Changing times: the emergence of a Bronze Age on the Isle of Man.

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Abstract

In this thesis I consider the study of change. I present a critique of existing approaches to the study of change and time in a prehistoric context. I develop an approach that moves beyond explanations of change where change is the result of singular causation located in a single moment of time. I critically consider how change is understood in the work of key relational thinkers such as Latour, Bennett, Ingold and DeLanda, developing an understanding of change which stresses the interplay between continuously fluxing assemblages and episodes of dramatic change (phase transitions).

The theoretical position established is applied to interpreting change during the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man in an evidence-led analysis of material culture, mortuary practices and transformation of place. I focus on axes of stone and bronze and use them as a means to explore the effects of changing technology. New use-wear analysis on the Early Bronze Age corpus of metalwork from the Isle of Man is presented as a means of exploring the impact of bronze as a new material. I consider burial practices from 3000-1500 cal BC supported by twelve new radiocarbon dates. I also address changing relations with earth, drawing together diverse evidence including Earthfast Jar practices, the construction of burial monuments and the settlement evidence from the period.

A new narrative for the period emerges highlighting the strength of an approach that draws on relational thinking. This approach emphasises the role of non-human actants in producing both continuity and change. It establishes the role of specific actants in the changing assemblages of the Manx Late Neolithic and Early Bronze Age, illustrating how change emerges from the constant flux that is endemic within actants at every scale. Change is presented as complex, relational and multiple. It is traceable through careful consideration of gradual changes at multiple scales by considering the quivering hives of activity within every assemblage.

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Notes to the text

Images

- All images of objects from the Isle of Man are with the kind permission of Manx National Heritage.
- All maps based on aerial photographs are Crown Copyright.

Radiocarbon dates

- All dates have been calibrated using OxCal 4.2. Unless otherwise stated all dates are cited at 95.4% probability.

Abbreviations

MNH – Manx National Heritage
RTB – Roughened Truncated Butt
OED – Oxford English Dictionary
COS – Carbon on Sherd

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1. Introduction

For me, one of the key roles of archaeology is to discuss and consider change through time: as Severin Fowles puts it, "Archaeology, as I see it, has always been the discipline not of things but of the grand narrative" (Alberti et al., 2011: 899). This thesis focuses specifically on what I would consider to be central to the idea of grand narrative: the problem of tracing, understanding and theorising change through time. I seek an approach to work beyond what I see as the 'stumbling blocks' in some existing approaches to time and change in prehistory; namely, revolution thinking, emphasis on origins, singular causation and linearity. Too often we seek to characterise large blocks of time as having a certain set of characteristics that differ drastically from what comes before and after. We locate change in single moments in time, reducing variability within periods and shifting it into the transitions between periods. We seek single causes for change: the emergence of bronze caused the development of inequality. This thesis seeks to explore a new theoretical approach to change that builds on recent thinking in the humanities on the importance of relations between things, people, beliefs, animals and plants. It explores these ideas through an archaeology of the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man.

Relations in Flux

Recent times have seen something of a stirring in archaeological theory (Alberti et al., 2011; Conneller 2011; Fowler in press; Hodder 2012; 2011; Jones, 2012; Lucas 2012; Olsen 2010; 2007; Olsen et al., 2012; Shanks, 2007; Webmoor 2007; Webmoor and Witmore 2008; Witmore 2007a; 2007b) which stems from relatively recent ideas arising in the humanities more generally (for example, Barad, 2007; Bennett, 2010; DeLanda 2006; 2000; Harman 2009; Ingold, 2013; 2011; 2007; 2000; Latour 2007; 1999; 1993). These texts focus on the relational and shifting nature of the world[1]. Whilst these authors by no means operate in the same theoretical space much is shared between them (see Fowler, in press, for a discussion of the links between their prominent metaphors). All of these authors emphasise a need to focus on

[1] In archaeology these recent relational works are foreshadowed by Julian Thomas in *Time, Culture and Identity* (1996a) where Thomas discusses the ideas of Latour and emphasises the central importance of relations to our world.

relations and question current understandings of the nature of the relationship between people, materials and objects.

In this section I introduce the basic ideas of relational thinkers regarding the nature of the world, with specific reference to how they can contribute to a new approach to change in archaeology. Bruno Latour, a French sociologist of science and technology, advocates a view of the world where:

- Humans and nonhumans should be treated as equally important in understanding the nature of the world. As such all things are termed *actants*. An actant is anything that can produce an effect;
- Humans and nonhumans (this includes animals, things, and ideas) exist together in a heterogeneous 'network' of relations where they depend on each other;
- It is networks that acts, not individuals – however, any entity is itself a network when examined at a certain scale;
- The highly interconnected nature of these relations means that concepts such as 'economics', 'politics', 'religion' and 'the social' are inappropriate labels as relations between diverse actants are always more complex and multiple than these simple categories allow.

Other authors such as Ingold (2011), DeLanda (2006) and Bennett (2010) share similar views, though they differ on their precise understandings of the world, and most notably on their views regarding exactly how much agency we should understand nonhumans to have. Arguably, they hold more in common than separates them. Latour argues that we have given far too much weight to the role of humans in our understanding of the world and that we have sought to write out the role of nonhumans. His books illustrate the crucial role that nonhumans play in a variety of situations from the work of Pasteur (1999; 1988), to the failure of a French transport system (1996); to the work of scientists in the Amazon attempting to understanding the ecology of the forest edge (1999). In these narratives a flat ontology is adopted: test tubes, bacteria, pressure pumps, soil samples and World War II can be equally as important actants as world politics and individuals such as Pasteur and Boyle. Such work dramatically breaks from classical historical tales of great individuals manipulating historic

situations with objects playing the role of mere servants[2]. It suggests that when we seek to understand causation **any answer which says 'politics' caused this, or 'the introduction of metal' caused that, is false, because the reality is that institutions are the result of complex, heterogeneous, network of relations between various actants in which no single actant is the sole cause of change**.

Latour (1993) argues for a new 'parliament' of things, where we give equal weight and respect to all actants. There is no way to know in advance what will become important or powerful in any network, therefore we should be open to giving as important a position to objects as people. This could be criticised for creating a loss of power relations. Starting with a flat ontology though does not mean ending with one. Latour's narratives are rife with power relations, they are just more heterogeneous power relations than we would normally expect. Some actants are more powerful and more important than other actants; Latour asks that we don't decide in advance of our research which actants will end up being important.

Bennett (2010: ix) argues that humans need not be at the ontological apex. For Bennett, all the world is 'vibrant'- it has a 'vitality'. Matter is not just brute dead material, but rather, just like people, it is always in flux, always changing. She highlights the way in which even the rubbish we throw away and forget, is still active, rotting, changing chemically and creating swirling methane winds at landfill sites (Bennett, 2010: vii). Vibrancy is something that extends down to the atoms and molecules of matter; it happens at every level, everything is always in flux. She uses the term 'thing-power' to capture the way that things are able to act and produce effect, to appear alive and "exceed their status as objects" (Bennett, 2010: xvi). For Bennett 'human-power' (or agency) is just another case of thing-power.

> "If one extends the time frame of the action beyond that of even an instant, billiard-ball causality falters. Alongside and inside singular human-agents there exists a heterogeneous series of actants with partial, overlapping, and conflicting degrees of power and effectivity.
>
> Here causality is more emergent than efficient, more fractal than linear. Instead of an effect obedient to a determinant, one finds circuits in which effect and cause alternate position and

[2] Olsen et al., (2012: 36-57) present an interesting history of archaeology written from such a perspective.

rebound on each other. If efficient causality seeks to rank the actants involved, treating some as external causes and others as dependent effects, emergent causality places the focus on the process as itself an actant, as itself in possession of degrees of agentic capacity",

Bennett, 2010: 33

Bennett is suggesting that 'efficient causality' is not the way to understand a relational world. Efficacy here refers to the willed intention of a subject to have an effect (Bennett, 2010: 31). Efficient causality is the idea that any simple body might be the sole cause of an effect – billiard-ball causality or what I refer to as singular causation. Bennett suggests that seeing George W. Bush as the cause of the American invasion of Iraq is an example of such efficient causality. Bennett argues that because single actants are in fact made up of many other actants we cannot identify a single cause. A cause here is understood as a "singular, stable and masterful initiation of events (Bennett, 2010: 33). She argues instead for emergent causality where the effect of any given cause cannot be known prior to its emergence (Bennett, 2010: 33). In such causality multiple actants are always present, and any one effect becomes infused into other causes until cause and effect cannot be separated. Bennett argues change is not linear - the result of adding two things together and getting merely their sum (where effect is proportional to cause), rather small changes can have big effects on assemblages. She suggests that causality may be better understood in a more fractal manner, where the same pattern is evident at many different scales within a given phenomenon. In such cases we are best to trace the process of change rather than look for a simple cause and effect.

Bennett's position holds much in common with that of Latour in advocating the importance of nonhumans and relations whilst sharing with authors such as Ingold the drive towards an emphasis on flux and change as constant and fundamental. The strength of these approaches comes from their emphasis on relations and their questioning of the traditional anthropocentric nature of causality and explanation. Latour lays a foundation for seeing causation as complex, multiple and nonlinear, Bennett extends this by offering an emphasis on change and flux. This thesis seeks to build-on and implement ideas such as these in an approach that understands change as constant, complex, multi-stranded, genealogical and non-linear; below, I outline how this is achieved.

The Ronaldsway Late Neolithic and the Early Bronze Age

This thesis considers the Ronaldsway Late Neolithic and the Early Bronze Age on the Isle of Man; that is, roughly speaking, c.3000-1500 cal BC. Piggott (1954: 351) described the Manx Late Neolithic as showing a "notable insular individuality". Existing narratives suggest that until the Late Neolithic the Isle of Man fitted within broader patterns of material culture, mortuary practice and social tradition across the rest of Britain and Ireland (see for example, Burrow, 1999: 32). During the Late Neolithic the Isle of Man does not seem to be a part of the widely shared characteristics of Late Neolithic culture elsewhere in Britain and Ireland, instead exhibiting a unique material culture of flints, pottery, axes, burials and settlement patterns termed the "Ronaldsway culture" (Burrow, 1999: 32-3). Whilst Piggott's other 'secondary Neolithic cultures' (Figure 1-1) have since been abandoned (see Thomas, 1996a) the 'Ronaldsway Culture' appears to have remained intact. The unusual pottery and the practice of roughening stone axes and the island location all appear to produce what effectively could be a defined culture. Around 2200 cal BC this 'unique' culture appears to have been abandoned and the island re-integrated into the wider patterns of material culture that defined the Early Bronze Age of Britain and Ireland (Burrow, 1999: 34). This narrative continues to dominate discussions of the Late Neolithic on the Isle of Man (see Burrow, 1999; 1997a; 1997b; Darvill, 2004a; 2000a; Frieman 2008; Woodcock, 2004) and is explored in Chapter 3.

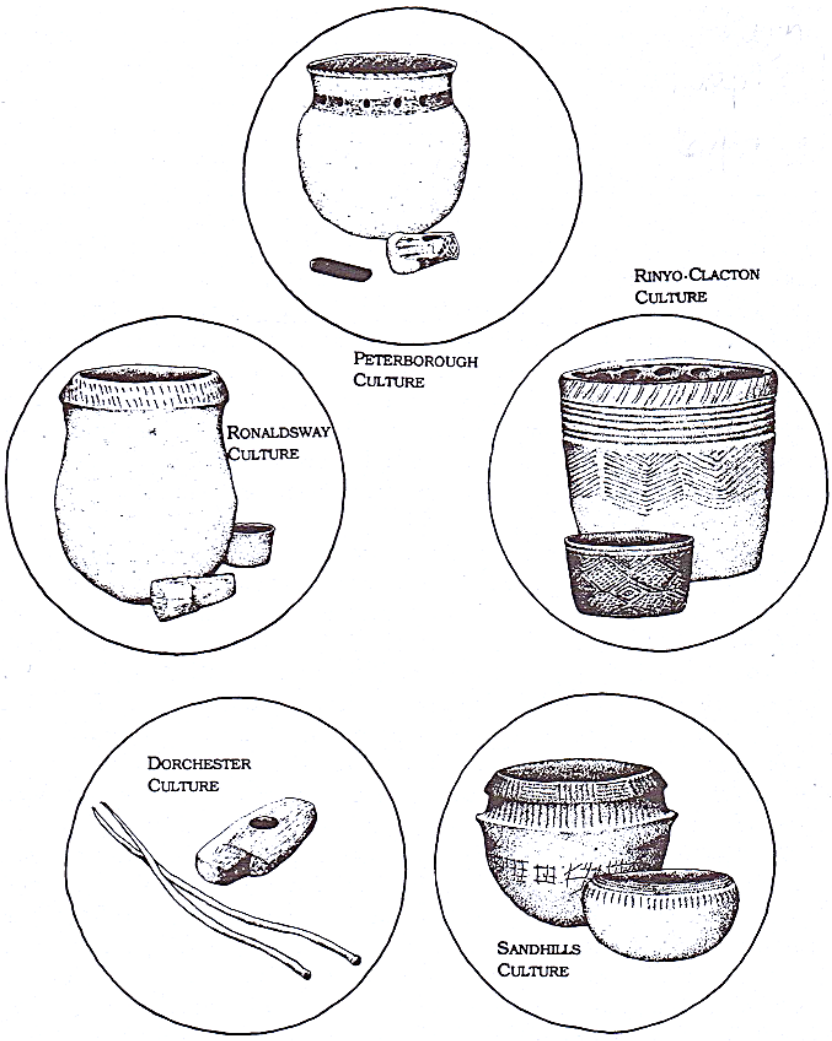


Figure 1-1: Secondary Neolithic Cultures. Taken from Thomas, 1996a: 143, fig 6.2.

The nature of this change is poorly understood and whilst there are studies of the Manx Neolithic (Burrow, 1997a; 1997b) and Bronze Age (Woodcock, 2008; 2001) no study has truly tried to embrace both periods or understand this transition. The explanations offered in passing by Woodcock, (2004; 2001) and Burrow (1999), discussed in Chapter 3, place bronze as the cause and driver of change. These explanations are weak, inconsistent and technologically deterministic lacking both an attempt to work across period boundaries and a sophisticated theoretical framework in which to understand this change.

The Isle of Man

The Isle of Man (often referred to as Mann) is centrally located in the Irish Sea between Ireland, Scotland, Wales and England (Figure 1-2 and Figure 1-3). The island is approximately

37 miles long and 18 miles wide, with a mixed topography of rocky coastline, beaches, forest, agricultural fields, uplands, wetlands and valleys (Figure 1-4). Today the island is a British Crown Dependency with its own government and laws. The central location of a small island within the Irish Sea has helped to give rise to a complex history of relations, particularly with England and Britain. Modern nationhood, a history of relations with other places, a continuing immigration influx and the revival and revitalisation of Manx Gaelic and Manx culture come together to help create a complex identity for both those from the island and those that come to live there (see Crellin, 2009; Lewis, 2004).

Figure 1-2: Map of the Isle of Man, Britain and Ireland

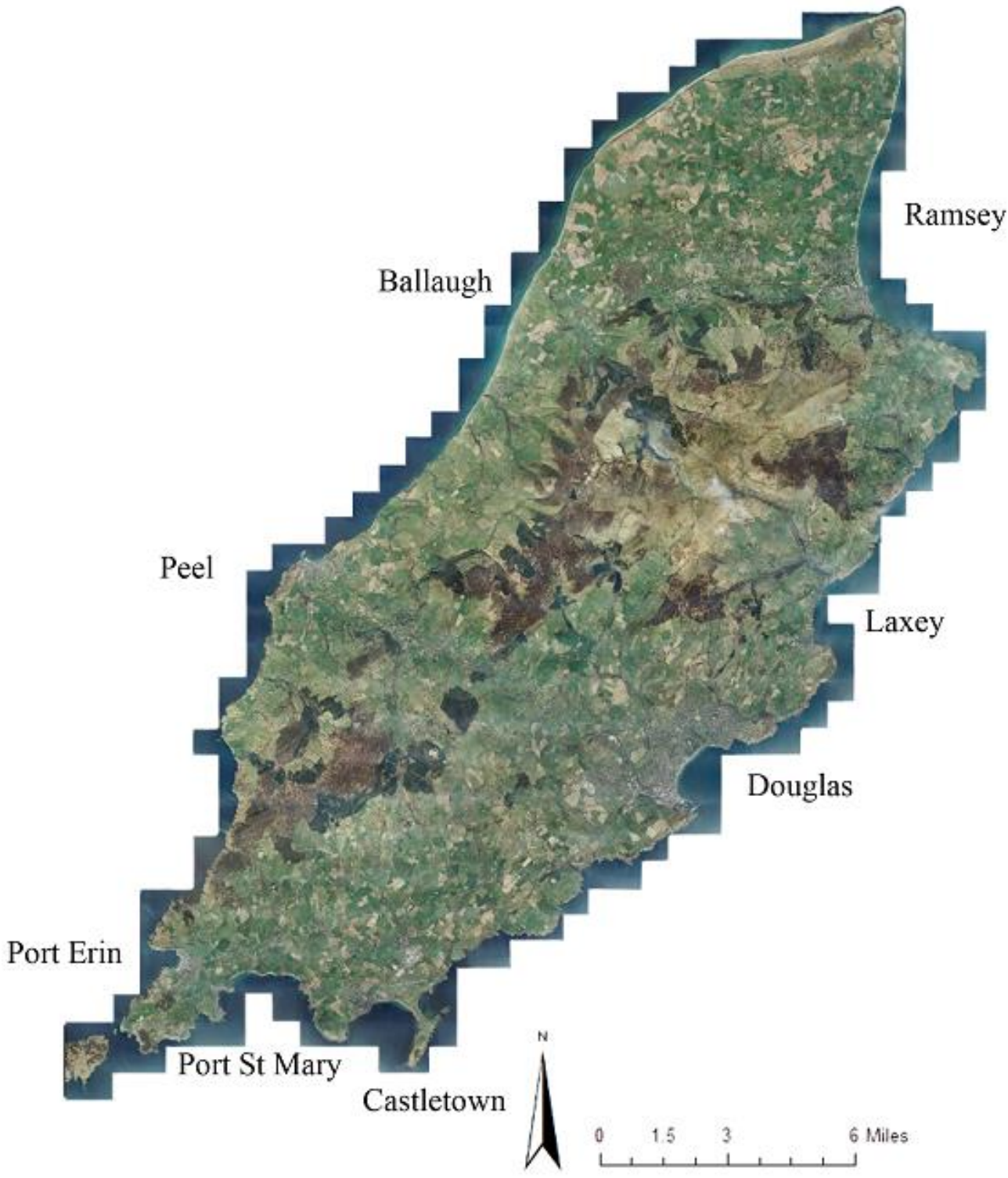


Figure 1-3: Map of the Isle of Man based on 2012 aerial photographs – Crown Copyright, Department of Infrastructure, Isle of Man[3]. Darker brown and yellow areas are uplands; the northern part of the island is a glacial plain.

[3] This map is used throughout the thesis and remains the Crown copyright, of the Department of Infrastructure in all cases

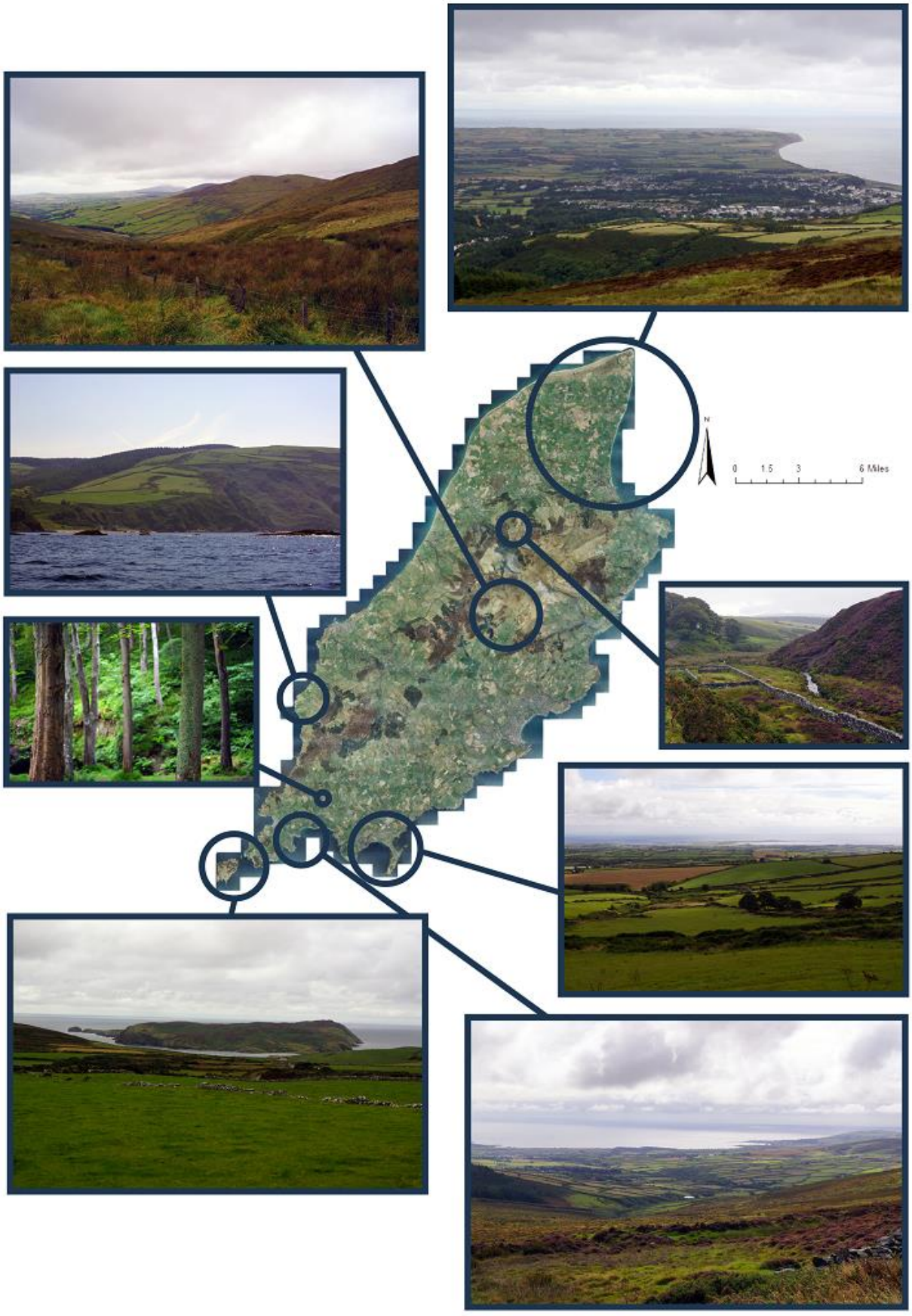


Figure 1-4: Photos of the varied landscape of the Isle of Man

A foundation for research

As already stated, there is no existing study that focuses on the changing archaeology from the Ronaldsway Late Neolithic through the Early Bronze Age on the Isle of Man and attempts to understand the nature of these changes. However, there is a history of research into both the Neolithic and Bronze Age on the Isle of Man. Clark (1935: 85-91) first assigned the material that we would consider to be Ronaldsway Late Neolithic to the "Ultimate Bronze Age"; he had never seen material like it elsewhere in Britain. During World War II, construction for a new airstrip on the island resulted in the discovery of the Ronaldsway 'house' site. This site allowed the first association between the Ronaldsway pottery and other Late Neolithic material culture such as Grooved Ware and polished stone axes to be made. As a result, the material was re-assigned to the Ronaldsway Late Neolithic (Bruce, Megaw and Megaw, 1947). Since the initial definition of the period by Bruce et al. (1947), additional sites have been discovered and the corpus of material that forms the Ronaldsway Late Neolithic has grown. Furthermore, research and interpretation of the period has continued (see for example, Burrow (1997a; 1997b); Darvill (2004a; 2003a; 2000a; 1999a); Fowler (1999); Moffat (1978)). Perhaps most crucially for this thesis the corpus of pottery from the Ronaldsway Late Neolithic has been studied and catalogued and the details of known sites complied by Stephen Burrow (1997a; 1997b).

By comparison the Early Bronze Age has received less attention. Jenny Woodcock's PhD thesis (2001) and subsequent British Archaeological Report (hereafter BAR) (2008), which both cover the entire Bronze Age, provide the bulk of the scholarship on the period alongside various published site reports. Woodcock's thesis is built on a vast amount of work both with the pottery corpus and in the archives of the Manx Museum; it catalogues all the known and suspected Bronze Age sites from the Isle of Man and the entire Bronze Age pottery corpus. This work is complimented by earlier articles on the Bronze Age metalwork from the Isle of Man (Davey et al., 1999; Davey, 1987)). These catalogue the known bronze metalwork on the island and speculate on the nature of metallurgy and metalwork during the Bronze Age. My research attempts to join together our separate knowledges of the Ronaldsway Late Neolithic and the Early Bronze Age on the Isle of Man, and the materials that have been held apart by these separate knowledges. It fills the lacuna in research into the closing of the Ronaldsway Late Neolithic and emergence of an Early Bronze Age.

An emerging methodology and focus

The focus of the thesis is thus twofold. How is it that we can understand and approach change through time in prehistory? How can we best articulate the emergence of a Bronze Age on the Isle of Man? Rather than drawing on a single specific technique the thesis seeks to gather together the existing material culture and research on the Isle of Man within a new theoretical and methodological approach. The thesis includes research both into the material from the Isle of Man and into theorisations of change and time in prehistory, this is summarised in Table 1.1.

Research	Why?	Location in thesis
I drew together existing publications on the material, critically evaluated them and highlighted areas where further research was required	Established the foundation for my research and the lacunas I aimed to fill	Chapter 3
I examined unpublished archival materials including the Manx National Heritage - National Monuments and Historic Environment Records (hereafter MNH NMHER), excavation archives and paper archives associated with Gerhard Bersu, Larch Garrad and Bruce and Eleanor Megaw	Provided a very detailed foundation for my work and carefully traced the assemblages that existing interpretations emerged from.	Chapters 3, 5, 6, 7 and Appendices
I examined material culture held in the Manx Museum	Provided primary experience and understanding of the material culture and provided quality images	Chapters 3, 5, 6, 7 and Appendices
I carried out use-wear analysis on copper-alloy objects dating to the Bronze Age	Established the biographies of copper-alloy objects deposited on the Isle of Man and what the new actant bronze did	Chapter 5
I gained funding for new radiocarbon dates for the period	Provided a better chronology for the period.	Chapter 6
I considered existing approaches to time and change in archaeology and especially British prehistory	Identified problems in current approaches and the required characteristics of a new approach	Chapters 2, 3 and 4

Table 1.1: Research involved in this thesis, why it was carried out and where it is presented.

As a result of this research I drew the theory and material together to produce new interpretations of both the sequence of the archaeology in the Ronaldsway Late Neolithic and Early Bronze Age and interpretations of the changes occurring through this period. Finally, I show that the theoretical approach has value beyond my own case study.

Outline of the thesis

In Chapter 2, I provide the background and context to the Late Neolithic and Early Bronze Age in Britain and Ireland. I consider existing approaches to change through these periods and critique some of the main ideas and approaches. In Chapter 3 I move on to introduce and present the material from the Isle of Man discussing the history of research in more depth, outlining the main evidence from the island, and the existing interpretations. I situate various archaeological evidence within the histories from which it arose to understand how current interpretations emerged. I conclude with a critique of existing interpretations of the 'transition' to the Bronze Age. In particular, I argue against models of isolation in the Ronaldsway Late Neolithic followed by a 'return to the mainstream' in the Early Bronze Age. This argument is conducted through theoretical critiques and critical appraisals of the nature of the archaeological evidence.

Chapter 4 focuses on theoretical approaches to time and change. I consider past interpretations of the 'transition' to the Early Bronze Age from a theoretical position and critique some of the concepts such as singular causation, linearity and revolution thinking. From here I go on to consider the linkage between our approach to time and our approach to change. Having established the connection between the two I outline a stance that argues that time is not merely a container for action but rather emerges from it. Having established the problems with change and time I next consider recent theoretical approaches to relations and the importance of non-humans, I focus primarily on the works of Jane Bennett (2010), Manuel DeLanda (2006; 2000), Tim Ingold (2011; 2007) and Bruno Latour (2007; 1993). I critique and draw together the work of these thinkers to outline a position where the world is seen as in flux and always emergent at multiple scales.

Having established the context for my work and the theoretical foundation for my analysis I go on to analyse the archaeological material from the Isle of Man. My approach draws on three main strands of evidence, each of which forms a chapter. In Chapter 5 I consider the transition from stone to metal technology. I aim to explore how the addition of a new actant, metallurgy, effects existing assemblages from a perspective where change does not have a singular cause. I closely compare the two technologies to draw out the similarities and differences between their production, use and deposition. I look at which actants and relations change and which stay the same with the emergence of metalwork. I employ the *chaîne opératoire* as a methodological device to allow a detailed comparison of the processes involved in metallurgy and stone crafting. I focus on metal axes, using primary data from my own use-wear analysis of copper-alloy axes from the Isle of Man in combination with data on composition and find-spots to draw out change through time.

In Chapter 6 I consider the burial evidence from the Ronaldsway Late Neolithic and the Early Bronze Age. This chapter offers the first detailed appraisal of the Early Bronze Age burial evidence including the implications of 12 new radiocarbon dates. Comparing and contrasting burial through the periods, as well as building up a more detailed account of change through time, allows a pattern of gradual change to emerge. Again, a *chaîne opératoire* approach is used to contrast burial rites and look at the detail of how burial deposits formed. The radiocarbon dates and the burial evidence are drawn together to emphasise the importance of relations with other places beyond the island's shore- in particular Irish burial practices emerge as an important actant. I explore the changing relations between the dead, the living and cremated remains and highlight a changing sense of temporality.

In Chapter 7 I draw diverse evidence together to consider changing relations with earth and the emergence of places between 3000-1500 cal BC. I consider settlement evidence from the two periods. I critique existing interpretations of the Ronaldsway 'House' site and present an alternate interpretation. I discuss practices of burying material culture in pits and shafts and use this to carry out a re-appraisal of the role of Ronaldsway Earthfast Jars outside of the mortuary practices. I also consider Early Bronze Age practices of landscape manipulation and change through the construction of barrows and cairns. This evidence is contrasted with the lesser emphasis on monumental construction in the Ronaldsway Late Neolithic and presented as part of a changing set of relations with earth.

Chapter 8 draws the theoretical material and the analysis together, and presents an interpretation of the period 3000-1500 cal BC within the wider context of Britain and Ireland. I explore what relations with other places are apparent within the Ronaldsway Late Neolithic and how these change with time. I consider the place of the Isle of Man within the surrounding islands. A new narrative emerges that seeks to highlight the strength of an approach that draws on relational thinking, emphasises the role of non-human actants and emphasises that change always emerges from the constant flux that is endemic within actants at every scale. Change is presented as complex, relational, specific and multiple. It is traceable through careful consideration of gradual changes at multiple scales by considering the quivering hives of activity within every assemblage.

2. The Late Neolithic and Early Bronze Age in Britain and Ireland

In this chapter I provide an overview of the Late Neolithic and Early Bronze Age of Britain and Ireland. This introduction to the period provides the context for the discussion of the Isle of Man offered in Chapter 3. I present a brief synthesis of the archaeology of these islands from 3000-1500 cal BC; the synthesis is not comprehensive but discusses the archaeology in general terms that aim to provide the best possible foundation for the remaining thesis. In this chapter I begin to discuss current and past interpretations of change in the Late Neolithic and Early Bronze Age. For example, I will argue that the introduction of metallurgy has a great impact on our understanding of change in the Late Neolithic and Early Bronze Age. I suggest that the 'Beaker period' can act in some interpretations as a key step change perceived to cause the emergence of the Early Bronze Age. I also argue that interpretative approaches to the arrival of Beakers in Britain and Ireland often rely on migration models and essentialising culture historical approaches which are insufficient to understand the complexity and nature of the changes occurring at this time. This 'key moment' before the start of the Bronze Age has become central in many understandings of change between 3000-1500 cal BC.

Considering Periodisation

"There is no history without dates"

Lévi-Strauss, 1966: 258

The Three Age System (for a history see, Rowley-Conwy, 2007; Trigger, 2006: 123-7; 224-230) divides prehistory into three main phases based on technological change. The system is an evolutionary one where we see the development of stone technology leading first to bronze, and ultimately iron, metallurgy. The Three Age System uses material culture as a proxy for past peoples and ultimately the transition from stone to bronze and bronze to iron comes to be the explanation for long term changes over thousands of years (Lucas, 2005: 10). Change in the Three Age System is described in technological and functional terms, and as such, may

come to be understood in these terms. As Roberts and Frieman (2012: 34) state, "structuring prehistory through changes in stone and metal technology is deeply flawed and encourages a limited and biased understanding of the past". Traces of the system's explanatory potential, in the form of directional narrative and the idea of progress, still remain in our interpretations (Lucas, 2005: 51). As undergraduates we watch as a picture is painted where agriculture leads to new forms of complexity and production, and then, with bronze metallurgy, we move towards a more uneven society with warriors and chiefs. These changes in material culture are presented not just as technological transitions but also as progressive, evolutionary steps towards the kinds of societies we live in today (for example, Sahlins and Service, 1960). Without the 'Neolithic Revolution' or the 'Urban Revolution' (see Childe, 1934) we would never have made it to aeroplanes or computers. Any scholar of Americas history knows that this kind of theory, where technological complexity causes social complexity, is not necessary. Complex states and empires developed in the Americas without iron technology (Moseley, 1992); indeed monumental constructions appear to have been possible without agriculture (Burger, 1992).

Of course such a simple sketch of the system we use to divide prehistory is bound to provoke objection. We might cite Lepenski Vir in Serbia (Boríc, 2002) as a site where permanent dwellings appear to pre-date the Neolithic revolution. Or one might show how metallurgy does not progress as a simple linear process from the smelting of simple ores to more complex ones before the introduction of alloying. Instead one could cite the available evidence that suggests a far more complex process of experimentation in early metallurgy (see Ottaway and Roberts, 2008: 206). Today archaeologists are quick to deny that the Three Age System dominates our interpretations of the past. Increasingly we escape the straightjacket of the system by studying themes such as 'the body' or 'settlement' rather than periods themselves (Brück, 2008a). Furthermore, with increasingly accurate and precise chronologies it is beginning to be possible to talk about change in a more fine-grained way. For example, Needham (1996) divided the Bronze Age into seven periods and has separated Beaker forms and deposition practices into three key phases (Needham, 2005). Furthermore, with Bayesian statistics the 'century level' of analysis may become increasingly common (Whittle et al., 2011). Despite all these developments it is my belief that the Three Age System still impacts upon some of the ways in which we think about, and divide the past. Roberts and Frieman (2012: 34) for example, point out the division between the separate worlds of Bronze Age and Neolithic scholarship caused by periodisation. Furthermore, focusing on the transition from the Late Neolithic into the Early Bronze Age, I believe we can see the effects of the notions of 'threshold transition' and

'revolution thinking' in much of our interpretation. In the rest of this chapter I will seek to illustrate the way we often polarise the Neolithic and Bronze Age periods, cleaving the two apart and inserting the Beaker period as a bridge between them.

Recently the desire to escape the Three Age System has resulted in much debate about the use of the term 'Chalcolithic' (Allen et al., 2012; Heath, 2012) (see also debates regarding terms such as, eneolithic, copper age, metal-using-Neolithic, Earlier Bronze Age and Bell Beaker (Roberts and Frieman, 2012: 278)). One suggestion is that the period 2450/2400-2200/2150 cal BC could be termed the Chalcolithic (Needham, 2012: 1) and as such separated from the Late Neolithic (approximately 3000-2450 cal BC) and the Early Bronze Age (approximately 2200-1500 cal BC). Whether the period should start with the arrival of Beaker vessels or metallurgy in Britain is unclear (Needham, 2012: 3-4). Indeed Roberts and Frieman (2012: 34-5) argue there is little evidence, in terms of metallurgy, of a copper age and certainly not one similar to that seen elsewhere in Europe. However, for Needham (2012) the changes in the archaeology of Britain from that observed in the Late Neolithic require a clear terminology and using the term Chalcolithic allows us to escape the Three Age System. Needham (2012: 5) argues that the 'Chalcolithic' should be used to label the period of interaction between Beaker and Grooved Ware potteries (and people). For Needham (2012: 5), the period is not so much defined by the arrival of copper but by the change in the "cultural landscape" as we do not see a "classic Early Bronze Age" (defined by bronze alloying, round mound burials, Food Vessels and Urns) but we do see clear difference from the Late Neolithic.

The issue of how the 'transition' between the Late Neolithic and Early Bronze Age impacts upon interpretations is one that numerous authors have debated. Bradley (2007: 91) is keen to highlight that the whole period 2500-2000 cal BC is laced with continuous change, noting that it is not possible to draw a line in the sand where the Bronze Age truly begins and there is a marked and notable moment of change. I argue, that as well as there being a notably changing archaeology from 2500-2000 cal BC, the periods 3000-2500 cal BC and 2000-1500 cal BC are also marked by constant change. Barrett (1994) suggests that the Earlier Bronze Age is one more version of a Neolithic lifestyle, for him prehistory can be cleaved in two around the Later Bronze Age when a more domesticated and settled form of life begins. Parker Pearson (1998: 77) strengthens this view by stressing the way that many practices such as monument building and subsistence remain the same both before and after the introduction of metallurgy. According to Brück (2008a: 23) similarities between the Early Bronze Age and the Late

Neolithic have led to a "Neolithicisation" of the Earlier Bronze Age, though which specific 'Neolithic interpretations' she means here is unclear.

For Brück (2008a: 24) the division between the Bronze Age and Neolithic is a valid one[4]: the raw materials needed for the production of bronze led to long distance connections on a new scale, where people and places far apart were connected in new ways. She suggests that this leads to new forms of social relations and cosmological concerns quite different to those of the Neolithic and indeed the Iron Age. Many authors would be quick to highlight the long distance connections evident in Late Neolithic archaeology to counter Brück's view (a point she herself does not deny); this is explored in Chapter 5. Roberts' (2008: 365) argument counters the view of Brück, he argues that the weight given to the innovation of bronze is far too great; suggesting that the way in which it is used to frame social change and transformation is unhelpful. Roberts (2008: 365) argues that bronze metallurgy as an 'innovation' is not as significant as the literature would suggest and instead is small scale and very gradual and thereby "...appears to lack serious revolutionary credentials when placed in the broader worlds of the fourth and third millennia BC". Roberts argues that the beginning of metallurgical traditions and use of metal objects *reflects* rather than alters the societies that existed in the Late Neolithic and Early Bronze Age. Roberts' work relies on very large scale analysis of the European Bronze Age as a whole and I suggest there is an issue of scale in these two differing arguments. At the larger scale, and in comparison to other innovations in other locations, bronze metallurgy may seem insignificant whereas at the more focused and local scale the impact appears to be significant.

In this thesis I choose not to use to the term Chalcolithic, believing that more periodisation is not what is required. Rather, I hope that an increasingly fine-grained approach to periods of time in 100-250 year blocks will become more common, so that, adopting new periods, with all their associated issues (see above), would seem counterproductive. In this chapter I refer to the Late Neolithic meaning 3000-2500 cal BC and the Beaker period referring to 2500-2250 cal BC and the Early Bronze Age as 2250-1500 cal BC marked by the deposition of Food Vessels. As will become clear in Chapter 3, the term 'Beaker period' is of little value when considering the prehistory of the Isle of Man, where only a single complete Beaker has ever been recovered. At present it is hard to identify any specific changes in the archaeology of the Isle of Man from around 2500 cal BC until the first deposition of Food Vessels that could constitute a

[4] But see, Carlin and Brück, 2012, for a different interpretation of the Irish evidence.

'Chalcolithic' (the exception to this are at least five finds of unalloyed copper material culture but none of these objects can be dated at present). Having presented a flavour of the debate regarding periodisation, and its impact on the archaeology of 3000-1500 cal BC, I now introduce the Late Neolithic archaeology of Britain and Ireland.

Late Neolithic

Secondary Neolithic Cultures

In 1954 Stuart Piggott identified five 'Secondary Neolithic cultures' from the Late Neolithic on the basis of differing assemblages of material culture. Several kinds of pottery, believed to date to the Late Neolithic, were known at this time and the question of how they related to each other was under debate. These five 'cultures', the Peterborough Ware culture, the Rinyo Clacton culture, the Sandhills culture, the Dorchester culture and the Ronaldsway culture were seen to equate roughly to ethnic groups in a culture historical schema where pots came to stand for people. The five different material assemblages are based on difference in the ceramic typologies over a substrate of lithic homogeneity (although this is not strictly speaking true for the Ronaldsway which has its own distinctive lithic assemblage (see Chapter 3)) (Thomas, 1996a: 144). With time and, further excavation, the identification of clearly defined 'cultural assemblages' with specific geographies was to fall apart so that Piggott's five Neolithic cultures are no longer broadly accepted (Thomas, 1996a: 145). Rather we see these as differing kinds of pottery, some with different purposes and chronologies. The exception to this, as discussed in detail in Chapter 3, is the Ronaldsway, where a distinctive material assemblage can be closely associated with a well define geographical region. The notion that there might be various communities within Britain and Ireland remains, however, these are certainly no longer considered to be 'cultures' in Piggott's sense.

Settlement evidence

The iconic images of Neolithic houses on Orkney and Shetland with their stone walls and furniture sit in stark contrast to the lack of known houses from elsewhere in Britain in the Neolithic and Early Bronze Age. Bradley (2007: 94) characterises Late Neolithic settlement as

“ephemeral and generally smaller oval and circular structures...more difficult to recognise than their predecessors [in the Early Neolithic]”. Smyth (2010) also characterises the Late Neolithic settlement evidence from Ireland as more ephemeral and scant than the earlier aspect. She notes that with the arrival of timber circles, Grooved Ware and expansion of ceremonial architecture in the Boyne Valley area there appears to be a concomitant reduction of strictly domestic architecture. The perceived lack of settlement evidence led Gibson (2003) to call for a more holistic approach to houses and settlement, asking that we look at a wider range of evidence with fewer preconceptions about what settlement might look like.

The most evocative evidence for Late Neolithic settlement comes from the Scottish Isles where domestic and ritual architecture are seen to almost mirror each other. The stone-built houses of Skara Brae appear externally circular with an internal cruciform layout and stone furniture (Figure 2-1 and Figure 2-2). Skara Brae is not the only Neolithic settlement site on Orkney; there are also the sites of Rinyo, the Links of Notland, Barnhouse and Pool (Jones, 2001; Richards, 2005). Some of these sites feature larger buildings amongst the ‘normal’ structures (Barclay, 1996: 74) evoking questions about leaders or shared community space. The buildings of Skara Brae show signs of re-building and refurbishment over time with changes in layout. Central fires at Skara Brae and Barnhouse, combined with the layout of paving within these buildings, appear to guide movement and activity in a concentric manner to focus on the fires (Barclay, 1996: 67-9). The islands of Shetland and Orkney offer a unique insight into Neolithic life with their ritual and domestic evidence, however care must be exercised when inferring what other Scottish and British Neolithics might have been like (Barclay, 1996: 61).

Figure 2-1: Skara Brae, Orkney. View over the village

Figure 2-2: Skara Brae, Orkney. View of a complete house unit (taken with a fisheye lens).

Houses such as those on Orkney were, until relatively recently, seen as unique. However the discovery by the *Stonehenge Riverside Project* of houses within the Durrington Walls henge has changed this (Figure 2-3). Houses at Durrington Walls appear as copies of the Orcadian houses except they are constructed in chalk and wood and date to around 2500 BC (Thomas, 2010: 5). These structures exhibit the same ordering of space with potential wooden 'dressers' and 'box beds' similar to the stone versions on Orkney and the layout and ordering of space mirroring that of the Later Orcadian houses (Smyth, 2010: 23). The known Durrington Walls houses may be part of a larger settlement. Both Smyth (2010) and Thomas (2010) postulate a symbolic

connection between Orkney and Durrington Walls, with Thomas suggesting that houses at Wyke Down in Dorset and Trelystan and Upper Ninepence in Wales are similar Grooved Ware houses (Thomas 2010:5). The similarity between houses in these two areas is explored more thoroughly below.

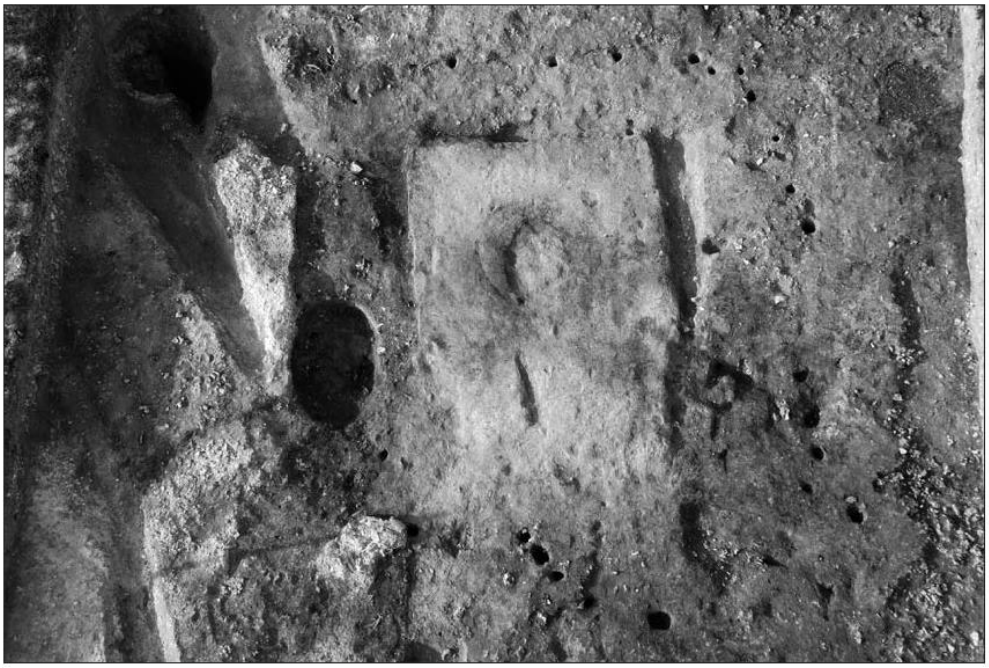


Figure 2-3 : House at the eastern Entrance to Durrington Walls (from Thomas, 2010: 10, fig 6)

Burial

The characterisation of the Neolithic as a period of communal endeavour and construction is often suggested to be supported by the burial record. In the past one might have typified Neolithic burial by suggesting that it is about the multiple: multiple bodies in one site, multiple uses of the site. As Gibson (2007: 49) highlights the "…enduring 'Neolithic = multiple, Bronze Age = individual'" dichotomy can no longer be upheld. As Fowler and Scarre (forthcoming) suggest, mortuary practice is diverse: bodies are buried alone or in groups, simultaneously or successively, they may be unburnt or cremated, they may be defleshed or disarticulated and the places they are buried may become sites of elaboration or they may just melt into the landscape. The known burials from the Neolithic in Britain and Ireland indicate that much of the population must not have received a burial monument. Options for their remains would include cremation and dispersal, exposure and deposition into water. This leads Fowler and Scarre (forthcoming, and see also Fowler, 2010) to suggest that we need to reflect on why some people were actually buried or placed in tombs. Fowler (2010) suggests that some Early

Neolithic burials may well have occurred as a means to deal with 'difficult' deaths such as those of women in labour, young children or as a result of violence, and this is supported by some pathological and osteological assessments (see for example Shulting and Wysocki, 2005).

There is a 500 year gap between the end of long barrow construction and the first Beaker burials in Britain (Gibson, 2007: 49). However, in Ireland the construction of passage graves continued in the Late Neolithic and deposits of cremations within these sites are common as well as continuing activity at sites such as Newgrange, Knowth and Dowth. Similarly, in Orkney the construction of passage tombs continues. During this period burial practices are somewhat mixed. Stonehenge is, at present, the largest known burial site for the third millennium BC (Parker Pearson, et al., 2009). A number of similar sites are also highlighted by the authors including Duggleby Howe, West Stow and Dorchester where cremation deposits were generally placed in secondary relationships within pit-circle monuments (Parker Pearson et al., 2009: 34-5). As with Stonehenge, the pit-circle monuments are suggested to be the first phase in a lengthy set of funerary rituals. The emerging image of burial in the Late Neolithic is a mixed one; cremations, potentially of multiple persons mixed together, appear common at significant sites and within the landscape; in Orkney and Ireland the use of passage graves continues. The use of long barrows and other communal burial sites in the majority of Britain declines and the Earlier Neolithic practice of burial under a barrow also appears to cease until the first Beaker burials emerge (Bradley, 2007: 89).

Pits and deposition

Burials are not the only things placed within pits dug into the earth. The notion of structured deposition developed from the contrast between Iron Age midden deposits and pit deposits that were being uncovered in Neolithic contexts (for a review of the concept see Garrow, 2012). Whilst an Iron Age midden contains all sorts of mixed material, some Neolithic pits appear to contain material which has been formally deposited in a repeated and ritualised manner to a prescribed set of rules (a structured deposit). Richards and Thomas (1984) developed the idea of structured deposition as a result of observing deposits in the Wessex region where certain objects frequently occurred together and certain deposits of objects appeared to prohibit the deposition of a different class of object. As Garrow (2007: 13) demonstrates these deposits often appear to be made up of material in a charcoal matrix

indicating that the material may have been re-deposited from a midden elsewhere. One example of structured deposition comes from Maumbury Rings, a henge in southeast England that has produced two radiocarbon dates of c. 2466 and 2459 BC (Thomas, 1996a: 195). At Maumbury there is a ring of 10m deep shafts within an embanked enclosure with a single entrance (Bradley, 2000: 126). There appears to be a structured process by which the deposits were placed in the shafts with pottery typically occurring at the base, carved chalk objects in the middle and human skulls deposited near to the tops of the shafts. Stratigraphically there appear to be multiple deposition events, however radiocarbon dating may be interpreted to suggest all the deposits are of a similar date; what we appear to be observing here is a number of deposits over a relatively short time span. The archaeology would allow both a sequence where each shaft was filled in quick succession, within a day, for example and a sequence where all of the shafts received one deposit and then received additional deposits at a later date.

The idea that certain kinds of material culture might be deposited in a certain manner is one expanded on by Thomas (1996a). Thomas suggests that in the Late Neolithic we can observe the "strategic manipulation" of material culture (1996a: 149). Thomas studied the kinds of material culture that were deposited at henges, in burials and in pits associated with Grooved Ware and Peterborough Ware. His study reveals that there are certain contexts where only certain objects appear to have been appropriate. Peterborough Ware, for example, is never deposited at henges and one would expect to find maces in burials and Peterborough Ware pits but not at henges or in Grooved Ware pits (Thomas, 1996a: 167)[5]. The picture that emerges is one where there are certain rules that govern what is, and is not, appropriate practice with various kinds of Late Neolithic material culture. Thomas fails to detail from which sites his data set was constructed which leaves questions about the interpretation.

In a recent article in *Archaeological Dialogues* Garrow (2012) (see also replies from, Berggren (2012); Chapman, (2012); Fontijn, (2012); Hansen (2012); Thomas, (2012)) has both reviewed and critiqued the concept of structured deposition. Garrow (2012: 105) identifies what he sees as three main issues in the use of the term structured deposition. Firstly, he suggests there is a tendency to group together several kinds of different deposits under the single banner of structured deposition. Secondly, where patterning in deposition is identified he suggests there is a tendency to assign enhanced meaningfulness to it. Finally, he suggests that there is a

[5] This could however be a chronological issue.

tendency to place interpretative emphasis on 'material culture patterning'. The commentary on the history of the term is thoughtful and detailed but the article is clearly meant as a call to re-consider much of what has been termed 'structured deposition' as potentially quotidian behaviour. In the paper Garrow appears to set up an opposition between what he terms 'material culture patterning' and 'odd deposits' in order that he might separate instances where genuine patterns of deposition can be identified and those instances where unusual deposits have been found. As Thomas (2012: 124-5) argues in his reply, what then emerges is an opposition between the mundane, everyday and meaningless and the ritual, unusual and meaningful deposit. I argue (as does Thomas) that this division is not one that can be upheld in reality. Action may well be everyday and mundane but that does not make it meaningless. In this thesis I do not use the term structured deposition but I certainly consider the significance of what is being deposited in the earth (see Chapter 7). Both 'everyday' and 'ritual' deposits have much to tell us.

Material Culture

Turning our focus onto the material culture of the Late Neolithic itself, Bradley and Edmonds (1993: 185) contrast the lithic assemblage of the Earlier Neolithic with that of the Later Neolithic, highlighting the way in which the Earlier assemblage seems to emphasise lightweight, multi-purpose tools. The Late Neolithic assemblage, in comparison, seems more elaborate and to have received more careful treatment during production with an emphasis on the use of distinctive raw materials, with polishing and flaking used to highlight the raw material from which lithics were made. The polished stone axe is one of the most arresting objects of the Neolithic period. The production of polished stone axes began in the Early Neolithic (Bradley and Edmonds 1993) and their long distance circulation around Britain is believed to have begun as early as 3725-3635 cal BC (Bayliss, et al., 2011a: 794)[6]. Excavations at stone axes quarries at Great Langdale (Bradley and Edmonds 1993), revealed that material for polished axes was mined in often the most inaccessible parts of the outcrop (Bradley, 2000: 85). Indeed, it appears that the locations from which polished stone axes were mined seem to be isolated from the everyday spheres of life, such as the offshore stone mine of Rathlin Island, on the Ulster Coast where the site is inaccessible on days when the sea is rough (Bradley, 2000:

[6] This particular exchange network is believed to have declined around 3540-3460 cal BC (Bayliss, et al., 2011a: 794) with further exchange networks growing in the Late Neolithic (see, Bradley and Edmonds 1993).

87). This has led to interpretations that focus on the axes as 'pieces of places' (Bradley, 2000: 88). The subject of stone axes and materials in the Late Neolithic is considered in Chapter 5.

Bradley (1984: 48) identified twenty-four items of Late Neolithic material culture which were unique and 'special' including polished stone axes as well as jet belt sliders, maceheads, chalk drums, carved stone balls and specific forms of arrowhead. This range of prehistoric material culture with an emphasis on form and materials has come to be associated with the idea of a rising class of elites who used access to this material culture as a form of social exclusion. Such ideas build on the arguments for competing chiefdoms, in regions such as Wessex presented by Renfrew (1973a; 1973b). These were the kinds of items that may have leant prestige to their owners conferring power and respect. Barrett (1994: 29) has suggested that the construction of henges created opportunities for chiefs and leaders to emerge. These leaders were people with access to the inner circle of the henges whose oratory and organisational skills would allow them to attract a band of followers who would be gathered on the bank of the henge, excluded from, but able to see the action. It is these kinds of leaders that the Late Neolithic material culture has become associated with.

Interpreting Late Neolithic lives

> "The switch from the age of stone to the age of metal has traditionally been seen as a transition in terms of technological innovation, economic readjustment, and changing social relationships between people. Many Neolithic monuments have been interpreted as large-scale communal projects concerned with venerating the ancestors. In contrast, the funerary monuments of the Early Bronze Age are characterised by single articulated burials..."
>
> Watson, 2001: 213

As Watson explains, in general, the Neolithic period has often been characterised as a period where the 'communal' was emphasised (see also Jones, 2008). During the Neolithic period we see the first monumentalisation of the British landscape (Cummings, 2008). Cursuses, causewayed enclosures and barrows are all seen as evidence of mass communal projects where large amounts of labour are brought together to build not only the earthen monuments we can see today but also a community. Such monuments, and the deposits of human remains they may contain, have been interpreted as a denial of the individual and, instead, an

emphasis on the community that built the monument (for example Thomas, 2002). This emphasis on community is contrasted with the individual burials of 'Beaker Folk': single burials accompanied by often numerous grave goods. Beaker burials are seen to emphasise people as individuals rather than the communities of which they were a part. The society to which these Early Bronze Age people belonged is traditionally interpreted as "...becoming inreasingly hierarachical with an emphasis on… social differentiation" (Watson, 2001: 213).

Many of the arguments concerning the shift from communal to single burials, have their roots in interpretations offered by Renfrew. In *Before Civilisation* (1973a) Renfrew suggested that long barrows and chambered tombs of the Neolithic were a means by which a segmentary society was able to make land claims in the Earlier Neolithic. As agriculture spread it was necessary for groups to stake a claim on 'their land' and they did this by burying generations of their ancestors within the landscape. Renfrew went on to suggest that these segmentary societies began to form chiefdoms with ever increasing hierarchies through the Neolithic. Individual chiefs eventually became more powerful and were to abandon communal burial and adopt the single burials of the Early Bronze Age as an expression of their own prestige and power (Renfrew 1973b: 654). Renfrew's interpretation of the Neolithic rests on its connection to agriculture and his interpretation of the Bronze Age rests on the introduction of bronze metallurgy. Renfrew's ideas are built on a far less detailed chronology than we enjoy today – as a result they are easily questioned today. There are many problems with this argument, for now I wish to highlight the way in which the adoption of metallurgy is seen to divide the two burial practices from each other: the Neolithic is about communal burial and the Bronze Age about prestigious elites. The typological scheme becomes the prime explanation for wider economic, monumental, burial and social changes that I argue are made starker than they really are. As discussed earlier, such ideas are being increasingly questioned as sites are re-evaluated and better chronolgies created.

Thomas' (1996a) stand opposed to such interpretation of the Late Neolithic suggesting they are predicated on Late Neolithic societies being unitary and hierarchical: something he disputes. Thomas begins to deconstruct these interpretations by focusing on the raw materials from which the prestige goods were made, such as stone and jet (Thomas, 1996a: 150). Thomas (1996a) and Bradley (2000) note the way in which production processes are seen to highlight the very nature of the material from which the objects are made. Bradley (2000) comes to an interpretation where the importance of the material culture rests on its ability to

connect people, places and things. Citing the way that objects are deposited in pits in specific combinations, as well as at sites such as the Maumbury Rings, Bradley (2000: 131) suggests that material culture was used in specific symbolically charged ways. Bradley goes on to cite the ways in which human bones circulated and parts of Grooved Ware pots were ground up to be included in other Grooved Ware vessels as a means of referencing and invoking other places, people and things through a structured and strategic "manipulation" (Thomas, 1996a: 149) of material culture.

Thomas' analysis explains how it is that these objects come to be powerful. The objects are "embedded" within systems and contexts where their use at in specific rituals or places, combined with their origins, gave the objects, places and rituals power (Thomas, 1996a: 151). What emerges is a matrix of networked practices that can be manipulated socially. Rather than a unitary hierarchy, Thomas' Late Neolithic society is heterogeneous and made up of varied and overlapping sources of power (Thomas, 1996a: 178). This kind of explanation fits better with the evidence of the Late Neolithic. There are clear associations of material culture at play during the period, such as carved stone balls and chalk phalli, and these classes of material culture have geographically limited distributions. Some of these objects appear to be very local but others appear to have a far wider geographical appeal. They all hold in common a high level of craftsmanship that seeks to emphasise the material from which the objects were made. These objects appear to reference each other and other places.

Considering Grooved Ware designs, reconsidering the Five Secondary Neolithic Cultures

The notion of a network of connected places is one that has risen to the fore recently following work on the *Stonehenge Riverside Project*. The connection between designs used in the Boyne Valley, the Orkney Isles and on Grooved Ware pottery (as well as other forms of material culture) has long been established, but the discovery of similar art and structures in Wessex, as discussed above, has led to a reconsideration of the level of connectedness of Late Neolithic society. The Boyne Valley in Ireland is home to numerous passage tombs including Newgrange, Knowth and Dowth (Figure 2-4). In passage tombs a restricted and cramped passage within a mound gives way to a central chamber, often of surprisingly large dimensions, featuring a corbelled ceiling (Bradley, 2007: 98). Like henges, these tombs appear to be aligned on various

solar events (the light-box at Newgrange illuminates the inner chamber on midwinter solstice). The tombs are perhaps most famous for their intricate and entrancing art.

Figure 2-4: Newgrange, Ireland. Lower image showing detail of rock art at the entrance to the passage grave.

The designs from these tombs are then translated into the domestic context in Orkney, at sites such as Skara Brae and Barnhouse by 3100 cal BC (Figure 2-1 and Figure 2-2) where they appear on ceramics deposited throughout the houses and on doors (Thomas, 2010: 6). Not all the designs from passage tomb art appear on Grooved Ware pottery and Thomas highlights that this translation of motif from passage tomb to domestic pottery is likely to have involved a translation of meaning.

These same designs appeared on Grooved Ware used in southeastern English contexts (Figure 2-5) and on the walls of houses discovered in the Durrington Walls henge. There may be as much as a half millennium separating the use of Grooved Ware in southeast England and their first use in the Irish passage tombs (Thomas, 2010: 7). Linking together these differing contexts and far flung places Thomas draws on Anderson's (2006) concept of an 'Imagined Community' where people separated geographically (and indeed through time) come to see themselves as part of a community, even though they may have never met, by carrying out the same cultural practices, be that eating foods, wearing a specific form of clothes or carrying out a ritual. As Thomas (2010: 12) explains, "…the Grooved Ware 'community' extended across space and time...The Grooved Ware assemblage... provided the apparatus through which a particular kind of community could be constituted in performance". In this interpretation Grooved Ware emerges not as one of Piggott's five cultures but rather as a kind of common design binding different people in divergent ways.

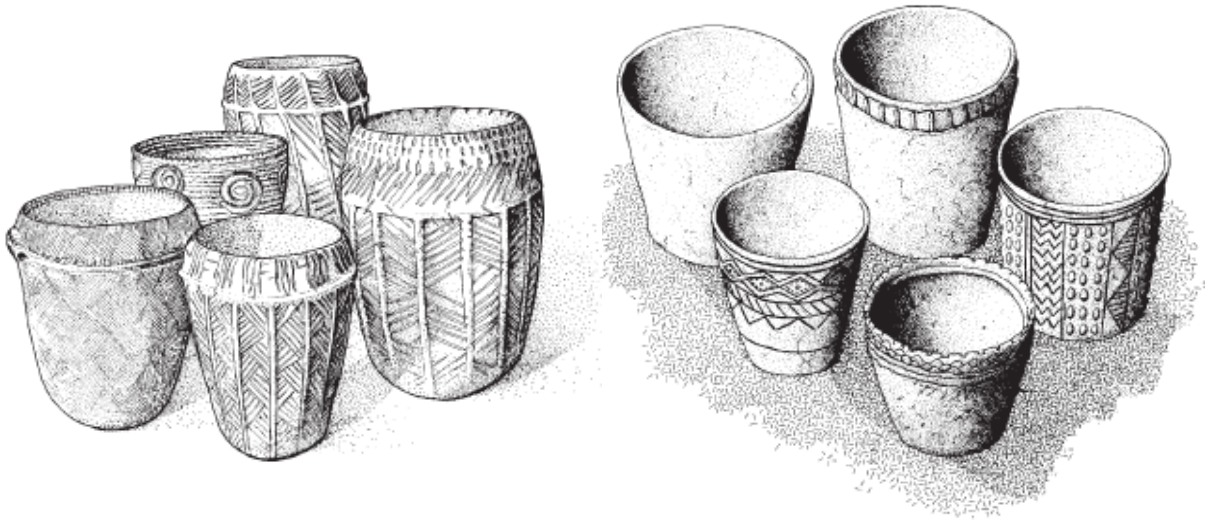


Figure 2-5: Grooved Ware from Orkney (left) and Durrington Walls (right). Image taken from Thomas (2010), figures 1 and 2

Thomas' idea has much merit. It is important to note that not only are these designs being translated across space but they are also changing through time. Their meaning in Ireland was not the same as their meaning in Orkney but there is a commonality of design that requires acknowledgement and Thomas' ideas do this effectively. We should not expect houses in Orkney and Durrington Walls to be exactly the same nor for there to be a Newgrange in Wessex, time and space separate the examples, but there are clear similarities of form, design and a concern for celestial alignments. The beliefs, ideas and reasons for the sites would not

have been identical but there is a clear commonality between them similar to that identified for henges by Harding (1995).

At the start of the chapter I discussed Brück's (2008a) belief that the exchange systems of the Late Neolithic contrast with those of the Earlier Bronze Age. For her, Late Neolithic exchange systems are insular and relatively isolated. Yet Neolithic henges exhibit a similarity of form across Britain over numerous centuries (and a form that continues and changes through the Early Bronze Age); there are connections in pottery and art between Ireland, Orkney and Wessex as well as other locations and polished stone axes moved from the places of their origin to deposition sites hundreds of miles away, a movement that appears to be predicated on a knowledge of where it is these axes have come from. To me, this seems a well networked period on many levels. Indeed, Needham (2005: 177) argues that it was existing routes for the exchange of Grand Pressigny flint that allowed the spread of Early Beaker culture through France and the Rhinelands. One presumes that Brück feels the Early Bronze Age is more connected because of its links to continental Europe through the movement of Beaker pottery and the arrival of metallurgy in Britain and Ireland. For me, the movement of designs from the Boyne Valley mortuary art, their translations to pottery and then movement across Britain forms part of an intriguing and large network. The sea journey between Wessex and Brittany, thought to be one of the key continental connection points for the beginning of the Bronze Age (see Needham, 2000), is far shorter and less hazardous than the journey from the Boyne Valley to Orkney. There are clear systems of exchange, movement of ideas and spheres of power that impact upon the development of Late Neolithic communities. These are communities where leaders emerge (and equally fade away) and into which Early Bronze Age metal objects can be easily absorbed. Networks of connections and exchange existed before and after the beginning of bronze metallurgy, though their nature and direction was always changing.

Beakers in Britain

The Beaker period is typically associated with single inhumation burials accompanied by a range of grave goods and at least one Beaker vessel (Thomas, 1991: 34). These iconic pottery vessels are found across Europe and in culture historical modes of interpretation have come to

stand for a group of people who migrated to Britain from the continent bringing a knowledge of copper and gold metallurgy (see for example, Childe, 1958: 144).

The Amesbury Archer and the Boscombe Bowmen – men on the cusp of two worlds?

The so-called 'Amesbury Archer' is one of those rare 'individuals' that emerges from prehistory alongside the likes of Ötzi the Iceman. These individuals attract interpretation as prehistorians clamour to present the public with the life of a person from the past rather than the usual tapestry of varied evidence (for example Hodder, 2000; Meskell, 1998). The Amesbury Archer was found 5km to the southeast of Stonehenge on Boscombe Down with over 100 associated finds and dates to c.2350-2260 cal BC (Fitzpatrick, 2011; Fitzpatrick, 2002: 630). The 35-50 year old male was found in a timber chamber buried in a flexed position with finds including three Beakers, three copper knives, a cache of flint, a wristguard, a bone pin, two gold 'basket earrings', a shale belt-ring and a cushion stone (presumed to be for working gold). This single burial, typifies much of the characterisation of the Beaker period : the deceased is viewed as a rich and prestigious man, a potential leader. Fitzpatrick (2002: 630) initially identified the archer burial as evidence for a ranked chiefly society associated with Stonehenge as proposed by Parker Pearson and Ramilisoniana (1998: 322-3). Fitzpatrick (2011) has more recently suggested the Amesbury Archer may be a metalworker.

The weight given to the Amesbury Archer in interpreting the beginning of the Bronze Age has increased as isotopic analysis has been interpreted to suggest that he was not local to Britain but had been born in Central Europe (Fitzpatrick, 2011; Evans et al., 2006: 312). The grave goods that accompany the burial suggest contact with, or travel to, far flung places (Needham, 2008: 322). The copper for the knives came from continental Europe; one wrist-guard may be continental but the second was probably from south-west Wales; the gold 'basket earrings' are of a British/Irish style but the gold may also be from the continent (Fitzpatrick, 2011). This evidence, combined with the suggestion that he himself may have travelled across Europe, opens up debates on the nature of movement and migration during the Beaker period. The Amesbury Archer is not the only 'isotopic alien' (Needham, 2007) known from the Beaker period, there are also the Boscombe Bowmen (Evans et al., 2006); potential migrants to Ross Island from the Atlantic coast of mainland Europe (O'Brien, 2004: 558); and a number of Dutch

migrants with Dutch-style Beaker graves in Scotland, such as the Upper Largie burial in Kilmartin Glen (Sheridan, 2008: 63) (but see, Fokkens, 2012). These people all appear to have moved to various parts of Britain from other parts of Europe during the Beaker period.

The 'Boscombe Bowmen', dated to 24th century BC, are presented as a part of the Beaker migration narrative. The Boscombe burial is a multiple inhumation of seven people: three adult males, one sub-adult, two juveniles and a single cremated infant (Evans et al., 2006). Only one of these seven bodies was articulated and the remains were accompanied by fragments from seven Beakers and numerous arrowheads. Isotopic evidence suggests that the three adult males had been born elsewhere in Europe, rather than in Wessex itself. They appear to have moved away from where they were born when aged 9-13 years and arrived in Wessex at an unknown point in time (Evans et al., 2006: 315; Fitzpatrick, 2011). Interestingly, despite being upheld as evidence of dramatic change, the evidence of the Boscombe Bowmen actually question much of our interpretation of the Beaker period. Firstly, the remains are not individual burials with their own grave goods (like the Amesbury Archer and the vast majority of Beaker burials), the deposit consisted of mixed disarticulated remains, not at all unlike a Neolithic 'communal burial' and it appears the wooden chamber they were buried in was designed to be re-opened multiple times as additional burials were inserted. Secondly, the isotopes show that the other four bodies appear to have grown-up locally on the Wessex chalkland. Furthermore, other nearby burials such as Normanton Down and one from the ditch at Stonehenge, have also been subjected to isotopic analysis and radiocarbon dating: they appear to also be of local origin. These 'local' people receive little discussion compared to the 'isotoptic aliens'.

Turning to the isotopic evidence itself, it is not possible to identify exactly where the three non-local males grew up as they could be from any number of locations where there are granitic, early Palaeozoic or older rock groups (Evans et al,. 2006: 318). Such rocks can be found in Wales, Scotland, southeast Ireland, Portugal, the Massif Central in France, Brittany, or the Black Forest in Germany. Despite all these intricacies the paper specifically talks about the beginning of the Bronze Age as a period of marked change in prehistory where there are new grave goods, forms of burial and pottery types all associated with the arrival of metal from the continent associated with 'Beaker' people (Evans et al., 2006: 310). This position softened recently when Fitzpatrick (2011: 187) suggested Wales as the prefered homeland for the individuals.

Many of the big 'transitions' in archaeology are associated with the arrival and movement of new people. The British Mesolithic-Neolithic debate for example is dominated by the issue of how many people did, or did not, bring pottery and farming to Britain and Ireland (see for example Sheridan, 2010; Thomas, 2004a). The end of prehistory and beginning of the Romano-British period is associated with the arrival of the Romans. The British Empire reverses the situation where the arrival of the British in other countries causes marked changes both in those other countries and in Britain. Nowadays to talk of colonisation and the replacement of one culture with another in the British Empire or Roman periods is unusual, instead we talk about creolisation and hybridisation, acknowledging that local groups have as much impact on changes in the light of migrations and new arrivals as the newcomers themselves (Gosden, 2004; Van Dommelen 2006; 1998).

The transition to the Bronze Age seems to lag somewhat behind in theoretical debates. Childe (1958) suggested the spread of the Bronze Age metallurgy was caused by the movements of mobile metalworking smiths. Figure 2-6 shows recent work on the spread of metallurgy across Europe. In a recent synthesis of the large scale evidence for the beginning of bronze metallurgy Roberts (2008) suggests that metallurgy spread with apprenticeships, so even though we are likely to deny any kind of large scale migration of people at the beginning of the Bronze Age (and indeed, as we saw above, Roberts denies the "revolutionary credentials" of bronze metallurgy generally) we are still wedded to the importance of people moving and bringing new ideas. This is something that isotopic analysis of Early Bronze Age burials has only served to cement.

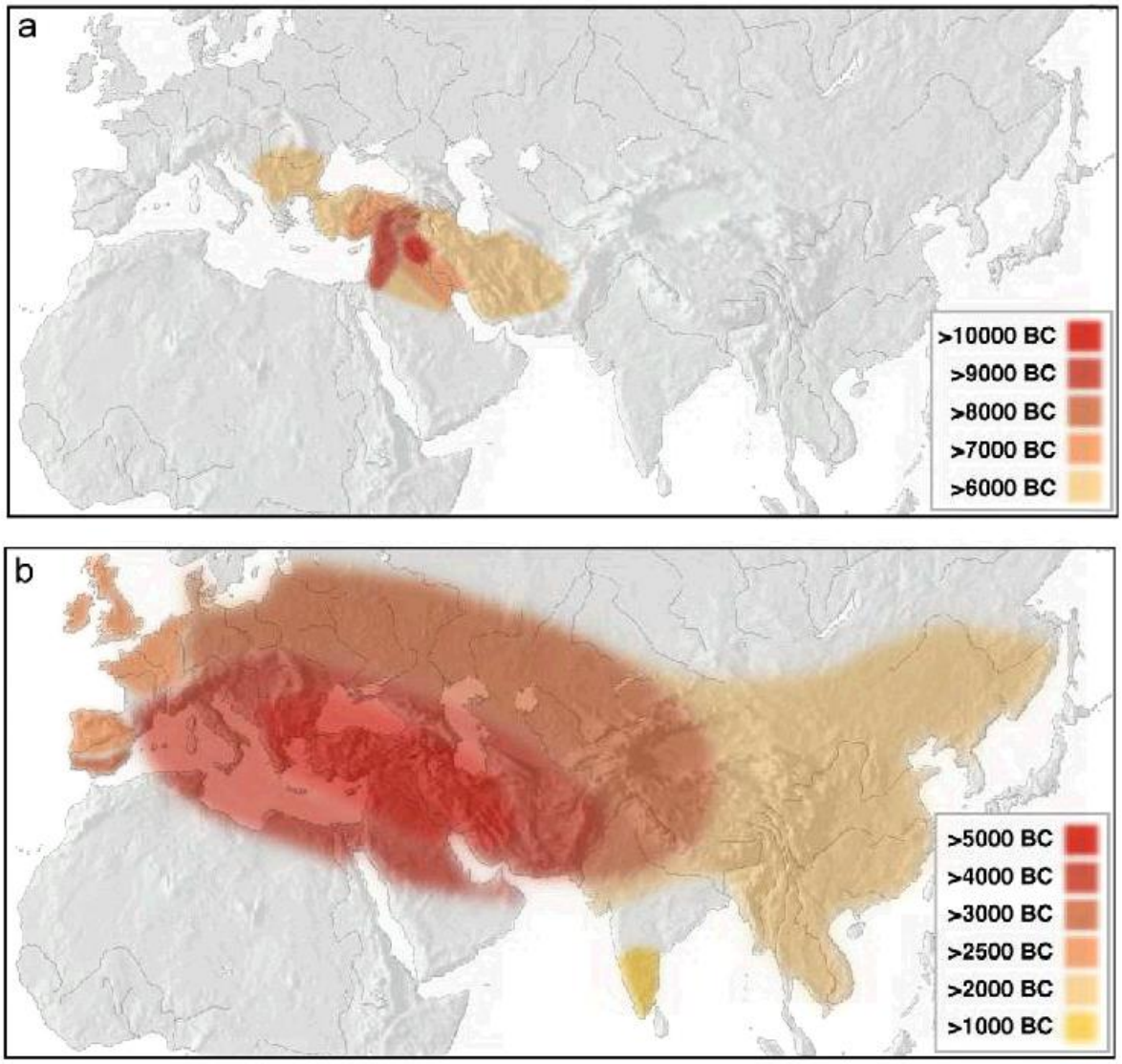


Figure 2-6: Spread of metallurgy across Europe. Image 'a' shows the exploitation of copper ores and naturally occurring copper metal. Image 'b' shows the spread of copper smelting technology. Taken from Roberts et al., 2009: 1014, Fig 1a and 1b.

Considering migration, understanding movement

Whilst Evans et al. (2006) do not comment on the scale of the migration associated with the period in their paper on the Boscombe Bowmen this is an issue that numerous others have sought to engage with (Brodie, 2001; 1997; Burgess and Shennan, 1976; Clarke, 1970; Needham 2007; 2005). Clarke (1970) suggested that the Beaker period was brought about by waves of continental Beaker-folk invading Britain. In the 1970s and 1980s there was a shift in approaches to migration as authors sought to consider the manner in which peoples indigenous to Britain adopted Beakers (Needham, 2007: 41). Burgess and Shennan (1976)

argued that the spread of the Beaker phenomenon is based on the appeal of the contents of Beakers themselves - which they suggest to have been hallucinogenic drugs or alcohol. Needham (2007: 41) identifies a return in current interpretation towards the importance of movement "...not a return to sweeping pan-European uniform migration processes, but a series of more nuanced approaches which take account of local cultural contexts". In my opinion, this recent shift is a product of the expansion of isotopic analysis. In these more nuanced recent interpretations (see Brodie, 2001; 1997; Vander Linden 2006) the patchy adoption of the Beaker phenomenon across Europe is contextualised through an emphasis on local adaptation of the phenomenon. As various authors 'zoom in' on specific data the broader narrative of the arrival of metallurgy is disrupted - local variations emerge that do not fit our overarching narrative. As we zoom further out, to take in more data and a larger geographical and chronological scale (see for example, Roberts, 2008) difference is masked and the picture becomes more homogenous.

There has been much work on the chronology of Beaker use in Britain (see, for example, Clarke 1970; Case 1977; Lanting and Van Der Waal 1972; Needham 2005; Sheridan 2007). Following Case (1977), Needham (2005) divides Beaker use in Britain into three broad phases between 2500-1700 cal BC. The first phase (2500-2250 cal BC) is marked by the arrival of Beakers where they are viewed as an exotic novelty; the second phase (2250-1950 cal BC) is a 'fission and fusion horizon' where there is interaction between existing populations and Beaker using populations resulting in new forms of Beaker design, different from those seen on the continent; finally (1950-1750 cal BC) Beakers fall out of fashion (Needham, 2005). During this final phase Beakers are appearing concominantly with Early Bronze Age pottery types such as Food Vessels. Needham suggests that graves which contain Beakers from this period are ones in which the mourners are reminising for the earlier fashion of Beaker burials. In these models people such as the Amesbury Archer and the Boscombe Bowmen are interpreted as belonging to the first phase. In modelling the uptake of Beakers in Britain Needham suggests that their success was due to the fact that 'Grooved Ware-using women' (i.e. Late Neolithic) married 'Beaker-using males'; this would result in the gradual decline of Grooved Ware according to Needham (2005: 43).

Brodie (2001; 1997) suggests that the expansion of Beakers across Europe was the result of movement, through marriage exchanges, of women with potting skills. This is an idea that Needham (2007) supports, and he gives a more detailed discussion of the mechanisms behind

it. Needham (2007: 41) argues for a three-staged expansion where Beaker-using-people initially came into contact with non-Beaker-users, then a pioneer phase when they might have settled together before a consolidation of relations would occur leading to a final stage where both cultures come to influence each other. This approach clearly seeks to acknowledge both existing populations and immigrant populations and gives agency to both groups in terms of shaping culture. However, it is predicated on a broadly culture-historical approach where different forms of pottery indicate different groups of people; the spread of pottery across Europe is the marker of migrations. Indeed, as Thomas (1996a: 149) comments with regard to the 'Rinyo-Clacton-using-people' of the Late Neolihtic, 'Beaker-using-people' is really only one step away from the 'Beaker-folk' of culture historical interpretations. The cause of the spread of the Beaker phenomenon is something that remains elusive in many interpretations with authors often citing the infamous 'allure of metals' and a desire for prestige goods as the explanation (for example Case 2004; Needham 2007; Thorpe and Richards, 1984). If we continue to adopt approaches that focus on migration, then when we seek a motivation for such movement, the allure of metals and prestige goods is likely to continue to dominate explanations.

The three phases of Beaker currency are described as "phases of meaning" (Needham, 2005: 171). The phrase aims to get away from the idea that Beakers are a "unified, steadily evolving entity" (Needham, 2005: 171) however I feel it reifies the notion that Beakers come to mean one thing to all people. There is certainly space in the argument for the meaning of Beakers to change and to be influenced by interactions with Grooved Ware users but it does not feel as though two or more different groups could use Beakers for completely differing reasons. Needham (2005) does not argue for mass migration but one certainly gets a feel of the movement of at least small communities of people rather than individual travellers (as per Sheridan, 2008). For example, phrases like "Beaker culture in Britain has insiduously inserted itself into broader culture" (Needham, 2005: 207) give the impression that either culture is completely separate from people or we are looking at a movement of people whose culture gradually replaces that of others. This is further supported by the use of the phrase 'indigenous people' throughout the text. Needham calls for the process of 'acculturation' to be understood in terms of marriage partners (following Brodie 2001; 1997). Needham (2005: 207) suggests that indigenous populations would have offered their women as wives to Beaker males in order to access metals and secure the benefits of Beaker culture. This explanation is not about the desire for metals causing the spread of Beakers, but rather, that the Grooved-Ware-users desired the knowledge, magic and metals of the Beaker-users (Needham, 2005: 207).

In Needham's explanation the desire for access to Beaker material culture and knowledge leads to the emulation of Beaker goods and the growth of marriage alliances. I find the argument unconvincing in places. Women appear pawn-like in marriage alliances orchestrated by communities to allow better access to Beakers. Needham discusses Brodie's (1997) argument that wives were traded outwards from the Beaker core he questions the notion on the basis that it does not account for the spread of the male burial rite and that it seems unlikely from ethnographic analogy that Beaker women would not have had their potting style influenced by the families into which they married (Needham, 2005: 208). The option of both males and females marrying into indigenous populations is not considered. Whilst it is more than possible the communities at the time were indeed highly androcentric, and that women were used as a means of establishing alliances via marriage, I see the evidence as slight. There is a clear male identity in death that recieves emphasis but that is not to say that there was not a strong female identity in life and/or death that fails to leave the same archaeological signature. Both Brodie (2001) and Needham (2005) use isotopic evidence (see, for example Price et al., 1998) from across Europe to suggest that *slightly* more females than males were migrants during the period. This slight difference is used by Brodie (2001) to argue for the movement of women between two clearly defined groups. Needham (2005: 208) offers futher potential explanations for the data, such as the movement of women within the defined Beaker network. More than the emphasis placed on the movement of women, the notion that there were two, so well defined, and clearly oppositional, groups is unconvincing. Parts of the argument rest on the notion that Beaker objects were desired because they fitted within existing power relations, but, if this were so, then the two groups were unlikely to remain so clearly demarcated nor were they likely to become as antagnoistic as appears to be suggested (see Needham, 2005: 208). For Needham, pots do not equal ethnic groups in a culture historical mode but they do appear to equate to cultural groups. This is still an invasion model where a peaceful intermarriage results in one 'culture' 'replacing' another.

The un-wavering and increasing desire for Beakers at the core of Needham's argument (2005) is seen in terms of an insatiable desire for Beaker culture and knowledge; changes in Beakers are a result of the indigenous people imitating the pottery, not of Beaker groups incorporating Grooved Ware and other designs into their own pots. This is a classic case of metallurgical innovation being made to bear the weight of explaining change. Furthermore, it is taken as a given that Beaker material culture and knowledge would have appealed to those who already

occupied positions of power, or sought to move into them. The appeal of Beakers, in Needham's (2005) text, is based on the allure of metals and the knowledge that comes with them, not, for example, on the practicality of the Beaker as a vessel for eating and drinking convivially. Thomas (1991), for example, argues that we need to approach Beaker deposition in graves differently by no longer seeing their "intrinsic value as goods to be competed for, or as badges of rank" (1991: 33). Thomas suggests that Beakers and other material culture, placed in specific locations in relation to the dead body invoke a certain reading of the body by those at the funeral. The place of mourners at the funeral does not appear to be considered by Needham.

Where Needham's (2005) argument has strength is in the way that it suggests change through time, and that change is not linear, evolutionary or gradual. As he states, "no longer are the various styles simply an incidental byproduct of virtually imperceptible preference changes over time" (Needham, 2005: 209). Needham's chronology for Beaker pots is excellent, based on a large and well considered corpus of vessels and radiocarbon dates. The evidence presented clearly indicates that there is an intial low density of Beaker forms followed by an increase in both diversity and deposition. In this thesis I use Needham's fusion-fission labels and his chronology for Beaker vessels. It is the interpretations that Needham offers for the emergence of, and changes to, Beaker material culture and practices, that I am unconviced by.

Sheridan offers a different way of considering the data: those early migrants such as the Boscombe Bowmen and the Amesbury archer were travellers and adventurers (Sheridan, 2008: 68). Her interpretation suggests that such individuals would have fascinating stories of lands far away and beautiful, unusual material cultures. Sheridan does not envisage large scale movement of people but rather contact with other people resulting in the adoption and then adaptation of Beakers. All these interpretations of the Beaker period rely on a rupture between the Neolithic and the Bronze Age and the movement of people (albeit on differing scales).

An alternative approach can be seen in the work of Gibson (2007). Gibson works from the premise that Beaker material culture and practices do not represent a significant break from the previous Late Neolithic traditions. Gibson disrupts many of the things we take to be typically Beaker by presenting evidence of inhumations, cremations, disarticulated and

articulated burials from the period. He cites the numerous examples of Beakers at chambered tombs (a phenomenon observed in both Britain and Ireland) as evidence that the Beaker period held many things in common with the Neolithic. Gibson's presentation and selection of the evidence disrupts many of the traditionally held views of the period, presenting continuities as well as changes and, furthermore, questioning any notion that the Beaker period in Britain was a unitary phenomenon, of single burials with rich grave goods which he dismisses as a "myth" (Gibson, 2007: 61). Sheridan (2008: 63) disputes this interpretation, calling for more evidence to be presented to support Gibson's views. The reality probably rests somewhere between the two explanations. There are both classic Beaker burials and local variations and continuities in burial practice. Perhaps the problem is that authors are wedded to the idea of two well defined groups with incompatible ideologies that led to rejection or replacement when the relatity may have been that exchange of ideas, people, material culture and beliefs moved in both directions creating something completely new and always local. Changes did not happen at the same time, nor in the same way, nor at the same pace in all places, hence the archaeological record is varied. Seeking a single explanation for individual experiences over several centuries on a Britain-wide scale is always going to be very difficult.

Ireland and Beakers

The debate over the significance or otherwise of the Beaker phenomenon in Britain stands in stark contrast to the situation in Ireland. The Beaker period is often presented as a necessary step towards 'becoming' Bronze Age. Needham, for example, comments that

> "There is little doubt that the initial intrusion of a culture born overseas eventually had a massive impact on indigenous culture giving rise to a historical trajectory that would otherwise have been radically different".
>
> Needham, 2005: 210

The arrival of Beakers in Britain is presented as one step that makes the historical trajectory (i.e. the Bronze Age) possible: without Beakers there would have been no bronze. In Ireland (and indeed the Isle of Man, see Chapter 3) however there is no clear 'Beaker period' and the role of Beaker material culture is different. Ireland is well networked in the Late Neolithic and appears to be well connected to Continental Europe and Britain due to its location along Atlantic seaways, yet the "...Irish manifestation of the Beaker phenomenon remains unlike that from most other parts of Europe" (Carlin, 2012: 299). In Ireland there are very few examples of

Beaker burials and the majority of Beaker pottery has been found in domestic contexts (Cooney and Grogan, 1999; O'Brien, 2007). Carlin (2012: 212-223) argues that Beaker deposition in Ireland peaks around 2400-2200 cal BC. Ireland does have single inhumation burials with grave goods, but these graves normally contain an Irish Food Vessel bowl and began to be deposited around 2160 cal BC (Brindley, 2006: 250-65). As Food Vessels began to be deposited Beaker deposition in Ireland declined, whereas Beaker deposition in Britain continued to increase (see Needham, 2005). There is little evidence, comparable to that seen in Britain, for a pioneer Beaker period in Ireland.

In Britain Beaker finds outside of mortuary sites are somewhat rare (but see Allen, 2005) whereas in Ireland Beaker pottery is normally found outside of funerary sites. The site of Ross Island is thought to be the source for the majority of the Early Bronze Age copper in Britain (O'Brien 2007; 2004) (the site is discussed in greater detail in Chapter 5). At this site Beaker pottery is found together with evidence of ore extraction and processing and potential hut structures (this is disputed by Carlin, 2012: 75-6). The ores extracted from Ross Island have been clearly associated with the earliest copper and bronze material culture known in Ireland and much of Britain (for a recent summary see Bray, 2012: 60). Mining and metallurgy in Ireland are not an independent invention (O'Brien, 2004: 3); there is a movement of people to Ireland who bring the knowledge and skills to prospect for tin and copper and make bronze. The metalworking tradition in Ireland boasts a clear insularity; there is influence from Britain and elsewhere, however there is also local experimentation and competence evident in the metalwork associated with Ross Island and early metallurgy (O'Brien, 2004: 3-4). Beaker pottery in Ireland was associated with the earliest metal extraction and working but not with single inhumation. Without the Beaker burial tradition to consider in their interpretations authors such as Cooney and Grogan (1999) and O'Brien (2007; 2004) are keen to highlight the ways in which the Late Neolithic offered a pre-adaptation for bronze.

> "The reasons underlying the successful introduction of metallurgy were not only technological, but also socio-cultural. The later Neolithic (c. 3300-2500 BC) in Ireland was an important period of pre-adaptation, when material –conscious societies with complex social organisation emerged in many parts of Ireland. Polities, such as the Boyne Valley culture, created a demand for high quality artefacts for use in social transactions and specifically as cult objects and ritual offerings. While it is true that the prestige value of copper contributed to the spread of metallurgy in Neolithic Europe, the case of Ireland illustrates how this was not an inevitable development. Despite the sophistication and far-flung contacts of this Boyne group,

there is no firm indication that this or any other Neolithic society in Ireland, had come into contact with metal prior to 2500 BC. This contrasts with many parts of western Europe where metal objects were circulating and, in many instances, were being produced in contemporary Chalcolithic societies."

O'Brien, 2004: 3

O'Brien (2007: 27) suggests that social organisation and society do not change much with the arrival of metal technology in Ireland. Cooney and Grogan (1999: 90-1) even go as far as to suggest that the lack of Beaker burial in Ireland is not surprising as people in the Late Neolithic already had means through which to express social status and prestige. They argue that rather than assuming that Beaker material culture represents the arrival of new people we should instead suggest that the material culture package spread along pre-existing networks of trade and contact between elites (Cooney and Grogan, 1999: 83-4).

Carlin and Brück (2012) also highlight the continuity between the Late Neolithic and the Early Bronze Age. For example they highlight the similarities between both pits and occupation spreads containing Grooved Ware and other material culture and similar pits and spreads that contain Beaker sherds (Carlin and Brück, 2012: 196). Furthermore, they note that Food Vessel sherds are also associated with pits and spreads though the other material culture included is more restricted. Considering the burial evidence they suggest a continuity of practices between Wedge Tomb burials and the burial of people associated with Beaker sherds at monumental contexts, seeing both as part of a concern with older megalithic forms (Carlin and Brück, 2012: 196-7). At Newgrange this continuity is also evidenced as the site received depositions of both Grooved Ware and Beaker pottery. For Carlin and Brück (2012: 204-5) the most significant change comes not with the adoption of metallurgy but rather with the adoption of Grooved Ware and decline of passage graves, which they suggest marks the end of centralised authority and an emergence of increasingly local identities. Carlin and Brück (2012: 204) argue, contrary to Cooney and Grogan (1999), that it is hard to recognise either a prestige goods economy or institutionalised elites due to the widespread distribution of Grooved Ware and Beaker pottery as well as the low number of grave goods. Overall they suggest that metallurgy had little impact, arguing that there is little evidence that metal causes any kind of "…hierarchical society in which individual status was attained by the competitive exchange and display of exotic goods" (Carlin and Brück, 2012: 205)

In Ireland the majority of Beaker-associated material culture such as bracers, v-perforated buttons, copper daggers, lunulae, sundiscs and other gold objects are found outside of funerary contexts (this is in contrast with Britain) (Carlin 2012). These objects appear to have had very clearly prescribed depositional traditions in "pits, spreads, old and new megaliths, disused timber circles, burnt mounds, caves and other natural places" (Carlin, 2012: 273) (note the similarity with the deposition of Late Neolithic objects in pits and megalithic sites). As Carlin highlights, these are the kinds of objects that would be termed 'prestige goods' associated with the inhumation of potential powerful elites in Britain. In Ireland, such objects are deposited in communal sites, pits or natural places and are hard to label 'personal possessions' but were part of ceremonial practices important to local communities (Carlin, 2012: 273-4). For Carlin (2012: 300) the adoption of some aspects of Beaker-associated material culture and rejection of Continental European and British Beaker burial practices is about being part of supra-regional networks and social relations. As such people living in Ireland at the time adopted aspects of these exotic objects but deployed them in local practices that fitted within existing cosmologies.

The interpretations of the Irish material are interesting when compared to the debate over Beakers in Britain. In both Britain and Ireland, in the Late Neolithic, social status and prestige are argued to have been expressed through highly crafted material culture and rituals taking places at sites like henges and passage graves. Yet in Britain this is argued to have caused the adoption of Beakers and 'Beaker culture' whereas in Ireland Beaker burials are rejected. As O'Brien (2004) highlights above, the case of Ireland serves to upset any notion that the Beaker period had an inevitability or that adoption of Beaker burial was a necessary step to set in motion the Early Bronze Age. Rather the situation in Ireland highlights that new material cultures are always adapted and understood locally.

It should be noted that Ireland is not alone in appearing to resist Beaker burial practices. For example in Cornwall there is arguably no 'pioneer' Beaker period with Beakers only being deposited after c.2200 BC (Jones, 2005; Jones and Quinnell, 2006). Equally there are few early Beaker burials in east-central Scotland (Curtis and Wilkin, 2012), an area where Food Vessels appear relatively early in conjunction with single burials. The Isle of Man, as discussed in Chapters 6 and 8 appears to fit within this pattern.

Early Bronze Age

"Interpretation of the Early Bronze Age has been dominated by a typological and chronological approach where variation in pottery or metal type or in burial practice has been seen as representing change over time."

Cooney and Grogan, 1999: 97

Cooney and Grogan's suggestion that research on the Early Bronze Age in Ireland focuses primarily on chronology and typology could equally be extended to the rest of Britain. Much ink has been spilt on understanding the chronology of the Bronze Age (see for example, Abercromby 1912; Brindley, 2006; Gerloff, 2007; Longworth 1984; Needham, 2005; 1996; Sheridan, 2004; Waddell 1976). Parker Pearson (1998: 77) dates the Early Bronze Age in Britain to 2600-1400 cal BC, such a dating would indicate that for Parker Pearson the Early Bronze Age begins before the first deposition of Beaker pottery. As discussed earlier, there has been much debate as to whether there is a 'Chalcolithic' in Britain. In my opinion, this reflects the lack of clarity over whether the Bronze Age begins with the end of Grooved Ware deposition, the first use of copper, the first use of bronze, or the beginning of barrow construction.

Brindley (2006: 1) dates the Irish Early Bronze Age to 2200-1500 cal BC, beginning with the deposition of Food Vessels. In this thesis I follow Brindley (2006) as this dating range seems most appropriate on the Isle of Man given the current evidence. There is little evidence for Beaker and Beaker-associated material culture deposition on the Isle of Man, limited evidence for any kind of Chalcolithic and the most marked change observable in the archaeology is the earliest deposition of Food Vessels (see Chapter 3). The evidence for the Early Bronze Age in Britain can be characterised through several different burials modes, including both cremations and inhumations, associated with pottery vessels and the discovery of various kinds of bronze metalwork primarily as chance finds, rather than in graves. The lack of settlement evidence, primacy of burial data, variety of ceramic types and the often undatable metal finds, in my opinion, have contributed to the dominance of typological and chronological studies of the Early Bronze Age. Prior to radiocarbon dating the pottery sequence for the Early Bronze Age was thought to shift gradually from Beakers to Food Vessels, to Collared, then Cordoned, then Encrusted urns (Parker Pearson, 1998). With the expanison of radiocarbon

dating these pottery types have been shown to be part of a chronological sequence where various kinds of pottery overlap with each other occurring concomitantly .

Metallurgy and bronze – a brief introduction

The alloying of tin and copper to make bronze defines the start of the Early Bronze Age for most archaeologists. Bronze was a new material, however experimentation with copper and other ores on continental Europe had a far longer history (Roberts et al., 2009). The networks of exchange that enabled the movement of polished stone axes (as well as other material culture, ideas and beliefs) during the Late Neolithic appear to have enabled the movement of tin ores, copper ores and metalwork (Cooney, 2000: 204; Needham, 2004: 235). There has been much debate about the nature and advent of the earliest metallurgy and mining for metallic ores in Britain and Ireland (see for example, Barrett and Needham, 1988; Bray and Pollard, 2012; Dutton and Fasham, 1994; Frieman, 2012; Northover, 1999; Northover et al., 2001; O'Brien, 2004; Timberlake, 2003a; 2003b; Wager, 2002). As discussed above, Ross Island (O'Brien, 2004) remains the main copper ore source for most of the earliest copper alloys known from Britain and Ireland at present.

As Needham (2012: 5) expresses, "the transition to bronze has traditionally been seen as a technological advance". However, as should be obvious from the earlier discussion of Beaker objects and the earliest metal objects in Britain, the more pertinent issue is arguably how metals were adapted and adopted into Late Neolithic ways of life and how they came to impact upon them. The earliest metal objects in Britain and Ireland are copper flat axes (Needham, 1996: 130), they mirror in form and (we presume) function the Late Neolithic polished stone axe, an object with a clear importance to communities throughout the Neolithic. Needham (2012: 5) suggests that the adoption of metal was a

> "…means of creating a new regional identity and ideological power base and... Such a model alters the significance of the metallurgical transition – social competition becomes as important a factor as any technological advantage. This new slant on the switch to bronze and the fact that it was broadly synchronous with other important social or ritual changes does make the 22nd century BC look like a major fulcrum of change."
>
> Needham, 2012: 5

Above, Needham is talking specifically about the Migdale-Marnoch tradition of metallurgy from Scotland however his remarks have wider relevance. As expressed earlier, in the quote from O'Brien (2004), there is a sense that metals 'fitted' within existing spheres of material and social relations. I discuss these issues in far more depth in Chapters 5 and 8.

Chronology – metals, pots and burials.

Needham's (2005; 1996) chronology for the British Bronze Age was built from a mixture of radiocarbon and dendrochronological dates and multiple strands of material evidence such as pottery and metalwork. Needham outlines a number of periods within the Bronze Age each of which is associated with a material culture assemblage (including a specific range of metalwork refered to as "metalwork assemblages") and a series of burial practices. This gives the impression that there were a number of moments during which typological changes occured in the Early Bronze Age followed by periods of stasis; this is something that Needham (1996: 123) firmly denies. This periodisation also has the effect of implying that changes in material form are the same as changes over time. Equally, however, the relatively fine chronological resolution for the Early Bronze Age allows us to consider change in a detailed way.

Needham divides the Chalcolithic and Early Bronze Age into 4 main phases. The first phase dates to 2500-2300 cal BC. This period is marked by the earliest introduction of metal to Britain and the very earliest Beaker graves; however in terms of cultural practices most Late Neolithic traditions such as the building of henges and linear monuments continue (Needham, 1996: 126). In phase II (2300-2050 cal BC) Beakers were deposited in graves in Britain and Food Vessels in Ireland (Needham, 1996: 127-8). Furthermore it is during phase II that the transition from smelting copper to smelting and alloying a tin bronze occured and the period is associated with the earliest flat axes and halberds (Needham, 1996: 130). During phase III (2050-1700 cal BC) there was a diversification of pottery forms and developed flat axes replaced flat axes in metalwork assemblages. In phase IV (1700-1500 cal BC) the diversification in pottery forms continued with the deposition of inverted Cordoned and Collared urns over cremated remains (Needham, 1996: 132-3). The phase is also marked by a proliferation of metalwork forms. Alongside this chronology for the Bronze Age generally, one should also consider his more recent chronology for Beakers (Needham, 2005) (discussed above) (Table 2.1). These periods do not match exactly to the division of the Early Bronze Age given here.

Needham's 2005 paper certainly contains more accurate dates for Beaker deposition in Britain however it fails to consider other practices, such as the deposition of other kinds of pottery and other types of burial practice, at the time that are equally as important in understanding the Early Bronze Age. I have retained the use of the 1996 chronology (in conjunction with Brindley's (2006) chronology (discussed below)) in this thesis.

Needham 2005	**Period Characterisation**	**Needham 1996**	**Period Characterisation**
Phase I 2500-2250 cal BC	Beaker as circumscribed, exclusive culture	Phase I 2500-2300 cal BC	Earliest metalwork and Beaker graves
Phase II 2250-1950 cal BC	Beaker as instituted culture	Phase II 2300-2050 cal BC	Earliest Food Vessels and increase in Beaker graves. Smelting and alloying of tin bronze
Phase III 1950-1750 cal BC	Beaker as past reference	Phase III 2050-1700 cal BC	Diversification of pottery types. Developed flat axes.
		Phase IV 1700-1500 cal BC	Continued diversification of pottery forms including Cordoned and Collared Urns. Proliferation of metal forms.

Table 2.1: Table to contrast chronologies provided in articles by Stuart Needham (2005; 1996)

The most recent consideration of the chronology of Early Bronze Age pottery typologies is the work of Brindley (2006) on the Irish typology. This masterly account of chronology and pottery is based on radiocarbon dating of both unburnt and cremated human remains found in association with Early Bronze Age pottery. The ability to date cremated bone has revolutionised our understanding of the latter half of the Early Bronze Age in particular, and the direct association between cremated remains found within or underneath pottery vessels has created a solid chronology. Brindley (2006: 3) divides the Irish Early Bronze Age in two; during the period before 1900 cal BC both inhumation and cremation burials are common; after 1900 cal BC cremation burials dominate. Brindley divides up what would commonly be referred to as Food Vessels into bowls and vases (based primarily on height). Both vessel types are commonly found in association with inhumations and cremations that may be either single or multiple (note the mixed practice, reminiscent of the Later Neolithic, at the beginning of the Bronze Age in Ireland) and are found widely across Ireland. Brindley's periodization of the Irish

Early Bronze Age, including details of the characteristics of burials associated with the period are shown in Figure 2-7.

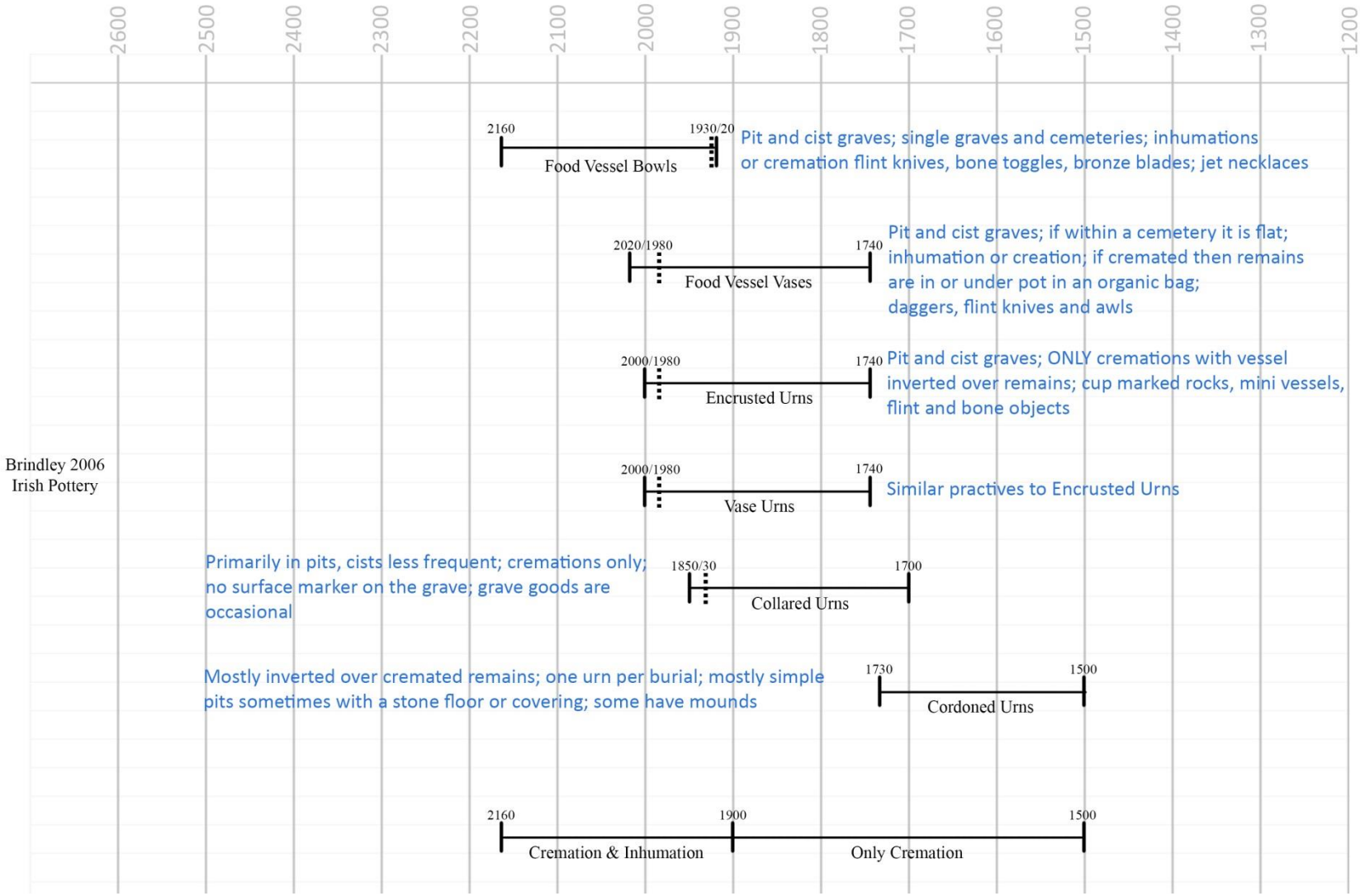


Figure 2-7: Diagram summarising Brindley's (2006) periodization of the Early Bronze Age in Ireland

Sheridan (2007; 2004) has produced a chronology for the Early Bronze Age in Scotland based on Food Vessels (which she takes as a single category, contra Brindley (2006)). In Scotland Food Vessels date from 2140/1970 to 1860/1620 cal BC (Sheridan, 2004: 245) placing the beginning of Food Vessel use at approximately the same date as in Ireland with it ending in Ireland perhaps some 100 years earlier. These dates imply there is a clear overlap between Beaker and Food Vessel dates in Scotland (Sheridan, 2004: 251). The situation in Ireland is a little different. Carlin (2012: 212-223) argues that Beaker deposition in Ireland peaks around 2400-2200 cal BC; in terms of the span of Beaker pottery in Ireland the earliest use is dated to 2580-2468 cal BC and the very latest date is 2204-2052 cal BC (Carlin, 2012: 217). In Ireland the start of deposition of Food Vessels appears to end depositional practices with Beaker vessels.

Brindley's work, when placed in the context of known radiocarbon dates associated with the same pottery types from Britain shows that there is great similarity in the time range of the various pottery forms across Britain and she notes in particular that there is no retardation in the dates of the Irish pottery (Brindley, 2006: 325). With this in mind Brindley's dates and sequencing stand as an excellent basis from which to consider the British sequence more broadly. Figure 2-8, below, compares dates from Brindley (2006), Sheridan (2007; 2004) and Needham (2005; 1996). Essentially, various pottery forms overlap though Food Vessels tend to be earlier, and urns inverted over cremations are later.

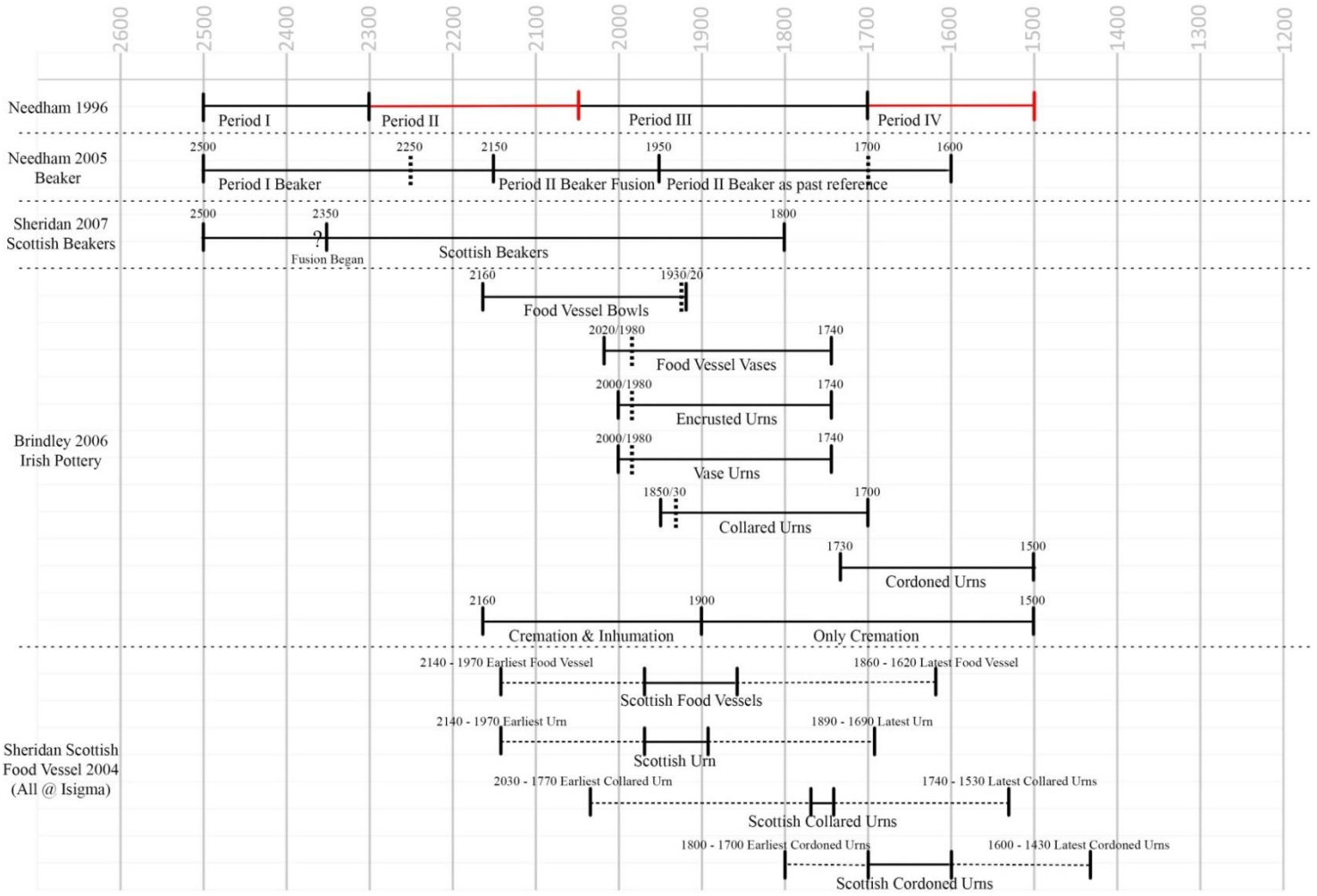


Figure 2-8: Diagram to show and compare the chronology for the Early Bronze Age offered by various authors.

Burial practices

Much of the flavour of the various burial practices from the Early Bronze Age was revealed in the discussion of chronology given above. At the start of the period a burial with a Food Vessel is as likely to contain cremated as unburnt remains (Waddell, 1990: 5). In the middle of the Early Bronze Age, around 1800-1700 cal BC, the corpse of the deceased may be either cremated or deposited unburnt in either a cist or pit with a Food Vessel or be cremated and placed under an urn within a pit or a cist (Figure 2-7 and Figure 2-8). The relationship between Food Vessels and Beakers is a contentious one. They share decorative traits but their form is clearly quite different. The 'problem' of how to approach the Beaker period in Ireland led to initial suggestions that Irish Food Vessels were derived from British Beakers and eventually towards Burgess (1974) suggesting that Irish Food Vessels were the joint product of Irish Neolithic potters working in a sphere of Beaker influence. Ó'Ríordáin and Waddell (1993: 40-2) carried out an analysis and comparison of Beaker and Food Vessel pottery, finding clear similarities such as the use of comb impression and reserved space and filled spaces, however they found the use of stylistic traits to be too diverse and eclectic to link Irish Food Vessel pottery to any specific single kind of British pottery. They come to the conclusion that Food Vessels and Beakers show definite evidence of contact but suggest that the "overall impression is of two broadly contemporary pottery traditions neither demonstrably ancestral to the other and both sharing an ultimate common heritage of either late Neolithic or Beaker ceramic traditions or both" (Ó'Ríordáin and Waddell, 1993: 44).

Burials accompanied by a Collared or Cordoned Urn, no matter when they date from, are almost always associated with cremated remains. The practice of placing cremated bones under an inverted urn has no obvious origin in either Ireland or Britain and appears to be an innovation in the middle of the Early Bronze Age around 1900 cal BC. Whilst the practice is new, Brindley (2006: 324) suggests that the urns under which these deposits are placed (Cordoned, Collared and Encrusted) are modelled on earlier Food Vessel form (for an earlier treatment of this same issue see Longworth, 1984). Indeed Needham (2005: 206) suggests that Collared Urns, like Food Vessels, have their genesis within the fission of pottery forms that occurs following the first Beaker pottery.

Round barrows, from which much Early Bronze Age pottery has been excavated, are the most common prehistoric monuments in the British Isles (Last, 2007: 1). This prevalence resulted in many of them being excavated by antiquarians with, as one would expect, varyingly presented reports. Despite what might appear to be an initial homogeneity of form, there is great variation in barrow and cairn forms (see, Field, 1998; Peters 2000) and in their contents. Barrows may contain either cremations or inhumations during the Early Bronze Age (Owoc, 2001: 194). There are also numerous barrows that when excavated have yielded no remains (so-called cenotaph burials) – dating such a mound is obviously difficult. McKinley (1997: 129) has suggested that not all barrows are burials; she argues that a great number could cover cover cremation pyres. McKinley (1997) discusses the complexity of the cremation process (an account that should be supplemented by Downes' (1999) more culturally rich description of a Hindu cremation) and highlights that we know of some 10,000 cremations from the period, but know of only around 100 pyres (but see Welfare 2011 for a reconsideration of the number of known pyre sites which have been commemorated as Recumbent Stone Circles). With the increase in landscape archaeology studies following Tilley (1994) many archaeologists have looked at how barrows are located in the landscape, clustering on ridges of hills for example. Field (1998) observes that barrows were placed in a manner where later ones were sensitive to the locations of earlier ones (see also Garwood, 2007). Field highlights their clustering and suggests that some of their locations may have be liminal, positioned along boundaries between significant parts of past landscapes.

Thomas (2000: 663) suggests that the timber chambers, cut graves, enclosing mounds and ditches that make up barrow burials served to distance the dead from the living populations. He also highlights the ways in which many of the chambers of monuments such as long barrows are blocked off at the beginning of the Bronze Age arguing that these two things are evidence of a distancing of the dead and a blocking of conceptual flows between the dead and the living (Thomas, 2000: 664). Jones (2010) suggests a slightly different reading of the burial evidence, arguing that Early Bronze Age burial can be characterised as focusing on concealment. He argues that the deposition of hoards of metal and the burial of bodies under elaborate and multi-layered barrows are both practices concerned with concealment (Jones, 2010: 108). This concealment goes together with the emergence of a concern with the integrity of the body. Jones (2010: 107) suggests that the containment of cremated remains within pottery vessels keeps the body intact and in the case of inhumations the arrangement of pottery vessels around the body focuses on 'blocking' the orifices of the body (Beakers and Food Vessels are often placed around the head for example).

Seeing barrow construction as a single event is an error. Last (2007) highlights their multi-phased construction and the continued interaction between communities and the earth involved in creating mounds with multiple geologies. Owoc's (2001: 195) study of barrows from Dorset, Somerset and Cornwall illustrates how they are often built over earlier structures which appear to have been timber arrangements orientated on celestial alignments. She also argues for the curation of bones before they were deposited within the barrows, a practice that may not have been out of place in a Neolithic context. She goes on to argue that barrows sites are frequently revisited and their constructions multi-phased. Even once a barrow is 'capped' there is evidence that they continued to be significant places with archaeological material suggesting feasting and fires went on at barrow sites (Owoc, 2001: 201). The deposition of multiple burials, after the primary interment within a barrow also indicates that these were sites with continuing histories.

Grave goods, wealth and prestige?

There is an increase in the deposition of material culture with burials in the Early Bronze Age. Personal adornments, such as necklaces, gold lunulae, maceheads, and 'basket earrings', are common in Early Bronze Age graves (Parker Pearson, 1998: 80); in some cases these objects were deposited whole (Sheridan and Davis, 2002) in other cases only parts of these objects were placed in the grave (Woodward, 2002). This kind of personal adornment could be taken as evidence of individual wealth or power (Parker Pearson, 1998: 80; Sheridan and Davis, 2002: 824). The argument that high status items indicate high status individuals is a circular one (Jones, 2002: 159); many authors fail to engage with why it is that objects might be 'prestigious' (note the similarity with the debates over prestige goods in the Late Neolithic).

Other interpretations are, however possible: Woodward (2002) has shown that amber spacer beads in composite crescentic necklaces, jet beads and Beaker fragments may have functioned as a kind of relic or heirloom. Specific pieces of material culture may have been curated due to their roles in the formation of social relationships, indicated by the varying amounts of wear seen on these objects. Woodward's (2002: 1043) research reveals that sometimes the beads found in grave assemblages could not possibly have been strung together into a single necklace. Rather, they appear to represent parts of different necklaces. Woodward suggests

that in such cases, specific beads, associated with people and places, might have been passed around the living populations and placed in graves as a means of linking people together. Jones (2002: 166) goes further and suggests that specific arrangements and re-arrangements of necklaces would allow the enchainment of relations between people. However, research by Sheridan and Davis (2002: 823) suggests that grave good practices were very complex; they found that necklaces made only of jet tend to be deposited whole with very little wear, whereas necklaces made of a combination of jet, lignite and coal were often buried incomplete with some components showing heavy wear. Early Bronze Age grave goods had very complex biographies.

Different interpretations of grave goods are possible by considering objects not as individual wealth, but rather as a means of creating and visualising social relationships between people and places. We can then begin to question the very notion that such things as an 'individualising grave' existed at all in the Early Bronze Age. If people in graves were deposited with pieces of beakers and necklaces that were part of the social relationships in which they were embedded then perhaps this display of 'wealth' is actually a display of community (see Brück, 2006; 2004; Fowler in press; Jones, 2012; Needham, Rhind Lectures 2011). An image was created in the grave to embed the deceased within a wider social sphere, not to highlight their own individual power. Indeed, many of the cremated remains of the Early Bronze Age may consist of more than one individual (Brindley, 2006: 292). Furthermore McKinley (1997) suggests that Early Bronze Age cremated remains do not represent all the bones of the deceased: some bones may have been excluded from cremation deposits. Considering this evidence in conjunction with Owoc's (2001) assertion that some cremated bones appear to have been curated before deposition, we could suggest that not only was the community and social embeddedness of a person being shown in their grave during burial, but perhaps this kind of connectedness persisted outside of the burial sphere with the circulation of cremated remains within living communities.

This dismissal of the 'individualising' Early Bronze Age grave on these grounds can be further strengthened when we note the theoretical poverty of the idea of the 'individual' in prehistory (Fowler, 2004; Thomas, 2004b; 2002). As Fowler (2004: 3) suggests, the concept of the individual is a product of the modern era with roots in capitalism, mass production, internalised reflection and material culture that act to privatise the individual. Thomas (2004b: 129) cites the concept as emerging from a humanist philosophy, the product of modern

western thought in which individuals are viewed as distinct from other people and things. To suggest that such a thing as an 'individual' aggrandising grave existed in the Early Bronze Age fails to acknowledge the modernity of the concept. A more appropriate interpretation of the evidence suggests we should see the deceased as fully embedded and bound into the communities of people, things and places in which they lived.

Changing times?

The brief summary offered in this chapter of the period 3000-1500 cal BC is not intended to be comprehensive but rather to form the foundation for the chapters that follow where the issues of metallurgy, burial and settlement are unpacked in far more detail. It is unthinkable that the 1500 year period that has been discussed here would not be witness to many changes. Clear evidence of changing pottery types, burial practices and new materials has been presented. Equally there is evidence of a degree of stability in settlement evidence and in the tradition of henge building. The issue of new technologies and materials has been introduced – how much of the change we see in the period relates to the introduction of bronze metallurgy? The movement and potential migration of people and communities as a catalyst has been considered and introduced. These are the two classic explanations for the changes that occurred at the start of the Early Bronze Age. I argue however that new technologies and new materials have to be adopted and adapted to fit within existing social relations and ways of being, equally existing technologies also change as a result of this process. Processes of adaption and adoption change that which came before and any bifurcation of existing indigenous culture and new, adopted culture is always going to fall short of understanding the true complexities of change in prehistory and especially the changes that occurred between 3000-1500 cal BC. Furthermore, over a period of such length, locating change in only a single moment is unlikely to be realistic. Certainly change will have different tempos and rhythms and some moments will emerge as more significant fulcrums than others. Furthermore, in an area as large and geographically diverse as Britain and Ireland a single explanation is never going to deal with the intricacies of the material. As discussed briefly metallurgy on the British versus the European scale appears different for example. By altering the scale of analysis to look more at the detail of the archaeology stereotyping characterisations of regions and periods often fall apart.

3. Introducing the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man

In this chapter I introduce the archaeology of the Isle of Man from 3000-1500 cal BC, this chapter presents the sites as they were known prior to my own research, all new radiocarbon dates and re-interpretations are presented in Chapters 5, 6 and 7. This chapter builds on the general introduction to the Late Neolithic and Early Bronze Age given in Chapter 2. I first discuss the Ronaldsway Late Neolithic, detailing the history of the term 'Ronaldsway Late Neolithic' before considering the associated material culture and sites. Following this, I introduce the Early Bronze Age archaeology. I consider the metalwork assemblage from the island and arguments about the exploitation of copper ores. I provide an introduction to the burial, ceramic and settlement evidence. I seek to highlight the similarities and differences between the material from Britain, Ireland and the Isle of Man. Finally, I consider the way in which the changes between the Ronaldsway Late Neolithic and the Early Bronze Age on the Isle of Man have been interpreted. This forms the basis for a critique of our approaches to change more broadly in Chapter 4.

Discovering the Ronaldsway Late Neolithic

> "The culture appears to be a new one… In the absence of good parallels in Britain and Ireland one can only suggest that the pottery is the characteristic product of the Isle of Man during a period of isolation, an outstanding example of that insular development of which there have been traces at earlier stages of prehistory."
>
> Clark, 1935: 91

In the first scholarly article on Manx prehistory to reach a wider British audience, Clark (1935) summarises the prehistory of the Isle of Man, following a visit to the island and the Manx Museum. Clark (1935: 85-91) assigns what we would now consider to be the Ronaldsway Late Neolithic material to a period he refers to as the "Ultimate Bronze Age". This categorisation comes about for a number of reasons. Clark had never before seen pottery like that of the Ronaldsway Late Neolithic in Britain. He inspected the material from Glencrutchery, Ballacross, Ballahott, Ballquayle, Colby and Knocksharry (discussed below). This pottery was coarse, with large inclusions, leading Clark (1935: 89) to describe it as having a "plum pudding" texture

(Figure 3-1). Complete vessels cover a wide range of sizes from approximately 40cm-100cm high (see Figure 3-2). This new pottery clearly belonged to a period unlike any he had ever studied before. At this time the island was lacking in settlement evidence for the Iron Age and Roman periods[7] and as this new pottery could not be associated with any kind of megalithic structure, nor did it show evidence of cord impression, he failed to see how it could be from the Neolithic or the Earlier Bronze Age. This combination of factors led Clark (1935:89) to assign the pottery to a later prehistoric period and to place it in the gap in the Manx sequence, suggesting it was parallel to the Early Iron Age elsewhere in Britain.

Figure 3-1: Ronaldsway pottery with the characteristic "plum pudding" texture, large inclusions and rough appearance

[7] Exploration of the Iron Age archaeology on the Isle of Man begins with Bersu's excavations during World War II of the roundhouses at Ballacagen and Ballanorris (Bersu, 1977)

Figure 3-2: Colby Mooar Ronaldsway Earthfast Jar – vessel is approximately 50cm tall. Image, Manx National Heritage.

I argue that terming the material "Ultimate Bronze Age" rather than, for example, the "Manx Early Iron Age" set a precedent that the material, and the people who had made it, were to be considered insular and 'backward', a precedent that continues to haunt some explanations today. For example, rather than accepting the material on its own terms, authors such as Woodcock (2004) and Burrow (1999) continue to suggest that the material results from an inability to 'compete' in wider Late Neolithic networks, a theme I return to later. As the opening quote suggests, the explanation for this 'cultural difference' from the rest of Britain and Ireland, lay for Clark, in isolation resulting in an insular form of material culture. As I will show, the island should not be considered isolated during the Ronaldsway Late Neolithic (or indeed any prehistoric period), therefore our understandings of the period need to be reconsidered.

The material from these sites continued to be assigned to the Ultimate Bronze Age for the next ten years. During World War II, construction of a new airstrip on the island resulted in the discovery of the enigmatic Ronaldsway 'house' site. At the same time the German archaeologist Gerhard Bersu was interned on the Isle of Man; Bersu had been removed from his job as director of the German Archaeological Institute at Frankfurt-am-Main by the Nazi

government in 1935 and left Germany with his wife thanks to the help of archaeologists such as Childe and Crawford (Current Archaeology, 1971: 81; Evans, 1998; Green, 1981: 88). On the island Bersu's status as an archaeologist eventually resulted in him excavating several Manx sites including Ballateare, Ballanorris and Ballacaighen (for a recent historiography of these excavations see Chapman and Mytum, 2013). Bersu's excavations at the Ronaldsway Late Neolithic cremation cemetery of Ballateare are of particular note to this thesis. The discovery of the Ronaldsway 'house' site as well as Ballateare was to result in the realisation that the material dated to the Late Neolithic. This re-dating is first published in Basil Megaw's (then director of the Manx Museum) landmark article on the Ronaldsway material (Bruce et al., 1947[8]) that appeared in the same volume of the *Proceedings of the Prehistoric Society* as the report on the Ronaldsway excavations and Bersu's paper on Ballateare (1947: 161-169).

The Ronaldsway 'house' site was excavated by Megaw's wife, Eleanor, whilst he was away on military service with the RAF. Eleanor had read archaeology and anthropology at Cambridge University and was well trained in prehistory and excavation. During the discovery and excavation of the Ronaldsway site she wrote daily letters to Basil Megaw (Manx National Heritage Archive: Megaw Papers) which provide a proxy site diary. The Ronaldsway 'house' site allowed the kind of pottery that Clark had inspected to be associated firmly with a lithic assemblage that included polished stone axeheads, hump-backed scrapers and five slate plaques, two of which were decorated in a style reminiscent of Grooved Ware (Bruce et al., 1947). Whilst there was a lithic assemblage associated with the material Clark had inspected from Glencrutchery he had been unsure as to whether they related directly to the pottery and believed them to potentially be intrusive.

Bersu was not allowed to excavate or even visit the Ronaldsway sites as it was deemed too dangerous to let an internee visit a military aircraft site. Bersu (1947) was, however, excavating a Viking burial mound at Ballateare in the northwest of the island. Underneath the Viking mound Bersu found a preserved flat cemetery of the same period as the Ronaldsway material. At Ballateare the same Ronaldsway Late Neolithic vessels that would come to be known as 'Ronaldsway jars' or 'earthfast jars' were discovered buried up to their rims with flat slates covering their mouths. In addition the earthfast jars were associated with numerous

[8] The article is in two halves. The first section was written by J.R. Bruce and E.M. Megaw and details the excavation of the Ronaldsway 'house'. The second section summarises the Ronaldsway Late Neolithic of the Isle of Man as it was known at that date and is by B.R.S. Megaw.

cremations and three dark filled hollows with charcoal and burnt bone that Bersu (1947: 167) was to describe as *ustrinae*; ustrinae refers to holes dug in the ground over which pyres would be placed to cremate bodies during the Urnfield period in Germany.

Bruce et al. (1947: 159) placed the Ronaldsway material firmly in the Late Neolithic. They drew comparisons between polished flint knives and Grooved Ware from the Ronaldsway 'house' and similar material found at Rinyo and Skara Brae. They suggest that the 'culture' shows no evidence of "external trade" and suggests that the communities were self-sufficient, living in isolated and permanent homesteads such as that found at Ronaldsway (Bruce, et al., 1947: 159). This paper formed the foundation of our knowledge and understanding of the Ronaldsway Late Neolithic. It was on the basis of this paper that Piggott (1954) was to name the Ronaldsway as one of his five secondary Neolithic cultures, alongside the Peterborough, Rinyo-Clacton, Sandhills and Dorchester Cultures (see Chapter 2).

Piggott (1954: 351) described the Ronaldsway as "…recognizably a member of the Secondary Neolithic group of cultures in Britain". Bounded by island shores and the Irish Sea. the Ronaldsway Late Neolithic appeared clearly defined and divergent from the rest of the British Isles to Piggott in the 1950s and arguably remains so today. The geographical distributions of Piggott's other cultures have not been borne out in the material culture, but the Ronaldsway Late Neolithic continues to have a clear distribution. Despite the general move to abandon Piggott's other cultures the Ronaldsway Neolithic of the Isle of Man is still studied as a 'culture' (see, Burrow, 1997a; 1997b; Burrow and Darvill, 1997). Fowler (1999: 11-12) reacts strongly against the uncritical acceptance of the existence of the Ronaldsway Late Neolithic Culture. I argue that despite his attempts to disrupt the term the clearly different practices and material culture that exists on the Isle of Man in the Late Neolithic continue to appear in all but name, in his account, as the only one of Piggott's cultures to stand the test of time.

Defining the Ronaldsway Late Neolithic

Numerous authors (Burrow, 1999; Darvill, 2000a; Moffat 1978) suggest that the reason the Ronaldsway material is so ill-known and poorly researched is partly due to the lack of chronology and secure radiocarbon dates for the period. As part of the *Billown Neolithic*

Landscape Project and Stephen Burrow's PhD (1997a) a series of new dates were commissioned that have given a more secure, although still not particularly high resolution, chronology for the period (further new radiocarbon dates are presented in Chapter 6) . Burrow and Darvill (1997) date the material to 3000-2200 cal BC. Their dating programme offers a range of dates over the period showing the material to be long-lived covering much of the third millennium BC and to be contemporary with many of the British Late Neolithic pottery styles (Burrow and Darvill, 1997: 415). Dating the end of the period to 2200 cal BC effectively suggests that there is no 'Beaker period' or 'Chalcolithic' on the island (see Chapter 2 for discussion of the chronology of the British Isles and Ireland).

The Ronaldsway 'culture' is defined by a mixture of presences and absences. The lack of known henges, (although this is disputed by Darvill, 2004a; 2004b; 2003a; 2003b; 2002; 2001a; 2001b; 2000a; 2000b; 1999a; 1999b; 1998; 1997) or indeed any kind of monumental construction, the small amount of Grooved Ware and the single Beaker burial, set the island apart from the rest of the British Isles and Ireland. Secondly, the distinctive types of material culture found only on the island, such as Ronaldsway Earthfast Jars, Ronaldsway pottery, Roughened Truncated Butt axes (hereafter RTB axes), hump-backed scrapers and engraved slate plaques serve to further set the period apart from the rest of the British Isles and Ireland. Whilst early authors such as Clark (1935) and Bruce et al. (1947), and later authors such as Woodcock (2004; 2001) suggest isolation for the period, this is not strictly true as there is evidence of contact with the rest of the British Isles and Ireland and some examples of RTBs found on mainland Britain (Barrs, 2010), as will be discussed below.

The pottery of the Ronaldsway Late Neolithic was first described by Clark in his 1935 paper, where he broke the pottery down into three types, a distinction that is not used today. The most thorough treatise on the pottery comes from Burrow (1997a) whose PhD focuses on the Neolithic pottery of the Isle of Man in its regional context; this work forms the basis of his exhaustive, well-illustrated catalogue of Neolithic pottery (Burrow, 1997b). The most commonly known pottery type is the large Ronaldsway Earthfast Jar (Figure 3-2), however there are also smaller bowls (see for example Figure 3-3, other examples include B'co12; B'va8; Gui1[9]) (Burrow, 1997b: 24). At present there are no clear middle sized vessels known from the Ronaldsway Late Neolithic – whether such vessels existed in an organic form, or whether there is a change in food preparation and consumption remains an open question.

[9] All pottery references refer to the catalogue and numbers given in Burrow, 1997b

The construction and form of Ronaldsway vessels seems crude when compared to the Middle Neolithic pottery; indeed Burrow describes it as having “little of the finesse” apparent in the Middle Neolithic assemblage. Sherds are generally far thicker and the inclusions are far larger, with a preference for basic igneous rocks inclusions amongst the Late Neolithic pottery and a preference for a more finely crushed granitic inclusion in the Middle Neolithic pottery. Unlike the Middle Neolithic ware, the Late Neolithic pottery is unburnished. Burrow suggests that part of the reason for the coarseness of the Late Neolithic pottery may have lain in the far larger vessel size. At least 24 of the known Ronaldsway Earthfast Jars have been found empty, buried up to their mouths in the earth, sometimes with the mouth of the vessel covered with a slate (Figure 3-4 and Table 3.1). At such sites, referred to as Ronaldsway Earthfast Jar Sites in this thesis, little other evidence of activity has been recovered. Sites with this kind of vessel deposition are discussed in detail in Chapter 7. Sherds of Ronaldsway Earthfast Jars have also been found in pits and scatters as well as at some burial sites.

Figure 3-3: – Small Ronaldsway Late Neolithic Bowl from Glencrutchery (Gle 1 in Burrow, 1997b)

Figure 3-4: Images from the MNH NMHER (1869) of the discovery and excavation of the Earthfast Jar Site, Colby Mooar in 1947. Note the stones placed to support the base of the jar.

Site Name	Number of Vessels Found	Presence of Slate Lid
Ballacross	1	Yes
Ballacubbon	1	None noted
Ballagawne	2	None noted
Ballahott	1	Yes
Ballaquayle	2	Yes
Ballakeigh	1 (possibly 2)	None noted
Cleigh Rooar	1	None noted
Colby	1	None noted
Colby Mooar	1	Yes
Crossag	1	None noted
Earybedn	1	None noted
Gob Y Volley	1	None noted
Orrisdale Brooghs	1	None noted
Orrisdale Head	1	None Noted
Ronaldsway Airport	2	None noted
Scholaby	1	Yes
Skyhill	1	Yes

Table 3.1: List of Ronaldsway Jar Sites (excludes burial sites where the vessels have also been found).

Burrow's (1997b) thorough analysis of the pottery assemblage shows that rather than being completely isolated from other Late Neolithic pottery traditions it has much in common. This is substantiated by the presence of Grooved Ware (Figure 3-5) at three sites on the island, (Glencrutchery, Ronaldsway 'house' and Ballacottier). Grooved Ware never occurs in assemblages by itself but always alongside Ronaldsway pottery; it is also of note that the three sites that Grooved Ware has been found on all have unusually large assemblages of material culture. Burrow (1997b: 24) suggests the same potters could have made both vessels types; there is no different 'recipe' for the pottery, grit types and sizes are the same. In terms of design the two pottery assemblages clearly differ in shape given, the flat base of the Grooved Ware and the rounded base of the Ronaldsway pottery, Grooved Ware vessels do not have the overhanging rims of Earthfast Jars and their sides also tend to be angled whereas Ronaldsway Earthfast Jars often have straight sides down to their rounded bases. Burrow (1997b: 24) comments that it can be difficult to attribute plain body sherds from Late Neolithic contexts to either the Grooved Ware or Ronaldsway repertoire. For Burrow (1997b: 24), the clear morphological differences between the two vessel styles are indicative of different social uses; in particular he suggests Grooved Ware may have been "employed in ostentatious displays". I highlight the different functions of the two vessels; Grooved Ware vessels have not been found buried in the ground in the same way as the Ronaldsway Earthfast Jars.

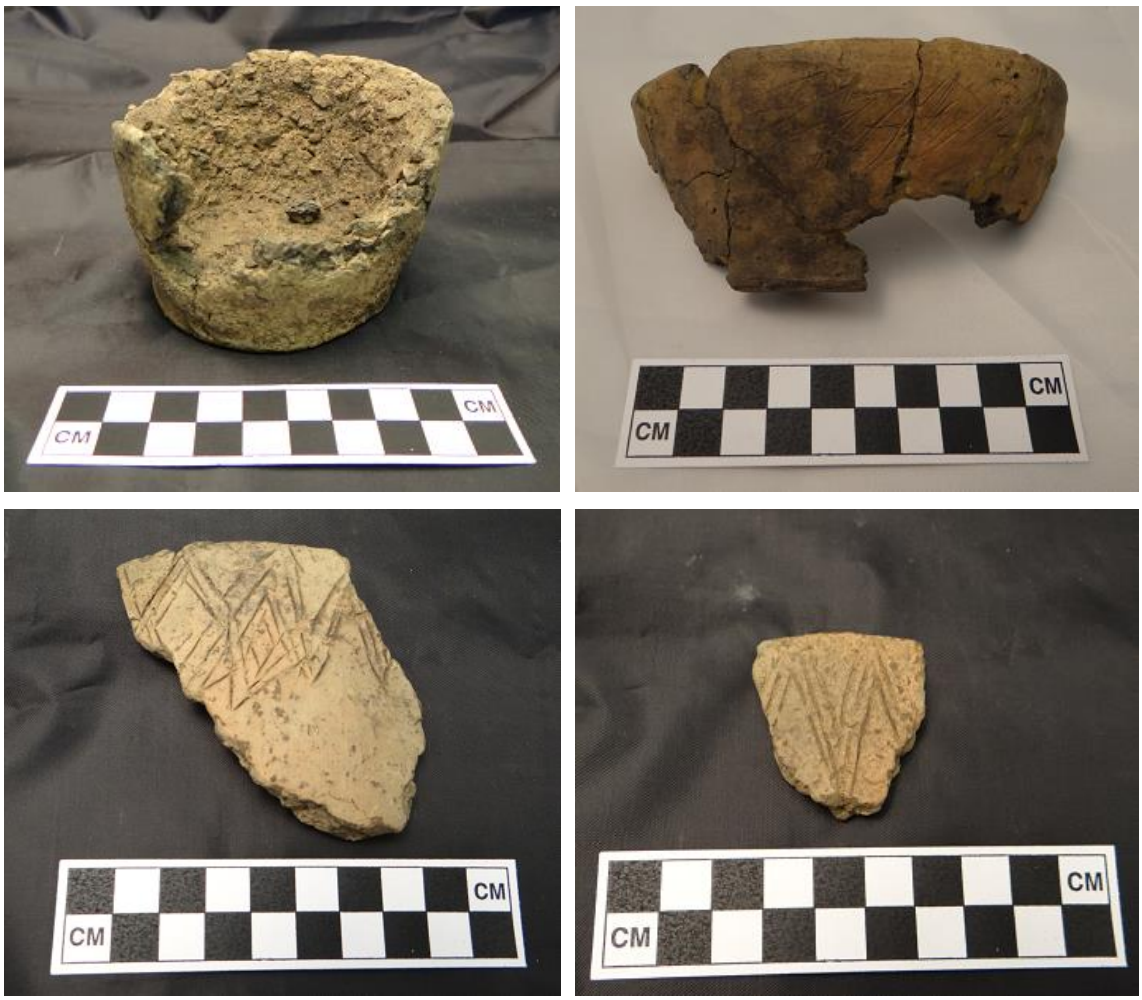


Figure 3-5: Sherds of Grooved Ware. Clockwise from top left, RonH4; RonH2; Gle23; Gle25.

In searching for an origin (and explanation) for the Ronaldsway Late Neolithic most authors start to look for comparisons to the Ronaldsway pottery. Bruce et al. (1947) (see also Megaw and Simpson 1984) suggested similarities with Peterborough ware on the basis of the overhanging rims. Burrow (1997b: 25) disputes this, arguing that Peterborough wares are typically cord impressed or stabbed whereas Ronaldsway vessels are very clearly incised. Piggott (1954) also made comparisons with vessels from Eilean an Tighe in North Uist and Nether Largie South in Argyllshire and Rudh'an Dunain on the Isle of Skye. Burrow (1997b: 25) disputes every one of these similarities arguing that they are often made on the basis of specific vessels that do not fit well within the broader regional assemblages of which they are a part. Furthermore, the comparisons are often made with sherds from Ballateare which are atypical of the Ronaldsway assemblage as they bear cross-hatched decorations. For Burrow these kinds of coincidental similarities are just that: coincidental. There are, in Burrow's (1997b: 26) opinion, no antecedents of the Ronaldsway pottery in the Manx Middle Neolithic and little evidence that they were strongly influenced by Late Neolithic styles from elsewhere

either. The pottery production, and crucially, use-practices, stand apart as a distinct material assemblage - the result of specific choices by potters of the period.

After the Ronaldsway pottery, the RTB axes are probably the best known class of material culture from the Ronaldsway Late Neolithic (Figure 3-6). These axes were originally identified and associated with the pottery assemblage during the excavation of the Ronaldsway 'house' site (Bruce, et al., 1947). Bruce et al. (1947: 146-7) described the axes as "deliberately roughened and truncated at the butt…with a portly…almost pear-shaped" appearance. These axes are essentially polished stone axes but with an unpolished butt and also show deliberate pecking, grinding and roughening. This means they lack the purity of form and shape for which traditional examples are so well known. Moffatt (1978: 184) suggests that the axe form "…no doubt reflect[s] some local idiosyncrasy of hafting", an explanation that I suggest is too simplistic and places too much emphasis on functionality. The unusual axes have attracted some research with a recent synthesis and analysis by Kate Barrs (2010) currently being expanded into a PhD thesis. Initially, in 1951, seven RTB axes from the Isle of Man were sent to Birmingham for thin section analysis by Frank Shotton (see Stone and Wallis, 1951). Two of the seven were revealed to have their origins in the Cumbrian Langdale Group VI (Barrs, 2010: 7). This initial investigation sparked an additional study in 1976 where a further forty axes were sent for analysis and as a result a new rock type was identified: Group XXV, from which 43% of the known collection are thought to have been sourced (Barrs, 2010: 41). This newly identified Group was rather tentatively identified as a Manx source rock by Coope and Garrad (1988: 67-9). They suggested that the rock group may have existed at Ballapaddag or Oatland where basic igneous rocks outcrop (but see, Barrs, 2010).

Figure 3-6: RTB axes from the Ronaldsway 'house'. Note varying the degrees of roughening on the axes.

If 43% of the known RTB axes studied by Barrs are from Group XXV, (Barrs, 2010: 41) then 57% of the known RTB axes have a geological origin outside of the Isle of Man. Axes have been identified with sources in Langdale Group VI, the Cornish group I and the Welsh Group VII (Barrs, 2010: 36). This suggests the axes may have been brought to the island and then re-shaped, though this remains an open question since six RTB axes have been identified outside

of the Isle of Man (Barrs, 2010: 41). These axes have been found in locations as diverse as Wigtownshire in southwest Scotland, Yorkshire (two cases), Whiston in Lancashire, Ireland (two cases) and Winchester in Hampshire; none of these examples are believed to be made of Group XXV rock (Barrs, 2010: 41). Barrs is keen to highlight that, at present, the terms "Group XXV" and "Manx Source" should not be used interchangeably until further chemical investigation of the rock outcrops at Ballapaddag and Oatland have been completed.

For Barrs (2010: 44), RTB axes question the isolation model for the Late Neolithic. Instead she appears to favour (although she never states outright) a contact model where "…the Neolithic inhabitants of Mann took a widely utilised implement, the polished stone axehead, and adapted to their own requirements"; a position I myself support. Furthermore, Barrs (2010: 43) notes that the vast majority of Manx axes, when wet, appear green in colour, a characteristic shared with most Irish and British axes (Pétrequin, et al., 2008: 272).

In addition to the RTB axes and pottery assemblage the Ronaldsway Late Neolithic is also defined on the basis of a lithic assemblage. The 'hump-backed scraper' (Figure 3-7) is taken as diagnostic of Ronaldsway Late Neolithic sites (Burrow, 1997b: 21; Moffatt, 1978: 187), being found in association with RTB axes and the pottery: it is unknown elsewhere in Britain and Ireland (Moffatt, 1978: 201). In addition Ronaldsway Late Neolithic sites often also produce lozenge or leaf shaped arrowheads, serrated saws, disc cores and hollow scrapers (Megaw et al., 1947; Moffatt, 1978). These particular forms of lithics all have older origins than the Late Neolithic and can also be identified in Middle and Earlier Neolithic assemblages (Moffatt, 1978: 203). This presents a difficulty in identifying Ronaldsway Late Neolithic sites (Moffatt, 1978: 203). Moffatt also raises the issue of the association of the lithic assemblage with RTB axes, Ronaldsway Earthfast Jars and the Ronaldsway Late Neolithic period generally; he feels that in some cases they may not be contemporary. This is a view I support; there are polished stone axes on the Isle of Man from the start of the Neolithic and arguably RTB axes could date from anytime in the Neolithic, especially as they are often found in isolation. Furthermore, the lithic assemblage could also arguably date from throughout much of the Neolithic period. However, I am confident that lithics found in association with Ronaldsway Late Neolithic pottery would date to the Late Neolithic.

Ronaldsway Late Neolithic flintwork is generally smaller in size, and often peculiar in shape when compared to other flintwork from the rest of Britain and Ireland. Moffatt (1978: 189) suggests that this probably arose as a result of a lack of good flint sources. There are no primary flint sources on the Isle of Man and all the known flint is believed to come from beach pebble sources. Moffatt (1978: 189) states "…humped back scrapers like so much of the Ronaldsway flint reflect deficiencies in the raw material as much as anything else". This is a view I support as the lack of raw material on the Isle of Man is likely to have had an influence on local flintwork. I also suggest, however, that a desire for a distinct local identity, in the context of trade, may also be a factor here. Grooved Ware and RTB axes made from other British and Irish stone sources clearly evidence contact and exchange with places beyond the Isle of Man. We can infer therefore that at least some of the people who lived on the Isle of Man were aware of the difference between their own practices and material culture and that in the rest of Britain and Ireland. Therefore people on the Isle of Man may have been making the decision to adapt polished axeheads for their own purposes and to knap an assemblage of flintwork different from that seen elsewhere in Britain and Ireland (this is an issue I return to in Chapter 8).

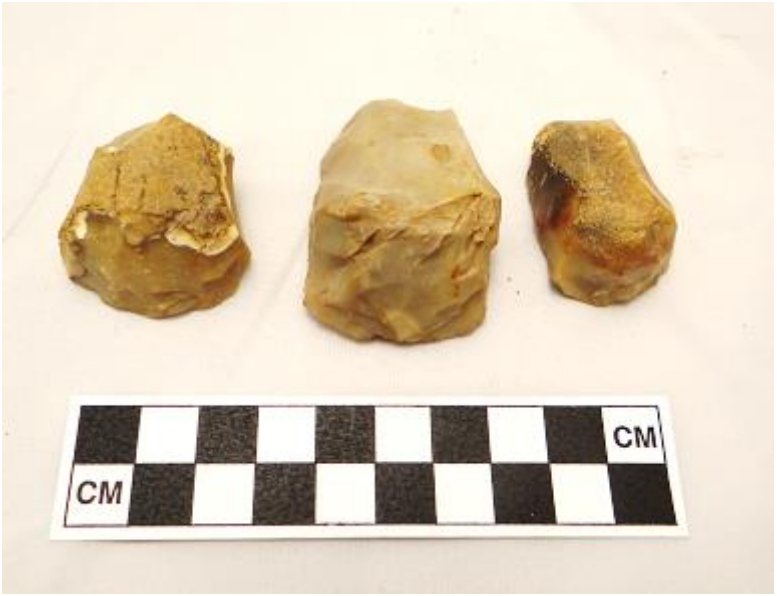


Figure 3-7: Hump-backed scrapers from Park Farm, Santon.

The final class of material culture associated with the Ronaldsway Late Neolithic is the slate plaque. Excavations at Ronaldsway revealed five slate plaques of which two were decorated (the other three are widely considered to be prepared blanks) (Figure 3-8). The largest of the plaques is 75mm long, making them rather small. The decorated patterns were initially paralleled with examples from Iberia by Bruce et al. (1947: 150-1). They boast a chevron like

design incised shallowly on the surface, similar to that seen on Grooved Ware pottery such as that seen on sherds Gle23 and Gle25 in Figure 3-5. Bruce et al. (1947: 150-1) also suggest a parallel with the designs on Irish Passage Grave rocks. This similarity to the Grooved Ware design is something that many authors cite when describing the plaques, using them as further evidence of a Grooved Ware connection and indeed the high status of the Ronaldsway 'house' site. A further engraved plaque has been found at Ballavarry in what appears to be an occupation assemblage (Garrad 1984a; 1984b). Fowler (2002: 54) suggests that the chevron and lozenge patterns on the plaques may have been involved in "practising social relations, or have been intended as renditions of selves or relationships". At present these six slate plaques remain unique in the British Late Neolithic.

Figure 3-8: Slate plaques. Top Left – 5 slate plaques from the Ronaldsway 'house' (image courtesy of Manx National Heritage). Bottom Left –slate plaque from Ballavarry. Bottom right, illustrations of the detail of slate plaques; the upper two are from Ronaldsway 'house', the lower illustration shows the Ballavarry plaque (from Burrow, 1997b: 30, fig 6.5).

The material culture assemblage used to define the Ronaldsway Late Neolithic shows clear difference in form and associated practices from that of the rest of Britain and Ireland. These differences are not, though, the result of complete isolation: in the case of the RTB axes, for instance, difference plays off against similarity. RTB axes are often made of rock types found only on the British mainland, and whilst they are clearly pecked and roughened in a manner totally different to anything known from the rest of Britain their overall shape and their colour plays on clear similarities with British and European axes. Ronaldsway Earthfast Jars are a clear

example of difference; the pottery evidences a deliberate decision to mark difference from the British and Irish ceramic repertoire and the practice of burying them empty in particular indicates that difference. I suggest it is still unclear as to whether we are looking at the 'Ronaldsway Late Neolithic' as a complete material culture 'package'. Finds of RTB axes and hump-backed scrapers (and other Ronaldsway lithics) are not always in association with the Ronaldsway ceramics, they may have a longer chronology than 3000-2200 cal BC. Furthermore, at present we assume that Ronaldsway Earthfast Jar Sites date to the whole of the period, but they are rarely found with any evidence that can be radiocarbon dated, and this is an issue I return to in Chapter 6. In the next section I go on to discuss the sites associated with these forms of material culture.

Exploring the sites of the Ronaldsway Late Neolithic

Below, I introduce a selection of the sites from the Ronaldsway Late Neolithic. Figure 3-9 shows the location of the sites. Each of these sites is briefly presented, as they are all explored in significantly more depth in Chapters 6 in 7 alongside new radiocarbon dates from several of the sites.

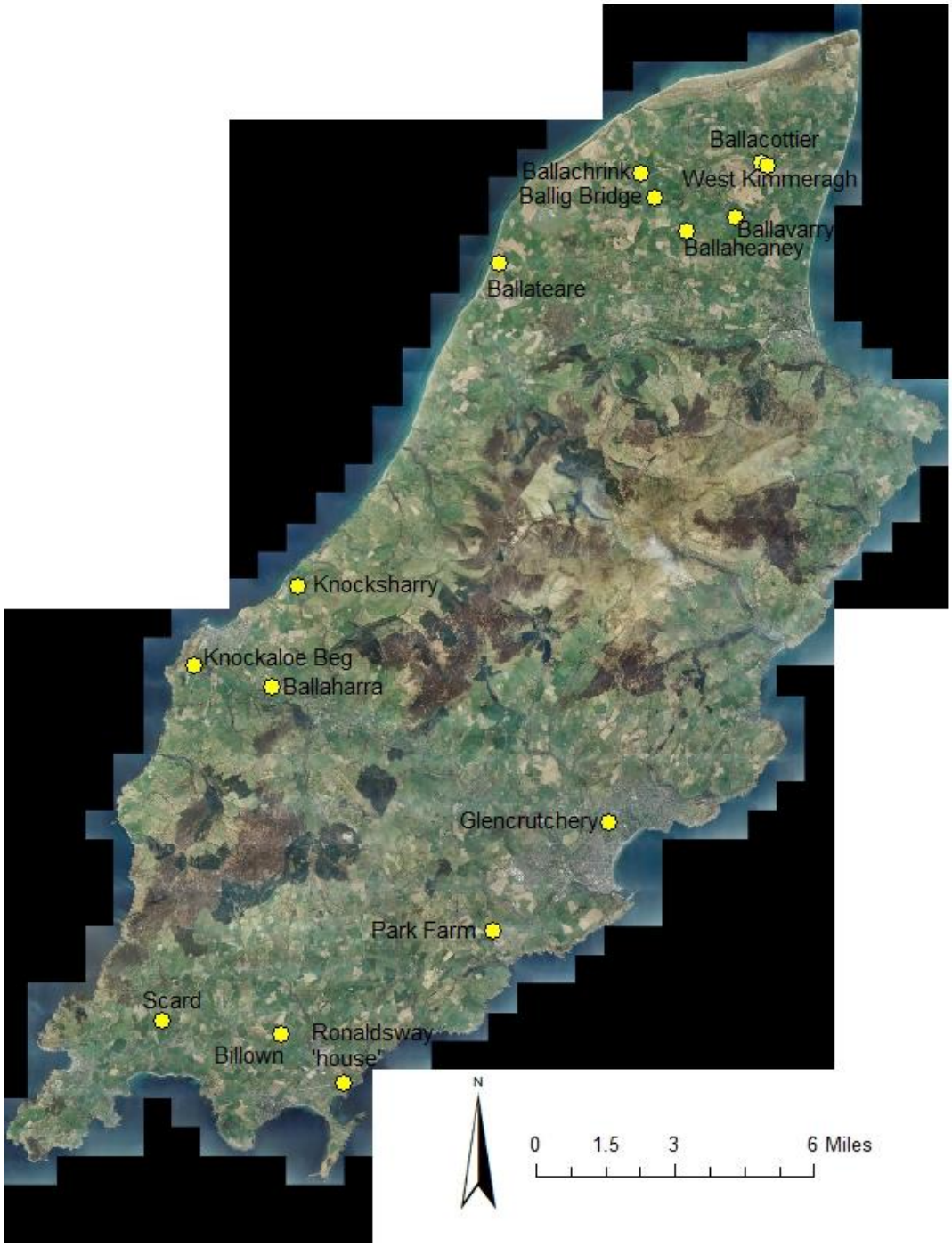


Figure 3-9: Map to show the Ronaldsway Late Neolithic sites discussed below

Ronaldsway 'house'

The Ronaldsway 'house' site, (discussed briefly above) is located on the southeast side of the island close to the shore. Eleanor Megaw spotted the remains of the house in section as diggers worked to clear the area for the construction of the new airstrip, but approximately a

third of the site was already truncated by mechanical diggers. The excavation was rushed, carried out by a small team, and initially no photographs were allowed due to the military nature of the site (Megaw papers, MNH archive). Manx National Heritage hold the archive of the site in their library which consists mainly of letters from Eleanor to Basil Megaw as well as a selection of photos and sketches that have not appeared in any publications. Eleanor Megaw initially thought the site was perhaps some kind of 'tumulus', only later in the excavation deciding she was excavating a 'house'. The site is described as follows in publication:

> "…a primitive oblong dwelling, the floor of which was sunk into a sloping bank of undisturbed gravel, forming a shallow pit at least 1.5 to 2.5 feet below the old land surface… 'Occupation-material', including pottery, implements, and bones, covered the entire area of the pit. The area was roughly a rectangle some 24 feet long by 12 to 14 feet wide. One end of the house had been destroyed but the position of post-holes sunk into the underlying soil gave fairly convincing indications of its extent… The recognisable structural features were that the sides of the pit had been rather steeply cut into the loose gravelly spoil, and therefore probably originally lined with wooden or wattle revetment, as few large stones had been used…"
>
> Megaw et al., 1947: 141-2

The missing part of the site referred to is that which the diggers had truncated before realising they were digging through archaeology. Despite this destruction, as the quote indicates, some postholes were visible, and Megaw incorporated these into her interpretation of a house, forming the footprint to one end of the structure in the published plan (Figure 3-10). That these postholes were visible below the denuded floor surface suggests something of their significant depth (further indicated by the size of some of the packing stones shown in Figure 3-11). The site also contained a hearth (Figure 3-11) which Bruce et al. (1947: 142) interpret as being centrally located within the house. They suggest that the occupation layer (which appears as a clear black band in the photographs (Figure 3-11)) formed as a single deposit. They posit a swift abandonment of the site and a gradual filling in of the pit by gravity.

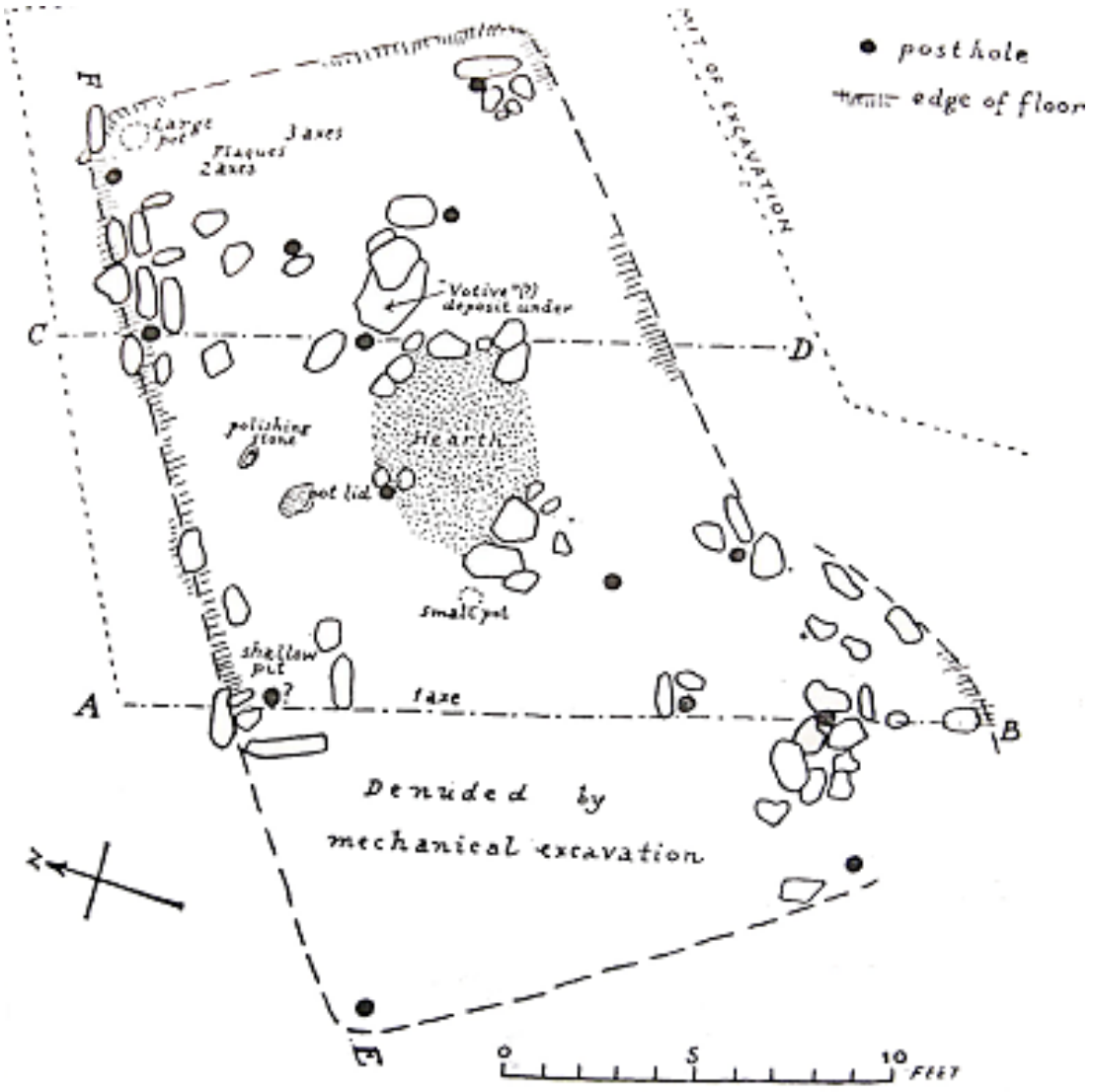
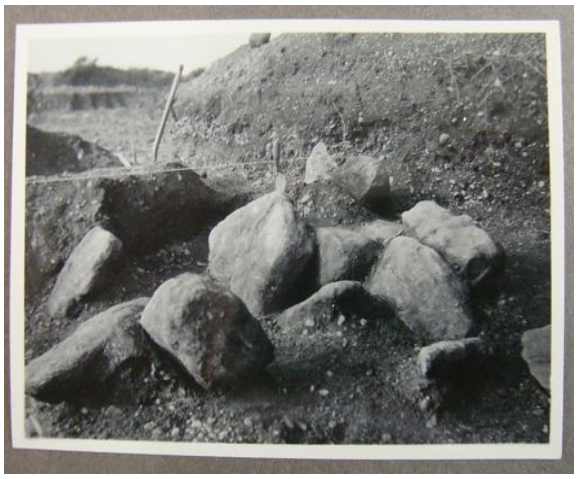


Figure 3-10: Plan of the Ronaldsway 'house' excavation. Taken from Bruce et al., 1947: 144, fig 3.

Text from back of photo (left) reads:
"Taken E. Original face of cutting showing S. wall of house. Note change of colour behind post and stone fallen from wall, also packing stones of post hole and slope of undisturbed layer down to it from centre of house"

Text from back of photo (right) reads:
"Hearth on left, undisturbed on right"

Text from back of photo (left) reads:
"Looking N. across house, distant stones of outer wall. Geranium pot under stone with ruler on."



Text from back of photo (right) reads:
"Looking W. packing stones of post of N. wall"

Figure 3-11: Images from the MNH Megaw Archive of the excavation of the Ronaldsway 'house' site. Note the poor quality of the photos, there are comments on some photos (not shown here) by Eleanor Megaw where she notes that different coloured layers are not showing in the image as they did in real life.

Glencrutchery

Following the excavation of the Ronaldsway structure Bruce et al. (1947) re-considered the material from Glencrutchery. Glencrutchery was excavated over a 30 year period beginning in the 1890s as sand was quarried from the site (MNH NMHER 0250). The site produced a very large pottery assemblage as well as various flints[10]. Glencrutchery is very poorly understood due to the absence of any notable recording (for example, there are no site plans and no records of what finds were made together or when). It is believed that the majority of the Ronaldsway Late Neolithic finds came from a series of pits and hollows. Bruce et al. (1947) suggested similarities in the size and diversity of the assemblage of material culture may warrant reconsidering Glencrutchery as a settlement site similar to the Ronaldsway 'house'; but one that was so poorly excavated that any structure that had existed was not identified. This reconsideration is dubious in my opinion; the Glencrutchery assemblage is the largest Ronaldsway Late Neolithic pottery assemblage known, yet it is poorly contextualised. Any assumption about the presence of structures at the site should remain conjectural.

Other Late Neolithic sites with settlement evidence

There are a number of known 'occupation' sites that indicate that, rather than searching for evidence of houses, we need to be looking for a different kind of settlement evidence. At Ballavarry a series of three interconnecting pits (though arguably they are amorphous in shape and could be burrows or tree throws where material has accumulated) were excavated in 1983, following surface finds of flint, Ronaldsway Late Neolithic pottery and a large charcoal concentration (Garrad, 1984a; 1984b: 162). The three pits were cut into the sand and contained:

> "…domestic rubbish including burnt bone… charcoal, flints and broken pots. There was no trace of any structure, or hearth, in the limited area exposed."
>
> Garrad, 1984b: 162

In addition, as mentioned earlier, a broken incised slate plaque was also found on this site (Garrad, 1984b: 162). This site is thought to be a domestic rubbish dump and has been linked

[10] There is also a jadeite axe from the same area, often referred to as the Glencrutchery axe (see Petrequin et al., 2008); however it is not from the same site.

to other nearby scatters of flint to suggest that it was originally part of a larger occupation site (Garrad, 1984b: 168). Similarly, at Ballacottier, fieldwalking and excavation in 1979 revealed sherds from at least 25 Ronaldsway vessels, as well as scrapers, pressure-flaked arrowheads, charcoal, blade flakes and a polished flint implement; the site had no cut features other than a (possibly natural) hollow within which material had accumulated (Garrad, 1984a: 160).

Similar sites with a mixture of lithics and Ronaldsway pottery sherds have been found at Ballachrink (McCartan and Johnson, 1992); Greenlands (Burrow, 1997b: 40; MNH MHER 1177 and 0399), at Knockaloe Beg (Burrow, 1997b: 41; MNH MHER 1042), where a cache of four RTB axes were also found nearby (MNH NMHER 1045), Park Farm (Burrow, 1997b: 40; MNH NMHER 2207) where there were a series of pits containing the finds and also a potential blank slate plaque; furthermore, spreads of lithics and broken pottery have been found near to Ronaldsway burial sites at Ballateare (MNH NMHER 1355) and Knocksharry (MNH NMHER 0906). A final example comes from the site of Ballaheaney where excavation again revealed a series of hollows associated with a large assemblage of lithics and pottery (Garrad, 1985; MNH NMHER 0332).

Quartz mounds are a highly enigmatic class of site. These mounds are no more than 2-3m across and produce a spread of broken quartz, often associated with lithic waste. Pitts (1999) has suggested a Late Neolithic-Bronze Age date for the site type due to their association with flint debris, occasional Early Bronze Age pottery and polished axeheads. The absence of quartz mounds from the rest of Britain led Pitts (1999: 73) to postulate that they "…may have originated in the Late Neolithic Ronaldsway Culture and have been retained for a considerable period". Pitts' surveys of quartz mounds revealed they contain a large amount of heat exposed quartz; unlike a burnt mound, these sites were not associated with water sources. Davey and Woodcock (2003) excavated a quartz mound at Rheast Bruigh revealing unburnt quartz in a grey gritty matrix; the mound contained Middle Neolithic pottery and produced a radiocarbon determination of 3646-3041 cal BC (AA-39813) (Davey and Woodcock, 2003: 132). Pitts (1999: 72) suggested several possible functions, including heating the quartz to use as a pottery filler, using the mounds as cremation platforms; or for firing pottery or metallurgy. The presence of quartz at these sites has been taken to indicate that they may have had symbolic significance (*sensu* Davill 2002). These sites are not particularly well understood or dated.

The numerous sites that have now produced finds of broken pottery and lithics dating to the Ronaldsway Late Neolithic indicate that, rather than searching for evidence of structures from the period, we may be looking at short-term dwellings with amore ephemeral archaeological signature that will produce finds of flint and pottery. These sites, their dating and material assemblages are analysed in Chapter 7.

Billown and the Billown Neolithic Landscape Project

From 1995-2003 a team from Bournemouth University, led by Tim Darvill, undertook excavations on the Isle of Man in collaboration with Manx National Heritage (Darvill, 2004b; 2003b; 2001b; 200b; 1999b; 1998; 1997; 1996). These excavations focused on an area of land in the south of the island that was being quarried; in addition a campaign of recording, geophysics and trial excavations across the wider landscape and Neolithic sites was also carried out. The site was originally identified when fieldwalking revealing a large amount of worked flint. Over eight seasons of excavation numerous features were discovered and the geophysical surveys identified many new sites as well as numerous features associated with known, upstanding (but often unexcavated) sites such as mounds and standing stones.

Billown shows evidence of occupation from the Mesolithic (Darvill, 1996) with both Mesolithic lithics and hearths in the area producing radiocarbon determinations of 4685-4349 cal BC (Beta-89312). Throughout the Neolithic occupation of the site was intermittent with a number of pits, shafts, scoops, Ronaldsway Earthfast Jars and hearths associated with Neolithic pottery. Part of the site has been identified by Darvill as a causewayed enclosure.

Darvill (1997) identified a mini-henge on the site, “perfect in every respect with a pair of aligned entrances and internal pits containing burnt bone and quartz pebbles, but with an internal diameter of just 1.8m” (Darvill, 2000a: 380). This small feature is made up of two semi-circular ditches with interruptions in the northeast and southwest and contains 12 central shallow scoops (1997: 28-9). In the appendix from the 1996 season of excavation the nature of the feature is debated by Miles Russell (1997: 68-70). Three possible interpretations are suggested for the feature: either it is a ring-ditch, an enclosed cremation cemetery, or a mini-henge. At present the site has not been dated. The possibility of the feature being a ring-ditch

is dismissed due to the double set of entrances which are uncommon in ring-ditch sites (Russell, 1997: 68). Russell (1997: 69) dismisses the enclosed cremation cemetery interpretation due to the lack of dates and because he does not feel certain that the burnt bone, within scoops, can be identified as burial deposits. I suggest that the small scoops of cremated remains could easily be burial deposits similar to those found across the island at sites like Ballateare. Following Harding and Lee (1987), whose definition of a henge is a circular or oval enclosure, with one or two entrances, with an internal diameter of over 14m, Russell classes the site as a mini-henge based purely on the morphological definition. Whilst, morphologically, the definition might stand, the term 'henge' presents a problem. The term henge has numerous connotations and significances that indicate a potential shared set of beliefs as well as practices with other places in Britain and Ireland. Despite this inconclusive debate over the 'mini-henge' feature in the appendix of the interim report, disseminations of the research from the site in various edited volumes identify the feature unequivocally as a mini-henge.

Less controversially, the site uncovered four Ronaldsway Earthfast Jars, three of which were buried in a terrace cut into a slope of the eastern part of the site, and Darvill (1999a: 20) has sought to draw a parallel with Ballateare in the arrangement of the jars in association with a ring-ditch. Darvill (2004a: 48-9) associates the use of pits throughout the Neolithic as a form of place-making and evidence of an intermittent occupation of the site. For Darvill (2000b) the site is one of special and probable ceremonial character. Early in the chronology of the site the pits are shallower and perhaps better described as hollows, whilst later on they are "monumental in character" (one reaches 6m in diameter) (Darvill, 2004a: 49). Most of these pits contain broken incomplete pottery vessels, quartz pebbles and a combination of worked flints; all of them contain "either a hearth or spreads of charcoal-rich soil suggesting a hearth had been situated adjacent to the pit and contributed material directly into the fills" (Darvill, 2004a: 49). For Darvill these pits are not directly connected with occupation, nor are they sites of deliberately placed and ordered deposits; rather their primary function is as holes in the ground which forms a channel into the earth, through which, Darvill (2000a: 379) suggests, inhabitants of the site could communicate with an underworld.

The Billown project is easily the largest (in terms of time, people and area covered) campaign of excavation of prehistoric remains on the island. There is no doubt that it has changed our perceptions of the Manx Neolithic and indeed raised awareness of the material in Britain and

Ireland: the publication list from Darvill concerning Billown is impressive. The project also funded numerous radiocarbon determinations that finally gave the Manx Neolithic a reasonable chronology. However, the excavation is not without its faults. There is yet to be a final report on the site and, as I will discuss below, Bayesian analysis and re-dating of some of the Billown material, as part of *Gathering Time* (Whittle et al., 2011), questions many of Darvill's interim conclusions.

In my opinion one of the problems with the project stems from its design. The project was specifically designed to study the Neolithic in microcosm through the use of an island (Darvill, 1996: 9). Darvill states,

> "Like all islands… Mann provide[s] sharply delimited physical spaces that can be used as laboratories for the study of social behaviour and the influence of both internal and external agencies..."
>
> Darvill, 2000a: 371

The notion that islands could be used as laboratories to study prehistory in microcosm is one that was prevalent during the 1960s and 1970s. The idea that islands represent small, bounded and isolated microcosms of the rest of the world has a genealogy in archaeology, anthropology and biogeography (Rainbird, 2007: 28). Islands are typically seen as the home of 'pristine cultures' and closed systems where academics can study complex processes more easily by reducing the number of variables and differing influences on a given culture. Evans (1973: 517) suggested that New Archaeology could use islands to create hypotheses about culture and study change in a smaller, simpler, closed system. Such ideas are now widely held to be false, making Darvill's claim in 2000 seem out-dated. Rather than perceiving islands as isolated it is now more common (see Broodbank, 2000; Gosden and Pavlides 1994; Rainbird, 2007) to argue that islands are not isolated by the sea - but rather connected to other places and peoples by it.

In addition to the theoretical issues associated with studying an island as a microcosm the project is also weakened by its specific Neolithic aims. Darvill's desire to excavate the Neolithic in microcosm leads, in my opinion, to a hasty characterisation of many of the excavated sites as classic Neolithic site types from Britain and Ireland. Prior to Darvill's work on the island there were no known henges or causewayed enclosures. In my opinion, his desire to discuss

broader British Neolithic trends led him to incorrectly classify the two semi-circular ditches as part of a mini-henge and to identify the site as a causewayed enclosure. As Brophy (2004: 37) argues, causewayed enclosures are not typically associated with the Irish Sea zone, and indeed the search for them in the area is founded on the basis that because they exist in southern England they must also be in other places.

New radiocarbon dates and Bayesian analysis of existing dates, has resulted in the Billown causewayed enclosure being re-interpreted as a Bronze Age field system (Bayliss, et al., 2011b). As Bayliss et al. (2011b: 560-1) highlight, the presence of a causewayed enclosure on the island, based on the geographical distribution of known sites, would be very surprising indeed. Whilst the authors accept that the Isle of Man could have supported a causewayed enclosure they are not happy to accept the Billown enclosure as an example of such. Darvill (2001a) has also sought to identify a series of banks and ditches at Skibrick Hill, also on the southern plain of the island, within 1.5 miles of Billown, as a second causewayed enclosure, despite trial excavations producing unequivocally Late Bronze Age dates for the site (Darvill, 1999b: 30-9). Bayliss et al. (2011b: 560-1) endorse the existing chronological determinations associated with the pits and scoops at Billown. They interpret the site as a place of continued importance for gathering communities from the Mesolithic onwards.

Ballateare

The funerary evidence for the Ronaldsway Late Neolithic is characterised by cremation practices. The site of Ballateare (discussed briefly earlier) is thought to have been preserved due to the overlying Viking burial mound, indicating we may have lost similar sites. Bersu excavated six discrete cremation deposits; additional burials may have been destroyed in the surrounding area where the mound had not protected them (Bersu, 1947; Bersu Archive at MNH). Numerous hollows up to 1-2m wide were excavated with single fills of brown sand and humus as well as charcoal flecks, worked flints and cremated bone fragments (Bersu, 1947: 163). In addition two ‘ustrinae’ (discussed above) were also discovered; these features contained alternate layers of sand and sooty earth and ash with cremated bone. Within the cremation deposits themselves, there were no traces of charcoal suggesting the careful selection of remains to be deposited from the burnt material (Bersu, 1947: 165). Five

Ronaldsway Earthfast Jars were also found at the site, at the same height as the cremation deposits.

Knocksharry

Following the discovery of the Ballateare cremation cemetery, the site of Knocksharry, excavated in 1930 by Cubbon, was re-assigned by Bruce et al. (1947) from the Bronze Age to the Late Neolithic on the basis of similarity with Ballateare. Like Ballateare the site contained a number of cremations and five Ronaldsway Earthfast Jars as well as what appeared to be two ustrinae similar to those found at Ballateare (Cubbon, 1932; MNH NMHER 0896). At Ballateare the ustrinae were found in pits whereas at Knocksharry the feature identified as a ustrinae is described as a platform; this speaks of the somewhat indiscriminate use of this term, what a ustrinae is, in the context of the Ronaldsway Late Neolithic, is ill-defined. On the platforms at Knocksharry the remains of three cremated individuals were recovered. By current standards, the original report leaves much to be desired; the report is seven pages long and a lot of the detail has escaped recording, there being no site plan that details where the finds were made or shows the nature of the structures uncovered and only a single photo of the excavation. Knocksharry, unlike Ballateare, is situated on top of what would appear to be a natural mound. Cubbon links the mound with two upright quartz blocks that he describes as “portal stones”, incorporated, upright into a dry stone wall (Cubbon, 1932: 447). The direct association of the portal stones with the cremation cemetery and the mound is not certain, but the report notes a large amount of broken quartz surrounding the burials within the fabric of the mound, perhaps adding weight to the association. Cubbon also records one peculiar burial within the mound, where a Ronaldsway Earthfast Jar has been turned upside down and placed over cremated remains on top of a slate base. This example is the only know case where a Ronaldsway Earthfast Jar has been found buried upside down. Indeed this practice is far more reminiscent of Early Bronze Age practices, discussed in Chapter 2, where Collared and Cordoned urns are inverted over cremated remains.

Ballaharra

The chambered tomb at Ballaharra was discovered during quarrying and a rescue excavation was conducted by Sheila Cregeen between 1969 and 1983. The site shows multiple phases of

activity from the Early-Middle Neolithic to the Early Bronze Age (see Higgins and Davey, forthcoming). The chambered tomb (Figure 3-12) was cut into sand during the Early-Middle Neolithic and contained numerous deposits including human bones, Middle Neolithic pottery, hazelnut shells and flint as well as evidence of burnt layers within the tomb. Later deposits of a Food Vessel Bowl and a sherd of potential Beaker pottery were made in the Early Bronze Age[11]. The bones from the site have not received extensive dating and as such it remains unknown whether some of the bones from within the main chamber were deposited with the Food Vessel Bowl in the Early Bronze Age, or if the bones could also have dated to the Late Neolithic.

Outside the main tomb several cremation deposits, burnt deposits, postholes and a number of channels were also discovered (Figure 3-12). The most notable deposit, from the Late Neolithic, is Cremation 1 (see Fowler, 2004; 2002; 2001). This deposit contained at least 34, but possibly 40, individuals as well as a tooth from a sheep or goat, a dog tibia, a bird bone, a flint flake, 4 kite-shaped arrowheads and a sherd of pottery. Two radiocarbon dates from charcoal within the deposit indicate a Late Neolithic date. In addition to the cremation a mixed inhumation deposit was also uncovered. The deposit appears to have been formed from three individuals - an adult male, a youth and a child aged 10-12 years – but the bodies were arranged so as to appear like a single inhumation.

[11] Further Food Vessel sherds were found in association with foetal or new-born baby remains outside of the Chambered Tomb.

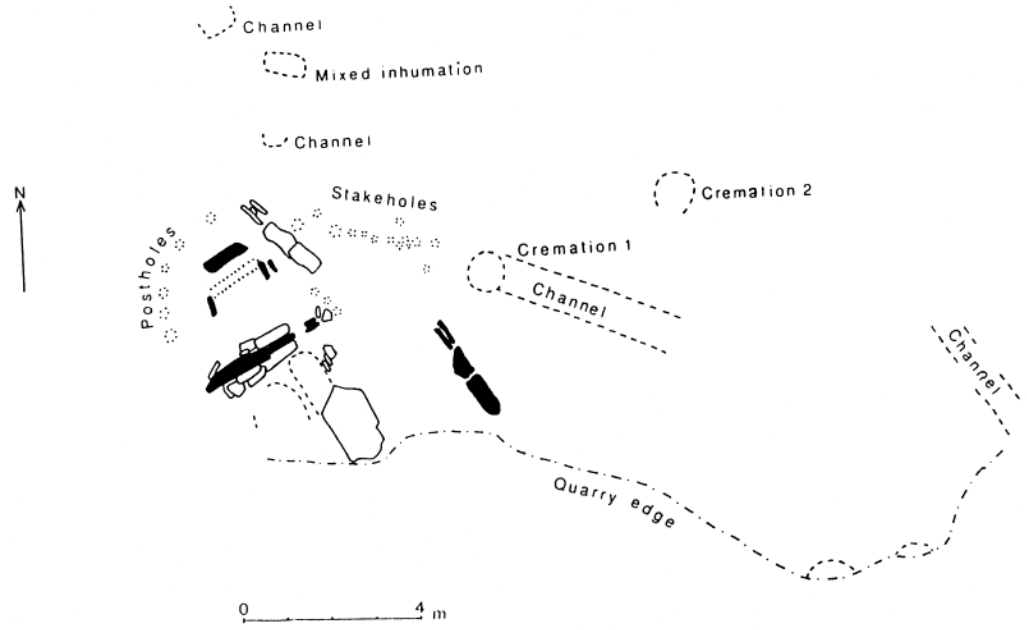


Figure 3-12: Plan of Ballaharra showing main features and deposits of human remains. Taken from, Fowler, 2001: 151, fig 2 (after Cregeen, 1978).

Killeaba

The site of Killeaba in Ramsey contains evidence from the Middle Neolithic to the Early Bronze Age. Killeaba is a natural glacial mound that had been of known archaeological significance for a long time. Oswald noted a:

"mound of considerable dimension… had on top the unusual *kist vaen* – a rude stone grave, consisting of a few upright stones with a large heavy slab resting on the top; within were found some very small piece of unbaked pottery, with a black substance which was probably charred human bone"

Oswald, 1860: 57-8

The site was re-discovered during construction work and excavated between 1968-9 (Cubbon, 1978) (Figure 3-20) and evidence of antiquarian disturbance was revealed (there was also a second disturbance from the burial of a sheep skeleton) (Cubbon, 1978: 71). Approximately 50% of the mound was excavated and Cubbon suggests that 85% of the productive areas were excavated (1978:71); the mound remains, with clear evidence of excavation, in the middle of a housing estate (Figure 3-13).

Figure 3-13: Killeaba

Two Ronaldsway Earthfast Jars were discovered near the centre of the mound as well as a burning pit. The burning pit had two use phases. Stratigraphic relations suggest its earlier use was before the deposition of one of the Earthfast Jars and the later use was after the deposition of that same jar. Furthermore, a cremation deposit was found within a timber lined pit; the timber produced a radiocarbon date of 3031-2864 cal BC (89.6% probability, BM-839). Several other deposits of cremated remains may also date to the Ronaldsway Late Neolithic.

Other Late Neolithic sites with burial evidence

A potential cremation cemetery was excavated in the 1990s by Nick Johnson, at Ballig. Here the excavator located five Ronaldsway Earthfast Jars in a row each containing charcoal staining; two were associated with cremated remains (Burrow, 1997b: 38). There is, at present, no report or paper for the site held by MNH; this is a shame as there are few such vessels that have been excavated using modern techniques. The site of Scard provides another example of a potential cemetery site: here Kermode excavated nine jars in 1897 (Burrow, 1997b: 39; Kermode 1902; MNH NMHER 0065). These jars were found in two parallel lines all buried mouth upwards with one covered by a slate lid. Charcoal and burnt soil were found in the base of each jar along with a very small amount of cremated bone, and in addition three flints were found in association with the earthfast jars.

The site of West Kimmeragh, excavated by Garrad in 1984 and 1985 stands apart as a peculiar site (Garrad, 1987; MNH NMHER 0397). Originally located by a surface scatter of broken quartz and Ronaldsway Neolithic sherds, excavation revealed a large cobbled area (at least 12x11m) with closely packed stones (Garrad, 1987: 422). In addition three hollows containing charcoal and flecks of burnt human bone were found. The site also produced burnt stones, pottery sherds and several leaf-shaped arrowheads. Radiocarbon determinations taken from carbon on pottery sherds have produced dates of 3017-2678 cal BC (OxA-5889), 3083-2624 cal BC (OxA-5890) and 3082-2699 cal BC (OxA-5891) (Burrow and Darvill, 1997). The site was only partly excavated and only further excavation is likely to clarify interpretations.

Beakers on the Isle of Man?

Clark (1935: 83) describes the influence of the Beaker phenomenon on the Isle of Man as follows: "…weak, it is true that a few stragglers reached Ireland, but Man lay definitely in an area peripheral to the main Beaker spread". Darvill (2000a: 381-2) notes that in many ways this is surprising given the island's prominent position in the centre of the Irish Sea and the occurrence of copper ores on the island. Contra to this position, Woodcock (2001: 198) suggests that "…in view of the apparent insularity of the island during the preceding period, it is perhaps surprising that this generally ubiquitous vessel is found on the Island at all". As is obvious here opinion on Beakers is divided.

In 1919 a cist without a capstone was discovered in Baroose, Lonan (Figure 3-14). Within it was discovered the only known complete Beaker from the Isle of Man. Quine (1925: 271) describes how "…quantities of charcoal, implying cremation on the spot where the cist was constructed, and two flints one a small rude scraper, the other a slightly chipped nodule" were recovered during excavation (Figure 3-15). This Beaker (Figure 3-16) was identified by Clarke (1970: 484; 562) as a Late Northern (M) type. Comparison with Needham (2005: 192-3, Figure 8 and Table 4) shows that this Short Necked Beaker holds some of its design in common with that found at the Broomend of Critchie in Cist 2 dated to 2480-2340 cal BC (OxA-11243), a notably early date (Figure 3-17). However, this is not a particularly close match and the Beaker is perhaps best considered as somewhat of a local oddity. In addition to this find there have been a

number of All Over Cord sherds found at Ballachrink (McCartan and Johnson, 1992). The lithic assemblage from Ballachrink with which these sherds were associated has a "strong Manx Late Neolithic element" (Burrow, 1997b: 32). Furthermore, a single sherd of Beaker pottery was found in a ditch at Billown during the 2003 season; this sherd is comb impressed (Darvill, 2003b: 18). Woodcock (2001: 198) also suggests that some sherds of either Beaker or Grooved Ware were uncovered at Port Cranstal: these sherds are in private ownership.

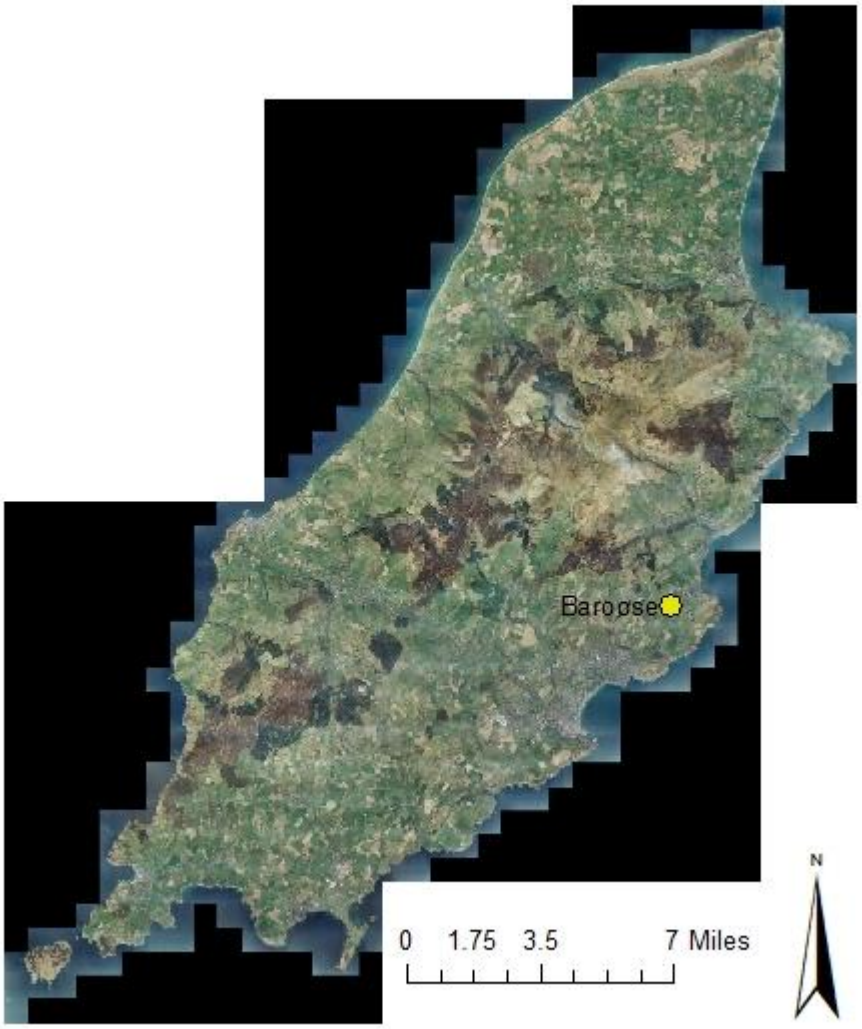


Figure 3-14: Map to show location of Baroose cist.

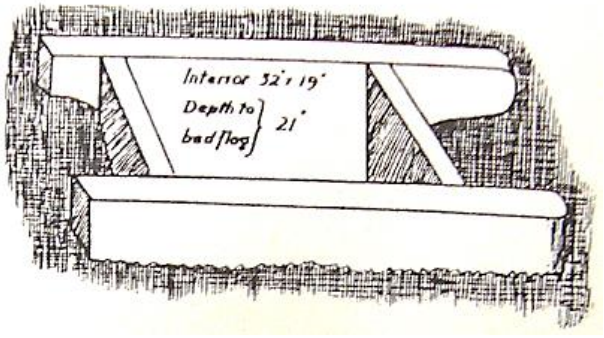


Figure 3-15: Image of the cist from the original publication by Quine (1925: 271).

Figure 3-16: Baroose Beaker.

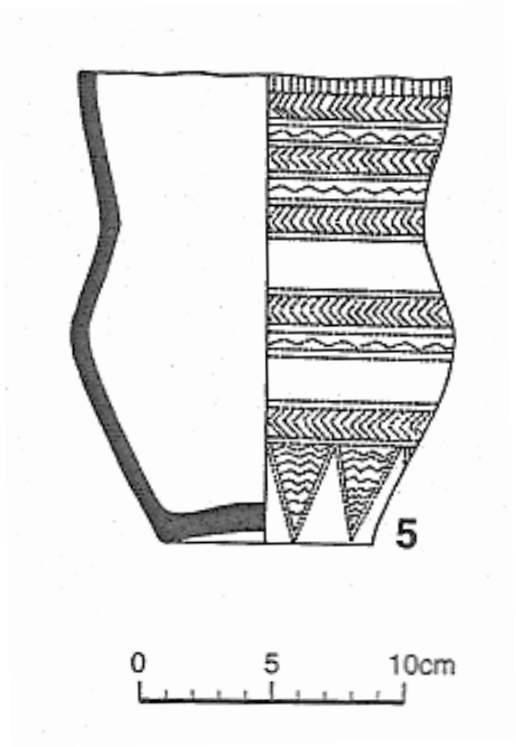


Figure 3-17: Illustration of the Broomend of Critchie, Cist 2 Beaker. Taken from Needham (2005: 192-3, fig 8)

Burrow interprets the Beaker evidence on the island as showing a mixture of Ronaldsway Late Neolithic traits. For example, there is one sherd from Ballachrink (B'ch1) that does not fit easily within Beaker typologies and had instead more in common with a Ronaldsway Earthfast Jar rim in terms of decoration, whilst the fabric is more reminiscent of a Beaker (Burrow, 1997b: 32). For Burrow (1997b: 33) this suggests an "adaptation of local practices to incorporate new cultural concepts, rather than the arrival of new people with wholly new practices". Such an interpretation holds much in common with the ideas expressed in the previous chapter regarding Beakers. Finds of Beaker sherds on settlement sites (Billown and Ballachrink) and the adoption of Food Vessel burials suggest clear links with Ireland at the start of the Early Bronze Age, and this is a subject I return to in Chapter 6 and 8.

An Early Bronze Age on the Isle of Man

In this section I will consider first the evidence for copper and copper alloy objects on the island itself and then move on to explore the burial evidence from the period. The burial evidence forms the bulk of the material. I will briefly consider the lack of settlement evidence

for the period looking at burnt mounds. The most comprehensive study of the Bronze Age on the Isle of Man is by Jenny Woodcock (see her 2001 PhD, and a subsequent catalogue of Bronze Age pottery (2008) (for a review, see Nash 2010)). The metalwork from the period has been studied and reviewed twice (Davey et al., 1999 and Davey, 1978), and as part of the *Billown Neolithic Landscape Project* a study into copper mining on the Langness peninsular was carried out (Doonan and Eley, 2004; Doonan and Eley, 2000; Doonan et al., 2001). As with the preceding section on the Ronaldsway Late Neolithic, the discussions and presentations of the sites below are preliminary and brief as all sites receive a more detailed treatment in Chapters 5, 6 and 7. The location of all the sites mentioned in this section is shown in Figure 3-18.

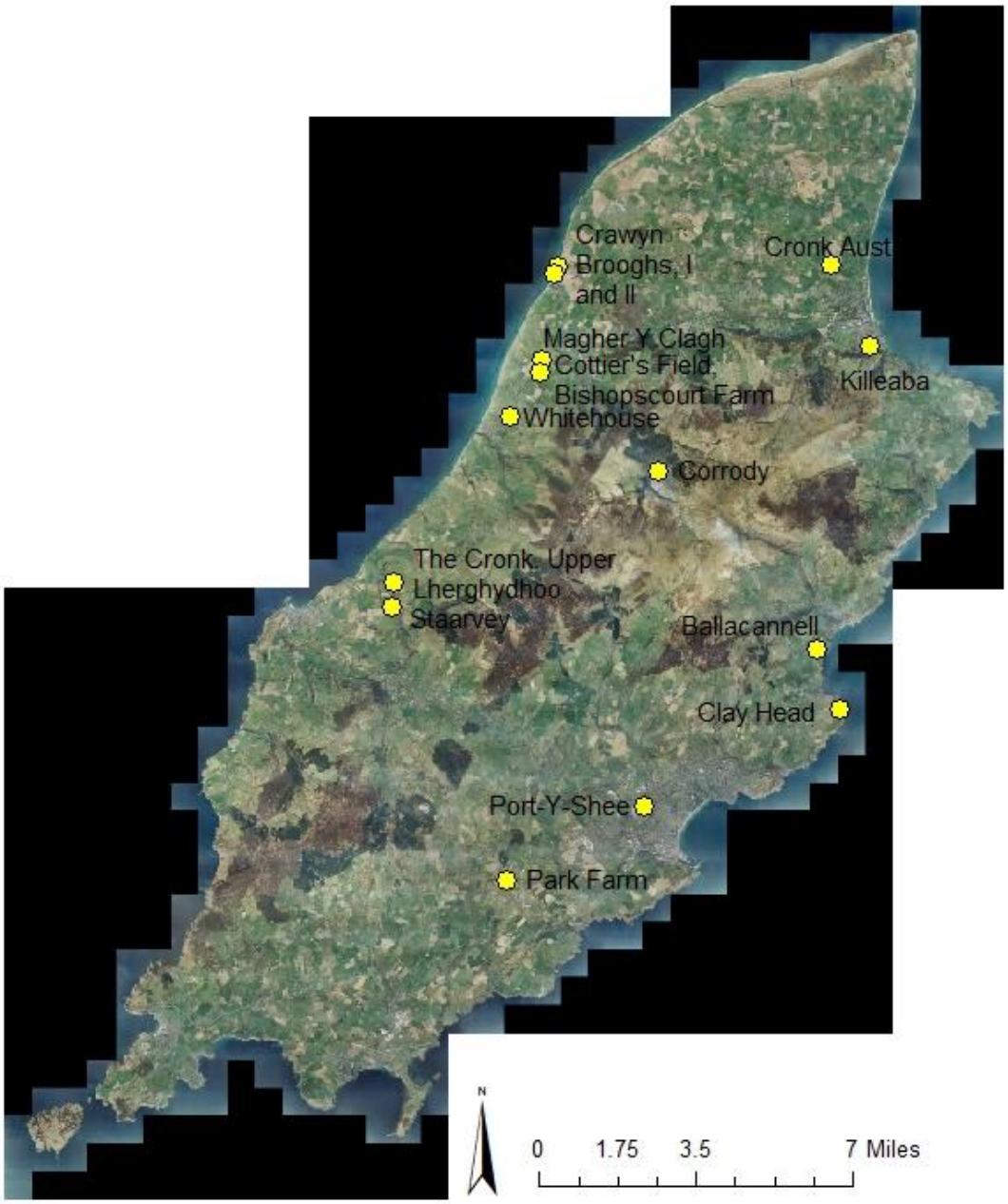


Figure 3-18: Map to show the Early Bronze Age sites discussed in the text

The arrival of Bronze

There were almost 50 known examples of Bronze Age copper, copper alloy and gold metallurgy from the Isle of Man in 1999 when a catalogue was last produced (see Davey et al., 1999). There are at least 18 objects that date to the Early Bronze Age (Davey et al., 1999). There are examples from all of Needham's (1996) Phases I-IV. In addition to the published catalogue in Davey et al. (1999), recent finds of unalloyed copper objects near Peel have added an additional two copper flat axes, and a potential copper blade as well as several peculiar

copper objects all from the same area with unclear chronological associations (see Chapter 5 for further discussion). An additional copper flat axe was also discovered in the Andreas area. These items remain unpublished at present. With the exception of a razor that was found in association with a Cordoned Urn, and a later socketed axe found at Ballakeighen, none of the Bronze Age metallurgy has been recovered in the context of an excavation or in association with any dateable material. At present, therefore, the chronology of bronze metallurgy is a relative one.

There are copper ore sources on the Isle of Man at Bradda Head and Langness, both in the south of the island. In 1989 Pickin and Worthington published an article detailing their finds of prehistoric mining hammers from Bradda Head. These hammers were suggested by Picking and Worthington to be evidence of Bronze Age mining. This belief was attacked by Davey et al. (1999: 42) on the grounds that the authors' suggestion that the hammers originate from mining backfill cannot be proved and that it is unclear from what period the deposit actually dates. The original Picking and Worthington article also mistakenly identified a flat axe mould as being from Maughold on the island. However, the issue of whether or not there was mining at Bradda Head remains, as in the case of many prehistoric mines the site was exploited well into the twentieth century with mining buildings and associated debris still evident at the site today.

Davey et al. (1999) present chemical composition analysis on 28 objects (carried out by Peter Northover) in their catalogue of Bronze Age metalwork alongside the debate regarding local mining in the Early Bronze Age. Chemical composition analysis confirms that the Chalcolithic and Earliest Bronze Age axes (that is all the known flat axes) are all of an Early Irish type where the elemental composition includes As/Sb/Ag. This suggests that the metal ores were sourced in Ireland, most likely from the Ross Island mining site (Davey et al., 1999: 58). This marries with the typological evidence that shows no evidence of the objects having a specifically "Manx" style suggesting that the metalwork was well integrated into broader British and Irish patterns. Davey et al. (1999: 60) also suggest that the composition of the axes can be taken as evidence that there is "no reason to suppose that the copper deposits of Bradda Head were used".

Despite this strong rebuttal regarding the use of Manx ores, the *Billown Neolithic Landscape Project* set out to investigate, through a series of excavations to attempt to locate evidence of mining, whether the copper ores located on the Langness peninsular had been exploited in prehistory (Doonan and Eley, 2004; Doonan and Eley, 2000; Doonan et al., 2001;). Prehistoric hammerstones have been found in association with copper ore mineralization on the Langness peninsular, which can be interpreted as evidence of prehistoric copper mining (Doonan et al., 2000: 47) (Figure 3-19). Excavations produced evidence of industrial exploitation, indicating a modern date for the exploitation of copper on the peninsula (Doonan et al., 200b: 42). Further research aimed to locate evidence of smelting on Langness through geochemical analysis, geophysical survey and excavation (Doonan and Eley, 2004: 49). The research failed to locate evidence of smelting. Despite the failed attempts to locate firm evidence of mining or smelting, the interim report from the *Billown Neolithic Landscape Project* is keen to assert that finds of hammerstones along the coast of Langness, and on Bradda, are evidence of Bronze Age mining (Doonan et al., 2001: 47). The report suggests that evidence may have been covered by the tonnes of modern mining debris or now be under the sea.

Figure 3-19: Maul from Turkeyland, nearby to the Langness Peninsula. More hammerstones and mauls were found during the *Billown Neolithic Landscape Project*

The Early Bronze Age Burial Evidence

As discussed in Chapter 2 there is a well-established (and dated) series of burial and ceramic practices for the Early Bronze Age. Nearly all the known Early Bronze Age pottery has been found in burial contexts on the island, and holds much in common with the pottery of the rest of Britain and Ireland. Table 3.2 shows the range of Early Bronze Age pottery known from burial contexts on the island and is based on Woodcock (2008).

Vessel Type	Number Known
Accessory Vessel	1
Food Vessel Bowl	12
Food Vessel Vase	2
Vase Urn	2
Cordoned Urn	19
Collared Urn	9
Encrusted Urn	2
Un-diagnostic	14
TOTAL	61

Table 3.2: Early Bronze Age pottery vessels from burial contexts

The Irish practice of burying both unburnt and cremated remains with Food Vessels appears to have been adopted. Sites such as Killeaba (Cubbon, 1978; MNH NMHER 0231), Magher Y Clagh (Garrad, 1992; MNH NMHER 0408), Cottier's Field, Bishopscourt Farm (Woodcock, 1999a), Cronk Aust (MNH NMHER 0467) and Park Farm (MNH NMHER 2207) have all produced finds of Irish Food Vessel Bowls. At the site of Magher Y Clagh (Garrad, 1992; MNH NMHER 0408) two cists were found, both containing inhumation burials, one of which contained a small Food Vessel. At the site of Cottier's Field at Bishopscourt Farm (Woodcock, 1999a) a large double cist, divided by a septum, was uncovered that, again, contained two burials, cremated remains in one chamber and an inhumation in the other, both associated with Irish Food Vessel bowls. Unburnt human bone from the cist associated with 'Bowl B' (Woodcock catalogue 007) produced a radiocarbon date of 2131-1695 cal BC (GU-2698) (Woodcock, 2008: 152). This date sits well within the range of dates that Brindley postulates for Food Vessel Bowls in Ireland (2160-1930/20 cal BC) and the dates suggested by Sheridan (2004) for Scotland, as illustrated

in Figure 2-8 Both the material culture and practices at these sites are similar to those of Ireland.

Of the sites with Food Vessel Bowls it is perhaps the site of Killeaba (discussed earlier in terms of Ronaldsway Late Neolithic evidence) that deserves the most discussion in this thesis as it contained burials and features from both the Neolithic and Bronze Age. The mound contained at least 14 burials (Figure 3-20), some of which are certainly Ronaldsway Late Neolithic (discussed earlier). The sequence of burials on the site is not easy to ascertain as all the burials are inserted into the fabric of the mound so there are few stratigraphical relationships. The site suggests practices changed through time, broadly from cremation and burial in pits or bags to inhumation in cists and then later returning to cremations buried in cists. A new chronology for the site is presented in Chapter 6 based on new radiocarbon dates.

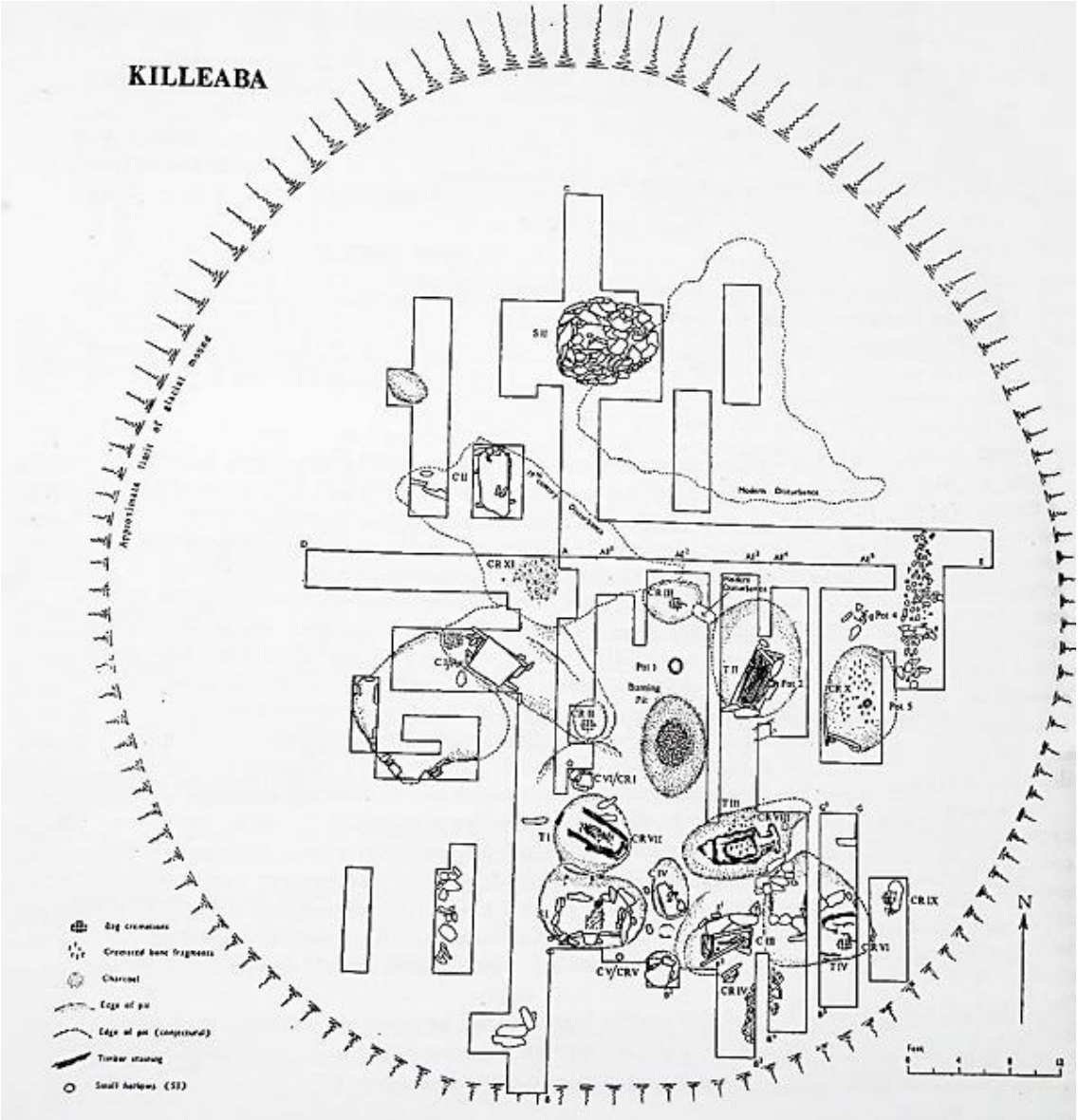


Figure 3-20: Plan of Killeaba. Taken from Cubbon, 1978: 72, Fig 2.

Whilst Food Vessel Bowls are the earliest form of Food Vessel, Brindley's work (2006) shows that Bowls may be contemporary with the slightly later Food Vessel Vase as well as Encrusted Urns (Figure 2-8). At the site of Whitehouse both an Encrusted Urn and a Food Vessel Vase were uncovered. Woodcock (2008: 73) suggests that two un-provenanced Cordoned Urns may also be from the site, but confusion in the original antiquarian records prevents a definite answer. As discussed in Chapter 2, the contemporaneity of Encrusted Urns and Food Vessel Vases implies that we must recognise the choice of one kind of vessel over the other.

Brindley (2006: 286) dates Collared Urns to 1850-1700 cal BC. There are 15 known examples of Collared Urns listed in Woodcock (2008). Problematically, the vast majority of these were excavated with very poor records by antiquarians. The site of Staarvey was excavated by Basil Megaw in 1947 (Woodcock, 1999b; MNH NMHER 0974). Excavation revealed a single cist with no standing covering mound but evidence of small angular stones in the top of the plough soil indicating ploughing may have eroded a small covering cairn (Woodcock, 1999b: 89). Within the cist an inverted Collared Urn covering a large amount of cremated material was uncovered. A second vessel, a Cordoned Urn, was recovered from the opposite end of the cist; this vessel was broken and a mix of broken pottery sherds and cremated remains were found around this second urn. In addition a plano-convex knife was recovered with retouch on the right, left and distal edges (Woodcock, 1999b: 95). A radiocarbon date from the cremated remains (though it is unknown which set of remains were dated, those associated with the Collared Urn or the Cordoned Urn) suggests they date to 1956-1695 cal BC (GrA 29940).

Brindley (2006: 292) dates Cordoned Urns to 1730-1500 cal BC giving them a slight overlap with the earlier Collared Urns in Ireland. Far better contextual evidence, on the whole, exists for the 34 known Cordoned urns. Figure 3-21 shows the distribution of Cordoned Urns in Britain and Ireland (though not the Isle of Man); the quantity of vessels on the Isle of Man may speak of relations with north-east Ireland and south-west Scotland. The site of Port Y Shee (MNH NMHER 0692) is the only burial site that has produced any unequivocal evidence of bronze metalwork directly associated with a burial. A Cordoned Urn was found inverted over cremated remains and a bronze razor. The Cronk, Upper Lherghydhoo was excavated by Sheila Cregeen and Prof. E. Rynne in 1980-1. Ploughing had uncovered a large cist containing cremated bone and a Food Vessel Vase (Woodcock, 1996: 237). A Cordoned Urn was found with a cremation and a cup-marked piece of slate was also uncovered; the remains appeared to have been disturbed, lying scattered across a small area. A further scatter of cremated remains was accompanied by an undecorated vessel. These two secondary burials were not within cists, rather they were within the fabric of the mound itself.

Figure 3-21: Distribution of Cordoned Urns in Britain and Ireland (excluding the Isle of Man). Taken from Bradley 2011: 176, fig 6.8.

The burial and ceramic evidence from the Early Bronze Age shows parallels with practices known from Britain and Ireland during this period. The burial of Food Vessel Bowls with inhumations and cremations at the very beginning of the Early Bronze Age holds much in common with known patterns from Ireland (see Chapter 2), indicating perhaps that it was Irish practices and Irish relations that had an impact at the start of the Early Bronze Age. Later practices of burying cremated remains under inverted Cordoned and Collared Urns again hold much in common with wider practices across Britain. As elsewhere, there would appear to be contemporaneity between many of the Early Bronze Age pottery types. Those burying the dead are making decisions, with social meanings and connotations, about what to place in the grave.

Evidence of settlement in the Manx Early Bronze Age

In common with much of Britain and Ireland there are no known settlement structures from the Early Bronze Age on the island. In many ways the settlement archaeology of the Early Bronze Age is very similar to that from the Ronaldsway Late Neolithic. Where I suggest the two periods differ is that we have been able to identify numerous spreads of flint and broken pottery that indicate occupation activity for the Late Neolithic, even if we have not been able to identify any formal settlement structures. At the Early Bronze Age site of Crawyn Brooghs (Woodcock and Davey, 1999; MNH NMHER 1361), worked flint, fragments of pottery and bronze tools were recorded eroding from the cliff in the area near Killane Mill for over a hundred years (Woodcock and Davey, 1999: 111-2). In 1995 two pits were excavated in the area whilst pottery was again spotted eroding from the cliff. The first pit measured some 1.75m by 1m with a maximum depth of 0.67m and produced 111 sherds of Bronze Age pottery and one sherd of Neolithic pottery (Woodcock and Davey, 1999: 113-4). The sherds appear to represent two vessels, one of which appears to be a Cordoned Urn with no association with any kind of funerary deposit. The vessel appears to have been broken when it was deposited in what the excavators suggest was a rapidly filled pit (Woodcock and Davey, 1999: 116-7). The second pit contained lenses of charcoal and burnt stone as well as darkened stone and a Bronze Age flint assemblage.

Burnt mounds are one of the most ubiquitous classes of prehistoric site in Britain and Ireland. However their dating is unclear, many are thought to date to the Middle Bronze Age but their full chronological range is more extensive. Excavations on the Isle of Man have revealed that some may date to the Early Bronze Age. The area of Clay Head, in Maughold (Cubbon, 1924; MNH NMHER 0663) is rich with Bronze Age activity containing a barrow, a probable cairn and a cist burial as well as three excavated burnt mounds. The mounds are described in the MNH NMHER as follows:

> "The mounds were largely formed of angular fragments of local Manx slate, reddened and fractured by heat, in a matrix of friable black soil containing much fragmented charcoal… sites 1 and 3 each revealed two periods of use and produced evidence of boiling troughs and hearth deposits, rich in charcoal.
>
> The excavated sites were interpreted as open-air cooking places … Radiocarbon dating of four charcoal samples from Sites 1 and 3 gave a range of dates from 2200-1050 BC, after

adjustment, and it appears that intermittent occupation of the cooking sites extended from the Late Neolithic to Middle Bronze Age periods."

MNH NMHER 0663

Burnt mound sites provide us with a small amount of evidence for settlement; however, given their currently unclear dating range, they are hard to include in any more detailed discussion. Excavation and radiocarbon dating of more burnt (and quartz) mound sites is required in order to talk about these classes of site with more confidence. It is surprising that neither more midden-type sites, nor sites with spreads of lithics and ceramics have been discovered. A recovery bias may be impacting the data here; the low number of Early Bronze Age sites could be the result of their clustering on a specific part of the landscape that has since been truncated or eroded. It would seem on the evidence at present that, as is the case for the Late Neolithic, we need to imagine relatively mobile populations with ephemeral forms of settlement.

Debating Change?

Having reviewed the archaeological evidence and interpretations offered for the Late Neolithic and Early Bronze Age on the Isle of Man, I now want to discuss the ways in which the transition from the Late Neolithic to the Early Bronze Age has been discussed and theorised. What kinds of explanations have been offered for the transition from the Ronaldsway Late Neolithic to the Early Bronze Age? In Chapter 2, I argued that there were numerous continuities between the two periods in the rest of Britain and Ireland. Yet, as the evidence discussed in this chapter indicates, on the Isle of Man the contrast between the two periods seems clearer than elsewhere. However, alongside this stark difference there is also an issue of chronological resolution. The latest date for a Ronaldsway Late Neolithic site is 2429-2033 cal BC (carbon on a Ronaldsway Late Neolithic sherd from Ballaheaney (OxA-5894)); however this is a very long date range. The earliest Food Vessel date (before the new dates presented in Chapter 6) was 2132-1695 cal BC (from a Food Vessel Bowl with an inhumation from Cottier's Field, Bishopscourt Farm (GU-2698)). With the lack of Beaker burials known at present one wonders exactly how, and when, the shift from one way of life to another occurred. This period of change could have been quite protracted.

In seeking answers and explanations for the changes noted in this period authors focus on the apparent 're-entry' into more 'broadly held British cultural practices'. This often creates a dichotomy: the Ronaldsway Late Neolithic is about cultural isolation and the Early Bronze Age is about re-connection. The main arguments regarding the change focus on the economic importance of bronze driving the changes seen at the beginning of the Early Bronze Age (Woodcock, 2008; 2004; 2001) and an inability to compete in changing social relations of competitive emulation at the outset of the Late Neolithic (Burrow, 1999).

Burrow (1999: 32) follows an interpretative model of competitive polities for the Late Neolithic in Britain and Ireland to explain the development of henges, Grooved Ware pottery and other finely crafted forms of material culture; an idea I critiqued in Chapter 2. From this starting point Burrow (1999: 33) excludes colonisation explanations for the start of the Ronaldsway Late Neolithic as there are no forerunners to the practices associated with the period elsewhere in Britain. Burrow (1999: 34) draws on the evidence of RTB axes and Grooved Ware pottery to suggest that the Isle of Man was not isolated during the Ronaldsway Late Neolithic but, rather, culturally independent. The Isle of Man was unable to compete with competitive polities (such as those in the Boyne Valley, Orkney and Wessex) in Britain and Ireland due to its geographical remoteness and relatively small population. As a result the Isle of Man set its own,

> "…cultural norm, independent of their neighbours, they stepped out of the spiral of competitive emulation and off-set the possibility of being judged by the increasingly high standards this required. Simultaneously the new Manx cultural forms signalled to neighbouring areas the importance of the Island as a distinctive player in regional politics."
>
> Burrow, 1999: 34

These different "cultural norms" were to persist for some thousand years before they became a barrier to increased communication with neighbouring communities through the Chalcolithic and Early Bronze Age. As a result the cultural practices of the Ronaldsway Late Neolithic were swiftly abandoned in favour of practices that were more commensurate with integration. As to why the Isle of Man choose to re-integrate at this point is unclear in Burrow's explanation. Burrow (1999: 34-5) suggests that the individualism associated with the Beaker package may have held more in common with the Manx Late Neolithic allowing a re-integration with the rest of Britain.

For me these explanations are insufficient. Both explanations are based on creating stark differences between the two periods rather than seeking to highlight continuities and gradual changes through the periods. Furthermore, they both rely on single causes at single points in time. The notion that Britain was home to competitive peer polities in the Late Neolithic is one I disputed in Chapter 2. To suggest that a population would be forced to 'opt out' as they could not keep up is also problematic. Many parts of Britain do not exhibit any of the grandeur associated with sites at the Boyne Valley, in Orkney or Wessex yet they do not begin their own culturally unique practices as a result of this. In addition an explanation that cites the size of the Isle of Man and its relative geographical isolation as a reason it could not compete where Orkney (equally small and isolated) was able to seems flawed.

Moving on to the explanation for the end of the period, the notion of the Beaker package being individualising is something I dismissed in the previous chapter. In addition, the dearth of Beaker evidence on the island, makes the idea that it was the appeal of Beaker pottery that ended the Ronaldsway Late Neolithic, even harder to believe. Furthermore, I argue that the Ronaldsway Late Neolithic showed little evidence of being individualising. Indeed the premise that cultural similarity is needed for effective communication and integration is one, which if true, would have halted much of the interaction that took place in prehistory, not to mention the present day. Furthermore, the whole explanation is laced with this sense that the Ronaldsway Late Neolithic is somehow 'backward' or 'less than' the Late Neolithic elsewhere, a sense that they could not keep up but were constantly, enviously, waiting for a chance to re-integrate and hastily abandon their cultural practices. This is an issue I return to in Chapter 8 in light of the evidence and arguments presented in Chapters 4-7.

Similarly to Burrow, Woodcock (2004) and Frieman (2008) both struggle with a dichotomy of isolation and contact in the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man. In an article discussing the end of the Ronaldsway Late Neolithic, Woodcock (2004: 214) initially posits a "…significant break in continuity of contact" during the Late Neolithic but later goes on to suggest that "…complete isolation would seem unlikely amongst the maritime people" (Woodcock, 2004: 215). Frieman has also suggested this kind of isolation versus contact model:

"The Ronaldsway period (3000–2000 BC[12]) marks a turn towards the island's centre and away from the outside world. In effect, the edges of the Isle of Man became a more firm boundary between Manx culture and the rest of the Irish Sea region."

Frieman, 2008: 140

Again, like Burrow (1999) and Woodcock (2004), Frieman (2008) sees the Late Neolithic as a period of isolation opposed to the Early Bronze Age as a period of contact, communication and integration. The debate regarding isolation versus contact is not helpful. There is clearly no isolation in the Late Neolithic; rather what we see is a decision to take part in different cultural practices. This insular versus interactive opposition is something that Darvill (2004a: 52) has critiqued. He has argued that rather than seeing communities as either isolated and insular or connected and interactive we need to focus on local identities that are integrated within wider, shared, regional experiences (Darvill, 2004a: 48). It is not a case of integration or isolation but rather a productive tension between the two.

Woodcock's explanations for change all focus on economic causes. Woodcock suggests that during the Ronaldsway Late Neolithic the Isle of Man was essentially self-sufficient with no need for trade (Woodcock, 2008: 57-8; 2001: 6). She implies that trade would be the only reason for contact with people outside of the island. She states:

"…during the late Neolithic/Ronaldsway period of apparent social and cultural isolation, the Manx communities were basically self-sufficient, unified, economically viable and evidently peaceable. In seeking an explanation, it is worth considering that only when the sustainability of a circumscribed area, like an island, becomes unbalanced, when resources can no longer support the population due to a period of poor harvests, major episodes of sickness and disease or an unexpected increase in population. In such circumstances groups might **need** to look beyond their boundaries to their neighbours for additional support. The dearth of essential (or desirable) material goods is probably the greatest motivating factor for folk-movement and economic or social contact between neighbouring groups. Groups confident in their own social context do not need to compete with, or emulate, their neighbours and, in the case of the Isle of Man, it seems unlikely that they would aspire to possess the material culture

[12] Her dating of the period as 3000-2000 BC shows a poor understanding of the evidence as it fails to incorporate any of the evidence and radiocarbon dates for the first use of copper, copper alloys and Food Vessel burials.

of others. The exception being particular items which they could not supply themselves – tools and weapons of copper and bonze – synonymous with wealth, status and power.

Woodcock, 2008: 57-8

For Woodcock it seems cultural difference and isolation for the Isle of Man is the 'standard setting'. It is only with either some kind of economic tragedy or an overwhelming desire for bronze that communities would choose to change their cultural practices. In addition to cultural difference and isolation, stasis, not change is the norm. The argument that only some kind of tragedy could cause this 're-entry into the mainstream' as Woodcock refers to the Early Bronze Age, is further suggested when she argues that the isolation of the Late Neolithic may have led to a dearth of marriage partners and a reduction of the genetic pool, causing a resumption of contact (Woodcock, 2008: 59).

For Woodcock, bronze itself is the central driver for the emergence of a Manx Bronze Age. She suggests that those with knowledge of, and access to, bronze would want to expand their own wealth and their spheres of influence and power at the beginning of the Bronze Age (Woodcock, 2001: 382). Not only does this dismiss the earlier rich material culture of the Late Neolithic but it also is predicated on modern western concepts of wealth and power lying in metals. For Woodcock it is a desire to have bronzes that leads to re-integration. The changes are presented as a decision made by the community, or by powerful members of the community on the island. It appears as if they were one day faced with the question of abandoning their cultural practices and their self-imposed isolation in favour of 'being like everyone else'. Woodcock talks of elective segregation from, and reintegration into, the rest of Britain:

"Communication between the Manx groups and their contemporaries around the Irish Sea was ostensibly restricted either, it is suggested, voluntarily by the early Manx themselves or, less likely, as the result of some organised policy of exclusion by their neighbours."

Woodcock, 2004: 214

"The Manx population had themselves decided, or been persuaded by their neighbours, to re-integrate themselves and re-establish the social relations with the inhabitants of the neighbouring area"

Woodcock, 2001: 232-4

> "It is perhaps reasonable to suggest that with an awareness of the early metal technology, the aspirations of the Manx may have out stripped their desire to remain 'different'. The more influential members of Manx society are likely to have coveted both the knowledge of metallurgy and ore procurement and the practicality of status afforded by the objects of copper themselves."
>
> Woodcock, 2004: 222

For me this kind of an explanation seems more appropriate today in the world of international treaties and governmental politics. Whilst I do not deny the existence of power and politics, and the ability of some to force their wills upon others in prehistory I do not see deliberate acts of international politics and relations going on. The core problem with the argument though is that it is based upon the notion of an isolated Ronaldsway Late Neolithic which is not substantiated by the evidence of polished stone axes or Grooved Ware.

As discussed in Chapter 2, explanations for the Chalcolithic in Britain and Ireland, are now predicated not on large scale movements of people but rather small scale, and probably constant, movements of a few people. As such we need to consider the influence that continual movements of small groups of people back and forth across the Irish Sea from all directions might have had on the prehistoric cultural practices of the Isle of Man. We need to leave space in our explanations for the impact that just a few people moving back and forth across the Irish Sea, even if they are not migrating and just travelling to exchange for example, could have on communities. Woodcock (2001: 6) highlights the central position of the Isle of Man in the Irish Sea as a reason for re-integration to aid the movement of bronze at the start of the Bronze Age. However, I argue that the position of the Isle of Man could have been important, and certainly a part of, the pre-existing exchange relations of the Late Neolithic that centred on the movement of polished stone axes. As discussed in Chapter 2, the movement and exchange of goods was not new in the Early Bronze Age, rather it drew upon, and adapted, earlier routes.

Conclusion

In this chapter I have presented the archaeological evidence for the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man. This overview has provided a background to the two

periods and the material cultures and practices associated with them set against the wider picture for Britain presented in Chapter 2. I have argued that the periods are opposed as periods of isolation or contact in many explanations and that the Ronaldsway Late Neolithic is often presented as 'less than' or 'backward' when compared to the rest of Britain and Ireland. These two interpretations have dominated the explanations that authors have built. Such explanations appear to rely on a singular cause, at a singular moment in time. In Chapter 4 I suggest that we need to re-consider how we approach change in prehistory. After all, the study of change is in many ways archaeology's *raison de étre*: it deserves more of our attention and careful consideration.

4. Time and Change

In this chapter I summarise the problems with current approaches to change in archaeology and prehistory as presented in Chapter 2 and 3, and present an alternative perspective that overcomes these problems. I argue that how we understand time is crucial to our understanding of change. I consider the advantages and disadvantages that current relational approaches to the world present for understanding change and time in prehistory. I outline my own theoretical position which I will adopt for the rest of the thesis which seeks to address the problems identified at the outset of the chapter. The problems and solutions discussed in this chapter are relevant to wider archaeology. They stem from the broader history of archaeological thought and practice.

What is wrong with change?

At the end of Chapter 3 I discussed the various interpretations that have been offered for the decline of the Ronaldsway Late Neolithic and emergence of the Early Bronze Age. I suggested that explanations from Burrow (1999), Frieman (2008) and Woodcock (2008; 2004; 2001) rely on creating dichotomous opposing summaries of the two periods so that they seem fundamentally different. I also demonstrated the ways in which current explanations rely on singular causes at single moments in time. Such explanations effectively isolate change into a single moment; they make stasis the norm and change something that happens only occasionally. These explanations also suggest a linear causation. The presence of these kinds of problems in texts on the prehistory of the Isle of Man is typical of work in other periods and places. In Chapter 2 I brought to the fore many of the problems with our existing approaches to change through my discussion of the Late Neolithic and Early Bronze Age.

I aim to develop an approach that moves beyond:

- Singular causation in single moments of time
- A focus on origin and revolution moments
- Technological determinism
- Unilinear explanations

This approach needs to acknowledge that both the movement of people and ideas and innovations occurred in prehistory, but that it is vital we seek to explore how it is that actants are changed as they move through time and/or space and that we adopt an approach that does not understand communities as closed groups. In the following section I will show how some of the problems I have identified with change in prehistory have their root in our understanding of time.

Why time matters for change

"Time and change are close bedfellows, they are so related as concepts that, perhaps, it is hard to think of them apart…"

Lucas, 2005: 2

Our concepts of time impact on how we understand and approach change. I demonstrate that our conception of time has contributed to approaches that focus on revolutions and origins and has links to unilinear, progressive and technological determinist approaches to change. I thereby call for more nuanced understandings to time so as to allow different approaches to change to emerge.

Considering chronology

Chronology – the 'science of computing dates' (Oxford English Dictionary, hereafter OED) is predicated on a model where time is unilinear and uniform. Time goes in one direction, in a single line, in equal and measured chunks and our explorations of the past often follow suit. An example of this is 'The Three Age System' which is a form of chronological framework. As discussed in Chapter 2, it is not just a chronology it is part of an explanatory framework for prehistory: bronze causes social changes. Lucas argues, for example, that the work of Sahlins and Service (1960) is built on the Three Age System and is a product of our chronological systems. The notions of bands, tribes and states presented by Sahlins and Service (1960) is universalising, progressive and unilinear. This is a model that still carries weight in American and European archaeology where prehistoric societies may be fitted into a staged development (Lucas, 2005: 12); for example they are still presented as an appropriate way to

understand societies in Renfrew and Bahn (2004: 177-226). As such, it may be demonstrated that our chronology (and the specific understanding of time it implies) impacts on our understanding of change in prehistory creating some of the problems identified above.

One can also associate the search for 'origins' with unilinear models of chronology (see for example Gamble, 2007). Archaeologists are often searching for the 'origins of agriculture' or the 'origins of inequality' and media coverage is always available to those who find 'the earliest…'. We are searching for ways to fix the essence and origin of given phenomena in time (Lucas, 2005: 54-6). Such searches for origins deny complex causality by suggesting that any phenomena can be located at a single point in time. These kinds of searches rely on linear concepts of time, they always end in the present where closure is offered and retrospect is key in the construction of explanation and narrative.

Chronology is vital to archaeology. Without chronology no study of the past is possible. However, chronology is based on a very specific concept of time. Chronology is predicated on a view of time that is universal, linear and uniform, a view which Lucas (2005: 2) describes as, "… a limiting one, especially when we see that it has also influenced the nature of archaeological interpretation of cultural change and prehistory". By relying heavily on chronologically-based understandings of time we provide the background to sustain "impoverished interpretations of cultural change" (Lucas, 2005: 2).

Splitting the past from the present

The past may be viewed as dead, gone, fossilised and completely separate from the present. Lucas' (2005) discussion of this divide between the past and present is very insightful. Lucas suggests that archaeology creates a double temporality out of its materials. Archaeology acts to make things 'lost', separate and different – they belong to the earlier blocks of time in the chronological record – they are recovered and then kept 'outside' of our normal life in glass cases and museums. This serves to fragment time, creating a stark divide between past and present (Lucas, 2005: 126-7). Archaeology acts to make past objects familiar once again, contextualising them, restoring them to our time. Objects are seen as lost rubbish before they are found: separate from us, they are un-changing; they are not a part of our world in motion.

Twentieth century nationalism and anthropology served to further enhance this double temporality. Nationalism in the twentieth century sought to recover the origins and ancestors of European nations in the past, connecting past and present back together whilst anthropological exploration brought Europe into contact with other ways of lives, a past closer to nature, 'primitive' and different, far-away from today, presumably like the Europe of prehistory.

It is this kind of model of the past as completely separate from the present that is behind Matthew Johnson's diagram that accompanies the discussion of 'middle range theory' in *Archaeological Theory* (1999) (Figure 4-1). The past and present are separated by a gulf and we are asked how archaeologists build a theoretical bridge between the two. This is problematic as it posits a clear break between interpretation in the present and the past that we wish to gain an understanding of.

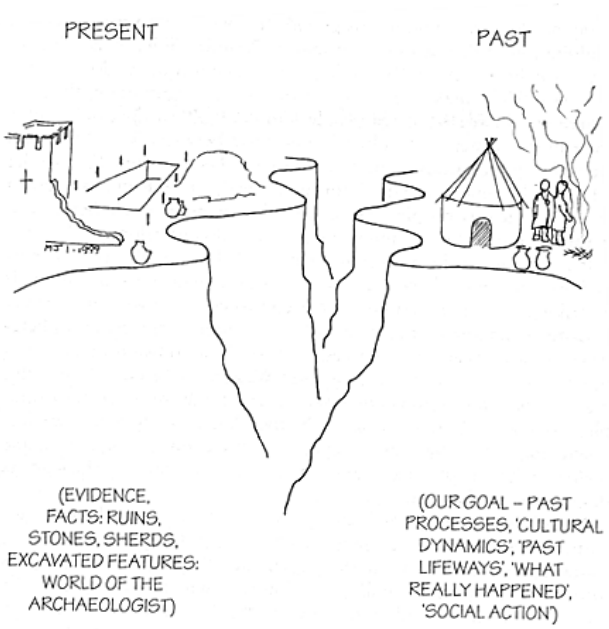


Figure 4-1: The gulf between past and present. Taken from Johnson, 1999: 14, fig 2.1

Archaeology benefits from seeing past and present as connected rather than divided. As I will argue later this past-present divide, predicated on a chronological model of time is a falsehood, the past is not dead and gone, objects are still part of assemblages and relationships in the present.

Tackling chronology and time

Archaeology has not been naive to the impact of its conception of time on its interpretations. The post-processual turn lead to a realisation that time was not universally experienced and that western clock time was just one way to experience and conceptualise time. Shanks and Tilley (1987) argued that to rely on only modern western clock time in our stories about the past is to serve to legitimate the modern western viewpoint ignoring those of other peoples. Time moved from being an uncontentious issue to one that needed to be explored more thoroughly and re-theorised (McGlade, 1999: 141-2). This led to numerous discussions of different kinds of time known from anthropological research in other societies[13] (for example, Bradley 1991; Gosden 1993) and the widespread introduction of the term 'temporality' (for example, Ingold, 2000). Temporality became viewed as the specific experience of time whereas, time itself became associated with chronology, a kind of external measure that acted as a container for action (this same notion of the human experience of time as oppose to clock time is captured in the notion of kariological time (McGlade, 1999: 144)). Temporality, Ingold (2000: 194) tells us is not chronology (the regular dated passage of time), nor is it history (events that may be dated in chronological order). Temporality, Ingold claims, is social, it is about people living and going about their lives together (Ingold, 2000: 195) (for a statement refuting this claim, see Murray, 2006: 83).

By considering temporality alongside chronology authors attempt to unseat the dominance of chronology over explanation. By having both chronology, as the external measure of time that allows one to place action within the overall history of the world, and temporality, as the human experienced passage of time, one is able to add a social and potentially local dimension to our understanding of time. We can both talk about an event having happened at a henge at 2000 cal BC and talk about how it evoked a sense of temporality relating to seasons and repeated rituals for those who took part. Such explanations escape accusations of being universalising or relying on modern western conceptions of time that are inappropriate in prehistory.

However introducing the concept of temporality is not necessarily a panacea. I draw parallels between the time/temporality debate and the place/space debate that also occurred (perhaps

[13] This may be referred to as 'ethnographic time'

more vigorously) in the 1990s (see Casey, 1996; Tilley, 1994). Following the publication of *Phenomenology of the Landscape* (Tilley, 1994) the notion that place is specific and experienced whereas space is an abstract measure came to the fore. Whitridge (2004: 213) comments on the semantics of this debate suggesting that the place-space debate (and I would add the time-temporality debate) can be likened to the sex-gender divide, and that the continued tension and spilt ink on the matter, tends to serve only to reify a nature-culture divide. Ultimately such divides are levelled as both sides are the result of social construction – none of them pre-exists the other as a universal truth.

Time Perspectivism

Bailey's concept of Time Perspectivism (2007; 1987; 1981) confronts the issue of time and change. It starts from the basis that time has not always been understood or experienced in the same way and seeks to look at the past from multiple perspectives, rather than just from one located in the present. It is often cited as drawing on the *Annales* School of history (for example Braudel, 1972). Annales scholars suggest that there are three scales of time acting at once that are all intertwined. The longest of these time spans is the *longue duree* which includes geo-history and long term processes. In the medium term there is structural history of the past where social and economic changes occur and in the shortest term there are the histories of individual lives and events (Bintliff, 1991: 6). Different phenomena operate over these different time scales (Bailey, 2007: 201), for example climate change *could* be understood as operating in the *long duree*. These different scales of time, *Annales* scholars, and Bailey (2007) argue bring into focus different factors causing change, they require therefore different methods to understand them.

Bailey (2007) argues that archaeology works at a scale radically different and incommensurable with other subjects such as anthropology or history. As such he does not believe that the theories or methods of these disciplines are appropriate when considering long term changes in archaeology. Rather, he takes the stance that we have to develop our own methods. Bailey's approach also draws on the notion of the landscape as a palimpsest: that is a landscape in which material builds up in a multi-temporal way but equally may also be erased and lost, making once separated moments in time proximate again.

Annales approaches in archaeology and the work of Bailey have attracted critique. The *longue duree* is suggested to leave no space for human action or effect, rather it is reductionist, with environmental change often given a prominent role in explanations (Barker, 1995: 3). Thomas (1996a: 36) argues that shorter time scales come to look like a mere background for ecological change, ruling out a role for human agency, individuality and creativity. Given the 1990s and early 2000s emphasis on agency (see Dobres and Robb, 2000; Hodder, 2000), this latter point was not well received. Barker (1995: 3) argues that even Braudel, one of the leading scholars of the *Annales* school fails to interweave the different scales, but rather relies heavily on the features of the *longue duree,* such as the environment, as an explanation (see also Harding 2005: 92).

Bailey suggests that the scale at which one focuses their research and the data one looks at will affect the nature of the answer one produces. If the scale is essentially arbitrary, then the answer could be interpreted to also be arbitrary. Bradley (1991: 212) has argued that the kind of resolution necessary to carry out a Braudelian-style of archaeology is just not possible and that instead other means (specifically a ritual-mundane divide of time) are more appropriate to understanding the mechanisms of change in the past. Bradley (1991: 210) also suggests that scale and resolution will always cause a problem for archaeologists, implying that Bailey is unlikely to be successful at overcoming this problem even using a time-perspectivist approach.

Lucas (2005: 47-8) argues that Bailey conflates the data span of archaeology with the resolution available. Archaeology has a deep time span, but equally there are more fine-grained resolutions available now for most periods. Bailey also conflates real time with chronological time (a frequent mistake in archaeology): the real lived and experiential time of the past is not the same as the chronological spread of dates we use to construct narratives (though obviously, as discussed above, the two need to be related in archaeological narratives). This sentiment is echoed by Harding (2005: 88) who suggests that Braudel and the *Annales* School actually lack any sense of temporality; time in the *Annales* School is divorced entirely from its social context where it gains any meaning. The scale of time we selected to research relates only to the question we seek to answer. It does not relate to any sense of temporality for past communities.

I agree with Bailey that the scale at which one focuses their research will certainly effect the kinds of answers produced. I would go further and suggests that the scale of analysis emerges from the questions we seek to answer. However, this does not mean that the answers we produce are not useful: our answers cannot expect to correspond completely with the reality of the past. The past is too complex for that, moreover, it is a past that we can only know in the present through our own engagements with it, through archives, objects and microscopes and through this engagement the past that we know is changed and therefore is no longer the past that past people lived within. Multiple scales of time certainly exist and attempting to understanding the past should involve multiple scales of time.

Responses to Time Perspectivism focusing on experiences of time

There are two main branches of response to the impact of the *Annales* School and Time Perspectivism in archaeological theory. There are those who have sought to explore the experience of time within past societies and there are those that have continued to explore how we relate different time scales. I will discuss ideas that focus on the experience of time first. The emphasis on experience of time led to an exploration of how time was experienced in other societies via the work of those such as Bloch (1977) and Gell (1992). Many of the case studies that draw on ethnographic analogy rely on a binary temporal opposition such as that between abstract and substantial time, ritual and mundane time or linear and cyclical time. These, of course, hold much in common with the earlier discussion of the difference between temporality and time. Lucas (2005: 93) suggests that such temporal oppositions often prove to be "…more harmful than useful". The most frequent critique that is given of these approaches is that anthropological methods and theories are not appropriate for archaeological research. Robb (2007: 292), for example, notes that there is a tendency for ethnography to capture very rapid change or stop-gap moments in time, rather than continual, long term change. Some changes that can have a large impact cannot be observed at the ethnographic scale: a 1% increase in the birth rate might only mean the birth of 1 or 2 babies during an ethnographic study, however over a time scale of 70 years this would double a population (Robb, 2007: 292).

Responses to Time Perspectivism focusing on how different scales of analysis connect

The other reaction to the *Annales* School is a continued debate over how it is that different scales of time are connected. This debate is clearly linked to the discussions of structure and agency that occurred in the 1990s and 2000s (see for example, Dobres and Robb 2000 and papers therein). This is almost a re-casting of the *Annales* School argument about the interweaving of time scales and their importance but with the *longue duree* dropped from the debate. As I noted earlier Robb (2007: 287) comments that the long term is poorly explored. Robb (2007: 291) suggests long term change is a result of a dialectic between individual choices and the conditions in which people live. The structure-agency debate centres on the relationship between individual and the wider social conditions and institutions that both enable, and restrict, decisions by agents (for a recent review of the role of agency in archaeology see Robb, 2010). The reality is that the two rely on each other: structure enables people to act and restricts what they do and that structure is equally the product of the actions of people. This argument is sometimes re-cast as event and structure (for example Harding 2005).

In a comparison of Hodder's *Domestication of Europe* (1990) and Barrett's *Fragments from Antiquity* (1994) Harding (2005: 89) highlights the ways in which both authors use one scale to elucidate the other. In *Domestication of Europe* (1990) Hodder uses a time scale beyond that of the individual to describe change in the long term across Europe showing changes in structure and implying that it is this long term that defines the short term experience of individuals. In *Fragments from Antiquity* (1994) Barrett focuses on the repeated daily routine and practice of past people and how this comes to maintain and change the structure over time. The implication is that one can only understand one particular 'scale' from the perspective of the 'other'. Harding (2005) (see also Barker, 1995; Robb, 2007) argues that the two exist in a recursive relationship. This debate in many ways has the same pitfalls as approaches that advocate Annales style analysis or a structure-agency centred approach: analysis becomes detached from the experiential nature of time. I would argue, that in seeking to explore any archaeological question one always has to use multiple scales of evidence and time. It is not a case of any one scale being able to elucidate another, rather, we create stronger analyses when we draw on multiple scales of evidence.

Genealogy – a way forward

Foucault's (1991: 79) notion of genealogy suggests that there is no singular true origin for historical process that cause change; a precise point of origin cannot be identified. The idea of using a genealogy to understand change has been taken up by Gosden (1993), Harding (2005) and Thomas (1996a). In each case they suggest that the descent of particular institutions, practices and material cultures can be traced genealogically through networks of lived relations. As Thomas describes:

> "Genealogy, then, sets out to write a history which tracks… entities back to their emergence, producing an account which is directed rather than totalised. It is concerned with discontinuities, ruptures and reversals rather than orderly and progressive evolution. Things become different with time, but they also irrupt and disappear, and cohere into formations which are transient, yet which develop logics of their own. Multiple paths can be traced through the scattered phenomena of the past, and each will bring to light forgotten voices which have been buried by the efforts of 'official' history…. Historical time is consequently a weblike network, within which events possess a particular singularity as articulating boundless relationships between unstable phenomena"
>
> Thomas, 1996a: 38-9

Genealogical approaches draw strength from their emphasis on the multiple; there is no one cause or single root of change. Rather than the linear accumulation of separate periods we see in a classic chronological diagram, a genealogy is more sprawling, there is more than one route through it; a genealogy is not unilinear. In addition genealogies imply repeated change without either a start point or an end point. Genealogies can remain open rather than suffering from teleological closure. As Harding (2005: 98) expresses, this is a particularly helpful aspect of genealogies as : "…any system, as it unfolds through time, will not only be reproduced, but also constantly distorted or modified, endlessly producing novel terms of understanding for those experiencing each new moment of existence…"; genealogies are good at tracing this kind of changing system. Thomas (1996a) employs a genealogical approach to tracing the 'descent' of the British Neolithic. In this text actants from diverse places and moments are drawn together to explain how the British Neolithic came about; there is no one cause or origin, rather a complex interplay of different monuments, places, objects and rituals. Genealogy could be argued to be directional – it is always going backward. However, I would suggest it is only directional in the particular line that one traces – other alternate routes in different directions are still available.

In the following section I consider how new relational approaches, as advocated in particular by Latour and Ingold, impact on change and time and both the advantages they offer us and the short-comings they present. Like genealogy, such approaches focus on the importance of tracing multiple relations between various people and things to understand our world.

Relational Approaches

Relational approaches, as introduced in Chapter 1, help us to move beyond many of the problems I have suggested impact on our understandings and explanations of time and change. Relational approaches to society focus on the way in which things do not just matter in and of themselves, what matters is the relations they are in. They seek to elevate the position of nonhuman actants such as objects, plants, animals, soils, rocks, beliefs and gods and acknowledge the important roles they play in the world. The world is understood as being made up of complex assemblages of heterogeneous and diverse actants including, but not limited to, humans. A diverse range of metaphors for the conceptualisation of these relationships exist (networks – Latour, meshworks – Ingold, assemblages – Bennett and DeLanda), however they share a concern with the relations that actants exist within. Due to this complex and inter-related mesh of relations simplistic, singular causation cannot be sustained. In such assemblages, change is best traced in a genealogical manner through a multitude of relations and actants.

Mono-causality is always the simplest reading of a given situation. Take a man with a gun shooting, and killing, a woman. If we take a mono-causal approach the man is to blame. He is the cause of the woman's death. If we take a relational approach we need to consider a wider assemblage of actants and relations. The gun has a role to play, as does the bullet, the actions of the woman perhaps and by-standers who failed to change the outcome. It is not the gun, or even the bullet that 'kills' the woman but the failure of her heart to beat, of her blood to reach her organs, of her lungs to inhale air, of oxygen to reach her bloodstream. Furthermore, we need to consider wider actants, attitudes and beliefs the man held about guns, about masculinity, about justice and violence; we need to consider, his economic and social background, his job, his family and friends. What things are motivating him? What specific events and actants brought him to this assemblage and into the specific relations that have brought forth death of a woman?

Following such a way of thinking causality looks different. It is not a case of one cause having a certain effect. Actants that are at one moment a 'cause' quickly become effects and vice versa. We cannot locate 'agency' or a 'cause' within a single actant, be that actant a person, a community, a lightning bolt, a belief or an object. We should not be searching for singular causes rather, we need to look at the assemblage that brought a particular effect forward. Certainly, we can identify cases where one actant might be more or less powerful than others, or where several actants act together with catalytic effect. Rather than seeking to identify a single cause we need to trace change as process and identify as many of the relations that are effected as we can. We need to explore the actants and relations that brought forward the shooting of the woman. Such a view has a consequence for 'blame' and ethics: it asks us to look at the wider relations behind an event and it allows us to acknowledge the power of nonhumans. It does not stop us from being outraged at injustice or wrong-doing (Bennett, 2011: 38) rather it asks us to understand things in a more nuanced and complex way, one that acknowledges the deeply relational world we exist within.

In the next section I will explore some of the advantages and disadvantages of relational approaches for understanding change and time from an archaeological perspective.

Too much change, too little change?

The problems and advantages of a Latourian approach to archaeology

The philosopher Graham Harman has argued that Latour is an occasionalist (Harman 2009; Latour et al., 2011). For Latour actants have no inner essence or profound core, there is no internal kernel of truth, as such actants can only be characterised by their public performances; there is nothing that is held-back in reserve, actants simply are their events, what they do, their action (Harman, 2009:17). For Latour then, if actants can only ever be what they are at any one moment then they "… vanish instantly with the slightest change in their properties" (Harman, 2009: 6). Events are frozen and specific, they are at a single moment, in a single place with a single set of relations. If one part of the network changes then the whole network is changed and a new network forms. Sitting typing I breathe in and out, the

composition of the air around me changes, the network changes, an entirely new network has formed, this is not even to mention the changes in sunlight, temperature or the arrival of other people to the room. As Harman (2009: 104) puts it actants are "…perpetual[ly] perishing, since they cannot survive even the tiniest change in their properties".

This stance has one useful and one more troubling consequence. It results in a world perpetually changing. This is a useful position in that it advocates against locating change in single moments of time, in 'origins' or 'revolutions'. Constant change and flux is located in a network of multiple relations and actants. In such networks change cannot be explained in the reductionist, mono-causal terms critiqued earlier. Latour's occasionalist stance, where actants continually perish, is however, also highly problematic for archaeologists. It creates a system of too much change. If nothing is the same and nothing persists from one network to the next, how is it that objects buried in the ground come to reach us in the present? If the network is new each time there is a change in the actants then nothing persists from moment to moment. As Harman (Latour et al., 2011: 36-7) suggests this denies actants a past or a future. This is deeply problematic for archaeology which relies on objects persisting through time. Furthermore, no archaeologist has ever dug up a single moment in time. Consider a flint scatter, each piece of debitage hit the ground at a different moment, and therefore in a Latourian analysis, each flake is part of a different network. If we follow Latour's occasionalist stance, we cannot relate the flints flakes to each other and analyse the network they exist within. Adopting a fully Latourian stance on change is deeply problematic for archaeological assemblages.

Alongside the difficulties of seeing an actant as its action, there are also advantages in terms of the conception of time Latour adopts:

> "Time is not a starting point. It's not an independent force. Individual actors, for Bruno [Latour], create time by doing something irreversible."
>
> Harman in Latour et al., 2011:29-30

Time is not an external independent container, it is the very result of action itself, it is the result of change not the driving force behind change.

As a result of arguing for constant change Latour sets out a position where inertia is never enough to keep things stable, once entities exist they will always need other entities to try and make them appear stable (Latour, 1999: 155). The result of this position is that Latour (1999: 156) rejects any stretching of entities that tries to make them the same across a stretched space or time frame – as such he rejects the adverbs, never, nowhere, always and everywhere. For Latour tea in my flat is not the same as tea in my office[14]. Latour acknowledges that this is not the normal position from which to understand change,

> "The consequences of this inversion [change as standard not the exception] are enormous. If inertia, durability, range, solidity, commitment, loyalty, adhesion etc. have to be accounted for, this cannot be done without looking for vehicles, tools, instruments, and materials able to provide such a stability… our school views stability as exactly what has to be explained by appealing to costly and demanding means."
>
> Latour, 2007:35

I agree that it is stability that requires explanation but I cannot support the occasionalist stance that goes with this in Latour's thinking. However, there are a number of his concepts that I suggest may be helpful.

Latour deals with the issue of changing actants and stabilizing actants through the useful concepts of *mediators*, *translations*, *circulating references* and *blackboxes*. For Latour *mediators* are actants that change the network (Harman, 2009: 15). All *mediators* create *translations*. Latour (1999: 58) argues that an entity "… can remain more durable and be transported further and more quickly if it undergoes transformation at each stage". The phrasing is awkward here: things remain the same only if they are continually changed. This change and translation can be characterised by the concept of the *circulating reference*. A *circulating reference* is an actant which moves through time and space. In order to move through time and space it has to be *translated* and therefore changed. Through the process of translation some aspects of the original actant are amplified and others are reduced (Latour, 1999: 70-1) (Figure 4-2).

[14] This has clear consequences for ideas of truth. For Latour there is no way of saying that everywhere in the world the chemical reaction of two elements is the same. It is different when it is carried out in different places by different people. This is part of his occasionalist philosophy. As such he rejects traditional correspondence theories of truth, where there is one true world and all that we need to do is accurately describe it. Rather for Latour (1999: 156-7) "truth" as it were is historical, contingent, temporal and localised.

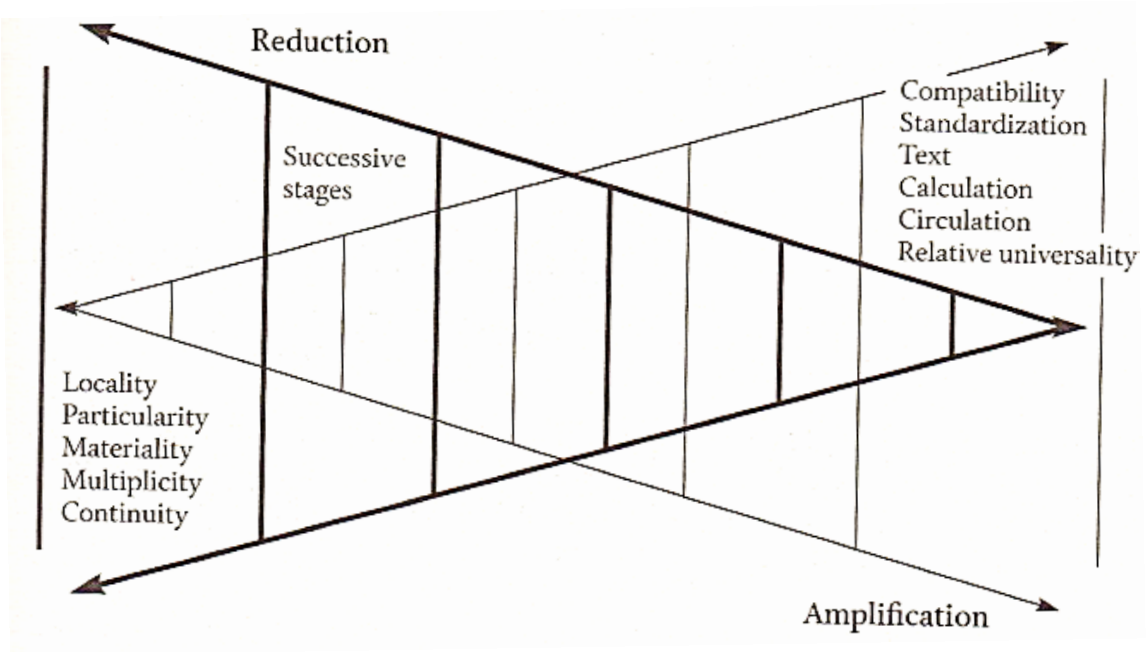


Figure 4-2: Amplification and reduction of a circulating reference. Taken from Latour, 1999: 71, fig 2.22.

Take for example the excavation of a posthole as an act of translation. The materials are excavated and recorded, the context sheet loses something of the original soil but gains a kind of transferable and comparable description, it is allowed to move beyond the site back to an office. The soil samples from the fills of the posthole might be floated; the structural integrity of the soil itself is lost, but we gain a flotation record and a few bags of finds, offering an insight into what was within the soil. As the posthole circulates into a site report, the original soil, the context sheets, the analysis of the soil and the flotation material are all lost in favour of the amplification of a few key features into a single sentence, but the role of the posthole as part of a structure is amplified into the interpretation of the site as a house. Another archaeologist reads the report, and re-interprets the site not as a house but as an occupation area with fences, the posthole as part of a house is reduced and the posthole as fence is amplified. The posthole is a *circulating reference*. By changing the posthole becomes less local and specific and part of a bigger picture.

This notion of *circulating reference* and *translation* through mediation is coupled with the idea of the *blackbox*. A *blackbox* is any actant "… so firmly established that we are able to take its interior for granted" (Harman, 2009: 33). Latour's notion of a *blackbox* is such that within each entity we take for granted there are in fact many changing relations and entities that we are

not considering at any given moment. *Blackboxes* are not permanent, natural or durable (though they are real); they are always being opened. They are never wholly stable and will always eventually crack and open (Harman, 2009: 45). *Blackboxes* allow small scale change to be ignored in favour of treating something that is in reality changing as if it were not.

> "Open the blackboxes; examine the assemblies inside. Each other part inside the blackbox is itself a blackbox full of parts. If any part were to break, how many humans would immediately materialise around each"
>
> Latour, 1999: 185

Blackboxes encapsulate ideas about scale and change. They suggest that everything can be *blackboxed* at any level, and that within any given *blackbox* there will be numerous actants, enmeshed in numerous relations, all in flux.

Latour's approach has many positive aspects that could help build a better understanding of change in archaeology. The idea of change as constant helps us to move beyond the idea of change being located in specific moments, the result of single causes. If change is everywhere all the time then origins and revolutions become harder to trace. Latour's ideas regarding the need to explain stability are also very helpful. His concept of the *blackbox* and translation both offer potential for archaeology. Translation allows us a means to consider how ideas, people and objects can move through space and/or time in a nuanced way. There is a tension in Latour's ideas between his occasionalist stance and his notions of *blackboxes* and translations. An occasionalist stance denies objects pasts and futures and that would seem a counter-productive position when trying to consider change in archaeology. However, the concept of translation is a very neat way of thinking about how it is that objects persist, by changing, through time. There is a tension in Latour's ideas but they are certainly helpful.

Change and time in relational archaeologies

"Symmetrical archaeology" (see Olsen, 2007; Olsen et al., 2012; Shanks 2007; Webmoor 2007; Webmoor and Witmore 2008; Witmore 2007a) is a self-defined school of theorists that have been deeply influenced by the work of Bruno Latour. Advocates follow a relational approach and adopt a position where humans and nonhumans are all capable of agency and must be understood as parts of heterogeneous mixtures that cannot be separated. In their 'manifesto'

they state that change is "…spawned out of fluctuating relations between entities, not of event revolutions in linear temporality" (Witmore, 2007a: 549). Such a position is ripe with potential for forming the foundation for a kind of archaeology that is much better equipped to understand change.

The other key shift in approach with regard to change comes in Symmetrical Archaeology's attitude to time. Shanks adopts a position where the past is very much understood, and created in the present. Shanks (2007: 591-2) argues that the past does not end but rather exists in the 'now' as we enter into relations with the humans and nonhumans of the past. This leads to, firstly, a focus on how it is that we come to know and enter into relations with the 'past'. And secondly, an emphasis on the impact of past forms in the present; the example of Roman roads is one such analysis. Witmore (2007: 556-7) discusses the ways in which the form and shape of Roman roads act to direct the flow of people's lives today and shape road networks – he argues that in these situations the "…past has not passed". Genealogy, discussed earlier, is seen as the key method for exploring gradual and continual change by Symmetrical Archaeology (Witmore, 2007a: 555; Witmore 2007b).

This argument for a 'mix of times' is extended in a paper by González-Ruibal (2006) (for a review see Lucas 2007), where he considers ethnoarchaeology and what it says about our approach to time and change. González-Ruibal argues that he wishes to adopt a symmetrical approach and overcome the "Great Divides", particularly that between past and present. He presents case studies from his research such as the experience of being in a West Ethiopian Gumuz Village where he argues that a mixture of various periods is obvious in the plastic beads that sit alongside adzes, broken buckets and handmade pots (González-Ruibal, 2006: 111). He argues that attempting to pull out the 'Neolithic' from this mix of times does "violence" to the scene where ancient technologies sit alongside new ones. He goes on to argue that in these Ethiopian villages one can see an "inversion of times" as modern tractors sit abandoned in favour of wooden ploughs (González-Ruibal 2006: 114). For me this analysis misses the point. It is ironically, only by dividing past and present that we are able to say – 'this is an old technology with no place in this scene'. These attempts not to separate past and present are only possible by separating past and present and ignoring our own position in the scene as archaeologists who are able to state that some things are past and others are current. None of these objects are out of place, they are perfectly well entangled within assemblages. That roads today are Roman roads does not mean that they are bits of the past in the present, they

are bits of the present in the present. Calling things 'mixtures of different times' takes a teleological and retrospective view, it is only sat in the privileged position of the present that we can come to 'know' that they are things that persist or do not persist through time.

Witmore's (2007b) discussion of change and time is the most complete and lengthy description presently written in a "Symmetrical style", though the paper does not execute the same kind of discussion of change through time as this thesis seeks to. The paper draws on the ideas of Serres and Witmore's work on the Southern Argolid in Greece to present a theoretical understanding of time and change. Witmore rejects conventional unidirectional historical narratives in favour of a 'percolating' time that is best synthesised topologically (cf. Witmore 2007c). Topology for Serres (Serres with Latour, 1995: 105) is "the science of proximities and on-going or interrupted transformations". Rather than creating linear, well defined temporal blocks such analyses plot the relations and nodes of interactions between various pasts (Witmore, 2007b: 195-6).

> "…I argue that it is not time which produces the ensemble of landscape or the relations between people, things and companion species; rather, it is the ensemble – the relations themselves – which produce time. While the aim is to excavate beneath the past/present divide, this is not to proclaim that 'the pasts are produced in the present' (Shanks and Tilley, 1992:7), though they are collectively produced. Rather, it is to say that pasts are thoroughly blended into the present; that pasts push back and have an impact within contemporary relations in a multiplicity of ways"
>
> Witmore, 2007b: 195

Because parts of the past remain and persist, for Witmore (2007b: 205) they can return and recirculate, entering into new relations, meaning that time does not pass but rather flows and therefore parts of the past can appear in the present.

There are parts of the paper by Witmore (2007b) that I advocate fully and other ideas that I find to be more problematic. I fully agree with Witmore that time is produced from the relations between entities rather than being an external factor that produces entities. I agree with Witmore that the past is not gone, and I advocate dissolving a boundary between past and present. However, I do not agree that there are parts of the past that are returning, as discussed earlier with regard to González-Ruibal and Roman roads. Symmetrical Archaeology

holds much potential with regard to exploring change. However, at present it has produced many texts that advocate a particular theoretical position but given little indication of how this might play out when exploring change over a given period.

Ingold and becoming – an approach to time

Ingold's own stance on change is based on Deleuze and Guattari's (2004) notion of a line of becoming.

> "A line of becoming is not defined by the points it connects, or by the points that compose it; on the contrary, it passes between points, it come up through the middle, it runs… transversally to the localizable relation to distant or contiguous points. A point is always a point of origin. But a line of becoming has neither beginning nor end… [it] has only a middle… a becoming is always in the middle"
>
> Deleuze and Guattari, 2004: 323

One can draw parallels here with the concept of genealogy discussed earlier. There is a striking similarity with the position of Serres in this quote. Serres argues there is error in thinking that makes us feel that we constantly outstrip every past that has been. Seeing the present as the zenith of achievement, allows us to,

> "…be not only right but righter than was ever possible before. Now I believe that one should always be wary of any person or theory that is always right: he's not plausible; it's not probable."
>
> Serres with Latour, 1995: 49

This kind of thinking, that sees the present as a zenith acts to separate the past from the present, making the past seem irrelevant, false and separate (Serres with Latour, 1995: 49-50). This is the kind of thinking that results in progressive and technological determinist narratives. For Serres this emphasis on the present as the zenith of achievement should be replaced by seeing the present as merely the middle of things.

Serres argument for us to situate ourselves not at the apex of human achievement but in the middle is echoed by the way in which Deleuze and Guattari suggest that lines of becoming are

always in the middle, they have a past and a future. This is a key difference from the way in which Latour understands entities. For Deleuze and Guattari, as well as for Ingold, there is always some future waiting, and some past behind, and they are connected by this line of becoming, rather than isolated entities trapped in a moment as a result of some single aspect changing. This sits neatly alongside Ingold's emphasis on life as open ended rather than closed or complete (Ingold, 2011: 83; 141) and offers a better position for archaeology than the occasionalist stance of Latour.

For Ingold the world is never ready-made, never already completed but always changing and always in need of action. He argues for a world of "incessant movement and becoming… constantly under construction" (Ingold, 2011: 141). In this world of constant change and flux the lines of becoming of persons and things are woven and knotted together, thoroughly enmeshed and involved. This emphasis on action, and a mutually entangled action, means that people and things do not exist but rather, they happen, they occur. As Ingold (2011: 77) puts it, "…the names of animals are not nouns but verbs"; by this Ingold means that we may identify creatures not by their name, or some essential internal essence, but rather by their action. This of course shares much in common with Latour who also argues that things are only what they do in public, not defined by an internal essence. The difference comes in Ingold's (2011: 141) emphasis on understanding what things are by tracing their pathways through the meshwork, by telling their stories and looking at the lines they have previously come along and the ones they are headed on. Ingold's approach gives persons and animals a clear past and future, they have trajectories and they are in constant motion, in an open-ended world, all characteristics that help to overcome problems I identified earlier in the chapter.

In this section I have oscillated back and forth between the ideas of Latour (and their exploration by Symmetrical Archaeologists) and Ingold and how they fit with my own understanding of the world and with my goal of developing a new way to understand and describe change in prehistory. I outlined the constant and momentary change of Latour. I believe that change is endemic in our world, at every level, however I also believe that we have to be able to stretch our actants and meshworks through time: they have to have pasts and future even if they are being constantly translated and changed as they circulate through time. I drew on Ingold's notion of a line of becoming to emphasise that things were not their essences but what they did; their stories, the lines they forge. These lines are full of

translations and changes but for me it is in change that we find time. And as change is everywhere, as everything is in motion, time too is everywhere.

Defining a way forward for change

Thus far I have been concerned with discussing and critiquing existing approaches to time and change. I now want to present the position that will be adopted in the rest of this thesis. It is a position that aims to address the problems identified with our approaches to time and change at the outset of the chapter.

What is the world like?

I adopt a position that draws on the work of authors such as Latour, Bennett, Ingold and DeLanda where the world is made up of diverse, heterogenous actants that exist enmeshed in relations. Following Latour I posit a flat ontology where actants such as trees, pots, people, the wind and gods are all considered to be equally capable actants. However, I do not want to suggest a world free of power relations. Starting with a flat ontology does not mean that certain actants, be they humans, gods or cows, cannot come to occupy positions of power; instead it allows powerful actants to emerge, rather than to simply occupy pre-defined positions of power. This stems from a position where nonhumans are powerful within our world, they are capable of affect and effect as much as humans. There is nothing intrinsic about humans that means they should occupy the ontological apex. Rather it is important that we analyse the relations and actants before us and then consider whether an ontological apex even exists in any given situation. Not assuming a priori who can be a powerful actant allows varied and more accurate interpretations to arise.

Networks and meshworks both offer potential metaphors for considering how it is that various actants relate to each other. I would suggest that networks appear to be somewhat static, inappropriate for a thesis that focuses on change. Meshworks, following Ingold (2011), appear to offer a more dynamic approach with their lines of becoming. However, I intend to adopt an

assemblage based approach (see Bennett, 2010 and DeLanda, 2006). Bennett describes assemblages as,

> "…ad hoc groupings of diverse elements, of vibrant materials of all sorts. Assemblages are living, throbbing confederations".
>
> Bennett, 2010:23

Such an approach holds much in common with Latour and Ingold; it too focuses on the relations between diverse actants. Bennett (2010) and DeLanda's (2006) assemblage based approaches both draw on the work of Deleuze (see for example, Deleuze and Guattari, 2004; Deleuze and Parnet, 2002). In an assemblage, the relations between the varied actants are relations of exteriority (DeLanda, 2006: 10). This means that a part can be removed from a given assemblage and 'plugged into' a different one and the relations it has within that second assemblage will be different. In terms of the archaeological assemblages considered here, this means the relations and interactions of a Beaker within an assemblage in Wessex will not, nor should they be expected to be, the same as those in Ireland or those on the Isle of Man. As such, an assemblage based approach allows us to deal with locality and variety. Furthermore, it leaves an aspect of the actant in reserve; actants are not merely what they do in a specific moment (contra an occasionalist stance) this allows them to effectively move in both time and space, retaining both something of their sameness and the ability to have a different effect in a different situation. Such an approach overcomes problems identified in the work of Latour and in existing approach to change in prehistory.

Assemblages may both 'stabilize' and 'destabilize'. Actants within a given assemblage may act to 'territorialize' the assemblage, making its boundaries more defined and the actants within it more homogenous. Or they may act to destabilize the assemblage, blurring boundaries and making the identity of the assemblage less clear; this is termed 'deterritorialize'. Assemblages will have actants acting to both territorialize and deterritorialize and one actant may do both at any given time (DeLanda, 2006: 12). As Dewsbury (2011: 150) argues, there are aspects of assemblages that act to stabilise and cement relations whilst there are 'lines of flight' that act to pull apart. This leaves space within an assemblage for growth and change, new actants may join causing changes within relations, equally the assemblage may destabilize and actants can leave and become territorialized in a new assemblage. As such assemblages are temporary and subject to change. Looking at the small scale Harris (forthcoming) argues that in Neolithic pits

pots, animal bones, and soils are territorialised whilst the decay that occurs within the pit acts to deterritorialize, allowing some aspects of the assemblage to escape.

Larger assemblages can emerge from the component parts of smaller assemblages as relations between certain components become so stabilized as to make themselves permanent. These larger assemblages, will have properties of their own; this "…gives assemblage theory a unique way of approaching the problem of linking the micro and macro-levels of social reality" (DeLanda, 2006: 17). I draw a parallel here with Latour's notion of a *blackbox*.

DeLanda (2006: 20) states that due to the heterogeneous actants and relations within an assemblage linear causality does not apply to assemblage approaches. Small events may have a large effect on an assemblage and large events may have only a very small effect: the existing and various relations within an assemblage ensure this. Existing relations and aspects of an assemblage may act as a catalyst causing larger scale, and quicker, change within the assemblage (DeLanda, 2006: 20). For example, the arrival of the Beaker phenomenon, something that appears to have had a marked effect on the archaeology of England can have only a small effect on the archaeology of the Isle of Man due to the existing assemblage. Whereas, witnessing a burial with a Food Vessel, which on a Europe wide scale might seem very insignificant, could have a larger effect on communities on the Isle of Man.

My own thinking about the nature of the world has been heavily influenced by Latour and Ingold. For instance, when I imagine how an assemblage looks it is heavily influenced by Ingold's concept of a meshwork, a series of lines relating to each other issuing forward (this is not surprising given the influence of Deleuze on Ingold (2011: 13-4)). In any given moment assemblages appear as open-ended entities mixed together in various relations, however they issue forward (and backward) in time as lines of changing shapes and colours, in changing relations (Figure 4-3). What classically might be termed a 'culture' is better viewed as an assemblage of diverse actants. Such assemblages escape many of the problems associated with the spread of new actants between communities and the impact of the movement of people. DeLanda's assemblage approach allows us to consider the ways in which actants can change and leave assemblages, it considers the effect of a given actant in one assemblage and in a second assemblage where its effect is different. DeLanda's concepts of deterritorialisation and territorialisation are helpful to understanding change allowing us to consider how new

actants join assemblages and change them and how actants come to break down certain assemblages. I also follow Ingold (2011) in believing that things, people and animals (DeLanda would term them 'components', Latour would term them 'actants') are always open-ended, always in a state of becoming, of issuing forward. This, coupled with the change already allowed for in assemblage theory, gives assemblages a clear sense of change over time.

Figure 4-3: Visualisation of assemblages moving through time. To the left we see a slice through a given moment in time, to the right the lines of becoming that issue forward. Comments from Robb give an appropriate description here: "What we see, between about 5000 BC and 3000 BC is not a flip from black to white, but rather movement through a spectrum in which each colour has visible continuities with colours on either side of it. Change happened in degrees, without abrupt ruptures, even when the aggregate transformation over epochs was dramatic"

Robb, 2007:321

What is time?

Following this kind of thinking time may be defined not as an external measure or container for action. Time becomes an emergent property of the relations within assemblages. Time, as an emergent property of an assemblage is not cumulative or linear; rather it emerges as a specific kind of actant as a result of the particular assemblage it emerges from. Within any given assemblage different kinds of time may arise. In this thesis, for example, new radiocarbon dates have joined the archaeological assemblage entering into new relations with existing actants. However, time also emerges when we consider the specific histories of sites

like Killeaba, with deposition taking place over hundreds of years. This kind of time certainly relates to radiocarbon time but they are not the same.

Vibrant matter, vibrant practice

I follow Jane Bennett (2010) in stating that matter is always vibrant, always changing, always in flux. At every scale matter is always in process and this causes change. Things which might appear static such as a road for example are actually always vibrant – always changing. Matter shifts, the gravels and tars that make up the assemblage that is the road move, they erode, they are heated by the sun, they are cooled by the frost – they change. Matter is always changing at every scale.

I also draw on the work of Andrew Jones (2012). Jones considers 'categories', by which he means groups of objects such as Grooved Ware pots or metal axes that we would consider to be part of the same category. Jones (2012: 103) follows a performance approach to suggest that categories are not fixed, nor are they the result of mechanical reproduction. For Jones objects are made through an embodied process of improvisation with materials (materials that, I would add, are vibrant). As such, the form of an object that is in the process of being made is not pre-defined, it is not an exact copy of an existing object in that same category rather it emerges from improvisation by the potter and as such it may 'cite' an original but it is not an exact copy of that original. This process of citation creates categories through performance (Jones, 2012: 104). Categories are not made of objects that are all exact copies but rather are "…composed of groups which it is permissible to categorize because of their similarity, but which all differ" (Jones, 2012: 105).

For Jones, Beakers (or any other kind of object or practice), are not the same every time they are made. I would argue that they differ because of the vibrancy of the materials with which they are made from and the different relations within which they are enmeshed. The changing and varied materials mean that making cannot be an exact copy because makers always have to account for the vibrant matter from which things are made.

A concept of vibrant matter gives us a sense of constant flux and change that is not the result of human action on material. And a sense of change that moves from the smallest atom all the way up to larger institutions. Change does not necessarily come from human action, it comes from changing vibrant material that is never stable or complete. Jones' (2012) notion of a performative, embodied, improvisation with material in order to create material culture gives us a concept that allows us to acknowledge the effect of the vibrancy of material on making and to understand the relations between similar objects that we might view as occupying the same 'category'.

Causation

Causation is never singular and effects spread beyond a single actant. Bennett (2010) argues that actants never act alone, they always rely on others. Assemblages are made up of diverse actants who are connected to multiple other actants within an assemblage. As discussed in Chapter 1, the nature of these inter-connected relations means change is never the result of a single cause, rather it emerges from a whole series of actants and their relations. Bennett discusses what this kind of view does to our concepts of agency and blame. She draws on a quote from Marres (2005: 216) "… it is often hard to grasp just what the sources of agency are that make a particular event happen". Bennett (2010: 36) suggests this inability to grasp a single source is perhaps a key feature of agency. Agency is distributed between a host of heterogeneous actants, it is the result of a "confederacy" (Bennett, 2010: 36), and each of those actants is itself made up of a host of other actants. What we might term 'human agency' only every emerges as a result of a heterogeneous assemblages of actants.

Changed relations

In understanding the nature of changing relations I draw on the work of Robb and Harris (2013) in their wide ranging history of the body from the Palaeolithic to the present day. Their book offers a case study of long term change *par excellence*. They contrast histories of the body at specific moments with long term readings of change through time. In the concluding chapter Robb and Harris argue that there are only rarely "new" attitudes to the body that emerge. They state that,

"… there is never a clean transition of the kind where 'first people thought A, then X happened and afterwards, they thought B'. Instead, the pattern tends to be one of rendition through continuity. Both A and B are almost always present both before and afterwards, but the relations between them have changed"

Robb and Harris, 2013: 225

I would add that A and B are also both changed as a result of their changing relations. From an assemblage perspective this makes sense. None of us are born outside of relations or outside of history. New innovations and actants do not completely wipe out what went before, changes can only be understood in light of what went before. That is not to say that nothing changed but rather that what went before acts to shape and change what comes afterwards.

Some things are kept the same

The very high level of change posited by the concept of vibrant matter is not how we always choose to experience and understand the world. Hodder (2012) has argued that we often choose to see things that are actually changing as stable - we act to hold some things steady. I therefore adopt some of the concepts of Latour regarding how actants and assemblage come to appear stable. Following Latour (1999), we readily *blackbox* things, but inside *blackboxes* constant, un-noticed change is necessary for actants to be able to persist through time. For example, I often choose to act as if my brother is the 'same person he has always been'. This is despite knowing that him aged 5, dependent on my parents, is clearly not the same person he is aged 22 having left home permanently. But for my own purposes I treat him as both that same person and a different person, in this way I act to keep some of my relations with him stable, to allow older relations to continue forward and to try and hold him in the same place. Hodder suggests that, actants are so very entangled in so many relations that often the appearance of change is reduced. New innovations have to fit within the existing world or they are not successful.

I also want to suggest that practices may act to continue assemblages both forward and backward in time; or in Latourian terms to translate. We may choose to highlight what has stayed the same in an assemblage, to focus on the territorialization. However, these aspects of continuity act paradoxically to highlight what has changed. For example, burying a metal axe in

the earth may well have been seen as continuity with ceremonies where stone axes were deposited, but in creating this continuity, in stretching relations through time and space and referencing past action. In such a case the act of depositing in the ground something with an axe shape is amplified and the material the axe is made of is reduced. As such actants may well act to continue relations back and forth through time making sure there are no totally "new" innovations. The relational nature of assemblages, with their specific historicity ensures this.

Varying rates of change

Thus far I have created an image of change as constant but masked by the density of assemblages and by *blackboxing* processes that make it possible to ignore change at some levels. Vibrant matter leads to constant change but this is not to say that change is always at the same rate, rather it is, of course, varied. Some changes are quicker and more wide-ranging than others. The nature of the assemblage and the relations within it at a given moment will effect that impact that a change has. This change could be the introduction of a new actant or change relating to the vibrant nature of the actants within the assemblage. The many and varied relations within an assemblage mean that it is not possible to predict the nature of change. We can never guarantee that 'actant a' will have the same effect in two different assemblages or at two different moments. The rest of the changing assemblage it is within may act catalytically to increase the effect of 'actant a' or may act to stabilise it and reduce its effects. Some relations within an assemblage will act to allow change to spread quicker than others. For example if a new actant effectively fills a niche that is related to many other actants then its impact is likely to be larger. Indeed some actants may act as catalysts for dramatic change. Actants that can easily become *blackboxed* or territorialized are likely to have a more stable and potentially long term place within an assemblage. Consider for example the way that archaeologists such as Cooney and Grogan (1999) and O'Brien (2007; 2004) have talked about the material culture repertoire of the Late Neolithic as a kind of pre-adaptation for the emergence of cast bronze objects. The relations within the Late Neolithic assemblage mean that bronze can become easily territorialized.

Phase Transitions

DeLanda's concept of a *phase transition* can help to make change less homogenous (DeLanda 2006; 2000; 1997; for an archaeological application of the concept see Harris (forthcoming). *Phase transitions* are when notably marked changes appear evident. They are the result of the build-up of numerous smaller inter-related changes that contribute to a more marked change: heating water from 1°c to 100°c is a gradual process but the *phase transition* at 100°c appears more marked. The *phase transition* model enables us to acknowledge that there are some marked transitions in the past but they are not progressive, developmental and teleological but rather they are the result of multiple processes that had already been in motion for some time and can co-exist together. Such a model avoids a sense of *phase transitions* as crucial thresholds on a forward journey to modernity as the apex of human achievement. DeLanda states that,

> "…much as water's solid, liquid and gas phases may coexist so each new human phase simply added itself to the other ones, coexisting and interacting with them without leaving them in the past. Moreover, much as a given material may solidify in alternative ways (as ice or snowflake, as crystal of glass), so humanity liquefied and later solidified in different forms."
>
> DeLanda, 2000: 15-6

Drawing on the notion of state changes I seek to balance a picture of fundamentally constant change from vibrant matter with the differing rates of change that are obvious in the archaeological record at certain times and resolutions. Things are always vibrating and in flux, however sometimes these constantly changing and fluxing relations build up to create change of a different type, speed or intensity from other times.

Avoiding a dichotomy

There is a risk in introducing the concept of the *phase transition* that I end up defining an approach where vibrant matter and phase transitions appear as two sides of a dichotomous approach to change. Either things change in a very marked manner, perhaps quite quickly or they just change a small, perhaps barely perceptible amount all the time. This is not my intention. DeLanda's (2000; 1997) concept of a *phase transition* is based upon a build-up of gradual change that becomes an obvious marked change. When we boil a pan of water different molecules of water reach 100°C at different moments, some sooner than others. If we are to call the change from liquid to gas that occurs in this process a *phase transition* when would we identify it? If we were considering things at a molecular level then the *phase*

transition would be at that moment when the single molecule evaporates; however, if we take all of the water molecules in the pan as a larger assemblage, *blackboxing* the individual molecules, the point of transition would be at a different moment. Indeed, perhaps truly we cannot identify one moment when we say the assemblage has undergone a *phase transition*, rather we wait perhaps until we can see the surface boiling, or maybe we wait until there is a rolling boil, or until all the water has evaporated from the pan (at which point all the molecules have undergone a *phase transition* – though some may have re-condensed elsewhere, thereby undergoing a further *phase transition*)? In any of these cases we are waiting for the visualisation of a *phase transition*, a moment when the nature of things appears changed. When a *phase transition* occurs depends on the scale which we are observing. This is not a weakness but a strength: it allows us to consider different kinds of assemblages on their own terms, as well as considering how they relate to bigger and smaller assemblages. It does not mean that we have to say the Bronze Age happened everywhere, in the same way, at the same time. Rather, it allows us to identify numerous changes in numerous different assemblages with varied importances to assemblages both smaller and larger than themselves.

As I suggested earlier, varying rates of change are the result of the nature of the relations between the various actants within an assemblage. Some actants may act as catalysts that increase the speed and scale of change causing more relations to change at once. Other actants may reduce the effect of change on an assemblage. *Phase transitions* are not in a dichotomous opposition to vibrant matter; rather, they are the result of vibrant matter. The vibrancy of matter means that change is always on-going, sometimes the effects of this change will be greater, and an accumulation of change will occur to produce a *phase transition*. At other times though, as a result of the nature of the assemblage itself, change will be more limited. Our increasingly fine-grained chronologies are going to increase the resolution with which we can trace change and identify *phase transitions*. Indeed, I would speculate that they are going to increase the number of *phase transitions* that are obvious to us as they show increasingly the complexity of what we may once have presumed to be simple sequences of change. For example, the kind of resolution available for Early Bronze Age pottery types, thanks to work such as that by Brindley (2006), show that pottery types overlap, that there is no simple replacement of one style by the next but rather than multiple styles co-existed in all kinds of complex relations. This is not blocks of static history with moments of marked change. This is constant change, giving rise to diverse assemblages and changing practices and material cultures. For me, this kind of archaeology is about identifying all these smaller ‘marked state

changes' and multiple scales that contribute to constant change rather than cleaving periods apart and defining them dichotomously.

Like time, scale emerges from assemblages. Any assemblage will have multiple emergent kinds of time and scale. Scale and time, like any other actants are changing and fluxing. Furthermore, each and every actant in a given assemblage is a *blackbox* that can be opened to reveal further emergent actants which make further scales of analysis emerge. In terms of archaeology, we seek to explore assemblages that are appropriate to whatever question it is we are seeking to answer, therefore the scales of analysis we adopt are not arbitrary, they relate to our questions. From the particular assemblages that we explore multiple kinds of scales will emerge. The scale of relations important to an assemblage of bees will be different from those important to an assemblage of humans. However, in answering archaeological questions we are always going to be dealing with diverse assemblages of people, things, plants, animals, beliefs and gods, and as such any assemblage will have multiple scales. Attempting to consider many of these diverse scales, just as we seek to consider many diverse actants, is important when we seek to write narratives of the past that encompass as fully as possible the variety of archaeological evidence available to us. However, it also necessarily involves the *blackboxing* of some scales of analysis and the translation of others. For me, the key is to try and select scales of analysis that emerge from the assemblages we gather around us and help us to answer specific questions.

Conclusion

In this chapter I considered how new relational approaches to understanding the world could change the way that we approach time and change. I found that many of the approaches had much to offer, but that they also often presented problems. I therefore opted not to follow the position of any one theorist but to bring together multiple thinkers to outline a new approach that was able to confront the issues that I identified at the start of the chapter (Table 4.1). In defining my own theoretical position I had to counter many additional problems that different ways of thinking produced: for example by opting for a vibrant matter approach I risked making change appear to have one constant tempo, I worked around this by thinking about *phase transitions* and the stabilising effects actants can have within assemblages. In taking a

'magpie' approach to theory I hope to have defined a flexible and workable approach to studying change.

Problems presented at the outset of the chapter	**Solutions presented at the close of the chapter**
Singular causation • Location of change in single moments • Unilinear explanations	Assemblages of heterogeneous actants, in multiple relations, mean that we need to trace genealogies of change.
Conception of time • Emphasis on a search for origins and revolutions located in single moments	Time is not viewed as a container for action rather it emerges from it. Matter is vibrant, it is constantly changing. It exists within assemblages of heterogeneous actants meaning that a search for a single moment of origin or revolution is impossible, rather 'origins' are spread between many actants, through time across assemblages. We need to trace genealogies not origin stories.
Technological determinist and progressive narratives	We do not exist at the 'zenith' of time, merely in the middle of it. We are not the end point we are in a process of becoming, as is everything else.
Blocks of stasis and moments of change	Matter is vibrant, change is constant. There are no periods of stasis. Any apparent period of stasis is the result of translation and *blackboxing* that reduce the appearance of change. However, this does not mean that change always occurs at the same tempo everywhere, rather there are periods where change appears slower, and moments when it appears rapid.
Inadequate approaches to the movement of actants	Actants exist within heterogeneous assemblages that are open-ended not close. What might be classically viewed as 'cultures' are better understood as assemblages that include material culture, beliefs, ideas, animals etc. They are open-ended and have actants that both act to territorialize and deterritorialize them. When assemblages move through time and/or space they do not remains the same rather they are translated and changed. An actant's effect in any one assemblage is not the same as its effect in another.

Table 4.1: Summarising how the problems with change presented at the outset of the chapter have been resolved

Following change in the past

In this thesis, I take the theoretical position outlined here and use it to explore change between 3000-1500 cal BC on the Isle of Man. I do this by tracing genealogies of change through time and by opening the *blackboxes* that form around actants. For example, in the next chapter I open the *blackboxes* that are metal and stone axes. I look at the processes behind their emergence as objects, how are they made, how are they used, how are they deposited. Opening these blackboxes allows an effective comparison of the two kinds of object, as such I am able to explore the assemblage of stone axes into which the new actant, metal axes, was inserted. By carefully considering the similarities and differences between the two categories of objects I am able to identify the changes that are occurring at this time. I follow change through a multiplicity of related actants to give a genealogy of change through time. In Chapters 5, 6 and 7 I trace changes in different categories of things and practices; I open the various blackboxes these practices and things exist within and explore their assemblages. This allows me to piece together a more detailed genealogy of change in the final chapter of the thesis and to thereby consider the nature of change from 3000-1500 cal BC.

5. Relations between and within: axes, metal, stone and people

In the previous chapter I argued for a world of constant change; a world where materials, people and animals are always vibrant. I also argued that we often continue to treat things, people, animals and the world as if they have not changed in order to 'hold steady' and preserve some of our earlier relations with them. In this chapter I explore this tension between 'holding steady' and change. I consider axes of stone and metal from the Late Neolithic and Early Bronze Age, arguing it is vital that we consider the materials together. By treating both sets of materials in the same frame their similarities and differences become apparent, and that it is this tension between similarity and difference, change and stability that is crucial to understanding how metal changes the assemblage from which it emerges.

I consider the axes from the Isle of Man, presenting new primary use-wear analysis on copper and copper-alloy axes. Importantly this use-wear analysis is contextualised through a consideration of the elemental composition of the axes and their depositional histories. This new analysis, in combination with a consideration and comparison of the similarities and differences in the *chaînes opératoires* for stone and bronze axes, and a comparison of their life cycles, allows me to open the *blackboxes* that traditionally surround these two objects and trace their genealogies through time. Crucially, this comparison allows us to understand the emergence of the metal axe within Late Neolithic assemblages that contained stone axes.

Thinking about vibrant materials

> "…metal "conducts" (ushers) itself through a series of self-transformations, which is not a sequential movement from one fixed point to another, but a tumbling of continuous variation with fuzzy borders."
>
> Bennett, 2010: 59

Metals are polycrystalline, they are made up of a large number of tiny crystals, with curved surfaces that are all packed together with the surface of each crystal interfering with those of its neighbours. The way crystals relate is, in part, a product of their history: cooling and heating, the application of pressure, the addition of alloys and so on. Within the lattice of the crystals there are also 'imperfections'- free atoms that do not belong to the lattice but the presence of which in the structure renders boundaries between the crystals porous, making the structure full of small holes (Smith, 1960:134). They give metals a variegated topology that acts to determine the properties of the particular metal; these are the properties that the metallurgist exploits when making an alloy. These free atoms and their interaction with the lattice structure and the history of the material give it its properties but also mean that it is constantly in motion, always changing, shifting and becoming (Bennett, 2010: 52-61). The polycrystalline nature of metals and their technological properties have taken scientists years to understand, and arguably there is still much to learn. However the properties of metals, and the ways in which they behave have long been known to the metallurgist and the blacksmith; they know that one does not impose will on material, but rather work with it.

Metal is traditionally viewed as a hard, impregnable and resistant material. Blacksmiths are often portrayed as tough, well-built men, who use brute force and fire to shape and mould metal into a form of their own design. However, recent theoretical literature has seen a re-presentation of metal as a different kind of material from this traditional image (see Bennett 2010; Deleuze and Guattari 2004). Authors who emphasise the vibrancy of materials are keen to highlight the vitality of this material traditionally seen as dead matter. Indeed Deleuze and Guattari champion metal as an "exemplar of a vital materiality…. bursting with life" (Bennett, 2010: 55). Bennett (2010: 58) suggests that objects which to us seem fixed, static and immobile are, in reality, always changing but their vitality, the changes they undergo, occur at speeds below the threshold of human discernment. This is a matter of scale: the vitality of a material and the changes that occur in its relations are at scales which we often overlook. We watch the materials of our everyday life change gradually and often ignore it. Both stone and metal need to be viewed as vibrant materials.

Technology and Prehistory

In the last chapter I stated that I wished to move beyond technological determinism: 'bronze' is not the cause of social change in the Bronze Age. The OED defines technology as "the application of scientific knowledge for practical purposes, especially in industry". Our approach to (and definition of) technology is inappropriate and has created a radical break between technologies of stone and metal. Technical relations have come to be seen as separate from social relations[15] and this masks the social side of technology (Dobres and Hoffmann, 1994: 228; Ingold, 2000: 314). As discussed in the previous chapter separating such relations is false (Latour, 1993); all relations are interwoven and cannot be considered separately. What we might call 'technology' is really an assemblage of actants, and like all assemblages, it involves numerous heterogeneous relations. Referring to an assemblage as 'technology' is counter-productive: all assemblages contain what might be termed technological aspects. Our assemblages come into being and are changed as part of the emergence of a total field of relations. In considering 'technologies' of stone or bronze we need to be looking at wider assemblages of relations. The theoretical position advocated in Chapter 4 means a re-definition of technology is appropriate: I take the term technology to describe the productive relations between people, skills, knowledge, objects and practices.

Similarities and differences – not everything changes

Kingery (1993: 225) argues that Kuhnian models of revolutionary change have been applied to the adoption of new technologies. In such models a new and better technology completely replaces an older technology, causing change equivalent to a paradigm shift. It could be argued that such a model is implicit in our understanding of the introduction of metal – stone is completely replaced and superseded by the arrival of copper and copper alloys. Yet as Robb and Harris (2013) argue, change is not about replacement but about a change in the relations between things. Aspects of older technology provide both the means to create new technologies, and the relations within which new technologies are to be adopted and understood. Roberts and Frieman (2012: 33) argue metal is not adopted in Britain and Ireland as stone is "broken" but rather it is adopted when there is a "place" for it, when it fits within pre-existing meshworks of relations[16].

[15] The exception to this is social media technologies, where technology has been developed specifically to allow new forms of sociality.
[16] For a similar argument see Hodder (2012: 113-135) on the concept of fittingness.

Schaniel (1988: 493) points out that adopting a foreign technology does not mean that one is adopting the "logic" associated with the technology in its original setting. Introduced technologies, such as, one might argue, bronze in Britain and Ireland, are not merely adopted, they are also adapted, and made to fit existing value systems and social relations (Schaniel, 1988: 497); or, to put it another way, they are territorialized into existing assemblages of relations. Both the new actant and the existing assemblage are changed. Sofaer-Derevenski and Stig-Sørensen (2002: 117) highlight the way in which new kinds of objects and new technologies involve the re-negotiation of, and changes to, existing social relations, rights and responsibilities. As such new actants are disruptive. However, they do not create complete ruptures, new actants have to be adopted and adapted in the light of existing social relations, beliefs and values. If an adopted technology has to be adapted and understood within specific cultural terms then, as Schaniel (1988: 496) expresses it, "…the change is not pre-ordained by the technology adopted". The changes we see in Atlantic Europe with the arrival of metal are not going to be necessarily the same as those in Ireland or indeed the Isle of Man.

Materials and Forms

In recent years there has been debate about the nature of materials (see for example, Conneller, 2011; Ingold 2007; Jones 2012). Conneller (2011: 1) suggests there are two popular views of materials: either they are seen as an inert substrate for human expression or they are seen as having natural and essential properties that can be understood and defined by material science. Stone might traditionally be viewed as permanent, hard and impregnable; and metal might be viewed as ductile, a conductor of electricity and potentially sharp. But, as Conneller (2011: 3) argues, "In particular times and places, what people consider to be the essential properties of materials differ."

Following the arguments of Bennett (2010), discussed in Chapter 4, any view of metals as dead matter, or simply an inert substrate for human expression, cannot be sustained. Rather, materials need to be viewed as vibrant matter, constantly in motion and capable of affect and effect. I argue that materials have multiple relational properties, or qualities, that emerge as a result of the assemblages within which they exist. These properties are processual (following, Ingold, 2007: 1), they are not fixed but change; Ingold (2007) uses the example of a wet stone that is left to dry, the qualities of the rock change with time. The properties, or qualities, of a

material are not the same everywhere and always (*sensu* Latour 1999: 156): rather, they emerge from relational assemblages.

The same could be said of the properties of form. The tension in similarity and difference, in forms and materials that are new and forms and materials that have pre-existing histories, bubbles under the surface in Catherine Frieman's (2012) book *Innovation and Imitation.* This book considers the concept of skeuomorphism and its utility, or otherwise, to archaeology through three case studies of objects typically considered to be skeuomorphs (Figure 5-1)**.** The term skeuomorphism is one invented by archaeologists in order to help understand material change, however it has been used to denote many different, and sometimes contradictory, things. Originally the term was used to describe features of an object that were imitative of features of another object in a different material (Frieman, 2012: 9; see also, Frieman, 2010). Her consideration of lithics in order to understand the changes associated with the beginning of metallurgy is timely, and sits well alongside the work of Van Gijn (2010a; 2010b). Van Gijn argues we cannot possibly understand the impact of metallurgy without understanding the changing roles and relations of other materials.

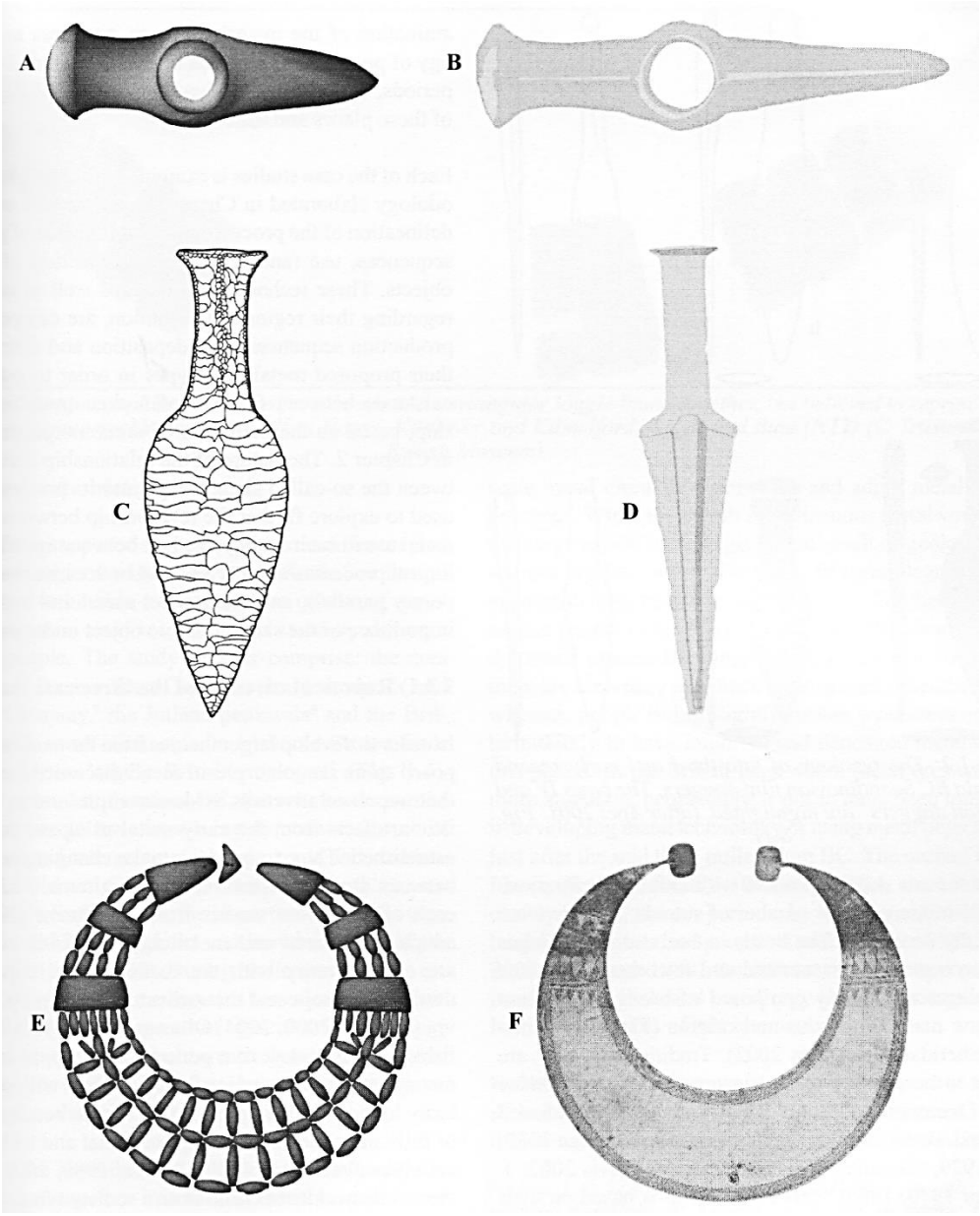


Figure 5-1: Stone objects studied by Frieman and their supposed metal skeuomorphs. A and B are knob-butted axes, C and D are daggers and E and F are crescentic necklaces. From Frieman, 2012: 3, fig 1.1.

Frieman underplays the importance of skeuomorphism. For the purposes of her own research she chooses to define skeuomorphism as

> "… the intentional and meaningful imitation of features – both morphological and technological - in objects made in one material that are typical of objects made in another... I view skeuomorphism to mean a direct, imitative relationship between two materials "
>
> Frieman, 2012: 16

Her very tight definition leads her to examine the objects and their skeuomorphs closely and seek exact imitation and parallel at every level from their production through to their use and deposition. In each of the cases she examines the object class cannot therefore be strictly skeuomorphic. For me, the term skeuomorph is not redundant because the objects are not made, used and deposited in exactly the same way, but rather that there are similarities *and* differences. The morphology of these objects might be similar but often there are subtle differences that Frieman's close analysis brings to the fore – they are objects that are relational to, and have clear relations with other materials, objects, ideas and peoples in their assemblage. In attempting to understand the introduction of a new actant (such as bronze) we need to closely consider change in form as part of a consideration of the wider changing assemblage the material is a part of.

Considering metal and stone together

Critiques of our approaches to the study of both metal and stone axes are abundant. Both objects are often deposited away from settlement and burial sites and not in association with other archaeological features or stratigraphy. Some axes are found in hoards, which gives the advantage of an association with other material culture but again these are often discrete deposits that have few additional finds associated with them. This lack of contextual information serves to make discussions of their function and significance all too often limited to the ritual sphere.

Both kinds of axe - metal and stone - are often rigorously studied to gain information about their source material. In the case of axes, the excellent work of the Implement Petrology Group (IPG) (for example Clough and Cummins, 1978) has established a source rock for the vast majority of the polished stone axes known from Britain and Ireland. With metal axes the *Studien zu den Anfangen der Metallurgie* (SAM) (see for example Bittel et al., 1968) project has sought to record the chemical composition of the bulk of all known axeheads from Europe. Today, portable x-ray fluorescence machines allows us to easily test the elemental composition of metal axes. Such scientific data can be used to attempt to interpret a source for the ore or ores smelted to make the axe. There are more problems with this technique than the geological ones applied to stone axes; the issue of recycling metals clouds the signature of various source ores. However, for the Chalcolithic and Early Bronze Age (specifically Needham's (1996) Metal Assemblages I and II) it has been possible to establish

that 73% of the known metalwork in the Britain and Ireland comes from ores extracted from Ross Island in Ireland (Bray, 2012: 60). Whilst in both cases, this kind of analysis is highly useful, it has resulted in is a narrative about axes that focuses on circulation and their ore sources but often forgets their wider context; and in the case of the metal axes in particular, this is often a highly technical and scientific narrative that only tends to briefly place the results in context.

Scholars who study both metal and stone axes are not common. Gaining a grasp of both speciality subjects is a daunting task, but for as long as the two kinds of material continue to be studied separately, we will arguably fail to see the similarities of the two or understand how it is that metal axes come to be incorporated into prehistoric assemblages. As Frieman (2012: 127) points out, it is rare for typologists or material specialists to have expertise at the same level in a second material or typology. In addition, Frieman (2012: 127) highlights the ways in which it may not always be the case that the specialist who studies the deposition of a given object is the same as the person who studies the object's morphology, use-wear or typology. This creates gaps in research that need to be bridged by detailed analysis, where specialists talk to each other and understand the techniques, and problems with the techniques that other specialists are using (see also, Conneller, 2011; Jones, 2002; Lucas 2012). These kinds of 'gaps' in research are compounded by lacunae in the data itself, take, for example, the imbalance in axes studies between production, consumption and deposition.

From the theoretical position I have established above it is clear that a broad, relational perspective requires one to consider more than metal axes alone if we are to understand the innovation and impact of metallurgy. It is also important that we open the *blackboxes* that are used to contain stone and metal axes as categories. Within the confines of this chapter I want to employ an approach that considers similarity and difference in axes of stone and metal to look at how it is that metal axes come to be accepted and incorporated into assemblages. How are they are similar to, and different from, existing stone axes? How might this affect the ways in which they were used and understood? In order to do this I draw on a *chaîne opératoire* approach to consider in detail the similarities and differences between metal and stone.

Chaîne opératoire

Ottaway (2001: 88) advocates a *chaîne opératoire* approach to the study of metallurgy which allows us to understand technology in its broadest relational sense. Lemonnier (1989) and

Dobres (2000) *chaîne opératoire* approaches show how people are shaped through technical systems. Technology acts to shape the bodies and social behaviours of those who interact with it as much as we are capable of shaping technology. Dobres (2000: 153-4) expands Leroi Gourhan's concept of *chaîne opératoire* to give a framework for studying technical production which includes the symbolic and social meaning of production.

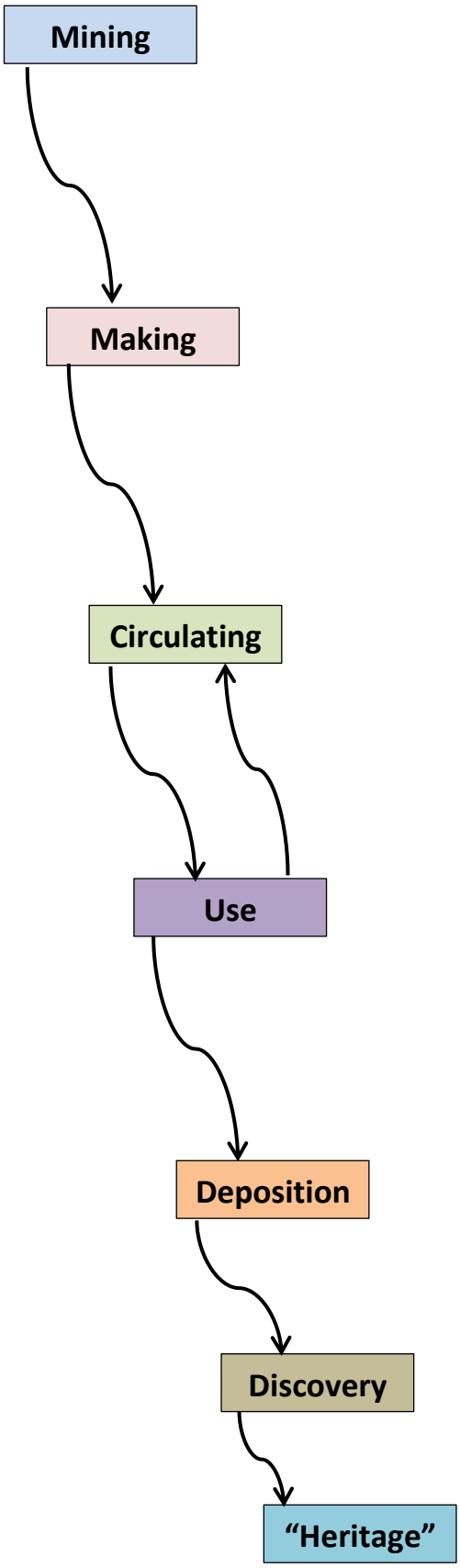
The *chaîne opératoire* concept suggests we consider each technical step and decision made in the process of technological production. Whilst this creates rich and textured narratives, Frieman (2012: 18) highlights the way in which the emphasis on choice within the many stages of an object biography or *chaîne opératoire* often leads to materials becoming passive receivers of human will. In attempting to better understand stone and metal technologies it is important to highlight the vital materiality of stone and metal and to show how the materials impact upon the choices and decisions made by the humans interacting with them. A second issue with the concept of *chaîne opératoire* is that it tends to create singular linear narratives that reduce complex and multiple processes to a single chain of events (for further discussion see Conneller, 2011: 16-20). I intend to use the *chaîne opératoire* concept to highlight that objects are multiple; made of multiple processes and involved in a multitude of relations. Rather than reducing processes to a single line of production I intend to highlight their multiple relations to other processes and the way any *chaîne opératoire* escapes beyond the single process, spreading outwards in a messy way. In the next section I attempt to understand the similarities and differences in the production processes of metal and stone axes and how these similarities and differences might have been understood.

Comparing metal and stone

Chaînes Opératoires for stone and metal

"The emphasis on axehead and blade production for the first millennium of metal use does suggest a basic conservatism in the early stages of Irish metallurgy. The focus on axeheads continues an older Neolithic tradition of large scale production of stone axes from quarries and flint mines that is well known from various centres across Ireland and Britain… This emphasises how the adoption of metal was not a radical technological innovation that immediately altered everyday life in final Neolithic Ireland."

As O’Brien suggests, the choice to primarily make axes and blades, during the Chalcolithic draws on earlier traditions. I dispute his use of the term ‘conservatism’ and instead suggest that the choice of making axes and blades was a result of the pre-existing Late Neolithic assemblages: assemblages where axes were iconic objects, valued for their material, and highly skilled extraction and production. In Table 5.1 the left hand side of the diagram shows a schematic for the process of making axes and the right hand boxes show the kinds of questions that archaeologists might be interested in asking of both kinds of axe and their object biographies.



• Methods of mining? • Kinds of mines? • Landscape of mines? • Who was mining? • What were they mining? • Ideas surrounding extraction? • Seasonality of practice?
• How material is sorted and processed? • Where does making happen? • Who does it? • When does making happen? • What processes are involved in making axes?
• How are axes moving? • Who moves axes? • Where do they come from and go to • How often do they move? • Why do they move? • Who has axes?
• What are axes being used for? • Are they poly-functional? • How long are they used for? • Who are they used by? • How are they changed and by whom during their use-life?
• Where are they deposited? • Why are they deposited? • In what form are they deposited? • Who deposits axes?
• Who discovers axes? • How are axes discovered? • In what condition are they discovered?
• What happens to axes post-discovery? • Who owns them? • Who studies then? • What are they studied for?

Table 5.1: Basic *chaîne opératoire* for metal and stone axes

I now consider the *chaîne opératoire* for both kinds of axes, to highlight the similarities and differences between the processes involved in their becoming. Table 5.2 shows these simple *chaînes opératoires*. The initial processes for both axes are the same, material from the earth must first be extracted, processed and sorted. Following this initial similarity there is a divergence in process. The far longer *chaîne opératoire* for metal axes shows the complex and multiple processes involved in the production of a metal axe. There are, however, points of similarity, such as the process of grinding involved in the making of both kinds of axes. Furthermore, there is similarity at the ends of both processes in the polishing of the axes to remove the working traces. In both cases I feel that this final finishing and polishing process is also concerned with bringing out the qualities of the material: for instance metal axes are frequently polished to remove casting seams.

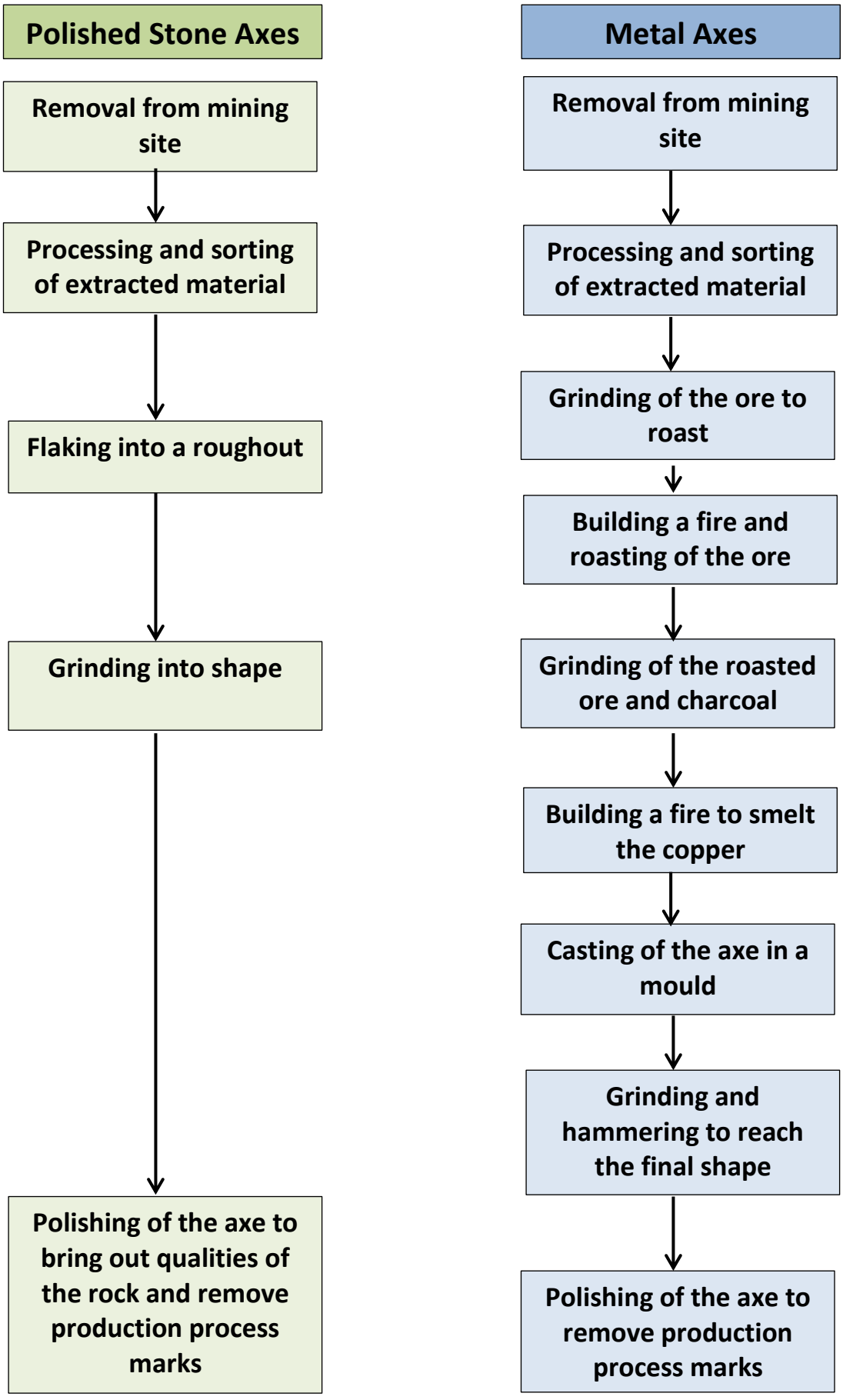


Table 5.2: Comparative *chaînes opératoires* for the production of metal and stone axes

Table 5.2 is particularly concerned with the core technological processes, and is much simplified to create a single narrative, the reality is more messy, more multiple. An example of this simplification is the process of making fires to roast and smelt the ores. This involves the acquisition and production of suitable fuels, the ability to control the fire to assure a certain kind of burn and an ability to control temperature. Specific kinds of furnace bowls and/or bellows are likely to have been necessary to maintain the high temperatures. At each stage in this simplified diagram the iterative relationship between people and things is also missing – the processing and sorting of the material involves the vibrancy of the materials – are they suitable for polishing, will the stone piece provide a decent roughout, will the ore be of a quality that will allow a good smelt? In addition, each of these stages involves multiple people and relations. Who is involved at each stage and where are these processes taking place? Are they likely to be the same people as those who mined the ore or rock? Are the people who produce the charcoal the same as those that do the smelting? Are their relations ones of exchange or are they part of the same community?

In attempting to answer such questions a more detailed approach is necessary: Table 5.3 and Table 5.4 show such an approach: these tables essentially open the blackboxes surrounding the mining and making of axes. These diagrams compare and contrast the extraction and making processes for axes in more detail for flint, stone and metal. Flint has been added into the discussion here: flint provides the core stone technology and a major part of the relational meshwork of objects and materials within which polished stone and later metal must be understood. It was decided to compare the process at three key sites, Grimes Graves, the best known and best understood example of a flint extraction site with a clear Late Neolithic chronology (see Topping, 2011a), Langdale, the best understood extraction site for polished stone axes during the Neolithic (see Bradley and Edmonds, 1993) and Ross Island, the only extraction site for metallic ores with clear evidence of Chalcolithic extraction, and at present the site believed to produce the majority of Early Bronze Age ore used in the production of metallic objects (see O'Brien, 2004).

Mining		Grimes Graves	Langdale	Ross Island
	Location	Norfolk	Cumbrian Mountains	Edge of a peninsular on Lough Leane
	Type of Mine	Large network of underground mines	Large network of Mountain top extraction sites	Cave on the side of a lake
	Extracted material	Flint	Group VI rock (Seathwaite Tuff)	Copper ores
	Seasonality	Probable	Probable	Probable
		Lack of associated permanent settlement and practicality, as well as potential seasonality of ritual deposits indicate potential seasonality (Topping 2011b)	Mountain top location, subject to changeable weather indicates possible seasonality (Bradley and Edmonds 1993)	Flooding of the mines by the lake and the seasonal nature of the associated settlement indicate potential seasonality (O'Brien 2004: 153)
	Who was involved	Small community	Small community	Small community
	Tools Used	Antler picks found in large numbers (Topping, 2011a: 9); minimal numbers of ground Axe marks obvious on surfaces of the galleries but few finds of axes (Barber et al., 1999:66)	Hammerstones	Stone picks and mauls to break off ore and bone shovels also evident (O'Brien, 2004: 134)
	Methods	Tools to extract flint from the chalk	Evidence of fire setting to weaken rocks. Extraction along lines of weakness and prising off of parts loosened by erosion (Bradley and Edmonds, 1993: 75); some stone extracted by digging 'caves' in to rock face	Evidence of fire setting to weaken rocks (O'Brien, 2004: 128; 451)

	Ritualisation	Evidence of fires in the mine, knapping, the deposition of antler tools, potential chalk offerings and a particularly notable deposit of two antler picks, the wing of a migrating bird and a Cornish stone axe (Topping, 2011a: 9-13)	No known evidence, though if it existed it must have been more subtle than that seen in the flint mines. However we also need to consider the marked disturbance to this site.	No known evidence, though it could be been covered by later mining and rises in the level of the lake.
	Ideas surrounding mining	Geographically limited distribution of flint. Significance of going underground.	Geographically limited distribution of Group VI. Significance of going to mountain tops.	Geographically limited distribution of ores.
		Surface flint was available, going underground to mine out flint is a deliberate decision (Topping 2011c: 271).	Extraction occurs at the highest, and most inaccessible points, when it could be extracted at more accessible sites (Bradley and Edmonds, 2003: 134).	Extraction occurs where the ores outcrop.

Table 5.3: Comparison of extraction of flint, stone and metal ores.

"Many of the mining techniques [for extracting copper ore] can be paralleled in earlier mining for flint, and other hard rocks, during the Neolithic. This does not suggest any direct connection, particularly as most of the flint-rich areas in Europe do not have any history of early copper mining..."

O'Brien, 2004: 454

Table 5.3 shows that many of the techniques for copper mining were paralleled in the extraction of rock during the Neolithic. Whilst the three processes detailed above show similarities there are also clear differences. In seeking to understand the emergence of

metallurgy it is clear that we need to understand existing processes of mining and the techniques, skills and beliefs surrounding them.

Firstly, in all three cases, we are looking at the extraction of a natural product with a limited geographical occurrence. It is common to refer to polished stone axes as 'pieces of places' and suggest that they gained part of their value and importance from their association with particular places. This argument is strengthened by the knowledge that it was not necessary to extract flint from underground at Grimes Grave (Topping, 2011c: 271), nor Group VI rock from the highest part of the Langdale outcrop (Bradley and Edmonds, 2003: 134). It seems that the difficulty of extraction, and the significance and meaning of the extraction places, were all important to some Neolithic communities. I suggest that in the case of copper ore, Ross Island may have come to hold a similar position to Langdale, and similar source areas like Cornwall or Ulster, from 2400 cal BC. People may well have known that the ore from which metal axes were made came from a far distant place; and, as we are often keen to highlight for polished stone axes, they may have held the place in special esteem. In the later Early Bronze Age and the rest of the Bronze Age, as more sources of copper were exploited, any association with place for metal axes may have been eroded. The rock source for a polished stone axe remains visible in the material, colour and crystals of a stone axe - this may not necessarily be the case with a metal axe. Recycling of metals grew through the Bronze Age and it therefore becomes increasingly hard to scientifically identify the source for a given ore and it appears that different kinds of copper ores were mixed in order to make new axes (Bray, 2012). It is unsurprising then that the ways axes were valued changed during the Early Bronze Age.

Topping (2011b) has made a clear and convincing argument for the seasonality of flint mining based on the evidence of ritual deposits, the lack of associated permanent settlement and the practicality of extraction in winter. This argument could be extended to cover stone and copper ore extraction, and there is some evidence to support this proposition. In the case of Ross Island, extraction at the mine site during the eighteenth century was disrupted by the water level in the winter at Lough Leane, and indeed O'Brien (2004: 572). O'Brien (2004: 153) argues for spring-summer extraction (but see the animal bone report that which suggests animal remains indicate a winter-autumn slaughter). In addition the lack of evidence for permanent settlement supports an argument for a seasonal rather than a year round occupation. Topping extends these arguments to suggest that miners may have constituted a specific small section of the society who were tasked with the important, and potentially

dangerous, job of extraction. He suggests they may have left in spring and returned again at harvest time with their own 'harvest' of flint (Topping, 2011b: 41) potentially occupying a special role associated with the extraction of this powerful and 'special' material. Such arguments could potentially be extended to the extraction of polished stone and copper ore, though at present the evidence is not as strong.

There is similarity in the extraction methods and kinds of tools used to extract rock, ore and flint from the earth. In the case of Grimes Graves there appears to be a special significance for antler picks (Topping, 2011a: 9). Hammerstones are evident at both Langdale and Ross Island in very large numbers, and in both cases there is clear evidence of fire setting in order to weaken the parent rock and allow extraction. Alongside this similarity we must also consider the differences. Copper mining is likely to have stained the hair and nails of those that worked on the mine blue (this is the root of the name 'Blue Hole' for the mine at Ross Island (Heath, 2012: 35). There is also a clear difference between those who mine underground and those who mine on the surface, or on mountain tops amongst the clouds. The potential associations and beliefs connected to entering into the earth are numerous and ethnography offers a host of potential parallels (for a summary see Topping (2005)). Whilst the methods of mining and the kinds of mines and techniques are not directly imitative there are similarities that may have led to connections in understanding between the various contexts.

Having drawn out the similarities and differences in mining as laid out in Table 5.3 I now wish to turn to the process of making the axes and lithic tools in Table 5.4.

		Grimes Grave	Langdale	Ross Island
Making	**Sorting and Processing**	Basic sorting, reduction and crafting of roughouts on site.	Testing and sorting of extracted rock and roughout shaping.	Sorting and processing of the ore from the country rock.
	Location of processing	Evidence suggests most artefact finishing seems to occur off-site.	Evidence these processes occurred away from the mine at sites such as Thunacar Knott and Stakebeck (Bradley and Edmonds, 1993: 92).	Evidence of processing at the nearby 'mining camp', evidence of sorting using animal bones (O'Brien, 2004: 378).
	Who is making objects	Small community of specialists, potentially different to those mining the material, rather than normal knapped flint that was probably done by the bulk of society.	Small community of specialists, potentially different to those mining the material. Possible that the final stages of production are carried out by other communities, so as to finish an axe locally	Initial roasting and making of ingots evident at Ross Island (O'Brien, 2004). However the production of axes themselves is not evident at the site. Later in the Early Bronze Age local communities may be re-casting axes to local specifications.
	Ideas surrounding the making of objects	The process appears to have required a high level of skill and technique that may have been well respected.	The process appears to have required a high level of skill and technique that may have been well respected.	The process has widely been regarded as highly skilled and requiring a very specific knowledge set. There is a possibility that the colourful, visual, chemical processes involved created a performative element to production

	Ideas surrounding the finished objects	Clear emphasis on the quality and 'special' nature of the material. There is an emphasis on finishing with few traces of production.	Clear emphasis on the quality and 'special' nature of the material. There is an emphasis on finishing with few traces of production.	Clear emphasis on the quality of the finish with casting marks removed and a high quality polish and finish.
	Ritualisation	There is no known evidence for ritualisation. However, given the valued and 'special' nature of the material ritualisation may have occurred.	There is no known evidence for ritualisation. However, given the valued and 'special' nature of the material ritualisation may have occurred.	There is no known evidence of ritualisation. However, given the transformative and 'magical' nature of the metallurgical process it is easy to imagine that it could have been highly ritualised.

Table 5.4: Comparison of making processes for flint, stone and metal axes.

Table 5.4 explores the general making process for axes and lithic tools and the ideas and people who surround the process and make up the assemblage within which it occurs. Whilst it does not go into the detail of smelting or flaking and polishing it gives an overall comparison. Whilst there are similarities and differences in the mining processes, and a clear similarity in the ideas surrounding the importance of specific materials, of which flint, stone and copper are clear examples, the process of smelting copper clearly departs from that of making a stone or flint object. The addition of fire, the process of making a solid stone into a liquid of a different colour, the bringing together of two kinds of ores to alloy copper in the Early Bronze Age, and the process of pouring a liquid substance into a mould rather than reducing a form from a larger block are all clearly different. As Bray (2012: 62) argues, the introduction of molten metal in the Chalcolithic would have had a significant impact on people and would have been central to understanding perceptions and beliefs surrounding metal. The potential importance of potting to understanding and controlling fire, to creating moulds and to working with a more plastic material like metal is clear. I also suggest that cooking, as a transformative process, may have formed a background for understanding metallurgy.

In all three cases the raw material must be sorted and processed. The quality of individual pieces of stone, flint and ore must be assessed; can they be worked with, will they produce the desired effect? In all three cases there is evidence to suggest that this took place, or certainly some aspects of the process took place, away from the extraction site (for an exception see Cooney (2005) regarding Lambay Island, in Ireland).

All three processes involve the work of highly skilled artisans with a fine level of motor control and a *technique du corps* built up over many years of practice. They also require a significant investment of time and energy. It has been argued that the knowledge of metallurgy may have been highly guarded, though given the spread of metal objects through time and space, it seems that this knowledge cannot have remained permanently guarded. What we can argue is that the knowledge of how to smelt is likely to have been shared though some form of 'apprenticeship' (Roberts, 2008). Equally, when people consider the finest and most intricately crafted stone and flint objects of the Late Neolithic and Early Bronze Age it is not uncommon to speak of 'specialist craftspeople', or indeed of' guarded knowledge' (for example Frieman, 2012: 80 regarding knapping). This restriction may not have been entirely a result of secrecy but instead was the result of the lack of skill, ability, time or the appropriate relations for other people to be able to knap or polish a highly valued object.

Frieman (2012: 87) argues that there may have been a highly performative side to the knapping of exquisite flint objects. The skill of knowing exactly where to hit the flint, and with what, in order to make a certain shape, is something that can inspire disbelief. One can also imagine that the reductive process of making a highly polished, symmetrical, shapely, axe appear from a roughout were equally mysterious and inspiring processes: a form of slow magic. Cooney (2005: 24-5) comments on the way in which the grinding and polishing of porphyry from Lambay Island brings out the whiteness of the rock and the crystals within it. This 'bringing out' or 'becoming' of the material and the form may well have been 'magical' processes that people wanted to watch and share in, that were performed for the wider community and shared with new people.

As noted earlier, in all three cases there is an emphasis on the polishing and finishing of objects. Indeed, the process of polishing stone axes appears to bring out the qualities of the rock, bringing particular colours and crystals to the fore. In the case of flint, the more the

material is polished the more lustrous it becomes (see Frieman, 2012: 80). The process of polishing to bring out shine and colour was therefore well known from work with stone and flint in the Neolithic. Polishing metal to make it shine and remove the making marks, soot and dirt from casting, may have been viewed in a similar way. Frieman (2012: 80) argues that metal is an "anonymous material" as it can be brought from outside a local region and cast locally with any history and meaning attached to it only orally. As such, Frieman (2012: 80) argues that the "… the stability of flint [and presumably stone] as a raw material can be directly contrasted with the mutability of metal". The root of this argument lies in the finishes that remove making marks and the way in which ores are melted down and visibly 'lost', meaning that the axe as a 'piece of place' may be lost – as I argue above, this need not be the case for early metallurgy. I also believe that such a statement plays down the role of oral histories and story-telling for both axes and blades of stone and metal.

The idea of metal as an "anonymous material" in contrast to flint is something I dispute. Production processes in metal making are left on the surface of the material and through to its core. Under the microscope, use-wear patterns, marks from production and polishing traces are all obvious; some of these traces are even visible to the naked eye. The stories, traditions and relations of a given object, may not have only been known to prehistoric people through oral tradition but also obvious to them from visual cues. Certainly different kinds of ores look different before smelting and the finishes applied and composition of the copper alloy will affect their colour. Metallurgists and metallographers know, and can show, that the particular alloy, the ore and the way it has been made will certainly affect the way that the material behaves and can be shaped. The metal used to make an axe is far from "anonymous".

The ability to recycle metal is often cited as an innovation of the Bronze Age (for example Bradley, 1998: 82; Edmonds, 1995: 156; Roberts, 2008:365). The melting down of older, or broken metal objects to make more molten copper or copper alloy for new objects perhaps finds similarities in older processes. The sharpening and re-sharpening of flint and stone axes was common in the Neolithic. In addition, Frieman (2012: 79-80) argues that objects such as flint daggers may well have been recycled and re-used as spearheads or strike-a-lights. This indicates that re-use and re-cycling of objects may not have been totally novel concepts. Equally though, the returning of an object to a molten form and the complete loss of its earlier shape is something that is clearly innovative. Yet even here, one thinks about the temper in pots and the potential significance associated with which older pot, which shell or stone has

been used to temper the pottery, allowing that particular material to continue in circulation (Brück, 2006: 85-6). As the Bronze Age continues recycling increases; Bray (2012: 66) suggests that 40% of Metal Assemblage V metals are made of mixed ores or recycled material. For Bray (2012: 66), recycling is key to understanding the circulation of material but more importantly the changing mind-set of prehistoric people: full recycling of metal represents a different mind-set from the Neolithic, and a wider understanding of the properties of metal.

Metalleity – recognising and understanding qualities

Bray's (2012) suggestion that there was a developing Bronze Age mind set, as opposed to a previous Neolithic one, with regard to metal is an interesting one. For Bray (2012), relationships with metal changed repeatedly from 2400 cal BC. Bray (2012: 57-8) argues that there are a package of attributes that constitute 'metal' but that not all of these will be appreciated, exploited or important at any given point in time. Metalleity refers to the specific attributes that a given community understand metal to have. As such, Bray (2012: 59) argues that there is no one 'metalness' but rather each society has its own particular concept of metalleity that draws on the potentiality of the substance. The metalleity of 2400 cal BC is not that of 1000 cal BC or even 2000 cal BC. Indeed the ability to hammer, work-harden, cold- and hot-work metals is an attribute that was slowly won; the earliest metal objects were not always work-hardened. Bray argues, with regard to early metal using (as opposed to mining or smelting) communities, that it is possible they never saw, nor had any concept of, for example, the link between ores and heat. If metal objects arrive complete and finished, then the very 'magic' of metallurgy may not have been known at all. As time moves on, understandings and approaches to metal become local: the chemical compositions of metal axes from Needham's Metalwork Assemblage III indicate that there are both metal objects that have been re-melted, worked and annealed and re-cast in local moulds to make locally appropriate shapes *and* there are also deposits of unaltered axes brought, unchanged, from Ireland (Bray, 2012: 66). Metal was, and is, locally understood and embedded in local traditions and concepts.

Axes from the Isle of Man

I focus the rest of this chapter on a discussion of axes of stone, and, later, metal, allowing a comparison between the two materials to be made. I focus specifically on axes because they were important in both periods and the Manx Museum holds sizeable collections of both objects that were available for study.

RTB Stone Axes

There are at least 213 axeheads, of various kinds, and from various periods, in the Manx Museum (Barrs, pers. comm.) These axes are currently the focus of PhD research by Kate Kewley (nee Barrs[17]). Of these 213 axes, 69 axes were studied as part of Barrs' (2010) research on RTB axes discussed in Chapter 3. The discussion in the current chapter will be limited to the 69 axeheads discussed in Barrs (2010). This may create a bias in the discussion – some of the axeheads that are not RTB axes may well date to the Ronaldsway Late Neolithic[18]. In this chapter I make a pragmatic choice to discuss only the RTB axes for two reasons: firstly, there is more reason to believe these axes date to the Ronaldsway Late Neolithic, whereas non-RTB axes could date to any part of the Neolithic (or even later). Secondly, Barrs' (2010) study of the axes allows a more detailed discussion of the RTBs. Her current PhD research, will, when complete, allow a more thorough analysis of all axeheads from the Isle of Man and it is pertinent to delay a discussion of axeheads as a whole until this research is complete.

The 69 axeheads discussed in Barrs (2010) are drawn from Garrad's (1978) list of RTBs. Garrad lists 48 axeheads that are potential RTBs; Barrs added a further 21 axes to this list as a result of a visual inspection of the entire collection (Barrs, 2010: 14-15), on the basis of obvious roughening to the butt or the axehead being made from Group XXV rock. The RTB axes are listed in *Appendix: RTB axes*. Barrs carried out morphological and petrological examinations of all the axeheads. Where thin sections of the axeheads existed they were re-examined under a microscope to re-assess their attribution to the various rock groups. In the case of axes where there was no existing thin-section the axes were examined in the hand, with x10 and x20 hand lenses and under x60 and x100 magnification with a microscope. The results of this examination are shown in Table 5.5.

[17] All Kate's existing work is under her maiden name: Barrs. As such, she is referred to as Barrs throughout.
[18] At the 'Ronaldsway house' both RTB and non-RTB axes were found together.

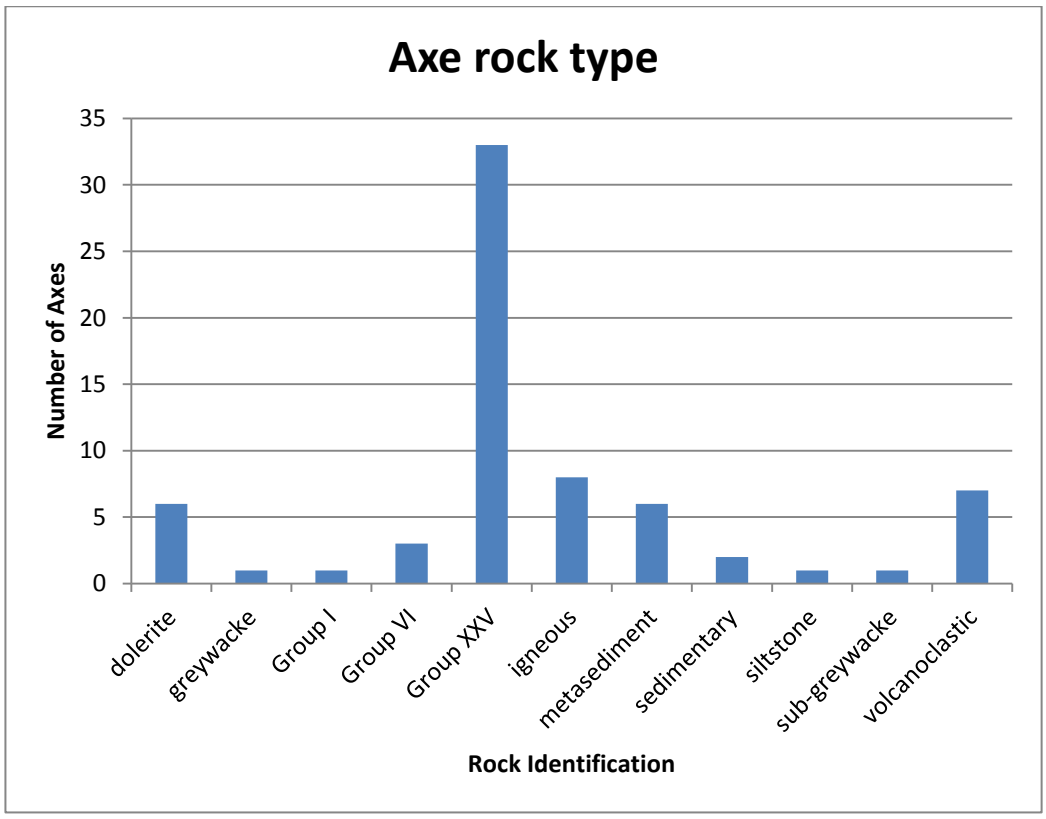


Table 5.5: Macroscopic identification of the rock types of RTB Axes based on tables in Barrs, 2010: 52-4

Axes of Group XXV dominate this cohort, however, despite this, they make up less than half of the collection. Barrs (pers. comm.) confirms that the majority of axes are made of rocks from outside the Isle of Man; there are no known axes made of local rocks, such as Manx Group Slate, Peel Sandstone, Castletown Limestone or Foxdale Granite for example. As discussed in Chapter 3, this usage of alien materials provides firm evidence of contact during the Ronaldsway Late Neolithic and evidence of the movement of materials during the period. Barrs suggests that at least ten axes are from Group VI in Langdale, one from Group I in Cornwall and one from Group VII in Wales (this does not match the distribution in Table 5.5 as microscopic inspection of thin-sections would be required to confirm some of these identifications and thin-sections have not been made for all of the axes). The Group XXV source area, unlike rock sources such as Langdale, is located in a relatively accessible lowland area. On the Isle of Man, it appears that it may not have been necessary for axes to be made of rock from inaccessible and rare sources, however axes from Langdale indicate that the inhabitants of the island may well have been aware of the associations of certain rock types.

Barrs (2010: 34) notes that roughening of the butts often leaves small patches of polish exposed. This suggests that the axes have been polished before they are roughened. We

perhaps need to imagine that the axes arrived on the Isle of Man in the same state as polished axes are found elsewhere in Britain and Ireland, and that only once they reached the Isle of Man were they roughened. It would be interesting to consider whether axes made of Group XXV rock also exhibit polish on the butt as well as roughening (Barrs, 2010 does not comment on this). This would indicate that even axes probably made from local rock, were first polished to resemble their counterparts from Britain, Ireland and continental Europe before later being made to match the local custom. Barrs (2010: 33) observed that 63% of the RTB axes have blades that are still sharp indicating that their deposition had little to do with their ability to continue to function as tools.

Copper and Copper Alloy axes

Manx National Heritage has 57 recorded metal finds from the Bronze Age, of these 52 are in the possession of Manx National Heritage. These objects cover the complete chronological sweep of the Bronze Age from early copper flat axes through to Late Bronze Age socketed axes. In this thesis I will discuss the finds from Metalwork Assemblages I-IV (as identified in Davey et al., 1999); these include copper flat axes, bronze flat axes, a flanged axe, a spear head, a knife, a razor, a gold disc and miscellaneous fragments of bronze: these objects are listed in Table 5.6 and the Early Bronze Age Metalwork Appendix. There are two existing catalogues of the Manx metalwork (Davey et al., 1999; Davey, 1978), my own research uses as its foundation the catalogue produced by Brendan O'Connor as part of Davey et al. (1999). This thesis also introduces to the discussion nine new objects discovered since Davey et al. (1999), which I have catalogued as part of my PhD research (see *Appendix: Early Bronze Age Metalwork*).

There are no associated radiocarbon dates for any of the Manx metalwork, with the exception of a Late Bronze Age date associated with a socketed axe from the site of Lower Ballakaighen (Davey et al., 1999: 39). Needham used hoards and radiocarbon dates to group together contemporaneous objects and create a chronology for metalwork which assigns a date range to 'metalwork assemblages', or groups of co-occurring metal items. In the analysis and discussion that follows the metalwork assemblages have been matched to Needham's (1996) chronology periods for the Bronze Age discussed in Chapter 2. The vast majority of these finds are excluded from funerary sites. The exception to this are a razor found with a burial at Port-

Y-Shee, three possible knives or daggers from burials at Ballakoig Brooghs, The Cronk, Upper Lherghydhoo and Peel Hill, and an alleged spearhead also from Peel Hill. Despite this, the bulk of metal finds, and all finds of axes, are excluded from the funerary context.

Find spot	OS grid ref	MM accession code	Davey et al., 1999 catalogue number	Description	Type	Needham Chronology
'Near Parish Church' (Andreas)	SC 415993	792	25	Copper flat axe,	Growtown Type, Needham's Metalwork Assemblage II	Period I
'Beach south of The Cronk'	SC 335959	2009-0152 sometimes referred to as 1383	NA	Copper Flat Axe	Ballybeg/Roseisland type, typologically latest form of copper axe, Needham Metalwork Assemblage II	Period I
North of island	NX 441992	2009-0035	NA	Flat axe? Knife-like blade	Unknown	Period I
Ballamoar Farm Hoard	SC 24668193	2008-250/1	NA	Bronze knife-like blade	Unknown	Period I
Ballamoar Farm Hoard	SC 24608530	2008-251/1	NA	Copper Flat axe	Ballybeg type, Needham Metalwork Assemblage II	Period I
Ballamoar Farm Hoard	SC 24638199	2008-249/1	NA	Copper flat axe	Growtown Type, Needham's Metalwork Assemblage II	Period I
Unknown, near Andreas	SC 4199	BM Townley Collection	NA	Gold Disc	EBA insular group	Period I
Ballachrink	SC 468891	793	2	Bronze Flat Axe	Migdale Flat Axe, Needham Assemblage III	Period II
Ballakilpheric, near Ballakelly Cottage	SC 22177122	1976.105	27	Bronze Flat Axe	Migdale Flat Axe, Needham Assemblage III	Period II
Hango Hill	SC 277677	794	21	Bronze Flat Axe	Killaha type, Needhams metalwork assemblage III	Period II

Ballawoods	SC 298699	796	15	Large Flat Axe	Aylesford type, Needham Assemblage IV	Period III
Surbey-beg, East Surby	SC 2070	797	3	Large Flat Axe	Glenalla type, Needham Metalwork Assemblage V	Period III
Douglas Head	SC 385749	1979.4	28	Narrow-bladed Flat Axe	Similar to axes from Toome Co Antrim	Period III
Onchan	SC 396783	945	31	Flanged Axe	Probably Arreton type, Needham Metalwork Assemblage VI	Period IV
Peel	SC 2484	Lost	10	End-looped socketed spearhead	Lost - unknown	Period IV
The Cronk, Upper Lherghydhoo	SC 28038522	84.153	11	Bronze Fragments (possibly part of a blade)	Unknown	Either Period III or IV
Peel Hill	SC 238839	Lost	12	Small knife or razor	Lost - unknown	Either Period III or IV
Port-y-Shee	SC 37037712	811	32	Tanged double-edged razor	Variant I of Jockenhovels type	Either Period III or IV (more likely III)
Corvalley, Ballakoig Brooghs	SC 336959	640	38	Fragments of bronze strip (3)	Unknown	Either Period III or IV (more likely III)
Ballamoar Farm Hoard	SC 246819	2008-0251/2	NA	Strange hollow copper alloy object	Unknown	Uncertain
Ballamoar Farm Hoard	SC 246819	2008/0250/2	NA	Slag lump	Unknown	Uncertain
Ballamoar Farm Hoard	SC 246819	2008-0250/3	NA	Ingot?	Unknown	Uncertain
Ballamoar Farm Hoard	SC 246819	2008-0250/4	NA	Copper alloy point	Unknown	Uncertain
Ballamoar Farm Hoard	SC 246819	2008-0251/3	NA	Slag lump	Unknown	Uncertain

Table 5.6: Early Bronze Age metalwork. Light blue indicates objects with an unclear identification. Green indicates objects, other than axes, not discussed in this chapter. Period I is 2500-2300 cal BC, Period II is 2300-2050cal BC, Period III is 2050-1700 cal BC, Period IV is 1700-1500 cal BC.

Period I - 2500-2300 cal BC

Discoveries by metal detectorists in the last 10 years have radically shifted the chronological extent of the assemblage from that published in Davey et al. (1999). These discoveries have added three copper axeheads and two smaller copper blades to the known assemblage (see Fox, 2010: 284-5 for a summary) (Figure 5-2). Two of the axe heads and one of the knife-like blades were found in two adjacent fields near Peel and are now referred to as being from Ballamoar (MM 2008-249/1, MM2008-250/1 and MM2008-251/1). These three objects are not directly associated. They were discovered in three separate find spots between September 2007 and February 2008 by the same metal detectorist. These three objects may well have been deposited in a relatively short time span, but they do not form a hoard or a single deposit. In addition, there is a find of a further copper axehead (MM 2009-0152) and an additional small knife-like blade (MM2009-0035) (Figure 5-2).

MM2008-249/1 Copper flat axe, Balllamoar

MM2008-250/1 Bronze knife-like blade, Ballamoar

MM2008-251/1 Copper flat axe, Balllamoar

MM2009-0152 Copper flat axe, 'beach south of the Cronk'

MM2009-0035 Knife-like blade, 'north of Island' (material unanalysed)

Figure 5-2: Finds from the last 10 years of copper and copper alloy objects, most likely from Needham's metalwork assemblage I.

In addition to the three objects from Ballamoar there is a further collection of metallic objects found in the field including a lump of casting slag. The associated copper alloy finds present a

somewhat difficult collection with which to work, not just because they are separate finds from the same two fields as the above material. These finds present a real mixture of objects, and interpreting a suitable date, or indeed what they might be, is not at all easy (Figure 5-3).

MM 2008-0251-3 Copper ingot

MM 2008-0251-2

MM 2008-0250-4

MM 2008-0250-3

MM 2008-0250-2

Figure 5-3: Objects from the same fields as the Ballamoar

The first point to highlight is there is no direct dating evidence for these objects, nor are they all necessarily associated with each other. MM2008-251/3 is possibly a copper ingot; the object shows some resemblance to the ingot known from Ross Island (Figure 5-4). It is a

possibility that the strange lumps MM2008-0250/4, MM2008-0250/3 and MM2008-0250/2 could all be associated debris from casting. MM2008-0251/2 remains a somewhat mysterious find, the object is hollow and could potentially be far later in date (it is somewhat reminiscent of a metal gate topping). Sadly none of these objects have been sent for compositional analysis as this may help to resolve whether this is debris from casting. However, the two axes and the small knife-like blade from Ballamoar have been analysed. Analysis by Peter Northover (2008) at the Oxford Metals Characterisation Service (OMCS) shows that the two axes are made of copper and the knife-like blade is made of bronze. All three objects are made using copper from the A1 group; that is, firmly associated with Ross Island. Interestingly, when considering the chemical composition of the objects, Northover suggests that the larger of the flat axes, MM2008-251/1, is probably a primary product, brought to the Isle of Man directly from southwest Ireland and used and deposited as originally cast. The chemical composition of the small knife-like blade also indicates a use of primary copper from Ross Island, and the alloying is typical of the very earliest bronze alloys from Ireland. This suggests that it is reasonable to assume that the object was brought to the Isle of Man in this form from Ireland, however the form of the object is very hard to parallel in Ireland. The smaller axe, MM2008-249/1, has probably been re-cast or made of recycled copper due to the lower arsenic content of 0.41% (primary copper tends to have 1-1.2% arsenic). Where or when this recycling occurred is uncertain. It would be easy to suggest that it may have occurred on the Isle of Man and that the other deposits in the two fields at Ballamoar therefore provide evidence of smelting on the island. There is no evidence of a smelting site though the area has not received excavation or geophysical survey at present, but smelting leaves little residue and this may contribute significantly to the rarity of archaeologically-identified smelting sites.

Figure 5-4: Flat axe and copper ingot from Ross Island. Taken from O'Brien, 2004: 524, plate 97.

This new data joins an earlier find of a copper flat axe from Needham's Metalwork Assemblage I: MM 792 (Figure 5-5). This copper flat axe was a single context finds. Compositional analysis suggests that the axe has a similarly high proportion of arsenic to MM 2008-251/1 indicating that it too may be a primary copper source axe, brought to the Isle of Man directly from Ireland in its original cast form. **The picture emerging from this discussion of the earliest metal finds is that they came directly from southwest Ireland from the very earliest use of copper.** The presence of both axes that have been made and deposited as-cast as well as those with a composition that suggests they may have been made of recycled material, but again shows that the island was clearly in contact with Ireland. Whether the people of the Isle of Man were re-casting their metalwork soon after its first arrival on the island remains unknown. People on the Isle of Man may well have had a quite different metalleity than the people of southwest Ireland. Were the communities on the Isle of Man aware that their new metal axes came from a ground and melted rock? The answer remains unclear. What is clear is that it appears that metal, from Ireland, was being brought to the Isle of Man during the very earliest Bronze Age.

MM 792, Copper Flat Axe, Near Andreas

Figure 5-5: Period I metalwork

In addition to these copper and bronze finds there is a single Gold Disc known from Andreas that has been associated with Metalwork Assemblage I. The disc is in the B.M. Townley Collection though Manx National Heritage have an accurate replica which was available for examination (Figure 5-6). These kinds of gold discs have parallels in Ireland (21 known discs according to Timberlake et al. (2004)), Wales and from the Knowes of Trotty in Orkney (see Carlin, 2012: 261-263; Sheridan 2003; Timberlake et al., 2004). There is surprisingly little scholarship on these beautiful discs. They are made from gold, hammered flat and decorated with repoussé work. They are typically very thin, and associated with early metalworking, using similar techniques to basket earrings and lunulae. Sheridan (2003) suggests they were used to decorate clothes in a particularly stunning manner. Timberlake et al. (2004) have argued that a disc from Banc Tynddol, Wales, found with a burial, may be associated with the copper mine at Copa Hill and therefore be used to indicate an earlier use of the mine than is currently evidenced by radiocarbon dates (Timberlake 2003; Timberlake and Switsur, 1998). This disc is very similar in form to the Manx disc. Carlin notes that the deposition of gold discs in Ireland is structured so that they are most frequently found as pairs in single object-type hoards. Carlin (2012: 263) associates them with supra-regional ideas as they have been found in Spain, Portugal and Brittany as well as in Britain and Ireland.

Figure 5-6: Andreas gold disc replica

Period II – 2300-2050 cal BC

There are three known examples of axes from Period II from the Isle of Man, all three are flat axes: MM793 from Ballachrink, MM76.105 from Ballakilpheric and MM794 from Hango Hill (Figure 5-7). All three were chance finds with no associated material and are of known Irish shapes and their composition reflects the use of A1 metal sourced from Ross Island. All three axes have low impurity levels and are therefore likely to have been recycled several times (Northover, 1999: 58).

MM 1976.105, Flat Axe, Ballakilpheric

MM 794, Flat Axe, Hango Hill

MM 793, Flat Axe, Ballachrink

Figure 5-7: Period II Metalwork

Period III – 2050-1700 cal BC

There are two large flat axes, MM 796 from Ballawoods and MM797 from Surbey Beg, and a narrow bladed flat axe MM 1979.4 from Douglas Head (Figure 5-8). All three were single context finds. In addition the Port-Y-Shee razor (MM 811), belong to this period (Figure 5-8). This razor was found in association with calcined bones underneath an inverted Cordoned Urn. The razor is a variation I of Jockenhövels (1980: number 64) type, it is tanged and double edged. O'Connor (Davey, et al., 1999: 46) states that such razors have an Irish Sea distribution and are commonly associated with Cordoned Urns in Ireland and Scotland.

MM 796, Enlarged Flat Axe, Ballawoods

MM 797, Enlarged Flat Axe, Surbey Beg

MM 1979.4, Narrow Bladed Flat Axe, Douglas Head

MM 811, Razor, Port-Y-Shee

Figure 5-8: Period III Metalwork

Period IV – 1700-1500 cal BC

In terms of finds from Period IV there is a reported end looped socketed spearhead that has been lost. Furthermore, there is also a small knife that was reported and lost and two cases of bronze fragments – these finds may date either to Period III or IV. The remaining find is a flanged axe probably of the Arreton type (MM 945) (Figure 5-9). This flanged axe shows careful radial decoration on the body as it flares out into the blade.

MM 945, Flanged Axe, Onchan

Figure 5-9: Period IV metalwork

Use-wear on copper alloys

Use-wear analysis is a technique traditionally used on lithics such as flint and polished stone and also on bone objects (see for example Odell, 2004; Van Gijjn, 2010a; 2010b). The application of use-wear techniques to copper alloys is a relatively recent development (see Kienlin and Ottaway, (1998) and Roberts and Ottaway (2003) for the foundational papers of the discipline). The hesitation to consider use-wear on metals relates to their materiality: post-deposition metal surfaces oxidise and corrode which causes many objects to lose their original surface upon which use-wear can be carried out (Dolfini, 2011: 1038). In addition problems of re-sharpening and recycling compounded the view that metal objects were unlikely to be suitable for analysis. However there are now a number of authors who have successfully completed use wear analyses on copper alloy objects producing results that have changed our understanding of bronze objects (see for example, Anderson, 2011; Brandherm, 2011; Bridgford 2002; Dolfini 2011; Kenlin and Ottaway 1998; Molloy, 2011; 2009; 2008; 2007; Moyler 2008; O'Flaherty, 2007a; 2007b; O'Flaherty et al., 2011; Roberts and Ottaway 2003; Uckemann 2011).

Thus far, in this chapter I have considered the production of metal and stone objects. Use-wear analysis allows us to shed light on the use-life of both groups of objects creating more detailed narratives. In comparing and contrasting stone and metal axes it is important to consider whether or not they are being used in the same way, which, surprisingly, is at present, a topic into which there has been little research. The emphasis on scientific frames of analysis focusing on composition and production - and in the case of metal, metallographic methods that can give detail of the casting and working processes metal axes have undergone - led to a heavy bias towards narratives of production. In addition, as mentioned above, the vast majority of metal finds are from single contexts with very little contextual data. This has often led to narratives of ritual deposition. The addition of use-wear analysis to our consideration of tools allows us to write far richer and more textured narratives about metal objects: for instance, were they used prior to deposition or not, and if so, how? Table 5.7 shows the break-down of the various stages in the life of a metal axe, in the right hand column where use-wear analysis can be employed to write richer, more detailed narratives about axes is shown. As such this kind of analysis leads on directly from my earlier discussions of mining and making.

		What we knew	What Use-Wear adds to the story
Production	Mining	Excavation of mine sites	
		Chemical Characterisation of ores	
	Smelting	Experimental archaeology	
	Casting	Experimental archaeology	
		Metallography	
		Chemical Composition of objects	
			Additional detail on moulds and methods
	Finishing	Metallography evidence for cold working	
			Grinding, hammering, polishing and sharpening
Use and Function			Characterisation of differing kinds of use
			Comparison of level of use
Trade and Exchange		?	?
Repair			Sharpening and polishing
Recycle		Developing ideas about chemical composition being used as an indicator of recycling	
Deposition		Excavation of sites	
		Chance Finds	
Corrosion		Material Sciences	
Post-deposition secondary use			Use-wear marks that cut through the patina of the object

Table 5.7: What use-wear analysis on metals can add to our knowledge about metal objects lifecycles.

The greatest advantage of use-wear analysis for metals, and where its greatest potential lies, is in the enlivening of the middle part of Table 5.7. Two main factors have combined thus far to hinder our understanding of prehistoric metalwork, firstly the lack of contextual information regarding the majority of metal finds and secondly our modern perceptions of bronze. Axes are commonly found as single finds, appear to be excluded from burials, and rarely found in association with the very rare settlement sites of the period. Their deposition is frequently in natural places termed 'invisible places' by Fontijn (2007). These 'invisible places' may be watery locations, or areas of scenic beauty, this has led to the suggestion that they may be ritual offerings made to the earth or deposited in fulfilment of some kind of belief system (see for example Bradley, 1998). As Bradley (1998:5) highlights there is a distinction between those deposits of axes that could have been recovered by which he primarily refers to deposits in lakes, rivers and bogs and those that could not. Some axe deposits were clearly meant to be permanently 'lost' into a world where they could no longer be seen or accessed.

Bronze, in our own society is considered to be a weak metal as our own metalleity understands it beside steel and iron and therefore bronze has been postured to be weaker than earlier polished stone axes (see, Pearce, 2007). Bronze is the metal of artists, used to create large, important and beautiful statues or intricate, finely made jewellery and ornaments. As such bronze objects in prehistory have been associated with ritual and prestige, seen as the paraphernalia of elites and associated with ritualistic uses rather than practical functions.

Experimental analysis has proved that metal tools, of bronze and copper alloys, are not as weak as has been traditionally suggested (see Mathieu and Meyer, 1997; Saraydar and Shimada 1971[19]). As such they cannot be regarded as purely having a ritual, ceremonial or ornamental use. However their deposition in hoards and as single context finds does seem to indicate that they had some specific relations that required a particular depositional practice. Indeed the adoption of metal in the form of the axe, and the similarity in deposition practices between polished stone axes and metal axes, indicates that the shape held a specific position for Neolithic and Early Bronze Age peoples, requiring a certain kind of treatment. Bradley (1998: 80) suggests, metal was probably not adopted initially for its improved functionality but because it had a special status. Use-wear analysis is able to effectively step into these kinds of debate by observing the use-wear marks obvious at the moment of deposition. Any sharpening or polishing prior to deposition may erase earlier use-marks, so it is important to remember that we are seeing the axe at only one moment in time. Despite this, it is often possible to see multiple episodes and kinds of use on a single axe. Use-wear analysis though, has not served to resolve the debate regarding practical versus ritual use, rather it has complicated it further, showing that most metal objects had multiple uses, and cannot be considered in purely dichotomous terms as “tools” or “offerings” rather they may have occupied both statuses, and we need to question whether such a division was even real for prehistoric peoples.

Thus far this has been a chapter that has been concerned with considering stone and bronze in the same framework. It has argued and advocated for a position where we do not study

[19] It is worth noting here that there are difficulties with both these sets of experiments in that the various attempts at felling trees, and similar, using bronze and stone axes often do not account in detail for variables such as the size, age and type of tree, the skill of the person felling or the felling method for example. In addition the ways in which they choose to measure the effectiveness of the axes are variable. Despite this the evidence appears conclusive that metal axes are as, if not more effective at felling trees than stone axes.

technologies in isolation from people or from other technologies. When I began this research I knew I wanted to include use-wear on copper alloy axes because I felt that part of the weakness of our understandings of the introduction of metallurgy came from the lack of analysis directed at establishing the functions of objects. I also did not want to re-tread the existing ground regarding ritual deposition and prestige goods, and use-wear offered the potential for a new perspective. As such I spent time with Andrea Dolfini learning use-wear methods for copper alloys. In 2012 I went to the International Use Wear conference in Faro, Portugal. During my time at Faro, I came to firmly believe that copper alloy use-wear analysts still has a lot to learn from lithic and bone use-wear. There is real potential to create a discipline that is recognised as a science through blind testing, increasing the repeatability of our experiments and through the use of increasingly sophisticated imaging software packages and metallographic microscopes for example. Ideally, this thesis would include use-wear on the polished stone axes that would allow a completely comparable analysis for stone and metal axes at every level. Unfortunately the confines of the thesis and the current lack of research into use-wear on polished stone axes mean that this aspect can only be a partial study. There is novel research potential in the comparison of methods for use-wear on metal and stone, and for the comparison of use-wear traces on axes from the 3rd and 2nd millennium BC: something I hope to address in the future.

The use-wear method developed, by the likes of Ottaway, Kienlin and Roberts, uses low power microscopes and halogen lights to reveal macro and microscopic traces of wear on the surface of copper and copper alloy objects. These traces have been recorded in a variety of ways, from early hand drawn diagrams (see Roberts and Ottaway, 2003) to the more recent use of high power digital cameras (see Dolfini 2011), mounted microscope cameras and now the use of digital microscopes. There are still a variety of techniques being employed as the discipline becomes established (for three contrasting approaches see O'Flaherty et al., 2011; Moyler, 2008; Roberts and Ottaway 2003). Generally techniques focus on creating accurate replicas of prehistoric metal objects, using them in a range of controlled tasks and recording the marks that are left on them to form a reference collection that demonstrates the range of marks various tasks leave on the surface of objects. Initially authors were taking impressions of both the experimental axes and the prehistoric artefacts using materials employed in the dental industry and using these to carry out the analysis on, this has since proved to be unnecessary as the original objects can be carefully examined under the microscope and there is no risk of marks from the impression casting (compare Dolfini, 2011 to Roberts and Ottaway, 2003). The patina that forms on an object post-deposition covers the use wear marks on the original

surface and indicates which marks are from antiquity rather than post-depositional marks (see Roberts and Ottaway, 2003). My own use-wear analysis follows the experimental protocol recently defined by Dolfini (2011). Objects are observed without the use of casts and compared with examples from a reference dataset (Dolfini, 2011: 1043). Objects are first measured, photographed, drawn and described then visually inspected with corrosion levels recorded subjectively. Objects are then examined with a hand lens and a binocular light microscope at varying levels of magnification with the aid of halogen lamps. All marks are recorded, annotated onto sketches and photographed using both a digital camera and a dinolite usb mounted microscope. All analyses were carried out in the Manx Museum.

Use-wear on axes from the Isle of Man

Use-wear analysis was carried out on 45 objects in the summer of 2011[20]. In the context of this PhD I will discuss the finds from Metalwork Assemblages I-IV. Table 5.6 lists the detail of the metalwork considered in this thesis. *Appendix: Use-Wear Analysis* shows the results of use-wear analysis carried out on the available objects from the period.

Period I - 2500-2300 cal BC

The preservation of the axes from Period I is particularly poor, none of the axes had a surface that allowed the observation of marks across the whole of the blade due to corrosion. However, with the exception of the two small knife-like blades, the four copper axeheads all show indications that they were possibly used; all of the axes are blunt (though this could be the result of corrosion processes) and there is marked asymmetry to the blade in three cases (Figure 5-10). Axes MM 792 and MM 2009-0152 both have surfaces suggestive of casting in an open mould, this practice was considered to be common for flat axes, however, analysis increasingly appears to suggest that only the very earliest axeheads were cast in open cast moulds, with many flat axes actually likely to have been cast in closed moulds (Dolfini, 2011: 1042). In the case of MM 792 the use of an open cast mould is questionable, the axe exhibits one slightly more marked side that appears to be the result of escaping gas, however the lateral symmetry of the axe is quite strong which could be used to argue for a closed mould.

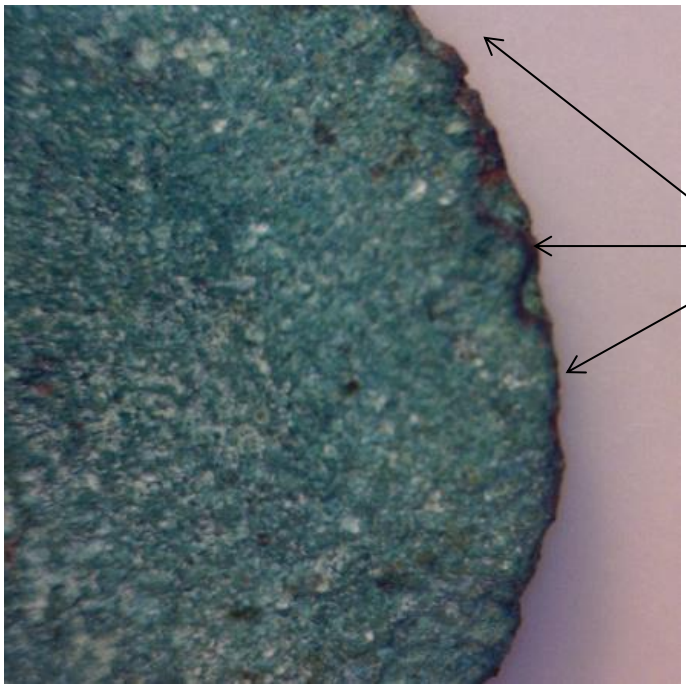
[20] Swords were excluded from the study

One of the axes exhibits what could be chips to the blade (MM 2009-0152), but, due to the condition of the axes, it is hard to assign these with complete certainty as use-marks.

MM 792 Copper Flat Axe

Asymmetry of the blade – may be indicative of use whilst hafted in a single direction.

MM 2009-0152, Copper Flat Axe
Left hand image shows a more bubbled surface than right hand image, possibly indicates an open cast mould.



MM 2009-0152, Copper Flat Axe

Potential chips to the blade?

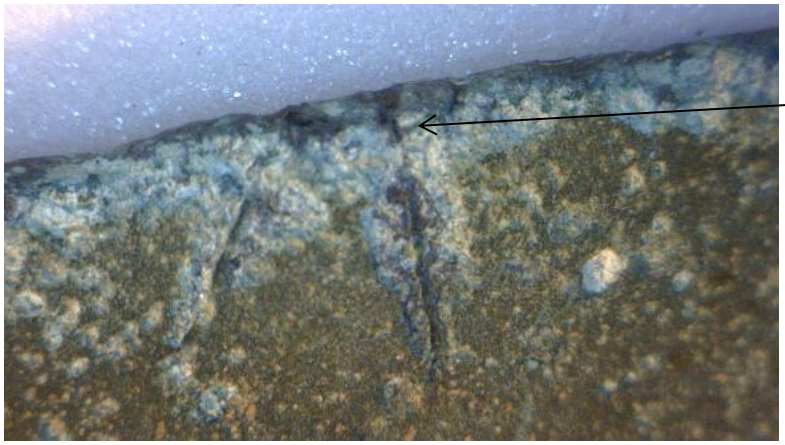
Figure 5-10: Use-Wear marks from Period I metalwork

Period II – 2300-2050 cal BC

It is possible to say more about the histories of the axes from Period II. MM 793 shows casting defects that have not been hammered out and grinding from production is visible on the body. There is also significant pockmarking to the butt of the axe and evidence that too little metal was poured into the mould (Figure 5-11). The blade shows clear notches and scratches with associated blunting, however the axe exhibits no asymmetry, suggesting that either use was quite light or that polishing was regular and the axe was re-hafted part way through its use life in order to even out the blade usage (Figure 5-11). MM 1976.105 shows some possible evidence of grinding on the butt end of the axe. The butt end is asymmetrical suggesting there were some potential casting problems probably relating to a lack of metal being poured into the mould (Figure 5-12). The axe is highly pockmarked, which could be cited as evidence of an open cast mould given that one side is more marked than the other, however both sides show a highly corroded surface and the difference between the two sides may be due to differential preservation. The axe is clearly blunted with an asymmetrical and very uneven blade. Despite the poor level of preservation I suggest that this was a used and functional axe. MM 794 has a highly corroded surface leaving few use-wear traces, the blade has an irregular shape indicating some notches may have been made in it (Figure 5-13). Again, despite the poor preservation, I interpret this as a functional axe. When considering the assemblage as a whole, it is clear that corrosion has significantly reduced what can be said about these axes. Despite this all three axes show signs that indicate usage, and in the case of MM 793 the careful and continue preservation of a well-used tool.

MM 793, Bronze Flat Axe

Note the difference between the butt end and blade end in terms of pock marking and asymmetry on the butt. This may indicate that too little metal was poured into the mould when the axe was cast.



MM 793, Bronze Flat axe

Potential notch to the blade - heavy corrosion makes this hard to be certain about.

Figure 5-11: Use-wear marks on MM 793

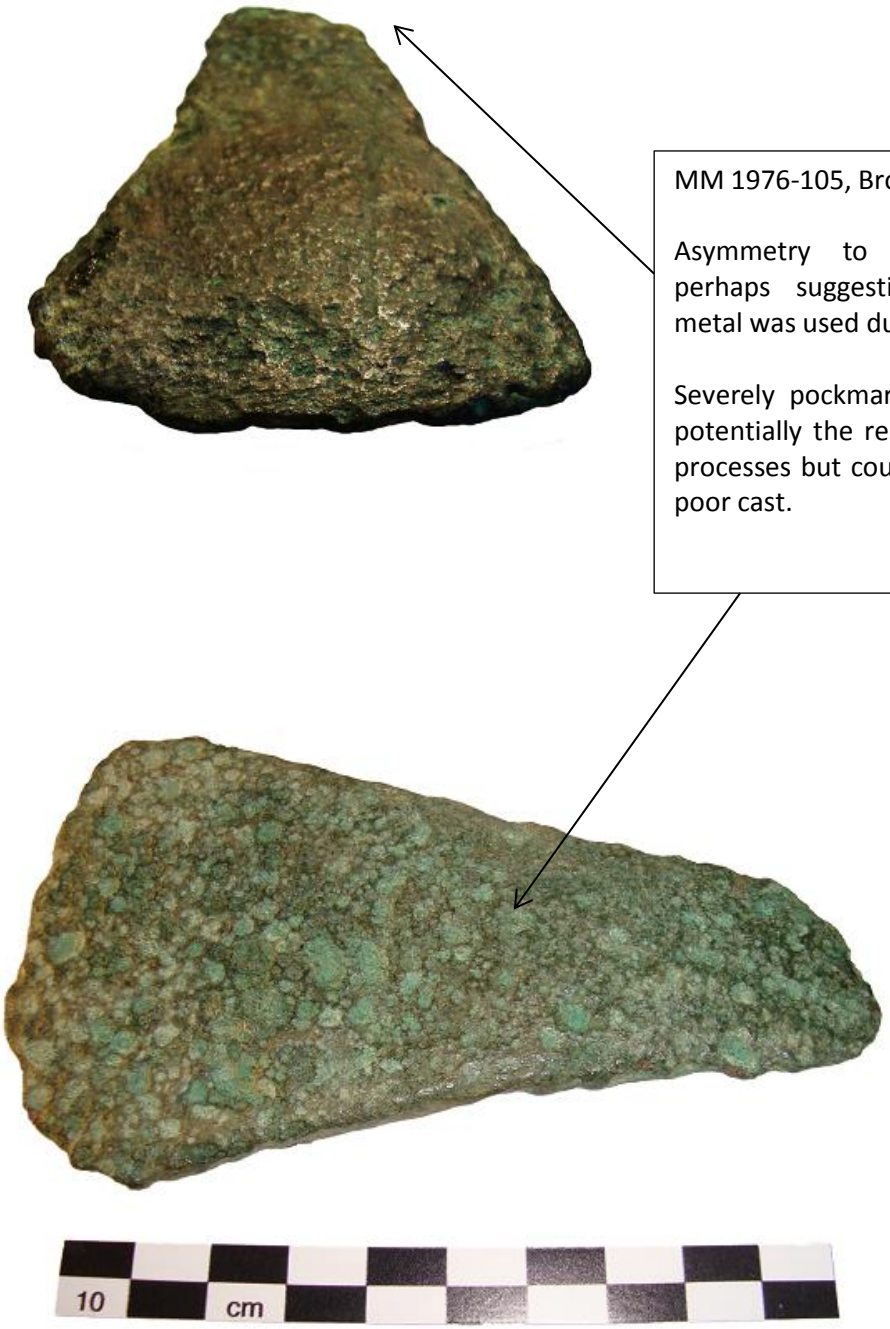


Figure 5-12: Use-wear marks on MM 1976-105

Figure 5-13: Use-wear marks on MM 794

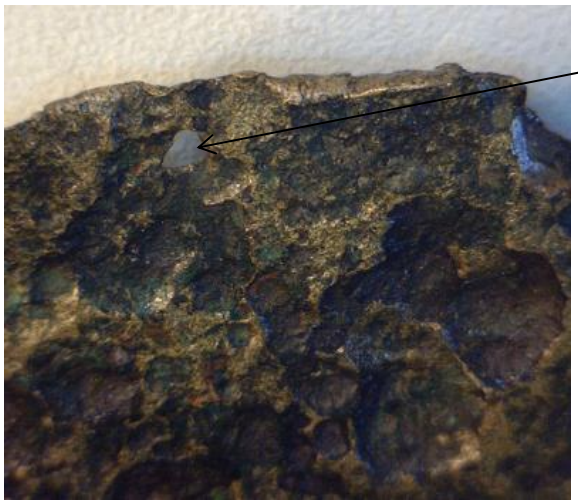
Period III – 2050-1700 cal BC

The axes from Period III paint a more detailed picture, with the exception of MM 1974.004 where the surface was too corroded to allow any kind of analysis. MM 796, an enlarged flat axe shows clear evidence of shrinkage on the butt as a result of too little molten metal being poured into the mould during casting: this is obvious in the asymmetry of the butt (Figure 5-14). The blade shows clear evidence of flattening and hammering. Hammering to the blade increases its strength, but also acts to make the blade more brittle, this brittleness can be counteracted by re-heating the blade. Only a metallurgical analysis could prove whether there has been hot and cold working of the blade but the hammering itself is indicative of an increasing knowledge of the properties of metal as we move into the Early Bronze Age. Hammering is not a technique ever applied to strengthen the blade of a stone axes: it is specific to metalwork. Despite the problems with the butt of the axe it shows clear signs of use, the blade exhibits a clear asymmetry and is very blunt, in addition there are scratches at 90 degrees to the blade, such marks are indicative of wood working. Here we can see an axe that had some problems in its casting but was still used as a highly effective tool.

Figure 5-14: Use-wear marks on MM 796

This is a feature shared with MM 797, the best preserved, and arguably the most interesting of the axes considered. The butt shows clear thinning, holes and a bubbled surface probably from gas escape during the casting (Figure 5-15). It appears that again, not enough molten bronze was poured into the mould. Hammering is evident on both the sides and the butt to create a higher quality finish and aid the removal of any casting seams. There is grinding evident on both the blade and the body of the axe. So again, despite the problems with the butt of the axe, this axe has been lovingly and carefully finished. It was also a highly used tool, there is clear evidence of striations, indicative of wood working on the blade, indicative of continual and sustained use and the re-hafting of the axe, which is also supported by the lack of asymmetry shown in the blade. There is also evidence of polishing and re-sharpening to the blade, which has suffered clear blunting. The axe has a lustrous golden colour, this kind of colouration indicates it was likely to have been deposited in a watery location.

MM 797, Bronze Large Flat Axe
Note the bubbling and thinning to the butt of the axe – result of too little molten metal being poured into the mould



MM 797
Hammering and grinding on the seams. This probably served to remove any casting marks.

Figure 5-15: Use-wear marks on MM 797

The tanged razor MM811 from Port-Y-Shee was also considered during use-wear analysis. I know of no published accounts of use-wear on razor blades. Experimental work on razors from the Bronze Age has proven that they can be used effectively to shave the face (Eibner, 1999). However this kind of use on facial hair is, I suggest, unlikely to leave any use-wear traces on the blade: unsurprisingly I saw no evidence of use-wear. Polishing and grinding, however were obvious on the tang of the razor (Figure 5-16). The blade itself and the body of the razor are both very corroded with pitting and corrosion lumps, the blade is also very irregular but I suggest this was the result of corrosion rather than use.

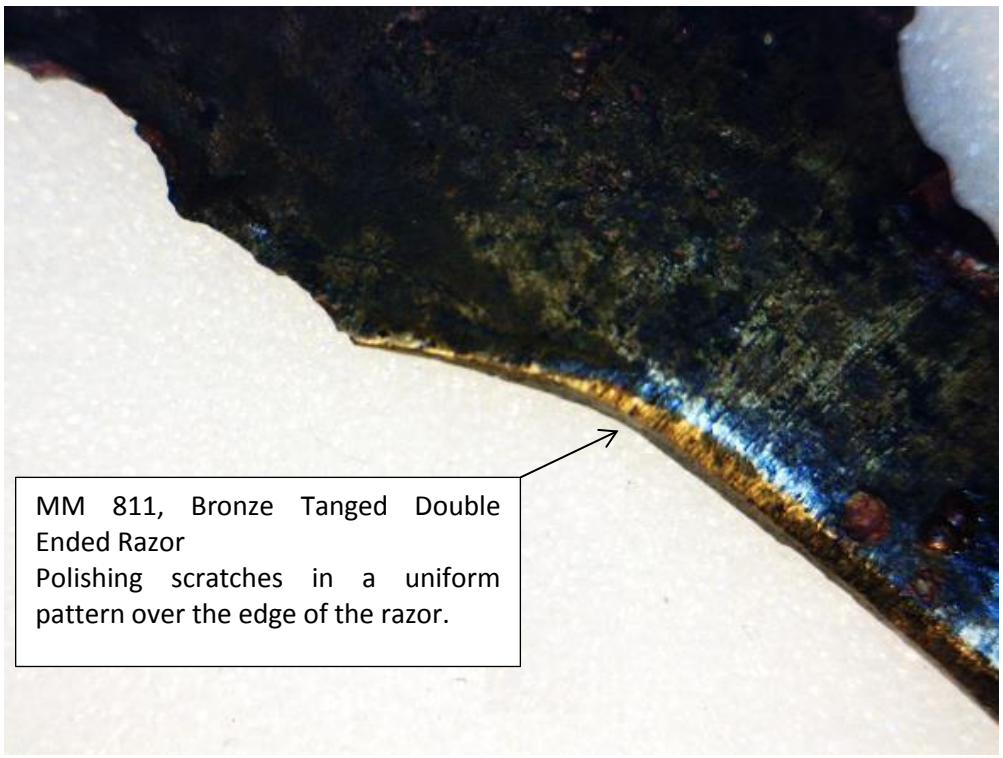


Figure 5-16: Use-wear marks on MM 811

Period IV – 1700-1500 cal BC

Finally there is the flanged axe MM 945 to consider (Figure 5-17). This flanged axe, from the last period of the Early Bronze Age, shows intricate decoration incised on the body. Hammering is evident on the flanges as part of the finishing process. The blade itself, despite the fine decoration, indicates a highly used tool. There are clear U-shaped notches to the blade, indicative of use. U-shaped notches on halberds have recently been proved to be indicative of yielding blows from metal on metal contact (O'Flaherty et al., 2011: 48-9). Similar experiments have yet to be done on axes, but potentially the U-shaped notch could indicate a metal-on-metal blow: for certain this was a tool that was heavily used, the blade is now blunt and there is a slight asymmetry. These nicks to the blade focus on one side of the blade, indicating the direction in which the axe was hafted. Interestingly, there also appears to be a bending back of the blade, this is slight but clearly present. This bending is clearest and most intense on the edge of the blade opposite to the notches. This kind of bending could be associated with wear, however because it spans the entire length of the blade, and is most prominent away from the use-wear marks I am inclined to offer a different kind of interpretation. I tentatively suggest that this bending back of the blade could be the result of a purposeful de-commissioning of the blade so that it would no longer be as sharp or effective a tool. One could associate this with a final act before the deposition of the axe.

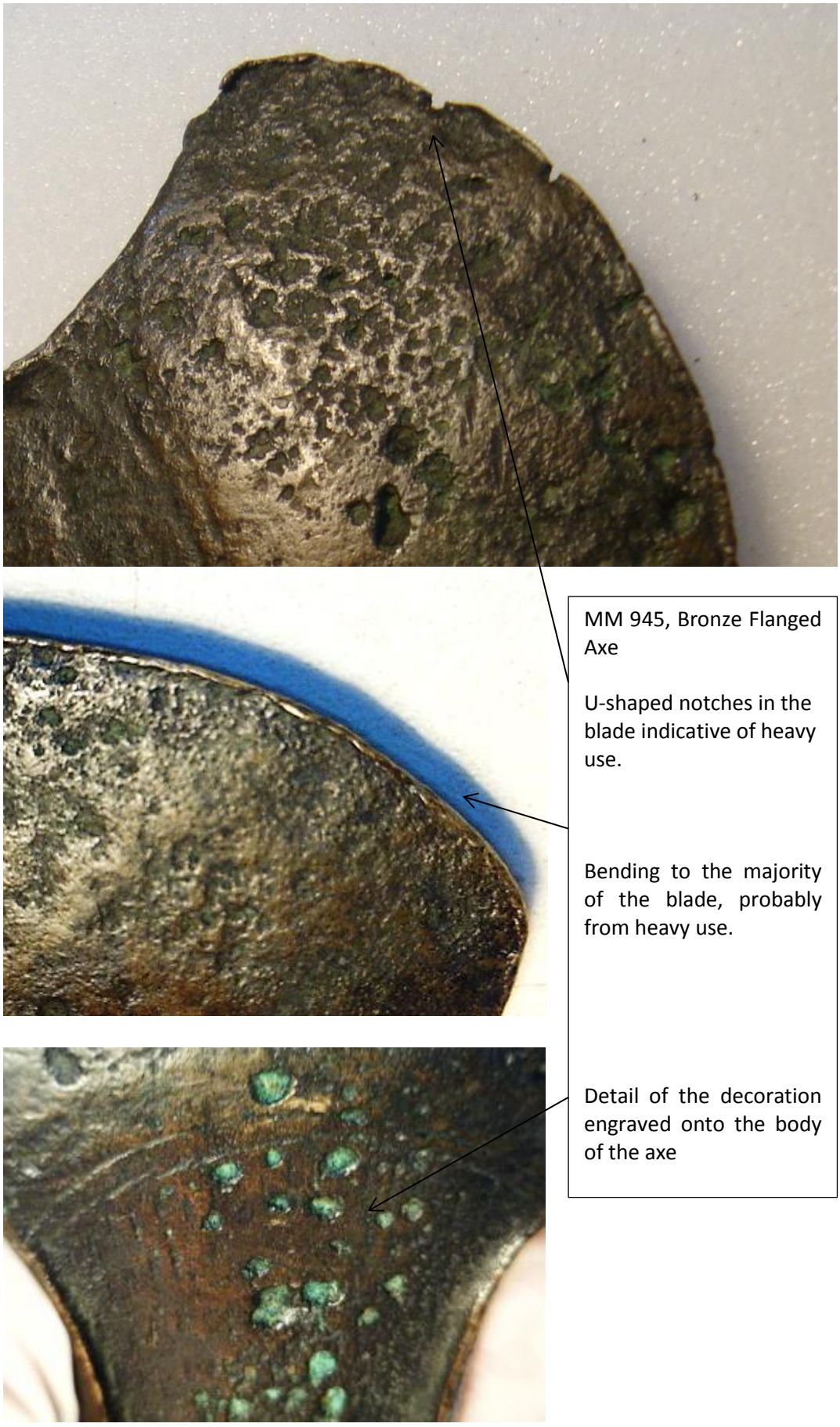


Figure 5-17: Use-wear marks on MM 945

The use-wear evidence from this assemblage is somewhat constrained by the available sample size, however, it does represent a complete study of all the Chalcolithic and Early Bronze Age material from the island. In addition, the severe corrosion and damage to the metalwork, and in particular, the earlier objects, makes substantive conclusions difficult. What is clear is that these metal objects, right from the earliest imports, were functional objects. They show signs of use ranging from bluntness and asymmetry to more conclusive evidence such as nicks, notches and striations to the blade. Objects with casting defects, often on the butt, are finished carefully and used despite, or perhaps because of, these problems (I return to this in Chapter 8). When considering all the metalwork from the Period I to the end of the Late Bronze Age there is potential evidence of use on every object with a surface suitable for analysis. This is a somewhat unusual situation; it is very common for Late Bronze Age socketed axes to be deposited unused. However this appears not to be the case on the Isle of Man. The Late Bronze Age socketed axes show particularly high levels of damage and use. This provides evidence to argue that on the island metal objects were used as multi-purpose tools from the onset of the Bronze Age. This is not to deny that they were also highly charged objects: all of the axes were deposited as single finds or hoards (there are two Late Bronze Age water based hoards). This evidence clearly does much to dissolve any sense of a ritual versus utilitarian divide in the use of these objects.

Considering deposition of metal and stone

RTB Stone Axes

The deposition of RTB axes is primarily as single context deposits. Barrs (2010: 57) suggests just 13% of the RTB axes were recovered from archaeological excavations (this is primarily the Ronaldsway 'house' hoard of axes). At the coarsest level the parish that each axe is from is recorded in all bar six cases. Figure 5-18 shows the various modern parishes of the Isle of Man and the number of RTB axes found in each parish.

Figure 5-18: Map to show the distribution of RTB axes by modern parish. RTB axe data based on Barrs (2010), Parish map taken from www.iomguide.com

In many cases axes have only been associated with a very coarse grid reference, and perhaps just centred in the middle of the parish from which they came. Figure 5-19 shows the find spots for RTB axes. Figure 5-20 distinguishes between find spots with more than one axe associated with them and those with a single axe. These should not be referred to as 'hoards' as in some cases these find spots are just centred in the middle of the parish: the axes are not strictly associated in a single context so that we could refer to them as a hoard.

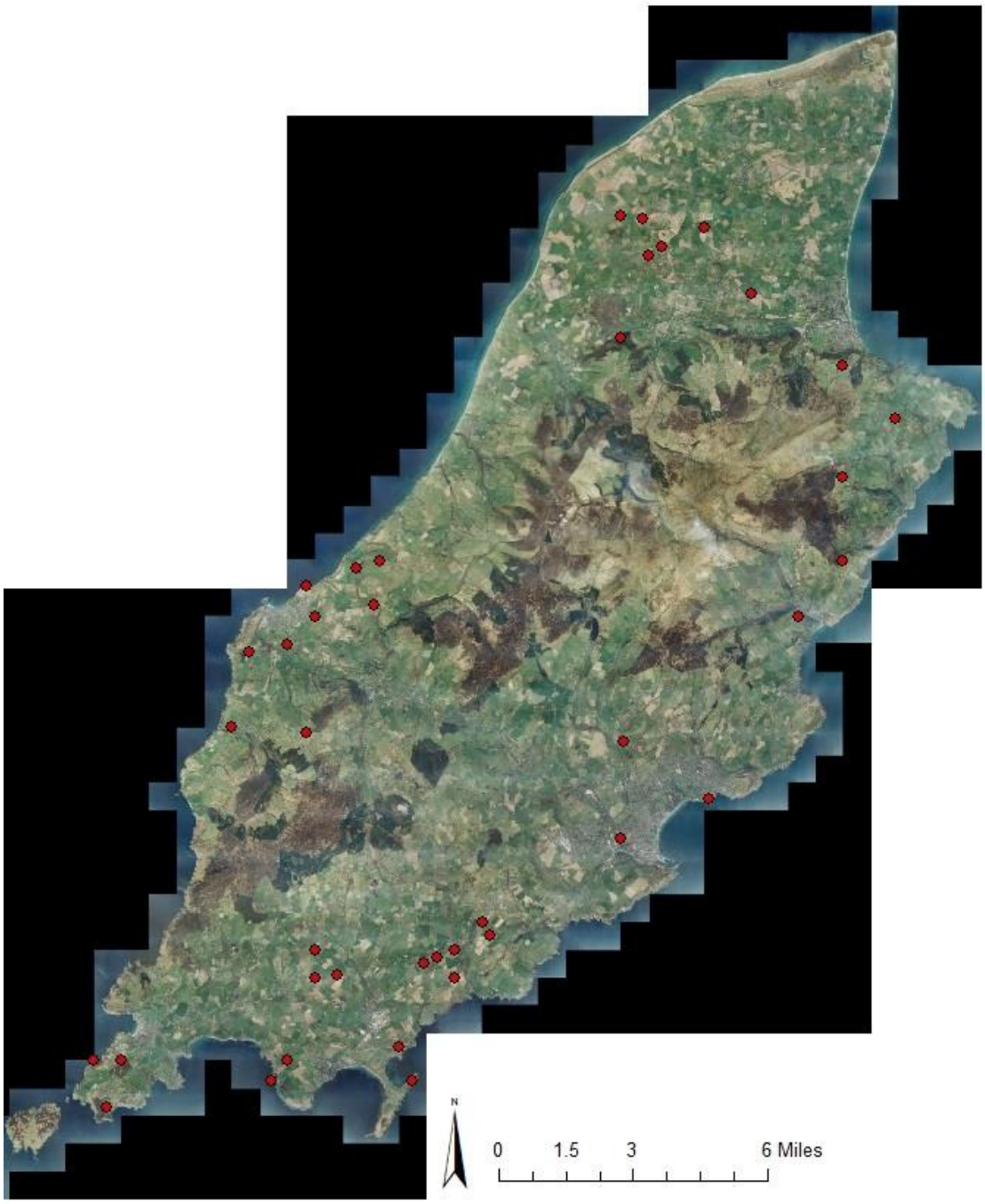


Figure 5-19: Map to show find spots for RTB axes

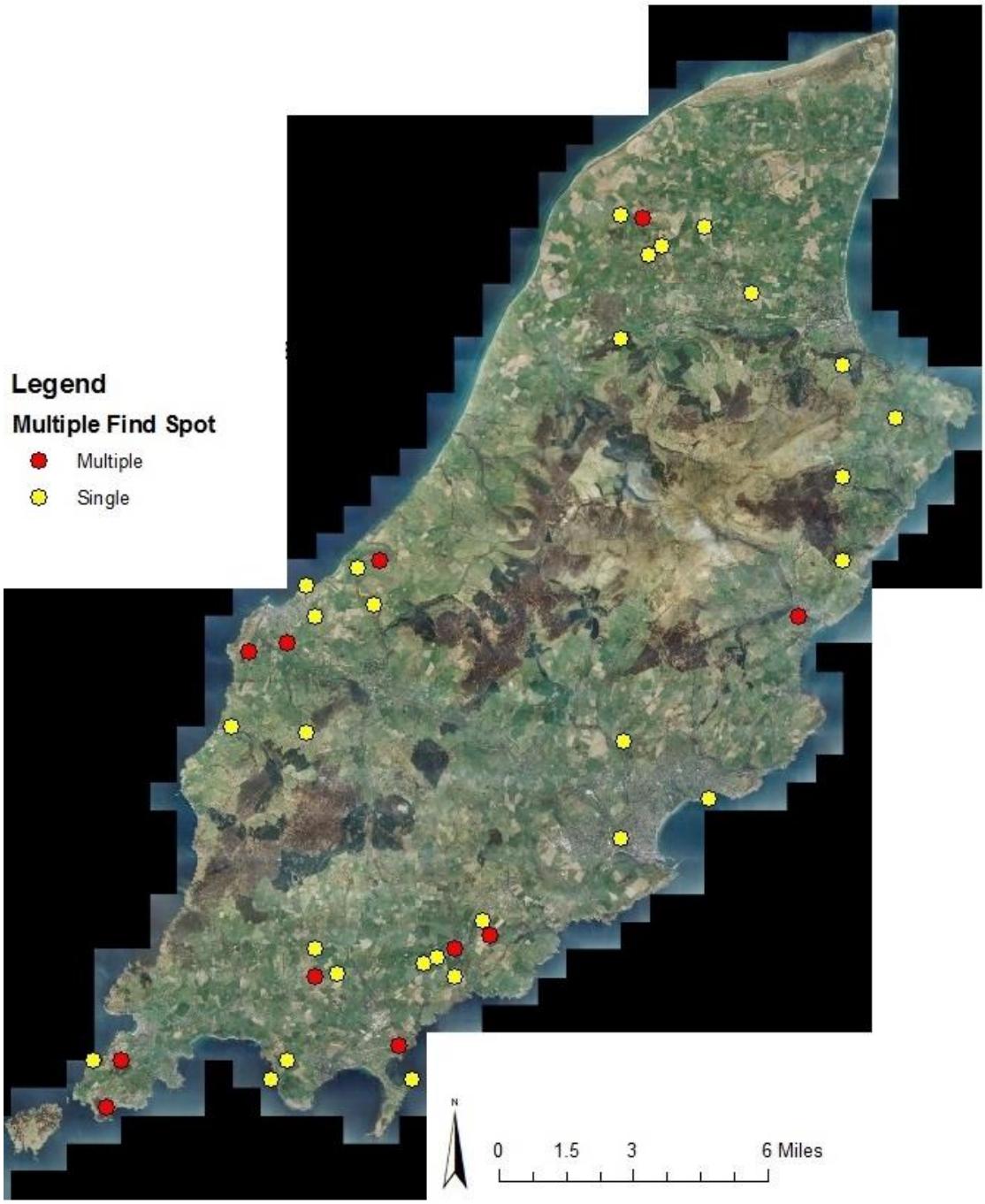


Figure 5-20: Map to show find spots of RTB axes indicating where multiple axes have been found in the same area

I have distinguished between those axes given a relatively accurate findspot (a 6-8 figure OS grid reference) versus those that have been given only a very approximate position. This is shown in Figure 5-21. Those with what would be a traditional 6-8 figure grid reference are referred to as 'good'.

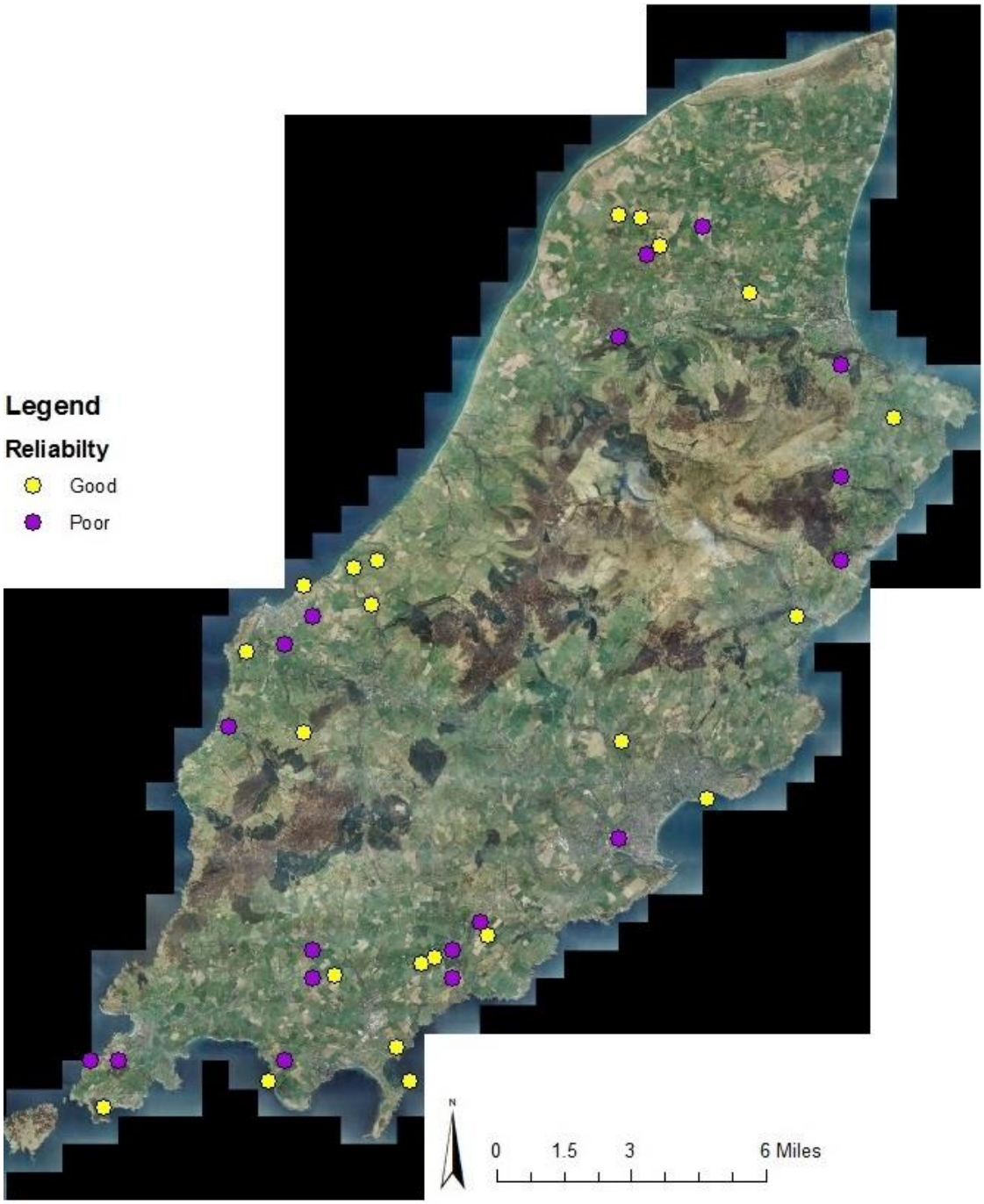


Figure 5-21: Map to show find spots for axes with an indication of the quality of the grid reference for the findspot

Looking at the maps it is clear that the distribution of axes is quite coastal. There is little evidence of axes being deposited in the higher ground in the centre of the island. This may be the result of a recovery bias as more excavation, fieldwalking and construction work has occurred in the lowlands than the central area of the island. Pockets with particularly high distributions emerge on the map: the lowland plains of the south of the island, the area around Peel on the west coast, and the glacial plain at the north of the island.

Figure 5-22 shows the distribution of the RTB axes with an indication of their macroscopically observed rock type, as identified by Barrs (2010). Group XXV axes appear to occur across the island. There appears to be a concentration of metasediment and igneous axes on the east coast. At present it is hard to analyse this distribution with much certainty. However, following more precise identification of rock groups in Barrs PhD thesis more coherent patterns may yet emerge.

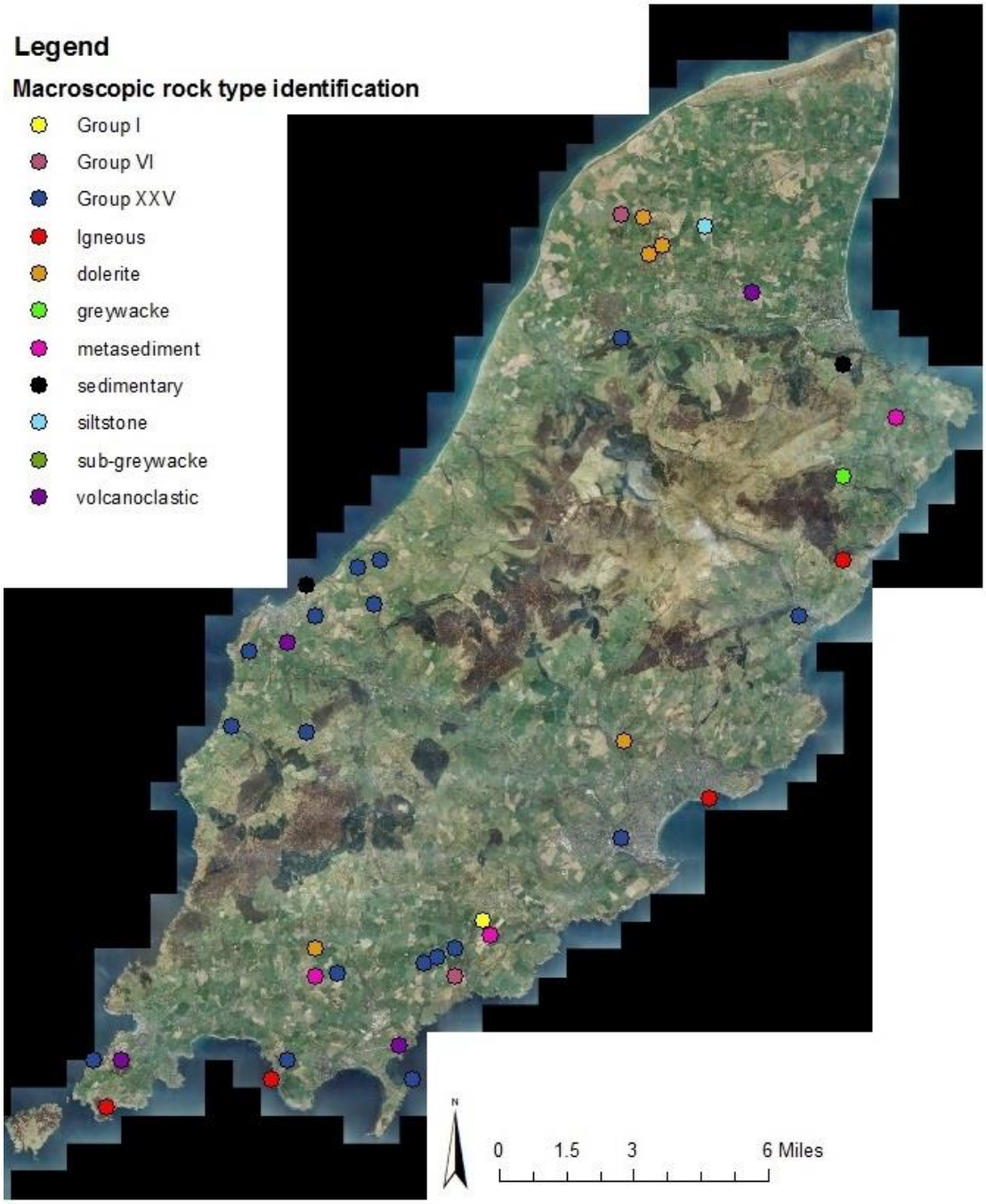


Figure 5-22: Map to show distribution of RTB axes of various rock types. Barrs (2010) macroscopic identification of rock groups is followed.

Copper Alloy Axes

The deposition of metal, as already mentioned, is primarily as single context deposits. All the known metal axes were found in single contexts. It is therefore, reasonable to assert, that during these periods it was appropriate and important that axes were deposited alone. It is, of course, possible that some of the objects may have been lost, however I think, given the strength of the distribution pattern (single finds, single contexts) that in the majority of cases we are looking at purposeful deposition. When imagining these acts of deposition we need to consider who might be involved, what associated rituals might occur, when the depositions were occurring within the year and what beliefs accompanied these actions? Over the course of time, from the deposition of the earliest copper axes, brought directly from Ireland, to the deposition of the beautiful decorated flanged axe (MM 945) these practices, and beliefs, would have changed. The metalwork being deposited clearly changed and the associated beliefs are unlikely to have stayed the same. Imagining these events is likely to be the closest we can ever get to them – much of their detail will remain an enigma.

Figure 5-23 shows the find spots for metalwork from the Early Bronze Age. The map includes the two axeheads from Ballamoar, the knife-like blade and the copper ingot but not the other miscellaneous finds from Ballamoar as I am uncomfortable assigning them to a period. Also excluded from this map are the cases of metalwork from graves (the razor from Port Y Shee, the fragments of bronze from The Cronk, Upper Lherghydoo, the fragments from Crawyn Brooghs and the now lost knife and spearhead from Peel Hill): all the rest of the material listed in Table 5.6 is included on the map.

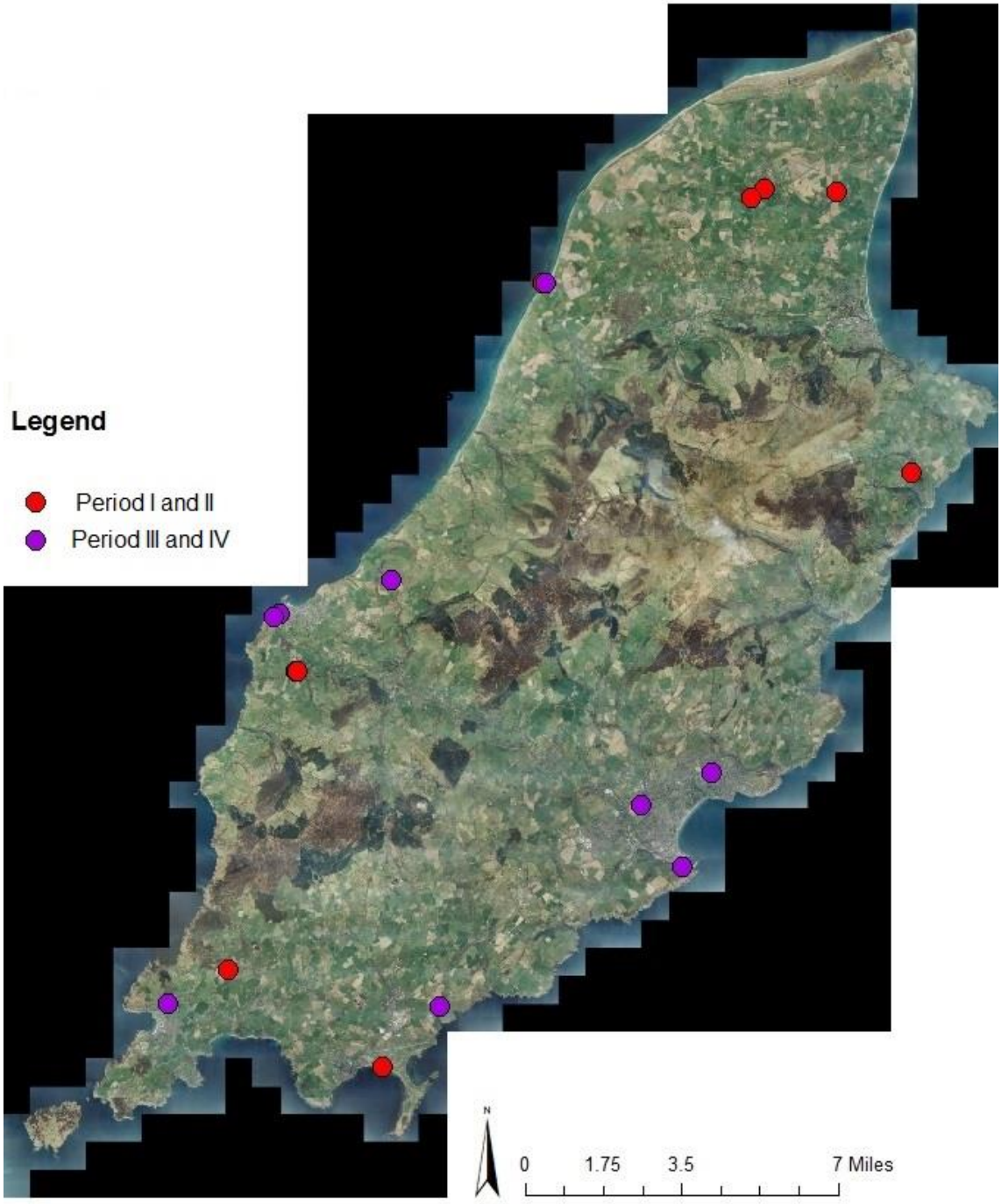


Figure 5-23: Map to show distribution of metalwork

The map show a coastal distribution, finds of metalwork have primarily clustered around lower ground, near to the coast rather than in the central area of the island. This may reflect a bias in recovery; excavation and metal detection in the central, hilly region of the island has been relatively limited. However, one might expect that if metal had been deposited between Peel and Douglas, across the centre of the island, this would have been recovered during the construction of roads, a railway line and the use of farmland in this area. As such, I want to

tentatively argue that the distribution of metal material around the coastal areas, shown in the map is potentially significant. The northern plain of the island, the low glacial material, has been extensively field walked and metal-detected over a number of years, and the distribution we see in this area may be relatively close to that seen in prehistory.

The map also highlights development of 'place' in depositional practices. This is perhaps clearest when considering the material from Ballamoar. The finds were all uncovered within two fields but all in insolation. This was clearly a place that was appropriate and significant for the deposition of metalwork over a number of years. All the deposits are separate from each other, so one can assume that the deposition sites may have been marked in some way. One could argue that this may be a settlement or metal working area as the site has not been excavated and this high concentration of finds could be indicating a significant site. A similar clustering of sites is obvious around the area of the Cronk, near Jurby where axes from metalwork assemblages II and III were recovered within a few hundred metres of each other. In Andreas we see another potential development of place with the deposition of the gold disc and two axes. Whether these places represent areas near, or far from settlement remains elusive at present.

There is much discussion about the distinction between wet and dry depositions of metalwork. Depositions of metalwork in wet places may have been harder to recover (but see Becker, 2008), and a such may be seen as permanent deposits where the metalwork is removed from circulation and enters an unseen world. Furthermore, such deposits probably required no alteration to the landscape: one need not dig a pit to receive the objects. On the Isle of Man none of the Early Bronze Age metalwork known at present was found in water. There is very little dredging on the island, and as a result it is unclear whether axes were deposited in watery locations and not recovered. However, with the given distribution at present the pattern for 'wet' versus 'dry' finds discussed for other localities (see for example Becker 2008; Bradley, 1998; Fontijin, 2002) does not seem to apply on the Isle of Man. Beliefs regarding the deposition of metalwork may have differed from those in Britain and Ireland. I will argue in Chapter 7 that the deposition of metalwork related to existing ideas about deposition of other materials in the earth.

Rather than being deposited in watery locations, I want to argue that there is a pattern of depositing metalwork in locations that are on slightly higher ground but overlook the sea or rivers. Table 5.8 shows the location of the various axes from the Early Bronze Age. In Period I there does not appear to be a relationship between the sites of deposition and locations near rivers or the sea. However, from Period II onwards there is a relationship: metalwork was either deposited overlooking the sea, very near the shore, or is deposited on higher ground with a clear view out to sea (Figure 5-24). This association with the sea raises the question of whether depositing metalwork in the sea itself may have also been a common practice. We are unlikely to ever know: however it is an interesting consideration.

Find Spot	MM accession code	Needham Chronology	Description	Location	Approx. Height above sea level	Approx. Distance to nearest sea
Near Parish Church (Andreas)	792	Period I	Copper flat axe,	Inland, sea not visible	20m	4km
Beach 'south of The Cronk'	2009-0152	Period I	Copper Flat Axe	Overlooking the sea, on the shore	0m	0km
'north of island'	2009-0035	Period I	Flat axe? Knife-like blade?	Inland, sea not visible	20m	2km
Ballamoar Farm Hoard	2008-250/1	Period I	Bronze blade/flat axe	Inland, sea not visible	40m	2km
Ballamoar Farm Hoard	2008-251/1	Period I	Copper Flat axe	Inland, sea not visible	40m	2km
Ballamoar Farm Hoard	2008-249/1	Period I	Copper flat axe	Inland, sea not visible	40m	2km
Unknown	B.M. Townley Collection	Period I	Gold Disc	Unknown	NA	NA
Ballachrink	793	Period II	Bronze Flat Axe	Next to a river, not far from the coast	80m	1.5km
Ballakilpheric, near Ballakelly Cottage	1976.105	Period II	Bronze Flat Axe	Clear view out to sea from an elevated position	130m	2km
Hango Hill	794	Period II	Bronze Flat Axe	Overlooking the sea, on the shore	2m	0km
Ballawoods	796	Period III	Large Flat Axe	Next to a river, can hear (but not see) the sea	10m	0.5km
Surbey-beg, East Surby	797	Period III	Large Flat Axe	Clear view out to sea, in two directions, from an elevated position	120m	1km
Douglas Head	1979.4	Period III	Narrow-bladed Flat Axe	Clear view out to sea from an elevated position	50m	0.2km
Onchan	945	Period IV	Flanged Axe	Clear view out to sea from an elevated position	100m	1km

Table 5.8: Locations of metalwork finds.

MM 797, Surbey Beg, Large Flat Axe, looking southwest

MM 1979.4, Douglas Head, Narrow-bladed Flat Axe, looking north

MM 794, Hango Hill, Flat Axe, looking south

MM 1976.105, Ballakilpheric, Large Flat Axe, looking south

MM 2009-0152, Beach 'south of The Cronk', Copper Flat Axe, looking west

Figure 5-24: Views from various metal find spots

The final argument I want to make regarding the patterns of distribution concerns what I very tentatively identify as a 'western spread' of deposits. Figure 5-23 shows the distribution of metalwork from Periods I and II on the western coast and flat northern plain of the island, with two exceptions. I make a very tentative suggestion that this may reflect a real practice of initially depositing metalwork on the western coast, nearer to the Ireland, it is also notable that these locations are all in areas easily accessible from the western coast via rivers and valleys. This is a very cautious reading of the data, but one wonders about an association between metalwork brought from Ireland that was, presumably, landed on boats brought into

rivers and onto beaches on the west coast in areas like Peel, Port Erin, Jurby and on the flat glacial land around Andreas in the north.

Both stone and metal axes were primarily deposited in single contexts, and most frequently as single objects. In both cases the axes are usually found near the coast. The central, hilly area of the island has produced few finds of metal or stone. As discussed, this may be a recovery bias; however it potentially indicates that the area was deemed inappropriate for the deposition of axes. It is notable that, unlike axe sources in the rest of Britain, such as Langdale or Lambay Islands for example, the location of the Group XXV rock source is easily accessible. It would appear that the higher, hilly, less accessible land, in the centre of the island, was not exploited for stone to make axes, nor as a site for the deposition of axes. In both cases there are concentrations of axes found around the Peel area, the southern coastal plain and the northern glacial plains, perhaps indicating that settlement areas and areas deemed appropriate for the deposition of axes remained similar through time.

Changing genealogies, new actants: changing worlds

This chapter has sought to draw out a comparative approach to stone and bronze assemblages. It has situated technology firmly within the wider relational worlds of the Neolithic and Bronze Age. Rather than presenting a picture where one technology replaces a radically different one, I drew out the process of change by comparing the entire *chaînes opératoires,* and lives of, objects made of stone and metal, particularly axes. I demonstrated how metals entered into an assemblage within which there were existing similar relations, and parallel processes of making, for stone axes. This chapter argued that technology needs to be seen in its widest sense rather than as some extra-somatic means of adaptation or as some increasingly complex means of separating culture from nature. Technologies and innovations need to 'fit' with existing ways of being in the world; adaptation is crucial to the process of adoption. From this theoretical base I took a slow, and careful walk through all aspects of the technologies. Rather than superficially drawing similarities between technologies I broke down the technologies of metal and stone to their smallest components and drew on their similarities and differences. I opened *blackboxes*. I presented material on the use and deposition of axes alongside material regarding their production, arguing that all the stages of the process are equally important when it comes to understanding a technology in a holistic and relational manner.

In this final part of the chapter I draw on the ideas of Chapter 4 and consider the genealogies of metal and stone axe technologies. I argue that the existing assemblage that surrounded stone axes in the Late Neolithic allowed metal to enter the assemblage, and that entry was most successful and had most impact initially when metal was in the form of an axe. The concept of an 'axe' survived over an extended history, but in order to do so it had to change. Archaeologists take the concept of 'axes' and *blackbox* it. When we open the *blackbox* we find the contents to be more complex and more vibrant than we thought: axes are not just objects for cutting down trees. An axe is not just a tool, it encompasses ideas about materials that come from the earth, about objects that can be used as both tools and charged pieces of material culture. It is by comparing these changing relational qualities, that we can come to better understand the introduction of metallurgy, changing and local metalieties and the relational assemblage that metallurgy became a part of.

Figure 5-25 shows a genealogy, of sorts, for axes. It seeks to highlight that the various actants are changing through time, and that they change in relation to, and alongside, the other actants. No one line stays the same through the whole of the illustration, rather, their colours change and shift gradually, some lines fade away and split off from the thread they were in. Actants such as the concepts of 'piece of places' and 'material from the earth' that were once important fade as we move into the Early Bronze Age. We see the changing and increasing significance of ideas of use and recycling, where once these ideas concerned the re-sharpening of stone axes, they come to concern re-sharpening of metal and eventually the melting down of objects to produce molten metal for new ones. The lower bundle of lines, that could be *blackboxed* as 'polished stone axes' does not die completely, rather it fades, and if we were to continue the illustration further we would see it change and combine with our own current and changing ideas about polished stone axes. The diagram is, of course, a gross simplification. There were certainly other actants that were important at the time that we do not value or even know about today. In addition the actants will also be tangled and involved into other assemblages that can be *blackboxed*, as 'burial' or 'pottery' or 'cooking'. Despite the simplification involved in this diagram it shows the relational mixing of all the actants.

Figure 5-25: Genealogy of axes – 3000-1500 cal BC.

How might we understand the changes that occur with the introduction of the new actant: metal? I think the most important point to begin with is that metal appears in the form of the flat axe. It enters into an assemblage where polished stone axes and RTB axes already have a clearly territorialized assemblage. By entering into similar kinds of relations to stone axes it is able to become territorialized. Like stone axes, metal axes are made of a solid material from the earth, they embody ideas about craftsmanship and the importance of finishing an object to remove making marks. Metal axes have the same iconic form, they are functional and used objects, like stone axes. Similarly to stone axes metal axes are deposited in single contexts, as single objects, away from burial and settlement contexts. They are placed into the earth from whence they came. On the Isle of Man the earliest copper axes came from Ireland, made of un-altered metal from Ross Island and they, like the stone axes we presume are still in use around 2500 cal BC, were used and then buried in the earth. These similarities are what allowed metal to become territorialized.

However, for a form to persist through time, like the axe does, it also has to change. Latour's circulating reference is a good concept to bear in mind when attempting to understand change here. The form of the axe, and the deposition practices of the axe, are all amplified with the metal axe, however the association with place appears to be eroded and the importance of the colour green is lost. The shape of the axe also has to change constantly through the Early Bronze Age in order to remain within the assemblage; lengths increased, flanges were added, decoration appeared. New concepts also enter the assemblage through time. It is important to acknowledge the role of fire and the complexities of the metallurgical process. These were a radical break from the making process that went before (even if we can draw similarities in mining, grinding of materials and finishing). This radical break may not have been adopted were it not for the existing similar relations discussed. Recycling joins re-sharpening; the form of the axe can be lost entirely to create a molten liquid and then made to re-emerge. The use of the mould is also a notable change (see Jones, 2011: 140-141), one object can now be made more like another than was possible with a roughout. The axe at 3000 cal BC, 2300 cal BC and 1600 cal BC was not the same thing. They are part of relational assemblages that have changed through time. It is within these assemblages that their adaptation, and change can be best understood.

6. Relations with the dead

Relations change when people die. Relations between kin, friends and the dead are fundamentally transformed. Any assemblage of actants is altered by the death of an actant, be that a tree, an animal, a pottery vessel or a person. Whether other actants continue to relate as though the deceased were still alive or if they see the personhood (or otherwise) of that actant as fundamentally transformed, the assemblage of relations is changed. Ontological distinctions between which actants are deemed persons, or not, may affect the kinds of behaviours which are appropriate following a 'death'. Indeed, the ideas of a community about what death actually is and when it occurs play a defining role in this changing assemblage. This chapter focuses on the changes in relations that occur following the death of a person, however, it also touches upon how this might relate to the 'deaths' of other actants, a subject that is returned to in Chapter 7. Social obligations and expectations come to the fore following a death and the kind of agency that the deceased person can now have within their own community may well be transformed. In terms of archaeology it is often the specific practices with regard to death and burial which are used to identify change through time. The beginning of 'Beaker burials' is seen as a fundamental shift in the archaeological record of Europe and may be used as a means to identify the start of the Bronze Age or the final years of the Neolithic. Indeed burial practices may, by some archaeologists, be read as a proxy for wider social changes, offering them a window on the nature of society itself. As such the changing relations and practices that are associated with death and the treatment of the deceased offer us a means to explore change at multiple scales.

This chapter aims to explore a relational approach to understanding the practices that surround a death and implement such an approach to explore the changing burial practices and relations with the dead. In the previous chapter I explored the beginning of metallurgy and the changes that occur with the shift from stone to metal. It was noted however that axes appear to have been excluded entirely from the grave in both periods. In this chapter I will explore the grave context and what materials, objects and behaviours were appropriate in Late Neolithic and Early Bronze Age burial practices. This chapter focuses on the events from death to the placement of the body within the ground. The construction of mounds and the landscape location of burial sites is excluded from this chapter and discussed in Chapter 7. This chapter starts with a discussion of the chronology that has been established for the

Ronaldsway Late Neolithic and the Early Bronze Age. New radiocarbon dates, generously funded by the Manx Heritage Foundation, are presented for both Ronaldsway Late Neolithic and Early Bronze Age sites. These new dates allow an effective comparison of the beginning of the Early Bronze Age with the Irish material (see Brindley, 2007). These new radiocarbon dates, as well as existing dates (see Burrow and Darvill, 1997 and Woodcock, 2008), are used as the foundation for a relatively fine-grained consideration of changing practices in both this chapter and the next.

From this chronological foundation I go on to consider cremation and inhumation practices. A relational approach to burial practice is explored and a *chaîne opératoire* approach is implemented, as in Chapter 5, to compare the processes associated with cremation and inhumation. This approach draws on the recently published work of Appleby (2013). In the Isle of Man cremation was the dominant practice for disposal of the dead in the Ronaldsway Late Neolithic. I attempt to explore how these practices differ from, or are similar to, Early Bronze Age cremation and inhumation practices and, with the fine-grained chronological resolution available for the Early Bronze Age, how these practices change through time. I go on to consider the 'material culture of the grave' in the broadest sense, including evidence of organic containers and cists as forms of grave 'furniture' and the kinds of material culture that were deposited in graves with the deceased. Finally, several case studies, drawing in particular on the new radiocarbon dates, are presented.

An emerging and changing chronology

Time and chronology, as discussed in Chapter 4, are essential to any study of the past, and in particular, to a study which focuses on change. This thesis has advocated a view of time as emergent from relations, rather than as an external container for action. Radiocarbon dates (and indeed any other form of 'scientific dating') are not 'solid', 'true', 'facts' external to the data but rather they emerge from changing assemblages of actants. They are the product of changing and decaying carbon, laboratories, technicians, museum stores, excavations and all their attendant and complex relational assemblages. In this section I want to discuss the emerging chronology for the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man.

Burrow and Darvill (1997), as part of the Billown Neolithic Landscapes Project, carried out a programme of AMS dating establishing the chronology and duration of the Ronaldsway Late Neolithic for the first time (though there were some dates when their project began).

Table 6.1 shows the dates from Burrow and Darvill (1997), the pre-existing dates and additional dates that emerged from the Billown site, re-calibrated using the latest version of OxCal 4.2. Burrow and Darvill (1997: 413) discovered that the carbonaceous deposits on the lower inside walls of Ronaldsway Earthfast Jars contained enough carbon to provide samples for AMS dating. All of the dates from their 1997 article were ascertained from carbon on sherds providing a relatively tight date for the use of the pot. These samples date use of the pot directly, though not necessarily the 'event' that these pots have come to be associated with. For example, on settlement sites the radiocarbon determinations do not date the construction or use of the site, but do date the use of the pot, whether this use was prior to deposition in the ground at a burial site, or during the use life of the site, in association with practices relating to the dead, cannot be established. On the sites where the pottery sherds were found in pits of broken pottery and other material items (as discussed in Chapter 7) the use of the pot is dated rather than the pit 'event'. The twenty samples in combination with the existing dates were,

> "…remarkably consistent and clearly shown that the Ronaldsway ceramic tradition spans the 3rd millennium BC and should be seen as a fairly long-lived late Neolithic phenomenon. Although the determinations from some of the sites studied appear to bunch together while others are more spread, the total number of dates available is insufficient to provide an internal chronology for the tradition as a whole."
>
> Burrow and Darvill, 1997: 415

Site Name	Date Code	Material dated	Date BP	±	Calibrated date (BC)
Ballacottier	OxA-5886	COS	3790	50	2457-2040
	OxA-5887	COS	4415	55	3333-2910
	OxA-5888	COS	3945	50	2575-2293
Ballaharra	**BM-768**	**Charcoal in cremation I**	**4225**	**67**	**3010-2581**
	BM-769	**Charcoal in cremation I**	**4233**	**59**	**3010-2622**
Ballaheaney	OxA-5892	COS	4075	50	2865-2476
	OxA-5893	COS	3980	55	2832-2298
	OxA-5894	COS	3775	50	2429-2033
Ballateare	**OxA-5884**	**COS**	**3955**	**70**	**2834-2207**
	OxA-5885	**COS**	**4240**	**55**	**3010-2631**
Ballavarry	GU-2696	Charcoal	4140	50	2878-2581
	OxA-5331	COS	4035	40	2836-2468
	OxA-5332	COS	4185	55	2900-2620
	OxA-5333	COS	3830	80	2481-2036
Billown	Beta 110690	Charcoal from middle fill of shaft	3980	60	2836-2292
	Beta 129019	Charcoal from hearth in pit complex	4170	90	2921-2488
	Beta 154614	Charcoal from fill of ditch	4190	40	2895-2634
	OxA11084	Carbonized cereal grain from middle ditch fill	3855	40	2463-2205
Glencrutchery	OxA-5427	COS	3950	55	2618-2243
	OxA-5334	COS	3915	35	2488-2291
	OxA-5335	COS	3930	40	2566-2294
Killeaba	**BM-839**	**Wood from Timberlined Pit I (contained a cremation)**	**4381**	**58**	**3827-2893**
	BM-840	**Wood from Timberlined pit II**	**4300**	**52**	**3090-2714**
Ronaldsway House	GU-2694	Animal Bone	3490	150	2269-1452
	GU-2695	Animal Bone	1310	130	437-993 cal AD
	OxA-5328	COS	3925	35	2560-2295
	OxA-5329	COS	3985	35	2617-2351
	OxA-5330	COS	4010	55	2852-2347
West Kimmeragh	**OxA-5889**	**COS**	**4260**	**50**	**3017-2678**
	OxA-5890	**COS**	**4255**	**70**	**3083-2624**
	OxA-5891	**COS**	**4280**	**50**	**3082-2699**

Table 6.1: Dates for the Ronaldsway Late Neolithic. All dates are at 95.4% probability. COS = carbon on sherd. Sites in bold are burial sites and those in light blue pre-date Burrow and Darvill (1997)

The dates from the Early Bronze Age are not the result of a dating programme but rather an accumulation of dates from numerous excavations and projects over many years. In particular Jenny Woodcock contributed to the submission of several samples for dating in conjunction with her PhD (Woodcock, 2001). Table 6.2 lists the established radiocarbon dates for the Early Bronze Age, those associated with burial practices are highlighted in bold[21]; dates that focus on settlement sites are discussed in more detail in Chapter 7.

Site Name	Date Code	Material dated	Date BP	±	Calibrated date (BC)
Ballachrink	GU 9124	Cereal grain from occupation layer	3755	55	2397-1980
	GU 9128	Peat from base of peat layer, below occupation evidence	3820	55	2466-2064
	GU 9127	Peat from base of peat layer, below occupation evidence	3710	55	2285-1948
Ballaquinney Beg	OxA 4140	Charcoal from burnt mound	3280	80	1746-1410
Billown	Beta-125766	Charcoal from fill of enclosure ditch	3590	40	2117-1779
Bishopscourt Farm: Cottier's Field	**GU-2698**	**Unburnt human bone from cist associated with Food Vessel Bowl**	**3560**	**70**	**2131-1695**
Clay Head I	Birm 476	Charcoal from burnt mound	3330	120	1940-1386
Clay Head I	Birm 416	Charcoal from within stone line trough	2800	55	1115-830
Clay Head III	Birm 475	Charcoal from within burnt mound	3480	100	2114-1531
Kerrowmooar Farm (Ballig)	**GrA-29957**	**Cremated bone from Cordoned Urn**	**3400**	**45**	**1877-1537**
	GrA-29947	**Cremated bone from Cordoned Urn**	**3325**	**40**	**1731-1507**
Killeaba	**GrA-30231**	**Cremated bone unclear which cremation this sample was associated with**	**3640**	**35**	**2135-1912**
Magher Y Clagh, Bishop's Demesne	**GU-2699**	**Un-burnt human bone from cist associated with Food Vessel Bowl**	**3530**	**50**	**2016-1739**
Park Farm	**GrA-29939**	**Cremated bone from Cordoned Urn**	**3540**	**40**	**2009-1751**
Port Y Candas	Gu-9115	Charcoal found with debitage on the surface of the 'original' mound.	3650	70	2274-1781
Site 2, Port Cranstal (Phurt)	AA-29331	Charcoal from burnt mound	3480	50	1934-1686
Staarvey	**GrA-29940**	**Cremated bone from collared and/or cordoned urn**	**3515**	**45**	**1956-1695**
The Cronk, Upper Lherghydhoo	**GrA-29936**	**Cremated bone from Food Vessel Vase**	**3440**	**40**	**1882-1641**

Table 6.2: Radiocarbon dates for the Early Bronze Age. All dates are at 95.4% probability. Dates in bold relate to burial sites

[21] There are several additional Early Bronze Age dates that are part of environmental dating projects: these dates, as well as dates for the Middle and Late Bronze Age are listed in the appendix to Woodcock (2001). They do not appear here as they have no association with material culture or archaeological remains.

As discussed in Chapter 2 the dating of cremated remains has, in recent years, in combination with holistic treatments of material culture, led to an increasingly fine-grained understanding of the Early Bronze Age (see for example, Brindley, 2007; Needham, 2005; Sheridan 2007; 2004). In particular the variety of pottery styles and burial practices through the Early Bronze Age has led to some particularly fine chronological resolution see (Figure 2-8). Whilst considering the dates discussed in this chapter it may be useful to refer back to Figure 2-7 and Figure 2-8 which showed that there was no clear cut replacement of one style of Early Bronze Age pottery with another, rather they overlap and occur concomitantly. It is particularly notable that cremation and inhumation occur together until 1900 cal BC. However, these changing traditions allow one to trace change through time. It is clear that cremation becomes dominant and that burial in a cist with a Food Vessel accompanying the body is gradually replaced by the burial of cremated remains within or under a larger Collared or Cordoned Urn (it is also notable that with the introduction of Collared and Cordoned Urns the use of cists decreases (Fowler in press)).

Food Vessels are widely accepted to have been first used in Ireland and to have spread to southwest Scotland from there (Brindley, 2007; Chapter 2). The emergence of Food Vessels and the associated practice of inhumation and cremation burials with a Food Vessel, marks the closing of the Ronaldsway Late Neolithic on the island[22]; dates for Food Vessels on the Isle of Man are crucial when it comes to understanding the arrival of Food Vessels and exploring how this arrival fits within a wider British chronology.

As part of my PhD research I applied for funding for additional radiocarbon dates for sites thought to date to both the Late Neolithic and Early Bronze Age. The Manx Heritage Foundation generously funded 12 new dates and I was able to select samples to be sent to the Oxford Radiocarbon Accelerator (Table 6.3). My decision to attempt to get new radiocarbon dates was based on several factors. Firstly, in attempting to study change in prehistory, and in particular the case study of the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man, being able to use reliable dates is always going to be crucial. Secondly, no radiocarbon dates from cremated remains had been attempted for the Ronaldsway Late Neolithic, and,

[22] I chose to use Food Vessels as the marker for the closing of the Ronaldsway Late Neolithic as the current evidence for Beaker activity on the island is so limited. Based on the present evidence the deposition of Food Vessels marks a significant change in the archaeology of the island.

were they to be successful, they would allow the dating of cremation and burial events more precisely than the existing dates, from carbon on sherds of pottery. Thirdly, in terms of the Early Bronze Age dates I wanted to extend the work by Woodcock and add more dates from cremated remains to the catalogue. In particular, I wanted more dates that could be compared with Brindley's (2007) chronology for Ireland. This comparison would allow me to more precisely explore the beginning of the Early Bronze Age and the arrival of Food Vessels on the Isle of Man and thereby the emergence of the Manx Early Bronze Age. Fourthly, I was keen to establish a better chronology for the site of Killeaba, a site with activity from the Neolithic and Early Bronze Age.

Sample	MMM accession number	Site	Previously attributed date	Grid Ref	Context	Details	Date Reference	Date BP	±	Calibrated date (BC)
001	1973-0011	Killeaba	LN/EBA	SC 45169370	Cremation III	Shallow pit in a probable organic bag	OxA-27112	4503	33	3351-3096
002	1973-0011	Killeaba	EBA	SC 45169370	Cremation VI	From a miniature cist	OxA-27113	3625	33	2126-2090
003	1973-0011	Killeaba	LN/EBA	SC 45169370	Cremation V	From a miniature stone cist	OxA-27114	3657	32	2136-1945
004	1973-0011	Killeaba	EBA	SC 45169370	Cist I Inhumation	Cist I inhumation with Food Vessel	OxA-26995	3699	35	2201-1977
005	1971-0303a	Ballateare	LN	SC 344970	Cremation I	Cremation deposit, from in a jar with flint knife, bone pin and miniature vessel	Failed	Failed		Failed
006	1971-0303a	Ballateare	LN	SC 344970	Cremation XVII	Cremation deposit	OxA-27188	3723	32	2266-2027
007	1971-0303a	Ballateare	LN	SC 344970	Cremation VII	Cremation deposit	OxA-27189	4172	33	2885-2634
008		Bishop's Demesne, Magher Y Clagh	EBA/LN?	SC 33209315	Cremation	Cremation deposit with burnt jaw placed on top of the rest of the remains from within a cist in a barrow	OxA-27190	4496	33	3352-3091

009	1986-0276	Cottier's Field Bishopscourt Farm	EBA	SC 334933	Cist Cremation (Burial Cist A)	Cremation from within a cist associated with a Food Vessel Bowl	OxA-27192	3792	29	2336-2137
010	1954-5861	Knocksharry	LN	SC 27498585	Inhumation	Un-cremated remains	OxA-27057	376	27	1524-1632 cal AD
011	1954-5861/2	Knocksharry	LN	SC 27498586	Cremation	Cremated remains from the platform	OxA-27191	3527	32	1940-1755
012	1954-1117	Cronk Aust	EBA	SC 43769662	Mound 2, Food Vessel, Cremation	Cremation, associated with a Food Vessel Bowl, allegedly from mound 2	OxA-27193	3746	32	2280-2036

Table 6.3: New radiocarbon dates funded by the Manx Heritage Foundation, with permission from Manx National Heritage. All at 95.4% probability. LN – Late Neolithic, EBA – Early Bronze Age.

Table 6.3 shows the samples that were sent for dating and the results. It is notable that several of the samples returned somewhat unexpected dates. I discuss the dates from all of the sites (except Bishop's Demesne, which dates to the Middle Neolithic) in this chapter and throughout the rest of the thesis; they are also published and discussed in Crellin (in prep.). I want to briefly note here why the various samples were selected. The samples from Killeaba were selected to attempt to supplement the existing dates from the site which have focused on the Neolithic aspect of the site, these samples were selected to cover a variety of burial practices. I chose to date two samples from miniature cists for which there were no comparable dates. The cist with the Food Vessel was selected in an attempt to see how early within the Early Bronze Age activity at the site began. Finally the cremation deposit from a probable organic bag was also selected to bring more variety to the samples.

Cremation 1, from Ballateare, is the only cremation deposit within a jar on the site and, unusually, for Ronaldsway Late Neolithic burials (see below), had accompanying material culture: unfortunately the analysis of the sample failed. Cremation deposit XVII was selected as it falls outside the main area of the site, within a ditched enclosure to the north for which there are no known dates. The date suggests that this area is perhaps a later separate site. The final sample was selected as representative of cremations within the main part of the site and dates to the Ronaldsway Late Neolithic.

Bishop's Demesne (not to be confused with Bishop's Demesne: Magher Y Clagh, a nearby site with clear Early Bronze Age burials) was selected for inclusion due to the unusual practice of placing a partly cremated jaw on top of a dense deposit of cremation (Garrad, 1992: 81-2). The deposit was found within a slab cist under a stony mound with a peripheral ditch (Woodcock, 2001: Appendix, 34). The site has been tentatively dated to the Early Bronze Age and associated with the nearby burials at Magher Y Clagh. However, radiocarbon dating shows the site is Middle Neolithic and is the only identified and dated example of a Middle Neolithic burial in a cist, under a barrow, from the Isle of Man at present (for further discussion see Crellin, in prep.).

The samples from Cottier's Field, Bishopscourt Farm and Cronk Aust were selected as examples of cremations with Food Vessel Bowls to allow comparison with Irish dates and help in the understanding of the emergence of the Early Bronze Age on the Isle of Man. In addition

the sample from Cottier's Field stands alongside an existing date for an inhumation from an adjacent cist within the same site, allowing a better understanding of how inhumation and cremation practices might relate to each other at the site and within the wider island context.

Finally, Knocksharry was selected for dating to attempt to confirm the Late Neolithic date for the site suggested by Bruce et al. (1947). The site was originally identified as Ultimate Bronze Age when excavated by Cubbon in 1930 (Cubbon, 1932). However with the identification of the Ronaldsway Late Neolithic it was re-assigned. The site contains both cremated and un-cremated remains, and was the only recorded site where such practices were known from the Ronaldsway Late Neolithic. The site has two cremation platforms and it was hoped to take material from both platforms, as well as a sample from the inhumation, to attempt to define an internal chronology for the site, however the cremated remains were not well enough labelled by the excavator for this to be possible. Based on the new dates presented here it now appears that the inhumation remains are much later than the cremations, dating to 1524-1632 cal AD, and that the cremated remains are in fact Early Bronze Age in date. The site is discussed further below.

The dates for the Late Neolithic question the previous period attribution of several sites, but do little to help create an internal chronology for the period, something which, with the presently known sites, would seem impossible. There is a slight clustering of the dates associated with burials to the earlier Ronaldsway Late Neolithic (c.3000-2600 cal BC) whereas dates from settlement sites tend to stretch over the whole period: however, with the scant evidence, this is hard to assert. The lack of chronological resolution within the Ronaldsway Late Neolithic may, in part, be the result of the calibration curve for the period. There is a plateau in the curve during the Late Neolithic which gives rise to problems of interpretation (Brindley, 1999: 133). Brindley states that,

> "… any event between 3100-2900 cal BC… is likely to yield the same radiocarbon date of c.4400 BP. Likewise, any event which occurred between 2850-2650… will yield radiocarbon dates of about 4200 BP, and any event which occurred between 2600-2480 cal BC will yield results around 4000 BP. The entire period covered by these three uncalibrated years (even without standard deviations) is about 650 years."
>
> Brindley, 1999; 133

This issue of calibration effects the chronology for Grooved Ware and passage tombs – and the Ronaldsway Late Neolithic. Without any clear evidence of typological change in the pottery style it is hard to refine the chronology any further.

However, the dates have been helpful in establishing the place of the Isle of Man within Britain and Ireland in the Earliest Bronze Age. This is a subject I return to in Chapter 8, however, I want to briefly discuss the comparison here as a means of establishing a chronology for what follows in this chapter and the next.

Table 6.4 shows the Food Vessel dates for Ireland and Scotland alongside the dates for the Isle of Man. On the basis of the dates we have, the vessels appear to have first been deposited on the Isle of Man shortly after they emerged in Ireland and it would seem that they continued in use for longer than in Ireland, with a pattern closer to that seen in Scotland. Taking the dates individually, the earliest date from Cottier's Field, Bishopscourt Farm (OxA-27192), as shown above, is most likely to be from 2308-2137 cal BC (at 94.2% probability). The date is associated with a cremation - perhaps unsurprising given the dominance of cremation in the Ronaldsway Late Neolithic. The date is very early, only partly overlapping with the Irish date range. Brindley (2007: 52) notes that Food Vessels have been found across the whole of Ireland and on the present evidence they appear to have emerged first in Ireland. However, Brindley (2007: 325) goes on to comment that the "evolution of the Early Bronze Age pottery in graves was remarkably consistent throughout Britain and Ireland"; she presents clear evidence that shows there was no "retardation in the developments [of pottery styles] which occurred on either side of the Irish Sea". Brindley suggested that pottery styles spread quickly at this time therefore, the early date of the Food Vessel Bowl from Cottier's Field, Bishopscourt Farm is not surprising. This date should not be read as indicating that Food Vessels originated on the Isle of Man. Rather, what is evidenced by this date is their swift arrival on the Isle of Man indicative of pre-existing strong connections and movement of actants between the two islands. The second date from Cottiers Field, Bishopscourt Farm (GU-2698), associated with an inhumation, and the dates from Cronk Aust (OxA-27193) (Figure 6-1) and Killeaba (OxA-26995) act to confirm the early arrival of Food Vessel Bowls and the burial practices associated with them on the Isle of Man. Indeed as shown in Table 6.4 the Killeaba date OxA-26995 is most likely to date from 2201-2011 cal BC (at 91.1% probability) concentrating it well within the earliest uses of Food Vessel Bowls in Ireland. The date from The Cronk, Upper Lherghydhoo (GrA-29936) for

a Food Vessel Vase is at the end of their main currency in Ireland but well within the dates of their currency in Scotland.

Pottery Type	**Date Cal BC (95.4% probability)**
Irish Food Vessel Bowl	c.2160-1930/20
Irish Food Vessel Vase	c.2020/1980-1740
Scottish Food Vessels	c.2140-1620
Cottiers Field Bishopscourt Farm (Food Vessel Bowl with cremation) (OxA-27192)	2336-2137
Cottiers Field Bishopscourt Farm (Food Vessel Bowl with inhumation) (GU-2698)	2131-1695
Cronk Aust (Food Vessel Bowl with cremation) (OxA-27193)	2280-2036
Killeaba (Food Vessel Bowl with an inhumation) (OxA-26995)	2201-1977
Magher Y Clagh (Food Vessel Bowl with an inhumation) (GU-2699)	2016-1739
The Cronk, Upper Lherghydhoo (Food Vessel Vase with cremation) (GrA-29936)	1882-1641

Table 6.4: Food Vessel Dates for Ireland, Scotland and the Isle of Man

Figure 6-1: Cronk Aust Bowl

In Chapter 3 I discussed possible links between the Broomend of Critchie beaker dated to 2480-2340 cal BC (Needham, 2005: 192-3) and the Beaker from Baroose. However, these are very tentative and it remains hard to give a likely date for the Baroose Beaker.

These new dates change our impression of Manx prehistory (see Crellin, in prep.). They also help to sketch an increasingly fine-grained understanding of the Early Bronze Age in particular.

Treatment of the dead

In this section I discuss the treatment of the dead in very general terms, considering the evidence from Britain and Ireland. Beliefs about the nature of the world, cosmology, death and personhood are not the same cross-culturally. For many though, the experience of a death is a profoundly emotional one, some deaths may provoke grief and a sense of loss whereas others might be seen as a form of release, or a relief. There is no universal understanding or response to death. However, I argue that the ending of a life (in whatever sense this might be understood) universally causes change to the assemblage of relations that surround the actant. As relations change they must be re-negotiated and differing behaviours may become appropriate. In the simplest of examples, the death of much loved grandparents shifts the roles of parents and grandchildren as they become the elder members of their family. Relations between people that were once conducted through the grandparents must now be approached without a mediator and the relations that the grandparents had with the state and with companies such as utility providers must now be re-negotiated by those that remain. A single death can send shockwaves through an assemblage that will include not only immediate family but wider institutions, materials and people.

In this thesis I draw on a relational approach to understanding burial practices. I adopt a position where the material culture within the grave can be seen not merely as possessions of the dead, or indicators of a projected or real social status in death, but as actants within a relational assemblage that is subject to all the complex changes and feelings that surround a death. By working from a flat ontology, I start in a position where any of the actants in the meshwork that surround the burial practices can be elevated to a special status. This includes not only the body of the deceased but also actants such as a soul, or the grave goods, or any

material culture associated with the burial practices that may not have been left within the grave itself.

Considering cremation and inhumation in the Late Neolithic and Early Bronze Age

The majority of the surviving Neolithic and Early Bronze Age burials from the Isle of Man consist of cremated remains. Cremation can result in a quick and dramatic transformation of the body of the deceased from a lifeless corpse to a quantity of ashes. The shape and form of the individual that was once known to kin and friends is lost and a somewhat anonymous material takes the place of the body. What was once a soft, supple and warm flesh of the living is transformed into a crumbly off-white substance where only some hints of the original form of the person are obvious (McKinley, 1997). Inhumations on the other hand involve the deposition of a body that is more know-able to kin and friends. Today, in Britain and Ireland, many burial practices are sanitised and removed from our sight. We do not witness the cremation of a body and the viewing of bodies in coffins, and the preparation and dressing of a corpse by family, is no longer a common practice. Our own experience of burial practices is one where much of the labour and experience of dealing with the deceased is placed in the hands of professionals. This is unlikely to have been the case in prehistory. Furthermore, in our own culture the practices that surround a death often last only a few weeks, from death to funeral and/or cremation. One may then later scatter ashes, marking the death again, and one may also return to a grave, or the place where ashes have been deposited, but it is unusual in Britain to have any direct contact with the actual material remains of the dead again. This is, again, unlikely to have been the case in the Late Neolithic and Early Bronze Age.

A recent article by Appleby (2013) explores the ways in which cremation and inhumation practices in the Early Bronze Age differ. In addition her work highlights the variety of known treatments of bodies before cremation or inhumation and also the variety of possible additional treatments that may have occurred but are archaeologically invisible. Such processes include preliminary burial, burial or cremation of only some parts of the body, excarnation and mummification. Such work builds on earlier efforts to put more detail into our understanding of the reality of the cremation process. Jane Downes' (2005; 1999) ethnographic and archaeological research has highlighted the realities of the experience of cremation. Her own observations of a cremation ceremony in Bali describe the ways in which

ceremonies surround the cremation. It details the way the fire must be tended and how, in the kind of ceremony she observed, it is necessary to interact with the corpse on the pyre to ensure it is appropriately cremated – something that is very far from our experience of cremations in Britain and Ireland today. Downes (1999) highlights the ways in which fire is a visible agent of transformation (unlike decay, under the ground, within a grave) that is at once both controllable and uncontrollable.

This work is well complemented by research into cremation by McKinley (1997). McKinley (1997: 130) asks us to question what it is that we mean by terms like 'cremation' arguing that the number of activities contained within the process such as laying out of the body, construction of a pyre and the burial of a selection of the remains. McKinley highlights the often small amounts of bone that are buried in the Bronze Age suggesting that remains are selected from the pyre. There are over 10 000 cremations that have been excavated in the past 100 years in Britain but only about 100 pyre sites are known – this is, in part, the result of old excavation with poor recording (McKinley, 1997: 132). Pyre deposits created experimentally are very shallow and it is suggested that they could be very ephemeral and easily lost archaeologically (Downes, 2005; McKinley, 1997). The content of cremation deposits themselves need to be considered – are all the bones from one individual, are there small fragments of material culture included? McKinley (1997: 130) states that in a sample of 130 Bronze Age burials, 16% contained fragments of animal bones.

These kinds of examples and research highlight the variety of practices included in a category we simply term "cremation" without reflecting critically on what this means. Cremations of multiple individuals and animals placed within a single grave are more than possible (as at Ballaharra). A low weight of bone does not necessarily mean there is only one individual in the grave - the living may retain some cremated bones and individuals may be buried at more than one site. The status of the pyre is another issue. Some of the remains within a grave could well be pyre debris, what status did the pyre debris have – was it seen as ontologically equal to the cremated bones? Indeed, some cremation deposits appear to have been more carefully picked clean of pyre debris than others (Appleby, 2013; Downes, 2005; McKinley, 1997).

Appleby (2013) draws on the *chaîne opératoire* approach to compare and contrast how the two processes differ (Figure 6-2, Figure 6-3). This approach allows a comparison of the two

processes and shows that both could be multi-staged, and many of the pre-treatment rites for the deceased were similar between cremation and inhumation processes. Appleby (2013: 93) concludes that the main difference between the two processes is the duration of the mortuary rite. She argues that in the case of an inhumation the possibility of returning to rework the grave and the barrow exists but that with a cremation, the fragile material of cremated remains curtails this possibility. Furthermore, she suggests that rather than interacting with a specific piece of a dead person, as is the case with inhumation remains, in the case of a cremation one interacts with the substance and "…physical representation of the idea of a body" (Appleby, 2013: 93).

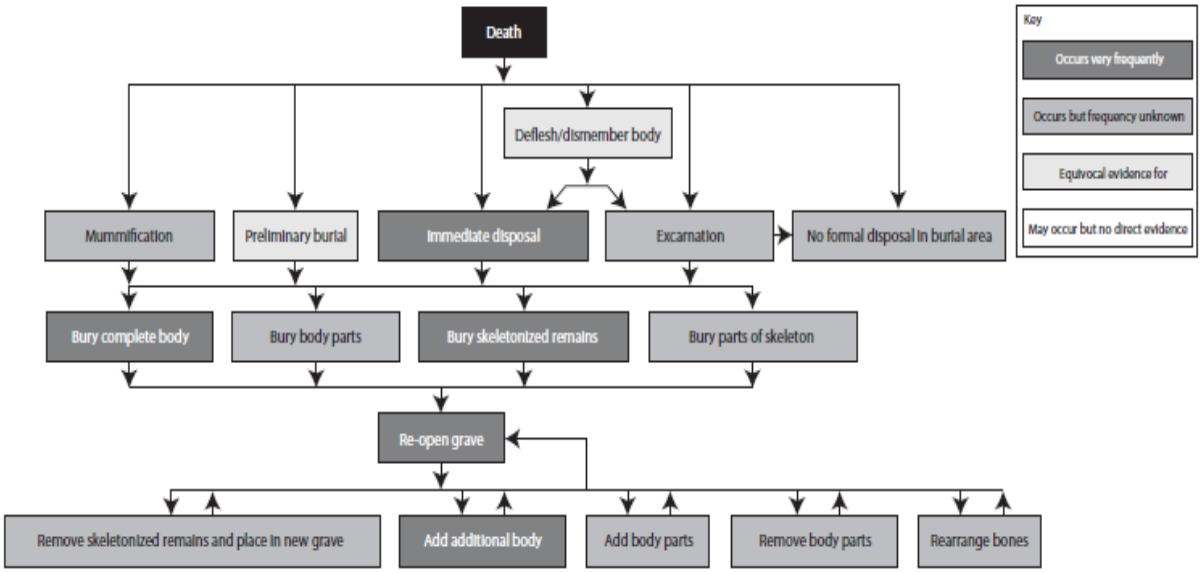


Figure 6-2: *Chaîne Opératoire* for Burial without burning of the body, from Appleby (2013: 87, fig 1)

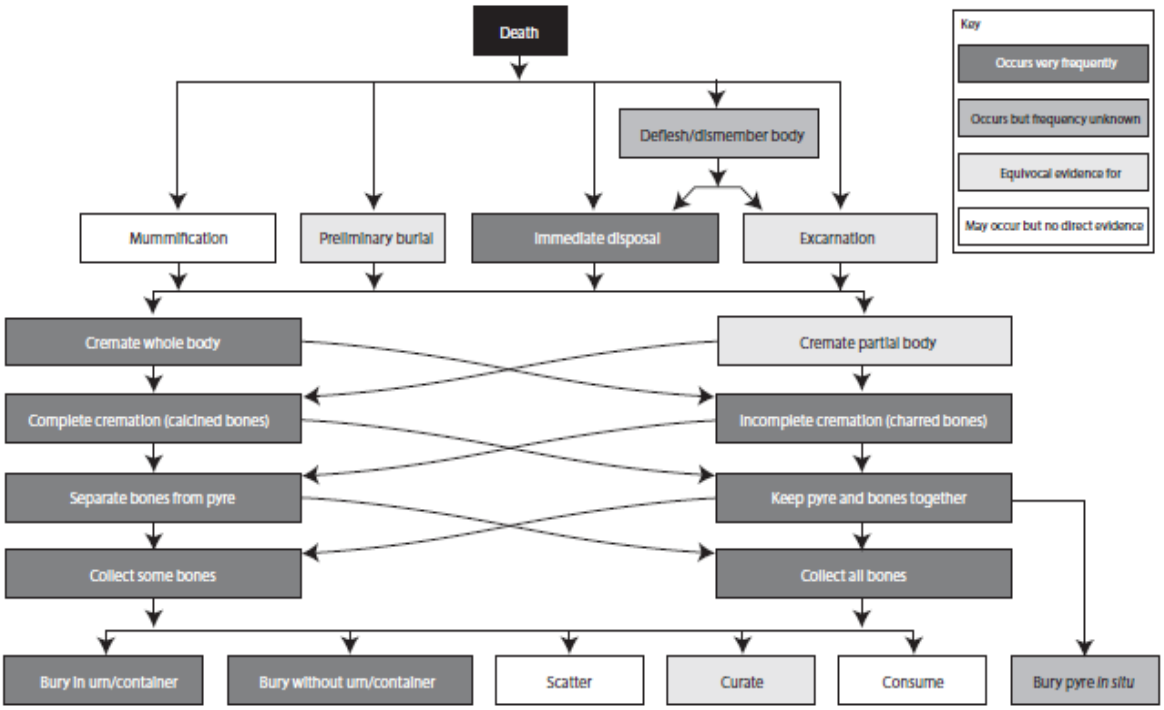


Figure 6-3: *Chaîne opératoire* for mortuary practices that include cremation, from Appleby (2013: 89, fig 2)

There is much to be admired in Appleby's approach and the use of the *chaîne opératoire* to compare the two processes is effective. The paper also effectively summarises the many possibilities for pre- and post-inhumation and cremation treatments of bodies, many of which are perhaps not readily imagined today. However, I disagree to some extent with Appleby's conclusions. I do not believe that cremation necessarily curtails interaction with the deceased in the way that Appleby suggests. The substance of cremated remains is certainly more fragile and friable than that of non-cremated remains, however I do not believe that this would stop people interacting with remains. I agree with Appleby that through the Early Bronze Age we can identify a decreasing level of interaction with the dead compared with that identified in the Neolithic, but I do not believe that this is a direct consequence of the cremation of remains, rather it is part of a large relational assemblage of changes to burial practices, such as the use of cists and an emphasis on containment of the body. Indeed there are numerous examples of graves which appear to have been re-opened from the Early Bronze Age. The circulation and curation of cremated remains requires more care due to their materiality but it is possible. Appleby identifies a shift into the household and daily routine that this change may have caused if cremated remains were kept within houses. However, cremated remains could have been kept in pits or graves that were later emptied and moved elsewhere in a similar manner to the treatment of inhumations.

There is a greater amount of labour involved in the performance of a cremation. Whilst I do not want to suggest that there is no labour involved in the execution of an inhumation, I suggest that cremation, in many cases, would have added an additional stage into burial practices and an additional expenditure of time and resources. Figure 6-4 shows a hypothetical *chaîne opératoire* for cremation that seeks to highlight this additional labour involved in burning the body, whilst still demonstrating the variety of possibilities for treatment of the dead that Appleby's (2013) work has so effectively shown. It does not show the possibilities for continuing interaction with the dead after the initial burial practices.

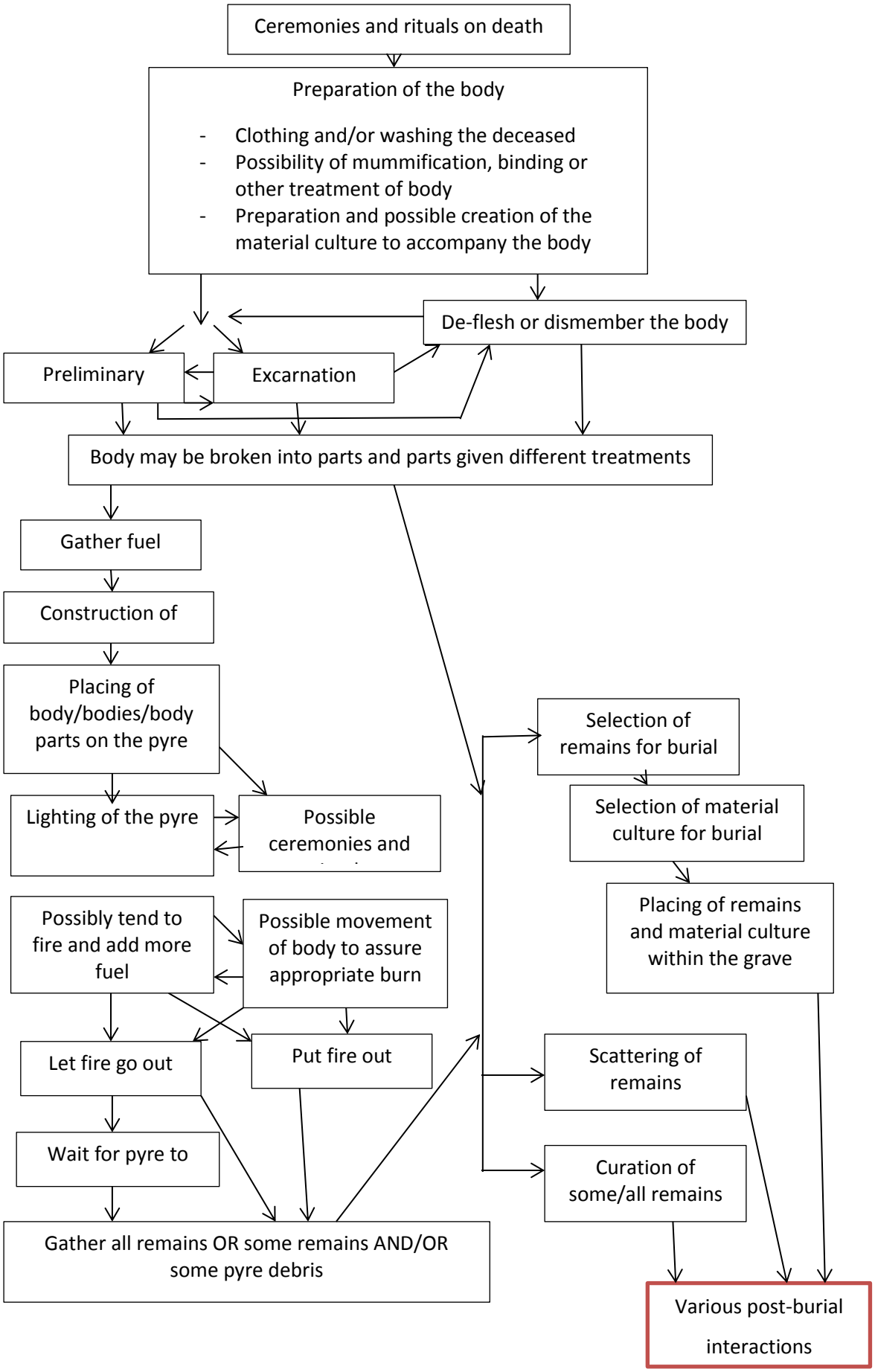


Figure 6-4: *Chaîne opératoire* exploring cremation and inhumation processes

The transition to cremation in the Bronze Age of Britain and Ireland is used as a key chronological marker and there are suggestions that it may well indicate that beliefs about cosmology and bodies were changing within prehistoric communities. Brück (2006) has argued that cremation is a highly transformative act and has linked the rise of cremation in the Early Bronze Age to the fiery processes of smelting that transformed ores into metals. In the previous chapter I discussed the ways in which the addition of fire was probably the key difference between the processes of making stone and metal axes. Smelting transforms the ore and, as discussed above, cremation may change the substance of flesh and bone into a broken down, crumbly white solid. However, as discussed in Chapter 5, it is unclear whether everyone within a community would have known how metal axes were made, or understood the key transformational role of fire in this process. It is notable that across Britain and Ireland cremation and inhumation initially appear to have been equally appropriate options for the disposal of a body, however, from 1900 cal BC cremation becomes the dominant rite. Whether this is coincidental or a result of the rise of metallurgy and increasing incidences of local casting and recycling of materials remains speculative.

Cremation and inhumation, Appleby (2013: 93) suggests, are traditionally regarded as a dichotomy of very different processes. However, such dichotomies cannot be fully sustained, there were likely similarities surrounding both practices even if the outcomes were markedly different materials. Whilst focus has centred on the shift from cremation to inhumation it is an error to believe that cremation meant the same thing at 3000 cal BC as it did at 1500 cal BC. Whilst the material signature may appear, in a crude sense, to be similar from both periods, the attendant practices and ceremonies and beliefs changed through time. The case of the Isle of Man highlights just this issue, cremation practices in the Ronaldsway Late Neolithic were not the same as those of the Early Bronze Age. This is what I will seek to explore in the next section.

Cremation and Inhumation on the Isle of Man

Having established a chronology for the period, presented the new dates for the Isle of Man, discussed relational approaches to death and explored the burial practices of inhumation and cremation (as well as the perceived opposition between these two) I now present the evidence from the Isle of Man. Given the lack of chronological resolution for the Late Neolithic the period will be presented as a whole, however the more fine-grained resolution available for

the Early Bronze Age will allow me to present changes to burial practice through the period. In this section I present the evidence for the Isle of Man, draw out the changing burial practices and offer some interpretation of the remains. In the next section I will present more detailed case studies of individual sites.

Ronaldsway Late Neolithic burial practices

Treatment of the body

With regard to Ronaldsway Late Neolithic burials practices, Burrow states,

> "With such varied approaches to burial on the Isle of Man, it can only be assumed that there was no standardised ritual beyond the use of cremation; instead general themes were developed and expressed in a manner reminiscent of bricolage (Tilley, 1990). This variety is in itself of value in illustrating the nature and flexibility of Manx society at this time."
>
> Burrow, 1997b: 20

The dominant feature of Ronaldsway Late Neolithic burial is the use of cremation (with the re-dating of Knocksharry discussed above there are currently no known examples of inhumation for the period). The *Appendix: Late Neolithic Burials* details all the known sites where cremation deposits have been found on the Isle of Man. Quantifying the number of known burials for the period is not easy; in many cases only a few fragments of cremated bone have been found on a site. Furthermore, at the site of Ballaharra communal cremation deposits (Higgins and Davey, forthcoming) have been identified and no osteological studies of other Manx Neolithic remains have been carried out meaning there is a possibility that other deposits may also consist of bones from a number of people, and perhaps even animals, as at Ballaharra.

The number of known cremation deposits from the Ronaldsway Late Neolithic is low, considering the period spans much of the third millennium BC (Burrow and Darvill, 1997). Indeed the majority of known sites have been accidental discoveries as a result of ploughing, fieldwalking, quarrying or construction work (Figure 6-5 and *Appendix: Late Neolithic Burials*). Other sites have been preserved due to their location within or under other known sites; for

example Ballateare was only preserved and discovered due to the later Viking mound burial which covered it, and Killeaba was originally presumed to be a Bronze Age barrow by antiquarians. Ronaldsway Late Neolithic burial sites are not easily identifiable, having no upstanding stone architecture. In the case of Cronk Crock (Woodcock, 2001 Appendix: 131), Ballakilley Farm (Woodcock, 2001, Appendix: 139-40) and Crosh Mooar (Woodcock, 2001 Appendix: 78-9) these sites are all very poorly recorded excavations of sites thought to be barrows in which pottery with a 'round base' was discovered. In all these cases their identification as Ronaldsway Late Neolithic is not certain and the recording of the sites hampers interpretation, but I have chosen to include them as I suspect they represent a number of cases where excavations into barrows and mounds have revealed Late Neolithic deposits – given the large number of unexcavated barrows and cairns on the island (see Chapter 7) and the poor level of antiquarian recording at many of them, there is potential for similar sites to exist. Figure 6-5 and the discussion here illustrate that our knowledge of burial sites from the period comes as a result of chance finds, either in existing sites or sites thought to date to other periods or as a result of construction and farming work combined with careful fieldwalking. As such, there are likely more sites to be discovered, and we are probably dealing with only a fraction of the sites from the period; given the ephemeral nature of the sites one must wonder how many have been accidentally destroyed by other activities.

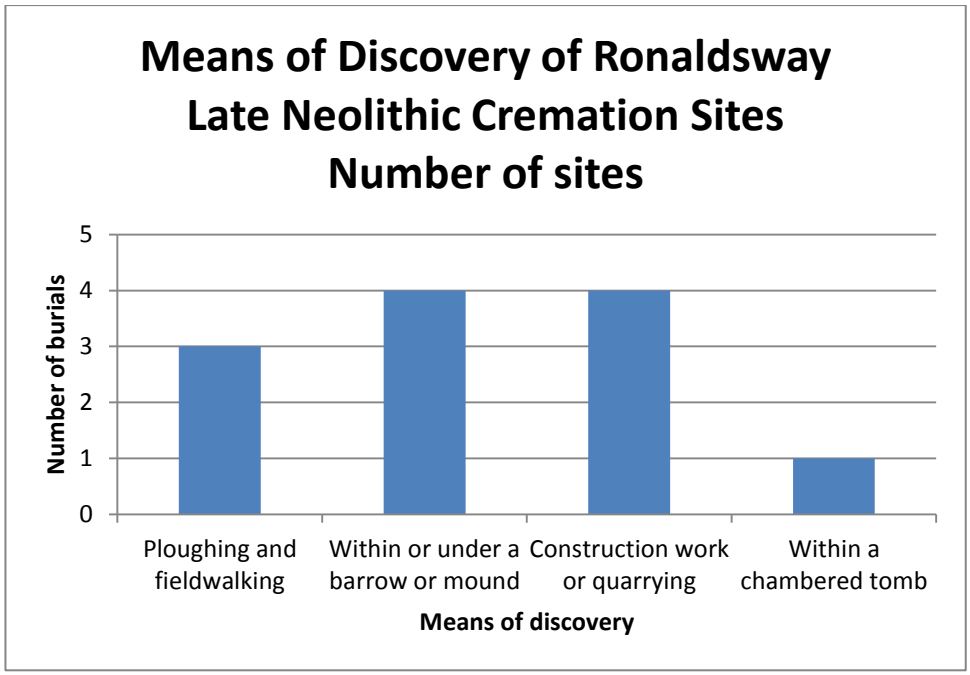


Figure 6-5: Means of discovery of Ronaldsway Late Neolithic cremation sites – n=12.

Material culture of the grave

I now consider the material culture of the grave itself: what structures were built, made or dug to receive remains? In the main there were two ways in which cremations from the Ronaldsway Late Neolithic were deposited – they were either placed within Ronaldsway Earthfast Jars (as at Round Ellan, Scard, Ballig and Ballateare) or, more commonly, they were placed within small pits or scoops, presumably held within a perishable container such as a small bag (as at Ballaterare, Killeaba, Ballaharra). These two main kinds of deposit have been found both at sites where they are the exclusive practice, and at Ballateare where both kinds of deposit are known. In contrast to deposits from the Early and Middle Neolithic, there appear to have been no newly built megalithic constructions during this period (though at Ballaharra the burials are placed near the Middle Neolithic chambered tomb). Rather, burial sites from the Ronaldsway Late Neolithic are marked by a lack of upstanding stone architecture. A collection of postholes at Ballateare (Bersu, 1947) (discussed below) indicates the presence of some kind of screen or structure (Fowler, 1999: 149) and at West Kimmeragh (Garrad, 1987) a large cobbled surface is known within which the cremated remains were placed within one corner.

At all the sites, with the exception of Ballaharra, there are deposits of either complete Earthfast Jars or broken sherds of Earthfast Jar. These jars are also found at sites where no cremated remains have been recovered, as discussed in the next chapter. Bersu (1947: 169) suggested that the vessels were used to make offerings of food at the cemetery site of Ballateare (where they have been found alongside burials). Darvill (2000: 379) suggests that these jars formed a means through which people could communicate with the underworld and likens them to the traditions of pit and shaft digging, also discussed in the next chapter. My own interpretation of the Ronaldsway Earthfast Jar sites relies on seeing them as a container within the earth (similarly to Darvill, 2004a: 50; Fowler, 2004: 94). The pottery, as discussed in Chapter 3, is very coarse. This texture makes the pots reminiscent of earth itself. When one considers that these vessels were buried up to their rims in the soil, with none of the body of the pot obvious, a relation between the earth itself and the fabric of the pottery can be drawn. Looking at the image of the pot from Ballateare (Figure 6-6) the rim of the pot, the only part that remains visible, appears to be poorly joined onto the body of the pot, clearly a second stage in the manufacture process. The rim is the only part of the vessel that carried any decoration, however the rest of the pot is never visible when buried in the ground. The pots

are placed in the earth whole; they are not debris from occupation but are purposefully dug into pits and secured in place

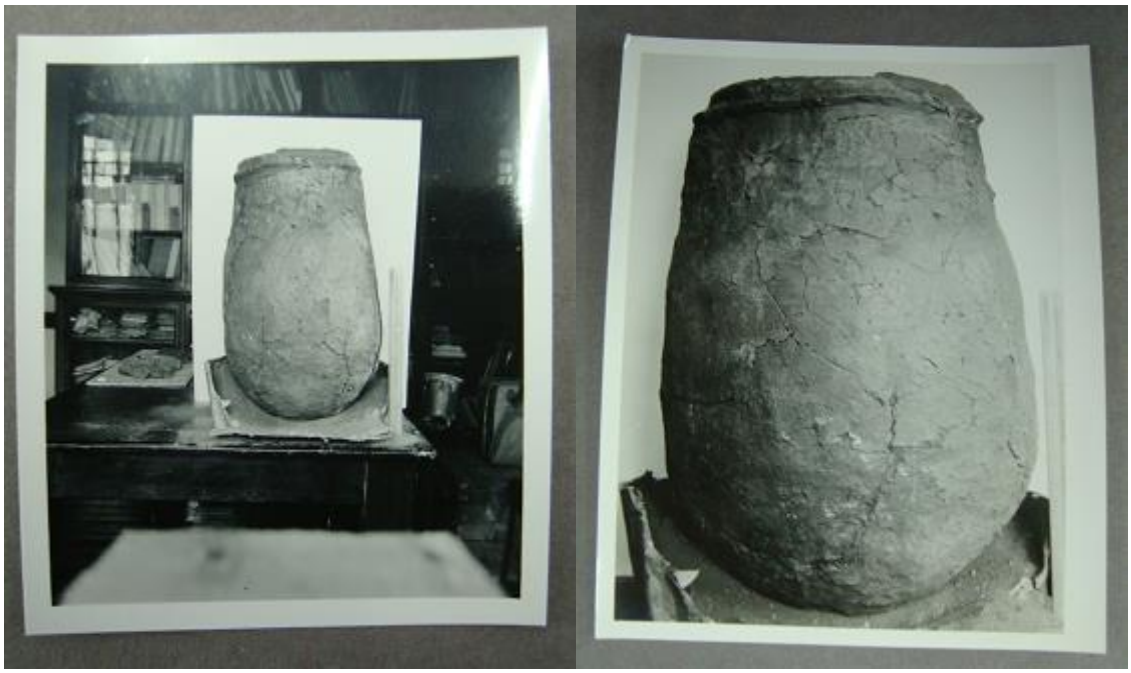


Figure 6-6: Photos from Bersu's archive from Ballateare, held by MNH. Photos, believed to have been taken by Bersu, at the Manx Museum following excavation.

The Ronaldsway Earthfast Jar essentially forms a container within the earth into which material can be placed and/or removed. Jars allow a continuing interaction with any material that is placed in them. The colour, and fabric, of the pottery appears to almost mimic the earth itself. When buried within the earth, the pot may well have appeared to merge into the surrounding soil. I suggest that for Ronaldsway Late Neolithic communities these jars, when buried within the earth, may well have been seen as inseparable from it. The presence of Earthfast Jars at burial sites suggests that they had a role in the practices that surround the dead. At Round Ellan (Burrow, 1997b: 44) two jars had been set within pits. These jars when discovered had been damaged by heavy ploughing so only the bases of the vessels remained, and these were found to contain cremated remains. In trenches dug in the surrounding area scatters of charcoal were also located. Similarly, at the site of Scard, excavation for a pipeline revealed four jars spaced 1.8m apart, with further digging nearby revealing five additional jars (Burrow, 1997b: 44). The recording for the first four jars is unclear but the later five jars were excavated by P M C Kermode and were found to contain charcoal, burnt soil and the "barest remains of bone" (Burrow, 1997b: 44). At Ballig, ploughing again revealed the remains of two jars and three more were excavated in situ – accompanying the jars were charcoal stainings; cremated bone was found within two of these five jars (Burrow, 1997b: 38).

Cremated remains, but also other materials, such as food, natural substances, cremation debris and pottery may have been placed in these jars and later removed from them (Fowler, 2004: 94). This kind of practice, I argue, allowed continuing relations with the cremated. Following cremation some remains may have been curated and/or temporarily deposited in Ronaldsway Earthfast Jars. Perhaps such practices gave the living time to re-negotiate their relations, to allow further ceremonies and practices associated with the death of a loved one to occur. Equally, perhaps it was important that cremated remains were allowed to rest in various places temporarily, before being moved to other locations. Or perhaps an Earthfast Jar was a temporary container for the remains of a person until they could be added to a communal cremation deposit, or enough cremated remains were available to justify a larger set of rituals and ceremonies for a community of deceased individuals. If the scant remains that are found within Earthfast Jars are one part of a series of burials rites the burials we find in pits, presumably once within organic containers, are evidence of remains that did not require circulation and further rituals, or of remains that had been sufficiently circulated and were now placed into a final resting place. At Ballateare and West Kimmeragh evidence of food consumption has been uncovered, and finds of flints are not uncommon at these burial sites: I suggest that these provide the scantest of clues as to the kinds of communal activities that occurred over protracted periods of time the Earthfast Jar, at burial sites, acted as a way of depositing remains within the ground, within an 'earth-like' jar, on a temporary basis, allowing them to be moved later. Rather than seeing the variety of burial evidence as just the product of a variety of burial practices, I want to argue that it is both the product of varied burial practices *and* also the product of a lengthy set of relations and practices that were carried out following the cremation of some people.

There is evidence of burning activity at nine of the twelve sites listed in the *Appendix: Late Neolithic Burials.* The three that do not show evidence of burning are the sites for which there are no excavation notes of any kind. Evidence varies from spreads and scatter of charcoal (for example Round Ellan and Ballig), to evidence of burnt soil found within Earthfast Jars (for example Scard), and what appears to be the probable evidence of pyre sites (for example Killeaba, Ballateare and Ramsey Brooghs). At Ballateare Bersu identified three areas of burning in dark filled hollows, which he described as similar to the continental Urnfield phenomenon of *ustrinae*:

"…holes dug in the ground over which the pyre is built, and into which fell the ashes from the pyre above, together with the cremated bones of the corpse. From these holes the cremated bones were collected to be put into urns. I suggest therefore that U1 and U2 (and very likely U3 and U4 also) are such *ustrinae*."

Bersu, 1947: 167

Since the publication of the excavations at Ballateare all other features (such as that found at Killeaba and West Kimmeragh), of dark soil within hollows with evidence of burning, have also been termed *ustrinae*. Notably, Cubbon identified a *ustrina* at Knocksharry which the new radiocarbon dates suggests may be Early Bronze Age. Walkey and Kermode identified a "fire-hole" at Ramsey Brooghs were they uncovered what are presumed to be Ronaldsway Late Neolithic burials [23]. This feature has been tentatively also identified as an example of a ustrinae (Burrow, 1997b: 43). As McKinley (1997) has highlighted, relating to the term cremation, and the recovery of pyre sites, there is much imprecise use of terms relating to cremation. I suspect that this is the case with the term *ustrinae* – whether all the features that have been termed ustrinae are really what Bersu meant when applying the term to Ballateare must be questioned. However, what is clear is that there is unequivocal evidence of burning at Ronaldsway Late Neolithic Burial sites.

Grave goods

It is notable, as mentioned above, that Ballateare contains the only two known examples of Ronaldsway Late Neolithic burial accompanied by any other finds. One burial was found within an Earthfast Jar (Cremation I) and contained, in addition to cremated remains, a small smooth miniature vessel, similar to the larger Earthfast Jar, the head of a calcined bone pin and a polished flint knife (Bersu, 1947: 165) (Figure 6-7). The flint knife, unlike the bone pin-head, is not burnt, it is also broken; the break appears to have happened in antiquity and the remaining sharp edge of the knife seem, to show signs of use as a scraper (Bersu, 1947: 165). The broken and brunt, bone pin-head perhaps once fastened the clothes of the deceased and was burnt on the pyre with their body. The knife appears to have been used despite being

[23] The site was poorly recorded. Ronaldsway Late Neolithic pottery was found alongside three burials which consisted of cremated remains, lithics and pottery that were found in rough cists – there is some question as to whether these burials could actually be Early Bronze Age as this would be the only known case of a cist on a Ronaldsway Late Neolithic site.

broken. A second miniature vessel was found upside down and filled with cremated remains within cremation deposit CIX.

Figure 6-7: ***Broken flint knife, burnt bone pin-head and miniature pottery vessel from Ballateare, Cremation I***

It would appear, that normally, with the exception of containers for the cremated remains themselves, 'grave goods' and material culture were excluded from sites of burial in the Ronaldsway Late Neolithic. It is notable though that, as discussed in more depth in Chapter 7, the main evidence for settlement sites from the period comes from finds of broken pottery and lithics deposited in hollows, pits and shafts. These kinds of pits have not, at present, been found in association with any burial sites. Cremated remains appear to be excluded from pit, hollow and shaft sites. The vast majority of pottery found within pits, hollows and shafts is broken, and appears to have been deposited broken, indeed at Billown it was possible to identify sherds from the same vessel in different pits (Burrow 1997a: 229). One could draw a parallel between the breaking down of bodies into cremated remains for deposition within the earth or an Earthfast Jars, and the breaking down of pottery for deposition within pits, perhaps following their 'death'. Finds at pit sites include sherds that clearly appear to have been the part of large Earthfast Jar vessels such as those found at burial sites and Earthfast Jar sites. At pit sites, when they no longer carry out their function as a container in the earth Earthfast Jars must be deposited broken within the earth.

Summary: Late Neolithic Mortuary Practices

The evidence for the Ronaldsway Late Neolithic shows the dominance of cremation practices but where cremated remains came to rest varied. I have argued in this section that some of this variety may be the result of prolonged practices where remains were potentially temporarily stored in Earthfast Jars. The materiality and design of Earthfast Jars, and their presence at burial sites where they contain cremated remains, I have suggested, evidences a continuing set of relations with the deceased. These relations are a continuation of those in life, but they are also fundamentally altered by the changed materiality of cremated remains. I have also argued that there is a lack of material culture included with Ronaldsway Late Neolithic burial deposits, deposition of grave goods was not the norm and 'grave furniture' was kept to a minimum with a possible use of organic bags and Earthfast Jars.

Early Bronze Age burial practices

As discussed above, Food Vessel Bowls accompanying burials in the Isle of Man appear in the archaeological record relatively soon after they were first used in Ireland. The practice of burying a body, either cremated or un-burnt, with a pottery vessel, was novel to the Isle of Man. In particular, inhumation would appear to be completely alien in a Ronaldsway Late Neolithic context. Perhaps unsurprisingly, the oldest dated Food Vessel burial accompanies a cremation (Cottier's Field Bishopscourt Farm 2336 – 2137 cal BC (OxA-27192)) – but whilst cremation offers a degree of continuity, cremation in the Early Bronze Age does not necessarily mean the same as it did within a Ronaldsway Late Neolithic context. My research is based on 155 excavated Early Bronze Age burial deposits (see *Appendix: Bronze Age Burials*). All the graphs within this chapter are built from the data within this appendix, which was compiled using the Appendix to Jenny Woodcock's PhD (2001) and the MNH NMHER. All sites that contained unequivocally Early Bronze Age pottery are included; any site where dating indicates that a Middle or Late Bronze Age date was excluded. This means that there is a chance that some of the sites could be dated to the Middle or Late Bronze Age, or, especially given the results of the new radiocarbon dating, Neolithic– without further dating programmes this cannot be confirmed. Woodcock's PhD (2001) is very thorough including references to sites that are rumoured to be Bronze Age, or were once thought to be Bronze Age, notes regarding antiquarian finds and rumoured sites. My own Bronze Age Burial appendix is smaller (it contains records for 198 sites and 155 burial deposits), I have removed sites for which I feel

the sources and data regarding the site were too uncertain or unclear to allow the level of confidence I feel necessary. Sites which Woodcock included in her work and which I have excluded, are, for the sake of thoroughness and cross-referencing, included in the *Appendix: Excluded Sites* along with an indication of the basis upon which their exclusion was made.

Treatment of the body

The burial deposits for which data is included within this chapter include all the examples of burials and empty cists that have been excavated. “Empty cists”, could arguably have been ‘cenotaphs’, however given the acidic nature of Manx soil it is likely that some of these could have contained remains that have since been lost. Figure 6-8 below shows the treatment of all the burial deposits considered in this chapter. The category ‘unknown’ includes cases where no record of the nature of the remains could be found. The number of un-burnt inhumations is likely to be relatively accurate as a proportion of the known number, as antiquarians appear to have more readily kept inhumations than cremations, as the analysis of cremated remains was not possible when many of the sites were excavated. In addition records often only state “cremated remains” rather than an indication of the number of separate deposits uncovered, meaning the real number of cremations is likely to be higher and possibly a higher proportion of the known number of burials. Figure 6-8 shows the dominance of cremated deposits in the Manx archaeology. It also shows a high number of ‘unknown’ remains (the number of burial deposits where the antiquarian description has not allowed the treatment of the body, the presence or absence of finds, or the nature of the cist to be established) which must introduce a degree of caution into all the interpretations presented in this chapter.

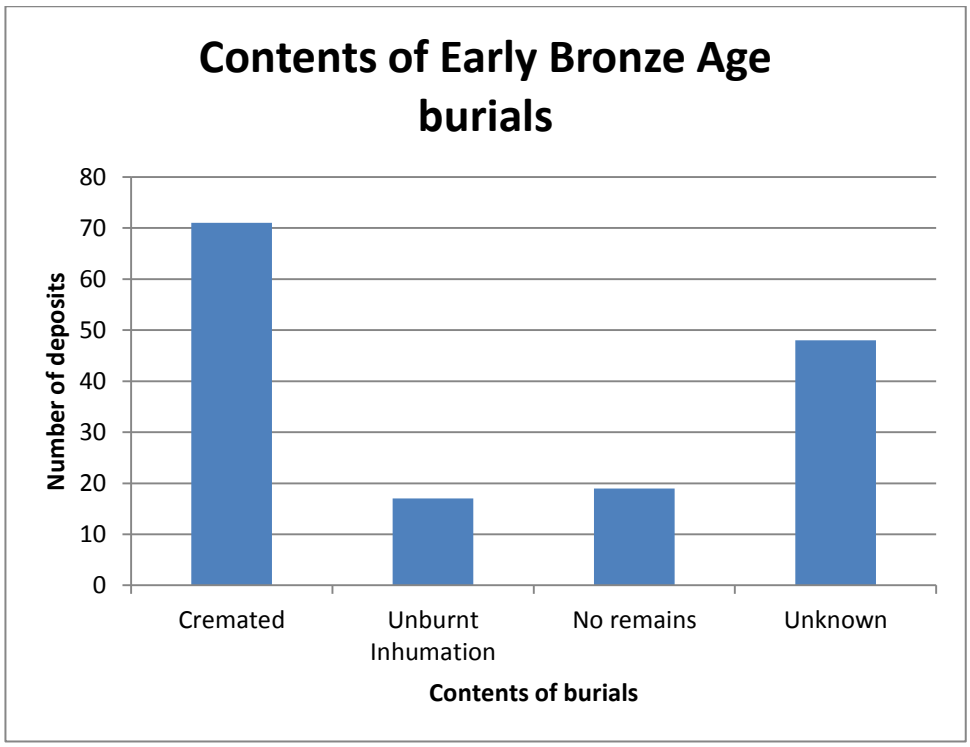


Figure 6-8: Treatment of Early Bronze Age remains – n= 155

Figure 6-9 below shows the number of pottery vessels associated with burials from the Early Bronze Age. Throughout this chapter I retain all of Woodcock's (2008) pottery identifications and use all of her terms for pottery types (including the awkward term Vase Urn). In this chart the 'unknown' number accounts for cases where there is no record of either the absence of presence of pottery vessels, in contrast to the 'No vessel' category where the absence of a vessel is noted in records.

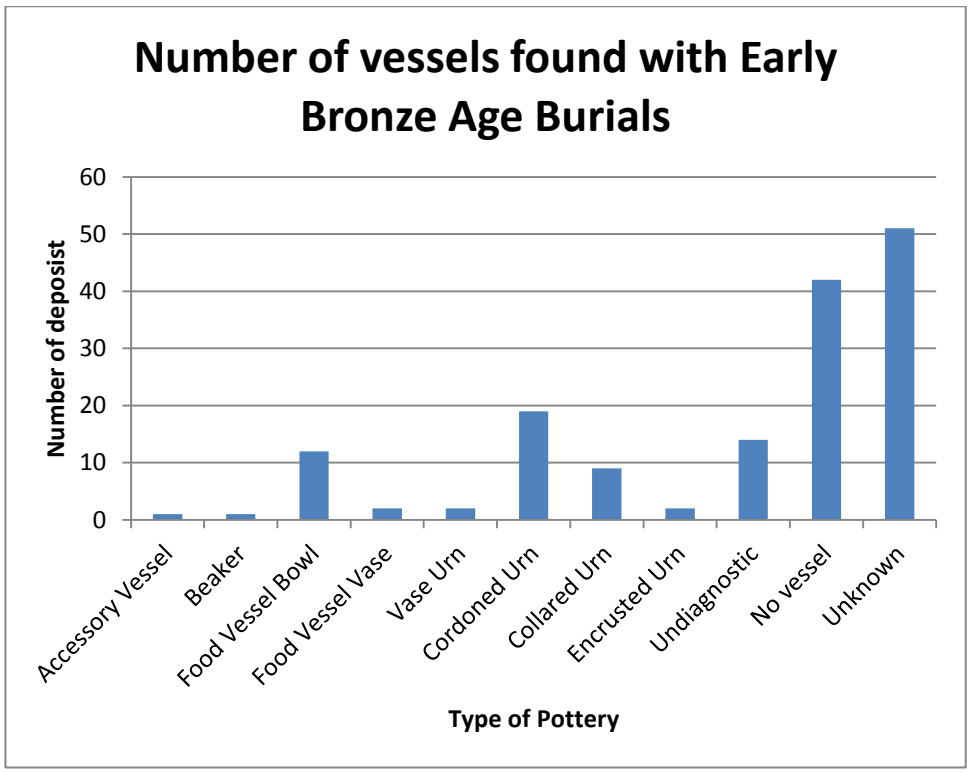


Figure 6-9: The association of vessels with Early Bronze Age Burials – n= 155

Figure 6-10 and Figure 6-11 show the associations of these same pottery vessels with the various possible treatments of remains. The graphs use the same schema described for designating unknown burials as above. The pottery identifications follow Woodcock's (2008) catalogue. The graphs show that inhumations have been found in association with Food Vessel Bowls and in burials that contain no pottery[24]. It would appear that the burial of inhumations with other kinds of pottery vessels did not occur. The Early Bronze Age communities on the Isle of Man appear to have adopted the mixed Irish tradition of inhumation or cremation (though there appears to be a preference for cremation) with Food Vessels but, as the kinds of pottery appropriate for inclusion in a burial became more diverse, cremation once again became cemented as the norm for treatment of the deceased. The adoption of Irish Food Vessel pottery marks a clear break from the Ronaldsway Late Neolithic tradition of burying remains within a jar, and within a jar that looked like earth itself: rather, these vessels show an emphasis on design and pattern (Figure 6-12).

[24] No remains were found in the Baroose Beaker grave.

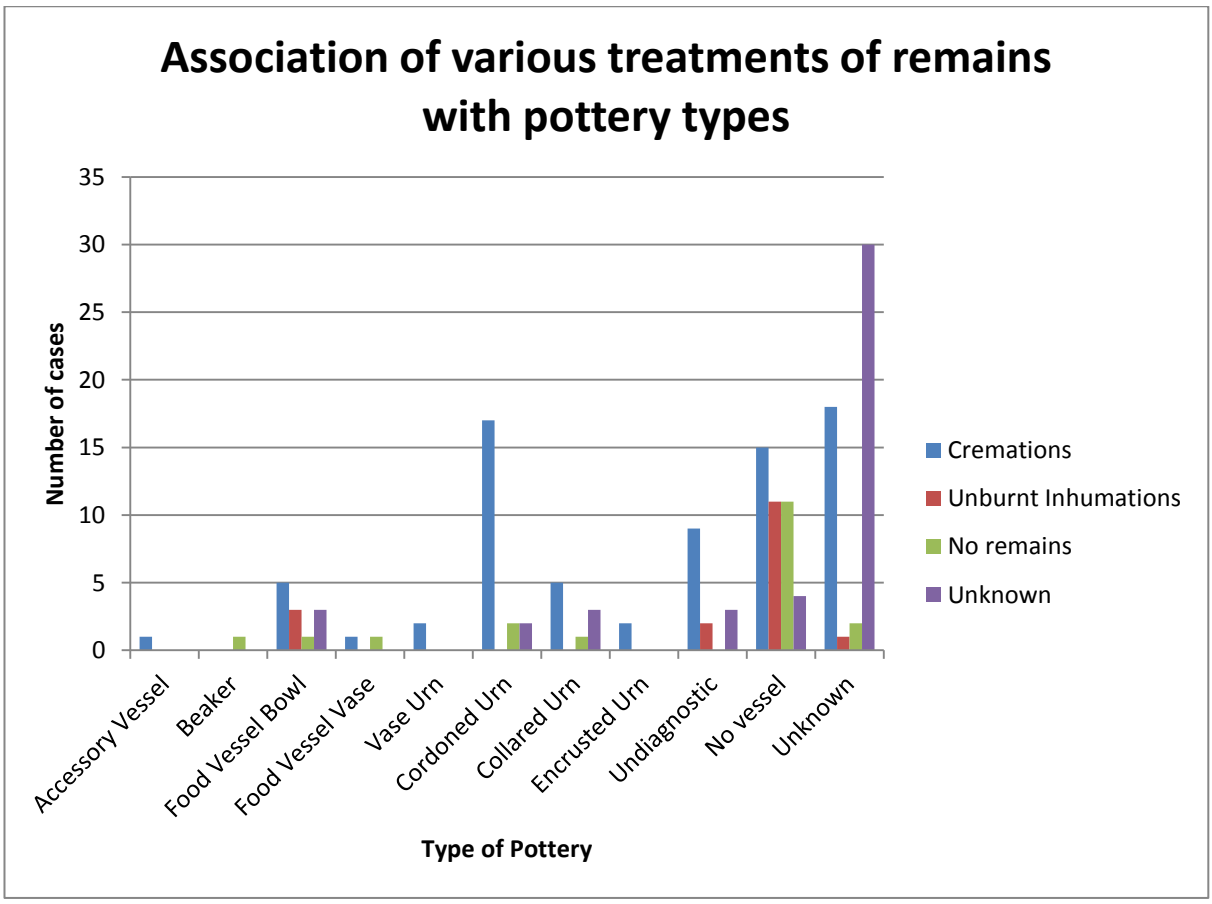


Figure 6-10: Association of various pottery types with various types of treatments of remains. (Note – n=159 as all cases where there is a very clear association between a burial deposits and more than one vessel are included.)

Vessel Type	Cremation	Unburnt Inhumation	No remains	Unknown remains
Accessory Vessel	1	0	0	0
Beaker	0	0	1	0
Food Vessel Bowl	5	3	1	3
Food Vessel Vase	1	0	1	0
Vase Urn	2	0	0	0
Cordoned Urn	17	0	2	2
Collared Urn	5	0	1	3
Encrusted Urn	2	0	0	0
Undiagnostic	9	2	0	3
No vessel	15	11	11	4
Unknown pottery vessel	18	1	2	33

Figure 6-11: Association of various pottery types with various types of remains (Note –n=159 as cases where there is a very clear association between a burial deposits and more than one vessel are included.

Figure 6-12: Food Vessel Bowl from Killeaba. Image MNH. Scale in cms

Material culture of the grave

Perhaps one of the more marked differences between Ronaldsway Late Neolithic and Early Bronze Age burial practices on the Isle of Man is the increase in the presence of grave goods

associated with burials in the Bronze Age. Bronze Age burials include grave goods whilst that the vast majority of Ronaldsway Late Neolithic burials do not[25]. Before discussing the kinds of items included in burials I want to consider first the material culture of the grave itself. As discussed above, Ronaldsway Late Neolithic burials were placed, perhaps only temporarily in many cases, within Earthfast Jars; containers that appears to mimic the texture and form of the earth itself, a container that almost merges with the earth. Other burials were, we assume, placed in organic bags or containers that have since rotted away within pits in the earth itself. Some Early Bronze Age burials were also placed within pits however, in contrast many Early Bronze Age burials were placed within stone cists. Figure 6-13 shows the locations of various burial deposits. Figure 6-14 shows the locations of burials associated with Food Vessel Bowls and Vases only, this shows the marked variety in location of deposits from the outset of the Early Bronze Age. It is notable that within the cases in this graph the three examples of inhumations with Irish Food Vessel Bowls are all within cists, it would appear that it was inappropriate for an un-burnt burial deposit, with a Food Vessel Bowl to be buried within a pit, rather it had to be contained within a cist (though there are cases of inhumations with no associated pottery vessel buried within a pit).

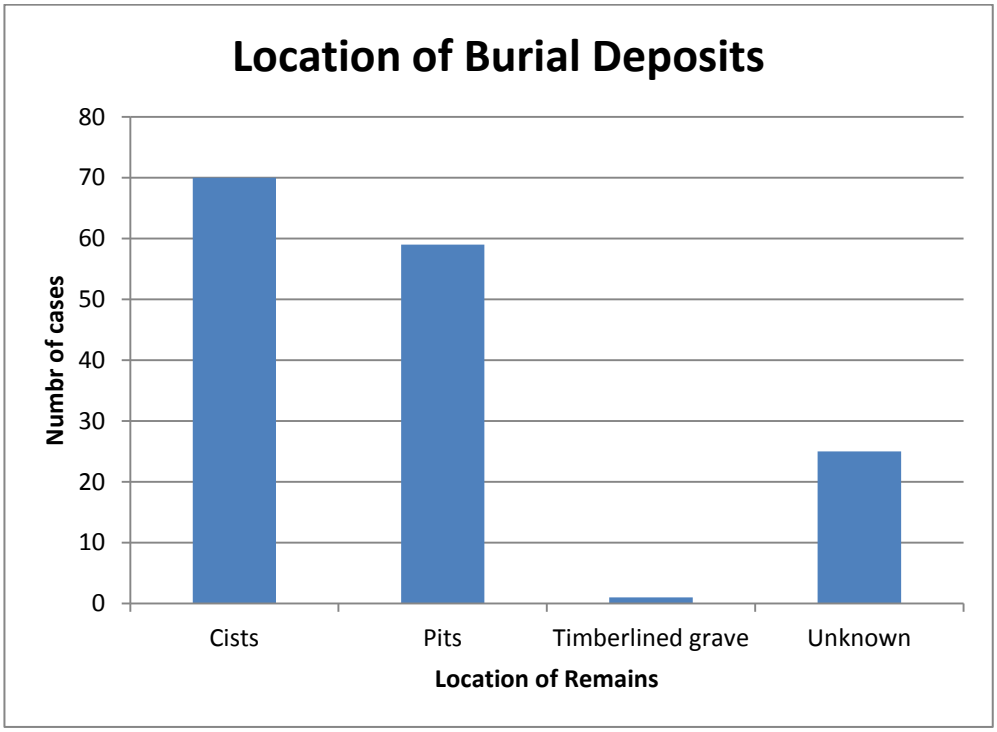


Figure 6-13: Location of Early Bronze Age burial deposits – n= 155.

[25] Caution is needed here, there are not a large number of Late Neolithic cremation deposits to base this interpretation on.

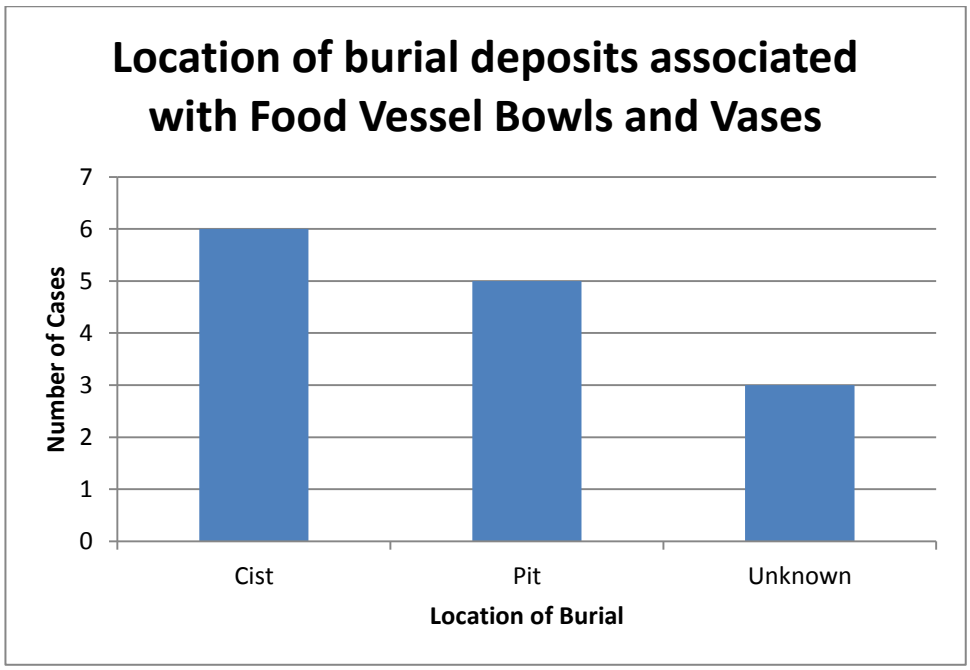


Figure 6-14: Location of burial deposits associated with Food Vessel Bowls and Vases only – n=14

Cists provide a stone container with a specific shape within the earth. The deceased is, in many cases, separated from the earth by the stone 'box' formed by the cist. At Cottier's Field, Bishopscourt Farm clay fragments were found within Cist A indicating that perhaps the inside of the cist may have been lined with clay (Woodcock, 1999: 102-3). Lining the stone cist with clay could act to create a more 'earthen' like container for the body, however I think it is more likely that the impervious material, clay, was used as a means of sealing the cremated remains within the cist and keeping them well contained separate from the rest of the community. Fowler (in press) makes a similar argument for some burials from Northumberland which are from within clay-lined cists. When we compare the cist with the Earthfast Jar there is a contrast between the way in which the cist appears as a defined and clearly 'different' container from the earth and the way an Earthfast jar might act to mirror the earth. There is a clear difference in the amount of access that is implied by each of these constructions. Cists can, and have been, opened in the Early Bronze Age (Appleby, 2013: 91; Brück, 2006: 81; Fowler, in press). Indeed this appears to be the case at Staarvey where one cremation associated with a Collared Urn appears to have been moved within a cist to make room for the insertion of a second cremation with a second Collared Urn (Woodcock, 1999: 90-5). Remains from what is assumed to be the primary burial were found scattered throughout the cist with the second urn, crumbled and decayed at the opposite end of the cist, associated with a second concentration of cremated remains.

Cists on the Isle of Man, perhaps unsurprisingly, are most commonly built of slate, the most readily available rock on the island (Table 6.5). Every cist contains at least one side built of slate; there are seven known examples where one or more sides was made of another kind of rock (notably sandstone, quartz, granite and dolerite). Contra to the arguments made in the previous paragraph there are five cists in which there was no base or floor stone (in all these cases the cists are made of slate) – perhaps indicating that the remains need not be separated entirely from the earth. What is clear is a preference for the most local of rocks and the most readily available: slate. Slate has a materiality that makes it easy to create long, thin rocks suitable for the sides of a cist.

Cist Geology	
Slate	44
Slate with granite	1
Slate with Sandstone and dolerite	1
Slate with sandstone	2
Slate with quartz shingle	1
Slate with quartz	2
Unknown	19
TOTAL	70

Table 6.5: Geology of cist materials

Table 6.6 below shows the treatment of remains found within cists and their association with pottery vessels to give a degree of chronological resolution. Focusing on those remains that are either un-burnt inhumations or cremations we can see that the majority are found with no vessel or an unknown vessel. However, there is, as noted above, a preference for un-burnt inhumations to be placed within cists and an association between un-burnt inhumations and Food Vessel pottery types from the earlier Early Bronze Age. Comparing these tables with those for burials found within pits shown in Table 6.7 more of the expected variation in association with pottery type is obvious. There are no inhumations associated with any kind of pottery found in a pit. There are five cases of inhumations with no pottery found within a pit, however these are all from the site of Ballaharra and are somewhat unusual within the corpus

and deserve separate consideration below[26]. However, when we consider the cremated remains, the number of deposits from within pits in association with Collared, Cordoned and Encrusted urns is notable. In the Later Early Bronze Age it appears to have been common to bury cremated remains within a pit in association with a pottery vessel, a pattern common across much of Britain and Ireland. It would appear that the use of cists declined as the Early Bronze Age continued, as it did elsewhere in Britain and Ireland (Fowler, in press).

Cremations	Accessory Vessel	1
	Beaker	0
	Food Vessel Bowl	1
	Food Vessel Vase	1
	Vase Urn	0
	Collared	2
	Cordoned	2
	Encrusted	0
	Undiagnostic	4
	None	10
	Unknown	10
	TOTAL	31

Un-burnt Inhumations	Accessory Vessel	0
	Beaker	0
	Food Vessel Bowl	3
	Food Vessel Vase	0
	Vase Urn	0
	Collared	0
	Cordoned	0
	Encrusted	0
	Undiagnostic	2
	None	6
	Unknown	1
	TOTAL	12

Unknown	Accessory Vessel	0
	Beaker	0
	Food Vessel Bowl	1
	Food Vessel Vase	0
	Vase Urn	0
	Collared	0
	Cordoned	0
	Encrusted	0
	Undiagnostic	0
	None	2
	Unknown	10
	TOTAL	13

No remains	Accessory Vessel	0
	Beaker	1
	Food Vessel Bowl	0
	Food Vessel Vase	0
	Vase Urn	0
	Collared	0
	Cordoned	0
	Encrusted	0
	Undiagnostic	0
	None	11
	Unknown	2
	TOTAL	14

Table 6.6: Association of various types of treatments of remains with kinds of pottery found within cists

[26] Their date is also uncertain; they may be Neolithic

Cremations	Accessory Vessel	0
	Beaker	0
	Food Vessel Bowl	2
	Food Vessel Vase	0
	Vase Urn	2
	Collared	2
	Cordoned	8
	Encrusted	2
	Undiagnostic	4
	None	3
	Unknown	5
	Total	28

Un-burnt Inhumations	Accessory Vessel	0
	Beaker	0
	Food Vessel Bowl	0
	Food Vessel Vase	0
	Vase Urn	0
	Collared	0
	Cordoned	0
	Encrusted	0
	Undiagnostic	0
	None	5
	Unknown	0
	TOTAL	5

No remains	Accessory Vessel	0
	Beaker	0
	Food Vessel Bowl	1
	Food Vessel Vase	1
	Vase Urn	0
	Collared	1
	Cordoned	1
	Encrusted	0
	Undiagnostic	0
	None	1
	Unknown	0
	Total	5

Unknown	Accessory Vessel	0
	Beaker	0
	Food Vessel Bowl	1
	Food Vessel Vase	0
	Vase Urn	0
	Collared	1
	Cordoned	1
	Encrusted	0
	Undiagnostic	2
	None	3
	Unknown	13
	Total	21

Table 6.7: Association of various types of remains with kinds of pottery found within pits

Within Britain and Ireland some archaeologists have been able to identify trends within cist burials (see for example Clarke, 1970; Fowler in press; Shepherd, 2012; Tuckwell 1975; 1970). There is no stong pattern that holds across the whole of Britain and Ireland, yet there appear to be some regional patterns (for example north-south domiantes in southern England and

east-west in the north of Britain) perhaps suggesting that different communities had their own traiditons and rules regarding the orientation of cist graves that may well have married with ideas about what kind of burial and pottery vessel were appropriate for the death of a certain person. Some may draw on earlier or contemporary principles, such as the northeast-southwest orientation of passage tombs and recumbent circles (Fowler, in press). There are very few records of cist orientation on the Isle of Man, however from written records and excavations where plans survive it has been possible to determine the orientation of 32 of the 70 cists that have been excavated: their orientations are shown in Figure 6-15. There appears to be very little pattern to the orientation of cists on the island. This lack of pattern could arguably be the result of the small dataset from the island: for example, there are only two burials of inhumations, associated with a Food Vessel for which orientation of the cist is recorded. However, it could be indicative of a lack of concern for cist orientation on the Isle of Man. Whilst some elements of Early Bronze Age practices were adopted on the Isle of Man it is possible that some were also rejected, an issue I return to in Chapter 8.

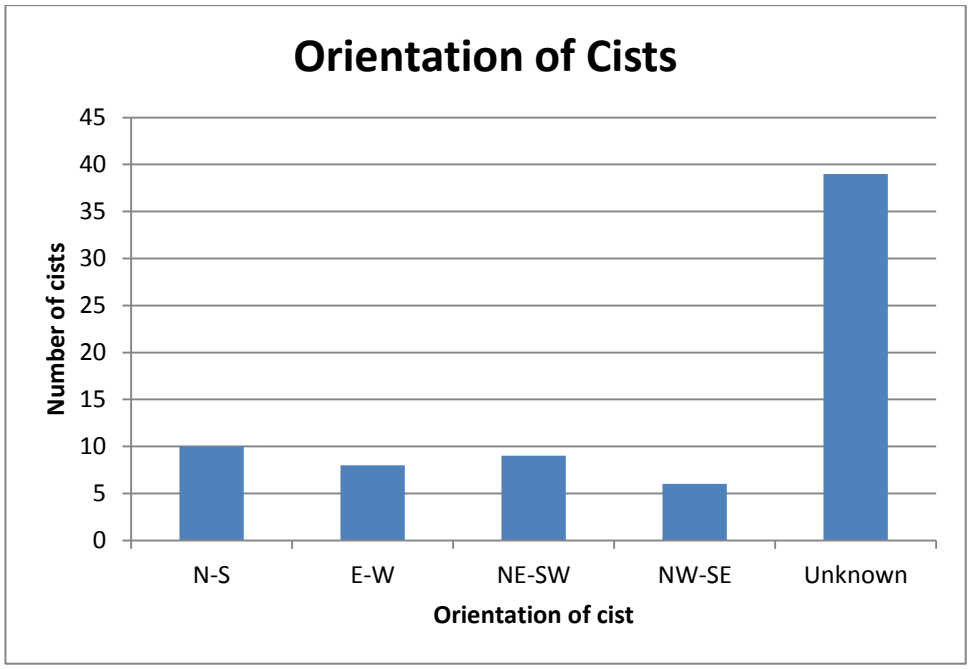


Figure 6-15: Orientation of cists – n=70

In the later Early Bronze Age the use of smaller Food Vessel Bowls and Vases and Vase Urns gives way to a growth of larger vessels: Collared, Cordoned and Encrusted Urns. These vessels are far larger than the Food Vessels that dominated the very earliest Early Bronze Age (Figure 6-16 and Figure 6-17). Furthermore, as discussed above, their deposition was increasingly in pits rather than in cists, and, as will be shown in the next chapter, they are often found in flat

cemeteries rather than under burial mounds or cairns. Fowler (in press) has argued that as the size of the vessel increased the need for a cist decreased, as the larger vessel was able to act as a container for the deceased. I would add that the decreasing use of cists marks a different set of relations between the deceased and the earth; they are not so markedly separated from the earth as they are within a cist. The Collared or Cordoned Urn is an obviously different vessel from the Earthfast Jar and I do not want to imply some kind of return to an emphasis on the surrounding earth as I have argued for the Ronaldsway Late Neolithic (Figure 6-16 and Figure 6-17). In addition such vessels are often inverted over cremated remains, a practice not associated with Ronaldsway Earthfast Jars[27]. Furthermore, the radiocarbon dates associated with these kinds of vessels generally and the specific dates for the Isle of Man (Table 6.8) indicate that hundreds of years had passed since the presumed last known use of an Earthfast Jar, any knowledge of their use or their meaning that remained within these communities would have been long since altered and changed.

Figure 6-16: Garey Mean, Cordoned Urn – found inverted in a pit over cremated remains. Image MNH. Scale in cms.

[27]The exception here is the site of Knocksharry, however new radiocarbon dates call into question whether the site dates entirely to the Ronaldsway Late Neolithic, see below.

Figure 6-17: Magher ny Hoaryn, Cronk Allisha Cordoned Urn– found inverted in a pit over cremated remains. Image MNH. Scale in cms.

Pottery Type	Date cal BC
Irish Collared Urns	c.1850/30-1700
Irish Cordoned Urns	c.1730-1500
The Earliest Scottish Collared Urn	c.2030-1770
The Earliest Scottish Cordoned Urns	c.1800-1700
Park Farm (GrA-29939) Cordoned Urn	2009-1751 (95.4% probability)
Staarvey (GrA-29940) Cordoned/Collared Urn	1956-1695 (95.4% probability)
Kerrowmooar Farm (GrA-29957) Cordoned Urn	1877-1537 (95.4% probability)
Kerrowmooar Farm (GrA-29947) Cordoned Urn	1731-1507 (95.4% probability)

Table 6.8: Radiocarbon dates for Collared and Cordoned Urns in Scotland, Ireland and the Isle of Man

Figure 6-18 shows the number of inverted pottery vessels found as a proportion of all the known Early Bronze Age vessels. The chart shows that inversion does not dominate in the Early Bronze Age; this is because the chart includes cases of Food Vessel Bowls and Vases which were never inverted over remains. Table 6.9 shows the breakdown of which vessels were inverted over remains by pottery type, the table shows that the practice began in association with Vase Urns and peaked in association with Cordoned Urns, where the practice dominates.

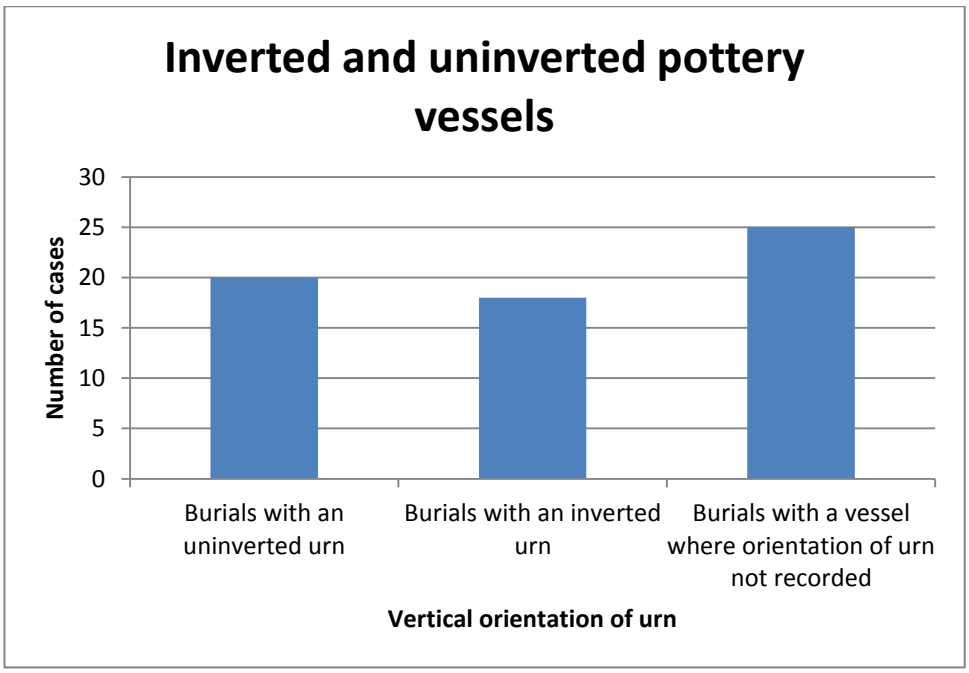


Figure 6-18: Vertical Orientation of all known pottery vessels – n= 63

	Food Vessel Vase	Vase Urn	Cordoned Urn	Collared Urn
Inverted over remains	0	1	10	3
Not inverted over remains	2	0	0	1
Unknown whether inverted	0	1	8	5

Table 6.9: Table to show number of pottery vessels that were inverted, or not inverted over cremated remains.

Contrasting the Early Bronze Age evidence of burial in cists, with that discussed earlier for the Ronaldsway Late Neolithic, one gets a sense that in both periods it was common for the remains of the dead to be monitored, and perhaps interacted with, after their initial cremation or burial. The exception to this is found in inhumation burials. Inhumations are commonly found crouched[28] and often appear to be 'squashed' into quite a tight cist (average cist length and width, based on 41 cases where the lengths and widths of the cist had been recorded, is 0.95m x 0.71m), with the position of the body perhaps even indicating that the skeleton may well have been bound in the grave. Figure 6-19 and Figure 6-20 show two examples of inhumations from the island and in both cases the bodies appear crouched and may well have

[28] The notable exceptions here are the burials from Ballaharra, discussed below.

been bound or wrapped before deposition. In cases where an un-burnt body is found as a tightly bound inhumation it seems unlikely that such bodies have been moved or altered since their initial deposition. This is not to say that the site where the cist was buried was not returned to and that practices and rituals did not occur at it. Indeed, in the case of barrows, as discussed in Chapter 7, interactions at the site are likely to have continued long after the initial burial, however in the case of inhumations that interaction is unlikely, in the cases from the Isle of Man, to have included contact with the body.

Figure 6-19: Cottier's Field, Bishopscourt Farm Inhumation. The records note the body was lying on its right hand side with the skull in the NE corner of the cist. Fragments of clay were found sealing the inside of the cist

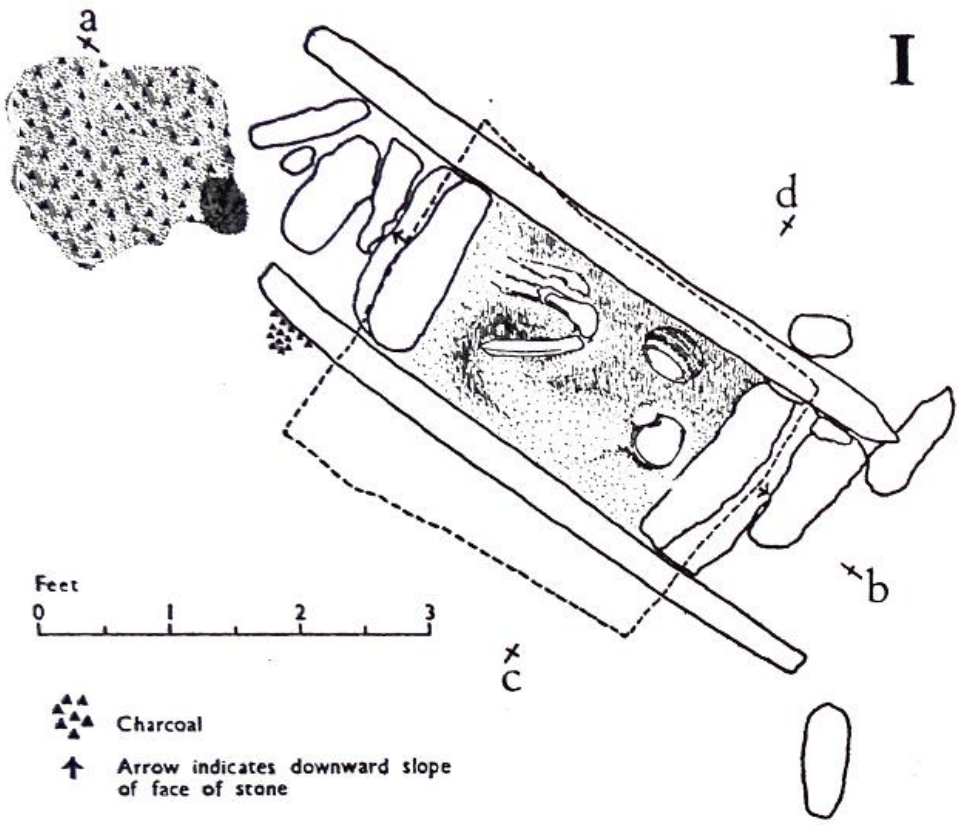


Figure 6-20: Illustration from the MNH archive for Killeaba showing the crouched inhumation from Cist I

The cist, I argue, enabled the containment of remains but also access to remains following deposition. This is not access in a similar way to that discussed for the Late Neolithic, rather, this is an access that requires labour; one must dig the earth up to find the cist. With the emergence of the practice of inverting an urn over remains, I suggest the remains became less accessible; this is perhaps indicative of a decreasing amount of contact with the deceased in the pit or cist. However, Brück (2008b; 2001) and Appleby (2013) have argued the other, unburied, remains may have continued to circulate within families.

As Appleby (2013) has suggested there is a change in how temporality, in relation to the body, is understood through the Bronze Age. This also applies to the Isle of Man, though for a different burial pattern. The implied frequent interactions with the deceased of the Ronaldsway Late Neolithic give way to less frequent interactions in the earlier Early Bronze Age and perhaps a cessation in the re-opening of burial deposits when the practice of inverting urns over remains within pits emerged in the later Early Bronze Age.

Grave goods (other than pottery)

Turning now to the material culture placed within the grave with the remains of the deceased: as discussed above, the inclusion of any material culture marks a difference from the practices of the Ronaldsway Late Neolithic. It is worth noting therefore that while there are many cases of burials with pottery vessels and other finds there are at least 37 cases, as shown in Figure 6-21, with which no finds are associated. Of course, some of these burials could be from other periods, falsely identified as Bronze Age. These burials without grave goods perhaps tell us something of the variety of practice from the Bronze Age: a burial with grave goods was not always appropriate. It is notable though that the cremation found next to the main Ballateare site was found without any grave goods and was deposited in a pit. These remains date to 2266-2027 cal BC (OxA-27188) placing them within the currency of Food Vessels in Ireland 2160-1930/20 cal BC (Brindley, 2007). This date for the cremation, with no associated grave goods, at Ballateare, is very similar to the Food Vessel dates from the island, for example the Cronk Aust Bowl 2280-2036 cal BC (OxA-27193) and Cottier's Field, Bishopscourt Farm 2336-2137cal BC (OxA-27192). This suggests that there was a period when both burials that would appear more like Irish Food Vessel burials, and unaccompanied cremations occurred at the same time. Given the issues with the location and recovery of Ronaldsway Late Neolithic remains discussed earlier, it is possible that similar cremation deposits of a Bronze Age date, in unmarked flat graves remain to be found. Bearing this in mind, the change from Ronaldsway Late Neolithic burial practices, to the traditions associated with Food Vessels, remains somewhat unclear.

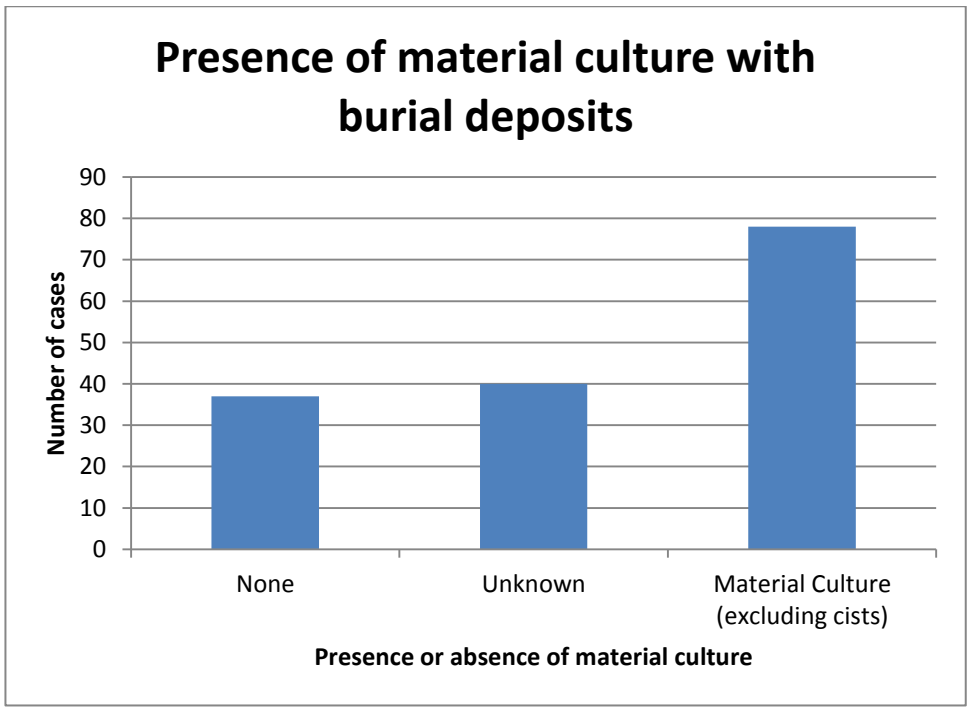


Figure 6-21: Presence of material culture with burial deposits – n= 155

It is worth noting two examples of somewhat unusual deposits. At Ballacannell a Food Vessel Bowl was discovered empty, resting on a slate, mouth-down, with a second slate above it. Woodcock (2001, appendix: 68) states that there is "no evidence to suggest that this vessel was associated with a burial". It is possible that the vessel may have once contained cremated remains that the acidic soil has long since destroyed. However, this appears as a very unusual deposit within the rest of the canon of known practices. A similarly unusual case was discovered at Lhergyvreck, Kirk Michael where a chance find during construction work in 1963 uncovered a mouth-up Food Vessel Vase (Woodcock, 2001, appendix: 72) (Figure 6-22). No other structure or funerary evidence was found in association with the Food Vessel Vase (Cubbon, 1978: 416-9). It is tempting in this case to wonder if the Food Vessel Vase was being deposited in a similar way to a Ronaldsway Earthfast Jar. In both cases it is possible that human remains could have been placed with the vessels that have not survived. However, one must also consider the possibility that both vessels were deposited apart from any burial practices, perhaps in a similar manner to the kinds of depositions discussed for axes of stone and bronze in Chapter 5.

Figure 6-22: Food Vessel Vase, Lherghvreck, Kirk Michael. Image MNH. Scale in cms.

Leaving aside the graves that contain no material culture, and the unusual depositions of two pottery vessels, some 63 out of 155 graves (less than half) contain a pottery vessel in most, though not all, cases accompanying the remains of a deceased person. Figure 6-23 shows the kinds of material culture associated with the 78 burials in which material culture was present. Due to the use of pottery vessels as a rough indicator of chronology we may subconsciously consider pottery to be the main kind of deposit in graves, however there are 15 cases of deposits where no pottery was included but some other form of material culture was (however four of these 15 deposits were associated only with charcoal, which arguably may have been part of the 'cremation deposit' itself and not really warrant an additional inclusion as a form of material culture). Other kinds of material culture found with burial deposits include beads, flints, quartz pebbles, plano-convex knives, bone needles, a bone disc, fragment of what was probably a bronze dagger, one case of a battle-axe and one reported case of a spear-head.

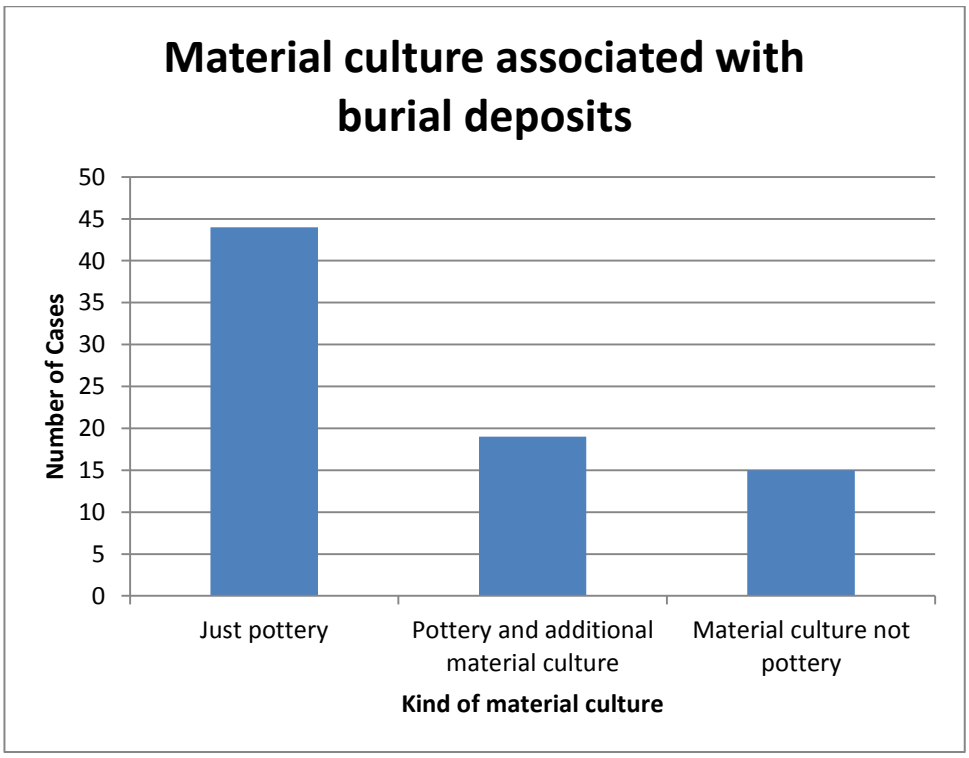


Figure 6-23: Material culture associated with burial deposits - n= 78

It is notable that there are only four burials that include beads. Of these burials none are certainly of jet; two bone beads were found with one cremation at The Cronk, Upper Lherghydhoo; two clay beads were associated with a second cremation at the same site (Figure 6-24); two shale beads were found in the main chamber at Ballaharra, these could date to either the Neolithic or the Early Bronze Age (Figure 6-25); and two disc beads of either jet or lignite were found at Ardwoaillach in association with cremated remains (Figure 6-26). It would seem that the deposition of beads on the island was limited. No spacer plates for example have been recovered and no amber finds are known. Given the presence of jet and amber in Ireland and southwest Scotland, it would seem unlikely that these materials never reached the island. Similarly there are no instances of gold known from graves on the Isle of Man; again, given the distribution of gold in Ireland, it is unlikely that the material never reached the island. Perhaps these materials were excluded from graves on the Isle of Man. I suggest that the amount of material culture found in graves from the Early Bronze Age is quite low. We do not see any 'rich' burials on island at all. I suggest that the deposition of material culture in graves on the island, given the earlier Ronaldsway Late Neolithic context, was never particularly prominent.

Figure 6-24: Finds from The Cronk, Upper Lherghydhoo – (left to right) bronze fragments, clay beads, bone beads, bone bodkin, bone needle.

Figure 6-25: Ballaharra, shale disc bead.

Figure 6-26: Ardwoaillach, jet or lignite disc beads

This is arguably further supported by the low number of bronze and flint knives found in graves. There are only three cases of flint knives recorded in association with burial deposits, all three are plano-convex, one was found in association with a child inhumation (East

Kimmeragh) and the other two accompanied burials where additional material culture had also accompanied the deposit (The Cronk, Upper Lherghydhoo and Staarvey) . As noted in Chapter 5 it is rare for metal to accompany burials. There is one case of a razor deposited at Port Y Shee; an alleged spearhead and dagger/razor reported and lost by the antiquarian excavator of the Peel Hill barrows; two small fragments of bronze from The Cronk, Upper Lherghydhoo (Figure 6-24) and one find of a fragmentary dagger from Ballakoig Brooghs (Figure 6-27). The Ballakoig Brooghs dagger has a very unclear association: it was excavated by antiquarians as it eroded from the cliffs in the area alongside two Collared Urns, a Food Vessel and bone needle. At Cronk Y Vowlan an antiquarian excavated a cremation and an adult molar found within a cist accompanied by a large urn which has since been lost and a large flint assemblage including a plano-convex knife scrapers, flakes, chips, cores and calcined flakes (Figure 6-28). Taking the evidence as a whole there is a low number of associations between blades and burials in the Early Bronze Age.

Figure 6-27: Finds from Ballakoig Brooghs. Bone needle, Collared Urn sherd, bronze fragments (left to right)

Figure 6-28: Cronk Y Vowlan flint work including arrowheads and a flint knife

Grave goods are known from less than half of the deposits discussed in this chapter, and do not have the variety of those known from the rest of Britain and Ireland: there are no gold grave goods, no amber goods and only limited cases of bronze, flint or jet/jet-like deposits. With the passage of time more grave goods are placed in graves, perhaps as the beliefs and relations that surrounded the exclusion of grave goods from earlier assemblages waned and deterritorialized.

Burial sites: case studies

In the closing sections of this chapter I want to present a number of sites as case studies that bring together a relational analysis of burial practices and the new radiocarbon dates. Each site is presented with some commentary on how they fit into the changing patterns and traditions of burial practice on the Isle of Man between 3000-1500 cal BC. The brief descriptions are followed by a longer discussion of Killeaba. Figure 6-29 shows the locations of all the sites discussed in the rest of this chapter.

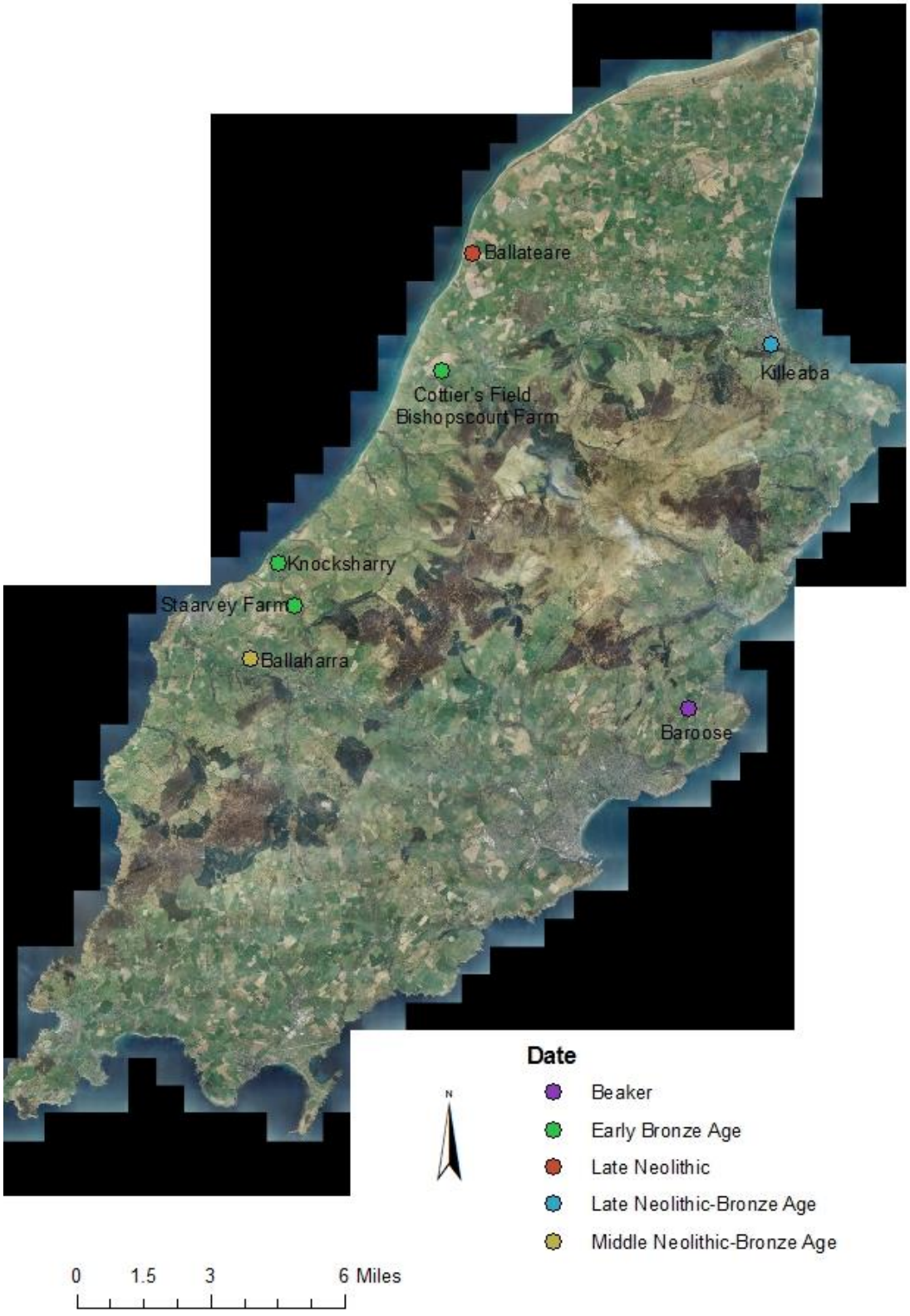


Figure 6-29: Map of the sites discussed in the remainder of this chapter.

Late Neolithic – continuing relations at Ballateare

Ballateare, introduced in Chapter 3, is the best preserved and understood Ronaldsway Late Neolithic burial site on the Isle of Man. Figure 6-29 shows the location of the site on the northwest coast of the island with commanding coastal views. As discussed in Chapter 3, Bersu found an area of postholes and Earthfast Jars as well as six cremation deposits. In addition, numerous hollows up to 60cm deep and often 1-2m wide filled with a single deposit of brown sand and humus with a small number of charcoal flakes, worked flints and cremated bone fragments were also uncovered (Bersu, 1947: 163). Furthermore, as mentioned above, *ustrinae* were located on the site – the two excavated examples contained layers of white and brown sand with sooty earth and red ash layers intercutting the sand deposits; cremated bone was found in the charcoal and ash layers (Bersu, 1947: 163). The postholes, cylindrical and packed with stones, show some evidence of re-cutting and some of them post-date some of the hollow features, suggesting they were a later addition to an already established site. Figure 6-30 shows the plan of the site adapted from the original by Bersu.

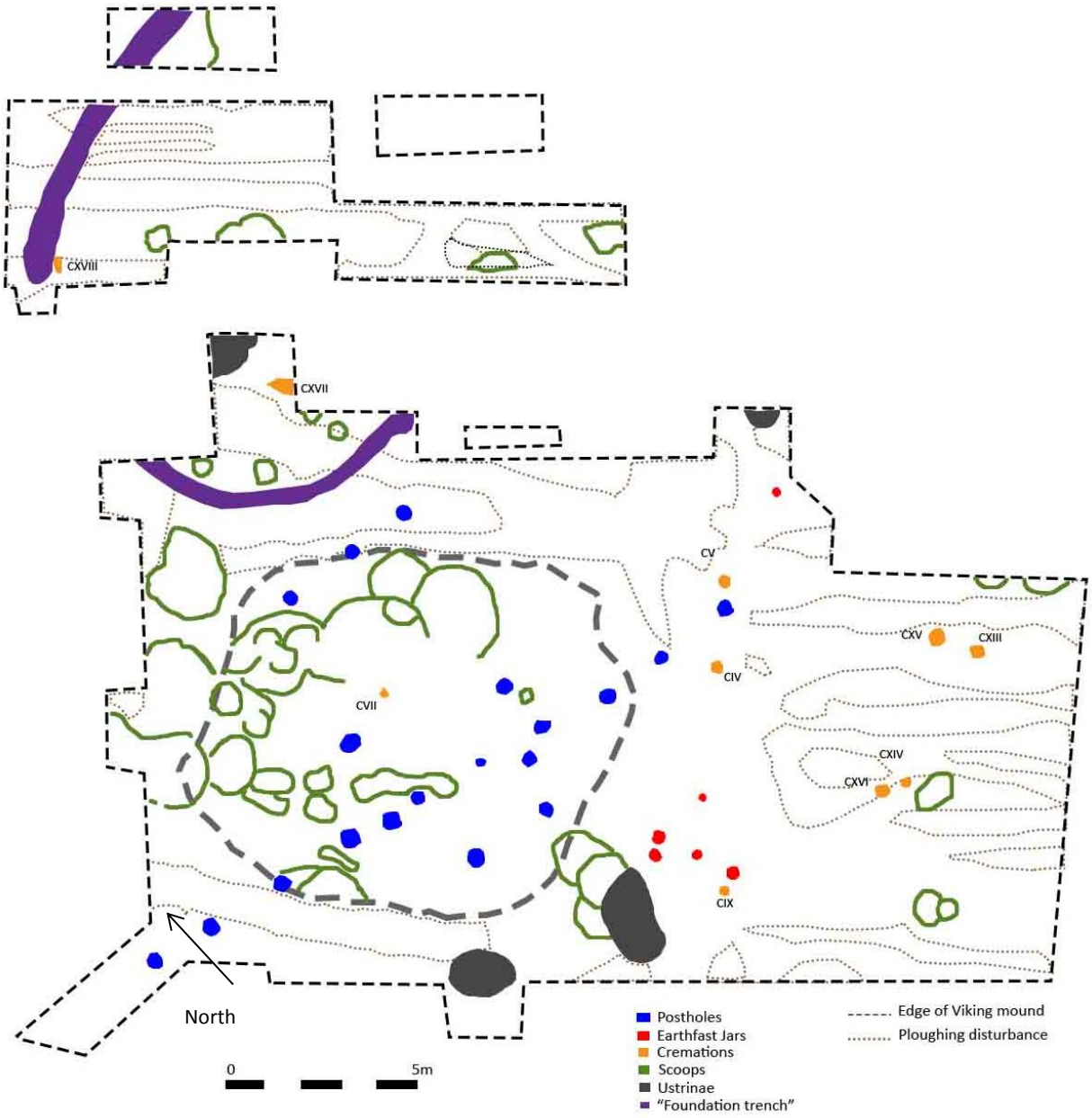


Figure 6-30: Plan of Ballateare, based on Bersu (1947: 162, fig 1)

At Ballateare the deposits of cremations are at the same depth as the Earthfast Jar deposits and are thus presumed to be contemporary, the radiocarbon dates for the site confirm their likely contemporaneity. Cremation deposits within small pits are present alongside the jars and the discovery of a cremation within a jar (as well as those from other sites discussed above) suggests that some remains were deposited within jars for at least some length of time. In addition, evidence of cremated remains was uncovered within scoops and the *ustrinae*

deposits. There appear to be several potential appropriate resting places for the deceased at Ballateare, within scoops, within *ustrinae*, within Earthfast Jars and within discrete deposits in pits held within organic containers. This variety could represent change over time, or that different practices were appropriate for different people. However, I want to explore how we might interpret the site if we suggest that these rites were relatively contemporaneous.

Bersu (1947: 169) interprets the jars at the site as potentially used to contain offerings to the dead and seasonal offerings in the cemetery, suggesting that the removable lid allowed the changing of offerings. I add to this the possibility that some of the jars were used to contain cremated remains, perhaps permanently, but more likely, on a temporary basis. I suggest that Ballateare was not just a burial site but the site of much funerary activity and continuing relations with the deceased. The *ustrinae* appear to represent the site of the cremation pyre. Bodies may have been brought whole and intact but perhaps they came to the site following breaking up of limbs, or excarnation or mummification: these unseen options remain numerous. These remains may have then been curated, circulated, and moved into Earthfast Jars, perhaps some remains left the site permanently and others might have left temporarily to be deposited elsewhere before returning to the site for a more permanent deposition within an organic bag in a pit. Communities may have returned to reflect on those who had passed away, to add offerings to the Earthfast Jars, or to place cremated remains in an Earthfast Jar, or to remove the cremated remains of a loved one from within a jar. This is a site where the assemblage of relations between living and dead is enacted, extended and continued following death. People who were once perhaps care-givers with social obligations now have to be cared for in their new material form by the living.

The radiocarbon dating of cremation CXVIII to 2206-2027 cal BC (OxA-27188) confirms what Bersu (1947: 168) suggested when he excavated the site, that the “foundation trench” (the ditch feature to the northeast of the site), is later than the cemetery area. The ditch did not remain open long, its steep sides filled with loose sand and contained no evidence of habitation. The deposit of cremated remains around 2206-2027 cal BC (OxA-27188), during the currency of Food Vessels on the island, suggests the site may have remained part of community knowledge at this date, one might suggest that as burial practices were gradually changing there were some people for whom a burial near the site of Ballateare was appropriate and important.

It is also of interest that Cremation I, the deposit found within an Earthfast Jar, containing the bone pin-head, cremated remains, broken knife blade and the miniature vessel was found broken, the top half of the jar lay horizontally, the middle section was missing and the lower section was discovered in situ containing the remains and finds. Cremated bones appear to have spilt out of the Earthfast Jar and into a pit area next to the jar, presumably when the jar was broken. The slate lid for the jar was also found nearby in this pit. It is possible that the Viking community that created the mound overlying the site stumbled across these old remains and levelled the jar. However, the jar could also have been levelled in prehistory, perhaps by those returning to the site after the decline in Ronaldsway Late Neolithic practices, destroying this burial in light of their new traditions.

Baroose Beaker – relations across the sea?

As discussed in Chapter 3, Quine (1925) details the discovery of the only complete Beaker vessel and the only Beaker burial known from the Isle of Man. This single Beaker burial raises more questions than it answers. Was the burial an inhumation or does the charcoal hint at a possible cremation? Was the individual part of the community on the Isle of Man or were they from elsewhere? Was it perhaps someone from the island who had seen Beaker burials take place while travelling? This is certainly not a 'rich' Beaker burial, the grave goods are limited and consist only of flint and charcoal. It is incredibly hard to interpret a single burial, however, in light of the evidence of Beaker sherds found on settlement sites (see Chapters 3 and 7) one has to conclude that Beaker pottery was known and used by communities on the Isle of Man, but perhaps similarly to Ireland; it was never a kind of burial that had an impact on the island. The issue of Beaker relations will be returned to in Chapter 8.

Earlier Early Bronze Age – Cottier's Field, Bishopscourt Farm

Whilst Beaker burials failed to impact on the Isle of Man, Food Vessels appear to have emerged as a popular burial accompaniment with the adoption of burial practices also common in Ireland. This is evidence of on-going relations with Ireland and Irish traditions. At several sites across the island Food Vessels were deposited, indicating a break from the

Ronaldsway Late Neolithic burial traditions. However it is worth noting that these represent only the most visibly different burials (consider the Early Bronze Age date from Ballateare). The discussion of Early Bronze Age burials above highlighted the number of burial deposits for which there are few finds to enable dating of remains.

At Cottier's Field, Bishopscourt Farm, the radiocarbon dates, 2336-2137 cal BC (OxA-27192) associated with a cremation, and 2131-1695 cal BC (Gu-2698) associated with an inhumation, could support a two phase interpretation of the site. First, a cist was built and lined with clay, to contain a deposit of cremated remains with a Food Vessel Bowl. Sometime later a second cist was built to receive an un-burnt body and a Food Vessel Bowl. The deceased was placed on their right hand side, with their skull in the northeast corner of the cist. A low sand mound of roughly horizontal bands of sand and gravel was built up around this cist (Woodcock, 1999: 99); the excavation notes make it unclear whether this second cist was inserted into the mound or the mound was built around the cist. This appears to be one of the earliest known breaks from Ronaldsway Late Neolithic tradition; the building of a cist would have been novel, as would the construction of a mound. However the use of cremation, and the later addition of a second cist, would in many ways seem familiar to a community well used to returning to, and making changes at, burial sites. Woodcock (1999: 106-7) has commented on the pottery vessels suggesting that "…despite the slight difference in size and form, the two bowls are remarkably similar… the similarities between the two Food Vessels are so marked that they make it extremely likely that they were made by the same potter, which suggest that both cist burials are contemporary…" (Figure 6-31). One could speculate that the Bowl was perhaps added to the first cist at the time of the construction of the second cist. The radiocarbon dates suggest there may have been a gap between the two deposits; we are left to assume that this gap was not sizeable, perhaps only a few years. During the excavation of Cist B a scatter of charcoal and bone fragments was uncovered that may indicate there were further deposits within the mound.

Figure 6-31: Photograph of the two Food Vessels taken following excavation, from MNH Cottiers Field, Bishopscourt Farm excavation archive. The smaller vessel, on the right hand side is from Cist A associated with the cremation. The larger vessel, on the left hand side, is from Cist B associated with the inhumation deposit.

Ballaharra – continuing relations; unusual deposits; changing beliefs?

Ballaharra, is a difficult site to interpret due to the nature of the excavation, the type of recording implemented on site and the removal of the remains from the site to the Duckworth Laboratory in Cambridge. Excavated by Sheila Cregeen the site has been re-considered by David Higgins and Peter Davey in a forthcoming paper. The interpretation and discussions offered here are based on this forthcoming paper which draws heavily on the Sheila Cregeen archive deposited at Manx National Heritage. As discussed in Chapter 3, the chambered tomb at Ballaharra dates to the Early-Middle Neolithic and was dug into the sandy hillside at the time of construction. Orientated approximately north-south it contained a number of deposits, including un-burnt human bone fragments, a layer of burnt material including fragments of Early-Middle Neolithic pottery and more fragments of human bone, a dark ashy deposit with more pottery sherds and a stony layer. Within these Middle Neolithic deposits hazelnut shells, flints, knapping debris and pot sherds were found. Within the chamber, in addition to these Early-Middle Neolithic deposits, the remains of a Food Vessel Bowl and a possible sherd of Beaker pottery were also discovered. This has been used to suggest that Early Bronze Age burials were inserted into the main chamber of the tomb itself.

The excavation also uncovered cremation deposits outside of the main tomb, a number of channels, and burnt deposits. The largest deposit is Cremation1, located outside of the tomb and to the east, this deposit consist of at least 34, and possibly as many as 40, individuals, cremated and placed within a single deposit; in addition a tooth from a sheep or goat, a dog tibia and a bird bone were found within the deposit, as well as a flint flake, four kite-shaped arrowheads and a sherd of pottery. Two radiocarbon dates of 3010-2581 cal BC (BM-768) and 3010-2622 cal BC (BM-769) from charcoal within the cremation deposit suggest that this is a Ronaldsway Late Neolithic deposit. Higgins and Davey (forthcoming) suggest the deposit may be the result of the collection and re-deposition of accumulated remains perhaps from within the main chamber suggesting the remains may have been cremated on site prior to deposition. Higgins and Davey tentatively suggest that the disturbance to the chamber and the small number of bones from within may well be part of the changing beliefs at the start of the Bronze Age as the act which created this communal deposit may have been one of "re-consecration". This is something I feel the presence of the Food Vessel and possible Beaker sherd from within the chamber may hint at. A second collective cremation deposit was also found outside of the chamber which is thought to represent at least three adult females and possibly two young children as well as two dog bones and another small animal bone.

Higgins and Davey (forthcoming) suggest that in addition to the Food Vessel Bowl there is other evidence of Bronze Age burial at the site. A cist thought to date to the Early Bronze Age was disturbed by quarrying however, no details are available for this deposit as it was discarded before excavation began. Furthermore, two fragments from a Collared Urn were recovered from the quarry face. In addition there is a deposit of an undated inhumation made up of three different individuals, a fully adult male, a youth, possibly male and a child of around 10-12 years. The remains were organised so as to appear to the excavators initially as a single inhumation. The two jet disc beads, discussed above (Figure 6-25), were also found with this unusual deposit. Finally, two inhumations of babies, either foetal or new-born were recovered in a sandy layer with two dispersed sherds of Food Vessel Bowl that are believed to date to the Bronze Age.

The site has a complex history, and interpretation has been hindered by the recording and excavation conditions. The chambered tomb obviously remained a potent and important

actant well beyond the start of the Ronaldsway Late Neolithic. The communal cremation deposit may well hint at the potential for other cremated remains from the period to contain multiple individuals. Furthermore, the potential that this deposit represents the actions of those in a changing world of beliefs leaves much to the imagination. The site appears to have attracted deposits and perhaps offerings that broke with the norms. The deposition of foetal remains at the site is perhaps unsurprising, Ballaharra was clearly a site that remained potent, with a power that required later deposits. The highly unusual deposition of three individuals laid out as a single body could be interpreted in a myriad of ways (see Fowler, 2001). Alongside these deposits, the presence of the cist and the Collared Urn suggest that more 'usual' deposits were also made at this site, perhaps following a 're-consecration' of the site changing its status from one associated with Middle Neolithic practices to one with Early Bronze Age associations (see Higgins and Davey, forthcoming).

Later Early Bronze Age – Staarvey Farm - similar relations or changed relations?

As the Early Bronze Age continued, cremated remains were frequently placed under inverted urns. These urns, larger than the earlier Food Vessels, acted as a container for the cremated remains and eventually replaced the use of cists. At Staarvey Farm a single cist was uncovered containing two Collared Urns both inverted over cremated remains. The first Collared Urn was surrounded by a ring of nine stones, eight of which were quartzite. Cremated bone from this urn appears to have been scattered through the cist when the second Collared Urn inverted over a cremation was added. By this time, the pottery vessel placed in the grave and the function of that pottery vessel has changed, but it still appears that cremation deposits could be disturbed after their initial deposition. The ideas that surrounded these continuing interactions with the deceased would have changed from those prevalent in the earlier Early Bronze Age at sites like Cottier's Field, Bishopscourt Farm, and are clearly different from those I have speculated about for the Ronaldsway Late Neolithic, however, the tradition of continuing relations and interactions with the deceased following burial appears to continue.

Knocksharry – tracing relations and interpretations

Knocksharry has traditionally been ascribed to the Ronaldsway Late Neolithic, as discussed in Chapter 3, and at the opening of this chapter. However, the new radiocarbon dates indicate both a later re-use of the site (1524-1632 cal AD (OxA-27057)) and an Early Bronze Age element (1940-1755 cal BC (OxA-27191)). The site produced disarticulated, unburnt human remains, including a skull, mandible and pair of legs, found approximately 30cm below the surface. The radiocarbon date taken from a leg bone fragment indicates the un-burnt remains date to 1524-1632 cal AD (OxA-270507). It was noted during the excavation that there appeared to have been some disturbance to the area (Cubbon, 1932: 447). Whether the skull and mandible also date to this later disturbance to the site remains unknown.

The site also produced numerous cremated remains from two separate areas cut into the natural gravel mound. The cremated remains were not effectively labelled to indicate where they came from within the site. As such, the Early Bronze Age date associated with cremated remains could also be accompanied by cremated remains from the Ronaldsway Late Neolithic. In Burial Area A a flat area composed of water-worn stones and compressed earth was uncovered; this 'platform' was covered by "…a considerable layer of fine earth which seemed to contain ashes of burnt material, with many fragments of incinerated human bones" (Cubbon, 1932: 448). Whether the soil was also burnt is not noted, so it remains unclear if this is a cremation pyre site or a platform onto which cremated remains were deposited. In this same area, on a slightly raised bank of earth and stones, Cinerary Urn A was found inverted on a platform over cremated remains, placed on top of a small slate slab surrounded by five pebbles and numerous round white stones. Nearby finds of a rim sherd with irregular dots and another cinerary urn with a chevron pattern were made. Between these two vessels (about 1.22m apart) a large amount of knapped quartz was scattered and the soil was free from burnt material.

In Burial Area B an 'incineration platform' was found covered with "…burnt ashes, wood carbon and fragments of incinerated human bones" (Cubbon, 1932: 448) (Figure 6-32). This was probably the remains of a pyre. The report suggests the 'covering soil' for this platform went down some 0.76m. The area is also noted to have been covered by "…scores of small pieces of quartz of a different character to the spar-like pieces found in Burial Area A" (Cubbon, 1932: 449).

Figure 6-32: Photo of the "incineration platform" from Knocksharry, taken from Cubbon (1932: fig 4, p451)

Cubbon (1932: 447) notes that 50 sherds of a dark black, "…thinner pottery" belonging to a different vessel were uncovered. This vessel is suggested to have had a rim with vertical and horizontal lines with small dots above and below these lines. Figure 6-33 shows Burrow's illustrations which do not show such a design. Whether these sherds were lost or poorly described by Cubbon remains unknown. However, the smaller thickness of the sherds could be indicative of a later insertion into the mound, perhaps in association with the Early Bronze Age cremated remains, however this remains speculation.

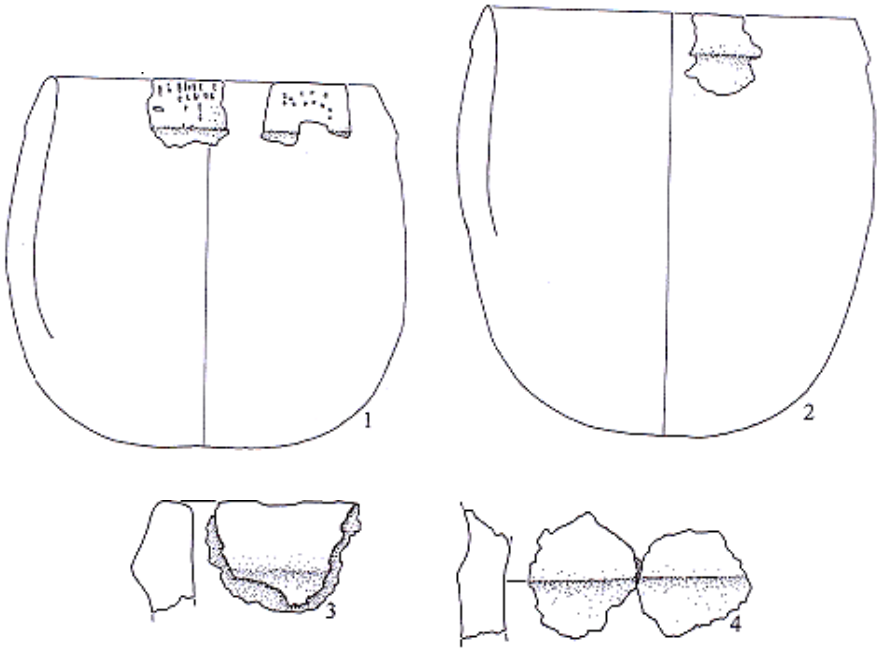


Figure 6-33: X Illustrations of four vessels from Knocksharry without the reconstructed material. Taken from Burrow (1997b: 108-9, fig A2:51-2)).

Research in the catalogue at the Manx Museum revealed several records associated with pottery from the site. It has not been possible to determine which of the vessels from the site relate to Cubbon's vessels Cinerary Urns A and B, or to which of the reconstructed vessels pictured in the original article (Figure 6-34). Furthermore, research revealed a vessel (1983-0211) described as a "Bronze Age Cordoned burial urn fragments, partly made up by Miss Lily Joughin and thus possibly from Knocksharry". This urn was listed in the accessions in 1983, whereas the rest of the pottery was accessioned in 1954. One wonders whether this vessel could be associated with the Early Bronze Age date from the cremated remains.

Figure 6-34: Reconstructed vessels as depicted in the original article on Knocksharry from Cubbon (1933: fig 5, p453)

I want to suggest that there are several very different phases of activity at Knocksharry. Figure 6-35 shows the original plan of the site to which I have added the areas and finds discussed by Cubbon (1932). In the paper Cubbon details where all the finds were made on the site but does not draw them on the site plan. His location descriptions place the cremation platforms and burial areas along the north-south axis of the site but not the east-west axis, so I have had to assume in the plan that these features cover the full width of the trench he opened. Figure 6-35 shows that there are several areas of activity. I suggest there is evidence of activity from the Late Neolithic, Early Bronze Age and from 1500s-1600s AD. The unlabelled cremated remains mean that resolving the exact sequence of the site any further remains impossible. Whether both 'burial areas' date to the Ronaldsway Late Neolithic remains unknown. The poor labelling of the pottery vessels means that working out which vessel was inverted over the cremated remains is not possible. Whether this was one remarkable and different Ronaldsway Late Neolithic burial where the Earthfast Jar was inverted over the remains, or whether this was an Early Bronze Age burial under a Cordoned Urn is unclear.

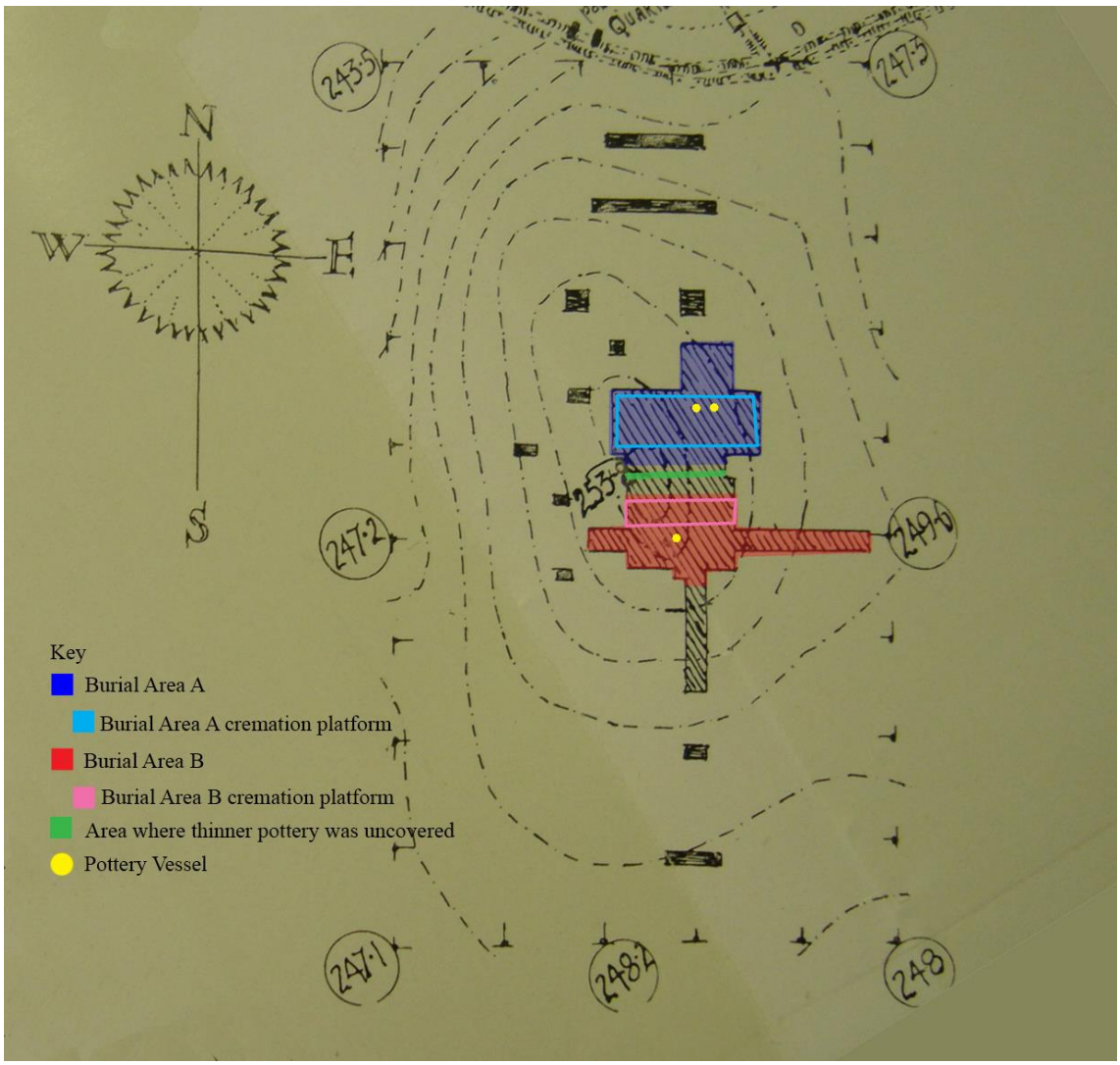


Figure 6-35: Plan to Knocksharry indicating different burial areas. Based on Cubbon (1932: fig 1)

Killeaba – continuing relations, changing relations and the passage of time

Killeaba has evidence of activity from the Middle Neolithic to the Early Bronze Age. As a site it appears to have been re-visited and to have, at times at least, been an important place for communities on the Isle of Man from around 3000 cal BC until around 1500 cal BC. Figure 6-36 shows the sequence for the site that I suggest, following the new radiocarbon dates, drawing on existing dates and the few stratigraphic relations that were established on the site. The events on site are broken down into four phases (though in the case of the earlier and later Bronze Age there is a possibility that some of the events could be placed in either phase).

Deposits in red shaded boxes are those for which the dating is least certain. Vertical lines, connecting deposits indicated a stratigraphic relationship. Following this sequence I have created 4 phased site plans to show the chronological development of the site (Figure 6-37, Figure 6-38, Figure 6-39, Figure 6-40). These illustrations are all based on the original published site plan (Cubbon, 1976: 72, figure 2).

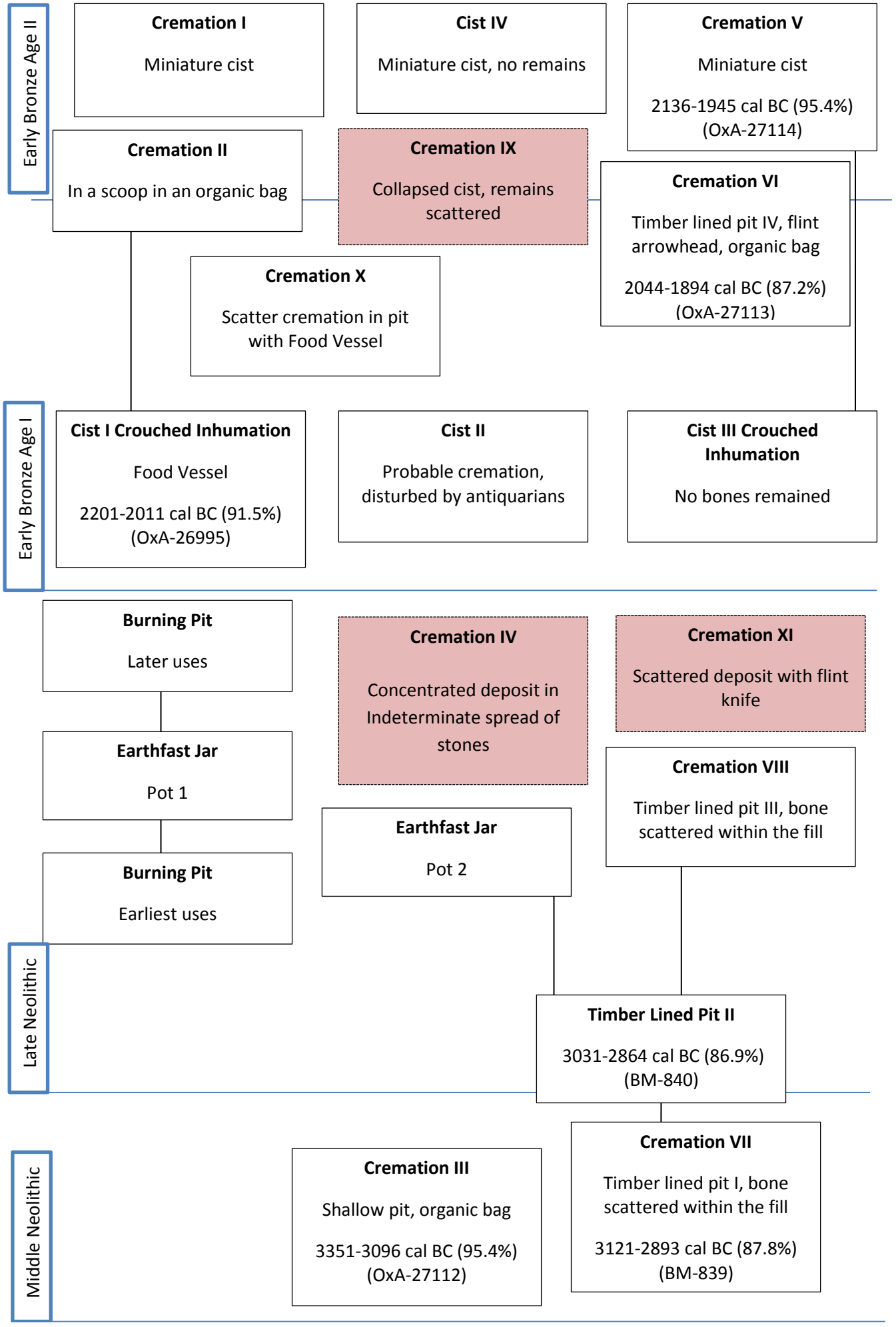


Figure 6-36: New phasing for Killeaba

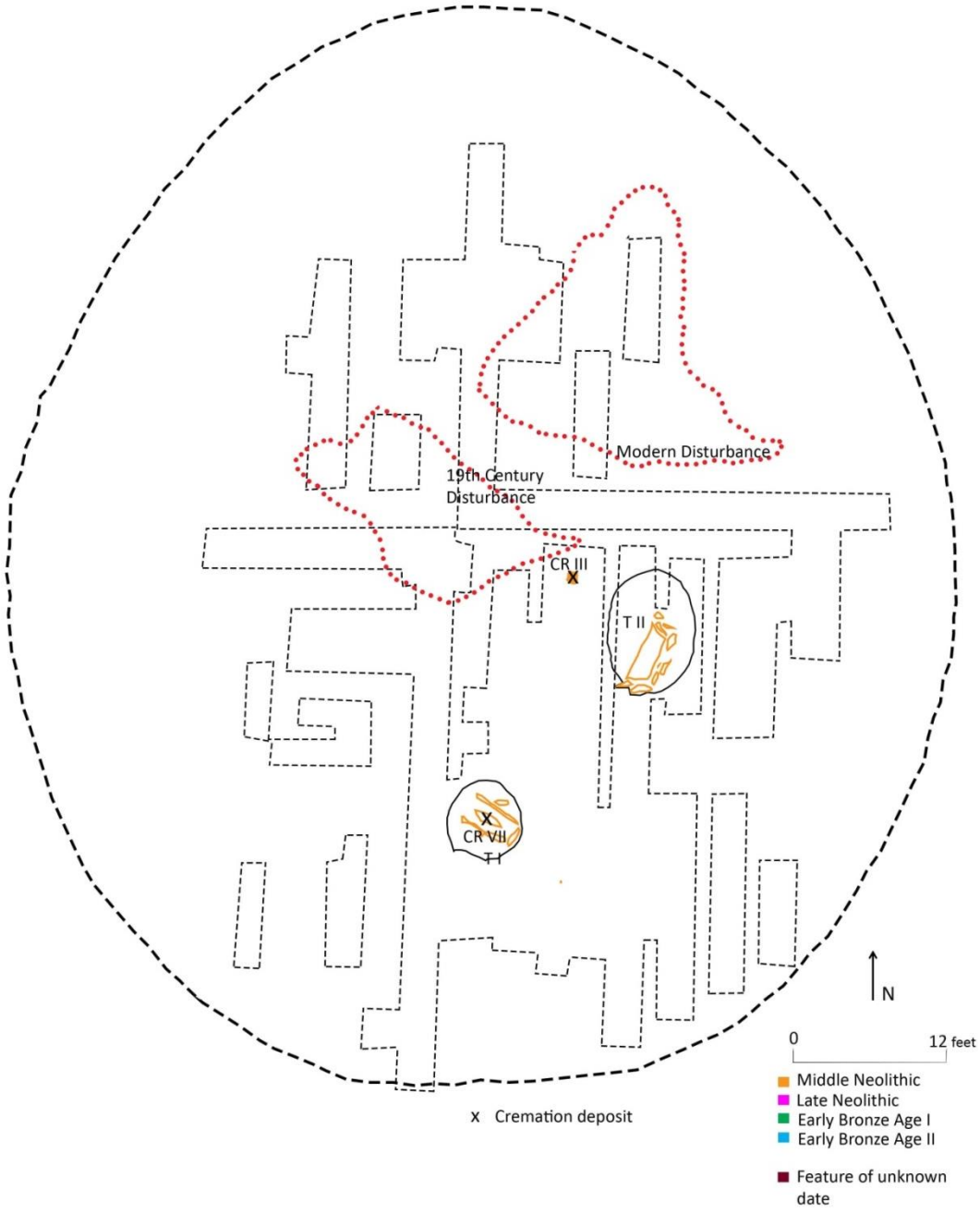


Figure 6-37: Killeaba Middle Neolithic activity

Two

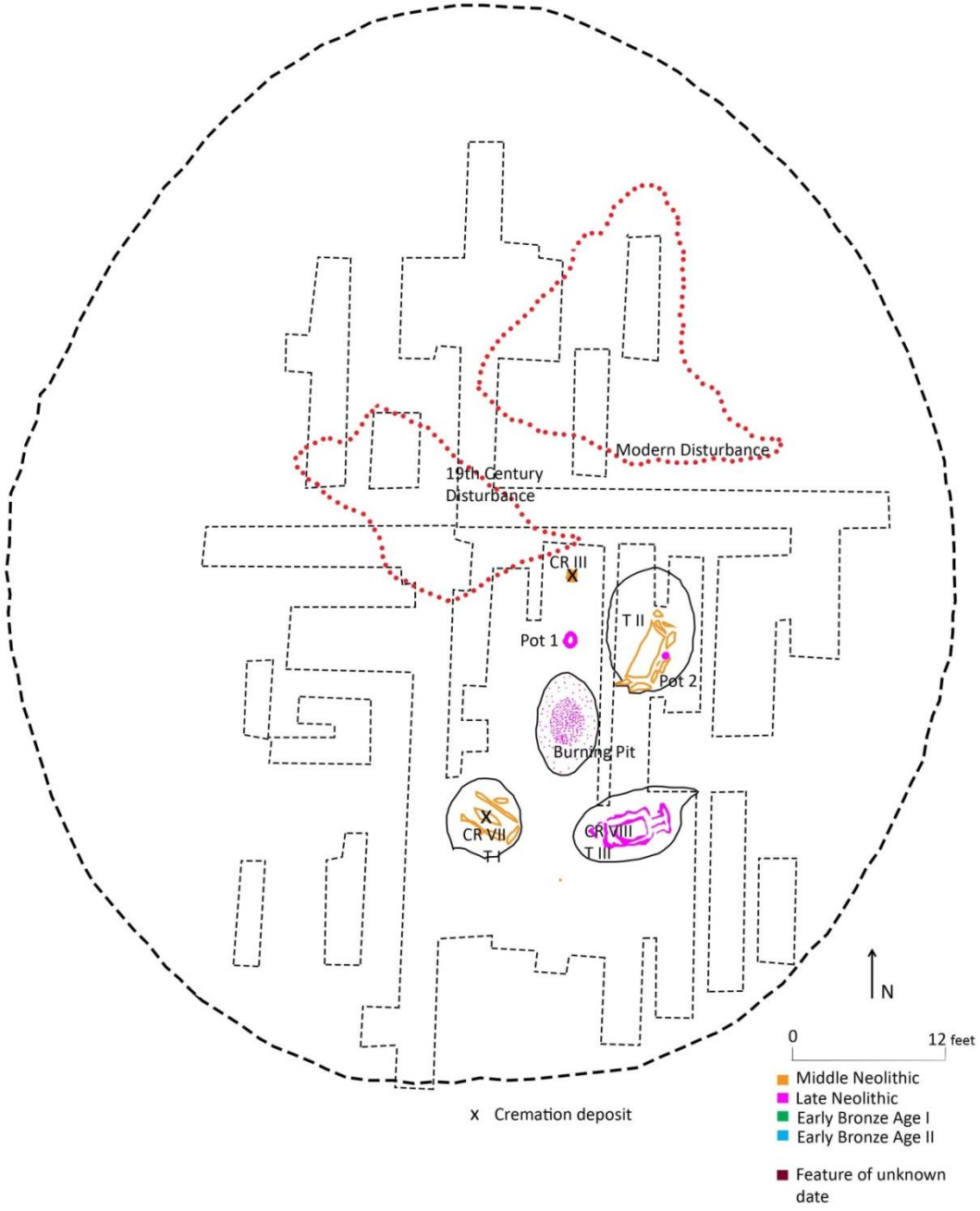


Figure 6-38: ***Killeaba Middle and Late Neolithic activity***

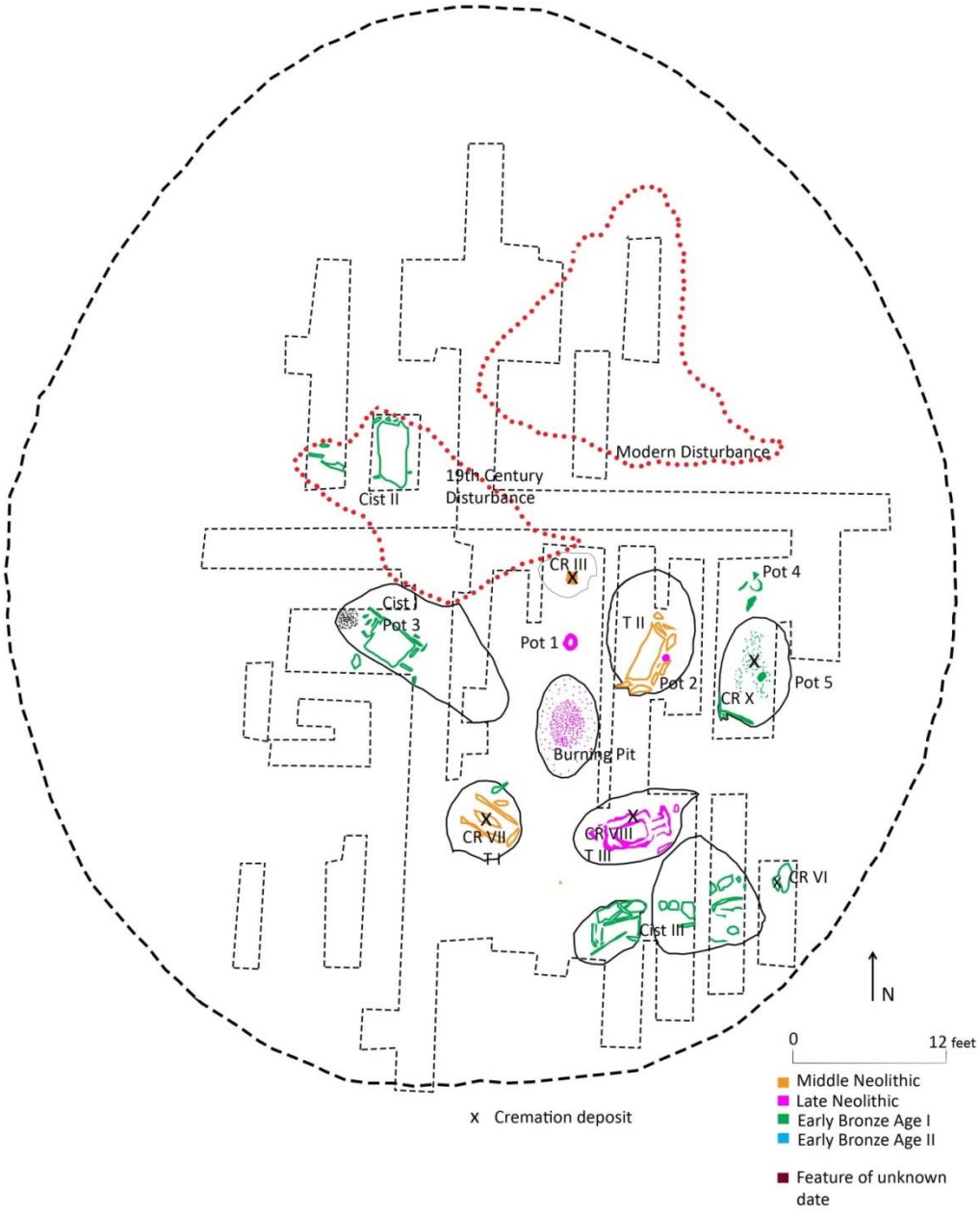


Figure 6-39: ***Killeaba Middle Neolithic, Late Neolithic and Early Bronze Age 1 activity***

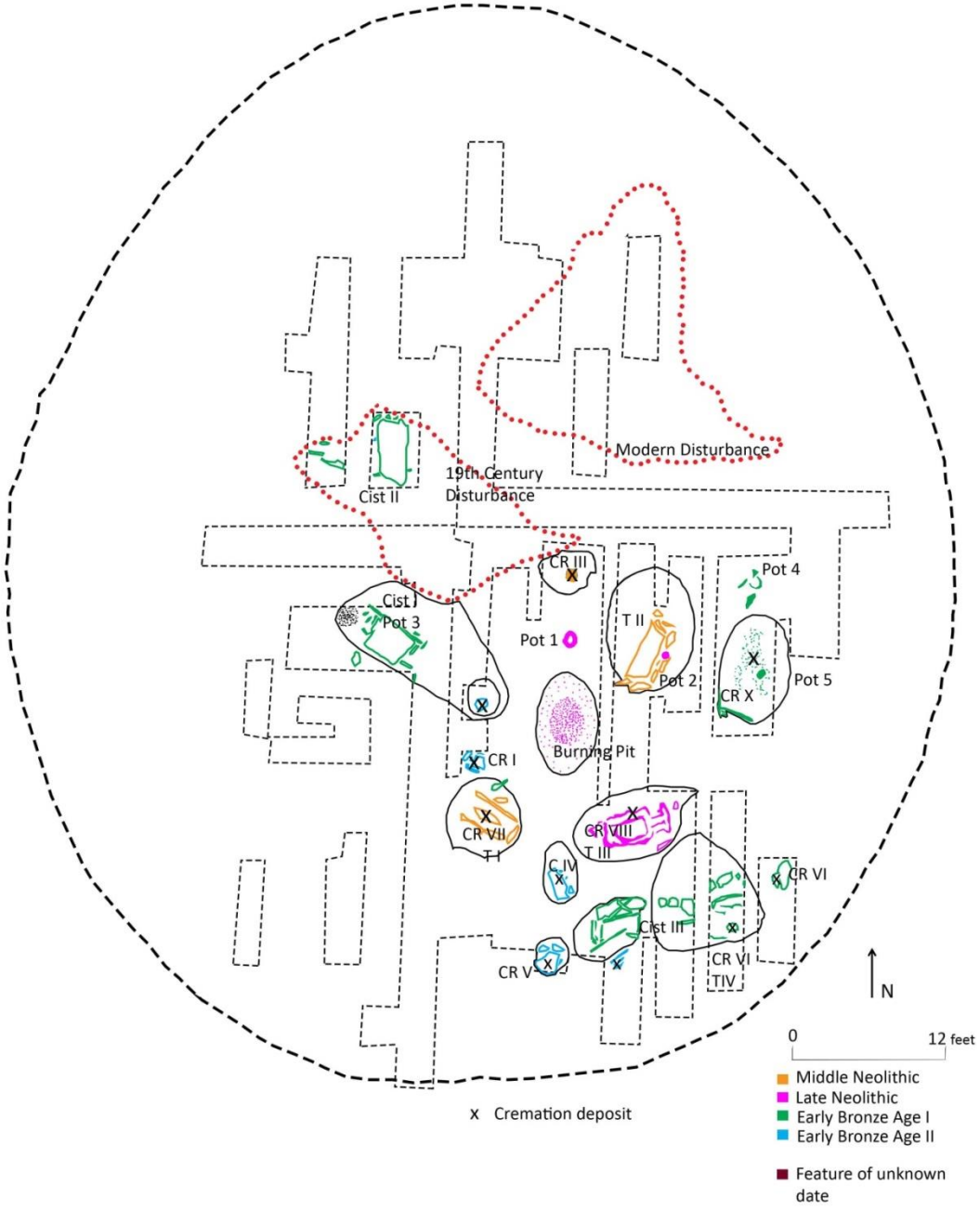


Figure 6-40: ***Killeaba Middle Neolithic, Late Neolithic, Early Bronze Age 1 and Early Bronze Age 2 Activity***

Following the sequence described above it appears that the natural glacial mound first attracted deposits of cremated remains in the Middle Neolithic, commanding views to the north over the glacial plains of the island and over Ramsey Bay. Radiocarbon dates indicate the first deposit at the site was a cremation 3351-3096 cal BC (OxA-27112) probably in an organic bag placed within a shallow pit, followed by a cremation placed in a timber-lined pit with the bone scattered throughout the pit. This tradition of burying cremated remains appears to have

continued into the very beginning of the Ronaldsway Late Neolithic with the placement of a third cremation at the site, again within a timber lined pit.

Two Earthfast Jars were buried at the site and a 'burning pit' presumed to have been used for cremations is dug into the earth. One presumes that Ronaldsway Late Neolithic communities brought their deceased to the site and that some members of the community were cremated at the site. Offerings and perhaps cremated remains were placed in the Earthfast Jars and presumably removed, things were brought into the meshwork of related actants at the site and then perhaps taken elsewhere spreading the 'impact' and 'affect' of the site beyond its geographical location. Cremation IV and XI may well date to this period. This suggests that during the Ronaldsway Late Neolithic people visited the site to carry out cremations, to carry Earthfast Jar practices and to bury some deposits of cremated remains.

At the outset of the Early Bronze Age Killeaba was an appropriate site to deposit an inhumation with a Food Vessel. This deposit marked a clear break with the earlier traditions: the use of a cist, the burial of an inhumation, the deposition of a pottery vessel - all evidence changes in beliefs and practices. In this period of varied practice one wonders whether these different kinds of burials existed in a harmonious assemblage of relations or whether each new deposit sought to replace earlier ones as the 'correct' mode of burial. Were some forms of burial deemed appropriate for certain people and not for others? Were all these different people brought together at this site as a result of connections lived out in life or were they disconnected or perhaps rival groups and communities? Were people aware of the locations of all the other burials or did the digging of a pit for a burial or cist accidentally stumble upon other bodies? Ideas about interacting with the dead are clearly markedly changed in the case of inhumations, these cists may have been opened to view the body but they are unlikely to have been opened to disturb or move the deposits, rather the bodies remained intact gradually changing in relation to their surroundings. However, the deposits of cremations in pits and timber-lined pits could well have provoked the continuation of relations. This is not the same kind of interaction as seen in the Ronaldsway Late Neolithic though, when the option to periodically but perhaps frequently return to a site existed in the form of the two Earthfast Jars. However, if Cremations IV and XI do date to the Ronaldsway Late Neolithic then perhaps there were deposits that were no longer interacted with or deposits where interaction required the physical act of digging into the earth and disturbing the soil. There is no evidence of cremation pyres from the Early Bronze Age - suggesting that rather than burning the

deceased at the site perhaps they were brought to the site already cremated. If so, the nature of cremation rites has changed since the Late Neolithic (however, ephemeral deposits of pyre debris could have been easily disturbed by later activity at the site).

Through the Early Bronze Age cists continued in use, though their size decreased as they were required only to contain a cremation. However, also dating to the later Early Bronze Age, is a burial, probably in an organic bag, within a timber-lined pit: 2044-1894 cal BC (OxA-274113, 87.2% probability). This not only indicated a variety of practice but also that some traditions did not go away. It would seem that deposits of Collared and Cordoned Urns were never appropriate at this site, nor was the deposition of large amounts of material culture. The date for Cremation V from a miniature cist suggests that activity at the site could have ceased as early as 2136-1945 cal BC (OxA-27114). Perhaps the dense assemblage of actants and varied beliefs gave the site too much potency to be appropriate for further deposits. The southeast quadrant of the site in particular, is notably 'full' of deposits. Actants like the availability of soil, the density of beliefs associated with the site, the strangeness of some of the deposits stumbled upon when digging holes to receive new cremations may have combined to make the site an uncomfortable place, a place no longer required, or appropriate for more deposits. Equally, perhaps it was a special place, a place visited, but within which no trace of activity was to be left; plants were left to grow and change the nature of the site.

Conclusion

In this chapter I have sought to explore burial practices from a relational approach and consider how they changed from the Ronaldsway Late Neolithic through the Early Bronze Age. There are clear patterns that emerge, the dominance of cremation in the Ronaldsway Late Neolithic gives way to mixed practices in the earlier Early Bronze Age before cremation once again comes to dominate. However, I have been keen to highlight that cremation at 3000 cal BC is not the same as at 1500 cal BC. It appears that through time the amount of interaction that people had with the deceased decreased and changed in temporality. I have sought to show that the changing relational assemblage of materials involved in grave deposits allowed this to emerge; arguing that Earthfast Jars promote more frequent interaction, whereas cists and pits require more labour to open and that eventually deposits of inverted urns were far harder to continue to interact with.

I highlighted the lack of material culture involved in Ronaldsway Late Neolithic burials, with the main material presence coming in the form of natural containers and containers that mirrored and mimicked the earth. With the emergence of Food Vessel associated practices I have argued that whilst grave good deposits did occur, they were not necessarily frequent and often limited. Despite these patterns that I have helped emerge, I want to also emphasise the number of burials that are un-dated, or without grave goods, that could date to any period. The burials frequently referred to as 'unknowns' in this chapter, could when dated (as with Bishops Demesne), disrupt the pattern showing even more varied practices were common than we thought.

I argue that what emerges from the mortuary record of the period is a sense of constant and gradual change – especially during the Early Bronze Age. During the Ronaldsway Late Neolithic we witness burials of cremated remains in pits, with no associated material culture but that were perhaps part of a larger burial site where Ronaldsway Earthfast Jars were also buried and practices associated with these vessels occurred. By the end of the Early Bronze Age some burials of cremated remains were under inverted pottery vessels, in a pit under a mound. The two appear quite different yet the transition is born out in a series of small and gradual transformations. The amount of interaction with the deceased changes in gradual steps, from Ronaldsway Earthfast Jars, to cists that are re-opened, to cremations under vessels where disturbance is awkward, it scatters the remains, but the addition of further burials at the same site is common. The change in pottery, and its role in mortuary deposits, from the Ronaldsway Late Neolithic to the Early Bronze Age is marked. The change from coarse grained, roughly made, barely decorated, large vessels that resemble the earth to small, finely crafted vessels with decoration is a clear one. When this transition occurred exactly is unclear as the calibration curve for the Late Neolithic and the current dates for the Ronaldsway Late Neolithic make any internal chronological resolution difficult. What we do know is that the assemblage at Ballateare is very different to that at Cronk Aust. However the changes that take us from Food Vessel burials to Cordoned and Collared Urn burials are more gradual: small constant changes in a relational assemblage can be observed. The typology and chronology of Early Bronze Age pottery types have been established (see Chapter 2). These changes in pottery form, I argue, relate to burial practices more widely. The vibrant matter of cremated remains, and beliefs surrounding them, required a container; initially a cist took this role. Gradually, the stone cist was joined by a pottery container which grew in size and came to be inverted over

the remains until cists became less important. The growth of barrow and cairn burials through the Early Bronze Age elaborated the nature of place at burial sites: earth was re-moulded and re-shaped. This is explored in the next chapter.

7. Relations with the earth: places as tangled becomings

In this chapter I discuss a diverse range of evidence that I draw together under the banner of relations with the earth. The chapter seeks to explore what kind of places emerged in the Late Neolithic and Early Bronze Age, including settlements, places where Earthfast Jars were buried and burial monuments. I set out a relational perspective on place before moving on to consider traditional settlement evidence. The 'Ronaldsway House' will be considered alongside more ephemeral sites where lithics and pottery scatters, hollow fills, shafts and pits provide some small frayed line of evidence to help us consider life in the two periods. I move on to consider where Ronaldsway Earthfast Jars were buried. Throughout the chapter I compare and contrast the Late Neolithic approach to place and landscape with emerging Bronze Age approaches. This chapter therefore examines relations with the earth (including actants such as soils, rocks, trees, pits, hollows, animals, living and dead humans) to build up a tangled, emergent and changing sense of place through the Late Neolithic and Early Bronze Age on the Isle of Man.

A relational place?

In Chapter 4 I argued that time is not an external measure or container for action in the world but emergent from relations and change. Time is deeply embedded and thoroughly mixed with relations, acting to shape and construct them as much as they act to shape and construct time. In this chapter I explore an emergent place; place is not the background to action, not a dot on a map, but emerges from relations with other actants – people, plants, time, pottery, winds, flints and animals for example. Places emerge from the assemblage just as time does. The fluxing, changing relations between all kinds of diverse actants that make up the world, that result in the concept we call time, are the same fluxing, changing, relations that result in the emergence of places. Just as people, plants, soils and time are all constantly shifting and changing, so too are places. Places come from the knotting and wrapping together of the lines of becoming of these diverse actants emerging in the tangles where multiple diverse relations become interwoven.

Settlement evidence

I start by discussing the kinds of places that emerge from everyday activity in the Ronaldsway Late Neolithic and Early Bronze Age. This involves re-considering the evidence from the Ronaldsway 'house'. I question the status of the 'house' and use this to elevate the importance of hollows, scatters and pit sites from across the island.

When a house is not a house

The most iconic site of the Ronaldsway Late Neolithic is undoubtedly the Ronaldsway "house" introduced in Chapter 3. The site, with its vast material culture assemblage, damage during discovery, partial excavation and peculiar floor plan remains enigmatic. Calling the site a 'house' is deeply problematic. Not only do I not believe the site to be a classic 'house', with all the connotations the word carries, but I also believe that calling the site a 'house' has left a legacy in the way that the other sites from the Late Neolithic have been considered. The belief that if there was one site that had a 'house' (and indeed it remains the 'type site' despite its extraordinary nature) has, I believed de-valued the other sites known from the period, meaning we are not taking their nature seriously enough in understanding Late Neolithic daily existence and the places involved in that.

Consider the plan of the site (Figure 7-1), it is very hard to make the layout of the postholes into a structure. It feels as if a certain amount of creative house plan manipulation has occurred to make the structure more believable. Indeed Thomas (1996b: 12) states "…it is difficult to imagine the postholes supporting a coherent timber frame, as opposed to a tent-like structure". Thomas also points out that the house is cut into gravel; the issue of slumpage into the structure would have been constant. This view is supported by the recent excavation work at the airport that has revealed a number of Middle-Late Bronze Age houses; these houses were also sunken into the ground and they had a ring of stones that acted as a kerb to stop the subsidence of the gravelly subsoil into the house structure (Johnson, 2012: 513). The 'house' is often interpreted as evidence of a rectangular and substantial Neolithic dwelling in syntheses of Neolithic settlement (see for example Darvill 1996a), but I am inclined to postulate that it is not a substantial rectangular house but more likely evidence of several

ephemeral structures, sunk into the earth. The unusual alignment of postholes perhaps indicates that the structures were re-cut several times in the same area, something that the hurried, and artificially truncated excavation could have easily failed to identify.

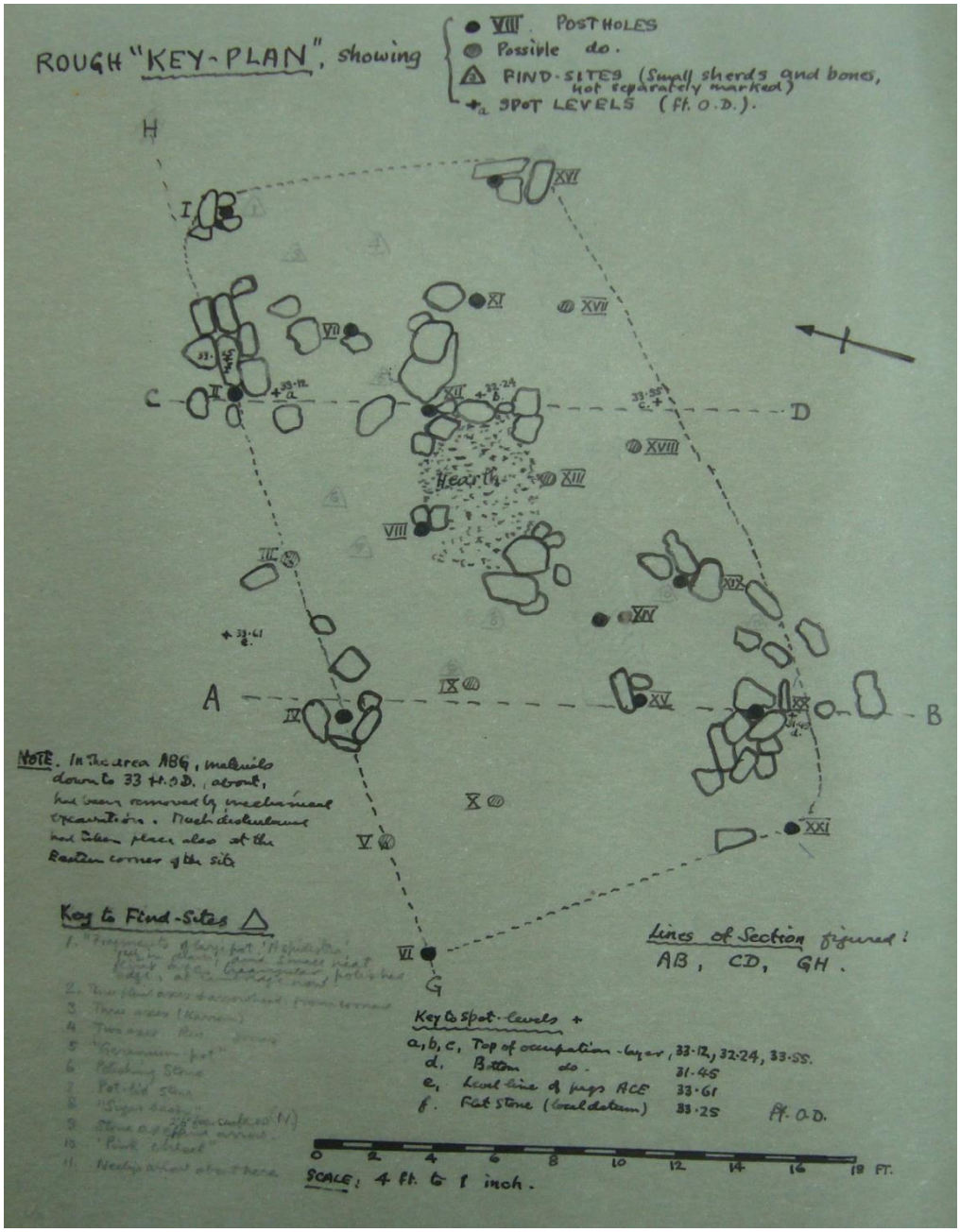


Figure 7-1: Original annotated plan of the Ronaldsway 'house' site prepared for publication from the Basil Megaw papers deposited at the Manx Museum Library.

If the structure itself questions the classification of the site as a 'house' then the assemblage of material culture from within adds further weight to this interpretation (Figure 7-2). The

assemblage is truly diverse and extensive, and what Bruce et al. (1947) interpret as a 'hasty abandonment' deposit could be seen as some kind of ritual deposit. In Chapter 3 I detailed the large pottery assemblage which Burrow (1997b: 43) suggests includes an MNI of 44 vessels[29] of both Grooved Ware and Ronaldsway Neolithic pottery (the original report suggests at least 50 vessels), seven RTB axes, four Group VI axes without roughening to the butt, a large flint assemblage, an assemblage of other stone tools, a diverse range of animal bones and the five slate plaques. The assemblage is easily the most diverse from any of the Ronaldsway Late Neolithic sites. Whilst all the stone tools from the site are known from other Ronaldsway sites, this is the only site to boast such variety in one place (*Appendix: Settlement*). Bruce et al. (1947: 143) found that a "…number of implements seemed to be unused or at least re-sharpened, some retaining their original razor-edge": they used this to help their argument regarding a hasty abandonment of the site. I instead argue that it can be used to strengthen the argument that this is a ritual deposit, not the deposit of a domestic house. To leave so much functional material culture, and much of it unused, in an abandoned house seems unlikely.

[29] All of the other sites Burrow (1997b) classifies as occupation sites (with the exception of Glencrutchery) have an MNI of less than 32

Figure 7-2: Material culture from the Ronaldsway 'house'

Furthermore deposits of animal bones at occupation sites from both the Ronaldsway Neolithic and Early Bronze Age on the island are rare; only two other sites (Ballaheaney and Leodest)

have recorded faunal remains (see *Appendix: Settlement*)[30]. At both sites the faunal remains are recorded as fragments mixed with charcoal. At the Ronaldsway 'House' the recorded assemblage includes fragmentary sheep bones, bones and teeth of a pig, two cormorant bones, horn core and the potentially intrusive ox bones dated to 437-933 cal AD (Gu-2695). These ox bones have remained difficult to interpret as their intrusive nature is queried by their discovery under a large horizontal slab in a distinct pocket or pit beneath the ground (Bruce et al., 1947: 143). The bones remained articulated and the authors suggest that this could be evidence of a hasty abandonment, implying it was a meat joint yet to be consumed. Excluding the ox bones, the rest of the assemblage is still notably larger than remains found elsewhere. The sheep (and ox) bones were reportedly broken to allow marrow extraction (Bruce et al., 1947: 146). In particular the deposit of the bones of a cormorant are unparalleled elsewhere on the island.

Turning now to the pottery, all of the pottery vessels, bar one, was found broken, though the entry in the MNH NMHER suggests that all the pottery in the structure represents originally complete vessels. The assemblage includes sherds of both Grooved Ware and Ronaldsway pottery. To get a sense of the size of the assemblage I want to consider roughly how much space it might take up. The 'house' is believed to have been sunken into a 7m by 2.8m pit (this figure attempts to take into account the truncation by the diggers). The most complete of the Ronaldsway vessels has an approximate 40cm diameter, so we can estimate that allowing for a gap between vessels each vessel they might take up an area of approximately 50cmx50cm. If we discount the estimated six Grooved Ware vessels that have a smaller base area, then, the remaining 38 vessels would take up roughly a third of the suggested building size. This then, represents an assemblage larger than that which we might reasonably assume to be within a typical dwelling structure. Whilst these estimates are unlikely to be completely accurate they give a sense of the significance of the assemblage. Consider also that all the Ronaldsway vessels are round bottomed so may well have been suspended in some way or stored in some form of pit.

Darvill (1996a: 98) appears to favour a domestic interpretation of the house suggesting that the volume of material culture can be considered to be the result of an external midden becoming incorporated within the deposit. For him calling the house a ritual structure, or similar is "less clear and is based on flimsy evidence" (Darvill, 1996a: 99)- he uses the

[30] Though this could represent an issue with the preservation of faunal remains

seemingly intrusive cattle bones, cited as a possible votive deposit, to dismiss the idea of the structure having a ritual purpose: if the bones are not Neolithic in date and they are the ritual deposit then the structure cannot be ritual. For me the logic is flawed, even if the ox bones are intrusive the rest of the material, so much of it unbroken and un-used, is still in-situ, in a quantity that has been unobserved at other sites. As Thomas (1996b: 12) states, "…the assemblage of numerous polished axes, stone plaques and cattle long bones suggest a deliberate deposit rather than carelessness".

In my opinion the use of the term 'house' even inside quotation marks is inappropriate, the structure is not a typical house, rather it appears to be a more ephemeral, perhaps tent-like, structure cut into a pit. I suggest the numerous, unaligned postholes may indicate successive re-occupation or re-cutting of the site through time. The diverse material culture assemblage: the variety and quantity of pottery, the unusual faunal remains, the volume of stone tools, the re-sharpened and un-used tools, are to me indicative of a communal ritual deposit (see also, Fowler, 1999: 238). This was a potential 'closing' deposit rather than an abandonment in my opinion. The fill of the pit structure was stratified with finds throughout the pit fills (Burrow, 1997b: 20). I argue for an initial large, communal ritual deposit at a site that had already been used for some time (hence the multiple postholes). I suggest that periodic deposits of additional material were made at the site: for how long remains unclear.

Hollows, pits, scatters, shafts

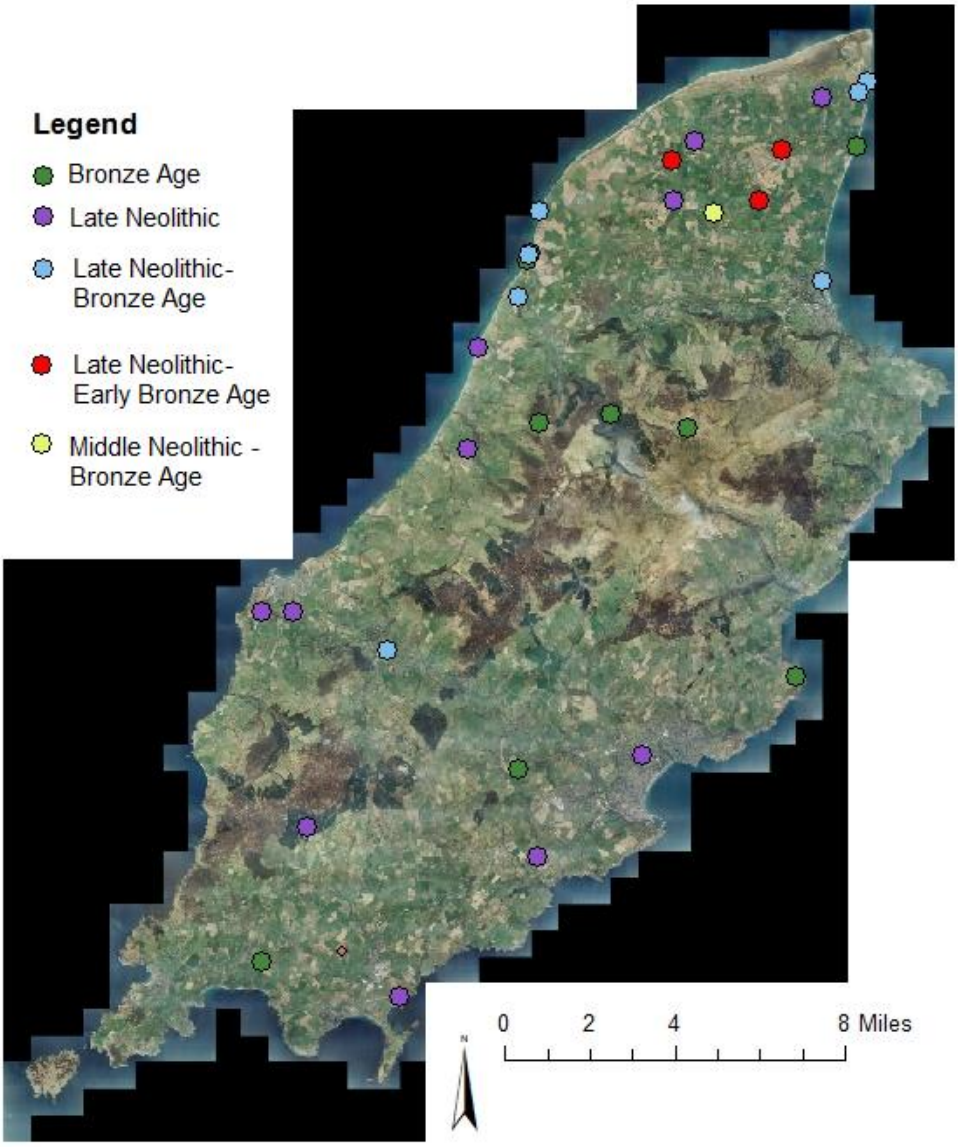


Figure 7-3: Map to show the distribution of settlement sites from the Late Neolithic and Early Bronze Age

Figure 7-3 shows the distribution of settlement sites from the Late Neolithic and Early Bronze Age. The map includes plots for a diverse range of sites. If we exclude the three Bronze Age sites in the centre of the island (I return to them shortly) the distribution is mainly of coastal sites with a heavy emphasis on the glacial northern plains. In part, these results reflect the nature of research in the area. As Woodcock states, referring to a distribution map of Bronze Age sites in her thesis (Figure 7-4),

"The results from years of fieldwalking by key-workers on the Island is very much reflected in the distribution map… The work of A. Skillan in the northern parishes of Bride, Andreas and Jurby, [on the northern coastal plains] in particular, has resulted in the accumulation of a vast amount of evidence indicative of multi-period exploitation over widespread and ill-defined areas… one area merges into another."

Woodcock, 2001: 218-9

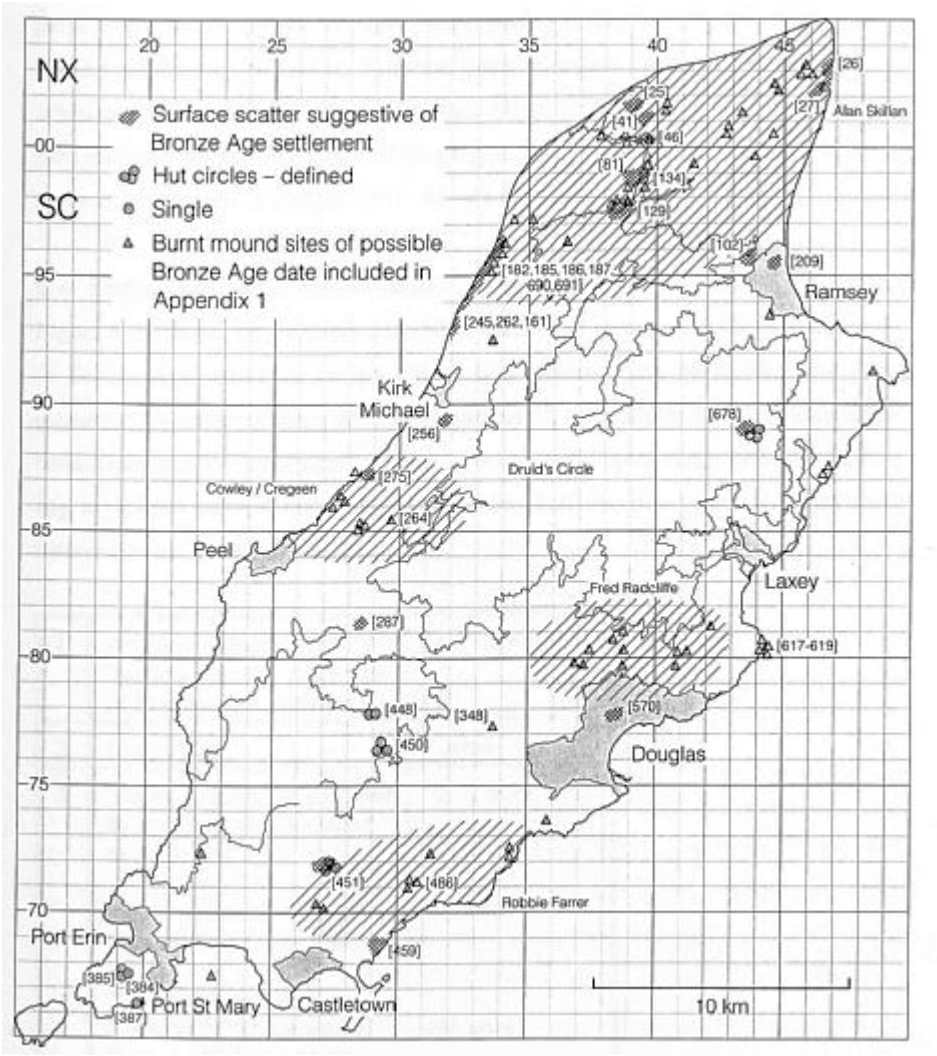


Figure 7-4: Distribution of Bronze Age settlement evidence and the territories of individual fieldworkers (shown in diagonal hatching). Taken from Woodcock, 2001: 217, fig 6.23

Upland evidence for occupation in the Late Neolithic is essentially absent at present. Whether excavation in the uplands would serve to reveal sites or not remains unknown. The Bronze Age evidence is slightly better, the central green dot in the uplands represents a chance find of a scatter of broken pottery and lithics and the two find-spots on either side are of barbed and

tanged arrowheads which I chose to include on the map as I felt this indicated that whilst the uplands may not have produced settlement sites in the same way as the coastal lowlands, they were certainly a landscape entered into, and potentially exploited by, Bronze Age peoples.

None of the sites, other than the Ronaldsway 'House' site[31] (Figure 7-5), contains any substantial evidence of a structure or similar, rather these sites are a mixture of pits, scatters and hollows (and some chance finds) where broken pottery and lithics have been uncovered. These diffuse scatters and fills were often uncovered by fieldwalking and then excavated, with in many cases very little recorded evidence of the excavation deposited in the Manx Museum and often only a side or two of A4 unpublished report available for consultation in the library. As such, any re-interpretation of the excavated remains is very difficult. The picture that does emerge, as Woodcock states above, is that there are areas of the landscape, particularly the northern coastal plain, that have seen repeated occupation over centuries. The sites themselves are interpreted by Burrow (1997b: 20) simply as evidence of occupation. Larch Garrad excavated five of the Ronaldsway Late Neolithic sites in the 1980s and there is a sense in all of her excavation reports that she believed she was continually not finding the actual habitation sites but rather some more ephemeral deposits. For example, talking about the site of Ballaheaney (Figure 7-5) Garrad comments that,

> "It seems probable on evidence that the finds are a domestic rubbish scatter and that a habitation may lie safely below plough depth. If this is the case then an area excavation… would be likely to be profitable"
>
> Garrad, 1985, unpublished note in the MNH NMHER 0332

In Garrad's views from the 1980s we can see the impact of considering the Ronaldsway site to be a 'house' – Garrad believed there should be similar sites to find nearby these scatter and pit sites.

[31] This excludes burnt mounds which do show evidence of structure, but their dating is debatable.

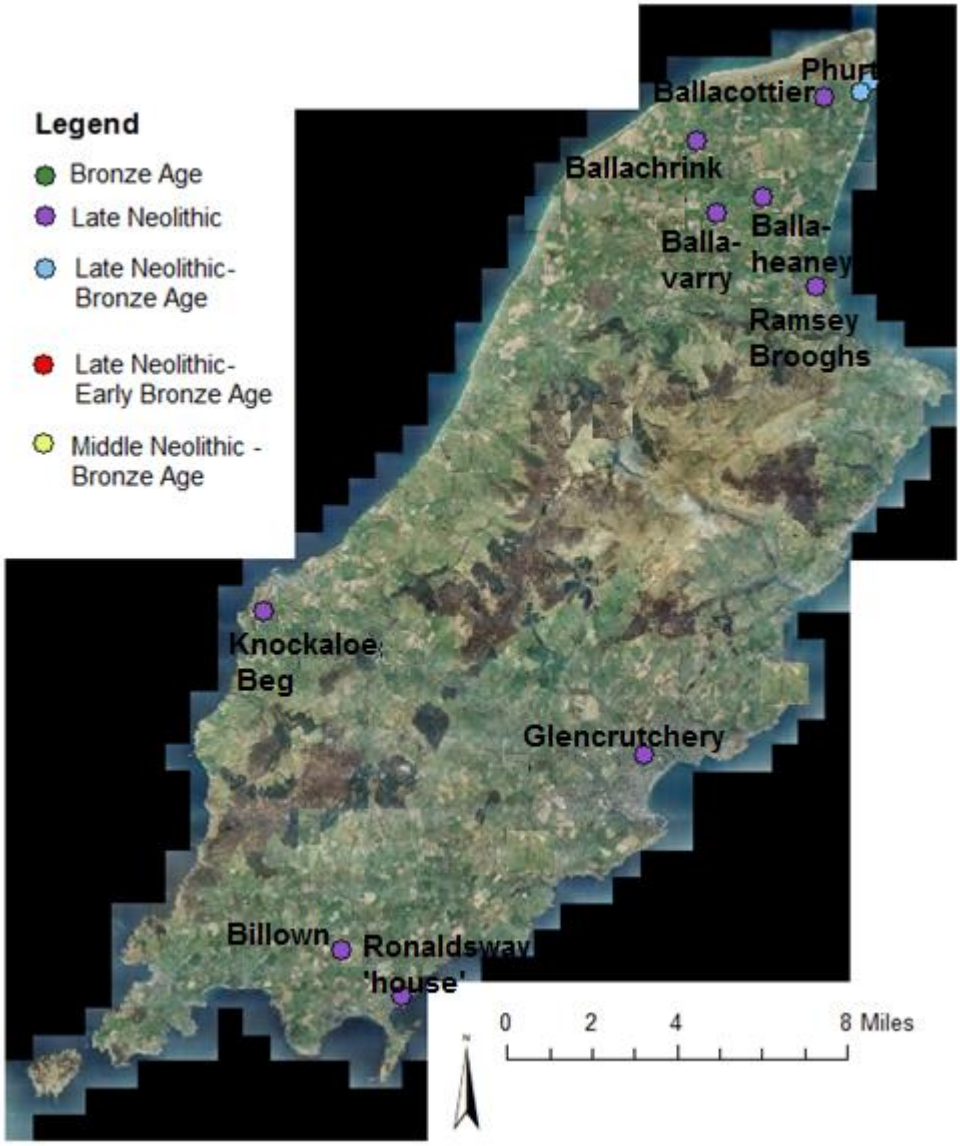


Figure 7-5: Map to show sites mentioned in the text

Yet these hollows, scatters and pit fills of Late Neolithic and Early Bronze Age cultural debris may well be the *only* kind of evidence we ever uncover of settlement on the island. Scatter sites such as Knockaloe Beg and Ramsey Brooghs (Figure 7-5) have no cut features at all (though we need to consider the possibility of truncation). Rather the material appears to represent some form of temporary occupation; if structures had been constructed at such sites then arguably they were very ephemeral leaving no traces. These are sites where the debris of life has been left behind: broken pottery, the debris of flint knapping, abandoned old tools and small traces of the fires by which people warmed themselves and prepared foods. As a whole, this evidence suggests a mobile community living in portable shelters that moved seasonally around the landscape, perhaps re-visiting sites on a regular basis. Hearths have only been

found at the Ronaldsway 'house' site and the burnt mound sites: despite this charcoal is frequently found at occupation sites. This raises a question about whether these sites are eroded deposits where more substantial evidence of hearths and other features is lost or whether this is the dumping and spreading of debris from occupation over an area. The lack of burnt material often found at these sites, in spite of the large amount of other material, in particular the pottery (see below), suggests to me that the remains of hearths and fires may well have been cleared away rather than left in-situ, and as a result, there is very little burnt material from the Late Neolithic sites in particular (see *Appendix: Settlement*).

Hollow sites, such as Ballacottier, Ballaheaney and Glencrutchery (Figure 7-5) (which also has scatters and pits) present another challenge. Are they evidence of sites inside actual hollows in the landscape or are they small parts of larger layers of occupation debris that have been preserved as a result of being within a hollow in the landscape whilst other evidence has been eroded away? At Billown it has been suggested that deposits in hollows are the result of, "periodic visits… and the veneration and elaboration of natural hollows over a long period" (Bayliss et al., 2011b: 561).

These hollow and scatter sites have all produced broken pottery. The assemblages from these sites tend to be quite large (see *Appendix: Settlement*), for example, Burrow suggest MNIs of 32 vessels for the scatter at Ballacottier, 17 for Ballaheaney and 12 for Knockaloe Beg. Potentially this kind of volume of pottery could be indicative of re-use of the sites over a considerable amount of time or perhaps that the deposit of broken and used material occurred in some structured manner. Whether the pottery is broken for deposition is unclear. The size of Ronaldsway pottery, with large gritty inclusions and thick body has been crucial to the survival of many of the known complete Earthfast Jar sites. Vessels almost a meter high have survived entirely intact. By contrast, the same kind of pottery from settlement sites is never intact; it is always broken, dispersed sherds. Complete Earthfast Jars are not usually found at sites where pits, scatters and hollows of broken material have been found (the exception here is Billown). Several interpretations are possible: these occupation sites could represent dumped, broken material, no longer required, or an alternate explanation is that that if Ronaldsway pottery was not buried in the earth for use in Earthfast Jar practices it had to be broken before deposition.

The site of Ballachrink, on the northern glacial plain (Figure 7-5), in Jurby, is the only known site to have produced Beaker pottery sherds and to potentially present evidence of both Late Neolithic and Early Bronze Age activity. The site essentially consists of an occupation scatter, as already discussed, and a series of ill-understood ditches (Figure 7-6). The majority of the finds from the site came from a disturbed (plough marked) deposit of charcoal-flecked hard, compact white-grey sand (McCartan and Johnson, 1992: 105-107). In places this occupation deposit was interrupted by three inter-cutting ditches and a single contemporary insubstantial stake-hole was also found cut into the occupation material (McCartan and Johnson, 1992:108). The three ditches appear to represent successive re-cuttings, with fills of fine sandy material, some of the upper fills contained small burnt stones and flint similar to that from the occupation layers (Figure 7-7). The excavators remain unclear about the site indicating the function of the ditch is hard to ascertain (McCartan and Johnson, 1992: 110).

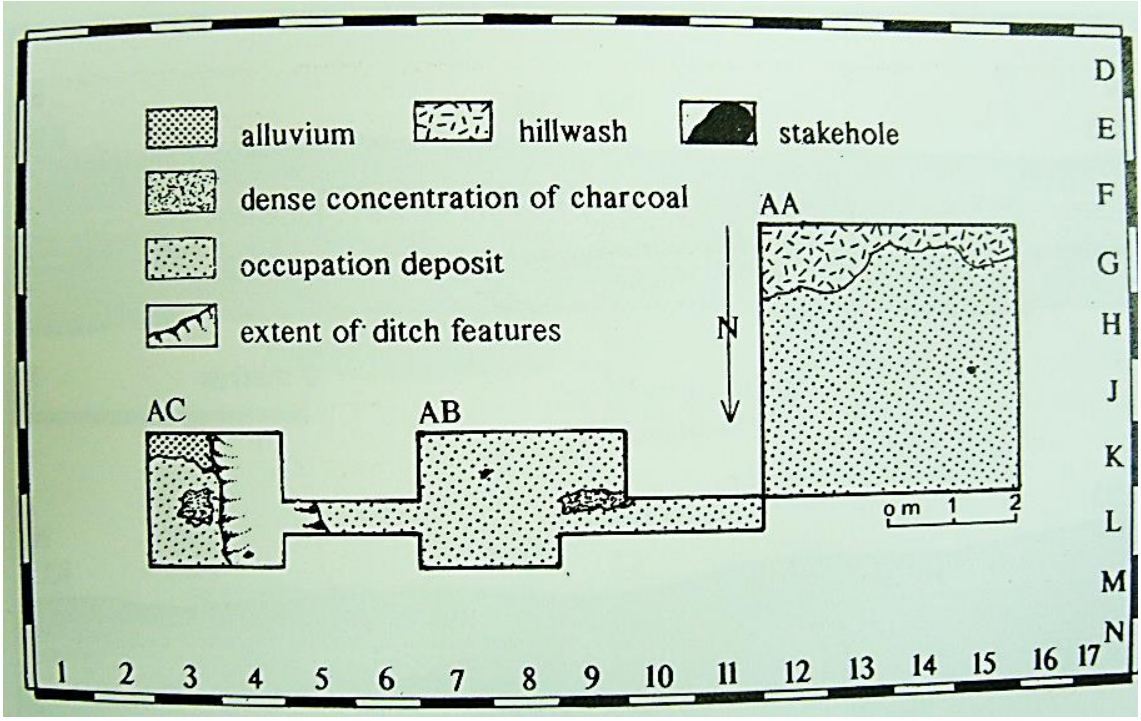


Figure 7-6: Plan to Ballachrink. From McCartan and Johnson, 1992: 107, fig 2

One radiocarbon date for the site is suggested to be from 'bog oak' producing a date of 8235-7741 cal BC (GU-2697). There are five further radiocarbon dates for the site, four of which are from peat layers in the ditch (Table 6:1). The dates in Table 6:1 indicate that some of the peat had formed at the beginning of the Early Bronze Age (GU-9128) and a grain of cereal from within the occupation layer produced a date of 2397-1980 cal BC (GU-9124). The 84 pottery sherds, mostly very small and all broken, recovered from the site are thought to represent a MNI of 25 vessels – the pottery proved hard to examine but the lack of large grits has been

used to suggest an Early Bronze Age date for at least part of the assemblage, supported by the use of whipped cord decoration. Furthermore, there are several Beaker sherds with diagonal and chevron decorated comb-impressed zones and two sherds that appear to be All-Over-Cord Beaker. Given the single Beaker burial from Barroose (see Chapters 3 and 6) the discovery of broken Beaker sherds on a settlement site is notable and parallels with Irish Beaker occupation sites could be drawn (as discussed in Chapter 2). The lithic assemblage contains flints of both Ronaldsway Late Neolithic and Bronze Age types (for example, hump-backed scrapers and a barbed and tanged arrowhead). The excavators suggest the assemblage represents in-situ knapping with 64% of the flakes showing cortex and the presence of some 25 cores and a hammerstone. There were a high number of scrapers on the site which the excavators suggest may indicate a task-specific site (McCartan and Johnson, 1992: 121). Two percent of the assemblage consists of hump-backed scrapers (the authors compare this with 77% at Ronaldsway, 73% at Ballagyr and 36% at Glencrutchery) I suggest that this may represent a continuing but reduced use of hump-backed scrapers into the Early Bronze Age.

McCartan and Johnson (1992) suggest that the site may be an activity area peripheral to a permanent occupation site. Whether some more substantial site exists, or not, remains conjecture. However, what is clear is that the site has both similarities to, and differences from, the Ronaldsway Late Neolithic sites. Like at earlier sites, the excavation revealed a shallow occupation deposit in an area of known prehistoric activity. Again, the site revealed a quantity of broken pottery, burnt stone, charcoal and lithics mixed into a single 'habitation layer' with no clear cut features. However, it is also clear that whilst there are similarities with earlier sites the introduction of Beaker pottery and the absence of hump-backed scrapers may be indicative of changing traditions of material culture.

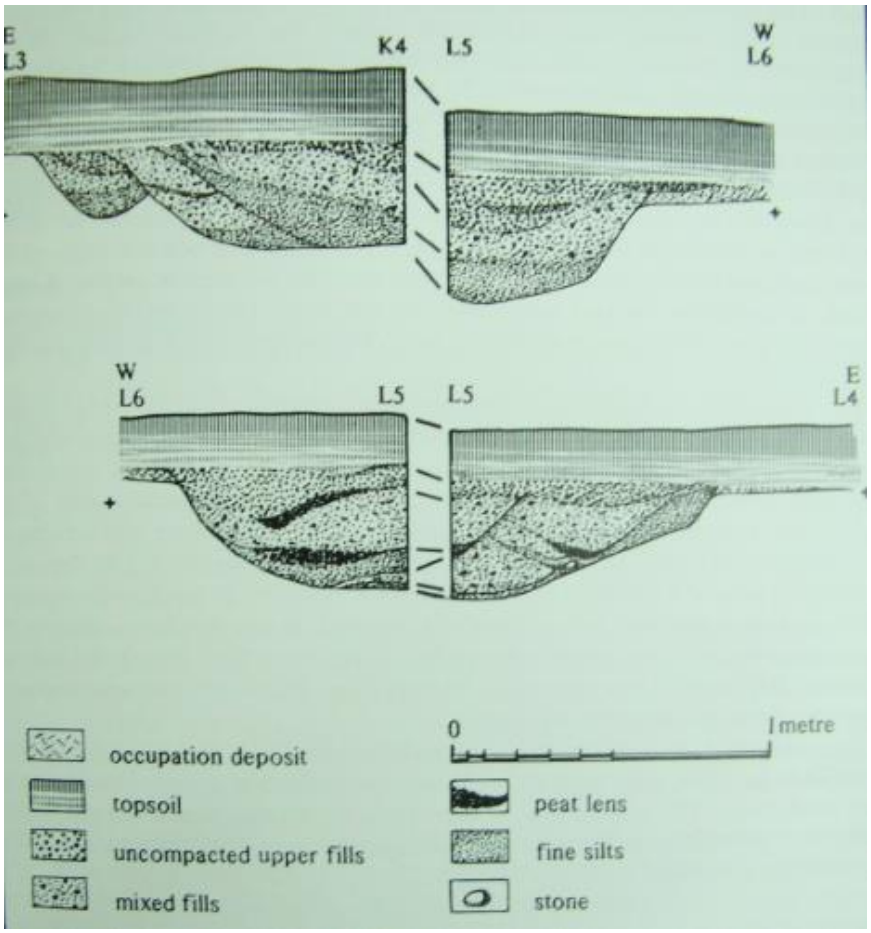


Figure 7-7: Sections from Ballachrink. Upper Illustration shows the three intercutting ditches. Lower illustration shows the north section of the second and third ditches. Taken from McCartan and Johnson, 1992: 109, fig 4

Considering Pitting Activity

The site of Ballavarry (Figure 7-5) was excavated by Larch Garrad in 1983 following some fieldwalking by Alan Skillan. The site boasts three cut pits that interconnect and produced a large assemblage of finds (Figure 7-8 and Figure 7-9). Burrow (1997b: 38) suggest an MNI for the site of 22 vessels (five from fieldwalking and 17 from excavation). In addition to the pottery, which was found scattered through the fill, there was also a quantity of flint including cores and scrapers (at least five are humpbacked scrapers) (Garrrad, 1984b: 166). In addition a polishing stone similar to that from the Ronaldsway 'house' was also uncovered. The most notable discovery was a slate plaque similar to those from the Ronaldsway 'house' with diagonal hatching. Garrad makes no mention of multiple fills in the pits so one has to presume a single fill for each pit. However, the relationship between the three intercutting pits means

that there were at least three episodes of activity at the site. Radiocarbon dates for the site are shown in Table 6:1.

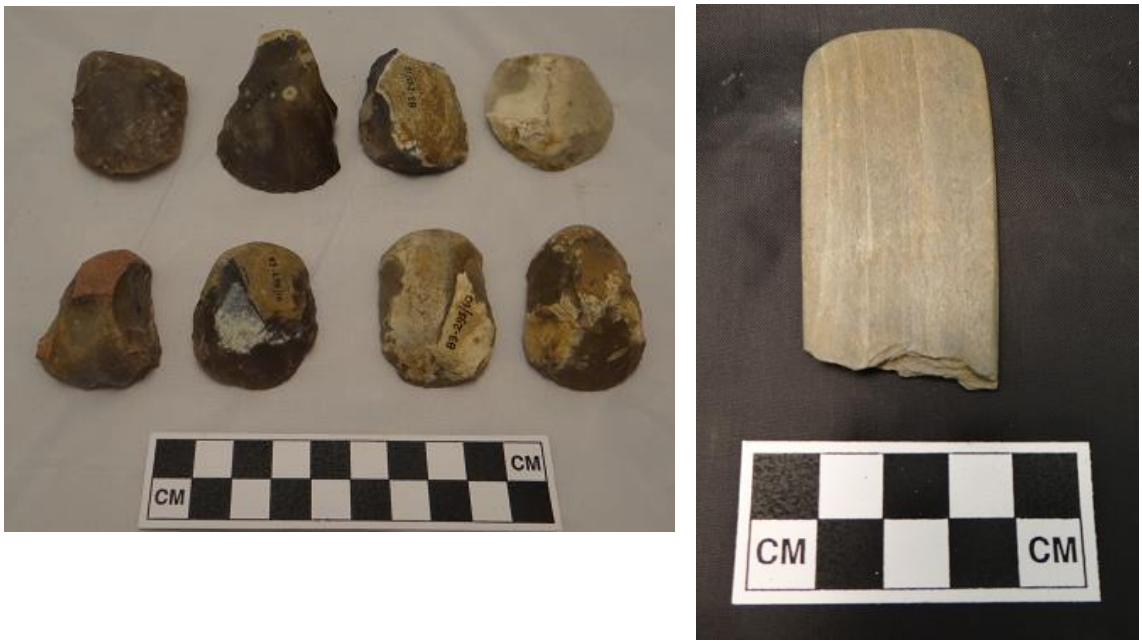


Figure 7-8: Humpback scrapers and slate plaque from Ballavarry

There is no indication as to which of the pits any of the dates might be associated with. The plan indicates that the slate plaque was found a meter below the surface giving us some indication of the significant depth of these pits. Considering this site Burrow (1997b: 20) notes, "The importance of the site ranks alongside that of the Ronaldsway 'House', and in terms of the wealth of material culture deposited, they seem to parallel one another". In the same way that I argued above that the Ronaldsway 'house' site is a deliberate deposit in a significant place, I suggest that the deposit at Ballavarry is not merely the insignificant debris of life. The plan indicates that the initial deposit was the largest pit, and that the slate plaque was deposited within this pit. The site was then re-visited on at least three occasions and additional and similar deposits were made each time - each of the pits is noted as containing areas with particularly large sherds.

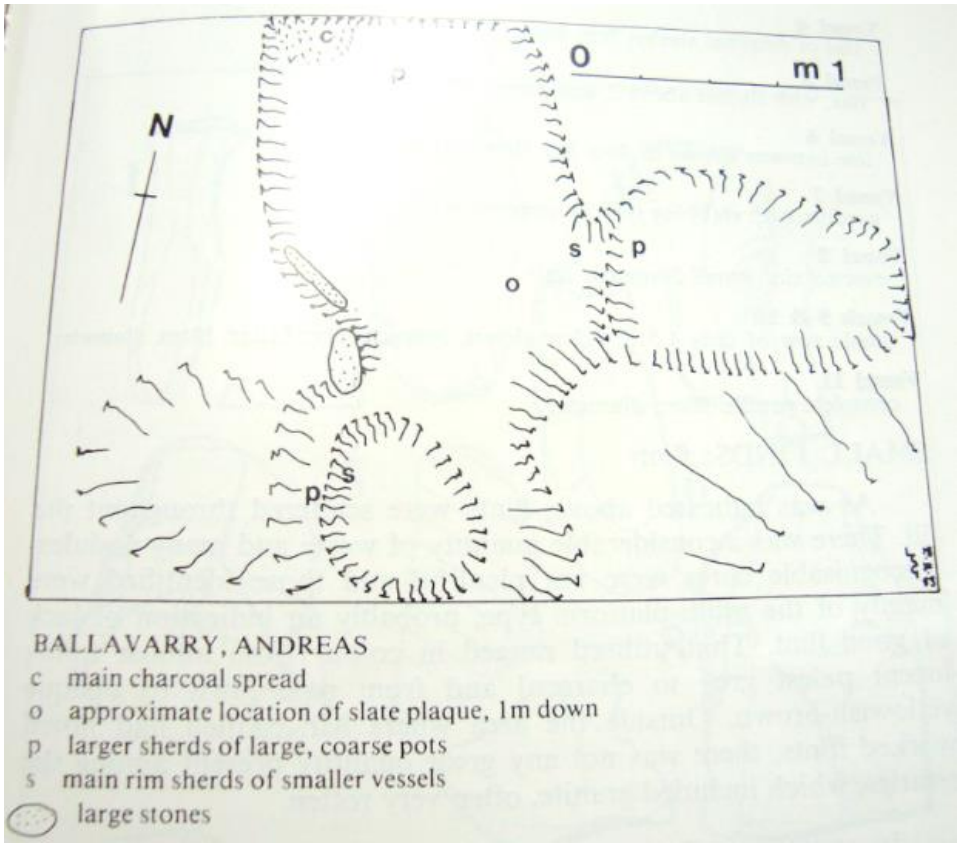


Figure 7-9: Plan of Ballavarry. Taken from Garrad, 1984b: 168 (un-numbered figure)

The site typically considered alongside the Ronaldsway 'house' site is Glencrutchery. Arguably this site is even more poorly understood than the 'house' site or Ballavarry. Glencrutchery was excavated over a 30 year period beginning in 1890 and I know of no excavation reports. The site includes a Bronze Age burial (see *Appendix: Bronze Age Burials*) and an area of Late Neolithic activity with the largest known ceramic assemblage from the Late Neolithic: 450 sherds from a minimum of 48 vessels (Burrow, 1997b: 40). The finds were made in two areas of darkened soil, one of which contained a Ronaldsway Earthfast Jar with a slate cover, the other consisted of pits or hollows containing the material. Miscellaneous Late Neolithic flint work and pottery continued to be recovered from the area for many years, including the find of an unrelated Jade Axe in 1892 (Petrequin et al., 2008). The picture that emerges from these scant details is an area with obvious evidence of occupation from the Late Neolithic, similar to a scatter site but also boasting what would appear to be pit activity similar to that at Ballavarry and the additional deposit of an Earthfast Jar in the area. Three carbon dates for the site were obtained by Burrow and Darvill (1997) and are shown in Table 6.1. These dates cluster relatively tightly compared to the dates for some of the other settlement sites (see *Appendix: Settlement*), suggesting the site was in use around the end of the Ronaldsway Late Neolithic c. 2600-2200 cal BC.

Considering the pits at Billown (Figure 7-5) Darvill (1999a: 118-9) suggests the practice had importance over some 2000 years. The earliest feature at Billown dates to the Mesolithic and is perhaps more of a hollow than a true pit (though Bayliss et al. (2011b: 554) suggest that the sample is from a long lived wood species which may be skewing the date slightly, though they are happy for the pit to remain dated to the Mesolithic). The later pits and pit clusters on the site all contain the broken pottery and flints well known from other occupation sites, in addition all the recorded pits contain spreads of charcoal rich soil (Darvill, 2004a: 49). Darvill argues that this is the result of clearing away a hearth into a pit, something which could account for the lack of hearths found so far from the period. Darvill goes on to argue that, the Billown pits are not directly connected with occupation and neither are they deliberately placed deposits. Rather, in his opinion the primary and important act was digging a pit into the earth and the fill is merely the result of using the pit as a "setting for a short vigil or 'watch' after which the hole was abandoned" (Darvill, 2004a: 49) (see also Fowler, 2004 for an interpretation of pits as sites of transformation in the earth). This kind of interpretation may well be inspired by the discovery of shafts at Billown and Darvill's own ideas about the function of Ronaldsway Earthfast Jars (considered below).

At Billown a series of shafts have also been uncovered, the deepest of which goes 3.5m into the earth with charcoal from the fill dating to 2568-2409 cal BC (Darvill, 1999a: 20). The fifth report from the excavations suggests that there may be as many as 100 shafts over 3 hectares (Darvill, 2000: 70). Some of the shafts are suggested to have begun as hollows that had pits dug into them. The shafts are thought to show evidence of episodic re-working and are variable in shape and form. Darvill (2002: 85) notes the deposition of quartz pebbles in some of these shafts (as well as in pits and ditches at the site), and uses this to invoke evidence of the ritual use of the site. It is unclear to me, from reading the reports what exactly defines the difference between a pit and a shaft, though clearly there is something to be said for a pit/shaft that has reached a depth of 3.5m. The notion of the shaft, and the use of the term, enables Darvill to build up a picture where digging into the earth itself is a significant act, and indeed the act of primary importance.

In 1995 the discovery of two sites in the area of Crawyn Brooghs, added to a number of chance finds from the area over numerous years, to suggest the significance of the area in the Late Neolithic and in particular the Early Bronze Age. At present, the site is the only pit known from

the Early Bronze Age (aside from burial pits). Woodcock and Davey excavated two sites on the edge of a cliff eroding into the sea (Figure 7-10). The first site was a pit dug into the earth, obvious in the cliff section which contained 111 sherds from two pots, including a Cordoned Urn (Woodcock and Davey, 1999: 113-4). The large pit measured 1.75 x 1m (though part was truncated by the cliff). The nature of the fill and finds suggests that the pot was deposited when already broken and the pit was rapidly filled. Sherds of the pot were found not just at the base of the pit, but also in the top of the fill. A second site was investigated nearby where a burnt layer was obvious in the cliff section and is thought to be a burnt mound. These two sites need to be considered alongside a history of chance finds from the area that include some bronze fragments. In addition the nearby site of Ballakoig Brooghs (Figure 7-11) (see *Appendix: Bronze Age Burial*) has produced a Food Vessel, Two Collared Urns and a bone needle. Furthermore, Kermode (1930: 24) notes the discovery of a probable hearth nearby with burnt soil and fragments of pottery and worked flint. It would appear then that the area saw significant use through the Early Bronze Age. In terms of pit activity there are clear differences from the Late Neolithic activity, the volume of material in the pit is nothing like that observed at Ballavarry for example, flints and charcoal are rare, rather this pit appears to have received a single fill within which were some fragments of two, incomplete broken pots.

Figure 7-10: Crawyn Brooghs under excavation. Images from Crawyn Brooghs Excavation Archive: Manx National Heritage.

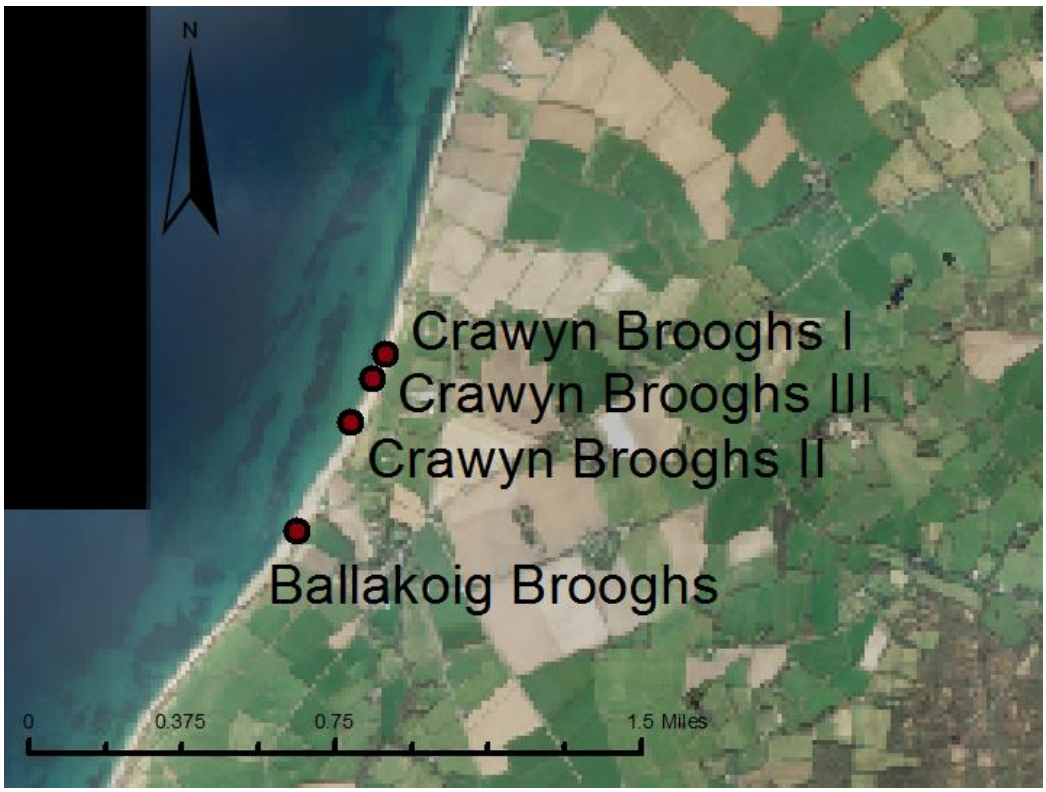


Figure 7-11: Map to show the coastal sites of Crawyn Brooghs and Ballakoig Brooghs

The picture that emerges from all of these occupation sites is not a clear one. I suggest there are essentially two types of site. The scatter sites appear to be areas of occupation debris, potentially associated with the daily life of mobile communities in ephemeral structures. Then there appear to be a group of sites where there is the deliberate deposition of material into the earth in pits or shafts. Digging into the earth allowed a container for the deposit of, in some cases, potentially large and meaningful assemblages of material culture including slate plaques. Whether these sites represent a form of rubbish disposal or a less utilitarian practice, or indeed (more likely) a mixture of the two, remains unclear, in part due to the poverty of site records available. For me the Ronaldsway 'house' site is an extension of these practices, where material was deposited within what appears to have been some kind of pit structure.

One wonders whether the deposition of material in pits, the potential 'clearing away' of fires suggested by Darvill (2004a: 49) and the general lack of known occupation material may well be indicative of a desire to remove the traces of life from the surface of the land into the earth itself. The digging of pits essentially 'tidies away' the occupation evidence. Whether these were events witnessed by large groups of people or were the result of an accumulation of activity over time remains unclear. Nonetheless the act of digging into the earth unites these

sites, an act which I will argue has strong parallels in the practice of burying Ronaldsway Earthfast Jars. A stronger argument about the significance of digging into the earth can be made when these two lines of evidence are brought together.

Digging into the earth, materialising the earth – Ronaldsway Earthfast Jars

Ronaldsway Earthfast Jar sites (as discussed in Chapter 3), consist of one or more jars, buried in the soil, up to their rims (see *Appendix: Ronaldsway Earthfast Jar*). These jars have been found across the island (Figure 7-12) though they appear to cluster on the northern and southern lowlands. This may reflect a recovery bias as the majority have been found as the result of farming or construction work. They are often found with a flat piece of natural slate used as a kind of lid. As discussed in Chapter 6, Bersu (1947: 169) suggested that the vessels were used to make offerings of food at the cemetery site of Ballateare where they have been found alongside burials. Darvill has interpreted the jars as,

> "…channels through which people would communicate with the underworld (cf. Ross 1967: 24-3; 1968:277). As such, they may form part of a long-lived tradition involving the use of shafts and pits dug into the ground"
>
> Darvill, 2000a: 379

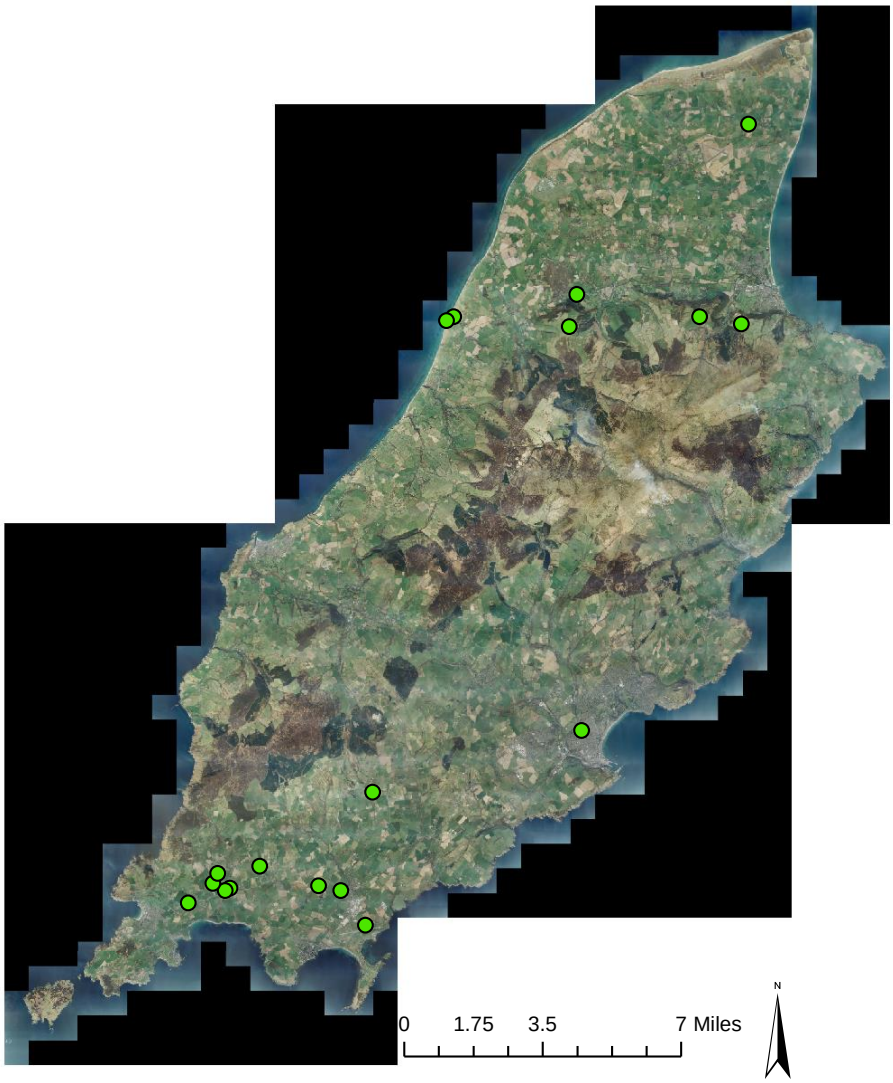


Figure 7-12: Map to show distribution of Earthfast Jar sites

My own interpretation of the Ronaldsway Earthfast Jar sites relies on seeing them as a container within the earth as discussed in Chapter 6 (following Darvill, 2004a). At Billown, where four pots were uncovered, three were uncovered in a row on a terrace that appeared to have been cut into a slope potentially to receive the pots and a fourth was found slightly to the south of the row (Darvill, 1997; Darvill 1996b). Two of these pots are suggested to have been marked by posts. This seems to me quite a strong possibility, marking the jar sites with posts or similar would have acted to highlight their position in the earth.

The jars remain as a container within the earth, with a moveable lid that can be reached into and out of allowing material to be placed in, and then removed from, the jars. The jar is a kind

a pit made solid- the material of the pottery mirroring that of the earth. However, it would appear that materials that were appropriate to be deposited within pits were not appropriate for deposition within Ronaldsway Earthfast Jars. Broken pottery, ash and flint are never found within these jars. Of course, we only see the end stage in the life of the Ronaldsway Earthfast Jar; potentially material could be being moved into and out of the jars during their use-life. One could imagine cremated remains, food, liquids or indeed broken pottery sherds being placed in the pots and then removed. With the exception of the Billown jars, there are no finds associated with the vessels. This may reflect the chance nature of their recovery: any surrounding contextual details may have been lost. At Billown, the vessels were found near other Late Neolithic activity including pits and shafts. Perhaps we need to consider these sites as places where other activities went on, as a smaller part of a wider repertoire of practices including the digging of pits.

Activity at pit sites such as Ballavarry appears to have been repeated: three pits are cut into one another. Activity at Earthfast Jar sites may also have been repeated – with more jars added, such as at Billown. Once material is in a fill of a pit it may have left undisturbed (or completely removed and re-cut) other than to allow the digging of an additional pit to take an additional fill. At an Earthfast Jar site one imagines that materials may have been deposited within the pot for some time and then extracted again. The jar offered far easier and more varied practices of extraction and deposition. As I suggested in Chapter 6 perhaps human remains were circulated between these sites before reaching a final resting place. Furthermore, one could also suggest that other materials and actants were also temporarily placed within Earthfast Jars before being deposited elsewhere. For me, the Ronaldsway Earthfast Jar is the materialisation of earth itself, the solidifying of a pit or shaft in clay form to allow easy, and perhaps constant, access. In both pits and Earthfast Jars the significance of Ronaldsway Late Neolithic relations between earth, people and other forms of material culture is most clearly evident.

As discussed in Chapter 5 axes of stone and bronze were both deposited in the ground in significant ways. When we consider the archaeology of the Ronaldsway Late Neolithic it is a very ‘flat’ archaeology, there are not the impressive sites of the Early and Middle Neolithic megaliths to be visited, nor are there the barrows of the Bronze Age (discussed below). The people of the Ronaldsway Late Neolithic existed in a world where ancestors long dead and gone had built up-standing monuments in the landscape but they themselves did not. They

appear to have lived in presumably mobile, ephemeral structures. They certainly left the debris of their lives behind but in a very subtle way. More than any other practice evident in the archaeology, they dug into the earth. They dug into the earth to bury their stone axes, they dug into the earth to create pits for depositing fills rich in material culture, they dug deep shafts into the earth into which the remains of small fires and other material were cast and they dug pits into the earth and filled them with Ronaldsway Earthfast Jars. The clay of the pottery made the holes in the ground they created more stable.

Ronaldsway Earthfast Jars sites, aside from those included in cemetery sites, are undated. Their currency is presumed to end with the emergence of the Bronze Age. The significance of temporarily placing things in the earth appears to decrease (though it is, I will argue below, not eroded completely). Whilst the site of Ballachrink above suggests that perhaps there is some similarity in occupation scatter sites from the Early Bronze Age, we do not have the same kind of pit sites from the period. The pit at Crawyn Brooghs I is not of the same nature as pits from sites like Ballavarry. There was a change in relations with the earth between the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man. This change is gradual and the chronological resolution we have for the Early Bronze Age means we can pull apart practices over centuries in a way we cannot for the Late Neolithic. Rather than digging into the earth to create pits, shafts and holes for Ronaldsway Earthfast Jars - Bronze Age people dug into the earth to bury their dead and to create upstanding mounds of various materials, including earth itself which served to create different kinds of places and landscapes that contrast with those of the Ronaldsway Late Neolithic.

Building with the earth, digging into the earth – Bronze Age burials

The Early Bronze Age saw multiple changes in burial practice, as discussed in Chapter 6. These changes can be observed at a relatively good chronological resolution, allowing a more fine-grained consideration of change through time. In this section I will consider the landscape of Bronze Age burials and the kinds of places that they allowed to emerge.

Figure 7-13 shows the location of sites across the island and Figure 7-14 show the numbers of various kinds of Bronze Age burial monuments. The map is built from data in the *Appendix: Bronze Age Burials*, and shows a dot for each individual site, regardless of how many burials there might be at that site. A number of unexcavated, suspected barrows and cairns have been included. This means that there is a chance that some of the sites could realistically be dated to the Early Neolithic, Middle Neolithic, Middle or Late Bronze Age– without excavation this cannot be confirmed.

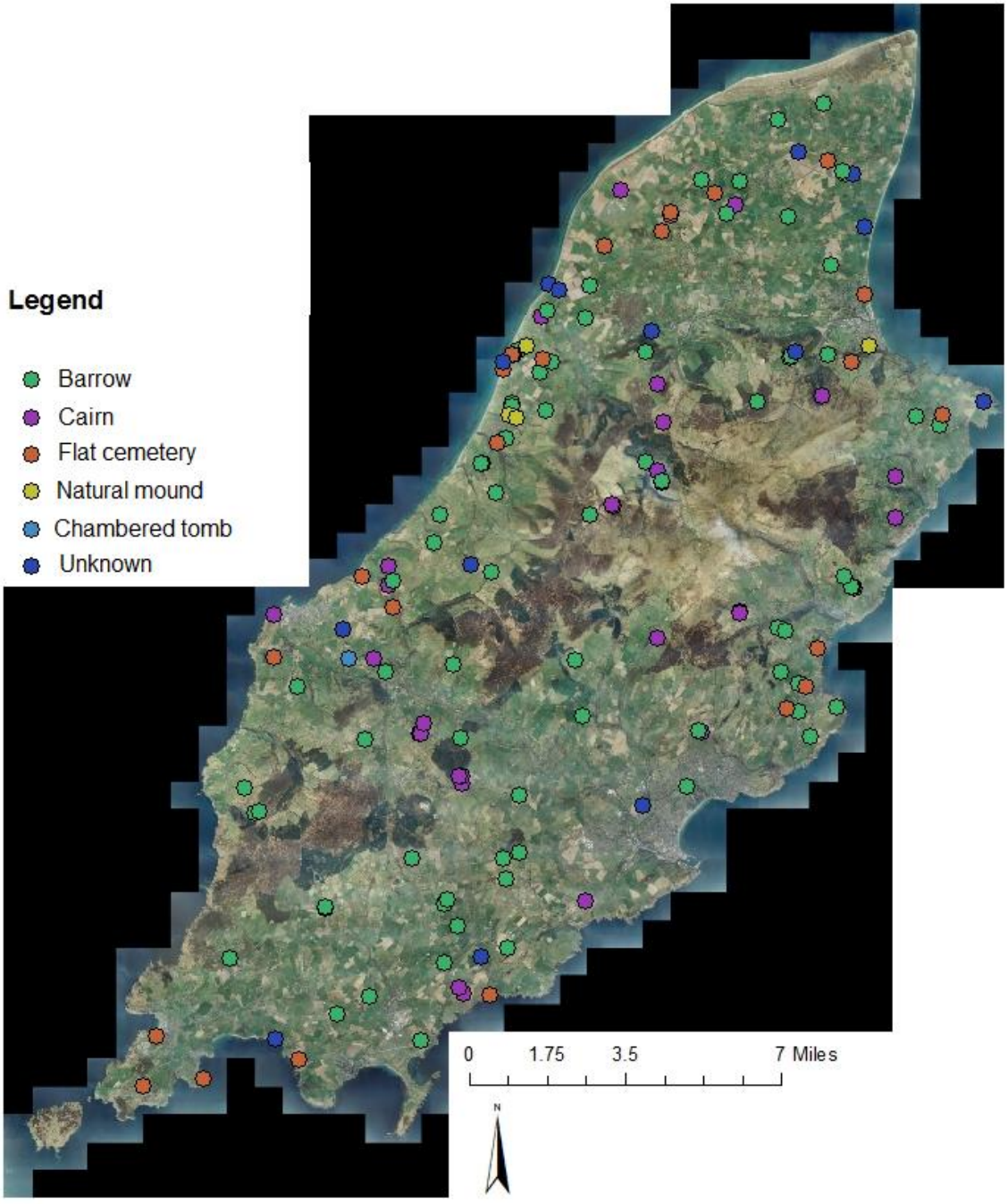


Figure 7-13: Map to show distribution of burial monuments

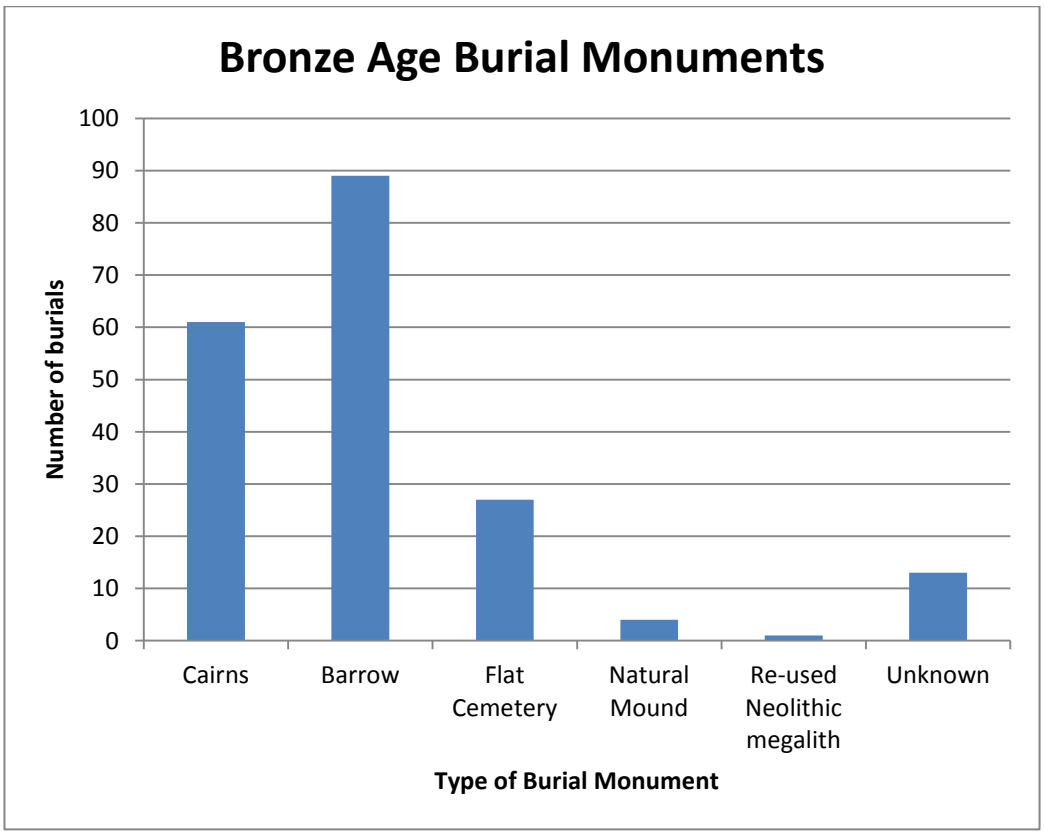


Figure 7-14: Types of Burial Monument from the Bronze Age, n=195

Figure 7-13 shows 198 sites from all areas of the island. The distribution is notably different to that seen for settlement sites (Figure 7-3) or Ronaldsway Earthfast Jar sites (Figure 7-12), and different to that noted for bronze axes in Chapter 5. It is truly a wide distribution on every kind of landscape across the island. In part, this distribution may result from Bronze Age barrows and cairns being the only upstanding aspect of Late Neolithic and Early Bronze Age archaeology in the landscape; they can often be easily identified in a way that a Ronaldsway Earthfast Jar site could not be. The map includes 115 excavated sites and 83 unexcavated sites. There are 13 sites listed as 'unknown' on the map, these are normally sites excavated by antiquarians who failed to note whether there was a barrow or mound covering the site they excavated. The map shows that flat cemeteries have been found more often in coastal areas and lowlands, again this may well reflect a recovery bias. There is a notable concentration of burial sites along the west coast of the island, particularly where the coast is flatter and more accessible from Peel to the northern most tip of the island. Several points arrise from the map: firstly it is clear that activity took place across much of the landscape and is not, as Figure 7-3 and Figure 7-12 might suggest, restricted to coastal lowlands. Secondly, there are significantly more of these kinds of sites than there are of sites from the Late Neolithic. Thirdly – there is a change in the kinds of places that emerge in the Early Bronze Age.

As discussed in Chapter 2 (Figure 2-8) the different kinds of Early Bronze Age pottery overlap with each other and are used at the same time as a result of constant changes in practices. In Chapter 2 I suggested, following Brindley (2006) that perhaps the clearest change in the Early Bronze Age burial practices, is the switch from mixed practices of cremation and inhumation to the singular use of cremation from 1900-1500 cal BC. Changes in other practices, including the kind of burial monument used, or not, to cover a burial are more diffuse and messy.

Table 7.1 shows the kinds of burial monument associated with burials containing identifiable pottery vessels. Each vessel here (rather than site as above in Figure 7-14) is given an individual entry, so if for example two Food Vessel Bowls were found with two separate burials inside a single barrow, there would be two barrow entries in the chart.

Food Vessel Bowl	
Type of Monument	**Number of Cases**
Cairn	0
Barrow	6
Flat Cemetery	2
Natural Mound	1
Re-used Neolithic megalith	1
Unknown	2
TOTAL	**12**

Food Vessel Vase	
Type of Monument	**Number of Cases**
Cairn	0
Barrow	1
Flat Cemetery	1
Natural Mound	0
Re-used Neolithic megalith	0
Unknown	0
TOTAL	**2**

Vase Urn	
Type of Monument	**Number of Cases**
Cairn	1
Barrow	0
Flat Cemetery	0
Natural Mound	1
Re-used Neolithic megalith	0
Unknown	0
TOTAL	**2**

Encrusted Urns	
Type of Monument	**Number of Cases**
Cairn	0
Barrow	1
Flat Cemetery	0
Natural Mound	0
Re-used Neolithic megalith	0
Unknown	1
TOTAL	**2**

Collared Urn	
Type of Monument	**Number of Cases**
Cairn	1
Barrow	2
Flat Cemetery	1
Natural Mound	0
Re-used Neolithic megalith	0
Unknown	3
TOTAL	**7**

Cordoned Urn	
Type of Monument	**Number of Cases**
Cairn	0
Barrow	7
Flat Cemetery	7
Natural Mound	0
Re-used Neolithic megalith	0
Unknown	5
TOTAL	**19**

Table 7.1: Association of burial monuments with Early Bronze Age pottery types.

There are a notably smaller number of cairns in Table 7.1 compared to the total distribution shown in Figure 7-14. Of the 61 cairns recorded in Figure 7-14, 37 are unexcavated. Of the 24 excavated cairns only two have any known diagnostic pottery associated with them. In many

ways the divide between cairn and barrow is a problematic one (see Fowler in press; Woodcock (2001)). Many barrows and cairns are made up of a mixture of both earth and stone. I have chosen to retain the divide in these tables as it is in line with the original source material, but also, as I feel from the antiquarian excavation accounts that there is a difference between barrows that are made of mostly (though not entirely) earth and cairns that have a far higher quantity of stone in their make-up. A rubbly cairn is a different kind of actant than an earthen barrow. Despite this I suspect that there is a continuum between cairns and barrows and that the more significant divide exists between 'flat' burials and those with some kind of covering (though one needs to consider potential flattening to sites in later periods), be it a natural mound, cairn or barrow.

Table 7.1 shows that flat burials are less common than those under a mound of some sort, but as discussed above, this may well represent a recovery bias. It is notable that the use of flat burials occurs in association with Food Vessel Bowl and Vase burials but is absent from Vase Urn and Encrusted Urn burials before re-appearing in association with Collared Urn burials and then finally peaking, to equal the number of burials with a covering structure, when associated with a Cordoned Urn. In many ways the earliest use of flat burials, in association with Food Vessel pottery is in keeping with Ronaldsway Late Neolithic practices where burials did not have a covering a mound. Despite this we see the introduction of covering mounds at other Food Vessel burial sites from the start of the period; a new practice. This practice of using covering mounds continued through the Early Bronze Age but with the use of Collared and Cordoned Urns there was a re-emergence of flat burials.

Building a barrow involves digging into the earth, potentially over a wide area, but then using this dug earth, and potentially stone, to construct a mound, an addition to the earth, where it is given a new form. This form will, with time, grow grass and vegetation if it is not tended. Creating a flat burial or a Ronaldsway Earthfast Jar site involved a similarity of practice in that both involved digging a hole into the earth and depositing material into it. Earthfast Jar sites, as discussed above, involve a pit that can take the vessel and is thereby essentially circular with a curved base into which the vessel can be buried, whereas Early Bronze Age burials may have involved the digging of a rectangular hole to take a cist.

Considering changing chaînes opératoires and emergent places at Bronze Age burial monuments

In order to consider the subtleties of change over time in the Early Bronze Age and deal with, what at first sight, appears to be a great deal of variety of practice I again implement the *chaîne opératoire* approach. The *chaîne opératoire* works to draw out the complex and multiple approaches involved in making a Bronze Age Burial monument and to allow more effective comparison through some simplification and compilation of qualitative data. Below, is a consideration of the various kinds of burials accompanied by pottery (giving a proxy for chronology) through the Early Bronze Age. The *chaînes opératoire*s have been built using every site from which pottery has been recovered that has been typologically identified by Woodcock (2008). Figure 7-15 shows schematic cross sections of the various kinds of burial monuments. Figure 7-16 shows a *chaîne opératoire* for the earliest Burials from the Bronze Age, those accompanied by Food Vessel Bowls and Vases, dating between 2160-1900 cal BC. These burials feature both cremations and inhumations. The *chaîne opératoire* gives a sense of the variety of kinds of monuments that were built – this is a period of diversity as new potteries and practices emerge.

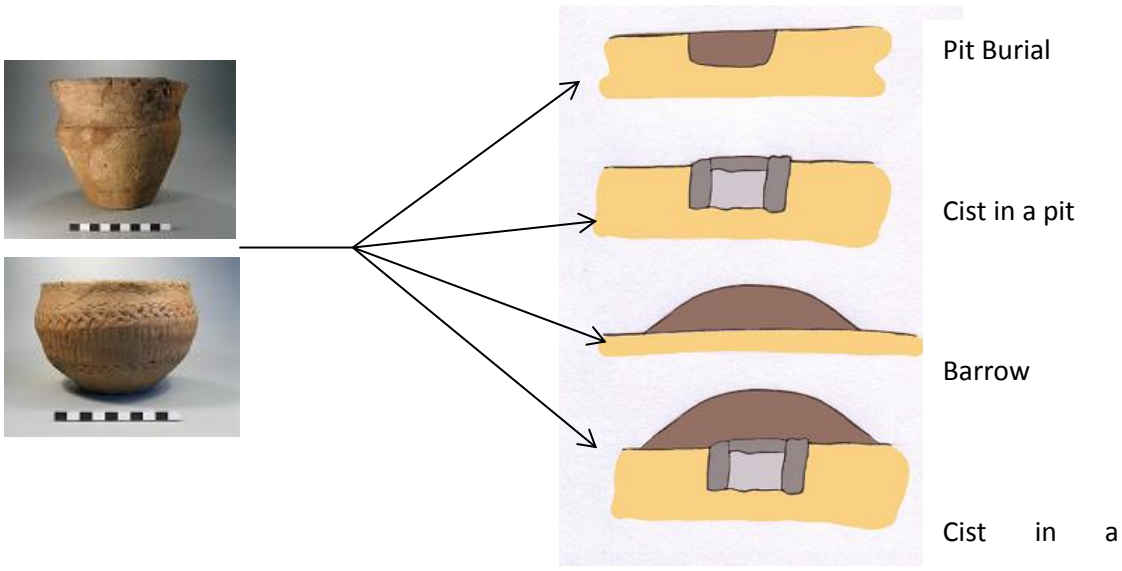


Figure 7-15: Schematic cross sections of the burial monuments associated with Food Vessel Bowls and Vases

Figure 7-16: *Chaîne Opératoire* for burials with Food Vessel Bowls and Food Vessel Vases

Figure 7-17 shows schematic cross sections for burials accompanied by Collared Urns (dated to 1850-1700 cal BC in Ireland (Brindley, 2007: 286)). On the island Collared Urns were only deposited in pit burials with a cist, a noted change from the earlier Food Vessel traditions. As Collared Urns and cremation practices became dominant, more variety appears to have emerged in mound building practices. Cairns and kerbed monuments involve different kinds of material entanglements and involve additional actants to create different kinds of places. It is notable that there are no known cists within mound sites from the period. The *chaîne opératoire* for Collared Urns (Figure 7-18) shows the increased variety in the kinds of mounds that were built to receive burials with Collared Urns. The practice of inverting an urn over a pile of cremated remains emerges with Collared Urns, from the Isle of Man there are Collared Urns known to have been both inverted over remains and upright containing them. The chaîne opératoire also makes clear the increasing importance of some particularly elaborate sites that are emerging: Collared Urns were both inserted into existing burial monuments (such as at The Cronk, Upper Lherghdhoo) and became places where additional Collared Urn burials could be added. As more actants and more relations become entangled the kinds of places that emerge become more dense as the actants become entangled. A place with more burials, more remains, more rituals and more pottery occurring at it is going to be more relationally dense and potentially more significant to the actants involved in its emergence.

Figure 7-17: Schematic cross sections of the burial monuments associated with Collared Urns

Figure 7-18: *Chaîne Opératoire* for burials with Collared Urns

The variety associated with Collared Urns is reduced when we look at the schematic cross sections for Cordoned Urns and the *chaînes opératoires* (Figure 7-19 and Figure 7-20). Cordoned Urns in Ireland date to 1730-1500 cal BC (Brindley, 2007: 292), their currency overlaps with that of Collared Urns, but the practices associated are more restricted, there appear to have been fewer options available to those who decided to bury an individual with a Collared Urn on the Isle of Man. All the known burials are cremations underneath inverted urns, and as discussed above the amount of known flat burial sites increases for the period.

Figure 7-19: Schematic cross sections of the burial monuments associated with Cordoned Urns

Figure 7-20: *Chaîne Opératoire* for burials with Cordoned Urn

Emerging places, emerging time - Early Bronze Age Burial Mounds

Mound construction appears to have had an even more complex *chaîne opératoire* than these diagrams indicate at some sites on the island. As noted in Chapter 6 the excavation of the majority of the known Bronze Age burials by antiquarians or during construction work means, in many cases, little of the structure of the mound was recorded. Arguably there are only two cases where the *chaîne opératoire* for the construction of the Bronze Age monument is relatively completely known: Killeaba and The Cronk, Upper Lherghydhoo. Despite this paucity of information there are a few cases where there are some notes on the construction of the mound (see *Appendix: Bronze Age Burials*) that highlight the potential complexity and variety of practices. Below, I discuss some examples of differing constructions of mounds and how these create a changing sense of place and time.

Social Cottage was excavated by Cannon Quine in 1925 (Quine 1926: 529-532). The barrow was recorded prior to excavation as being approximately 19m in diameter and 1.5m tall with a flat top. Initially a cairn of rubble was built on the natural ground surface (Figure 7-21). A 'cup-like' hollow was then dug within this cairn and a cist and cremated remains inserted. The cairn may have then stood like this for many years until a second phase of construction occurred. An earth layer was added on top of the cairn within which Quine found fragments of inverted urns and at least one shaped slate base on top of which the urn had been placed. One presumes that cremated remains had been placed under these inverted urns and that the acidic Manx soils have eroded these away.

Figure 7-21: Schematic cross section based on the description of Social Cottage

At Social Cottage we can see the emergence of changing places through time. The rubbly cairn initially changed the landscape, creating what was probably a grey lumpy and unstable pile of stones over the top of the cist. The place obviously remained known and potentially important. Memories of the cist, flint core and human remains changed, faded and were re-written. The cairn itself probably became *blackboxed* and the complexities of the exact construction and contents may well have been lost. Later a new kind of place begins to emerge, and a new sense of time. We cannot know how long had passed before the next phase of the mound was added: did people still remember the person first buried within? New actants are brought to the scene, people, pots, cremated remains and earth all shift and change the nature of place, indeed a new place emerges, time emerges and is changed. The nature of the place changes, it is now a place where more people, cremated remains, pottery vessels, slate bases and earth become relationally entangled with the existing cairn. The mound shifts from a grey rubbly cairn to a brown muddy mound, with time grasses and plants grow, a new greener mound emerges. Through new and changing relations place changes, new kinds of places emerge (Figure 7-22).

Figure 7-22: Relational emergence of Social Cottage

In addition to this particularly good example of complex construction of a burial mound there are also some mounds with a stone kerb. Woodcock (2001: 174) refers to these sites as "kerbed" monuments due to the uncertainty of their exact nature on the island. No kerbed monuments have been excavated and many have an unclear form due to late disturbance. Eight examples of potentially kerbed monuments are included in the *Appendix: Bronze Age Burial*. Notable examples of this kind of monument include Arragon Mooar A and Arragon Mooar B (Figure 7-23 and Figure 7-24). These two sites were identified by antiquarians as stone circles. Arragon Mooar B is a mound with a heavy stone content surrounded by a retaining kerb of 11 Manx granite boulders (Woodcock, 2001, appendix: 288-289). About 170m southeast is Arragon Mooar A. An earthen mound with 11 stones arranged in a circle, these stones appear to perch on top of the cairn (Woodcock 2001, appendix: 287-299). There are six stones of quartz and five granite blocks. With the bulk of Manx 'hard' Geology being generally grey stones from the Manx Series these white, glistening stones would have stood apart in the landscape. Monuments such as these involve additional stages in the *chaîne opératoire*. The encircling of a rubbly cairn with a kerb would have helped to stabilise the slopes of the monuments and also acts to clearly define the edges of the mound itself. Such kerbs change the nature of the sites in comparison to a barrow or cairn; perhaps we can observe an attempt

to halt, or reduce the natural rate of change by reducing the slumpage at a site and keeping the monument more clearly defined despite the passage of time. There is no clear date range for kerbed sites but they emerged in the later Early Bronze Age, once mounds had been constructed for a while. Communities at this time had had a chance to see how mounds weathered and changed through time, and they acted to reduce this.

Figure 7-23: Aarragon Mooar A. Top to Bottom: Site from a distance; Focus on central quartz circle, View from the top of the mound looking south; View from the top of the mound looking north.

Figure 7-24: Aaragon Mooar B. Viewed from a distance and up close

Developing tangles of places

In the previous section I indicated that at some sites increasingly dense tangles of actants and action appear to have built up over time. I highlighted the insertion of additional burials at sites and action that changed the nature of sites over time. Not only do some sites attract more burials and changes in their structure over time but at other sites, as noted in the *chaîne opératoires* above, additional sites emerge next to existing ones. Both mound sites and flat burials often cluster together to result in a 'cemetery' where new places emerge as mounds cluster together. Figure 7-25 below shows the same distribution of Bronze Age burial sites as indicated on Figure 7-13 above but sites that are plotted in purple are sites where more than one barrow has been built in the same place. At Peel Hill, for example, four barrows were built on a prominent ridge overlooking a large sweep of land. At Archallagan Plantation there are at least 18 mounds, some of which are still obvious today. Only one mound was ever excavated by an antiquarian, the finds from which have long since been lost. An illustration survives that suggests the mound was a rubbly cairn, inside of which a double cist housed two inverted Collared Urns (Figure 7-26 and Figure 7-27).

Figure 7-25: Map to show Early Bronze Age burial sites where more than one monument is present

Figure 7-26: Cross section through a cairn at Archallagan. Image from MNH MNHER 0301

Figure 7-27: Barrow in Archallagan Plantation. Photo David Horan.

As well as places where multiple barrows were built together there are also sites where multiple different deposits were made within a single monument. The best excavated example of this, as discussed above, is The Cronk, Lherghydhoo, to the north of Peel Bay (Woodcock, 1996) (Figure 7-28). The Cronk is one of three mounds in the area and two further flat burials are nearby at Strandhall and Ballagyr. The site boasts at least three burials. Initially an oval pit was dug into the ground and a cist built within it. A Food Vessel Vase, cremated remains, bone toggle, bone pin and bone bodkins were placed into the cist (Woodcock, 1996: 240). A mound was then built over the top of the cist. Sometime later, to the west of the cist, a pit was dug through the mound and the natural and a plain vessel was placed, mouth up, filled with a few small scraps of cremated bone, charcoal and a single clay bead (Woodcock, 1996: 242). A third disturbed burial was also discovered: a broken Cordoned urn and cremated remains were found scattered across a small area with a vitrified leaf shaped blade and a burnt plano-convex knife. The knife had perhaps been cremated with the deceased. Woodcock (1996: 242) states that the excavation notes suggest the Cordoned Urn had been found upright on top of a cup marked slate, given the rest of the known Cordoned Urns from the island I suspect it may have been inverted. Additional fragments of cremated bone and of a bronze blade or razor were found in the southeast quadrant of the mound perhaps indicating a fourth burial.

Figure 7-28: Plans from The Cronk Upper Lherghdhoo, and Food Vessel pot. Plans taken from Woodcock, 1996: 235, 237, figs 3 and 4. Food Vessel image MNH.

At sites with multiple burials or multiple monuments the landscape was altered, and the past was writ large. Pieces of time, people and places are materialised in the landscape. As more mounds and burials clustered, perhaps older ones were forgotten or black-boxed, their meanings changed. The sense of place changed as communities became increasingly nestled between all the tangles of people (alive and dead), materials, times past, memories and earth. This is a landscape in contrast to that of the Later Neolithic; this is not the landscape where

activity was cleared away into pits and Earthfast Jars but rather one where the past was made visible. These were also places where the past visibly changed: mounds grew, they changed material, plants colonised, earth crept and moved, stones tumbled. These were not places where the past was static.

Changing relations with the earth and the emergence of place

As archaeologists when we look for places in the landscape we rely on there being material culture for us to find to indicate that past places existed. Our own ontologies and ideas about what places are stop us seeing the scope of evidence available to us in considering emerging places. Places certainly exist but they are shifting and they form through repeated relational involvement of actants. In this chapter I have argued that place, like time, is an emergent property, it comes from tangles of actants. These actants are diverse they are people, stones, soils, pottery, rituals, human remains and animals. The more actants, the more densely entwined, the more prominent the potential for the emergence of place becomes. As a by-product of this density of actants we are also likely to see more change in an emerging place. All the actants are shifting and changing, their relationships are in flux, and as a result changes are certain to occur. These may be the imperceptible changes of worms and soils slowly rotting cremated remains under the earth, the gradual changes of wind and rain shifting soils and rocks down the sides of cairns or the changes that occur when new people, new potteries and new actants add more burials to an already existing site.

In this chapter, I have considered a variety of evidence to look at relations with the earth and the emergence of place. I have not characterised the landscape of the island or the kinds of places where settlements and barrows are common. There is no historic landscape characterisation for the island and as such I feel that any characterisation relating to trees, shade, shelter, water courses etc. would be uncertain. Rather, I have focused on the evidence and actants that are known to us. The Ronaldsway Late Neolithic on the Isle of Man is 'hard to find' – but part of that difficulty, I feel reflects a reality of the period. This was a period where digging into the earth was an important practice, and the important relations between people and digging in the earth are, I have argued, materialised in the Ronaldsway Earthfast jar. Past activity is cleared away and erased from this landscape. In the Bronze Age I have suggested that there is a change in relations; up-standing monuments made of earth and stone were

constructed to mark burials. These up-standing additions to the landscape are also accompanied by flat cemeteries that would have been ephemerally, if at all, marked. Indeed they may well not have been 'marked' at all by a post or stone but rather they emerge and remain as tangles of action and actants brought together and from this tangle specific places and times emerged. In these different practices we see a real contrast between the two periods, but it is not a cut-and-dry difference rather some practices and similarities remain and the change through the Early Bronze Age where pottery offers us a real chance to look at relatively fine grained chronologies are gradual and subtle. The most marked contrast between these two periods is the difference between practices that seek to erase or hide past activity from the landscape and those of the Early Bronze Age that appear to materialise past activity on a large scale. With these changes time was changed, pasts were made proximate as was their changing nature.

8. Relations across the sea: a new narrative for an emerging Manx Bronze Age

In this final chapter I gather the different aspects of the thesis together in order to consider the changes that occurred from 3000-1500 cal BC on the Isle of Man in relation to the broader Irish Sea context. I reconsider existing narratives that present the Isle of Man as a Late Neolithic 'outsider' who returned to the 'mainstream' in the Early Bronze Age. By considering how specific actants were constantly changing, emergent and in flux as part of relational assemblages I seek to do away with culture historical narratives and models that predicate change on singular causation and explore a more complex situation. In the process I demonstrate that the theoretical stance adopted in this thesis has merit beyond this immediate case study as it offers a new way of approaching change and cultural differences in prehistory.

I begin by summarising the theoretical outline established in Chapter 4. I use this theoretical foundation, with the data and interpretations presented in Chapters 5, 6 and 7 to write a new narrative for the emergence of a Manx Bronze Age. Finally I seek to show that existing interpretations, need re-considering and trace genealogies of change through the Late Neolithic and into the Early Bronze Age. I argue for the importance of a re-consideration of change in prehistory and offer the understandings presented within this thesis as one possible means to explore change through time.

Multiple scales, multiple assemblages, multiple narratives

The issue of the inclusion and exclusion of the Isle of Man from narratives of the Late Neolithic and Early Bronze Age feeds into issues of scale in archaeology. There are scales at which it is possible to exclude, whether on purpose or not, the evidence from the Isle of Man and write narratives of the period 3000-1500 cal BC in Britain and Ireland that paint a picture of a relatively homogenous situation. Equally, there are scales of analysis at which evidence can be assembled to paint a picture of Beakers as a pan-European culture causing a specific set of

changes. As argued in Chapter 4, assemblages are multiple and work at many scales; this is what allows one to open a black-boxed actant and peer within. The Early Bronze Age, as we know it, exists in the present as it is assembled by various authors, archaeologists, museum and funding bodies. There are certain scales of analysis and particular assemblages of actants from which narratives of the spread of Beaker metallurgy across Europe and the emergence of social inequalities as a result of metal emerge.

This thesis builds heavily on the work of Stephen Burrow (1997a) and Jenny Woodcock (2001). Their pioneering work cataloguing Neolithic and Bronze Age sites and pottery from the Isle of Man worked to make Manx prehistory accessible. Their two BARs (Burrow, 1997b and Woodcock, 2008 respectively), are the books I have referred to and read most often while writing this thesis. Yet I have also contradicted some of their arguments and sought to upset and question some of their interpretations. This thesis differs from theirs because I have assembled different groups of actants at different scales of time. Both their PhD theses, and their monographs, sought to study the whole of the Neolithic or Bronze Age respectively, while I have actively sought to assemble, describe and interpret the archaeology of the period 3000-1500 cal BC with a specific emphasis on change during that time. I owe both their scholarships a great debt; my work would not have been possible without theirs. However, there are different scales and different assemblages involved in my own work and these differences, and the new actants (such as analyses, objects and theories) that have emerged, mean my assemblages demand different considerations and interpretations than theirs did.

The theoretical stance that I outlined in Chapter 4, and sought to implement through the rest of my thesis, has argued that the world is fundamentally relational. I have argued that the only way we can understand change through time is by chasing and investigating changing relational assemblages through time. My thesis has sought to operate at multiple scales of both time and geography, investigating individual sites for which one narrative emerges, an island scale at which different questions and narratives emerge, and a wider Irish Sea context within which different issues and pieces of the assemblage seem more pertinent. The point is, that no one scale of the assemblage should be seen as more 'true', real or privileged than any other. This does not mean that 'anything goes': we need to look for the most complete and well-articulated assemblages to create better translations of the past than others.

The structure of this thesis is based on exploring three different assemblages of evidence: axes, burials and evidence of occupation. These three were not selected because they are the only means by which to explore change from 3000-1500 cal BC; different assemblages of evidence are possible and would produce different interpretations. They were selected for multiple reasons, firstly the chapter focusing on metal and stone was selected to drive to the heart of what is seen as the traditional difference between the two periods: the use of stone versus metallurgical technologies. I aimed to explore the impact of a new technology on existing assemblages; how do relations and actants shift with the addition of a new actant. Chapter 6 sought to investigate the extensive burial data. Changes in burial practices are key in the definition of the emergence of the Bronze Age. Chapter 7 arose from the data itself; as I began to explore the material, relations with the earth continually emerged as an important theme for the Ronaldsway Late Neolithic – I then explored how this changed with the emergence of the Bronze Age.

In each of these three cases I sought to trace assemblages of relations between ideas, objects, places and peoples, at multiple scales in order to trace genealogies of change through time, working at multiple scales to marshal evidence from the microscopic trace on the axe, to the radiocarbon date, to the evidence of many burial mounds from the island. Table 8.1 shows a summary of how I traced change in each of these actants.

Actant	Within the actant's *blackbox*	Changes identified
Axes	Material	Changes from stone to copper to copper alloy
	Shape	Stable? In the Late Neolithic - clear transition of forms in the Early Bronze Age
	Making Process	Addition of fire and smelting process in the Early Bronze Age
	Ideas about finishing	Clear emphasis on particular form and roughening in the Late Neolithic, perhaps a decrease in this in the Early Bronze Age, many axes used with faults
	Ideas about origins	Clearly central in Late Neolithic but perhaps decreasing in the Early Bronze Age with recycling
	Use	Potentially the same function in both periods. Practically used and deposited in charged ceremonies away from settlement and burial sites.
Burials	Cremation	Dominates in both periods, but is not 'the same' in both periods. Brief period of inhumation in the Early Bronze Age though it does not dominate.
	Interaction with deceased	Evidence suggests high level of interaction with deceased in the Late Neolithic using Earthfast Jars. Interaction continues in the Early Bronze Age however it gradually decreases as the design of cists, barrows and cairns limit the possibility for this kind of interaction. However, it appears that burial sites often received multiple deposits indicating that returning to sites continued.
	Grave furniture	Late Neolithic marked by minimal grave furniture, often just a pit receiving cremated remains. In the Early Bronze Age cists contain remains in some cases, however they are gradually replaced by inverted large ceramic urns
	Grave goods	Few grave goods evident in the known Late Neolithic burials. In the Early Bronze Age pottery vessels accompany the deceased and later in the Early Bronze Age some grave goods such as beads become appropriate
	Pottery	Clear change between Earthfast Jars with no decoration, a coarse fabric and large size to small finely crafted and decorated bowls then later vases. These vessels give way to large vessels with more restricted decoration that come to be inverted over cremated remains as a form of container
Relations with the earth	Settlement sites	Apparently similar in both periods, mobile communities potentially revisiting certain sites
	Depositing things in the earth	Some use of pits in both periods though the production of large pits of material culture declines in the Early Bronze Age. Axes continue to be deposited in both periods.
	Burial Monuments	Apparently absent in the Late Neolithic, much evidence of life is tidied away. Changes in the Early Bronze Age with the rise of barrows and cairns as a materialisation in the landscape.

Table 8.1: Changing actants explored in this thesis

In Chapter 4 I outlined an approach that sought to challenge past approaches. I argued for a shift in the perception of time away from being seen as a container for action to an emergent property of relations and change. I argued against "revolution" and "origin" thinking suggesting they were predicated on cumulative, linear, discrete blocks of time clearly separated from each other and the notion of there being one true cause of change or original form of any given phenomenon. Instead I suggested that the world is made of vibrant matter that is in constant flux, an open ended world, always in process and never static. I argued that this constant change at all levels meant that change was never the result of singular causation: that *x* never simply caused *y* but instead that multiple causation always resulted in change. I argued that by seeing the world as a mass of relational vibrant actants, always in flux we could see that change was the result of multiple inter-related actants that were best traced as genealogies.

I drew on the work of DeLanda to argue for the importance of *phase transitions*. *Phase transitions* are when notably marked changes appear evident. The result of the build-up of numerous smaller inter-related changes that contribute to a more marked change: heating water from 1°c to 100°c is a gradual process but the *phase transition* at 100°c appears more marked (DeLanda, 2000: 15). This model enables us to acknowledge that there are some marked transitions in the past but they are not progressive, developmental and teleological but rather they are the result of multiple processes that had already been in motion for some time and can co-exist together. I sought to implement the idea of the *phase transition* to avoid a situation where constant, low-level gradual change became the norm – change is not homogenous. Things are always vibrating and in flux, however sometimes these constantly changing and fluxing relations build up to create change of a different type, speed or intensity from other times. The assemblages of actants and relations that changes occur within assure that it is not always the same. Some actants will act to reduce change, others will amplify it, having a catalytic effect. For example, the continuity of cremation arguably reduced the appearance of change in burial practices between the Late Neolithic and Early Bronze Age (though the practice itself was not exactly the same in both periods). Whereas, the changing pottery vessels of the Early Bronze Age highlight clearly that changes in burial practice and *phase transitions* had, and continued to, occur. Similarly, the new actant metal emerges but the form that it initially dominates in, the axe, acts to reduce some of the change that metal brings initially due to the existing, powerful, dense assemblage that surrounds stone axes. As the understanding of the new actant changed, and the form of axes began to change, a *phase transition* emerged.

I drew upon the notion of territorialization and de-territorialization to understand how it is that assemblages do not just expand exponentially. New practices and material cultures are adopted, adapted and translated when they fit within existing assemblages and relations. As Robb and Harris (2013: 225) suggest, change is not the wholesale replacement of one view or way of life with another rather it comes from shifting relations, relations effected by new actants and novel arrangements of actants within assemblages. Drawing on Dewsbury (2011) and Harris (forthcoming) I argued that assemblages act simultaneously to bring together and to pull apart. As an assemblage draws in new objects, places, relations and connections become increasingly linked and stabilised. Others will begin to separate and escape the assemblage. One can see that through time Food Vessels become territorialized within the assemblage that makes up what we term the "Early Bronze Age" as a result of their increasing deployment in burial practices and the multiple relations this creates, whereas Ronaldsway Late Neolithic pottery becomes increasingly de-territorialized as its use becomes increasingly inappropriate: it no longer fits assemblages.

As a result of exchange networks and travel, communities on the Isle of Man came into constant contact with people from beyond their island shores and became familiar with ways of life and practices that differed from their own. Some of these different practices and actants were adopted, adapted and translated by communities on the Isle of Man, if and when they fitted within the existing relational assemblages on the island, such as copper-alloy axes. By bringing these new actants into the existing relational assemblages other actants were also changed and the assemblage itself shifted; hence we see the declining importance of stone axes and with time relations concerned with the origin of the material an axe was made of. As different practices, material cultures and other new actants were brought into new assemblages they were translated – using Grooved Ware in one place did not have the exact same meanings or imply the same relations as it did elsewhere. There was no top-down leader surveying cultural practices and material culture across the rest of Britain and tactically selecting what might make sense on the Isle of Man. Rather, it was a piecemeal process where people were exposed to new practices and material culture and adapted things that 'made sense' locally.

The development of this locally specific assemblage is not a consequence of island geography. Communities and assemblages are always local, and there are a plethora of studies that show

the specificity of local Neolithics and Bronze Ages across Britain (for example, Carlin, (2012); Cooney (2000); Fowler (in press)). It is not only island communities that adopt, adapt, translate, reject and innovate in a context of contact with neighbours and travellers, rather it is all communities. I will discuss below, the often swift and constant exposure to differing practices that the seascape around the island offered. This has resulted in a long genealogy of difference and similarity to the rest of Britain and Ireland on the Isle of Man. In this, the Isle of Man was both a distinctive region, but also situated as any other region with its own specific border, boundaries and routeways with respect to specific neighbours.

An Emerging Narrative

I now seek to bring together the theoretical stance outlined in Chapter 4, with the changing assemblages discussed in Chapters 5, 6 and 7 at a scale that stretches beyond the shores of the Isle of Man and seeks to offer an Irish Sea context for tracing changes that occurred from 3000-1500 cal BC. This will of course mean taking a less fine-grained approach to the evidence, assembling actants that some might see as less nuanced - and without question my characterisation of the archaeology of the rest of Britain and Ireland will be coarser. The evidence from Britain and Ireland has to be *translated* in Latourian terms (as discussed in Chapter 4) into a form that is appropriate for the particular assemblage that is my thesis, and that necessarily involves some amplification and reduction of certain aspects of the material. I assemble a wide variety of evidence alongside the research from this thesis in order to create a new narrative for the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man that is specifically local to the island but also understands that locality cannot, and does not, sit in isolation.

Ronaldsway Late Neolithic

The most important point to make at the outset of a discussion of the Ronaldsway Late Neolithic is that the 'causation' for the distinctive character of the period is most certainly not island isolation. I do not believe that the evidence supports any interpretation of isolation and separation, rather I argue the opposite. The deposition of polished stone axes from Ireland,

Langdale, Wales and even a jadeite axe from continental Europe, the use of Grooved Ware pottery, practices of deposition in pits and shafts and the dominance of cremation all show links to places beyond the island shores and index what we must assume to be regular and constant contact with other places. Furthermore, I argue that the unique aspects of the Ronaldsway Late Neolithic arise from a knowledge of practices elsewhere. The Isle of Man is visible from Ireland, Northern Ireland, Scotland, Wales and England on a clear day (Figure 8-1). No archaeologist posits a break in contact between Britain and Ireland during the period and as such we are to presume that seafaring and journeying between these isles was constant. Indeed the spread of Grooved Ware design from Ireland to Orkney and down to Durrington Walls across hundreds of years (see Thomas, 2009) would argue strongly for the heavy use of the Irish Sea as a 'hyper-conductor'. Furthermore the swift adoption of Irish Food Vessels (see Chapter 6) and the arrival of early forms of copper and bronze from Ross Island (see Chapter 5) would seem to suggest that contact with Ireland in particular pre-figured the arrival of material cultures and practices at the start of the Bronze Age.

Figure 8-1: Top – Wigtownshire, Scotland, on the horizon. Bottom – Mountain of Mourne, Ireland, on the horizon.

Earthfast Jar pottery was the result one must presume of innovation on the Isle of Man, I suggest that the pottery has its genealogy in earlier pitting practices (as identified at Billown for the Early and Middle Neolithic). As I have argued in Chapters 6 and 7, I believe Earthfast Jars are, in their buried form a materialisation of the earth itself, a lined pit that allowed continual access to a stabilised hole in the earth. They emerge not as a result of an inability to compete in Late Neolithic practices in the rest of Britain and Ireland but as a result of local assemblages and practices that pre-figure the period. This is a practice that diverges from the earlier emphasis on megalithic constructions. Cummings and Fowler (2004: 113) show that the bulk of the Ronaldsway Late Neolithic archaeology focuses on the northwest glacial plain and the southern plains of the island, whereas, many of the megaliths are located on the east coast of the island (Figure 8-2). They suggested therefore, that not only did older practices become inappropriate but also older places too.

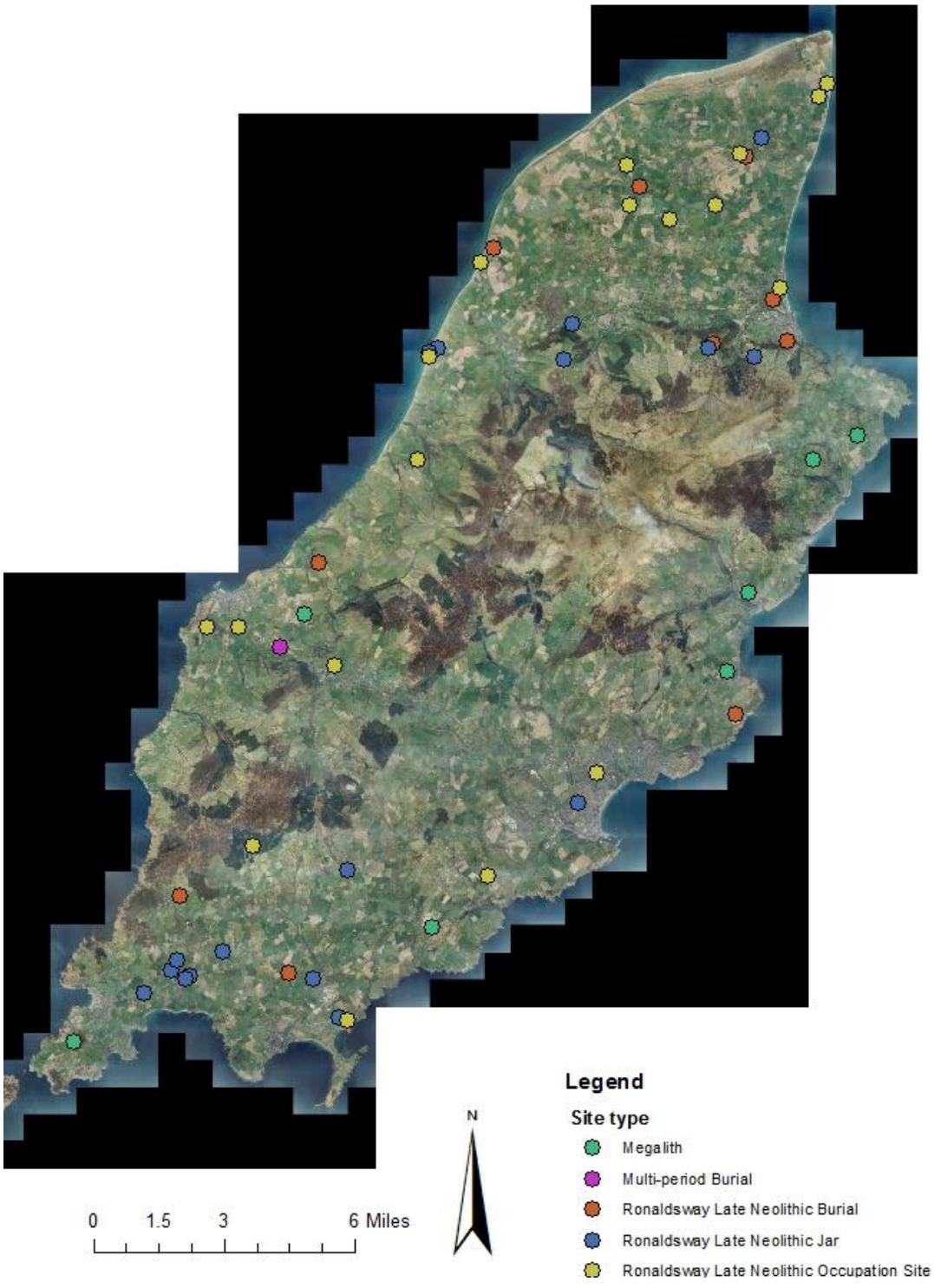


Figure 8-2: Map to show distribution of Middle and Late Neolithic sites.

The importance of 'pitting' and Earthfast jar practices I suggest extended into much of the way of life during the Ronaldsway Late Neolithic. Placing broken objects in pits continued to be of importance. Alongside this, and potentially drawing relationally and genealogically on this, an extension of relations with material deposited in the earth emerged. I have suggested that

where megaliths and chambered tombs had earlier offered the opportunity to break up bodies and treat different parts differently and allowed frequent contact with the deceased Earthfast Jars continued and translated this practice into a new form (Figure 8-3). They materialised a pit within the earth which could be continually and repeatedly accessed. I have suggested that cremated remains may have been distributed into these pots temporarily before receiving a more permanent deposition elsewhere. I have also argued that other materials were placed within these jars. They may simply have been as 'storage' jars but they were also used for the storage of potent and powerful materials, such as cremated remains. I have argued that relations with the dead have been continued in this way. I have also sought to draw out the ways in which bodies have been broken up by cremation in the same way that material deposited in pits and scatters appears to have been, in some cases, purposefully broken. Whilst we have no direct evidence for this at present, I suggest that other 'dead' material may have been temporarily placed into the Earthfast jar before permanent deposition in pits.

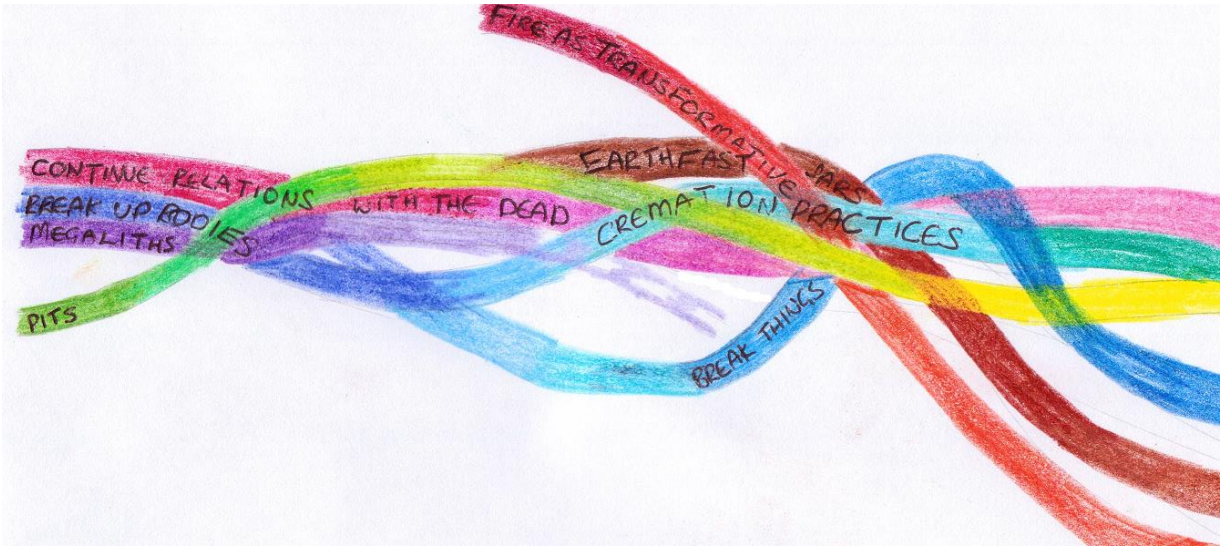


Figure 8-3: Emergence of Ronaldsway Late Neolithic Practices

There appears to be little evidence in the period for the accumulation of personal wealth. I argue that the lack of grave goods in the period and the continued relations with broken up deceased people speaks of relations that focused on people themselves. At sites such as Ballateare we are not seeing the presentation of a deceased elite but the communal burial of a community. I also suggest that the breaking up of human bodies by cremation, on death and their burial in the earth could be seen to have relations and connections with the practices of breaking up pottery and other domestic debris before depositing it in the ground. I am not

suggesting ontological equivalence here rather I am suggesting similarities in their assemblages that led to the two different processes being understood mutually.

It is notable that Grooved Ware sherds found on the Isle of Man appear in deposits alongside Ronaldsway Late Neolithic Earthfast pottery and other material culture. The presence of Grooved Ware clearly evidences contact with other parts of Britain and Ireland. Burrow (1997b: 24) notes that Grooved Ware and Ronaldsway sherds are not always easy to tell apart and that there is an overlap in decoration and that the pots could well have been made by the same potters that produced Earthfast Jars. Grooved Ware has at present only been identified from a limited number of sites including Ronaldsway 'House', Glencrutchery and potentially Ballacottier. Burrow (1997b) argued that this was indicative of the ostentatious use of the pottery in acts of display at these notably unusual sites with their very large deposits of material culture. I suggest at these sites Grooved Ware was territorialized into meaningful deposits of material culture but that this does not necessarily preclude its use elsewhere at other sites or suggest that the Grooved Ware was used to legitimate the deposit as 'special'.

Whilst the finishing and butt end of RTB axes shows clear differences from practices elsewhere in Britain and Ireland it would appear that much of the symbolic power of polished stone axes, as seen elsewhere, translated onto the Isle of Man. Axes from varied non-local stone sources made their way to the island; some of which were deposited in the form in which they entered the island whereas other axes were roughened on the butt. Whether RTB axes were viewed as a different category of object from polished stone axes remains unclear, they are often deposited together at the same sites (for example Ronaldsway 'house') and appear to have been treated in similar ways. One might wonder whether RTB axes were hafted differently than polished stone axes acting to further accentuate their difference from polished stone axes. Notably, polished stone axes do not appear at burial sites and are rarely found in association with other Late Neolithic sites – they have been primarily uncovered as single finds in a separate context from the rest of life. The complex assemblage that constitutes stone axes in the Late Neolithic very clearly pre-figures the emergence of metal axes and provides some of the relations for their emergence.

No Beakers?

As discussed in Chapter 6 the evidence for the use of Beakers and the adoption of Beaker practices on the Isle of Man is currently very weak. On the present evidence it would appear appropriate to argue for a rejection of Beaker practices on the Isle of Man, and this would include both the British and Irish Beaker practices. However, a note of caution is required, in 1996 in Ireland 65 sites had been identified with Beaker pottery, but following a boom in construction, that number increased to 150 sites - the vast majority of which were non-monumental green-field locations where no archaeological remains had been previously identified (Carlin, 2012: 4-5). The Isle of Man has seen relatively little archaeological excavation in recent years, and we might wonder on the potential for currently undeveloped land to contain non-monumental sites that date to both the Late Neolithic and Early Bronze Age. However, for now, my interpretation rests on, and emerges from, the currently assembled evidence.

I believe the overwhelming evidence for continued contact and links to other places means that at least some members of communities on the Isle of Man would have been exposed to, and aware of, Beaker practices. I include here both the 'classic' Beaker burials of Britain and the use of Beaker pottery in pits and settlement scatters, the construction of Wedge Tombs and the deposition of Beaker material culture such as lunulae, copper daggers, v-perforated buttons and bracers, as seen in Ireland. It would appear, from the current archaeological evidence, that these practices were not common on the Isle of Man. Speculating on why the practices were not adapted I tentatively suggest that the 'rich graves' of Britain were inappropriate on the Isle of Man in the Ronaldsway Late Neolithic context where burials were traditionally of cremations with few grave goods and in some or many cases may have involved extended relations with the remains of the deceased. Needham (pers. comm.), in his 2011 Rhind Lectures, talks of 'rich' burials as being the selective presentation of special members of the community to a community of ancestors from a cosmological other world. I speculate here that the presentation of a decorated and idealised elite was seen as deeply inappropriate and failed to articulate within the assemblage of the Late Neolithic on the Isle of Man at this time. However, this does not necessarily explain the absence of the more common, humble Beaker burials. Any answer here must be tentative, but one could speculate that inhumation was seen as inappropriate on the island when communities first learned of Beaker burials: it had no place in the existing assemblage that valued cremation. In addition, the strength of relations with Ireland made Food Vessels a far more powerful actant for communities on the Isle of Man at this time.

There is a small amount of evidence that Beaker pottery may have been broken and placed within pits on the Isle of Man from Ballachrink and Billown. Both these sites are non-monumental and perhaps hint at the potential for further similar finds as mentioned above. In Ireland, Carlin (2012: 82-9) has argued, that material deposited in pits associated with Beaker pottery appears to have been broken and deposited in temporary rubbish piles or middens before it was transferred into a pit dug specifically to receive the deposit. Carlin (2012: 95) suggests that these deposits are not mere rubbish dumps or storage pits. He argues that the pits may post-date the occupation of the area and seem to

> "… represent ritualised performance of the everyday that intentionally depict the domestic aspects of life… These fragments of inhabitation reflected communal endeavours such as the shared preparation and consumption of food and symbolised the sociality of the household. The formalised deposition of these materials ritualised the occupational customs of daily life, in a manner that accentuated people's shared connections with each other. These deposits served as metaphorical depictions of the various social ties that bound people, places and their ancestors together to form a socially cohesive cosmology."
>
> Carlin, 2012: 118-9

One could identify links here to practices during the Ronaldsway Late Neolithic at pit, scatter and shaft sites. The Ronaldsway Late Neolithic way of life included the use of pits for the deposition of what appears to be the material culture of daily life, as discussed in Chapter 7. Whilst I do not want to imply that at Ballachrink we see the carbon copy of practices from Ireland I suggest that we may be viewing a translation of some Irish practices on the Isle of Man in an assemblage where their adoption, adaption and translation occurred and was pre-figured by Ronaldsway Late Neolithic assemblages.

Interestingly, whilst there is the potential for identifying similarity with Ireland in the use of pits there is a lack of evidence for the ritual deposition of objects with Beaker connections, as seen in Ireland. There are currently no known deposits of V-perforated buttons, polypod bowls, bracers, copper daggers or lunulae on the Isle of Man, though there is the single gold disc discussed in Chapter 5 which does show similarities with gold discs known from Ireland. It would seem that depositing these kinds of objects was not part of the assemblage of practices

on the Isle of Man at this time. However, as I will now discuss, axes remained the appropriate material for ritual deposition on the Isle of Man through the Early Bronze Age continuing a genealogy of deposition that stems from polished stone axes.

The first metal users

As I have argued in Chapter 5, copper and bronze appear to have arrived on the Isle of Man relatively soon after their spread through Ireland. I also suggest that this is a situation further supported by the new radiocarbon dates for the first Food Vessels indicating constant contact with Ireland and the relatively synchronous emergence of Food Vessel associated practices. I suggest that this position is further supported by the Ballamoar 'hoard'. The discovery of A1 group metal and copper objects on the west coast of the island, including blanks and a potential ingot, hint at a situation where copper and bronze were part of the Early Bronze Age assemblage on the Isle of Man from an early date. I also suggest that the presence of blanks and an ingot may speak of the movement of metals from Ireland, through the Isle of Man and across to Britain. The central Irish Sea location of the island would make it seem a likely mode of connection between Britain and Ireland for which the evidence of the movement of metals is so clearly evidenced.

Despite this clear evidence of the adoption of copper and bronze on the Isle of Man there is also an argument to be made for the translation of this material when it reached the island. Metals seem to have been deposited in pits dug into the earth. I suggest that this followed the genealogy of practices relating to stone axes on the island. Furthermore, the deposition of axes in pits relates to the dominance of deposition within earth-holes and pits in the Ronaldsway Late Neolithic. The same kinds of exclusions and rules seem to apply to axes on the Isle of Man as elsewhere: they are excluded from the grave context and mostly excluded from settlement sites; instead they must be deposited in seemingly 'natural places' away from the loci of daily life.

Many of the known axes appear to have been imperfect when they were deposited. Many of them are poorly cast, as shown in Chapter 5: often too little metal was smelted for a complete cast. Despite this all the axes appear to show signs of use. They lack the high level of

craftsmanship in the finish that we associate with polished stone axes. One could use the lack of metal in the butts of axes to speculate about a lack of metal availability on the island. Alternatively, one could speculate as to whether the lack of metal in the butts of several of the known Early Bronze Age axes may speak of a genealogy that links to the roughening of the butts of axes on the Isle of Man (Figure 8-4). It is notable that the axes from 2500-2300 cal BC, which appear to mostly be made of A1 metal do not show imperfections to the butt, however, from 2300-1500 cal BC five of the seven known axes show imperfections to the butt. Furthermore, it is notable that all the axes from the Early Bronze Age with a surface suitable for use-wear analysis show signs of use, and in some cases very heavy use. I speculate that we are not looking at a situation where often heavily worn and poorly cast objects were deposited on the Isle of Man because there was a lack of metal available. I think the evidence of movement, contact, copper ingots, blanks and the radiocarbon dates for Food Vessels support a position where the Isle of Man was thoroughly located and stabilised within an assemblage of early metal users and heavily linked to Ireland. I tentatively speculate that on the Isle of Man axes were more appropriate for deposition within the earth when they had been used. Furthermore, axes with what we see as 'damage' or a 'poorly cast' form were actively selected for deposition. These practices could potentially be drawing on the multiple strands of a Ronaldsway Late Neolithic assemblage and genealogy that included RTB axes and deposits of bodies broken by cremation and pits filled with the broken debris of everyday life.

Figure 8-4: Metal axe, with imperfect butt end and RTB axe.

Alongside the translation of copper and bronze axes on the Isle of Man I want to argue that other forms of metal object were rejected. Figure 8-5 shows the distribution of Halberds in the Britain and Ireland and Figure 8-6 shows the distribution of copper daggers and knives.

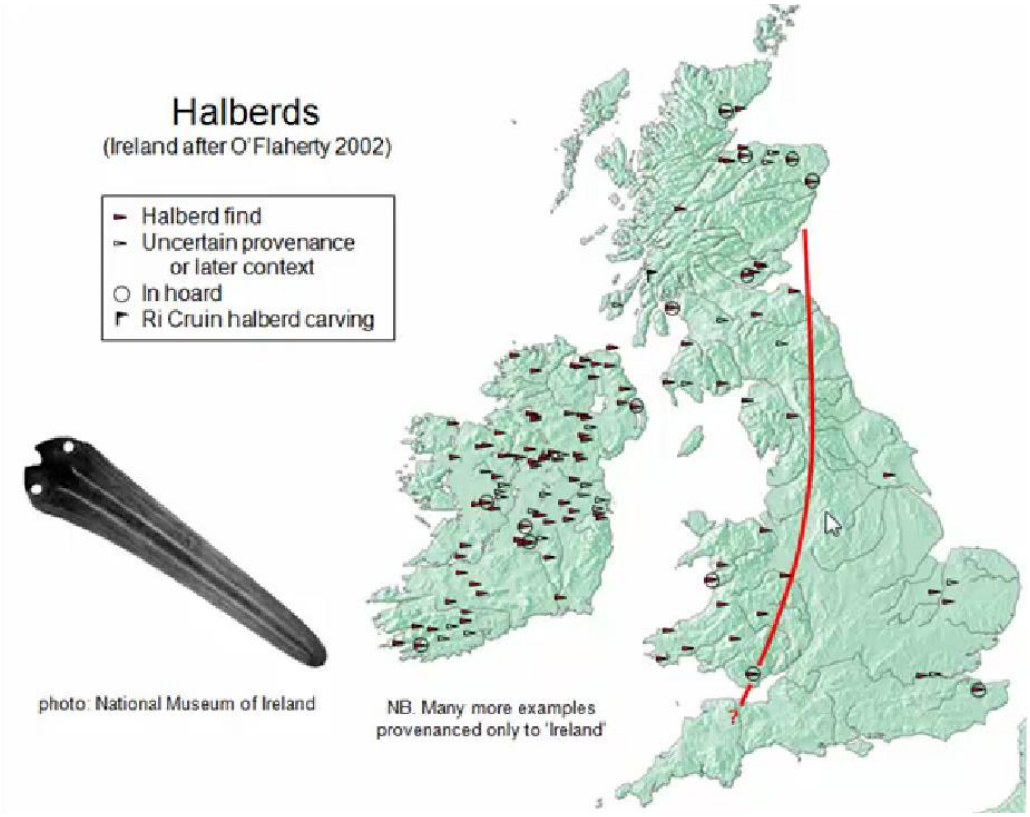


Figure 8-5*:* Distribution of Halberds across Britain and Ireland, taken from Needham Rhind Lectures 2012 (lecture two)

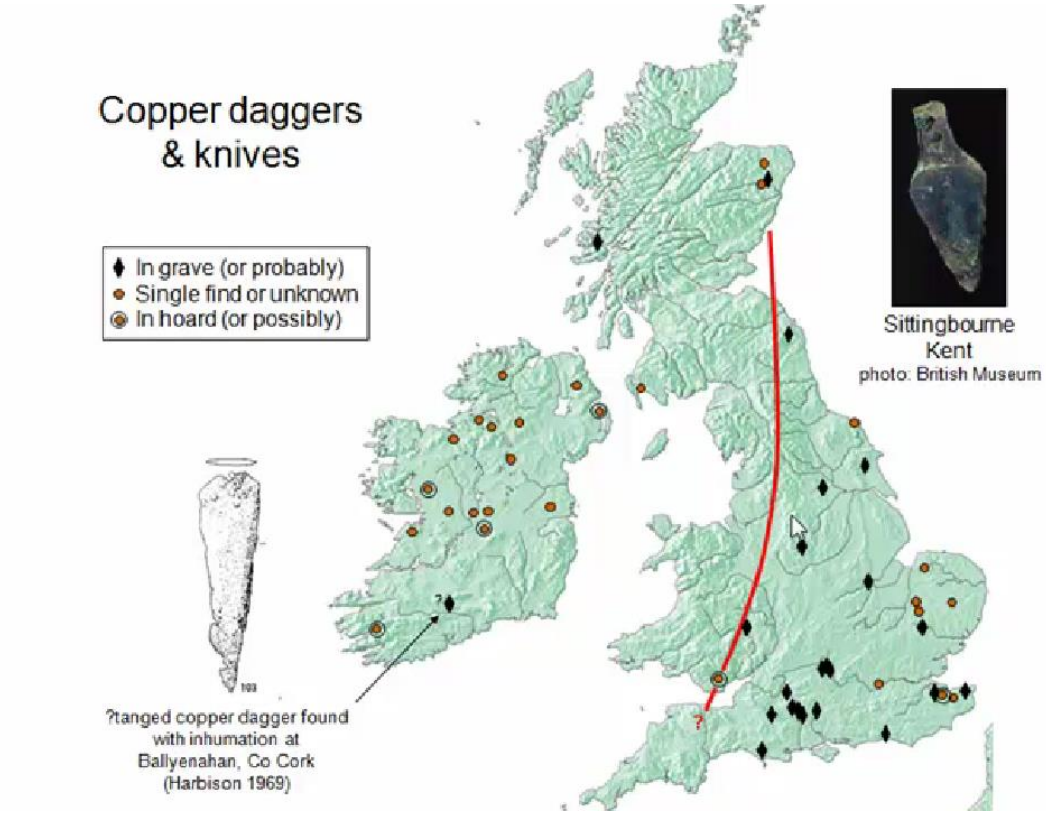


Figure 8-6*:* Distribution of copper daggers and knives in the Britain and Ireland, taken from Needham Rhind Lectures 2012 (lecture two)

There are no known halberds, copper daggers or knives from the Isle of Man. Given the distribution of halberds across Ireland and southwest Scotland one might expect them to be found on the Isle of Man. Similarly one might expect finds of copper daggers and knives, though probably as single finds rather than within graves, on the island. It would appear that despite the clear evidence for contact with Ireland and assumed evidence of contact with southwest Scotland communities on the Isle of Man were not interested in depositing halberds and knives and potentially not interested in using them either. Needham (2012, pers. comm.) suggests that the distribution of copper daggers and halberds across Britain and Ireland is indicative of two differing regions with different beliefs and practices: he terms them the halberd and dagger provinces. It would appear from the current evidence that the Isle of Man was part of neither of these regional 'communities' c. 2500-2200 cal BC.

Food Vessels and changing burial practices

Halberd deposition in Ireland appears to focus on period one in Needham's chronology with the deposition of later Bronze halberds continuing into period two. It is during period two that the deposition of Food Vessels first emerged as a practice in Ireland (from c.2200 cal BC). As discussed at length in Chapter 6, it would appear that Food Vessels were first deposited on the Isle of Man very soon after their emergence in Ireland. Links between Food Vessel burials and the Beaker burial tradition, as discussed in Chapter 2 have been identified (see for example Carlin, 2012; Waddell 1976). Carlin (2012: 159) argues that Food Vessel inhumations occur at the apex of British Beaker burial rituals and may have been the equivalent of Beaker burial practices in Ireland. This is not to say that everywhere they are the equivalent of Beaker burials.

Food Vessels on the Isle of Man, as in Ireland, broke with Late Neolithic pottery traditions not only in form and decoration but also because they appears to be specifically related to funerary practices. As discussed in Chapter 6, they create a rupture in practice through the frequent use of cists to contain burials, the building of barrows and cairns over burials and the practice of inhumation. However, in the Isle of Man they are predominantly associated with cremation practices and as discussed in Chapter 6 there is limited deposition of additional

material culture beyond the vessel with the remains of the deceased. I sought to draw out links with earlier burial traditions through the use of cremation, the potential for continuing relations with the deceased through the re-opening of cists and manipulation of remains both before and after deposition in the cist and the limited use of material culture. Food Vessel burials certainly indicate a change in burial tradition and potentially also index slowly changing beliefs about what happens to the deceased following death.

Why it was that Food Vessels translated into the assemblage on the Isle of Man and Beakers did not remains a difficult, and local, issue. In part, as stated above, I cite the strong links with Ireland as part of this process. Beaker burials, of the 'rich' kind were clearly inappropriate in Ireland as in the Isle of Man. I suggest that similarities of belief and practice regarding the deceased between Ireland and the Isle of Man may have pre-figured this change, however I also highlight that the Food Vessel pattern on the Isle of Man is not an exact copy of practices in Ireland, the tradition had different connotations and implications away from Ireland: it existed within a different assemblage with a different history on the Isle of Man. However, I suggest that in depositing Food Vessels in graves on the Isle of Man communities were citing relations and shared practices with Ireland even if the local understandings and significance of these practices were divergent. This similarity and difference is fully interwoven and the result of the relational assemblages in both places and the connections between the two.

This picture of broad similarity of practice but with a local translation continues throughout the Early Bronze Age. As discussed in Chapter 6, the broad shift from burial with a vessel to burial under an up-turned vessel is seen on the Isle of Man. There continues, though, to be what I suggest is a rejection of other kinds of material culture prominent in the rest of Britain and Ireland both traditionally included and excluded from burial contexts, such as, copper daggers and knives, halberds, lunulae, bracers, copper and bronze neckbands, spacer necklaces and composite necklaces which I argue is indicative of continuing differences between communities identities, beliefs and practices on the Isle of Man.

Objects of power and material cultures of relations

Several classes of material culture, found elsewhere in Britain and Ireland, appear not to have had the same prominent location in the Early Bronze Age assemblage on the Isle of Man. As discussed in Chapter 6 there are eight finds of beads from the Isle of Man. This is part of a wider absence of female ornaments which are common elsewhere (Figure 8-7). There have been no finds of lunulae, no jet spacer plates, no amber beads or composite necklaces. Rather, what finds there have been had been of one or two beads accompanying cremation burials. The lack of composite bead burials and amber beads is not surprising given their emphasis on southern Britain. The absence of lunulae, given the Irish connection is marked. In the Rhind lectures Stuart Needham (pers. comm.) discussed the ornamentation of certain female burials in the Early Bronze Age as being about a communal presentation to the ancestors of the most decorated females. Needham suggests they were a form of recommendation to the ancestors, an elaborate and conspicuous display of the best that the world of the living had to offer. Female ornamentation appears, at present, to be virtually absent on the island. One could speculate that perhaps communities from the Isle of Man took part in the presentation of females elsewhere in Britain and Ireland, travelling to take part in burials abroad. Equally, one could suggest, that given what appears to be a genealogy of practice where material culture was rarely placed in graves and ostentatious display appears absent, that such burials were deeply inappropriate on the Isle of Man.

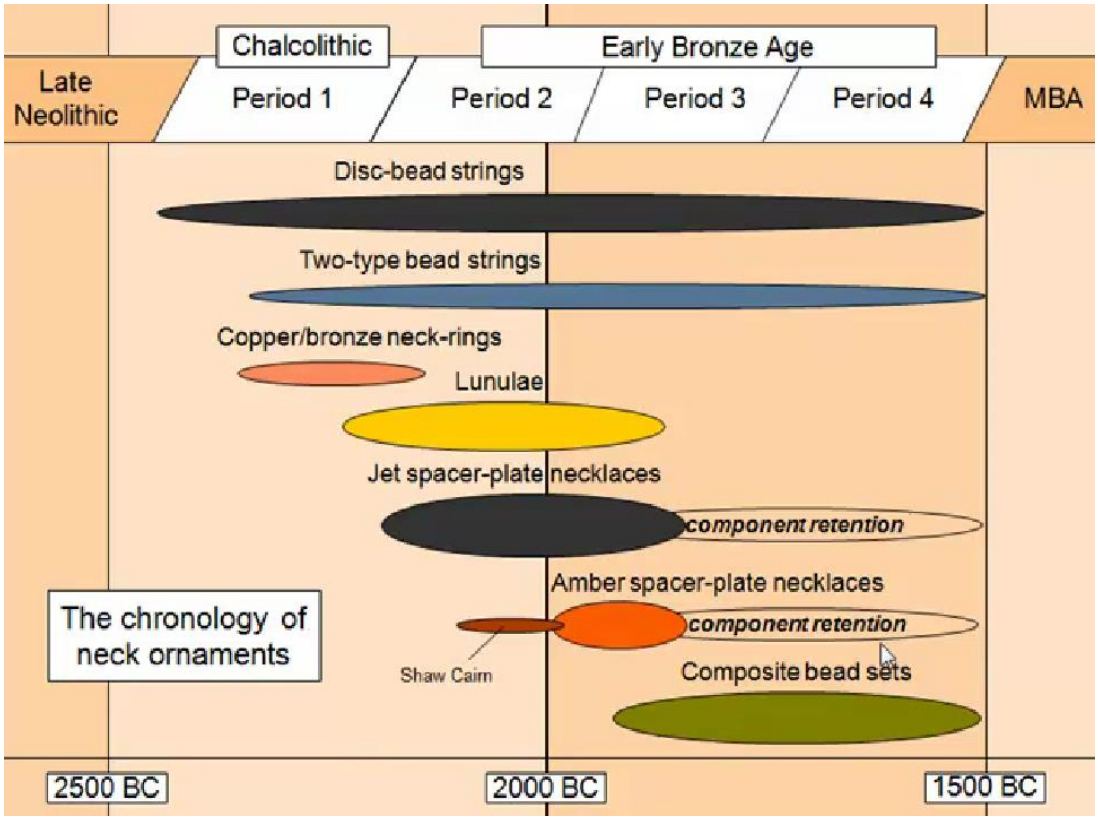


Figure 8-7*:* Neck ornaments in the Early Bronze Age, taken from Needham Rhind Lectures 2012 (lecture four). Note the variety of neck ornaments found elsewhere in Britain and Ireland

A similarly complex picture of similarity and difference emerges when we consider items commonly associated with male burials and male personas. Figure 8-8 shows what Needham (2012, pers. comm.) terms objects of 'male prestige'. As already noted, there are a lack of halberds and copper-daggers from the Isle of Man. In terms of flint my research suggests that three knives that have been found in Early Bronze Age burials on the Isle of Man (though there are more examples from settlement scatters). There are three potential examples of bronze blades, all in too poor a condition to be identified, known from graves on the island as discussed in Chapter 6. One is lost and the other two are fragmentary and of unclear form, one of these two also has an uncertain association with a burial. The somewhat fuzzy and unclear picture that emerges suggests similarly to the situation with female ornamentation: the inclusion of this kind of grave good on the Isle of Man was uncommon.

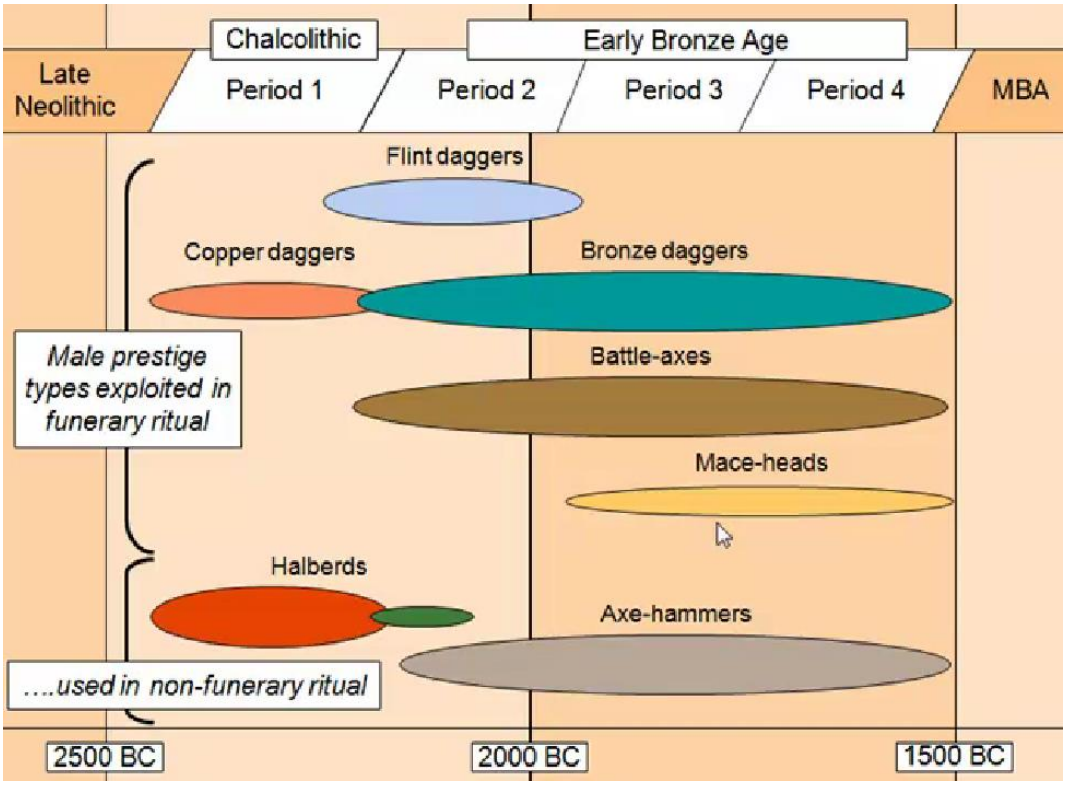


Figure 8-8*:* Male prestige items, taken from Needham Rhind Lectures 2012 (lecture three)

The use of perforated stone axes on the Isle of Man is also noteworthy. Thirteen examples have been found on the island; one was found in an empty cist burial and the others were all chance finds similar to the deposition of polished stone axes and metal axes. Table 8.2 and Figure 8-9 show the variety of perforated stone axes found on the island. The deposition of battle-axes outside of the burial context is somewhat unusual and perhaps speaks to the translation of these objects by communities on the Isle of Man into a context where grave goods were rare but the deposition of axe shaped objects in the ground had a long history.

Kind of perforated stone axe	Number known
Battle-Axe	7
Mace-head	2
Axe-Hammer	1
Unknown classification	2

Table 8.2*: Perforated stone axeheads from the Isle of Man*

Figure 8-9*:* Perforated stone axeheads. Top Left: Jurby 1954-2801 Battle-axe; Top Right: Knockaloe Beg cist MNH 1954-593 Battle-axe; Bottom Left: Cronk Mooar MNH 1954-1687 Mace-head; Bottom Right: Ballawilliegell MNH 1971-201 Battle-axe

The apparent dominance of battle-axes over axe-hammers on the Isle of Man is worth consideration. Needham (2012, pers. comm.) considered the distribution of axe-hammers and battle-axes across Britain (though not Ireland). He was able to establish areas where battle-axes were dominant and ones where axe-hammers dominated and, similarly to the division between copper daggers and halberds, used it to suggest different regional communities with differing practices and potentially different beliefs (Figure 8-10). Figure 8-10 shows a notable concentration of axe-hammers around the Irish Sea basin, yet on the Isle of Man they do not dominate at all. Battle-axes dominate and are most frequently found deposited alone, outside of the funerary context[32]. Interestingly in this same Eastern Irish Sea region there are very few barrow and cairn burials. For example there are only 60 barrows or cairns in Lancashire, a county with an area of 3500km² (Needham, 2012, pers. comm.). The Isle of Man is 572km² and there are at least 198 burial sites of which only 27 are flat cemetery sites. This difference is certainly marked. It would almost appear that there is a full rejection of the practices most commonly practiced by the island's nearest English neighbours. Whether this was an active assertion that practices on the island where different to those in the east, or whether it was simply that such practices had no place in the island assemblage remains unclear. However, rather than postulating a divide between these two I suggest that the reality is more complex and multiple actants were coming into play including long-distance relations in a range of directions.

[32] This could link to the light blue area on Figure 8-9 8-10 in Southwest Scotland, further inland than the redder and pink areas. This area, where battle axes dominate, would be quickly accessible from the Irish Sea along river routes

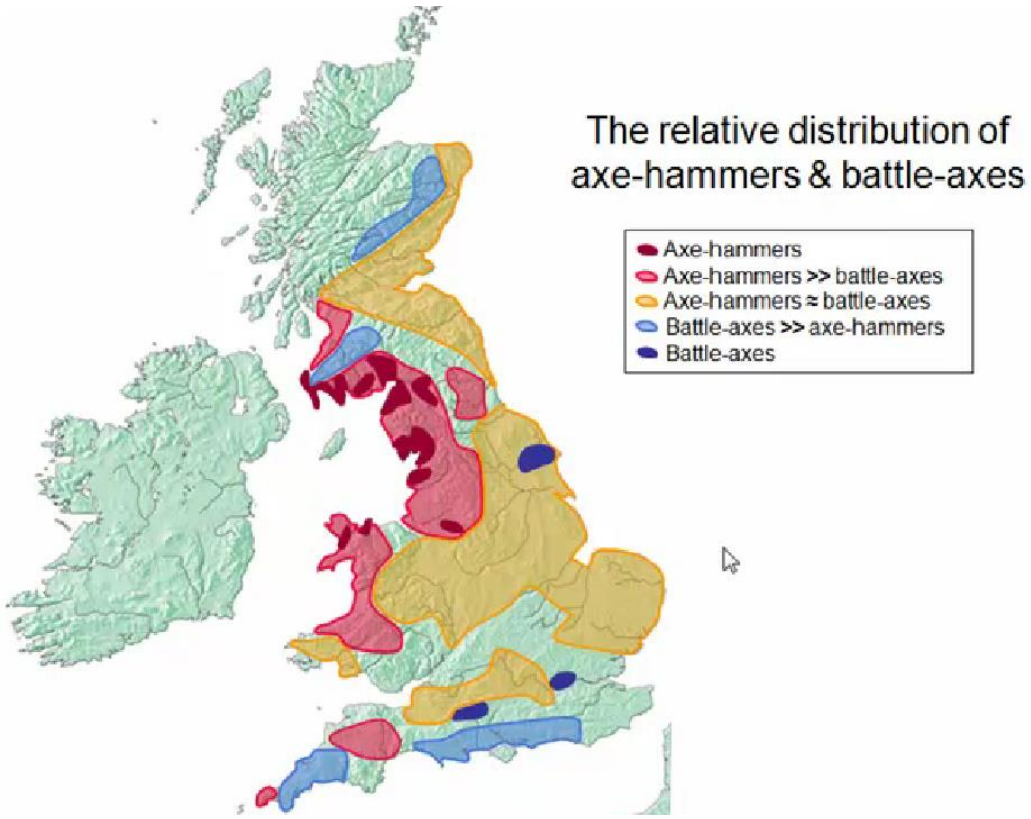


Figure 8-10: Distribution map for battle-axes and axe-hammers in Britain (Ireland is not mapped), taken from Needham Rhind Lectures 2012 (lecture three)

Considering existing narratives

In Chapter 3 I discussed and critiqued existing interpretations of the transition from the Ronaldsway Late Neolithic to the Early Bronze Age. I rejected notions of cultural isolation in the Ronaldsway Late Neolithic and re-connection in the Early Bronze Age. A view that can be sustained by the evidence presented. Through this thesis I have shown that there are clear connections and relations to other places throughout the period. In terms of material culture one can cite the presence of polished stone axes and Grooved Ware on the Isle of Man and RTB axes elsewhere in Britain as evidence of contact, as discussed in Chapter 3. The dominance of cremation burials in the Ronaldsway Late Neolithic, similarly to the rest of Britain and Ireland also suggests a potential level of shared belief. Later one can cite the swift emergence of Food Vessels on the island (Chapter 6) and the very early copper and bronze from Ross Island (Chapter 5). This is not isolation and re-connection – **it is constant connection, but the nature of the relations changes through time.**

I discussed Burrow's (1999) argument for cultural independence leading to the Ronaldsway Late Neolithic. I broadly support this view having shown that there are clearly different and unique practices and materials in the Ronaldsway Late Neolithic, but, that like all identities, this develops in a context of contact with, and knowledge of, other different practices and material cultures. However, I disputed that this difference arises out of an inability to 'compete' with competitive polities on the basis of geographical isolation and the small size of the island. I argued that many regions of Britain do not exhibit the grandeur associated with sites in the Boyne Valley, Orkney or Wessex, but, they do not develop their own unique practices.

This is not to deny the symbolic potency of Grooved Ware type designs, but rather, just to disassociate this from a model of competitive emulation. The chronological dimension to the spread of Grooved Ware designs from the Boyne Valley to Orkney and through the rest of Britain indicates that we are unlikely to be looking at direct 'competitive emulation' between these groups, rather it is, an adoption and translation of a set of designs, across different materials through time. As I have argued in this thesis with regard to the translation of phenomenon through time and space, while the designs may show links to other places they are unlikely to have been understood in the exact same ways across all of Britain and Ireland. Each time they were 'translated' to a new place, a new media, a new time some aspects of their earlier meanings and assemblages would have become de-territorialized whilst other new relational actants would have joined the assemblage.

In Chapter 3 I also disputed the idea that a desire for bronze was the central driver for the emergence of a Manx Bronze Age. In Chapter 4 I argued firmly against mono-causal explanations for change positing a more complex relational world where singular causation could not be sustained. In Chapter 5 I showed that metal was adopted quickly because of the way that it fitted within the existing Late Neolithic assemblage that included polished stone axes. The Isle of Man did not need to become 'like its neighbours' to gain access to bronze. During the Ronaldsway Late Neolithic, difference appeared to be no barrier to the movement or polished stone axes, Grooved Ware pottery or beliefs. Furthermore, I do not think that a desire for bronze caused a 're-entry to the mainstream': the Isle of Man continued to be unlike other areas - as discussed above some practices and material cultures were adopted, others were not. The people of the Isle of Man adopted and adapted practices that made sense within the assemblages they existed within.

I have also discussed what I describe as an under-current of backward-ism. The Isle of Man has been viewed as small, unable to keep up with others – a touch backward. In Chapter 3 I outlined why I thought this view had arisen. The evidence presented in Chapters 5 and 6 for the swift adoption of metallurgy and Food Vessel practices clearly demonstrates that any concept of a retarded Bronze Age on the Isle of Man cannot be sustained. I have discussed how the evidence hints at a potentially central role for the island in the movement of materials back and forth across the Irish Sea. Furthermore, arguments such as these are predicated on a notion of simple bounded cultures. The theoretical stance adopted in this thesis dismisses not only the notion of singular causation but also of simple bounded cultures. Instead I hope to have demonstrated that in both the Ronaldsway Late Neolithic and the Early Bronze Age aspects of relational assemblages in Ireland and Britain were adopted and translated into new assemblages on the Isle of Man alongside local innovations. Equally there were aspects of assemblages seen elsewhere in Britain and Ireland (such as henges, single Beaker burials, halberds etc.) that never became territorialixed on the Isle of Man, as they failed to articulate within emerging assemblages.

Tracing the *phase transition*

For me *phase transitions* allow us to approach the varying tempos and rhythms of change. I have argued for a broadly Deleuzian position, following Bennett, DeLanda and Ingold, where change is constant. Things are not static rather they are morphogenetic, always changing. Introducing a *phase transition* allows us to look at this constant change in more detail. It allows us to approach variety in change. Not everything changes at the same time, or the same rate; not all changes have an equal impact, causation is not linear. The complexity, density and heterogeneity of assemblages assures this.

Phase transitions are fundamentally about scale. *Phase transitions* occur when an assemblage goes through a radical change. The actants within the assemblage are not replaced wholesale by a different set, rather relations between actants, and the actants themselves are changed; some actants will persist, others will not. Whether or not we consider a *phase transition* to have occurred will be a matter of the scales evoked by the kind of question we are asking of a

given assemblage. Are we asking a question about Britain and Ireland in the Early Bronze Age or the south of the Isle of Man at 2000 cal BC? Which assemblage/s are we gathering to answer the question?

In Chapter 5 I discussed the impact of the new technology of metal. Metal has always had a privileged position in our interpretation of change at this juncture. I pulled apart the *chaînes opératoires* for the production of metal and stone axes in order to reveal the many actants within their assemblages. I was able to show that whilst metal is a new actant that it has many qualities, and draws upon many actants and relations, similar to those of polished stone. I argue that this similarity was what allowed the quick and effective addition of metal to the assemblage. However, is this is a *phase transition*? The arrival of the first metal axe on the Isle of Man will not have had an impact on all the people who lived there. Rather a number of axes would have to have arrived, along with new kinds of knowledge and new beliefs. For the adoption of metal axes to be a *phase transition* an understanding of how metal differs from stone is required. Arguably a *phase transition* occurs when a metalleity that includes the melting of ores, the importance of fire, the re-melting and recycling of objects and the use of moulds emerges on the island. In an assemblage that concerns itself with axes in the Isle of Man between 3000-1500 cal BC there is a *phase transition* that occurs in relation to the introduction of the new actant metal. However, it is not a transition where one assemblage completely replaces another. Rather, existing relations change, for example the importance of Langdale is deterritorialized in the assemblage and Ross Island becomes territorialized, however the importance of the link between axes and rocks from the earth remains, albeit translated somewhat. How axes were used may have remained unchanged, and the importance of depositing them in the earth and excluding them from graves appears to have remained. Fire joined the assemblage as a key transformative actant, but one potentially territorialized in other assemblages like cooking or cremating the dead. Perhaps then, in terms of the arrival of metal axes on the Isle of Man the *phase transition* is not the arrival of metal but the development of the understanding of the material that goes with it. All the relations that pre-figured the arrival of the new actant metal acted to hold the assemblage relatively steady and somewhat reduce the impact of metallurgy. For the potency of axes to remain, they had to be translated.

Considering the material presented in Chapter 6 it is very easy to highlight constant change through the Early Bronze Age. Objects, classes of objects, ideas about the body and death can

all be observed in motion, changing and becoming. The *phase transition* here is perhaps more marked: the decline of Ronaldsway Late Neolithic burial practices and the radical changes to Early Bronze Age Food Vessel burial practices. Again, some actants remained in altered forms in both assemblages. Cremation for example remained important, and I have argued that the deposition of grave goods was minimal on the island as a result of the existing assemblage. Ideas about death were changing. New actants such as Food Vessels, cists and barrows were all territorialized into the assemblage. Considering the entire Early Bronze Age assemblage of the Isle of Man, changes from Food Vessel Bowls to Vases, to Vase Urns might not be seen as *phase transitions* but rather as evidence of constant change.

Moving on to Chapter 7 we can again see clear changes in relations. Earth certainly appears to have remained an important actant in assemblages in both the Ronaldsway Late Neolithic and Early Bronze Age, however there are clear shifts. Most notably the decline of Ronaldsway Earthfast Jars and the practices associated with them and the increase in the construction of elaborate earthen and stone burial monuments in the Early Bronze Age. We see a shift from 'earth primarily as container' to 'earth as construction material and still container'. Past events were no longer tidied away and deterritorialized from the landscape, rather, they were materialised. The landscape shifted towards one where time and the past were writ large. However, these past events were not static, rather they changed, the actants in barrows and cairns rotted, corroded and were moved by worms and soil. The barrows themselves changed too; material rolled down slopes, stones spread, plants grew amongst them. The development of kerbed cairns in the later Early Bronze Age may have been an attempt to slow this process of change down.

Is there then a *phase transition* where the Bronze Age emerges? I argue that we need to be more local and specific than that question allows. I suggest there are many *phase transitions* that occur between 3000-1500 cal BC on the Isle of Man. *Phase transitions* differ from the constant change associated with vibrant matter as they involve a marked change, so changes to the form of Food Vessels over time might be viewed as constant change but the arrival of Collared Urns marks a *phase transition*. Change needs to be understood within local assemblages, rather than in 'always' and 'everywhere' terms (*sensu* Latour 1999a). The relevance of any one *phase transition* will depend on the local assemblage in question. If we were to look at the Isle of Man at 2700 cal BC and 2000 cal BC then two differing assemblages certainly existed though they share many of the same actants in different translations.

Numerous *phase transitions* have occurred at different scales to create the two periods we can identify as the Ronaldsway Late Neolithic and Early Bronze Age on the Isle of Man. They are about more than any one actant changing or a new actant emerging. It is about the coming together of changes to a wider assemblage: changes in technologies, changes in burials, changes in beliefs about the dead, changes in relations with the earth, changing forms of pottery etc. Any one of these cannot be identified as a 'cause' for the decline of a Ronaldsway Late Neolithic or the emergence of an Early Bronze Age. They are all thoroughly mixed in a dense relational assemblage. Understanding change and causality is not about finding one factor to pin things on but rather looking within the blackboxes that exist around multiple phenomena and investigating what is changing and how that relates to other diverse heterogeneous actants. I seek to describe the multiple changes and phase transitions that occur across hundreds of years rather than create two separate and opposed blocks of time.

Where to next?

This thesis is by no means the complete or the 'final word' on the subject of 3000-1500 cal BC on the Isle of Man. As I have argued it is merely one assemblage, written by one author, that makes some narratives emerge. There are other possibilities and other assemblages that can and should be gathered together to make alternate narratives emerge. In terms of future research directions I consider there to be great value in research that compares the use-wear on stone axes with that on bronze, not just on the Isle of Man but at a far wider level. This kind of work combined with a holistic consideration of the different kinds of objects and their complete life-cycles and the integration of data from archaeological science will help us to far better understand the impact of metal in more real terms.

Considering the evidence from the Isle of Man I welcome other scholars studying the archaeology of the period and offering alternate interpretations. However, more than anything I welcome more excavation, and more excavation to a high standard with accurate recording and preservation of records. Too many times during this research I feel my interpretations have been halted by the poor nature of many of the past excavations and the loss of records from those excavations. The lack of formalised planning provision to mitigate against the destruction of archaeology makes the situation difficult on the Isle of Man. The lack of monumental archaeology (particularly for the Ronaldsway Late Neolithic) and ephemeral

nature of the remains from both periods may well have contributed to the accidental destruction of evidence and calls for more careful future protection. More excavation on the island will change the assemblage and will without doubt upset the conclusions presented here. In particular here I note the current research on an area adjacent to the airport that has uncovered material from the Mesolithic through to the Bronze Age that will receive extensive post-excavation analysis over the coming years. My assemblage is only temporary, it is in constant flux and I look forward to there being enough 'new' actants for a *phase transition* in interpretation to occur.

Emergent Change

When I first put together a proposal for this research I ambitiously wanted to study and theorise change in prehistory. I was unhappy with the ways in which I felt change was often addressed and presented by archaeologists. For me the study of change is one of the most important reasons to carry out archaeological research in all its forms. I was initially less concerned with the material from the Isle of Man and more interested by the theory. As the research developed the material from the Isle of Man has become central to guiding my theory and methodology and I feel the two have come to develop together.

This thesis presents new research on two fronts: theory and case study. It has presented a new narrative for the period 3000-1500 cal BC on the Isle of Man. It is the first extended work to focus solely on understanding this period. I have drawn together existing publications on the period and critically evaluated them. I have studied archival material to enable the better contextualisation of existing interpretations. The thesis draws heavily on examinations of the material culture from the period held by the Manx Museum and, in particular, on use-wear analysis of copper alloys. I have also presented new radiocarbon dates for the period, interpreting them and using them to develop and change existing site chronologies. The picture presented of the Isle of Man between 3000-1500 cal BC in this thesis is new. It draws on new forms of evidence and new interpretations previously unavailable. My approach has differed significantly from earlier works in that it has chosen to focus on a broad spectrum of material culture and practices and in its focus on both the Ronaldsway Late Neolithic and Early Bronze Age.

Theoretically I explored change in prehistory. I have explored emerging ideas about the centrality of relations to our work and most specifically how they impact on ideas of change. I identified problems and omissions within the ideas of authors such as Latour, Ingold, Bennett and DeLanda and brought them together to create a novel way forward. I have worked from a theoretical position that rejects the idea of 'revolutions' and 'origins' and narratives of change that are mono-causal, progressive, teleological or use linear causality. Assemblages are presented as a way of understanding the world where heterogeneous actants are enmeshed in multiple complex relations: as a result change is never mono-causal nor linear. It cannot be located in a single origin or revolution moment. It is the result of multiple relations between heterogeneous actants. I have advocated a position where matter is viewed as vibrant – always changing. The tempo of this change varies as a result of the nature of assemblages. This change may be ignored by actants, and other actants may act to reduce its effects. However, at some points this constant change builds up within the assemblage and a marked change – or *phase transition* – occurs. This does not mean that everything that went before is replaced by something new. Rather, the relations between actants are changed, as a result some actants may well start to be territorialized or deterritorialized.

Change from 'their' point of view

"I see clearer in the rear-view mirror than I ever did looking out over the hood"

Florida Georgia Line, Hell Raisin' Heat of the Summer

Looking back over 1500 years of archaeology change appears obvious, trends emerge, one type of material culture replaces another, one type of burial gives way to a new one. Indeed following the relational view of time and change presented in this chapter, the change we see between what we refer to as the Ronaldsway Late Neolithic and the Early Bronze Age emerges from our own relations with it, my own search for it. The reality is that both periods cannot be clearly defined as one thing or another, practices are mixed from 3000-1500 cal BC. Looking back, things are clearer than they ever where for those who lived between 3000-1500 cal BC.

The first group of people to bury a relative, a friend, with an Irish Food Vessel at Cottier's Field, Bishopscourt Farm, probably thought little of the implications of their actions. Yes, they were using a new kind of pottery vessel, and they were burying someone within a cist, but for them their actions were part of the reality of the death of that loved one. Perhaps the deceased had visited Ireland and brought metal and new pottery to the Isle of Man, perhaps they had spoken of burials they had seen when travelling in the direction of the sunset (Figure 8-11). These stories of the land across the sea were the inspiration behind the burial their friends had tried to recreate from them. Equally, perhaps this person was the mother of a child who had grown up hearing stories of the land where the sun sets and who saw the use of the Food Vessel as a way of honouring a beloved mother. The child may not have known the beliefs that accompanied burials in Ireland but instead brought his own beliefs and the stories of the land where the sun sets together with pottery, stone and earth to honour the woman who had given care to him. Through these actions he was able to care for her, to assert her importance as part of a community of both the living and the dead.

Figure 8-11: Sunset over Ireland. Photo: David Horan

In our own society we often fail to identify the broader changes that are going on before our very eyes: their identification only comes after the changes have already been in process for some time. In part, this is a product of one of the other features of change that I have been keen to highlight in this thesis: change is constant. We do not always notice change, we do not always choose to acknowledge it. Often the significance and scale of that change is identified looking in the 'rear-view mirror'.

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Appendix

The appendix to this thesis is held on the enclosed CD-rom. It consists of spreadsheets containing the data used to write this thesis. Columns in several of the spreadsheets refer to a 'descriptive category'and a 'category for GIS'; this divide was used as a means of retaining more descriptive data whilst still having a firm set of categories to aid in the creation of GIS maps and spreadsheets were more descriptive terms were not comparable or useful.