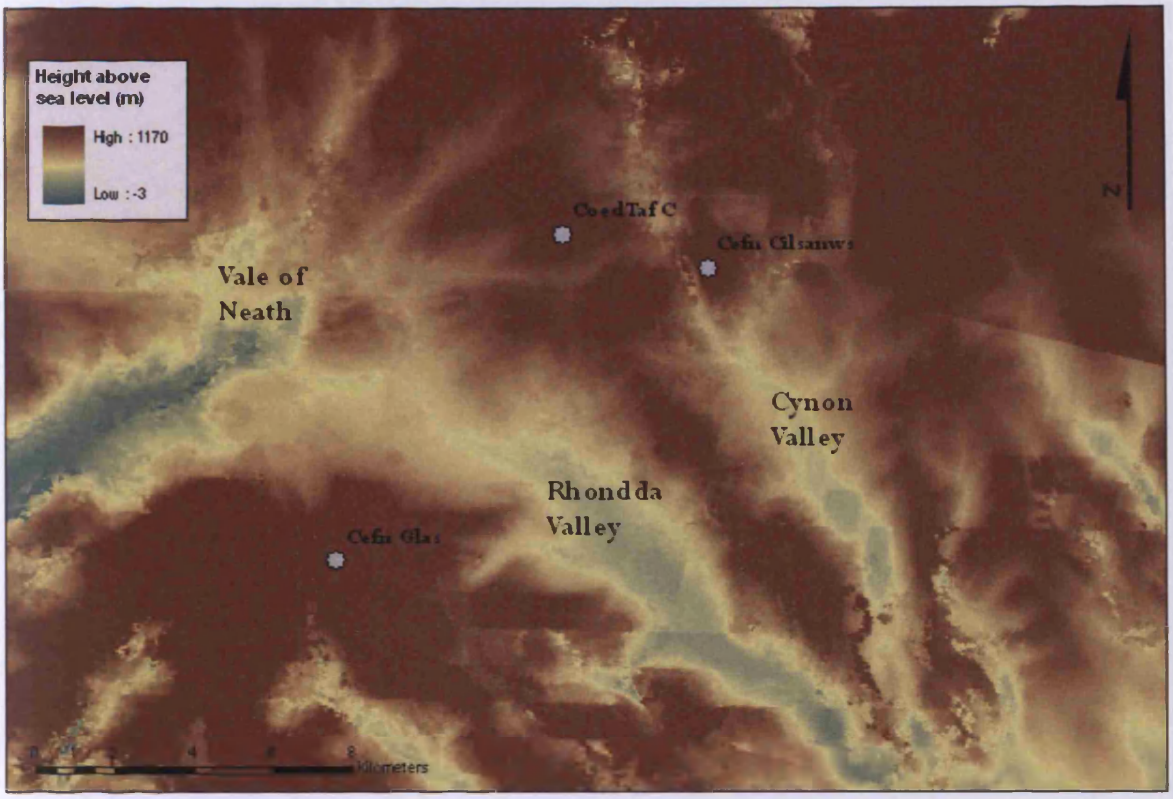


Figure 5:8 Elevation map depicting the location of named sites in the first section of chapter 5, in relation to surrounding valleys

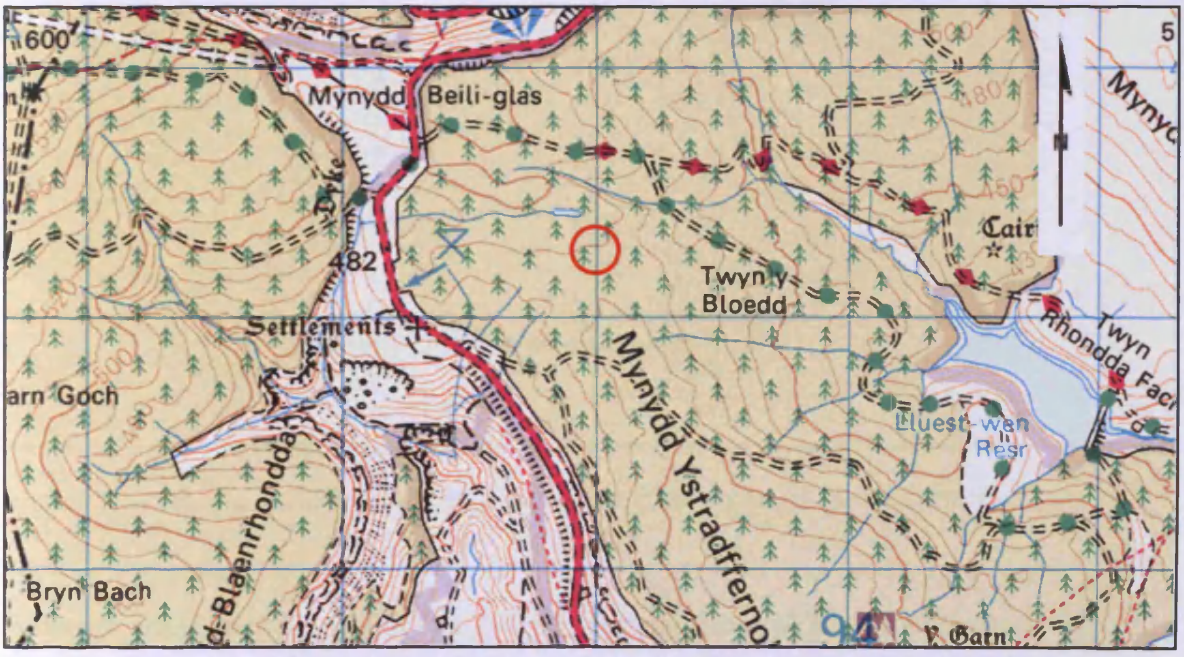


Figure 5:9 OS map depicting the location of Cefn Glas (red circle) in relation to immediate landscape (1:25,000)

1 km

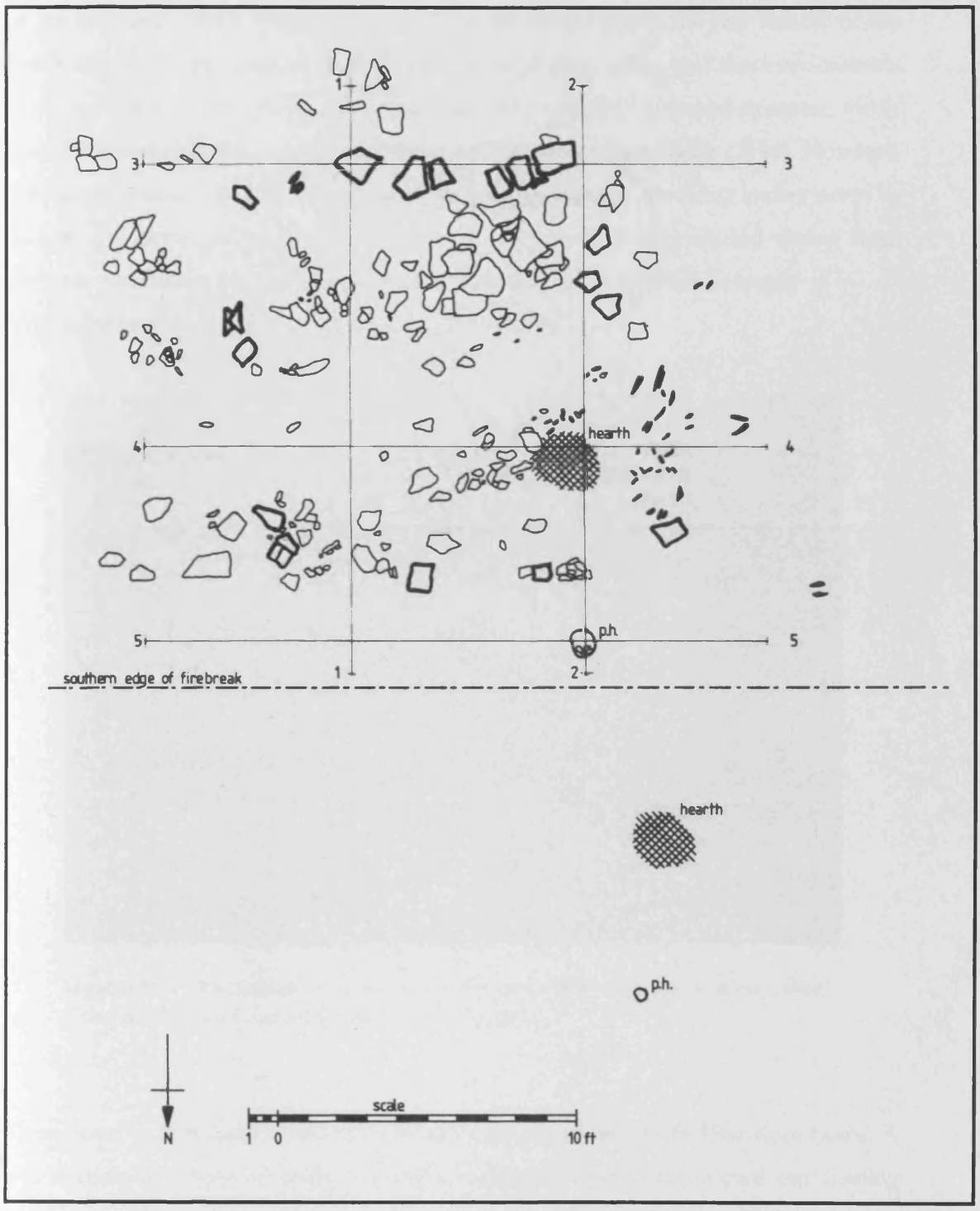


Figure 5:10 Plan of the Cefn Glas occupation surface (*from* Clayton & Savory 1990: 14)

Although recent disturbance would have uprooted any slabs laid further to the north of the known surface, a second hearth (B) and similarly sized post-hole (2) were excavated 2.1m and 3.7m respectively to the north-east of post-hole 1 (figures 5:10, 5:11 and 5:12). Hearth B was also oval and measured 60cm in diameter, surviving to only the basal layer

of fire-reddened clay. Similarly, post-hole 2 was preserved only at the very bottom of the cut. It was filled with charcoal-flecked clay. The excavators interpreted these two features as the subsoil level survival of the continuation of a trapezoidal shaped structure, which would therefore have measured over 9m long (Clayton & Savory 1990: 13; 16). However, this seems unlikely since the upright stones embedded in the surviving surface seem to enclose the entire paved area. Hearth B and post-hole 2 may instead derive from activities external to the structure, or from a second structure which was largely obliterated by the construction of the modern firebreak.

Figure 5:11 Photograph of Cefn Glas occupation surface post excavation, taken facing north (*from* Clayton & Savory 1990: plate Ib)

There seem to have been at least two phases of occupation at Cefn Glas since hearth A was overlain by a layer of sandy clay and an adjoining layer of compacted clay running from the northern edge of the paved surface in a south-west direction. This latter layer contained small stones and flint flakes and was interpreted as a late stage of activity at the dwelling, possibly contemporary with hearth B (Clayton & Savory 1990: 15). Under the north-east corner of the paved surface was a layer of orange clay and occupation soil containing a large amount of flint flakes and charcoal, as well as a stone rubber. This layer was probably used to level the ground surface which dipped considerably in this portion of the hollow, and may have been extracted from a third phase of occupation to

the south of the southern wall which pre-dated the construction of the paving. Charcoal from this layer was radiocarbon dated to *c.* 2880-2491 cal BC (HAR 744n) (Clayton & Savory 1990: 15). This confirms that the site was habitually re-fashioned, perhaps after periods of dis-use.

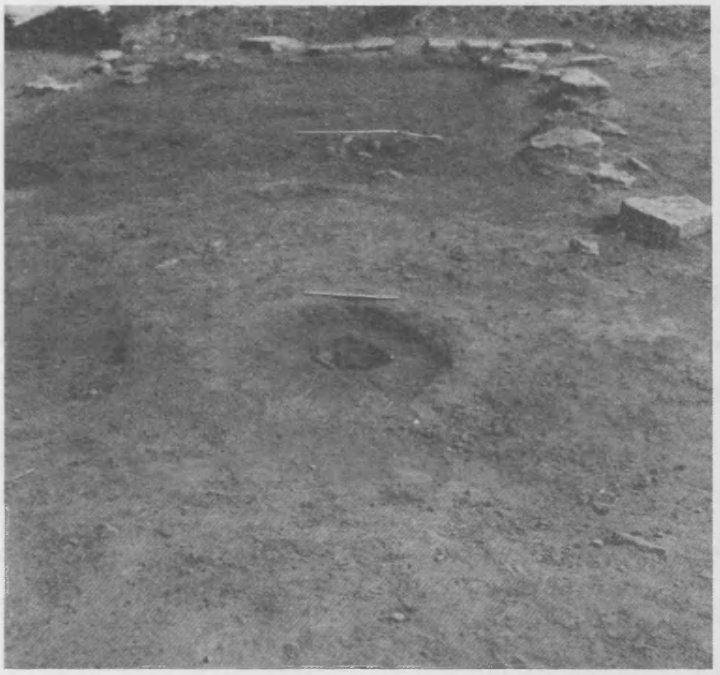


Figure 5:12 Photograph of Cefn Glas occupation surface, taken facing south (*from* Clayton & Savory 1990: plate Ia)

The acidity of the site inhibited the survival of bone or any other organic residue, but a substantial assemblage of worked flint was uncovered. The flint scatter was mainly confined within the eastern, western and southern limits of the surfaced area, but extended to the north beyond the northern wall and within the vicinity of hearth B and post-hole 2 (Clayton & Savory 1990: 16-7). Within the structure, flints were found on all parts of the surface area, and were particularly concentrated along the western edge. Calcined flakes were noticeably dense around the hearth areas. The majority of flints from the site were either coarse flakes or small chips; the by-products of rough flint-working. Many of the flakes had portions of the nodule cortex on them, suggesting that the source material was not beach flint. Most were instead made from grey or brownish-grey flint, and many of the larger flakes and implements were knapped from nodules with mottled and milky inclusions. Aside from this extensive collection of flakes, eight convex

scrapers, one blade and three broken petit-tranchet derivative arrowheads were found on top of the paved occupation surface. Three of the eight scrapers were tightly compacted underneath a pile of stone slabs which had fallen on top of them from the southern wall foundation of the structure. They were accompanied by three further flakes, knapped from the same source flint. This assemblage was interpreted by excavators as a cache which was originally bagged (Clayton & Savory 1990: 17). Numerous other flakes and scrapers were found by fieldwalkers in disturbed contexts both above and beyond the immediate vicinity of the site.

Herding lives at Cefn Glas

I believe that Cefn Glas was a place which herders repeatedly yet sporadically and temporarily frequented. It is located on a swathe of uplands which are accessible from the coast via three substantial valley systems (the Cynon, Rhondda and Neath; figure 5:8). Herding movement from or returning to the coastal plains would have only traversed between 20km and 30km depending on the valley of choice: perfectly feasible considering people currently herd over 100 kilometres to access the upland pasture at Samarina, Greece (Chang 1999: 139) (ch5: p195-7). Due to the similar topography of all three routes, journeys to this upland area of Rhondda Cynon Taf and Neath Port Talbot would have progressed gradually upslope, meeting with a steep climb at each valley head. This movement may have pursued spring and summer pasturage since the winter months would have been harsher on these exposed heights than in the valleys and coastal plains to the south. The presence of herds on the Severn estuary salt marshes during the second millennium cal BC is well documented. Middle-Late Bronze Age stalled buildings surrounded by cattle and ovicaprid footprints were identified at Redwick, South Glamorgan (Bell 1999; 2002), and a since-eroded settlement is muted at Peterstone, South Glamorgan, where ruminant footprints were also found (Bell & Brown 2007). The stable isotope analysis of cattle bones from both Redwick and Peterstone have suggested that animals were grazed on littoral wetlands for significant periods (Britton *et al* 2008: 2117). This practice has been isolated to the winter, autumn and spring, based on the mortality profile of these sites' cattle bone assemblages, and it is possible that it continued from the third millennium cal BC since Beaker pottery was found in palaeochannels at Peterstone (Bell & Brown 2007). Returning to Cefn Glas, A pollen core (Coed Taf C; figure 5:8) was taken from a ridge 380m AOD on upland moorland approximately 11km north-east of the hut structures (Chambers 1983: 482-4). It

demonstrates that during and after the elm decline (radiocarbon dated there to *c.* 3636-3038 cal BC; CAR-91), the frequency of alder and heather increased locally, replacing boreal species such as elm, pine and birch. Both alder and heather are commonly associated with scrubby woodland rather than stretches of primary forest. Amongst other weed species, ribwort plantain (commonly found growing on bare ground and in grassland) was also present at this time suggesting some, perhaps localised clearances. Chambers (1983: 484) argued that these species' presence constitutes evidence for "Neolithic interference" prior to wide-scale deforestation in the Early to Middle Bronze Age.

Whilst upslope on this scrubby Cynon, Rhondda and Neath valley hub, herding groups may have moved around considerably. Situated ten kilometres to the north-east of Cefn Glas was a roughly contemporary stake-walled hut at Cefn Cilsanws, Rhondda Cynon Taf (figures 5:7 & 5:8) (Webley 1958). The Cefn Cilsanws hut floor contained fragments of Mortlake style Peterborough Ware (*c.* 3400-2500 cal BC; Gibson & Kinnes 1997; AppB: p343-4) and flint flakes knapped from the same mottled/milky-inclusion flint as the Cefn Glas examples (Webley 1958: 79-88). It seems probable therefore that the same people who stayed at Cefn Glas also frequented Cefn Cilsanws. Potentially contemporary burnt mounds were also numerous throughout this upland area. Five are listed within 20 km^2 of pollen core Coed Taf C extraction site, but it is probable that many more existed during the Late Neolithic to Early Bronze Age. In some ways therefore, Cefn Glas was akin to the *kalivas* or *konaki* huts of the drovers dwelling on the pastures above Samarina, Greece (Chang 1999: 141) (ch5: p195-7). It was a place which was repeatedly returned to, augmented, levelled and left. People probably travelled significant distances to temporarily dwell in the vicinity, and the architecture of this site was linked to patterns of substantial and extensive movement rather than notions of territory. Following Bamforth & Woodman (2004), the cache of three convex scrapers and one blade found possibly originally bagged under some structural collapse at Cefn Glas might have been stored for a return visit. They were all struck from the same non-beach flint type and possibly the same core, and all were worn and re-touched (Clayton & Savory 1990: 17-9). This would fit with Bamforth & Woodman's (2004: 38) interpretation of contemporary Antrim; they argued that flint nodules were originally brought to lowland sites before being distributed upland during transhumance-related movements.

However, movement was less formulaic than that discerned from the modern example of Samarina; there is no evidence for regular occupation at Cefn Glas, meaning it may not have been visited for years on end. Similarly, there is no chain of transhumant architecture (e.g. camp-sites, corrals and watering troughs) along the route of movement up, down and beyond the inclines at the heads of the valleys. The absence of axes at Cefn Glas matches their absence in Bamforth & Woodman's (2004: 40) Antrim hoard sites, perhaps because the upper plains were less systematically visited and so the recovery of tools was less certain. Ultimately there was no organised seasonal movement of herders supported by communities in the valleys below. Whilst the uplands around Cefn Glas were probably more attractive for grazing during spring and summer, people may have chosen to visit them during months and in years particular to their lives. These journeys may have been more tethered at certain times than at others (Whittle 1997a), but they were not part of a recurring local tradition (*cf.* Edmonds 1999: 27).

Thinking herders at Cefn Glas

Within this fluidity of movement and occupation, Cefn Glas was deemed a 'suitable' place to frequent on numerous, albeit probably discontinuous occasions. To recall: I argued (ch2: p44; p49-50; ch 4: p109; p138) that repeatedly re-engaging with *sites* in the same way implies a sustained emphasis, or reinforcement, of the recognition that it had been 'sufficiently' engaged with in the past; i.e. that it was thought of as perceptually 'familiar'. This characterisation did not derive from the duration or frequency of visits there (ch2: p32; p44), but instead from the deliberate referencing of previous practices through dwelling. If we instead consider the characterisation of practices, familiarity might be discerned from the deliberate repetition of the same *performances* during the enactment of that practice. The repeated re-creation of a practice in the same way implies an awareness that that practice had been sufficiently engaged with in the past: i.e. it is familiar. Repeatedly returning to Cefn Glas was a performative part of herding. Through its repetition, this performance may have therefore perpetuated the knowledge that herding had been 'sufficiently' engaged with in the past. Indeed, Cefn Glas was probably as synonymous with herding as the *kalivas* or *konaki* on the Samarina pastures are. It might therefore seem plausible to argue that herding was characterised as conceptually familiar during the Late Neolithic.

However once at Cefn Glas, the form of dwelling was less prescribed than on the Samarina pastures. For example, the discovery of three petit-tranchet arrowheads on the floor surface as well as a fourth example found 37m away from the hut-floor (Clayton & Savory 1990: 18) suggests that herders were also hunting in the vicinity. The blade also found on site indicates the capacity to selectively cull the herd, and the stone rubber from the primary occupation layer could have been used to process plant food-stuffs. People were not just herding they were living. Grazing livestock in scrubby woodland and small clearings would not have enabled the collection of fodder en route, meaning herds would have also been relatively self-sufficient. In addition, in spite of the probable presence of wolves in the vicinity there is currently no evidence for substantial prehistoric corralling in the Rhonnda Cynon Taf and Neath Port Talbot uplands. Similar more perhaps to the Nenets than the Samarina herders, the people at Cefn Glas travelled with their animals and their animals travelled with them. The bond between herder and herd may have been more discursive and less founded on ideas of protection and ownership. In this way, herding may not have been perceived as a distinct practice, just as the Nuer understood life recursively through their relationships with cattle (Evans-Pritchard 1940: 36-41). Moving with livestock in South Wales during the Late Neolithic may have been a complete way of being, inseparable from cosmological comprehensions of the world. Therefore, inferring that herding was familiar because Cefn Glas was occasionally re-visited loses sight of how formative herding was in determining the nature of existence. For the practice of herding to be recognised as 'sufficiently engaged with', it would have to have been conceptually extractable from daily life, and I do not believe this to be the case. The plastic, self-sustaining and somewhat irregular nature of visits upslope actually suggests that the familiarity or unfamiliarity of herding was not a relevant concern (figure 5:2).

Instead I will focus on comprehensions of more specific aspects of herding life at Cefn Glas. As previously discussed, moving with herds of sheep, goat and cattle would have required the perpetual concession of knowledge about what was logical in the circumstances (ch5: p192). Choosing or knowing when to start moving, how many animals to take, which direction to move in, when and where to stall them overnight, water and graze them, and which animals to selectively cull and breed would all have to be conceded (ch3: p75-8). These were not necessarily overt, conscious, particularly political or even directional decisions (Moore 1971: 41; Turner 1987: 77) (ch2: p28-9).

Instead agents played out their knowledge of past experiences malleably through their actions. For example, a lame animal may have been gradually abandoned. Nothing needed to be said, and no verbal decision made. It just seemed logical to leave it behind. This may have been because someone had previously expressed that it was bad luck to journey with injured flock, and perhaps this act legitimated or challenged other bodies of knowledge. In turn, abandoning the animal would have acquired new unintentional meanings as participants re-interpreted it according to their changing understanding of the world. The agent who shared their superstitious observation may have never known of its manifestation, although similar to the Yoruba Diviner (ch2: p25-7), their knowledgeable authority may have been recursively strengthened through it. Abstaining from caring for the lame animal was a performance which rearranged social reality and therefore discursively, social knowledge (Turner 1987: 74-5).

Knowledge on how to act as a herder was therefore dynamic and yet I believe that the diversity of this knowledge was severely reduced in the herding environment around Cefn Glas. Unlike in the Upper Severn valley example of chapter 4, where I argued that the denser forest vegetation was dialectically linked to greater disparity between world-views (ch4: p125-7), I believe that herding groups in the scrubby forest around Cefn Glas would have shared similar life knowledge (Chambers 1983: 482-4). In spite of their limited perceptibility of one another whilst herding, each herder's performances must have been known to others in the group. Unlike members of a community who are travelling or individually hunting through a forest, crucially herders have to interact as a purposeful team. They need to know where each person is, how fast and in which direction they are moving, and exactly *how they are comprehending their immediate environment.* Even if their perceptibility to one another was limited by the wood, these movements, decisions and actions would have been highly discernible through their co-operation in herding. In this way and in contrast to my earlier discussion (ch4: 125-7), the manner in which herders dwelt through the dense forest[52] was almost always communal because all of their actions were responsively linked.

Knowledge of herding specifically would have been fairly explicit and uniform within the group because the degree of co-operation necessitated it. Indeed, this knowledge would have been wide-reaching and had longevity within the group because it was conceded by

[52] This may not be the only exception

multiple rather than singular agencies (ch3: p75-7; ch4: p141-2), and crucially, was specific to a practice in which people were not necessarily always engaged. In addition, and in spite of the lack of relevant zooarchaeological evidence, it seems likely from the dense woodland cover that animal herds were fairly small, and therefore perhaps that the number of herders was also limited. Following Johnson's (1982) argument already discussed (ch4: p131-2), communal knowledge conceded in groups of around six seems the most stable as social fact. In such small groups the potential for open dispute is minimised, meaning conceded knowledge is less open to re-alignment. Like the Eveny (ch5: p192-3), the people and animals moving around the uplands beyond Neath, Rhondda and Cynon valleys in the Late Neolithic generally knew what to do, when to do it and how to feel about it. This knowledge remained stable for long periods (ch3: p87-8). Ultimately, the heightened exposure of actions in a team, and therefore the understandings of those actions, rendered herding more accountable as practice.

Flint-working herders at Cefn Glas

In these circumstances and accepting that herding itself may not have been comprehended in abstraction (ch5: p208), I believe that the lithic assemblage from Cefn Glas may help us to understand instead how performative elements of herding were characterised (figure 5:13). In line with the probably un-tethered nature of visits to Cefn Glas (ch5: p206-7), tools from the site were all non-specialised scrapers, with the exception of the blade, stone rubber[53] and four petit-tranchet arrowheads (ch5: p203-4). This implies that activities on-site were limited in diversity but perhaps extensive in number, fitting well with Cribb's (1991: 373) analysis of nomadic pastoralist sites where the same rather than the most diverse range of taskscape elements are optimised. Scrapers are multi-functional tools which can be used in any number of generalised practices from crude hide, wood, bone and flesh working to finer reed, grass and straw cutting (Bradley 1978a; Bamforth & Woodman 2004: 25) (AppB: p353). In fact, they are ideal tools for travellers and those unlikely to perceive a large number of specialised demands during their daily lives (Kienlin & Valde-Nowak 2004: 41). Extensively re-touching and re-using old multi-functional tools, as well as storing them at re-visited sites have also been associated with mobility (Cribb 1991: 68-9; Kienlin & Valde-Nowak 2004: 41). It is therefore unlikely that many niche practices such as fine leather-working and

[53] The stone rubber was from the original occupation layer and was buried when the north-east corner was levelled for the structure to be built (ch5: p202-3)

carving wooden bowls were enacted at Cefn Glas, despite tools in general becoming more specialised during the Late Neolithic (Thomas 1999: 21) (AppB: p253-4). If, as suggested earlier (ch5: p206-7), visitors to Cefn Glas did not more readily occupy a 'base-camp' in the valley below, these kinds of activities were unlikely to have occurred all in one place anyway.

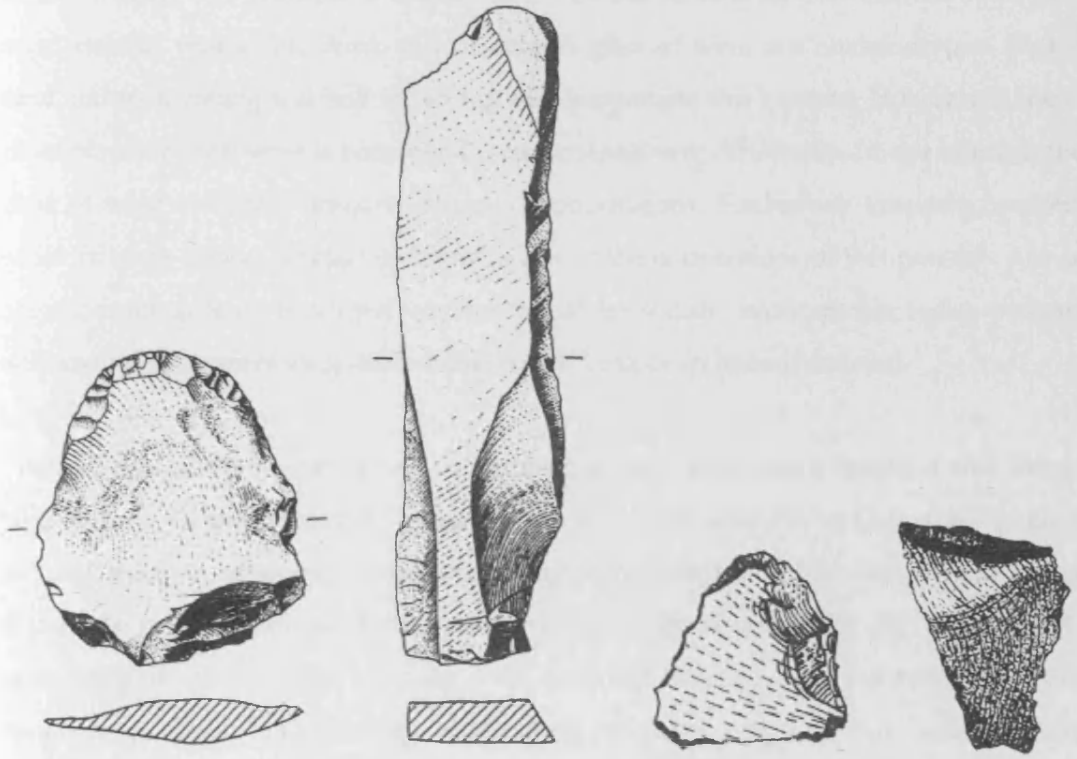


Figure 5:13 Drawings of a selection of the Cefn Glas flint assemblage. Left to right: convex scraper found under slabs on hut floor; blade found in same location; fragment of base of petit-tranchet derivative arrowhead from north of the hut; similar fragment from the western side of the hut (*from* Clayton & Savory 1990: 17-9). Not to scale

I argue that the knapping, re-touching and storing of largely generic tools was entwined with herding (as life) in people's psyche. It was what you did as a herder and as such, was integral to daily life (Kienlin & Valde-Nowak 2004: 41). Obviously scrapers are found everywhere at this time; from hoard deposits such as the Camborne assemblage, Cornwall (Mercer 1986: 50), to inclusion at mortuary and ceremonial sites such as the Bryn Celli Ddu complex, Anglesey (Hemp 1930) (AppB: p364-5; p368). I am not suggesting that scrapers were only used during herding movements or that they had a

singular meaning or association with a certain form of dwelling. As material culture, each and every example both drew and gave meaning to the specific contexts in which they were active (Tilley 1989; 1991; 1993; Hodder 1989; 1991). However, exclusively knapping and re-touching scrapers at a time when the average flint toolkit was "no longer...designed for portability" (Bradley & Edmonds 1993: 22) may have been a conceptually bounded and distinctive performance which constituted part of what it meant to herd. For example, a contemporary British meal comprises lots of food types: meat, breads, vegetables, drink and dessert. A glass of wine can constitute part of this meal and its meaning will link to, and in turn perpetuate this context. However, a social situation where *only* wine is consumed is understood very differently. In this context, the glass of wine resonates uniquely different connotations. Exclusively knapping scrapers whilst herding implies a sense of knowing about the conventions of this practice. Just as only consuming wine in a meal context would be socially unacceptable today, perhaps only knapping scrapers away from herds would have been unconventional.

I believe exclusively knapping and re-touching generic tools was a bounded and unique performance. People repeatedly paused from their daily routines at Cefn Glas to knap scrapers from un-exhausted cores which had been carried from the same inland quarry that other visitors had and would source (Clayton & Savory 1990: 20). Ongoing de-camping, milking, watering, checking over, breeding, birthing, herd reforming, selective slaughtering, castration, skinning, de-fleshing, cooking, roughing out hides and re-packing activities were all side-lined whilst a tool was struck or re-touched. The noise of the knapping would have mingled with the crackling fire and small pops as chips of flint strayed into the hearth and over-heated. The smell of the burning flint and the temporary pricks of pain as tiny flakes hit those in close proximity may also have formed part of the performance. These noises, smells, views and feelings may have cognitively bonded with the undercurrent of animal braying, dung, shouts, upland woody smells and breaking undergrowth synonymous with herding (Mills 2005). I believe that such knowledge of which sensations might be associated with, and therefore constitute herding (life), only incorporated the knapping of scrapers, rather than other flint tools. I also think that the distinctiveness of this performance was enabled by the inclusive nature of it.

People publicly knapped within the huts at Cefn Glas, focusing on the hearths at the back of both. This would have lit up their work, possibly beyond the confines of the

fairly flimsy wooden hut super-structure. Knapping at floodplain sites was also done within the main areas of dwelling. For example, the fills of pits and stakeholes associated with Grooved-Ware period occupation and structures at Upper Ninepence, Powys contained both core fragments and debitage flakes and chips (Gibson 1999: 39; 75). However, only scrapers were knapped and re-touched at Cefn Glas, suggesting that *everyone* engaged in these performances. Such generalised tools may well have been a founding part of the whole group's flint-working repertoire. Instead of the specialism of craft and therefore esoteric knowledge which certain items such as maceheads, stone balls and elaborate polished axes probably demanded (Edmonds 1995: 95, 104), knapping scrapers may have been the only flint-working skill which everyone could do. Bradley & Edmonds (1993: 22) argued that toolkits across Britain became increasingly specialised during the Late Neolithic (AppB: p353-4), characterised by a broader range and variety of tools. Therefore, a situation where *all* members of the group publicly worked flint may have been as uniquely related to herding (life) as exclusively knapping scrapers was. In fact, I believe that this communality of performance was part of the criteria through which life was characterised at this time. By being on display for everyone to perceive, people were aware that exclusively knapping and re-touching generic tools was a *usual* part of herding lives (ch2: p34). Indeed, I believe that it was *normal* to do so (ch2: p51-3), and that this normality in turn recursively characterised herding (life) (figure 5:2).

Normality at Cefn Glas

The Anggor men of Wamu, West Sepik, Papua New Guinea, conduct a pig hunt at least once a week (figure 5:14) (Huber 1980: 52). It is a practice which every man engages in as part of the collective. It occurs within a common territory and the spoils are shared equally between all of the Anggor villagers. In fact, Anggor men cannot consume any pigs which they personally kill and they never overtly pass comment on the success or failure of individuals within the group. The hunts comprise a series of discursive performances where men act within "a delicate balance of co-operation and competition, solidarity and autonomy", often racing against others who remain oblivious to the challenge. As a result, the experiences are generally disjointed; one man may kill a rat whilst another wanders off to collect nuts (Huber 1980: 52). However, once a pig is located they all corner, chase and run at it together. The pursuers always re-group, thrilled with the inversions of hunter and quarry, and the stories they will be able to tell.

The execution is enacted by one man, who momentarily becomes "the fulcrum of the community" (Huber 1980: 53). This role rotates equally amongst the hunters, irrespective of personal histories. Through the hunt, the realization of self and of community are one (Huber 1980: 53). Hunting pigs is a normative practice for the Anggor, but this is irrespective of its weekly re-enactment. The practice is usual because *all* of the men engage in the pursuing and killing of the pig, and because every one of them can do it without scorn (ch2: p51-2). Whilst not all of the constituent performances are collective or even compatible, the communality of the chase, slaughter and consumption constructs a social reality in which the whole practice is normal. In this way, the pig hunting is characterised through the understanding of each of its constituent performances (ch2: p29-31).

Figure 5:14 Photograph of men from West Sapik dressed in traditional pig-hunting attire

I argue that within the communities who visited Cefn Glas, normality, as the knowledge that something is known to be usual or commonly upheld (ch 2:34), was also linked to the communality of performances. For a practice to be known as normal in the Cefn Glas area at this time, it therefore had to comprise elements that were performed by everyone. It was this exposure that determined its normality; this was what 'normal' meant. Conversely, 'abnormal' practices may have been those performed by few, or in

private. The knapping of specific tools by isolated specialists may have therefore been characterised as 'abnormal'. Herding was quintessentially a lifestyle where much relied on the communication and co-operation of the group, and this theme was echoed in the communality of everyone exclusively knapping generic scrapers. As a herder, any herder, you knapped scrapers just as you ran when someone shouted that an animal had bolted and you ate as a group. Through the collectiveness of this existence, such performances that essentially constituted herding life were understood as normal and as such, life itself became characteristically normal. Perceptible by all, *only* knapping scrapers, and only doing this in *public* were both norms (ch5: p210-2); they were conventional behavioural knowledge. They were therefore a temporary and discursive manifestation of knowledge about how agents should react as herders (Goffman 1959; Turner 1987: 75-99). Whilst these norms were undoubtedly malleably observed, the small group context in which they were conceded might suggest that their presence as knowledge was long-lived (Johnson 1982) (ch5: p209). Crucially, performative elements of herding such as exclusively knapping scrapers dialectically mirrored the practice (life) as a whole and in turn, reinforced its characterisation as normal.

Liminality at Cefn Glas

The abundance of calcined flakes at Cefn Glas might have derived from a second performance, also distinctly associated with herding life. As the herders knapped and re-touched scrapers close to the hearth, coarse flakes and chips rained out over the occupation floor. Many were thrown or strayed into the fire causing them to gradually whiten and increase in opacity before eventually exploding (Pannett 2006 *pers comm*). Some of these calcined chips and flakes were flung back into the area surrounding the hearths. However, a significant amount was found spread throughout the occupation surface and there was a marked concentration on the western side away from both hearths (figure 5:10) (Clayton and Savory 1990: 17) (ch5: p203). This is consistent with much of the burnt debitage being deliberately re-deposited within the structures. Furthermore, the fact that this was left *in situ* rather than swept away suggests that these knapping and re-deposition sessions occurred towards the end of stays at Cefn Glas. The sharp flakes and chips would have cut any person or animal attempting to walk on the surface after such layers had been spread. Again, but for different reasons, these moments may have been very different from the creation of tools elsewhere and at other times. The burning of the 'waste' flakes and their re-distribution over the occupation

floor effectively sealed the hut from re-use. Indeed, the huts themselves may have also been burnt down on at least one occasion (defined by the charcoal-rich re-deposited layer), and were certainly levelled and re-laid twice (Clayton and Savory 1990: 15). Recalling themes drawn upon in my analysis in chapter 4 (ch4: p143-4), burning can be considered a transformative, purifying and renewing force cross-culturally (Rossotti 1993: 239-54). By performing these acts of closure immediately before Cefn Glas was departed, herders may have been dialectically engaging with certain characterisations of their practice (life).

Unlike many other substances, burning flint causes it to whiten rather than blacken, and this recalls the characteristics of cremated bone. The preferential selection of white materials in the British and Irish Neolithic to Early Bronze Age has been fairly extensively explored (e.g. Lynch 1998; Bradley 2000b; Darvill 2002). These discussions focused on the layering of quartz, gypsum and chalk over the surfaces of sites, as well as the inclusion of white stones in burial contexts. For example, the two excavated stone circles/ring-cairns in the Penmaenmawr alignment, Gwynedd (Griffiths 1960: 318; 322) (AppB: p380), as well as the entranceway of Knowth passage tomb, Co. Meath (figure 5.15) (AppB: p366-7) were found to have quartz fragments scattered internally at floor level. The chalk-built Silbury Hill, Wiltshire probably originally shone bright white. Darvill (2002: 85-6) has particularly considered the use of quartz, arguing that it symbolised the presence or soul of a person passing into the afterlife, and might also have been associated with the demarcation of autumn and the setting of the sun. Similar to burning, within many cultures the colour white symbolises purity, life-force and cleansing (Turner 1966: 79; Gill 1975: 350-363). For example, in Africa, a Mashona bride-groom might be handed a white egg to indicate the bride's virginity, a victor in Ga litigation is smeared in white clay to mark their innocence and Zulu purification rites include taking certain 'white' medicines (Smith 1952: 24).

Figure 5.15 Photograph of the layering of quartz outside the entrance of Knowth Passage Tomb, Co. Meath. A shallow basin within the layer may have originally contained 'purified' water (author's own)

It is possible that the repeated engagement of such purifying, transformative and renewing agents at Cefn Glas related to a common perception that herding was a characteristically liminal practice (lifestyle). It would be speculative to suggest why herding may be have been characterised in this way by these herders since the survival of organic and ceramic substances at the site was nil. However, it may be linked to the way in which other performative elements of herding fitted into world-views. For example, the meaning of liminality may have been embedded within ideas of transition, similar to the cosmologies proposed for the Late Neolithic to Early Bronze Age of the Upper Severn valley (chapter 4). Being liminal meant you were in neither a known nor unknown state. Following this logic, the breeding, castration, birthing, feeding, watering and slaughtering of the herd at Cefn Glas all involved breaching the external confines of the

body. In fact, herders were actively and perhaps intensively engaging with these acts. Despite taking preventative measures themselves (e.g. adopting 'appropriate' abstinences), herders may have conceded that such profane performances gradually polluted Cefn Glas itself[54]. The subsequent liminality of life at the site may have been transferred and indeed concentrated upon the huts which had contained it. The use of burning and white substances at Cefn Glas may have contained this potential taboo through the layering, transformation, renewal and restriction of the substance of the site (Douglas 1966: 168-70) (ch2: p54-60). Through these performances, knowledge of the liminality and potential profanity of herding lives would have been discursively engaged with. The resultant characterisation was clearly reinforced or at least stabilised following these experiences since the calcination and spreading of sharp debitage, as well as structural levelling was repeated during successive visits. Parallels with the multiple layers of containment and burning at Sarn-y-bryn-caled Penannular Ring-ditch I and Timber Circle, Powys, are clear (ch4: p133-8; p143-7). However, without further detail we cannot assume that conceptually, liminality held the same meanings as it acquired elsewhere. A closer look at a site with faunal bone survival might refine our understanding of ways in which herding practices were characterised in the Late Neolithic to Early Bronze Age of the Irish Sea region.

Newgrange

Introduction

Newgrange passage tomb, Co. Meath, has been extensively excavated (Ó Ríordáin & Ó hEochaidhe 1956; M.J. O'Kelly 1982; O'Kelly *et al* 1983; Sweetman 1985; A. Lynch 1989, 1990) (figure 5:16). As well as the focal passage tomb with its cruciform chamber built *c.* 3327-2916 cal BC (GrN-5463) (M.J. O'Kelly 1982: 230), the site consisted of three smaller satellite tombs, two pit circles (one six-ring and the other three-ring) and, arguably the final addition, an arc of orthostats (M.J. O'Kelly 1982: 79-84; Sweetman 1985: 215; Cooney 2006: 705) (figures 5:17, 5:18 & 5:19). Both Grogan (1991, 1997) and Cooney (2006: 699) have advocated a continuous presence at Newgrange from the Middle Neolithic to the late Early Bronze Age, in contrast with M.J. O'Kelly's (1982: 145) envisaged hiatus at the end of the Middle Neolithic. A dense concentration of Neolithic to Early Bronze Age monuments littered the immediate surrounding landscape including a cursus terminal, other passage tombs, hengiforms, timber and stone circles,

[54] See chapter 4: p178-9 for a similar proposal at Trelystan, Powys

standing stones and tumuli (C. O'Kelly 1982: 13-23). These sites were situated on a low terrace of between 40-70m AOD, overlooking an extended meander in the river Boyne around 9 kilometres from its estuary with the Irish Sea (figure 5:17). The Boyne valley provides one of the few access routes into Ireland's eastern interior which avoids crossing steep hills (Stout 2002: 2). Beyond the river valley to the north and south are low rolling uplands, now predominately grazed by cattle. During the third millennium cal BC, they were probably wooded with secondary deciduous species; carbonised ash, hazel, birch, willow/poplar and hornbeam pollen were recovered from pit fills in the eastern pit circle (Scannell 1985: 221). Two of these were sampled (ash and hazel from pit 1 and ash from pit 3, both in the second outer ring), returning radiocarbon dates of *c.* 2872-2463 cal BC (GU-1671) and *c.* 2567-2145 cal BC (GU-1619) (Scannell 1985: 218). To the east and west of Newgrange, and in stark contrast to the wooded slopes to the north and south, river terraces followed the route of the Boyne, providing traversable meadows and a navigable water course (van Wijngaarden-Bakker 1986: 99-100). For most people in the Irish midlands therefore, the Newgrange environs was a node in the funnel of movement between the coastal plain and the central lowland.

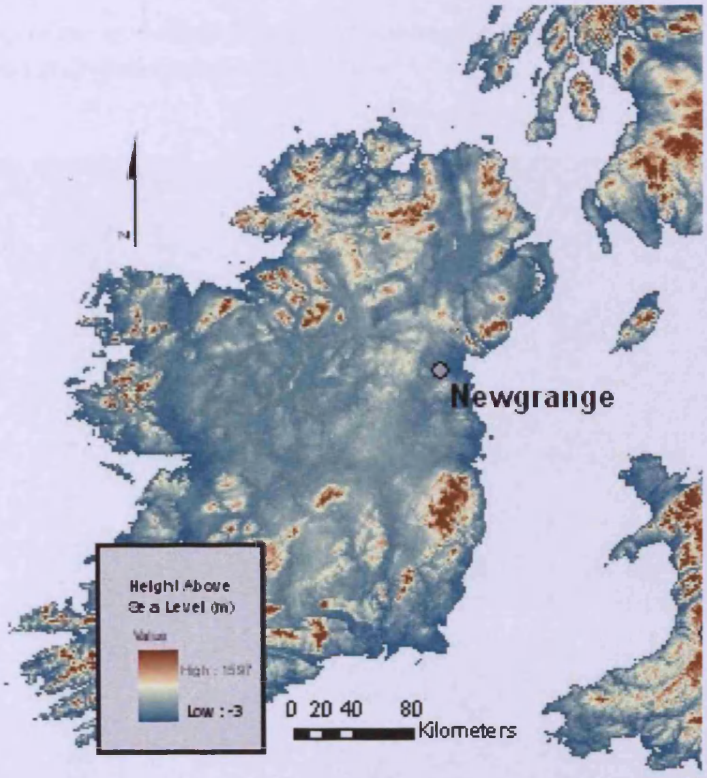


Figure 5:16 Elevation map depicting the location of the Newgrange environs

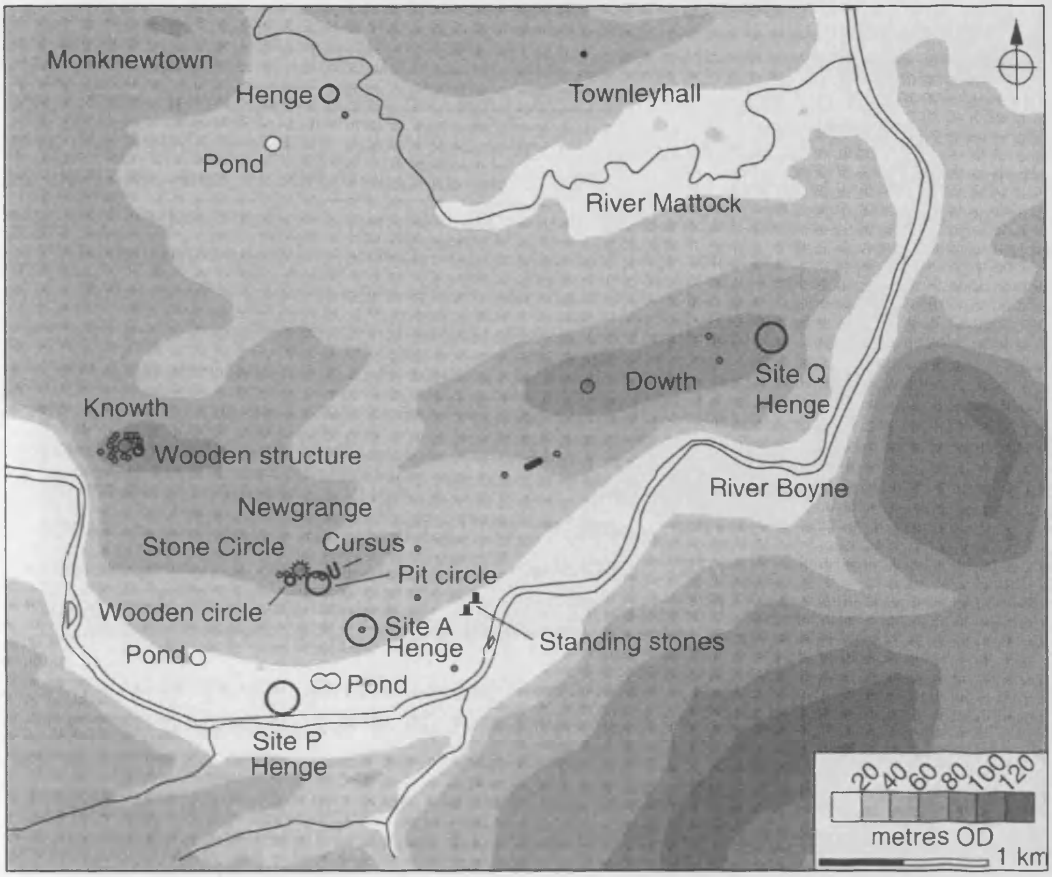


Figure 5:17 Map of the immediate Newgrange environs during the Late Neolithic (i.e. before the orthostat arc) (*from* Cooney 2000a: 166)

Figure 5:18 Photograph of the 'reconstructed' entrance of Newgrange passage tomb (author's own)

Figure 5:19 Photograph of Newgrange passage tomb kerb revetment and the four orthostats as 'reconstructed' in the 1970s. Taken facing north-east

Late Neolithic to Early Bronze Age occupation occurred adjacent to the southern section of the perimeter of Newgrange passage tomb, overlying and beyond the slipped Wicklow quartz and granite wall or platform that had been built on top of or abutting the kerb stones (M.J. O'Kelly 1982: 5; Eriksen 2004; 2006; Cooney 2006: 702-5). Hearths, pits and post-holes were overlain with locally made Carrowkeel Ware, Grooved Ware and Beaker sherds, flint and stone tools including metal-working accoutrement, flint debitage, animal bones and a bronze flat-axe. A particularly large number and wide variety of flint scrapers comprised the majority of the tools found on-site (Lehane 1983: 120; Sweetman 1985: 209-11). Analysis of the pottery and flint assemblage suggests that habitation occurred uninterrupted through from the Late Neolithic to the Early Bronze Age (M.J. O'Kelly *et al* 1983; van Wijngaarden-Bakker 1986: 18-9), although this could have been regularly intermittent rather than constant. Indeed, the exact phasing of the occupation has since been questioned, with Sweetman (1985: 214) suggesting that there were two distinctive phases of habitation. The proposed earlier phase was contemporary with the eastern pit circle construction whilst the later Early Bronze Age phase, which included several huts, may have coincided with the erection of the stone arc (Sweetman 1985: 215-6). Six charcoal samples from secure contexts within the entire span of occupation contexts were radiocarbon dated, with the results providing *termini post quem* ranging from

c. 2851-2472 cal BC (GrN-6344) to 2578-2043 cal BC (UB-2394) (van Wijngaarden-Bakker 1986: 18-9).

Daily lives at Newgrange

The faunal assemblage from the excavation of the occupation layers comprised 99% domestic species, and was interpreted by van Wijngaarden-Bakker as consistent with a largely pastoral economy founded on "cattle and pig herding" (1986: 17; 94). However, horse, sheep, goat and dog species were also present on-site, alongside wild fauna such as brown bear, red deer, wild cat, mountain hare, fox and wild boar. Barley and emmer wheat pollen were present throughout the occupation layers. If locally cultivated rather than acquired through exchange, growing plots were probably quite modest (M.J. O'Kelly 1983: 2; van Wijngaarden-Bakker 1986: 101), perhaps resembling the floodplain horticultural gardens proposed for the Central European LBK sites (Modderman 1971; Kruk 1973; Bogucki 1988: 81-2). Turf-cutting for the earlier passage tomb deprived the immediate area of fertile topsoil and no querns or grain rubbers were found in any of the occupation layers (M.J. O'Kelly 1973). Resident communities seem to have focused heavily on grazing domesticate herds instead. Analysis of the age structure of the bone assemblage suggests that both cattle and pig were raised primarily for meat production, a strategy which usually requires large herds (van Wijngaarden-Bakker 1986: 94; 101). Animals were consistently slaughtered when they had reached their maximum body weight; achieved at between three and four years old for cattle, and between two and two and a half years for pigs. In the case of cattle, this was irrespective of their sex and bulls may have been castrated. Wijngaarden-Bakker suggested that pig killing was seasonal, generally occurring between November and April when wild flora was scarcest (van Wijngaarden-Bakker 1986: 94; 99). On average, four times as much beef was eaten than pork, despite pigs providing more calories in a shorter life-time (van Wijngaarden-Bakker 1986: 94).

There was no evidence for the maintenance of herds for renewable 'secondary products' (Sherratt 1981; 1983). Bulky bulls were not kept for traction, and there was no selective breeding or sustenance of child-bearing females, necessary to maintain herds for wool or milk respectively. However, carcasses were clearly utilised. The high proportion of scrapers in the flint assemblage could relate to intensive hide processing, and some crafted bone objects were also found. Manure may also have been spread, although there

is no evidence for this. Horses were introduced in the Early Bronze Age, and these may have been used for traction as well as transportation (van Wijngaarden-Bakker 1986: 97). Combined with the increased importance of ovicaprids, the subsistence base diversified during the later phases of the occupation (van Wijngaarden-Bakker 1986: 101). Some pig meat may have been smoked at Newgrange; marrow was regularly left intact within the hindquarters, perhaps because its flavour (which is not preserved by smoking) had deteriorated prior to consumption (van Wijngaarden-Bakker 1986: 63). Pig slaughtering and processing seem to have occurred in one place to the south-west of the passage tomb perimeter. The intact vertebral columns of over a hundred pigs were left there, whilst the rest of the animal was taken elsewhere: perhaps as smoked joints for exchange or to sustain communities during journeys or times of scarcity. Cattle were certainly butchered on-site, but perhaps not at one particular locality. Beef was probably not smoked since its marrow was regularly extracted (van Wijngaarden-Bakker 1986: 41).

Livestock was probably moved to and from Newgrange en route between the coast and the Irish Central lowlands, rather than grazed constantly within the locality. No contemporary sites are known on the slopes immediately beyond the bend of the Boyne River to the south, suggesting this area remained wooded and perhaps unused for grazing and crops (van Wijngaarden-Bakker 1986: 99-100). The large herds of pigs and cattle could not have been sufficiently sustained on the ridgeway alone for the entire year. Cattle had a very low death rate in their second year, perhaps indicating a system of transhumance whereby animals were taken away in the spring to fatten and perhaps to be exchanged. This absence of livestock coincided with the main growing period for crops, thereby perhaps protecting them from stray grazers (van Wijngaarden-Bakker 1986: 100). Some of the flint tools found in the occupation layers were knapped from nodules extracted from outcrops over 90km to the north. Other flint types utilised at Newgrange were also found at sites along the Leinster coast, suggesting transhumant-related movements could sometimes cover considerable distances (van Wijngaarden-Bakker 1986: 101). The acquisition of horses and Beaker pottery during the later occupation also confirms that people were travelling beyond the local vicinity, and the navigable Boyne River may have been central in some of these journeys.

Only 1% of the entire bone assemblage comprised wild species, and these were predominantly red deer found on ground surface layers (i.e. not in fills) from the central

area directly outside the passage tomb entrance. The tool assemblage from the occupation horizons was not hunting-orientated, with only a few barbed and tanged arrowheads present. Van Wijngaarden-Bakker (1986: 97) concluded that hunting was of minor importance at the site: a little surprising considering deciduous woodland was present locally (Scannell, 1985: 221) and the adjacent Boyne shallows constituted an excellent place to trap wildfowl and otter (Stout 2002: 11). The absence of fish remains may relate to the poor preservation of less substantial bones in the slightly acidic soil (van Wijngaarden-Bakker 1986: 98), or it might derive from a deliberate abstinence, similar to that proposed by Thomas (2003: 70) for seafood during the British Neolithic .

Van Wijngaarden-Bakker (1986: 20) argued that the faunal assemblage constituted the food remains of the site, discarded after being roasted or boiled. There has been some alternative suggestion that the domesticate bones constituted the ceremonial deposition of feasting material, rather than refuse from daily consumption (Mount 1994; Bradley 1998b). The predominance of pig at third millennium cal BC Newgrange may have been symbolically significant; comparatively high proportions also feature in the faunal assemblages of the larger Wessex monuments such as Durrington Walls Henge (Grigson 1982; Bradley 1998b: 110; Cooney 2000a: 73) (AppB: p383; p399-400). Similarly, the high proportion of domesticate compared to wild species is repeated at other contemporary ceremonial sites such as the Peterborough Ware layers at the Dorset Cursus (Kinnes 1988; Thomas 1999: 26-7). However, Schulting (2008: 94-5) has recently highlighted that the limited number of available faunal assemblages from non-monumental contexts also demonstrate high proportions of domesticates. Conversely, some of the animal bones from the Late Neolithic to Early Bronze Age Newgrange 'settlement' layers were burnt and deposited in a deliberately structured manner. This was particularly the case for those found in the fills of the eastern pit circle, where none of the excavated pits contained entire animal carcasses, suggesting that each body part had been deliberately selected for interment[55] (Sweetman 1985: 203).

Bradley (1998c: 102; 110) argued that the 'occupation' at Newgrange has been too readily disassociated from the highly ceremonial landscape in which it nestled. He believed that hearths, pits and animal bones dug into and overlying the quartz and granite platform mark formalised rites associated with the passage tomb (Bradley 1998b: 110). Whilst this

[55] See chapter 3: p64-5 for a critique of the dichotomy between 'secular' and 'sacred' life

may be true, people were subsisting on-site for longer than one or two nights at a time, meaning at least some of the assemblage must be associated with less formalised activity. There is no reason why occupation at Newgrange did not combine or even merge elements of both the residential and ceremonial, as proposed generally for the supposed British Neolithic 'houses' (Topping 1996: 163; Brück 2008: 252-3) (AppB: p391-6). Some criticism has also focused on the possible contamination of Late Neolithic to Early Bronze Age sequences with earlier debris (Eogan & Roche 1997: 255-7) and the poor phasing of the site overall (Sweetman 1985: 215-6). However, van Wijngaarden-Bakker expressly excluded contextually insecure bone from her analysis (1986: 20).

Normality at Newgrange?

So how might herding have been characterised by the communities living at Newgrange, and how does this compare to the comprehensions of visitors to Cefn Glas (figure 5:2)? The sites were clearly very different; the area occupied at Newgrange was much larger and located on a low-lying ridgeway within a river valley. It lay exposed by the sparse scrub cover of the vicinity, a result of repeated forest clearances. In contrast, Cefn Glas was enveloped by woodland, sited upon a small plateau on an incline on the margins of a rolling upland plain (ch5: p198). Larger herds and probably communities lived at Newgrange, undoubtedly for longer periods. Whilst Newgrange was arguably one of a few occupation sites in an established cycle of transhumance, Cefn Glas was probably one of many sites erratically occupied by herders. However, I have already argued that the understanding of practice is not necessarily linked to the taskscape, nor the chronology in which it is perpetuated (ch5: p186-7). Instead, practices can be comprehended in relation to wider spheres of cosmologies which discursively reinforce each other as logical truths. Following the premise that herding *can* be a way of life rather than a conceptually extractable practice (ch5: p191-4; p203), we must again look at some of its constituent performances to gain a sense of any recurrent themes within world-views.

One striking similarity with Cefn Glas (ch5: p198-204) is the high proportion of scrapers in the tool assemblage of both the area excavated around the south perimeter of the passage tomb (M.J. O'Kelly *et al* 1983) and in the area excavated inside the south-western arc of the eastern pit circle (Sweetman 1985: 210) (figures 5:20 & 5:21). In this pit circle excavation, five of the six tools found associated with the habitation area were flint

scrapers whilst the sixth was a blade (Sweetman 1985: 210-1). At least some of these scrapers were knapped and re-touched on-site since a considerable amount of flint debitage was recovered. About one third of this debris (258 un-worked flakes) was concentrated in the area of habitation, overlying the roughly paved occupation surface (Sweetman 1985: 203). The remainder (534 flakes) was spread immediately around this cobbling, concentrated to the east and west side. Beyond the cobbled surface, this assemblage was stratified, suggesting it did not result from a single knapping frenzy and rather the repeated act of crafting scrapers at this point. As already argued for Cefn Glas (ch5: p209-12), predominantly working scrapers alone was a bounded and unique performance which was solely identifiable with herding (Kienlin & Valde-Nowak 2004: 41). It may have engaged everyone in the group; again the performance seems to have been focused in and around a hut although this time there was no clearly defined hearth but a series of less formalised fireplaces. Similarly, the tools themselves were also generalised, heavily and somewhat roughly worked (Sweetman 1985: 211), suggesting that anyone could have made them.

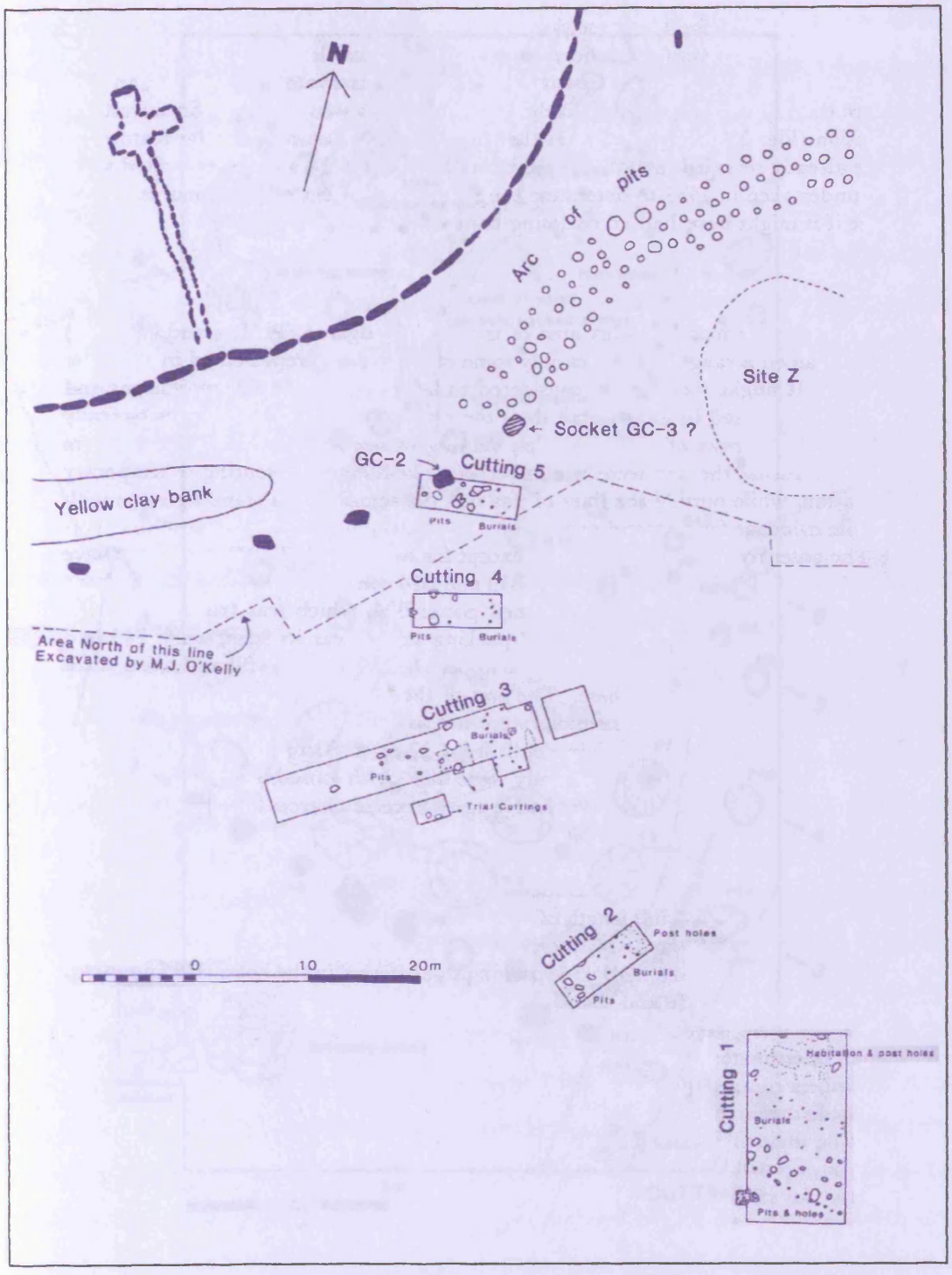


Figure 5:20 General plan of Newgrange Eastern Pit Circle with trenches detailed. Central area of M.J. O'Kelly excavation also detailed (*from* Sweetman 1985: 198)

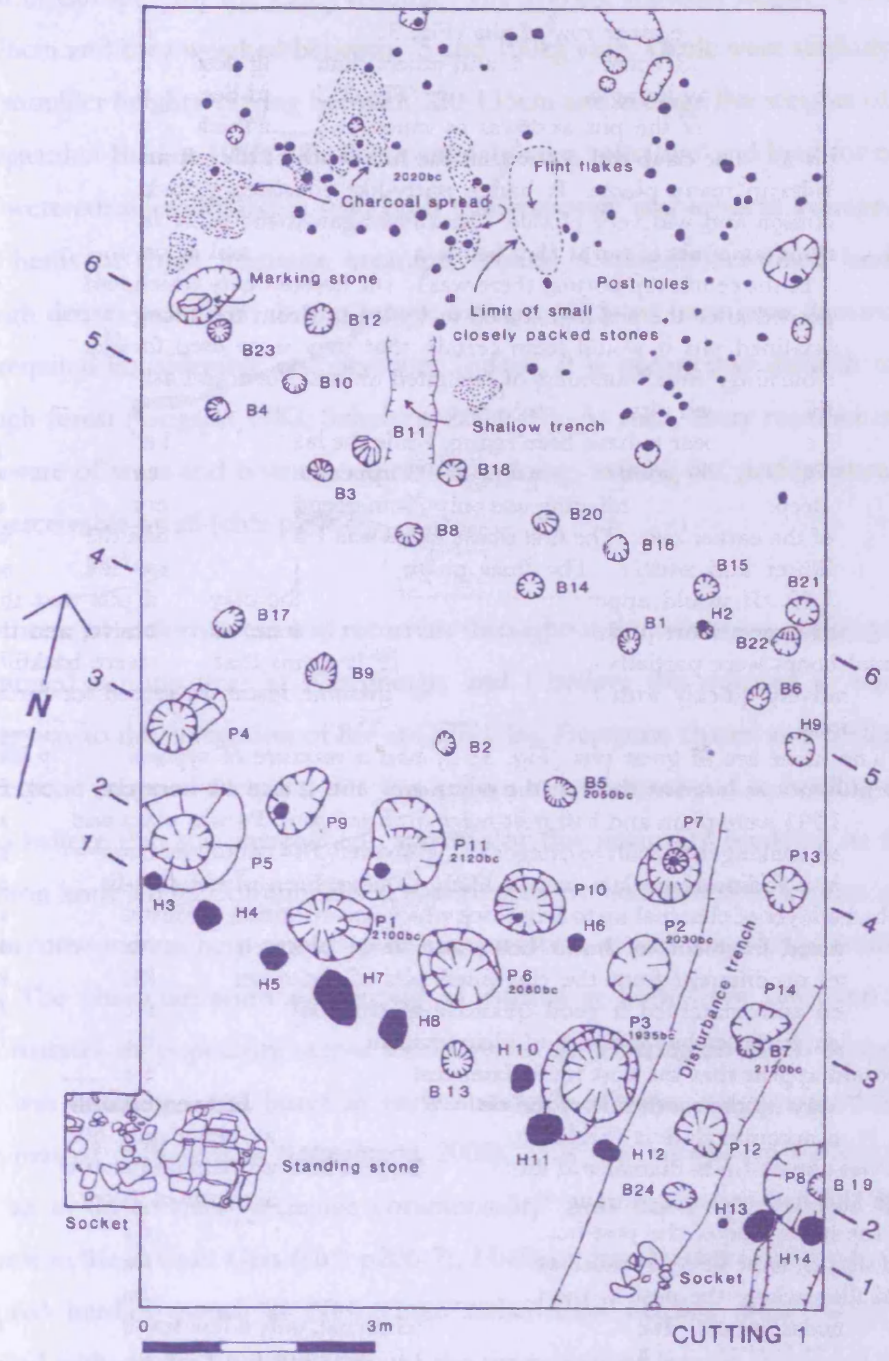


Figure 5:21 Plan of trench 1 at Newgrange Eastern Pit Circle. Note the Beaker habitation area to the north (*from* Sweetman 1985: 200)

The inclusiveness of this performance may have fitted well with other dimensions of herding life, perhaps in direct contrast with the alternative practices people may have engaged in (e.g. gathering nuts and berries). For example, van Wijngaarden-Bakker (1986: 69) described the measurements of Newgrange pig bones as "amongst the largest ever

found in Europe" for the Late Neolithic. The average shoulder height of mature adults was 76cm and they weighed between 75 and 100kg each. Cattle were similarly over-sized with shoulder heights varying between 120-135cm and average live weights of 300-400kg (Wijngaarden-Bakker 1986: 94). These animals were 'primitive' and bred for meat, and as such were considerably larger than both contemporary and modern averages. Directing large herds of these immense creatures around a sparsely scrubbed landscape, and through denser woodland during longer movements must have been demanding, skilful and required considerable co-operation. Indeed, it is notoriously difficult to herd pigs through forest (Grigson 1982; Schulting 2008: 97). As such, every member of the group was aware of what and how the others were doing, making the performance communal and perceivable by all (ch5: p208-9).

This theme of inclusiveness was recurrent throughout the numerous performances which constituted herding lives at Newgrange, and I believe this equated to normality in a similar way to the perception of life at Cefn Glas. Everyone chased stampeding cattle just as everyone knapped scrapers; this was known to be normal and so herding was normal. I also believe that the entrenched exposure of this normality rendered its durability as common knowledge. Communalised experiences are understood in a more uniform way and become increasingly closed to re-interpretation as this knowledge establishes (ch3: p75). The characterisation of herding as normal at both Cefn Glas and Newgrange demonstrates its popularity across world-views. At Durrington Walls henge, Wiltshire, pork was butchered and burnt in fairly standardised ways, suggesting whole carcasses were roasted (Albarella & Serjeantson 2002). This was interpreted by Schulting (2008: 105) as evidence that "inclusive commensality" was common practice. However, in contrast to life at Cefn Glas (ch5: p206-7), I believe that the characterisation of normality coloured herding *periods* at Newgrange rather than herding *worlds*. People probably travelled without the herd for some of the time, perhaps leaving the group in boats and later also by horse. Trading, smoked meat and the possibility of cultivation support this (ch5: p221-2), but these journeys may have been embedded in kin ties and religious cycles rather than motivated by specific or even consciously perceived 'needs'. As a result, daily life may not have always been fundamentally animistic but was instead more permeable to other influences on knowledge. In the more rigid and perhaps rhythmic lives at Newgrange, herding life rather than life itself was characterised as normal.

Liminality at Newgrange?

Defining herding through performance:

Several other herding performances at Newgrange are discernible from the faunal assemblage. Over the centuries of occupation, people almost entirely refrained from hunting and fishing, despite being bounded by extensive riverine and forested taskscapes. They only diversified from cattle and pig-based diets into ovicaprid meat during the later years. Similarly any cultivation was minimal and domesticates were not bred or kept for milking, shearing or traction (unless horses were used for ploughing during the Early Bronze Age). This contrasts with other sites in Ireland and Britain at this time; dairy fats were discerned from Grooved Ware vessels at Barnhouse, Orkney (Jones 1999), and from Beaker sherds at Brean Down, Somerset (Copley *et al* 2003: 1528). The herd was managed to maximise meat production; animals were culled at optimal growing ages and weights, and were selectively bred from the larger individuals of the herd. However, cattle significantly outnumbered pig despite porcine species yielding more calories in less growing time. Similarly pork was smoked but beef was not, and only pigs were culled seasonally on-site as opposed to cattle which appear to have been slaughtered throughout the year. Whilst van Wijngaarden-Bakker (1986: 98) dismissed the concept of taboos at Newgrange, there seems to have been very clear and established knowledge on what should and should not be done. I suggest that Late Neolithic to Early Bronze Age life at Newgrange was strictly known as a herding experience and as such, only 'herding' could be practised. Any performance which conflicted with this notion was inappropriate and potentially dangerous because it diverged from what existence there entailed. Milking a cow, baking wheat or trapping a duck were clearly not part of 'herding'. By or during the Late Neolithic therefore, people had developed an established idea of what herding was and was not. This understanding became de-stabilised enough that by the Early Bronze Age, horses and ovicaprids were incorporated into herding lives.

The form and nuances of this understanding are more complicated to establish. For example, why were the larger less-manageable animals selectively bred and why were cattle more readily kept than pigs? I have already argued that herding lives were considered liminal at Cefn Glas (ch5: p214-7), and similar themes may run through its characterisation at Newgrange. Key perhaps is the concentration of pig slaughter and butchery at one place within the occupation debris spread (ch5: p222). The cull of a very scared 100kg animal would have been communal, loud and messy, perhaps

involving slashing the throat with a flint flake, the opening of the carcass dorsally and the removal of the vertebral column and viscera (figure 5:22) (van Wijngaarden-Bakker 1986: 69). The fragmentation of all skull material suggests consistent brain extraction, and the under-representation of axis compared to atlas vertebrae in the assemblage probably relates to the removal of the pigs' heads at the same point each time (van Wijngaarden-Bakker 1986: 55-57). Similarly, proximal humerus fragments were almost entirely absent, indicative of the consistent butchering of the hand and hock pork cuts at the joint with the scapula. Slaughtering and butchery here were staged performances with established normative roles, sequences and motions (Parker Pearson 2000: 225; Schulting 2008: 100). Similarly theatrical examples have been proposed for pole-axed cattle skull fragments found in Early Bronze Age barrows (Mortimer 1905; Davis and Payne 1993) and arrow-killed pigs and cattle at Durrington Walls, Wiltshire (Albarella & Serjeantson 2002). Slaughters at Newgrange completely externalised the innards, and the same spot may have also accommodated the castration of cattle surmised by van Wijngaarden-Bakker (1986: 94). Links to concepts of the 'betwixt and between', as already discussed, are clear and if integral to herding practices, these performances may have been considered incredibly polluting. Their containment was achieved through their isolation at one locality, and the specific behavioural rules governing their form. In this way, I argue that herding at Newgrange, as with herding lives Cefn Glas, was a liminal practice which not only mediated the movement to and from other places, but also the transition from life to death, and inside to out. What this understanding of herding actually meant can be explored in far greater depth at Newgrange because of the better survival of remains. For example, why was the slaughtering and butchery of cattle not isolated to this one spot as well?

Figure 5:22 Photograph of a modern domestic pig after slaughter and during butchery

Differential treatment of pigs and cattle:

As has been observed elsewhere in the Late Neolithic to Early Bronze Age (Schulting 2008: 105), pigs and cattle were clearly treated differently at Newgrange (figure 5:23) (ch5: p221-3). These differences cannot solely be attributed to the nature of the meats and how they were managed within contemporary lifestyles. For example, even if pork cuts are smaller and therefore easier to transport as whole smoked joints, beef can be prepared and preserved in half cuts. Similarly, whilst pigs may have been off-site in the summer, thereby explaining the pattern of seasonal culling at Newgrange, their corresponding presence during the autumn, spring and winter would have resonated with a heightened sense of mortality. These two performances completely contrast with those at the contemporary site of Brean Down, Somerset, where cattle were slaughtered only in the winter, beef was cured and dried, and ovicaprids were culled all year-round (Levitan 1990). It is clear that herding decisions were not environmentally determined, but culturally embedded. I believe that both pig and cattle were subjected to restrictive performative norms which were specific and consistently maintained. Whilst the

containment of potentially liminal situations and substances occurred for one species, protection from the same scenario was deemed unnecessary for the other. For example, and in a direct reversal of preferences at contemporary Durrington Walls and the West Kennet palisades (Albarella & Serjeantson 2002; Edwards & Horne 1997), cattle marrow could be consumed but pig marrow could not. Similarly, whilst cattle needed to be castrated, pigs did not. In the midst of these abstentions and behavioural norms, the degree of containment appears to have been greater for porcine than for bovine animals. For example, beef was preferred over pork, and pork could, or perhaps had to be smoked, in contrast with beef which did not.

PIGS	CATTLE
Killed/butchered at one spot on-site	Killed/butchered anywhere on-site?
Not castrated?	Castrated
Less preferentially eaten/kept	Preferentially eaten/kept
Meat smoked	Meat not smoked?
Marrow generally left	Marrow generally extracted
Seasonally killed	Killed all year-round
Killed at optimum age/weight and largest selectively bred	Killed at optimum age/weight and largest selectively bred

Figure 5:23 Chart depicting the differential treatment of pigs and cattle at third millennium cal BC Newgrange

However I do not simply believe that cattle were regarded as less dangerous than pigs, and therefore that they were more valued (Thorpe 1984; Ray & Thomas 2003). The comprehensions of these two animals instead overtly interplayed with dynamic and complex pollution knowledge. For example the fleshy innards (organs, blood, marrow) (ch4: p145-6) of pigs seem to have demanded a greater need for containment than equivalent cattle portions. Killing and butchery occurred in one spot and at particular times of the year, the marrow was abstained from, the meat was sometimes smoked,

perhaps only consumed on journeys and was certainly eaten less frequently than beef. In contrast, cattle could be killed and butchered anywhere and at any time, and their meat and marrow could be consumed freely and more readily. However, bulls were castrated, perhaps suggesting that it was their reproductive capabilities rather than fleshy interior that was polluting.

Such differential treatment of various species within the same world-views and associated pollution knowledge can be readily found ethnographically (Douglas 1966: 67). In contrast to my proposed Late Neolithic to Early Bronze Age taboo of the inner body (ch4: 145-7), the Hungarian Rom regard the outer body as highly defiling. They therefore consider the non-Rom (gaźo) habit of taking a bath and thereby 'lying in one's own filth', to be revolting, and would never use tea towels since they are washed with clothing (Stewart 1997: 207). This taboo extends further whereby the upper body and particularly the head, is distinctly purer than the lower body. Rom women must dress with a sharp distinction between their lower and upper parts and long coats are considered shameful (figure 5:24). At the focus of this profanity of the lower half of the body is the genitalia, and excretory and urinary tracts. Smelling any substances derived from this area is regarded as the height of degradation since the lower outer body penetrates both the upper and inner through the nose (Stewart 1997: 209). Sexuality in general is impure and often hidden. For the Rom, cats are highly polluting because they lick their outer body including their lower regions with their tongues (Stewart 1997: 207). They are scarcely tolerated in Rom settlements and certainly not allowed within the houses. Horses, as the most prized animals, are thought to be pure since they will not sleep in their dung and will only drink fresh water and clean new fodder (Stewart 1997: 144). This species' adherence to Rom principles is often remarked upon approvingly, and their behaviour actively interpreted as anthropomorphic (e.g. night-time disturbances in stables are attributed to horses seeing dead people, an otherwise exclusively Rom capability). In contrast, cows are tainted since they gladly wallow in faeces, eat dusty fodder and ultimately do not purvey any sort of empathetic relationship with the Rom. Poorer Rom will happily stable horses within their houses but cattle are bred and sold as quickly as possible despite the potential financial benefits of rearing cows into maturity (Stewart 1997: 144).

Figure 5:24 Photograph of two Rom women with children, taken in the 1950s. Note they are both dressed with distinctively different upper and lower pieces of clothing

For the Rom therefore, each animal species is understood according to its position within current frameworks of pollution knowledge. I believe that for the herding community of the Late Neolithic to Early Bronze Age Newgrange, comprehensions of cattle and pigs were similarly pitched within contemporary understandings of herding, defilement and purity. As already mentioned (ch4: p146), pigs are renowned for their irreverence cross-culturally; in the Israelite context because they are cloven-hoofed non-ruminants, which does not clearly fit within Old Testament typologies (Douglas 1966: 68-9; Whittle 2003: 79). At Newgrange, as also proposed for the Sarn-y-bryn-caled Timber Circle (ch4: 146), the source of pigs' profanity may have related to their omnivorous diet. If the inner body was considered impure and dangerous in contemporary mindsets, meat consumption may have been conceived as the passing of profanity into and through the known world. Whilst people observed performative norms to nullify this threat, pigs consume all parts of the inner body without reservation. Pork had therefore been in contact with the untreated profane, and as a result became tainted itself. In contrast to carnivores, which were only nominally represented in the

bone assemblage (ch5: p221-3), this defilement was intermediary rather than total, perhaps because pigs also eat 'uncorrupted' flora. I believe that the abstentions and extended preparatory norms attached to pork at Newgrange contained its impurity, thereby enabling its safe consumption by people. However, it was still preferentially refrained from, perhaps because cattle consumed vegetation only and were therefore free from the impurities of a carnivorous or omnivorous diet. Beef did not need to be prepared or consumed via overt or rigid performances because its substance was not as polluted.

Instead, the reproductive element of cattle appears to have been taboo. This may have related to their sexual behaviour which is more aggressive and short-lived than pigs' (Chenoweth 1981). The management of the herd incurred bull castration and this may have been dialectically linked with the characterisation of cattle as more sexually virulent and perhaps humanistic than pigs. As already discussed (ch5: p191-4), in a pastoral community which was predominantly ruminant-based, this kind of anthropomorphism of animals often relates to a deeper sense of the world in which herders and their herd are inextricably linked (Evans-Pritchard 1940; Vitebsky 2005: 261-2). In this perspective, the bulls' reproductive organs may have been synonymous with the herders', and through this humanisation and empowerment of their sexuality, a necessity for containment may have been rationalised (Schulting 2008: 109). Such a focus on specific parts of animal bodies has also been observed at the West Kennet palisades, Wiltshire, where the porcine assemblage is dominated by bones from the right-hand side (Edwards and Horne 1997: 120-5).

I believe that both cattle and pig were understood as liminal entities (figure 5:25). However, each manifested a different dimension of what it meant to be neither known nor unknown at this time. Whilst pigs corrupted the distinction between the inner and outer body by consuming untreated externalised remains, cattle challenged the confines of what it meant to be a herder through their supposedly humanistic behaviour. This inability for either to be clearly categorised within contemporary knowledge systems was dialectically linked with their characterisation as taboo, but potentially 'purifiable'. Indeed, in a social environment when formative economic rationale did not prevail, I suggest that the selective breeding of larger animals, coupled with their slaughter at optimum age/weight was intended to maximise each species' liminality. Such

aggrandisement and virtual celebration of the potentially dangerous is a common feature of societies with elaborate pollution conventions (Douglas 1966: 120). Such potent liminality of both pig and cattle at Newgrange probably coloured daily life on-site. Ultimately, like at Cefn Glas, I believe that the repeated presence of the notion of intermediateness during time spent at Newgrange recursively bonded with how the practice of herding (life) itself was characterised.

PIGS	CATTLE
= liminal	= liminal
Because they corrupted the distinction between inner and outer body through:	Because they corrupted the distinction between herders and the herd through:
- eating untreated offal	- aggressive sexual behaviour
BUT:	BUT:
- Also ate 'un-defiled' flora	- *Only* ate 'un-defiled' flora
Therefore could be consumed by people if purified through 'body re-defining' preparatory norms e.g. marrow abstained from, seasonal culling, meat smoked, contained butchery site	Therefore could be consumed by people if purified through 'de-sexualising' preparatory norms e.g. castration and cremating lower torso (see ch5: p235; p238)
No perceived need for castration	No perceived need for other 'body re-defining' preparatory norms e.g. slaughtered anywhere on-site
Not preferentially eaten	Preferentially eaten

Figure 5:25 Chart depicting the causes and treatment of profanity at third millennium cal BC Newgrange

Pollution typologies and cleansing:

The deposits in the eastern Newgrange Pit Circle and adjacent Beaker habitation area can be interpreted to link this comprehension of herding lives as liminal lives with other performances on-site (figures 5:20 & 5:21). The eastern pit circle consisted of six concentric rings of pits and post-holes. Most of the outer ring (1), originally held wooden posts averaging 32cm in diameter. Their fills consistently comprised loose black clay with

charcoal inclusions, and some had received later stakes which were subsequently burnt (Sweetman 1985: 197). Others still had had cremated animal bone placed in their upper fills once the original posts had rotted or been removed. Within this ring were two circles of pits (2 and 3). With rim diameters of up to a metre, the ring 2 pits were all lined up to 25cm thick with daub, followed by burnt clay, a layer of charcoal, small amounts of fragmentary animal bone and a plug of boulder clay (figure 5:26) (Sweetman 1985: 197-9). The excavator interpreted these pits as back-filled crucibles for cremating animal portions, some of which were re-used for further cremations (Sweetman 1985: 199; 213). Charcoal from three of these pits was radiocarbon dated to *c.* 2872-2463 cal BC (GU-1671; pit 1), *c.* 2567-2145 cal BC (GU-1619; pit 3) and *c.* 2832-2471 cal BC (Grn-11802; pit 6) (Sweetman 1985: 218). Ring 3 pits were either similarly comprised to those in ring 2 or were not clay-lined. Some contained post-holes in their bases, probably as later insertions. The un-lined pits had boulder clay fills which comprised very small amounts of charcoal and burnt bone (Sweetman 1985: 199). Charcoal from the fill of one of the ring 3 lined pits which was devoid of a post-hole was radiocarbon dated to *c.* 2856-2214 cal BC (GU-1618; pit 2) (Sweetman 1985: 218).

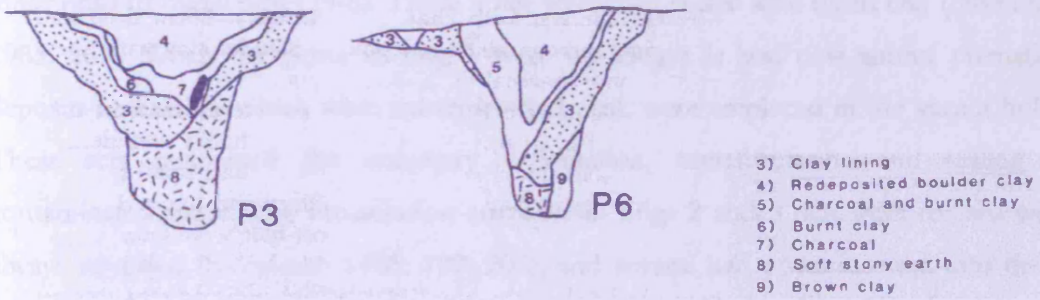


Figure 5:26 Profiles of pits 3 and 6 (both ring 2), larger Newgrange Pit Circle (*from* Sweetman 1985: 202)

Three further rings (4-6) extended inwardly beyond ring 3, the fourth of which hugged the line of the third whilst the fifth and sixth continued after a gap of around 2.5m (figure 5:21). These rings comprised holes with rim diameters averaging 30-40cm which were filled with varying high proportions of cremated animal bone, black soil, charcoal and burnt clay. Some of the bone deposits were placed onto, or had slipped underneath, a layer of small rounded stones at the base of the holes (Sweetman 1985: 201). Charcoal from the fill of one of the holes in the fourth ring was radiocarbon dated to *c.* 2853-2301

cal BC (GU-1620; burial 5), interpreted by Sweetman (1985: 210; 218) as evidence that all six rings were broadly contemporary. In reality, the innumerable deposits could have been made between the twenty-ninth to the twenty-second millennium cal BC. Of those bone fragments identifiable, pig and cattle predominated with some deer, ovicaprid and several different species of dog including wolfhound. Many of the fragments derived from inedible parts of the body such as patellae, neural arches, phalanxes and alveolar bone (O'Sullivan *et al* 1985: 219-20).

Returning to ideas explored in chapter 4 (ch4: p143-7), I believe these rings display multiple layers of containment and purification: from the use of fire; to the six concentric rings faced and intermediated by stakes and gaps; to the lining and plugging of the pits and holes with clay and stone. The outer ring (1) held posts which encircled the inner five. All of ring 2, and some of the ring 3 pits were used to incinerate parts of animals. They were lined with daub, the inner surface of which became burnt, and were sealed with boulder clay after use. The other pits in ring 3 were filled with boulder clay alone, perhaps sealed for future, unperformed cremations. Carbonised bone fragments and pyre material from the incineration pits was transferred to basal stone layers within the three inner rings of burial holes (4-6). These holes were then sealed with burnt clay (Sweetman 1985: 201). When the posts in ring 1 were no longer *in situ*, new animal cremation deposits and stakes which were subsequently burnt, were emplaced in the vacant holes. These acts reinforced the necessary delimitation, transformation and sealing of contaminated space. The incineration crucibles in rings 2 and 3 that were re-used were always re-sealed (Sweetman 1985: 199; 202), and several had posts inserted into them, again interplaying with the necessity to mark and enclose the tainted pits.

It would seem that during the later half of the third millennium cal BC, the eastern Newgrange Pit Circle formed a focus for the communal cleansing of specially selected portions of animals, and perhaps what these represented. Ceramics, lithics and human bone were entirely absent from the deposits, and whilst some of the animal bone was un-burnt, other fragments were 'smoked' rather than entirely carbonised, suggesting cremation in the crucibles was uneven (O'Sullivan *et al* 1985: 219-20). These purification rites may have concentrated on the lower portions of male cattle (many of the identified bovine bones derive from oxen forelimbs), and on parts of the pig which mediated between the outer and inner body (e.g. mandible, maxilla and alveolar fragments) (figure

5:25). These performances were rhythmic yet interpretive: people observed the same medium for the containment of liminality (burning and layering) (ch4: p143-7), but its manifestation often varied (combusting stakes, bone, clay; bounding with posts, stakes, clay, stones, infill and ring lay-outs including a hiatus between 1-4 and 5-6). Beyond the animals themselves, I argue that the eastern pit circle was a forum for the formal decontamination of herders from elements of daily life which compromised their identities. Periodic incinerations and safe depositions of liminality represented successive instalments in the active re-negotiation of normative knowledge about herding periods. Through containment and cleansing rites, herders communally re-established the liminality of 'neither known nor unknown' entities such as the mouth and eyes of pigs, and the limbs of cattle. In doing so they re-defined the exact perimeters of the known and unknown world (figure 5:27), and in turn what it meant to think like and therefore be a herder.

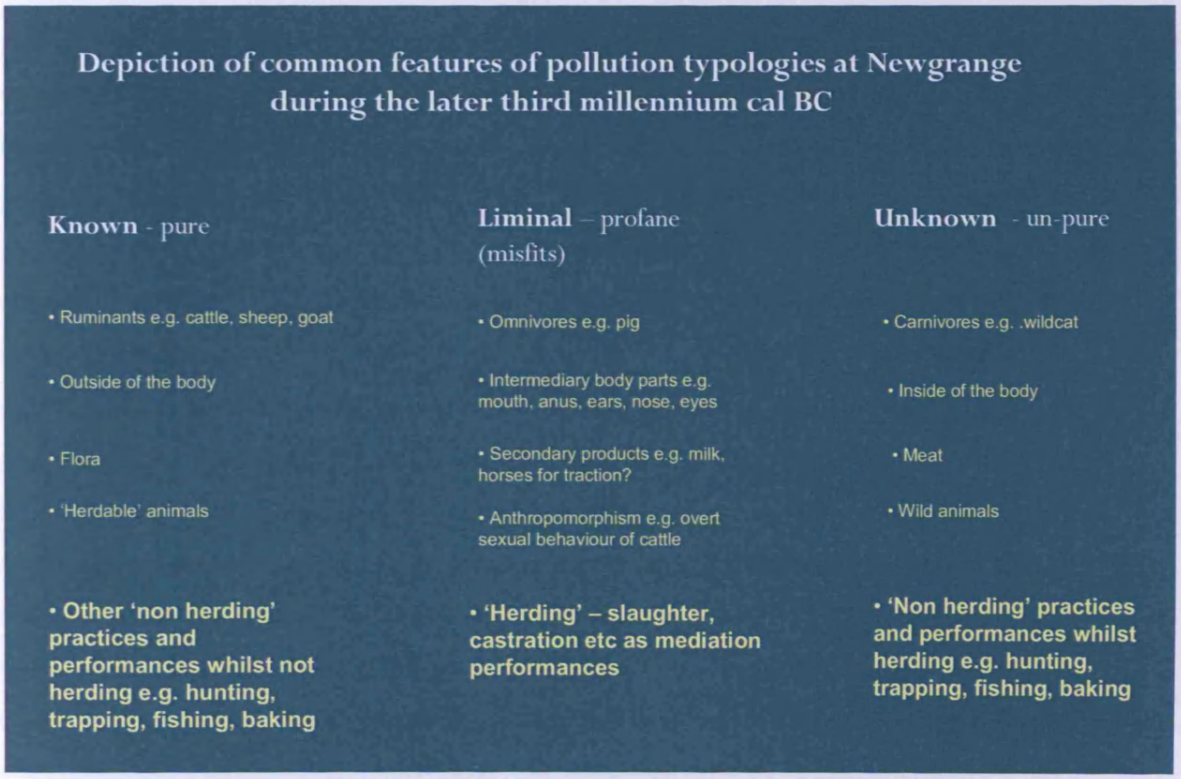


Figure 5:27 Chart depicting common features of pollution typologies at third millennium cal BC Newgrange. Certain aspects moved in and out of prominence in contemporary mindsets. Similarly, how the material and animal world fitted into it shifted according to agency and changing logic. Unknown entities were only purified if they transgressed into the known world, whereas liminal entities always demanded strict containment

The inclusion of deer and dog bone in the eastern pit circle must also link to how these animals were understood within herders' pollution knowledge. I believe that both species were distinctly unknown within herding cosmologies. As previously mentioned (ch5: p221-3), deer carcasses were very rare within the occupation area, and I have already suggested that hunting conflicted with contemporary ideas about what herding entailed (ch5: p229). Dogs are entirely carnivorous and do not observe any food preparation rites; they too were not common at the Newgrange settlement. Both species' unknown nature was deemed necessary of purification though, perhaps because the few individuals represented at the larger pit circle had challenged current pollution typologies (e.g. the three dogs were considered particularly humanistic, and the deer was seen eating cattle feed).

These sort of fairly formalised purification rites contrast with those already discussed (e.g. containment of pig slaughter in one place; ch5: p232-3), since their enactment was embodied by an established yet living monument. The habitation horizon within the eastern pit circle provides a final example of less ceremonial purification rites performed during daily life. Rough paving covered a small area which was surrounded by various phases of small post-holes, probably the remains of a succession of timber hut structures (figure 5:21). As already discussed (ch5: p224-5), un-worked flint flakes were found on top of the cobbling, with further flakes immediately adjacent to it, deposited in stratified layers. Concentrated on the east and west sides, the flake layers were mixed with a few sherds of Beaker pottery and Irish Grooved Ware (AppB: p344-51), five flint scrapers and one blade (Sweetman 1985: 203; 211-2). The fills of the post-holes to the west of the cobbling were charcoal-rich, probably indicating that the western half of at least one of the structures was set on fire. Re-building was evident from the possible stratification of some of the post-holes. Six areas of charcoal spreads located to the west of the cobbling were interpreted by the excavator as temporary fireplaces (Sweetman 1985: 203). Charcoal from one of these spreads was radiocarbon dated to *c.* 2574-2154 cal BC (GU-1622) meaning habitation may have been contemporary with, or perhaps a little later than most or all of the deposits in the larger pit circle (Sweetman 1985: 218). There are many similarities between this site and the Cefn Glas structures (ch5: p198-294), aside from the predominance of knapping scrapers already discussed. The occupation horizon seems to have been repeatedly returned to, re-fashioned and its super-structure burnt-down at least once. Also, sharp flint flakes were spread across the paved surface of the huts on

numerous occasions, periodically (presumably at the end of stays) rendering the structures inaccessible to animal or human feet. There is no information available on whether these flakes were calcined (Sweetman 1985: 209-11), although the pits in the western (and smaller) pit circle immediately to the west of the passage tomb were filled with deposits of burnt flint (figure 5:28) (Stout 2002: 35). The repeated interplay of the same themes of burning, sealing and containment is evident.

Figure 5:28 Photograph of the smaller pit circle to the west of the Newgrange Passage Tomb entrance (*from* Stout 2002: 59)

I believe that this sustained employment of purifying, transformative and renewing agents at the larger pit circle huts confirms the progressive contamination herding lifestyles were thought to emit (figure 5:2). Whilst the cause of this pollution was unclear

at Cefn Glas due to the poor survival of faunal remains (ch5: p203), the entrenched characterisation of both cattle and pig as liminal may have tainted the practice itself. The inherent engagement with these animals through performances which themselves intermediated between the inner and outer body (e.g. breeding, castration, birthing, feeding, watering and slaughtering) quickly coloured herding itself as liminal. By containing the potential profanity of daily life at the end of each herding period, the substance of the site was renewed for the next visit. Combined with the multiple other purification and bounding performances already mentioned, herding life at Newgrange comprised one continuous discursive engagement with concepts of knowledgeability and pollution.

Herding: a summary

If we accept that visits to Newgrange in the Late Neolithic to Early Bronze Age were understood as distinctive herding periods rather than as life itself (ch5: p228), the characterisations of on-site performances may have been more distinctive there than at Cefn Glas. Indeed, the temporary, sometimes formalised and communal life at Newgrange may have meant that there was less scope for the re-alignment of knowledge about it. Fewer opportunities to challenge established norms probably meant that contemporary comprehensions of herding were regarded as closed (ch2: p31-4)[56]. The spectre of the passage tomb itself, almost certainly 'disused' before the earliest Late Neolithic occupation since it did not receive secondary mound interments and was not modified (O'Kelly 1989: 72), may have added to this sense of unquestionable longevity at the site. As a result, performances interplayed with the same themes throughout the six hundred years of successive visits.

The proposed characterisation of herding as normal yet liminal was clearly reinforced or at least stabilised through these experiences, only weakening in the later third millennium cal BC when ovicaprids and horses were permitted on site. Pollution knowledge concerning the profanity of the inner body had clearly become inextricably and discursively connected with herding. The times spent at Newgrange constantly engaged with these ideas through the performances enacted there (e.g. smoking pork, abstaining from hunting and periodically cremating and enclosing specific portions of animals). In turn, the practice of herding itself was perpetually conceived as characteristically liminal.

[56] This is in spite of one of the two characterisations of herding at Newgrange (liminality) usually being 'open' to re-interpretation (figure 2:5)

However, other performances on site actively re-negotiated the normality of herding as an inclusive communal experience (e.g. exclusively knapping scrapers and co-operative herd movements). Ultimately, these ongoing concerns formed part of the reality of life at Newgrange and their longevity attests to the degree of their entrenchment in contemporary world-views (figure 5:2).

Mining copper

Introduction

The practice of extracting ores for early metal-working in Britain and Ireland has attracted renewed academic interest in recent years (Timberlake 2001; Johnston 2008). This may in part result from the publication of several systematic studies of copper mines (e.g. Ross Island, Co. Kerry; O'Brien 2004b, Mount Gabriel, West Cork; O'Brien 1994, Great Orme, Gwynedd; Dutton & Fasham 1994, and Copa Hill, Ceredigion; Timberlake 2003), as well as a number of well-received analyses of Neolithic stone quarries (e.g. Bradley & Edmonds 1993; Edmonds 1999: chapter 5; Cooney 2005). The potential of copper mines in illuminating Terminal Neolithic and Early Bronze Age praxes is substantial because extraction faces were rarely engaged with other than alongside the procurement of ore[57]. Structures and deposits situated on or adjacent to seams almost certainly related to the performances associated with copper ore extraction and processing, and whilst these constituted the daily lives of miners, they were likely to be conceived in association with mining itself (Knapp 1998: 13). This is not to suggest either that mining performances were momentary or intra-culturally uniform. There are many examples of peoples who spent most of their lives directly adjacent to extraction faces, quarries and seams (e.g. nineteenth century cal AD gold panner camps such as Ballarat, Australia). In turn, Johnston (2008: 191) has cogently argued[58] for the social relativity of both ore extraction and the comprehension of metallurgy based on anthropological and historical parallels. With a culturally-specific analysis in mind, I will explore how the practice of copper ore mining was understood in terms of its knowledgeability, familiarity and normality at an extraction site dating from *c.* 2500 cal BC onwards. Focusing on earlier Early Bronze Age world-views (i.e. practice *c.* 2000-

[57] For an exception, see Flood (1983)
[58] In contrast to Timberlake (2003: 2), and to a lesser extent Knapp (1998: 11-2)

1750 cal BC), I will consider lives spent at this opencast mine, in contrast to work recently partaken on underground deep shaft and adit mines (Johnston 2008).

Johnston (2008) followed a number of archaeologists in suggesting that caves were characterised as liminal in Neolithic mindsets, based on the concentration of deposits and funerary activity there (e.g. Bradley 2000a; Barnatt & Edmonds 2002; Dowd 2008). It has been argued elsewhere that Neolithic mines and quarry faces were similarly cosmologically liminal (Edmonds 1999: 42; Cooney 2000a: 192-4; Topping 2005: 84). Both spaces mediated between the subterranean world and the surface, and normative behaviour may have been accordingly suspended alongside the adoption of practice-specific performances. However, Johnston (2008: 203-4) felt that deep shaft mining in the Early Bronze Age (e.g. Great Orme, Gwynedd), somehow challenged the understanding of this characterisation in North Wales, leading to the re-conception of local caves as still liminal, yet also profane supernatural or ancient mines (figure 5:29). As a result, deposits in caves, still fairly prevalent elsewhere (AppB: p297-8), ceased in North Wales as a taboo of working ore seams extended to caves (Johnston 2008: 201-4). Whilst the thrust of this work engages with prehistoric knowledge formation in a convincing and culturally-embedded way, the assumption that caves and mines were likely to be conceptually liminal until challenged by new practice is questionably founded and a little limited. In fact, the assertion that deep shaft copper mines were conceived as new and therefore distinctly different from older stone and flint mines is not justified; flint from deep-cast mines in south-eastern England had been present in North Wales for centuries (e.g. the Late Neolithic Penmachno, Caernarvonshire, hoard of large flint flakes; Darvill 1989; Burrows 2003: 94). In addition, the taboo of 'new' copper mines is not expanded upon. Johnston (2008) does not suggest what knowledge he believes was undermined to generate this profanity, or reason why he believes caves and mines were previously not profane yet liminal (ch2: p38-42; p54-60). I will move beyond this still partly absolutist thinking and consider how the practice of mining was understood by local communities entirely relative to their contemporary world-views.

Figure 5:29 Photographs taken within and outside Great Orme Copper Mine (image to the right *from* Johnston 2008: 194)

Copper origins

Remodelling of data provided by Needham (1996: 121-40; 2005: 206) has placed the inception of copper material culture in England at *c.* 2475-2315 cal BC, based on the association of copper daggers and axes with his Period 1 Beakers (Bayliss *et al* 2007: 50)[59]. These Low and Weak-Carinated forms have been dated by association with various radiocarbon and dendrochronologically determined deposits (Needham 2005: 183). For example, human bone interred with a Weak-Carinated Beaker and three copper rings from the primary burial (F919) at Radley Barrow Hills, Oxfordshire was radiocarbon dated to *c.* 2832-2147 cal BC (OxA-1874) (Barclay & Halpin 1999: 55-65). Similarly, in Ireland, the earliest copper axeheads and blades in circulation are thought to have coincided with items of gold sheetwork at around 2400 cal BC (Harbison 1969; O'Brien 2004b: 5). At Corlea 6, Co. Longford, the felling of wood which had been worked by a metal axe was dendrochronologically dated to *c.* 2259 cal BC (O'Sullivan 1996: 312). However, older discourse concerning the origins of metallurgy in Britain and Ireland explored the possibility that the relevant ideas and material culture were present in Britain during the earlier third and even fourth millennium cal BC (Case 1966). People were clearly moving across the Irish Sea, North Sea and English Channel during the Mesolithic, hence the presence of domesticates, novel practices and artefacts in Britain

[59] See Appendix B: p361-4 for further discussion of Late Neolithic to Early Bronze Age metallurgy

and Ireland from just after 4000 cal BC (Cooney 2000a: 204; Sheridan 2004b: 9[60]). This interaction certainly persisted during the fourth millennium cal BC; a Swiss Alpine jadeitite axe was found deposited alongside the Sweet Track, near Glastonbury in Somerset. The walkway was constructed from timbers felled between 3807/6 cal BC and stood for around a decade (Coles & Coles 1986: 59; 55-6). A hoard of Antrim flint axes was found near Auchenhoan on the Kintyre peninsula, Argyll and Bute (Saville 1999).

Such items may have arrived through both long-distance movements similar to those of the 'Amesbury Archer' (Fitzpatrick 2002: 630) (AppB: p403), and complex exchange networks as in Stuart Needham's Bretagne-English 'kula-type' model (Needham 2000). Either way, people would have been in touch with metallurgical ideas, crafts people and products long before *c.* 2500 cal BC; copper-working was relatively commonplace in the eastern Alpine stretches by *c.* 4000 cal BC (Ruttkay *et al* 2004), and in north-central Europe and Iberia by *c.* 3000 cal BC (Hedges *et al* 1990: 106-7; Shennan 1995; Bradley 2007: 146). Indeed, copper material culture was imported into Denmark from the late fifth/early fourth millennium cal BC (Klassen 2004: 368): pieces of metal and amber, placed in a pot, were deposited at the base of a ditch at the Middle Neolithic causewayed enclosure at Årupgård, Jutland (Jensen 1982: 104). In contrast to Bradley's (2007: 146) description of the origins of metallurgy in Britain and Ireland as an "event", copper may well have been present in early third millennium cal BC lives, significantly before early metal daggers, axes (possibly thick-butted; Case 1966), halberds, knifes, rivets, awls and rings were habitually deposited (Parker Pearson 1999: 78; 2008: 25). Such items could have been recycled and exchanged for centuries before the practice of interring them in British Beaker graves and Irish hoards became widespread.

In line with this change in practice, the extraction of copper ore for smelting and associated production of new copper items in Britain and Ireland, probably did not occur until around the twenty-fifth century cal BC (Craddock 1995: 51; O'Brien 2004b: 1). Quarry sites known to have been exploited from early on include Ross Island in Co. Kerry and Copa Hill in Ceredigion, followed by Mynydd Parys on Anglesey, Great Orme in Conwy, Nantyreira and Llancynfelin in Ceredigion, Mount Gabriel in Co. Cork, Ecton Hill in North Staffordshire and Alderley Edge in Cheshire (figure 5:30) (Ambers 1990: 60-2; Timberlake 2003: 103-5; Barnatt & Thomas 1998; Garner *et al* 1994). Countless

[60] Although Sheridan (2004b) argued that these artefacts and practices arrived with migrating peoples

other smaller or lost extraction sites also existed, such as the Derrycarhoon complex 9 km to the north-east of Mount Gabriel, Co. Cork (O'Brien *et al* 1990: 31) and the twenty plus sites across mid Wales where probable third millennium cal BC hammerstones and other early mining tools have been found (Timberlake 1990: 21; 1995: 43). Provenance studies have suggested that the dominant source of copper used for British metalwork shifted from south-west Ireland to North Wales at the start of the second millennium cal BC (Case 1966; Northover 1980; Rohl & Needham 1998; for a counterargument, see Budd *et al* 1992).

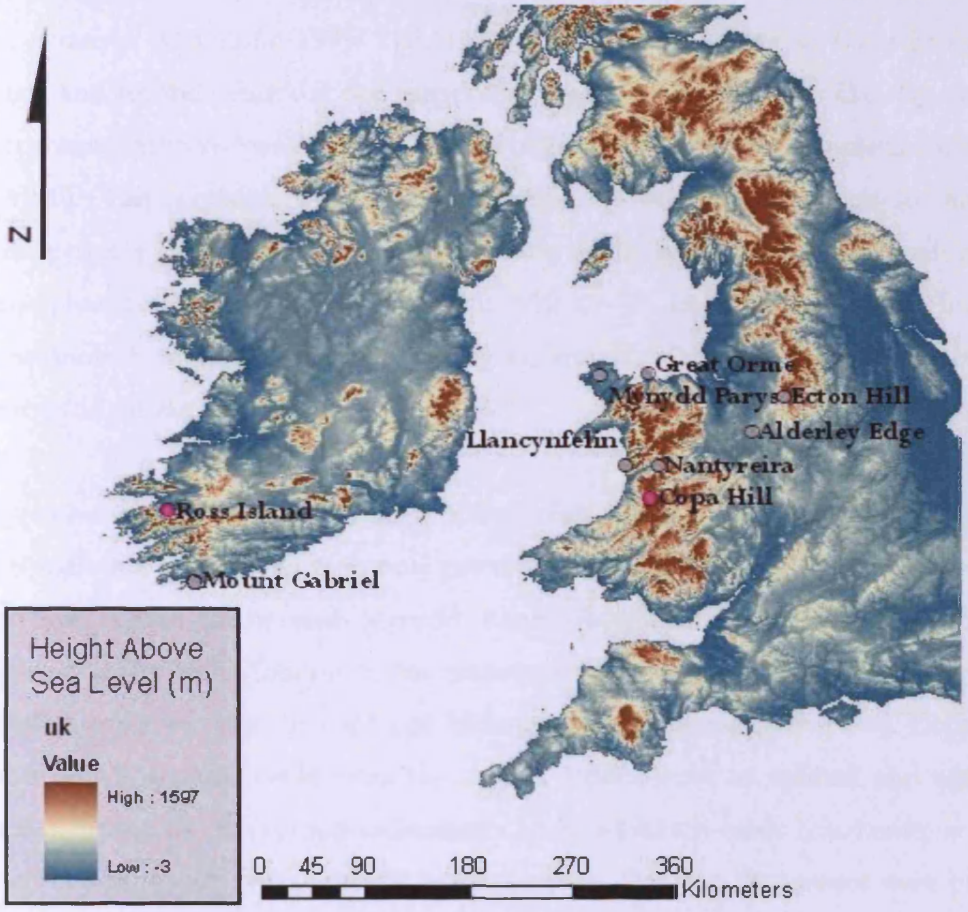


Figure 5:30 Map depicting the locations of known early copper mines in Britain and Ireland. Those in pink are the earliest known examples, opened *c.* mid third millennium cal BC. Those in grey were opened slightly later, *c.* late third millennium cal BC onwards

Copper ore is a compound or mineral which can be reduced to release the element Cu. Examples of copper ores include malachite, azurite, chalcocite, bornite and chrysocolla, although chalcopyrite and the oxidised ore group are the most commonly found in

Britain and Ireland (Hall 1990: 78). Where ore reaches the surface, weathering horizons develop as impurities leach downwards, leading to successive strata of pure or native copper, zones of oxide and carbonate ores, followed by sulphide ores where impurities such as arsenic, antimony, lead and silver accumulate (Sherratt 1976: 570). Below this horizon of secondary (i.e. 'weathered') sulphides are the unaltered sulphides such as chalcopyrite. The production of pure Cu can occur unaided in micro-environments such as swamp iron-pans, producing 'native' copper which was utilised in prehistory through hammering and annealing. However, Cu can also be produced through smelting; generating temperatures of over 880°C will reduce chalcopyrite ore sufficiently to be cast into a mould (Craddock 1995: 122; 137). Copper ore smelting in Early Bronze Age Britain and Ireland often did not generate many secondary products like slag, since the temperatures involved were not sufficiently high to reduce the ore completely (O'Brien *et al* 1990). This explains why much contemporary metalwork is high in sulphides; chalcopyrite, a sulphide ore, needs additional roasting before smelting to remove all of the sulphur (Sherratt 1976: 570; Craddock 1990: 69-71). Beaker period copper was often unintentionally alloyed with nickel, antimony, arsenic, sulphur and iron which occurred naturally in the deposits (Budd *et al* 1992: 679).

Copper ore can be extracted through both surface and underground workings, although deep shaft and adit mining were only practised at two locations in Britain and Ireland at this time; Great Orme and Mynydd Parys (Rothenberg & Blanco-Freijeiro 1981; Johnston 2008: 192). Unique in this respect, most ore extraction at these two mines probably occurred later than at Copa Hill and Mount Gabriel (ch5: p246). Copper-rich seams which are accessible from the surface often occur in uplifted and weathered igneous intrusions or exposed sedimentary beds, whilst tin oxide (cassiterite) is usually found eroding from granite gravels in streambeds. The first tin-bronzes were probably alloyed in the twenty-second century cal BC in Ireland (O'Brien 2004b: 5), and perhaps as early as the twenty-third century cal BC in Britain (Needham 2005: 209)[61]. Gold was similarly hammered into objects from around this date (Needham 2005: 209), or perhaps even from the twenty-fourth or even twenty-fifth centuries cal BC (Bradley 2007: 148). For prehistoric mines to become established, overlying geology had to be soft or jointed enough to be worked by hand, and the local water table had to stay low (Hall 1990: 80).

[61] Again, see Appendix B: p361-4 for further discussion of Late Neolithic to Early Bronze Age metallurgy

Some deposits may have been easily worked; in the late eighteenth century, copper ore was found lying loose in small heaps on the floor of a cavern near Dodington, Somerset. Others, such as gold-rich seams in the Dolgellau gold-belt, Gwynedd, were too hard to penetrate (Hall 1990: 80).

Thinking mining

Automatic liminality?

Ore extraction in non-western societies is often understood through mythological knowledge, with associated metallurgical procedures linked to concepts of transformation (Knapp 1998: 2). For example, the various Native American communities who dug catlinite from quarries at Pipestone, Minnesota USA, associated the 1km line of mining pits with cosmogonic stories and fables concerning the Great Spirit and the thunderbird, a great cataclysmic event and pervading peace (Scott & Thiesson 2005: 143). Similarly, during the early twentieth century, the Ojibwe still revered the abandoned copper ore mines on the Keeweenaw Peninsula and Isle Royale, Michigan, USA, believing that the deposits formed the body of the unpredictable and dangerous Underwater Manitou (Clark & Martin 2005: 118-9). Topping & Lynott (2005: 186) suggested that this kind of association of cosmological beliefs with mining sites frequently manifests itself as a series of common performances. These include ritualised pre-extraction preparations, carefully focussed extraction procedures, and post-extraction acts including artefact deposition. The quarries and faces themselves can also provide a forum for ceremonies less directly associated with mining, such as the initiations of some Australian Aboriginal communities (Flood 1983). For example, the two Woiwurrung 'custodians' of the Mount William greenstone quarry, in Victoria, Australia, were also responsible for the male circumcisions ceremonies which were performed on site during the early-mid nineteenth century AD (McBryde 1984: 272). Such transformative rites clearly link to the symbolism associated with changing one materiality into another, in this case the stone nodule into the tool.

Miners are often subjected to taboos which regulate their interaction with non-miners (Topping & Lynott 2005: 187), many of which inhibit specific sexual behaviour (Knapp 1998: 11). Both Eliade (1978) and Herbert (1993) have likened mining to the birth of an infant, drawing on parallel rites of passage to illustrate how ore extraction frequently requires social mediation. Communities engaging in mining often follow strict

behavioural norms to this effect. For example, in many African societies, miners who demonstrate exceptional ability are ostracised as 'witches' (Herbert 1993: 15). Prehistorians have absorbed these kinds of ethnographic precedents in their representation of procurement processes as generally polluting. As already mentioned (ch5: p244), within archaeology, much has been written on the idea that digging into the ground often crossed between, or confused ontological categories (Knapp 1998; Edmonds 1999: 42; Topping & Lynott 2005: 190; Johnston 2008: 196). The formation of spaces which transcended the boundaries of the sky, land and sea supposedly challenge contemporary cosmologies and emphasised their intermediateness. Entering these dark and enclosed places might have also been disorientating and frightening, leading to comprehensions of mines as alternative realms where logic became redundant. The procurement of raw substances there, intended for shaping into long-lived, ritually deposited or 'significant' objects, might have added to this diagnostic liminality, danger and ultimate profanity (Bradley 2000a: 85-90; Cooney 2000a: 192).

In these examples, prehistorians make two assumptions: firstly that liminality retains similar cross-cultural meanings (including inherent profanity) beyond its core definition (ch2: p38-42), and secondly that people in the past automatically conceived of the world in terms of stratified spatial zones. In chapter 2 (ch2: p40-2; p54-5) I argued against the presumption that liminality automatically equates to profanity[62]; taboos do not always, or even necessarily, derive from the crossing of ontological boundaries. The uncritical application of Cartesian logic to past cosmological orders also denies the social relativity of all knowledge (e.g. Scheler 1925; Berger & Luckmann 1967) (ch2: p21-9). So, even if prehistoric people defined the world in terms of the heavens, earth and underworld, a characteristically western construct, subsequent characterisations of ground-penetrating mines as both liminal and profane have to be justified. A more in-depth consideration of ethnographic mining lives challenges these and other generalisations in the archaeological literature. From the Huli and Paiela gold rush example outlined below, we can see that the practice of mining can often fit into, and recursively affect ongoing cosmologies. This is not necessarily a confrontational process, and does not automatically result in the profanity of associated performances, products and miners.

[62] Although tabooed entities are usually characterised as liminal (ch2: p54-5)

The Mount Kare gold-rush

Between 1988-90, surface gold was found and quickly exhausted by the Huli and Paiela communities living to the north and south of Mount Kare, Papua New Guinea (figure 5:31). These peoples' belief systems engage with some tenets of Christianity, but are still fundamentally totemic (Biersack 1999: 71). Mount Kare had been, and still is the focus of origin myths; Taiyundika, an anthropomorphic python ancestor, was murdered by one of his daughters and thrown into Lake Kare. The body of Taiyundika is thought to have both formed and orientated the mountains and rivers of the highlands. His four children then populated the region, triggering the start of the current 'epoch'. As the germ and hub of life around Mount Kare, the gold found locally is conceived as the flesh, faeces or bones of the python ancestor, his gift to the local people and a signal of the impending end of the current epoch. This significance inspired the mining frenzy at Mount Kare as much, if not more than, the monetary value of the gold (Biersack 1999: 70). To obtain the nuggets, villagers had to dig into colluvial and alluvial silts on the slopes and floodplains of the Mount Kare uplands (figure 5:32). The 20,000 square holes they created were quite large. However, even though the Huli and Paiela perceive of the world both stratigraphically and corporeally from 'heven' to the horizon, ground (earth-skin) and inners (earth-bone), these mining pits were not conceived as infiltrations into the surface of the cosmic order. Instead, the holes were finite, momentary exertions, and the gold they yielded was an extraordinary, furiously expendable and degradable substance (Biersack 1999: 77). People were immediately certain that the "ground would end", spending their gains on extravagant perishables in an attempt to purge themselves of the gold. Normally sustaining their lifestyles through hard labour, Huli and Paiela were extremely concerned that the easy nature of life from gold was "not right". It was a gift from the python which they were entitled to take, but the millenarian nature of the experience worried many into quickly disassociating themselves from it. The Mount Kare gold rush marked the start of the end; ongoing mining since the rush is depleting the reserve of Taiyundika's substance and the Paiela and Huli know that the ground will end when the gold is fully removed. Believing that this cycle has recurred many times previously (Biersack 1999: 79), this imminent fate is paralleled through the understanding of everything associated with mining as transitory.

Figure 5:31 Photograph of Mount Kare and its environs, Papua New Guinea

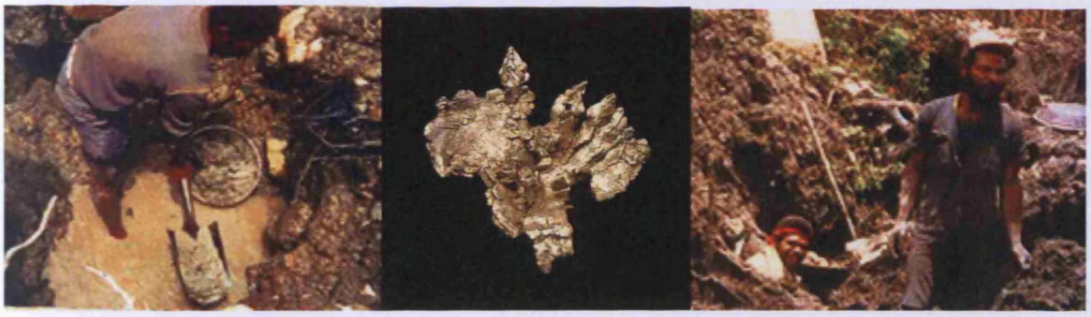


Figure 5:32 Photographs of local miners and gold nugget during the 1988-90 Mount Kare gold rush

Europeans are increasingly present in the region since the gold rush, and the Huli and Paiela consider this foreboding since the former do not have to toil for their subsistence, have mechanised transportation and inexplicably acquire money to exchange for their necessities. European life is therefore synonymous and even interchangeable with the extremities of the gold rush, when the norms of daily life were reversed. Arriving on Mount Kare by plane or by marching straight up to the peak, Europeans are thought to derive from the sky. They are omnipresent, immortal and use their technology to reveal the secrets of the python. Stories of sightings of Taiyundika and his daughter within a

mining company's computer further signaled the forthcoming apocalypse by these transient, all-seeing people (Biersack 1999: 80).

Prior to 1988, Mount Kare was known as a highly sacred place where the sexually active were prohibited. The Huli and Paiela conceive of sex as they do gold; necessary but cumulatively dangerous, ultimately resulting in the death of both the protagonists and the world (Biersack 1999: 78). Any ceremonies performed at the mountain could therefore only be conducted by sexually inactive or virginal men. During the gold rush this was overtly flouted through the presence of women, sexually active men and worse, prostitutes and adulterers, all of whom were held directly responsible for outbreaks of sickness amongst the gold diggers (Biersack 1999: 78). This added to concerns about disengaging with the gold as quickly as possible. Europeans settlers since the gold rush engage in cohabitation, promiscuity and childbirth with seemingly no retribution (they live longer and die slower or even not at all). This is not considered polluting but simply mysterious and again indicative of imminent apocalyptic change. Uttering the names of Taiyundika's three daughters (*ambi*, *lipi* and *napi*) was also prohibited on Mount Kare, but these words are commonly used as spatial indices amongst Ipili speakers. A few incidences of 'gold fever' were attributed to the mentioning of these words, whereby the demons and daughters of Taiyundika 'ate' the perpetrators into lunacy.

In many ways therefore, the gold rush seems to have been characterised by the Paiela and Huli as both intermediary and abnormal (figure 5:33). The millenarian perception of the gold rush not only situates the mining experience betwixt and between two genealogical and cosmological epochs, but converts the discovery of gold into a metonym for this transformation. The simultaneous appearance of intrinsically evanescent Europeans is considered distinctly abnormal both in terms of their noted previous absence at Mount Kare and their unaccountable ability to subsist or yield without labouring, travel without moving and 'see' without looking (e.g. through PCs). This abnormality derives from the characterisation of the whole experience as distinctly not 'usual': extraordinary even (Biersack 1999: 77). The haste in which gold was mined and spent, and the punishments linked to the abandonment of established behavioural taboos at Mount Kare, derive from the characterisation of elements of the rush as dangerous. However, as detailed above, pollution knowledge enveloped Mount Kare at the time of the discovery of gold, and this complicates how the practice of mining itself was understood.

Characterisations of mining by the Huli and Paiela at Mount Kare, Papua New Guinea

Liminal

Definition – 'betwixt and between'

Additional meanings – millenarian

Evidence:

- Believe that the world will end when the gold is depleted
- Believe that life exists through cyclical epochs, and that they are at the end of one

But NOT profane (only 'un-permitted' interactions with the gold, the mountain and Taiyundika are taboo)

Evidence:

- None of the tabooed infringements and managed rites related to the extraction pits

Abnormal

Definition – 'not usual'

Additional meanings – reversal of 'what went before'

Evidence:

- Digging holes for nuggets considered much easier than 'what had gone before' e.g. ploughing
- Desire to rid themselves of the gold because it was "not right"
- The perception of the presence of Europeans and their 'odd' ways

Figure 5:33 Chart depicting characterisations of mining at Mount Kare

Whilst gold, like sex, is seen as necessary but cumulatively dangerous, I do not believe that its extraction is polluting to the Huli and Paiela since none of the tabooed infringements at Mount Kare directly related to the extraction pits. The danger and profanity instead revolve around the mountain as a node for interaction with Taiyundika and his offspring, centering on specific forbidden engagements (e.g. speaking the ancestral names or visiting Kare Lake, but critically, *not* mining). Although gold is the faeces or substance of the snake, mining it is not dangerous because it is a gift. Mining at Mount Kare is characterised as a liminal practice by the Huli and Paiela, but this relates to its occurrence at the end of the epoch rather than comprehensions of the act of digging into the ground. Despite perceiving the world through dimensional layers, creating a hole in the ground is only meaningful through its stark contrast with ploughing, mending a fence and roofing a house. The pit (and mining) therefore represents the reversal of normality whereby life suddenly becomes incredibly easy (Biersack 1999: 79). For the Huli and Paiela, mining does not confuse ontological categories but validates them. The discovery of gold was comprehended within their cosmogonic knowledge, meaning everything associated with it links to Taiyundika and the impending end of the current era. As a result, mining provides a unique permitted

engagement with the python and the world he created, betwixt and between the destruction of the gold, and ultimately the world.

Copa Hill, Cwmystwyth

Introduction

Located twenty-five kilometres inland along the Ystwyth river valley, Copa Hill in Ceredigion is one of twelve known Early Bronze Age opencast workings situated within the Central Wales Orefield (Timberlake 2003: i) (figures 5:34 & 5:35). It is situated at 426m OD on the north side of the U-shaped Ystwyth valley, over-looking both its floor 180m below to the south and that of the narrower and steeper Nant yr onnen valley to the west. Unusual in its scale compared to most other examples, the site comprises a trench mine which followed the Comet Lode fissured vein of the sulphide ore chalcopyrite (figure 5:36). This vein ran south-west – north-east as several inter-cutting, diving and resurfacing faults, meaning the opencast consisted of several exploitation channels which eventually conjoined. The south-western area of the opencast and various parts of the wider vicinity have been archaeologically excavated (Timberlake 2003). Prior to its prehistoric exploitation, the fissured vein outcropped as a 2-3m high cliff face, noticeable from the valley below due to the orange and green/blue staining of the iron carbonate and copper minerals. These oxidised compounds may have even been collected for pigmentation during earlier prehistory (Timberlake 2003: 103).

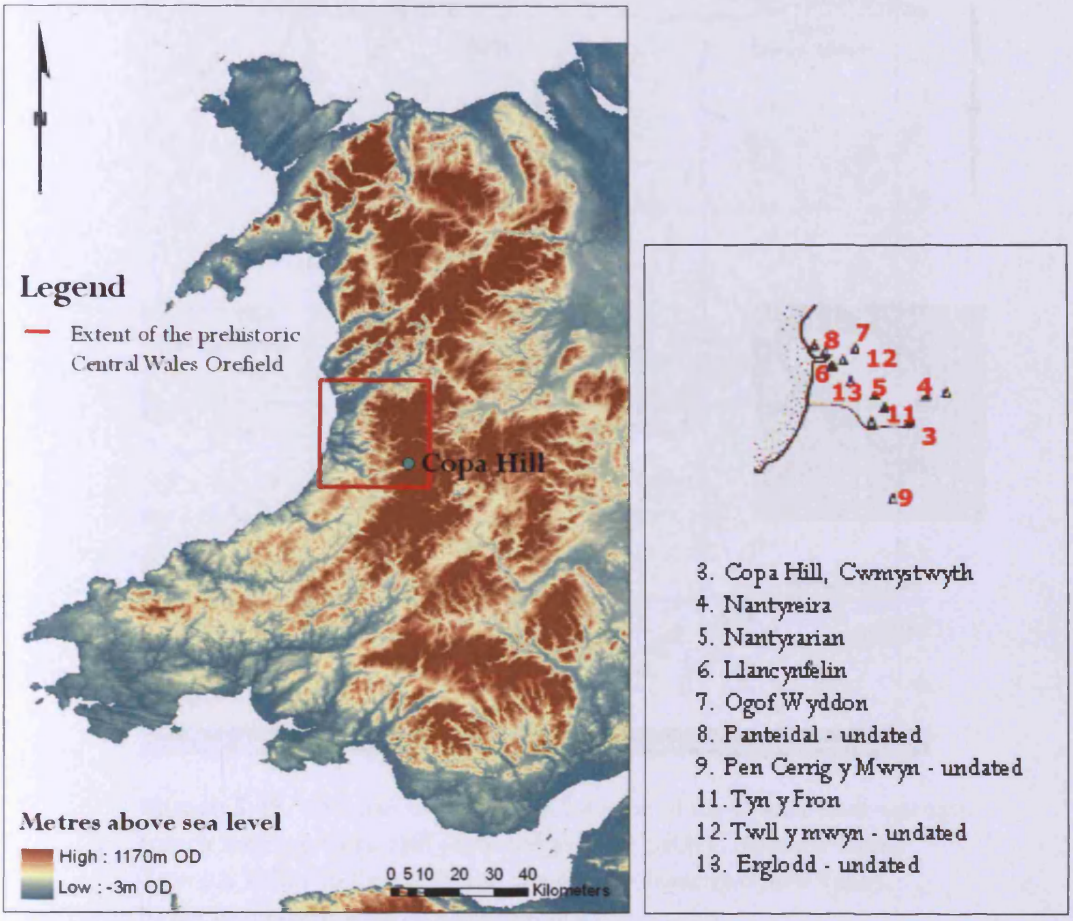


Figure 5:34 Elevation map depicting the location of Copa Hill, with the extent of the prehistoric Central Wales Orefield highlighted. The twelve Terminal Neolithic to Early Bronze Age mining sites currently known within this area are featured to the right, with those currently excavated named (*from* Timberlake 2003: 2)

Figure 5:35 OS map depicting the location of the Comet Lode opencast trench mine on Copa Hill (denoted as a red circle). Note the Upper Ystwyth Valley to the south and the narrow Nant yr onnen Valley, to the immediate west (both unlabelled)

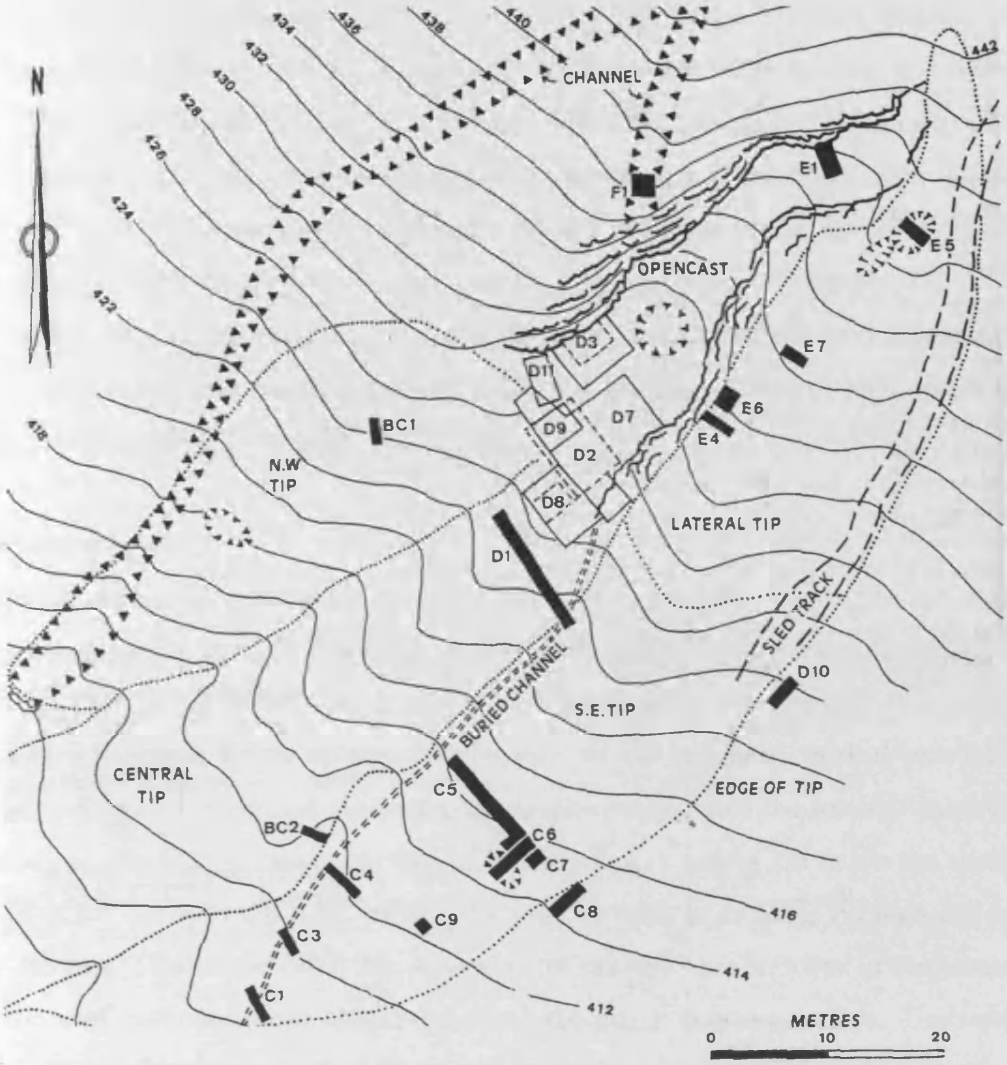


Figure 5:36 Plan of the Comet Lode opencast trench mine showing trenches from the 1986-99 excavations (*from* Timberlake 2003: 22)

The earliest mining of copper ore on-site commenced at about 2500 cal BC, when chalcopyrite was collected from the surface and some shallow pitting, undercutting and fire-setting occurred along the exposed fissure (Timberlake 2003: 103). Following a hiatus in this practice, extraction recommenced at around 2000 cal BC and continued regularly until around 1600 cal BC. On-site activity appears to have peaked in intensity between 1900 and 1850 cal BC when shafts reached depths of 12 metres, after which people removed the ore more intermittently and closer to the surface. Based on the presence of sapling foliage in the trench mine deposits, most of the mining praxis happened during late spring/early summer visits, leading Timberlake (2003: 112) to suggest that the protagonists were non-metallurgical specialised herders moving through

upland pastures. No settlement evidence was found around the opencast, and the oak brushwood and stone cobble tools used were derived from valley bottom and coastal areas. There was also no evidence for smelting on-site, suggesting that visits were short-lived with ore concentrate taken elsewhere for processing (Timberlake 2003: 112-3). Moderate local deforestation contemporary with the depletion of the fissured vein may also relate to the increasing use of the uplands for grazing herds (Mighall 1990: 65-7). Three Early Bronze Age cairns were located on ridges and prominent spurs close to the mining trench, one directly overlooked by it 600m to the east on the opposite side of the Nant yr onnen valley (Timberlake 2003: 14-5).

Familiarity at Cope Hill

Repetitive, referential extraction strategies:

Focusing on activity at Copa Hill between 2000-1750 cal BC, the repetition and therefore incessant referencing of previous performances seems apparent. On each visit, people resumed the pursuit of those parts of the vein which had been worked previously, prospecting around them and attempting to predict the route of the various faults. For example, in area D3[63] in the north face of the opencast, a gallery 2m below the surface was pounded out to reach 0.8m wide at the top, 2m wide at its base, 1m high and just over 2m long (Timberlake 2003: 29). A swelling of ore had been removed in the process, but the roof had then been attacked further creating a concave surface. Timberlake (2003: 29) suggested this resulted from an attempt to meet up with another stretch of fault, known to lie through barren rock just beyond it, which was subsequently abandoned. Through the creation of progressively invasive cavities such as this gallery, people followed surface outcrops until they were exhausted or became vertical columns penetrating too deeply into the hillside. A fissure (1) which turned near vertical at the south wall of the opencast in area D7 was followed to a depth of at least 10m from the surface via a narrow, foothold free shaft (Timberlake 2003: 46-7). Similarly, a minor vein (fissure 2) was followed from both directions, presumably at different times. The vigour of this pursuit is exemplified by the near-exhaustion of chalcopyrite veins today (figure 5:37).

[63] Hereafter figure 5:36

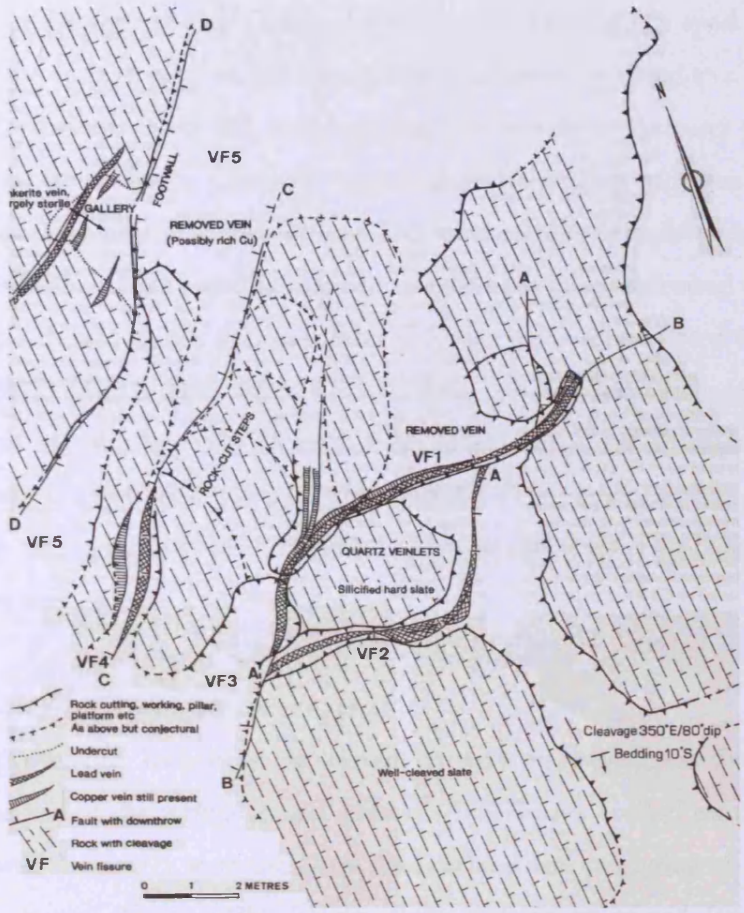


Figure 5:37 Conjectured plan of mineral veins and faults within the front-central area of the Comet Lode opencast (*from* Timberlake 2003: 101)

Repetitive, referential extraction techniques:

This theme of repeating past activities can also be seen in the continuity of extraction techniques. Hammer-stones and antler picks were used to initially pound at the chalcopyrite throughout the life of the mine. The handle of an antler hammer (077) found in the southern part of the opencast at Entrance A (area D8) was radiocarbon dated to *c.* 1886-1529 cal BC (OxA-6684) (Timberlake 2003: 45). A broken antler pick was found *in situ* within an earlier spoil tip running laterally along the eastern edge of the opencast. The layer in which this tool was found contained oak branch-wood that was radiocarbon dated to *c.* 2125-1786 cal BC (OxA- 10044) (Timberlake 2003: 51). Hammer and pick marks, as well as finer chiselling gouges, were also found in various layers across the excavated mining faces, indicative of the durability of near-identical performance for around 250 years. Undercutting faces to create overhangs associated with fire-setting also seems to have been repeated throughout the Early Bronze Age, probably originating at

the very start of mining on-site. Charcoal found at the base of the spoil tip which ran laterally along the eastern edge of the opencast was radiocarbon dated to *c.* 2884-2506 cal BC (Wk-9544) (Ambers 2003: 55), and seemingly derives from the early working of an exposed vein in the cliff-face. Charcoal fragments underlying an undercut part of a vein running through Entrance A (areas D8 and D2) were radiocarbon dated to *c.* 2129-1777 cal BC (OxA-10043), whilst a similar deposit of part-carbonised firewood underlying the gallery in the north face of the opencast (area D3) was radiocarbon dated to *c.* 1907-1639 cal BC (BM-2812) (Timberlake 2003: 47; 33). Spoil thrown into the base of the centre front section of the main open-cut trench (area D7) when it was abandoned due to the infilling of peat *c.* 1878-1623 cal BC (OxA-10022) (Timberlake 2003: 47-8) included wood shavings and lighting splints, again indicative of the longevity of this performance throughout the site.

Repetitive, referential processing techniques:

Once chalcopyrite ore had been extracted, it was processed in the same places throughout the use of the mine. Several smoothed platforms created on the east side of the opencast wall (area D7) were used for the crushing and pounding of the coarse ore with hammer stones (figure 5:38). These shale and quartz-veined benches were so thoroughly and systematically battered that hollows had formed on them (Timberlake 2003: 36). Ore preparation and separation activities also occurred on the floor surface to the south of these platforms at Entrance A (areas D8 and D2). Cyclical layers of crushed ore and hammer-stone flakes denote the sustained use of this second area for processing, probably during the middle-later phase of mining on-site (the overlying sediment contained antler handle 077, radiocarbon dated to *c.* 1886-1529 cal BC) (OxA-6684) (Timberlake 2003: 45). A third area of processing also existed down slope of the opencast, around the spoil heaps to the south (Timberlake 2003: 103-4). It would seem that as people pursued each vein, certain places for crushing, washing, separating and stockpiling became established, resuming these roles during subsequent visits.

Figure 5:38 Photograph of east side of the Comet Lode opencast and top of rock pillar (Bench 1) exposed during excavation (*from* Timberlake 2003: 36)

Static, referential mining *modus operandi*:

Miners chose to re-enact previous techniques, tools and spatial organisation for hundreds of years, meaning abandoned performances were resumed every time people visited. There was clearly a 'mining' *modus operandi* at Copa Hill, and I suggest that this derived from people thinking about mining in similarly clear and static terms. I argued previously (ch4: p107-10; p138-41; p147-8; p169-71), that a key determinant of familiarity in the Late Neolithic to Early Bronze Age was repeatedly re-engaging with taskscape in a referential way. Assuming this holds relevance at Copa Hill, the repetition of very specific, referential performances there implies a sustained perception of mining as 'sufficiently' engaged with in the past; i.e. that it was 'familiar' (ch2: p44). This had nothing to do with the frequency of visits there (ch2: p32; 44), although by the twentieth century cal BC the opencast, glowing from the orange and green/blue oxidisation staining, had become a node in journeys up, down and beyond the Ystwyth Valley (Timberlake 2003: 103). Visits were more regular and pre-determined than those made to the many sporadically occupied herding sites across the uplands. People carried beach cobble hammerstones and sapling oak brushwood on journeys upslope; their presence at Copa Hill already decided as they left the coastal plains in the early spring (Timberlake

2003: 112). The performances enacted when they got there were equally as predictable. However, miners did not passively adopt normative roles. On the contrary, they actively followed static behaviours within social contexts that were constantly changing; these were deliberate performances which passed comment on the familiarity of mining.

As already mentioned (ch5: p258-9), it seems likely that miners at Copa Hill were experienced but non-metallurgically-specialised herders (Timberlake 2003: 112). Whilst I argued earlier in this chapter that herding can be more than a practice, often constituting life itself (ch5: p207), mining can reasonably be perceived as an engagement which is identifiable within daily life. It happens in a specific place on specific occasions, and although its products can colour existence beyond their creation, the practice of mining itself is inactive once the herders have moved on. That said, mining was undoubtedly comprehended, and re-comprehended at other moments, but these concessions were formed as herders' rather than miners' perspectives. I suggested that the familiarity of associated herding performances is irrelevant to people who think through their livestock (e.g. the Nenets) (ch5: p193-4; p207-8). If the herders moving through and beyond the Ystwyth Valley were similarly animistic, perceptions of the Comet Lode opencast as familiar may have been reified. Engaging in a world where familiarity was not a concern for most of the time, mining life may have been distinct: clearly differentiated as a stand-alone practice. Based on limited tree cover adjacent to the mine itself (Mighall 1990: 67), livestock may have been grazed locally during visits. Hours spent within the opencast therefore openly incurred disassociating oneself from the herd by dropping out of immediate sensory contact with them. Understandings of mining as 'sufficiently engaged with in the past' were enhanced through this delineation, which might in part explain why knowledge about it remained rigid for so long (ch5: p262).

Normality at Copa Hill

Co-operation through communality?:

I also argued that although forest herders were visually obscured from one another, they were constantly aware of others' performances through co-operative action (ch5: p208). Upon arriving at Copa Hill, herders emerged from birch, oak, alder and hazel forest on the slopes of the Ystwyth Valley (Mighall 1990: 65) having spent the last few hours in constant, purposeful communication. As a result, they shared similar life knowledge regarding herding (Chambers 1983: 482-4), negotiating a common logic through their

interactions. Once inside the mine, people were once again obscured from one another. From 2000 to 1800 cal BC, the worked opencast consisted of two main trenches, with numerous minor offshoots and access cuts following fissured veins (Timberlake 2003: 105). Flooding during the eighteenth century cal BC meant that extraction focused on the principal vein trench in the north (area D3), although prospecting and procurement activities started at this time in the south-west of the opencast (areas D9 and D11), and ore processing continued on the floor at Entrance A (areas D8 and D2) (Timberlake 2003: 104). Unless they worked in teams, most members of small herding groups working within the galleries, shafts and trenches would have only been mutually aware through deflected sound and passing glimpses. In contrast to the practice of herding, mining probably did not require the same degree of co-operation. People did not need to be aware of the specifics of each other's performances in the same way; movements, decisions and actions did not affect each other so immediately. Seemingly therefore, mining was not a communal practice in that agencies were not responsively linked, meaning knowledge about it should have been more personal and less explicit, uniform, wide-reaching and durable (ch4: p125-8). However, I have already demonstrated this not to be the case with regards its characterisation as familiar (ch5: p262-3), and I believe one of the reasons for this relates to a second observation about mining at Copa Hill.

Communal movement:

As they mined, people adopted routine patterns of movement which were *consensually and very publicly observed.* Several minor veins were converted into access-ways and furnished with steps and ladders. During the exploitation of a vertical fissure (1) (area D7) in the twentieth century cal BC, the floor of Entrance A to its immediate south (area D8 and D2), was established as an access route to the shaft. This area later became an entranceway into the mine itself, and one of the main exit routes for spoil (figure 5:36) (Timberlake 2003: 46-7; 103). As well as the still-active mining trench of the southerly horizontal stretch of the vein that plunged vertically at fissure 1, Entrance A was also used for ore processing as already mentioned (ch5: p261). The sediments of debris from these performances were so heavily compacted that this trench probably continued as an extraction, processing and pathway space until the mine was abandoned *c.* 1600 cal BC (Timberlake 2003: 39; 45). To the immediate west of area D2, a series of rock cut steps were pounded out as a second access route at the southern edge of area D7, near the opening of fissure 1. The surface of these wide steps was abraded with small pockets of

compacted sediments, and the channel itself was widened and deepened *c.* 1900-1850 cal BC (Timberlake 2003: 103), indicating that this route-way was in use for some time. The channel was decommissioned with spoil whilst the mine was still operational, probably during the eighteenth century cal BC since an oak stemple beam found in its fill was radiocarbon dated to *c.* 1964-1749 cal BC (OxA-10025) (Timberlake 2003: 49). Fragments of wooden ladder rungs and strong withy ropes were also found preserved in silts throughout the opencast (Timberlake 2003: 71), originally positioned to assist access at other steep drops or inclines. Crucially, people not only used these installations over several centuries, they also respected them enough to refrain from blocking or dismantling them from one visit to the next.

Communal spoil strategies:

Conceded strategies for depositing unwanted processing debris also seem to have been communally adhered to throughout the usage of the mine, despite the suggestion that most miners worked on their own (ch5: p263-4). Initially spoil was piled laterally to the east (Lateral Tip[64]), covering prospecting and extraction deposits from earlier in the third millennium cal BC. By *c.* 1950 cal BC, the deposition of spoil shifted south-west of the opencast via Entrance A (Central Tip). This material was more systematically removed than before, when it had been thrown over the immediate limits of the trench. Deposition on the Central Tip continued into the nineteenth century cal BC, with an extension to the south-east (South-East Tip). During the later nineteenth century cal BC, spoil began to be backfilled into the abandoned south and eastern vein workings actually within the opencast, although fresh deposits were made just beyond the Lateral Tip during the early eighteenth century cal BC. Spoil blocked Entrance A at this time, and was allowed to accumulate within this cutting thereafter until the trench finally filled with slumped or re-deposited tip material (Timberlake 2003: 104). This shifting of tipping around the opencast cannot be explained by the movement of exploitation surfaces within the opencast since several areas were consistently worked at once. Also, there is limited evidence for spoil heap slumps, meaning people were determining the location, quantity and angle of spoil deposition. Large boulders were placed over the bedrock surface underneath the Central Tip before tipping began, probably to stabilise the base and prevent slippage of material downslope, or into the mine drainage channel (Timberlake 2003: 23). This planning of spoil deposition, rather than management of

[64] Hereafter figure 5:36

subsequent slumping is visible across the site. For example, the south-east edge of the South-East tip was bordered at one stage by a stone kerb (Timberlake 2003: 53). Again it would appear both that people communally observed performative norms during visits to Copa Hill, and that these were remembered and enacted upon during subsequent stays. Far from being static however, this tipping 'strategy' was fluid and constantly re-negotiated throughout; the location and form of spoil deposition regularly shifted. Key is that every miner respected and followed whatever strategy was current, meaning each renegotiation was consistently logical to each miner's world view.

Communal water management:

Another key example of co-operation and consensus is the management of water at the mine. From early in the history of Copa Hill, arriving on-site in the late spring involved dealing with the perennial flooding of the trench floor (Timberlake 2003: 103). This initially took the form of sloping the opencast floor to prevent standing water such as the rock-cut base of the Entrance A cutting (area D8 and D2), which was angled so that water would drain through a gap in the eastern face (Timberlake 2003: 45). From *c.* 2000 cal BC, a series of crafted wooden launders were moved around the mine floor to drain water away from the disturbed spring-lines (figure 5:39). These led to a subterranean drainage channel which directed it downslope to the south-west (figure 5:36). By *c.* 1900 cal BC, flood water was physically raised out of sumps and shafts, and onto the launders using ropes and skin bags (Timberlake 2003: 39; 103). Brushwood, branch supports and flat stones were carefully placed to maintain the gradient and stability of the launders, which often sat in specially made cuts in the floor. By *c.* 1850 cal BC, the bottoms of the north-eastern trenches were semi-permanently flooded, meaning extraction continued from the upper strata only (Timberlake 2003: 47-8). Spoil infill that accumulated in Entrance A in the second half of the nineteenth century cal BC was repeatedly dug into, and the launders exhumed and re-positioned (Timberlake 2003: 104). This apparatus remained in-use at Entrance A, which was 1-2m clear of the flooding, until the end of the eighteenth century cal BC when an *in situ* length was charred as fire-setting embers were spread over it (Timberlake 2003: 39). For 250 years therefore, returning groups habitually re-used the same material culture to reduce flooding. The sections of launders, the subterranean drainage channel beyond the mine, and the flat stones were re-deployed on each occasion, each very openly materialising group engagements with agreed

knowledge. People took established entities and both actively and very publicly re-conceded them according to current logic of how to 'best do' in the mine.

Figure 5:39 Left: Photograph of excavated Deep Fissure 1 (foreground) with the remaining section of launder, which originally ran to the edge of the fissure, resting on top of basal mining sediments in Entrance A, Copa Hill (*from* Timberlake 2003: 39).Right: Photograph of section of alder launder lying *in situ* in the middle part of Entrance A, Copa Hill, resting on stone supports within re-cut ditch in basal sediments (*from* Timberlake 2003: 70)

Communal mining *modus operandi*?

Clearly the periodic visits to Copa Hill comprised numerous 'ways of doing' that every miner followed. Unlike the repetitive nature of the familiar performances already discussed (ch5: p259-63), their form was dynamic; the way in which access and egress, spoil and floodwater were managed was never fixed. There was no constant way of doing; current normative performances were discursively linked to ongoing social discourse in a way that meant they changed as interactions changed. However, critically these norms were observed by all. There seems to have been little disparity in the group's performances from one day to the next whereby access, egress, spoil and flooding were all engaged with by everyone in the same way. Changes may not have related to separate visits, but were instead re-concessions of how 'best to do'. These normative shifts may have been un-intended; discursive consequences of intra-group relationships, or they might have been deliberated responses to immediate concerns such as rises in floodwater (ch3: p75-7). Far from deriving from a single authority (ch2: p28-9), I believe this

synchronism of performance relates to the concession of mining as 'normal' within local contemporary communities. Earlier in this chapter (ch5: p211-4) I argued that normality, as the knowledge that something is known to be usual or commonly upheld (ch2: p51-3), was linked to the communality of performances at Cefn Glas. It is possible that the Early Bronze Age groups of herders frequenting Copa Hill thought in a similar way. I have also mentioned that initially, mining at Copa Hill might seem an exclusive practice where agencies were not responsively linked (ch5: p263-4). People worked at separate parts of the vein, obscured from one another even when depositing spoil. However, and as supported by the "obvious lack of specialism" on-site (Timberlake 2003: 112), I believe that *traditionally* at Copa Hill, everyone mined. They did not need to be continually in sensory contact with one another to know this. Instead, the rigid observation by everyone of established constituent performances, such as spoil deposition, communicated collectiveness and generalism. In this way, people's engagement with agreed knowledge during the moving of the launders, walking down the rock-cut steps and extension of the Central Tip meant more than the group co-operating. It referenced and passed comment on the normality of mining life, perhaps in contrast to the abnormality of other daily practices in which people were more specialised. Procuring and processing copper ore defined community and a sense of group belonging precisely because it was known to be normal. It was what herders did when they passed through Copa Hill, and may have linked to wider understandings of herding life.

In reality, and in contrast to the normality of herding proposed earlier, everyone may not have mined. This may have been a tradition, upheld through the consensual participation of those who were involved, but it may also have been an ideal rather than an actuality (ch2: p52-3). Certain herders may have been less willing to mine, or their involvement may have been less welcome. The durability of this characterisation for over 250 years is remarkable however. It probably, alongside herding, relates to its concession within small groups rather than by singular agencies (ch4: p128-32) and crucially, the irregularity of mining as a practice (ch5: p259). Mining at Copa Hill was probably only experienced on a limited number of occasions within people's lifetimes; perhaps at late spring (Timberlake 2003: 112), in those years when herds were moved up the Ystwyth Valley rather than along the coast. In these experiential conditions, as already discussed (ch5: p262-3), the potential for open dispute was minimised, meaning its truth was less open to re-alignment. As a consequence, at times when people did not mine, the knowledge of its

normality was fairly standard and largely irrefutable. Mining was known as normal, and this knowledge remained stable until Copa Hill was abandoned.

Knowledgeability at Copa Hill

A final concern so far un-discussed is how well known mining was considered. I am unsure if we can assume that the unknown and the known held similar meanings across Late Neolithic to Early Bronze Age world-views. Analogies with sites already discussed may therefore be misguided. If we return to the idea that taboos demarcate social danger and are always interlinked with liminal practices (ch2: p54-60), we could suggest that mining at Copa Hill was conceived of as known: there is no evidence for abstinence in any of the archaeologically excavated deposits, although no associated settlement or smelting evidence was found (ch5: p259). However, there are a few suggestions of purification, or at least abandonment rites at the site. Once dug out and re-positioned for the final time at the end the eighteenth century cal BC, the launder preserved in Entrance A was covered and sealed by successive layers of hot charcoal ashes. Around two hundred years later, these layers were dug into, possibly to re-activate the drainage channel (Timberlake 2003: 39), but critically, the buried launder was avoided. During the nineteenth century cal BC, three 1-2m sections of alder and oak launders, a (possibly *in situ*) oak stemple and numerous smaller fragments of worked wood were carefully deposited into the sub-vertical exhausted Fissure 1 (area D7) (Timberlake 2003: 46-7). Timberlake (2003: 47) believed the attentive arrangement of this wood relates to their intended re-acquisition at a later date, heightened by the fact that they were not burnt for fuel. However, I suggest that they were symbolically placed following the tradition of structured deposition recurrent throughout British prehistory (e.g. Richards & Thomas 1984; Bradley 2000a: 117-131). For example, at the third millennium cal BC Grimes Graves flint mine, Norfolk, shafts continued as focal points after mining had ceased (figure 5:40) (Topping 1997: 128). Most were periodically filled with hearth material, spoil from other open shafts, ox and human bone, picks, stone axes and pottery. Whilst Fissure 1 at Copa Hill did not comprise similar distinct horizons, it is possible that the wood was just as meaningfully deposited. Some of the charcoal films excavated within the Comet Lode opencast may not have been the remains of fire-setting, but instead remnants of fires lit as acts of closure. Similarly, three hammerstones placed together in a worked-out platform hollow within a gallery (area D3) (figure 5:41) may not have been a 'cache' (Timberlake 2003: 32). Covered with debris from the final

phase of mining activity, I argue they were deliberately 'offered' rather than placed there for later re-use (Timberlake 2003: 32).

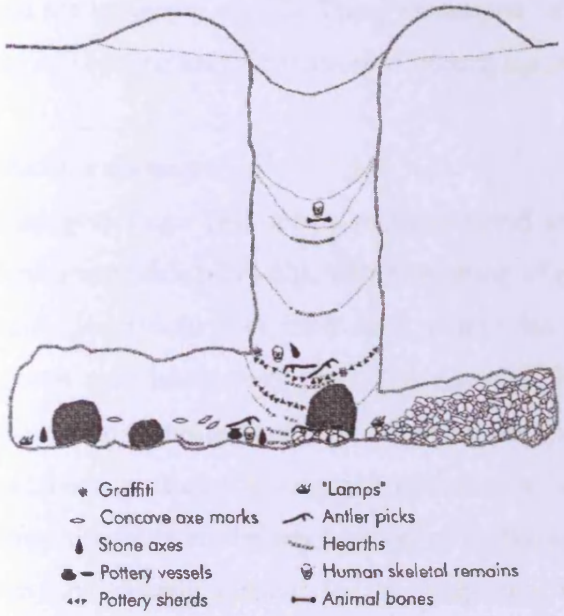


Figure 5:40 Generalised depiction of artefact deposition in English flint mines (*from* Topping 1997: 128)

Figure 5:41 Photograph of deposit of three hammerstones found *in situ* within worked-out hollow, Copa Hill (*from* Timberlake 2003: 32)

These various rites of closure interplay with themes of containment and burning: both of which were discussed in chapter 4 in relation to contemporary taboos (ch4: p143-5). Whilst the evidence is limited, perhaps in part due to the excavator's formalist approach, it is possible to suggest that some dimension of mining was profane enough to warrant its symbolic demarcation and purification upon abandonment. Following the perception of gold procurement by the Paiela and Huli of Papua New Guinea (ch5: p250-5), this taboo may not derive from the undermining of existing ontologies. Instead, copper ore extraction may have been perceived within wider cosmologies which promoted caution when closing worked-out seams. This is not to suggest that mining in its entirety at Copa Hill was considered liminal, but perhaps instead that the termination of a chalcopyrite vein was. The hammerstone and wood deposits were both placed and buried in exhausted seams, and the charcoal was spread over the launder at a time when flooding had finally inhibited mining at those levels. It is possible that the chalcopyrite seams were thought of as cosmogonic 'gifts'; bestowed by higher beings. In this instance, their

depletion or inactivation may have been conceived as the moment of interface with these entities. Assuming[65] the supernatural world was characteristically unknown, such occasional confrontations with it constituted tabooed transgressions between the known and the unknown worlds. These occasional 'religious' encounters at Copa Hill may have constituted the only dimension of mining that was characterised as liminal.

Mining: a summary

Mining at Copa Hill seems to have stood aside from herding as a distinctly familiar experience (ch5: p259-63). The mimicking of performance is remarkable considering the many generations that must have visited the site, and the possibility that some of the groups may have never met. The material taskscape which each departing visitor left must have communicated the mining *modus operandi* so clearly that the knowledge that it had been 'sufficiently' engaged with before was largely unquestionable. Indeed, it did remain static from the *very beginning* of extraction at Copa Hill, confirming that familiarity was not directly relative to the frequency of visits there (ch2: p32; p44). Herders venturing up the Ystwyth Valley not only knew that they would engage with the mine, but also knew what form these engagements would take. This may have contrasted heavily with the practice of herding livestock, which was neither familiar nor unfamiliar because it was life itself (ch5: p206-7).

The normality of mining may have aligned closely with contemporary comprehensions of herding journeys as inclusive experiences (ch2: p53; ch5: p211-4; p224-8). Despite the possibility that everyone did not equally experience mining, its collectivity as practice was again communicated through the communal installations of the mine. This was known as a normal time when performances were open and perpetuated by all. Interestingly, understandings of the interweaving seams of ore at Copa Hill may have been interlinked with the least archaeologically striking characterisation of mining. The Comet Lode chalcopyrite may have materialised divinity in a form which was 'permissibly' engaged with at Copa Hill, meaning mining itself escaped characterisation as a conceptually liminal practice (ch5: p269-71). However, dwelling at Copa Hill did incur occasional glimpses of this mythical world at times when the 'gifts' dried up, perhaps feeding a cognitive relationship between mining and the unknown. As a result of these contradictory associations, the knowledgeability of mining may have been irrelevant,

[65] And this is a significant assumption to make (ch2: p34-44; ch5: p216-7)

which is why there is no evidence for the management of transition on site beyond closure rites.

Conclusion

Key to my discussion has been the viability of considering past peoples through their comprehensions of performances, rather than taskscapes (ch5: p186-7). Whilst clearly both of these elements of life are inextricably entangled, I have demonstrated that archaeologists can move beyond the metaphysical when envisaging how people understood their worlds. How well known, familiar and normal practices were thought to be may have derived more from understandings of constituent performances than from the taskscape they were engaging with. Herding and mining were both means of dwelling which, at times, became conceptually bounded as groups of performances with a certain durability of form and association, and repetition of occurrence (Turner 1987: 22). During such periods of foregrounding, characterisations of practice occurred whereby the familiarity, normality or knowledgeability of constituent performances was conceded enough to establish understandings of the practice as a whole (figure 5:2). These reflexive characterisations were then associated with mining or herding lives or times irrespective of, or at least not determined by, taskscape setting. People visiting Cefn Glas, Newgrange or Copa Hill therefore understood their stays through their knowledge of how to be and think as a miner or herder, rather than through the taskscape in which their dwelling was embedded. As they moved through the Rhondda, Boyne or Ystwyth Valleys, they actively perpetuated herding and mining lives, but I believe they would have felt the same way about these practices at other contemporary mines and pastoralist sites. Whilst I am not denying the impact of engagements with place in terms of the perpetual re-ordering of world-views, I also suggest that sometimes, performances themselves can be conceived in abstract form.

I also aimed to de-emphasise time by illustrating that perceptions may not have been established according to chronological context (ch5: p186-7). People comprehended mining and herding within ongoing re-formulations of knowledge, meaning how previous or future expeditions were understood was essentially irrelevant. Understanding is always situated in the present. At any point, understanding can only be located within

current world-views, so the durability of certain knowledge is always the result of successive re-concessions rather than static truths. Past knowledge, which is all knowledge, is only ever relevant when recalled during the ongoing discursive concessions which enable daily life (ch2: p26-7). In non-literate societies, if knowledge is not refreshed it is forgotten, meaning how practices *were* understood can only actually be how they *are* understood (ch3: p75-7). Therefore, to understand how relevant knowledgeability, familiarity and normality were in the comprehension of mining and herding, I considered different communities rather than different 'times'.

This chapter has provided further confirmation that these three characterisations were all occasionally relevant to prehistoric peoples. Whilst my identification of knowledgeability, familiarity and normality has been founded on assumptions about what each may have meant in the past (e.g. ch5: p212; p228; p235-6; p263; p268), I have demonstrated how knowledge formation and reformation processes can be archaeologically accessed beyond conventional means. Whether these assumed definitions held meaning in the world-views of people living in the Late Neolithic to Early Bronze Age of the Irish Sea is indeterminable beyond philosophical discourse. However, I believe I have highlighted how much prehistoric knowledge is accessible once we move away from approaches which focus on subject rather than analytical forms (ch2: p29-31).

6. Discussion and Conclusion

Introduction

Following the outline provided in chapters 2 and 3, I have explored how a focus on knowledge re-constitution can enable theoretical development beyond recent thematic analyses of prehistoric lives (e.g. materiality and gender) (ch1: p5-7). I have highlighted specific rather than generalised concerns which emerged and disappeared from constantly re-worked social psyches. Building upon their core definitions, knowledgeability, familiarity and normality acquired disparate and occasionally durable meanings through their discursive re-engagement during dwelling. So whilst for those in the Clun Hills, the meaning of the known world became entwined with the stability of Long Mountain for over a millennium (ch4: p165-9; p171-5), comprehensions of what this same characterisation meant for other contemporary communities may have been very different. In this way, I have challenged absolutist assumptions which continue to be made about social cognition (ch1: p5-7), demonstrating a way in which relativity in meaning can be archaeologically accessed. This has also provided a means of exploring regionality which moves beyond problematic stylistic affinities amongst architecture and materiality (Hodder 1982; Jones 1997) (ch6: p306-8). I argue that the identification of themes which momentarily dominated how people understood life offers far more of an insight into the past than isolated or generic site and deposit analysis (ch1: p7-8). It enables a new appreciation of the multi-scalar relationships between agency and society, and how these are realised recursively and perpetually through dwelling.

I believe this is the crux of my thesis' significance; it marries cognitive social psychology with performance theory and the dwelling approach, enabling the most detailed possible description of exactly how, why and what people thought. The specificity of this analysis works simultaneously at all levels of agency, meaning the individual or dividual act is clearly related to communal knowledge, and *vice versa.* Explaining social change, the notoriously oblique pursuit of processualist, cognitive and neo-Marxist archaeologists (e.g. Renfrew 1976) can therefore also be re-addressed. Shifts in practices result from their dialectical bond with constantly re-configuring world-views. As knowledge re-concession occasionally triggers and is triggered by paradigmatic shifts (ch3: p75-7), so

practice discursively alters to retain reason and logic. An archaeologically identifiable change in practice (e.g. the general abandonment of stone circle construction in Britain towards the end of the Early Bronze Age; AppB: p384) must therefore recursively relate to some sort of paradigmatic shift. As described in chapter 3 (ch3: p88), the initial re-conceded knowledge (and dialectical change in practice) may have been trivial or unwitting. Therefore, many of the long-abandoned theories citing cataclysmic causes of change (e.g. Childe's invading 'Beaker Folk'; 1940: 91) were not only misguided but perhaps also entirely contrary.

Whilst many of these topics and assertions may not be currently fashionable, my discussion has provided new perspectives on how archaeology can address old concerns without the obligatory theoretical baggage. It is not a critical revision, nor a de-contextualised, un-deployable discursive exercise. I have instead offered worked examples of how the past can be re-interpreted in a relative and fully integrated way. Whilst my thesis does not constitute an approach (ch1: p3), it demonstrates why speculative leaps of faith are essential to the furthering of archaeological understanding. The 'validity' of the numerous inferences I made in chapter 4 and 5 (e.g. that Newgrange cattle's reproductive capabilities were taboo; ch5: p235) is only relevant at one level of debate; what arguably matters more are the wider possibilities which emerge as a result. This discussion will explore these conclusions in more depth, elucidating how my work provides an original and alternative angle for Late Neolithic to Early Bronze Age research. I will widen the focus of my study to briefly consider other analytical characterisations that could be discerned within the world-views I addressed. I will also engage with other prehistoric and non-prehistoric practices and taskscapes, suggesting possible revisions of existing archaeological interpretations. Moving beyond the remit of my study, I will conclude by arguing that future archaeological research should foreground world-views as integral to the dwelling approach.

Discussion

Critical overview: chapters 2 and 3

My two theoretical chapters (2 and 3) explored the social relativity of knowledge, drawing from the vast historiography on this subject to criticise recent archaeological approaches

which continue to presume meaning (ch2: p36-7; p44-6). Using this literature as well as ethnographic case studies, I developed a broad framework through which comprehension can be understood, integrating agency with experiences, social reality and cultural knowledges (figure 2:1; figure 3:4). In chapter 2, I re-examined knowledge itself, dividing all examples into analytical (introspective) and subject (not introspective) forms with accordingly different characteristics (figure 2:3). I expounded on the spectral nature of knowledgeability, familiarity and normality, demonstrating how these analytical characterisations, along with their core definitions, are only meaningful through the association of other knowledges (ch2: p34-7; p50-1; p53; p54-60). They are not 'absolute' measures of experience, and do not appear cross-culturally. I explored how such relative knowledges can be identified by focusing on possible manifestations of their core definitions (e.g. for liminality, the identification of separation and reincorporation symbolism such as taboos and thresholds) (ch2: p42; p54-5).

The true integration of being with knowing was examined further in chapter 3, where I considered exactly how knowledge arises, is occasionally communicated, contested, agreed upon and forgotten, and how a minimal proportion of these comprehensions become long-lived, stable and consensual social facts. I emphasised that these processes are always discursively enabled through dwelt experiences, whereby initial comprehensions are entirely embedded in practice, taskscape, daily life and so on (ch3: p74-5; p79-80). This was exemplified through the discussion of a number of 'non-individual nor group based' agencies which might affect knowledge formation processes (e.g. written texts and group size), but are all only existential and meaningful through cognition (ch3: p88-9). The general plasticity and pliability of knowledge was underlined, reinforcing how defined knowledges such as knowledgeability can fluctuate in popularity (ch3: p87-8). Both chapters ultimately, and uniquely, explain how and why specific knowledge arises and differentially subsists within social contexts.

Critical overview: chapter 4

My two case study chapters (4 and 5) applied ideas developed in chapters 1-3. Chapter 4 was directed at investigating how Late Neolithic to Early Bronze Age people understood the taskscapes through which they lived (figure 6:1). I wove comprehensions of 'places', materialities, vegetation, deaths, architectures, peoples, rivers, valleys, hilltops, performances, formal rites, fire and journeys together as active constituents of north-

western Clun Hills worlds at this time. Focusing on knowledgeability and familiarity, I determined firstly if, when and for how long each had been a relevant concern (e.g. the sustained familiarity of Long Mountain from around 2800 cal BC until after 1700 cal BC; ch4: p168-71) and secondly, what durable, and therefore archaeologically recognisable, meanings they had acquired (e.g. liminality became increasingly locked with the perceived intermediacy of the Upper Severn valley; ch4: p143). These comprehensions were accessed through the identification of common themes in practice: from the prevalence of women and infants in the Upper Severn valley funerary contexts; to the alignment of monuments and performances along routes of cross-valley movement and towards older sites; to the recurring symbolism of containment and purification; to the restrictions over access, egress and the internal body; to the remarkably consistent use of Long Mountain for summer pasture and forage.

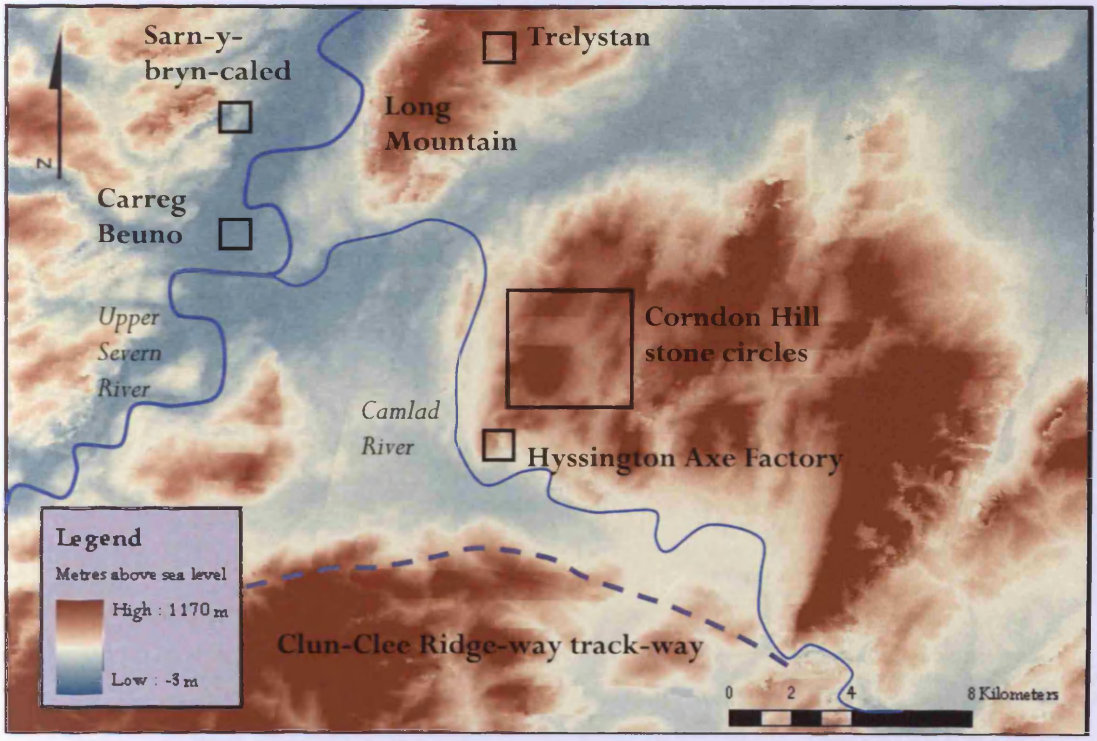


Figure 6:1 Elevation map depicting the main sites within my study area of the north-western Clun Hills

What emerged was a society which was, at times, very concerned with knowledgeability and familiarity (figure 6:2 & 3). The constant re-allocation of meaning to entities and circumstances within taskscapes was often linked to the known, unknown, liminal, unfamiliar or familiar, resulting in discursive relationships in which both subject and

analytical knowledge could become re-aligned. I argued that the popularity of characterising life as known/liminal/unknown or unfamiliar/familiar resulted in entire taskscapes becoming 'entitised' through contrast with one another. In particular, Long Mountain developed in psyches as distinct from the Upper Severn valley and Corndon Hill area precisely because dwelling through each had been understood differently. This sometimes related to contrasting forms of practice in each taskscape (e.g. the Upper Severn valley was constantly journeyed across and through; ch4: p107-8; whilst people travelled to and from Long Mountain; ch4: p163). However, it was often more implicit and related to wider cosmologies; for example, herding, hunting and foraging occurred in all taskscapes.

Knowledgeability in the north-western Clun Hills

	Upper Severn valley	Long Mountain
c. pre 3000 cal BC	Primary forest mainly intact = disparate world-views	
c. 3000-2750 cal BC	Pocketed forest clearance c. 2900-2500 cal BC = Less disparate knowledge **K - "The Upper Severn Valley is neither known nor unknown"** M - Betwixt and between = fairly taboo E - Focus of monumentality at fording points and locations mediating movement between surrounding valleys and hills. Containment of specific deaths at Penannular Ring-Ditch 1.	Extensive forest clearance c. 3-2500 cal BC = More consensual knowledge **K - "Long Mountain is known"** M - Constancy E - No taboo funerary deposits after the Pit Grave.
c. 2750-2100 cal BC	Increased forest clearance and scrub growth c. 2500-2000 cal BC = More consensual knowledge	Pasture and scrub growth maintained c. 2500-2000 cal BC = Consensual knowledge
c. 2100-2000 cal BC	**K - "The Upper Severn Valley is liminal"** M - Intermediary state of its own = highly taboo E - Management of taboo through monument form, thresholds, burning, containment, grouping of tainted items	**K - " Long Mountain is known"** M - Constancy E - Constancy of engagements through Grooved Ware and Beaker period. The pollution of the earliest funerary internments is only partial; greater variability of burial form and less concentration on containment
c. 2000-1700 cal BC	Forest regeneration begins c. 2000-1500 cal BC = Less consensual knowledge **K - "Knowledgeability is irrelevant"** E -The termini of Coed-y-Dinas Ring-Ditch II are empty, and its ditches discontinuous. No further monumentality at the fording points c. 1800 cal BC onwards	Forest regeneration begins c. 2000-1500 cal BC = Less consensual knowledge **K - "Knowledgeability is irrelevant"** E - Loss of pasture to re-growth. Even greater variety of funerary rites, limiting their symbolic capital, which cease c. 1750 cal BC

Figure 6:2 Chart depicting predominant knowledgeability characterisations of taskscapes in the north-western Clun Hills c. 3000-1700 cal BC. Text in green describes changing vegetative cover and its discursive relationship with the degree of consensus between world-views, ranging from disparate to less disparate, to less consensual, to more consensual, to consensual. K = Knowledge, M= Meaning[66] and E = Evidence

[66] Meanings are not stated for those periods when knowledgeability is irrelevant

Familiarity in the north-western Clun Hills

	Upper Severn valley	Long Mountain
c. pre 3000 cal BC	Primary forest mainly intact = disparate world-views	
c. 3000-2750 cal BC	Pocketed forest clearance c. 2900-2500 cal BC = Less disparate knowledge	Extensive forest clearance c. 3-2500 cal BC = More consensual knowledge
	K - "The Upper Severn Valley is familiar" E - Monumental accentuation of past architectures at Lower Luggy Enclosure and Penannular Ring-Ditch I and II.	**K - "Long Mountain is unfamiliar"** E - Pit Grave does not reference previous performance or architecture
c. 2750-2100 cal BC	**K - "The Upper Severn Valley is familiar"** E - Monumental accentuation of routeways at Berriew Henge and later stone circle	**K - " Long Mountain is familiar"** E - Sustained returns to the ridgeway, followed by the establishment of cross-referencing fence-lines and then mortuary structures
	Increased forest clearance and scrub growth c. 2500-2000 cal BC = More consensual knowledge	Pasture and scrub growth maintained c. 2500-2000 cal BC = Consensual knowledge
c. 2100-2000 cal BC	**K - "The Upper Severn Valley is familiar"** E - Performative referencing of past architectures at Sarn-y-bryn-caled Timber Circle	
c. 2000-1700 cal BC	Forest regeneration begins c. 2000-1500 cal BC = Less consensual knowledge	Forest regeneration begins c. 2000-1500 cal BC = Less consensual knowledge
	K - "The Upper Severn Valley is familiar" E - Monumental accentuation of past architectures at Coed-y-Dinas ring ditches and Carreg Beuno barrows which ceases c. 1800 cal BC	**K - "Long Mountain is familiar"** E - Further fence-lines and interments in barrows, which cease c. 1750 cal BC, then Middle Bronze Age spearhead

Figure 6:3 Chart depicting predominant familiarity characterisations of taskscapes in the north-western Clun Hills *c.* 3000-1700 cal BC. Text in green describes changing vegetative cover and its discursive relationship with the degree of consensus between world-views, ranging from disparate to less disparate, to less consensual, to more consensual, to consensual. K = Knowledge and E = Evidence. Meaning is not listed as it remained constant throughout ('sufficiently engaged with'), albeit with differential secondary and tertiary meanings

The true relativity of knowledgeability and familiarity also became clear. Whilst their core definitions necessarily retained value (otherwise they would no longer be analytically identifiable), meanings associated with them demonstrably differed through time, agent and taskscape, even within my 40km² case study zone. For example, I argued that by the late third millennium cal BC, understandings of the liminality of the floodplain had shifted from a sense of betwixt and between to a distinct characterisation in itself (ch4: p141) (figure 6:2). These shifting meanings occasionally gained clarity and consistency in world-views, and any such long-lived comprehension could be used to define regional or even temporal identities (ch6: p306-8). However, whilst a comparison of overall meanings shared by the people of the north-western Clun Hills and other communities might identify closer and equally more distant cosmological similarities, it is important to

remember the disparity between and even within agents who dwelt together. For example, burial I:3 at Trelystan was 'robbed', possibly shortly after its completion (ch4: p157). I argued that this act related to disagreement over comprehensions of the child's death, resulting in the subsequent re-working of both the understanding and the grave (ch4: p172-3).

That characterisations themselves wax and wane in popularity and significance within societies (ch3: p87-8) was also demonstrated in this discussion, for example in my consideration of Trelystan Barrows I and II. Whilst Long Mountain had been characterised as well-known for most of the third millennium cal BC, at around *c.* 2000 cal BC paradigm shifts had started to undermine this perception (ch4: p175-8). I argued that the reducing validity of this characterisation was discursively linked to a bundle of other possible changes, including re-forestation, transformations in herding strategy, possible over-hunting, reduced movement, decreasing slash and burn practice, a diminishing perception of the Upper Severn valley floor and associated practice as liminal, and re-concessions of the previously static meanings of knowledgeability and familiarity themselves. As integral dimensions of the dwelling and knowledge formation dialectic (ch3: p74-5), this body of shifting truths, taskscapes and practices spiralled into a trajectory of successive contradictions and re-alignments. For this reason, and recursively locked to it, burials at the two Trelystan barrows can be separated into phases I and II. The earlier burial rites, *c.* 2200-2000 cal BC still interplayed with ideas of containment and purification, albeit to a lesser extent than earlier performances downslope (ch4: p172-5). However, the later examples from *c.* 2000 cal BC onwards largely excluded these rapidly dissipating truths, instead actively and divergently re-working various elements of them (ch4: p177-8) (figure 6:3). In addition, the contrast between phase II burials is noticeable, and I suggested that this related to both the increasing dissolution of the earlier traditions and the decreasing standardisation of knowledge following centuries of engrained communal facts (ch4: p177-8).

This brings us to my discussion of two key variables recursively affecting knowledge concession at this time (ch3: p88-9): intra-group perceptibility and group size (ch4: p123-32). Woodland density increased and decreased in the case study area throughout the third millennium cal BC (Gibson 1991: 191) (figures 6:2 & 3). Unlike earlier works on 'environmental patterning', I did not portray these shifts as a result of wider changes (e.g.

Lynch 1981[67]). Instead, I considered them as situated within contemporary dwelt lives, viewing deforestation and reforestation from dwelt agents' perspectives. I explored how, as an interconnected part of the dwelling and knowledge formation dialectic (ch3: p74-5), a changing taskscape must incur shifts in knowledge about both it and other dimensions of the world (ch4: p123-4). As dwelling created new taskscapes, knowledge about novel experiences and entities was formed through discursive reference to established world-views.

Critically, I recognised how dwelling maintains a relational agency of its own in these scenarios; engagements within spatially restricted and sensorially obstructed spaces such as dense woodland, are more intimate than those enacted within unenclosed, unimpeded spaces such as open floodplain. Equally, engagements made in the former are more introspectively conceded than those in the latter due to constraints on communication (e.g. people are less able to sense others' performances when they walk single-file, instead hearing muffled sounds and acquiring partial glimpses; ch4: p125-8). Through ethnographic examples, I argued that knowledge conceded in the forest was therefore more individually unique (i.e. communally disparate) than the public truths established in the deforested floodplain (ch4: p128-31). This partly related to the number of fully engaged and communicating agents; clearly truths conceded in the open valley floor would have been more openly discernible to more people compared to those formed in the forested areas. Linking to chapter 3 (ch3: p75-7), deforestation would have therefore enabled greater communal engagement in all knowledge concessions. As a consequence, truths became more openly and frequently contested, resulting in their greater consistency, durability and eventual (occasional) institutionalisation (ch3: 74-5). In this way, woodland density and group size can both be cited as examples of 'extra-somatic' variables engaged in third millennium cal BC knowledge formation processes (ch3: p88-9). Whilst they existed and retained meaning and significance only through dwelling, they highlight how 'externalised' elements of taskscape can exert their own agency.

In summary, chapter 4 underlined how the taskscapes of a somewhat arbitrarily defined case study area may have been formulated, re-formulated, characterised, re-characterised,

[67] Lynch (1981) argued that crop failure triggered depopulation and therefore secondary forest re-growth in Late Neolithic south-west Ireland

given transient meaning and forgotten through the inter-relationships between and within dwelling and knowledge formation processes (ch3: p74-7). The hilltops, valley floors, monuments, residential structures, forests, scrub, pastures, route-ways and boundary-lines were meaningfully conceptually associated, re-understood and abandoned as people walked, swam, sailed, herded, cropped, foraged, hunted, slept, constructed, demolished, repaired, prepared, cooked, sharpened, died, were born, defecated, copulated and fought through and in them. By focusing on the nature of association between specific analytical knowledge (e.g. familiarity) and durably conceived taskscapes (e.g. Long Mountain), I was able to demonstrate how people may have understood certain resolutions of these circumstances (ch3: p74-5). I also highlighted the complexity of this process in application, including the multi-layering of agency, and how and why truths can vary in consistency, consensus and durability. In addition, since every knowledge concession is recursively locked to dwelling, comprehensions of taskscapes tell us more than what Long Mountain or the Upper Severn valley explicitly meant to people at that moment. They belie what concerns were prevalent and recurring. I believe that the fraction proposed in chapter 4 illuminates some of the defining features of the world-views of the people living in the north-western Clun Hills during the third and early second millennium cal BC.

Critical overview: chapter 5

Chapter 5 moved beyond investigating changing comprehensions of taskscapes through time and space to explore how *practices* may have been differentially conceived. Keen to consider temporalities rather than geographies of knowledge formation processes, I argued that the absolute chronology and locality of concessions can sometimes be justifiably de-emphasised during analyses (ch5: p186-7). Focusing on copper ore mining and herding at three sites (figure 6:4), I explored how both practices were conceived and re-conceived as recurrent collections of performances within and between communities (rather than through time and space). Concentrating on the forms and nature of these, I wove comprehensions of constituent behaviours, materialities, colours, vegetation, animals, formal rites, holes, architectures, rivers, fire and journeys together to determine dimensions of how each, and cumulatively the practice as a whole, may have been understood. Again, insight was achieved by considering whether the knowledgeability, familiarity, and this time also the normality of these practices were widely-held or durable concerns. If so, I explored what meanings these characterisations acquired. I again

accessed this information through the identification of repetitive themes, but in composite performances rather than practices as a whole. As a result, the scale of resolution was generally finer than in chapter 4, leaving me to consider acts as diverse as the sporadic return visits to herders' shacks; the spreading of burnt flint when occupation surfaces were abandoned; the concentration of pig slaughter and butchery in one location; the differential treatment of faunal species; the continuity and consistency of ore extraction, processing techniques, spoiling locations and choreography around mines.

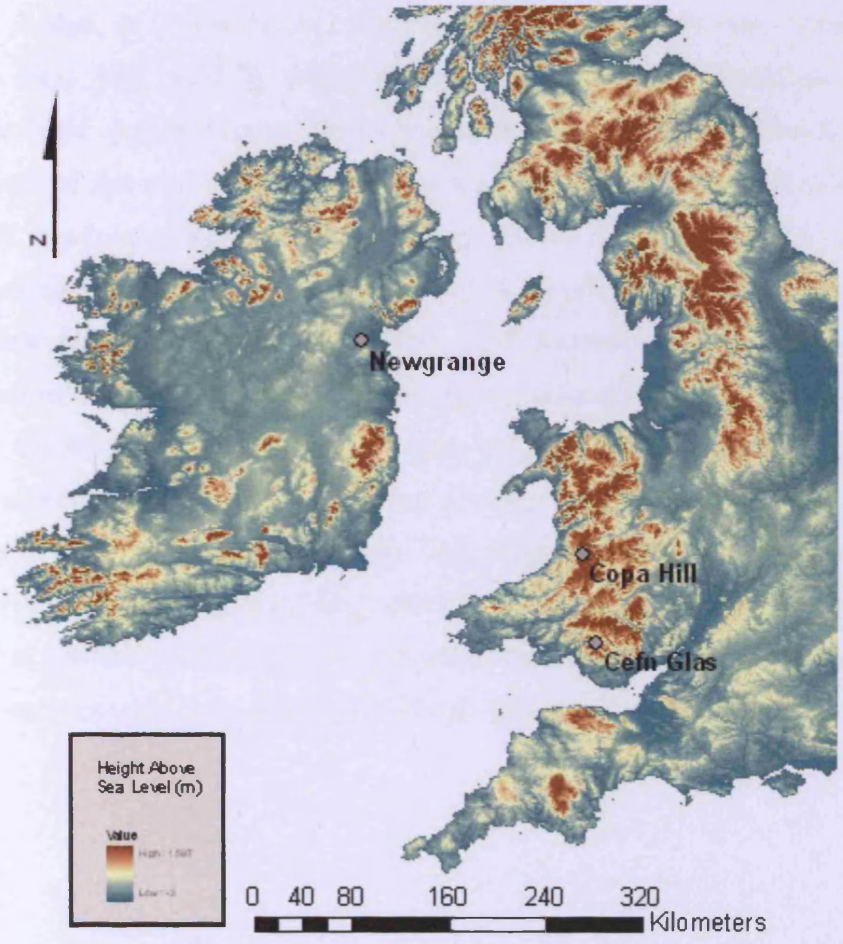


Figure 6:4 Elevation map depicting the location of the three Irish Sea sites discussed in detail in chapter 5

What emerged was a more detailed insight into patterns of characterisation than that discerned from the north-western Clun Hills case study. Again, knowledgeability, familiarity and normality were occasionally demonstrable concerns in the mind-sets of Late Neolithic to Early Bronze Age peoples (figure 6:5). However, whilst some

characterisations and their meanings were similar between practising groups, and indeed also resembled those of the north-western Clun Hills communities, others were clearly only relevant to a single episode of a group's engagements. For example, I argued that in the world-views of people living through both Cefn Glas and Newgrange in the Late Neolithic to Early Bronze Age respectively, liminality broadly entailed a sense of transition (ch5: p216-7; p230). At both sites this was related to profanity, perhaps due to the frequent contact with breaches of the confines of the external body (e.g. birthing, blood-letting, slaughter). This common meaning and association was linked to contrasting bodies of other truths, however. At Cefn Glas it was bonded with purification ideas (ch5: p215-7), whilst at Newgrange, it was also linked to stringent containment logic (e.g. species-specific consumption and processing taboos) [68] (ch5: p238-41). Lack of space prevented me from examining a second mining site in depth (cf. ch6: p293-8). However, I followed Timberlake (2003:112) in arguing that the succession of miners practising at this site in the first quarter of the second millennium cal BC were simultaneously herding (ch5: p258-9). Their comprehension of life through mining would therefore have been constantly re-configured through herding, making the two compatible. Whilst evidence of knowledgeability at Copa Hill is scarce (ch5: p269-71), there were signs of rites of closure including burning and sealing, both of which were also present at Cefn Glas and Newgrange. This suggests that entities characterised as liminal by these mining herders (e.g. exhausted seams; ch5: p270-1) were again understood as profane in association with purification and containment truths, but this time such meanings were only manifested through structured deposition.

[68] Although admittedly, this disparity might partly derive from the poor survival of organic remains at Cefn Glas

Characterisations of practices in the Irish Sea region

	Herding		Mining
	Cefn Glas *c.* 2900-2500 cal BC Scrubby woodland with clearances = BUT more consensual knowledge because herding is co-operative	**Newgrange** c. 2800-2100 cal BC Sparse scrub on ridge. Woodland to the south = Consensual knowledge	**Copa Hill** *c.* 2000-1750 cal B Opencast has many side trenches and angles = BUT more consensual knowledge because mining is co-operative
Knowledge-ability	**K – "Herding (life) is liminal"** M – Transitional = taboo E – Purification symbolism: burnt white flint was spread across the occupation surface several times	**K - Herding is liminal** M – Transitional = taboo E – Purification and containment symbolism: non-'herding' performances abstained from, controls on pig slaughter and butchery, differential treatment of species, burning animal bones and huts, and spreading white flint	**K – "Mining (depleting veins) is liminal?"** M – = taboo (no further detail) E – Purification and containment symbolism ONLY at exhausted fissures: burning and sealing of launders and timber buried in shafts
Familiarity	**K - "Familiarity is irrelevant"** E - Fluid movement and subsistence strategies punctuate uplands; previous engagements are not directly referenced because they comprise life itself		**K – "Mining is familiar"** M – Sufficiently engaged with E – Referencing of previous engagements through action: same veins re-exploited, same techniques and tools used, and same use of space
Normality	**K – "Herding (life) is normal"** M - Communality, co-operation and inclusiveness E – Exclusively knapping scrapers; a generic tool which everyone could create. Knapping occurred in public around hearths. Moving stock involved everyone	**K – "Herding is normal"** M –Communality, co-operation and inclusiveness E – Exclusively knapping scrapers; a generic tool which everyone could create. Knapping occurred in public around hearths. Moving **very large** stock involved everyone	**K – "Mining is normal"** M – Communality, co-operation and inclusiveness E – Public architecture created and respected, planning of spoil deposition and water management. No evidence of contention or specialism; traditionally all mined

Figure 6:5 Chart depicting specific characterisations of herding and mining in the Irish Sea region c. 2900-1750 cal BC. Text in green describes immediate taskscape and its discursive relationship with the degree of consensus between world-views, ranging from disparate to less disparate, to less consensual, to more consensual, to consensual. K = Knowledge, M = Meaning and E = Evidence

Added to this variability is the fluidity of the conceptualisation of practices themselves. Throughout chapter 4 I argued that, once established as conceptual entities, Long Mountain and the Upper Severn valley retained their integrity as distinct taskscapes throughout the third millennium cal BC. This was due to their complete immersion in discursive legitimising relationships with other knowledges and elements of dwelling. However, herding and mining seemed to pulse in and out of focus as groups of performances which became conceptually bound, and conversely disassociated once again (ch5: p272). Composite performances and their conceded meanings were therefore temporary, as comprehensions of ongoing dwelling (as constituting either mining or herding) were more stuttered. Rather than drawing from a body of established truth, associations of performances instead derived from a swelling of numerous compatible

concessions. For example, I argued that herding at Cefn Glas was never conceptualised as a distinct practice, with associated performances instead conceived integrally with daily life (ch5: p207). Rather than abstracting themselves from social worlds to herd in the uplands every spring-summer, people indissolubly dwelt with and through their animals all year-round. The identification of herding at Cefn Glas is therefore an analytical sign-post rather than a lived reality. In contrast, I proposed that herding was distinctly 'entitised' at Newgrange, since dwelling in the Boyne Valley at this time may not have always been orientated around animals (ch5: p222; p224; p228-9). In fact, I argued that herding constituted a distinct identity which was adopted at Newgrange, and which was constantly under threat from non-herding pollutants such as growing wheat, trapping a duck or humanistic behaviour displayed by animals (ch5: p238-42).

The reasons for this more volatile conceptualisation of practices themselves compared to taskscapes in the Upper Clun Hills may be because of the finer scale of resolution already mentioned (ch6: p283). The consistency and durability of the knowledge that herding was a way of life, rather than life itself, relied on the association of an undesignated number of compatible understandings of performances (e.g. corralling, grazing and castrating animals all being understood as distinct acts which have more in common with each other than other 'non-herding' acts). This contrasts with conceded taskscapes which are not as vulnerable to such small-scale re-alignments of knowledge. They tend to be legitimised by wider bodies of truth (e.g. comprehensions of numerous constituent practices, architectures, materialities and so on)[69].

Building on my ideas about the changeable popularity of analytical characterisations (ch3: p87-8), I directly linked the durability of normality to two of the extra-somatic variables in knowledge concession discussed in chapter 4: group size and intra-group perceptibility (ch3: p88-9; ch4: p125-32; ch5: p211-4). I again emphasised the co-dependence of both variables with knowledge formation processes, rather than their inanimate agency. I argued that herding in small groups was a highly co-operative practice, meaning that even whilst moving livestock through dense scrub and forest, agents were acutely aware of one another's engagements (ch5: p208-9). Other performative components of herding were also inclusive, such as the communal knapping of scrapers. Dominating the tool assemblages of both Cefn Glas and Newgrange almost to exclusivity (ch5: p209-10;

[69] Although of course, single re-configurations can still trigger paradigm shifts (ch3: p88)

p224-5), their sole working would have been highly perceptible by all, and probably also engaged in by all in contrast to the increasing diversity and specialisation of flint-work generally at this time (Bradley & Edmonds 1993: 22) (ch5: p211-2; p226-8; AppB: p353-4). I argued that this inclusivity of performances was discursively bonded to the characterisation of herding as normal, since herders may have equated communality with 'the usual' (ch2: p54; ch5: p212-4) (figure 6:5). The durability of this characterisation was clear at both sites; scrapers were almost exclusively knapped throughout the occupation phases, and workings were repeatedly focused around the hut hearths and surfaces (ch5: p211-2; p224-5). This longevity and consistency might relate to the context of these concessions in full view of one another and within probably fairly small groups; I have already argued that these very conditions often generate knowledge which is notably uniform and long-lived (ch4: p131-2).

At Copa Hill, I argued that in spite of visual obscurity from one another, mining was also a co-operative experience (ch5: p263-9). Through the planning, creation, observation and deactivation of communal installations and strategies such as route-ways, ladders and water launders, everyone collaborated within the mine. This universality in collaborative performance between agents, despite changes in form (e.g. access points were re-routed), occurred over numerous visits, some of which may have been enacted by different miners (ch5: p267). Through the materiality of their performances, the inclusiveness, and therefore normality, of the experience resonated for all practitioners. This characterisation continued despite shifts in the form of these performances; it was the sense of involvement by all which was central to their normality rather than what mining comprised. I again argued that this durability was linked to the probably fairly small group size of visiting communities, meaning concessions were more likely to become standardised and less easily challengeable (ch5: p268). However, I also suggested that ongoing concessions of the normality of mining were associated with wider bundles of knowledge concerning group belonging, and particularly herding identities (ch5: p268-9). This made the truth of the normality of mining less easily undermined.

This chapter also questioned the validity of certain approaches which situate early herding or mining in conflict with previous prehistoric ontologies (e.g. Topping & Lynott 2005: 190; Johnson 2008: 201-4; Hodder 1990) (ch5: p191; p193; p243-4). It is often implied that noticeable shifts in practices, such as subterranean copper ore extraction at

the start of the Early Bronze Age, would have necessarily required considerable re-configurations of world-views, subsequently generating cognitive profanity (cf. Thomas 1999: 29-32). For example, whilst dismissing the idea that Early Neolithic domestication necessarily generated a nature-culture opposition, Ingold (1994: 20) still argued that herders and hunters envisage animals differently due to a "change in the terms of engagement". I maintained instead that people understood these new ways of dwelling within their ongoing engagements with the world (ch5: p206-9; p263). New practices were therefore simultaneously comprehended and enabled through re-configuring knowledge. Any discernible taboos derived from the characterisation of composite entities as liminal (ch2: p54-5) rather than divergences from previous practice.

In summary, chapter 5 built on foundations laid by chapter 4. It illustrated the relativity of all characterisations, the changeability of such concessions according to their relationship with other bodies of truth, and the processes involved in the conception and dissolution of cognitive entities such as taskscapes and practices. The reduced prominence of taskscape in my analysis enabled a finer scale of resolution and highlighted how, despite their emphasis of bodily engagement, landscape approaches can sometimes reify or detach place from specific action and embedded social meaning. For example, Tilley's groundbreaking *Phenomenology of landscape* (1994) has been equated to "musings...in the antiquarian tradition" by Chadwick (2004b: 22), and been criticised by, amongst others, Brück (2005: 54-6) for ignoring social relativity and temporality. Whilst acknowledging the centrality of taskscape within dwelling (ch3: p74-7), I demonstrated how practices can also be fore-grounded in knowledge formation processes.

By focusing on temporalities, I also revealed a level of complexity missed by the geographically and chronologically fixed nature of chapter 4; depths of meaning were revealed by cross-comparing disparate peoples at divergent but often overlapping times. For example, I argued that people mining at Copa Hill *c.* 2000-1750 cal BC associated similar meanings with familiarity as those living in the north-western Clun Hills during the third and early second millennium cal BC (i.e. that it meant repeatedly re-engaging with taskscapes in the same referential way; ch5: p262) (figure 6:5). However, whilst the monuments and fence-lines in the Upper Severn valley and Long Mountain actively materialised these meanings, it was possible to discern the performative *modus operandi*, as well as less substantial architectures which discursively conceded meanings at Copa Hill.

This might not simply reflect the higher resolution of archaeological information available at Copa Hill. It might also relate to a third level of meaning, in which repetitive performance itself was differentially understood.

Implications

Introduction

The implications of these ideas vary in scale from the discovery of other analytical characterisations within the case studies I have considered, to re-working recent theoretical trajectories that focus on being rather than constitutive discursive streams of agency, cultural knowledge, social reality and experience (ch3: p79-80). I will address each topic in order of the breadth of their reach, guiding this discussion towards my final statement and exploration of what further work could be achieved.

Other analytical characterisations

Introduction:

My division of all knowledge into analytical and subject forms (ch2: p29-31) enabled me to consider which social facts were reflective and introspective, and which were not. It became clear that the former is usually descriptive and positioned on a spectrum of possibilities, in contrast to subject knowledge which tends to be designative and a single classification (figure 2:3). Whilst I initially intended to consider just the known and the unknown (knowledgeability), a number of other analytical knowledges came to my attention as often unjustifiably amalgamated due to current, western ontologies. I felt prompted to consider familiarity and normality as well, since this would illustrate the relativity of characterisation knowledge. However, other examples less closely associated within contemporary schema could also be discerned within my case studies. I will now explore two of these in a little depth, highlighting areas in which further research into the north-western Clun Hills and mining could be targeted.

Irony at Trelystan:

Returning to my first case study area, I will consider with renewed detail the pits located within and between hut structures A and B, preserved by the Trelystan barrow mounds (ch4: p151-4) (figures 4:39; 40 & 41) (Britnell 1982: 143). Dating from the thirtieth to the twenty-sixth century cal BC (Britnell 1982: 184-5), these and other contemporary features (e.g. stake-holes, burnt-patches and post-holes), all derived from seasonal returns to the

site, which was occasionally partly bounded and marked by hut walls (ch4: p151-2). Britnell (1982: 139-40; 143; 184-5) repeatedly argued that more hut structures originally existed, both in the excavated area (but with shallower foundations) and beyond it. These were probably destroyed by the excavation of material to construct the barrow mound during the early second millennium cal BC (Britnell 1982: 188), and by post-Medieval ploughing.

Eight pits were situated within Structure A, three in Structure B and a further four in the area between the two. The fills of those within Structure A (1-8) mostly comprised black soils with appreciable inclusions of hazel, sloe and poplar charcoal. Pit 5 also retained two small fragments of burnt clay (Britnell 1982: 140). With an average 300mm diameter, these pits were all ovoid in shape except Pit 1 which was larger and rectilinear. Pits 13 and 14 in Structure B both contained fire-cracked stones placed several thick either around its sides (13) or throughout (14), and some small un-burnt shale fragments positioned centrally (Britnell 1982: 142-3). They had flat bases (figure 6:6 & 7) and were filled with dark brown loam with hazel, hawthorn and rowan charcoal, hazel nutshells, flint chips and tools, Grooved Ware sherds and burnt bone inclusions. The fill of Pit 14 was capped with a layer of clayey soil containing broken shale fragments (Britnell 1982: 143). Both pits 13 and 14 were roughly circular in shape with an average diameter of 0.73m. Pit 15 was elongated compared to the other two, measuring 0.48m x 1.10m at its top. It had a clayey soil fill containing very little charcoal and again, a number of fire-cracked stones, flint flakes and Grooved Ware sherds. The fills of pits outside the huts' stake-walls (9-12) closely resembled those within Structure B, although there was a notable absence of fire-cracked stones. All comprised greyish brown loam with charcoal, Grooved Ware sherds, flint fragments and burnt hazel nutshells (Britnell 1982: 143). They ranged in shape from rectilinear to ovoid, and in size from 0.2m in diameter (9) to 1.1m x 0.6m (10).

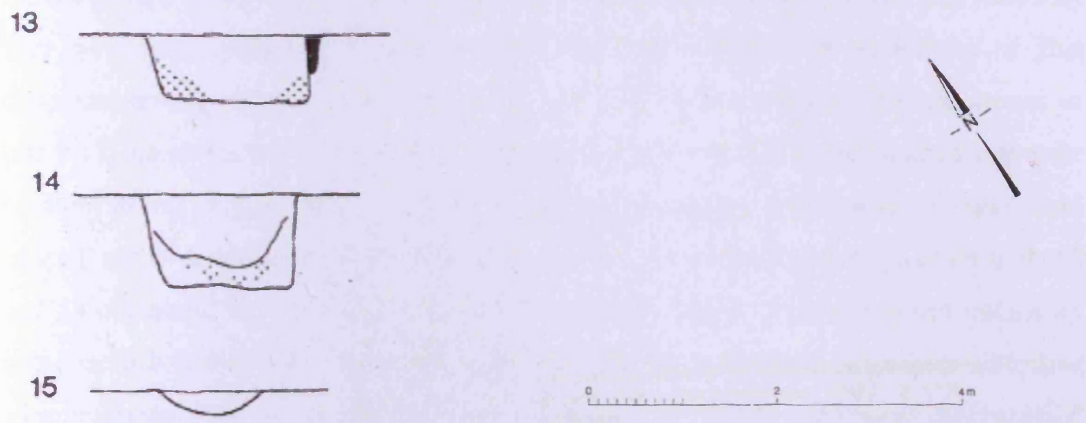


Figure 6:6 Section drawings of Pits 13-5 within Structure B, Trelystan (*from* Britnell 1982: 142)

Figure 6:7 Photograph of Structure B, Trelystan, post-excavation, taken facing east. Pits 13 (top left) and 14 (top right) are clear in the background, whilst the shallower pit 15 is located to the south (right) of the central hearth (*from* Clwyd-Powys Archaeological Trust website)

Britnell (1982: 140) speculated that the Structure A pits were post-holes (ch4: p161-2), whilst convincingly arguing that those in Structure B were cooking troughs (Britnell 1982: 142-3). The absence of fire-cracked stones, burnt bone and pottery sherds in Structure A's pits *could* indicate that heating water and presumably cooking only occurred within Structure B. The abundance of charcoal in Structure A pits' fills, alongside the two burnt clay fragments, might be because they once held the posts of another structure

with a daub facing that was subsequently burnt. Even if these pits (1-8) were open and contemporary with the occupation of the stake-walled hut, it is clear at the very least that they were not ultimately filled-in with fire-cracked stones. The exclusivity of this decommissioning act at Structure B is compounded by the absence of burnt stones in pits 9-12, which lay beyond the stake-wall confines but had fills more conducive to past cooking events (e.g. pottery sherds and nutshells). Structure B pits seem to have been 'closed' rather abandoned; Pit 14 was deliberately capped with a clayey layer and both 13 and 14 contained un-burnt shale fragments alongside largely otherwise burnt inclusions and charcoal-flecked soil. In summary, whether the two structures and others since lost were contemporary or not (Britnell 1982: 184), certain closure rites were only enacted inside Structure B. This may not have related to the distribution of on-site culinary performances.

I believe the rationale of where, when and how to enact these rites was linked to comprehensions of cooking, and particularly the materiality of cooking, within contemporary world-views. Much has been written on the methodology of heating stones in hearths and transferring them into water troughs to heat its contents (Cantrill 1913; O'Kelly 1954; Ó Drisceoil 1988). Water can be kept at boiling point for many hours by the strategically timed addition of further stones, meaning those attending to the trough would have been constantly engulfed in steam (Ó Drisceoil 1988: 675). The majority of the fire-cracked stones found in pits 13-5 were brittle and fragmentary, suggesting that they had been heated and cooled repeatedly rather than once or twice (Britnell 1982: 142-3). All were river-abraded pebbles, carried from elsewhere. Unlike contemporary burnt mounds, which are present locally (e.g. at West Felton, Shropshire, approximately 24km to the north-north-east of Trelystan), neither pebble caches, nor discarded broken fragments were found on the Late Neolithic occupation surface including within the barrow mound (Britnell 1982: 139-45). It would seem therefore that only broken rather than re-usable stones were deposited, with the remaining majority carried away by visitors. In addition, this deposition only occurred *at the bases* of Structure B's pits. It was only 'appropriate' that these decommissions related to 'dead' stones, and that these acts were focused at the deepest parts of the pits.

Perhaps the destruction of stone through contact with water was considered ironic or contrary. These hard-rock pebbles were durable and heavy when used in other

performances (Britnell 1982: 142), for example: mining or pounding roots, and yet they noticeably deteriorated once heated with flame and put into water (both ephemeral in nature). This may have been compounded by the dramatic production of vapour when hot stones are immersed, and by their original sourcing from water. Irony is an example of analytical knowledge; it is descriptive, can be graded in severity from extremely to not at all and is introspective (ch2: p29-31). Indeed, defined as 'discordance between what one says or does and what is generally understood by the latter', by its very nature irony draws attention to knowledge concession (Pluciennik 1999: 661; 666; 675). If cooking with hot stones was comprehended as ironic by people living through Trelystan in the Late Neolithic, this must somehow relate to Structure B as the only focus of formal deposits of its ultimate material manifestation (cracked stone). As probably one of several cooking sites, and assuming pits 13-5 were contemporary with the presence of the hut superstructure (Britnell 1982: 142), its conceded suitability for this act was clearly unique. Debris accumulated at other times had been deposited elsewhere (perhaps back into streams or at burnt mound sites). I suggest that a circumstance, event, behaviour or person contemporary and associated with Structure B had also been conceded as ironic, resulting in it being logical to deposit fire-cracked stones within pits 13-5. In this way, a dimension of taskscape became entitised through its characterisation as ironic; an occurrence derived exclusively from the dialectic between knowledge formation processes and practice. Why it was necessary for these depositions to be so deep is unclear; perhaps this act passed commentary on the characterisation as a whole which only future research could unravel.

Differentiation at Mount Gabriel:

Although insufficient time inhibited the detailed consideration of a second mining site (ch6: p284), I can now briefly address other characterisations of copper ore mining at Mount Gabriel, on the Mizen peninsula, Co. Cork (figure 6:8). Situated either side of a prominent east-west fault on the eastern slopes of the mountain, the series of approximately 32 workings at Mount Gabriel followed exposed ore beds comprising predominantly of copper-iron sulphides and copper sulphides, as well as the copper carbonate malachite (O'Brien 1994: 51-3; Ixer 1994: 263). All excavated workings date to two or three centuries within the later Early Bronze Age: *c.* 1750-1500 cal BC[70] (Brindley

[70] It is unlikely that earlier workings will be discovered at Mount Gabriel since the copper used in earlier Early Bronze Age Irish artefacts contains high incidence of arsenic and antimony (Coghlan 1963), in contrast to signature local trace silver and iron (Ixer 1994: 263)

& Lanting 1994: 286-7). Each shaft was subterranean rather than opencast, as described at Copa Hill (ch5: p255), due to the perpendicular rather than parallel angle of the outcropping ores against the hillside (O'Brien 1994: 57). All were fairly short (i.e. within a <1-12m depth range) (O'Brien 1994: 66-7; 71-4). Focusing on mineshaft 3, which was the site of some of the earliest workings, *c.* 1877-1639 cal BC (GrN-13667) for basal spoil mound inclusions and *c.* 1732-1534 cal BC (GrN-15965) (Brindley & Lanting 1994: 284) for an inclusion at the base of the deepest primary sediment fill, I will briefly consider how my approach can determine other analytical characterisations associated with mining.

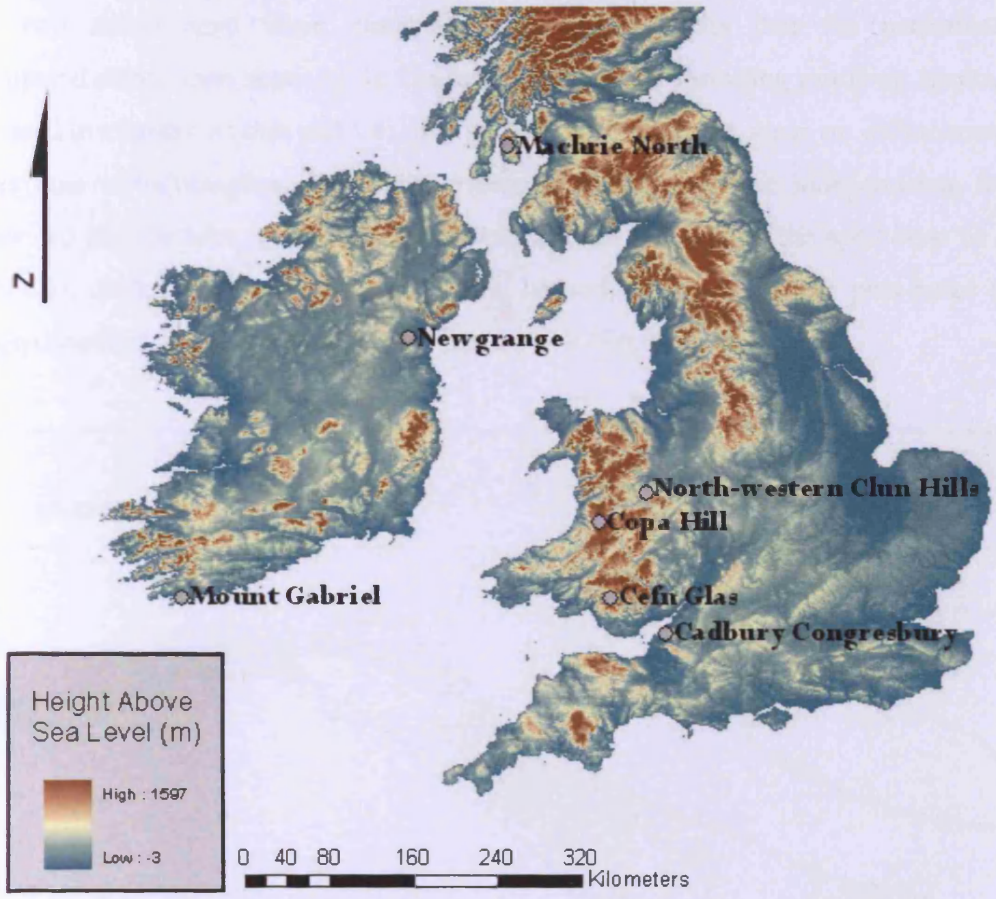


Figure 6:8 Elevation map depicting the location of the Irish Sea sites discussed in this chapter

Mine 3 is a large inclined working stretching *c.* 10.5m at a 288° angle into the base of an east-facing rock scarp, with a spoil mound and associated activity areas (figure 6:9 & 6:10) (O'Brien 1994: 75-8). Focusing on Locus 1 of the latter, which lay to the immediate

south-west of the spoil mound and mine 3 entrance beyond it (figure 6:10), a pattern in performance form, occurrence and nature emerges: stratigraphic demarcation rather than containment seems to have been a concern. Feature 08, the second of four north-south aligned, excavated post-holes from a probable hut, measured 0.53 x 0.38m wide at its top (figure 7:11) (O'Brien 1994: 110-2). Filled with brown humic material with no notable inclusions, two slabs that fitted the pit circumference almost perfectly were placed at two depths within it, followed by an "irregularly" flat base (O'Brien 1994: 112). None of the other three post-holes were similarly horizontally divided, and all had rounded or pointed bases. Similarly, and contemporary with this act, broken mauls (Feature 03) were lain over the post-holes and a rectangular water trough to the north (Feature 02) (figure 6:11). This two rather than three dimensional layering suggests that the performance demarcated rather than retained. In contrast to the act of spreading purifying agents, as discussed in chapter 5 (ch5: p214-6), this performance seems to focus on differentiation rather than transformation. Bounding entities to emphasise their independence from others can also be seen in the revetment built around the base of the spoil heap to the north-east, somewhat earlier than the multi-layered dissection of the post-holes and trough described above (figure 6:11) (O'Brien 1994: 106; 112).

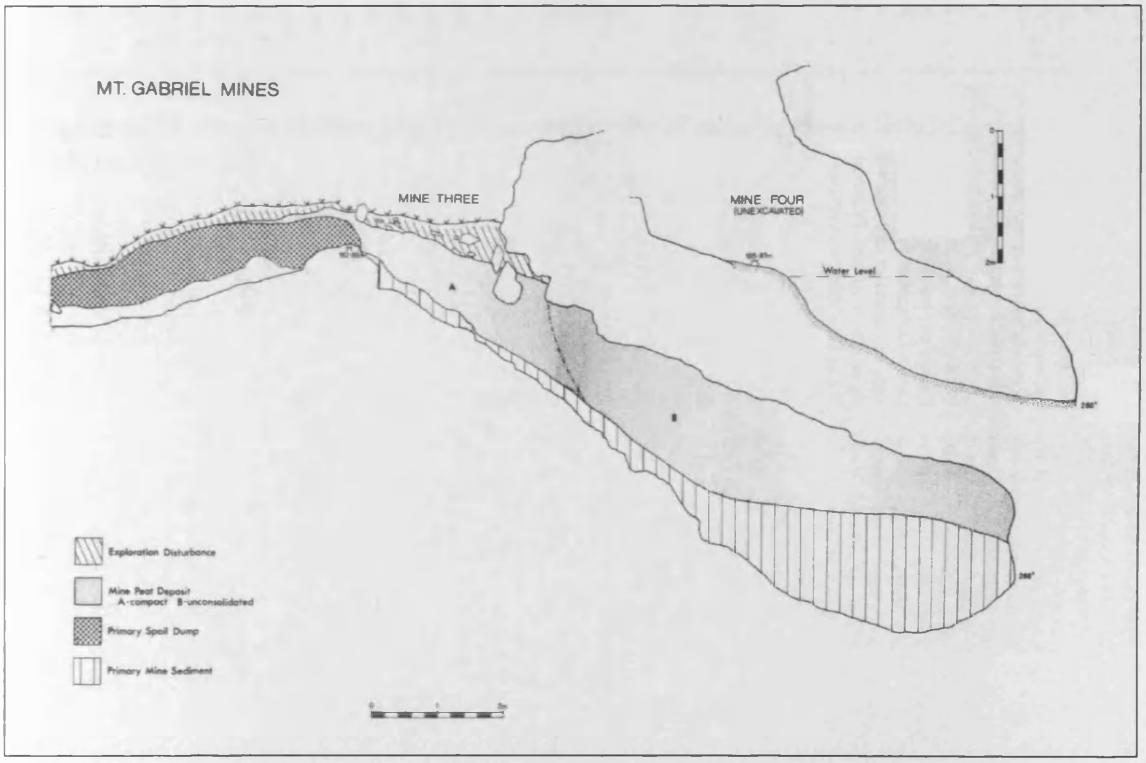


Figure 6:9 Section drawing of mine 3 shaft fill sequence, Mount Gabriel (*from* O'Brien 1994: 80)

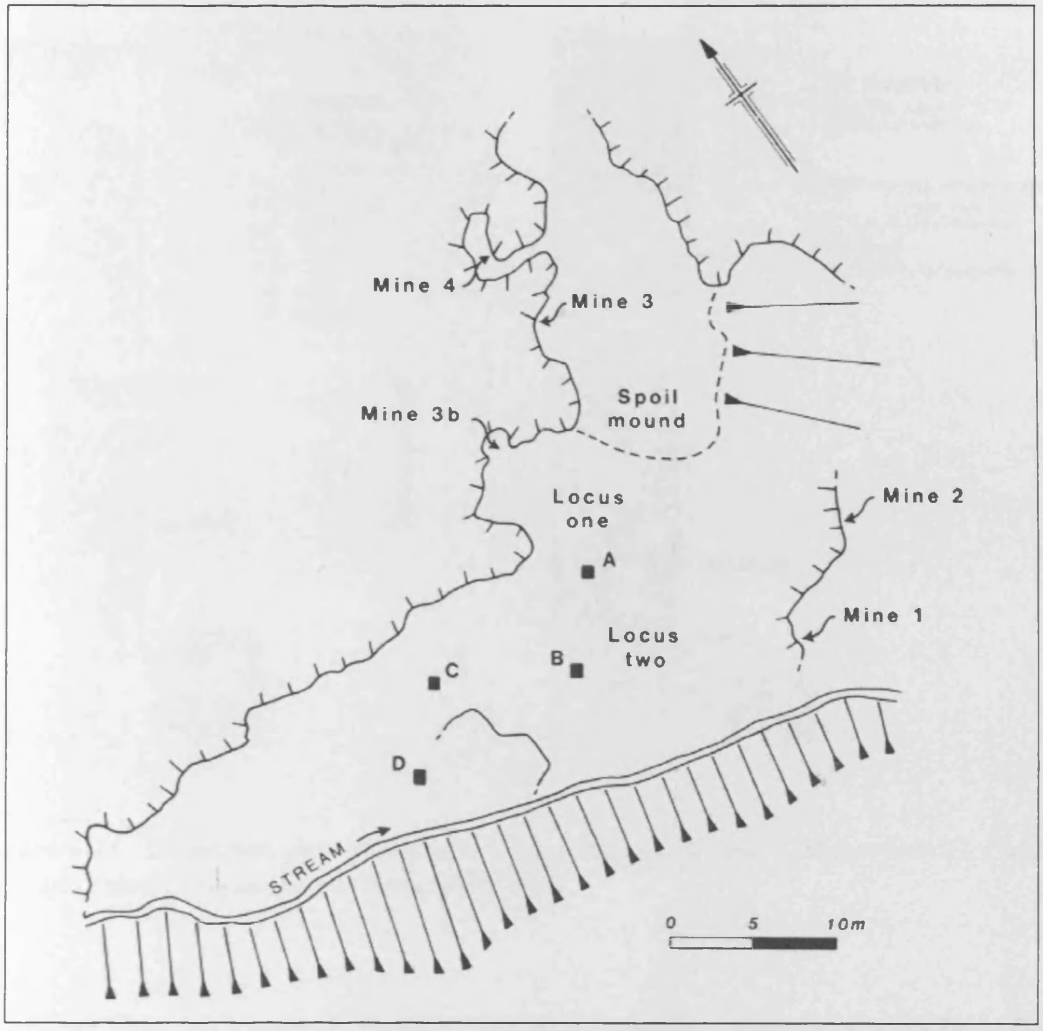


Figure 6:10 Pre-excavation plan of area associated with mine 3, Mount Gabriel (*from* O'Brien 1994: 103)

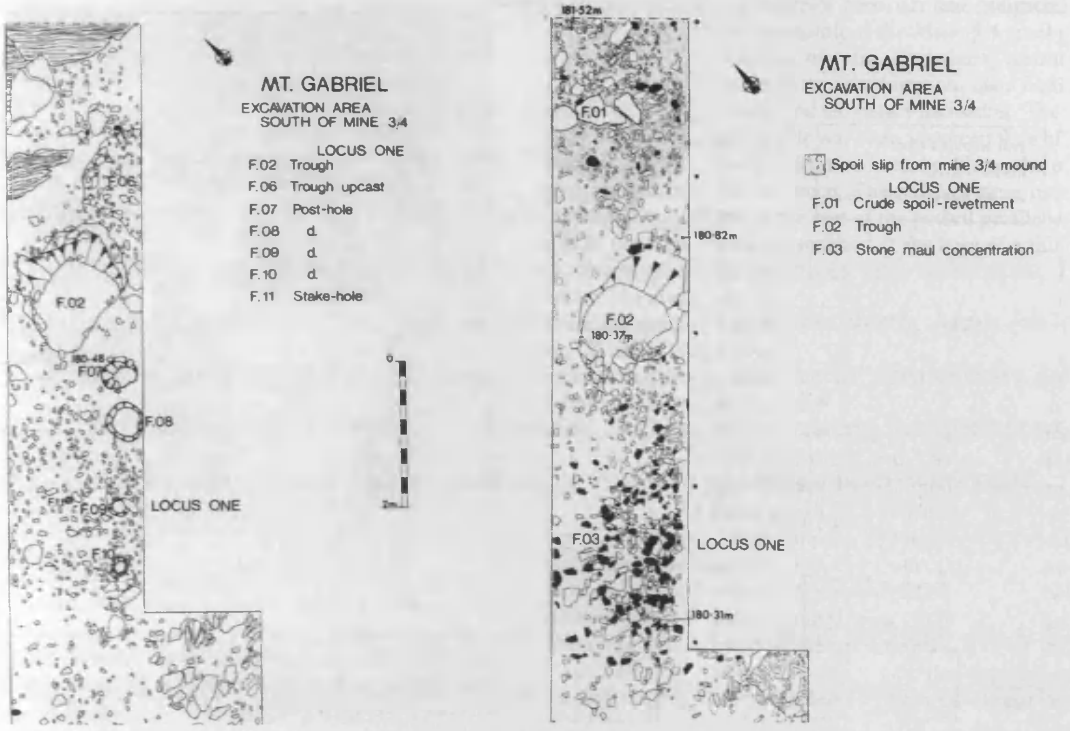


Figure 6:11 Excavation plans of Locus 1 to the south-west of mine 3, Mount Gabriel. Phase 1 (left) and phase 2 (right) (*from* O'Brien 1994: 103)

I propose that this common theme of division in mining performances might indicate the relevance of the characterisation 'different' to miners at this time. As analytical knowledge, difference is introspectively referential; people are aware of whether entities are different, not different, or somewhere in between. For example, present-day British people are aware that 'social outcasts' are characteristically different, and are equally aware that twins are characteristically the same. These are descriptive truths whose concession has been noted. It is unclear whether the divisions enacted at Locus 1 were more symbolic than metaphysical. There is no discernible difference between the two strata of fills in Feature 08 (O'Brien 1994: 110-2), although the materiality of the dividers (the spoil mound revetment, fitted slabs and broken maul spread) clearly contrasted with surrounding contexts and layers. Perhaps various temporalities, identities or behaviours were being differentiated. It is also unclear whether comprehensions of these demarcation performances were actively associated with, and therefore coloured, comprehensions of mining as a practice. Without further investigation, these questions will remain unanswered. However I have again, albeit briefly, demonstrated how other

analytical knowledges can be determined within contemporary Irish Sea archaeological deposits.

Other practices and taskscapes

Introduction:

To highlight how my ideas can be used to investigate other practices and taskscapes, I now return to a prehistoric taskscape outlined in chapter 1: Machrie North, Arran (ch1: p10-7), as well as very briefly addressing a non-prehistoric practice at sixth century cal AD Cadbury Congresbury settlement, Somerset. Both re-work existing interpretations, offering insights into themes within world-views that have previously been overlooked.

Liminality on Arran:

In chapter 1 (ch1: p10-7), following Barber *et al* (1997), I outlined different trends in dwelling at Machrie North, Arran during the Late Neolithic to Early Bronze Age (figures 6:8 & 6:12), for example, the shift from arable farming to more extensive pastoralism on the upper moor at the start of the Early Bronze Age, the cessation of slash and burn performances and cultivation in the lower wooded slopes during the Terminal Neolithic, and the establishment of a hut just north of the woodland at roughly the same time. I argued that interpreting constitutive moments in terms of the identification of processes of social discourse (e.g. the material embodiment of a person through the wall they have repaired) misses the reality of life in the past (ch1: p5-7). In light of chapters 2-5, I now offer an alternative interpretation of these moments which considers specifically *what* people felt about their worlds, building rather than focusing on why or how this occurred.

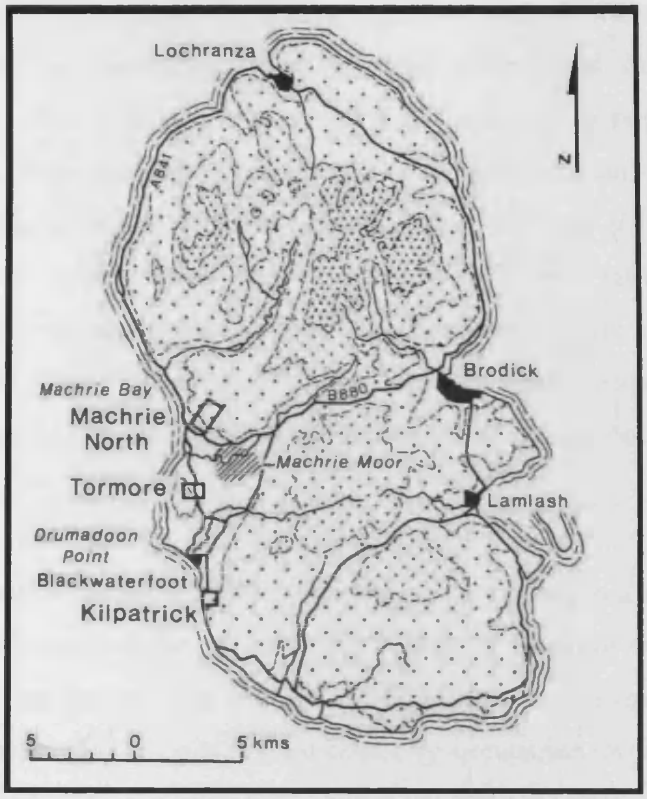


Figure 6:12 Location map of Machrie North survey area, with higher elevations more densely shaded and Machrie Moor labelled (*from* Barber *et al* 1997: 1)

At Machrie North, it is possible to discern certain truths alongside the daily bustle of the lives which transgressed it, and in turn, it is possible to highlight a common concern which these knowledges addressed. The increasing boundedness of the landscape has already been outlined (ch1: p15-6). Earlier experiences on the slopes were less controlled; people seemed to interact with their taskscapes in a more open manner. Late Mesolithic and Early Neolithic flint scatters on the upper slopes as well as oak, elm and birch clearance on the lower slopes suggest people were frequently present throughout the survey area, and there were clearly places which came in and out of focus such as the early burial monument and small interspersed stone-walled fields. However, during the Late Neolithic to Early Bronze Age these small fields on the higher slopes were increasingly encircled by larger boundaries. The hillside's clitter was cleared into cairns on or near these boundary walls and dykes and the abandoned, or at least eroded Early Neolithic tomb was re-worked into one such cairn. The lower wooded slopes which were once also punctuated by people, animals and crops became a restricted area during the Terminal Neolithic. All 'transformative' acts such as coppicing, slash and burn, grazing

and plantation ceased or reduced in intensity for 300 years; effectively preserving the balance of heather and secondary woodland, after which cereal cultivation was still probably kept out of the forest. This was probably not due to population decrease, whether linked to crop failure (Lynch 1981), the over-exploitation of local resources reducing soil fertility (Whittle 1978) or climate change (Smith *et al* 1981: 206) (AppB: p406-7). It seems very unlikely that Machrie North was semi-permanently or permanently settled, farmed intensively or foraged/maintained over a sustained period. The likelihood that people 'relied' upon this taskscape for their sustenance in a present-day, western sense is slim, and these explanations relate change only to extra-societal factors.

I argue that this period was critical in facilitating and responding to a gradually emerging theme in the world-views of the people living through it. I believe that Machrie North became entitised through its newly conceived differences with the coast and the central and northern mountains (ch6: p281). Contemporary occupation of the lower plains is evident. For example, Late Neolithic to Early Bronze Age field walls with associated ard marks and retouched flints were found near Kilpatrick, South Arran, and of course the six stone circles (and earlier timber phases), cairns, standing stones and hut circles on Machrie Moor itself are well documented (figure 6:12) (Haggarty 1991; Barber *et al* 1997: 56-9). Cairns and cup ringed stones alone constitute most of the evidence for third and early second millennium cal BC activity on the mountain peaks (e.g. Beinn Tarsuinn cairn on the southern slope of the mountain by the same name), which are themselves visible from many vistas on eastern Kintyre, western Ayrshire and the Antrim coast (figure 6:13). Through the identification of chambered tomb alignments in the Irish Sea, Cummings (2004: 35) argued that during the Neolithic, certain mountains gradually became ascribed with mythological and cosmogonic values. Perhaps this emphasis of high points had facilitated the first demarcation of wider taskscape 'zones' on Arran. As neither part of the central and northern mountains, nor accessible along the coast, Machrie North may have become increasingly perceived as liminal.

Figure 6:13 Photograph of the east coast of Arran, taken south of Ayr along the Ayrshire coast (author's own)

Once widespread and consistent, this characterisation recursively influenced the ways in which people dwelt at Machrie North. Meanings associated with the concept of liminality became associated with life there, and the constant bounding of place, combined with evidence for abstinence, suggests that liminality was considered potentially dangerous within world-views (ch2: p54). Whilst earlier lives moved fairly unrestricted across the moor therefore, from the Late Neolithic, practice seems to become increasingly orchestrated by the construction of places on a far more extensive, all encompassing level (Bradley 1993). As well as the building of physical boundaries containing open pasture and cultivation plots, various taboos restricting practice in the forest and heath were recognised which thereafter facilitated the re-conceptualisation and subsequent demarcation of these slopes from elsewhere. In contrast to other Early Neolithic funerary monuments which received secondary insertions in the Late Neolithic to Early Bronze Age (e.g. Carreg Coetan Arthur dolmen, Dyfed), access to the original deposits was prevented by the transformation of the earlier barrow into a contemporary clearance cairn.

The popularity of this characterisation at Machrie North was probably dialectically linked with increasing consensus between individual knowledges[71] at a time when life was becoming more mobile and less tethered across western Britain (Thomas 1996a: 4) (AppB: p399-400). Journeys through these slopes were more closely tied to consistent social truths; knowing there became less flexible and discursive as intra-group perceptibility increased and intensified. Whilst the ambiguity of liminality usually lends itself to openness (ch2: p38), I argue that its meaning at Machrie North derived from its relationship with other knowledgeability characterisations; potentially the increasingly rigid understanding of Arran's mountains as unknown. Ultimately, Machrie North demonstrates that knowledgeability was also a relevant concern for people living outside my case study contexts during the Late Neolithic to Early Bronze Age. This interpretation moves towards what people actually thought rather than focusing on specific ways in which unspecified meaning might have been achieved.

Liminality at Cadbury Congresbury:

To illustrate that characterisations such as liminality may have been a concern for people living at other times, I will now very briefly consider a non-prehistoric (late sixth century cal AD) pit in the settlement at Cadbury Congresbury, Somerset (figure 6:8). Observing my core definition of liminality as any entity deemed 'transitional' (ch2: p38) avoids the criticism that I am being absolutist; this concept is in no way cross-culturally and temporally present, and its associated meanings vary innumerably (ch2: p38-42). I do believe however, that a permutation resembling this characterisation can be discerned at Cadbury Congresbury following the identification of separation and reincorporation symbolism (ch2: p42).

Pit YF129 was dug into, or surrounded by, an oblong-shaped stone platform near the middle of the northern Iron Age rampart (figure 6:14 & 6:15) (Rahtz *et al* 1992: 57). This platform (YF132) had been laid over a mass of rubble, comprising Iron Age skull fragments (YF133), which had been tipped against a revetted limestone deposit within an Iron Age quarry ditch (YF104). YF129 was 1.3m in diameter and, based on qualities of the cut and fill, was interpreted by excavators as a timber-lined tub (Rahtz *et al* 1992: 65-7). The fill (YF129a-c) comprised dark humic soil, with 64 finds representing almost

[71] See ch3: p88-9;ch 4: p125-32; ch 5: p263-9; ch6: p280-1 for how intra-group perceptibility can recursively affect knowledge concession

every item discovered elsewhere on pre-Medieval Cadbury Congresbury (e.g. pottery, bone, baked clay, copper alloy, iron, slag, glass) (Rahtz *et al* 1992: 67). Fired clay, coins, bone objects and 'Gaulish' pottery are the only absent items (Rahtz *et al* 1992: 70). Based on the indiscrete stratigraphy within the fill, these items were deposited rather than the gradual accumulation of residual surface debris (Rahtz *et al* 1992: 67). They were either emplaced in one short act when the tub was abandoned, or positioned upon some internal organic architecture which eventually rotted. Judging by the typological dates of the later finds, this occurred *c.* the late sixth or early seventh century cal AD (Rahtz *et al* 1992: 220). Both the pit and platform were sealed with three distinct layers (YF104c-a) with varying densities of finds resembling those found in the fill.

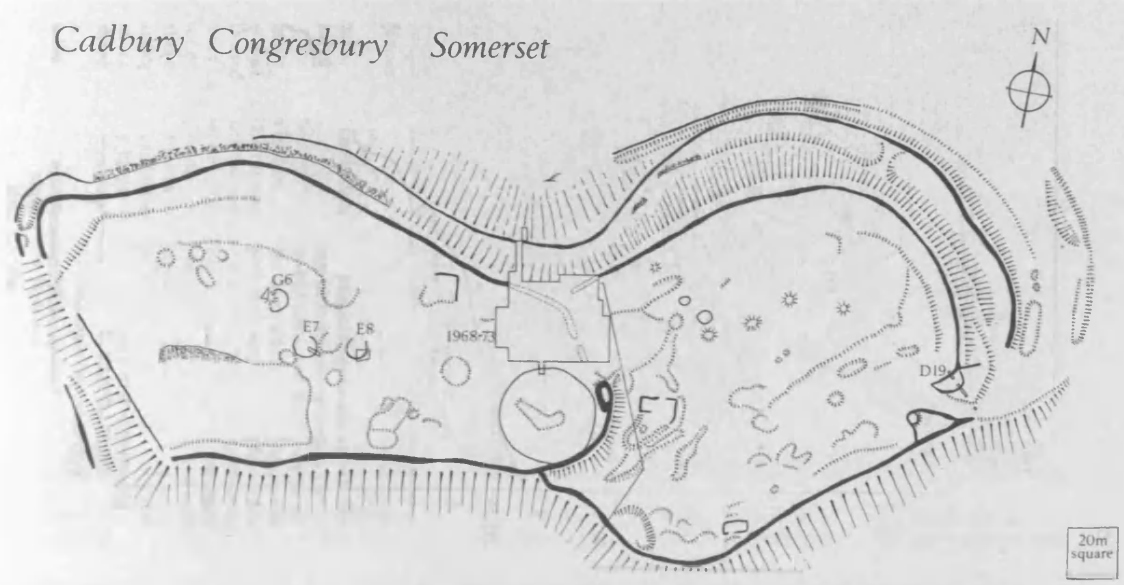


Figure 6:14 Plan of Cadbury Congresbury hillfort with the 1968-73 excavation area delimited (*from* Rahtz *et al* 1992: 10)

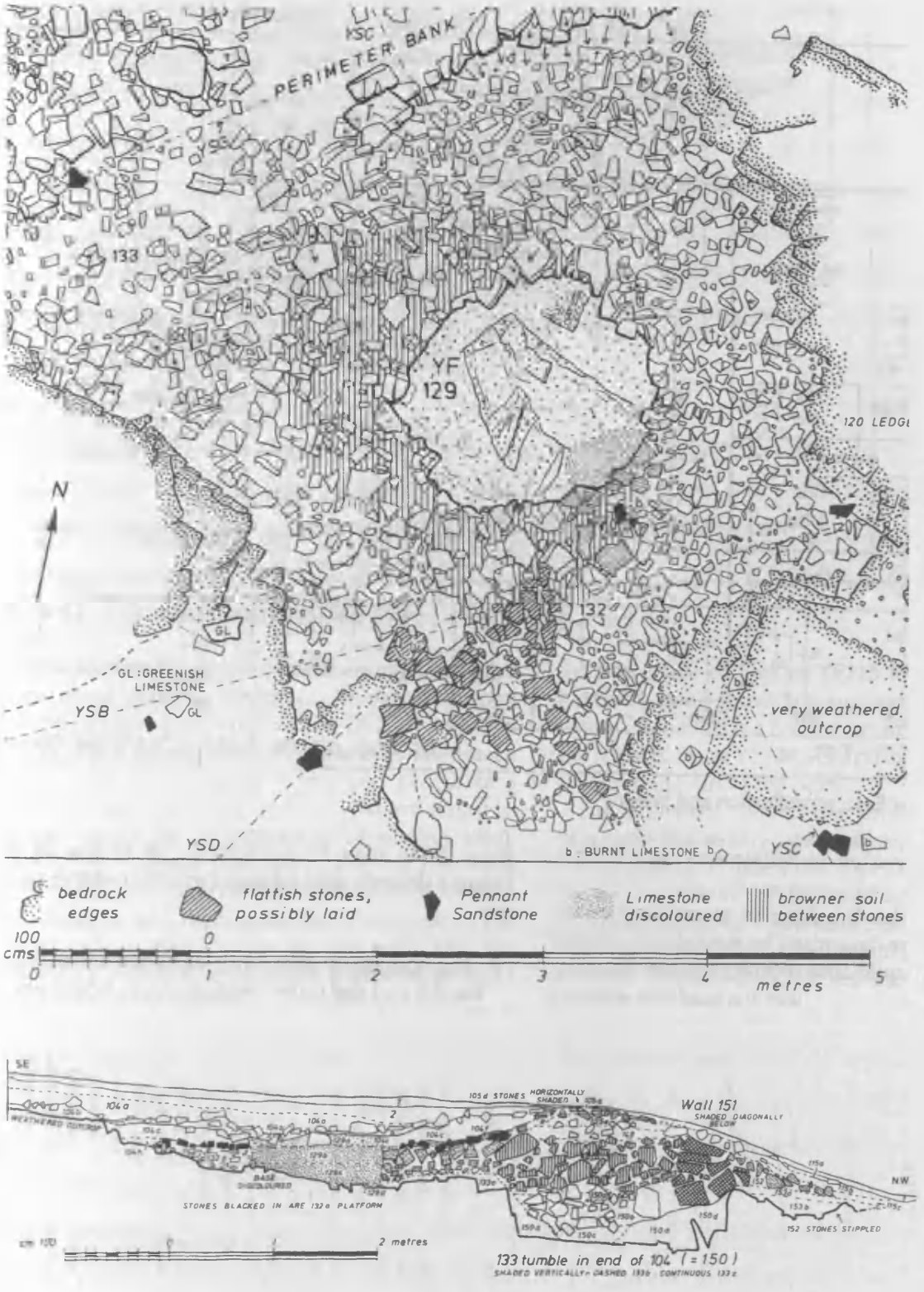


Figure 6:15 Plan (above) and section (below) of pit YF129 and platform YF132, Cadbury Congresbury (*from* Rahtz *et al* 1992: 72; 68)

Rahtz *et al* (1992: 67) interpreted pit YF129 as a receptacle for offerings, equivalent to a holy well, suggesting that "ordinary domestic items can acquire significance in ritual contexts". They argued that the rubble layer which platform YF132 had been lain over comprised the remains of a demolished Iron Age sanctuary. Drawing on the potential symbolism of this act, they suggested the pit either originally held a crucifix around which deposits were placed or (as they preferred) a baptismal tank which was meaningfully decommissioned (Rahtz *et al* 1992: 244). I suggest an alternative approach to understanding this pit. There is clear evidence for the sorting, containment and entombment of fill materials, as discussed in chapter 4 (ch4: p144-5). Finds included in the fill may have been sourced from the exposed ditches, pits and surfaces on the hilltop, with particular forms rejected (e.g. fired clay; ch6: p303). The pit was surrounded in three dimensions by multiple strata; from the two discrete foundation layers (YF132 and YF133); to the possible wooden lining of the pit; to the three-four sealing deposits (YF104c-a and possibly YF129a; Rahtz *et al* 1992: 71-2). Interestingly, these layers also included some of the finds paralleled in the pit fill, but with contrasting densities and choice of forms. For example, the underlying rubble mass (YF133) contained skull inclusions, and whilst the overlying layer YF104c had few finds within it, YF104a and b above it had concentrations as dense as those in the fill.

I agree with Rahtz *et al* (1992) that the rubble and platform layers were constructed with the intention of emplacing pit YF129 within them. However, I believe this act was one of purification. I think the whole installation demarcated and neutralised elements of material life which were conceived of as taboo. People employed complex symbolism based on differential material form and densities to draw meaning to the multiple layers. This is especially apparent in the high densities of finds in the upper sealing layers (YF104a and b) which inverted the trend of decreasing density from the fill of YF129 upwards. Perhaps the lower and proximal layers separated the taboo elements of the fill, whilst the upper layers reincorporated it (ch2: p38-42). In this way, agents asserted, challenged or just manifested numerous knowledges through their materialisation in the pit. Returning to my argument in chapter 2 (ch2: p57), it follows that some entity on Cadbury Congresbury hilltop was characterised at this time as liminal: betwixt and between. Without appreciating the wider site in depth, I can only speculate at what this might be. Perhaps this entity may have been temporal; a brief hiatus of occupation on

site, and perhaps this very public act of purification communicated the acceptability or validity of re-occupation.

Approaching social ethnicities

Ethnicity has received renewed attention in recent archaeological publications (e.g. Shennan 1989; Graves-Brown *et al* 1996; Jones 1997; 2000; Lucy 2005), sometimes linked to questions of regionality (e.g. Cooney 2000b; Barclay & Brophy 2009). Culture-historical approaches often studied distributions of recurring artefact 'types' and practice forms, assuming these related to spreads of prehistoric cultures based on racial, linguistic and territorial affinities (e.g. the 'Beaker Folk'; Hawkes & Hawkes 1948: 57; AppB: p417-8). Rightly criticised for perceiving people as bound in homogeneous mobile groups, artificially delimited classes of artefacts, customs, physical appearances, languages and homelands actually rarely coincide (Barth 1969; Hodder 1982; Jones 1996; Kuper 1999). Even identical forms of practice and materiality could have had completely different meanings associated with them, thereby masking 'ethnic' variety (Jones 2000: 451-2). Indeed, Lucy (2005: 86) has recently argued that "ethnic groups are more of an idea than a thing"; defined by their members choosing to live in similar ways to one another, in contrast to non members. As social facts embedded in discursive relations between agency and the conditions of existence, ethnic identities are fluid, multi-layered, rarely consensual and by no means inevitable (ch1 p:5-7) (Jones 1996: 67-8; 71). Kuper (1994: 538; 1999) has gone so far as to reject the concept altogether, suggesting it provides greater insight into contemporary social politics and personal values than it does recognisable cultural entities.

All this has rendered the discernment of archaeological ethnicities extremely problematic (Jones & Richards 2005: 201-2). Despite Jones' (1996: 73-4) critical tone, she still offered patterns of artefact *styles and forms* in relation to social context as the main methodological approach. Watson & Bradley (2009) similarly problematically argued for a distinct Cumbrian-Irish Neolithic regional identity on the basis of commonalities in the form and nature of material symbols (e.g. the location and format of rock art) and architecture (e.g. the encircling of space in passage tombs and henges) between these two areas. Jones (2005a) considered the deployment of clay and stone in practice as a means of constructing and commenting on social identities in Neolithic Orkney. Whilst perceiving 'belonging' as an enacted cultural construct, specific descriptions of these re-worked

ethnicities are not offered, inhibiting cross-comparison with other prehistoric peoples and therefore any idea of scale. The drawback of (justifiably) abandoning prehistoric 'cultures' (e.g. Grooved Ware 'peoples' such as Rinyo, Clacton, Rinyo-Clacton, Durrington Walls, Woodlands, Woodlands-Clacton, Skara Brae, Unstan and so on; Childe 1946; Piggott 1954; AppB: p344-8; p412-7) is that any crystallised affinity within and between communities is currently left largely unaddressed. Whilst the process of creating, challenging and re-working ethnicity is considered in recent approaches (e.g. Jones 2005a), most do not identify specific similarities and differences within and between potentially ethnically allied peoples (for an exception, see Jones & Richards 2005[72]).

I believe that my discussion of knowledge formation, and particularly the presence or absence of certain truths in different social contexts, might provide a means by which ethnicities can be freshly explored. Identifying with certain people over others is always a consciously acknowledged act (Shennan 1989: 19), which means that ethnic characterisations are examples of analytical knowledge (ch2: p29-31). Once conceived, they become associated with other knowledge by both members and non-members which thereafter generates meaning (e.g. stereotypical characteristics, origin myths). Avoiding typological and homogenising judgments about artefacts and practice, my analysis would focus on detecting common *themes* in materially engaged performance (e.g. the employment of containment symbolism; the highlighting of previous action; the emphasis of communality). Through these patterns, the identification of commonly defined knowledge, and its relevance and popularity across contemporary and interacting communities would indicate overlapping world-views. If similarities were sufficiently consistent and recurrent, this might suggest shared ethnicities.

Throughout my thesis, I have argued that knowledges and their meanings constantly and discursively wax and wane on many scales and through numerous contexts, ranging from the intra-personal to the regional (figure 3:4) (Fardon 1987: 176; Jones & Richards 2005: 204). So, whilst specific knowledge configurations of people living in one community may have occasionally neatly matched those of others, most similarities were not sufficiently durable or consistent to reflect established communal facts, and therefore

[72] Jones & Richards (2005) specifically addressed the villagers of Barnhouse, Orkney, focusing on whether they held a sense of common identity, to what extent this might have been differentially experienced, and whether this set them aside from those residing in other villages

shared world-views. However, a recurrent concern, such as knowledgeability (as demonstrated across communities and individuals in the Late Neolithic to Early Bronze Age of the Irish Sea; ch4: p110-1; p133-8; p141-7; p165-9; p171-5 ch5: p214-6; p229-42; p269-71; ch6: p298-302), can be related to some sense of shared world-view, and therefore perhaps a common identification between certain people to the exclusion of others. This does not mean that an 'Irish Sea' culture can be constructed, but simply that there may have sometimes been a sense of affinity between different communities at this time. Without detailed analysis of other lives in the third and early second millennium cal BC, I am unable to compare this recurring popularity of knowledgeability characterisations in the Irish Sea region. It would certainly be interesting to establish whether other contemporary communities in eastern Britain were similarly as pre-occupied with the notions of the known and unknown. If so, I would consider whether these periods related to any other evidence of marked cross-regional contact (e.g. the dispersal of Hyssington axe-hammers from the later Early Bronze Age; ch4: p182; or the construction of passage tombs in north-western Britain and Orkney at the very end of the Middle Neolithic; AppB: p364-71).

Approaching social change

Social change is a subject which has been largely abandoned by most British archaeological theorists since the late 1980s (Fleming 2004: 144; Robb 2008: 57). Previous approaches were problematic on so many levels, from the social-evolutionary and ethnocentric focus on emerging 'complexity' (e.g. Service 1962; Renfrew 1976), to the empiricist assumption that significant change had to be caused by immigration (e.g. Ammerman & Cavalli-Sforza 1973), to the agency-less, environmentally-determinist, crisis-dominated and top-down explanations adopted (e.g. Fleming 1973). These angles so coloured the broad question of why societies change that the latter disappeared amongst outright criticism (AppB: p422-3); its historiography derided as the product of an archaeology based on modern, western, capitalist and scientific rationale (Shanks & Tilley 1987a: 163-4). In its place are specific considerations of irrefutable examples (e.g. the appearance of agricultural practices and accoutrement in Britain and Ireland at the start of the fourth millennium cal BC), and the work of cognitive-processual and neo-Marxist theoreticians who foreground strategies and intentionality. For example, prehistorian Robert Chapman (2003: 7) argued that in spite of the gross generalisation and absolutism involved, inequalities and varying scales of interconnectivity (both within

and between contemporary communities) are still discernible. For Chapman (2003: 158-63), the emergence and dissipation of 'complexity' through the acts of opportunistic, adaptable and capitalising individuals is key to understanding why practices, identities, materialities and *modus operandi* change.

These latter approaches continue to vastly under-represent the intricacy, subtlety and entanglement of human interaction, assuming that all communications and their consequences are intended and conscious (Hodder 2004: 51) (ch3: p65-70). At their worst, they continue to deploy ethnocentric and arbitrary classifications to analyse past peoples and do not embrace the complete dialectical immersion of people within their material worlds (Hodder 1982; Tilley 2004; Ingold 2007). Richards (2004: 111) has recently redressed the balance somewhat. He argued that social differentiation increased discursively in Late Neolithic Orcadian society through "ritualized competition" embedded in the construction and materiality of monuments. With regards the Ring of Brodgar and Stones of Stenness, Richards (2004:111) argued that variation in labour input between communities fuelled an emerging competitive ideology based on ritual exchange. Co-operative works such as ditch-digging and monolith procurement materialised concepts of obligation and prestige, locking disparate communities (e.g. Barnhouse) and peoples into spiralling power struggles. However, such example-based addresses do not provide a general perspective through which social change, a commonly identified phenomenon in contemporary literatures (ch2: p31), can be understood. I believe that knowledge formation processes offers a fresh outlet for this purpose. By considering knowledge as embroiled in continuous discursive relations between agents and their experiences (ch2: p22), it is possible to conceive of specifically how and why practices, relations, materialities, languages, customs and so on change. This appreciation defies the criticism levelled at previous approaches by simultaneously addressing multiple scales of resolution, foregrounding dwelling, and truly representing the complicated messiness of human existence. In addition, this focus of analysis moves away from value-laden interpretations of social forms and instead considers patterns of longevity and stability in the conditions of social life (Hodder 1987: 8).

As discussed in chapter 3 (ch3: p74-5), once knowledge is initially conceded through the reflexive and engaged processing of pre-existing knowledge (memories) to generate meaning, it must be constantly referenced to subsist in its original form beyond the

moment. In this instance, as the exception, it becomes bonded with other non-contradictory knowledge, reinforcing its 'truth' (ch3: p74-5). Upon communication it can be contested, whether directly or un-noticeably (or somewhere in between). However, if it is repeatedly and communally expressed in the same form, it is likely to have become associated with other bodies of knowledge, meaning its factual status has been established. These associated bodies can in turn differentially affect its long-term stability and relevance (e.g. polemic analytical knowledge, which I argued strengthened the understanding of subject knowledge as 'closed' to re-negotiation; ch2: p31-4). All of these engagements generate innumerable implications for other truths, be they intended, unintended or otherwise (ch2: p28-9; ch3: p74-5). It is these corollary implications which, however slight initially, can sometimes undermine established facts, in the extreme leading to the cascading re-concession of entire frameworks of knowledge (ch6: p274-5).

Since knowledge concessions are always engaged, the conditions of existence are always discursively locked to truths. So, I argue that archaeologically perceptible changes such as Jones' (2008: 194) description of the shifting foci of fragmentation, dispersal and transformation practices from the Early Neolithic to the Early Bronze Age in Britain and Ireland (figure 6:16) (ch2: p31; AppB: p378), relate to ongoing knowledge formation processes. At some point at the start of the third millennium cal BC, the logic of treating human bone in these ways was undermined, whilst the logic of deploying material culture in such performances became established. Jones (2008: 194-5) related this change to a wholesale transition in what forums were 'appropriate' for the negotiation of notions of personhood. He suggested that meanings attributed to materiality had changed sufficiently by the Late Neolithic that artefacts came to replace the physicality of the dead in these re-negotiations. He did not offer an explanation for this change, however, and I believe this lies in trajectories of ongoing knowledge re-concession. I propose that either a single, or several simultaneous re-concessions of how to understand both human bone and artefacts became established as durable truths at the start of the Late Neolithic. This occurred through their legitimising associations, intended or otherwise, with other re-conceded knowledge. In light of these emerging bodies of truth, further knowledges were undermined and subsequently re-conceded (e.g. following Jones 2008: 195, how best to engage with people in death, or perhaps alternatively, what degree of skeletal articulation was necessary for survival into an afterlife). This ultimately led to the complete shift in funerary performances observed by Jones (2008: 194-5). Why the original re-concessions

were not successfully contested early on relates to the discursive stability and popularity of associated knowledges' meanings (e.g. my example of fifteenth to seventeenth century AD, European Catholic world-views, where anything repeatedly perceived as known became godly and therefore unquestionable; ch3: p87-8).

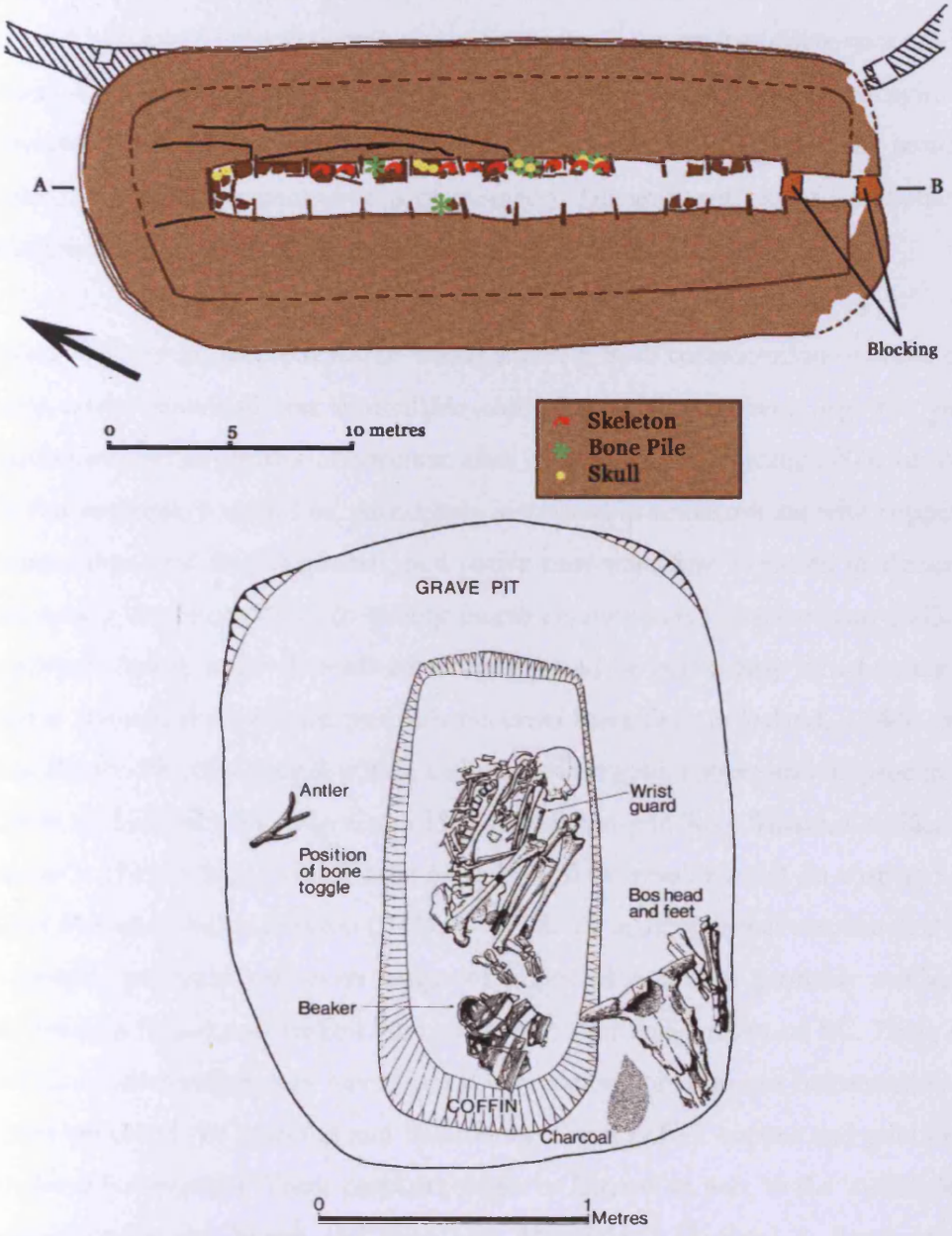


Figure 6:16 Plans of (above) the distribution of human bone found in the Middle Neolithic Midhowe stalled cairn, Rousay, Orkney during excavation (*from* Callander & Grant 1934) and (below), the Beaker burial at Hemp Knoll, Wiltshire (*from* Robertson-Mackay 1980). The contrast between the two diagrams demonstrates the shift in emphasis from human bone to artefacts between fourth and early second millennium cal BC burials

In this way, social change can be seen to originate in people dwelling through their worlds. Even entrenched ideas about life and humanity can be overhauled by the occasional understanding which, whether intended or otherwise, gains momentum due to the 'lucky' circumstantial context in which it is communicated. In this way, as mentioned earlier (ch6: p274-5), identifiable changes in past practices can result from minor new ideas which endure a complex journey of un-noted and noted, directed and unintended associations. However, the vast majority of understandings are rapidly re-conceded and forgotten (ch3: p75-7). These may have some impact within ongoing re-capitulating world-views, since most communal knowledge is not durable but constantly re-worked (e.g. current, western comprehensions of morality). The apparentness of social change is therefore, ironically, the result of previous marked continuity.

Following these ideas, future research would enable a fresh consideration of some of the currently under-discussed, yet undeniable shifts in prehistoric lives (e.g. the general standardisation of hengiform architecture after *c.* 2800 cal BC Harding 2003: 12; AppB: p382). For example, I would be particularly interested in re-examining why copper and gold materiality were first deposited, and native ores were first extracted in Britain and Ireland during the twenty-fifth to twenty-fourth centuries cal BC (Needham 2005: 206) (ch5: p245-7; AppB: p361-4). Such an analysis would be particularly suited to the Irish Sea region since gold deposition probably occurred there first (in Ireland, *c.* 2400 cal BC; O'Brien 2004b: 559; 564; AppB: p363), and the earliest gold, copper and tin procurement sites were all located there (e.g. Copa Hill, Ceredigion and Ross Island, Co. Kerry for copper; ch5: p245-7; Wales and Ireland for gold, and Cornwall for tin). In chapter 5 (ch5: p245-7) I followed Parker Pearson (1999: 78; 2008: 25) in arguing that metallurgical ideas, crafts people, products and even lumps of imported ore were probably available to people living in Britain and Ireland during the early third millennium cal BC. These items and technical knowledges may have been in circulation for centuries before native ores were first procured for smelting and hammering[73], and before copper and gold objects were habitually deposited. These centuries might be likened, in part, to the 'availability' of agriculture during the British and Irish Late Mesolithic[74] (Zvelebil & Rowley-Conwy 1984; 1986). However, Bradley's (1993) suggestion that world-views had to shift

[73] Timberlake (2003: 103) suggested that the iron carbonate and copper minerals from the fissured vein at Copa Hill, Ceredigion, may have been extracted for pigmentation long before they were used for metal production (ch5: p255)

[74] Where people in Britain and Ireland were in contact with agricultural items and technical knowledge during the fifth millennium cal BC (Zvelebil & Rowley-Conwy 1984; 1986)

sufficiently for agricultural practice to be variably and discursively incorporated can be furthered when considering the inception of metallurgical deposition and local ore procurement.

Clearly this change in practice related to specific re-concessions of knowledge about metal and metallurgy whereby, quite rapidly, ideas about deposition and procurement altered. This may have resulted from a single new concession, but (if repeatedly expressed in the same form) associations with other, subsequently re-conceding knowledges and meanings ultimately established a new logic where metallurgy could or should be locally sourced and deposited. This may not have been conceived as revolutionary, or even an "event" (c.f. Bradley 2007: 146; ch5: p246) to Terminal Neolithic people, but I believe it would have been a noticeable transition in widespread rationale. To identify specifically what body or bodies of knowledge shifted at this time, I would consider performances at a variety of Irish Sea region sites which have phases clearly dated to the few centuries either side of *c.* 2500 cal BC (e.g. Whitewell circular structure, Co. Westmeath[75] compared to the hut structures at Slieve Breagh, Co. Meath[76] AppB: p391; p394-5). I would attempt to isolate common, repetitive and durable themes in the way in which people engaged with their worlds, relating these themes to concerns which may have been prevalent in world-views at the time. By identifying the dissipation, fracturing, swelling, consolidation or foregrounding of these themes, I would be able to explicitly suggest what knowledge changed to facilitate the spread of metallurgical practice beyond spheres of manipulation (re-smelting), circulation (exchange) and utilisation (chopping, display), into those of conception (procurement) and death (deposition).

[75] Whitewell circular 'house' structure comprised two concentric rings of posts. It had been partially burnt before being dismantled, and the charcoal from the post-pipes radiocarbon dated to *c.* 2829-2347 cal BC (GrA-25734) and *c.* 2840-2469 cal BC (GrA-25726) (Phelan 2004; Smyth 2007: 85) (AppB: p391)

[76] At Slieve Breagh, Co. Meath, thirty-two circular earthworks were identified, two of which (1 and 2) were excavated, revealing 5m diameter substantial circular structures and several cooking-related pits (figure B:29) (Herity & Eogan 1977: 49; Grogan 1996). Both Carinated pottery and Grooved Ware were recovered from the pit fills, providing a probable *terminus post quem* of *c.* 2450 cal BC for hut occupation (Brindley 1999a: 32) (AppB: p343-8; p394-5)

Conclusion

I believe that my work goes beyond recent approaches in integrating how and why people may have understood their worlds, with *what* specifically this understanding may have comprised. For example, Cipolla's (2008) recent insightful article on signs of identity and memory, explored in an unusual amount of depth, the relationship between practice, memory and materiality. He discussed how, during the nineteenth century cal AD, Native American people living in the Eastern Piquot reserve practised traditional alongside European butchery techniques, thereby fortifying Piquot identities through materialising and enacting a shared past (Cipolla 2008: 210). However, there is no suggestion of what these identities meant to the Piquot, other than broad 'Piquot', 'English colonist' and 'American settler' identities (Cipolla 2008: 211). The reader is left no clearer on what themes or ideas coloured Piquot people's understanding of themselves and others. Presumably, Cipolla (2008) felt unable to expand on these topics based on his butchered faunal assemblage, but I argue that such openly speculative leaps are essential to furthering archaeological knowledge. Typical of many other examples from the 2000s, whilst Cipolla's work provides ample theoretical depth and intricacy on how meanings are negotiated through dwelling, there is no suggestion of what these meanings might have been (ch1: p5-7). This makes his detailed discussion paradoxically vague because its relevance to other examples of past lives is at best, broad.

My understanding of knowledge formation offers a way in which past lives can be comprehensively addressed; how, why and what people thought are combined as the dialectical consequence of inseparable discourse between cultural knowledges (memories), agency, engagements (i.e. dwelling) and social reality (figure 2:1). This basis enables explorations of past lives which integrate all dimensions of existence, rather than reifying one element (e.g. memory, agency or taskscape). By pursuing my research aim; accessing past knowledge (chapter 1); I have attempted to stretch into bodily engagements to determine specifically what these moments meant to their practitioners. The few knowledges I have explored in this light have enabled insight into common concerns which waxed and waned in relevance and popularity. When consensually prevalent, these concerns infrequently coloured how taskscapes and practices were conceived. However, like zombies in contemporary South Africa (ch3: p77-9), and knowledgeability in fifteenth to seventeenth century AD Catholic Europe (ch3: p87-8), in

the extreme they may have dominated how almost every dimension of life was understood (i.e. every entity and circumstance). I believe that my work therefore offers the potential of glimpsing occasional themes which definitively flavoured past world-views.

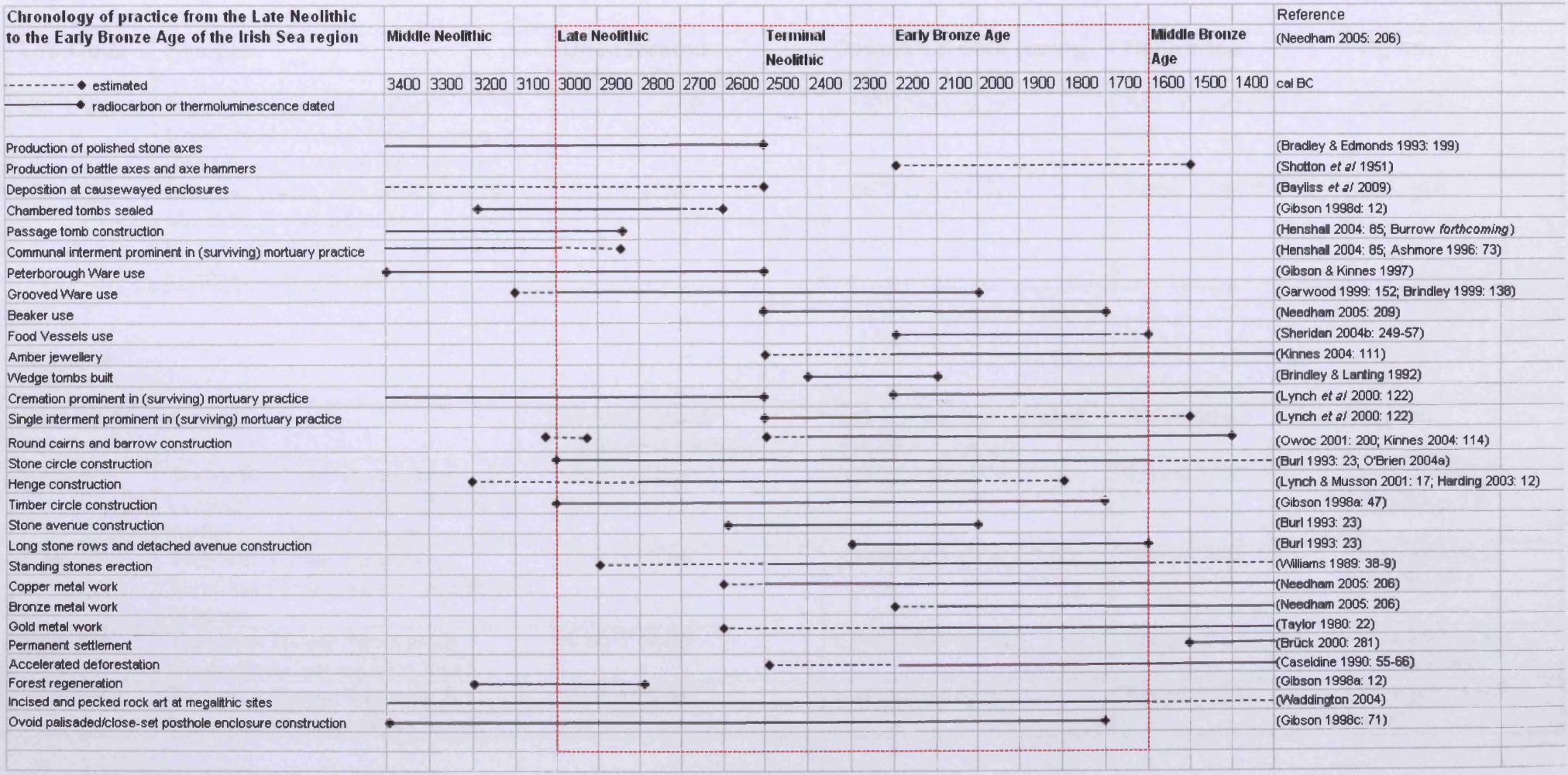
However, I reiterate that I am not proposing an approach (ch1: p3; ch6: p275). I instead offer an example of how to move beyond the current trend of side-stepping specific meaning in archaeological analysis. I hope that accessing past knowledge becomes prioritised and legitimised as a valid, worthy and practicable research topic, essential to the consideration of its relational partners. World-views would subsequently gain rightful prominence alongside engagements and agency within the dwelling approach.

Future work would, as already mentioned, involve the analysis of taskscapes, practices and perhaps other characterised entities and circumstances in other regions of third and early second millennium cal BC Britain and Ireland (ch6: p289-302). Through analysis of patterns in performance, I would strive to determine whether knowledgeability was a concern for other (non-Irish Sea and Irish Sea) peoples. If apparent, I would consider whether any peaks in the manifestation of this concern matched those already discerned in chapters 4 and 5. I would then be able to develop my work as a means of locating the existence and life-histories of possible cultural identities (ch6: p306-8). I would also consider other prominent and recurrent common concerns in dynamic world-views, particularly those of peoples whose practices markedly shifted in form and nature (e.g. the inception of metal ore procurement and object deposition in Britain and Ireland *c.* 2500-2400 cal BC; Needham 2005: 206; ch5: p245-7; ch6: p308-313; AppB: p361-4). This type of analysis would offer specific explanations for continuity and change in social practice, linking actions to structures to taskscape through knowledge-bound dwelling.

Publications pursuing these research aims would hopefully encourage others to be more explicit about past knowledges, enabling the discipline to move beyond its current conservatism which is suppressing the colour and vitality of past lives (ch1: p19). By focusing on knowing through being rather than fairly rigid, pre-determined themes such as identity, it is possible to envisage a few fractured, multi-faceted, fluid, messy, temporary, unpredictable but ultimately *real* concerns that interwove the lives of prehistoric peoples.

Appendix A: Frameworks

A1 Broad chronological time-frame



A2 Radiocarbon dates cited in text[77]

Chapter 1

Lab Code	Sample	Uncalibrated radiocarbon date	Calibrated date (using OxCal 4.1) to 2σ	Reference	Pg no.
GU-1424	**Machrie Moor Pollen Core** Unspecified charcoal from horizon in core relating to partial elm recovery	4310 ± 155 BP	*c.* 3370-2493 cal BC	Barber *et al* 1997: 113; 118	Ch1: p13
GU-3527	**Machrie North, Site 24/03, Pit 19** Mixed hazel and alder charcoal in pit fill. The pit cut through colluvial layers overlying field boundary F5	3870 ± 50 BP	*c.* 2472-2202 cal BC	Barber *et al* 1997: 83	Ch1: p14

Chapter 4

Lab Code	Sample	Uncalibrated radiocarbon date	Calibrated date (using OxCal 4.1) to 2σ	Reference	Pg no.
CAR-275	**Trelystan House Structure A** Unspecified charcoal from Pit 1 in the north-east corner of the hut	4050 ± 70 BP	*c.* 2876-2459 cal BC	Britnell 1982: 191	Ch4: p99; p152; AppA5: p 336
CAR-276	**Trelystan House Structure A** Burnt hazel twig from slot on west side of hearth	3955 ± 70 BP	*c.* 2834-2207 cal BC	Britnell 1982: 191	Ch4: p99; p151; AppB: p393
CAR-272	**Trelystan House Structure B** Unspecified charcoal from Pit 13	4260 ± 70 BP	*c.* 3086-2626 cal BC	Britnell 1982: 191	Ch4: p99; p154; AppB: p345
CAR-274	**Trelystan House Structure B** Burnt hazel nutshells from hearth	3985 ± 70 BP	*c.* 2853-2288 cal BC	Britnell 1982: 191	Ch4: p99; AppB: p393

[77] All radiocarbon dates have been re-calibrated using OxCal 4.1. at 2σ

BM-2837	**Coed-y-dinas Ring-Ditch I** Carbonised hulled barley in the early (not primary) fill of the ring-ditch	3630 ± 45 BP	*c.* 2135-1889 cal BC	Gibson 1994: 165	Ch4: p99; p121; AppA5: p336
OxA-3997	**Sarn-y-bryn-caled Cursus** Unspecified charcoal located immediately above loose initial silting in the eastern ditch section	4960 ± 70 BP	*c.* 3943-3641 cal BC	Gibson 1994: 170-1	Ch4: p100; p113
Beta-177037	**Lower Luggy Ditched Enclosure** Carbonised hazel twigs at base of south-east ditch terminal	4760 ± 50 BP	*c.* 3645-3377 cal BC	Gibson 2006b: 178	Ch4: p100; p104; AppA5: p336
BM-2954	**Lower Luggy Long Barrow** Outer growth rings of carbonised oak post in north section of south ditch, trench 1	4830 ± 45 BP	*c.* 3704-3521 cal BC	Gibson 1995; 2000: 11; 2006b: 186	Ch4: p100; p104
BM-2955	**Lower Luggy Long Barrow** Outer growth rings of carbonised oak post in trench 2	4710 ± 40 BP	*c.* 3633-3372 cal BC	Gibson 1995; 2000: 11; 2006b: 186	Ch4: p100
BM-2829	**Context 198; post hole 200m NE of Lower Luggy Enclosure** Carbonised remains of oak post in fill 199	4740 ± 35 BP	*c.* 3637-3377 cal BC	Gibson 1994: 159	Ch4: p101; p113; AppA5: p336
SWAN-116	**Hindwell Enclosure** Unspecified carbonised outer rings of post 1	3960 ± 70 BP	*c.* 2835-2208 cal BC	Gibson 1996a: 344-5	Ch4: p101; AppB: p386; p401
SWAN-117	**Hindwell Enclosure** Unspecified carbonised outer rings of post 4	4070 ± 70 BP	*c.* 2872-2471 cal BC	Gibson 1996a: 344-5	Ch4: p101; AppB: p386; p401
GrA-29332	**Lower Luggy Enclosure pit** Cremated bone from deposit in fill of pit 5090	4280 ± 45 BP	*c.* 3022-2706 cal BC	Gibson 2006b: 178	Ch4: p104

BM-2819	**Sarn-y-bryn-caled Penannular Ring-Ditch 1** Unspecified charcoal from silting of secondary ditch cut	4200 ± 40 BP	*c.* 2899-2638 cal BC	Gibson 1994: 161	Ch4: p115; AppA5: p336
BM-2820	**Sarn-y-bryn-caled Penannular Ring-Ditch 1** Unspecified charcoal from silting of secondary ditch cut	4400 ± 45 BP	*c.* 3325-2907 cal BC	Gibson 1994: 161	Ch4: p115; AppA5: p336
BM-2808	**Sarn-y-bryn-caled Timber Circle** Unspecified carbonised outer growth-rings of outer post 11	3720 ± 40 BP	*c.* 2276-1980 cal BC	Gibson 1994: 150	Ch4: p116; AppB: p383
BM-2807	**Sarn-y-bryn-caled Timber Circle** Unspecified carbonised outer growth-rings of outer post 12	3660 ± 60 BP	*c.* 2201-1889 cal BC	Gibson 1994: 150	Ch4: p116; AppA5: p336; B: p383
BM-2805	**Sarn-y-bryn-caled Timber Circle** Unspecified carbonised outer growth-rings of inner post F	3730 ± 40 BP	*c.* 2281-1985 cal BC	Gibson 1994: 155	Ch4: p116; p118; AppA5: p336; AppB: p383
BM-2806	**Sarn-y-bryn-caled Timber Circle** Unspecified carbonised outer growth-rings of inner post E	3670 ± 40 BP	*c.* 2195-1939 cal BC	Gibson 1994: 155	Ch4: p116; AppB: p383
BM-2810	**Sarn-y-bryn-caled Central Pit** Oak (pyre?) charcoal in primary cremation deposit	3990 ± 50 BP	*c.* 2833-2342 cal BC[78]	Gibson 1994: 155	Ch4: p118
BM-2809	**Sarn-y-bryn-caled Central Pit** Oak (pyre?) charcoal in secondary cremation deposit	3660 ± 40 BP	*c.* 2190-1926 cal BC	Gibson 1994: 155-6	Ch4: 119; AppA5: p336
BM-2838	**Coed-y-Dinas Ring-Ditch II** Carbonised hulled barley from internal post-hole 25	2110 ± 40 BP	*c.* 351-4 cal BC	Gibson 1994: 167	Ch4: p122

[78] This radiocarbon date is incorrectly cited as BM-2809, *c.* 3900 ± 40 BP in Gibson 1994: 155. This is corrected in the CPAT Research Framework for the Archaeology of Wales East and Northeast Wales database, created 22/12/2003 (http://www.cpat.org.uk/research/enrad.htm) as BM-2810, *c.* 3990 ± 50 BP

CAR-282	**Trelystan Pit-Grave, burial II:1** Carbonised oak in rubble fill at base of inner pit channel	4345 ± 65 BP	*c.* 3327-2875 cal BC	Britnell 1982: 192	Ch4: p151; AppA5: p336; AppB: p377
CAR-273	**Trelystan House Structure B** Hazel, rowan and hawthorn charcoal from pit 14	4135 ± 65 BP	*c.* 2888-2500 cal BC	Britnell 1982: 191	Ch4: p154
CAR-285	**Trelystan Barrow I** Hazel charcoal in the upper turf layer of the primary cairn	3540 ± 65 BP	*c.* 2112-1692 cal BC	Britnell 1982: 188; 192	Ch4: p155; AppA5: p336
CAR-279	**Trelystan Barrow I** Hazel and hawthorn charcoal from main area of burning on west side of burial 1:3	3750 ± 70 BP	*c.* 2453-1956 cal BC	Britnell 1982: 191	Ch4: p155; p157
CAR-280	**Trelystan Burial I:4** Unspecified carbonised stakes of pyre retainer	3645 ± 70 BP	*c.* 2271-1778 cal BC	Britnell 1982: 192	Ch4: p158; p171
CAR-281	**Trelystan Burial I:4** Oak logs overlying burial I:4 covering slab, possibly contained within the mound extension of Barrow I	3695 ± 70 BP	*c.* 2289-1898 cal BC	Britnell 1982: 155; 192	Ch4: p158
CAR-390	**Trelystan Burial II:2** Unspecified charcoal from burnt patch inter-cut by the pit containing burial II:2	3550 ± 65 BP	*c.* 2120-1695 cal BC	Britnell 1982: 192	Ch4: p159
CAR-283	**Trelystan Burial II:3** Oak charcoal from cremation deposit	3550 ± 60 BP	*c.* 2113-1698 cal BC	Britnell 1982: 192	Ch4: p161; AppA5: p336
CAR-277	**Trelystan Pit 18** Hazel nutshells and charcoal from pit fill	3455 ± 70 BP	*c.*1954-1561 cal BC	Britnell 1982: 191	Ch4: p161

Lab Code	Sample	Uncalibrated radiocarbon date	Calibrated date (using OxCal 4.1)	Reference	Pg no.
CAR-292	**Carne Burnt Mounds** Carbonised unspecified organic inclusions in fill of pit 52, sealed by mound A	3790 ± 70 BP	*c.* 2460-2036 cal BC	Williams 1990: 132	Ch5: p198
CAR-589	**Carne Burnt Mounds** Carbonised unspecified organic inclusions in lower fill of pit associated with mound B	3960 ± 65 BP	*c.* 2833-2211 cal BC	Williams 1990: 132	Ch5: p198
CAR-591	**Carne Burnt Mounds** Carbonised unspecified organic inclusions in base fill of pit below mound B	3710 ± 65 BP	*c.* 2294-1922 cal BC	Williams 1990: 132	Ch5: p198
HAR 744n	**Cefn Glas Hut Structure** Unspecified charcoal from pre-hut occupation layer	4110 ± 70 BP	*c.* 2880-2491 cal BC[79]	Clayton and Savory 1990: 15	Ch5: p203
CAR-91	**Coed Taf C Pollen Core, Elm Decline** Unspecified organic matter from phase d of core	4615 ± 95 BP	*c.* 3636-3038 cal BC	Chambers 1983: 482-4	Ch5: p205
GrN-5463	**Newgrange Passage Tomb, Cruciform Chamber** Unspecified charcoal from the burnt soil 'putty' used to caulk the interstices between the roof-slabs of the passage	2465 ± 40 BP	*c.* 3327-2916 cal BC	M.J. O'Kelly 1982: 230	Ch5: p217; AppB: p345; p366

[79] This radiocarbon date is only offered as 2160 bc in Clayton & Savory 1990: 15. The BP date is listed in the CPAT Research Framework for the Archaeology of Wales East and Northeast Wales database, created 22/12/2003 (http://www.cpat.org.uk/research/enrad.htm) as *c.* 4110 ± 70 BP

GrN-6344	**Newgrange Late and Terminal Neolithic Settlement** Unspecified charcoal sample from earlier layer of occupation, associated with a Tievebulliagh porcellanite axe, flakes and Beaker sherds	4050 ± 40 BP	*c.* 2851-2472 cal BC	van Wijngaarden-Bakker 1986: 18-9; Sheridan 1986: 26	Ch5: p221; AppB: p355
UB-2394	**Newgrange Late and Terminal Neolithic Settlement** Unspecified charcoal from later occupation context	3875 ± 90 BP	*c.* 2578-2043 cal BC	van Wijngaarden-Bakker 1986: 18-9	Ch5: p221
GU-1671	**Newgrange Pit Circle (larger), Ring 2, Pit 1** Carbonised hazel and ash from fill	4050 ± 65 BP	*c.* 2872-2463 cal BC	Sweetman 1985: 218	Ch5: p218; p237
GU-1619	**Newgrange Pit Circle (larger), Ring 2, Pit 3** Carbonised ash from fill	3885 ± 70 BP	*c.* 2567-2145 cal BC	Sweetman 1985: 218	Ch5: p218; p237
Grn-11802	**Newgrange Pit Circle (larger), Ring 2, Pit 6** Unspecified charcoal from fill	4030 ± 35 BP	*c.* 2832-2471 cal BC	Sweetman 1985: 218	Ch5: p237
GU-1618	**Newgrange Pit Circle (larger), Ring 3, Pit 2** Unspecified charcoal from fill	3980 ± 75 BP	*c.* 2856-2214 cal BC	Sweetman 1985: 218	Ch5: p237
GU-1620	**Newgrange Pit Circle (larger), Ring 4, Burial 5** Unspecified charcoal from fill, associated with burial	4000 ± 65 BP	*c.* 2853-2301 cal BC	Sweetman 1985: 210; 218	Ch5: p237
GU-1622	**Newgrange Pit Circle (larger), Habitation Horizon** Unspecified charcoal spread to west of cobbling	3907 ± 70 BP	*c.* 2574-2154 cal BC	Sweetman 1985: 203	Ch5: p240; AppB: p347

OxA-1874	**Radley Barrow Hills, F919, Primary Burial** Un-burnt human bone from 4-5 year old associated with a Weak-Carinated Beaker, three simple copper rings and a bone disc	3930 ± 80 BP	*c.* 2832-2147 cal BC	Barclay & Halpin 1999: 55-65	Ch5: p245; AppB: p362
OxA-6684	**Copa Hill Comet Lode Mine, Entrance A (area D8)** Handle of antler hammer (077)	3405 ± 70 BP	*c.* 1886-1529 cal BC	Timberlake 2003: 45	Ch5: p260; p261
OxA- 10044	**Copa Hill Comet Lode Mine, Eastern Lateral Tip** Oak branch-wood in layer containing antler pick	3600 ± 39 BP	*c.* 2125-1786 cal BC	Timberlake 2003: 51	Ch5: p260
Wk-9544	**Copa Hill Comet Lode Mine, Eastern Lateral Tip** Unspecified charcoal at base of tip	4136 ± 58 BP	*c.* 2884-2506 cal BC	Ambers 2003: 55	Ch5: p261
OxA-10043	**Copa Hill Comet Lode Mine, Entrance A (areas D8 and D2)** Unspecified charcoal underlying an undercut part of a vein running through Entrance A	3595 ± 45 BP	*c.* 2129-1777 cal BC	Timberlake 2003: 47	Ch5: p261
BM-2812	**Copa Hill Comet Lode Mine, North Face of Opencast (area D3)** Unspecified carbonised firewood underlying gallery	3460 ± 50 BP	*c.* 1907-1639 cal BC	Timberlake 2003: 33	Ch5: p261
OxA-10022	**Copa Hill Comet Lode Mine, Centre Front Section of Opencast (area D7)** Basal raft of peat at base of fill	3420 ± 40 BP	*c.* 1878-1623 cal BC	Timberlake 2003: 47-8	Ch5: p261
OxA-10025	**Copa Hill Lode Mine, Extraction Channel (area D7)** Oak stemple beam in fill of channel	3535 ± 38 BP	*c.* 1964-1749 cal BC	Timberlake 2003: 49	Ch5: p265

Lab Code	Sample	Uncalibrated radiocarbon date	Calibrated date (using OxCal 4.1)	Reference	Pg no.
GrN-13667	**Mount Gabriel Mine 3, Spoil Mound** Birch and oak charcoal inclusions within deep strata	3430 ± 30 BP	*c.* 1877-1639 cal BC	Brindley & Lanting 1994: 284	Ch6: p294
GrN-15965	**Mount Gabriel Mine 3, Deepest Gallery** Partly charred oak inclusion at base of primary sediment fill	3350 ± 25 BP	*c.* 1732-1534 cal BC	Brindley & Lanting 1994: 284	Ch6: p294
GrA-25734	**Whitewell Circular 'House' Structure** Carbonised post-pipe	3990 ± 45 BP	*c.* 2829-2347 cal BC	Phelan 2004; Smyth 2007: 85	Ch6: p313; AppB: p391
GrA-25726	**Whitewell Circular 'House' Structure** Carbonised post-pipe	4040 ± 40 BP	*c.* 2840-2469 cal BC	Phelan 2004; Smyth 2007: 85	Ch6: p313; AppB: p391

Appendices

Lab Code	Sample	Uncalibrated radiocarbon date	Calibrated date (using OxCal 4.1)	Reference	Pg no.
CAR-1037	**Lan Fawr Cairn, Collared Urn Cremation Burial** Associated ash and oak charcoal	3530 ± 70 BP	*c.* 2113-1687 cal BC	Britnell 1988: 14	AppA6: p339
CAR-1038	**Lan Fawr Cairn Collared Urn Cremation Burial** Associated ash and oak charcoal	3330 ± 70 BP	*c.* 1862-1448 cal BC	Britnell 1988: 14	AppA6: p339
BM-1112	**Ogmore Temporary Occupation Site** Unspecified charcoal from 'lower' level[80]	4460 ± 50 BP	*c.* 3347-2936 cal BC	Gibson & Kinnes 1997: 66	AppB: p343

[80] Although Gibson (1998b: 60) has expressed caution about differentiating between the two levels. They may actually represent one disturbed context (see Appendix B: p343)

HAR-1140	**Ogmore Temporary Occupation Site** Unspecified charcoal from 'upper' level[81]	4320 ± 80 BP	*c.* 3331-2679 cal BC	Gibson & Kinnes 1997: 66	AppB: p343
OxA-4409	**Brynderwen Farm Pit** Unspecified organic residue from Peterborough Ware sherd	4440 ± 70 BP	*c.* 3341-2921 cal BC	Gibson 1993: 35	AppB: p344
BIRM-1236	**Cefn Bryn Occupation Site** Unspecified charcoal from layer which also contained Mortlake Peterborough Ware sherds	4060 ± 100 BP	*c.* 2889-2346 cal BC	Ward 1987: 39-40	AppB: p344
GU-2316	**Machrie Moor Timber Circle** Unspecified mixed charcoal from post-holes of main timber ring (one of which contained Grooved Ware)	4470 ± 50 BP	*c.* 3354-2943 cal BC	Haggerty 1991: 63	AppB: p345
GrN-11873	**Fourknocks Pit Circle, Pit 6A** Unspecified mixed charcoal in fill associated with Irish Grooved Ware sherds	4305 ± 45 BP	*c.* 3087-2872 cal BC	King 1989/90: 77	AppB: p346
D-34	**Geroid Island Occupation Site** Carbonised centre of oak stump growing above habitation layer[82]	3680 ± 125 BP	*c.* 2458-1755 cal BC	McAuley & Watts 1961: 32-3	AppB: p346
BM-2706	**Radley Barrow Hills, Pit 3196** Collagen from cattle bone in primary fill (layer 3) of re-cut pit also containing Grooved Ware	3830 ± 90 BP	*c.* 2562-2030 cal BC	Garwood 1999: 170	AppB: p347
BM-397	**Durrington Walls South Circle, Post-Pit 92** Collagen from cattle bone in fill of post-pit also containing Grooved Ware	3850 ± 90 BP	*c.* 2568-2037 cal BC	Wainwright & Longworth 1971: 411	AppB: p347

[81] As footnote 80

[82] This radiocarbon date was processed particularly early (1961) however, which might reduce its validity somewhat (Brindley 1999a: 31)

BM-678	**Woodhenge Ditch** Collagen from animal bone in the basal fill (layer 8) of the ditch, which also contained Grooved Ware	3755 ± 55 BP	*c.* 2397-1980 cal BC	Evans & Wainwright 1979: 73	AppB: p347
GrN-20224	**Ross Island, Furnace Pit (C.500)** Unspecified carbonised wood from lower fill, sealed by silt layer (C.05), which contained Beaker sherds	3910 ± 40 BP	*c.* 2550-2234 cal BC	O'Brien 1995: 43; 2004b: 243	AppB: p348; p362
GrN-19624	**Ross Island, Silt Layer (C.05)** Unspecified charcoal from layer which also contained Beaker sherds and sealed Furnace Pit (C.500)	3830 ± 35 BP	*c.* 2459-2150 cal BC	O'Brien 2004b: 169	AppB: p348
OxA-13624	**Boscombe Down 'Collective Grave'** Human bone from articulated skeleton, associated with around eight Low-Carinated and S-Profile Beakers	3845 ± 27 BP	*c.* 2458-2205 cal BC	c.f. Needham 2005: 202	AppB: p349; 402
BM-1413	**Sorisdale Pit Burial in Beaker-period Midden** Human bone associated with All Over Corded Beaker	3879 ± 32 BP	*c.* 2468-2215 cal BC	Ritchie & Crawford 1978	AppB: p351
GrA-19566	**Bedd Branwen Cremation Burial B** Human bone associated with a Vase Urn B	3560 ± 45 BP	*c.* 2026-1769 cal BC	Sheridan 2003a: 206	AppB: p352
GrN-6342	**Newgrange Late and Terminal Neolithic Settlement** Unspecified charcoal sample from earlier layer of occupation, associated with a Tievebulliagh porcellanite axe, flakes and Beaker sherds	3885 ± 35 BP	*c.* 2471-2213 cal BC	Sheridan 1986: 26	AppB: p355

GrN-6343	**Newgrange Late and Terminal Neolithic Settlement** Unspecified charcoal sample from earlier layer of occupation, associated with a Tievebulliagh porcellanite axe, flakes and Beaker sherds	3990 ± 40 BP	*c.* 2621-2350 cal BC	Sheridan 1986: 26	AppB: p355
SUERC-18319/GU-16651	**Inhumation 1, Gallows Hill Barrow, Arreton Down** Un-burnt human bone associated with a segmented faience bead	3555 ± 35 BP	*c.* 2016-1771 cal BC	Sheridan 2008: 58	AppB: p357
GrA-19180	**Mound of the Hostages Passage Tomb, Burial 30** Human bone of young male inhumed in the west of the cairn mound. Associated with a composite necklace comprising faience, amber, jet and bronze beads	3390 ± 60 BP	*c.* 1878-1528 cal BC	O'Sullivan 2005: 177-82	AppB: p358; p359; p370
GrA-22371	**Amesbury Solstice Park, Senior Adult Burial** Human bone associated with a composite necklace of Whitby jet, Kimmeridge shale, stone (incl. calcite), faience and amber	3240 ± 40 BP	*c.* 1612-1433 cal BC	Sheridan 2008: 59	AppB: p358
GrA-26608	**Radley Barrow Hills, Barrow 16, Pit E** Human bone associated with a composite necklace, bronze knife and bronze awl	3445 ± 40 BP	*c.* 1889-1669 cal BC	Barclay & Halpin 1999: 165	AppB: p358
GrA-34776	**Knowes of Trotty, Cist Burial** Cremated human bone associated with amber space plate necklace fragments and other amber objects	3575 ± 35 BP	*c.* 2029-1779 cal BC	Sheridan 2008: 62	AppB: p359

OxA-13386	**Stannon Down, Site 2, Pit 30, Sample 1033** Hazel charcoal from the fill of a possible cist pit, also containing a snapped discoidal flint knife, an amber bead and Trevisker[83] pottery	3254 ± 31 BP	*c.* 1612-1452 cal BC	Jones 2006: 343; 347	AppB: p359
HAR-5587	**Whitegrounds Barrow, Inhumation Burial** Human bone associated with a jet slider	4250 ± 90 BP	*c.* 3504-2922 cal BC	Brewster 1984	AppB: p359
OxA-4659	**Migdale Hoard** Unspecified wood from the backing of a tubular bronze bead, associated with a V-perforated button	3655 ± 75 BP	*c.* 2281-1779 cal BC	Sheridan & Davis 1998: 155	AppB: p359
CAR-1261	**Carneddau Ring-Cairn 6506, Pit 129** Unspecified charcoal from fill (130) which also included a small pill-shaped jet bead	3350 ± 70 BP	*c.* 1875-1459 cal BC	Gibson 1993: 31-3	AppB: p360
GrA-2157	**Keenoge, Grave 13** Un-burnt human bone associated with 40 bead jet choker necklace	3730 ± 35 BP	*c.* 2276-2028 cal BC	Mount 1997: 58	AppB: p360
BM-705	**Northton, Isle of Harris Settlement** Red deer antler from upper of two midden deposits	4411 ± 79 BP	*c.* 3339-2903 cal BC	Loveday 2007 *et al*: 385	AppB: p361
OxA-1875	**Radley Barrow Hills, F919, Secondary Burial** Neonate human bone associated with Weak-Carinated Beaker and cremated bone from a 2-3 year old	3990 ± 80 BP	*c.* 2862-2234 cal BC	Barclay & Halpin 1999: 55-65	AppB: p362

[83] Trevisker Ware is a (possibly originally Cornish) sub-style of later Early Bronze Age urns

OxA-13541	**Boscombe Down West 1 burial (The 'Amesbury Archer')** Human bone associated with three tanged copper knives, a bone pin, shale belt-ring, two basket gold earrings, two wrist-guards, three Beakers and 15 barbed and tanged arrowheads	3895 ± 32 BP	*c.* 2471-2290 cal BC	Parker Pearson *et al* 2007: 635	AppB: p362; p363; p402
BM-646	**Mount Pleasant Henge, Terminal of Enclosure Ditch by West Entrance Causeway** Antler pick from primary fill, found resting on the rock-cut ditch floor. A flanged bronze axe lay in the fill immediately above it	3728 ± 59 BP	*c.* 2299-1949 cal BC	Burleigh *et al* 1972: 395-8	AppB: p362
UB-319	**Knowth 'Habitation' Layer** Unspecified charcoal from layer underlying passage tombs 1, 17 and 18	4795 ± 185 BP	*c.* 3976-3029 cal BC	Eogan & Roche 1997: 60	AppB: p366
UB-7115	**Bryn Celli Ddu Passage Tomb, Inner Passage** Cremated bone found in the primary fill between stones 13 and 15 (figure B:17)	4360 ± 44 BP	*c.* 3095-2895 cal BC	Burrow *forthcoming*	AppB: p368
GrA-17747	**Mound of the Hostages Passage Tomb, Cist III** Burnt human bone from in and under a Carrowkeel Ware pot	4530 ± 60 BP	*c.* 3494-3024 cal BC	O'Sullivan 2005: 226	AppB: p369
GrA-17295	**Mound of the Hostages Passage Tomb, Burial 2** Burnt human bone, from burial in the south-east of cairn mound	4550 ± 50 BP	*c.* 3496-3092 cal	O'Sullivan 2005: 224	AppB: p369

GrA-18353	**Mound of the Hostages Passage Tomb, Skull P** Un-burnt skull placed between orthostat R2 and the inner sill stone, middle compartment of the central chamber	4060 ± 50 BP	*c.* 2862-2472 cal BC	O'Sullivan 2005: 226	AppB: p369
GrA-18374	**Mound of the Hostages Passage Tomb, Skull G** Un-burnt skull of young person placed on the inner side of the middle sill stone, middle compartment of the central chamber	4230 ± 50 BP	*c.* 2921-2634 cal BC	O'Sullivan 2005: 226	AppB: p369
GrA-17719	**Mound of the Hostages Passage Tomb, Central Chamber** Cremated human bone found in the base fill of a pit in the inner compartment	3760 ± 50 BP	*c.* 2345-2025 cal BC	O'Sullivan 2005: 230	AppB: p370
GrA-17670	**Mound of the Hostages Passage Tomb, Palisade 2** Unspecified charcoal from post-pit in excavation baulk	3925 ± 40 BP	*c.* 2565-2291 cal BC	O'Sullivan 2005: 228	AppB: p371
GrN-26062	**Mound of the Hostages Passage Tomb, Palisade 3, Pit Z2** Unspecified charcoal, probably a post-pit from palisade entrance-way	3960 ± 60 BP	*c.* 2829-2235 cal BC	O'Sullivan 2005: 228	AppB: p371
GrN-18493	**Toormore Wedge Tomb** Unspecified charcoal from a small cist to the south of the entrance (figure B:20)	3250 ± 70 BP	*c.* 1691-1401 cal BC	O'Brien 2004b: 218	AppB: p371
GrN-18494	**Toormore Wedge Tomb** Unspecified charcoal from a second pit towards the rear of the chamber (figure B:20)	2540 ± 70 BP	*c.* 811-415 cal BC	O'Brien 2004b: 218	AppB: p371

CAR-670	**Four Crosses, Ring-Ditch 5, Central Pit-Grave** Unspecified charcoal from the primary pit fill. A crouched inhumation was placed on the pit floor, followed by two more at a depth of 0.2m	4440 ± 70 BP	*c.* 3341-2921 cal BC	Warrilow *et al* 1986: 64	AppB: p373
BM-839	**Killeaba Mound, Pit TI** Oak charcoal from probable timber lining of underlying pit which contained cremation deposits	4381 ± 58 BP	*c.* 3327-2893 cal BC	Cubbon 1978	AppB: p373
BM-840	**Killeaba Mound, Pit TII** Oak charcoal from probable timber lining of underlying pit which contained cremation deposits	4300 ± 52 BP	*c.* 3090-2714 cal BC	Cubbon 1978	AppB: p373
OxA-13327	**Duggleby Howe, Grave B** Red deer antler macehead from the top of the fill of grave B, which contained male inhumation G	4597 ± 35 BP	*c.* 3512-3121 cal BC	Loveday *et al* 2007: 387	AppB: p373
OxA-4356	**Radley Barrow Hills, Oxfordshire, Barrow 4A, Primary Burial** Human bone associated with two gold 'basket-earrings', a Beaker and three barbed and tanged arrowheads	3880 ± 90 BP	*c.* 2580-2043 cal BC	Barclay & Halpin 1999: 153-4	AppB: p374
OxA-13387	**Imery's Stannon China Clay Works, Site 2 'Tailed' Cairn, Layer 27** Carbonized hazel in foundation layer under granite slabs in centre of the area enclosed by kerb-stones	3919 ± 31 BP	*c.* 2481-2296 cal BC	Jones 2006: 343	AppB: p375
OxA-13384	**Imery's Stannon China Clay Works, Site 9 Ring-Cairn, Layer 213** Oak charcoal deposited under the northern part of the kerb wall	3326 ± 31 BP	*c.* 1687-1525 cal BC	Jones 2006: 343	AppB: p375

OxA-13391	**Imery's Stannon China Clay Works, Site 6 Ring-Cairn, Post-Hole 53** Carbonized hazel from fill	3215 ± 30 BP	*c.* 1600-1421 cal BC	Jones 2006: 343	AppB: p375
HAR-6634	**Davidstow Barrow I** Unspecified carbonised wood from the foundation layer underlying a deposit of cremated bone and a barrow mound	3520 ± 70 BP	*c.* 2035-1668 cal BC	Christie 1988: 164	AppB: p377
UB-7113	**Bryn Celli Ddu Stone Arc** Cremated human bone from a hollow marked by an upright stone, 0.9m inside stone 'J' (figure B:17)	4384 ± 46 BP	*c.* 3318-2898 cal BC	Burrow *forthcoming*	AppB: p379
GU-1591	**Lochmaben Stane Stone Circle** Unspecified charcoal from the fill of a stone hole	4475 ± 85 BP	*c.* 3368-2917 cal BC	Barnatt 1989: 158	AppB: p380
NPL-10	**Penmaenmawr Ring-Cairn 278** Charcoal from old surface immediately under the stony bank of the ring, associated with some unidentifiable pottery sherds	3355 ± 129 BP	*c.* 2013-1392 cal BC	Griffiths 1962: 387	AppB: p380
NPL-11	**Penmaenmawr Ring-Cairn 278** Unspecified charcoal from an area of burning with the ring, on the old surface against one of the large stones of the inner kerb	3470 ± 125 BP	*c.* 2135-1500 cal BC	Griffiths 1962: 387	AppB: p380
NPL-221	**Llandegai A Henge, Ditch** Mature oak charcoal found in rapidly silted ditch fill (1.4m from bottom), at same level (4) as Peterborough Ware sherd	4420 ± 140 BP	*c.* 3518-2680 cal BC	Lynch & Musson 2001: 118	AppB: p381
GrN-27192	**Llandegai A Henge, Fire Pit (FA1)** Mature oak charcoal from a fire pit (FA1) near the centre of the monument	4450 ± 40 BP	*c.* 3339-2932 cal BC	Lynch & Musson 2001: 118	AppB: p381

BM-1088	**Gorsey Bigbury Henge** Unspecified charcoal from primary contexts	3800 ± 74 BP	*c.* 2465-2036 cal BC	Harding 2003: 14-5	AppB: p382
GrN-17510	**Reenascreena Stone Circle** Unspecified charcoal from an old ground surface under the bank	2780 ± 35 BP	*c.* 1009-837 cal BC	O'Brien 2004a: 328	AppB: p384
GrN-17509	**Reenascreena Stone Circle** Unspecified charcoal from the primary fill of a central pit containing cremated bone	2895 ± 35 BP	*c.* 1249-949 cal BC	O'Brien 2004a: 328	AppB: p384
BM-665	**Mount Pleasant Palisaded Enclosure** Oak charcoal from carbonised post pipe associated with Beaker pottery	3645 ± 43 BP	*c.* 2139-1903 cal BC	Wainwright 1979: 186	AppB: p387
BM-662	**Mount Pleasant Palisaded Enclosure** Red deer antler in post hole, associated with Beaker pottery	3637 ± 63 BP	*c.* 2201-1782 cal BC	Wainwright 1979: 186	AppB: p387
CAR-315	**Longstone Field Western Pit, St. Ishmaels** Oak charcoal from the secondary, or possible tertiary fill of the re-cut pit post-dating, but associated with a standing stone	3305 ± 75 BP	*c.* 1743-1438 cal BC	Williams 1989: 33	AppB: p389
OxA-4250	**Ballynamintra Cave, Probable Disturbed Articulated Burial** Human radius from a collection of 50 human bones, derived from approximately two/three individuals	4230 ± 75 BP	*c.* 3016-2581 cal BC	Woodman *et al* 1997: 133-4	AppB: p397
UB-6824	**Bryn Celli Ddu Passage Tomb** Sloe and cherry charcoal underlying the decorated slab, which was in turn buried beneath the mound of the passage tomb	4362 ± 40 BP	*c.* 3091-2901 cal BC	Burrow *forthcoming*	AppB: p404

UB-153F	**Behy/Glenulra Field System** Unspecified organic samples taken from base of overlying blanket bog	3890 ± 110 BP	*c.* 2836-2031 cal BC	Caulfield 1978: 141	AppB: p407
CAR-114	**Gwernvale Chambered Tomb** Unspecified charcoal from the fill of pits on southern side of cairn, associated with Peterborough Ware sherd scatters which continued under the blocking material	4390 ± 70 BP	*c.* 3335-2893 cal BC	Britnell 1980: 147	AppB: p410
OxA-14801	**Durrington Walls Pit in House Structure near Avenue** Articulated pig bone in pit fill which also contained a human femur with two projectile injuries	4036 ± 32 BP	*c.* 2832-2473 cal BC	Parker Pearson *et al* 2007: 633	AppB: p411

A3 Thermoluminescence dates cited in text

Chapter 4

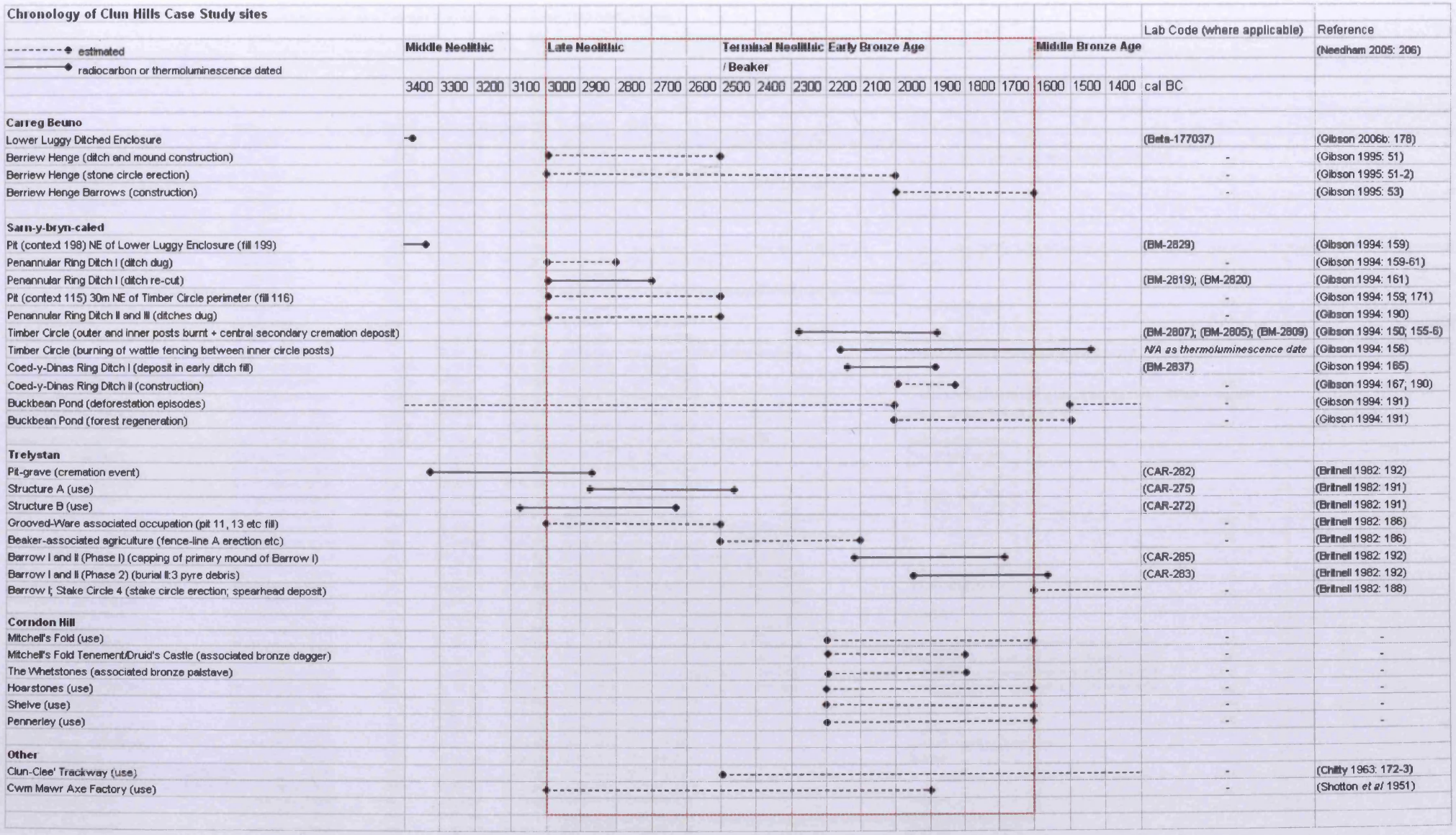
Sample	Thermoluminescence Date	Reference	Pg no.
Sarn-y-bryn-caled Central Pit Sample of fired clay from fill	*c.* 1800 ± 350 BC	Gibson 1994: 156	Ch4: p119; p144; AppA5: 336

A4 Dendrochronology dates cited in text

Chapter 5

Sample	Dendrochronology Date	Reference	Pg no.
Corlea 6 Trackway, Co. Longford Unspecified wood which had been felled with metal axe	*c.* 2259 cal BC	O'Sullivan 1996: 312	Ch5: p245
Sweet Track, Somerset Unspecified wood used in construction of walkway	*c.* 3807/6 cal BC	Coles and Coles 1986: 59; 55-6	Ch5: p246

A5 Broad chronology of north-western Clun Hills sites mentioned in chapter 4



A6 Database of all known sites in the north-western Clun Hills case study region

Late Neolithic and Early Bronze Age ADS catalogued sites and find-spots within my 20 x 20km case study region

Carreg Beuno sites
Sarn-y-bryn-caled sites
Trelystan sites
Corndon Hill sites

Name of Site	Type	Period	OS reference	Latitude	Longitude	SMR no.	Other
Mitchell's Fold	Stone circle	LN/EBA	SO 304 983	52 34 39 N	003 01 37 W	Shropshire PRN 01230 (SALOPSMR-17059); NMR_NATINV-107448	
Druid's Castle / Mitchell's Fold Tenement	Stone circle	LN/EBA	SO 309 981	52 57 63 N	003 02 11 W	-	(Site of) Not to be confused with Mitchell's Fold (Burl 1973: 265)
Pennerley Circle	Stone circle?	LN/EBA?	SO 355 998	52 35 31 N	002 57 08 W	NMR_NATINV-107413	(Site of?)
Hoarstones / Hoar Stone Circle / Marsh Pool	Stone circle	LN/EBA	SO 323 999	52 35 32 N	002 59 58 W	Shropshire PRN 02671 (SALOPSMR-8080); NMR_NATINV-107454	
Cefncalanog Stone Circle?	Stone circle?	LN/EBA?	SO 220 880	52 29 02 N	003 08 55 W	Shropshire PRN 03532 (SALOPSMR-9205)	
Shelve Stone Circle	Stone circle?	LN/EBA?	SO 338 983	52 35 13 N	002 58 38 W	Shropshire 01920 (SALOPSMR-4024)	(Site of)
Dyffryn Lane Stone Setting	Stone circle?	EBA+	SJ 204 014	52 36 15 N	003 10 31 W	CPATSMR_50291	
The Whetstones / Whetstone Stone Circle	Stone circle	LN/EBA	SO 305 976	52 34 33 N	003 01 32 W	Shropshire PRN 01871 (SALOPSMR-4681); CPATSMR_209	(Site of). Three standing stones and associated vessel recorded in 1841, destroyed by 1860s but lots of large stones in hedgerows
Middleton Hall Standing Stone	Standing Stone	EBA+	SO 297 988	52 34 57 N	003 02 14 W	NMR_NATINV-105523	(Site of)
Lord's Stone / The Devil's Stone	Standing Stone	EBA+	SJ 334 020	52 61 16 N	002 98 50 W	-	
Cow Stone / Dead Cow / Mitchell's Fold Outlier	Standing Stone	EBA+	SO 304 982	52 34 36 N	003 01 37 W	Shropshire PRN 01870 (SALOPSMR-4670); NMR_NATINV-107451	
The Hoare Stone / Forden Gaer	Standing Stone	EBA+	SO 207 989	52 34 54 N	003 10 08 W	-	Possibly post-Roman?
Maen Beuno Stone	Standing Stone	EBA+	SJ 202 012	52 36 08 N	003 10 42 W	CPATSMR_137	
Berriew Henge / Dyffryn Lane	Henge	LN	SJ 204 014	52 60 45 N	003 17 68 W	CPATSMR_50290.	
Chirbury Henge	Henge	LN	SO 251 983	52 34 37 N	003 06 19 W	Shropshire PRN 02127 (SALOPSMR-5767)	Possible Class II henge with central feature (?) burial pit
Sarn-y-bryn-caled Penannular Ring Ditch	Hengiform/Ring Ditch	LN/EBA	SJ 218 048	52 38 12 N	003 09 20 W	CPATSMR_4546	
Sarn-y-bryn-caled Penannular Ring Ditch II	Hengiform/Ring Ditch	LN/EBA	SJ 215 047	52 37 59 N	003 09 36 W	CPATSMR_17010	
Dyffryn Lane Ring Ditch	Ring Ditch/Barrow Ditch?	LN/EBA	SJ 203 016	52 36 21 N	003 10 37 W	CPATSMR_19442	Semi-circular cropmark diameter approx 15 metres, probably south part of ring-ditch
Dyffryn Lane Ring Ditch II	Ring Ditch/Barrow Ditch?	LN/EBA	SJ 206 015	52 36 18 N	003 10 21 W	CPATSMR_17200	Circular ring ditch approx 16-18m diameter
Dyffryn Lane Ring Ditch III	Ring Ditch/Barrow Ditch?	LN/BA	SJ 201 016	52 36 21 N	003 10 47 W	CPATSMR_19440	
Dyffryn Lane Ring Ditch IV	Ring Ditch/Barrow Ditch?	LN/EBA	SJ 205 015	52 36 18 N	003 10 26 W	CPATSMR_19443; CPATSMR_7941	Ring ditch 8.1m in diameter
Dyffryn Lane Ring Ditch V	Ring Ditch/Barrow Ditch?	BA	SJ 201 014	52 36 14 N	003 10 47 W	CPATSMR_4547	Possibly a barrow ditch
Dyffryn Lane Ring Ditch VI	Ring Ditch/Barrow Ditch?	BA	SJ 206 015	52 36 18 N	003 10 21 W	CPATSMR_32847	
Dyffryn Lane Ring Ditch VII	Ring Ditch/Barrow Ditch?	BA	SJ 206 013	52 36 11 N	003 10 21 W	CPATSMR_32816	
Dyffryn Lane Ring Ditch I	Ring Ditch/Barrow Ditch?	BA	SJ 206 013	52 36 11 N	003 10 21 W	CPATSMR_7109	Cropmark
Little Hem Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SJ 227 002	52 35 37 N	003 08 28 W	CPATSMR_32852	
Eaton Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SO 370 897	52 30 04 N	002 55 41 W	Shropshire PRN 02140 (SALOPSMR-4172)	
Pentrehayling Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SO 245 930	52 31 45 N	003 06 47 W	Shropshire PRN 04146 (ALOPSMR-5063)	
Bromplton Hall Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SO 253 932	52 31 52 N	003 06 04 W	Shropshire PRN 04169 (SALOPSMR-5082)	
Aylesford Bridge Ring Ditch I	Ring Ditch/Barrow Ditch?	BA	SJ 278 014	52 36 18 N	003 03 58 W	Shropshire PRN 02119 (SALOPSMR-5745)	Group of ring ditches (2/3+?)
Aylesford Bridge Ring Ditch II	Ring Ditch/Barrow Ditch?	BA	SJ 279 013	52 36 15 N	003 03 53 W	Shropshire PRN 02119 (SALOPSMR-5745)	Group of ring ditches (2/3+?)
Parkside Cottages Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SO 334 903	52 30 22 N	002 58 52 W	Shropshire PRN 02370 (SALOPSMR-6389)	
Wooton House Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SO 310 864	52 28 14 N	003 00 57 W	Shropshire PRN 04944 (SALOPSMR-7427)	Cropmark
Rownall Ring Ditch	Ring Ditch/Barrow Ditch?	BA	SO 235 984	52 34 39 N	003 07 44 W	Shropshire PRN 04123 (SALOPSMR-9658)	
Bishop's Moat Ring Ditch I	Ring Ditch/Barrow Ditch?	BA	SO 286 893	52 29 47 N	003 03 06 W	Shropshire PRN 04404 (SALOPSMR-9856)	Two ring-ditches, with maybe another two to east and west
Bishop's Moat Ring Ditch II	Ring Ditch/Barrow Ditch?	BA	SO 287 893	52 29 47 N	003 03 01 W	Shropshire PRN 04404 (SALOPSMR-9856)	Two ring-ditches, with maybe another two to east and west
Bishop's Moat Ring Ditch III?	Ring Ditch/Barrow Ditch?	BA	SO 286 893	52 29 47 N	003 03 06 W	Shropshire PRN 04404 (SALOPSMR-9856)	Two ring-ditches, with maybe another two to east and west
Bishop's Moat Ring Ditch IV?	Ring Ditch/Barrow Ditch?	BA	SO 286 893	52 29 47 N	003 03 01 W	Shropshire PRN 04404 (SALOPSMR-9856)	Two ring-ditches, with maybe another two to east and west
Moat Farm Ring Ditch I	Ring Ditch/Barrow Ditch?	BA	SJ 213 041	52 37 42 N	003 09 46 W	CPATSMR_32846	
Moat Farm Ring Ditch II	Ring Ditch/Barrow Ditch?	BA	SJ 212 040	52 37 39 N	003 09 51 W	CPATSMR_32825	
Sawmill Cottage Ring Ditch I	Ring Ditch/Barrow Ditch?	BA	SJ 224 059	52 38 41 N	003 08 49 W	CPATSMR_7102	Cropmark
Sawmill Cottage Ring Ditch III	Ring Ditch/Barrow Ditch?	BA	SJ 222 057	52 38 35 N	003 08 59 W	CPATSMR_32828.	Cropmark (central depression clear)
Caer Din Ring Ditch?	Ring Ditch/Barrow Ditch?	BA	SO 273 896	52 29 58 N	003 04 15 W	CPATSMR_2284	Cropmark
Coed y Dinas Ring Ditch I	Ring Ditch/Barrow Ditch?	BA	SJ 221 052	52 38 18 N	003 09 04 W	CPATSMR_3965	
Coed y Dinas Ring Ditch II	Ring Ditch/Barrow Ditch?	BA	SJ 221 052	52 38 18 N	003 09 04 W	CPATSMR_17397	
Llwynwron Ring Ditch?	Ring Ditch/Barrow Ditch?	BA	SJ 214 045	52 37 55 N	003 09 41 W	CPATSMR_3969	Cropmark
Llwyn Wron Ring Ditch?	Ring Ditch/Barrow Ditch?	BA	SJ 217 049	52 38 09 N	003 09 25 W	CPATSMR_4926	Cropmark
Maen Beuno Ring Ditch?	Ring Ditch/Barrow Ditch?	BA	SJ 203 013	52 36 11 N	003 10 37 W	CPATSMR_4023	Cropmark

Gwern y Go Ring Ditch?	Ring Ditch/Barrow Ditch?	BA?	SO 215 921	52 31 14 N	003 09 25 W	CPATSMR_4545	Cropmark
Pwll Ring Ditch?	Ring Ditch/Barrow Ditch?	BA?	SO 229 975	52 34 10 N	003 08 15 W	CPATSMR_5044	Cropmark
Thornbury Ring Ditch I	Ring Ditch/Barrow Ditch?	BA?	SO 210 990	52 34 57 N	003 09 57 W	CPATSMR_5039	Cropmark
Thornbury Ring Ditch II	Ring Ditch/Barrow Ditch?	BA?	SO 212 995	52 35 14 N	003 09 47 W	CPATSMR_5246	Cropmark
Thornbury Ring Ditch III	Ring Ditch/Barrow Ditch?	BA?	SO 212 993	52 35 07 N	003 09 47 W	CPATSMR_5630	Cropmark
Lymore Cottage Ring Ditch	Ring Ditch/Barrow Ditch?	BA?	SO 231 968	52 33 47 N	003 08 04 W	CPATSMR_5046	Cropmark
Tan House Ring Ditch	Ring Ditch/Barrow Ditch?	BA?	SO 268 912	52 30 48 N	003 04 43 W	CPATSMR_7019.	Cropmark
Rhydwhyman Ring Ditch	Ring Ditch/Barrow Ditch?	BA?	SO 210 985	52 34 41 N	003 09 57 W	CPATSMR_7033	Cropmark
Linley Ring Ditch	Ring Ditch/Barrow Ditch?	BA?	SO 336 941	52 32 24 N	002 58 47 W	NMR_NATINV-107581	Cropmark
Chirbury Enclosure?	Enclosure? Ring Ditch?	BA	SO 252 980	52 34 27 N	003 06 13 W	Shropshire PRN 04064 (SALOPSMR-5044)	
Lower Luggy Oval Enclosure	Enclosure? Barrow?	EMN	SO 200 018	52 36 27 N	003 10 53 W	CPATSMR_34054	Cropmark of oval enclosure and mound near Lower Luggy Long Barrow. Approx 32m x 42m with entrance to SE
Whitley Farm Enclosure	Rectangular enclosure? Ring Ditch?	LN/EBA?	SO 241 961	52 33 25 N	003 07 10 W	Shropshire PRN 01422 (SALOPSMR-947)	Multiple-ditched enclosure. Possibly multi-phase. Sub rectangular, 60m across inside ditches with entrance at centre of SE side
Sarn-y-brun-caled Timber Circle	Timber Circle	LN	SJ 219 049	52 38 09 N	003 09 15 W	CPATSMR_3994	
Hyssington Axe Factory (Group XII)	Axe Factory	N/BA	SO 302 942	52 54 83 N	003 02 63 W	-	
Middleton Hill Round Barrow(s)	Cairn/Tumulus	EBA	SO 302 987	52 58 16 N	003 03 15 W	Shropshire PRN 01868 (SALOPSMR-4647)	2/3 round barrows
Hoar Stone Stone Circle Round Barrows	Cairn/Tumulus	EBA	SO 323 999	52 35 32 N	002 59 58 W	Shropshire PRN 02671 (SALOPSMR-8080)	2 round barrows to the north of the stone circle
Eaton Round Barrow	Cairn/Tumulus	EBA	SO 366 896	52 30 00 N	002 56 02 W	Shropshire PRN 02513 (SALOPSMR-4469)	
Linley Hall Round Barrow	Cairn/Tumulus	EBA	SO 347 928	52 31 43 N	002 57 45 W	Shropshire PRN 01864 (SALOPSMR-4603); NMR_NATINV-1044208	(Site of)
Criggion Bank Round Barrow	Cairn/Tumulus	EBA	SO 299 900	52 30 10 N	003 01 58 W	Shropshire PRN 02806 (SALOPSMR-8677)	
Squilver Round Barrow?	Cairn/Tumulus?	EBA?	SO 376 976	52 34 20 N	002 55 15 W	Shropshire PRN 02475 (SALOPSMR-8723); NMR_NATINV-1231744	
Coppice Farm Round Barrow?	Cairn/Tumulus?	EBA?	SO 399 963	52 33 39 N	002 53 11 W	Shropshire PRN 04787 (SALOPSMR-7299)	
Brompton Hall Round Barrow	Cairn/Tumulus?	EBA?	SO 248 935	52 32 01 N	003 06 31 W	Shropshire PRN 01210 (SALOPSMR-16837)	
Round Hill Round Barrow	Cairn/Tumulus?	EBA?	SO 349 993	52 35 14 N	002 57 39 W	Shropshire PRN 01232 (SALOPSMR-17061)	
Dyffryn Lane Round Barrow	Cairn/Tumulus?	EBA?	SJ 204 014	52 36 15 N	003 10 31 W	CPATSMR_50292	
Beacon Ring Round Barrow	Cairn/Tumulus?	EBA?	SJ 264 058	52 38 40 N	003 05 16 W	CPATSMR_135	
Aston Dingle Round Barrow	Cairn/Tumulus?	EBA?	SO 298 913	52 30 52 N	003 02 04 W	CPATSMR_207	(Site of)
Pant Brwynog Barrow	Cairn/Tumulus	EBA	SO 299 967	52 33 47 N	003 02 03 W	CPATSMR_1080	
Crugyn Barrow	Cairn/Tumulus	EBA	SO 290 900	52 30 00 N	003 02 00 W	CPATSMR_5673	
Sawmills Cottage Ring Barrow II	Cairn/Tumulus?	EBA?	SJ 223 059	52 38 41 N	003 08 54 W	CPATSMR_32829	
Coed Y Dinas Round Barrow I	Cairn/Tumulus	EBA	SJ 223 059	52 38 41 N	003 08 54 W	CPATSMR_17001	Flint flake found on surface
Coed Y Dinas Round Barrow II?	Cairn/Tumulus?	EBA?	SJ 220 058	52 38 38 N	003 09 10 W	CPATSMR_17003	
Eyton Bowl Barrow?	Cairn/Tumulus?	EBA?	SO 375 872	52 28 43 N	002 55 13 W	Shropshire PRN 02514 (SALOPSMR-4471)	
Dyffryn Lane Barrow I?	Cairn/Tumulus?	EBA?	SJ 204 014	52 36 15 N	003 10 31 W	CPATSMR_3590	Cropmark
Dyffryn Lane Barrow II?	Cairn/Tumulus?	EBA?	SJ 205 015	52 36 18 N	003 10 26 W	CPATSMR_3591	
Dyffryn Lane Barrow III?	Cairn/Tumulus?	EBA?	SJ 204 016	52 36 21 N	003 10 32 W	CPATSMR_3610	Cropmark
Trelystan Church House Barrow I?	Cairn/Tumulus?	EBA?	SJ 260 049	52 38 11 N	003 05 37 W	CPATSMR_4503	Unsure if natural or a barrow
Trelystan Church House Barrow II?	Cairn/Tumulus?	EBA?	SJ 261 049	52 38 11 N	003 05 31 W	CPATSMR_4504	Unsure if natural or a barrow
Maen Beuno Barrow?	Cairn/Tumulus?	EBA?	SJ 203 012	52 36 08 N	003 10 37 W	CPATSMR_4561	
Llwynderw Barrow?	Cairn/Tumulus?	EBA?	SJ 210 036	52 37 26 N	003 10 01 W	CPATSMR_5921	
Lower Min-y-Llyn Barrow	Cairn/Tumulus?	EBA?	SJ 211 013	52 36 12 N	003 09 54 W	CPATSMR_7013	
Whitehouse Bridge Barrow	Cairn/Tumulus?	EBA?	SJ 223 059	52 38 41 N	003 08 54 W	CPATSMR_5026	
Oakeley Mynd Barrow	Cairn/Tumulus?	EBA?	SO 342 870	52 28 37 N	002 58 08 W	NMR_NATINV-1339291	Cropmark
Conery Barrow	Cairn/Tumulus?	EBA?	SO 333 870	52 28 37 N	002 58 51 W	NMR_NATINV-1339295	Cropmark
Stocktown Barrow	Cairn/Tumulus?	EBA?	SJ 279 013	52 36 18 N	003 03 51 W	NMR_NATINV-1397776	Cropmark
Whitley Barrow	Cairn/Tumulus?	EBA?	SO 242 961	52 33 25 N	003 07 02 W	NMR_NATINV-1397916	Cropmark
Lydham Barrow	Cairn/Tumulus?	EBA?	SO 334 903	52 30 22 N	002 58 51 W	NMR_NATINV-1150219	Cropmark
Snead Bowl Barrow	Cairn/Tumulus	EBA	SO 329 926	52 31 36 N	002 59 21 W	Shropshire PRN 01859 (SALOPSMR-3988); NMR_NATINV-107551	
Long Mynd Bowl Barrow	Cairn/Tumulus?	EBA?	SO 397 894	52 29 55 N	002 53 18 W	Shropshire PRN 01559 (SALOPSMR-2292); NMR_NATINV-107034	May be a pillow mound
Lydham Bowl Barrow	Cairn/Tumulus?	EBA?	SO 352 913	52 30 55 N	002 57 18 W	Shropshire PRN 01877 (SALOPSMR-3992)	
Pennerley Bowl Barrow(s)	Cairn/Tumulus	EBA	SO 349 993	52 35 14 N	002 57 38 W	NMR_NATINV-107473	
The Rossett Bowl Barrow(s)	Cairn/Tumulus	EBA	SO 248 935	52 32 02 N	003 06 27 W	NMR_NATINV-105600	
Linley Bowl Barrow/Cairn	Cairn/Tumulus	EBA	SO 335 940	52 32 21 N	002 58 50 W	Shropshire PRN 00131 (SALOPSMR-5523)	
Maesgwyn Bowl Barrow	Cairn/Tumulus	EBA	SO 237 888	52 29 29 N	003 07 26 W	Shropshire PRN 01964 (SALOPSMR-4048); NMR_NATINV-105280	
Stiperstones Ring Cairns	Cairn/Tumulus	EBA	SO 367 987	52 34 55 N	002 56 03 W	Shropshire PRN 01235 (SALOPSMR-17115)	Four cairns (2 large, 2 small)
Todleth Hill Cairns	Cairn/Tumulus?	EBA?	SO 290 942	52 32 26 N	003 02 49 W	CPATSMR_196	Three possible ruined cairns
Corndon Hill Cairn I	Cairn/Tumulus?	EBA?	SO 304 966	52 33 44 N	003 01 36 W	CPATSMR_215	
Corndon Hill Cairn II	Cairn/Tumulus?	EBA?	SO 306 969	52 33 54 N	003 01 26 W	CPATSMR_213	
Corndon Hill Cairn III	Cairn/Tumulus?	EBA?	SO 309 967	52 33 48 N	003 01 10 W	CPATSMR_214	

Corndon Hill Cairn IV	Cairn/Tumulus?	EBA?	SO 309 968	52 33 51 N	003 01 10 W	CPATSMR_492	
Corndon Hill Cairn V	Cairn/Tumulus?	EBA?	SO 308 963	52 33 35 N	003 01 15 W	CPATSMR_216	
Corndon Hill Cairn VI	Cairn/Tumulus?	EBA?	SO 305 960	52 33 25 N	003 01 30 W	CPATSMR_217	
Corndon Hill Cairn VII	Cairn/Tumulus	EBA	SO 300 967	52 33 47 N	003 01 58 W	CPATSMR_5686	
Stapeley Hill Cairn	Cairn/Tumulus	EBA	SO 312 990	52 58 44 N	003 01 67 W	NMR_NATINV-107478	Robbed cairn
Huxter Stone Cairn	Cairn/Tumulus	EBA	SO 399 899	52 30 11 N	002 53 07 W	Shropshire PRN 00156 (SALOPSMR-8828); NMR_NATINV-107031	Robbed cairn
Whetstone Cairn	Cairn/Tumulus	EBA	SO 304 975	52 34 13 N	003 01 37 W	CPATSMR_210	
Mitchell's Fold / Medgel's Fold Cairn	Cairn/Tumulus	EBA	SO 304 982	52 34 36 N	003 01 37 W	Shropshire PRN 01869 (SALOPSMR-4658)	Was thought to be a stone circle but re-assessed as damaged cairn close to Mitchell's Fold and standing stone
Stiperstones Cairn	Cairn/Tumulus	EBA	SO 367 984	52 34 45 N	002 56 03 W	Shropshire PRN 04643 (SALOPSMR-10053); NMR_NATINV-107421	
New House Cairn	Cairn/Tumulus?	EBA?	SO 299 972	52 34 03 N	003 02 03 W	CPATSMR_1827	May be modern clearance cairn?
Manstone Rock Cairn	Cairn/Tumulus	EBA	SO 367 986	52 34 52 N	002 56 03 W	Shropshire PRN 04641 (SALOPSMR-10050)	
Cranberry Rock Cairn	Cairn/Tumulus	EBA	SO 364 980	52 34 32 N	002 56 19 W	Shropshire PRN 01891 (SALOPSMR-4000); NMR_NATINV-107439	Ring-walled cairn
Lan Fawr Cairn	Cairn/Tumulus	EBA	SO 297 965	52 33 41 N	003 02 13 W	CPATSMR_17192	Collared urn cremation burial of 2 yr old inside rock-cut pit c. 2113-1687 cal BC (CAR-1037) and c. 1862-1448 cal BC (CAR-1038)
Kinnerton Cairn	Cairn/Tumulus	EBA	SO 375 996	52 35 24 N	002 55 21 W	Shropshire PRN 01892 (SALOPSMR-4001); NMR_NATINV-107442	
Stiperstones Tor Ring Cairn	Cairn/Tumulus	EBA	SO 367 985	52 34 48 N	002 56 03 W	Shropshire PRN 04642 (SALOPSMR-10052); NMR_NATINV-107421	Ring cairn around a tor with accompanying ditch
Trelystan Pit Grave	Cairn/Tumulus	LN	SJ 277 070	52 39 19 N	003 04 08 W	CPATSMR_50641	
Brockton Field system ?	Field system?	N?	SJ 321 050	52 38 17 N	003 00 12 W	Shropshire PRN 04438 (SALOPSMR-9887)	Cropmarks; three sides of an elongated rectilinear feature running NE/SW. Possible cursus or field system?
Pennerley Field system?	Field system? Clearance cairn?	BA?	SO 355 998	52 35 30 N	002 57 08 W	Shropshire PRN 01887 (SALOPSMR-3996)	
The Knolls Filed system?	Field system? Stone alignment?	BA?	SO 368 979	52 34 29 N	002 55 57 W	Shropshire PRN 01888 (SALOPSMR-3997)	
Trelystan settlement site	Settlement site	LN/EBA	SJ 270 070	52 39 00 N	003 04 00 W	NMGW2004-4242; CPATSMR_50642	
Myndtown Flint Scatter (a)	Flint Scatter	N	SO 405 902	52 30 21 N	002 52 36 W	Shropshire PRN 02681 (SALOPSMR-4532)	
Myndtown Flint Scatter (b)	Flint Scatter	N	SO 400 901	52 30 18 N	002 53 02 W	Shropshire PRN 02681 (SALOPSMR-4532)	
Stocktown Axe	Stone axe findspot	N	SJ 274 013	52 36 15 N	003 04 19 W	Shropshire PRN 01732 (SALOPSMR-3581)	
Bank Farm Axe	Stone axe findspot	N	SJ 384 036	52 37 34 N	002 54 36 W	Shropshire PRN 01733 (SALOPSMR-3592)	
Lodge Farm Axe	Stone axe findspot	N	SO 343 904	52 30 25 N	002 58 05 W	Shropshire PRN 01862 (SALOPSMR-4581)	Group VI (Great Langdale) polished stone axe with thin butt found during ploughing
Brompton Hall Axe	Stone axe findspot	N	SO 250 934	52 31 58 N	003 06 20 W	Shropshire PRN 02722 (SALOPSMR-8510)	GroupVi (Great Langdale) small grey green stone adziform axe with brown stains, found in field
The Ditches Axe	Stone axe findspot	N	SO 249 939	52 32 14 N	003 06 26 W	Shropshire PRN 03558 (SALOPSMR-9221)	Found when clearing out a pool
Leasowes Axe hoard	Stone axe findspot	N	SJ 400 000	52 35 38 N	002 53 09 W	Shropshire PRN 02628 (SALOPSMR-7727)	Group VII (Graig Lwyd) hoard of four polished stone axes
Hockleton Axe Hammer	Axe hammer findspot	LN/EBA	SJ 270 000	52 35 00 N	003 04 00 W	NMR_NATINV-65929	
Lydham Axe Hammer	Axe hammer findspot	LN/EBA	SO 342 896	52 29 59 N	002 58 09 W	NMR_NATINV-107155	Perforated stone axe hammer
Hardwick Axe Hammer	Axe hammer findspot	LN/EBA	SO 360 900	52 30 00 N	002 56 00 W	NMR_NATINV-107513	
Pear Tree Lane Axe Hammer	Axe hammer findspot	LN/EBA	SO 332 925	52 31 33 N	002 59 05 W	NMR_NATINV-107562	Group XII (Hyssington) picrite partly perforated hammer
Brooks Hill Axe Hammer	Axe hammer findspot	BA	SO 344 978	52 34 25 N	002 58 05 W	Shropshire PRN 01875 (SALOPSMR-3990)	
Norbury Axe Hammer	Axe hammer findspot	BA	SO 369 905	52 30 30 N	002 55 47 W	Shropshire PRN 01884 (SALOPSMR-3994)	
Lower Moresford Farm Axe Hammer	Axe hammer findspot	BA	SO 328 931	52 31 52 N	002 59 26 W	Shropshire PRN 01863 (SALOPSMR-4592); NMR_NATINV-107576	Group XII? (Hyssington) axe-hammer with hourglass perforation found with flat faces and convex sides
Black Marsh Axe Hammer	Axe hammer findspot	BA	SO 324 997	52 35 25 N	002 59 52 W	Shropshire PRN 01874 (SALOPSMR-4703); NMR_NATINV-107481	Axe hammer of hard sandstone (ophitic dolerite) with perforation
Wentnor Prolley Moor Axe Hammer	Axe hammer findspot	BA	SO 390 930	52 31 51 N	002 53 57 W	Shropshire PRN 01876 (SALOPSMR-4714); NMR_NATINV-107492	Perforated axe hammer
Linley Hall Axe Hammer	Axe hammer findspot	BA	SO 340 920	52 31 17 N	002 58 22 W	Shropshire PRN 02622 (SALOPSMR-7683)	Group XII (Hyssington) perforated found in potting shed, picked up from field locally?
Gatten Valley Axe Hammer	Axe hammer findspot	BA	SO 380 980	52 34 33 N	002 54 54 W	Shropshire PRN 02624 (SALOPSMR-7694)	
Callow Hill Axe Hammer	Axe hammer findspot	BA	SJ 380 040	52 37 47 N	002 54 58 W	Shropshire PRN 02977 (SALOPSMR-8821)	Perforated flint axe hammer
Squilver Farm Axe Hammer	Axe hammer findspot	BA	SO 322 975	52 34 14 N	003 00 01 W	Shropshire PRN 03433 (SALOPSMR-9124)	Perforated stone axe hammer
Rockabank Axe Hammer	Axe hammer findspot	BA	SO 280 990	52 35 01 N	003 03 46 W	Shropshire SMR 03559 (SALOPSMR-9222)	Group XII (Preseli) perforated axe hammer
Minsterley Axe Hammer	Axe hammer findspot	BA	SJ 380 040	52 37 00 N	002 54 00 W	NMR_NATINV-66393	Perforated
Minsterley Flint Axe Hammer	Axe hammer findspot	BA	SJ 380 040	52 37 00 N	002 54 00 W	NMR_NATINV-66394	Flint and perforated
Rorrington Axe Hammer I	Axe hammer findspot	BA	SJ 316 005	52 35 53 N	003 00 35 W	NMR_NATINV-66418	
Rorrington Axe Hammer II	Axe hammer findspot	BA	SJ 316 003	52 35 47 N	003 00 33 W	NMR_NATINV-66432	Large perforated basalt axe-hammer
Bank Farm Arrowheads	Arrowheads findspot	N?	SJ 384 036	52 37 34 N	002 54 36 W	Shropshire PRN 01734 (SALOPSMR-3603)	
Oakeley Mynd Arrowheads	Arrowheads findspot	EBA?	SO 336 873	52 28 45 N	002 58 40 W	Shropshire PRN 03108 (SALOPSMR-8895)	Barbed and tanged
Mason's Bank Arrowhead (and scraper)	Arrowheads findspot	EBA?	SO 230 870	52 28 30 N	003 08 01 W	Shropshire PRN 03531 (SALOPSMR-9204)	Barbed and tanged arrowhead (and scraper)
Black Knoll Archer's wristguard	Wristguard findspot	EBA	SO 390 880	52 29 10 N	002 53 54 W	Shropshire PRN 02669 (SALOPSMR-8058)	End of an archer's bracer with two holes. Find site not known but possibly from nearby round barrow
Myndtown Palstaves/Flat Axes	Bronze flat axe findspot	EBA	SO 399 920	52 31 21 N	002 53 04 W	NMR_NATINV-107508	Palstave was found in a field at the same time as another small bronze flat axe.
Asterton Prolley Moor Palstaves/Flat Axes	Bronze flat axe findspot	BA	SO 399 920	52 31 19 N	002 53 09 W	Shropshire PRN 01883 (SALOPSMR-4769)	Bronze palstave with lateral stops and shield on faces found with a flat axe on top of a flat stone
Pontesbury Palstave/Flat Axe	Bronze flat axe findspot	EBA	SJ 400 060	52 38 53 N	002 53 13 W	Shropshire 00583 (SALOPSMR-3611)	
Mitchell's Fold Tenament Palstave	Bronze flat axe findspot	EBA	SO 306 981	52 34 34 N	003 01 27 W	NMR_NATINV-107470	The findspot is about 320m south east of Mitchell's Fold Tenement Stone Circle
Pontesbury Flat Axe mould	Mould findspot	EBA	SJ 435 043	52 38 01 N	002 50 11 W	SHYMS: A/2003/081; SMRNO03376	Flat axe mould for 5 flat axes and a rod/awl found in brook
Caerdin Ring Flint Knife	Flint tool findspot	EBA	SO 210 890	52 29 00 N	003 09 00 W	NMGW2004-642	Flint plano convex knife
Caerdin Ring Flint Scraper	Flint tool findspot	EBA	SO 270 890	52 29 00 N	003 04 00 W	NMGW2004-643	
Cefn Einion Flint Flake Scatter	Flint Scatter	LN/EBA	SO 260 880	52 28 00 N	003 03 00 W	NMR_NATINV-105251	
Pentreheyling Pit	Pit with lithics and pottery	N	SO 245 930	52 31 45 N	003 06 47 W	Shropshire PRN 04481(SALOPSMR-5178)	Flint debitage and tools, as well as a bowl found within pit
Dyffryn Pit	Pit cropmark	N?	SO 205 014	52 36 15 N	003 10 26 W	CPATSMR_4026	Cropmark. Possible pit associated with Berriew henge; similar circular anomaly at Sarn-y-bryn-caled also in proximity to a hengiform
Sarn-y-bryn-caled Pit	Pit	BA	SJ 218 050	52 38 12 N	003 09 20 W	CPATSMR_32845	
Lower Short Ditch Cross Dyke	Dyke	BA (?)	SO 222 880	52 48 43 N	003 14 70 W	-	

Appendix B: Themes, sites and chronology of the Late Neolithic to Early Bronze Age of the Irish Sea region

Introduction

The Late Neolithic to Early Bronze Age (*c.* 3000-1600 cal BC) of the Irish Sea region is an extremely popular archaeological context for thematic explorations of British prehistory. From the swathe of angry arrows depicting the spread of Mediterranean culture (Childe 1940: 31; Daniel 1941: 40; Piggott 1954) to the metaphysical importance attributed to the inter-visibility of its highest peaks (Cummings 2004), the Irish Sea's coastal zones have been repeatedly perceived as prehistorically linked (Waddell 1991/1992: 29). From the wider coastal areas of the Severn Estuary, to the Kintyre Peninsula and East Ireland, the evidence for prehistoric lives is varied in form, lacking in quantity (Thomas 2004b: ix), but extensive in distribution. More than one commentator has remarked on the misrepresentation of western prehistory *as* British prehistory, because of the pre-eminence of visible archaeology along the Atlantic façade (Barclay 2001; Cunliffe 2008). The presence, form and style of some of these architectures, practices and also materialities are specific to the region (e.g. stone rows), although many others are distributed across Britain and Ireland (e.g. Grooved Ware), or vary within the Irish Sea region itself (e.g. Late Neolithic funerary practice). This suggests sustained prehistoric contact across the region, probably via the thousands of miles of shoreline (Fox 1932; Piggott 1954; Bowen 1970; F. Lynch 1989; Cummings & Fowler 2004). Recent large-scale construction projects have complicated our understanding of the region (e.g. the A55 widening, North Wales, the Milford Haven to Gloucestershire pipeline, and the N9 Carlow Bypass, Co. Carlow and Kildare), highlighting a possibly more tethered Neolithic lifestyle in Ireland (Cooney 2000a), as well improvements in the identification of prehistoric habitation debris (Gibson 2003: 138).

This appendix presents supporting evidence for the arguments explored in earlier chapters, outlining the material and historiographic archaeological context of the thesis as a whole. It synthesises the Late Neolithic to Early Bronze Age of the Irish Sea region, paying particular attention to the various undercurrent and more explicit observations which consistently feature in past approaches (e.g. the supposed transition from communal to individual mortuary treatment, the introduction of metalworking and the Beaker assemblage, the heightening intensity of large-scale communal projects). To this effect I critically relay four thematic

approaches within the historiography, each of which examines a specific formulation of the past which has been repeatedly furthered and revised by archaeologists. These are entitled 'The end of the old order? *c.* 3000-2700 cal BC', 'Grooved Ware and communality? *c.* 2900-2500 cal BC', 'The emergence of the metallurgical, beer drinking chiefs? *c.* 2500-1800 cal BC' and 'Enmeshed continuity and change in perceptions of the world *c.* 2700-1800 cal BC' respectively. I will not rigidly demarcate between broad theoretical traditions within the structure of the chapter, instead focusing on four general impressions of life which have retained prominence, albeit in a re-worked state, for some considerable time. Preceding this presentation will be a comprehensive chronological narrative of various practices within Late Neolithic to Early Bronze Age life (e.g. changes in the lithic assemblage and the inception of isolated monolith erection). Where possible, I will concentrate on the Irish Sea region, although examples from eastern and northern England, as well as Scotland and western Ireland will occasionally be cited when relevant. Details on specific sites which either have or could be interpreted differently will be scattered throughout both sections. I am obviously unable to cover all of the literature, themes, practices, materialities and sites, but the intention is a supportive rather than comprehensive source of reference.

This appendix culminates in both the presentation of a workable chronology for the region (A:1), and in a body of evidence which supports my assertion that archaeologists must re-assess how they currently understand past peoples' lives. It will also endorse one of my conclusions (ch6: p306-7) which proposes that the world-views of people living in the Irish Sea at this time occasionally over-lapped a little. This assertion is not based on similarities between the forms of monuments, material culture, subsistence, mobility and landscape usage (Giot 1997; Jones 1997), but instead highlights commonalities in how practice and knowledge were inter-related from one community to another.

Chronology and Sites

Introduction

Throughout this thesis I associate the Late Neolithic with the Early Bronze Age, as opposed to the Middle with the Late Neolithic or the Early with the Middle Bronze Ages. The British and Irish Late Neolithic (approximately 3000-2500 cal BC) to Early Bronze Age (approximately 2500-1600 cal BC; although see below) are increasingly discussed together as periods with more in common with one another than with those preceding and succeeding them (Whittle 1981: 299; Parker Pearson 1993: 11; Tilley 1996: 168; Lynch *et al* 2000: 79). There are a number

of material forms and practices which either ended or began becoming commonplace at the start of the Late Neolithic (AppA1: p316). For example, people had generally stopped leaving deposits in causewayed enclosure ditches before the end of the fourth millennium cal BC (Whittle *et al forthcoming*). Equally, the construction of the earliest stone and timber circles and henges has been broadly dated to the early third millennium cal BC (Gibson 1998a: 9; Brück 2000: 273; Harding 2003: 9). However, many archaeologists still adhere to the traditional Neolithic/Bronze Age divide, highlighting other fundamental changes in the forms of materiality and patterns of connection and practice which occurred at around 2500 cal BC (e.g. the relatively sudden presence of metal working, widespread single inhumation and increasing rates of deforestation; Shennan 1986a; 1986b; Needham 2005). Ultimately, each decision hinges on which trails of interwoven past practice is considered more significant. I based mine on a personal interest in the third millennium cal BC, and an awareness that the period in which Beakers were made and used would be arbitrarily divided should I cease consideration after *c.* 2000 cal BC.

I have also followed Needham (2005: 206) in distinguishing the 'Terminal Neolithic' *c.* 2500-2200 cal BC as interposed between the two 'ages' (AppA1: p316). This roughly defines when copper and perhaps gold, but not bronze metallurgy was practised and deposited in Britain and Ireland[84] (ch5: p245-9; AppB: p361-4), hence it is also termed the 'British Chalcolithic' (Needham 2008; Parker Pearson 2008; Sheridan 2008). I adopted this sub-division purely because it seems to comprise the interface between either the cessation or commencement of many practices (e.g. people began to use and produce Beaker pottery and associated accoutrement, whilst Peterborough Ware and polished stone axe deposition ceased; AppA1:316) Throughout my thesis I use the phrase Late Neolithic *to* (as opposed to *and*) Early Bronze Age in respect of this third 'age'. To reiterate however, these are purely analytical terms and should not be taken as necessarily meaningful in the past.

In this sub-section, I present various material dimensions of practice at this time to give a clearer chronological framework to the historiography which follows, and to the thesis as a whole. To this end, please refer to Appendix A1: p316, which charts most of the discussion. In the first instance I refer to generalisations about various forms of practice enacted in the Irish Sea between 3000 and 1600 cal BC, but I will also mention regional variation where appropriate and where information is available. I also stress that my differentiation between forms of practice in the following sub-headings is for ease of discourse and in no way adheres

[84] Although, as previously mentioned (ch5: p246), metallurgical products, ideas and specialists may have been known to people living in Britain and Ireland long before *c.* 2500 cal BC

to the abstraction of one from another during the course of social life. For example, pottery cannot be reasonably discussed without stating common find contexts (e.g. within funerary deposits), or deforestation strategies described without incorporating dwelt-in knowledge of the landscape (Tilley 1996: 148). There is no obvious distinction between 'forms' of material culture or 'types' of dwelling if they are both considered to be active manifestations of practice. However, I cover dating evidence from a 'form' and 'type' approach as a structured archaeological context is important for clarity, even if it is only meaningful in one epistemological paradigm.

It is also worth mentioning that the spread of many of the cited radiocarbon dates is very broad, rendering chronologies of practice, especially those with few available radiocarbon dates, unhelpfully imprecise. The application of the Bayesian statistical framework to pre-existing and future samples will ultimately improve our understanding of radiocarbon dates and perhaps provide greater clarification about the association of different practices (Bayliss *et al* 2007: 22-6). All specific radiocarbon, thermoluminescence and dendrochronology dates cited in my thesis, including this discussion, are tabulated in Appendix A2: p317-34; A3: p334; A4: p335. All have been re-calibrated using OxCal 4.1. at 2σ.

Portable materiality

Ceramics

Peterborough and other Impressed Wares:

Peterborough Ware, found across Wales and southern Britain, has been dated to about *c.* 3400-2500 cal BC (Gibson & Kinnes 1997: 67), a very broad scatter which will undoubtedly be refined in the future (Bayliss *et al* 2007: 9-11). Several typological and chronological 'sub-styles' were identified within Peterborough Ware complexes, ranging from the supposedly earlier Ebbsfleet (thought to be similar to earlier Carinated Bowls) to Mortlake (more elaborately decorated) and finally Fengate (thought to resemble later Collared Urn forms) (Smith 1974) (figure B:1). However, a succession of radiocarbon dates from the 1990s undermined this framework of chronological stylistic progression (Gibson 1993: 35; 2002: 78-80). Fengate pottery now has a *terminus post quem* date in southern England and Wales of at least 3000 cal BC (Gibson & Kinnes 1997), meaning all three 'sub-styles' were fully developed by the turn of the fourth-third millennium cal BC (Gibson 2002: 80). Two levels of occupation at Ogmore, Glamorgan containing Mortlake Peterborough Ware, hearth material, charcoal spreads and flintwork were radiocarbon dated to *c.* 3347-2936 cal BC (BM-1112) and *c.* 3331-2679 cal BC (HAR-1140) (Gibson & Kinnes 1997: 66). BM-1112 represents (to date) the earliest so far

recorded in association with Mortlake Peterborough Ware in Wales, although Gibson (1998b: 60) argued that the two levels were actually one disturbed context, based on similarities in pot form and style. Both radiocarbon dates therefore most likely represent a *terminus post quem* for the associated activity phase, which fits within the spread of other Peterborough Ware associated samples. Burnt residue on a Fengate sherd from a pit within a small rectilinear enclosure at Brynderwen Farm, Powys was radiocarbon dated to *c.* 3341-2921 cal BC (OxA-4409) (Gibson 1993: 35). This compounds the probable contemporaneity of the two Peterborough Ware 'sub-styles' in the southern Irish Sea region.

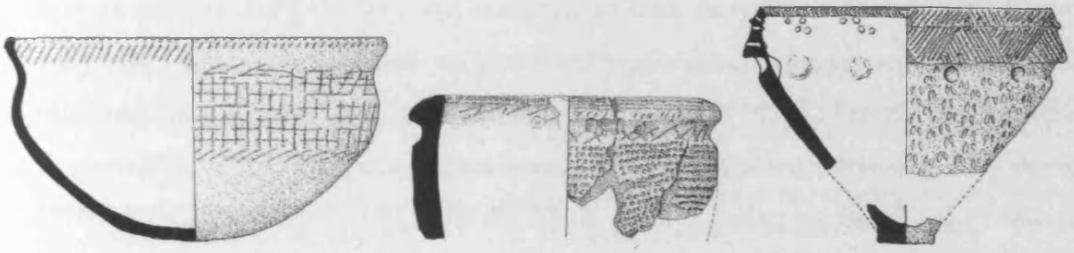


Figure B:1 Drawings of Ebbsfleet (left), Mortlake (centre) and Fengate (right) 'sub-styles' of Peterborough Ware. Examples derive from Durrington Walls, Wiltshire (*from* Smith 1965), Sarn-y-bryn-caled, Powys (*from* Gibson 2002: 79) and West Kennet, Wiltshire (*from* Piggott 1962) respectively. Not to scale

Impressed pottery styles made and deposited in Scotland and Ireland at around 3000 cal BC shared some similarities with Peterborough Ware examples (e.g. the use of cord, reed, sticks and small bones as decorative tools), although there were marked regional trends in patterns and forms (Sheridan 1995: 15; Gibson 2002: 81). The latest radiocarbon dates for many Impressed Ware styles and sub-styles generally fall between 2700-2500 cal BC (Gibson & Kinnes 1997: 67; Gibson 2002: 82). For example, at Cefn Bryn, Glamorgan, charcoal from an occupation layer containing Mortlake pottery was radiocarbon dated to *c.* 2889-2346 cal BC (BIRM-1236) (Ward 1987: 39-40).

Grooved Ware:

The production, use and subsequent deposition of Grooved Ware in southern Britain have been dated to approximately 3000-2000 cal BC (Garwood 1999: 152; Cleal & MacSween 1999). Ashmore's (1998: 145) appraisal of the range of Scottish radiocarbon dates associated with Grooved Ware is broadly similar, although he suggested that the style appeared slightly earlier (from *c.* 3100 cal BC) at Orcadian sites such as Barnhouse and Skara Brae 1. This supports

Sheridan's (2004c) assertion that Grooved Ware actually originated in north-east Scotland. Radiocarbon dating of charcoal inclusions in the fills of post-holes also containing Grooved Ware at Machrie Moor timber circle, Arran, produced a *terminus post quem* of *c.* 3354-2943 cal BC (GU-2316) (Haggerty 1991: 21). This supports the early presence of this pottery style across Scotland. Judging from the substantial width of the Machrie Moor timber circle post-holes however, the charcoal sampled for GU-2316 may have derived from trunks already over 100 years old when erected (Ashmore 1998: 146). Brindley (1999b: 138-9) has also argued that her 'Horizon 1' sub-style of British Grooved Ware (namely bowls with informal dense patterns of geometric shapes and jars with no, or some geometric and lined decoration; figure B:2) may date from as early as 3100 cal BC, and certainly no later than 3000/2900 cal BC. However, these early dates are solely founded on perceived typological affinities between 'Horizon 1' decoration and (mainly Irish) passage tomb art, which itself is only indirectly dated in relation to tomb construction (e.g. the putty sealant between the roof slabs at Newgrange, Co. Meath, *c.* 3327-2916 cal BC; GrN-5463; M.J. O'Kelly 1982: 230). Equally, by Brindley's (1999b: 143) own admission, no examples of her 'Horizon 1' Grooved Ware sub-style have as yet, been found in association with Irish passage tombs; her predominant source of early British Grooved Ware symbols. Certainly however, Grooved Ware was produced and used across the eastern Irish Sea coastline from the start of the third millennium cal BC. At my case study site Trelystan, Powys, charcoal from a pit (13) in structure B containing Grooved Ware sherds was radiocarbon dated to *c.* 3086-2626 cal BC (CAR-272) (Britnell 1982: 191) (ch4: p153-4; ch6: 290-2).

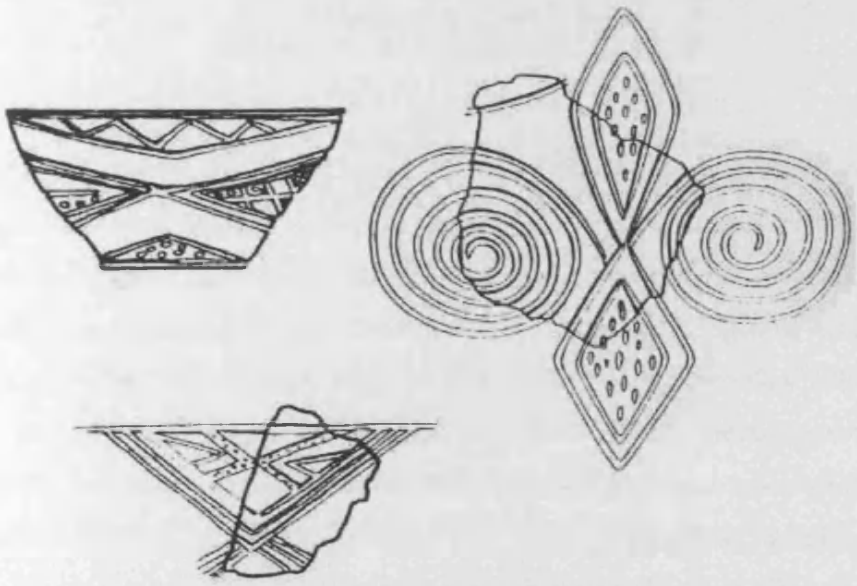


Figure B:2 Drawings of Brindley's (1999b) 'Horizon 1' 'sub-style' of Grooved Ware (*from* Brindley 1999b: 140). Examples derive from Unival, North Uist (top left) (*from* Scott 1948), Skara Brae (top right) and Rinyo (bottom), both Orkney (both *from* Piggott 1954). Not to scale

Irish Grooved Ware is generally more conservatively decorated than British examples. The earliest (probable) known example was found at Kiltierney, Co. Fermanagh, and dated as late Middle Neolithic based on its inclusion in a funerary context containing beads, Carrowkeel sherds and hammer pendants typologically of this date (figure B:3) (Daniells & Williams 1977). Brindley (1999a: 23; 1999b: 143) argued that Carrowkeel Ware, commonly associated with pit deposits in or under passage tombs, was actually replaced by Irish Grooved Ware during the tomb construction phase at Newgrange and Knowth (broadly 3300-2900 cal BC; AppB: p364-71). She based this assertion on the Kiltierney example alone, again emphasising the typological similarities between early, highly decorated Irish Grooved Ware and passage tomb art *c.* 3000/2900 cal BC (Brindley 1999b: 138). At the possible pit circle alongside the passage tombs at Fourknocks, Co. Meath, a sample of charcoal excavated from the same pit (6A) as a number of sherds, was radiocarbon dated to *c.* 3087-2872 cal BC (GrN-11873) (King 1989/90: 77). This is (to date) one of the earliest radiocarbon dates associated with Irish Grooved Ware, although the mixed charcoal sample may again derive from timber trunks already centuries old when erected (Brindley 1999b: 31).

Figure B:3 Drawing of the supposedly early Kiltierney sherd (*from* Brindley 1999a: 28). Not to scale

Brindley (1999a: 32; 1999b: 139) dated her last British Grooved Ware Horizon (6; forms only decorated with horizontal lines or zigzags in their upper parts) to around 2600/2500 cal BC, based on close similarities with Irish examples from radiocarbon dated contexts. She argued that these later, less elaborated Irish sub-styles (e.g. Dundrum-Longstone and Donegore-Duntryleague types) were deposited from *c.* 2600-2450 cal BC (Brindley 1999a: 32). For example, at Geroid Island, Co. Limerick, the centre of an oak stump growing above a habitation layer containing sparsely decorated Irish Grooved Ware was radiocarbon dated to *c.* 2458-1755 cal BC[85] (D-34) (McAuley & Watts 1961: 32-3) (figure B:4). Brindley (1999a: 32; 1999b: 139) contended that there was limited overlap between Grooved Ware and Beakers in Britain and Ireland. She mentioned a proposed 'hybrid' vessel from Newgrange which was

[85] Although, this radiocarbon date was processed particularly early (1961), which might reduce its validity somewhat (Brindley 1999a: 31)

associated with the habitation area within the larger Pit Circle (*c.* 2574-2154 cal BC; GU-1622; Sweetman 1985: 218; ch5: p240-1), omitting to mention that it came from layers containing mixtures of Irish Grooved Ware and Beaker sherds (Sweetman 1985: 203; 211-2). Brindley (1999b:139) also highlighted the absence of examples of her Horizon 6 'sub-style' in southern Britain, supposedly because it coincided with the inception of Beakers there. Due to the broad range of relevant calibrated radiocarbon dates, as well as the variety of patterns known, Brindley's (1999a; 1999b) phases are ultimately largely founded on her own typological schema.

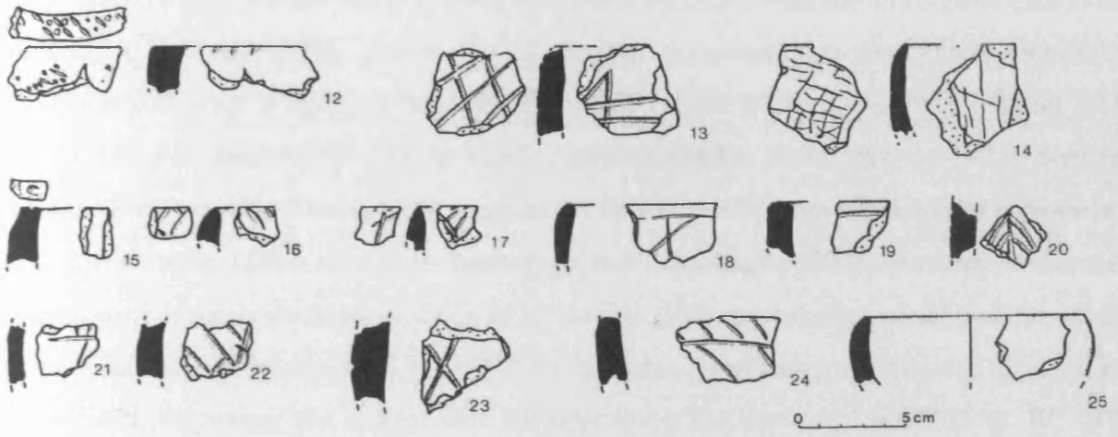


Figure B:4 Drawings of sherds of supposedly later Irish Grooved Ware from Geroid Island (*from* Brindley 1999a: 29)

In contrast, Garwood (1999: 152; 170) cited the sherds from Pit 3196 at Radley Barrow Hills, Oxfordshire, radiocarbon dated by association to *c.* 2562-2030 cal BC (BM-2706), to support his argument that southern British Grooved Ware was produced and deposited up until 2100/2000 cal BC. This view is endorsed by Gibson (2002: 84), who proposed that the use of Grooved Ware ceased no later than 2000 cal BC. There are many other examples of Grooved Ware sherds found in contexts radiocarbon dated to the second half of the third millennium cal BC. For example, in the fill of post-pit 92 at Durrington Walls South Circle *c.* 2568-2037 cal BC (BM-397) (Wainwright & Longworth 1971: 411), and in the basal fill (layer 8) of the ditch at Woodhenge *c.* 2397-1980 cal BC (BM-678) (Evans & Wainwright 1979: 73), both Wiltshire. Grooved Ware has been found in contexts alongside Beaker pottery, although it is usually argued that the former was residual at the time of deposition (e.g. Pit BB12, a probable Terminal Neolithic grave at Compton Martin, Somerset, which contained one Grooved Ware, and 100 Beaker sherds; Rahtz & Greenfield 1977). Sheridan (2008: 60) and Needham (2008) have both also argued that Grooved Ware continued to be used and produced well after the appearance of Beaker forms, problematically implying that the two types relate to co-existing

'traditional' and 'immigrant' world-views and beliefs during the Terminal Neolithic. Side-stepping my already expressed criticism of the culture-historical assumptions both Needham (2008) and Sheridan (2008) have made (ch6: p306-8; AppB: p345-7), there is a possibility that these Grooved Ware examples were 'heirlooms' by the time they were interred. This might mean that the production of Grooved Ware was only contemporary with Beakers by a number of decades, rather than centuries.

Beakers:

Beaker chronology has most recently been re-worked by both Needham in England (2005) and Sheridan in Scotland (2007; *forthcoming*). A general consensus has been found where its production and usage is dated to between 2600-1800 cal BC (Kinnes *et al* 1991: 39) and 2500-1700 cal BC (Needham 2005: 171) in Britain, or 2500/2400 - 1900/1800 cal BC in Scotland (Sheridan *forthcoming*: 3). Through the application of a Bayesian framework to the radiocarbon dates, Bayliss *et al* (2007: 50) have further refined Needham's (2005) data for the earliest deposition of English Beakers to 2475-2315 cal BC (95% probability) or 2425-2350 cal BC (68% probability). Similarly, data provided by Sheridan (*forthcoming*) for Scottish Beakers has been refined, suggesting the earliest date for deposition lies between 2385-2235 cal BC (95% probability) or 2345-2270 cal BC (68% probability). This indicates that Beaker use started later in Scotland than in England (Bayliss *et al* 2007: 50), although the samples cited by Sheridan (*forthcoming*) may principally refer to the first formal depositions of Beakers (Bayliss *et al* 2007: 50; Parker Pearson *et al* 2007: 634; Sheridan 2008: 62). Beaker pottery may have actually been a constituent of daily life for some time prior to this, and ongoing work such the *Beaker People Project*, which also encompasses Wales (e.g. Parker Pearson *et al* 2007: 634-5), may confirm this shortly. Beakers are present across Ireland, although not as extensively as in Britain. Associated radiocarbon dates again confirm that it was deposited there from around 2500 cal BC until the first few centuries of the second millennium cal BC (Gibson 2002: 93), although O'Brien (2004b: 564-5) suggested that Beaker *use* was superseded by Food Vessels in Ireland as early as *c.* 2000 cal BC. Some of the earliest radiocarbon dates for Beaker pottery in Ireland derive from associations with the founder phases of copper mining at Ross Island, Co. Kerry. Carbonised wood from the lower fill of a furnace pit (C.500) was radiocarbon dated to *c.* 2550-2234 cal BC (GrN-20224) (O'Brien 1995: 43; 2004b: 243), proving a *terminus ante quem* for the Beaker sherds in the black silt occupation layer (C.05) which sealed the pit[86].

[86] It seems probable that the furnace pit was near contemporary with the overlying Beaker occupation layers, since charcoal in the silt layer (C.05) sealing the pit was radiocarbon dated to *c.* 2459-2150 cal BC (GrN-19624) (O'Brien 2004b: 169)

Despite this general agreement on overall Beaker chronology, however, debate over pot form typologies has continued at an accelerated rate since the British Museum's radiocarbon dating programme of the late 1980s. Both Case (1993) and Boast (1995) conceived of a short-lived early phase when Beaker style and form was largely homogeneous and henceforward prototypical. Case (1993) argued that substantial overlap between Beaker styles then predominated, where between 2300-1750 cal BC, pots were formed in numerous styles and forms according to fairly rigid yet multidimensional and inter-regionally distinctive social norms. Boast (1995; 1998: 172) roughly concurred with this 2300-1750 cal BC period of Beaker innovation, cross-referencing and hybridisation, arguing that within this period, no style or form held as a distinctive 'core type' until a very late phase where former prototypes lost their symbolic rhetoric. Case (1993; 2001) instead formulated five groups with this period (A-E) which combined different elements of decoration, morphology, regional variation and patterns of association or exclusion (Needham 2005: 172). These approaches marked a contrast from the earlier work of Clarke (1970) and Lanting & Van der Waals (1972), who advocated vastly complex chronological schema of pot style and type, pursuing the assumption that norms were strictly enforced and incrementally evolving (Needham 2005: 171-3). Needham (2005: 174) also generated Beaker typological groupings, but emphasised the 'continuum' framework of both Case (1993; 2001) and Boast (1995; 1998), stressing that these groups represent symbolic caches rather than exclusive assemblages. In this way, a pot can draw reference from several groups and does not need to 'fit' into one or another.

Needham (2005: 206) argued that in his Period 1, between 2500-2250 cal BC (or 2475-2250 cal BC following Bayliss *et al* 2007: 50), Beakers were quite uncommon and fairly homogeneous in form as Low or Weak-Carinated styles predominated, usually associated with a few key material items such as copper daggers, wrist-guards and antler/bone spatulae (figure B:5). The multiple Beakers (possibly eight) found with the 'Boscombe Bowmen', Wiltshire excavated in 2004 by Wessex Archaeology probably fit into the end of this early phase. They consisted of Low-Carinated and S-Profile forms and were associated with five barbed and tanged arrowheads, various other flint scrapers and flakes, a boar's tusk and a bone toggle. The articulated skeleton derived from this burial context has been radiocarbon dated to *c.* 2458-2205 cal BC (OxA-13624) (c.f. Needham 2005: 202). Needham (2005) described his Period 2, of 2250-1950 cal BC (figure B:5), as characterised by heterogeneity in Beaker form and style; a phase when normative rules/symbolic references weakened in potters' daily decisions. Commencing with a 'Fission period', when diversity was most prevalent, the depth and quantity of Beakers dramatically increased to include Short-necked, Long-necked, S-Profile

groups alongside the dynamic Carinated styles. These forms were often associated with elements of a vastly expanding depth of material culture which included battle-axes, bronze daggers, flint daggers, jet jewellery, sponge-fingers and fire-kits. Needham also identified a Period 3, *c.* 1950-1700/1600 cal BC (figure B:5), during which Beakers were marginalised. Along with a few associated material objects such as bone awls, Needham (2005: 206-9) argued that the later S-Profile and Long-necked styles were viewed as emblematic of the past. Therefore, whilst Beakers were still potted alongside Early Bronze Age urns and Food Vessels, they provided social commentary by drawing from the re-enhanced symbolism of past norms and prototypes (Needham 2005: 210).

Figure B:5 Drawings of examples of Needham's (2005) three periods of Beaker 'sub-styles', including Period 1 Low-Carinated (left), Period 2 Short-Necked (centre) and Globular 'S' profile forms (*from* Needham, 2005: 184; 192; 199). Examples derive from Radley Barrow Hills Barrow 4A, Oxfordshire (*from* Barclay & Halpin 1999: 51), Hemp Knoll, Wiltshire (*from* Robertson-Mackay 1980: 145) and Clemson Memorial Hall, Gloucestershire (*from* Boyle et al: fig A2.9 no 1) respectively. Not to scale

In her quest to date Beaker styles in Scotland, Sheridan (*forthcoming*: 3) suggested that only 29 radiocarbon dates of an available 90+ are usable. This is based on their standard deviation of less than ± 100 years, and their derivative samples being unequivocally associated with Beaker/s, having a short own-life, and being obviously uncontaminated and of good quality. Using these 29, she proposed that *most* Beakers were made/used/deposited *c.* 2300-1900 cal BC. Despite being wary about the possibility of using these radiocarbon dates to test the traditional typological schema due to the possibility that Beakers were in circulation as heirlooms for centuries, Sheridan (*forthcoming*) tentatively suggested that Needham's (2005) periods hold. She stated that of those few dates directly associated with the earliest and indeed latest (e.g. Food Vessel/Beaker hybrids) forms and styles proposed by both Needham (2005) and earlier typochronologies, there is some concurrence with the Period 1 and Period 3

schema. For example, the All Over Corded Beaker from Sorisdale, Argyll & Bute, was associated with the early date of *c.* 2468-2215 cal BC (BM-1413) (Ritchie & Crawford 1978), whilst the handled Beaker from Balfarg, Fife, and other Beaker/Food Vessel hybrid forms have all been radiocarbon dated by association to around or later than 2000-1900 cal BC (Sheridan *forthcoming*: 4). Sheridan (*forthcoming*) describes the period between these two (roughly 2300-2000 cal BC) as comprising a wide variety of Beaker styles including the Short and Long-necked forms, again concurring with Needham's (2005) typology (Period 2).

Food Vessels and Urns:

Food Vessels, as bowls and vases, are most commonly found in Ireland, west and north Britain, leading to some suggestion that style was were first developed in Ireland as a response to Beaker 'imports' (figure B:6) (Gibson 2002: 95-6). Sheridan (2004a: 243) recently outlined a chronology for Early Bronze Age Food Vessels, following over 50 British and 70 Irish radiocarbon dates now available. Most commonly found in the classic 'Wessex-style' graves dated to *c.* 1950-1450 cal BC (Garwood & Barclay 1999: 285), again, a very broad spread due to the poor refinement of the available radiocarbon dates, they were almost certainly part of daily life prior to this. She concurred with Needham's (1996: 128-32) assessment that Food Vessels were produced and in use in England and Wales between 2200/2100 and 1700 cal BC, with the possibility that they continued to constitute part of material life well into the seventeenth century BC. Sheridan (2004a) surmised an overall date range in Scotland of 2200-1910 cal BC for the earliest pots, to 1880-1520 cal BC for the latest. Lanting & Brindley (1998) compiled a span of 2180-1725 cal BC from the radiocarbon dates relating to Food Vessels in Ireland alone.

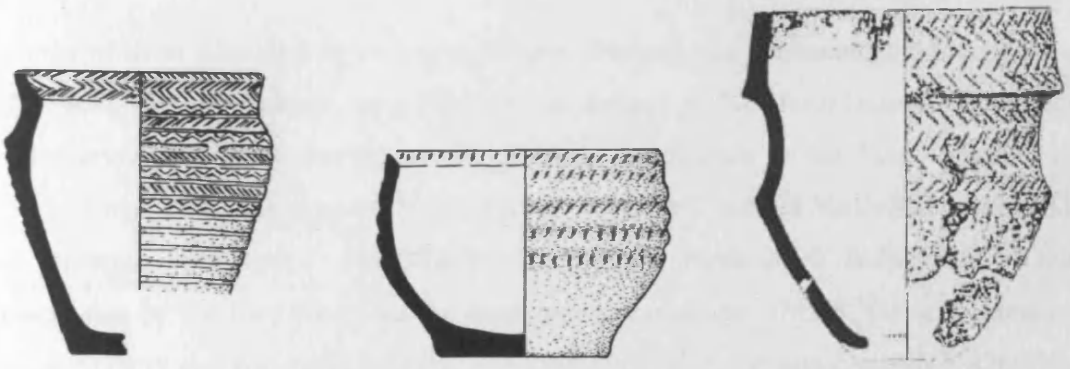


Figure B:6 Drawings of a Food Vessel vase (left) and bowl (centre), and a Collared Urn (right). Examples derive from Craigbirnoch, Wigtownshire (*from* Simpson 1965), Cambuslang, Lanarkshire (*from* Simpson 1965) and Carronbridge, Dumfries & Galloway (*from* Johnston 1994) respectively. Not to scale

Early Bronze Age Urns are found across Britain and Ireland (figure B:6). There are numerous sub-styles which are regionally distributed including Collared (widespread in England, Wales, lowland Scotland and eastern Ireland), Cordoned (predominantly found on Mann, and in Ireland and Scotland) and Vase/Food Vessel Urns (found everywhere) (Sheridan 2003a: 203-4). Radiocarbon dates associated with Urns suggest that they were first deposited in England, Wales and Scotland at 2000/2100 cal BC, until approximately 1400 cal BC (Sheridan 2003a: 203-09). Brindley (1995; 2001: 157; 2007) and Lanting & Brindley (1998), have compiled a date range of *c.* 2050-1750 cal BC for Vase Urn, *c.* 1950-1500 cal BC for Collared Urn and *c.* 1700-1400 cal BC for Cordoned Urn deposition in Ireland. Bayliss & Sheridan (2008: 206-7) critiqued Brindley's (2007) spreads, suggesting that they are often inaccurately late because they derive from 'wiggle-matching' techniques rather than Bayesian statistical modelling. Recently acquired radiocarbon dates associated with Vase Urns in Scotland suggest a spread of *c.* 2150-1500 cal BC (Sheridan 2003a: 203). This fits with the small number of radiocarbon dates associated with Vase Urns in Wales and England. For example, a cremation deposit associated with a Vase Urn at Bedd Branwen, Anglesey, was recently radiocarbon dated to *c.* 2026-1769 cal BC (GrA-19566) (Sheridan 2003a: 206). The deposition of Collared Urn forms is radiocarbon dated by association in England and Wales to around *c.* 2100/2000, whilst spreads fall between 2000-1600/1550 cal BC in Scotland (Sheridan 2003a: 206-7). Cordoned examples from Britain range from *c.* 1900-1400/1300 cal BC (Sheridan 2003a: 209). It is therefore probable that Vase Urns and Collared Urns pre-date Cordoned sub-styles. Needham (1996), amongst others, associated their development with a shift in funerary rites towards cremation.

Durable tools

Flint:

The forms of most flint tool types seems to have changed fairly substantially throughout the Late Neolithic to Early Bronze Age of Britain and Ireland. In Northern Ireland, petit-tranchet derivative arrowhead types dominated the projectile assemblage of the Late Neolithic, with either transverse, short or elongated pointed forms found in Terminal Neolithic contexts at the timber structure excavated at Ballynagilly, Co. Tyrone (Nelis 2004: 162). There is some suggestion that by the Late Neolithic the most highly crafted arrowheads, formerly discovered in both settlement and funerary contexts, were only present at non house-structure sites (Nelis 2004: 160). In Scotland, England and Wales, the distinctive leaf-shaped arrowheads of the Early Neolithic contrasted with the more triangular petit-tranchet forms of the Late Neolithic[87] (Bradley & Edmonds 1993: 19), the later barbed-and-tanged examples from the Terminal

[87] Although leaf shaped forms continued to be made in the Late Neolithic (Edmonds 1995: 99-100)

Neolithic (figure B:7) and the Early Bronze Age, Food Vessel-associated Conygar types (ch4: p118-9; p146; p171). There was a definite increase in variability of form, and decrease in regional difference during the Late Neolithic, in comparison with the fourth millennium cal BC (Edmonds 1995: 99). However, Green (1980) argued that, to an experienced eye, the later barbed-and-tanged examples were regionally distinctive based on subtle contrasts in traditions of pressure flaking.

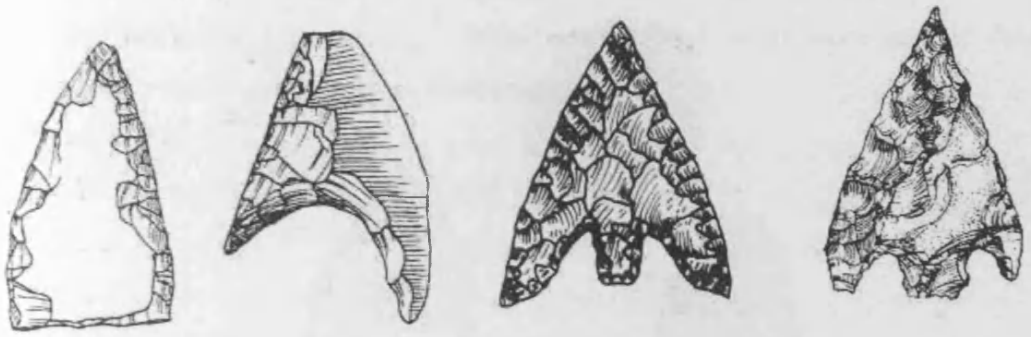


Figure B:7 Drawings of Late Neolithic (left) and Terminal Neolithic (right) arrowhead forms. Examples are petit-tranchet derivative transverse (far left), oblique (centre left), and barbed and tanged (centre right and right) (*from* Edmonds 1995: 99; 142). Not to scale

Hollow scrapers, exclusive to Northern Ireland, were present at some Late Neolithic sites (e.g. the Dundrum sandhills, Co. Down) but seem to have become obsolete by the Terminal Neolithic. In fact, they have never been found in association with Grooved Ware (Nelis 2004: 165). Nelis (2004: 171) argued that their popularity during the Middle and Late Neolithic may be linked to the growing obscurity of flint knives at this time. Traditional scrapers, common throughout Ireland and Britain, continued in fairly indiscriminate form throughout the Neolithic and into the Bronze Age. There has been some suggestion of their gradual increase in size during the Neolithic, but Nelis (2004: 168) argued that this trend is not consistent between contemporary assemblages and is probably more to do with differential access to resources. During the Late and Terminal Neolithic, and into the Early Bronze Age, thumbnail scrapers became increasingly common throughout Ireland and Britain (Parker Pearson 1999: 80-1), meaning that the more invasive pressure flaking techniques of Early Neolithic flint production were replaced by more minimalist retouch methods.

Bradley & Edmonds (1993: 22) described the flint tool kit in Late Neolithic Scotland, England and Wales as "no longer…designed for portability" based on more wasteful flint-working scatters, and characterised by a broader range and variety of tools which included examples of

some considerable size. Specialised rather than multipurpose items prevailed from the Late Neolithic and into the Bronze Age including flint axes, adzes, flaked knives (possible copies of copper prototypes; Parker Pearson 1999: 80), arrowheads and chisels, and new forms such as daggers and battle axes were also developed. Earlier styles and forms which continued to be made into the Late Neolithic (e.g. axe heads), tended to have had more time and attention spent on them, including the application of polishing and pressure flaking techniques which probably did not enhance their mechanical performance (figure B:8) (Bradley & Edmonds 1993: 185; Edmonds 1995: 102-3). Other, newer forms were more crudely flaked and retouched than earlier core workings (Edmonds 1995: 95).

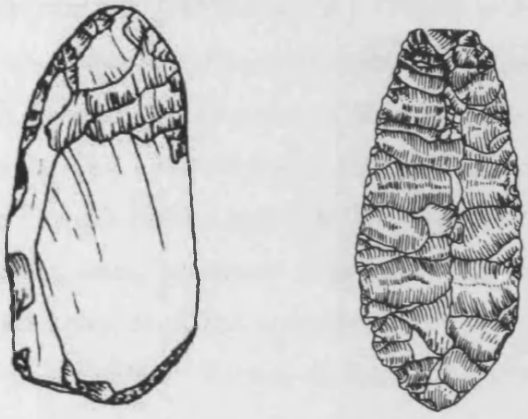


Figure B:8 Drawings of an Early Neolithic re-touched knife (left) and more elaborate Terminal Neolithic knife (right). Examples derive from Yabsley Street, Blackwall, London (*from* Coles *et al* 2008: 225-6) and Biggar Common, Lanarkshire (*from* Johnston 1997) respectively. Not to scale

Stone:

Aside from flint, tools crafted from igneous and metamorphic strata also changed fairly substantially in form and style between 3000 and 1600 cal BC. The great stone extraction sites, most famous as sources for the iconic polished axes, were abandoned during the second half of the third millennium cal BC (Bradley & Edmonds 1993: 199). Stone axes were roughed-out from the early fourth millennium cal BC, or perhaps even during the Terminal Mesolithic (David 1989: 248-9), at sites such as Great Langdale in Cumbria, Tievebulliagh, Co. Antrim and Mounts Bay in Cornwall. However, they were not commonly deposited beyond the locality of their source until the second half of the fourth millennium cal BC (Bradley & Edmonds 1993: 40). By the Late Neolithic therefore, polished stone axes had become established

elements of material life, 'peaking' in terms of the distribution and quantity of deposited examples at around 3000 cal BC. However, by around 2500 cal BC, elaborate flint axes seemed to be more commonly produced and deposited than their polished stone counterparts.

Frequently found associated with Peterborough Ware and Grooved Ware, polished stone axes are less often found in Beaker contexts, although there are a few exceptions. For example, seven axes or axe fragments were found in the Late to Terminal Neolithic occupation layers located next to Newgrange passage tomb, Co. Meath (figure B:9) (M.J. O'Kelly *et al* 1983: 41). Three charcoal samples from a layer containing a Tievebulliagh porcellanite axe, flakes and Beaker sherds were radiocarbon dated to *c.* 2471-2213 cal BC (GrN-6342), *c.* 2621-2350 cal BC (GrN-6343) and *c.* 2851-2472 cal BC (GrN-6344) (M.J. O'Kelly *et al* 1983; Sheridan 1986: 26). Polished stone axes have also been found associated with later Early Bronze Age pottery in radiocarbon dated contexts. At the occupation site of Sheepland, Co. Down (Waterman 1975), a porcellanite axe head was found in contexts also containing Cordoned Urn sherds (dated to *c.* 1700-1400 cal BC in Ireland; AppB: p352; Lanting & Brindley 1998). There is some suggestion that such axes may have either been 'heirlooms' deposited much later than their creation, or genuine later Bronze Age examples, crafted as active commentaries on the past (Sheridan 1986: 27). It seems likely that, in contrast to Bradley & Edmonds (1993), some, albeit minimal, extraction of stone from the documented quarries continued at least at the porcellanite sources (Tievebulliagh, Rathlin Island and possibly Clogh, all Co. Antrim) into the Late Bronze Age. Indeed, Sheridan (1986: 27) postulated that some porcellanite axes were made until at least 1200 cal BC.

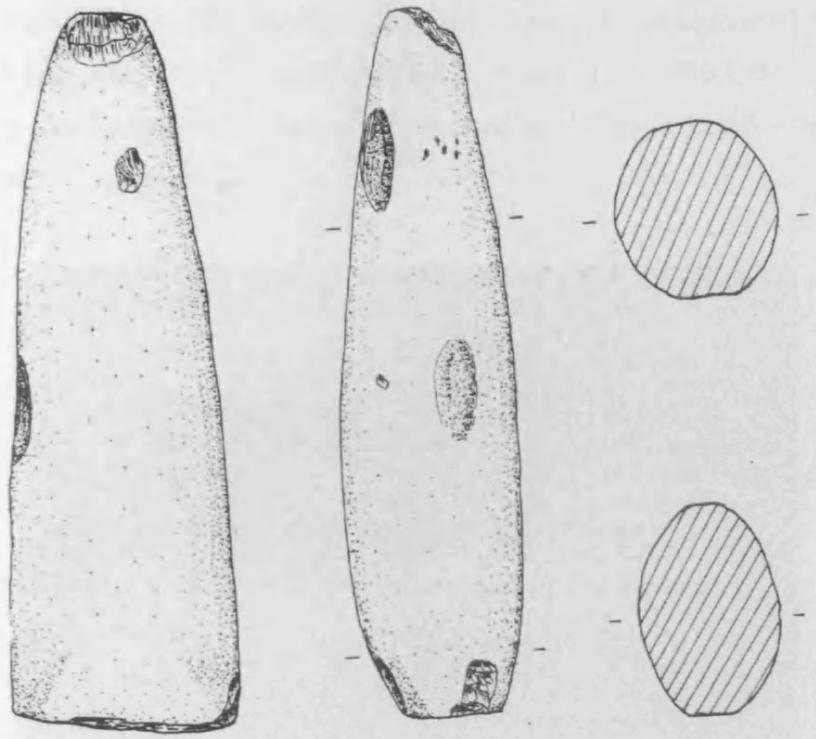


Figure B:9 Drawing of a Tievebulliagh porcellanite axe found in occupation layers which also containing Beaker sherds, at Newgrange, Co. Meath (*from* M.J. O'Kelly *et al* 1983: 42). Not to scale

Other stone forms such as maceheads, axe hammers, stone balls, battle axes and wrist-guards were indeed produced from the Terminal Neolithic, well into the Early Bronze Age. For example, axe hammers made from Cwm Mawr Group XII picrite have been found exclusively in contexts dating from the Early Bronze Age onwards (figure B:10) (ch4: p98; 182). Wrist-guards (or 'bracers') made from polished stone are commonly found in association with Beaker pottery, such as the Antrim porcellanite example from Garvagh, Co. Derry, which has been dated to the early Terminal Neolithic (Harbison 1976). The few radiocarbon dates available for Beaker burials with bracers in England all fall before or during Needham's (2005) 'fission horizon' of 2250-2150 cal BC (Woodward *et al* 2006: 533). Woodward *et al* (2006) argued that bracers were made at the same time as the earliest Beakers, and continued to be crafted, or simply just interred with burials until around the late twenty-first century BC. Harbison (1976: 7-10) suggested that bracers were made a little later in southern Ireland compared to elsewhere, perhaps in association with Food Vessels (dated to 2200/2100-1700 cal BC) rather than Beakers. An un-provenanced Bronze Age whetstone also made of Antrim porcellanite now resides in the Ulster Museum. Miniature axes, adzes and chisels may also be Bronze Age in

date, perhaps further examples of the aforementioned practice of referencing the past through manufacture (Sheridan 1986: 23). Needham (2005: 209) linked the emergence of polished stone battle axes and flint daggers to his instituted Beaker Period (2) of 2250-1950 cal BC, arguing that, along with newly widespread bronze, they formed part of the material lives of the newly established 'Beaker' cultural ethos.

Figure B:10 Photograph of a Cwm Mawr picrite axe hammer (top) and battle axe (bottom), with a 50p coin for scale (from Clwyd-Powys Archaeological Trust, photo 2485-005)

Decorative items and small tools

Faience:

Faience, usually used for beading, is found in both British and generally eastern Irish burial contexts dating from around 2000/1900-1450 cal BC (figure B:11) (Sheridan & Shortland 2004: 265; 268). Once thought to derive from Mycenaean exchange networks which sought amber from the north, the technology rather than material itself is now known to have travelled (British examples have British tin inclusions in their fabric). Both Sheridan & Shortland (2004) and Brindley (2007) have published and discussed new dates relating to the use of faience across Britain and Ireland. Un-burnt human bone from Gallows Hill Barrow, Arreton Down, Isle of Wight, which was associated with a segmented faience bead, has recently been radiocarbon dated to *c.* 2016-1771 cal BC (SUERC-18319/GU-16651) (Sheridan 2008: 58). To date, this is one of the earliest dates so far established for the deposition of

faience in Britain. In Ireland, a composite necklace comprising faience, amber, jet and bronze beads was found associated with a young male inhumation in the Mound of the Hostages at Tara, Co. Meath (Ó Ríordáin 1955: 168). Human bone from this deposit was radiocarbon dated to *c.* 1878-1528 cal BC (GrA-19180) (O'Sullivan 2005: 177-82). Faience continued to be deposited in burials until the middle of the second millennium cal BC. At Amesbury Solstice Park, Wiltshire, human bone associated with a composite necklace of at least 105 beads and toggles, some of which were made of faience, was radiocarbon dated to *c.* 1612-1433 cal BC (GrA-22371) (Sheridan 2008: 59).

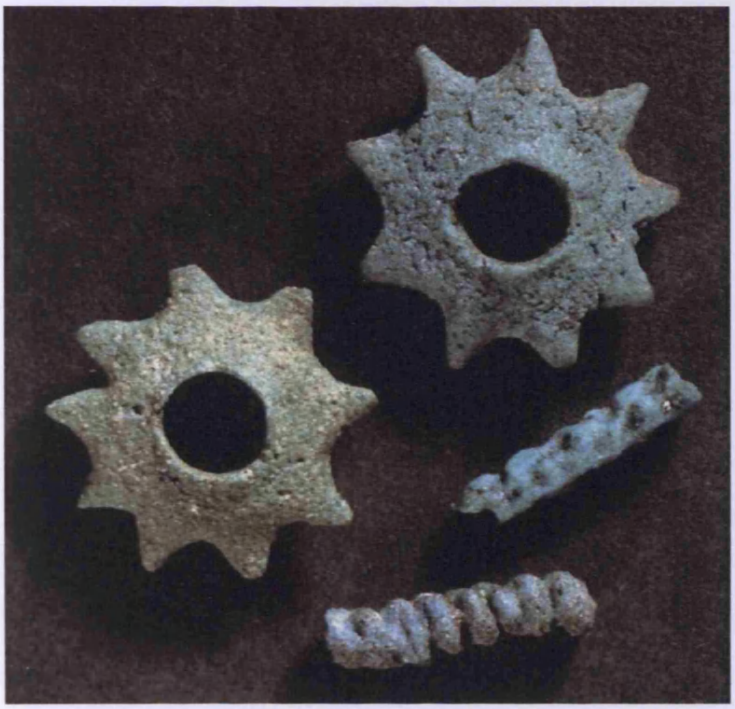


Figure B:11 Photograph of two star-shaped beads and two segmented faience beads. Examples derive from Culbin and Glenluce Sands, respectively both Dumfries & Galloway. Photo: National Museum of Scotland (*from* Sheridan 2008: 69)

Amber:

Amber is rare in the Neolithic and was generally used from the Early Bronze Age onwards (Kinnes 2004: 111). An early *terminus post quem* for the deposition of amber beads in Britain is offered at Radley Barrow Hills, Oxfordshire. Human bone associated with a composite necklace comprising segmented faience, amber and jet or shale beads was radiocarbon dated to *c.* 1889-1669 cal BC (GrA-26608) (Barclay & Halpin 1999: 165). An even earlier, more recently acquired date was achieved at the Knowes of Trotty, Orkney. Cremated bone from a cist,

associated with fragments of an old amber spacer plate necklace and other amber objects, was radiocarbon dated to *c.* 2029-1779 cal BC (GrA-34776) (Sheridan 2008: 62). In Ireland, the aforementioned composite necklace from the Mound of the Hostages included amber. The associated radiocarbon date of *c.* 1878-1528 cal BC (GrA-19180) (O'Sullivan 2005: 177-82) suggests that amber was also present in Ireland by at least the early second millennium cal BC. An amber bead was recently discovered in a pit, possibly originally containing a cist-like structure, which was dug into the north-eastern side of an Early Bronze Age 'tailed' cairn (Site 2) at Stannon Down, Bodmin Moor, Cornwall (Jones 2006: 347). Charcoal from this pit was radiocarbon dated to *c.* 1612-1452 cal BC (OxA-13386) (Jones 2006: 347), confirming that amber was continuously used for decoration into the Middle Bronze Age.

Jet:

Britain and Ireland's main source of jet is Whitby in Yorkshire. It was used exclusively for various jewellery/dress objects from the fourth millennium cal BC onwards. A second source of jet at Kimmeridge has been located recently, but there is no evidence for its exploitation in prehistory (Watts *et al* 1997). To date, twenty-three known examples of jet belt-sliders (large elongated beads) are so far known in Britain from either funerary or riverine/wetland contexts, including two from the communal grave structure excavated at Gop Cairn, Clwyd. They probably date from the late fourth to early third millennium cal BC (Sheridan & Davis 1998: 152). The only secure radiocarbon date for these objects, *c.* 3504-2922 cal BC (HAR-5587) (Brewster 1984), is derived from human bone associated with a jet slider in an inhumation at Whitegrounds barrow, Yorkshire.

Jet objects from the late third and early second millennium cal BC are more common, frequently associated with both Beaker pottery and inhumation in northern British funerary rites, and with the contemporary and later urned and un-urned cremation deposits in southern Britain (Sheridan & Davis 1998: 154). Beaker-associated jet objects include V-perforated buttons, pulley rings and spacer plate, terminal plate, disc and fusiform beads (figure B:12). They have been given a *terminus post quem* of approximately 2300 cal BC based on the Migdale hoard, Sutherland, which included a V-perforated button (Sheridan & Davis 1998: 155). Wood from the backing of a tubular bronze bead in this hoard was radiocarbon dated to *c.* 2281-1779 cal BC (OxA-4659) (Sheridan & Davis 1998: 155). The Pen y Bonc spacer plate necklace and V-perforated button from Anglesey have been dated to fairly early in the second millennium cal BC, based on their presumed association with an inhumation (typically 'Wessex I', from the earlier Early Bronze Age), rather than cremation burial (typically 'Wessex II', from the later

Early Bronze Age; AppB: p377-9) (Sheridan & Davis 1998: 156). These Beaker-associated jet objects tended to cease being associated with inhumations at around 1700 cal BC, although they may well have continued to be produced and re-used well into the second millennium cal BC. Cremation-associated jet objects continued to be deposited until around 1500 cal BC, and included grooved biconical, ribbed and fusiform beads, as well as other miscellaneous items (Sheridan & Davis 1998: 156). For example, a pill-shaped jet bead was found at ring-cairn (6506) at Carneddau, Powys in the fill of a rock-cut pit (129). Charcoal from this fill layer was radiocarbon dated to c. 1875-1459 cal BC (CAR-1261) (Gibson 1993: 31-3).

Figure B:12 Photograph of spacer plate necklace of jet and jet-like materials, from Inchmarnock, Argyll & Bute. Photo: National Museum of Scotland (*from* Sheridan 2008: 68)

Burials with jet beads are fairly rare in Ireland, and only a small number of jet buttons are known (Mount 1997: 34-5). At Keenoge, Co. Meath, an inhumation burial (grave 13) of a young female was found with a jet choker necklace placed around her neck (Mount 1997: 24). Human bone from the burial was radiocarbon dated, providing a *terminus post quem* of *c.* 2276-2028 cal BC (GrA-2157) (Mount 1997: 58).

Bone, antler and other materials:

Bone was a commonly used resource for various small but heavily-crafted tools throughout the Late Neolithic to Early Bronze Age, particularly pins such the example found near the wrist-guard on the forearm of the Beaker period 1 'Amesbury archer' grave, Wiltshire (Fitzpatrick 2002: 630). Similarly, antler continued to be routinely used for crafting tools, such as spatulae for working flints and picks for digging, as well as possible ceremonial items such as maceheads. The red deer example from a settlement site in Northton, Isle of Harris, was recently radiocarbon dated to *c.* 3339-2903 cal BC (BM-705) (Loveday *et al* 2008: 387). Small items such as beads and belt-rings were also often fashioned from workable stone and minerals such as shale, steatite, chalk and calcite, as well as shell, animal teeth and fossils such as the cowry and beaver incisor beads found in the composite necklace in Amesbury barrow 61a, Wiltshire (Ashbee 1985; 73-5). At Graney West, Co. Kildare, a cist burial (grave 2) containing the cremated bone of an adolescent was associated with a stone and bone toggle, as well as an Early Bronze Age lugged bowl (figure B:13) (Ó Ríordáin & Waddell 1993).

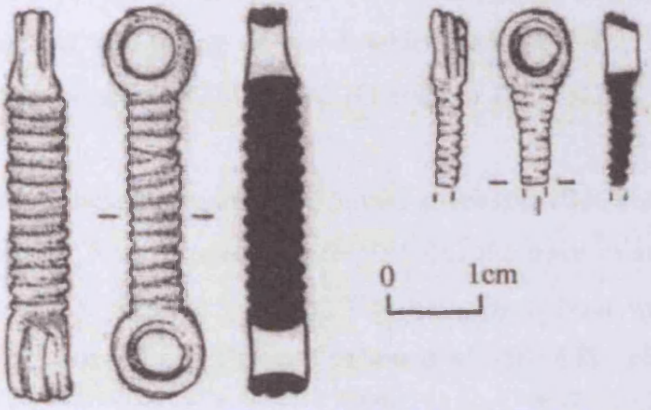


Figure B:13 Drawings of phyllite stone (left) and bone (right) toggle from grave 2 cist cremation burial at Graney West, Co. Kildare (*from* Ó Ríordáin & Waddell 1993)

Metallurgy

Copper, bronze and gold:

Needham (2005: 206) dated the inception of copper metallurgy in Britain to the twenty-sixth century cal BC, and bronze similarly to the twenty-second century cal BC based on the association of copper daggers with his Period 1 Beakers, and bronze flat daggers and pommels with his emergent Period 2 Beakers (Needham 2005: 205). For example, human bone associated with a Weak-Carinated Beaker from the primary grave F919 at Radley Barrow Hills,

Oxfordshire, was radiocarbon dated to *c.* 2832-2147 cal BC (OxA-1874) (Barclay & Halpin 1999: 55-65). Accompanied by three simple copper rings, their mid third millennium cal BC date is secured by a second grave, cut through the first, which contained a Low-Carinated Beaker and human bone yielding the equally early radiocarbon date of *c.* 2862-2234 (OxA-1875) (Barclay & Halpin 1999: 55-65). Recent remodelling of data provided by Needham (1996: 121-40; 2005: 206) has more specifically dated the origins copper working in England to *c.* 2475-2315 cal BC (Bayliss *et al* 2007: 50). Needham (2005: 209) believed that unalloyed copper and gold was present but rare in Britain between 2500-2250 cal BC, and that between 2250-1900 cal BC, copper was rapidly replaced by bronze. Northover (1999) argued that this 'overlap' between copper and bronze use was even shorter, lasting from 2200-2100 cal BC. O'Brien (2000: 162; 173; 2004b: 557) dated the introduction of metallurgy in Ireland to broadly 2500-2300 cal BC, and the earliest bronze production to *c.* 2100 cal BC. Early copper working there is thought to have coincided with the circulation of items of gold sheetwork at around 2400 cal BC (Harbison 1969; O'Brien 2004b: 5). As already mentioned (AppB: p348), carbonised wood from the lower fill of an early furnace pit (C.500) at Ross Island, Co. Kerry, was radiocarbon dated to *c.* 2550-2234 cal BC (GrN-20224) (O'Brien 1995: 43; 2004b: 243). At Corlea 6, Co. Longford, the felling of wood which had been worked by a metal axe was dendrochronologically dated to *c.* 2259 cal BC (O'Sullivan 1996: 312).

Tanged daggers and knives, thick and thin butted axeheads, awls, halberds and blades were amongst the first copper forms, a classic example being the three small, tanged copper knives found on the chest of the 'Amesbury archer', Wiltshire, whose bone was radiocarbon dated to *c.* 2471-2290 cal BC (OxA-13541) (Parker Pearson *et al* 2007: 635). Based on the continental ancestry of the archer, as discerned from isotopic analysis (Fitzpatrick 2002: 630), Sheridan (2008: 65) suggested that these knives were of 'Atlantic' origin. However, other examples of these early copper forms were certainly forged in Britain and Ireland, such as the axes found in a hoard at Cappeen, Co. Cork (figure B:14). These were metallographically provenanced to the Ross Island copper seams (O'Brien 2004b: 562). Early bronze forms were typically flat daggers, knifes, axes, halberds and awls, such as the flat daggers buried alongside Weak-Carinated Beakers in the series of Beaker burials at Eynsham, Oxfordshire (Smith 1956: 14). A flanged bronze axe was discovered in the upper ditch fill of the enclosure ditch of Mount Pleasant Henge, Dorset. A radiocarbon dated antler pick lying in primary fill immediately below it provides a *terminus post quem* for the axe of *c.* 2299-1949 cal BC (BM-646) (Burleigh *et al* 1972: 395-8).

Figure B:14 Photograph of a hoard of Ross Island copper axeheads, found at Cappeen, Co. Cork (*from* O'Brien 2004b: 562)

The earliest gold work in Britain and Ireland comprised sheet-worked examples (Taylor 1980: 22), namely 'basket-earrings' (or more likely, hair cuffs), various disc or lozenge forms, and inlays and platings. Basket earrings have been found in association with All-Over Corded Beakers at Kirkhaugh barrow in Northumberland, and with Bell Beakers at Radley in Oxfordshire; both forms traditionally thought of as early (Clarke 1970: 273-4; Needham 2005). Basket earrings were found with the 'Amesbury Archer' burial, Wiltshire, whose bone (as previously mentioned; AppB: p362) was radiocarbon dated to *c.* 2471-2290 cal BC (OxA-13541) (Parker Pearson *et al* 2007: 635). Irish Lunulae are also sheet-worked and thought to originate from the Early Bronze Age, based on the few contextualised examples known such as the two examples from Harlyn Bay, Cornwall, found in association with an undecorated flat axe (typically thought to be a very early copper form). It would appear that gold-working was occurring in Ireland and Britain from at least 2250 cal BC (Needham's *terminus ante quem* date for Period 1 Beakers; 2005: 206), and may well date from as early as the origins of copper-working (Bradley 2007: 148). In fact, as previously mentioned, O'Brien (2004b: 559; 564) argued that gold-working began in Ireland at around 2400 cal BC, as part of an 'assemblage' which also included the slightly earlier Beakers and copper metallurgy.

However, older discourse concerning the origins of metallurgy in Britain and Ireland explored the possibility that the relevant ideas and material culture were present in Britain during the earlier third and even fourth millennium cal BC (Case 1966). This has recently been positively re-examined (Parker Pearson 1999: 78; O'Brien 2004b: 562-4; Bradley 2007: 146), and is discussed in depth in chapter 5 (ch5: p245-9).

Burial

Architecture

Passage tombs:

Passage tombs have traditionally been seen as a quintessentially Middle Neolithic derivative of British and Irish prehistoric communal monumental funerary architecture (e.g. Darvill 1987: 82-3; O'Brien 2000: 161). Broadly speaking, they comprise a mound covering a central, compartmentalised chamber which was approached by a linear passage, and Grooved or Carrowkeel pottery is often found placed within them (e.g. Barclodiad yr Gawres, Anglesey and Newgrange, Co. Meath; figure B:15). However, recently acquired radiocarbon dates have complicated chronologies which placed other forms of communal tombs earlier than passage tombs (Sheridan 2003b). The construction of tombs with chambers approached by passages and covered by circular mounds have been dated as early as any other British and Irish forms, from soon after 4000 cal BC (Sheridan 2003b; Henshall 2004: 85; although see Bayliss & O'Sullivan *forthcoming*[88]). Henshall (2004) suggested that most were built by 3500 cal BC, but that some construction dates from the latter part of the fourth millennium cal BC (e.g. Maes-Howe type tombs) until around 3000 cal BC (Richards *et al* 2005). Indeed, Ashmore (1996: 73) suggested that the small passage grave built in the centre of the pre-existing stone circle and avenues at Callanish, on the Isle of Lewis, was one of the last examples constructed (figure B:15). Overlying a structure associated with Grooved Ware sherds, the Callanish tomb must have a *terminus ante quem* of 3100 cal BC at the absolute earliest (AppB: p344-8) (Ashmore 1998: 145). Considering the whole site is characteristically unique, the Callanish tomb may represent a re-working of ideas which were archaic by the time it was constructed (Bradley 1998a: 2). Bryn Celli Ddu passage tomb, Anglesey, was built similarly late, causing Burrow (*forthcoming*) to argue that the 'passage tomb tradition' was anachronistic when it crossed over the Irish Sea. Eight cremated bone samples from contexts relating to the development and use of the Bryn Celli Ddu passage tomb, Anglesey, have recently been radiocarbon dated. Bayesian statistical analysis of these dates suggests that the tomb was built at sometime between 3074 and 2956 cal BC (Burrow *forthcoming*). Bayesian modelling of the four dates obtained from samples of

[88] Bayliss & O'Sullivan (*forthcoming*) have recently re-modelled some of these radiocarbon dates using a Bayesian framework, concluding that passage tombs were built from the Middle Neolithic onwards

cremated bone in the primary fill of the passage and from behind the outer kerb near the entrance suggests that Bryn Celli Ddu was in use as a burial site for between 5 and 182 years (Burrow *forthcoming*).

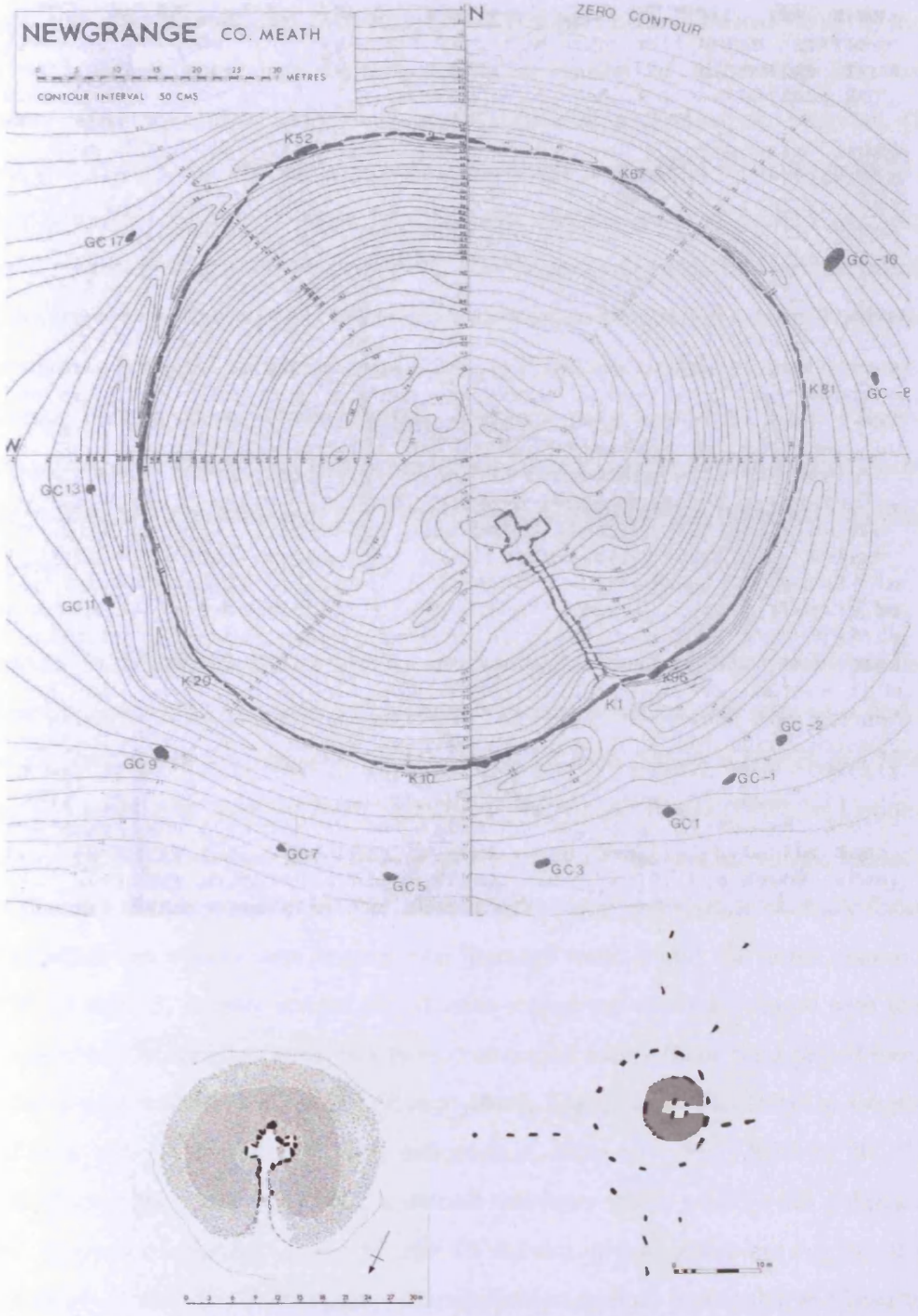


Figure B:15 Plans of the passage tombs at Newgrange (top) (*from* O'Kelly *et al* 1983: 3), Barclodiad yr Gawres (bottom left) (*from* Lynch 1976) and Callanish (bottom right) (*from* Bradley 2007: 107). Plans are representatively scaled

Cooney (2000a: 152) suggested that passage tomb construction in the Boyne Valley, Co. Meath centred on the period between 3350-2900 cal BC. He based this on a number of radiocarbon dates (e.g. as already mentioned ch5: p217; AppB: p345, *c.* 3327-2916 cal BC for the putty between the roof slabs of the passage at Newgrange; GrN-5463; M.J. O'Kelly 1982: 230), stratigraphic relationships, and by following both Sheridan's now contested (1985/6) model for passage tomb development and Fraser's (1998) discussion of earlier and later trends in monuments' changing relationship with their surrounding landscapes. Sheridan (1985/6) proposed that initially 'simple' sites became increasingly augmented by expansions in mound size, elaboration in chamber design, intensification in incised and pecked depictions and heightened ceremonial activity. Fraser (1998: 220-1) also suggested that smaller tombs were earlier. She argued that these more subtle constructions communed in a more harmonious and personal manner between people, the landscape and mythical worlds, in stark contrast to later more abrupt constructions which asserted ancestral presences over place. However, the radiocarbon dates on which Sheridan (1985/6) based her model have since been dismissed as unusable because the non-residuality of the sampled material has not been proven (Whittle *pers comm*).

At Knowth, Co. Meath, at least some of the numerous small satellite tombs pre-dated the largest tomb's mound (1) since one (16) is actually incorporated into the edge of it, and another (13) was avoided by the flattening of passage tomb 1's kerb (figure B:16) (Eogan 1998: 170). Although this seemingly supports both Sheridan (1985/6) and Fraser (1998), as Cooney (1998: 153) pointed out, the orientation of the entrances of all of the satellite tombs towards Site 1 suggests that the space occupied by the (now) largest tomb was already centrally focal, if less elaborated when the others were constructed. Passage tomb 1 and the north-eastern satellite tombs (16, 17 and 18) overlay several round stake-walled structures associated with Impressed Ware pottery; this 'occupation' area may have constituted such a focus for a period towards the end of the fourth millennium cal BC (Eogan 1984; Eogan & Roche 1997: 6; Eogan 1998). Charcoal from this habitation layer was radiocarbon dated to *c.* 3976-3029 cal BC (UB-319) (Eogan & Roche 1997: 60). However, a natural sod layer which overlay this habitation layer under the mounds of passage tombs 17 and 18 did not extend under the mound of tomb 1 (Eogan & Roche 1997: 60). This suggests that the latter was built before this sod layer had time to accumulate, and therefore critically, *before* these two smaller satellite tombs. Clearly the aforementioned incorporation of the nearby tomb 16 into the mound of tomb 1 suggests that

this pattern is not consistent for all of the other satellite passage tombs[89]. It seems likely that constructions, extensions and alterations occurred across the entire funerary complex throughout the later fourth and into the early third millennium cal BC.

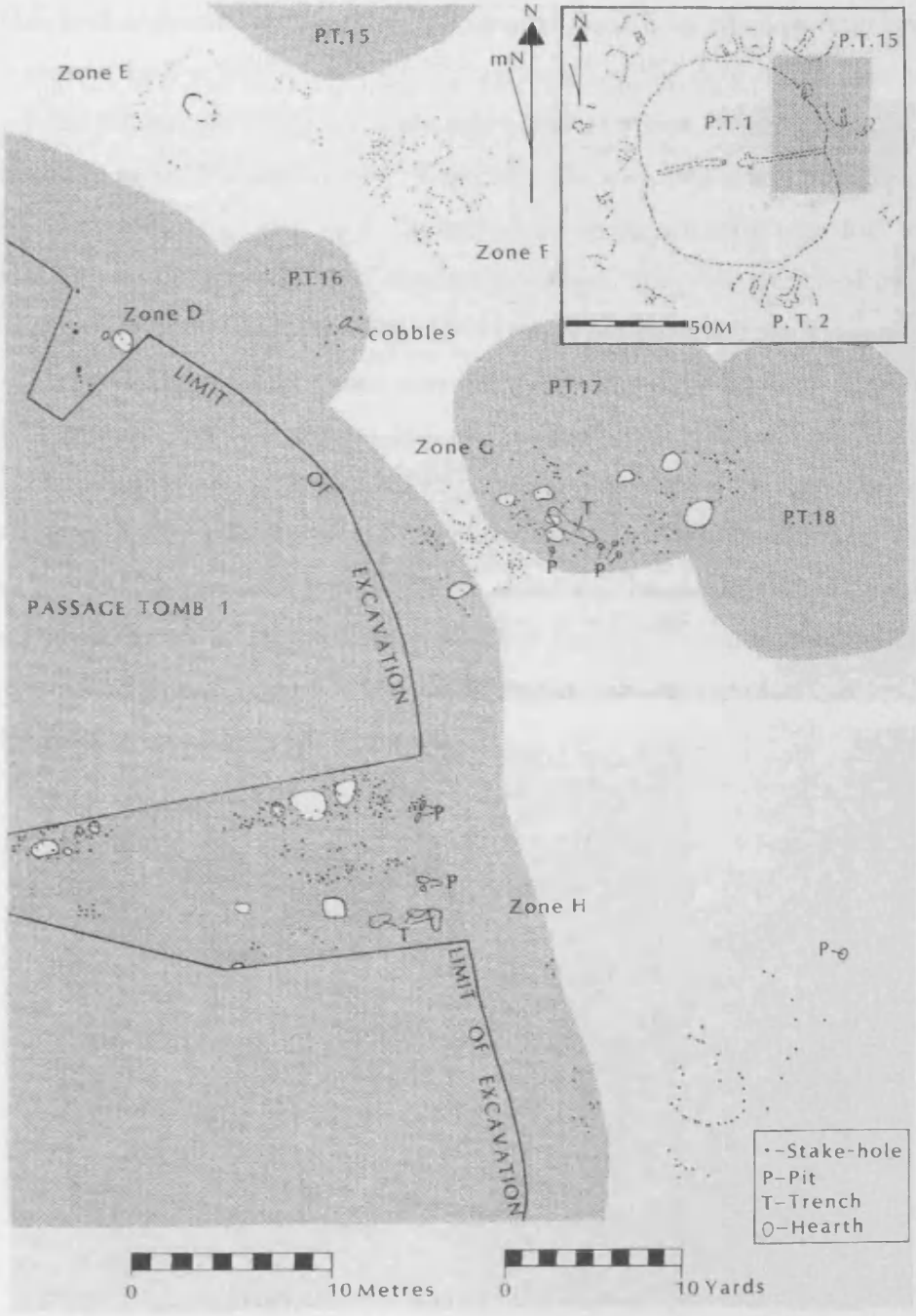


Figure B:16 Plan of the north-east area of the funerary complex at Knowth, with passage tombs 1, 15-18 marked. Features in the preceding Impressed Ware habitation layer are shown (*from* Eogan & Roche 1997: 53)

[89] Although unlikely, it is unclear if the sod layer extended under passage tomb 16, since the habitation layer in this area was extensively disturbed, possibly in the building of this and tomb 15 (Eogan & Roche 1997: 59)

Structural amendments certainly continued at some sites into the Late Neolithic (Whittle 1999: 70; Eriksen 2004), with the latest sites probably sealed or abandoned during the first-second quarters of the third millennium cal BC. For example, the outer (i.e. later) passage portal at Bryn Celli Ddu was "elaborately and carefully" (Hemp 1930: 190-2) blocked to the ceiling with quartz rubble packed in clay. Scatterings of cremated bone were placed within this clay fill, which also sealed a cremation deposit dug into the centre of the floor of the outer passage. A sample from the primary fill of the inner passage between stones 13 and 15 (figure B:17) was radiocarbon dated to *c.* 3095-2895 cal BC (UB-7115) (Burrow *forthcoming*), providing a *terminus post quem* for the blocking of the tomb. Indeed, most passage tombs were foci of funerary activity for some considerable time after initial construction. The construction of the corbelled-roofed passage tomb BNH2 at Ballynahatty, Co. Down, has been given a *terminus ante quem* of 3050 cal BC by the excavator, based on the presence of Carrowkeel Ware associated cremations in primary deposits within the six compartments of the tomb (AppB: p346) (Hartwell 1998: 35; 43-4). Several, possibly three other more minor, 'passage-tomb cists' were situated near BNH2. They also contained cremations associated with Carrowkeel Ware bowls, and Hartwell (1998: 35) proposed that they were constructed not long after 3050 cal BC. One of the six compartments in the 'founder' chamber contained disarticulated inhumed bone placed on top of a cremated bone deposit. These almost certainly represent a secondary re-use phase dating from the third millennium cal BC.

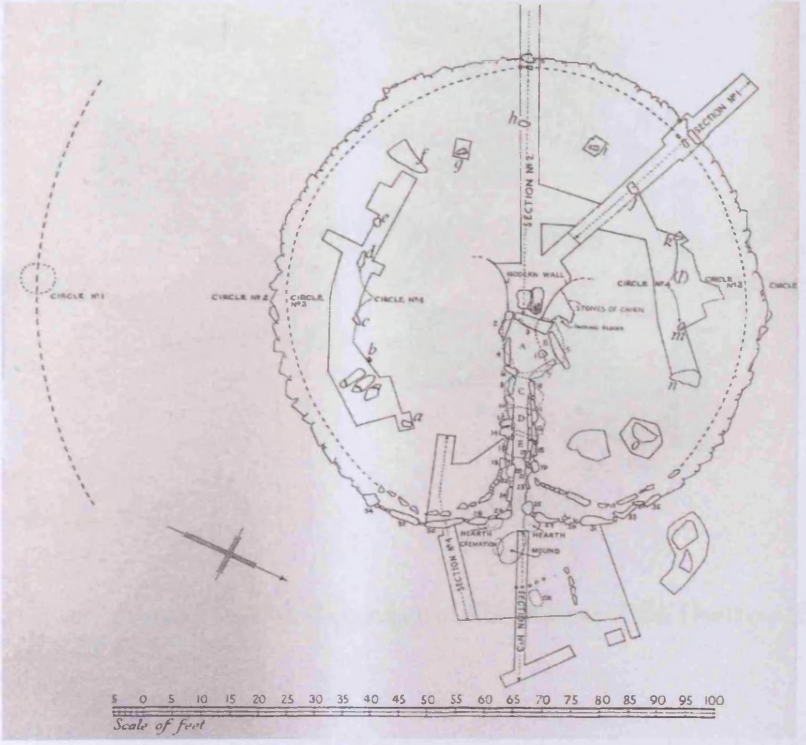


Figure B:17 Plan of Bryn Celli Ddu passage tomb (*from* Hemp 1930)

The initial construction and 'usage' of the Mound of the Hostages at Tara, Co. Meath, (Phase 1) was radiocarbon dated to between 3350-3100 cal BC, based on 58 samples of cremated and un-burnt bone inserted both internally and within the outer cairn material (O'Sullivan 2005, although see Bayliss & O'Sullivan *forthcoming*[90]). For example, cremated bone from in and under a Carrowkeel Ware pot found in Cist III, immediately west of the southern portal stone of the central chamber (figure B:18), was radiocarbon dated to *c.* 3494-3024 cal BC (GrA-17747) (O'Sullivan 2005: 226). Burnt bone from a burial (2) with a stone setting placed in the south-east edge of the cairn mound (figure B:19) was radiocarbon dated to *c.* 3496-3092 cal BC (GrA-17295) (O'Sullivan 2005: 224). However, there is also some evidence of funerary activity dating from the Late Neolithic. Possible Grooved Ware rim sherds were recovered from the fill of a pit (B) to the immediate east-south-east of the passage tomb cairn (figure B:19), and two unburnt skulls (P and G) placed within the chamber returned radiocarbon dates of *c.* 2862-2472 cal BC (GrA-18353) and *c.* 2921-2634 cal BC (GrA-18374) respectively (O'Sullivan 2005: 226-7). In addition, a number of features in close proximity to the hill at Tara have been typologically dated as Late Neolithic, including two embanked enclosures (Fenwick & Newman 2002).

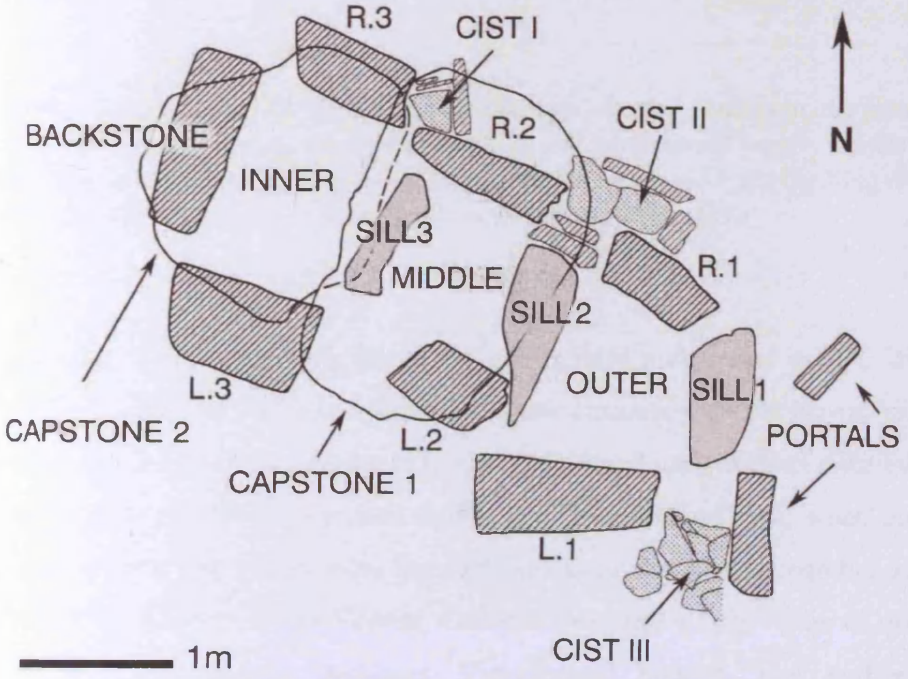


Figure B:18 Plan of the central chamber of The Mound of the Hostages (from O'Sullivan 2005: 65)

[90] Bayliss & O'Sullivan (*forthcoming*) have recently re-modelled some of the radiocarbon dates from the Mound of the Hostages using a Bayesian framework, refining this spread somewhat

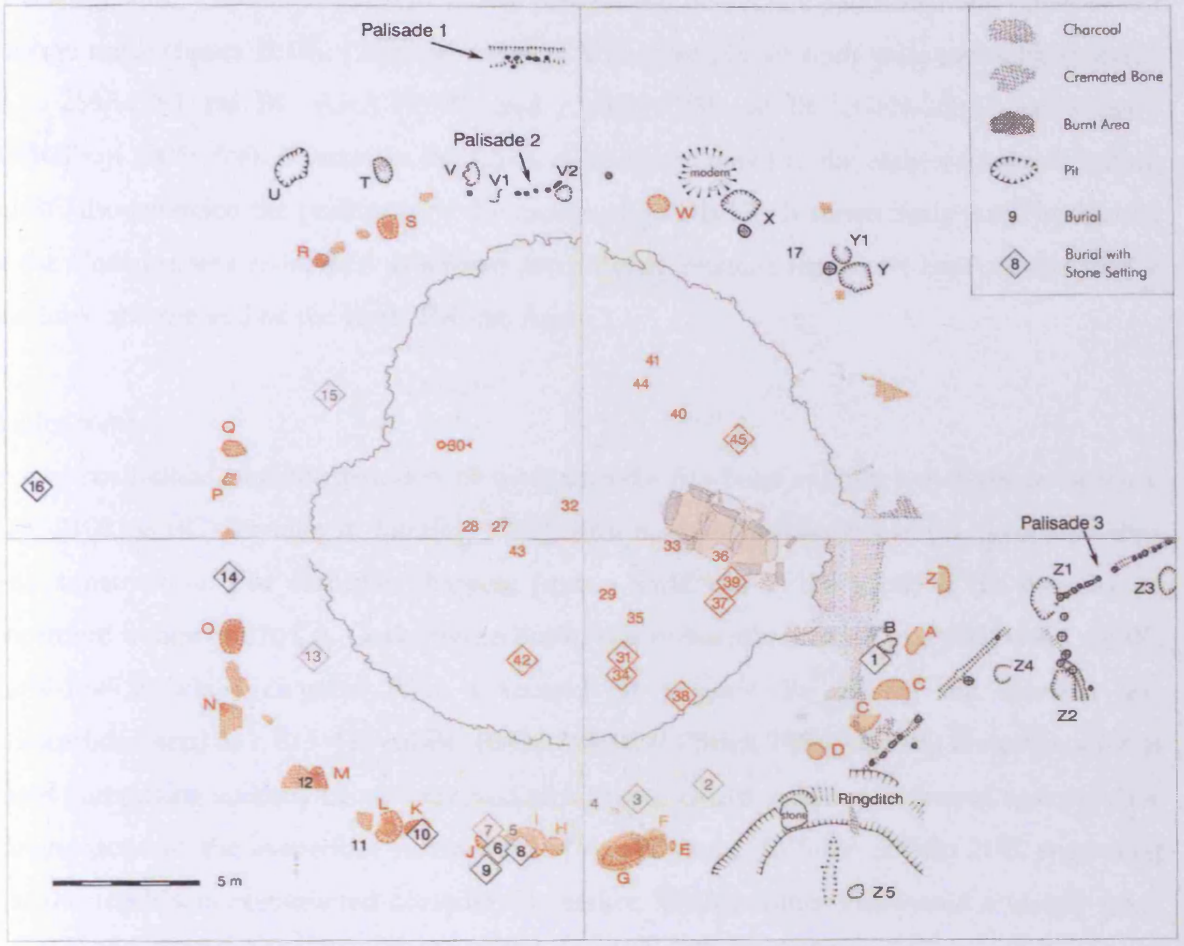


Figure B:19 General plan of The Mound of the Hostages showing, in orange, the location of the Early Bronze Age fire-pits around the perimeter (A-Z) and cairn mound burials. Burials and features in grey date from the Middle-Late Neolithic. Please note that Palisade 1 and the Ring-ditch depicted date from the Late Bronze Age and Iron Age (*from* O'Sullivan 2005: 229)

Despite underplaying the use of the site in the earlier third millennium cal BC (Shee Twohig 2006), O'Sullivan (2005: 227; 244-5) emphasised some contrast with the Boyne Valley passage tombs by describing a phase of activity in the later third and early second millennium cal BC. This 'second' phase of activity occurred during the Early Bronze Age, when around 25-30 cremation and inhumation burials were inserted into both the central chamber and its cairn. These were accompanied by Food Vessels, Collared Urns and a large range of other material such as razors, awls, daggers, necklaces, V-perforated buttons, pins and a battle-axe. Radiocarbon dates of human bone from this period ranged from *c.* 2345-2025 cal BC (GrA-17719) for a cremation burial found in the base fill of a pit in the inner compartment of the central chamber, to *c.* 1874-1507 cal BC (GrA-19180) for inhumation burial 30, placed in the west of the cairn mound in association with a faience, jet, bone, amber and bronze necklace and bronze knife and awl (figure B:18) (O'Sullivan 2005: 177-82; 230-2). Two stretches of

palisade (2 and 3) were constructed at this time to the immediate south-east and north of the passage tomb (figure B:19). Charcoal samples from post-pits of both were radiocarbon dated to *c.* 2565-2291 cal BC (GrA-17670) and *c.* 2829-2235 cal BC (GrN-26062) respectively (O'Sullivan 2005: 228). Numerous fired pits, radiocarbon dated to the early second millennium cal BC also encircled the perimeter of the mound (figure B:19). It seems likely that The Mound of the Hostages was re-worked as a focus for funerary practice repeatedly between the Middle Neolithic and the end of the Early Bronze Age.

Wedge tombs:

In western Ireland, the construction of wedge tombs has been radiocarbon dated to between 2400-2100 cal BC (Brindley & Lanting 1992), with many remaining in use for some time after their construction. For example, charcoal from a small cist to the south of the entrance of Toormore wedge tomb, Co. Cork (figure B:20), was radiocarbon dated to *c.* 1691-1401 cal BC (GrN-18493), whilst charcoal from a second pit towards the rear of the chamber was radiocarbon dated to *c.* 811-415 cal BC (GrN-18494) (O'Brien 2004b: 217-9). However, a metal hoard comprising an early bronze axe and two pieces of raw copper was buried against a low upright stone to the immediate north-west of the entrance (O'Brien 2004b: 218), suggesting that the tomb was constructed considerably earlier. Wedge tombs comprised a usually small gallery with parallel or inclining side walls, covered with roof slabs and a revetted cairn or mound (Walsh 1995: 113). Beakers and associated accoutrement (e.g. tanged and barbed arrowheads) have been found in some (e.g. Ballyedmonduff, Co. Dublin), although grave goods were not deposited at sites in excessive amounts. In eastern Ireland and areas of western Scotland (Bradley 2007: 161), mounded and un-mounded cist cemeteries were prevalent at this time, and individual burial was not present until around 2200 cal BC, associated with Food Vessels (Sheridan 2004a).

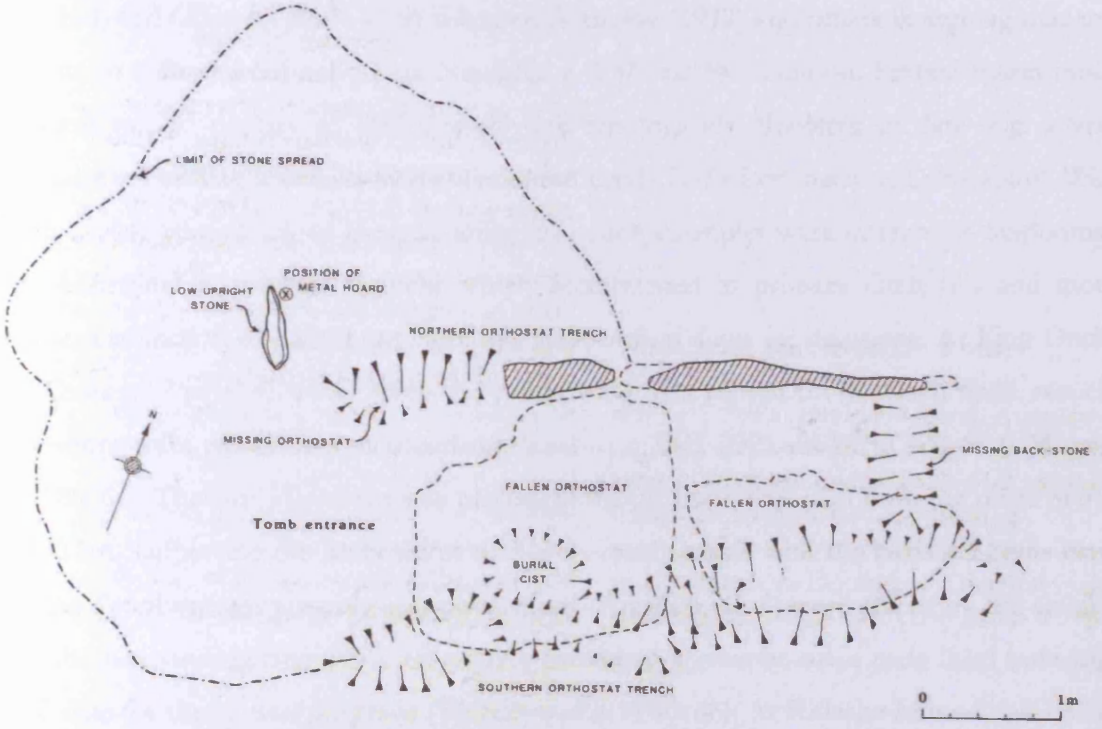


Figure B:20 Plan of Toormore wedge tomb (*from* O'Brien 2004b: 218)

Round cairns and barrows:

Round cairns and barrows have been recorded in extremely complex typologies which differentiate between type-sites such as ring-cairns, cairn circles, kerb circles, pond barrows, bell barrows, disc barrows and various hybrids, combined sites and so-called anomalies (e.g. Lynch 1972). These schemas have been rightfully marginalised in recent years, thought to prove fairly meaningless since no matter how well documented, structural differences between 'types' of burial mounds cannot be easily 'read' as cultural or socio-environmental indices (Scott 1989; Barrett 1990; 1994). Basing the dating of these sites on typological grounds when their diversity is so great and so hybridised is equally a highly erroneous exercise. The reasons why funerary practices changed spatially and temporally are socially embedded and undoubtedly multi-scalar, and it is consequently tenuous to claim they imply some kind of "unusual factor in the persons buried" (Lynch *et al* 2000: 127). As a result, most sites are now interpreted as part of the widespread, disparate round mound tradition of the late third and second millennium cal BC, where structural variation between sites is seen as typical.

Broadly speaking, stony (cairn) and earthen (barrow) un-chambered round mounds predominantly or repeatedly associated with burial (sometimes overlying pit graves, wooden

coffins or cists) have been dated to the Early and Middle Bronze Ages. However, Kinnes (2004: 114) and Gibson (2007: 47-9) followed Atkinson (1972) and others in arguing that some sites date to a short-lived early Late Neolithic *c.* 3000 cal BC tradition. Several round mound sites have yielded pottery or lithics which are typologically Neolithic in date (e.g. a vessel stylistically resembling Mortlake Ware was found inside Liff's Low barrow, Derbyshire). Whilst Kinnes (2004) acknowledged the possibility that such examples were interred as heirlooms or as pre-construction residual material which accumulated in primary ditch fills and mound material, a collection of early Late Neolithic radiocarbon dates are amassing. At Ring-Ditch 5, Four Crosses, Powys, charcoal from the primary fill of a central pit in which three crouched inhumations were placed was radiocarbon dated to *c.* 3341-2921 cal BC (CAR-670) (Warrilow *et al* 1986: 64). The first interment was placed on the pit floor, followed both the other two at a depth 0.2m, supporting the association of the charcoal sample with the burials. Sherds from a Mortlake Peterborough possibly complete vessel (AppB: p343-4) were placed on the stabilised fill of the surrounding ring-ditch, tentatively providing a corroborative early third millennium cal BC date for the central pit-grave (Waeeilow *et al* 1986: 66). At Killeaba Mound, Isle of Man, oak charcoal from the probable timber linings of two underlying pits (TI and TII), both containing cremations, were radiocarbon dated to *c.* 3327-2893 cal BC (BM-839) and *c.* 3090-2714 cal BC (BM-840) (Cubbon 1978). Another well cited example is the highly complicated barrow at Duggleby Howe, Yorkshire (figure B:21), which has long been thought of as Late Neolithic in origin (e.g. Pierpont 1980; Kinnes *et al* 1983; Loveday 2002). A male inhumation (G), placed near the top of the fill of Grave B, was associated with an antler macehead, recently radiocarbon dated to *c.* 3512-3121 cal BC (OxA-13327) (Loveday *et al* 2007: 387). Loveday *et al* (2007: 386) expressed concern that this macehead may have been an heirloom at the time of interment, although a series of corroborative later fourth millennium cal BC dates from this site are forthcoming (Bayliss *pers comm*).

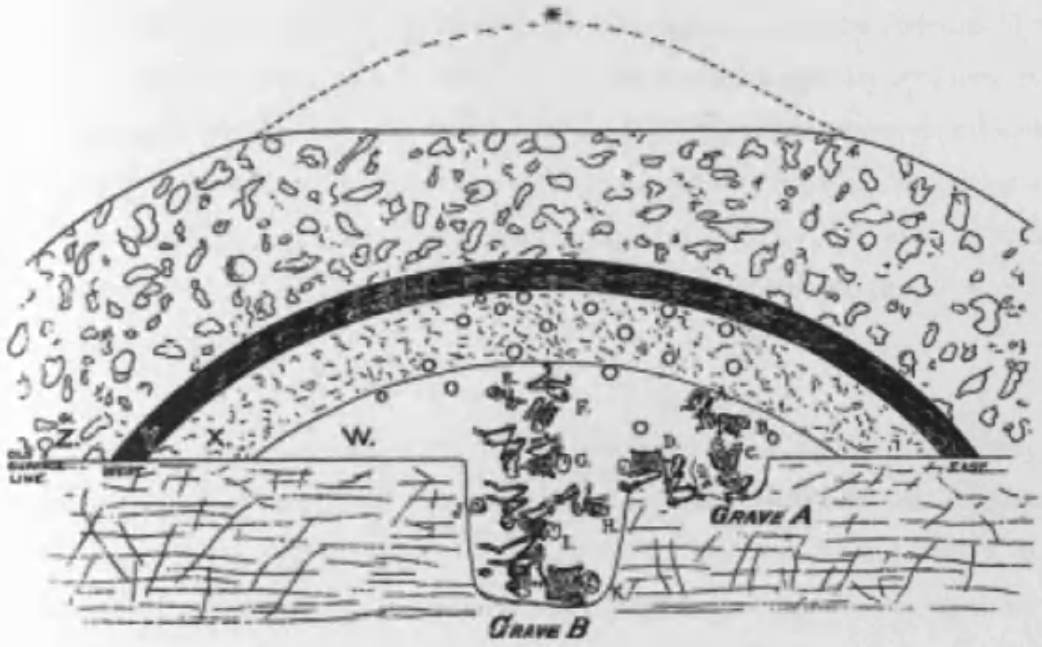


Figure B:21 Section drawing of Duggleby Howe barrow. Note burial G which was associated with the radiocarbon dated antler macehead (*from* Mortimer 1905, fig 45). Not to scale

This phenomenon aside, the earliest examples were constructed from the start of the Terminal Neolithic (from 2500 cal BC), based on the material culture typically entombed (e.g. early Beakers and wrist-guards; AppB: p348-51; p356) and a range of associated early radiocarbon dates. For example, at Radley Barrow Hills, Oxfordshire, human bone from the primary burial of Barrow 4A associated with two gold 'basket-earrings' (AppB: p363), a typologically fairly early Beaker (AppB: p348-51) and three barbed and tanged arrowheads (AppB: p352-3) was radiocarbon dated to *c.* 2580-2043 cal BC (OxA-4356) (Barclay & Halpin 1999: 153-4; 282). Whilst round barrows and cairns have historically been associated with the start of the use of Beaker pottery (e.g. Harrison 1980), Gibson (2007: 49) pointed out that many unaccompanied interments, previously not radiocarbon dated for this very reason, may suggest a pre-Beaker origin for this practice. Indeed, there might be some continuation from the aforementioned early Late Neolithic phenomenon (AppB: p373), which just became more widespread and popular at around 2500 cal BC. Despite being often linked to single inhumation burial practices, Owoc (2001: 194) stated that in south-western Britain, the earliest Beaker mound sites were just as likely to contain inhumed, as cremated remains. Many primary cremation deposits comprised only a selection of the pyre debris (Gibson 2007: 57-9), multiple sealed or sequential burials of articulated inhumed bodies were common (e.g. the seven 'Boscombe Bowmen', Wiltshire), and disarticulated, sometimes excarnated, skeletal remains were also

deposited under barrows and cairns (e.g. at Newborough, Northumberland, a dagger grave comprised the lower half of the body, re-arranged to resemble a complete skeleton; Newman & Miket 1973). Many round mounds were built over associated temporary structures such as wooden circles, platforms or ring cairns. For example, at Cocksbarrow, Cornwall, a double ring of posts was replaced by an outer and inner cairn circle within which a bag containing a horn ladle and the cremated skull, long bones and metapodial fragments of an adult male was centrally placed. A turf mound was then heaped over the cairn circle and capped with granite cobbles (Owoc 2001: 195).

Some examples are known in isolation (e.g. Lowick Beacon Cairn, Cumbria[91]), but others were built within 'cemeteries', sometimes on skylines or distinctive places in the landscape and frequently respecting earlier monuments (Field 1998; Peters 2000). At the Imery's Stannon China Clay Works, Bodmin Moor, Cornwall, three ring-cairns and two 'tailed' cairns were excavated by Cornwall Archaeological Unit between 1998-2000 (figure B:22) (Jones 2006: 346). Their construction episodes were radiocarbon dated to between the Terminal Neolithic and the end of the Early Bronze Age. At Site 2, a 'tailed' cairn, carbonized hazel in the foundation layer underlying granite slabs in central area enclosed by kerb-stones was radiocarbon dated *c.* 2481-2296 cal BC (OxA-13387) (Jones 2006: 343). Conversely, charcoal deposited under the kerb wall at Site 9, a ring-cairn, was radiocarbon dated to *c.* 1687-1525 cal BC (OxA-13384) (Jones 2006: 343). However, most were structurally re-worked and re-visited from the Early Bronze Age until the end of the second millennium cal BC. For example, at some point after the centre of ring-cairn Site 6 had been in-filled with a clay loam deposit, a post-ring comprising approximately 20 timbers was erected. The fill from post-hole 53 was radiocarbon dated to *c.* 1600-1421 cal BC (OxA-13391) (Jones 2006: 343). None of the cairns were directly associated with funerary remains, although the acidic soils may have prevented bone survival and indeed, some of the cist structures inserted into the cairns were also empty upon excavation (Jones 2006: 358). The range of deposits included charcoal, quartz, pottery and stonework, in formations indicative of formal, ceremonial practice, whether funerary or otherwise. For example, an un-worked but visually distinctive channel-abraded stone object was placed within a pit packed with charcoal and quartz inclusions which had been dug into the centre of Site 10 (a ring-cairn). The Stannon Down cairn group was built on an upland level terrace, oriented on Rough Tor where a prominent *in situ* outcrop was incorporated within each monument (figure B:22). They post-date the construction of an Early Neolithic enclosure, long cairn and possibly the three local stone circles, (Stannon, Louden Hill and

[91] This cairn is sited on its own at the top of a hillock, overlooking two valleys

Fernacre), and respect the seemingly well-established tradition that monuments should be sited in positions in view of the Tor (Jones 2006: 356).

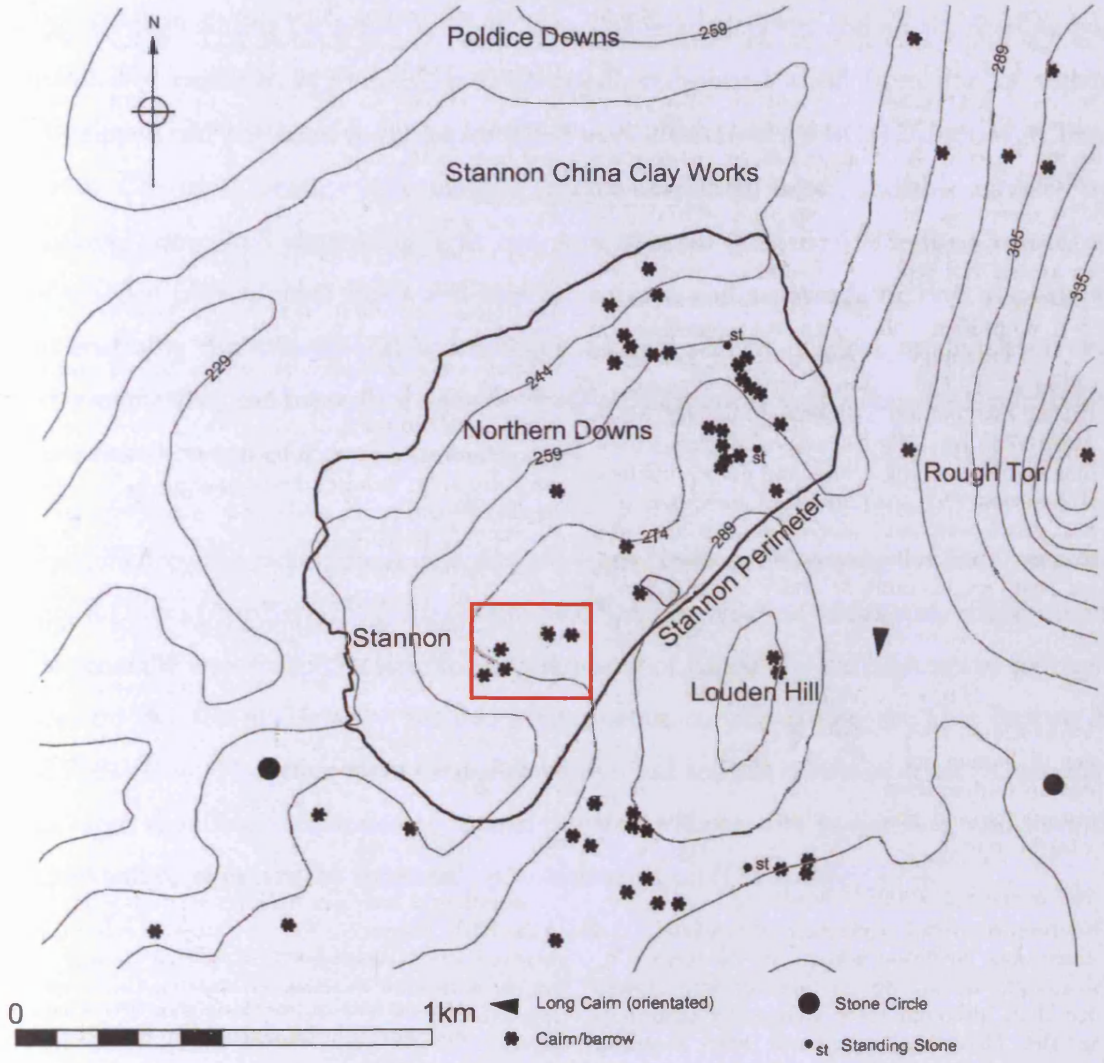


Figure B:22 Plan of Stannon and surrounding downs with cairn/barrows, standing stones, stone circles, Early Neolithic enclosure and long cairn depicted. The cairns excavated between 1998-2000 are marked by the red square (*from* Jones 2006: 345)

Many cairns and barrows received later funerary insertions, usually as vessel-contained or scattered cremations. For example, at Merddyn Gwyn, Anglesey, a small cairn which had been built over a late Beaker inhumation was enlarged when a cremation contained in a Food Vessel was placed just outside the original cairn kerb. Two cremations placed in Collared Urns were then dug into the top of the new cairn material (Hughes 1908). From around 2000 cal BC, cremation became the more usual burial practice at mound sites (Lynch *et al.* 2000: 122; Owoc 2001: 196) and there are many examples of inhumed Collared and Biconical Urns, as well as

Food Vessels either containing cremated remains or acting as cenotaphs. There is some suggestion that by the early second millennium cal BC, round mounds were built with larger circumferences, although this may be due to the monumental embellishments of these later sites (e.g. through adding caps, ditches, pits, fires, deliberate deposits and on-site feasting post-interment). For example, at Davidstow I, Cornwall, carbonised wood from fires lit within a ring of stripped turf has been radiocarbon dated to *c.* 2035-1668 cal BC (HAR-6634) (Christie 1988: 164). Cremated remains were placed centrally over these layers, and then covered by a small mound comprised alternating light and dark material (Christie 1988: 32). Charcoal and certain wooden objects were deposited into the mound and a palisade or ring of posts was erected enclosing the mound and separating it from the ditch. Further mound layers were heaped over the site, and more fires were lit, shellfish consumed, quartz deposited, pots broken and flints flaked on top of these consecutive caps.

As exemplified by the radiocarbon date derived from charcoal underlying the Site 9 ring-cairn at Stannon Down (AppB: p375) (Jones 2006: 343), the construction of funerary round mounds became generally uncommon, at least in the southwest of Britain, by the fifteenth to fourteenth centuries cal BC. On-site activity, including interments, continued into the Late Bronze Age (Owoc 2001: 198). The latest round mounds of the mid second millennium cal BC tended to contain more significant quantities of human remains compared to earlier sites, and were also re-worked and re-visited more frequently post-construction (Owoc 2001: 197).

Practices

Cremation and inhumation:

Cremation was consistently present in British and Irish mortuary practices throughout the Late Neolithic; certainly many of the passage tombs, henges and some earlier chambered tombs received cremated bone deposits until they were abandoned (e.g. the Mound of the Hostages at Tara, Co. Meath, as already discussed; AppB: p369-70, in pits at Llandegai Henge B, Gwynedd; AppB: p382, and at West Kennet, Wiltshire). Inhumation, as the interment of disarticulated or articulated but crucially un-burnt skeletal remains, was also prominent during the Late Neolithic. Such interments occurred both alongside cremation deposits and in isolation. For example, the Trelystan Pit-Grave, as discussed in chapter 4 (ch4: p150-1), comprised an inhumation and possibly two cremation burials placed in a wooden 'coffin' and covered by a cairn. Carbonised oak found amongst rubble fill towards the pit base was radiocarbon dated to *c.* 3327-2875 cal BC (CAR-282) (Britnell 1982: 192). Both cremated remains and inhumed remains deposited during the Late Neolithic were generally partible, in that bodies were

disengaged from their critical articulations in life. Cremation deposits rarely comprised an entire or discrete body's anatomy and un-burnt bones were almost always disarticulated or even rearticulated with others (Fowler 2004: 72-3). However, we should be wary of over-generalising about mortuary traditions in prehistoric Britain when the vast majority of the deceased have not survived archaeologically, and of course such a tiny minority were interred in monumental settings (Bradley 2007: 161). It is likely that most Late Neolithic mortuary remains were entrusted to rivers, bogs, lakes, caves, the sea and the wind.

The single and predominantly inhumed interment practices which were supposedly typical of the Terminal Neolithic and Early Bronze Age, were also limited to a minor percentage of the population (Barrett 1994: 54). The traditional characterisation of the Late Neolithic to Early Bronze Age transition as a move from communal to single interment (e.g. Clarke *et al* 1985) therefore ignores the likely continuity of these more frequent, but less archaeologically visible practices (e.g. scattering cremated bone). Even though sealed single, articulated inhumation and deposits of entire cremated bodies did certainly occur in greater numbers throughout the Terminal Neolithic and Early Bronze Age, the patchwork of ongoing mortuary practices is so diverse that it substantially dilutes the significance of this change (Jones 2008: 178-80). There are many diverse examples of 'integrated' (i.e. articulated and self-contained, but not necessarily isolated) burial rites pre-dating the Terminal Neolithic, such as the multiple crouched inhumations in the pit-grave at Ring-Ditch 5, Four Crosses, Powys, as already discussed (AppB: p373). Similarly, inhumation deposits placed in Early to Middle Neolithic causewayed enclosure segments were sometimes articulated and sealed in undisturbed contexts such as those found at Offham, East Sussex, and Knap Hill, Wiltshire, although there may have been an unfulfilled intention to exhume these at a later date (Edmonds 1999: 121-2). Indeed, both Woodward (2002) and Jones (2008) suggested that during the Terminal Neolithic and Early Bronze Age, non-skeletal material items such as beads and Beaker sherds, took on the role of circulate-able funerary material in place of the now inaccessible bone, thereby further blurring the distinction between communal and single interments. Contemporary 'hoard' deposits may also add to the diversity of funerary rites at this time, since Bradley (1990) amongst others, has commented on their surrogate funerary or cenotaph-like properties.

Isolated individual inhumation therefore once again became a more widespread, although by no mean exclusive or dominant, funerary practice from around 2500/2400 cal BC (Bradley 2007: 89). It followed the earlier practice of depositing bodies in Early to Middle Neolithic causewayed enclosures, and somewhat of a hiatus in the Late Neolithic. It has often been

directly associated with the contemporary emergence of using Beakers and early metallurgy (Needham 2005). Despite this, regional variation is highly apparent; Lynch *et al* (2000: 122) suggested that in Wales, single inhumation was "slow to catch on" and even then, "short-lived", replaced by a predominance of interred individual (sometimes urned) cremation by 2000 cal BC. Across Britain and Ireland, this single inhumation tradition ceased as a prominent practice with the parallel general cessation of cairn and barrow construction in the fifteenth to fourteenth centuries cal BC. Self-contained cremation deposits (i.e. of one individual, although not necessarily the entire body), often placed into earlier barrows, then predominated into the Middle Bronze Age.

Encircled or surrounded places

Stone circles / Timber circles / Henges

There has been much debate on the earliest and latest dates for construction events at stone circle, timber circle and henge sites in Britain and Ireland, largely due to the wide scatter of the few available radiocarbon dates from secure primary contexts (O' Brien 2004a; Bradley & Sheridan 2005). Burl (1993: 29; 2000: xv) revised his chronology of stone circles to between around 3000 and 1500 cal BC, with all post-construction funerary insertions and structural alterations ceasing by about 1200 cal BC. The presence of Grooved Ware at many stone circles suggests a Late Neolithic *terminus post quem* of at least 3000 cal BC (AppB: p344-8) (Garwood 1999: 152). For example, both Berrybrae, Aberdeenshire, and Balbirnie, Fife, had Grooved Ware sherds present in the base of some stone-holes, indicating that these monuments were constructed at some point after roughly 3000 cal BC (Burl 1995: 125), although Grooved Ware may have continued in use until *c.* 2000 cal BC (AppB: p344-8). Bradley (1998b: 12) supported Burl (1976: 242) in suggesting that some of the earliest stone circles were built at the same time as passage tombs (i.e. at the latest, in the first few centuries of the third millennium cal BC; see above). For example, Bryn Celli Ddu passage tomb (AppB: p364-5; p368) was surrounded by a circular ditch which at some stage enclosed a (possibly originally horse-shoe shaped) stone circle setting. Although the site chronology is contentious (O'Kelly 1969; Eogan 1983; Bradley 1998a: 8-10; Burrow *forthcoming*), if we accept the likelihood that the stone settings were freestanding and not part of the kerb, then the arc was, at some point, subsumed by an extension of the passage tomb mound. Burrow (*forthcoming*) recently suggested that the stone arc with central setting and passage tomb were actually built in quick succession, with the perimeter ditch providing the material for the central mound. Cremated human bone from a hollow marked by an upright stone, 0.9m inside stone 'J' of the stone arc and covered by the later mound (figure B:17) was radiocarbon dated to *c.* 3318-2898 cal BC (UB-7113) (Burrow

forthcoming), which overlaps considerably with the radiocarbon dates of samples associated with the use of the chamber (AppB: p364-5).

Burl (1976: 36; 1995, 177) has repeatedly argued that stone circles with larger diameters are comparable with henges, and therefore earlier than smaller examples which tended to receive secondary Middle to Late Bronze Age funerary insertions more readily than the larger examples. Barnatt (1989: 155) contended that this is over-simplistic, since it unjustifiably assumes that secondary funerary insertions and the smaller circles' construction were roughly contemporary. He suggested instead that upland free-standing stone circles were earlier than those positioned within lowland henges, since these often replaced earlier timber settings. For example, charcoal from a stone hole at the upland Lochmaben Stane stone circle, Dumfriesshire, was radiocarbon dated to *c.* 3368-2917 cal BC (GU-1591) (Barnatt 1989: 158; Burl 1995: 123), providing an early *terminus post quem* for its construction. The erection of the stone settings at the lowland Abor Low henge, Derbyshire, however, has been speculated as a later insertion dating to the mid third millennium cal BC (Burl 1995: 49-51). Evidence for post-construction funerary and reverential activity at stone circles stretches through the Early and Middle Bronze Age. The orthostats and stony bank at Meini Hirion, Gwynedd, may well have been constructed during the Late Neolithic (Burl 1995: 178), but an Abercromby type 3 pot containing cremated bone was placed in a central cist during the later Early Bronze Age. A second Food Vessel cremation deposit, a third empty urn and an uncontained cremated bone scatter were all also positioned centrally at around this time (figure B:23) (Griffiths 1960: 323-6). Indeed, two samples of charcoal from the excavation of Circle 278, (a ring cairn 146m west of Meini Hirion which had a very similar urn cremation emplaced in the inner wall) (Griffiths 1960: 318-22; 327-9), yielded late Early Bronze Age radiocarbon dates. The first, derived from the surface immediately under the stony bank of the ring, produced a date of *c.* 2013-1392 cal BC (NPL-10), whilst the second, from an area of burning on the same surface, next to a large stone in the inner kerb, was determined at *c.* 2135-1500 cal BC (NPL-11) (Griffiths 1962: 387). This provides a likely *terminus post quem* for visits to Meini Hirion continuing into at least the eighteenth century BC.

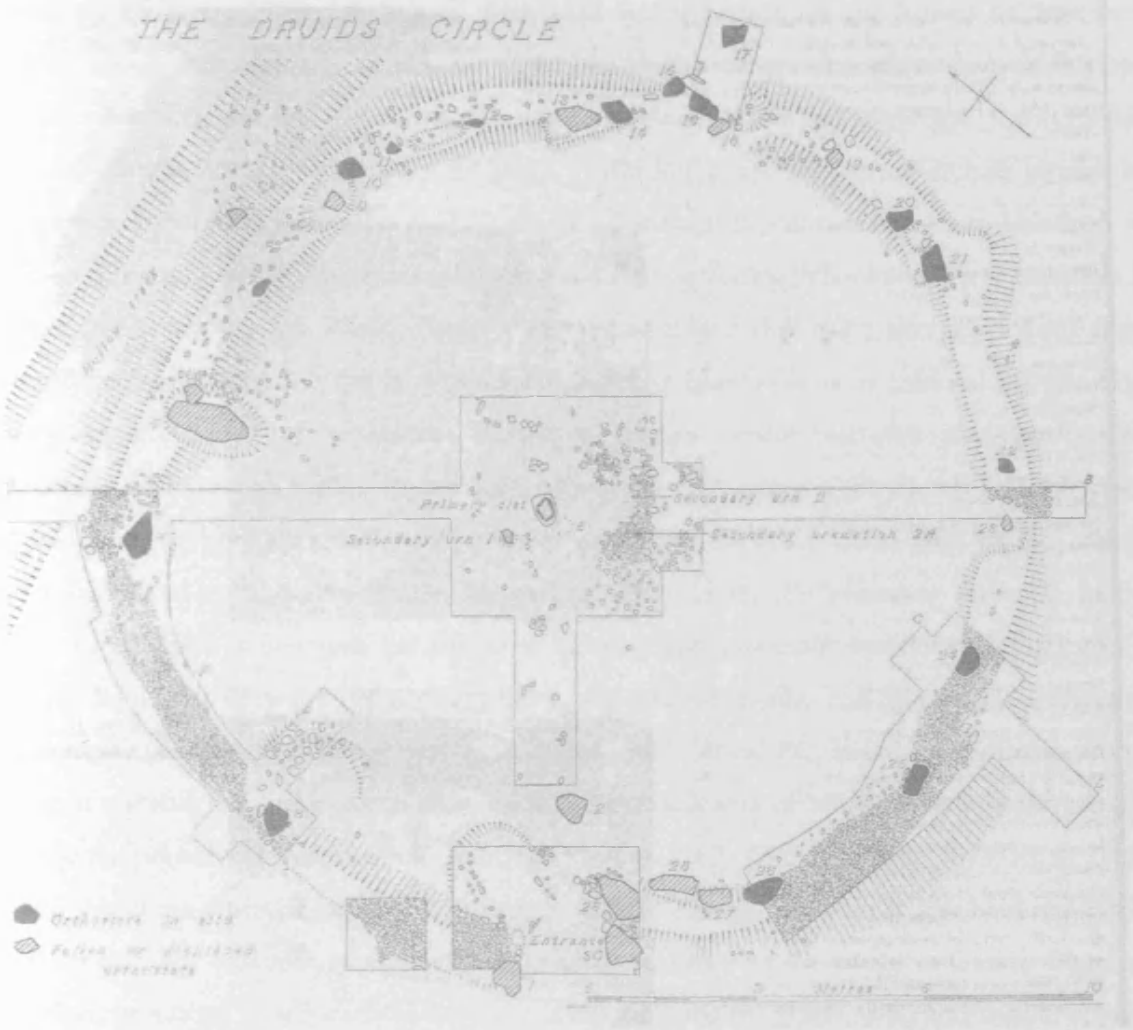


Figure B:23 Plan of Meini Hirion Stone Circle with location of internal funerary deposits depicted (from Griffiths 1960: 307)

Radiocarbon and typologically dated contexts at the earliest henge sites also support the Late Neolithic origins of these types of monuments. For example, mature oak charcoal found 1.2m up in the fill of the rapidly silted 3m deep henge ditch at Llandegai A, Gwynedd, produced a radiocarbon date of *c.* 3518-2680 cal BC (NPL-221) (Lynch & Musson 2001: 118). Peterborough Ware sherds, dated to *c.* 3400-2500 cal BC (Gibson & Kinnes 1997: 67) (AppB: p343-4) were found in the same level of ditch fill, confirming a *terminus ante quem* for the construction of the henge in the twenty-seventh century cal BC. However, Lynch & Musson (2001: 55) argued that it was built at around 3100 cal BC, based on the *c.* 3339-2932 cal BC (GrN-27192) (Lynch & Musson 2001: 118) radiocarbon date of mature oak charcoal from a fire pit (FA1) near the centre of the monument. Whilst the relationship of this pit with the encircling ditch has not been established, the 'cremation circle' situated outside the west entrance of the henge yielded similarly early radiocarbon dates (Lynch & Musson 2001: 55).

However, Harding (2003: 12) argued that, with the exception of the Stones of Stenness, Orkney, those sites which have produced primary construction radiocarbon dates in the late fourth millennium cal BC (Stonehenge I and Coneybury, Wiltshire; Llandegai A, Gwynedd; Balfarg Riding School, Fife; Dorchester Site 2, Oxfordshire) are actually structurally atypical in comparison to all sites built after *c.* 2800 cal BC. For example, Stonehenge I and Llandegai A both have internal rather than external banks, and Balfarg Riding School and Dorchester Site 2 do not have banks at all. Whilst Burl (1993:31) contended that these sites are indeed early hengiforms, suggesting that the first examples may date from as early as 3500 cal BC, Harding (2003) argued that they represent 'formative' henges. Such examples post-date earlier enclosures such as the earlier fourth millennium cal BC causewayed enclosures and more contemporary 'hybrid' sites such as Flagstones Enclosure, Dorset (*c.* 3300-3000 cal BC) which had a segmented yet perfectly circular 'henge-like' ditch (Healy 1997; Harding 2003: 13). Later, early to mid third millennium cal BC sites more closely resemble traditional definitions of 'henges' (as a concentrically circular ring-ditch with external banks, and one or two entrances) For example, Llandegai B henge was built at around 2700 cal BC, based on the radiocarbon dating of material from pits within its interior and the inclusion of Mortlake style Peterborough Ware in the primary silts of its ditch (Lynch & Musson 2001: 75-6). Harding (2003: 12; 21; 111) argued that these types of sites were built from 2800-2200 cal BC, with a peak between 2600-2200 cal BC. For example, charcoal from primary contexts of the henge at Gorsey Bigbury, Somerset, produced a radiocarbon date of *c.* 2465-2036 cal BC (BM-1088), and Beaker sherds were found in a cist which had been dug into the bottom of the ditch (Harding 2003: 14-5; 67; 117). Whilst the construction of henges may well have ceased by 2200 cal BC (Harding 2003: 111), they were undoubtedly still visited and altered into the second millennium cal BC. For example, the full range of typological and radiocarbon dates at Llandegai B suggests that activity there continued until about 1900 cal BC (Lynch & Mussen 2001: 75).

Late Neolithic dates have also arisen from the excavation of timber circles, and henge/stone circle sites with post or pit settings. Grooved Ware (dated to 3/100-2000 cal BC; Garwood 1999: 152) (AppB: p344-8) was found in the post-packing material of timber settings at sites such as Knowth, Co. Meath (figure B:24), and Machrie Moor, Arran. Several carbonised inclusions in post-hole fills have been radiocarbon dated to the cusp of the third millennium cal BC onwards, including again at Knowth and the slightly earlier Machrie Moor (Gibson 1998a: 48). Peterborough Ware (which dates from around 3400-2500 cal BC; Gibson & Kinnes 1997) (AppB: p343-4) has also been found in near-primary contexts at a number of sites, such as Springfield, Essex (Hedges & Buckley 1981). Gibson (1998a: 47) declared that the earliest

timber circles date from 2800 cal BC. After charting many of the calibrated (but currently un-modelled) radiocarbon dates, he proposed a peak in the construction of timber circles during the Late Neolithic to Early Bronze Age, with a 'tail-off' in the later Bronze Age until about 1200 cal BC at the latest. Whilst there is evidence for the erection of later timber circles, such as the Middle to Late Bronze Age pigmy cup found in primary contexts at Hungerford Timber Circle, Berkshire, Gibson (1998a: 54-8) argued that the vast majority of sites were probably built between 2800-2000 cal BC. Much of the later Bronze Age pottery found at timber circle sites does indeed seem to come from secondary, post-construction deposits (e.g. pigmy cups at both Oddendale, Cumbria, and Bleasdale, Lancashire, circles), suggesting that occasional visitation rather than construction predominated after 2000 cal BC. He also proposed a decline in the complexity and size of timber circles after a peak in the centuries either side of 2500 cal BC, somewhat worryingly exemplified by the four Wessex sites of Durrington Walls, Woodhenge, the Sanctuary and Stonehenge itself, all Wiltshire (Gibson 1998a: 58). However, my case study site, Sarn-y-bryn-caled, Powys (ch4: p116-9), a free-standing (i.e. unenclosed by a bank and ditch) double ringed timber circle dates from considerably later than these examples. Carbonised outer growth-rings from two inner circle post-holes (F and E) and two outer post-holes (11 and 12) were radiocarbon dated, providing *termini post quem* for the erection of these posts ranging from *c.* 2281-1985 cal BC (BM-2805) (for post F) to *c.* 2276-1980 cal BC (BM-2808) (for post 11), *c.* 2195-1939 cal BC (BM 2806) (for post E) and *c.* 2201-1889 cal BC (BM-2807) (for post 12) (Gibson 1994: 150; 155). This confirms that large and elaborate timber circles were still being built outside of Wessex at the end of the third millennium cal BC.

Figure B:24 Photograph of the reconstructed Timber Circle at Knowth, Co. Meath (author's own)

It would therefore appear that the earliest primary phases of henge/stone circle/timber circle sites in Britain and Ireland date to the turn of the fourth and third millennium cal BC (e.g. Llandegai A Henge, Gwynedd, Lochmaben Stone Circle, Dumfriesshire, and Machrie Moor Timber Circle, Arran). Whilst these places may well have been visited throughout prehistory (e.g. the Iron Age bronze smithing pit dug into the central circle of Sarn-y-bryn-caled Timber Circle), sustained returns to most henge/stone circle/timber circle sites seem to have ceased by the end of the Early Bronze Age at around 1600 cal BC. O'Brien (2004a; 2004b: 215) convincingly argued, however, that many of the Irish stone circles and henges were built during the Late Bronze Age. For example, charcoal from an old ground surface under the bank at Reenascreena Stone Circle, Co. Cork, provides a *terminus post quem* for the construction of the monument of *c.* 1009-837 cal BC (GrN-17510) (O'Brien 2004a: 328). Charcoal from the primary fill of a central pit containing cremated bone was radiocarbon dated to *c.* 1249-949 cal BC cal BC (GrN-17509) (O'Brien 2004a: 328), further supporting this later date[92]. Lissyviggeen Henge and Stone Circle and its two portal outliers in Co. Kerry (figure B:25), has been similarly presented as a Late Bronze Age monument. Charcoal from the upper ditch fill was radiocarbon dated, producing a *terminus ante quem* of the first century cal AD for the accumulation of sediment in the lower part of the ditch (O'Brien 2004a: 334). O'Brien (2004a:

[92] This of course assumes that the cremation deposit is contemporary with the initial phase of the stone circle

2004) concluded that although Grooved Ware and Beaker pottery has been found in primary fill contexts in certain Irish henge sites (e.g. Lough Gur, Co. Limerick), other so-called 'circle-henge' and later stone circle groups (e.g. the Cork-Kerry and mid-Ulster groups) "are unlikely to have any direct connection with Neolithic henges" (O'Brien 2004a: 337; Brück *pers comm*). Some sites on the British Isles have also been presented as Late Bronze Age constructions, in particular the low stone settings of Scotland and Wales (e.g. Circle 275, Penmaenmawr, Gwynedd; Burl 1995: 177). Bradley & Sheridan (2005: 278) recently conjectured that Croft Moraig stone/timber circle in Perthshire was originally erected as a stone ring no earlier than 1200 cal BC, based on the re-assignment of pottery from the original excavation to the Middle-Late Bronze Age.

Figure B:25 Photograph of Lissyviggeen Stone Circle, Co. Cork (author's own)

Ultimately, the categorising of sites as 'henges', 'stone circles' or 'timber circles' should not detract from the probability that all of these places were unique. Some examples may have been built over a short period and never re-visited, whilst others may have been repeatedly frequented, altered, abandoned and re-found. Later dates from non-primary contexts at sites such as the Cork-Kerry stone circle group, and from primary contexts (albeit based on re-assigned pottery) such as at Croft Moraig, may actually indicate that these places retained a certain magnetism for peoples well into later prehistory. Alternatively, they may reflect the

construction of circular monuments echoing or perhaps commenting on past places and practices. The contemporary understanding of each and every example must have differed from the rest because each had its own organic biography. In this sense, the exact extent of their chronology either side of the third millennium cal BC is largely irrelevant. What matters is that constructing places using differential resolutions of some kind of communally-recognised symbolism persisted in a loosely standard form from around 2900-1600 cal BC. This symbolism was so resonant, perhaps because it played on an earlier similar incarnation (e.g. causewayed enclosures), that it was re-worked and re-evoked well into the second millennium cal BC.

Palisaded enclosures

Large ovoid enclosed sites bounded by timber palisades have been a less visible element of the prehistoric landscape, but increasing numbers have been identified in recent years, particularly through aerial photography. Examples such as those at West Kennet 1 and 2, Wiltshire (Whittle 1997b: Table 1; Bayliss *et al* 2007) and Dunragit, Dumfries & Galloway (Thomas 2004c) have been broadly dated to the second half of the third millennium cal BC. The outer rings of two of the carbonised oak timbers (1 and 4) from the vast, 34 hectare area example at Hindwell, Powys were radiocarbon dated to *c.* 2835-2208 cal BC (SWAN-116) and *c.* 2872-2471 cal BC (SWAN-117) respectively (Gibson 1996a: 344-5) (ch4: p101). Gibson (1998c: 71-2) differentiated between three types of Late Neolithic to Early Bronze Age palisaded enclosures in Britain: spaced post-holes, close-set postholes and contiguous palisades. He tentatively suggested a development from widely spaced post hole sites (*c.* 3400-2200 cal BC) such as Walton in Radnorshire, to close-set hole types (*c.* 2900-2400 cal BC) like Greyhound Yard, in Dorchester, Dorset, and finally to contiguous palisades (*c.* 2800-1800 cal BC) such as the one at the multi-phase site of Donegore, Co. Antrim. Gibson (1998c: 73) placed 'fenced sites' such as Haddenham, Cambridgeshire, outside this Late Neolithic typology since they tend to be associated with Early and Middle Neolithic material and causewayed ditches, and have been broadly dated to *c.* 4000-2900 cal BC. Such sites differ from the later palisaded examples as they comprised much narrower and shorter posts. If this typology holds, there seems to be a transition from partial to absolute blocking of access/visibility in and out of the enclosed space and its landscape context, although it is possible that the earlier wider post settings had horizontal planking spanning between uprights. Many of the enclosures also had palisaded entrance-ways, often set at an oblique angle to the circumference of the enclosure. This may have been to restrict or choreograph entrance and exit, as argued for the screens found inside many henges, stone and timber circle settings such as Bradley's (1998: 95) discussion of the

timber phase at Stonehenge. At Mount Pleasant contiguous palisaded enclosure in Dorset, the entrances were only 0.7m wide, entailing single-file traffic through the site (Gibson 1998c: 77). This enclosure replaced an earlier henge and was subsequently burnt down. Beaker pottery was found in the post holes, alongside oak charcoal from a carbonised post pipe which was radiocarbon dated to *c.* 2139-1903 cal BC (BM-665), and red deer antler which was radiocarbon dated to *c.* 2201-1782 cal BC (BM-662) (Wainwright 1979: 186).

Palisaded enclosures were often associated with timber circles and indeed, funerary practice. For example, at Ballynahatty, BNH6, Co. Down, an 11m diameter circular setting of timbers was erected enclosing a square setting of four posts (figure B:26) (Hartwell 1998: 39). The entrance gap to the south-east was reinforced by an 'annexe' of posts, perhaps restricting movement and visibility into and out of the enclosed space. Within the four posts was a second square setting of much smaller posts, without an entrance gap suggesting it was a raised platform, perhaps for excarnation (Hartwell 1998: 40). BNH6 was situated close to several passage tombs and later round barrows, and cremation burials were found in foundation deposits of this primary phase. In a secondary phase, a second circle of timbers enclosed the first, planking was added to the outer and inner façade of the entrance gap, the four central timbers were replaced with vast 7m tall tree trunks and the inner circle post-holes were re-set with larger, taller timbers. Irish Grooved Ware was found in the secondary fills of the post-holes on either side of the entrance of the two inner circles including in their 'annexe' (Hartwell 1998: 43), providing a *terminus ante quem* for the re-setting of these posts at *c.* 2600-2450 cal BC (AppB: p344-8) (Brindley 1999a: 32). A much larger ovoid double-ring palisaded enclosure (BNH5) was then constructed enclosing BNH6, followed by the erection of two timber 'cove-like' structures opposite one another between the route approaching/departing the entrance gap. Two radiocarbon dates giving a combined range of 3018 and 2788 cal BC[93] were obtained from charcoal samples of burnt posts from BNH5 (Hartwell 1998: 43). Although Hartwell (1998: 43-4) expressed caution about these early dates since they derive from mature oak samples, both BNH5 and BHN6 could be contemporary with the older Welsh, English and Scottish palisaded enclosure and timber circle sites (e.g. Hindwell, Powys and Machrie Moor, Arran).

[93] The exact radiocarbon determinations are not currently accessible, meaning this date range has not been re-calibrated using OxCal 4.1

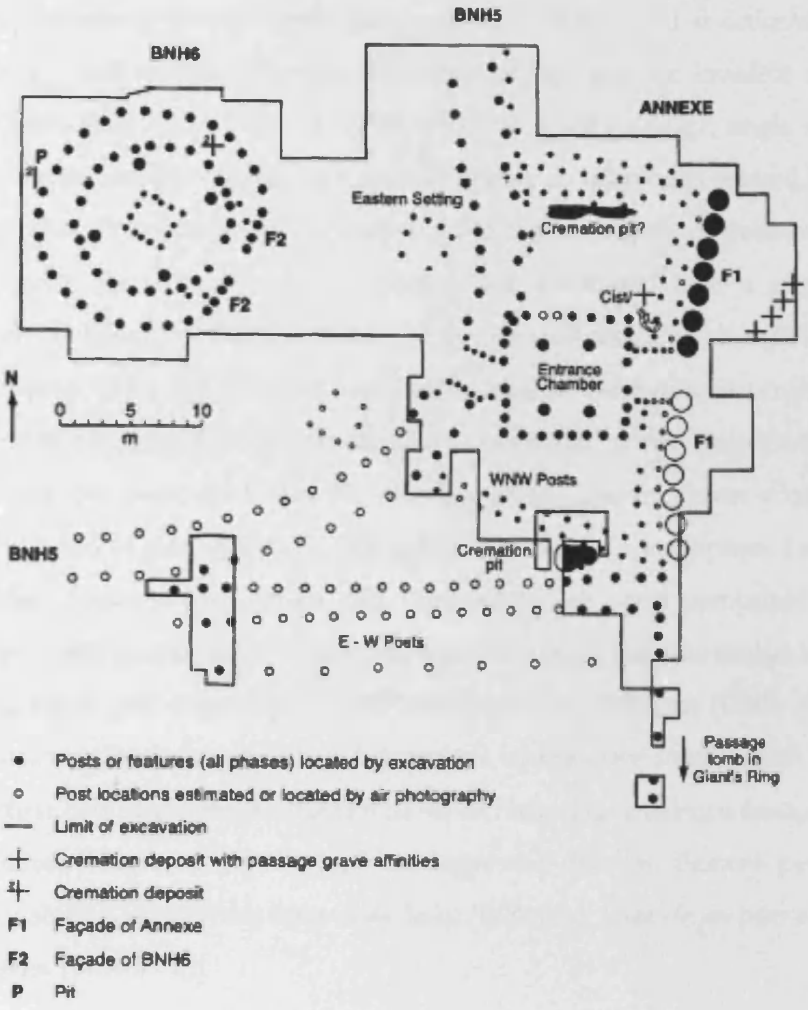


Figure B:26 Plan of the enclosure and other timber settings at Ballynahatty, BNH6 and BNH5, with wider features depicted to the east. The 'annexe' referred to in the text relates to the post-holes set at an oblique angle just north-west of F2 (*from* Hartwell 2002: 527)

Standing stones and stone rows

Timber and stone orthostats, screens, avenues and rows also offer this capacity to restrict or guide movement, visibility and experience. Traditionally thought to be a Bronze Age phenomenon, Burl (1993: 23) offered a complex chronology where portals (entrances where stones flank rather than abut the gap) in stone circles and avenues are presented as the Late Neolithic precursors of detached avenues and double and single long rows in the Early Bronze Age. These forms were succeeded by 4-6 and 3 stone rows in the Middle Bronze Age, and then pairs of orthostats in the Late Bronze Age. This schema is highly contentious, not least because it assumed that each site can be classified, and accordingly fitted into one universal British and Irish signification system. Similar form does not necessarily entail similar meaning, and in turn,

testify to contemporaneity. Past material forms can be emulated and re-articulated to provide social commentary, and certain subtleties indicative of age may be invisible to our socially abstracted eye. Even Burl (1993) pointed out that following his typology, single standing stones should date from the Late Bronze Age but actually appear to have been erected from the Early Bronze Age onwards. For example, oak charcoal from the secondary, or perhaps tertiary fill of the re-cut (Western; figure B:27) pit post-dating, but associated with a standing stone at Longstone Field, St. Ishmaels, Pembrokeshire, was radiocarbon dated to *c.* 1743-1438 cal BC (CAR-315) (Williams 1989: 33). Various worked flints, four cremation deposits and an Early Bronze Age bronze pin were found sealed in the primary fills of two ring-ditches and various other (eastern) pits also associated with the standing stone. The excavator concluded that the standing stone (erected in pit 4 of the eastern group) was part of a multiphase Late Neolithic to Early Bronze Age funerary and ceremonial complex which once comprised a stone cove setting, a four post elevated mortuary platform, possible round barrow, timber stake circle and numerous 'ritual burnt pits' (figure B:27) (Williams 1989: 38). Williams (1989: 34-5) postulated that the orthostat was the sole remaining constituent of the cove itself, which would date its erection to the first half of the third millennium cal BC based on evidence from other sites (e.g. Avebury, Wiltshire). However, he alternatively suggested that the Eastern pits were dug to represent a cove setting, which may have only been 'lithicised' later on as part of this symbolic interplay (Williams 1989: 37-8).

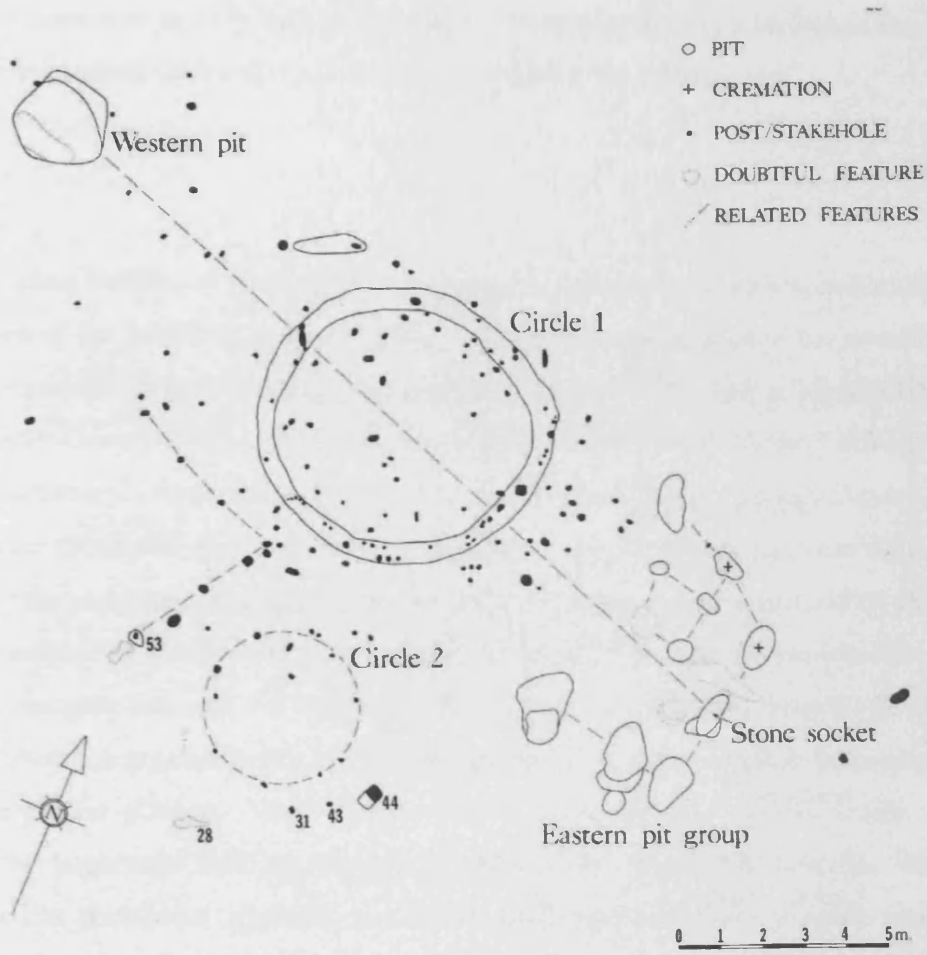


Figure B:27 Plan of the features in Longstone Field, St. Ishmaels. The location of the standing stone is marked 'Stone Socket' (*from* Williams 1989: 25)

In fact, all of the different forms of free-standing orthostat and timber upright configurations seem to date from the early third millennium cal BC onwards. Peterborough Ware was found deposited by the West Kennet Avenue, Wilts, giving the monument a *terminus post quem* of at least 2500 cal BC (Gibson & Kinnes 1997) (AppB: p343-4), assuming the deposit was contemporary, and not pre-dating, its use. Similarly, the stone circle and perhaps contemporary, perhaps slightly later long attached avenue at Callanish, Isle of Lewis (figure B:15) has been dated to around 2200 cal BC based on the inclusion of Grooved Ware and late Beaker pottery sherds (AppB: p344-51) in primary fills of the circle (Burl 1993: 180). The three short rows at Callanish were almost certainly later additions dating from the Middle to Late Bronze Age. It seems likely that the erection of such diverse and fluid free-standing monumental architecture cannot be meaningfully typologised and therefore chronologised. However, we can fairly reasonably assume that this phenomenon dates from roughly the same

time as the construction of henges and stone and timber circles at its earliest, and continued in various disjointed, symbolically diverse ways throughout the Bronze Age.

Dwelling

Introduction

Much has been written on the supposedly 'misguided desire' of prehistorians to discover the 'lost houses' of the Neolithic to Early Bronze Age; timber equivalents of the stone buildings at Skara Brae and Barnhouse, Orkney (Barrett 1994; Thomas 1991; 1996a; Whittle 1996; Gibson 2003; Rowley-Conwy 2003). There has been great debate over whether substantial roofed wooden structures were widespread and have either been ploughed-out or remain undiscovered (Megaw & Simpson 1979: 86; Darvill 1996), or, alternately, were only a common element of the prehistoric taskscape from the Middle Bronze Age (Thomas 1991: 28). Dwelling in Late Neolithic to Early Bronze Age British landscapes is currently assumed to have been spatially heterogeneous, and not centred around 'houses' in the LBK sense (Pollard 1999: 78), whilst in Ireland, a greater density of timber structures seems to suggest that a more tethered lifestyle prevailed (Cooney 1997; Smyth 2007). Certainly the various recent discoveries triggered by large-scale building projects (AppB: p340) (e.g. Whitewell, Co. Westmeath[94]) support a less anomalous approach to timber buildings, and there is some argument that archaeologists are now more attuned to recognising timber-framed structures (Gibson 2003: 138). However, the still relatively small number of contemporary roofed timber structures known from this period of over a millennium (e.g. approximately 70 probable Late Neolithic structures in Ireland; Smyth 2007: 80-8) simply does not support sedentary farmstead-oriented lifestyles predominating in the prehistoric landscapes of Britain or Ireland. Smyth (2007: 102) noted that the recent road expansion schemes in Ireland have produced far fewer Late Neolithic structures than Early[95]. Conversely, known Late Neolithic structures outnumber Middle Neolithic equivalents (Smyth 2007: 239-40), further supporting widespread heterogeneity during the fourth millennium cal BC. No matter how common or unusual these kinds of sites were during the Late Neolithic, the present-day, western dichotomies assumed of residential structures and the outside world probably do not hold true (e.g. private v. public, domestic v. wild, social v natural, sleep v work; Deetz 1977; Richards 1996c). Most activities or 'tasks' (Ingold 1993) inherent to dwelling undoubtedly occurred at appointed places

[94] Discovered during top-soil stripping along the route of a gas pipeline, Whitewell circular 'house' structure comprised two concentric rings of posts, associated with an axe fragment, flint scraper and pottery. It had been partially burnt before being dismantled, and the charcoal from the post-pipes radiocarbon dated to *c.* 2829-2347 cal BC (GrA-25734) and *c.* 2840-2469 cal BC (GrA-25726) (Phelan 2004; Smyth 2007: 85)

[95] Although, using a Bayesian approach, Cooney *et al* (*forthcoming*) have re-modelled radiocarbon dated Early Neolithic Irish 'houses'. Their results suggest that this may have been a relatively short-lived thirty-seventh century cal BC phenomenon

throughout the landscape (e.g. rivers, wooded copses, enclosures, exposed rock seams, cultivated clearings). Key instead is comprehending roofed timber framed structures as one constituent element within a diverse, dynamic, highly variable and perhaps regional occupation matrix apparent through the many valleys of Britain and Ireland until the Middle Bronze Age (Cooney 1997: 31; Pollard 1999: 78).

Places of residence

With this in mind, Thomas (1996a: 2) suggested that the majority of the population in Britain 'lived' in temporary and flimsy shelters. However, I argue that people's lives were not oriented around grounded shelters, no matter how temporary. Instead, British taskscapes were probably punctuated by well-known sleeping, resting, cooking and/or working places which were predominantly shaped out of the forests, bluff lines, caves, heath and valleys. In either instance, it seems likely that the few Late Neolithic to Early Bronze Age substantial timber framed buildings currently known about were not straight-forward sleeping accommodation. Thomas (1996a: 7) pointed out that examples from this date and earlier were often built in prominent positions such as on high ground or near eye-catching landscape features (e.g. the Terminal Neolithic phase of houses at Knockadoon, Co. Limerick, which were situated on an island promontory surrounded by marshes; Kelly 1978). This is similar to the locations of many contemporary monuments (e.g. some passage tombs, round barrows) and contrasts with most known lithic scatters, commonly located in sheltered positions (Gardiner 1984).

Darvill (1996: 90) documented 67 Late and Terminal Neolithic trapezoidal and circular post-setting structures known within England, Wales and the Isle of Man. However, he included post-framed circular structures (e.g. Woodhenge, Wiltshire) within this figure, and was criticised for being overly optimistic in his interpretation of all free-standing post-built structures as 'houses' (Gibson 2003: 138). Darvill (1996: 92-3) argued that the range of building forms was more varied in the Late and Terminal Neolithic compared to the Early and Middle Neolithic, focusing on four main forms: post-framed, post and wall-slot, stone and turf-walled and stake-walled. He postulated that most British Late Neolithic to Early Bronze Age structures tended to be square or round, with average widths/diameters of around 10m (excluding the post-framed circular forms), as opposed to earlier Neolithic examples which were more rectilinear in shape and with narrower widths. Most structures had some sort of internal divisions, external and internal hearths, and a limited array of worked flint, pottery sherds and animal bones within the fills of associated features. This fits well with the known Late Neolithic to Early Bronze Age examples from Ireland, which tended to be sub-circular or

ovoid. For example, at Lough Gur, Co. Limerick, fourteen largely sub-rectangular 'house' structures and around eight less substantial buildings were dated to between *c.* 3500 and 2500 cal BC based on associated pottery finds and four widely spread radiocarbon dates (Grogan 1996: 41; Smyth 2007: 103-111). Circular shapes predominated in the Middle Neolithic, whilst sub-circular and oval house shapes, with internal roof supports, internal hearths, pits, paving were more common in the Late Neolithic (Grogan 1996: 59).

Two successive post-built structures located within a rectangular palisaded enclosure were excavated at Gwithian in Cornwall in 1960 (figure B:28). The earlier structure was circular in form, with a 4.5m diameter, a central post, off-set internal hearth and door with porch to the south-west (Simpson 1971: 138). The second, constructed directly above the filled-in postholes of the first, was 8.1m in diameter, of sub-circular form, with a central hearth and another south-west facing door and porch (Simpson 1971: 138). Beaker pottery, animal bone and querns were found in association with these structures (Simpson 1971: 138), providing both with *a terminus post quem* of 1700 cal BC (AppB: p348-51) (Needham 2005: 171). As already discussed in chapter 4 (ch4: p151-4), at Trelystan, Powys, two square post-and-stake structures, each with diameters of around 4m, were found beneath two round barrows. Both had central hearths, internal pits, doors facing east, and both were associated with Grooved Ware. A burnt hazel twig from a slot on the west side of hearth in Structure A was radiocarbon dated to *c.* 2834-2207 cal (CAR-276), whilst burnt hazel nutshells from hearth in Structure B were radiocarbon dated to *c.* 2853-2288 cal BC (CAR-274) (Britnell 1981: 191). Darvill (1996: 101) interpreted these, and many other structures as 'houses', despite their association with other less familiar constructions (i.e. a palisaded enclosure and round barrows). What is lacking is the appreciation that the various dimensions of daily life perpetuated through these structures were not constant, uniform in type or permanently present. For example, the recent discovery of a number of broadly rectilinear structures (closely resembling the two at Trelystan) immediately outside the east entrance of Durrington Walls, Wiltshire (Parker Pearson *et al* 2005), has demonstrated the completely holistic nature of daily life at this time (ch3: p64-5). Domesticity and ritual life were inseparable (Thomas 1996a; Gibson 2003), and as such, dwelling in these places is unlikely to have resembled dwelling in present-day, western houses.

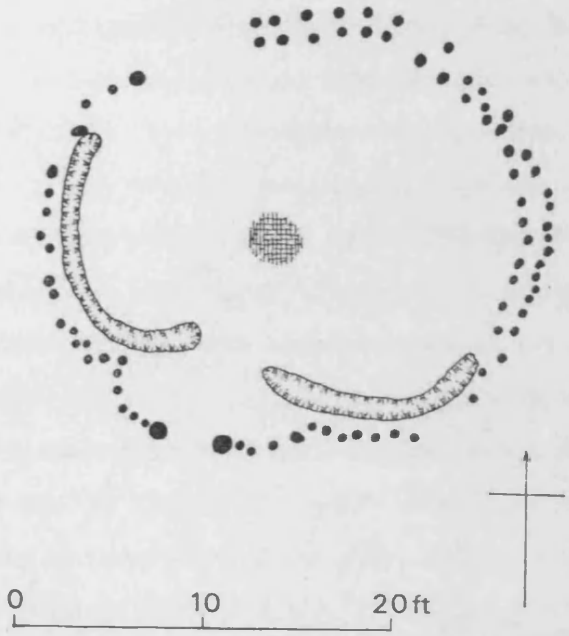


Figure B:28 Plan of a 'house' structure excavated at Gwithian (*from* Simpson 1972: 134)

In Ireland however, the discovery of relatively greater numbers of structures alongside contemporary bank and ditch 'field systems' has led to an envisagement of daily life emplaced within more established farming landscapes (Cooney & Grogan 1994). Recent work by Smyth (2007) has somewhat bridged the gap between this and more moderate ideas. She argued that recent comprehensions of Neolithic settlement in Britain and Ireland have focused too heavily on over-arching models of either sedentism or mobility (Smyth 2007: 236). Smyth (2007) instead envisaged different systems of subsistence and settlement patterns punctuating different areas of the British and Irish landscapes, arguing that in Ireland, later Neolithic structures were more ephemeral than Early Neolithic examples, but were equally more formal and standardised compared to those of the Middle Neolithic (AppB: p393). Most upland and low-lying timber-built roofed structures associated with Grooved Ware were circular, post-built, with central rectilinear-shaped hearths and south to south-easterly facing entrances (Smyth 2007: 239-240). However, relative contexts of these Late Neolithic sites varied dramatically, from the structure built directly outside the entrance to the eastern tomb at Knowth, Co. Meath to those found in seeming isolation at Balgatheran 4, Co. Louth. At Slieve Breagh, Co. Meath, thirty-two circular earthworks were identified during surveying across the slopes of the hill in the 1950s. Two of these (1 and 2) on the south-facing slope of the hill were excavated, revealing 5m diameter substantial circular structures and several cooking-related pits

(Herity & Eogan 1977: 49; Grogan 1996). Slieve Breagh 1 was built from two circular rings of wall posts and various internal post-settings (figure B:29), whilst Slieve Breagh 2 had a single ring of roof-supports around its circumference. Slieve Breagh 1 had a porch-like entranceway and a central rectangular hearth. Both Carinated pottery and Grooved Ware were recovered from structures 1 and 2, and assuming these sherds were not heirlooms at the time of deposition, they yielded a *terminus post quem* of *c.* 2450 cal BC (AppB: p343-8) (Brindley 1999a: 32). Several polished stone axeheads, lozenge-shaped arrowheads, tanged projectiles and end-scrapers were also present. Despite such supposed evidence for at least semi-permanently housed occupation, Smyth (2007: 244) pointed out that the stone-working assemblages from many pit and scatter sites often outnumbers, and is more diverse, than those from structures. Following the principle that the quantity and quality of activities enacted at sites indicate the duration and permanency of inhabitation, many of the timber roofed structures known from Late Neolithic Ireland seem to retain a sense of repeated return rather than continuous occupation.

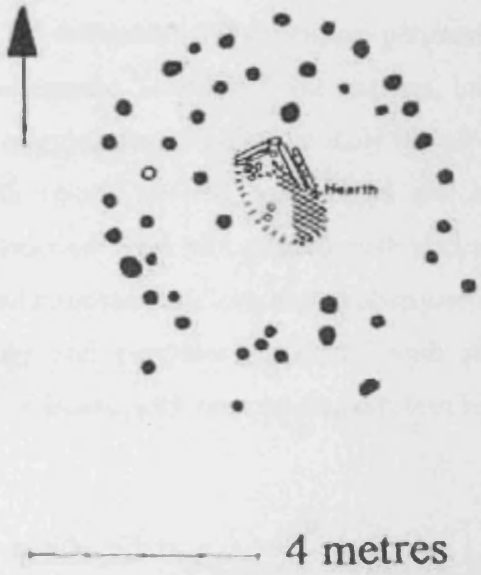


Figure B:29 Plan of Slieve Breagh 1, Co. Meath
(*from* Grogan 1996: 46)

The majority of habitation in Britain (and at least some in Ireland) was therefore probably not focused on such substantial structures, but instead occurred in temporary shelters and pits, exposed knapping sites and caves (Gibson 2003: 143). Thomas (1991: 28) interpreted the increase in the size of Late Neolithic lithic scatters compared to the Early Neolithic as evidence of the "residential pattern (being) even less fixed", implying that 'occupation' need not

necessarily entail artificial stand-alone shelters. Under round barrow PRN305 at Upper Ninepence, Powys, was a series of Late Neolithic pits containing specific configurations of used materials, specifically flints and pottery (figure B:30) (Gibson 1999: 23-7). Whilst these pits are unlikely to have been refuse repositories since the quantity of material selected is only notional and much of it was not broken upon interment, they still demonstrate dwelling and the kinds of materials constituting daily life in the Late Neolithic. Based on the typological date of some of the inclusions (e.g. Peterborough Ware) a number of these pits were dated to around 3000 cal BC (Gibson 1999: 23). Microwear analysis of flints found in these earlier pits suggested a wide range of activities including meat-cutting, hide-preparation, wood and bone-working, and plant-cutting. Material from other later pits containing Grooved Ware, speculatively dated to around 2700 cal BC, demonstrated greater specialisation in the selection of tools interred, with evidence for wood-working, meat-cutting and hide-preparation only (Gibson 1999: 27). Gibson (2003: 141) argued that these pits "provide information on changing economies" into the latter part of the Late Neolithic, although I argue that the narrower selection of tools interred may simply result from certain choices made during the re-working of this site in *c.* 2700 cal BC. These pit scatters may be the remnants of prehistoric dwelt-in places, marked by deliberate constructions penetrating rather than overlying the ground. They were not necessarily 'functional' like shelters, but were constitutors, facilitators and consequences of the ongoing perpetuation of daily life all the same (Garrow 2007: 48-9). Two small structures with central hearths, stake-holes and a stake-defined enclosure were associated with the later Grooved Ware pits, perhaps referencing the dwelt lives represented by the older pits nearby. These structures and pits were subsequently covered by the barrow, again highlighting how meanings and practices associated with places of habitation were very different to those commonly linked with present-day, western houses (Gibson 2003).

Figure B:30 Photograph of pit scatter at Upper Ninepence, underlying barrow PRN305. Direction photographer is facing is unknown (*from* Gibson 1999: 26)

Caves

Deposits dating to the third and early second millennia cal BC are commonly found in British and Irish caves, although these are rarely discussed beyond associations with funerary practice, death, spiritual beliefs and mining (e.g. Bradley 2000a; Barnatt & Edmonds 2002; Johnson 2008; Dowd 2008). Cremated and unburnt human bone was frequently interred in caves at this time, particularly in the Mendips, Somerset, the Yorkshire Dales, the Peak District, Cumbria and South and West Ireland (Barnatt & Edmonds 2002: 116; Dowd 2008: 307). For example, at Ballynamintra Cave, Co. Waterford, 50 human bones from approximately two/three individuals were found, almost certainly from disturbed articulated burials. The radius of one was radiocarbon dated to *c.* 3016-2581 cal BC (OxA-4250) (Woodman *et al* 1997: 133-4). However, human bone found in other caves often occurred alongside evidence of other practices. At Fox Hole, Cumbria, Peterborough Ware and Beaker sherds were found alongside disarticulated human bone in (probable) disturbed contexts in the entrance passage of the cave (figure B:31) (Bramwell 1964). Numerous hearths and a pit with cereal pollen inclusions in its fill were found further into the cave, which was paved with cobbling. These passages also contained Peterborough and Grooved Ware, as well as Beaker sherds, flint (including thumbnail) scrapers, knife, a barbed and tanged arrowhead, many cut marked brown bear, pig, deer, ox, sheep/goat, wolf, dog and badger bones, a possible bone lamp and bone spatula. A

Group VI polished stone axe, boar's tusk knife and notched sandstone pebble were all found in the clay underlying the paving (Bramwell 1964). Barnatt & Edmonds (2002: 124) refuted that these deposits represent 'occupation', opting for a primarily funerary usage of the cave based largely on the possible cist slab found near the entranceway and the presence of one hearth in a tight bend of the cave passage. I suggest that this imposes a dichotomy between death and life which is not found elsewhere (e.g. the close association of 'houses', occupation debris and pit circle cremation pits adjacent to Newgrange passage tomb, Co. Meath; ch4: p217-42). More likely is the use of this cave, and others, as a dwelt-in place, which at times resonated with funerary symbolism alongside multiple other meanings and comprehensions.

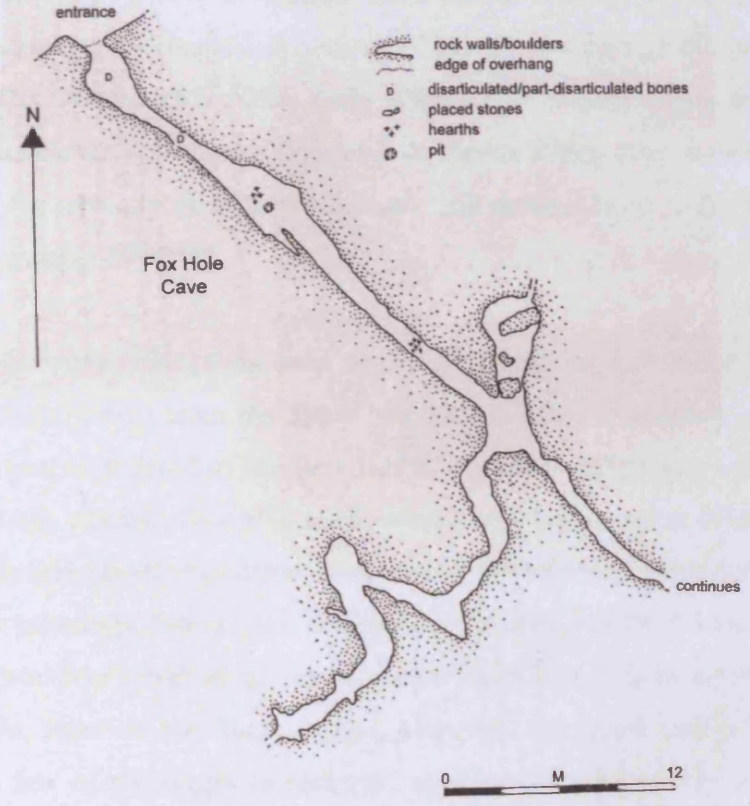


Figure B:31 Plan of features in Fox Hole Cave (*from* Barnatt & Edmonds 2002: 120)

Subsistence and clearance

Pollen and molluscan evidence seem to suggest a shift from intensive to extensive land-use during the Late Neolithic to Early Bronze Age (Bradley 1978b: 97), often associated with a transition from localised arable cultivation towards mobile pastoralist, or at least less intensive

mixed subsistence practices. In Scotland, cereals appeared in pollen core strata dating from around 3000 cal BC (Gibson 2003: 139), compared to 3500 cal BC in the Brecon Beacons (Chambers & Lageard 1997) and the Middle Neolithic in Dartmoor (Smith *et al* 1981). Cereals are present in pollen core strata dating from the Early Neolithic in Ireland (Cooney & Grogan 1994: 30). As mentioned in chapter 4 (ch4: p99-100), under the round barrow at Upper Ninepence, Powys, pits dating to around 3000 cal BC contained the carbonised remains of emmer, emmer/spelt and bread wheat cereals (Gibson 2003: 143). Analysis of absorbed residues from Peterborough Ware found in these pits evidenced the contemporary processing of ruminant fats, and analysis of Grooved Ware found in a series of later pits, also at Upper Ninepence, confirmed the processing of pig fats at around 2700 cal BC (Dudd *et al* 1999; Gibson 2003: 143-4). Indeed, pigs became increasingly popular in Ireland, England and Wales during the Late Neolithic (Tinsley & Grigson 1981: 226-8; Grigson 1982), and comprised the most frequently occurring species in faunal assemblages at sites such as the Newgrange Beaker occupation site, Co. Meath (ch5: p223) (van Wijngaarden-Bakker 1986: 94) and the West Kennet palisaded enclosures, Wiltshire (Edwards & Horne 1997). With the exception of West Kennet however, the majority of meat would have still derived from cattle since they yielded more per head (Schulting 2008: 98).

In contrast with Sherratt's (1981) long cited 'Secondary Products Revolution', milk lipids have been found in British pottery from the Early Neolithic (Copley *et al* 2003), although the first mead production probably dated to the first half of the third millennium cal BC (Dickson & Dickson 2000: 78-84). Machrie North in north-west Arran has a system of small walled fields dating to the Early and Middle Neolithic, which were then cleared, expanded and augmented into larger, vaguer land units during the Late Neolithic (Barber *et al* 1997: 145) (ch1: p10-7; ch6: p298-302). The excavator interpreted this as a shift from arable farming to more extensive pastoralism by the start of the Bronze Age, although the small earlier fields were still maintained and a few of the bigger unenclosed areas were so intensively cultivated that ard marks are still visible in the subsoil (figure 1:5). Domestic fauna certainly dominated Late Neolithic to Early Bronze faunal assemblages, and although many of these derive from ceremonial sites such as henges (Kinnes 1988), the limited number available from non-monumental contexts also demonstrate high proportions of domesticates (ch5: p223) (Schulting 2008: 94-5). Thomas (2003) proposed that marine produce was largely taboo during the Neolithic based on the general absence of isotopic evidence for its consumption in the admittedly small amount human bone so far sampled. This can be compared with the absence of riverine fish bones at the Newgrange Beaker occupation site, although this could be

attributed to the poor preservation of less substantial bones in the slightly acidic soil (ch5: p223) (van Wijngaarden-Bakker 1986: 98)

Key to understanding subsistence strategies in the Irish Sea region during the Late Neolithic to Early Bronze Age is the appreciation of their highly localised and temporal nature. For example, at the upland valley of Stannon Down, Bodmin Moor, Cornwall (AppB: p375-6), Jones (2006: 354-5) emphasised the predominance of established clearings for seasonal grazing throughout the Late Neolithic to Early Bronze Age, supported by the lack of cereal pollen in contemporary core strata. He also highlighted the continued use of woodland for gathering food stuffs including hazelnuts and berries. Longer-term or perhaps more multi-seasonal occupation and cultivation was often sited in the lower valleys (the Northern Downs), which were extensively deforested by the Late Neolithic (Jones 2006: 354).

The Late Neolithic is often characterised as a period in which earlier practices of localised cultivation clearances were replaced either by regional-specific regeneration, or increased grassland coverage linked to intensified pastoralist subsistence (Bradley 1978b: 96-8) (ch5: p189-90). The large number of localised forest regeneration episodes dating from the first half of the third millennium cal BC (e.g. on the Somerset Levels) may be linked to a diversification in subsistence strategies at this time. Mixed farming and hunting activities may have become predominant, whereby animals (i.e. pigs and cattle, with some sheep/goat) were more extensively grazed in scrub and secondary forest, and crops were less intensively tended than earlier in the Neolithic (Bradley 1978b: 96-9). The increasing popularity of pigs at this time (as already mentioned; AppB: p399) may have related to their preference for grazing in scrub and forest. Clearances typically re-occurred with greater vigour before the start of the Terminal Neolithic (Bradley 1978b: 97-8). For example, on Dartmoor there is evidence for clearance in the Early Neolithic, followed by Late Neolithic woodland re-growth and then sustained re-growth in the Bronze Age (Smith *et al* 1981).

However, consideration of the previously mentioned upland valley at Stannon Down reveals that some areas remained heavily wooded with a small number of established, small-scale clearances persisting throughout the Neolithic (Jones 2006: 353). Larger areas of clearance associated with the construction of the first local monuments occurred from around 2500 cal BC (Jones 2006: 355-6), although considerable tracts of mature woodland were present throughout the Early Bronze Age. By the end of the Late Neolithic in Ireland, sustained deforestation activity had replaced most of the forest cover with grasses, plantain and

dandelion (Cooney & Grogan 1994: 30). In contrast, the uplands of Mid Wales were heavily wooded through the Neolithic, and significant forest clearances only started in the Bronze Age (Walker 1992). In Scotland, decreasing woodland cover from the Neolithic accelerated at the start of the Bronze Age. Whittle (1997b) pointed out that a vast amount of wood would have been required for timber circles and palisaded enclosures, both dating (at least predominantly) to the first half of the third millennium cal BC (AppB: p408). For example, Gibson (2003: 142) estimated that Hindwell palisaded enclosure, Powys (which produced radiocarbon dates of *c.* 2835-2208 cal BC and *c.* 2872-2471 cal BC from the carbonised outer rings of two of its posts; SWAN-116; SWAN-117; Gibson 1996a: 344-5) (ch4: p101; AppB: p386), would have required 700 well-established trees. Due to their large size, these trunks would have been selected from mature primary woodland, resulting in an opening-up of tree cover regionally rather than localised areas of wholesale clearance. It is probable that deforestation was a consistent feature of western British and Irish landscapes from the Early Neolithic onwards, although in some places and on a variety of spatial scales, repeated regeneration or the retention of primary vegetation undoubtedly occurred.

Mobility

Evidence of mobility around the British and Ireland in prehistory is extensive. Whilst the appearance of characterised material culture at distance from its source has all too often been attributed to prehistoric trade and exchange networks (e.g. Bradley & Edmonds 1984), recent isotopic analysis of bones and teeth indicating movement away from the place of infancy is fairly irrefutable (figure B:32) (e.g. Montgomery *et al* 2000). There are innumerable examples of material culture which have been scientifically or typologically sourced to one place, and deposited some distance from it in prehistory. For example, Irish gold has very a clear signature composition (AppB: p361-4) (O'Brien 2004b: 559; 564), enabling the identification of Irish Early Bronze Age gold lunulae deposited in Britain and Brittany (Taylor 1980: 25). Similarly, Arran pitchstone, predominantly used in the Neolithic, has been found as far west as Ballygalley, Co. Antrim (Preston *et al* 2002) and inland throughout most of Scotland from Orkney to the Borders (Ness & Ward 2001). It is possible that many of these items were carried or shipped significant distances by the same people, and indeed the 80 or so three or four-ton bluestones moved from Preseli, Pembrokeshire (erected, based on an amalgam of radiocarbon dates, *c.* 3015-2935 cal BC; Parker Pearson *et al* 2009: 26), were unlikely to have been transported west via a series of trade relationships, even if they were originally part of a stone setting outside of the Stonehenge environs. However, in part due to both the rejection of traditional migrationist explanations of changes in material culture from, and the

conceptualisation of arable farming as a quintessentially sedentary practice, long-distance movement had, until recently, been largely neglected in prehistoric research (Whittle 1997a: 16-7). Bradley (1987) proposed that changes in lithic procurement and core reduction techniques may support decreased mobility in the British Late Neolithic, despite evidence of increased pastoralist subsistence practice at this time and his own previous theories about contemporary specialist tool-kits being more indicative of discontinuous settlement (Bradley 1978b: 96-8).

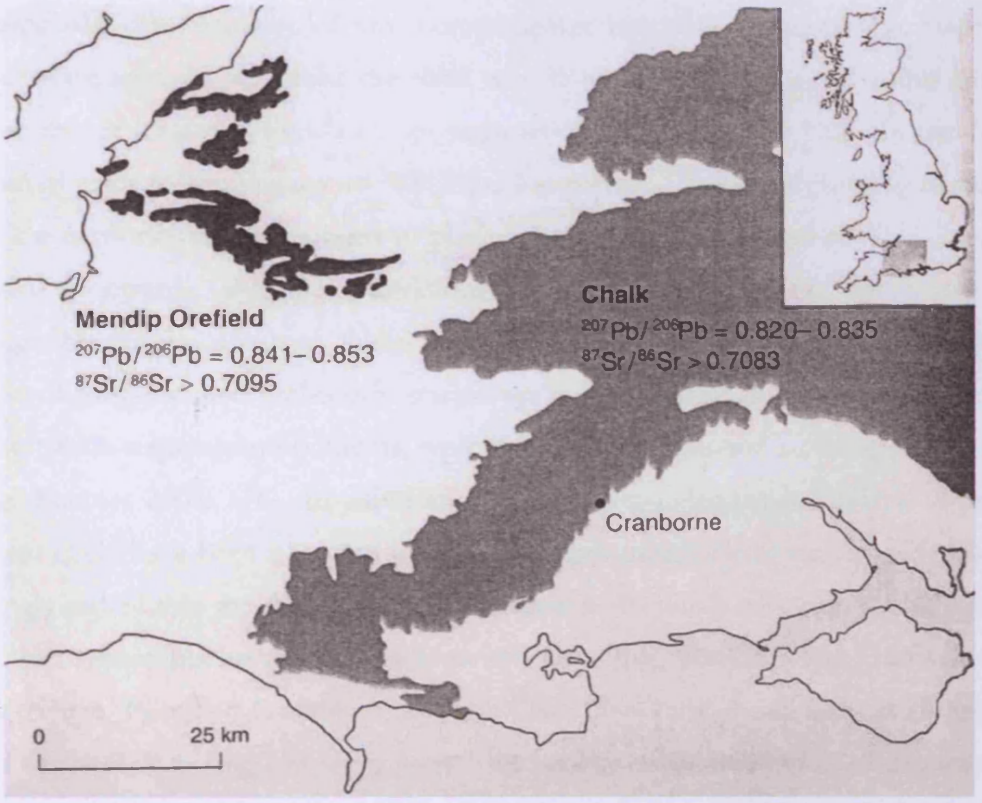


Figure B:32 Location map showing the burial site at Monkton-up-Wimbourne (marked 'Cranborne') relative to the extent of Cretaceous chalk geology and the Mendips orefield to the north-west. The adult female buried at the site probably spent her early childhood in the Mendips, whilst the two older juveniles buried with her probably moved from the chalk zone, to the Mendips, and back again during their lifetimes. The youngest child seems to have spent its childhood in the Mendips, similar to the adult female, and journeyed to the chalk zone where it was buried (*from* Montgomery *et al* 2000: 380)

In recent years, significant personal movement has been established on a variety of scales from back and forth between Cranborne Chase, Dorset and the Mendips, Somerset (the Monkton-up-Wimbourne burials, *c.* 3500-3100 cal BC[96]; Montgomery *et al* 2000: 374), Wales/the Lake District/Brittany to Salisbury Plain, Wiltshire (the 'Boscombe Bowmen' *c.* 2458-2205 cal BC;

[96] This calibrated date range refers to a number of unpublished radiocarbon determinations of some or all of the four skeletons (Montgomery *et al* 2000: 374)

OxA-13624; Needham 2005: 202) and the Alpine foreland to Salisbury Plain (the 'Amesbury Archer', *c.* 2471-2290 cal BC; OxA-13541; Parker Pearson *et al* 2007: 635). In the case of the 'Boscombe Bowmen', buried in a re-used multiple grave between around 2450-2200 cal BC (Needham 2005: 202), strontium isotope analysis of pre-molars (formed between the ages of 3 and 6) and third molars (usually formed in early adolescence) demonstrated that three of the seven had moved from one part of Wales/the Lake District/Brittany to another between the ages of 6 and 13, before travelling south to Salisbury Plain at a later date (Fitzpatrick 2004). This is especially demonstrative of how commonplace long-distance travel was, since two of these men were aged 25-30, whilst the third was 35-40 and interred prior to the other two, suggesting that at least two significant movements across Wales/The Lake District/Brittany had occurred prior to the journey to Wiltshire. Fitzpatrick (2004) speculated both that long-distance kin networks may have been in place whereby children were circulated across large areas aged 6 onwards, and that migrations also associated with the movement of the Stonehenge bluestones occurred fairly regularly at this time. There has also been some discussion of long-distance prehistoric track-ways (e.g. Gresham & Irvine 1963), or at least route-ways which respected monuments, typically barrows, cairns and standing stones, as sight-lines (e.g. Thomas 2001: 178). In addition, the entirely wooden-pegged Middle Bronze Age Dover boat could have been a re-working of earlier, pre-metallurgical traditions. Noble (2007) convincingly argued that the dense and often unusual concentration of Late Neolithic to Early Bronze Age monuments between Loch Ryan and Luce Bay, Dumfries and Galloway (e.g. the Dunragit Henge, Palisaded Enclosure, Timber Circle and Droughduil Mound complex) was linked to sea-farers crossing this short stretch of land to avoid navigating all the way around the double-headed peninsula (ch4: p111-2). A similar argument could be made for the roughly contemporary rock art, henge, stone circles, cist and cairn cemeteries in the Kilmartin Valley, situated at the northern head of the Kintyre peninsula, Argyll and Bute. It is therefore extremely likely that travelling significant distances was neither particularly unusual nor uniform. Journeys, seasonal migrations, sporadic and staggered movements all undoubtedly constituted the nature of Late Neolithic to Early Bronze Age mobility (Whittle 1997a: 22).

Rock art

Rock art dating from the Late Neolithic to Early Bronze Age of Britain and Ireland can be summarised as incised or pecked cup-and-ring marks, usually found on isolated stones still in their post-glacial depositional positions (e.g. stones in the Kilmartin Valley, Argyll and near Brodick on Arran), and spiral, linear and geometric motifs commonly associated with megalithic monuments such as stone circles and passage tombs (e.g. the many decorated

uprights at Four Knocks, Co. Meath and the concentric circles pecked into both the possible cist stone from Knowlton Henge, Dorset and on the 'Long Meg' orthostat, Cumbria). Portable stones and stone artefacts were also commonly 'decorated' with cup and ring or spiral, linear and geometric markings (e.g. the chalk Folkton Drums, Yorkshire). These practices were definitely established by the late fourth millennium cal BC, since numerous examples of decorated stones in sealed prehistoric contexts have been found. At Bryn Celli Ddu, Anglesey, a large decorated orthostat (figure B:33) was buried beneath the mound of the passage tomb, overlying sloe and cherry charcoal which was radiocarbon dated to *c.* 3091-2901 cal BC (UB-6824) (Burrow *forthcoming*). Waddington (2004) argued that the marking of free-lying stones with petroglyphs actually originated in the Early Neolithic and was re-practised by people in the Late Neolithic using more varied, free-form designs on un-moved, mobile and monumentally incorporated megaliths. For example, the Hunterheugh Crags cup and ring marks near Alnwick, Northumberland have been interpreted as Early Neolithic in date based on their proximity to a broken sandstone axe head found at the base of the top soil very close to the outcrop (Waddington 2004: 18). However, even assuming the axe was not an heirloom at the time of deposition, this is obviously a loose association; this point in the taskscape may have been repeatedly visited throughout later prehistory. Recent excavation immediately adjacent to the pecked and incised panels on glacial erratics at Drumirril, Co. Monaghan, revealed features (e.g. pits, post-holes, burnt patches, ditches) which contained material culture typologically dated to the Early, Middle, Late and Terminal Neolithic, as well as the Early Bronze Age (O'Connor 2003). Again however, a direct stratigraphic connection between the rock art and the features was not established. Ultimately, direct evidence of an Early Neolithic origin for pecked and incised prehistoric petroglyphs beyond a Bretagne connection is lacking, but it is more than possible that cup-and-ring, and spiral, linear and geometric motifs were constituents of a symbolic repertoire sporadically recalled and re-worked throughout prehistory. Returning visitors may have accordingly marked uprights at monuments well after their installation, and isolated stones known to have archaic significance, using symbols which were simply not commonly materially depicted before the Middle-Late Neolithic.

Figure B:33 Photograph of the decorated orthostat from Bryn Celli Ddu. Photo: National Museum of Wales[97]

Themes

The end of the old order? c. 3000 - 2700 cal BC

The start of the third millennium cal BC (the early Late Neolithic) has been seen as a period of great change in social order. Symbolised by the cessation of fairly established practices such as Peterborough Ware potting, placing deposits in causewayed enclosure ditch segments and entrusting the dead to communal tombs (all by *c.* 2500 cal BC at the latest; Gibson & Kinnes 1997; Whittle *et al forthcoming*; Clarke *et al* 1985; AppB: p340-404), this period was repeatedly interpreted as characterised by political instability (e.g. Darvill 1979; 1987; Burgess 1980; Bradley 1984; Shennan 1986b). For example, Bradley (1984: 41) cited greater regionalisation, a loss of contact with continental Europe, and greater production and exchange of 'fine' objects as evidence for social fragmentation at this time. Dating to a 'post-Childean' Neo-Marxist archaeological climate which still perceived the Neolithic as 'revolutionary', prehistorians of the 1960s, 70s and 80s were already struggling with why the Early British and Irish Neolithic did not resemble the Continental equivalent. Following this rationale, of logical subsequent

[97] Available online at http://www.museumwales.ac.uk/en/2357/ [Accessed 10 October, 2009]

concern was why these uniquely British and Irish 'cultures' seemingly altered so fundamentally once again in the Late Neolithic. A combination of numerous socio-political (e.g. the emergence of a social hierarchy founded on gift exchange; Bradley 1984), and socio-economic factors (e.g. the over-exploitation of soils causing reduced fertility and a shift to more extensive pastoralism; Whittle 1978: 39) were forwarded as explanations.

During the late 1980s/early 90s, both Thomas (1991) and Barrett (1988; 1990) challenged the validity of this supposed Late Neolithic 'crisis', arguing that it was founded on present-day, capitalist preconceptions of what changes and forms of material culture and practice signify about the past. For example, Barrett (1994: 49-52) deconstructed the entrenched interpretation of the Late Neolithic-Bronze Age shift from communal to single burial as directly reflecting a shift from egalitarianism to autocracy. He demonstrated that the actually incredibly diverse surviving funerary remains of the early third millennium cal BC can be re-interpreted as complex, disparate and ultimately agent-driven mortuary practices which are just as open to political manipulation as the later single grave burials. Partly as a result of this critique, the first few centuries of the Late Neolithic are now generally conceived as a fissuring continuation from previous centuries, with some common threads linking it to the Early and Middle Neolithic and some changes in the ways in which practices were materially embodied (e.g. Bradley 1998b: ch.6). Despite this, the start of the Late Neolithic continues to be treated as a watershed; with several recent approaches addressing material lives either post or pre-dating 3000 cal BC (e.g. Edmonds 1999, which considered the fourth millennium cal BC).

One term popularly used to characterise these centuries was the supposed socio-economic 'Middle - Late Neolithic standstill'. Both Whittle (1978) and Bradley (1978b) highlighted a probable Middle to Late Neolithic phase of forest regeneration, or at least reduced clearance activity (B:87-8) (dated to around 3200-2800 cal BC; Gibson 1998a: 12), as documented in both pollen diagrams (e.g. woodland encroachment of arable clearings in the Somerset Levels and on Dartmoor; Smith *et al* 1981; and scrub and weed succession of pasture near Avebury, Wiltshire; Smith 1984) and molluscan evidence from across Britain (Evans 1971). This has been furthered as evidence for "some relaxation in the intensity of land use" (Bradley 1978a: 106) and even an "agricultural crisis" (Burgess 1980: 43), although some substantial funerary and ceremonial monuments, especially in Ireland, North Wales, the Outer Hebrides, Orkney and Wessex, were constructed and frequented within this period (e.g. Knowth and its satellite tombs, Co. Meath). This down-turn in arable farming during the Late Neolithic was linked to either/both a shift to more extensive subsistence practices (Burleigh *et al* 1973) such as

increased pastoralism, and the over-exploitation of soils leading to erosion, famine, disease and ultimately de-population (Brothwell 1971; Whittle 1978; 1980a; 1980b; Darvill 1987[98]). For example, as already discussed (AppB: p399-400), a higher proportion of forest-dwelling pigs are found in the faunal assemblages of later Neolithic sites compared to preceding centuries (Tinsley & Grigson 1981: 226-8). Several contemporary sites demonstrate more extensive land management better suited to livestock rearing (e.g. the large Behy/Glenulra field system, Co. Mayo, which has a *terminus ante quem* of at least *c.* 2836-2031 cal BC; UB-153F; based on samples taken from base of the overlying blanket bog and its stratigraphic association with an adjacent Neolithic enclosure[99]; figure B:34; Caulfield 1978: 141). Linked to this pastoralist-centred lifestyle, people were envisaged as largely increasingly mobile, supported by evidence such as more extensive and prolific flint scatters and greater penetration of the landscape (Gardiner 1984; Bradley 1978a: 107-9)[100]. During this period, polished stone and flint axes were more commonly deposited, and their distribution from source sites markedly expanded (Bradley & Edmonds 1993: 199). This was interpreted as a re-working of a diminishing ancient practice during the later Neolithic, whereby engagements with axes changed from life (chopping, exchange, display) to death (hoards, discard, burial). Bradley (1984: 34) linked this change in the treatment of axes to the contemporary reduction in arable agriculture. As symbols of clearance, he argued that they gained extra metaphorical significance from the encroaching secondary forest and absence of wide-scale deforestation projects, more common in the past.

[98] Since contradicted by analyses such as French *et al* (2005), which revealed that thinner and less well-developed soils occurred in places like Cranborne Chase, Dorset, from the Early Neolithic

[99] This enclosure (B; figure B:34) produced Neolithic pottery and stone axes and, unlike the nearby court cairn, its walls were not robbed for stone when the primary field enclosure walls were built

[100] Although, as discussed in chapter 5: p211, Bradley & Edmonds (1993: 22) argued that the Late Neolithic tool kit was no longer "designed for portability" since flint working was more wasteful and specialised

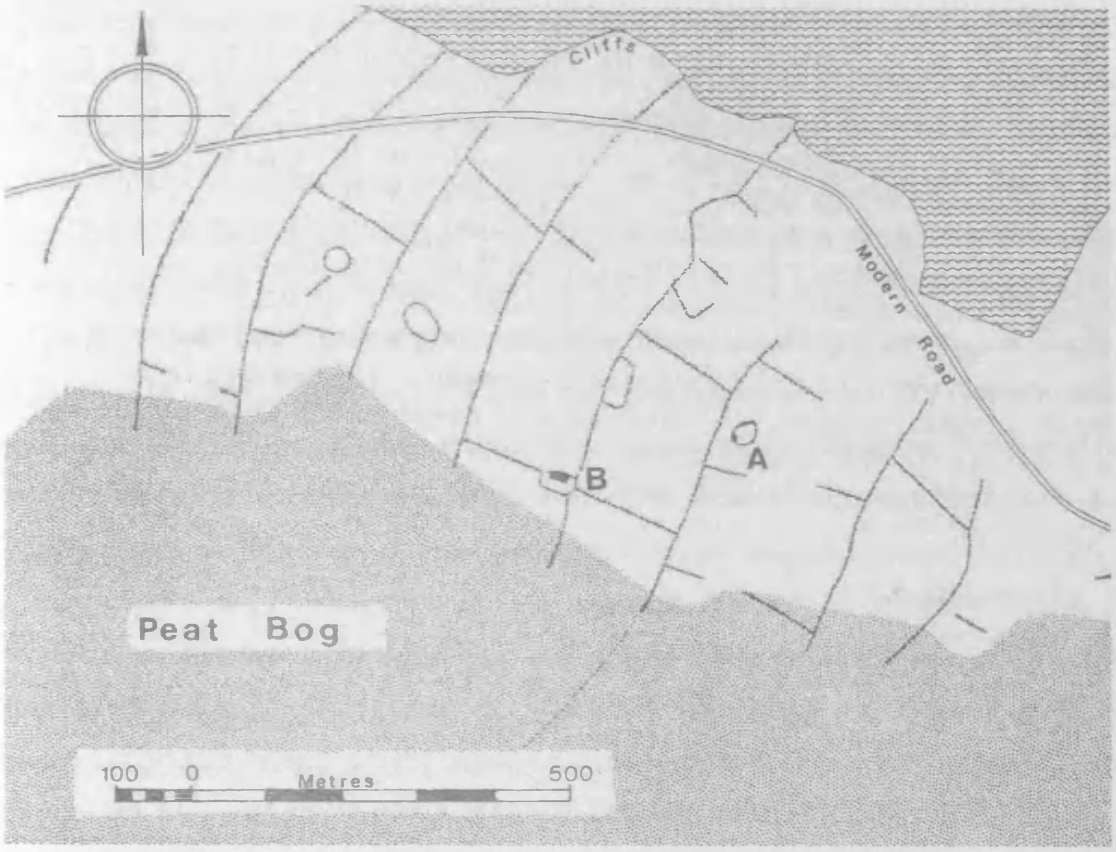


Figure B:34 Plan of the Behy/Glenulra field system showing A: Excavated enclosure; B: Court cairn (*from* Caulfield 1978: 139)

However, other areas of Britain and Ireland did not follow this trend, and evidence has been cited for agricultural intensification on Orkney and in East Yorkshire, East Scotland, Wessex, the Fens, lower Severn Valley, Upper Thames basin and Boyne Valley (Burgess 1980: 193-9; Whittle 1981; Bradley & Chapman 1986: 128-9). Plough marks have been found associated with contemporary sites (e.g. in walled fields at the Links of Notland Late Neolithic settlement, Westray; Wainwright 1989: 45) and forest clearance had resumed in some areas before the first metallurgy was being practised (Bradley 1978a: 106). Indeed, as previously mentioned (AppB: p401), the large timber monuments dating from the early third millennium cal BC onwards would have required vast quantities of timber (e.g. West Kennet 1 and 2 palisaded enclosures, Wiltshire; Whittle 1997b: Table 1; Bayliss *et al* 2007: 45). Even if these constructions demanded specifically selected trunks rather than localised and concentrated clearances (Gibson 2003: 142), deforestation efforts must have been substantial. Similarly, there is some evidence for fairly intensive land enclosure at this time; e.g. ditched paddocks at the fen edge near Peterborough, Cambridgeshire. Bradley (1984: 63) linked these few 'core' areas where crop cultivation persevered and deforestation continued to unusually high soil fertility, although he

has since renounced this point (Bradley 1998b: 121). He also demonstrated that they often coincided with the most elaborate early monumental complexes and the densest concentration of axe deposition (Bradley 1984: 63), as well as being located near the coastline (Bradley & Chapman 1986: 129). Attention was also drawn to the situation of these 'cores' in lower lying valleys (Fox 1932; Darvill 1987: 77), and in turn, the persistence of mature primary woodland in many upland valleys. For example, most of Wales remained largely forested until around 2500 cal BC (AppB: p401) and, with the exception of sites in eastern Wales such as Hindwell and Sarn-y-bryn-caled, Powys, had few large early third millennium cal BC ceremonial sites (Lynch *et al* 2000: 80-1). Bradley (1984: 63-4) argued that communities with access to productive farmland were the ones who determined social change during the early Late Neolithic period of 'recession'. He envisaged the start of the third millennium cal BC as typified by pockets of emerging dominant societies founded on elaborate 'fine-goods' exchange networks, displays of communal feasting and arable prowess (figure B:35). Bradley (1984: 65) felt that these societies were the predecessors of the early metallurgical 'chiefs', and argued that Grooved Ware gradually became the medium for their 'success' because it created "a crucial link between groups who had little in common initially". Bradley (2007: 132-6) still adheres to these ideas in principle, highlighting the vast distances between some of the regions in which similar monumentality was most developed (e.g. Wessex and Orkney), and offering the 'emulation of others' achievements' as the primary mechanism.

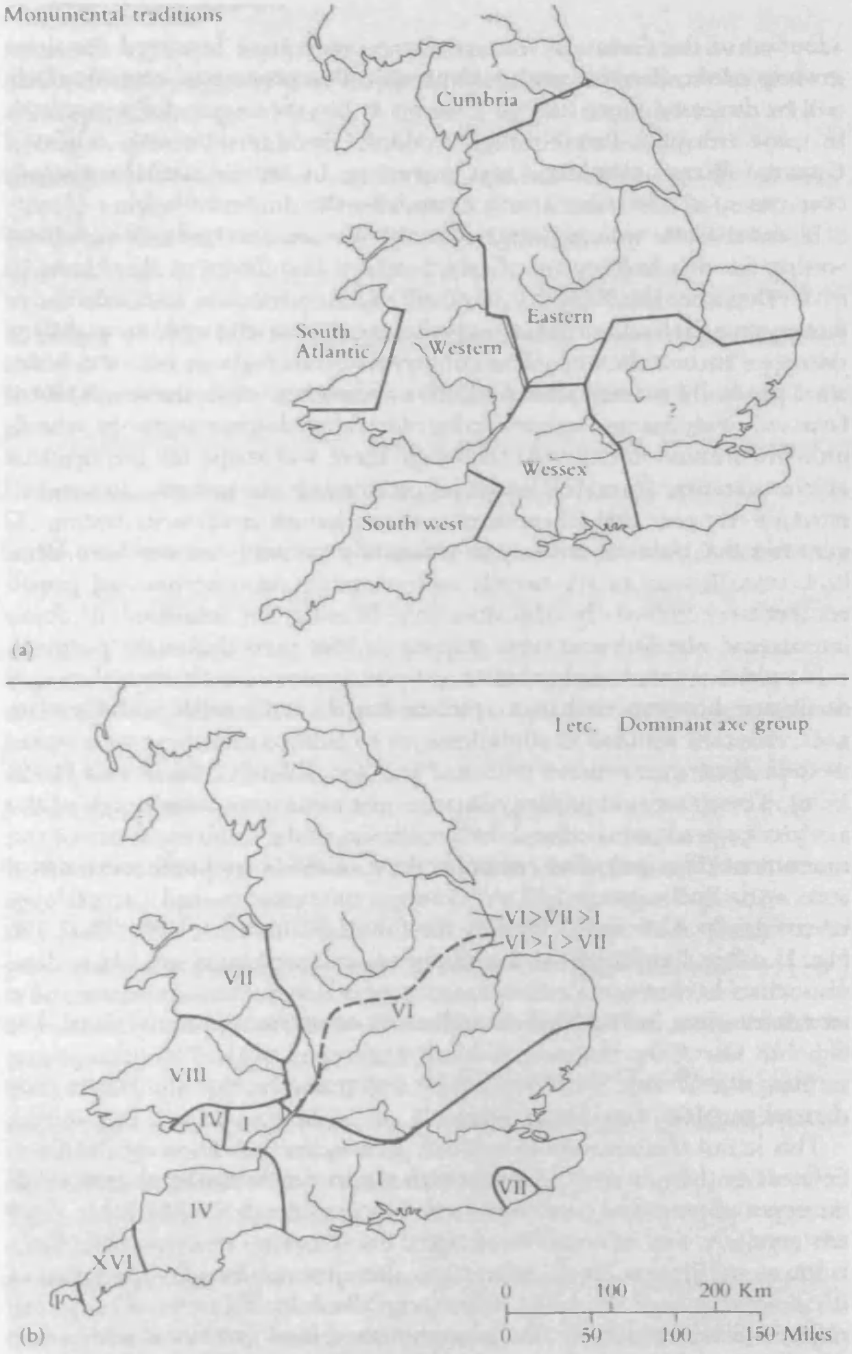


Figure B:35 Distribution maps representing Bradley's (1984) conviction that regional traditions in Late Neolithic ceremonial monuments and stone axe distribution reflected emerging polities (*from* Bradley 1984: 66)

Increased regionality has therefore been proposed as a dominant feature of the early Late Neolithic, supported by emerging independent traditions of pottery and flintwork forms (e.g. Carrowkeel pottery, Ireland), the blocking of megalithic tombs such as Gwernvale, Powys, which has a *terminus post quem* of *c.* 3335-2893 cal BC (CAR-114) (Britnell 1980: 147), and growing originality in British and Irish monument forms, e.g. unique sites such as the early

round barrows of north-east Yorkshire (Thorpe & Richards 1984). Both Bradley (1984: 34-5) and Cherry (1978) argued that communities were more likely to materialise their disparate identities during periods of resource stress or competition, thereby directly linking changing practice to economic conditions. However, in contrast with Early Neolithic sites such as Carn Brae, Cornwall and Hambledon Hill, Dorset, evidence for increased warfare at this time is relatively scarce[101]. Based on the many prominent Late Neolithic monumental sites in Orkney and Wessex, Renfrew (1973; 1979: 217-23) proposed that some of the isolated and roughly 'equal' communities typical of the earlier Neolithic merged into larger, socio-politically dominant units. Increasing regionality is also apparently visible in contemporary 'oscillating' socio-political dominance between Wessex and northern Britain (Bradley 1984: 65). Indeed, Elliot *et al* (1978) produced a synthesis arguing that Cornish and Cumbrian axe exchange systems were in competition with one another. Clarke *et al* (1985: 37) argued that the early henges and circles of the twenty-ninth and eighth centuries cal BC represented the further development of regional rather than local identities, and the legitimisation of this new order accordingly. It was proposed that this apparent dynamic of economic stress and inter-societal prestige-based competition was linked to a deteriorating intensity of contact with the Continent (Daniel 1941; Bradley 1984: 12). In actuality, patterns in the material expression of cultural identity are incredibly complex occurrences which draw on the discursive relationship between agency and social structure in a manner which is never reducible to raw socio-political strategy (Jones 1997). Whilst broad regional traditions in material culture and architecture are largely undeniable at this time (Brophy 2009: 5), the extent to which these represented distinct 'political' or ethnic units is problematic even within capitalist societies, meaning supposed increases and decreases in political power are ill-founded.

Bradley (1984) envisaged the Late Neolithic as an interplay between increasingly fractious political relations in a context of the abandonment of old ways, and the establishment of stable regional social groupings with heightened control over practice. This perspective typifies the way in which prehistorians of the 1960s-80s sought to understand change following the dismantlement of the 'colonisation' hypothesis, endemic in previous decades. Drawing inspiration from the positivist philosophy embracing social sciences, as well as formative work in the USA on systematising social life (e.g. Binford's seminal 1962 paper, 'Archaeology as anthropology'), it presented a 'logical' and 'testable' argument within a framework which would

[101] Although skeletons showing signs of fatal, human induced wounds are sometimes found. For example, a human femur with two projectile injuries was recently found in a pit within a hut structure, located near the Durrington Walls Avenue, Wiltshire (Parker Pearson *et al* 2007: 633). Articulated pig bone also in the pit fill was radiocarbon dated to *c.* 2832-2473 cal BC (OxA-14801) (Parker Pearson *et al* 2007: 633)

withstand cross-departmental scrutiny. Certainly influenced by work within New Geography on the demographic carrying capacities of environments linked to subsistence strategies (e.g. Bradley 1984 and Whittle 1978 both cite Boserup 1965), these arguments failed to appreciate that changes in practice are inherently locked to ongoing dwelling, rather than logical, predictable and agency-less economic consequences. To quote Barrett (1988: 30); "social systems are constructed out of particular social practices. These practices take place within the specific cultural and historical conditions they maintain".

Grooved Ware and communality? c. 2900 – 2500 cal BC

Comprehensions of the early-mid third millennium cal BC have always been influenced by the retrospective knowledge that the influx of metallurgy and Beaker 'people', or at least Beaker accoutrement and its associated lifestyle, was only a few centuries away. Nineteenth century AD barrow finds of elaborate beaten gold work, archery equipment, and ceremonial maces and battle axes were used to reinforce the classic early-mid twentieth century interpretation of individual 'warrior' Beaker burials as powerful symbols for widespread social inequality and instability. Entrenched in much archaeological discourse since the establishment of the Three Age System and within the framework of capitalist ideology, this shift towards extroverted visual display in terms of both funerary contexts and portable materiality had to entail heightened inter and intra-societal political competition, and therefore 'complexity' (e.g. Hawkes & Hawkes 1948: 83). The Early Bronze Age[102] was therefore considered the context for the naissance and flourishing of concepts of wealth, ownership, value and power, and for the first time, a period governed by a small number of established ruling elite (e.g. Piggott 1938: 94). The Early-Middle Neolithic was consequently envisaged as a period of horizontal rather than vertical stratification; the eponymous era of the egalitarian 'peace-loving farmers' prior to the incoming Beaker invaders. For example, Bowen (1972: 42) described the megalithic period of the western British seaboard as a "Golden Age". Perceptions focused on communality, whereby extended families lived and died abiding a megalithic religion founded on 'natural' life cycles and the authority of the ancestral elders and elected clan chiefs (e.g. Childe 1940: 77). Gimbutas (1965) wrote substantially on the pan-European peace-loving matriarchy pre-dating the Bronze Age 'incursions', perhaps epitomizing, in an albeit extreme manner, this general retrospective impression of the Neolithic as a Rousseau-inspired paradise.

However, by the late 1970s, the aforementioned interpretation of the early third millennium cal BC as a period of economic 'crisis' and socio-political divergence was growing in popularity. It

[102] Rather than the Terminal Neolithic

was also becoming increasingly commonplace to view dispersing ideas rather than mass colonisation as the most significant agent of social change. As a result, the origins of the proposed Beaker 'autocracy' were sought during the Terminal Neolithic rather than the start of the Early Bronze Age. From the late 1970s onwards therefore, most prehistorians attempted to interpret contemporary practice within a social context of consolidating, autocratic regional 'polities' (or at least 'identities'). For example, Richards (1988: 50) pointed out that the types of disarticulated bones best represented in Orcadian passage tombs were absent from earlier tripartite/stalled cairns. He argued that during the later Neolithic, people appropriated ancestral remains from existing cairns to legitimise their new monuments and thereby their own political authority through a re-working of, and monopoly on, the past (1988: 55). Pierpoint (1980: 212-42) famously interpreted the late fourth / early third millennium cal BC barrow at Duggleby Howe, Yorkshire, where a succession of older individuals were buried with increasing quantities of grave goods, as evidence of an emerging distinctive elite. He argued that political position in this social structure was achieved rather than inherited (hence the 'Big Man' hypothesis).

The early henges, stone and timber circles, (later) passage tombs, monumental mounds and vast palisaded enclosures which were built during the thirtieth and twenty-ninth centuries cal BC were therefore a potential conundrum since they constituted seemingly inherently 'public' contexts. As immense open arenas, often with multiple or elaborate entrances and approaches and certainly constructed en-masse, these sites were traditionally (i.e. with the exception of Childe 1925; 1940) considered indicative of inclusive public ceremony; 'communal' funerary and worship-focused architecture (e.g. Gray 1934: 161). Construction programmes were perceived as mass-efforts which willingly engaged the whole community during more relaxed periods of the agricultural cycle. By the late 1970s however, these embodiments of egalitarianism were being repeatedly viewed as façades for the early murmurings of engrained social stratification (Renfrew 1973; Cherry 1978; Bradley 1984: 73-4). For example, Burgess (1980: 166) stressed that the hierarchical, structured and tightly organized communities, supposedly essential for successful Late Neolithic engineering projects, "no longer present a stark contrast to Bronze Age society". Outlining apparent evidence of defined territories with clear centres, increasing populations, agricultural surplus, complex religion and public works, Burgess (1980: 166) argued that the only feature missing from a typical Late Neolithic "chiefdom's" repertoire was "wealth and all the trappings" (for a counter-argument, see Whittle 1981). Similarly, Darvill (1987: 86) interpreted the circular form of contemporary architecture as "closely linked with the overt differentiation of individuals" because a focus was

created at the centre with any number of lesser but equal positions around the circumference. Concentrations of ritual architecture such as the Avebury environs were perceived as forums for competitive display between emerging regional 'chiefdoms' (Renfrew 1973: 551-2; Malone 1989), supposedly illustrating the capability to mobilise and provision large labour forces (Bradley & Chapman 1986: 133). The construction of early ceremonial arenas and later megalithic funerary sites became coerced rather than community projects, achieved through a combination of religious fear, fervour and enforcement (Clarke *et al* 1985: 38). Renfrew (1973) classically calculated the 'investment' of labour-hours various sites may have incurred, and these became highly influential figures in the understanding of contemporary 'chiefdoms' for the next twenty years (e.g. Startin & Bradley, 1981: 289). Barrett's (1994: 24) highly innovative phenomenological interpretation of the 'typical' henge layout (external bank, internal ditch) as exclusive rather than inclusive architecture is actually founded in this theoretical context. He argued that such sites present a contrast between "the communal reserves of labour demanded by the programmes of construction, and the social distinctions which were made explicit through the spatial order of the monument" (Barrett 1994: 24).

Grooved Ware and associated spiral decorative art became emblematic of this new order, and as such were interpreted as ancient symbols of spiritual prowess which were appropriated by the ruling classes to empower and legitimise their new regime (Clarke *et al* 1985: 58). For example, Bradley & Chapman (1986: 131) described how common elements of passage tomb and Grooved Ware iconography could be found across the Atlantic façade in contexts which varied temporally (e.g. passage tomb art, previously only expressed in Irish funerary contexts, entered other spheres of life when similar monument were first built in Orkney; figure B:36). They argued that this re-working of formerly rigid and standardised symbols across Britain and Ireland was indicative of expanding peer polities which were exchanging various dimensions of life through "imitation, emulation and even confrontation" (Bradley & Chapman 1986: 134). By sharing initially exotic symbols, artefact and monument forms in managed exchanges, local elites developed their own esoteric political power (Bradley & Chapman, 1986: 135). MacKie (1977), amongst others, envisaged the Late Neolithic of Britain and Ireland as a collection of astronomically-founded theocracies ruled by dominant astronomer-priests; a premise which has been reiterated in various guises and to various degrees ever since. For example, Lynch *et al* (2000: 78) maintained that Late Neolithic in Wales life became increasingly controlled by those who had access to, and power over rituals and taboos. Based on its frequent association with monumental rather than occupational debris, MacKie (1977) specifically argued that the production and consumption of Grooved Ware and its iconography was controlled by these

theocratic elite. Through direct association with religious beliefs, this action simultaneously maintained the pottery's and motifs' 'special' profile and legitimised the ritual specialists' authority. Bradley (1984: 53) also thought that the widespread nature of Grooved Ware and passage tomb art indicated their 'special character', although he criticised MacKie (1977) by arguing that multiple stimuli must be sought when exploring the development of the proposed Late Neolithic regional cores (Bradley 1984: 58). As previously mentioned (AppB: p409), Bradley (1984: 65) did however argue that once established, the Grooved Ware assemblage "created a crucial link between groups who had little in common initially". In this way, the iconography and ideas associated with it provided a common medium through which inter-regional alliances could be formed, and political power enforced.

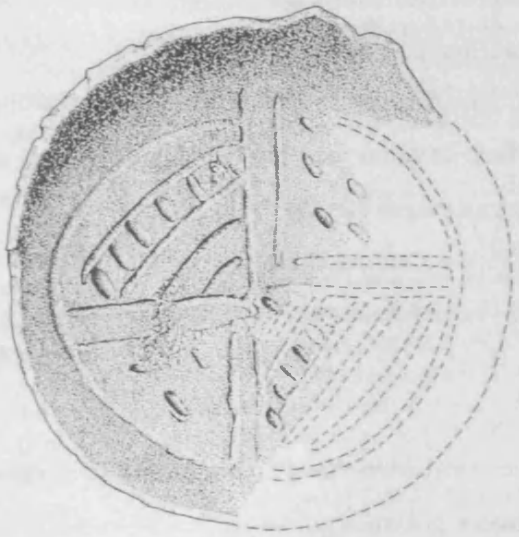


Figure B:36 Drawing of geometric iconography incised into the internal base of a Grooved Ware pot from the east midden at the Links of Noltland, Westray, Orkney (*from* Sheridan 1999: 121)

Various contemporary revisions of this approach emerged, focusing less on the somewhat simplistic neo-Marxist concepts upon which it was founded and more on the narrow scope of chiefdoms envisaged. For example, despite Renfrew's (1973: 577) expressed, albeit largely under-applied, caution at applying inflexible and generalised ethnographic models of social organisation onto the past, many works of the 1970s and 1980s read like a 'check-list' of features endemic to functioning chiefdoms (Whittle 1981: 297). Studies often sought to identify aspects of prehistoric social organisation whose form and function had been abstracted from various context-specific ethnographic texts (e.g. redistribution, political

centralisation, social hierarchy). For example, MacKie's (1977: 209-11) 'astronomer priesthood' was directly influenced by contemporary writing on the Maya state system (Bradley 1984: 77). Whittle (1981: 321) also criticised the common supposition that ceremonial architecture constituted the focus of normative life, and that social life could therefore justifiably be modelled on the basis of little more than a review of its monumentality. He suggested that perceiving the Late Neolithic of Britain and Ireland as a series of emerging polities with a shared, politically-malleable astronomical religion at the core of each is only plausible if the breadth, variability and fluidity of social life was first integrated (Whittle 1981: 332-3). A decade later, Thomas (1991) and Barrett (1994) more heavily criticised the portrayal of politics attributed to the early third millennium cal BC, arguing that crude-agency at the hands of the powerful fails to appreciate the dynamic reality of social life. Barrett (1994: 162) cited Giddens' (1985: 17) emphasis of the reflexive nature of social life, whereby agents exist through perpetual reference to the society in which they are embedded. He also emphasised Mann's (1986: 8) assertion that societies can operate through 'diffused' rather than 'authoritative power', which is de-centred, more spontaneous and indirect, and perpetuated in the daily, routine practices of life rather than through a intentional deployment of will. Moreover, Barrett (1994: 163-4) pointed out that those who exercise authority over others are only able to do so with the engagement of the masses, and the compatibility of an ever-changing body of collective norms and values.

Barrett (1994: 27-9) developed his critique to demonstrate how ritual display can operate in multiple ways and on innumerable scales, thereby highlighting the simplicity of drawing direct analogies with 'emergent states' like Minoan Crete. He argued that the proposed evidence for institutionalised political hierarchy; the mobilization of labour for communal construction projects, was evident only in the monuments themselves and therefore did not pre-date them. Such authority structures were therefore not emergent, meaning the society of Late Neolithic Wessex (in this instance) was organised differently to the classic studies of 'traditional' chiefdoms. Thomas (1991: 25-6) criticised Whittle (1978; 1980a; 1980b) for assuming that severely reduced arable activity in the early third millennium cal BC correlated with depopulation and socio-economic recession, arguing that a cessation of cultivation and forest clearance may have resulted from a change rather than decline in landscape practice. He pointed out that monuments should be envisaged as nestled within their social contexts, whereby they both act and are enacted upon as part of the ever-changing material world (Thomas 1991: 30). Their interaction with agents was perpetually re-worked as people engaged with them, and their meaning was therefore inherently unstable. For this reason, interpreting

Grooved Ware, its associated art and the ceremonial arenas of the early third millennium cal BC as passive tools in the repertoire of struggling despots is naïve. Social control can of course be facilitated through the regulation of practice (e.g. movement through spaces, ways of reacting to specific symbols;), but the realisation of this process necessitates active responses (Giddens 1984: 145; Thomas 1991: 31).

The invasion of the metallurgical, beer drinking chiefs? c. 2500-1800 cal BC

Ever since the later writings of the 'gentleman' archaeologists, the advent of the Early Bronze Age has been viewed as a consequence of 'Beaker Folk' invaders, equip with metal working skills, bodily ornamentation, warring predispositions and a general ideology of property and ownership. Speculating beyond the 'noble savage' sentiment previously applied to most of prehistory, Greenwell (1877: 112) proposed that Beaker mounds should be regarded as "places of sepulchre of...other people in authority claiming and being allowed a position of respect". Sixty years later, Childe (1925; 1940) synthesised such proto Marxian formulations of the past in his seminal theory that the period represents a revolutionary breach from the Neolithic. He commenced his chapter on 'The Beaker Folk' (Childe 1940: 91) with the assertion that the self-sufficiency of Neolithic economy was "broken down by the advent of warlike invaders" with a penchant, inspired by their weaponry, to "impose ...political unity on their new domain". Beaker 'overlords' supposedly subdued local 'stocks' (Childe 1940: 99-101) and established a degree of cultural uniformity of the like never seen before. Ideological rather than political hegemony permeated the British Isles, with timber and stone circles serving as centres of ideational consolidation. The concepts of 'surplus' and 'wealth' were introduced, and thereafter gained momentum through the construction of such sites and the conspicuous display of the results of elite-controlled commerce. For Childe (1940: 117-8), this in turn encouraged competitive material consumption by all (e.g. he describes "regular caravans" travelling to Ireland to trade with goldsmiths during the Beaker period). Organised religion and a materialist ideology therefore subsumed social mentalities, a seemingly irreversible process since both legitimise and are legitimised by those in power (figure B:37) (hence their sustained presence in the modern world; Childe 1940: 262). Beakers and artefacts frequently associated with them (e.g. copper and gold work, tanged and barbed flint arrowheads and stone wrist guards) became synonymous with the invaders themselves and henceforward provided sufficient evidence for the presence of these 'people' (Childe 1929: v-vi).

Figure B:37 A 1930s drawing of a funeral at a round barrow. Note the theocratic connotations; the workers labour under the gaze of a priestly aristocrat (*from* Grinsell 1936: 47)

In 1960, Ashbee (1960: 15), like most of his contemporaries (e.g. Clark 1966), still adhered strongly to the premise that Beaker people had colonised Britain, imposed their authority, accoutrement and lifestyles, and then gradually integrated with existing populations resulting in subsequent 'amalgam' Bronze Age Cultures (e.g. Collard Urn and Food Vessel peoples). By 1980, Harrison (1980: 70) conceded that Bell Beaker pottery and grave rituals were "possibly" brought over by a physically distinct group of people, but strongly advocated that the ensuing social changes marked a clear break with established Neolithic patterns, "clearly anticipating" succeeding Early Bronze Age chiefdoms. Indeed, as we have seen (AppB: p412-3), the colonisation model for all prehistoric social transition was increasingly questioned during the 1970s, resulting in the origins of autocratic social hierarchy being pushed back into the Late Neolithic. A focus on the transmission of ideas and material forms rather than people became the generally accepted mechanism of change (Shennan 1986b: 141), and active reinterpretation rather than acculturation was perpetuated as the means (Burgess & Shennan 1976: 311). There is no denial that people and their accoutrement made long-distance journeys at this time (e.g. Fitzpatrick 2002; 2004). However, the all-embracing migrationist explanatory model, which once appealed due to its inherent ease, is simplistic, unrealistic, questionably founded and not satisfactorily supported by evidence in any form (Burgess & Shennan 1976; Whittle 1981). For example, Gibson's (1982) study of Beaker-period excavated remains failed to find a common form of habitation structure associated with the pottery. Despite this, a general consensus on the integrity of the 'revolutionary' nature of the Terminal Neolithic and Early Bronze Age persisted until the 1990s (e.g. Shennan 1986a) and is still apparent as an undertone in many

recent works. For example, Bradley (2007: 142-3) has recently reiterated that the "international distribution" of Bell Beakers as well as their easily stereotyped assemblage, represents a very different "phenomenon" to Grooved Ware. In the unravelling of the entrenched assumption that new material culture, occupation patterns and burial forms must equate to major socio-economic and ideological transition, the fluidity, complexity and depth of material life has instead been emphasised (Barber 2003: 24). People interact with their material world so that meanings are perpetually regenerated through discourse; they are therefore entirely socially relative (Barrett 1994: 96). Transitions in the form of this world are embedded in this discourse, and meanings are therefore specific and localised rather than superficially "international". Similarly the repeated association of particular materialities demonstrates durability in the focus of this ongoing discourse, but by no means reflects a static cultural or ideological entity. Ultimately, the interpretations of Beakers and metalwork as 'high-prestige' commercial goods, single burial practice as exclusive to the political elite and archery equipment as symptomatic of the prevalence of warfare, speak more about present-day western logic than they do about prehistory.

Shennan (1982; 1986a) wrote extensively on the 'Bell Beaker phenomenon' and why it was so prevalent across central and western Europe. Together with Burgess, Shennan (1976: 309-10) pointed out that apart from the other elements of the assemblage itself, no other similarities of lifestyle can be found within the distribution of the so-called 'Beaker Folk' of Europe. Likening these objects and sepulchral practices to "no more than a fashion", Burgess & Shennan (1976: 310) suggested that the key to their desirability lay not in their aesthetic or technological kudos, but in the contents of the Beakers and the affiliations this may have had. A pronounced shift towards barley production in arable farming occurred in Europe during the middle of the third millennium cal BC (although perhaps not in Britain; Dennell 1976). Therefore, the possibility remains that alcohol and an associated cult of bravados may have been the Beaker's source of widespread appeal, as well as its connectedness with supposedly 'warrior' paraphernalia (e.g. copper daggers, refined archery equipment). The mechanism of this 'uptake' in Britain was initially speculated as linked to reciprocal exchange traditions across the English Channel and metal prospectors from the continent (Burgess & Shennan 1976: 312). However, Shennan (1986) later addressed the issue of popularity in a more socially-contextualised manner, stretching beyond the package's 'logical' appeal. Originating in the Rhinelands, Shennan (1986: 145-6) suggested that people started using Beakers and enacting associated practices not just because widening exchange networks made this possible (Bradley & Chapman 1986), but because they appealed in the contemporary political climate of proto-chiefdom Wessex. Like

Childe (1940: 262), Shennan (1986: 146) suggested that once the Wessex elite engaged with societies governed by capitalist ideological whereby power is defined and legitimised through access to exotic material and esoteric knowledge, they became "automatically locked" into the wider network and philosophy itself. The Beaker assemblage not only represented prestige and authority, but as symbols of both, became intrinsically valuable; thereby providing a medium for competition which had not existed to the same extent before[103]. He therefore believed that Beakers, singular interment with grave goods, a 'warrior ethos' and greater bodily ornamentation appeared at the start of the Terminal Neolithic because they could "add a veneer to traditions already established" (Burgess & Shennan 1976: 322-3). They did not appear because they were inherently 'better' than previous practice nor because they belonged to, and therefore signified, colonising ethnic groups.

The persistent presumption that Beakers and associated material culture and practice were prestigious in the Terminal Neolithic and Early Bronze Age (whether this was 'logically' the case, or in later publications, because they were rendered so) resonated in these approaches. There was much debate about the depositional contexts of Beaker materiality, focusing on how the objects were engaged with and indeed, whether this 'special' status could still be reasonably maintained (Clarke 1976; Burgess & Shennan 1976; Bradley 1984). It was commonly believed that fine Beakers were associated with burial, and therefore formed part of a stereotyped package linked to the concept of individuality (e.g. Childe 1940: 91-2). However, Beakers are also found in 'occupational' and ceremonial contexts (especially on the Scottish islands) and Irish examples are predominantly found in settlement and monument contexts (Whittle 1981: 304). In an attempt to understand how Beakers fitted in to prehistoric societies, a series of models were proposed whereby distinctions were made either between different but contemporary forms of Beakers, or between temporally and regionally variable meanings attributed to them. Clarke (1970: 43; 1976) attempted to identify fine, everyday and heavy duty examples, arguing that the finest constituted semi-specialist products due to their heightened display and prestige value. Whittle (1981: 324-9) developed Clarke's approach, arguing that 'non-basic' Beakers tended to be associated with 'non-basic' assemblages, with the intention of competing for prestige though mortuary rites. He proposed that in Wessex, Beakers were initially a novelty, their exoticism lending itself to inevitable desirability. Prestige subsequently passed to the pots and their associated assemblages (especially those made of metal), whilst in Ireland, the scarcity of Beakers and their less frequent association with metal objects suggested they enjoyed an alternative history (Whittle 1981: 331).

[103] Shennan (1986b) actually stated that this principle may have been previously engaged with elsewhere, e.g. Yorkshire, but that the Beaker network offered far wider possibilities

However, such interpretations failed to address exactly how some Beakers pervaded an exclusive status, assuming that fine crafting, exoticism and rarity naturally equated to 'better'. For example, Whittle (1981: 324-7) defined 'status objects' as those scarce examples which incurred specialised and costly production techniques, attesting that only fine vessels, beads and metal objects could consequently have "much intrinsic value". Bradley (1984: 72) was one of the first to consider how material objects acquire prestige. Envisaging that pottery forms gradually shifted in status from high to low as they became more common, he cited Miller's (1982: 89) work on emulation as the mechanism behind changing meanings attributed to material forms. In this supposedly newly proto-capitalist social environment, the prestige of certain material forms lent itself to imitation, which in turn demanded new symbols of differentiation. Bradley (1984: 72) argued that Beakers gradually replaced Grooved Ware in the 'high prestige' niche of material forms, which had itself succeeded Peterborough Ware and previously Grimston / Lyles Hill Ware. In this way, pottery forms did not replace one another instantaneously; several styles could be made synchronously and crucially phase-in and out from high to low status as they became more widely emulated and emulate-able (figure B:38) (Bradley 1984: 72). The premise of this idea had its merits, but it lacked an appreciation of the transience and variability of human interaction with material culture. Differential manners of uptake, both regionally and temporally, highlight the diversity of meanings attached and detached to Beakers and the Beaker 'assemblage' during their presence in Britain and Ireland. Therefore, Barrett (1994: 106-7) pointed out that interpretations of Beakers have to be socially specific rather than pitched around pre-existing frameworks which simply are not consistent with the material remains (e.g. at Mount Pleasant henge, Dorset, Beaker sherds were deposited both in the southern terminal of the palisade trench *and* in secondary silting associated with stone-working debris; Wainwright 1979).

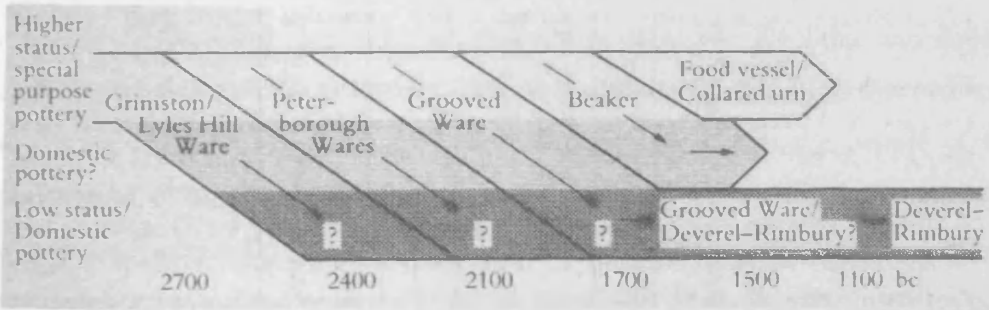


Figure B:38 Diagram depicting Bradley's (1984) ideas about the changing status of different ceramic styles (*from* Bradley 1984: 72)

Offering such a more regionalised approach, Whittle (1981: 329) argued that during the very first period of Beaker presence, richer Beaker burials were not present at major henges, suggesting that henge-builders were initially in competition with Beaker-users. He proposed that later rich Beaker burials focused around the major henges corresponded with dwindling use of the earthworks, and thus some sort of dissemination of previously heightened social tension (Whittle 1981: 331). Thorpe & Richards (1984) also considered the social context of Beaker inception. They proposed that the assemblage was initially more readily incorporated into social existence in Yorkshire compared to contemporary Wessex because the legitimisation of emerging hierarchies in Wessex was founded in specialised ritual activity rather than objects. It was monuments rather than artefacts that constituted power (Thorpe & Richards 1984: 75). In comparison, Yorkshire's Late Neolithic "rudimentary prestige goods economy" was predisposed to corroborate the exclusivity of the Beaker assemblage. Bradley & Edmonds (1993) advocated previous assertions that exchange networks were at their peak during the Terminal Neolithic, re-affirming the contemporary amenability of communities in Yorkshire to the Beaker ideology of ornamentation and display. However, from the late 1980s, the concept of a 'Beaker *modus operandi*' was largely abandoned, as cultural relativism and the complexity of material signification was fully realised (e.g. Hodder 1989; Tilley 1991; Barrett 1988; 1994). Whilst typological similarities between the British/Irish and Continental vessels and accoutrement cannot be denied, meanings are not passively reflected according to a definitive manual of symbols. Material culture is engaged in social relationships which incessantly and discursively determine meaning. No doubt some recognisable conceptual strands wove through the worlds of all 'Beaker-using' peoples at some points, but these were in turn, differentially understood.

Enmeshed continuity and change in perceptions of the world c. 2700-1800 cal BC

From the early 1990s, most British-based interpretations of the Neolithic and Bronze Age broke-away from these traditional themes with the hermeneutic realisation that archaeological 'problems' were in fact the products of the discipline rather than the people of the past (Hodder & Orton 1976; Hodder 1982; Shanks & Tilley 1987a). Treating the remnants of past practice as 'source material' for investigation, as well as the testing of subsequent hypotheses, was seen as epistemologically unsound since all knowledge (including that used to 'prove' or 'disprove' theories) is socially constructed rather than innate. Thomas (1991) and Barrett (1987; 1994) were seminal in theorising the implications for interpreting the Late Neolithic to Early Bronze Age, emphasising that models of prehistoric life heavily underestimated the complexity, temporality and variability of the discursive past. Both argued that totalising 'answers' to issues

of change are meaningless because they do not contextualise practice within a framework of agent choice and its interrelatedness with social structure (Barrett 1987: 471; Thomas 1991: 178). Practice, such as the potting of a Beaker instead of Grooved Ware, is inextricably and dialectically forged with the enactor so that they both 'make' one another (Jones 2002; Jones & Richards 2005). In this way, specific forms of social relations such as 'chief' and 'mother' are not universally recognisable, and theories which draw from interpretations of other cultures (e.g. matriarchal versus patriarchal kinship systems) cannot be unquestionably applied elsewhere. Similarly, seeking explanations for change external to the social dialectic (e.g. climate change, crop failure, collapsed trade networks) is deterministic and fails to appreciate the inter-relatedness of social actors and their realities (Hodder 1982). Approaches which followed this paradigmatic shift explored past perceptions of the world, often in a relativistic manner offering several expressly contradictory narratives (e.g. Tilley 1994). Prehistoric life was explored in terms of the dialectic between agents and their material world, and as Thomas (1991: 180) pointed out, the rejection of systems theory rendered the continuity of practice rather than its change as the focus of interpretation.

Phenomenological accounts of taskscapes replaced models of territoriality in the understanding of prehistoric landscapes (e.g. Tilley 1994; 1996), and dwelling became regarded as both the means and medium through which people lived (e.g. Edmonds 1999). Along a similar vein, conceptual rather than demographic, political, economic, ideological or cultural change was emphasised whereby people actively engaged with new realities rather than passively accepting them (Bradley 1993). Identities and their malleability replaced roles and function as sources of social action, and interpretations focused on the variability of concepts such as 'male' and 'childhood' (e.g. Sofaer-Derevenski 1996). Recent works (e.g. Whittle 2003; Richards *et al* 2005; Tilley 2005) have tended to strive towards a 'faced past' in which people dwelt through their worlds, actively constructing and deconstructing their understanding of life through sociality, emotion and memory (Brück 2005). In this theoretical environment, specificity rather than generality prevail, and there has been some backlash against the loss of understanding of the long dureé, the abandonment of one methodology without the provision of a sufficient replacement, and the problems with 'empathetic' insights, obtained by de-contextualised present-day archaeologists (Renfrew & Zubrow 1994; Fleming 1999; Barrett 2009).

One common theme since the 1990s has been the supposed preference for circularity rather than linearity in architectural and representational form during the Late Neolithic to Early Bronze Age of Britain and Ireland (Richards 1996a; 1996b; Bradley 1998b). Bradley (1998b:

101) in particular forwarded this as evidence for consistencies in the world-views of the people of the barrow-fields, rounded 'houses' and henge, timber and stone circles of the prehistoric margins of western Europe. He argued that the longevity and persistence of this trend in spatial organisation suggests that it reflected a shared and highly engrained cosmology (Bradley 1998b: 108). Drawing from Late Neolithic experiences which were set in increasingly deforested landscapes, Bradley (1998b) suggested that the symbolism of 360° vistas may have related to new perceptions of space as extending out from the individual and upwards, downwards and laterally. Using Newgrange, Co. Meath and Phase IIa at Stonehenge, Wiltshire as case studies, Bradley (1998b: 134) explored the division of Late Neolithic circular places into common cardinal points, arguing that the broad meanings attached to circularity changed during the Terminal Neolithic and Early Bronze Age. The open arenas of the stone and the closed arenas of the henges were replaced, sometimes directly, by earthen mounds and cairns which entirely excluded access by the living and often encased the dead. These funerary sites were often situated in close proximity to the earlier circles or on prominent positions on the skyline, for Bradley (1998b: 146), referencing and offering discourse on earlier cosmologies, thereby drawing "legitimacy" from the stability of the institutionalised past. Despite addressing world-views, Bradley (1998b) assumed that the meanings associated with circularity were consistent though broad stretches of time and space, merely on the basis of some regularity of form. The uninterrupted and widespread perpetuation of a particular understanding of the world is extremely unlikely considering the complexity of discursive social relations ongoing at the time. These architectural features would have been felt and conceived in different ways by different agents simultaneously. Crucially, Bradley's (1998b) interpretation does not describe *what* any of the meanings of circular symbols might have been, offering instead a vague reference to the popularity of circularity in other non-western cosmologies. This tells the reader nothing more about what concepts coloured life at these times, and returns to generalisations rather than specificity.

Further critical discussion of recent archaeological approaches can be found in chapter 1 (ch1: p1-10).

Conclusion

This appendix has served to contextualise the ideas developed in my thesis; temporally, geographically and historiographically. It has not offered an argument for binding the Late

Neolithic to Early Bronze Age of the Irish Sea as a distinct research framework (AppB: p341-2), but it has highlighted some of the ways in which cross-communication between people living in this area, at this time, became manifest. As such, it documents numerous materialities, architectures and practices through which specific configurations of knowledges were vocalised. As a collective, the examples discussed are in one sense meaningless because each is actively derived from a particular social situation. Each is linked by innumerable other manifestations of knowledge, not only as material forms but as moments, gestures, postures and so on. However, commonalities which can be discerned between communities and over centuries suggest some stability, prevalence and continuity in knowledge form, if not meaning. It is these commonalities which my thesis examines, and these which I believe belie true insights into prehistoric world-views.

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