

THE UNIVERSITY OF SHEFFIELD

**CREMATION PRACTICE
IN BRONZE AGE ORKNEY**

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Abstract

Cremation Practice in Bronze Age Orkney

Archaeological fieldwork in Orkney and an ethnoarchaeological case study in Bali are combined to investigate cremation practice in Orkney during the Bronze Age. By stepping aside from the approaches more typically used to investigate Bronze Age funerary rites, the theory of practice is heuristically employed in a study focussing on the technology and materiality of cremation and burial architecture.

Aspects of the fieldwork are interrogated to produce an understanding of cremation as protracted mortuary rituals surrounding a rapid sequence of events on the day of immolation. Cremation is seen as a spectacle and sacrifice epitomising conspicuous consumption which is performed against a backdrop of long term planning, co-operative labour and resource management: a contingency for death. The technology of cremation involves manipulation and control of the body, and probably of biological death. The transformation undergone through cremation affects all participants, and fuses the corpse/s and fuels into a suite of inalienable materials. Through burial architecture, both the pyre and the natural stratigraphy are reconfigured as an inversion of both the cremation event and the land. This architecture is interpreted as the strategic deployment of funerary rites and cremated remains for the continuance of fertility and the regeneration of life.

The arrangement of the funerary landscape and its articulation with the domestic sphere emphasises the dominance of the vertical axis in the ordering of the world. It is suggested that the flow of substances between the upper and lower parts of the world was conceived of as a cyclical transfer of essences which the living sought to effect and control, in part through mortuary rites. This strategy is seen as expressive of a divisible personhood and an indissoluble link between people and their environment.

The findings are considered in the broader context of different, contemporaneous, burial traditions in Orkney, and in the wider context of current interpretive approaches to the Bronze Age burial record elsewhere.

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CHAPTER 1 - FRAMEWORK AND METHODS

AIMS

This thesis will investigate the practice of Bronze Age cremation by means of a detailed examination of evidence from recently excavated Bronze Age barrow cemeteries in Orkney. Due to the prominence of Bronze Age burial monuments, Bronze Age burial evidence has been central to the study of the Bronze Age in Britain. Of the two rites of inhumation and cremation, cremation is the most widespread and, along with copper alloy metalworking, traditionally defines the Bronze Age. Despite this, cremation rites have been relatively under-researched and remain poorly understood. This thesis is intended to address this lacuna in research.

The Bronze Age in Orkney comprises low-visibility archaeological remains compared to those of the Neolithic and Iron Age and consequently the period has been largely neglected. The surviving Bronze Age barrows were thought to be potentially informative about cremation practice, and a fieldwork programme was designed to move away from the focus on the burial itself and to examine the wider spatial and temporal aspects of burial rites. An ethnoarchaeological case study of cremation in Bali was also undertaken and is described, where cremation can be seen as a protracted series of rites involving richly textured complex symbolism experienced as a spectacle and a journey.

Using the evidence from the combination of these fieldwork exercises, I aim to enhance interpretation of cremation rites, cremation technology, cremation burial and funerary architecture. The findings from my fieldwork in Orkney are evaluated alongside the recent and current interpretive frameworks, within which Bronze Age funerary rites and funerary architecture have been set, in order to assess the broader context and applicability of the research results.

This thesis is organised to provide a narrative which is ordered following the sequence of events subsequent to a death. Chapter 4 concentrates on the cremation itself; the labour and preparation involved in the cremation, pyre technology and treatment of the

body and the transformation that is undergone. Chapter 5 details and problematizes the ‘burial’ and, through an analysis of what is buried, suggests an inalienability between the person and the other materials of the pyre. In Chapter 6 the fragmented remains of the person and the pyre are described as being defragmented and reconfigured through the process of being built into the barrow. In Chapter 7 the ordering of materials and the reordering of the world are discussed with reference to cemetery and landscape architecture. Chapter 8 contains a consideration of cremation rites, and of the divergent strategies and differing deployments of human remains which occur to both cremated and inhumed remains.

INTERPRETATIVE FRAMEWORK

The archaeology of death has changed dramatically over the past twenty years and this area of research, most notably in the Neolithic and Bronze Age, has been a central arena for the development of a post-processual approach to archaeology. It has become widely accepted that it is not possible to correlate the way in which people were buried directly with their rank and status in society, progressing from such observations to a reconstruction of Bronze Age society. Theoretical approaches adapted from anthropology, espoused by Binford (1971), have focussed on patterning in disposition and location of the body and the presence or absence, quality or quantity of grave goods in a search for hierarchy and ranking. A decade later, the publication of two edited volumes, the *Archaeology of Death* (Chapman et al 1981) with its emphasis on the analysis of spatial patterning in mortuary practices and *Symbolic and Cultural Archaeology* (Hodder 1982) with its post-processual contributions marked a watershed between the two approaches. In a paper within the latter volume, Parker Pearson presented a study of modern and Victorian English mortuary practices in which he posited that ‘social systems are not constituted *of* roles but *by* recurrent social practices’ (Parker Pearson 1982, 100, original emphasis). This shift in approach to the interpretation of burial evidence arises from the distinction that the criteria governing procedures following a death are decided by the living not the dead, and that the treatment accorded the dead is not just determined by the obligations to the dead, but is concerned with the ‘reallocation of rights and duties amongst’ the living (Barrett 1990, 182). This is the move from a burial record taken to map a pre-existing structure to the

analysis of burial as one strategy employed in the restructuring of social relations; to an archaeology of 'ritual' rather than 'residue' expressed by Barrett thus:

Symbolic and structural archaeology over the last ten years has shifted our perception of the material evidence so as to now regard it as the residue of systems of signification, a means by which people were once able to structure their actions in particular and culturally meaningful ways. Material culture can no longer be analysed as though it comprised timeless sets of functional artefact categories employed in the appropriation of nature, but rather as having operated a code through which historically specific knowledges about the world were maintained, and which in turn guided the human subject's actions within that culturally mediated world (Barrett 1991, 2).

Definitions of ritual abound in both anthropological and archaeological literature. I will take two examples here which are fairly representative. Connerton, quoting Lukes, defines ritual as 'rule-governed activity of a symbolic character which draws the attention of its participants to objects of thought and feeling which they hold to be of special significance', further proposing that rites are not merely expressive, nor merely formal and neither are they limited in their effect to formal occasion (Connerton 1989, 44). Parker Pearson summarises definitions of ritual as 'stylised, repetitive patterns of behaviour in which a society's fundamental social values are expressed' and wherein 'there is no clear boundary between ritual activity and other types of action, although ritual.....is clearly and explicitly rule-bound....it is not necessarily 'irrational' or non-technical behaviour and may constitute the communicative aspects of any action' (Parker Pearson 1982, 100).

Archaeologies of ritual have significantly altered perceptions of material culture of both the funerary and domestic spheres and ritual has been brought firmly into the domestic sphere of later prehistory (cf Barrett 1989; Parker Pearson 1993; Hill 1995; Parker Pearson & Richards 1994; Brück 1995; 2001; Richards 2005) where once it may have only been discussed with reference to 'ceremonial' or funerary monuments. Now that domestic and funerary worlds are better articulated through such works, the difficulty arises as to how *non-ritual* activities may be defined (cf Brück 1999) and whether everything is ritual, which leads back to closer definitions of what does constitute 'ritual'. Indeed in the context of Bali, used as an ethnographic case study in this thesis (Chapter 3), it is very difficult for commentators to ascribe non-ritual activities.

In this thesis I aim to refocus the debate away from the definition of ritual and, through the study of Bronze Age burial, I work with issues such as labour, strategy, building, resources, agriculture, contingency and economics and technology. Parker Pearson's comment (above) that ritual is not necessarily 'non-technical behaviour' refers to the theory espoused by Leach amongst others, that ritual and technical aspects of behaviour are separate from each other (quoted in Ingold 2000). Ingold counters that rather than a separation of technical activity which sets it outside social relations, the technical is embedded in the social, in 'the experience of the particular subjects in the shaping of particular things' (Ingold 2000, 315). To Ingold, 'acting in the world is the skilled practitioner's way of knowing it' (ibid, 316). This line of interpretation brings us to practice, the overarching approach within which I propose to set burial rites within this thesis. Of course there is no one definition of practice theory either, in its broadest sense it is 'anything people do' (Ortner 1984, 149), or 'a nonsynthetic and irreducible term for human activity' (Bell 1992, 81). In her review of theory in anthropology, Ortner commented that for several years there had been a growing interest in 'bundles' of 'interrelated terms', the first of which she lists as 'practice, praxis, action, interaction, activity, experience, performance' and the second as 'agent, actor, person, self, individual, subject' (Ortner 1984, 144). Bell (1992) provides a succinct description of the development of, and various and contested uses of, practice theory which I will not rehearse here. Bell also proffers four features of practice that she then uses to describe ritual activity and which will, to varying degrees, figure in this thesis. These are that practice is:

- (1) situational; (2) strategic; (3) embedded in a misrecognition of what it is in fact doing; and (4) able to reproduce or reconfigure a vision of the order of power in the world (Bell 1992, 81).

What is also appealing to me about practice theory is that activities, such as those that might be attributed to technical or ritual, are bracketed but are seen as a 'relatively seamless whole', for instance, marriage rites may at once comprise a 'system of social relations, economic arrangements, political processes, cultural categories, norms, values, ideals, emotional patterns' etc (Ortner 1984, 148). Although primacy is not assigned to one or other of these, not all have equal significance. Any one aspect may be more prominent than others on different occasions, for both forming and deforming the

rites are 'the specific realities of asymmetry, inequality, and domination in a given time and place' (ibid, 149).

Another aspect of practice theory that is entirely relevant and central to the study of funerary rites is the 'temporal organization of action' (Ortner 1984, 150), and a concern with history, which developed out of the shift from synchronic to diachronic analyses (cf Ortner 1984). This development can be seen played out around 'tradition', as a dialectic between 'unchanging order' and 'changing history'. The former concept of repetitive actions of ritual are seen to lead to tradition as a dead weight rather than the means of strategic reproduction (Bell 1992, 123) within which ritual is used to challenge and renegotiate tradition (ibid, 124). Ingold develops a rounded theory of practice in his temporality of landscape – wherein the 'temporality and historicity are not opposed, but rather merge in the experience of those who, in their activities, carry forward the process [of] social life' (Ingold 2000, 194). To Ingold, landscape is not space, but following Connerton's notion of incorporation, is embodiment, enacted through the interlocking of the life cycles of people and their environment, and the relationship between these cycles and the landscape (ibid, 193-4). The temporality of this 'taskscape' is social and is perceived by people as participants rather than spectators through the performance of tasks (ibid, 196).

It is my intention to examine funerary rites and funerary architecture within the framework of practice theory, with a focus on materials and materiality. In his paper on agency and the archaeological record, Barrett proposes that 'a theory of practice must understand the materiality of that practice in order to explore how that materiality is engaged in the very structuring of practice', contending that we cannot reduce materiality to 'an archaeological record of the practices that once inhabited it', that the archaeology of practice examines the 'material facilities' once inhabited, not the 'material traces' of practices (Barrett 2001, 153).

These approaches are going to be employed in a consideration of the rites of passage triggered by a death, viewed as a journey taken by the corpse and the living, which is staged through time and space. Archaeologically, if we perceive mortuary rites as a sphere of practice with tasks potentially widely spaced both temporally and geographically, we significantly broaden our horizons and the possibilities for a better

understanding of not only how society reproduces itself through burial rites, but how personhood can be constituted. An emphasis on materiality may facilitate an understanding of how the world is ordered and reordered through mortuary rites. These rites of passage are going to be investigated through a study of Bronze Age cremation practice.

BRONZE AGE CREMATION AND INHUMATION

Bronze Age burial mounds¹ in Britain have attracted antiquarian and archaeological interest for centuries (Ashbee 1960). They are, or were, a prolific monument in most parts of Britain and have been the subject of many archaeological publications. The literature concerning this class of monument is a sensitive indicator of changes in archaeological practice in its broadest sense, covering excavation, publication, theoretical approaches, and as a management issue. In more recent Bronze Age burial studies, the complexity of many of the burial mounds and cemeteries, resulting from the restructuring of mounds and the addition of other burials, is seen to provide a clearer understanding of the funerary rites themselves, and of the role such ritual practices play in the strategic reproductions of social relations (cf Barrett 1988; 1994; Barrett et al 1991; Garwood 1991; Mizoguchi 1992; Chapman 1994).

The focus of research has however been on inhumation burial even though, during the later Bronze Age, cremation was the dominant rite across Britain, and in many regions was prevalent throughout the Bronze Age. As a consequence there is an enormous discrepancy between the amount of synthetic and interpretative work that has been produced concerning cremation and inhumation burial. The majority of studies have been focused upon the study and interpretation of rites surrounding inhumation (cf Thomas 1991; Mizoguchi 1992; 1993; Lucas 1996, Last 1998), in contrast with cremation where the bones themselves are studied, but the rituals surrounding the deposition of human remains, and the context of the burial, are neglected. The study of cremation by archaeologists remains most commonly an analysis of residue, rather than an interpretation of ritual; and the rituals surrounding cremation, although discernible

¹ The term 'burial mound' is used to describe monuments that are built of either earth, stone, or a combination of both. 'Barrow' is used to refer to burial mounds built from earth, or composite barrows made from earth and stone, and 'cairn' to describe burial mounds built entirely from stone.

through archaeological practice, have not been adequately investigated. The reasons for this bias in research will be examined and the potential for examining cremation as a series of events, which take place at different times and locales, will then be explored.

As McKinley writes, 'cremation burials have been the 'poor relation' of British cemetery studies' (1994, 132). Historically, and until relatively recently, cremated bone was often discarded upon excavation because it was perceived as having little potential to be able to tell us the sex and age of the individual - or even if the bones were indeed human rather than animal. The procedures followed now for the analysis of cremated bone derive from two papers, one by Wells (1960), and the other by Gejvall (1963). These papers were important in establishing a method of identifying cremated bones, and from that time cremated bones have routinely been analysed and included within excavation reports. These papers also mark the time at which the study of cremated bone entered the domain of a 'scientific' approach. Reference to ritual within this approach refers to whether an individual is accompanied by grave goods (cf McKinley 1989, 71), ritual significance being attached only to artefacts and their position in relation to the cremated body. McKinley, and others, consider in some detail the technologies of cremation, but these considerations are almost invariably contained within specialist report sections of excavation reports and are not fully integrated into site reports, or drawn upon by those who undertake more synthetic approaches to the 'rituals' of Bronze Age funerals.

Bronze Age cremations are not as commonly accompanied by grave goods as are inhumations and the range of goods present have been deemed by archaeologists to be 'poorer' than those from inhumations. This is one factor that has led archaeologists to conclude that those who were cremated were of lower status. The fact that cremated burials were frequently secondary burials inserted into an existing burial mound or lie unmarked within flat cemeteries, combined with the poverty of grave goods, has been interpreted as implying less effort being expended on the interment of the deceased, greater equality in society and a lessening preoccupation with burial rites (cf Burgess 1980; Megaw and Simpson 1979). While the archaeology of inhumation burials is viewed in a more sophisticated and rigorous manner, the idea that the difference between inhumation and cremation is one of rank still carries currency. Last describes the change from the Neolithic practice of 'jumbled bones' indicative of a collective

body of ancestors to the Beaker phase as marking 'a shift to individual burials with marked differences in treatment, presumably related in some sense to variations in wealth or status' (Last 1998, 46). To Lucas the fact that cremations are usually placed in a secondary position to inhumations, and secondary to burial mounds, causes him to wonder 'is this secondary position to be understood as a secondary status?' to which he answers 'not necessarily....' (1996, 112). In an ethnoarchaeological study of Hindu funerary cremation rites Oestigaard (2000a) seeks to ascertain a correlation between rites accorded the deceased, the presence or absence of grave goods, and orientation of the grave with the status of the individual in life in order to be able to apply such principles to archaeological evidence (see Chapter 3).

An inhumation can survive as a skeleton with grave goods adorning the corpse or positioned around it; the position of the skeleton within the grave, the direction and orientation, the nature and location of artefacts all give rich scope for discussion of 'the body', and provide many sets of data for looking at patterning and variation. When similar analysis is attempted with interments of cremated bone, it is generally found to be unrewarding for the data is not of the same nature (Figure 1.1).

Archaeologists often then resort to comparing the juxtaposition between the inhumation and the cremation burial, or considering cremation burial as an adjunct, or accessory, to inhumation. An example of this comes from Mizoguchi with reference to early Bronze Age Yorkshire evidence: 'Whether the act of cremating individuals was conducted as an episode of the inhumation funeral is quite uncertain, but the cremation seems to be meaningful due to its association with the inhumation rather than in its own right' (Mizoguchi 1993, 231).

As Chapman says, 'the more complete the buried corpse, the more complete the statement about the deceased's social persona and the greater potential it provides for the communication of social and cultural messages' (Chapman 2000b, 175), and this certainly seems to be the maxim for those comparing and contrasting inhumation and cremation burials. Within cremation burial studies, it has been suggested that greater quantities of cremated bone, or more complete bodies, within primary burials² may

² The term primary burial is used throughout to denote an interment underneath, and usually central to, a barrow, in contrast to a secondary burial which is an interment made subsequent to the barrow being built, set either into or around the barrow (Ashbee 1960). Primary and secondary *burials* should not be

demonstrate a greater amount of time expended on the collection of bone, reflecting a difference in status of those interred in primary burials (McKinley 1996; 1997b; also cited in Parker Pearson 1999).

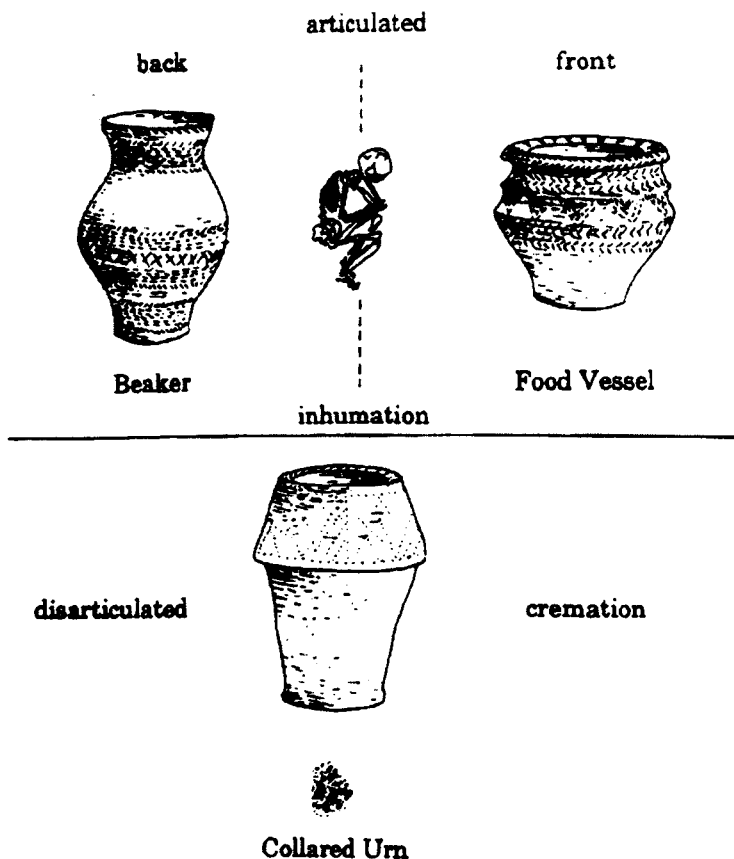


Figure 1.1 *Contrast between depictions of inhumation and cremation burials (from Lucas 1996)*

To most, the intact skeleton *is* an individual, whereas cremated bone is an unknowable entity (Figure 1.1). Last has suggested that cremation practice of the later Bronze Age ‘seems to dissolve individuality’ (Last 1998, 49). This approach makes very substantial and uncritical assumptions about the nature of personhood and is founded on a range of interwoven ethnocentric views. The first is the Western-centric concept of the individual and its wholesale application to other times and other cultures, which has been discussed widely (cf Chapman 2000a; Ingold 2000; Fowler 2004; below in Chapter 5).

confused with primary and secondary burial *rites* which are the first and second stages in a double funeral, usually involving the removal of human remains from one place to another after a period of time has elapsed.

Second, an encounter, through excavation or an illustration, of an intact skeleton, particularly one buried with grave goods, is a powerful and emotive experience that can create feelings of empathy and of recognition (Hodder 2000). In contrast, cremated bones appear formless and 'personless'. There is no way one could or should deny such reactions and pretend to be 'objective', or deny past-people their 'individual lives' (ibid). However, if one considers both inhumation and cremation burials as varying types of strategic deployments of human remains situated in the wider sphere of mortuary practices, and removes the focus from those remains that are more completely preserved or 'better presented', then one increases the chances of peopling the past more representatively.

Third, it is possible that a lack of effort expended on the study of cremation reflects not only the difference in contact in the field between the two types of remains, but is also indicative of an ambivalence that we have towards death, and cremation, in our own society. These issues are discussed most particularly in sociology and by social theorists (cf Shilling 1993). This is a difficult area for after all, this is subject of our own ontology and is too broad to do more than touch on here. In brief and with specific relevance to cremation, the majority of deceased in Britain today are cremated (70% compared to 15% in USA (Davies 1990)). Cremation in Britain as a modern rite has increased in popularity dramatically since 1945, although it was only relatively recently sanctioned by the Catholic church in 1963. Modern funeral rites in our society are in general hurried and hidden, a distance placed between the deceased and the bereaved. In the case of cremation the coffin disappears behind curtains and the corpse is cremated after the mourners have departed. The bones are pulverised after burning, after which process the fragments are so small that body parts cannot be recognised. It is seen as a hygienic, space-saving way of disposing of the dead. At the same time there has been a waning of religious belief, notably affecting views on the afterlife and the fate of the soul. Cremated remains are frequently taken by relatives to scatter in an unmarked place, or are scattered in a communal garden within the cemetery. Thus there is a rapid decline in monumentality and the resting place of the ashes will often be known only to close relatives.

In an eschatological contribution entitled *Cremation Today and Tomorrow*, Davies (1990) considers that there is confusion both within the clergy and the bereaved around

modern cremation rites. The majority of clergy see the cremation itself as the committal, the focus of the rite, whereas the bereaved find it important to have the ashes to bury or scatter as they are a 'foundation for memory and for the identity of the dead in the recollection of the living' (Davis 1990, 11). Thus while to the clergy 'in symbolic and emotional terms the ashes are not the body and vice versa' (ibid, 13), the majority of the bereaved conceive of the ashes as the remains of the dead body. To Davies, further confusion is introduced when ashes are interred by the clergy, for during this rite the same is said of the ashes as was said of the body, that it is committal in hope of resurrection. Therefore there is no flow between what happens to the body and what happens to the ashes, because the rite is effectively repeated.

Whereas the body and its resting place had been important in the recent past (which is in itself an ambiguity, for the afterlife was all important), there is now uncertainty as to where to dispose of the ashes (Davies 1990). This uncertainty is part of a concern that a lack of 'permanent' resting place and memorial will cause the deceased to be forgotten. This latter feature is discussed below (Chapter 7) in the context of cemetery architecture and memory. Suffice to say here that uncertainty and confusion about present day cremation rites and the status of cremated remains could be reflected in the manner with which Bronze Age cremation burials are approached.

METHODOLOGICAL APPROACH

I have not undertaken an analysis of age and sex of cremated dead and have commented only briefly on 'grave goods'. This is not simply because there are few grave goods amongst the burials I have researched, but because I wished to avoid the analytical approach used by those studying inhumation burials and do not want to search for static patterns but rather to investigate process. This is not to say I want to turn past people into 'faceless blobs' (Hodder 2000), but wish to attempt a different approach to identity and personhood and to move away from the rather futile task of trying to attribute individual identities to burial deposits or monuments. Inhumation is also a marginal concern of this study because inhumation is a different technology and involves a series of rites beyond the scope of this research. I will now describe how I intend to make the move from the study of 'burial' to the study of 'rites'.

It can be asserted that two-phase mortuary rites are common to almost all traditional societies. The two phases can encompass either primary and secondary burial rites, such as the interment of the corpse in Bali prior to its being exhumed for cremation, or a protracted series of ceremonies around a single burial rite, such as the Balinese cremation described below where the deceased was cremated without being first interred (Chapter 3). These rites permit a period of separation, or disaggregation, to be followed, after a transitional, liminal period, by reintegration, or reinstallation, by which dual process the dangerous nature of the departed soul is made safe by its incorporation into the society of the dead, and the mourners rejoin everyday life. The time taken over the double funeral allows the community to adjust to the death of a member (Bloch and Parry 1982, 4). Beliefs in an afterlife can mean there is an emphasis on the fate of the soul rather than the physical remains of the dead.

It is my intention to investigate cremation as rite of passage; to ascertain whether we can detect the spacing of events or rites surrounding death physically and temporally, and be able to speak of intangibles such as preparation, transformation, reintegration, and attitudes to death and the dead. Few archaeologists have sought to situate Bronze Age burial practices within rites of passage. Chapman however seeks to 'situate disposal of the dead in the full sequence of mortuary practice' (1994, 42), and provides a diagram for this (which I have adapted and reproduced here, Figure 1.2). The location of events in space and time involved in secondary burial rites are considered by Barrett (1988, 1994) and he contrasts the funeral rites of inhumation and cremation. To Barrett the 'dead are created out of the treatment of the corpse, which in the case of inhumation involves its preparation, transportation to the grave, and deposition...', the deposition or burial being the 'final act' which 'marked the place...of death'. Cremation rituals are suggested to be differently structured, with the pyre itself serving to release the deceased from its 'mortal existence', thus initiating the rites of reintegration which were continued or completed at the disposal of the ashes (Barrett 1994, 116-9).

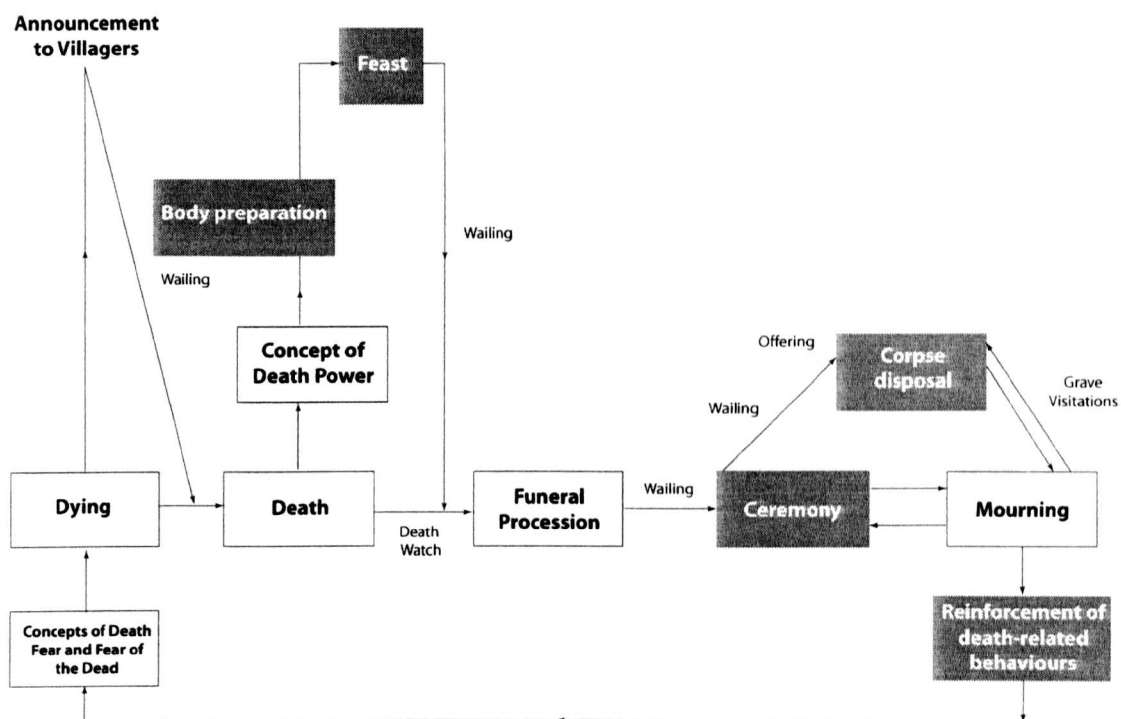


Figure 1.2 *Idealised sequence of mortuary rites with shaded boxes showing stages of potential archaeological visibility (adapted from Chapman 1994)*

In terms of the stages of rites highlighted in Figure 1.2 that might be recoverable archaeologically, what might be looked for in the context of Bronze Age cremation? If body preparation, or some stages of it, took place at the cemetery rather than in the home, or elsewhere, a mortuary structure or storage feature (such as a pit) may be present. If feasting took place at the cemetery, it may be visible through certain types of refuse or deposits. The ‘ceremony’ of cremation would entail the use of a pyre, the remains of which have rarely been discovered, but could be looked for. Bronze Age cremation almost invariably seems to involve selection and sorting of the pyre remains before disposal, the traces of which may remain. Corpse disposal could be visible through cremated remains that are buried, those that remain on the pyre, those that remain at the place of sorting of the debris, and those that may be removed elsewhere (e.g. in a domestic context (cf Brück 2001)). ‘Reinforcement of death related behaviours’ would be evidenced through the form of the funerary and cemetery architecture, through the repeated and changing forms of activity which create these architectures.

The areas that need to be investigated for researching these parts of the rites of passage are the whole of the structure of the barrow, in order to gain an understanding of

construction, materiality, labour and temporality and as wide an area around it as possible to look for as extensive a range of funerary related activities as possible. It was anticipated that the extensive use of geophysical survey, particularly magnetometry which detects soils that have been enhanced through burning, would be a particularly effective approach for detecting cremation-related features over a wide area. A further unexploited aspect of this archaeology which relies on detailed stratigraphic investigation of an entire cemetery is that of cemetery development.

It was felt that aspects of rites of passage not highlighted in Figure 1.2 as being of potential archaeological visibility could be researched within the framework of practice outlined above. Mound and cemetery architecture must involve approaches or processions through built features and pathways. A detailed consideration of preparation for the funerary rites, and technology employed, could inform as to attitudes to death and ontology (for instance efforts to control biological death). How the dead are regarded by the living and their place in life could be investigated through wider landscape survey, the positioning of the barrows in relation to other forms of inhabitation of the landscape providing some articulation between the living and the dead.

As we have seen, archaeologists have been transfixed by burial deposits and the architecture specifically of the 'corpse disposal' component of Figure 1.2, rather than the wider context of funerary and mortuary rites and the differing kinds of architectures they created. Many interventions of antiquarians and archaeologists in the past have been concentrated on the retrieval of artefacts and selected skeletal remains from burials, with the result that much information has been lost for the artefacts themselves tell us little about funerary rites. The importance of the mound structure, and what the funerary architecture tells us about ritual, was a concept that in Britain Fox first sought to investigate through his work (1959, xxv-xxvi) but archaeologists have failed to adopt an approach to fieldwork that enables this. Burial mounds which are excavated under modern excavation conditions almost always display complexity in the different phases and types of burial. However in plough-truncated landscapes all we have left are substantial negative features such as ditches and large grave pits or slighter features such as stake holes that have been protected by the mound. Features such as flat burials, cremation pyres, paths and other structures outside the mound could have been

common, but such remains are rarely detected either because of constraints of time or money or, more commonly, because such features have been eroded.

Many of the better preserved burial mounds survive on uplands, and many of these are cairns rather than barrows. The stony matrix of a cairn does not offer the same potential for detailed stratigraphic analysis of the mound structure of earthen mounds. In addition, the thinner, more acidic soils of uplands afford poorer preservation especially of ecofacts and a lesser chance of the existence or survival of stratigraphy and features outside the mound. The advantage of undertaking research fieldwork focussed on barrows in Orkney are that the majority of the barrows are earthen (see Chapter 2), the soils are comparatively good and the barrows relatively well preserved because cultivation has not been as intensive as it has been, for example, in southern England.

FIELDWORK METHODOLOGY

Ethnoarchaeological and archaeological fieldwork was undertaken in this research into cremation practice. The ethnoarchaeological case study was undertaken in Bali where open air cremation is practised. A single cremation was witnessed, and the residues of the cremation ceremony that remained immediately after and one month later were recorded. The results of these observances are set in their broader ritual context in Chapter 3, where the specific methodology of the study is detailed.

The archaeological fieldwork and specialist analysis of the material from the fieldwork that underpins this thesis which I initiated and carried out as part of the Orkney Barrows Project (OBP), under the auspices of Historic Scotland³ The overall project design for the OBP took as its tenet that previous archaeological activity had concentrated on the contents of the cist burial resulting in a collection of material (artefacts and human remains) which was essentially without a context. Bronze Age earthen burial mounds in Orkney were perceived to offer an important opportunity to study the sequence of events involved in their construction and traces of activities beyond the burial mounds themselves, shifting the focus from the burial to mortuary rites.

³ Historic Scotland funded the project on the basis both of its contribution to research and to management issues which were considered to have applications to wider classes of earthen monuments throughout Scotland.

The possibilities of undertaking this work were seen to be diminishing rapidly, for damage by livestock (particularly cattle) and pests (particularly rabbits), combined with deeper ploughing than previously, means that destruction is escalating. A vast increase in cultivated land during and after World War II was followed by grants to farmers to take marginal land into cultivation, during the 1980s in particular, which resulted in large areas being drained and turned to pasture that had not been in agricultural use since prehistoric times. This practice resulted in many barrow cemeteries being levelled, or, if they survived, entering the cycle of land management associated with cattle-based economy that would lead to a fairly rapid erosion of the mound.

The OBP proposal to address both the 'gap in knowledge' of the Bronze Age funerary landscape and the loss of the archaeological resource was essentially three parts with a fourth subsequently added:

1. Orkney Barrows Survey – a resource assessment entailing visits to every known or putative Bronze Age burial mound to ascertain the nature and character of the monuments, and also their condition. A database of this information was created, the results interrogated and interpreted, and a report formulated recommending three levels of response to the problems of the erosion of the monuments: Level One - education, Level Two - active management, Level Three - active preservation (Downes 1997a). All of these responses were predicated on gaining a better understanding of the monuments for improvement of management which could not be effected without knowledge of the nature, extent and setting of the barrows.
2. Investigation of a complete barrow cemetery – to gain a better understanding of the spatial and temporal arrangement of funerary rites, and to excavate a range of apparently different types of barrows which had suffered various forms of damage to provide a benchmark to archaeological potential against which the results of the resource assessment could be measured. The site selected for excavation was Linga Fiold, Sandwick (Figure 2.1).
3. Smaller scale investigation of six 'barrow' sites, selected on the basis that they characterised the various types of sites identified through the resource assessment was undertaken (Downes 1999). Selection of site was also on the

basis of a wide geographic distribution for each excavation was to be a 'demonstration sub-project' with the aim of involving the widest spectrum of community possible, for it was thought that education was key to preventing damage (Downes 1997a). The six sites chosen for this part of the project were Vestrafiold, Sandwick; Gitterpitten, Rendall; Varme Dale, Rendall (Figure 2.1); The Ruff, Burray; Setter, Eday; Ward Hill, Shapinsay.

4. The Knowes of Trotty, Harray forms an extension to the OBP and work at this site has enabled several of the outcomes of the OBP to be put into practice. Archaeological survey and excavation served both to define the extent of, and give an improved understanding of the nature of, the site. A management agreement has been entered into by the landowner whereby the stock regime is sheep instead of cattle, and the Local Authority have provided board walks into the site for public access.

The methods and results of the management aspects of the OBP will not be detailed or discussed further in this thesis. The methods of the fieldwork and post-excavation work will be outlined at this point as a large part of the thesis is an interpretation and discussion of selected parts of those results.

LANDSCAPE STUDY AND MONUMENT CHARACTERISATION

The resource assessment entailed visits to all known Bronze Age burial mound sites, identified through interrogation of the Orkney Records (Sites and Monuments Records). Key information concerning mounds thought to be extant was entered on the Orkney Barrows Survey database. Information from the Historic Scotland Monument Warden reports was also added as appropriate. Each burial mound was entered individually onto the database and cross referenced to others if part of a group. The large burial mound groups were surveyed as a separate exercise (Downes 1997a; Figures 2.8 & 2.9).

Site visits included measuring the height and diameter of each mound. Each mound was photographed, and the condition, type of land use and other attributes noted. The condition of the mound was quantified by recording in 20% increments the proportion of the mound judged to be damaged. This information was recorded in the field on a *pro*

forma sheet, and later put onto the database. If a site comprised more than two mounds the layout and attributes of the group were noted and sketched on a separate *pro forma* sheet. Visible features were noted, and the visibility of the monument in terms of its position in its contemporary landscape expressed in terms of whether it was prominent (visible from all directions and/or from a distance), visible principally from N, S, E or W, or not visible from a distance or from any particular direction. Proximity of the monument to other mounds or cemeteries, and other types of sites and monuments was noted.

GEOPHYSICAL SURVEY

Geophysical survey was employed over a wide area at all sites investigated as part of the OBP. The aim of the surveys was to locate features associated with the burial mounds which were not visible from the surface. It was anticipated that remains associated with cremation would be most easily detectable by magnetometry and to that end Fluxgate Gradiometer Magnetometer survey was undertaken at 1m increments across and between the barrows, and in an extensive area around the sites (e.g. Figure 2.24). Resistivity survey was also employed and was carried out over a smaller number of survey grids to compare the results of the two survey methods and check whether resistivity could provide further, or different kinds of, information relating to funeral rites (Challands in Downes in prep).

A magnetic susceptibility meter was used throughout excavations as a finer grained method of detecting areas of magnetic enhancement once turf and topsoil had been removed. One aim of this survey method was to identify pyre sites, or at least to attempt to distinguish between *in situ* pyre sites and dumps of pyre debris.

EXCAVATION AND POST EXCAVATION

The location of excavation trenches was at all sites guided by the results of the geophysical survey. Linga Field was extensively excavated with parts of nine barrows being investigated and areas of activity around the barrows. The other sites were much

less extensively excavated as the aims were simply to establish what types of site they were. The principles of investigating mound structure and areas around the mounds were followed for all. The mounds were excavated by the quadrant method. Excavation was always undertaken with the aim of full reinstatement afterwards and so efforts were made to minimise destabilising the structure of the barrows.

The excavation and post excavation were aimed specifically at detailing and maximising evidence from rites surrounding cremation and pyre technology. An explicit sampling strategy was devised through consultation with specialists prior to excavations. Cists, pits, postholes, pyre sites and pyre debris dumps were sampled 100% and removed from site to be sieved and sorted in the laboratory. Cists and other types of cremation burial contexts were excavated in spits for analysis of anatomical distribution of bone and sorting of pyre debris. Features interpreted as pyre sites were divided horizontally and vertically to investigate evidence of manipulation of the corpse and tending of the pyre.

Bulk samples were taken systematically through mound contexts and from other contexts where appropriate for plant macro fossil remains. Column samples were taken through mounds and some pyre sites for analysis of soil micromorphology to investigate the composition of the mounds and pyres microscopically. Column samples were also taken through the mounds and preserved ground surfaces for pollen analysis. Pollen sampling was undertaken from cists and pits to investigate possible presence of floral tributes. This involved taking a small sample from the base of the fill of the feature, from the floor of the feature, and from the sediment below the floor of the feature. Samples from the old land surfaces were analysed to generate information on the vegetation and land uses of the area immediately prior to monument construction (Bunting and Tipping 1997; Bunting et al 2000; Wagner 2003). The analysis of charred plant remains was carried out with the aim of identifying plants that were growing around or brought onto site, and types of fuels being used for the pyres, in addition to providing material for radiocarbon dating (Alldritt 1996; 2003; Wagner 2003).

Two types of artefact predominated on the sites – coarse stone tools (Clarke 1995; 2000) and vessels (MacSween 2000) which included a steatite urn from Linga Field (Sharman 1999). The two vessels which contained human remains were excavated in

the laboratory (Campbell 1995). The vessels from Linga Fiold were the subject of a collaborative effort involving researchers from various organisations (Downes et al 1998). The programme of research was aimed at following four investigative stages: origin of materials; method of manufacture; use and treatment of vessels; deposition of vessels. The pottery vessels were investigated through petrographic examination, x-ray diffraction and back-scattered electron microscopy. Examination and analysis of vessels was also undertaken to attempt to establish whether vessels had been through the pyre (Law 1995). The use of the vessels from Linga Fiold was investigated through organic residue analysis using gas liquid chromatography and gas liquid chromatography/mass spectrometry (Taylor 1998).

The micromorphological and chemical analysis of soils were undertaken following three lines of enquiry: sediment composition - the examination of sediments that constitute the bulk of the mounds, and fuel residues from the pyres by looking at mineral and organic soil components in thin section; sediment formation - discontinuous accumulation as a means of interpreting the history of the mound construction, and buried soils; disturbance - identifying large scale and small scale damage through complete profiles of the mounds (Carter 1997b; Carter 2000). A proportion of the 'cramp', or vitreous fuel ash slag from Linga Fiold that was recovered from a range of contexts was analysed by thin sectioning with the aim of investigating the source of this material and its place in cremation technology (Carter 1997a). Cramp from the Knowes of Trotty was also analysed (Photos-Jones 2003).

The human remains were studied to determine the age and sex of individuals and pathologies, and the process and structure of funerary rites (McKinley 1996; Roberts 2000a; 2004). The human remains from Linga Fiold were also the subject of a study on the taphonomy of cremated remains to investigate whether differences in fragmentation of bone were due to variances in cremation technology, or preservation (Roberts 1995).

The Orkney Barrows Project has had many productive and successful outcomes, both in terms of a greatly improved understanding of the sites as a resource, and in terms of how this class of monuments might be approached methodologically and conceptually to gain an appreciation of the wider aspects of mortuary rituals. This thesis draws upon the ideas, methods and interpretations developed by the specialists under my direction,

with a particular focus on the results of the human remains, soils, and slags (cramp) analysis as they elucidate cremation technology and the choreography of rites. A summary of the results of the OBP fieldwork is presented in the following chapter and set in the context of research to date in Bronze Age Orkney.

CHAPTER 2 - BRONZE AGE ORKNEY: REVIEW AND FIELDWORK RESULTS

INTRODUCTION

The prehistoric monuments of the Neolithic and Iron Age in Orkney are spectacular and have attracted attention for many decades. The chambered tombs, village settlements, stone circles of the Neolithic and the brochs of the Iron Age are the classes of monuments which are the most visible and research into the prehistory of Orkney has centred on these sites. Archaeological remains from the Bronze Age are less visible than some types of monuments from other periods, and our encounter with and experience of those monuments and the modern landscape has undoubtedly coloured the way in which we perceive the character of the societies that created and inhabited the landscape. The ‘problem’ of the Bronze Age is summed up in this passage:

The second millennium BC in Orkney is remarkable for the scarcity of finds which can be used in chronological comparison with better documented areas of Scotland. This is an unexpected reversal of the situations of both the third millennium (with a large number of chambered cairns) and the later first millennium BC and early first millennium AD (with considerable numbers of brochs). Many barrows and cists have been excavated with varying degrees of scientific method in Orkney, yet there are few of the beakers, food vessels or recognisable types of cinerary urns on which burial chronology is based in mainland Scotland (Ritchie & Ritchie 1974, 37).

This expresses a frustration felt by many (cf J W Hedges 1980; Barber et al 1996; Petrie 1927) that a lack of the usual ‘handles’ to hang a chronology on are absent, and the use of artefacts such as plain, flat rimmed pottery and coarse stone tools that do not change for hundreds of years has hindered research.

In *The Prehistory of Orkney* (Renfrew 1985), Øvrevik’s chapter *The Second Millennium BC and After* is peppered with comments such as the inhabitants produced ‘little in the way of a surplus to enable the development of a leisured class’ (Øvrevik 1985, 131), and that the evidence of material culture ‘perhaps indicates a growing insularity in the Bronze Age’ (ibid, 137). In *Prehistoric Orkney*, a book aimed at a wide readership, Anna Ritchie titles her chapter about the Bronze Age *A prehistoric recession?* (Ritchie

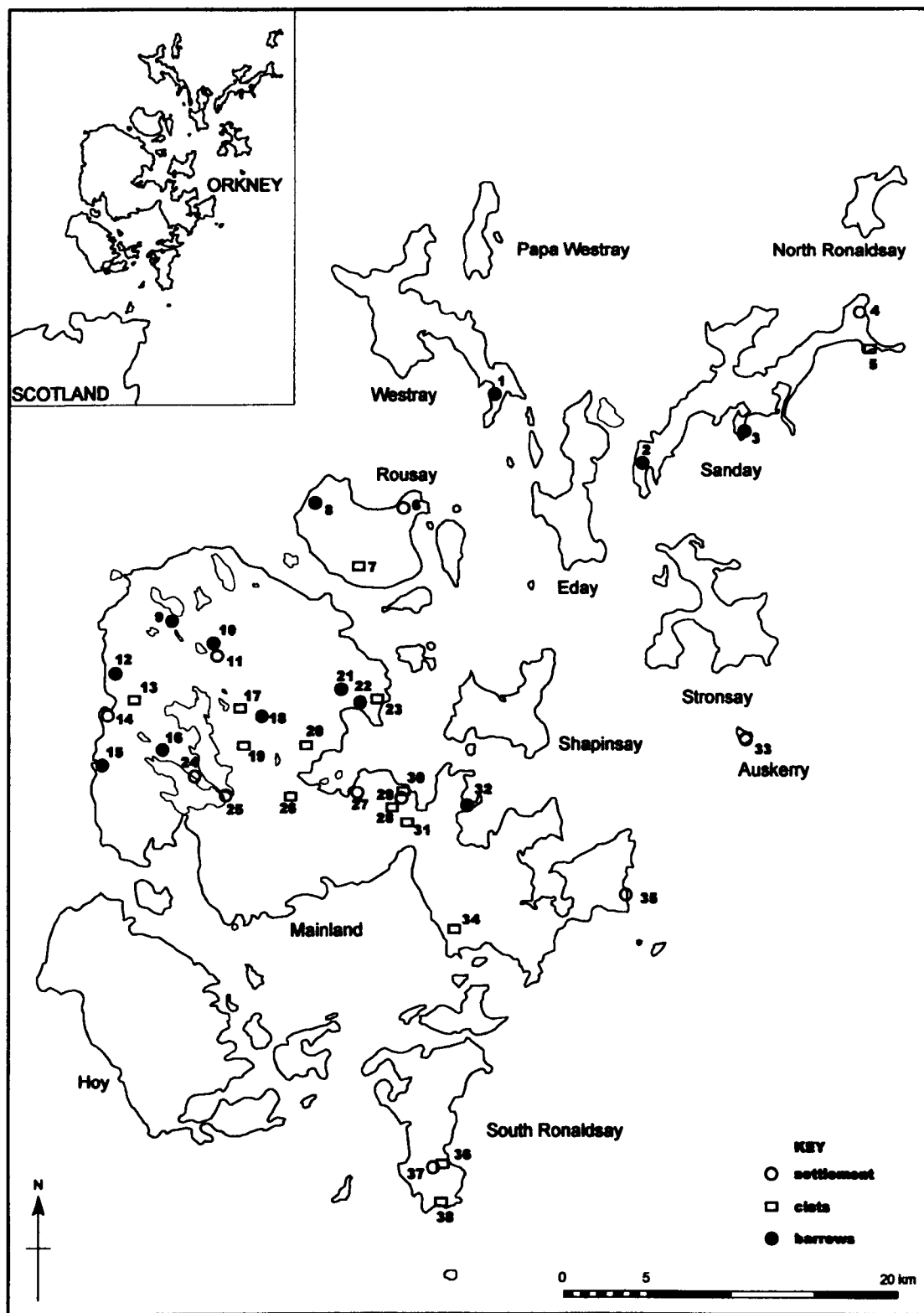
1995, 86). Ritchie opens the chapter with a statement that ‘Oradians seem to have gone into a period of economic recession towards the middle of the third millennium BC’, and in the concluding paragraph of the chapter comments that ‘...Orkney’s Bronze Age seems a dull time and has certainly not left many monuments at which to marvel’ (ibid, 95).

The mysterious tombs and the towering brochs overshadow the small burial mounds and slight remains of houses and field boundaries of the Bronze Age. It is surprising that the way in which a visitor can encounter and experience the monuments of Orkney today, can be uncritically transposed into a view of how the Bronze Age might have been; as though a difference in house architecture and monuments, or concern with the dead, can be equated with a society which was inward looking and impoverished in all senses of the word. It is quite clear that it is our approach to the Orcadian Bronze Age that is ‘dull’, and not that the Bronze Age society was uninspired. It is my intention to provide here a summary review of more recent findings from research into the Bronze Age of Orkney which will show that knowledge of the Bronze Age is patchy and reflects a lack of systematic research. The review is provided as background to, and orientation in, the world that is the subject of this thesis. Following the review section of this chapter is a synopsis of the findings from the Orkney Barrows Project (OBP) which provides a wider perspective for the very detailed interpretations of the findings that are the subject of Chapters 4, 5, 6 and 7.

BRONZE AGE ORKNEY: BACKGROUND

SETTLEMENT

The dislocation between final Neolithic and early Bronze Age settlement, funerary and ‘ceremonial’ sites is very widespread, and is a phenomenon that Burgess describes as a time when people abandoned ‘their settlements, their diverse monuments of a rich and cultural heritage, and their traditional lands, and trekked out into the unknown’ (Burgess 2004, 354). He further comments on the difficulty of locating settlement at all in some areas (ibid). In the final Neolithic in Orkney, settlements change radically from the grouped settlements with many tightly clustered houses occupied



- | | | |
|----------------------------|-------------------------------|--|
| 1 - Repness, Westray | 15 - Mousland, Sandwick | 29 - Crossicrown, St. Ola |
| 2 - Loth Road, Sanday | 16 - Linga Field, Sandwick | 30 - Ramberry, St. Ola |
| 3 - Quoyness, Etness | 17 - Werna, Harray | 31 - Cranit, St. Ola |
| 4 - Tofts Ness, Sanday | 18 - Knowes of Trotty, Harray | 32 - Holland, Holm |
| 5 - Lopness, Sanday | 19 - Hows, Harray | 33 - Aukerry |
| 6 - Rinyo, Rousay | 20 - Moan, Firth | 34 - Blomuir, Holm |
| 7 - Taversoe Tuick, Rousay | 21 - Giltterpitten, Rendall | 35 - Skail, Deerness |
| 8 - Quendale, Rousay | 22 - Varne Dale, Rendall | 36 - Isbister, South Ronaldsay |
| 9 - Queensfold, Birsay | 23 - Riff, Rendall | 37 - Liddle, South Ronaldsay |
| 10 - Quoyscottie, Harray | 24 - Weabister, Sandwick | 38 - Quarrel Geo, Banks, South Ronaldsay |
| 11 - Besquoy, Dourby | 25 - Barnhouse, Starness | |
| 12 - Vestrafjold, Sandwick | 26 - Cuween, Firth | |
| 13 - Sandfjold, Sandwick | 27 - Rennibister, Firth | |
| 14 - Skara Brae, Sandwick | 28 - Quanterness, St. Ola | |

Figure 2.1 Location map showing Orkney and principle sites referred to in the text

simultaneously, such as Skara Brae, Barnhouse and Rinyo (Figure 2.1), to substantial single and double houses. Excavations at Crossiecrown, St Ola (Figure 2.1), undertaken as part of the Cuween-Wideford Project, revealed a discrete settlement comprising one large house replaced by another in a slightly different position (Downes and Richards 2000; Richards and Jones in prep). The houses were both of the 'standard' later Neolithic layout (entrance way opposing 'dresser'; 'beds' on either side, central square stone-built hearth) seen at Skara Brae and Barnhouse, with some smaller walling of different character seen as early Bronze Age modifications to the later house. The houses were associated with Grooved ware and Beaker-type pottery. Radiocarbon dates from the midden at Crossiecrown were 3120-2910 BC and 2780-2560 BC, and from the earlier house 2480-2270 BC and the later house 1960-1740 BC (Richards & Jones in prep). Here then is a settlement precisely of this late Neolithic-early Bronze Age period about which little is known; it has a similar plan to the houses in the late Neolithic aggregated settlements, but is isolated in its situation.

In terms of evidence of Bronze Age settlement in Orkney, few Bronze Age houses have been identified, and very few excavated (and the majority that have been excavated remain unpublished (Tofts Ness, Sanday; Spurdagrove, Harray; Skara Brae)). The apparent scarcity of Bronze Age settlement is probably more a product of failing to identify such evidence, rather than a paucity of occupation in the Bronze Age.

In a re-evaluation of putative Neolithic houses in Shetland I have suggested that most are in fact Bronze Age (Downes in Downes and Lamb 2000). A deposit of charred grain found under the wall of Ness of Gruting has been dated to c. 2000 BC (ibid). This house is similar in form to Stanydale House and Gruting School, all of which are oval in form and have rounded cellular recesses set into the walls (Figure 2.2).

The Benie Hoose and Yoxie are similar but both have the addition of a forecourt from which the house is accessed by a long passage (Figure 2.2). From the limited evidence from Orkney it is possible to suggest that houses similar to those from Shetland are to be found. House 8 at Skara Brae may be one such building; it differs in many ways from the other Skara Brae houses in that it does not have the circular form and the arrangement of furniture of a dresser, bed either side and central hearth, but is rather

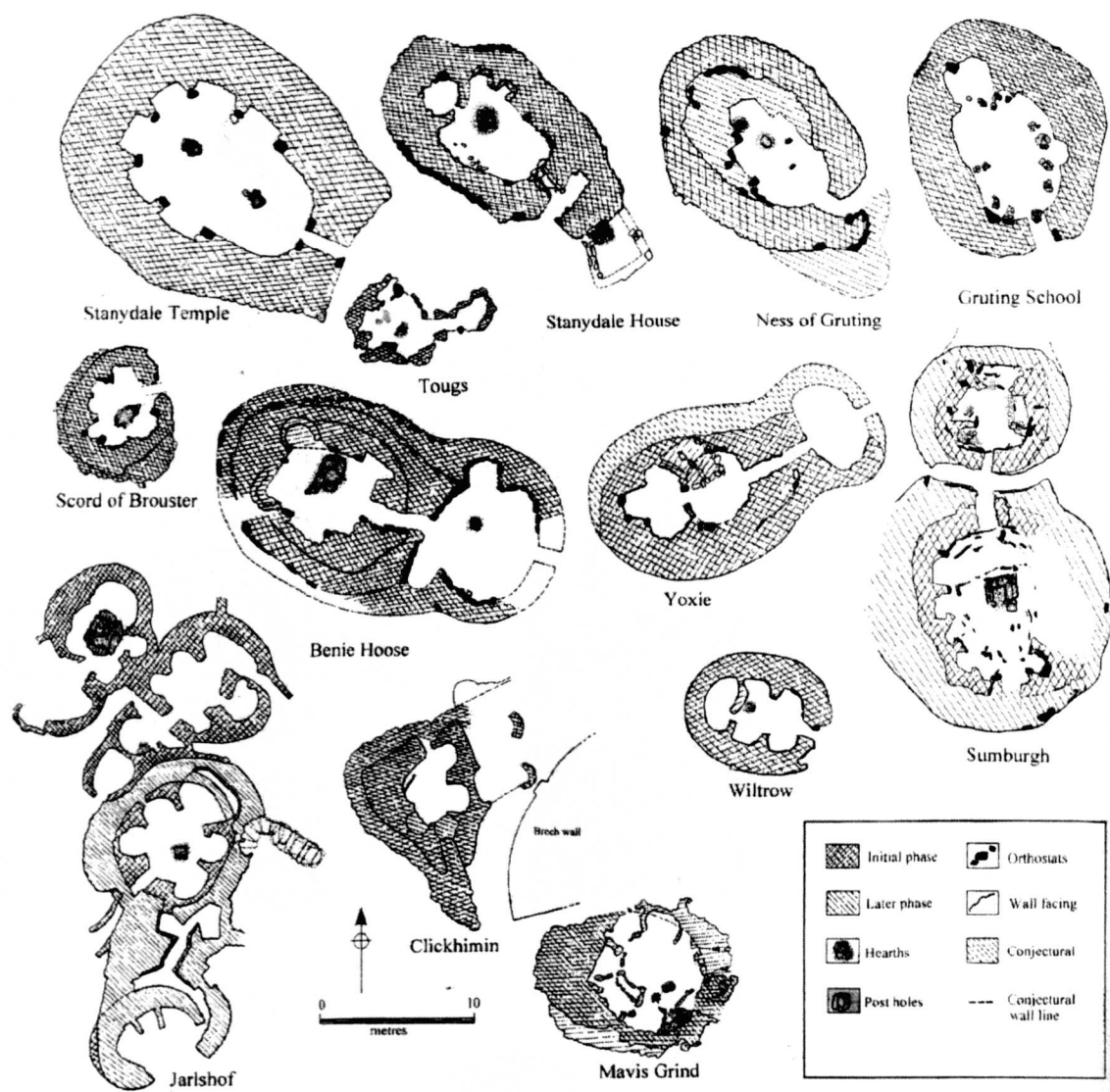
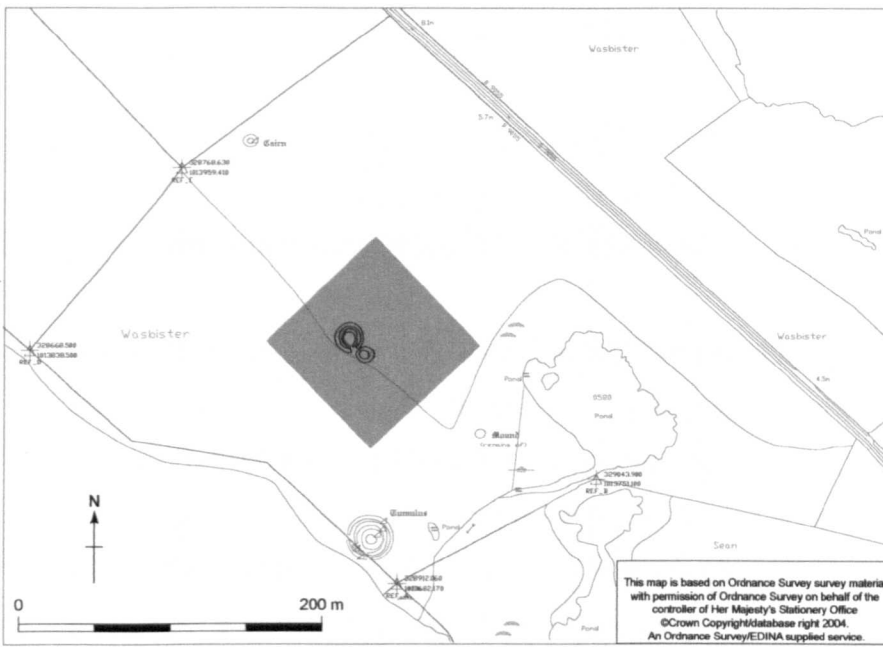


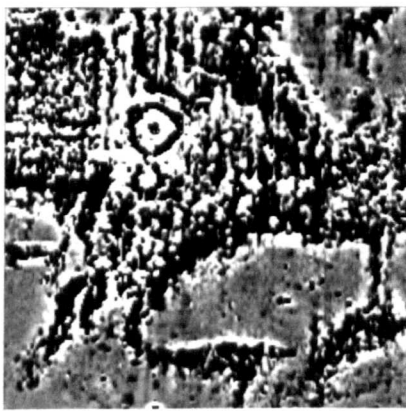
Figure 2.2 Plans of later prehistoric houses in Shetland (from Downes and Lamb 2000)

longer in form with cells of irregular size and shape built into the walls, in a manner similar to the Shetland houses such as Gruting School, Stanydale and Ness of Gruting.

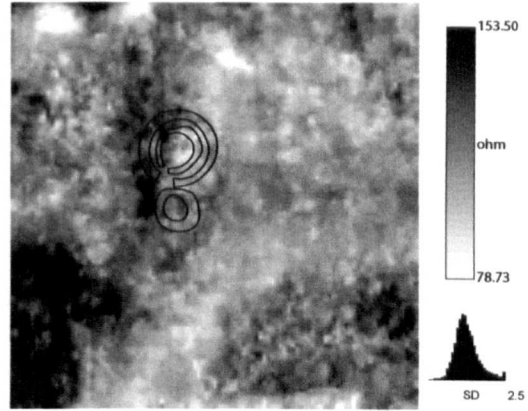
Sumburgh, Shetland, was first created in the early Bronze Age as a timber structure (as was Kebister, Shetland (Owen and Lowe 1999)) and was then recreated in stone as a small south facing building, which then had a larger house added to the south to become a 'double house' (Downes and Lamb 2000). This building underwent modifications through the Bronze Age and was remodelled at the end of the Bronze Age. These houses are all characterised by longevity, being inhabited seemingly for a millennium. The houses were built through an organic method of construction by the continuous



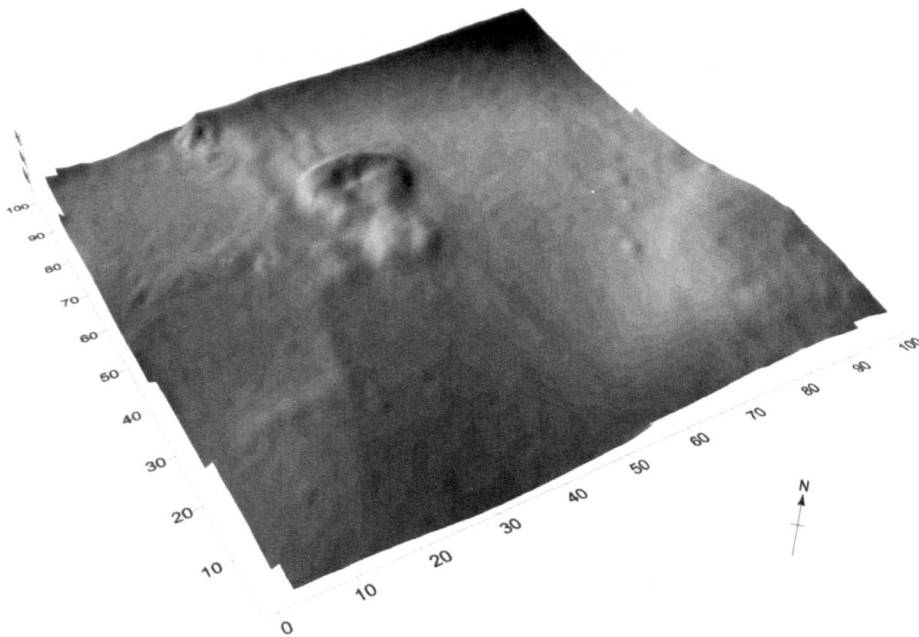
A - Location of the Ha block of the Geophysical and Topographic Surveys.



B - Gradiometer Survey (GSB Prospection Ltd 2003)



C - Resistance Survey (Robertson 2005)



D - Topographic Survey (Robertson 2005)

Figure 2.3 Houses at Wosbister NW of the Ring of Brodgar (J Robertson)

addition of midden to outer walls, which was periodically revetted in stone (Figure 2.2) until the structures become massive and monumental.

A double house in Orkney very similar to Sumburgh (Figure 2.2) was excavated at Skail, Deerness (Buteux 1997). The proposed development of the stone-built structures at Skail was firstly the building of a sub-oval house with SE facing entrance, next to which a smaller house with a north facing entrance was built. The two were later remodelled and linked by an adjoining SW oriented entrance. Like the Shetland houses, this structure was at first wooden, and the walls grew massive through time, being revetted periodically. The settlement at Skail is thought to have been middle-late Bronze Age (ibid).

Further double houses have been identified in Orkney through field survey, one of which is at Wasbister (Figure 2.3), NW of the Ring of Brodgar. This site had been classified as 'cairns', but a programme of extensive gradiometer survey (GSB 2003; Figure 2.3B) and intensive resistance and topographic survey (Robertson 2005; Figure 2.3C & D) shows a double house orientated NW-SE measuring 30m total in length and standing to 0.7m high (Figure 2.3D). A central hearth is clearly visible in the gradiometer survey within the larger northernmost house of the two (Figure 2.3B).

Another example is on the island of Auskerry (Orkney Records 940). The double house on Auskerry is larger than the Wasbister house and has never been ploughed over. During the survey undertaken for the OBP, the remains of other, single or paired Bronze Age houses were identified (Downes 1997a; archive database in Orkney Records).

Burnt Mounds

I include these structures amongst settlement for some have assumed them to represent a variant form of Bronze Age settlement (J W Hedges 1975; Øvrevik 1985) as Orcadian examples exhibit structural elements such as stone walling and furniture. There are at least 230 burnt mounds in Orkney (J W Hedges 1975), some of which can be quite massive monuments. J W Hedges comments how peculiarly dense the distribution of these monuments is in the Northern Isles, estimating one every four or six square

kilometres (1975, 74). In common with elsewhere in Britain, burnt mounds in Orkney are located in close proximity to water. There are some sites which appear to comprise both barrows and burnt mounds closely grouped; an example is Rashyburn, Holm, where eight mounds of various sizes and forms are surrounded by a bank 43m x 34m (RCAMS 1946). In other instances, burnt mounds are located in close proximity to settlement, for example at Tofts Ness, Sanday (Lamb 1980).

Two burnt mounds, Liddle, South Ronaldsay and Beaquoy, Harray were excavated by J W Hedges (1975) and dated to the middle-late Bronze Age. Liddle comprised an oval stone built structure with flagged flooring surrounding a large stone lined trough. A hearth was set upon the floor. Several recesses or cells were set into the walling. The walling grew in size with accumulations of burnt stones, and was revetted on occasion in a similar way to the houses described above. An original entrance way to the NE was later blocked and an entrance at the SE created. A large stone flagged gully led to large hollow in an apse at the northern edge of the building. Beaquoy had been more substantially eroded than Liddle. It comprised two buildings, the primary one being subrectangular with a hearth and wall construction similar to that at Liddle, but any tank in this building had been destroyed by later building. The secondary building was worse preserved and it contained a more roughly built clay-lined rounded trough, near to which was a 'quoined', well-like structure (J W Hedges 1975, 56).

Although burnt mounds will not figure in this thesis, there are certain aspects of them that must be borne in mind and which would provide fruitful avenues for future research. First, they are places of transformation; whether cooking places or 'sweat lodges', animals and people will enter the building as one thing and depart as another. Metaphoric links between the processes of preparing the body and cooking at the burnt mound site and the cemetery may have been drawn (see Chapters 4 and 5). The process of transformation is a technology involving fire and water and could also be perceived as analogous to metalworking (see Chapter 4). Second, the proximity of burnt mounds to water, and the gully and trough systems such as at Liddle indicate activities centred around a control of the flow of water. Similar gullies and troughs are found underneath Bronze Age houses such as Sumburgh and Kebister, Shetland but in this context they are non-functioning and are floored over at an early stage in occupation (see Chapter 7). Third, on occasion burnt stones similar to those in burnt mounds are found deposited in

barrow contexts, such as at Mousland (Downes 1994; below) and Holland (Neil 1981; below) (see Chapter 6).

Earth Houses

I also include a note on earth houses, primarily because they are most commonly categorised as an adjunct to settlement. Earth houses are often conflated with and confused with Iron Age souterrains which regularly occur underneath houses, for example Ritchie (1995) discusses the Orcadian earth houses as Iron Age storage cellars attached to domestic buildings. However, the Orcadian earth houses are of a particular form, seen in plan as a passage leading to a chamber and having a roof invariably supported by freestanding pillars. Although recording of the circumstances of their discovery has been poor they can by no means be said to have always been associated with houses. Current fieldwork is furthermore proving that they date to the (later) Bronze Age (M Carruthers, pers comm).

Earth houses can contain a variety of deposits from clean floors, to midden and burnt material, to human bone such as the multitude of disarticulated bones of men, women and children found at Rennibister, Firth, and the human skulls found amongst limpet shells and other midden material at Sandquoy, Sanday (RCAMS 1946). The construction of earth houses within chambered tombs (e.g. at Howe, Stromness and Rowiegar, Rousay) was probably not, as Ritchie suggests, to make construction more economical (Ritchie 1995, 115), but is further indication that these structures fulfilled ritual purposes.

MATERIAL CULTURE

Summary reviews of the material culture of Bronze Age Orkney were undertaken by M E Hedges in 1985 and A Ritchie in 1995 (comments on the ‘poverty’ of the culture being noted above), and there are a few findings that can be added since those publications. The finding of more Beaker pottery in a settlement context at Crossiecrown has been referred to above. The radiocarbon dating programme being run

by the National Museums of Scotland (NMS) has been providing new dates for vessels in cremation burials (see Appendix 1). Radiocarbon dating of the contents of the large, bi-part steatite urn from the Bronze Age cemetery of Linga Fiold proved that these vessels were indeed earlier Bronze Age (see Appendix 1 and 2). This finding has been affirmed by the NMS programme which dated the cremated bone found with steatite vessels and has shown most of the vessels to be early Bronze Age (Sheridan 2003), the earliest being that from Quandale, Rousay dating to 2140-1950 BC (*ibid*; Appendix 1).

A lack of occurrence of waste steatite indicative of steatite artefact manufacture in Orkney is taken as an inference that the steatite vessels were manufactured in Shetland and then imported to Orkney. Furthermore, analysis of the steatite tempered ceramic vessels from Linga Fiold (Downes et al 1998) has demonstrated that the ceramic vessels were in fact manufactured from steatitic clay rather than being tempered with steatite, suggesting that these ceramic vessels were also imported from Shetland.

There have less than twenty finds of Bronze Age metalwork from Orkney and a number of these were stray finds and are unprovenanced (Øvrevik 1985). From the early Bronze Age there are two or three flat axes, a dagger, and the Knowes of Trotty four gold discs (found with amber beads Figure 2.9, see below). Loveday has recently suggested (2004) that house 8 at Skara Brae (see above) could have been used for copper smelting, or early stages of the preparation of copper ore.

Middle Bronze Age finds comprise a flanged axe, a spearhead, a sandstone mould for a flanged axe, and a razor from a cist at Laughton's Knowe, Tankerness. From the late Bronze Age socketed axes, socketed knives and razors have been found. A late Bronze Age wooden leaf-shaped sword made of yew was found in east Mainland (St Andrews and Deerness) (Øvrevik 1985). Subsequent to these finds, another late Bronze Age socketed knife has been reported from Skaill, Deerness (Buteux 1997). Both the other finds of similar knives had been made in the peat in the same area of Orkney, one forming part of a hoard with a bifid razor (Porter in Buteux 1997). The context of the socketed knife from Skaill is interesting; it was recovered from a deposit sealing a small, semi-subterranean structure ('a very diminutive souterrain' (Buteux 1997, 30)) which lay underneath the southern part of the double house. The semi-subterranean structure contained charred grain, cremated bone, and an amber bead (we will return

below to the coincidence of burnt bone and charred grain in Chapter 6). The recovery of these materials and artefacts in a domestic context is reminiscent of the findings of Brück in her research into southern England (1995; 2001).

BURIAL PRACTICES

During the latter part of the research undertaken for this thesis, Orkney has seen a bout of activity in Bronze Age funerary archaeology. The activity has taken the form both of fieldwork involving the rescue of cists and barrows discovered accidentally and funded by Historic Scotland as their Human Remains Call Off Contract (undertaken by GUARD 1999-2004 and currently by AOC Edinburgh), and in the radiocarbon dating of human bone undertaken by NMS. The NMS dating programme has recently been focussed on the dating of cremated bones found with Bronze Age artefacts – in Orkney steatite urns and ceramic vessels. Previous finds of unburnt human and animal bone from chambered tombs are also being radiocarbon dated. The radiocarbon dates are being published thematically as they come out (Sheridan 2003; 2004; also in *Discovery and Excavation Scotland 2001-2005*). The results of the Historic Scotland funded fieldwork have not been published and so are only referred to in a very limited way in this thesis. Combined with the results from the Orkney Barrows Project, the level and quality of evidence promise a very revealing and exciting time for Orcadian late Neolithic and Bronze Age funerary archaeology, for which this summary can only count as a preliminary statement.

Two features could be said to indicate, or characterise, Bronze Age burials in Orkney: cists and cremation. In common with the rest of Britain, it appears that the interment of one person (in Orkney within a cist) replaces the practice of the interment of many people within a chambered tomb, and that cremation becomes the dominant funerary rite. This broad-brush characterisation is being shown increasingly to be problematic and unsustainable as a paradigm, not least because the relationship of chambered tombs to mortuary rites is still fairly poorly understood, but also because a high proportion of Bronze Age burials are not single burials, but are multiple either through a single interment of more than one person, or through additions to a burial feature through time.

To unpack this issue a little in Orkney, I will first consider the ‘introduction’ of cists. Cists are stone boxes that in Orkney can be built neatly from sandstone flags. Cists as structures that are built upon, or cut slightly into, the ground surface are a component of both earlier chambered tombs, such as those at Setter, Eday (Downes forthcoming), and later types of chambered tomb such as Bookan (Card forthcoming). There are few Neolithic sub-ground surface examples of cists and indeed there are very few dug features of any kind associated with the Neolithic settlements or chambered tombs, apart from drains (which appear in both settlements and tombs). The exceptions are within the Maes Howe-type tombs of Quoyness, Sanday, and Quanterness, St Ola, where below-ground features were found within the main chambers. At Quoyness a shallow rock cut pit, lined with stones and covered by a stone slab, contained human bones without skulls (Davidson & Henshall 1989, 57). At Quanterness, three pits were dug into the natural as a phase of activity subsequent to the primary thin black burnt layers, and prior to the extensive spreads of human bone. Of the two pits which were excavated, one contained a crouched inhumation and part of a second inhumation and was covered by slabs, the other feature was a cist covered by a large slab and containing traces of a crouched inhumation (ibid, 58). A radiocarbon date of just before 3000BC was obtained from one of these (Ashmore 1996). Richards (2005) describes the occurrence of a slab-covered pit containing unburnt bone within House 2 at Barnhouse, and draws attention to the similarity between this finding and that of a cist containing two inhumed adult females within House 7 at Skara Brae (both House 2 Barnhouse and House 7 Skara Brae are out of the ordinary in many respects). The cist burials in Quanterness, Quoyness, Skara Brae and Barnhouse are the earliest finds of ‘individual’ burials; all occur as negative features sealed beneath subsequent activities.

Many hundreds of ‘short cists’ have been discovered in Orkney, and reported or recorded to varying degrees, over the past three centuries. Whenever commentators or researchers have attempted to summarise or classify these findings confusion reigns (cf Petrie 1927; J W Hedges 1980). This is in part due to the fantastic and unparalleled variety of the types of cists and their contents, and in part due to the ‘problem’ described above of the lack of diagnostic finds. To quote Ritchie, ‘what Orkney lacks in the way of fashionable artefacts is compensated by a unique variety of short cists’ (1995, 95). Furthermore, classification of monument or site types has been problematic because the term ‘short cist’ is used to distinguish a later prehistoric cist built to contain

a crouched or flexed inhumation from the long cists of the late Iron Age and onwards which contain extended inhumations (cf Ritchie 1995). The term is therefore applied to a very broad class of monuments spanning the Neolithic through to Iron Age. The term ‘short cist’ has been used (in Orkney as well as throughout Scotland) most commonly to describe cists which are set into the ground and appear not to have been covered by a burial mound; however, the term is also used to describe cists that occur within or around barrows. Because short cists are so often accidental finds and are so seldom fully excavated, it has never been clear to what extent they might all have been originally covered by burial mounds (cf Petrie 1927; J W Hedges 1980), and might therefore represent essentially a single type or tradition of Bronze Age burials. In his appraisal of short cists from Orkney that had been recently excavated, J W Hedges (1980) decided that they were indeed a ‘type’, and on the basis of further evidence recovered subsequently I would agree that ‘short cists’ are a different type of burial, and that they are typologically distinct from, and almost invariably geographically separate from, barrow burials. Because it is cremation practice specifically related to barrow building that is the subject of this thesis I will only summarise the evidence very briefly here¹.

First however a note on terminology is necessary. Because ‘short cist’ describes almost every Bronze Age cist irrespective of whether it was associated with a burial mound or not, I will be using the term ‘*unobtrusive*’ cist to describe the burials which were probably never covered by a burial mound, and which are separate and distinct from barrow cemeteries².

I am going to describe certain characteristic of the unobtrusive burials and barrow burials in order to demonstrate that they are different types of burial. I will emphasise from the outset that the differences between these types of burials *do not* appear to be centred around or related to choices made on the treatment of the body, i.e. whether a body is inhumed or cremated. Indeed, there are unobtrusive cists burials wherein the remains of cremations and inhumations are combined or mixed in a single deposition event. The most striking aspect of this practice is the occurrence of unburnt human teeth within a deposit of cremated human bone (examples of which are found at Werne (J W

¹ Reports of the findings from unobtrusive cists excavated as ‘rescue’ are included in Appendix 3.

² Following Peters’ research into the landscape setting of Wessex burials (1997), I had been intending to adopt the term ‘inconspicuous’ burial. However, Peters’ use of the term ‘inconspicuous’ refers to smaller barrows, contrasted with larger ‘conspicuous’ barrows whereas I am contrasting barrow with non-barrow burials.

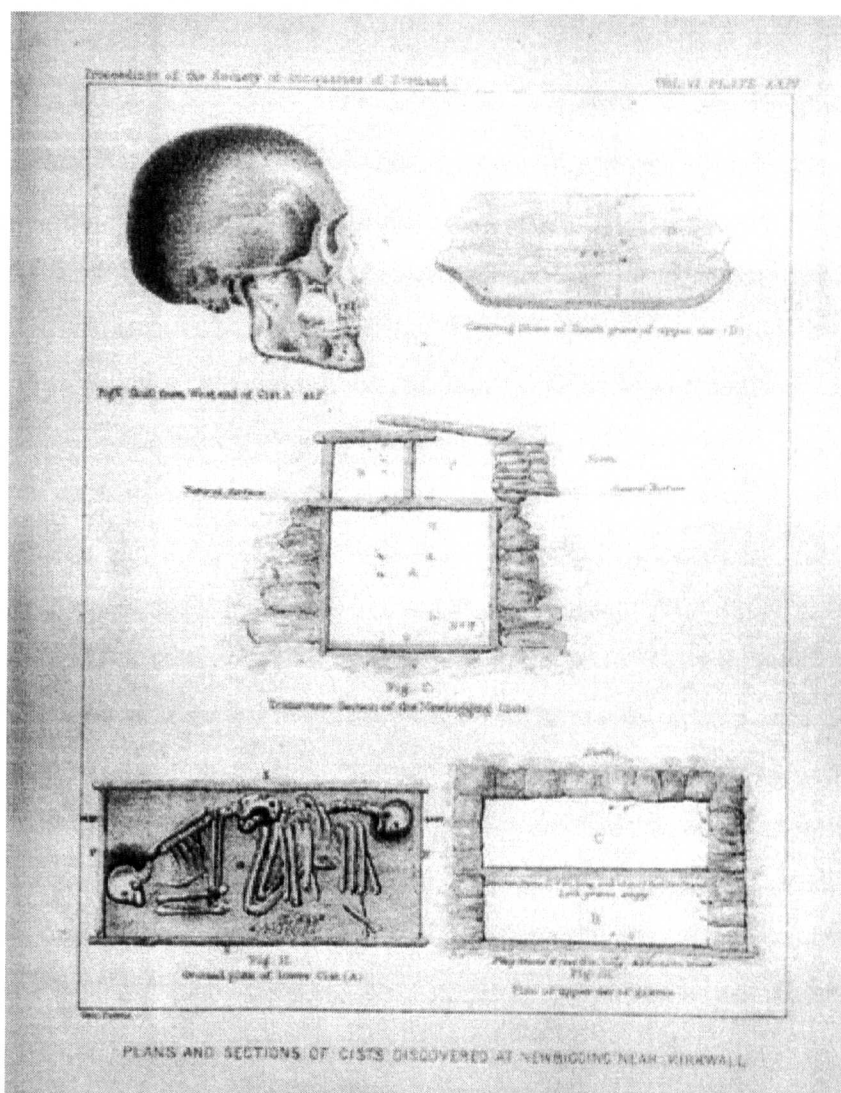


Figure 2.4 *Two storied, re-enterable cist containing inhumations; Newbigging, St Ola (from Proceedings of the Society of Antiquaries of Scotland, Vol. VIII (1885-79), 182-3)*

Hedges 1980), Sandfield (Dalland 1999) and probably Riff (Appendix 3; the 77 unburnt teeth recovered from this cist could be the remains of at least four individuals the rest of whose bones have rotted away, or could be another instance of unburnt teeth deposited with a cremation (Roberts 2000)). Another example of the mixing of cremated and inhumed remains is the combining of fuel ash slag or ‘cramp’ (a by-product of cremation, see Chapter 4) with an inhumation. This occurred at Sandfield where a deposit of cramp was made at or around the same time as the inhumation of a human foetus in the cist, and much earlier than subsequent cremation and cramp deposits within the cist (Appendix 1), and at Upper Bigging where a deposit of cramp was found in a cranny in the bedrock just outside the cist. A small Food Vessel-type pottery urn was

found (MacSween 2000), but no cremation remains or bone were found at the site (Appendix 3).

The radiocarbon dates for unobtrusive cist burials (Appendix 1) show the earliest to be broadly contemporary with the cists in the Maes Howe-type chambered tombs and settlements mentioned above. A single inhumation of an adult male within a cist at Howe, Harray (Appendix 3) has been dated to 3030-2620 BC (Downes forthcoming; Appendix 1). The large, re-enterable cist at Sandfield, Sandwick is thought to have been constructed and first used between 2900 and 2500 BC (Dalland 1999, see below). The earliest dates for burials primary to barrows are not before 2000 BC (Appendix 1).

Some unobtrusive cists do contain the remains of a *single* person, either inhumed or cremated and more commonly these burials are of an adult rather than an infant or child. It appears however that earlier unobtrusive cists were just as, if not more, often structures that were built to be re-enterable and which saw repeated 'use' in terms of the insertion of different burials (Figure 2.4). The movement and possible removal of burials in a manner very similar to the 'use' of chambered tombs also occurred, for example the cist at Gyre, Orphir, which is divided into two compartments within which disarticulated bones are separated out with skulls being placed in one of the compartments (Orkney Records), and a cist at Skail, Sandwick wherein a crouched inhumation accompanied by a bag of the disarticulated bones of a younger person was discovered (Megaw 2004). It should be noted that chambered tombs were still used for mortuary rites in the third millennium in parallel with the unobtrusive cists, for example the dog skulls from Cuween have recently been radiocarbon dated to 2500-2400 BC, human bone from Cuween to 2150-1930BC, and ox bone from Blackhammer to 1940-1740BC (A Sheridan and F McCormick pers comm). Chambered tombs also acted as 'foci' for unobtrusive cist burials, for example the early chambered tomb at Crantit, St Ola had re-useable complex cists nearby, one containing an inhumation and another containing cremations (RCAMS 1946), and large cists containing cremations were inserted into the top of the tomb itself (Appendix 1).

At the present state of knowledge, it appears that unobtrusive cists were not constructed after the early Bronze Age (Appendix 1), although some of the late Neolithic and early Bronze Age unobtrusive cists continued to have burials inserted throughout the Bronze

Age. Sandfield is the unobtrusive cist which has been excavated in the most detail and about which the most is known (Dalland 1999). It appears as though the first deposits to be made were a quantity of cramp put behind the cist when the cist was first constructed, and the unburnt bones of a human foetus found within the cist. During the second period of use, an inhumation of a young adult, and the cremated bones of an adult individual, possibly male, contained within a large urn of Food Vessel-type, were inserted into the cist between 2200 and 1700 BC. The last use of the cist is suggested as being between 1000 and 800 BC (ibid, 404-5), when the cremated bones of an adult, possibly male, and a quantity of cramp had been placed in the centre of the cist, partially covered by a mat of organic material.

During the first half of the second millennium burials were placed in either unobtrusive cists or, more often, in barrow cemeteries. During this period the dead were more commonly cremated although inhumation does occur. In the second half of the second millennium burial becomes more sporadic, taking the form most commonly of cremations in pits at barrow cemeteries (such as Quoyscottie (M E Hedges 1979)), although inhumation does occasionally occur (inhumations inserted into barrows as secondary burials at Holland, Holm (Neil 1981), Linga Field (Appendix 2), and possibly Summersdale (Ashmore 1974)). During the last part of the Bronze Age, c. 1000-700BC, burial appears extremely sporadic although the form of burial does not appear to change, with cremations being added into unobtrusive cists (e.g. Sandfield) or in pits at barrow cemeteries (e.g. Quoyscottie (M E Hedges 1979) and Gitterpitten (below; Appendix 3)).

The extent of the similarities between unobtrusive cist burials and barrow cemeteries are those discussed above, that is their chronological range and greatest prevalence in the early Bronze Age, and the occurrence of both cremation and inhumation burials at both. Another similarity between the two types of burial is that either unobtrusive cists or barrows can occur either singly or in groups (J W Hedges 1980; see below). There are, however, more differences between the two types of burial contexts which I will outline briefly.

To take setting first; barrows are more commonly close to, or prominent from, the 'lands of the living', that is settlement, cultivated fields and pastures (see below and

Chapter 7) whereas unobtrusive cists are in more ‘natural’, perhaps more liminal situations – commonly in natural knolls, sometimes near the sea, or close to or set into chambered tombs (see above), or occasionally in rocky crevices. Around the Ring of Brodgar, however, both barrows and unobtrusive burials are found in profusion, but the wide range of types and sizes of Bronze Age burials and their atypical sitings are extraordinary in ways similar to the barrows in the Stonehenge environs (a topic worthy of further research).

To turn to architecture, as has been described above, unobtrusive cists are negative, subterranean features whereas cists within barrows are usually built on the ground surface. Unlike the unobtrusive cists which are often obviously created in such a way that they can be revisited and have further deposits put in or taken out of them (see handles on cist lid, Figure 2.4), cists within or around barrows are not built to be re-enterrable, and secondary burials are always placed above or around the primary burial in a barrow rather than within it. Cist contents differ greatly between the two types of burial. Burials at barrow cemeteries very often contain quantities of pyre debris (see Chapter 5) whereas within unobtrusive cists cramp is the only reported type of pyre debris recovered.

There is mutual exclusivity in the vessels that occur within the types of burials. Food Vessel-type urns and other kinds of decorated North Isles variant urns occur (usually with cremations but sometimes with inhumations) in unobtrusive cists (e.g. Sandfield (see above), Werne (J W Hedges 1980; Sheridan 2003), Blomuir 2 (Appendix 3; Downes forthcoming), Lopness, Sanday (Johnstone forthcoming)). Steatite urns are found (usually containing cremations as primary burials) in barrow cemeteries (e.g. Loth Road, Sanday (Sharman forthcoming), Linga Field (Appendix 2), Quandale, Rousay (Grant 1937; Sheridan 2003)). Other types of material culture that occur in the context of burial appear mutually exclusive; although metalwork has seldom been recovered, what little has been found has occurred in barrow cists not unobtrusive cists, and the coarse stone tools of cultivation which are found in abundance at barrow sites (see Chapter 6) are very seldom, if ever, found at or in unobtrusive burials.

The relevance of these observations will become apparent through the course of this thesis. I will now turn to the barrow cemeteries in more detail for these are the focus of the research.

ORKNEY BARROWS

PREVIOUS ORKNEY BARROWS EXCAVATIONS

In the foregoing text the features of Bronze Age burials have been rationalised to a few key features in order to compare and contrast the barrow burials and unobtrusive burials and develop the argument that there are two architecturally distinct types of burial traditions running in parallel throughout the Bronze Age. In fact, within both these traditions of burials there is an 'infinite variety' of spatial arrangements and juxtapositions of materials. Several Orkney barrow sites have been excavated under modern excavation conditions and these sites will be summarised briefly here as I will be referring to them extensively throughout the thesis. The results of the OBP will then be outlined.

Grant's excavations on Rousay

Walter G Grant directed the excavation of many Bronze Age mounds on Rousay in the 1930s. These sites were well excavated and recorded for the standards of the time and have been fully published. One of these barrow sites was at Trumland (Grant 1934), and another at the Geord of Nears (Grant 1933), both of which were relatively well recorded, and both of which contained or were associated with features very similar to some at Linga Field (including a boat shaped setting at the Geord of Nears) referred to below. In the Quandale area, Grant excavated twelve barrows, distributed across the headland in groups of two and three mounds (Grant 1937). The NMS dating programme has included cremated bone associated with vessels from Quandale (Appendix 1; Sheridan 2003).

Queenafjold

A single barrow at Queenafjold, Twatt was excavated by Graham and Anna Ritchie in the early 1970s (Ritchie and Ritchie 1974). The barrow is situated alone, but 200m to the NW is an extant group of barrows which is sited on the lower slopes of Ravie Hill towards Loch of Boardhouse.

A cist had been built upon the ground surface and had then been covered by mound material. It was apparent that previous investigations had been made at the site, indicated by a trench dug into the side of the barrow. The base of a steatite urn, now in Tankerness House Museum, Kirkwall is said to have come from this excavation. The central cist contained the cremated remains of two adults, possibly one female and one male, and the cremated remains of deer. A small amount of cremated bone had been deposited underneath the base slab of the cist. A fragment of bone from the cist conjoined with a piece from underneath the cist, suggesting that the two deposits resulted from the same funerary event. A burnt pot sherd was found within the cist; this sherd had perhaps been through the pyre. A stone pot lid had been placed in the cist, covering an area of cremated bone that was free of charcoal and other materials.

Summersdale

Patrick Ashmore reported on the excavation of a burial mound undertaken in 1960 by F G Wainwright at Summersdale, Stenness (Ashmore 1974). The mound was one of ten or twelve which were said locally to be the burials of those killed in a battle, between men of Orkney led by James Sinclair and Caithness led by the Earl of Caithness, in 1592.

From the excavation it was apparent that the mounds were Bronze Age in origin. A cist was set slightly into the old ground surface, supported by a cairn of slabs, which held the cist in place while it was filled with a cremation and much burnt earth 'presumably from under the cremation pyre' (ibid, 41). A cairn of rubble or gravel was built around and over the cist. Another cremation was found outside this cairn, placed both under

and over a slab. This cremation was covered by clay, turfs and peat that capped the mound.

An inhumation was inserted in or on top of the central cist; it was not certain which as the upper part of the cist had been disturbed. This inhumation may date to the battle of Summersdale, and accord with the account of 'Numbers of their bones and their clothing have been dug up....' (Statistical Account 1795, 135, quoted in Ashmore 1974), or may have been Bronze Age. No radiocarbon dates were obtained.

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Quoyscottie

In the 1970s, Melia Hedges undertook excavation of a part of a barrow cemetery called the Knowes of Quoyscottie, Twatt, on Mainland Orkney (M E Hedges 1979). The barrow group comprised ten scattered mounds at the time of excavation (subsequently removed through land improvement), of which the four best preserved were chosen for excavation. A short distance to the north of the Knowes of Quoyscottie lie the Knowes of Cuean, seven largely destroyed barrows likely to be part of the same cemetery (*ibid*, 130).

The four mounds which were excavated (Figure 2.5) ranged between 8.5m (Knowe 1) and 5m (Knowe 3). Knowe 1 was constructed from earth mixed with burnt stone, cremated bone and charcoal. A heap of burnt stone lay next to the central cist. The central cist had been disturbed and contained only a few specks of burnt bone. The cist was constructed on the ground surface and surrounded by large boulders which supported the cist slabs. The central cist of Knowe 2 was constructed in a similar manner, and contained the cremated bones of a child, and a sherd of pottery. The central cist of Knowe 3 had no supporting stones. It contained cremated human bones, probably of a child, and three sherds of pottery. A further small heap of cremated animal bones were found on the outside the cist. Knowe 4 contained no burials.

All four of the mounds were surrounded by a stone kerb which was integral to the mound structure. Knowes 1, 2 and 3 had stone ard points (ploughshares) on these kerbs. We will return to these features below (Chapter 6).

At the Knowes of Quoyscottie an area between Knowes 1 and 2 was investigated, and 33 cremations in pits, the majority of which clustered around the NE part of Knowe 1 (Figure 2.5). The majority of the identifiable human remains from the pits were, like the central cists, those of children. The cremation cemetery had developed over a period of time; four of the pits were found to predate the construction of the mound, whereas others were inserted into the mound. Many of the burials cut into or were cut by other burials indicating that existing burials were not visible when others were added to the cemetery, although at least two of the burials were marked by upright stones. Twelve burials contained pottery sherds that were thought to have been through the pyre due to adherence of charcoal on several of the sherds. Nine of the pits did not contain any burnt bone, and the amount of burnt bone in others was variable. The pits contained ash, cramp, burnt stone and charcoal in varying proportions (see Chapter 5).

This was the first barrow excavation in Orkney to explore an area around the burial mounds. An area around each of the mounds was investigated, showing that the area at the NE of Knowe 1 was the only place where burial pits had been dug. The cemetery dates to the later Bronze Age (see Appendix 1).

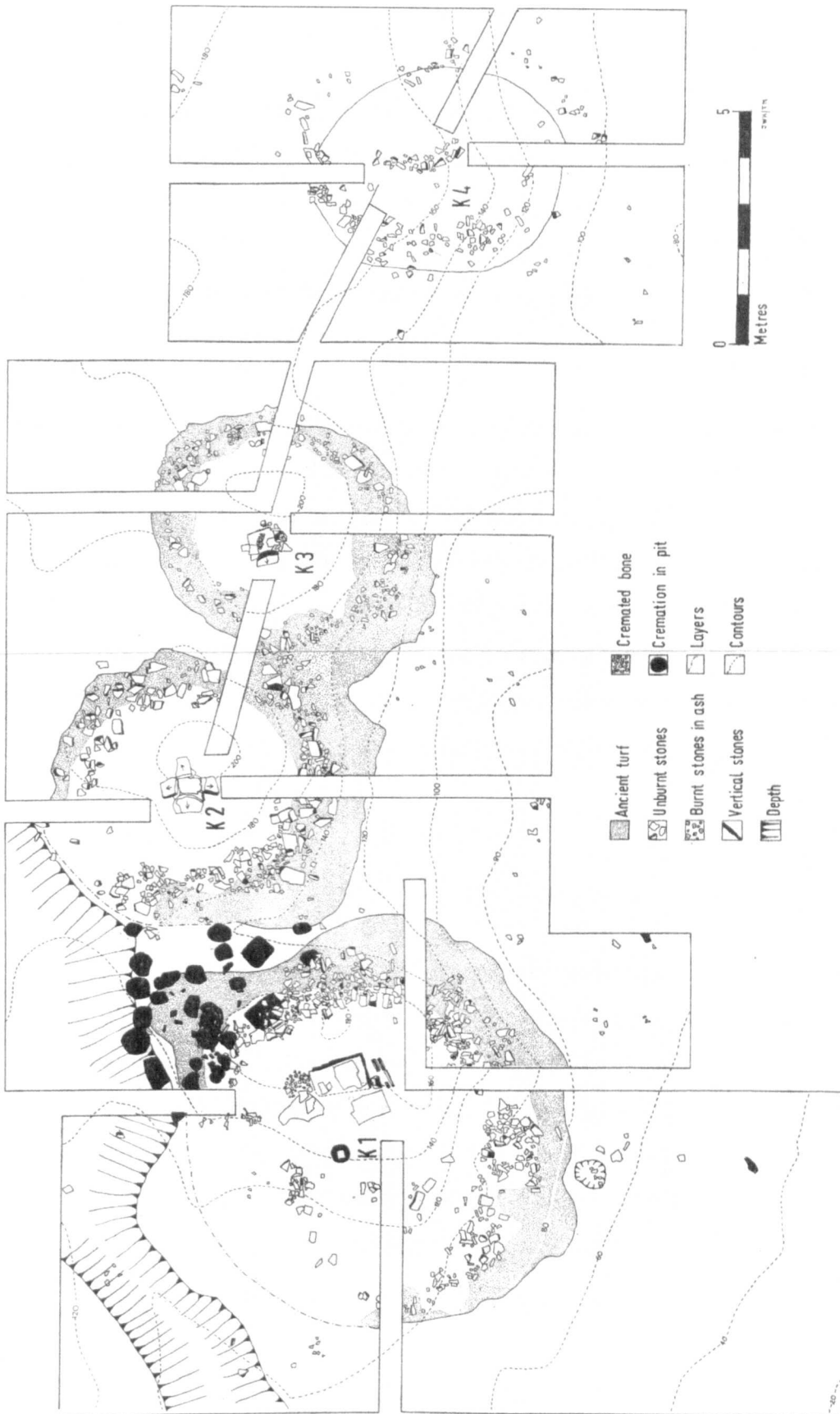


Figure 2.5 Excavated plan of Quoyscottie (from M E Hedges 1979)

Holland

In 1978-9 one mound of a group was excavated at Holland, St Ola (Neil 1981). The group had, when visited by the Royal Commission in 1928, comprised five mounds and two enclosures, with a further three mounds, of which one is a burnt mound, c. 200m to the east. The mound was excavated under rescue conditions when deep ploughing removed most of the mounds and enclosures. Two cists were found within the mound, one of which cut into and had disturbed the other.

The earlier of the two cists comprised a large basal slab which was set upon burnt mound material. The sides of the cist were surrounded by rounded boulders, which were then covered by more burnt mound material, and a capping of clay. The cist contained some cremated bone (probably a single adult) and burnt pottery, but it had been very much disturbed by the construction of the second cist, which removed two sides of the original cist, part of the boulder cairn material, and much of the burnt mound material. The secondary cist contained the remains of a crouched skeleton, an adult male interred in the later Bronze Age (see Appendix 1 for radiocarbon dates).

Bu Farm, Rapness

Excavation of two large cairns and a miniature cairn was undertaken at Bu Farm, Rapness, the southern point of Westray in 1985 (Barber et al 1996). The largest of the cairns (Cairn 1) was threatened by coastal erosion and had been partially removed by such erosion. A well built stone kerb surrounded this cairn, which comprised randomly dumped slabs, which the kerb was keyed into. Towards the centre of the cairn, layers of large slabs interleaved and inclined towards a cist which rested upon a spread of burnt soil, charcoal and burnt material, which in turn rested on the buried ground surface. The cist itself had been disturbed and was empty.

At 9m diameter Cairn 2 was smaller than Cairn 1, and lay 4m to the SE. The method of construction of the cairn was very similar to that of Cairn 1. The cist contained burnt bones and charred material, and again the base rested on further burnt material including bone. The cremated bone was identified as being that of a single adult.

The smallest kerb cairn measured 1.5m diameter, and is similar to those found at Linga Fiold (Mound 7, Appendix 2). A pit containing charred material was enclosed by the kerb. Radiocarbon dates from this site can be found in Appendix 1.

Mousland

An apparently isolated barrow at Mousland, Stromness, was excavated by this author in 1990 following accidental discovery by the farmer (Downes 1994). The barrow is situated at 90m OD and is set into land sloping southwards. The barrow comprises a central cist containing the cremated bones of an adult, possibly female, and pyre debris (see Appendix 1 for radiocarbon date). A polished stone axe lay on the ground surface outside the cist. A stone kerb surrounded the barrow mound which was constructed from turfs and subsoil (Figure 2.6).



Figure 2.6 *Mousland, Stromness, photographed from south.*

ORKNEY BARROWS PROJECT FINDINGS

THE CHARACTERISATION OF ORKNEY BARROWS

The survey and excavations undertaken as part of the Orkney Barrows Project were aimed at a characterisation of Bronze Age burial mounds in Orkney (Chapter 1). What follows here is a summary of those findings which provides both a characterisation of this class of monuments and a context for the analysis and interpretation in subsequent chapters.

Orkney Barrows Survey Results

Survival

The total number of burial mounds (all individual mounds whether in groups or not) recorded in the Orkney Records as extant before the Orkney Barrows Survey (OBS) took place was 697. This information was drawn from most recent complete survey of the monuments before the OBS, undertaken by the Ordnance Survey in the 1960s. The number of mounds found to be surviving through the OBS was compared against the Ordnance Survey total to identify the number of mounds destroyed in the last thirty years. The total number of mounds which were identified through the OBS field visits was 550 individual mounds (147 having been destroyed since the last comprehensive survey). Extant *sites* (whether single mounds or groups of mounds) now number 250 (46 were found to have been recently destroyed).

Densities of burial mounds vary greatly across Orkney Mainland and the islands (Figure 2.7). The number of upstanding mounds known from each parish varies from 107 mounds in Sandwick parish, to two examples each from Deerness and Hoy & Graemsay. Distribution relates in part to a real distinction based on how the mounds were sited in relation to Bronze Age settlement, and topography, and in part to the survival of mounds which varies according to both land type and land use (see below). Construction technique also affects the durability of a burial monument. Apart from these factors, the distribution is related to the varying degrees of antiquarian activities and survey intensity which was focused to the greatest degree on west Mainland.

Because the OBS used existing data as a starting point, previous biases in survey are enhanced but the biases could only be rectified by walkover survey of the large areas of Orkney that have not been previously surveyed (such as Hoy). Unfortunately this approach was outwith the scope and resources of the project.

Previously unrecorded burial mounds were identified through the course of the OBS. In some 15 instances these were further additions to previously identified groups of mounds, but 10 were new sites not associated with other known mounds. These mounds were mapped and recorded, and added to the database. Identification of several mounds was amended, the most common misidentification being burnt mounds that were recorded as burial mounds. A small number of mounds which had been recorded as burial mounds are thought to be house sites, and a number of previously unrecorded house sites were observed in the field (see above).

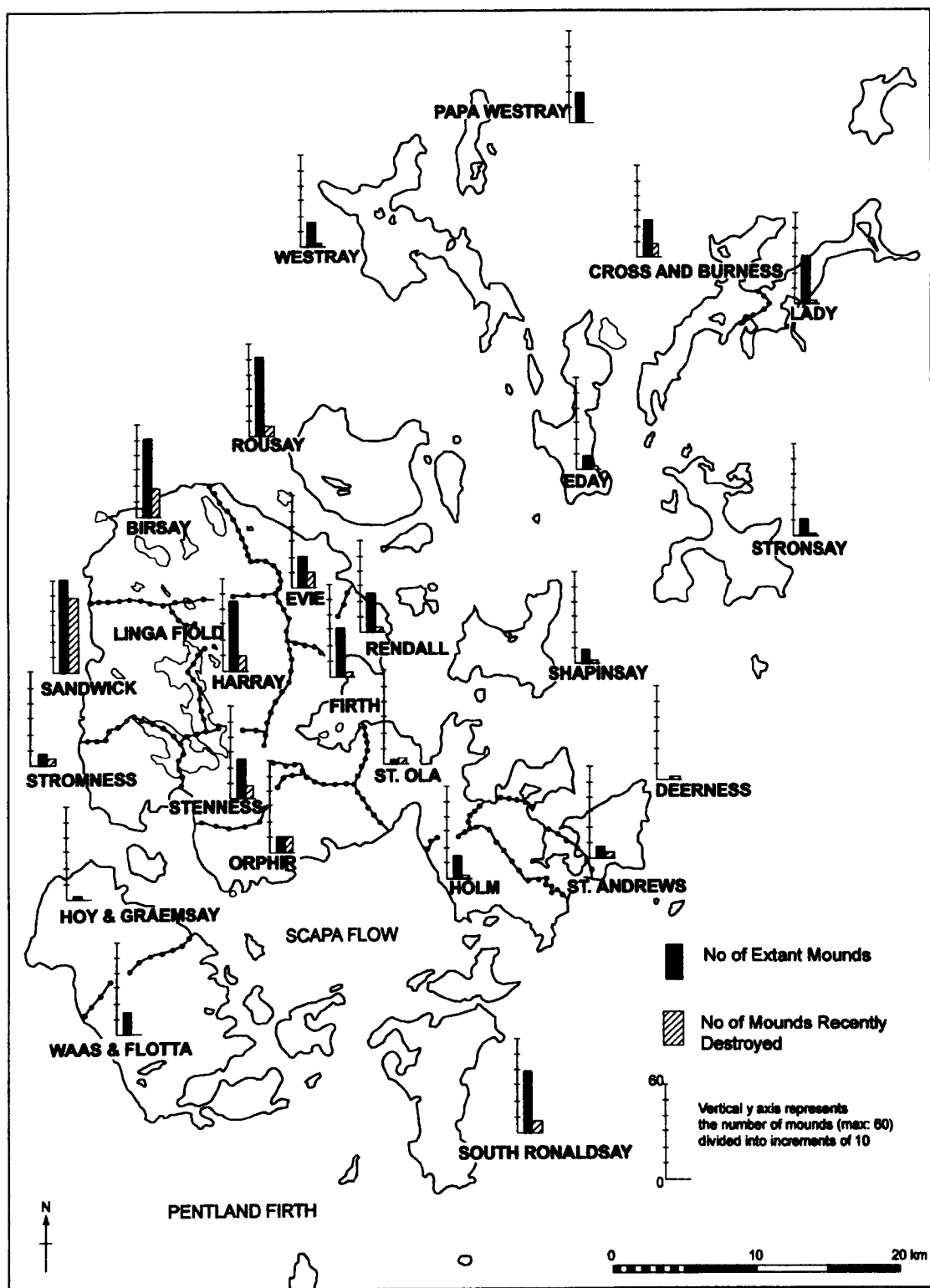


Figure 2.7 Map showing distribution of Orkney burial mounds by parish

Burial Mound Types

Earthen burial mounds, or barrows, are the dominant type of burial mound in Orkney (total = 456). Cairns are much fewer (total = 62)³ and tend to be located for the most part outside the zone of modern intensive agriculture, in coastal margins or islands where the land type is similar to that found in the coastal margins. The greatest number of cairns occur in the parishes of South Ronaldsay (no. = 19), Cross and Burness (no. = 11), and Lady (no. = 12), while there are notably few cairns in the Mainland parishes. Cairns are also located on hill summits and areas of upland where the soil is thin, and it would appear that, in common with other regions of Britain, building material reflects the immediate availability of resources.

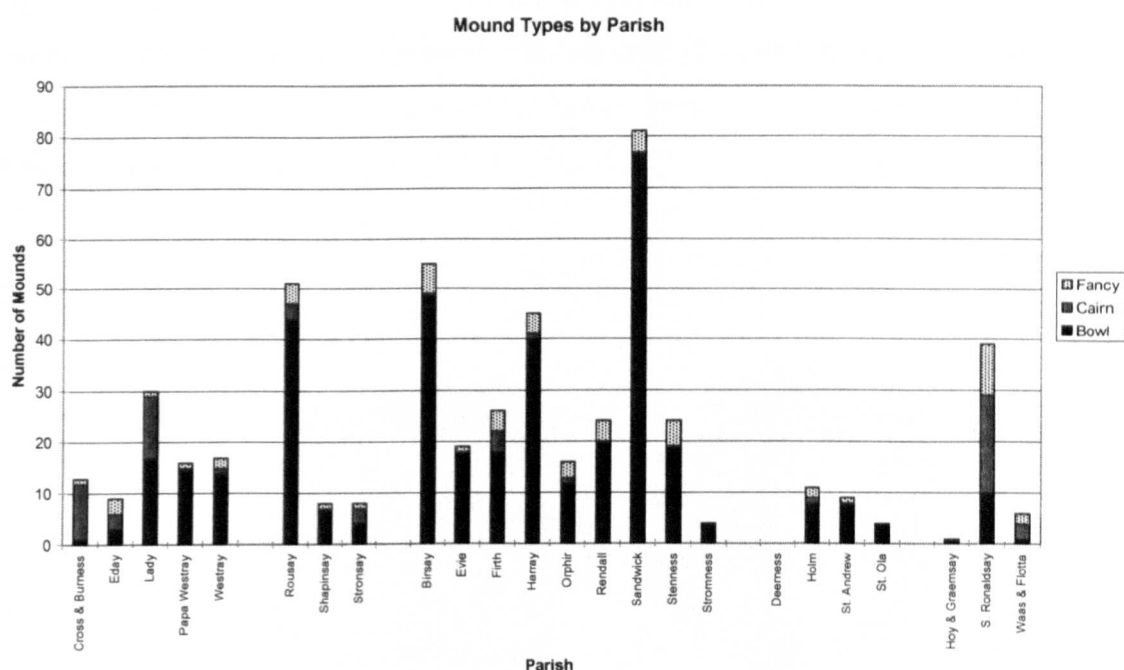


Figure 2.8 Chart showing burial mound types by parish

Of the barrows, most appear from the surface to be ditchless bowl barrows (Figure 2.8). Where the turf is broken a stone kerb is often visible, and excavation has shown many mounds to be kerbed. Kerbed mounds were classified as ‘fancy mounds’ (total = 62), which is why the number of fancy mounds appears so high⁴. The fancy mound category also includes four disc barrows, six bell barrows, one banked barrow and one possible

³ Numbers given for mound types as far as could be identified from surface of feature

⁴ Excavations subsequent to the Orkney Barrows Survey show that most Orkney barrows have stone kerbs of some form and are thus more akin to Asbee’s (1960) ‘composite barrows’.

pond barrow. For the most part the distribution of the fancy barrows is restricted to west Mainland. The range of barrow types in the vicinity of Ring of Brodgar henge is most varied, with the largest barrows in Orkney being located close to the henge. Nine possible examples of ring cairns have been identified - the distribution of these is restricted to the southern isles of Orkney (South Ronaldsay, Hoy and Graemsay, and Waas and Flotta parishes).

Seven examples of large unedged platform barrows also survive; rather than the platform being artificially constructed in most instances a natural knoll is modified into a platform upon which the barrow is constructed (giving the appearance of a bell barrow). Three examples of this form of construction occur in the linear cemetery called the Knowes of Trotty, Harray. The amber and gold artefacts (Figure 2.9), described and referred to by many authors as similar to the material characteristic of the Wessex burials (cf Coles 1969, Clarke et al 1985), derived from the largest mound in this cemetery (below).

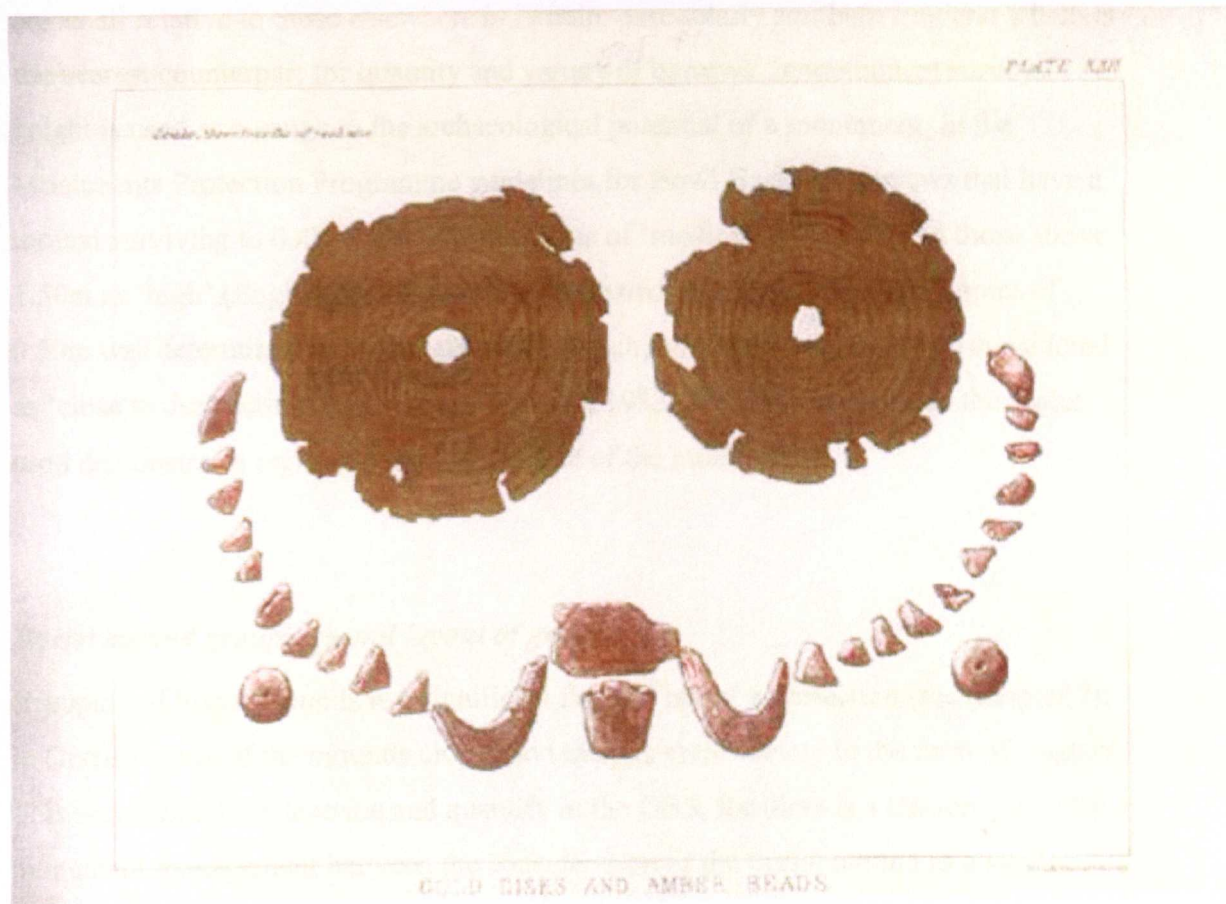


Figure 2.9 Amber beads and two of the four gold discs from the Knowes of Trotty (from *Proceedings of the Society of Antiquaries of Scotland Vol. III 1857-9*)

Burial Mound Sizes

Table 2.1 shows the diameter of the burial mounds in 5m increments. The larger percentage of mounds are between 5.00-9.99m diameter, and the next largest percentage lies between 10.00-14.99m.

size	0-4.99m	5-9.99m	10-14.99m	15-19.99m	20m+
number	58	292	150	38	12
percentage	10.5%	53.1%	27.3%	6.9%	2.2%

Table 2.1 *Burial mound sizes*

The heights of the mounds are commensurably low; the greatest number (180) are presently between 0.20-0.40m high, and very few (20) are over 0.70m high. Although the Orkney barrows have suffered erosion it is still possible to gauge their outer edges and to surmise original height, and thereby to deduce that the Orcadian burial mounds are small relative to those elsewhere in Britain, particularly southern England which is the nearest counterpart for quantity and variety of barrows. In monument surveys, height is used as a gauge to the archaeological potential of a monument. In the Monuments Protection Programme guidelines for Bowl Barrows, barrows that have a mound surviving to 0.40-1.50m are classed as of 'medium' potential, and those above 1.50m as 'high' (English Heritage 1988). For barrows in Dorset, a cut off point of 0.50m was determined as the height below which the monuments could be considered as 'close to destruction' (Groube and Bowden 1982, 37). This variation in the scales used demonstrates regional variations in size of the monuments.

Burial mound groupings and layout of groups

Grouping of burial mounds is a significant facet of burial architecture (see Chapter 7); in Orkney many of the mounds cluster and there is great variety in the form of clusters. This was difficult to describe and quantify in the OBS, for there is a tension generally in monument management between the consideration of the burial mound as a single monument class, the mound as a part of a group, and the definition of a cemetery. In the classification of monument types for the Monuments Protection Programme (English Heritage 1988) a distinction was drawn between round barrows and round barrow

cemeteries, the definition of a round barrow cemetery being a group of five or more barrows. Specifically excluded from this definition are clusters of less than five barrows, and widely scattered groups with barrows over 150m from their nearest neighbour, the use of which effectively precludes the majority of Orkney burial mound sites from the class of ‘cemetery’. Figure 2.10 shows the distribution of barrows across an area of Papa Westray that has not been ploughed, which illustrates well the problems of trying to classify a funerary landscape as a series of aggregations.

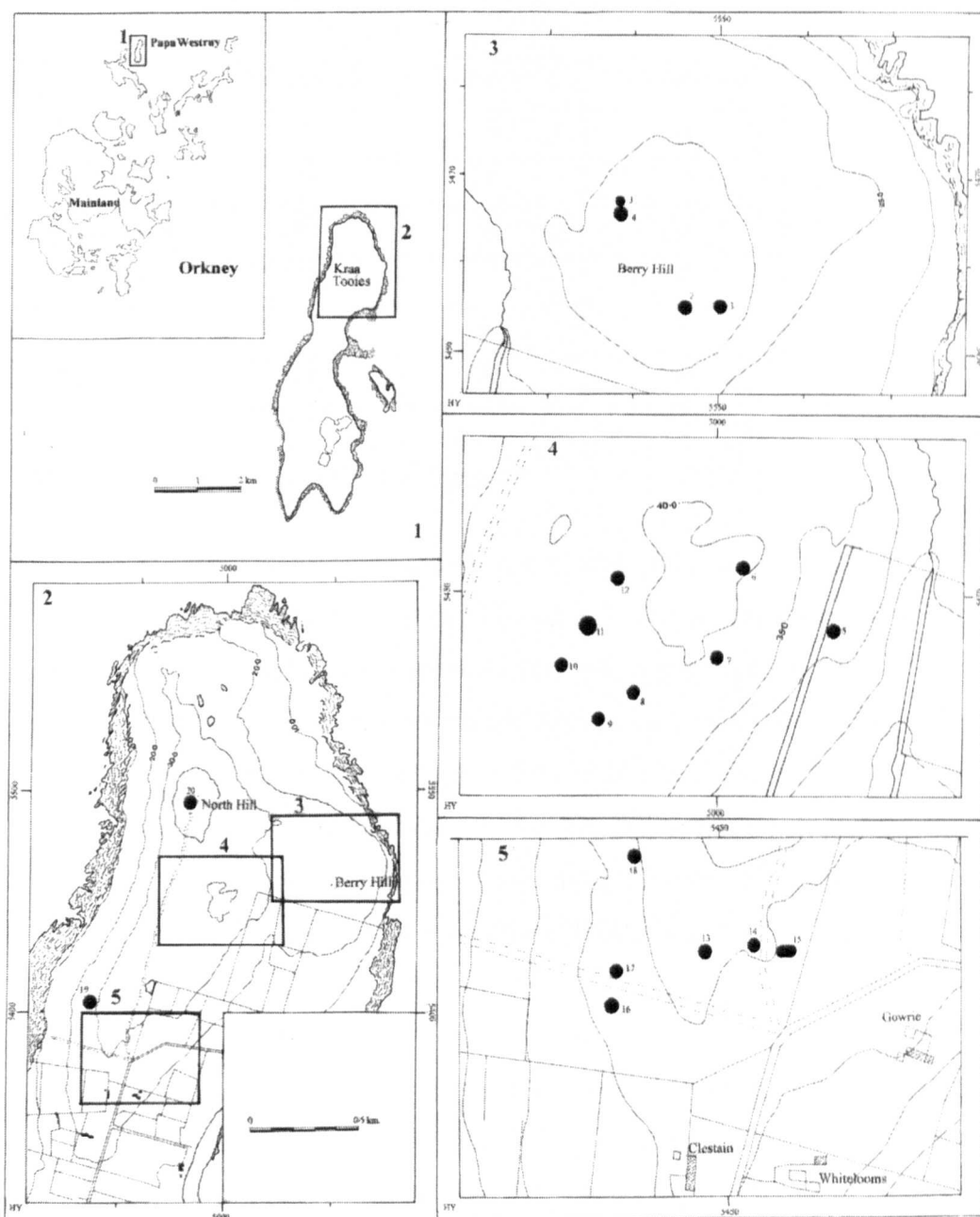


Figure 2.10 Barrow groupings at Kraa Tooies, Papa Westray

Table 2.2 shows the frequency of different sizes of mound groupings across Orkney by island groups. Cemeteries of ten or more mounds occur only in west Mainland, and on the outer isles, and are a rarer type of grouping with single mounds being the most common type (no. = 118). The greater number of large cemeteries are located within Sandwick, of which Linga Fiold is an example. Groups of two to four mounds are abundant and should also be classified as cemeteries. Furthermore, one barrow could be defined as a cemetery, as it is increasingly apparent that many burials are commonly placed in and around one mound.

	2-4 mounds	5-9 mounds	10+ mounds
Outer Isles	4	1	3
Inner Isles	11	6	0
W. Mainland	57	23	10
E. Mainland	6	3	0
South Isles	6	2	0
TOTALS	84	35	13

Table 2.2 *Size of groups of mound by area*

The differential survival of monuments will undoubtedly have caused a bias in the picture of cemetery sizes, for sites that appear now as single mounds and small groups may have been part of larger cemeteries. However, a good number and range of groups do survive in Orkney, and there are a high number of cemeteries of over five mounds. The estimate for the total of such sites in the whole of England is 300-500 (English Heritage 1988). In the small land mass of Orkney, 48 cemeteries of this size survive. These figures emphasise the very numerous and particular nature of the Orkney barrows which are extraordinary in both a Scottish and British context.

In terms of cemetery layout, the three main types of arrangement as outlined by English Heritage (*ibid*) can be identified. They are the linear cemeteries (of which an example from Papa Westray can be seen in Figure 2.10), the nuclear (also Figure 2.10), and the dispersed cemeteries (Figure 2.10). One particular arrangement is peculiar to the outer isles of Orkney, and that is the setting of cists within an arching stone dyke, and the placing of cairns or barrows on an arching bank. These formations occur in the parishes of Lady, and Cross and Burness (Lamb 1980). The most impressive example of this

formation is at Elsness, Sanday, shown in Figure 2.11. Here eleven barrows are linked by a bank and surround a chambered tomb (Egmondshowe), which is just south of another chambered tomb (Quoyneis). There is a large spread of barrows on the west part of the ness, or point, and more probably existed on the east part before the ground was improved.

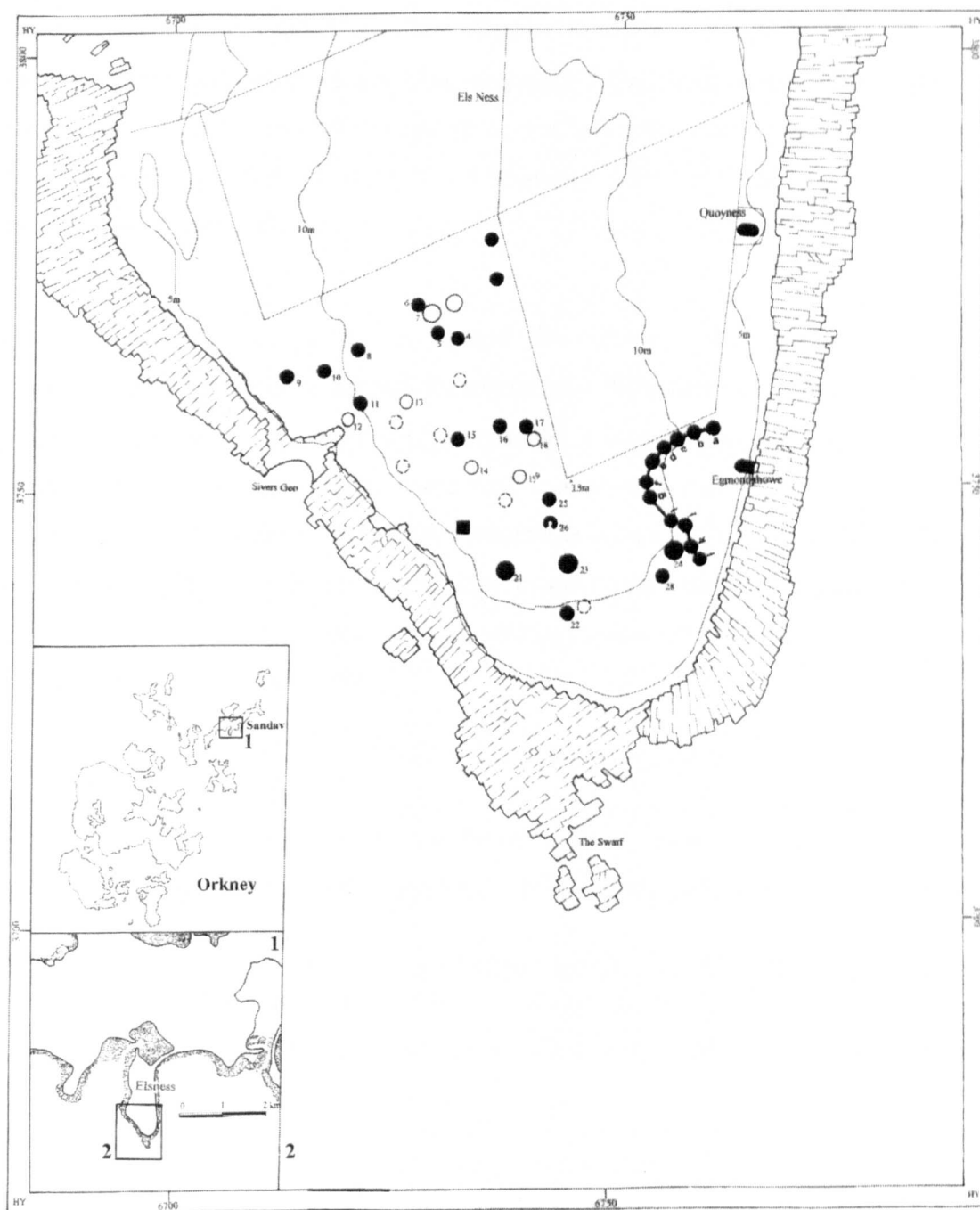


Figure 2.11 Barrow groupings at Elsness, Sanday

Burial Mound Sitings

Previous studies of the siting of funerary monuments, in Orkney (M E Hedges 1979; Neil 1981; Øvrevik 1985) and elsewhere, have tended to focus on the soil type and cultivatability of land as a factor determining the siting of the monuments. Such studies inevitably lead to the conclusion that burial monuments were consciously sited on marginal land. This functional interpretation is severely constrained by the fact that land use since the Bronze Age will inevitably lead to the survival of a greater quantity of these monuments on what we now class as marginal land, and moreover little account is taken of the variations in visibility and prominence of some of the mounds. An aim of the Orkney Barrows Survey was to take a landscape approach to the siting of the barrows (see Chapter 1).

During the survey process it became apparent that Orkney burial mounds were sited in a very particular manner in relation to the topography. Although many of the mounds are small, and the topographic variations often subtle, it was possible to view this phenomenon because the landscape was, and is, essentially treeless. Thus today, as in the Bronze Age, the prominence of the monuments is unimpaired by vegetation. As part of the Orkney Barrows Survey, information regarding the situation and prominence of the mounds was gathered, analysis of the resulting data enabling a categorisation of the sitings as follows (Downes 1997a):

-
1. Mounds (often fancy) located at the foot of hills, not prominent
 2. Single mounds on hill summits, visible from 2-4 directions and from a distance > 5km
 3. Single mounds, or more commonly groups, prominently sited on ridges (terraces, false summits), visible from one or two directions 2-5km
 4. Mounds, usually single, prominently sited above earlier monuments ('marker mounds')
 5. Single mounds, or groups, situated on low lying land, often near streams/associated with burnt mounds, not prominent, visible < 2km
-

Siting type 1 is similar to that of many Neolithic tombs and was thought to be earlier Bronze Age. Some of the mounds within this category were of forms which have

frequently produced earlier Bronze Age finds (e.g. Knowes of Trotty). Siting type 2 occur on the highest hills and, as a corollary of their position, often have OS triangulation points placed upon them. Siting type 3 is the most prevalent type of siting, and this category incorporates most of the larger cemeteries (including Linga Field). It was posited that these groups are predominantly middle Bronze Age. Siting type 4 is a specific type of siting where the mound has been placed above an earlier monument (usually a chambered tomb). These mounds have been designated 'marker mounds'; they draw the eye from a distance to the site of a monument which is in itself not prominent. Siting type 5 was recognisable not only because of a seeming lack of preoccupation with prominence in the placing of the mounds, but because of the smaller overall size of the mounds. This category was thought to be a later development (late Bronze Age/early Iron Age) when burials in other regions are located closer to settlements (Downes 1997a).

The six sites selected for excavation as part of the OBP were chosen for the variety they exhibited in their form and make-up, their grouping, their location in relation to topography. The sites were therefore targeted in part because they appeared to fit into one or other of the siting categories, and an aim was to appraise whether these categories were meaningful or useful. The six sites selected were:

Gitterpitten, Rendall

A group of seven mounds situated over an area c. 50 x 40m (Figure 2.19) on a fairly level part of the lower slope of the SW facing part of Hackland Hill. A pair of more substantial probable burial mounds is located c. 200m to the ENE of the seven mounds. The interest in the Seven Knowes lay in the small size of the mounds (the largest being 7m diameter) and their compact arrangement. It is a fairly rare type of group about which little is known, and was thought to fit siting category 5.

Varme Dale, Rendall

This site comprises seven mounds widely dispersed over c. 220 x 250m, thought perhaps to be not all part of one cemetery as they are dispersed in twos or threes and are of different forms and types of siting (Figure 2.21). The two most northerly of the mounds (1 and 2) were investigated (Figure 2.21).

Vestrafiold, Sandwick

These four mounds are arranged in a linear formation running NE-SW downhill situated high above the Neolithic stone quarry of the same name, and an earlier Neolithic chambered tomb. The southernmost barrow appears as a 'marker mound' to the earlier chambered tomb. The mounds are sizeable, Mound 2 being the largest at 13m diameter and 1.2m high. The site covers an area of c. 150 x 40m.

The Ruff, Burray

The isolated cairn-like feature at The Ruff was thought to be a possible ring cairn measuring 7.5m diameter, 0.5m high. The mound was thought to fit siting category 2.

Wardhill, Shapinsay

This site appeared to comprise a single mound, measuring 11m diameter and 0.6m high, apparently fitting siting category 2. It is situated on land which slopes gently away from the highest point of the island (64m OD).

Setter, Eday

These two small cairns lie c. 200m to the south of the Stone of Setter. They are both less than 6m diameter, and lie 75m apart on a gentle SW facing slope at 23m OD. The stone of the cairn was exposed, and orthostats were visible in Mound 1 before excavation. The site was thought to fit siting category 5.

Results

The results of the six sites challenged expectations, for, although the sites were recorded as Bronze Age burial mound sites, only three of the sites displayed the appropriate characteristics (Gitterpitten, Varne Dale and Vestrafiold). Of the other three sites, The Ruff transpired to be a cattle feed point, Wardhill a (probable Norse) beacon site, and Setter earlier Neolithic cairns. The excavation of the six sites demonstrated that a range of different monuments can take the form of small earth, or earth and stone, mounds. The three Bronze Age barrow sites identified could all be said to fit into siting category 3 which has caused me to reappraise the categories (Downes in prep) but there is no space for a fuller discussion here. The landscape settings of barrow cemeteries are discussed further in Chapter 7.

The results of the excavations at Gitterpitten and Varme Dale feature in the analysis of cremation practice in Chapters 4, 5, 6 and 7 and summaries of those excavation results are provided below and appended in full (Appendix 3). At Vestrafiold, due to constraints of time and the substantial nature of the mounds, archaeological investigation focused on exploring the areas between the mounds for possible features associated with the mounds. The results of Vestrafiold will therefore not be detailed further.

ORKNEY BARROWS PROJECT EXCAVATIONS

There follows in this sub-section a very summary account of the excavations undertaken as part of the OBP (see Chapter 1) which are relevant to this research, that is Linga Fiold, Gitterpitten, Varme Dale, and the Knowes of Trotty. Detailed accounts of Linga Fiold, and of Gitterpitten and Varme Dale, are contained within Appendices 2 and 3 respectively.

Linga Fiold

The burial mound site at Linga Fiold lies between Easter Voy and Upper Lyking on a SSE facing slope between 37-38m OD, 400m N of the Loch of Stenness and overlooking the Brodgar and Stenness henges. The group of mounds is a linear cemetery running NS, currently covering an area 200m x 800m (Figure 2.12).

Visiting in 1928, the Royal Commission reported that the group had comprised 15 or 16 mounds, of which several had been largely destroyed (RCAMS 1946, 265). Some of the mounds had been excavated in the earlier nineteenth century by the Rev. Charles Clouston with members of the Orkney Natural History Society (NSA 1893, reported in RCAMS 1946). A description was provided of the excavation of two of the mounds, 1 and 2 (summarised below). During the excavations of 1994 it was found that the upper parts of Mounds 5 and 6 had also been previously excavated. In 1992, the Historic

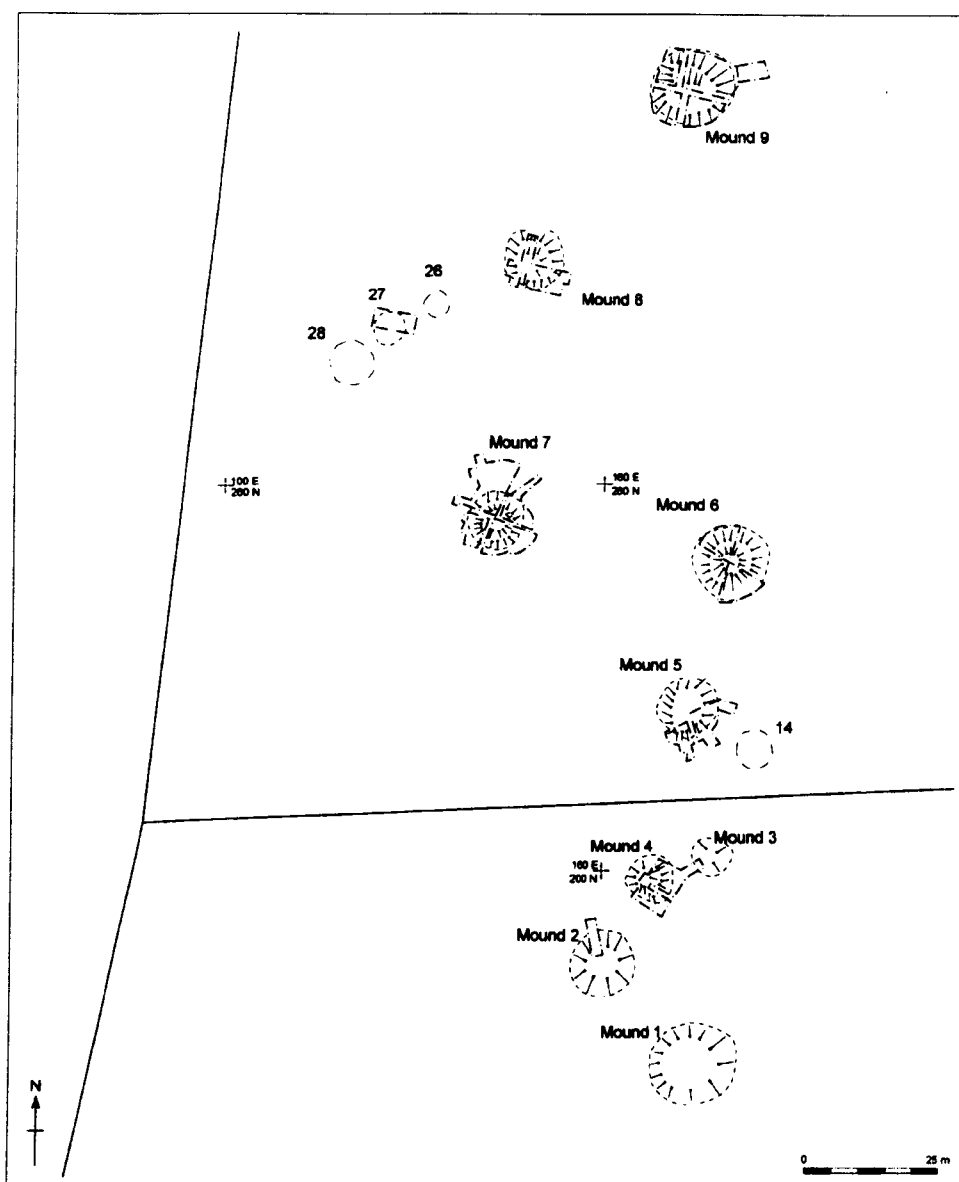


Figure 2.12 *Linga Fiold site plan and trench locations*

Scotland monument warden, Julie Gibson, excavated the contents of a cist eroding out of the east side of Mound 9 (Moore and Wilson 1995).

Nine of the barrows were investigated in 1994 to varying degrees as part of the OBP (Mounds 2, 3, 4, 5, 6, 7, 8, 9, and 27; Figure 2.12) and all (except Mound 27) exhibited complexity in structure indicating more than one event or sequence of rituals at each barrow. All features at the cemetery were associated with cremation and the various stages involved with the rite: pyre sites, spreads of pyre debris, close to one hundred cists and pits, and a mortuary building. Phases of barrows where discernable are summarised below:

Mounds 4 and 3

Mound 4, as a low rise of c.0.2m, was higher than Mound 3 which was barely visible. Mound 4 was c. 6.0m diameter at time of excavation. The eastern half of Mound 4 was excavated in its entirety, and the trench extended onto Mound 3 (Figure 2.13). Phasing of Mound 4:

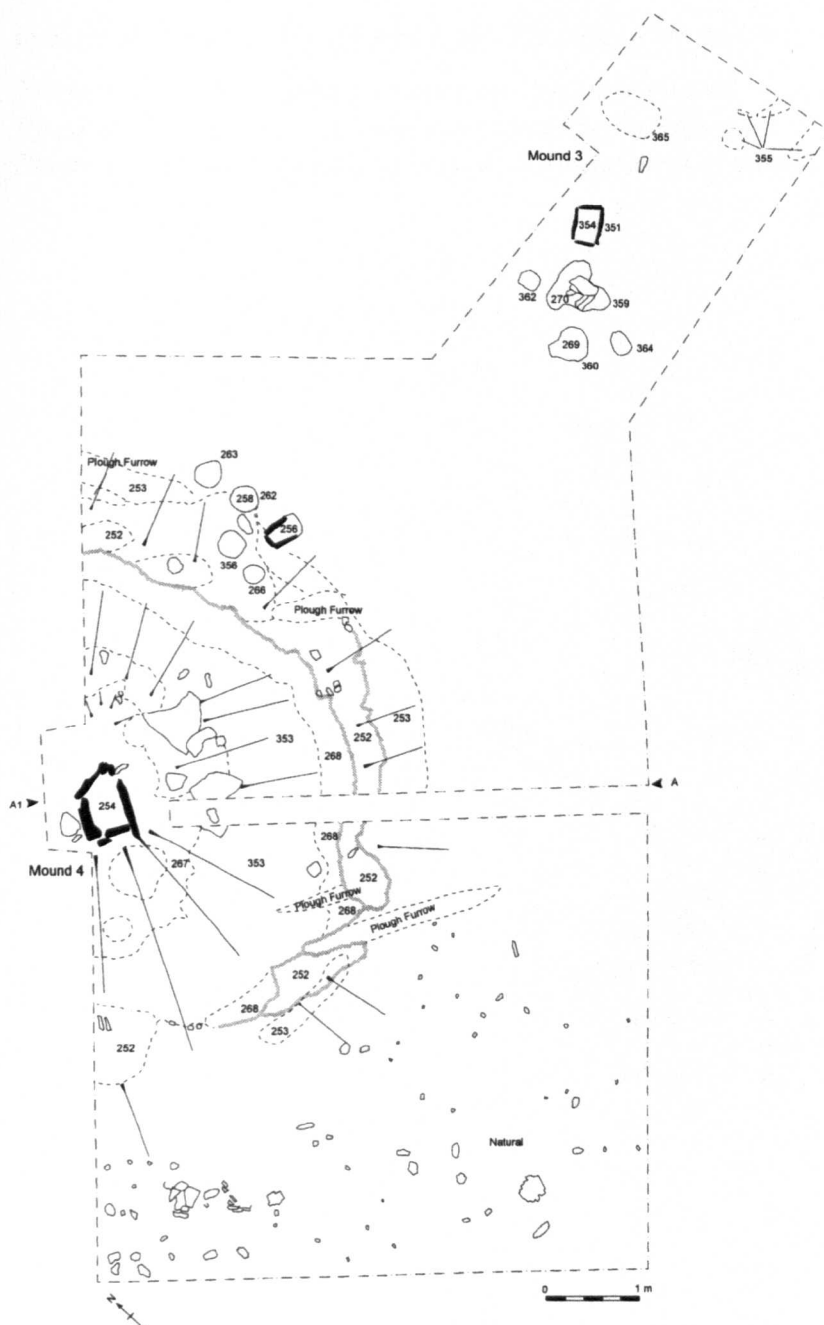


Figure 2.13 *Linga Fiold Mounds 3 and 4 all phases*

- Phase 1* *Primary cist burial and mound*
Phase 2 *Features cut into edge of, and surrounding, mound*

Mound 5

One of the larger of the mounds to be investigated in 1994, this mound measured 12m EW, 11m NS, and stood 0.70m high. The whole mound was stripped of turf, and the trench extended in places to investigate geophysical anomalies. Excavation then focussed on parts of the mound surface and edges where features were revealed in the geophysical survey (SE and SW quadrants), and the SE quadrant of the mound was excavated in its entirety (Figure 2.14). Phasing of Mound 5:

- Phase 1* *Pyre, primary burial and primary mound*
Phase 2 *Pyres, cists, and some mound enhancement*
Phase 3 *Burial in top of mound, refurbishment of mound*

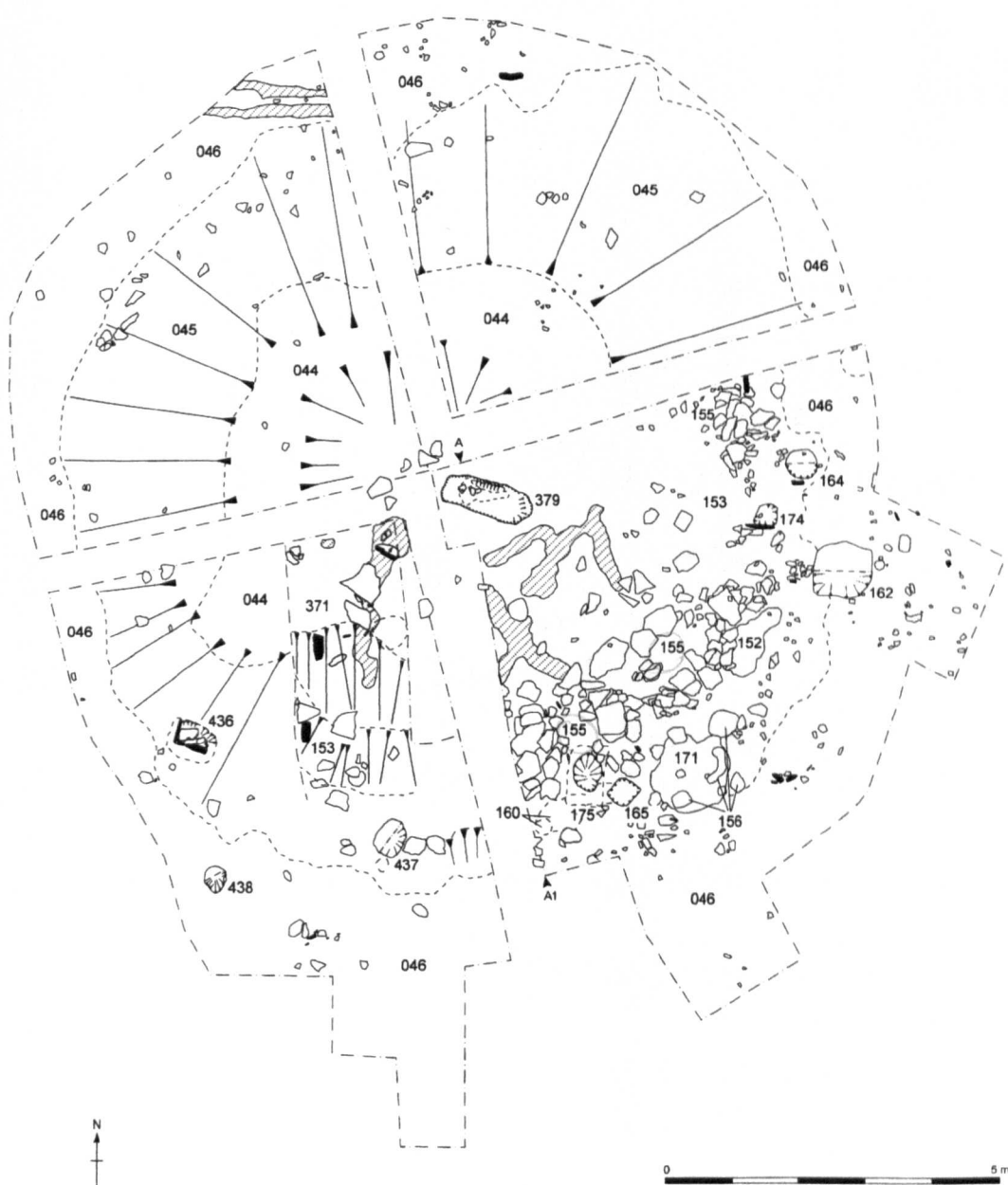


Figure 2.14 *Linga Fiold Mound 5 all phases*

Mound 6

The NW and SE opposing quadrants of Mound 6 were stripped of turf, and the SE quadrant excavated in its entirety (Figure 2.15). The mound measured 12m diameter and stood 0.85m above the modern ground surface; as such it was second in size only to Mounds 1 and 2. Phasing of Mound 6:

- Phase 1* *Cremation burial and mound*
Phase 2 *Pyre, cist and paving; mound refurbishment,*
Phase 3 *Boat shaped setting; other pits and cists*



Figure 2.15 *Linga Fiold Mound 6 all phases*

Mound 7

This mound was not the largest in the group, being 8.8m by 9.5m in size. However, the geophysical survey indicated that of all the mounds, Mound 7 had the most activity around it. This was visible as a crescent of anomalies to the N, on the upslope side of the mound. The mound was excavated in quadrants, with slit trenches excavated to the N, NE and W to explore the extent of associated features (Figure 2.16). Phasing of

Mound 7:

- Phase 1* *Primary cist burial and pyre and erection of mound*
- Phase 2* *Kerb cairn 273; cist 224 and pyre 195; other cists and pyres*
- Phase 3* *Clay platform 196/456*
- Phase 4* *Kerb cairn 211 and mortuary building 212*
- Phase 5* *Cist groups*



Figure 2.16 Linga Field Mound 7 all phases

Mound 8

Mound 8 was a compact mound with comparatively steep sides, measuring 7.0m diameter and 0.4m high above modern ground surface. The southern half was excavated in its entirety (Figure 2.17). Phasing of Mound 8:

- Phase 1* *Central cremation burial and mound*
Phase 2 *Mound refurbished*

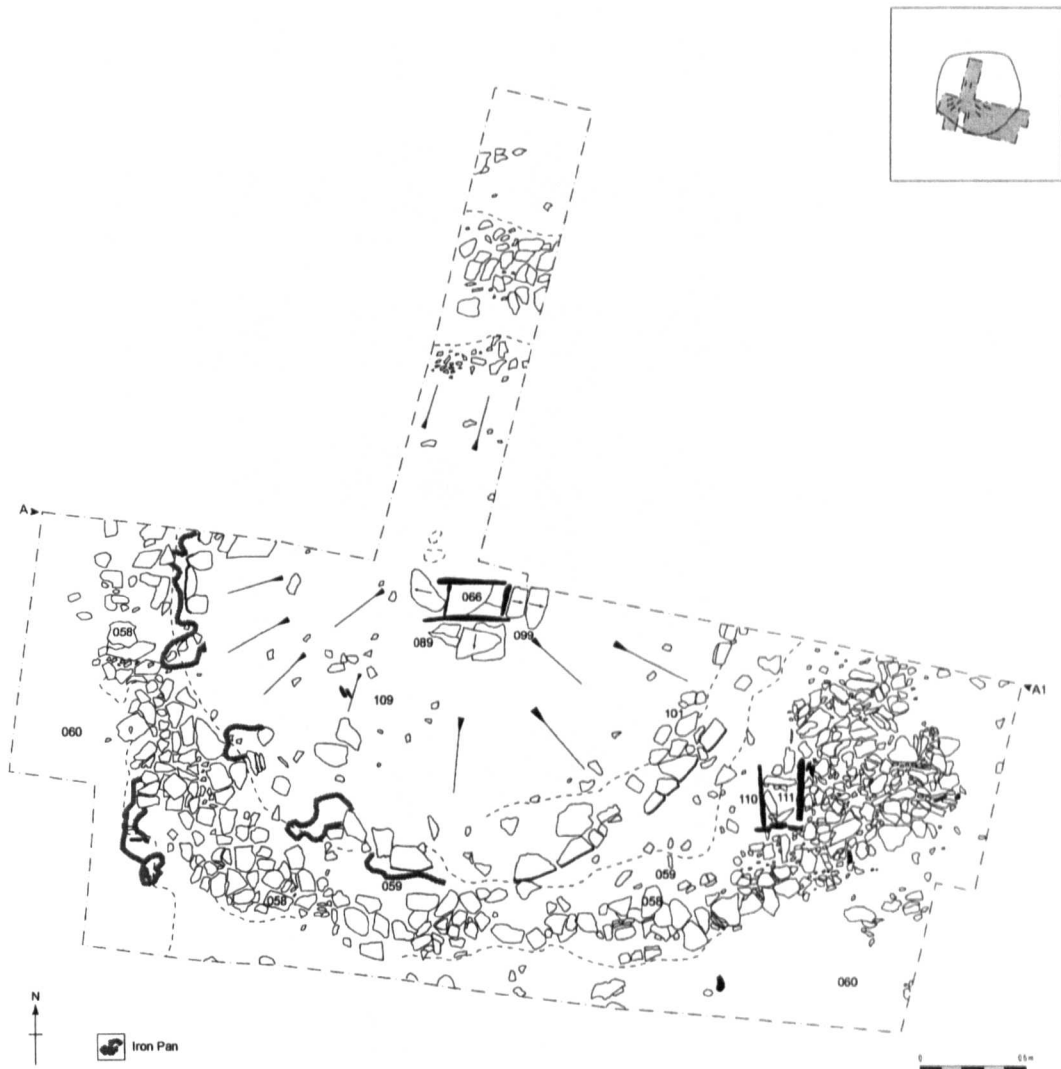


Figure 2.17 *Linga Fiold Mound 8 all phases*

Mound 9

Mound 9 is the most northerly mound of the cemetery. Before excavation it measured 7.5m diameter and stood 0.40m above ploughsoil. It could be seen to be in very bad condition, marked by holes caused by cattle poaching caving in rabbit burrows, and the lid of a cist was visible in the top centre of the mound prior to deturfing. The barrow was excavated in its entirety (Figure 2.18). Phasing of Mound 9:

Phase 1 Central cremation burial and mound

Phase 2 Mound refurbishment and cist



Figure 2.18 *Linga Field Mound 9 all phases*

Radiocarbon dates from Linga Field can be seen in Appendix 1, and the full excavation report is in Appendix 2.

Gitterpitten

A large 'L' shaped trench was located in such a way to explore one quadrant each of three barrows (Mounds 2, 4 and 5) and the area in between these mounds (Figure 2.19).

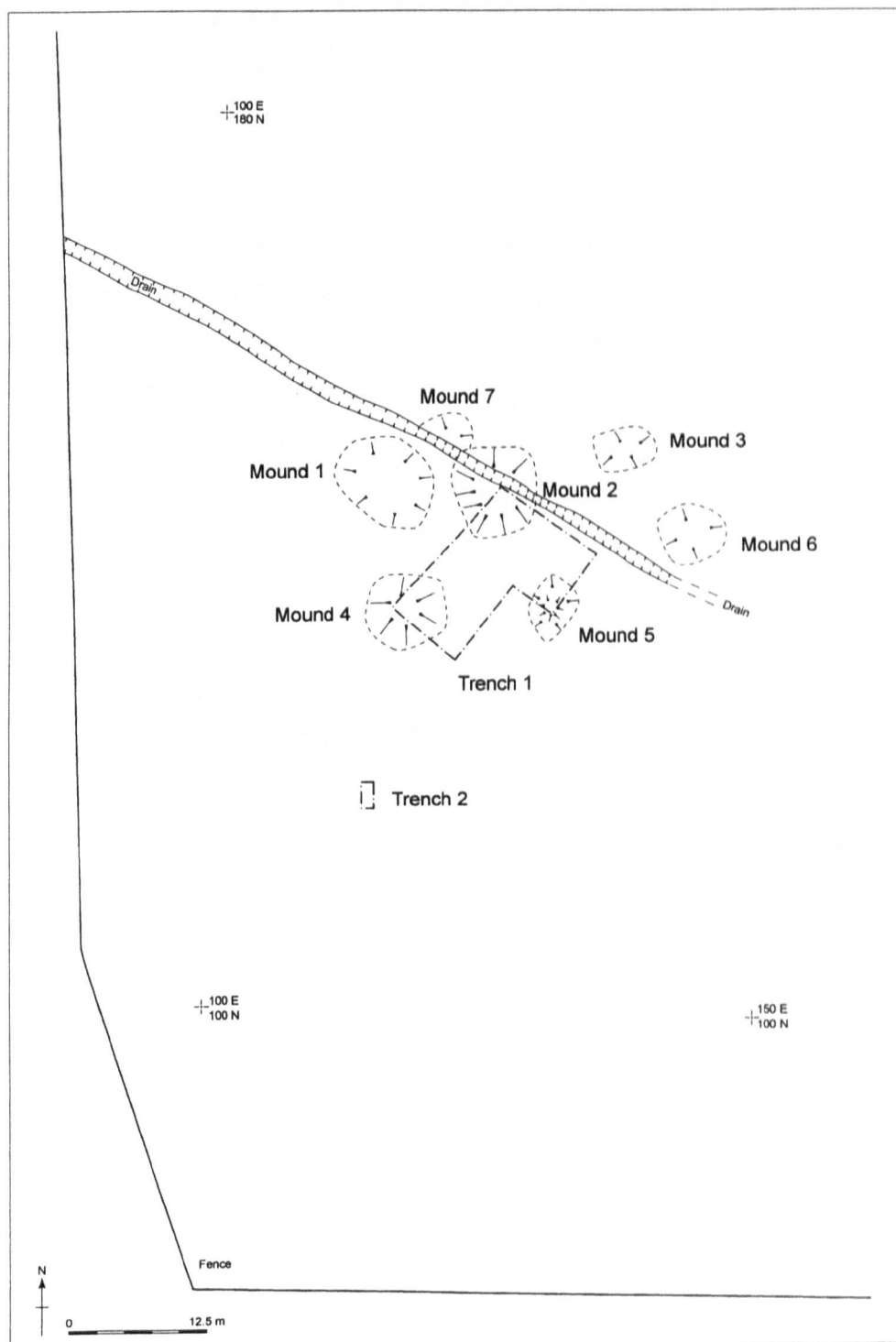


Figure 2.19 *Gitterpitten site plan and trench locations*

Mound 2

The central cist was 1.20m x 0.65m in extent, and had suffered plough damage, and the side slabs had collapsed and been moved, so the interior of the cist survived only to 0.16m. The cist contained a large amount of burnt bone representing the remains of an adult male. The barrow was composite, formed of earth and a stone kerb. A series of pits surrounded the base of the mound (Figure 2.20), many of which contained burnt material, including bone and burnt turf.

Mound 4

The primary cist contained the cremated remains of at least three humans, an adult male, one older juvenile and a young child, and burnt bone from an adult sheep or goat was also found in the cist fill. A stone platform surrounded the mound, probably representing the remains of a kerb or paving. The material of the mound consisted of silty clay, containing several pot sherds. A pit cut the mound material (1037, Figure 2.20), and was found to contain burnt bone representing a minimum number of two individuals: an adult female and an infant.

Mound 5

No primary burial was discovered within the excavated area. The mound material appeared to be earlier than the stone kerb, which had been laid against the mound. A pit (1029, Figure 2.21) underlay the kerb, and another two pits were located around the edge of the mound, all of which contained pyre debris. Three further pits were located in the area between the Mounds 4 and 5 (Figure 2.20).

Radiocarbon dates from Gitterpitten can be seen in Appendix 1, and the full excavation report is in Appendix 3.

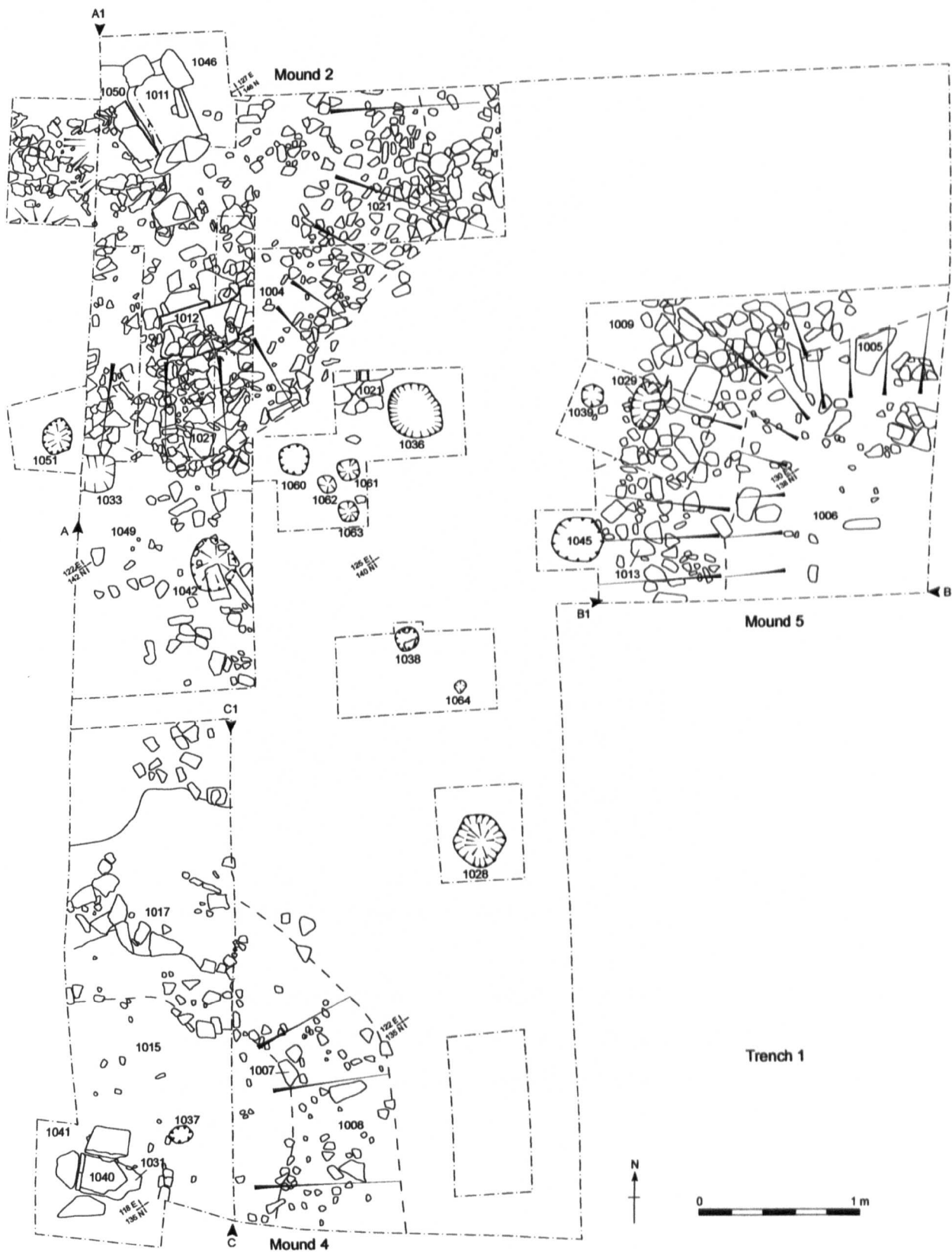


Figure 2.20 Gitterpitten composite plan of all features

Varme Dale

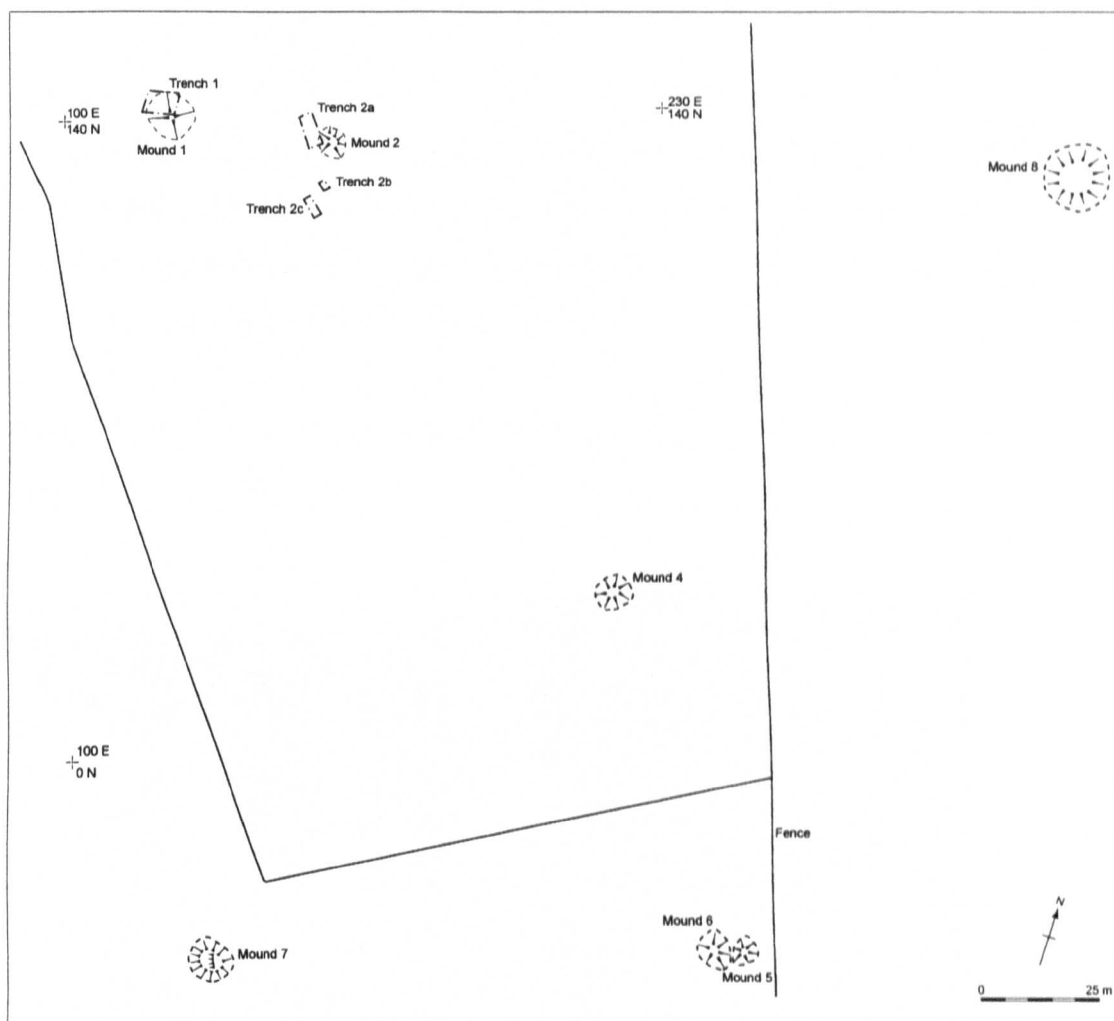


Figure 2.21 *Varme Dale site plan and trench locations*

Two mounds were partially excavated (Figure 2.21). Mound 1 was riddled with rabbit burrows, and badly eroded. The stone slabs of two cists were visible within the mound prior to excavation. Mound 2 had also suffered from erosion, which had exposed a section through the mound.

Mound 1

The primary cist contained cremated bone from a minimum of two individuals, an adult male and an older juvenile, as well as the burnt remains of an immature sheep or goat, and burnt worked bone. A secondary cist burial contained the cremated remains of a middle-aged adult, possibly male. The mound had been constructed in two phases, the

second of which was contemporary with the secondary cist. There was no evidence of a kerb associated with the mound.

Mound 2

The substantial stone kerb of this barrow was constructed prior to the mound (Figure 2.22). The mound had been constructed over a series of burnt deposits (see Chapter 7), which overlay a buried soil. The primary cist was located but not excavated due to the fact that it was not in danger from erosion.

Radiocarbon dates from Varme Dale can be seen in Appendix 1, and the excavation report is in Appendix 3.



Figure 2.22 *Varme Dale Mound 2 photographed from north*

Knowes of Trotty

The Knowes of Trotty cemetery is formed of a double row of barrows extending over 375m N to S along the foot of a steep range of hills (Figures 2.23 and 7.9). The site comprises 16 upstanding barrows, ranging in size from the mound 1 measuring 24m diameter and 3.7m high to the three very small barrows between mounds 8 and 9

measuring c1.5m diameter (Figure 2.23). Excavations by the landowner during the 1850s were reported by Petrie (1860), during which four gold discs and amber beads (Figure 2.7) and spacer plates were recovered from a cist in mound 1

A topographic (Figures 2.23 and 7.9) and gradiometer survey (Figure 2.24) was undertaken at the Knowes of Trotty in 2001 (Downes et al 2001). Excavation in 2002 (Card & Downes 2002) targeted geophysical anomalies (Figure 2.23; 2.24) on the edge of, and between, barrows to investigate a wide variety of features which may have been related to funerary rites.

The dark circular anomalies forming a ring around mound 1 proved to be discrete dumps of heat-affected soil, probably from the bases of pyres (as opposed to *in situ* burning, see Chapter 5), and the anomaly investigated in Trench A an extensive spread of similar material. The excavation of Trench D revealed a large pit filled with heat-affected soil, also containing charred grain (Alldritt 2003) and two stone mattocks (see Chapter 6). Trench G was a scorched stony knoll where pyres appeared to have been set and from where most pyre debris had subsequently been cleared. The penannular anomaly investigated as Trench E proved to be the very truncated remains of a stone kerb ring. The excavation of Trench F revealed a tightly packed group of six cists (of which 4 were excavated) and a large pit. These features were surrounded by a rammed surface and a small polished stone axe (almost identical to the one from Mousland, above) was found at the north of the group of features. The five excavated features were found to contain the cremated remains of a minimum of ten individuals (Roberts 2004; see Chapter 5). Trench B exposed a part of stone built structure, the squared recess of which is reminiscent of the house architecture at Skara Brae, Barnhouse and Crossiecrown (see above). This building will be the subject of further investigations in 2005.

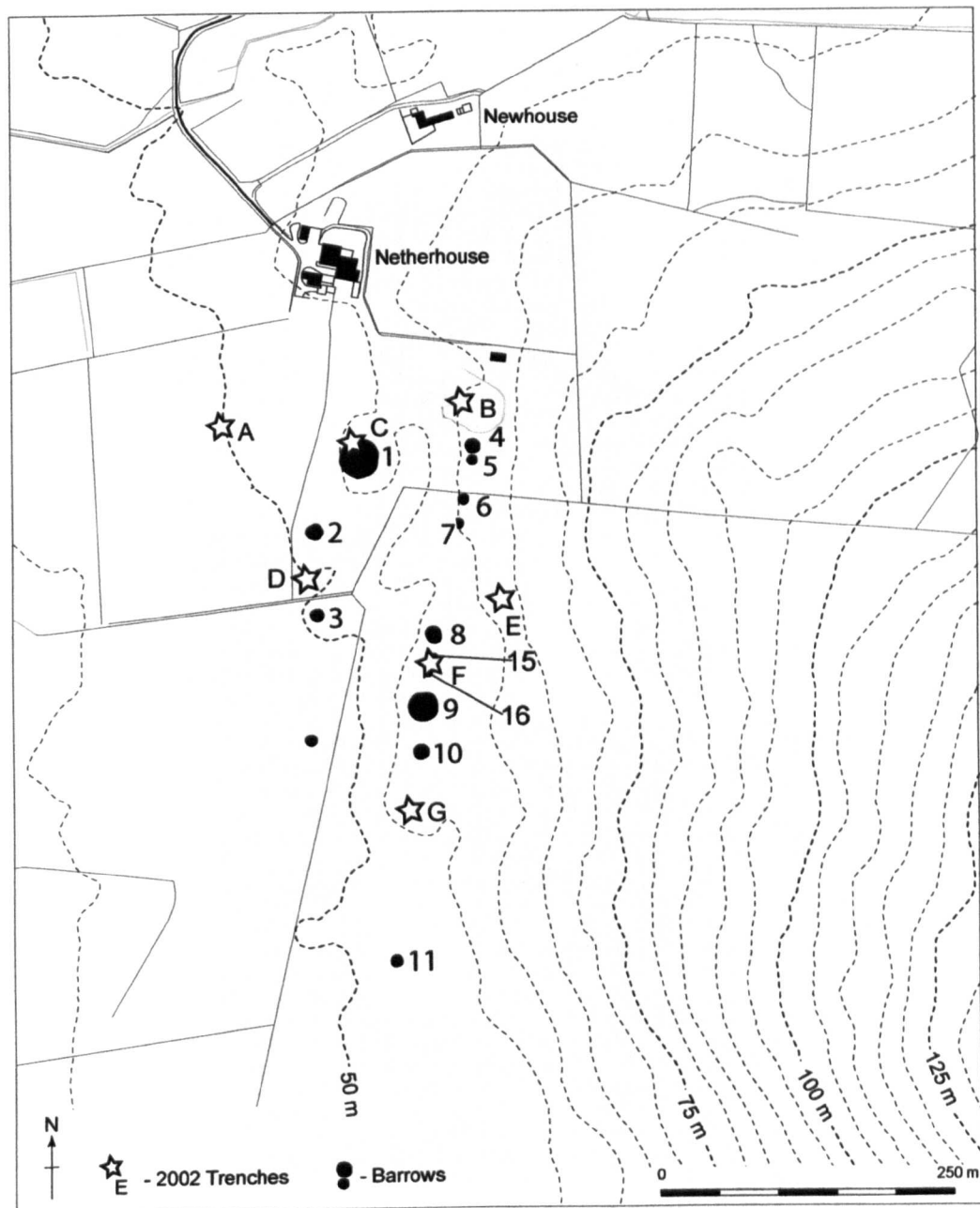


Figure 2.23 Knowes of Troty site plan and trench locations



Figure 2.24 Knowes of Trotty gradiometer magnetometer survey results (A. Challands in Downes et al 2001)

SUMMARY

This chapter provides a background to and context for the study of cremation practice, for as it will be shown, it is a practice that was very much a part of life. Through an outline of the state of knowledge of different aspects of the Orcadian Bronze Age many gaps in this knowledge have been exposed, but also revealed is huge potential as the range of evidence is remarkable and the preservation of sites relatively good.

Through the chapter we have moved from aspects which are more general to this particular research programme, the settlement and poorly understood structures of the burnt mounds and earth houses, and material culture, to burial evidence. The barrow burials which are the subject of the Orkney Barrows Project and this thesis can be seen as distinct from the unobtrusive cist burials, although both types may contain human remains that are cremated. Investigation of barrow cemeteries through geophysics and excavation has revealed great variety and complexity in barrows, and an array of funerary-related features which were not observable as upstanding monuments. These features included clusters of pits and cists in flat cemeteries close to barrows at Linga Fiold, Gitterpitten and the Knowes of Trotty, similar to those first seen at Quoyscottie. The pyre sites at Linga Fiold, and the Knowes of Trotty, with evidence of the redeposition of pyre debris and the burial of cremated remains show all stages of the cremation process and the spatial arrangement of these activities. Before we progress to analysis of Orcadian cremation practice and funerary architecture, an ethnoarchaeological study of cremation practice and architecture in Bali will be described in the following chapter.

CHAPTER 3 – BALINESE CREMATION

INTRODUCTION

Bali is famed for its lavish and spectacular cremation ceremonies. These ceremonies are undertaken by the Hindu Balinese, usually as a secondary rite after the corpse has been buried in the graveyard and later exhumed. To the Hindu Balinese, cremation of a deceased relative is the most pressing obligation a person carries, for it is only by this route that the soul can journey to heaven, and finally achieve the status of a deified ancestor to be worshipped in the family temple. The ideal is not always realised, and many of the deceased remain interred in the graveyard and are never accorded a cremation ceremony, the most commonly stated reason being that the costs of the lavish ceremonies are prohibitively high. Often cremation ceremonies involve the immolation of several individuals (each on individual pyres), for if a royal or wealthy high caste person is being cremated other families may exhume their dead and cremate at the same time.

The account of the cremation in this chapter is based on personal observances during a Hindu Balinese cremation ceremony I witnessed in Ubud (a district in southern Bali, the most densely populated part of Bali and an area popular with tourists), and on the answers that I got to questions I asked of my host family during the ceremony (Downes 1999).

I do not seek to provide a model of a traditional cremation which can be applied widely, and I fully acknowledge both the regional and historical context of the study I have undertaken. The local and regional differences in Balinese religion, culture and economic organisation have been emphasised by Barth (1993), in a study focussing on the Buleleng area of North Bali. In his introduction to the study he states that;

It will simply not do to link our general analysis of Balinese social organization, everyday life and cultural consciousness to particular Brahmin-modelled features of Bali-Hindu cosmological and ritual conceptions (Barth 1993, 11).

The majority of studies of Balinese culture have described Hindu-Balinese dwelling in South Bali, whereas communities of Hindu-Muslims, Muslims, and the Bali Aga (communities with apparent pre-Hinduisation beliefs) exemplify variation in cosmological, cultural, economic and social aspects of life which must be acknowledged but will not be detailed here.

In Bali at present changes occur not just through individual interpretation of symbols, and the use of cremation as a complement to status enhancing through ancestry (Boon 1977), but through changes in community related to the growth of urbanism and tourism, and through government policies concerning the waste of resources and issues of hygiene with relation to Hindu Balinese mortuary rituals (Connor 1995). The Bali that Covarrubias describes in the 1930s, around the time when Bali becomes a popular tourist destination, differs from the Bali that was the subject of Geertz's work in the 1950s and 60s, and this again differs from the studies and preoccupations of e.g. Connor and Barth writing in the 1990s. The study that I undertook is now historical, being undertaken prior to the recent terrorist attacks on Bali and the consequent destabilising of an economy so based on tourism, and in turn on the maintenance of a Hindu traditional way of life which is encouraged by the Indonesian government as a method of sustaining tourism.

STUDY OF CREMATION IN BALI

My desire to study cremation in another culture was fuelled by something common to many archaeologists - to achieve a more informed interpretation of past societies through a better knowledge of the beliefs and practices of traditional societies. The aim of the study of cremation in Bali was to undertake detailed recording of a cremation ceremony from an ethnoarchaeological stance. The aspects I wanted to focus on were threefold: one being the specifics of the rituals in terms of the movement, timing and technology; the second being the observable architecture that these practices create and the observable residues that they leave behind; and the third to experience the ceremony from a phenomenological point of view.

Although the Hindu religion is much famed for cremation rites, and much anthropological work has been undertaken on cremation (cf Parry 1994), and more particularly Balinese Hindu cremation (cf Covarrubias 1986; Hobart 1978) detail as to the technologies of cremation, the particularities of the use and disposal of materials, and the temporal and spatial arrangement of events are nowhere recorded and described in a way that answered questions that I as an archaeologist wished to pose.

Terje Oestigaard has also undertaken an ethnoarchaeological study of cremation practices in Nepal where Hindu, as well as other religions practice the rite, *Present cremation burials for a study of the past* being the subtitle of the book, Oestigaard presents two seasons of fieldwork as an exercise in analogy as part of scientific research. The stated aim of the work is that ‘the archaeological implications of my ethnoarchaeological fieldwork can be used as a general theory for analogical reasoning’. (Oestigaard 2000a, 4). The author takes a processual approach to mortuary rites; he asserts that a person’s achieved status in life is manifested in mortuary rites, and that ‘status differences are expressed in the funerary rituals and thereby in the archaeological material’ (ibid, 17). The approaches of myself and Oestigaard to ethnoarchaeological studies we undertook differ in that I sought to understand better how past societies reproduced themselves through cremation rites rather than to re-evaluate pattern in the burial record.

As will be discussed in the Chapter 5, a preoccupation by archaeologists with the *burial* of cremated remains is an extremely narrow view, and exclusive of a consideration of cremation as a spectacle and a journey – a lavish series of staged events which take place in different places. From the point of view of research into the Bronze Age – the principal two defining characteristics of which could be often said to be the introduction of metalworking, and widespread use of cremation as a funerary rite – I was interested in the significance and use of fire, both as a powerful element which transforms, and as a highly visible element of dramatic appearance.

Also described in Chapters 1 and 5 is the restricted nature of interpretation due to reliance on scant experimental work and inadequate interpretive frameworks. For this reason I wished to study the technology of cremation in a situation where the corpse was burnt on an open fire, for archaeologists have derived their interpretations and

expectations of the remains that we excavate from the Bronze Age with reference to modern crematoria (e. g. expected weight of bone, appearance of bone after being fired at particular temperatures), to a limited amount of experimental work using animal corpses, and to limited reference to anthropological accounts (cf M E Hedges 1979). This experimental work is used to estimate the length of time over which a cremation must have been carried out, and the staging of the various actions – for instance it is thought (intuitively) that burnt bones may commonly have been collected the day after the cremation, as the mourners would have waited for the embers to cool sufficiently before gathering up the bone.

I hoped that witnessing an open air cremation and gaining first hand knowledge would fulfil these somewhat modest aims. Preparatory research and subsequent study put this field study into the context of the enormously complex and complicated subject of the inter-related and inseparable Balinese belief and social systems.

METHODOLOGY

The method employed for this study should first be outlined. Myself and a partner, Colin Richards, stayed for two months in a family house in the Ubud (central southern) area of Bali, in a village called Peliatan. We undertook what could be described as an observational method - participant observation. The type of participant observation we undertook was closest to the participant-as-observer role (Robson 1999) where the fact that we were observers was made clear to the family from the start. Not only were we attending and at times participating in activities, we were also asking people to explain various aspects of what was going on (ibid, 197). That is not to say we were adopting this approach as scientific method, aimed at recovering objective data, but simply that this the method best describes how the research was undertaken. We presented ourselves as archaeologists and as tourists¹. We were included in ceremonies within the

¹ Interestingly, we were looking into the possibility of undertaking archaeological fieldwork in Bali, but found the prospects limited, and a certain amount of antipathy to the idea from the Balinese people we discussed this with. This antipathy, as expressed to us, stemmed from a sense of continuity, of lack of distinction between ancient and modern, a constant reworking of materials and artefacts, and a consequent lack of curiosity as to how old things were, or what people in the past may have been like. In one temple we visited, an ancient statue had been dug up in a nearby field and had been placed in a shrine in the temple, alongside a particularly large meteorite which had also been found locally and was

house compound, and taken by our host family to ceremonies outside the compound, one of which was a cremation.

Before attending the ceremony I had read some accounts of Balinese cremation which served to orient me better, and to enable a better grasp of events as they took place. We made a detailed photographic record of parts of the ceremonies to which this method was appropriate, and made notes and sketches immediately afterwards. Recording of the residues of the cremation remaining in the graveyard, and of the subsequent disposal of this material, was undertaken by measured sketching.

BALINESE CREMATION IN A RITUAL CONTEXT

To better contextualise the significance of a very prescriptive series of rituals it is necessary to briefly outline the complex and derivative cosmological scheme which the Balinese employ. Space is ordered horizontally on two principal axes. The main directional axis is associated with ritual purity and given physical form in the topography of Bali, with the downhill flow of water from the central mountainous area where the gods reside, to the sea, home of demons. To the majority of Balinese, living on the southern tip of Bali, this axis runs NS. The axis bisecting this follows the course of the sun from the E to W. Each of the four major cardinal directions is associated with a particular deity, element, colour, part of the body and other properties. The four major cardinal directions, the lesser four that lie between, and the centre together form a nine part ritual grid with wide applications. Space is also divided vertically into the ranked worlds of the universe: the heavens, the world of people and the underworld.

All aspects of daily life involve a conscious working knowledge of orientation and classification; a constant sense of place and awareness of direction. Nowhere is this better illustrated than through mortuary rites, and mortuary rites are the most elaborate of all the rites of passage. Although these include cremation, the individual is transformed from a physical being to an ancestral spirit through an extremely lengthy and complex process during which the soul takes a journey from the house compound,

similarly enshrined. Archaeology appeared to pose a problem in part because it is seen to impose a western idea of history on an eastern idea of continual presence.

through a series of purifications, to eventually return to the house and reside in the house temple. The living descendants carry the responsibility to make this happen; the weight of this responsibility is matched by the power of the deceased to aid – or harm – the descendants (Barth 1993, 39).

I will describe here the cremation ceremony itself, although the word cremation in the context of the Hindu Balinese is generally used by anthropologists and other commentators as an umbrella term to encapsulate the lengthy series of events often staged over a long period of time and in a different locales. The burning of the body is only one short event within this sequence but it is the most public of the events, a spectacle and lavish celebratory ceremony entailing conspicuous consumption

THE CREMATION CEREMONY

The cremation ceremony that I witnessed involved the immolation of a *pemangku*, or low caste priest, who had died approximately a week before and had therefore, unlike most who die, not been interred. This was said, by our host family, to be because Galungan, one of the major religious calendrical events when the deified ancestors descend to their former homes, was just over a week away; the presence of a corpse in a house compound at such a time was said to be unacceptable. It is also considered inappropriate to bury a *pemangku* as contact with the earth can pollute – they must therefore be kept above the ground and mummified, or cremated immediately (Barth 1993, 39). The cost of the cremation was borne by the congregation of the temple of which the *pemangku* had been the keeper.

On the afternoon of the cremation we waited in the street that ran downhill to the ‘death temple’ (*pura dalem*,) and cemetery which lay at the south west edge of the village . Coming down the hill towards us we suddenly saw people running, and behind them, carried on a wooden frame by about fifty men, was a huge wooden bull coloured white and decorated with yellow and gold. Straddling the back of the bull was a young man. Following the bull was a group of women all carrying offerings (*bantens*) decorated with deep yellow flowers. After the women came a very tall tower also carried on a frame (*wadah* tower, Figure 3.1). This tower was also white and decorated with yellow

and gold, and to its side clung a *pedanda*, or high caste priest, dressed in black, in sharp contrast to the tower. The tower was decorated on the rear with a large swan with wings outstretched. An orchestra followed the tower, playing loud percussion music. Women carrying trays of pots of holy water came next, and finally a throng of villagers and some tourists.



Figure 3.1 The *wadah* tower being carried to the cemetery

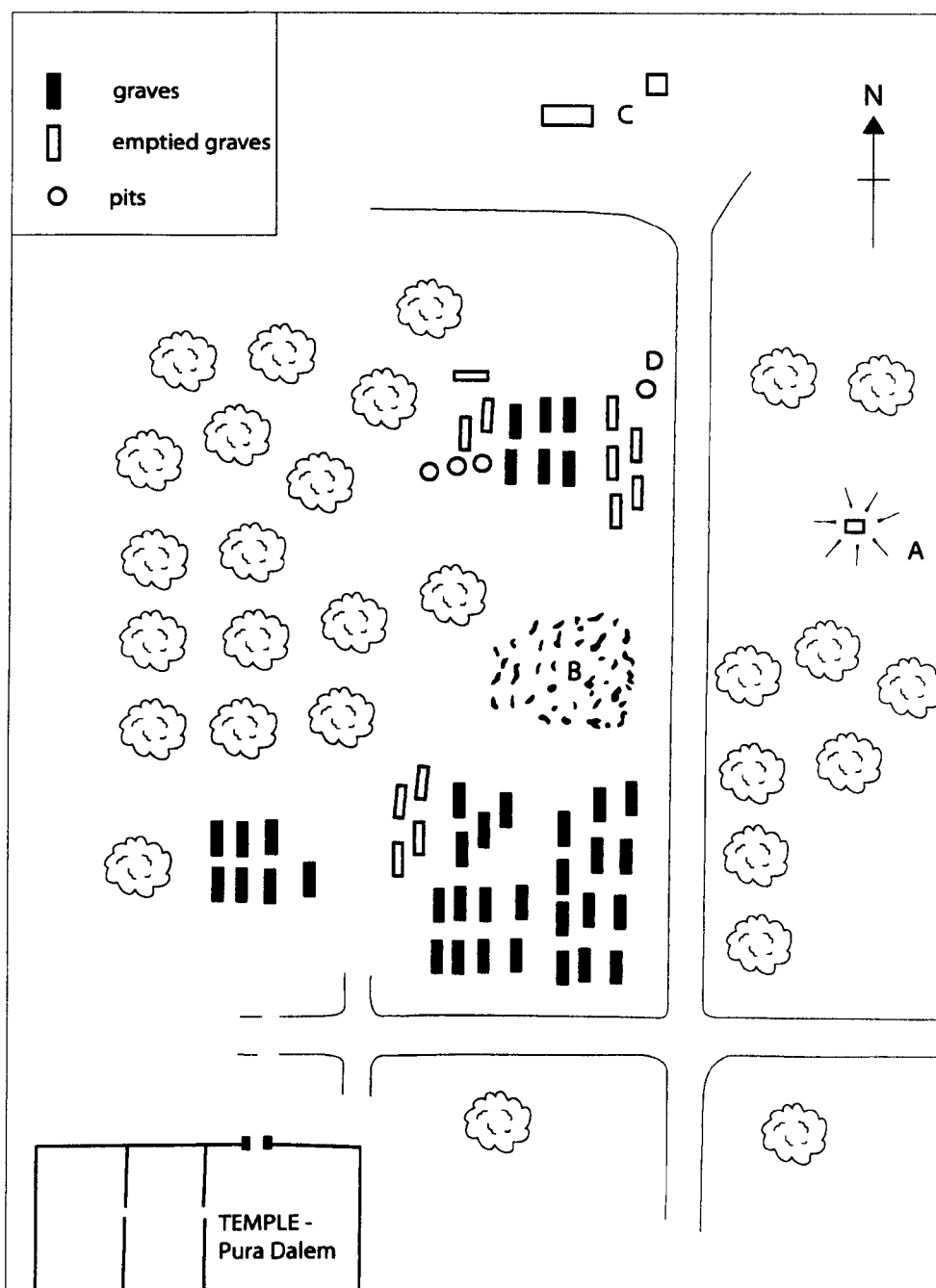
The procession rushed down the street noisily, with the bull and the tower swaying. At the junction with the lane leading west into the graveyard the tower containing the corpse was turned around three times, which I was aware was to confuse the spirit of the deceased should it try to find its way back to the house. Finally, the procession stopped at the foot of a small artificial earthen mound (Figure 3.2, A) upon which was situated a tall four posted open bamboo tower, suspended from the roof of which was a white cloth. This mound was at the end of a narrow path which skirted the graveyard. We stood close to the open graves from which bodies had been disinterred for cremation. The whole area was heavily wooded and a large canopy of trees overhung the cremation mound giving the place an enclosed atmosphere after the bright street.

A white, cloth wrapped bundle of effigies was removed from the *wadah* tower while the bull was placed on a platform under the bamboo structure. The back of the bull was

removed and the white covered coffin lifted down from the *wadah* tower and brought over to the bull, after which the body was removed from the coffin and placed in the bull. Close family crowded around the sarcophagus and placed offerings on the body, and then a lengthy period of time ensued while the final lustrations took place. Tray after tray of small earthen ware vessels of differing shapes containing holy water were passed up to the officiating *pedanda* who stood up high to the north of the corpse. After each pot was emptied of holy water it was thrown to the ground and smashed, as items connected with the ceremony were polluted and could not be retained or removed from the cemetery.

While these ablutions took place, the women of the family stood to the west at the foot of the mound, holding the effigies at shoulder height. At the conclusion of the cleansing of the corpse with holy water these were passed up, placed on top of the corpse and the lid of the bull replaced. The *bantens* and other food offerings were put on the platform underneath the bull on top of the pyre, a pile of split palm and bamboo, which large congratulatory wreaths from other sectors of the community were placed around. The pyre was ignited by a male relative, by means of lighting two gas jets one at each end of the wood pile. The *wadah* tower was also ignited at a site not far from the pyre (Figure 3.2, B). During the burning the men and small boys sat on the ground at the foot of the mound. The women and the widow stood to the north of the pyre. A *pemangku* herself, the widow was dressed in white blouse while the rest of the women wore black blouses.

The fire blazed through the bottom of the wooden bull while the sides and legs remained intact. After the body had fallen through the bottom of the bull onto the pyre, one or two men assisted the body to burn more quickly by poking it with long sticks and lifting it up to help the air circulate (Figure 3.3). The skull was broken open at this point. The manipulation and fragmentation of the body during burning also serves to aid the spirit to escape the body. When the flesh had burnt off and the bones had been reduced through agitation to fairly small fragments, the pyre was quickly quenched with water brought up in large buckets by the women.



A - cremation mound, B - burnt debris midden, C - site of further ceremonies, D - refuse pit.

Figure 3.2 *Balinese cemetery and cremation site*

The widow took a small pot of holy water and sprinkled it over the remains, immediately after which the bone fragments were rapidly picked out of the ashes by the women and put in two clay bowls, while the children searched the pyre for coins which had formed part of the effigies and offerings. The bowls were carried to the base of the

mound where the bones were washed and transferred to another bowl; the first bowls were then smashed on the ground.



Figure 3.3 *Tending the pyre - male relative raising the body to aid burning*

An hour or two elapsed during which time the tourists, neighbours and more distant family drifted away. The focus of activity shifted over to a clearing just north of the cemetery (Figure 3.2, C), where another bamboo tower had been erected underneath which stood large pots of holy water. The pot containing the burnt bone was taken to a long table situated near this tower, and a screen drawn around the table. We stood at a distance from these proceedings and had them described to us. It was said that the bones were re-assembled in human form. Effigies are again an integral part of the proceedings since the soul is now separated from the corrupt body, represented by the cremated bone. Prayers were chanted, predominantly by the women, with the widow presiding. This stage of the ceremonies were evidently more private and reserved for close family in contrast with the immolation where all were welcome.

As darkness drew in, the bone fragments were wrapped in white cloth and placed in a large silver vessel which sat under a small bamboo tower in the back of a van. The family then proceeded to the river where the bones, offerings and the tower were thrown to be swept downstream and out to sea. The day following the cremation the family visited Pura Goa Lawah, one of the six temples of the Balinese world and the one most closely associated with death. Offerings and prayers of thanks were given for the success of the proceedings so far, and for the successful transition of the soul.

CREMATION TECHNOLOGY AND CREMATION RESIDUES

The cremation had taken two and a half hours from ignition to extinguishing, the use of the gas jets having shortened the length of time greatly from the whole day that used to be set aside for cremations in this community. The gas jet system had been set up in advance by family members; long pipes looped over the branches of trees and down to each end of the pyre. Fuel in the form of dry leaves and timbers, plus the wreaths and other organic offerings, were piled up and made the basis of the pyre, with the gas serving to give a hotter and far more intense blaze. The manipulation of the burning corpse with sticks was not just to break the skull, but also to break down the body and make it burn more quickly.

Just as the intensity of the blaze was aided by the innovation of gas, the extinguishing of the pyre was sudden and deliberate. Rather than the pyre being left to burn down to embers and go out of its own accord, water was used to extinguish it. No time elapsed to enable the embers to cool before the women moved quickly across the pyre expertly picking out the bones. Thus there was deliberate intent in actions, and control of technology rather than leaving things to happen in their own time. This was in part necessary to ensure events took place within the allotted time span of a day, whereas we were informed that in the past, before the use of gas, cremations had had to be started earlier in the day as it was a more difficult and slower process. I would suggest it was also in part to eliminate the risk of any losing control of events by making absolutely certain everything went to plan.

A visit to the cemetery was made the day after the cremation had taken place, and a careful record made of the location of the debris. Upon the cremation mound itself (Figure 3.2, A), two sets of postholes were visible, of which the inner, slighter, four had held the fuel in place, and the larger four had held the posts of the tall superstructure. To the south side of the structure was a large spread of c. 200 small trampled abraded sherds of pottery, which remained from a previous cremation ceremony on the mound. The spread of pottery sherds to the north of the structure comprised c. 85 sherds from 8-10 vessels - these sherds were the result of throwing down vessels during the lustration, and had subsequently been fairly well trampled. Complete small vessels were also present that had failed to break when thrown to the ground. On the north west of the mound, and out beyond the mound were discrete groups of pottery of larger sherds; these had resulted from the breaking of the vessel used to wash the bones late on in the ceremony, and as a consequence had not been so heavily trampled.

A return visit was made to the site of the cremation after one month had elapsed. Although the broken vessels were still situated on the mound, the groups of larger sherds that lay on the ground to the north west had been removed and placed on the burnt debris remains of the *wadah* tower (Figure 3.2, B), as had the remains of the bamboo four posted cremation tower. A pit had been dug (Figure 3.2, D), into which had been placed the burnt remains of the ceremonial structures which had stood in the clearing to the north of the cemetery, and the larger sherds of vessels used in this part of the ceremonies. This pit was not infilled, neither were similar pits amongst the graves which contained the remains of previous cremation ceremonies.

It is clear that the material remains were sorted and disposed swiftly and in a prescribed manner. The smashing of the pots and the burning of the structures had been undertaken out of a desire to destroy those artefacts which had been polluted by their contact with the dead and to ensure they did not leave the graveyard.

The Balinese cemetery is the site of some of the purificatory and transformatory rites accorded the dead. The cemetery is a place where the dead are interred, but it is not a resting place for the dead; the inhumed dead have to be placated with offerings until they can be cremated. Although Balinese cemeteries can undergo continuous use for generations, if a cemetery was investigated through archaeological excavation, it would

not be apparent that cremation was undertaken at all, that it is the preferred rite, let alone the complexity of secondary rites.

The mound upon which the bodies are burnt retained no visible indications that a body had been burnt even a short time after the ceremony. Burnt bones were removed very efficiently and thoroughly, and taphonomic processes would remove any charred remains, small fragments of pottery and any burnt soil, given the steepness of the slope of the mound and the light, sandy nature of the soil. Indeed, it is probable that no cremated bone would be recovered from the cemetery at all by normal archaeological excavation methods. Of the graves, some contain inhumations, but the others stand empty; excavation may provide evidence that graves had been reopened which would indicate a secondary rite took place, but not what that rite is. As to the pits with pottery and other debris in them, archaeologists may suggest structured deposition or the remains of offerings/feasting, or may suggest domestic debris indicating close proximity to settlement.

Although an architecture had been created through the rites, it was ephemeral in nature; few traces survived *in situ*, and the traces evoked little of the spectacle of the event. Conversely the family temples, which comprise a series of stone-built shrines and are located within the north part of each family compound, are more permanent structures and, although removed in space from these events, are the resting place of the ancestor. Indeed the elaboration of the ancestor temple is the major architectural expression of status (Boon 1977, 60).

Interpretation through archaeological investigation of these particular Balinese mortuary rites would not be possible. In the study of cremation rites in Nepal, Oestigaard finds similar difficulties concluding that even if funerary rites relate to status it is very difficult to assign status on the basis of the remains of the rite and what is buried with the person (Oestigaard 2000a, 58). Rather than filling us with dismay about the limitations of archaeology, the cremation in Bali highlights the importance of considering cremation within the context not only of funerary rituals, but in the wider context of social practices.

THEMES

The above description of a Balinese cremation is not intended as a complete, or a normative, account of Balinese cremation. It is accepted that particular parts of the symbolic classificatory system can be drawn out or omitted in ceremony, and that the symbols used will be variously interpreted, even incompletely understood by those carrying out the mortuary rites. Rituals are created and enacted through practices and change through being practised.

It is not the aim of this work to draw direct analogies between Balinese and Bronze Age cremation, rather that several themes emerged which had a profound impact on the direction of research that I have undertaken subsequently. These themes are outlined below and will recur throughout this thesis.

CREMATION AS A SPECTACLE AND A JOURNEY

Cremation is in itself a journey staged through time and space. It is the most visible, public and spectacular part of much more lengthy mortuary rites which see the soul through its progress to becoming an ancestor. The sights and sounds are created to impress, and the tumult is deliberately noisy, hurried and discordant – to show disrespect to the dead and to ensure the spirit travels with the body and doesn't haunt the family. The atmosphere is quite obviously one of celebration – this is the best thing that could ever happen to a person, and for the family able to cremate a relative it is a great relief from a burden of obligation. The cremation ceremony is not the place for mourning or grieving, and no sadness should be shown (hence the congratulatory wreaths) – grieving takes place in the house compound soon after death (see Connor 1995).

The coincidence that occurs between the spiritual journey of the soul from life to death and the physical journey of the corpse through space and time should be stressed. Both paths are defined through classifications derived from cosmological interpretation and their coincidence in ritual performance provides essential metaphorical links between religious experience and daily life (Richards 1996). The deceased makes a journey, the

movement of which is on two planes which is amply detailed in a paper by Hobart (1978) in which he describes the movement of the body from the house, downhill in a southerly, inauspicious direction, to the sea as cremated bones, and the return of the soul northwards and uphill and back to the house to eventually reside in the family temple.

The cremation ceremony takes place within a day; the cremated bones are required to be in the sea, or in the river to be carried to the sea, by sunset. Thus the remains of the corrupt body travel in a southerly direction and the freed soul, in the form of an effigy is taken northwards back to the house. The casting of the ashes into the water completes the purification process by which the soul is freed from its earthly ties; only by releasing the elements from which the body is composed back into the macrocosm can this bond be severed. This is by no means the end of the rites, for the soul has yet to journey to heaven and, by further purification rites, become a deified ancestor worshipped in the family temple. The ancestor does not become a full divinity and have a shrine built in the house temple until further memorial offerings are made, and a pilgrimage to the major Balinese temples in a circuit including the Mother Temple, Besakih; between cremation and this event the soul of the dead is venerated inside the house.

CLASSIFICATION AND SYMBOLISM

The complexity and intertwined multi-dimensionality of the Hindu Balinese way of life has been emphasised, and a few areas of classification and symbolism that are felt to have particular relevance to my approach to funerary rites will be expanded upon. Barth comments on attempting thickness of description of any part of Balinese tradition that it quickly 'deepens and thickens to overwhelm', leading to elaborations, explanations and contextualisation that mire one in multiple incomplete descriptions' (Barth 1993, 202). For this reason this section is partial and selective but its relevance will become apparent in subsequent chapters.

Transformation, and the elements

Cremation serves to separate the body into its 'elementary components of earth, water, air and fire...' (Barth 1993, 196). This is achieved through the use of three of the four elements – the fire fanned by air, and the water to quench the flames. Normally earth, the fourth element, would have played its role by purifying the body while it was buried prior to cremation. Hobart (1978) emphasises not just the binary oppositions in the classificatory scheme, but the continua between the extremes – in this example with earth we see its dual purifying/polluting nature in that for the *pemangku* (because of his religious status) contact with the earth would have been polluting. The real or mythical creatures chosen for the form of the wooden vessel in which the body is burnt are often red (associated with the god Brahma, and the element fire), but, in the case of the cremation I witnessed, the wooden bull in which the *pemangku*'s body was burnt was predominantly white, the colour worn by *pemangkus*. The bull was decorated with yellow and gold, as was the *wadah* tower. The colour yellow is closely associated with death since it symbolises earth, an element of purification, and is the colour of Mahadewa, the god of the west.

Yet another example of the pure/impure nature of earth is in the position of the body in the *wadah* tower (Figure 3.1). The *wadah* tower represents the Balinese universe, and displays the tripartite structure that is present in the symbolic division of space. In short the base represents the lower world, above which is the domain of people, surmounted by the heavens in the form of small roofs receding in size (five roofs in this instance – these vary up to eleven according to caste). Under the roofs is the *bale*, analogous to that in a house compound, and it is at this level that the body is placed to transport it to the cremation site, but only if the body had not been buried beforehand. If the body had been in contact with the corrupt earth it cannot occupy this holy place and an effigy has to be used instead (Eiseman 1989). The swan attached to the rear of the *wadah* tower was appropriate because the swan is the vehicle of Brahma, god of fire, and can be used because the *pemangku*'s remains have not come into contact with the earth (otherwise the winged face of Boma, son of the earth, would have featured).

This dualistic nature of elements can also be seen clearly with fire. The southern region of the house compound is impure by virtue of its position, and is the location of the

kitchen. It is in this area that transformations take place e.g. cooking, also any industry such as pottery firing and metalworking (Richards 1996). The death temple, grave yard and cremation ground are typically located in the south of the 'village'. Fire is a powerful cleansing agent and transforming element, yet is dangerous, and is associated with the most inauspicious direction.

The body

Death and the corpse are polluting, and upon a death occurring, relatives and neighbours enter a period of ritual impurity, known as *sebel*, which prevents them from participating in temple ceremonies. The number of days which family members have to undergo *sebel* varies according to their relationship to the deceased. The pollution of death also has a spatial definition affecting adjacent dwellings, and is more of a pollutant to those families positioned to the ritually purer north (Richards 1996). Although the corpse pollutes, it does also have a contradictory purity (see Parry 1982, and Oestigaard 2000a, for discussion of this with regard to Indian Hinduism).

When the body is laid in the coffin prior to the pyre being lit, lustrations occur but the first bathing is not done by the *pedanda*, but by another male officiate as this represents the closest contact with the impure body. The *pedanda* then administers the second bathing of holy water, from the head of the corpse downwards (pure to impure direction) to free the body of corruption.

Gender and caste distinctions were apparent throughout the proceedings, and in this context relate to notions of pollution, mainly contact with the corrupt body. Some examples of this follow. While the high caste priest, *pendanda*, officiated over the lustrations and other parts of the ceremonies, the close male family members dealt with the technology of the cremation, the manipulation of the body during cremation, and also the sorting out and clearing away of the debris.

The male family members tended the body while it was being cremated – analogies with cooking and the role of fire in this may have suggested a female role (cf Richards 1996), but the roles are reversed when it comes to cooking in the temple, hence the men

performing this role. Also this role did not bring the men into direct contact with the corpse. The lustrations involved holy waters, and the water brought to extinguish the pyre had also been blessed; however, while the *pedanda* used holy water to *anoint* the body (except for the first bathing, see above), it was female family members who used holy water to *clean* the bones, which brought them into direct contact with the corrupt remains.

The body is a rich source of symbolism and drawn on throughout the life cycle, and throughout preparation for the cremation and the ceremony itself. Although this is too complex to detail here, the effigies need further mention. The effigies are purer than the corpse, and are of central importance, both in the cremation ceremony and in the rites that succeed it, particularly the effigies of the soul, the *adegan*. This representation comprises a fan-shaped palm leaf image and one of sandalwood, and sometimes shaped gold plate, all bound together. All cremation rites centre around this embodiment of the soul in instances where none of the corpse remains (e.g. failure to recover remains through disinterment). There are also several material representations of the human body which are burnt with the corpse, for example the *angenan* – a ripe coconut filled with rice is the heart, from which projects a stick with a bundle of thread for the brain, and the *ukur*, a human form made of Chinese coins strung on white yarn, representing bones and nerves respectively.

The parts of the body are represented many times over during the mortuary rites, in effigies and *bantens*. The parts of the body are analogous with the elements – for example air = breath. A person is the world in miniature and is made of all elements – just as a person is made from all these, they return to these through cremation.

CONTINGENCY OF DEATH

The significance of the contingency of death cannot be overstated and indeed Connor describes contingency as being ‘constitutive of all social life’ (1995, 554). Contingency is a future event which is possible but not certain and cannot be predicted, or is a provision for such an event or circumstance. In the context of this discussion, those meanings both need to be taken into account; death itself is a future event which cannot

be predicted, yet the chaos that death can bring can be controlled if one has a strategy for how to deal with it. Strategy and the elimination of risk are key to the Balinese who 'see the world as dangerous, and themselves as avoiding, by the endless rote behaviour of ritual and courtesy, the ever present risk of *faux-pas*' (Barth 1993, quoting Bateson)

Parry writes that 'unless a complex sequence of supplementary rituals is properly performed the spirits of those who have died a 'bad' or 'untimely' death are likely to afflict the living' (1994, 6). Examples of a bad death are those resulting from sudden accident, violence or epidemic disease; deaths which occur away from home. Untimely death can be the death of a child or young person, but can also mean the wrong time - of year, or of religious cycle. For example, when the *pemangku* died, an auspicious day had to be chosen within a short space of time before Galungan. The example of this cremation and the circumstances in which the ceremony took place demonstrate the significance of the contingency of death; this was a 'good death', for the *pemangku* died of natural causes at a good age, and, as described above, could be cremated as soon as was possible because the body had not come into contact with the corrupt earth. The preferred place for death to occur is in the *bale dangin*, situated in the eastern area of the house compound. This is the context of all rites of passage of an individual from the age of three months onwards. It is the place for a good death, as opposed to a bad death which is defined as one occurring at the wrong place at the wrong time.

The other sense of contingency relevant here is that the method of treatment of someone at death is contingent upon how and when they die as much if not more than who they were. This is thought to be so important by some that the concept of a 'good death' has said to be a 'universal constant' (Thomas 1989). Although we disapprove of the search for universals, the anthropological literature on good and bad deaths has been extensive. It is surprising that archaeologists have for so long expended so much effort on a fruitless quest to identify status and ranking through the treatment accorded the dead when the contingency of death could well have played a major role in variation in funerary rites.

An equally significant, and related, aspect of the funerary rites observed in Bali and much wider afield is the control of death. Death can be chaotic, dangerous, and threaten ontological security, and the ill effects of a bad death have to be countermanded.

Extended rites, such as the secondary rite of cremation for the Hindu Balinese, prescribe periods of mourning, pollution, celebration etc., and so emotions and the reintegration of the family are controlled. Connor examines the confrontation of the Hindu Balinese individual with decay at the corpse washing ceremony, and interprets the ritual as 'key in the process of transcendence over death' (Connor 1995, 547), and the potential disorder of the community that that signifies. In Hindu Bali, and again in many other places, having contingencies for deaths, and even being able to control time of death by distinguishing between biological and ritual death, opens wide horizons for a consideration of dying, death and funerary rituals in Bronze Age society.

RITUAL LABOUR

During my stay in Bali a feature of life that was very noticeable was the amount of time and effort put into rituals and religious observances; from the daily offerings placed around the house compound, to the family ancestor ceremonies, to 'village' temple ceremonies there did not seem to ever be a time when people were not preparing for a ceremony. Very striking was the impression of 'ritual labour'; ritual is not just something to be done in the spare time, but is things that have to be done, are being done all the time, and which take a huge amount of resources in both human and economic terms (Connor 1995). In the case of cremation, for instance, each family unit of the hamlet must give ten days work to the family involved toward its preparation. Upon death the hamlet is responsible for making the death litter, digging the grave and staying up through the night with the bereaved (Geertz 1964, 6) Not only is a cremation ceremony very expensive for the family, but the whole community is obliged to provide labour; thus social ties are created and maintained through these rites.

The constant and busy activity surrounding ceremonies including cremation has been commented on by many anthropologists over the decades (cf Geertz 1964, Connor 1995, Barth 1993). Geertz notes that activity is valued for its own sake and that 'a Balinese 'village' is a very busy place' (1964, 33). The busy activity is permeated by cheerful excitement, and this is a desirable state in public gatherings (Connor 1995). This busy activity which surrounds mortuary ceremonies is described by *rame*, an expression for work which is the same term used for work in the rice fields, or in an

office (ibid, 539). Connor coins the phrase 'work for the dead' as the interpretation of the terms used to describe activities centred around treatment of the dead (ibid 539). Ritual labour is hard work and demands resources; it is a part of daily life and embedded in social life, and the 'work for the dead' cannot be construed as a separable sphere of ritual. Both contingency and ritual labour are linked to, and are a part of, the economies of death. These aspects of funerary rites will be further developed in the chapters that follow.

CHAPTER 4 - CREMATION PYRE AND TECHNOLOGY

INTRODUCTION

In this chapter I will focus on the pyre, on the evidence for its form and nature, the technology employed, and on the resources utilised in the process of cremation. I will be drawing on the evidence from Linga Fiold, and the Balinese cremation study. It is appropriate to describe and discuss the pyre at this point because, as we will see, it is impossible to discuss burial, or funerary architecture, without reference to the pyre, for the remains of the pyre are inseparable from the human remains and the burial architecture.

I will also be discussing transformation; the mechanics of the physical transformation, and aspects of social transformation (although the latter will be covered more fully in Chapters 7 and 8). The resourcing of the cremation will be detailed, for it is through resourcing that we can best glimpse the ritual labour involved as a an affirmation of social obligations, and as evidence of a strategy where cremation is employed as the ultimate method by which death can be controlled.

In the investigation of barrow cemeteries at Gitterpitten and Varme Dale, Rendall, Vestra Fiold, Sandwick, and the Knowes of Trotty, Harray, the same approach to the sites was adopted as had been undertaken at Linga Fiold; a wide area around the barrows was covered by geophysical survey, principally magnetometry, with the aim of investigating the wider spatial layout of funerary rites by identifying features associated with funerary practices which were removed from the mounds and/or not observable from the surface (Chapter 2). Geophysical survey was then followed up with excavation at these sites. Excavation at all these sites revealed separation of pyre debris and selected deposition of all parts of the pyre which will be discussed in detail below (Chapters 5 and 6). However, the only evidence for pyre sites was found at Linga Fiold, and I will focus the discussion on the form and structure of the pyres, the technology employed and the fuels utilised solely on Linga Fiold.

Pyre sites at Linga Fiold were investigated and analysed in such a way that the structure of the pyre and fuel used could be ascertained, also any tending or manipulation of the pyre during cremation, and how the remains were dealt with after the pyre had extinguished.

Questions asked during investigation (excavation and specialist analysis) of pyre sites:

1. what is the form and nature of the pyre – how it is built and how it is fuelled?
2. what is the disposition and role of the body?
3. is the pyre tended - is there manipulation of the body and fire during cremation?
4. what is the nature of post-cremation activities?

LINGA FIOLD PYRE SITES

IDENTIFICATION AND CHARACTERISATION

At Linga Fiold we were fortunate to find a remarkable selection of pyre sites, located both underneath the mounds, at the side of mounds, and on the edge of mounds. Some of the pyre sites were obvious as they were very well preserved and were relatively intact. Because so few Bronze Age pyre sites have been excavated in Britain, and none have been found previously in Orkney, it was at the outset difficult to distinguish between features, particularly between what Jacqui McKinley has termed pyre sites and pyre debris dumps. The criteria by which pyre sites at Linga Fiold were identified by McKinley were high magnetic susceptibility readings over sub-rectangular areas of dense, burnt organic material of appropriate size to indicate a pyre, c. 1m² (McKinley 1996, 5), normally with a clear impression of burning on the underlying surface up to 0.10m deep. Vertical and horizontal distribution of the cremated bone was given close consideration to determine instances of the ordered deposition to be expected on an uncleared and undisturbed pyre site (ibid).

Pyre debris dumps were described by McKinley as discarded pyre debris disposed of in any of a range of contexts (surface spread, pit, cist, ditch etc): 'Unlike in the burials where the bone was deliberately collected separately for deposition, in this instance it simply constitutes part of the discarded debris' (McKinley 1996, 6). I will go on to discuss in detail the definitions of features and concepts of 'burial' and 'discard' in Chapter 5; suffice it to say here that the definition of 'pyre debris dump' that I employ is much more narrowly drawn as a surface spread of pyre debris, possibly deposited as part of the process of sorting pyre debris. We made extensive use of magnetic susceptibility in the field to attempt to distinguish between burnt *in situ* pyre sites and redeposited pyre material, or pyre debris dumps, and this method did prove effective.

McKinley undertook the analysis of the cremated human bone, and also reported on pyre technology and ritual (1996). She identified fewer features as pyre sites than I do (see below), the reasons for this being that at the time McKinley undertook her analysis the stratigraphic analysis was not so far advanced, and the other specialist reports which have aided interpretation had not been produced and married with the stratigraphy as they have been subsequently. The majority of potential sites identified by McKinley were directly on a 'flat' ground surface (apart from Mound 7 282 and 331, Figures 2.16 & 4.2) which were shallow cuts), and the pyre sites she identified as such 'represent only those from which the pyre debris was not cleared after the final cremation episode' (1996, 14); although there may have been pyre sites which had been cleared and re-used a number of times, she considered these too difficult to distinguish from pyre debris dumps, and also acknowledges that there may have been in addition, cleared pyre sites from which no bone or other pyre debris was recovered. On the basis of these criteria she designated two features as definite pyre sites: Mound 7 347/455 (Figure 4.1) and 195 (Figure 2.16), and seven features as possible pyre sites: Mound 2 472; Mound 5 152, 159 (Figures 4.2, 4.4 & 2.14; Mound 6 144/7 (Figure 2.15); Mound 7 245, 281, 331 (Figures 2.16 & 4.2) (Appendix 2).



Figure 4.1 *Linga Fiold Mound 7 pyre site 347/455, half sectioned; cist 346 in background.*

Presumed pyre site 347/455 underneath Mound 7 (Figure 4.1) and presumed pyre site 471 under the edge of Mound 2 (Appendix 2) were both subjected to thin section analysis by Stephen Carter (1997a) and the results proved instructive not only for interpretation of those features, but the results could be extrapolated to a certain extent to other features in determining whether or not they were pyre sites or pyre debris dumps. At Mound 7, sample 311 taken through context 347 proved almost entirely homogenous, comprising fine ash, carbonised 'peat' (organic sediment, see below), and cramp/fuel ash slag. This feature is interpreted as the well-preserved, oxidised remains of an *in situ* pyre (ibid).

Mound 2 sample 386 was taken through the base of the pyre material 471, and the top of the underlying soil profile 472 (Appendix 2). The pyre sediment is dominated by carbonised organic sediment, with cremated bone and slag in a matrix of finely mixed, oxidised and reduced ash (Carter 1997a). The underlying soil profile had three distinctive features. First, the profile was found to be extremely well preserved with a distinct surface organic layer, 2-4 mm thick. The presence and condition of this organic layer means that this 471 is *not* a pyre site, for the organic layer would have showed burning and disturbance

(ibid). Second, the debris is an intimate mix of oxidised and reduced components of a pyre that would not have existed in the burning pyre and therefore the debris must have been mixed after the event (ibid). Third, that the soil beneath the intact surface organic layer contains fragments of cramp/ fuel ash slag which cannot derive from the pyre debris dump 471 and therefore must relate to an earlier cremation event (Carter 1997a). This second point will be returned to when we consider sequence and timing of events below (Chapters 7 and 8).

It was through closer consideration of the contextual information, along with the specialist reports on the cremated human bone/pyre technology (McKinley 1996), slags and soils (Carter 1997a and b) and charred plant remains (Alldritt 1996) that I re-evaluated the pyre sites McKinley (1996) identified and arrived the following identification pyre sites at Linga Field wherein I am proposing two types of pyre sites might have been present:

Pyre sites set on the ground surface, nine in total - Mound 5 features 152, 156/8, 159, 160 (Figures 4.3 & 4.5); Mound 6 144/147 (Figure 2.15); Mound 7 195, 245, 459, 347/455 (Figures 4.1, 4.4 & 2.16).

Putative pyre sites associated with negative features, seven in total - Mound 5 features 165 and 175 (Figure 4.2); Mound 7 features 331, 194, 281 and 457 and 452 (Figures 4.3, 4.4 & 2.16).

These features are detailed in Appendix 2, and their contents presented in Table 4.1.



Figure 4.2 *Linga Fiold Mound 5 showing pyres sites and other features containing cremated bone and/or pyre debris*

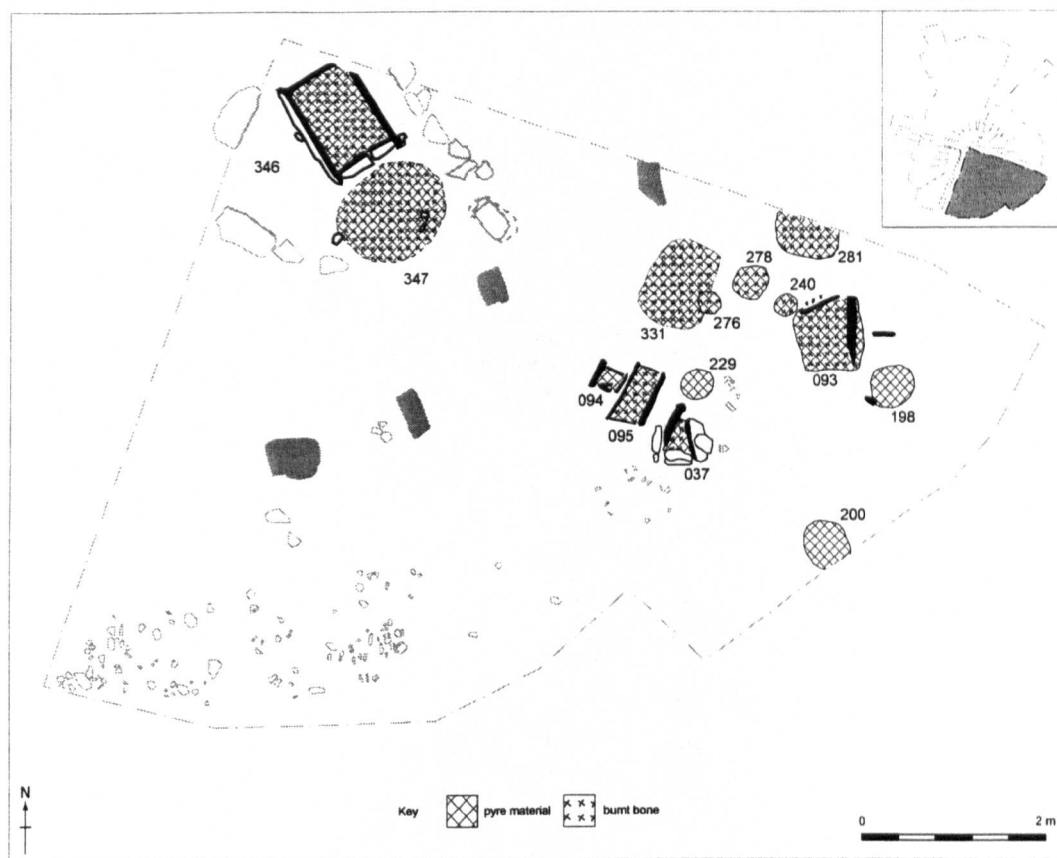


Figure 4.3 *Linga Fiold Mound 7 SE quadrant showing pyres sites and other features containing cremated and/or pyre debris*



Figure 4.4 *Linga Fiold Mound 7 NE quadrant showing pyres sites and other features containing cremated and/or pyre debris*

The pyre sites set on the ground surface were heaped or flat surface spreads, with very little structural evidence associated. Pyre site 347/455 underneath Mound 7 was the best preserved (Figure 4.1 & 4.3). Placed on the ground surface it was a sub-circular heap of black, charred organic material (455) which was a maximum of 0.10m thick at its centre, covered by a red, oxidised layer 0.05m thick, containing burnt bone. This feature measured c. 1.08 x 1.05m. It is supposed that the pyre was still hot when the mound material was piled over it, and was smothered by the mound material which is what caused the bright red

oxidised surface to form over the black charred material (McKinley 1996, Carter 1997a). A substantial charred branch of alder wood was found within the black matrix 455 (Table 4.1). McKinley comments that the dimension, depth, and order of deposition of cremated bone and pyre debris were similar to that observed in experimental work (McKinley 1996; 1997a).



Figure 4.5 *Linga Fiold Mound 5 pyre site 152, photographed from the east*

Pyre site 152 (Figure 4.2 & 4.5), situated on the SE edge of Mound 5 was similar to pyre 347/455 in that its lower part comprised a dark grey layer 172, and its upper part bright red clay soil, maximum thickness 0.08m. As in the case of 347/455 it was on or in the bright red upper layer that most of the cremated bones were located. This indicates that this pyre too was relatively undisturbed, despite its location on edge of the mound. The lower part of this pyre site was similar dimensions to 347/455 (1.0 x 1.0m), whereas the top part was more elongated and irregularly shaped (1.25 x 1.0m). There were possibly two people burnt on this pyre as the remains of an adult, possibly female, and possibly an immature individual, were found within the feature (Table 4.1).

Table 4.1 *Linga Fiold pyre sites – detail of pyre debris and cremated human bone per context (sources: Linga Fiold site records; Alldritt 1996; McKinley 1996)*

Mound 5									
Feature	Fill /Layer	Cramp /FAS	Charcoal	Burnt Turf	Bone	No. Ind	Age	Sex	Burnt clay & Pottery
152	152 [90]		1.0g	3.4g	280.8g	?2	Young / mature adult +??imm.	??female	
172=152	172 [168]	observed	0.2g						
156= 158	156 [80]	19.7g	14.5g (0.15g <i>Alnus</i> , 0.4g indet.)		21g		Subadult / adult		Pot 10 sherds
158 = 156	158 [92]		1.8g <i>Alnus</i>		0.5g				Pot 1 sherd
171=156/8	171 [167]	76g	0.1g	0.4g					
160	160 [127]	1.7g	observed		19.7g		Subadult / adult		Pot 6 sherds
159	159 [88]	0.1g	2.5g		76.2g		Subadult / adult		
165	157 [130]	0.2g >4mm	negligible	36.5g >4mm	4.4g		?		
175	175 [172]	23.7g	5.9g <i>Corylus</i> , 0.3g <i>Betula</i> , 1.5g indet. 2.8g <i>Corylus</i> 2.8g <i>Corylus</i>	28.4g	37.4g		Subadult / adult		
Mound 6									
Feature	Fill /Layer	Cramp /FAS	Charcoal	Burnt Turf	Bone	No. Ind	Age	Sex	Burnt clay & Pottery
144	144 [136] [137] [138] [140] [141]	0.3g 4.4g 0.8g 1.1g 1.5g	observed <0.1g observed negligible observed	3.5g 14.3g 10.9g 7.9g	8.9g 21.5g 21g 13.4g 8g	2	1)older infant 2)adult		
147	147 [145]	18.2g	0.1g		1.1g				
Mound 7									
Feature	Fill /Layer	Cramp /FAS	Charcoal	Burnt Turf	Bone	No. Ind	Age	Sex	Burnt clay & Pottery
195	321 321 321 321 322 322 322	35.8g 56.3g >4mm 54.7g >4mm	observed observed observed	19.7g 1.6g	4.3g 103.2g 21.5g (322) 66.8g		Subadult / adult	??female	
245	245 [216]	0.1g	0.1g		0.4g		?		
347/455	347/455 [306] [312] [313] [314] [315] [316] [317]	1.6g 2.6g 0.4g 3.1g	78g <i>alnus</i> 29.4g ? <i>alnus</i>	16.7g 19.8g 5.3g 53g	111.6g 62.6g 15.4g 73g 6.2g 13.9g 13g		Older mature/older adult	??female	Burnt clay = 37g [314] 2.1g [315] 130.7g [317]

Mound 7									
Feature	Fill /Layer	Cramp /FAS	Charcoal	Burnt Turf	Bone	No. Ind	Age	Sex	Burnt clay & Pottery
Age	Sex	Burnt clay & Pottery	observed	17g	3.7g				
194	231 [97] [98] [99]	[97] 31.9g [98] 50g [99] 61.5g	0.1g observed	observed 3.9g 22.1g	0.1g 2.1g 3.6g				
281	282 [117] [119] [122]	observed 7.9g 0.5g	0.05g un- ID	observed 34.4g	8.5g 5.0g 4.6g				
331	324 [227] [228]	1.1g	observed	3.6g 3.0g	37.2g				[228] 3.0g burnt clay
452	451 [257]	27.7g	observed		2.5g				
457									

Key: [181] = sample number; (260) = context number; observed = noted during excavation or wet sieving but not quantifiable; indet. = indeterminate; ID = identified; No. Ind = number of individuals

The pyre situated on the surface of the primary, Phase 1, Mound 6 also had an upper, red clay component (144) (Figure 2.15) and its lower black charred material (147) surviving and was similar in size to the pyre sites described above, 144 being 1.0 x 0.7m. The cremated remains of two individuals were on this pyre site, an adult and an older infant. Whilst the suggested ages of the two infants from this pyre and the nearby secondary central cist (121, Table 4.1; Chapter 5 Table 5.2) do not quite match, it is possible there is an association between the pyre site and the dual cremation from within the disturbed cist (see Chapter 5).

In all three of these examples of pyres where the lower unoxidised and the upper oxidised parts survived, the majority of the cremated bone was recovered from the upper surface. The greatest amount of cremated bone recovered from the pyre sites at Linga Fiold was that from pyres 347/455 (282.9g) and 152 (280.8g), and although considerably less was recovered from 144/7 (63.9g), this was the fifth largest amount recovered from a pyre site (Table 4.1).

The matrices of the well preserved pyre sites were very soft, and demonstrated the fragility of pyre remains; for example if pyre site 347/455 had not been protected by the Mound 7 material it would have been easily accidentally dispersed in antiquity, or have been eroded away since by post depositional processes. The discovery and excavation of the well-preserved pyre sites gave a good indication of the presence of other, less well-preserved

pyre sites, all of which survived was the lower, dense black charred layer, either as a thin layer or a smear depending on level of truncation, and containing little burnt bone.

Examples of these pyre sites in a less well preserved condition are: pyre site 459 underneath the paved floor of the mortuary structure at Mound 7 represented by a thin spread of black charred material from which 3.6g of burnt bone was recovered Mound 7 pyre site 245 which lay amongst the cist group in the NW quadrant from which 0.4g of burnt bone was recovered (for both see Figures 2.5 & 2.16; Table 4.1; Appendix 2).

In two instances (Mound 5 pyres 171/156/158/160 (Figure 4.2) and Mound 7 195 (Figure 2.16) the lower part of the pyre site was a dark grey greasy clay and the upper part comprised thicker, softer dense charred material. These pyre sites were relatively well preserved, and represent the lower parts of the pyre sites, and perhaps even the upper parts which had not been oxidised red as in other cases. The context 156 of the complex of pyre sites 171/156/158/160 is described as crisp and bubbly which would appear to denote *in situ* burnt material/fuel ash slag or cramp (Figure 4.2). It should be noted that burnt bone was only recovered from the upper, patchy 156/158, not from the more extensive lower 171. A comparatively large amount of burnt bone was recovered from Mound 7 pyre 195 (136.9g), with much less from Mound 5 156/158 (21.5g) and 160 (19.7g) (Table 4.1). This adds to the picture of burnt bone only being present in any quantity on the upper parts of the pyre, only surviving *in situ* where it has not been picked out for redeposition, and *not* being present in any great quantity where funerary activities or subsequent taphonomic processes have removed upper layers of the pyre.

In the case of the pyres described above which are surface spreads there were few remains of structural elements to the pyres, for instance there were no post holes associated with any of the pyre sites. Mound 7 pyre site 195 was defined and partially bounded by irregular medium sized flat stones (Figure 2.16). These were only one course high and did not seem to form a structural part of the pyre; the slabs could have been laid to consolidate the area of activity around the sides of the pyre. Mound 7 pyre 245 lay over some medium sized irregular flat burnt stones. These stones could have been earlier, representing either

coincidental consolidation or paving of a small area, or alternatively could have been laid as a flat stone base to the pyre.

In addition to the pyre sites which are flat surface features, the other type of pyre site whose presence I am proposing at Linga Fiold is represented by a shallow, sub-square/sub rectangular cut, sometimes lined or partially lined with small stones. This type of pyre was not particularly apparent in the field, partly because it was hard to distinguish particular types of features when they were all filled with 'pyre debris' of some description, and it has taken the long process of stratigraphic and specialist analysis to detect these features, when information has been checked against the feature-specific magnetic susceptibility survey undertaken in the field.

Perhaps the best defined example of this possible 'type' of pyre site is Mound 5 feature 165 (Figure 4.2) which was a square cut measuring 0.35m x 0.37m, and 0.28m. The cut was stone lined with small stones unlike a cist. Lying over this cut was a layer of bright orange oxidised pyre material (159), indicative of an *in situ* pyre, 1.50 x 0.70m in extent with 76.2g of burnt bone within (Table 4.1).

There are several other features fairly similar to the suggested pyre feature Mound 5 165/159: Mound 7 331, a rectangular pit flat based shallow cut 0.70 x 0.60m; Mound 7 281, a sub-rectangular pit 0.58 x 0.45m, 0.13m deep; Mound 7 194, a sub-rectangular pit with a small upright stone either end c. 0.7m long, width unknown as runs into section; Mound 7 feature 457 a pit 0.84m long, 20cm deep, containing a very burnt layer with stones and evidence for *in situ* burning in the base of the pit (Figures 4.3 & 4.4); Mound 5 175, a sub-rectangular cut 0.90m x 0.50m, 0.05-0.15m deep (Figure 4.2) (see Table 4.1 for contents of all).

All these features have high magnetic susceptibility readings, as does the circular round-bottomed pit (452) central to Mound 7 kerb cairn 273 (Figure 2.16). This feature is different in form to the other squared flat bottomed pits/possible pyre sites, but is also identified as a possible pyre site.

Some of the features discovered underneath Bronze Age barrows that Ashbee terms (1960) 'ritual pits' may well represent the remains of this type of pyre site. An example very similar to the features at Linga Fiold which Ashbee includes in this category of ritual pits is the pit found underneath Tregulland Barrow, Cornwall. Like the Linga Fiold features, this pit is shallow (c. 0.30m), and is a similar shape and size in plan (1.25 x 1.15m). The Tregulland pit is described as having had fires in it – the bottom of the pit exhibiting reddening and sintering, and large quantities of charcoal (ibid, 52).

It is not possible to resolve whether these cut features are pyre sites, but it is a plausible proposition. McKinley (1997a) states that the 'presence of a negative pyre-related feature, for example an under-pyre draught scoop or pit may indicate the location of a pyre site even where there has been some truncation' (ibid, 134). The features could also have had various functions, for instance some could have been fire pits for burning other materials relating to funeral practices (as seen in Bali).

In the excavations on the A27 Westhampnett Bypass, West Sussex, many pyre sites and pyre related features were also found. Although this site is not comparable in date as these were Iron Age pyres and related features, it is the only other later prehistoric site in Britain where such a great amount of evidence for cremation practices had been found. At this site pyre sites were defined by shallow negative features in the shape of X, Y or T-shaped cuts which are thought to have been flues underneath the pyres (McKinley 1997b, 18). In the site report the authors note the problems inherent in identifying pyre sites, with which I concur i.e. that features with other functions and origins may erroneously be included in the category of pyre sites, and that the contents of the features are not a guide because pyre debris can be present in a whole range of features (Fitzpatrick and Powell 1997; see below, Chapter 5). However, it should be noted that in addition to the particular shaped features at Westhampnett, there were also some cut features similar to those listed above as possible pyre sites at Linga Fiold, for example feature 20130 which comprised a sub-rectangular steep-sided cut 1.0m square and 0.40m deep (ibid, 24)

CREMATION TECHNOLOGY

Fuel and resources

It has already been noted that we do not see any evidence that pyre sites at Linga Fiold had substantial wooden or stone stance, superstructure, supports or settings. There are no postholes, and an absence of stone settings such as those (probably late Iron Age) possibly long-lived stone built cremation settings discovered at Hermisgarth, Sanday (Downes 1997b). It would appear that at Linga Fiold the cremation pyres were set on the ground, and built from the fuel that fired them.

If one studies the range and types of pyre debris (Table 4.1; Appendix 2), charcoal, 'burnt turf' and cramp, or fuel ash slag, are present in varying quantities within the pyre sites and the features where pyre debris has been buried. I will start by discussing the principal fuel types used at Linga Fiold, wood and turf, then move on to the cramp.

The charred plant macrofossil remains from Linga Fiold were identified and reported upon by Alldritt (1996), and the results of that work will be summarised here. Over four hundred bulk flotation samples were sieved and sorted in order to investigate the palaeoenvironment, use of fuels and human remains. The environment immediately around the site comprised areas of pasture and grassland. Wood brought to site for use as pyre fuel was obtained from areas of scrub consisting of *Corylus* sp. (hazel) and *Salix* sp. (willow), and wetter areas indicated by *Alnus* sp. (alder) and *Betula* sp. (birch) wood. The presence of alder fen carr which was exploited for fuel resources at Linga Fiold is also attested (Alldritt 1996).

In addition to charcoal, a great amount of light, corky, organic material was recovered from the pyre sites, pits and cists, which was referred to at the time of excavation and later in the laboratory variously as 'burnt peat' or 'burnt organic'. Selected pieces of this material were examined and tested by Camilla Dickson (Alldritt 1996). The conclusions of this analysis were that the slides examined showed herbaceous plant material, and there was no evidence that material analysed had its origins in either blanket or raised bog peat. It was

suggested that it could this material was valley peat that was being exploited – boggy turfs from low lying areas that had been brought to the site (ibid). Pollen analysis (Bunting and Tipping 1997) of the fills of some of the cists (from Mounds 4 and 7) were found to be characterised by high values of *Calluna* (heather) pollen and *Plantago lanceolata* (ribwort plantain) which was interpreted as evidence that turfs and peat had been brought from areas of heathland and grassland, but that ‘several turf sources were used for fuel, since these two taxa have different ecological requirements and would not occur naturally together in large quantities’ (ibid, 12).

The soil thin section analysis also determined the preponderance of this fuel in the pyre site 347/455 and pyre debris from context 471 (see above; Carter 1997a). Carter asserts that purer peat (as opposed to turfs) formed the dominant fuels used, but that the peat yields ash, rather than bulky residues, which does not survive the excavation and post excavation processes. The range of this type of fuel from boggy turf through to purer peats is referred to as ‘burnt turf’ in this thesis.

The finding of a heavy reliance on turf for fuel is significant in the context of the funerary rituals, because these types of turfs were being sourced, cut and brought some distance, and would have been extremely wet and therefore have taken a considerable amount of drying time before they could be used for fuel. Both the plant macrofossil and the pollen evidence indicate that the turfs were brought to Linga Fiold and were stored at the site for some time before they were dry enough to be used as fuel (Alldritt 1996, Bunting and Tipping 1997, Bunting et al 2000). The cutting and drying of peats for fuel use today is necessarily a *seasonal* activity which takes place from late spring through summer. Peat is cut traditionally in May and dries over the summer ready for use in the winter. The use of boggy turfs in the past must also have entailed cutting the turfs late spring or summer to dry out over summer, but this source of fuel by its nature would have been heavier to transport, more difficult to stack for drying, and have taken longer to dry, than peat (D Kirkpatrick pers comm). The aspects of planning for, and resourcing, cremation implicit in the use of this fuel will be returned to below.

There is greater variation in the type and quantities of fuel remains across the site, taking the contents of all features including pyre sites and pits and cists (Table 1, Appendix 2) as

indicative of fuels employed in cremation. In some examples, particular species of wood dominate – for example at Mound 7 pyre site 347/455 the large amount of charcoal was almost all alder, with a very small amount of hazel, and ‘abundant quantities’ of burnt turf (Alldritt 1996). At Mound 6 the large amount of charcoal in the central burial steatite urn 388 (Figure 2.15) contained almost exclusively alder (*ibid*), whereas the dump of pyre debris (375) over the central grave (378) under Mound 5 (Figure 6.4; Appendix 2) showed that two species, hazel and alder, and some birch had been used in the pyre. There was an absence of burnt turf in this pyre debris; this does not provide conclusive evidence that turf was not used in the pyre as burnt turf may have been painstakingly picked out and put elsewhere. However it may be real absence, for it would appear that turf and wood were at times used almost or totally exclusively of one another.

In looking at the charcoal and plant macrofossil from across the site at Linga Fiold, Alldritt’s report (1996) brings out the differences between mounds in types of fuel debris present. From the samples from Mounds 4, 8 and 9 there was an almost total absence of charcoal or plant macrofossil remains (Alldritt 1996). There is, however, an abundance of burnt turf remains, particularly within the central cists. There are also no pyre sites discernible at these mounds. Mounds 4, 8 and 9 are also structured differently from the other mounds, and this is thought to relate to chronological distinctions (see below, Chapter 7) in that these mounds were the latest to be built at the site. This finding indicates that in the later stages of the cemetery either a conscious choice was made to utilise as little wood as was possible in the pyre in favour of turf, or wood was increasingly scarce. The outcome for the archaeologist is that pyres that were made almost or totally from turf are much harder to detect, for no pyre sites were discovered at or around Mounds 4, 8 and 9.

Cramp, and the body as fuel

‘Cramp’ is a word one encounters in almost every account of Bronze Age cremation burial investigations from the time of antiquarian writings onwards. It describes a glassy, vesicular, vitrified fuel ash slag which can be found varying in size from small, pea-sized pieces to fist-sized lumps and bigger. Not only is the word peculiar to Orkney in this

context, but the substance also is found in far greater abundance in Orkney than anywhere else. Cramp does appear in prehistoric domestic contexts but not usually in the same large quantities as it can be found in Bronze Age burial contexts. Its derivation and composition has never been clear, and many believe that it derives from the addition of seaweed onto the pyre (cf Photos-Jones et al 2004), following Callander's (1936) publication of this idea.

From the excavations at Linga Fiold a substantial assemblage of cramp was retrieved from a range of contexts; pyre sites, cists, pits etc. Samples of cramp from twelve features were selected for analysis by Carter, with a view to answering questions as to the composition of the material, and what it could tell us about pyre technology (Carter 1997a). The samples were analysed by thin section analysis as the principle method of investigation with microprobe analysis where chemical analysis was likely to prove helpful. The following is a summary of that analysis.

The fragments of cramp were classified into five types according to their structure and composition in thin section. Types 1-4 are silicate slags which are distinguished from one another by progressively greater heat alteration. Of the five types Type 5 is the most prevalent, and is similar to Type 4 but distinguished from it as it 'contains fragments of bone and its chemistry is affected by bone and other body-derived elements' (Carter 1997a, 2).

Type 1 slag shows least evidence of heat alteration and is more a burnt soil than slag. It is very friable and fragile and only occurred in samples of cramp analysed from Mound 5 grave 378 and overlying pyre debris 375, where it survived because it was attached to larger fused masses, and in the undisturbed section through pyre debris 471 under Mound 2.

Like Type 1, Type 2 also retains its original mineral composition but is clearly fused through the melting of clay silt and sand-sized mineral grains. In Type 3, further melting has occurred, and coarser silt and sand-sized quartz grains embedded in a colourless silicate glass were observed. The quartz survives because of its higher melting point indicating

maximum temperatures in the range 600-800° C. In Type 4 the composition is identical to Type 3 but gas vesicles dominate the structure which may relate to the decreasing viscosity of the molten glass with increase in temperature.

The structure of Type 5 is similar to Type 4, but is distinguished by the composition and inclusions in the glass. Identifiable fragments of bone are present in many fragments of Type 5 cramp. Many of the bone fragments examined were connected to whitlockite (tricalcium phosphate) which is attributed to extreme heating of human bone. Microprobe analyses of the glass detected enhanced concentrations of phosphorus, iron, magnesium and calcium. Carter concluded (1997a) that not only were calcium and phosphorous likely to be derived from bone but that the corpse was very likely the source of magnesium (whereas the iron was likely pedogenic). Furthermore, microprobe analysis also showed a disassociation of minerals from silica which indicates actual melting of minerals (temperatures perhaps in excess of 1000 ° C). The localised occurrence of the highest temperatures seem to have occurred closest to the corpse evidenced by Type 5 cramp.

At Linga Fiold the cramp is derived from organic matter-rich aquatic or semi-aquatic sediments. The overall conclusion is that the cramp, and the abundance of it, results from the use of turfs, from a wet or boggy environment, as fuel (see above). Carter does, however, caution against assessing the quantity of this fuel used on the basis of the quantity of cramp as cramp is a bulky, diagnostic residue which survives, on the whole, very well in most conditions and much better than wood ash/charcoal or peat ash (Carter 1997a).

The significance of these findings is manifold and just two aspects will be mentioned here. First, there is evidence for differential selection of different types of cramp, favouring Type 5 for deposition in pits and cists. Carter draws attention to the high proportion of Type 5 cramp in the majority of the contexts (Table 1, 1997a). The high proportion of Type 5 in the majority of the cist and pit contexts contrasts with pyre debris dump (471) under Mound 2 (above; Appendix 2) which is totally dominated by Type 2 cramp (95% by area), the relatively low temperature fuel-ash slag. The rarity of Type 5 slag in 471 (only 4%) contrasts with the position in most other samples. Carter puts forward two interpretations for this difference: either the pyre site that produced debris 471 had unusually high

quantities of Type 2, or that or Type 5 was being preferentially collected for deposition in the cists and pits, because of its close association with the corpse, and the adherence of bone fragments to it (Carter 1997a, 16). The latter interpretation is favoured and discussed further in Chapter 5.

Second, the findings emphasise and remind us of the centrality of the corpse (body fats particularly, and tissue) in effective pyre technology. The temperature of the pyre is made excessive because of the presence of the corpse, not irrespective of it. Apart from one example in Orkney, that is Bu Farm, Rapness, where cremated bones were reported to have been burnt when dry (McSweeney in Barber et al 1996), bone specialists report that bones are always burnt while still 'green' and therefore, it is thought, when still fleshed (cf. McKinley 1996; Roberts 2000; 2004; below, Chapter 5).

The high temperatures achieved during cremation and the 'green' state of the bones both support the interpretation of the corpses being cremated while fleshed. This would indicate that cremation is probably therefore a primary, rather than a secondary, funerary rite, i.e. cremation takes place fairly soon after death rather than the corpse being buried or otherwise stored for a long time before being cremated. However, there are indications that there are greater complexities and variation to mortuary rites than this clear-cut scenario suggests (see below and Chapter 5).

Before moving away from the subject of cramp and its analysis, it should be noted that a recent paper (Photos-Jones et al 2004) on the analysis of Orkney cramp, and its role in cremation ritual, makes findings different from the Carter (1997a) analysis of the Linga Fiold cramp, and very different conclusions as to the nature of cramp. The paper makes no reference to Carter's work, and reaches the conclusion, based on analysis of cramp from the Knowes of Trotty and the recent GUARD excavations of cists in Orkney, that all cramp was made with seaweed. The authors appear from the outset to aim to find that cramp was made from seaweed, and so, although seaweed was not detected in the cramp analysed, put forward a theory that seaweed may have been turned to ash and then added to a pyre as a flux (and is therefore undetectable) deliberately to create cramp. There is also a theory put forward that a bed of seaweed was placed on the ground underneath each pyre, and that

bone from the pyre above would fall down into the cramp formed by the seaweed ash fusing with the silty soil. The conclusions of the paper are that cramp is a mix of soil/sand and silt 'bound together by vitrified seaweed fuel ash' (ibid 9), and that the real purpose of the use of seaweed was to create a glassy slag, because the making of cramp was as important an outcome of the cremation process as the reduction of the corpse into fragments of bone.

There are a number of problems with this work and I will mention just a few briefly. First, seaweed is not the only material that will cause cramp to be produced; as we have seen above cramp can easily result from the melting and fusing of silt and sand which is present in the turfs used for fuel. The assertion that all cramp derives from the use of seaweed and that all pyres must have been made in part from seaweed cannot be upheld. Second, the recognition that cramp with human bone attached to it (Carter's Type 5 cramp at Linga Fiold) is categorised in a particular manner when the pyre material is sorted is fair (and will be discussed below in the context of all other types of pyre debris (Chapter 5)), but to extend that to claiming that all pyres were built in such a way, using a special type of fuel so that they served the dual purpose of producing burnt bone and cramp cannot, I feel, be supported by the evidence. Instead, as we have seen above, the cramp is produced as a by-product of the cremation process, because of the particular combination of the fuel and the body on the pyre, not as a specific aim of the process.

Efficiency of cremation

Temperatures taken to cremate a corpse in a modern, enclosed crematorium are between 500-1000° C, 500° being the minimum temperature needed to get body fats burning, and to maintain combustion until water and organic components of the body are reduced (McKinley 1989, 65). In an experiment of an open air, wood fuelled pyre burning a sheep and a neonatal lamb (McKinley 1997a), temperatures of close to 1000° C were achieved for the first hour or so at the sides of the pyre and on the ground, and in the centre for a longer period of three hours.

The degree of alteration noted in the various types of cramp at Linga Fiold has provided some information about the temperatures achieved in pyres and the duration of heating. Results indicate that the pyres which yielded slags attained temperatures between 600° and 800° C. Whitlockite (present in Type 5 cramp) appears to require temperatures of at least 800° C to form, and there is slight evidence (the total dissociation of hydroxyapatite on a very limited scale) that temperatures locally could have been in excess of 1000° C (Carter 1997a).

Much of the pyre would have been cooler, with a large amount of loose ash being created. In pyre context 455 (Figure 4.1) the overwhelming proportion of carbonised fuel remains point to this cremation ending with low temperature burning with limited oxygen supply. The fuel must have continued to burn after the Mound 7 material had been heaped over it, cutting off its supply of oxygen (*ibid*).

Analysis of the cramp within the pyre material deposited both within and over the grave under Mound 5 revealed that this pyre may have been extremely hot, for the surface of the soil that underlay the pyre had melted, and remains of the pyre and cremated bone had fused to it. Carter makes special mention of this, for as he notes, soil is a poor conductor of heat and usually only reddens (oxidises) in the heat, but in the case of this pyre a 'sufficient heat flow was maintained for long enough to melt the soil' (1997a, 15). This occurrence is unusual but not unknown in the archaeological record, for a similar (but larger, 58kg) mass of melted soil and cramp was deposited outside the cist at Sandfield, Skail (McKinley in Dalland 1999).

McKinley (1989) makes a reference to the practice in India of adding perfumed oils or ghee (clarified butter) to the pyre to aid combustion. This addition of extra fat to the pyre emphasises the importance of the body fats in the burning process noted above, and may be more necessary when the body being cremated is small (e.g. an infant) or emaciated, or on the occasions when corpses were not cremated while still fleshed. At Linga Fiold, analysis of the lipids within pottery vessels (Taylor 1998) produced very interesting results, some of which may be explicable in this context. Sherds from the probably complete vessels deposited at the edge of Mound 9 were amongst others subjected to analysis. Sherd 4,

context 34 (Appendix 2), indicated residues probably from sheep/goat fat or grease, which it is suggested could have been used as a sealant inside the pot, or could equally well show what the vessel had contained. Sherd 62, context 52 (Appendix 2), had a signature which compared very well to bog butter, and to human skin, and left Taylor in little doubt that the residue related to 'decayed flesh fats, human or otherwise' (Taylor 1998, 15). If the residue is indeed derived from a human it raises issues as to the complexities of the treatment of the body. In the case of both the human and animal derived substances, both may have been poured onto the cremation and served a dual function as pre-cremation treatment and manipulation of parts of the body and its substances which could have been brought to the pyre ceremony as offerings or sacrifice, and as extra fuel which aided the cremation process.

Manipulation of the body

McKinley deduced the efficiency of cremation at Linga Fiold macroscopically from the colour of the bone (McKinley 1996). The majority of the bone showed a buff-white colouration indicative of full oxidation, variations of black (charred), blue or grey were noted in the bone from ten contexts (eight pits/cists, one pyre site and one pyre debris dump). In five of these contexts the variations were very slight and limited in extent. Others were more extensive and involved several skeletal elements, 'skull and hand bones being most commonly involved, with femur shaft and lower vertebrae to a lesser extent' (ibid, 18). The most extensive variations in colour were seen in Mound 8 central cist 066 and Mound 5 central burial 378.

The consistency of skull and hand bones showing colour variation relates to their peripheral position in the pyre and to a lack of surrounding soft tissue on these parts, and the femur being surrounded by dense soft tissue which does not cremate until late in the process (McKinley 1996). These are all features in the scope of what is 'normal' and would presumably indicate that the bodies were supine on the pyre. The cremated bone from Mound 8 cist 066 was an exception in that the upper part of the skeleton was affected, which is attributed to uneven burning due to collapse of the pyre, or that the upper part of

the body was covered in some way (*ibid*). The differential burning could perhaps instead be attributed to the body being placed in a seated position on the pyre, or perhaps being bound.

The pyre sites that were surface spreads were fairly comparable in size and shape – being sub-rectangular and ranging from pyre 195 measuring 0.90 x 0.050m; pyre 144 1.0m x 0.7m; pyre 347/455 1.08 x 1.05m; pyre 152 1.25 x 1.0m; pyre 156/8 1.60 x 0.90m, and pyre 159 1.50 x 0.70m. Pyre sites of which only the basal layer survived were smaller, pyre site 459 measuring 0.80 by 0.75m and pyre site 245 c. 0.4 x 0.25m. From the experimental work undertaken by McKinley (1997a), and from the observances of the Balinese cremation, during burning a pyre will collapse in on itself and remain much the size it was built, with some charred material spreading slightly wider as parts collapse. On the whole the Linga Fiold pyre sites were quite small and many would not have accommodated an adult lying supine.

Variation in disposition of the corpse on the pyre must be considered – there is a possibility that some corpses may have been crouched, seated, or even dismembered to be placed on the pyre. A narrow cut mark (10.04mm long and 3.8mm deep) was recorded in a fragment of humerus from an adult male interred under Mound 5, central burial context 378 (McKinley 1996). As McKinley comments, we cannot know whether this cut resulted from an injury when the man was alive, or whether it was inflicted post mortem. The cremated bones from this particular context were well sealed and unusually well preserved, with large fragments surviving. Such traces in the more usual, more fragmented and eroded type of cremated bone recovered routinely in excavation would be very difficult to trace indeed.

Cut marks on human bone are not unknown from Bronze Age burial contexts. Another example of cut marks on cremated bone derives from a Bronze Age cemetery at Seafeld West near Inverness (Cressey and Sheridan 2003). Two parallel cut marks were discovered on a fragment of cranial vault from the cremated remains of an adult contained in a pit at this site (McKinley in Cressey and Sheridan 2003). As in the example from Linga Fiold the cuts were made into ‘green’ bone and McKinley could not be certain whether they were made ante- or post-mortem. An example of a cut mark on an inhumed bone (medial clavicle) comes from Barrow Hills, Radley, Oxfordshire in the context of many

disarticulated and partly articulated Bronze Age bones (Boyle 1999). The possibility that these cuts represent dismemberment is considered briefly, to be discarded in favour of damage during disturbance to the grave in antiquity (*ibid*, 173). However, the same author notes that in the cremations from the same site particular parts of the body were over-represented, particularly the skull, leading her to suggest that certain parts of the body were selected deliberately, and that this could have been prior to burning, or in the choice of bones picked from the pyre for burial (Boyle 1999, 176). Ashbee (1960) includes some instances of trepanation as part of the evidence for what he sees as occurrences of mutilation of the corpse before burial – although doubtless there would be those who would say that these mutilations too could have been either ante-or post-mortem. The evidence for mutilation and dismemberment of the corpse is slim but tantalising; further research into existing evidence is necessary to indicate whether this was practiced as part of funerary rites.

The pyres at Linga Fiold were built from varying quantities and proportions of wood and turf. Both wood and turf (cut into blocks) can be used in a lattice formation to facilitate ventilation and draught. From the location of the burnt bone on the surviving pyre sites, the body would have been placed on top of the pyre, rather than below or much within. I have suggested elsewhere (Downes 1994) that charred wood may have in some cases been the remains of a bier which may have been used to bring the body to the pyre and to support the body on the pyre, in which case the bier could overhang the pyre and cause differential burning. If some of the shallow pits described above were features below and associated with pyres this would suggest that in some instances the base of the pyre was wooden, for a raft of wood would be needed to support fuel above the pit as turf would not suffice for this purpose.

Disposition of bone on pyre sites

At Linga Fiold McKinley (1996) paid close attention to horizontal and vertical distribution of cremated bone on the pyre sites where preservation and excavation techniques allowed such study. The premise she worked from was that when a body is placed on top of a pyre

the pyre will collapse through burning and the body will remain on top of the pyre debris, with the cremated bones lying in approximately correct anatomical order at the end of the process on an undisturbed pyre site (ibid). Horizontal movement of the bone might occur if the pyre was tended (e.g. to re-oxygenate), and could also be caused by disturbance post-cremation when collecting remains. Vertical movement of cremated bones should not be particularly affected by either of these activities.

McKinley analysed the location and type of bone from three pyre sites with a view to ascertaining position of body fragments. These were Mound 5 pyre site 152 (Figure 4.5), Mound 7 pyre sites 347/455 (Figure 4.1) and 195 (Figure 2.16).

The analysis of pyre site 195 was not particularly informative partly because of the form of the pyre and the way it was excavated, and partly because the bone was in poor condition and few fragments were identifiable. The bone was all located within a small area, and McKinley suggested (ibid) that pyre remains may have been raked together before or after collection of debris, which may have been the case as vertical ordering is indistinct.

Pyre site 152 on the edge of Mound 5 was excavated in 0.02m spits, with each fragment of burnt bone being numbered and planned, thereby making it the most suitable for this type of analysis. In total 248.9g of cremated bone from a young/mature adult, possibly female, was recovered, and possibly some from another, immature individual (Table 4.1). It should be noted that only half of the bone (by weight) comprised identifiable fragments (McKinley 1996).

Bone was distributed across and throughout the 0.08m depth of 152, the bright red upper layer of the pyre, and none from 172, the grey/black lower part. Vertical ordering was therefore thought to be of little consequence. The horizontal ordering of the bone was more interesting as there was found to be no anatomical ordering in the distribution of the bone, fragments from all parts of the skeleton being spread all over the pyre site (ibid). However, there were a few anatomical clusters; fragments of the larger part of the mandible (jawbone) and also a fragment of maxilla (lower front skull) were recovered from the southern end of the pyre spread over 0.45m E-W by 0.25m N-S area. The few fragments of

recognisable axial skeleton were located in a discrete c. 0.50m² area, and three fragments of patella (knee cap) were found in within a 0.10 x 0.20m area in the SE of the pyre site (ibid).

In pyre site 347/455 the bone was also confined to the upper levels of the pyre debris as may be expected but was mixed thoroughly horizontally. The bone was in good condition and comprised c. 18% - 28% of the remains of an older mature/older adult female (McKinley 1996). This pyre was excavated in quadrants, with the bone unequally distributed: 37% of the bone was recovered from the SW compared with 27% from the NE, 26% from the SE and only 9% from the NW. Across this pyre site there was no distribution of bone in anatomical order apparent, the only notable feature of distribution being that poorly cremated bone fragments (charred black) were found on the west side (ibid).

Such thorough mixing of the bone as has been observed at these pyre sites is hard to explain either by manipulation of the body during cremation, or disturbance caused while collecting debris. Tending of the pyre usually involves (from ethnographic example) re-oxygenation to speed up the burning of larger areas of fatty tissue which take longer than other areas to burn. This type of manipulation tends to focus on the axial area of the body, and should not lead to skull or limbs moving very far horizontally. Furthermore, manipulation of the body to re-oxygenate takes place when the ligaments are still intact, for instance at the cremation in Bali the whole burning skeleton was lifted briefly at one point by hooking a stick under the base of the skull (Figure 3.3). If the disordered distribution of the bone is the result of manipulation during cremation, this must have taken place near the end of the cremation when the ligaments had been destroyed and must have been effected fairly vigorously. McKinley suggests (1996) that surface ashes of the pyre were raked over, possibly several times or at the same time from different directions which would have had the effect of breaking up any charred soft tissues to encourage further oxidation and forming the bone into a heap to facilitate speedier recovery of pyre debris. If this raking over did take place, it must have happened before the cremation was quite over otherwise such raking would have disturbed the pyre site and also affected the vertical distribution of pyre remains.

Cremated bone from two unobtrusive cists at Werne, Harray and an unobtrusive cist at Ellibister, Rendall had cramp adhering to both their external and internal aspects (Luke in J W Hedges 1980). This feature indicates that bones were on occasion substantially broken up while the pyre was still hot enough for cramp to adhere.

The other factor which would affect anatomical distribution of the bone has been alluded to above, and that is how the body was disposed on the pyre in the first place. The above analysis presupposes the body lying supine and takes that as the tenet for analysing aspects of pyre technology. However this may not have been the case in at least some of the cremations. If for instance a body was tightly crouched, the knee caps may come to rest close to the skull, as is the case in pyre 152 (above).

Collecting of bone and sorting of debris

McKinley reports (1997a, 134) that, in experiment, pyres were left for 24 hours to cool. Collecting of the bone was time consuming and took four-person hours (ibid). An experiment undertaken by Hedges in Orkney with the cremation of a goat using equal quantities of peat and brush is reported to have taken five hours to cremate, and a further two days for the embers to cool sufficiently for the bone to be collected (M E Hedges 1979). These experiments have helped promulgate generalisations that cannot and should not be applied widely: first that people had to wait a long time (one-two days or more) before pyre debris could be collected, therefore pyre debris was at the mercy of the elements (particularly wind) which would have scattered and removed elements before they were collected and would affect what remained of the pyre in the archaeological record; second that the collection of bone from pyre debris is time-consuming and difficult, a corollary of this being that the time expended in collecting bone could reflect the 'status' of the deceased (McKinley 1997a, 142). The prioritising of the collection and deposition of bone over the sorting, categorisation, and disposal of the pyre debris as a whole will be challenged and discussed fully in the next chapter.

As we have seen from the Balinese example, the funeral pyre can be quickly extinguished, and the bones picked out immediately and over a short space of time with several people working at the task. It is evident that at Linga Fiold this process happened just as rapidly at least in some instances, for example Mound 7 pyre 347/455 where the mound material is placed on hot embers after removal of bone. Another example of such swiftness of events comes from a cist excavated at Kewing, Rendall, where 8kg of cramp was found moulded to the shape of the cist because it had been deposited in a molten state (Photos-Jones et al 2004).

In the Balinese cremation the bones were placed in pots and washed – here those carrying out the cremation were only interested in retrieving the bones themselves. At Linga Fiold, and at other Orcadian Bronze Age funerary sites, all elements of pyre debris were being selected and sorted for deposition, at times when the pyre was still very hot. The features that have been called ‘pyre debris dumps’ (above) may well represent the areas where hot pyre debris was removed to for sorting. If this were the case it would explain why these features occur, and why it is so difficult to distinguish between them and pyre sites.

Methods of sorting and containing cremated remains

Methods and approaches to collecting and sorting pyre remains at Linga Fiold appear to have varied, and this is reflected in the variety of fills of the pits and cists. Carter (1997b) notes the presence of small fragments of pyre debris trampled into soils and as a ubiquitous presence, indicative of the intense, and episodic, nature of the cremation activity. The work of sorting the pyre debris appears to have been an exact and exacting process, undertaken to greater or lesser degrees at different cremations. The cleanliness of the bones and cramp, without a trace of ash or charcoal, in the primary burial under Mound 5 is notable at Linga Fiold but is a fairly common state in which cremated bone is deposited, both elsewhere in Orkney and further afield (McKinley 1989). The collection and sorting of the pyre remains are in themselves a part of the cremation technology. McKinley (ibid) has suggested that cremation debris could have been sorted by winnowing, or by immersion in water during which process the heavier parts such as burnt bone and cramp would sink and other parts

such as ash would float off. The immersion-in-water theory could well explain the extremely clean state of cremated bone in some deposits, and could also have aided the sorting process, for example if larger pieces of charcoal and burnt turf also floated. A combination of sifting with baskets and water, and immersion in water may have been employed. The presence of basketry or baskets was indicated in the pollen analysis from Linga Fiold (Bunting and Tipping 1997). The identification of *Corylus* pollen within several cists (ibid) suggested that hazel twigs may have been used in the lining material, or in baskets containing pyre material.

Stone boxes or tanks are present within many prehistoric houses in the Northern Isles of Scotland. They occur at Skara Brae, the late Neolithic/early Bronze Age house at Crossiecrown (one tank at this site contained cremated bone (Richards and Jones in prep)), the early Bronze Age-early Iron Age house at Sumburgh (Downes and Lamb 2000) etc.. The stone tanks are usually submerged or semi-submerged into the floor, and can sometimes be seen to be 'luted' or sealed so that they can contain water. Occasionally large pottery vessels are set into the floor (eg Barnhouse, Richards 2005) and may have fulfilled the same role. The function of drains and tanks in the control of, and containment of, substances is referred to above (Chapter 2) and returned to below (Chapter 6). It has been noted (Appendix 2) that some of the cists at Linga Fiold were luted, and this is a feature of Orcadian cists that has often been recorded (cf Ritchie & Ritchie 1974). It is worth considering that the cists, and vessels which contain cremation burials, could have been filled with water and utilised in the separation of pyre materials. To draw analogy between metalworking and cremation, it is necessary to have a vessel, tank or clay lined pit of water to hand for quenching during bronze-casting and smithing. It is possible that the hot, dangerous properties of fire and air, and the cool, quenching, containing effects of water, and the stone/earth were seen in opposition to one another (see Chapter 6).

CREMATION AS SACRIFICE AND VIOLENCE

Cremation is often regarded, in traditional societies and historically, as sacrifice (cf Bloch and Parry 1982; Parker Pearson 1999; Chapter 3). This can be sacrifice of the deceased,

who, having died a 'good death' surrenders voluntarily to being a sacrificial victim. In Hindu belief the deceased does not 'die' until 'killed' on the pyre, at the point when the skull is broken the last breath is said to be issued (Parry 1982; 1994). In the Bronze Age context, Barrett identifies the pyre as 'the place where the deceased was finally released from its mortal existence' (1994, 119). In Hindu belief, the cremation ritual is constructed symbolically as a sacrifice (Parry 1982; 1994). In many instances other sacrifices are to accompany the corpse on the pyre; this can be people, such as slaves (for example in Norse society, see Parker Pearson 1999) or wives (for example the Hindu practice of *suttee*), animals, goods or artefacts.

In Parry's research, Hindu cremation was described to him as 'violence' (1982, 80); because the deceased does not die until killed on the pyre; cremation is a sacrifice or ritual slaughter. I have suggested that the almost complete disordering of the cremated bones on the pyre sites at Linga Fiold might be attributed either to pre-cremation manipulation of the body in particular ways on the pyre - in a crouched form or possibly dismemberment of the corpse - or to vigorous agitation of the corpse towards the end of the cremation. It is also possible that the pre-cremation and during-cremation manipulation of the corpse both occurred. Both scenarios hint at an excessive control of the body and a desire to fragment and completely alter its form - and may possibly indicate ritual killing of the deceased. Ritual killing can artificially alter the stages of mortuary rites, for example when the deceased officially 'dies', a period of pollution can either begin or be ended (Parry 1982), or the deceased can progress from being a dangerous corrupt being to reach a more exalted state. As in Bali, the use of fire is significant in a role of purification.

At Linga Fiold there were some instances of animals accompanying humans on the pyre, and there are other examples of this elsewhere in Orkney (below, Chapter 5). There is also an instance of a pyre site at Varme Dale where grain was burnt, and the site later marked by a barrow with a cist within (Chapter 7). These possible examples of sacrifice will be discussed below in the context of fertility and regeneration (Chapter 7). However, one could also conceive of the fuel being a part of the sacrifice – some of the precious few trees could have been curated specially for cremation, and would then have given their lives for the cremation; the turfs were part of the land and were cut from the land to provide fire.

Sacrifice in this context is bound up with the conspicuous consumption that cremation in Orkney undoubtedly was; the burning of stocks of fuel was a highly visible way of demonstrating the sacrifice of a range of resources.

TECHNOLOGY AND TRANSFORMATION

Detailed investigation of pyre sites can provide empirical evidence as to how cremation was undertaken. At Linga Fiold it has been possible to ascertain something of the structure of the pyres, the location of the pyres, the fuel used in the pyres, the disposition and role of the corpse, and the occurrence of tending and manipulating the corpse and pyre. This is all part of cremation technology. Cremation is a technology despite the problems many have in how and when to define technology (cf Ingold 2000; Chapter 1)). Cremation is a technology in the sense, to take some of the words used by McGinn and quoted by Ingold, that it is .. ‘object transforming, *purposive*..., knowledge-based, resource employing..’ (Ingold 2000, 299, my emphasis). Cremation in Orkney is challenging technologically; the commonly used resource of wood was scarce, and the turf an intractable material to work with. However cremation was achieved with great efficiency. Cremation can be seen as the purposeful and skilful destruction and fragmentation of the body through pyre technology. It is not only the human body that is altered and fragmented, but so is everything else that makes up the pyre, or is put on the pyre – and this can include more than one human body and non-human bodies (see Chapter 5), and artefacts.

There is an assumption in discussion of technology that the product or outcome of a technology is an artefact (cf Ingold 2000, Dobres 2000, Sigaut 1994). For instance, Dobres seeks to understand ‘ancient technology as the experiential and situated practice of people engaging with each other while making and using material culture’ (2000, 5). There are products to cremation, and these are all the components of pyre debris described in detail above. The products are artefacts in the sense they are created by a technology – the transformation of the body and fuel through fire results in different materials, or a composite artefact, which can be further manipulated, configured, stored or utilised in a host of different ways. The cramp is a new creation which is born out of the fusion of

different elements of the pyre. Thus there is undoubtedly a change in the state of the body, but to what extent is this process a reaffirmation of the status or category of the person (Barrett 1994), or is it rather a change in status or category from person to an artefact, or materials that are categorisable, with a new kind of personhood?

Through the rites and technology of cremation the living participants cause the integration of the dead with the wood and earth. This physical proximity and almost inseparability of the dead and other components of the pyre may have been seen as a metaphor of the relationship between living persons and the land, and the integration, or reintegration, of the dead person with the land can be seen also in the composition of the burial and funerary architecture (below, Chapters 5 and 6). However the process of cremation, the performance of the technology that cremation entails, also not only changes the state and status of the dead person but, in doing so, creates a new relationship between the technologists and the dead person/s. Chapman (2000a) describes the blurring of the human-object boundary by the perception of objects as 'inalienable'; because objects can be seen as 'reproduced rather than produced' (ibid, 5) a reflexive relationship between the person and the object is established. Through this close personal relationship between person and object Chapman explores the similarities between practices involving the dead, and objects (ibid). The relationship between people and objects is also indicative of a tension between the person as an individual, and the collective, dividual person (cf Chapman 2000a, Fowler 2004), which I will return to below (Chapters 5 and 6).

If we view humans as permeable to things, and as mediators rather than manufacturers in the production of artefacts, it is possible to speak of the qualities of the makers that an object is invested with through the act of making (Chapman 2000a, 30). Chapman describes technology and the process of objectification in this context as reproduction rather than production, that producers are not simply agents in the process of technology, but are part of a larger process of natural reproduction (ibid). The amalgamation of the deceased with other elements of the wider world on the pyre is therefore indicative of a community with a recursive relationship with the land within which relationship cremation is an important part of reproduction. The dead become an artefact but this is not so much a process of objectification, but a process of personification through which the community who

contributed to the event become a part of the artefact they create. The technological process of cremation is the end of separation as, through the transformation, the corrupt and polluting remains will have become purified and potent. The creation of the products of cremation is the beginning of incorporation of both the dead and the living with the cosmos.

Four elements could be said to play a role in transformation through cremation. Air (in the wind that fans the flames), water (for quenching the flames, and sorting and washing), earth (providing the place and the fuel) and fire which is the element that makes the cremation a highly visible spectacle, and is the element that causes the fusion of the body with the fuel and, in essence, with the earth. Fire transforms things that come from the earth into things that are hard, shiny bright, beautiful and useful – such as bronze objects and pots; it also sustains life and is the centre of life; the hearth is essential for warmth, is used for cooking, is a light to work by and a centre of social life.

It is the category of craft and manufacturing activities that are perhaps more analogous to cremation; technologies such as pottery manufacture and in particular metalworking, for they are activities undertaken outside the house; take place periodically rather than as a daily routine; are more difficult; and produce objects that are special and perhaps dangerous. These processes are fraught with difficulties and things can go wrong; propitiatory acts can be needed through the process and afterwards. Brück (2001) draws a parallel between the transformation of people, through cremation, and bronze, through metalworking. This transformation is seen in both cases as rebirth (ibid, 157, also Barber 2001). It is interesting to note that cremation burials elsewhere often include objects made through fire (Parker Pearson 1999, 70; here referring to the Iron Age but appropriate to the Bronze Age).

The analysis of the pyre and pyre debris at Linga Fiold has been informative as to the staging in time and space of funerary rites surrounding the cremation itself. Cremation is often a secondary burial rite, as we have seen in the Balinese example, but in the case of Linga Fiold, and elsewhere in Orkney, appears to have usually been a primary burial rite undertaken while the body was still fleshed. Events appeared to have moved quite swiftly

from the burning of the funeral pyre to it being extinguished, debris picked off while still hot, the pyre suffocated while still smouldering, and pyre debris being deposited while still hot. This evidence combined with the location of the pyres at Linga Fiold indicate that the pyre was usually, perhaps always, very close to the place of deposition of the pyre remains. There appears to have been some urgency to the procedure perhaps, as was the case in Bali, to ensure the proceedings were over within the day, from the lighting of the pyre to the disposal of the remains. It is possible that the physical act of transformation through cremation was a point in the transition from one state to another which was particularly fraught with danger, and that there was a point when the mass of the congregation came in close proximity to the corpse which may have been polluting.

Cremation involves a range of tasks and activities extending over a time and space. Not only did it call for expertise with the pyre on the day (building, lighting, tending), but also involved knowing what to do and how to do it. Dobres stresses the importance of knowledge and skill in technology; it was very important that the cremation is done well and goes well, and it is 'an arena in which technical competence is highly conspicuous' (Ingold quoted in Dobres 2000). Not only did the highly visible aspects of the cremation have to be properly performed, but the preparation, timing and planning had to be successfully executed.

Technologies express and reaffirm social values about the right and wrong way to do things, and who should do them. Technology thus becomes a question of social values, ethics, and by extension politics and power (Dobres 2000, 104). However, before we think of power in terms of coercion and domination, we should as Ortner reminds us, balance this with the politics and possibilities of co-operation, reciprocity and solidarity (Ortner 1984, 157) which may have underpinned the labour for the dead.

The speed and efficiency with which cremation technology was deployed depended on the preparation before cremation, on having a contingency for death and for the act of cremation. The evidence from Linga Fiold suggests that everything was in place before cremation ceremony was performed; the fuel had been gathered and prepared, the receptacle for the remains had been constructed (be it cist, pit, or vessel), and the material

receptacle for the remains had been constructed (be it cist, pit, or vessel), and the material for the mound cut and quarried (see more below, Chapter 6).

Detailed investigation of the pyre sites at Linga Fiold has provided much information about the practice of cremation. Cremation was achieved with great speed and efficiency. Events followed one another swiftly and this was made possible only by preparation before the event. Preparations for cremation appear also to have been undertaken as a longer term strategy as evidenced by the collection and storage of fuel which may have been a seasonal, communal, activity. Treatment of the body involved violent manipulation and perhaps mutilation, and temperatures achieved during cremation were in some instances greatly in excess of what was necessary. These features are indicative of various ways of exercising control over death, probably to militate against the chaos of death. The routinisation of the strategy within the 'procedures of biological reproduction' (Barrett 1991, 225) suggests regenerative powers attributable to the cremation rites, and to the cremated remains which are the subject of the following two chapters.

CHAPTER 5 – CREMATION BURIAL

THE PROBLEM OF CREMATION BURIALS

In the preceding chapter discussion focussed on the technology of cremation. In this chapter we move to a study of the burial of the remains produced through cremation. In the context of this thesis and the issues surrounding cremation burial outlined in Chapter 1, it is important to examine and problematize the concept of burial in relation to cremation. That there should be features that can be called 'burials' when (cremated) human remains are present is assumed by those studying the archaeological record. Having identified features that can be called 'burials' the focus of attention is drawn to those features on a cemetery site usually to the exclusion of the contexts and features that do not contain cremated human bone. This approach immediately narrows the focus to the one particular 'residue' of the much broader sphere of mortuary practice that is the subject of this thesis. This chapter will be taking us to the basic question of *what* is buried which will be followed by the question of *how* it is buried in the next chapter. We cannot attempt to understand burial practice and funerary ritual until we have answered these questions.

Cremation burials have always posed a problem for archaeologists, for, as with inhumations, there is a great deal of variation in the nature and contents of a burial. In the context of cremation, variation in a cemetery site or around a single barrow can range from burials containing cremated human bone and grave goods, to burials containing cremated bone with or without pyre debris, to cremated bone within a vessel, to burials of pyre debris without human bone, to associated features which contain none, or negligible quantities, of the above. Reports on a cremation burial site focus on the quantity and quality of the cremated human bone, and will also describe in exhaustive detail any grave goods. The 'deliberate-ness' or formality of the burial such as whether the deposit is placed within an urn or cist, and its location (particularly whether it is a primary burial or secondary burial) are considered important factors. A combination of quantitative, qualitative, and *intuitive* factors are therefore used to determine whether a feature containing cremated bone can be designated a cremation burial, of which the quantitative aspect is given most significance; for it is often how complete a body is that

is given primacy (see Chapter 1 for importance placed by archaeologists on 'completeness' of body).

McKinley has led the field in the archaeological specialist study of cremated bone in Britain in the past few decades and has set the parameters within which all other bone specialists studying cremated bone work. McKinley (1989) sets out a guide, based on her experience and study of modern cremation, of how analysis and reporting of cremated bone should be undertaken. From her study of modern cremation (McKinley 1993), she ascertained that the quantity of bone recoverable from a modern adult cremation was 1600-3600g with an average of 3000g. These figures include fragments of <2mm, which the figures in archaeological reports and this thesis do not include. Removing the <2mm fraction, McKinley refined the average expected to a weight range of cremated bone expected from an adult male 2283.5g and from an adult female 1615.7g cremation, again based on observations at modern crematoria in England (McKinley 1993). From studies of the cremated bone from twelve Bronze Age sites McKinley recorded a cremated bone weight range of 902.3-2747.1g, with an average of 1486.3g from the burial of an individual (McKinley 1996).

All bone specialists weigh the cremated bone from each feature and compare those weights to the established average for an individual person. In very few instances do the amounts of cremated bone recovered from Bronze Age contexts make up this expected average weight of a cremated body (cf McKinley 1997a). The extremely high incidence of only a small proportion of a cremated body being recovered archaeologically has led to the term 'token' burial being widely used (cf Peterson 1981; McKinley 1989; Parker Pearson 1999; Fowler 2004; Boyle 1999) to describe those cremation burials comprising small amounts of bone, 'a sample of the body being all that was necessary' (McKinley 1989, 71).

Although this approach is taken routinely, it is not seen as entirely unproblematic.

McKinley expresses the dilemma and frustrations in studying cremation burials within this framework thus:

If we are using the term 'burial' in its normal cemetery sense of a ritual deposit of human remains, we have to consider at what point a cremation burial becomes so small a 'token' as to not represent a 'burial' at all, particularly in deposits

where other pyre debris is present and the inclusion of bone may have been accidental. Can one classify the deliberate collection and deposition of human bones seen in the majority of burials, in the same way as a feature which contains either....a tablespoon or even a teaspoon-full of fragments, or.....no bone at all? These features do not appear to represent the same category of 'burial' (McKinley 1997b, 72).

To explain the wide variation in the amounts of cremated bone recovered from burials, it is supposed by some that a proportion of the cremated bone would have been disposed of at a location aside from the cremation ground or cemetery as part of a more extended ritual. Others have proposed more 'practical' reasons behind the low volumes of bone at cremation burial sites. On the basis of experimental work, Hedges (M E 1979) concluded that small quantities of bone were collected from pyres because it was difficult to separate bones from ashes. As we have seen above in the Balinese example, and in the mastery of technology exhibited at all stages of cremation including the sorting of pyre debris at Linga Fiold, this proposal cannot be upheld.

Interpretative discussion has thus not progressed beyond an acceptance that there are 'burials' and 'token burials'. The uncritical acceptance and use of the terms 'burial' and 'token burial', and the insubstantial foundation of these terms as concepts has led to little advancement in funerary archaeology in this sphere. Once again I would stress that shifting the focus away from the burial itself to cremation practice as a whole can help us out of this unrewarding line of enquiry. First we shall consider the identification of 'burials' at Linga Fiold, and then undertake analysis of the range of contents of all the features to examine what is actually being 'buried'. Data from Linga Fiold will be compared with that from two other sites in Orkney where the many features containing cremated bone and pyre debris were found, that is Gitterpitten (above; Appendix 3) and Quoyscottie (above; ME Hedges 1979). The study involves the wider range of non-humans and materials that are cremated and that are also buried. The question of what constitutes 'burial' leads necessarily to what constitutes 'personhood', and to the heart of social relations.

LINGA FIOLD BURIALS

BURIAL FEATURES: DEFINITIONS AND TYPES

McKinley uses the following feature categories, which she devised for use in every circumstance of cremation, in her analysis of Linga Fiold: urned burial; unurned burial; pyre site; pyre debris; pyre debris dump; inhumation; cremation burial; redeposited bone (McKinley 1996, 7)

Of these categories I will quote those that are the basis for the selection of features at Linga Fiold which McKinley classified as 'burials':

Unurned burial.

The cremated bone is recovered in a (possibly slightly diffuse) concentration or, on one occasion, as a discrete spread.....on or towards the base of the grave (be that a pit or cist). There may be some additional small quantities of bone scattered in the grave backfill either as a result of disturbance or general movement within the soil matrix. Some cremated bone may also be included in the varying quantities of other pyre debris (usually charcoal and fuel ash slag) often deposited within the grave fills. The concentration or discrete spread demonstrates the deliberate collect[ion] of cremated bone from the expired pyre with the intention of making a formalised burial of the bone.

Urned burials.

Bone buried in a vessel, may also incorporate some pyre debris. There may be small quantities of bone scattered in the grave fill deposited with other pyre debris.

Pyre debris and pyre debris dumps.

The archaeological components of pyre debris comprise a mix of burnt material, including mostly fuel ash with varying quantities (including absence in some cases) of burnt clay, fuel ash slag (cramp) and cremated bone. The fills are characteristically mixed with no layering or ordered deposition. Unlike in the burials where the bone was deliberately collected separately for deposition, in this instance it simply constitutes part of the discarded debris (McKinley 1996, 5).

These definitions are quite specific and appear to be created from a prior expectation as to how a cremation burial should be structured, which will be discussed further in Chapter 6. The gauging of intent on the part of those carrying out the funeral rites is made explicit in the definition of unurned burial, and contrasted with pyre debris/dumps which are seen as discard rather than deposition. Using a combination of these criteria

and the weight of cremated bone within a feature, McKinley identified two urned burials, and eleven or twelve unurned burials: – a total of thirteen or fourteen ‘burials’ (shown in Table 5.1) out of the forty five features containing cremated human bone at Linga Fiold (pits and cists, Table 5.2).

Table 5.1 *Linga Fiold burial classified as feature types by McKinley (from McKinley 1996, Table 3)*

Mound	urned burial	Unurned burial	?pdd/ ?un burial	?pd/ ?cb	redep bone	inh burial	?ps/ ?pd	pdd	pd	?
2							1			
4		1			2			2		
5		1/?2	1		5			3/?5	3/?4	
6	1	1	1	1	1	1	1	2	1	
7	1	6	8				1	10/? 11	?1	1
8		1			2			1		
9		1			7				1	

Key: ps – pyre site; pd – pyre debris; pdd – pyre debris dump; inh – inhumation; cb – cremation burial; redep - redeposited bone; ? - unknown

Cremated bone reports always contain a section on the minimum of individuals that could be identified. At Linga Fiold McKinley concluded that:

A minimum of 18 individuals were identified, including one from the disturbed ?inhumation burial, with a possible further 13 if ?unurned/?pyre debris contexts were to represent unurned burials (McKinley 1996, 10)¹.

Because McKinley analyses burials predominantly from southern Britain where many cremation burials are contained within ceramic vessels, an important category for her is urned/unurned burials, which has been used this in her Linga Fiold analysis; in Orkney this is not such a useful distinction as burials are only rarely within, or accompanied by, vessels. Instead the types of features within which cremated remains are interred are cists and pits. For the purposes of my analysis of what constitutes a burial in the context of cremation practice, I have simplified categorisation of all features associated with cremation into: *cists; pits; pyre debris dumps; pyre sites; mounds*.

¹ Number of individuals by mound: Mound 2 - 1; Mound 4 - 1; Mound 5 - 1, possibly 3; Mound 6 - 4, including 1 inhumation burial and 1 dual cremation burial, with a possible two others; Mound 7 - 8, including one dual cremation burial and possible 9 others including one dual cremation burial; Mound 8 - 1; Mound 9 - 2, a dual cremation burial (1996, 10, see also Table 5.2 and Appendix 2).

Pyre sites and pyre debris dumps were identified and discussed in Chapter 4, and the constitution and architecture of the mound will be considered in Chapter 6. Here I will be discussing pits and cists, which are more neutral terms to employ than 'burial' at this point. I will begin by describing these features as they appear at Linga Fiold (see Appendix 2 for detail of individual features). I include a note on pyre debris dumps because McKinley classifies these as a type of burial in some instances (above; Table 5.1).

Cists

Cists numbering a maximum of 36 were excavated across Linga Fiold. This total assumes cists present in 19th century excavated trenches in Mounds 5 and 6, also includes a cremation in a pottery vessel, which was placed in a cist. Cists, or stone boxes, vary in type and within the category 'cist' there are:

1. Cists built on the ground surface, sometimes with a stone base (e.g. Mound 8, cist 066), sometimes supported by few or many stones (e.g. Mound 9, cist 113). All the primary cists are built in this way (Mounds 4, 7, 8 & 9), although they themselves vary greatly in height of sides, contrast for instance the very low stones making the cist under Mound 7, and the very tall side stones under Mound 8.
2. Cists set into the ground. In some cases at Linga Fiold cists are constructed as stone boxes in the ground. None of this type of cist has stone bases, but the stone sides are fitted to the bottom of a squared cut. In the majority of cases the 'cist' is more notional – a squarish pit that often had a few stones set into the top edge to create an impression of a cist from the surface. At Mound 7, there is a particular sub-group of this type; a rounded, 'baggy' sided pit that had in each case stones set around the top in a squared formation (cists 095, 180, 183, 186, 208). There is no consistency to the location of this type, it falls in to the NW and SE of the mound, and also to the north of the mortuary structure (see Appendix 2 for details of all cists).

Pits

Pits number 36 across the whole site, including possible postholes (see below). I have included in the category of pits all negative features which do not have stones arranged around the sides. Therefore included in this category are the long grave cut (379, primary burial under Mound 5 (Figure 5.3)), and the funnel-shaped pit (384, primary burial under Mound 6), into which the steatite urn was inserted. Pits therefore vary greatly from shallow scoops to quite deep holes.

Postholes

Some features have been interpreted as postholes. These are either very small stone lined pits, which look like very small cists, or small pits with steep sides. The features that have been interpreted as probable or possible postholes were identified on the basis of two or more of the following criteria: size (should be small), depth (should be deep) and steepness of sides (should be steep) (based on experience of the form of postholes in the Orcadian domestic context); absence of cremation related material, or very small or negligible quantity attributable to a 'background scatter'; proximity to a cist or pit indicating presence of post or stone marking a burial. The postholes identified are: stone lined - Mound 7 094 and possibly 179; pits - Mound 3 363, and possibly 362, Mound 6 135 and 141 (Figures 2.16, 2.13 & 2.15).

Pyre debris dumps

Pyre debris dumps are defined by me as a surface spreads of pyre debris (i.e. not dug features) which appear to comprise redeposited pyre material, in contrast to the remains of *in situ* burning which distinguishes a pyre site (see above, Chapter 4). Four pyre debris dumps were identified: Mound 2 322/323; Mound 5 375 and 153; Mound 7 330; and three features which may have been pyre debris dumps, or might have been pyre sites: Mound 5 175 and 165 and Mound 7 452 (Figures 2.14 & 2.16).

CREMATED BONE

To begin the investigation of what constitutes cremation burial we will look first at the presence of cremated human bone in pits and cists at Linga Fiold, and consider critically this evidence in the context of the quantitative, qualitative and intuitive factors that were described in the introduction to this chapter as being employed to identify 'burials'.

Table 5.2 shows all pits and cists at Linga Fiold containing cremated bone. The burials identified by McKinley (see Table 5.1) are shown as the shaded entries on Table 5.2.

Table 5.2 *All cists and pits at Linga Fiold containing cremated bone, sorted by bone weight in ascending order. Feature types are those allocated by this author. (From site records and McKinley 1996, Table 1)*

Fill / Layer	Md No.	Feature	Type	Total wt.	No. Ind.	Age	Sex
257	4	256	cist	0.1g		?	
277	7	287	pit	<0.1g		?	
328	7	224	cist	0.2g		?	
271	7	240	pit	0.3g	?1	?immature	
265	4	356	pit	0.4g		?	
111	8	110	cist	0.4g		?	
218	7	37	cist	1.4g		?	
335	7	204	cist	1.4g		subadult/adult	
151	5	162	pit	1.8g		subadult/adult	
432	5	437	pit -scoop	1.8g		subadult/adult	
286	7	180	cist	2.4g		subadult/adult	
96	7	93	cist	2.7g		subadult/adult	
127	6	127	pit	6.7g		?immature	
250	7	95	cist	7.6g		?	
336	7	205	cist	8.3g	?1	subadult/adult	
282	7	281	pit/py site	8.5g		subadult/adult	
267	4	254 (ass. with)	cist	9.5g		adult	
275	7	276	pit	10.9g	2	1) young infant 2) older subadult/adult	
140	6	139	pit	14.8g		subadult/adult	
154	5	164	pit	15.1g		subadult/adult	
337	7	207	pit	15.4g	?1	subadult/adult	
146	6	145	pit	26.6g	?1	adult	?female
92	9	100	pit	28.2g		older subadult/adult	
138	6	137	pit	29.4g	?1	adult	
112	9	outside 50	cist	31.1g		young adult	
293	7	181	cist	31.2g	?1	Adult	
249	7	188	cist	33.2g	?1	subadult/adult	
173	5	174	cist	45.4g	?1	subadult/adult	
342	7	210	pit	55.4g	?1	Adult	??female
221	7	193	cist+urn	64.2g	1	subadult/adult	?
288, 291, 307, 310	7	190	cist	66.2g	2	1) subadult/adult ?2) immature	

Fill / Layer	Md No.	Feature	Type	Total wt.	No. Ind.	Age	Sex
121	6	129 ass. with 144/7	cist 19thC exc.	86.1g	3	1) young adult (inh. burial) 2) young infant 3) older subadult/adult	3) ??female
343	7	177	cist	153.2g	?1	subadult/adult	
373	5	374	cist? 19thC trench	156.9g	?1	Adult	?
344	7	206	pit	165.5g	1	Adult	?
296	7	244	pit	225.0g	1	Adult	?
323,3 27	7	203	cist	227.5g		subadult/adult	female
454	7	346	cist	292.3g	1	older infant	
91, 97, 98, 102	7	77	cist	383.7g	2+	>infant, adult, subadult/adult	??female
298	7	223	pit	499.8g	2	1) older infant 2) subadult/adult	?
255,2 60,26 4	4	254	cist	651.2g	1	adult/older adult/subadult	?male
69, 73	8	66	cist	1057.3g	1	adult older	?female
387, 189	6	388	urn in pit	1222.7g	1	adult older/mature	?male
61, 67, 68	9	50	cist	1455.7g	2	1) older mature adult 2) subadult/young adult	1) ?male
378	5	379 , under & =375	pit	1497.3g	1	older mature/older adult	male

Key: Shading denotes burials identified by McKinley (1996); darker shading probable burials, lighter shading possible burials. Feature numbers in bold denote primary burials.

McKinley's identification of burials includes all of the primary burials, that is the burials beneath and central to Mounds 4, 5, 6, 7, 8 and 9, and the two upper central (disturbed) secondary burials in Mounds 5 and 6. Also included are both of the urned burials one of which is the steatite vessel primary to Mound 6, and the other a ceramic vessel within as secondary cist 193 outside Mound 7. The majority of the deposits containing the cremated remains of more than one person (see below) are also included as burials.

In Table 5.2 it can be observed that thirteen burials identified by McKinley (1996) represent the features with the heaviest bone weights across the site (excluding pyre sites and pyre debris dumps). McKinley includes all the cists and pits with cremated bone weights of over 64.2g in her category of 'burials', with the exception of Mound 7 cist 177 (Appendix 2) which was excluded from the category of burial and interpreted

as a pyre debris dump. Although this feature is a cist similar to many others included in the burial category it was perhaps excluded because its contents may have appeared 'discarded' rather than 'ordered' (see above). In determining a cut-off point for which features constitute burials, McKinley has employed the extent to which the features appear deliberate or formal according to her definitions (above); therefore features 190 (two individuals, 66.2g) and 193 (cremated bone in ceramic urn, 64.2g), are the two features with the least weight of bone to be considered burials (Table 5.2).

The remainder of deposits of bone were categorised as ?unurned burial/?pyre debris dump features (Table 5.1), or generally as pyre debris dumps in the case of features that contain less than 10g bone. McKinley maintains that the status of these features with lower bone weight (here <60g) remains uncertain, because the contexts were more disturbed and the bone in poorer condition; thus an unknown amount of bone may have been lost so it can never be ascertained whether the features ever originally held sufficient quantity of bone to be termed burials (McKinley 1996). However, it can be seen that the features that contain lesser quantities of burnt bone cannot (see Appendix 2) be said to be typologically or qualitatively different from the other secondary features which *have* been categorised as burials.

McKinley's approach to the identification of 'burials' at Linga Field is therefore an example of the quantitative, qualitative and intuitive approach, based to a large degree on the quantity of cremated bone present. If a deposit of cremated bone was in a vessel, accompanied by grave goods or part of a deposit of the remains of two or more people together it was more likely to be classified as a burial, as these aspects are seen as enhancing the deliberate or formalised attributes of the deposit. The type of feature combined with the associations between cremated bone and artefacts determined the extent of the range of weights of cremated bone which are to be identified as burials at a given site. Thus a very subjective approach is taken to the identification of 'burials' despite the establishment of an apparently systematic and objective approach to the analysis of cremated bone.

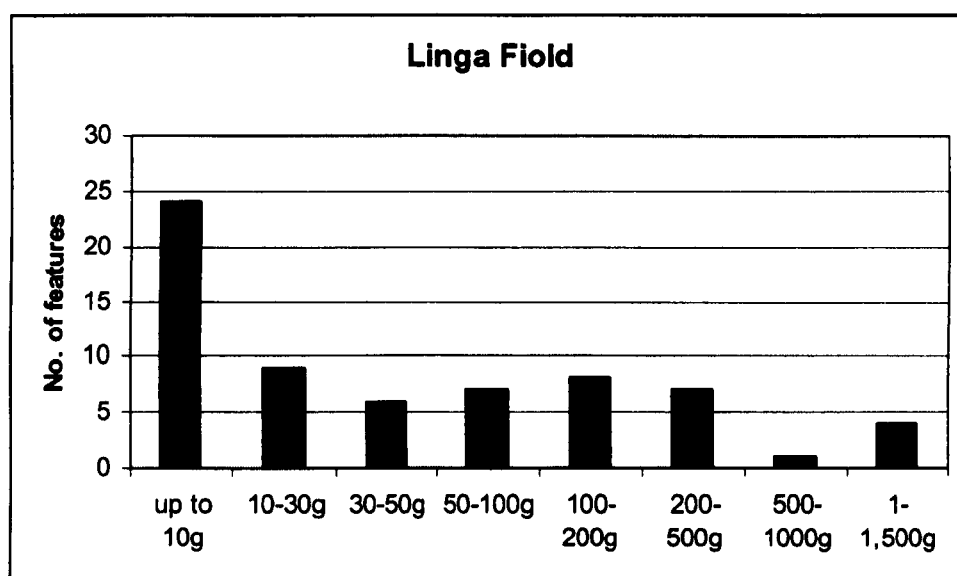


Figure 5.1 *Quantity of cremated bone from Linga Fiold pits and cists*

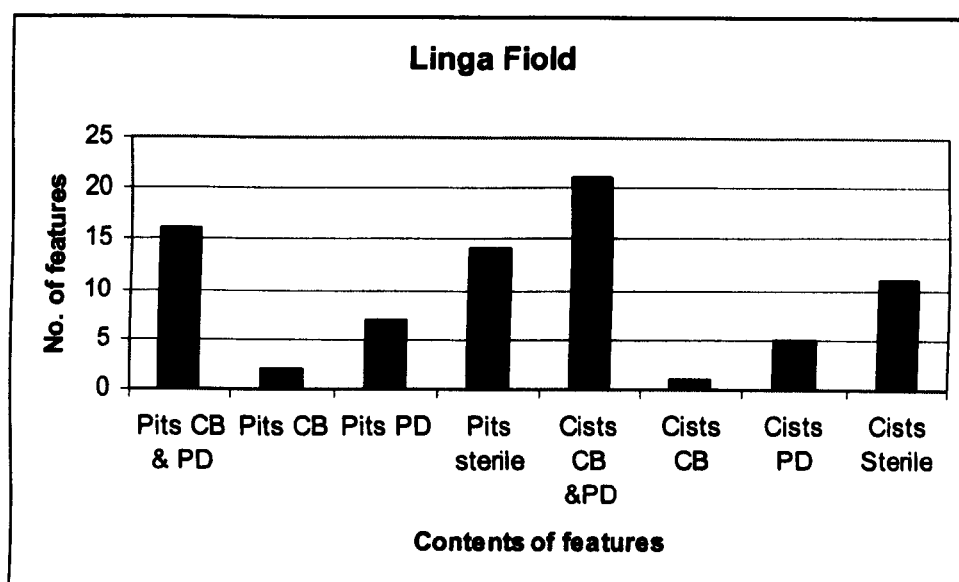
Even though the range and quality of cremation-related features at Linga Fiold are extraordinary, it is possible to see in Figure 5.1 at a glance that only a tiny proportion of burial features containing cremated bone approach the expected average weight of cremated bone for an individual. The majority of features contain <50g of cremated bone (39 of 66) and a large proportion of the cists and pits (24) contain <10g of cremated bone. The paucity of deposits of cremated human bone that achieve the expected average weight could result in the majority of the burials, primary or secondary, being termed 'token' (cf Boyle 1999). It is not surprising that cremated human bone study is felt to be frustrating, for what is 'expected' (that burials should contain the complete remains of an individual) is only occasionally realised.

CREMATED BONE AND PYRE DEBRIS

At Linga Fiold, and at many other cremation burial sites, there are features which contain no cremated bone but only pyre debris, and in some instances 'sterile' features that hold no discernible cremation-related deposits. At Linga Fiold, 37 burial features (21 pits and 16 cists) do not contain any cremated bone. Because cremation is often discussed only by the human bone specialist, features that may be related to cremation ritual will seldom be discussed in a site report if they do not contain cremated human bone. It is necessary to expand the framework of enquiry to include the full range of

features and contexts in order to advance an understanding of burial practices that is wider than the interment of cremated human bone. To this end the evidence from Linga Fiold will now be examined in more detail to this end.

The contents of pits and cists at Linga Fiold vary considerably: from features containing cremated bone and pyre debris, to features containing just one type of pyre debris, to features which contain no cremated bone or pyre debris. For the purposes of this stage of analysis I have grouped together all fuel residues - charcoal, cramp, burnt turf – as 'pyre debris' and have maintained a distinction between pyre debris and cremated bone².



Key: CB = cremated bone; PD = pyre debris

Figure 5.2 *Linga Fiold pit and cist contents, comparing amounts of cremated bone, other types of pyre debris, and 'sterile' features*

From Figure 5.2 it can be seen that in cists and pits overall, the most prevalent type of fill is a combination of both cremated bone and pyre debris, with very few features containing only cremated bone to the exclusion of pyre debris. A significant number of features contain pyre debris without cremated bone, and a surprisingly high number of features are 'sterile'.

² Appendix 2 Table 1 shows the content of each feature by weight, and by individual layer or spit within a feature. In the analysis presented in this chapter I have discounted burnt bone at quantities of <0.2g, and cramp and burnt turf at <0.5g; given the 'background noise' of cremation debris on the site (Carter 1997b), these very small quantities could be residual.

In Figure 5.2, burial features were split into pits and cists in order that any distinctions that were being made between the type of materials being put into the two types of features could be observed. What appears quite clear in Figure 5.2 is the similarity between the pattern of fill types for the two types of features. This is indicative that both cists and pits were conceptually similar, and that a cist was not preferred over a pit for the burial of any of the types of pyre remains. Even though a cist is a built structure in contrast to a pit which is a hole in the ground, it is not possible to see a distinction being drawn between a cist and a pit in terms of the former being a more 'formalised' burial.

McKinley asserts that although

There is evidence for mixed deposits of pyre debris and cremated bone comprising burials from some Roman cemeteries in Hungary.....this form of burial does not correspond with those generally encountered in the British Isle[s] (McKinley 1996, 6).

However the evidence from Linga Fiold as displayed in Figure 5.2 shows to the contrary not only that the 'burial' could comprise mixed deposits of pyre debris and cremated bone, but that deposition of pyre debris alone was part of routine practice.

My designation of contexts as 'sterile' (Figure 5.2) is worthy of further explanation at this point. Sterile is the term given to features at Linga Fiold which had no quantifiable pyre debris. In some features the fill was black or 'ashy' but the 'ash', or minute fragments of charred fuel, did not survive the wet sieving as the fragments were too small for the sieve meshes. In some cases (see above) features have been interpreted as postholes marking burials and would not be expected to have cremated bone or pyre debris within. However, a significant feature of some of the 'sterile' features is the occurrence of 'burnt clay', which I had at first assumed might have been poorly fired or poorly preserved pottery, but have since re-interpreted as part of the pyre, either a burnt clay subsoil underneath the pyre, or the red, oxidised upper crust of the pyre sites such as those seen at pyre site 347/455, and 152 (above, Chapter 4). From Mound 7 pyre site 347/355 (Figure 4. 1) a quantity of 'burnt clay' was also recovered (Appendix 2, Table 1).

Further supporting evidence of the presence of this almost invisible part of the pyre came from the Knowes of Trotty. Quantities of burnt soil, within which no identifiable 'pyre debris' could be seen, were deposited in particular ways. Through the limited excavation that took place in 2002 this soil was found in a series of more or less evenly spaced dumps upon the berm around Mound 1 and in a large spread to the north west of the mounds (Trench A, Figure 2.23; Figure 2.24). This material was only detected because the evaluation trenches at the Knowes of Trotty were positioned on the basis of magnetometer survey (Downes et al 2001), and the progress of investigation was guided by magnetic susceptibility meter readings. The burnt soil is extremely difficult to see as it is almost indistinguishable from the subsoil, and only really is identifiable by its magnetic signal. Soil micromorphology was also necessary to clarify the deposits in Knowes of Trotty Trench A (Guttmann 2004). This situation is paralleled at Linga Fiold in the soils report, where Carter (1997b) detected minute fragments of cramp and bone under the microscope in an area under Mound 5 which had appeared barren of pyre material in the field.

Therefore almost all of the cists and pits at Linga Fiold contain remains of the pyre, whether that be cremated human bone, animal bone (see below), cramp, burnt turf, ash and charcoal or burnt soil, or a combination of any of these. This indicates strongly that rather than being the burial of a person or individual, the deposition of cremated remains is the burial of an *event*, of a ritual sequence, and of the artefacts of a collaborative venture.

It should not surprise that it is rare to recover the complete expected average weight of bone of an individual for it is apparent that complete recovery of all cremated bone was not the goal. It is possible to observe from the Linga Fiold pyre site evidence that substantial quantities of cremated bone were left on the pyre (Chapter 4), usually lying uppermost on the surface of the pyre from where it could have been collected with little difficulty.

It is worth noting the larger amounts of bone in the primary burials at Linga Fiold at this point, and this is a feature which can be seen in other Orcadian cremation cemeteries. McKinley (1996) observes that there are quite substantial differences between the weights of bone from the 'primary' burials compared with the 'secondary' burials. The

primary burials at Linga Fiold range in weight from between 292.3g (cist 346, older infant under Mound 7) to 1497.3g (pit 379, adult male under Mound 5) and as such have a much higher average of bone weight than secondary burials. The noticeably larger weights of bone present in the primary burials adds to a growing corpus of data collected by McKinley 'demonstrating that consistently high weights of bone are recovered from Bronze Age central barrow burials compared both with other types of contemporaneous cremation burials' (McKinley 1996, 19; also Boyle 1999, 176).

Two observations are to be made from the Linga Fiold evidence with reference to this issue. The first is that even the well preserved primary burial with the largest quantity of bone (Mound 5 total weight 1497.3, of which 164.4g cremated bone was deposited amongst pyre debris over the lid of pit 379, see Table 5.2 and Appendix 2, Table 1; Figure 5.3) was not 'complete'. Examination of the identified bone fragments from both the pit and overlying deposit suggested to McKinley that a proportion of bone from the individual was not included in either context, but must have been deposited in a third location (McKinley 1996); the 'missing' cremated bone may well have been left on the pyre as is the case with extant pyre sites at Linga Fiold.

The second observation is that primary burials at Linga Fiold do not just contain a greater quantity of cremated bone, they contain more of every other part of the pyre – more cramp, more burnt turf, more charcoal (see Appendix 2, Table 1). At other Orkney barrow sites where the fills of burial features have been recorded and analysed in detail this can also be seen to be the case, for instance at Gitterpitten and Varne Dale (Appendix 3) and at Mousland (Downes 1994).

Primary burials therefore often contain a greater quantity of everything, but these burials could still be referred to as 'token' because they are not complete but contain a representative portion of all parts of the cremation pyre. The term 'token' could be said to adequately describe either primary or secondary burial deposits in the sense that the deposits are representative.

However, if we return to the ideas introduced above (Chapter 4) of the act, or practice, of the creation of the cremated materials, as the creation, or maintenance, of the inalienable relationship between the technologists (the living) and the dead, the concept

of the cremated remains as fractal rather than representational is more appropriate (Chapman 2000). To Chapman, after Wagner, the fractal is inalienable and the representational alienable; representational objects are separable or separated from 'the life process which created them out of persons' (Chapman 2000, 32,) and therefore become alienable. Alienability incurs a loss of personal values and symbolism (ibid, after Gregory). From the evidence from Linga Fiold and other sites I would argue that a 'burial' is not solely of, or representative of, an individual but that it is of, or a symbol of, the whole cremation ceremony and of the people who were part of that ceremony.

THE BURIAL PROCESS

Variation in contents of pits and cists occurs in the quantities and combinations of the different elements of pyre remains. Taking Linga Fiold Mound 7 as a unit of analysis, let us examine the contents of the features in more detail, breaking down the 'pyre debris' into its constituent parts:

Table 5.3 *Linga Fiold Mound 7: different types of pyre debris by feature type*

Contents	Cists (feature numbers)	Pits (feature numbers)	Total
CB, CR, CH, BT	37, 77, 93**, 95, 181, 190, 203, 188, 180**	207, 223, 240**, 243, 330, 278	16
CB, CH, BT	205, 224, 346**	210**	4
CB, CR, BT	193		1
CB, CH		244	1
CB, CR	177	276**	2
CR, CH, BT	209		1
CR, CH	187	191, 229	3
CH		176**, 206	2
ST	183, 184, 185, 182, 179, 178	457, 348, 340, 314, 208, 78	11

Key: CB = Cremated Bone, CR = Cramp, CH = Charcoal, BT = Burnt Turf, ST = 'Sterile', ** = burnt clay.

From the analysis of contents of Mound 7 features, it can be seen that features with all types of pyre debris (cremated bone, cramp, charcoal and burnt turf) are the most common, followed by those apparently sterile, or with no visible pyre debris. Other pits and cists have one, two or three parts of the pyre in various combinations. Just as the quantities of cremated bone vary greatly, so do the quantities of pyre material (Appendix 2, Table 1). Some features contain just a small amount of each type of pyre

debris including cremated bone, while others contain disproportionately large amounts of one type of debris e.g. burnt turf or cramp and small amounts of other types.

I suggest that what we are seeing is all types of debris from one pyre distributed between a range of features. As we have seen from the extant pyre sites substantial quantities of cremated bone and pyre debris can remain at the pyre sites. Smaller quantities of pyre debris can remain on a dump where sorting may have taken place, and some pyre debris may have found its way into existing hollows and features in the cemetery (see also McKinley 1997a). We have established that pyre debris was also buried in pits and cists; in some instances, if not commonly I suggest that the remains from one pyre were deposited selectively in a suite of features.

It is uncommon to be able to prove association between the fill of one feature and another, and so to be able to map the distribution of the remains from one pyre amongst a range of features. The central burial underneath Mound 5, 379, (Figure 5.3) where bone from underneath the grave slab conjoined bone from pyre debris (McKinley 1996) deposited over the grave slab (375) (Figure 5.4), is the most clear example of association between one burial deposit and another, and also of the differential treatment of pyre material (see below, Chapter 6).



Figure 5.3 *Mound 5 primary burial: grave pit 379 containing cremated bone and cramp*



Figure 5.4 *Mound 5 primary burial: pyre debris in low heap over slab covering grave pit 379*

Some secondary burial features may be associated with primary burials in that cremation remains not deposited in the primary burial could be contained within secondary features. In the secondary burial features it is difficult to detect which or how many features contain the remains of one cremation.

However the multiple burials and pyre sites (see below) are rarer and more distinctive making this type of association more possible. One example of association between pyre and burial features is the cist 121 inserted into the top of Mound 6 (Appendix 2, Table 1) which contained a multiple burial and was situated adjacent to a multiple pyre site, 144/7. The close proximity of these features, and the close coincidence of the number of individuals identified and their ages suggest that the remains on the pyre and within the cist are from the same event.

To the north of Mound 7, cist 190 contained the remains of a subadult/adult, and an older infant; immediately to the north of this cist was a pit, 223, containing the remains of a subadult/adult and an ?immature individual (Figure 2.16; McKinley 1996). The close physical proximity to one another of these features and the similarity in the number and ages of the individuals are suggestive of both features containing the partial remains of one pyre. Furthermore, the quantities of the various types of pyre debris in these features are in inverse ratios:

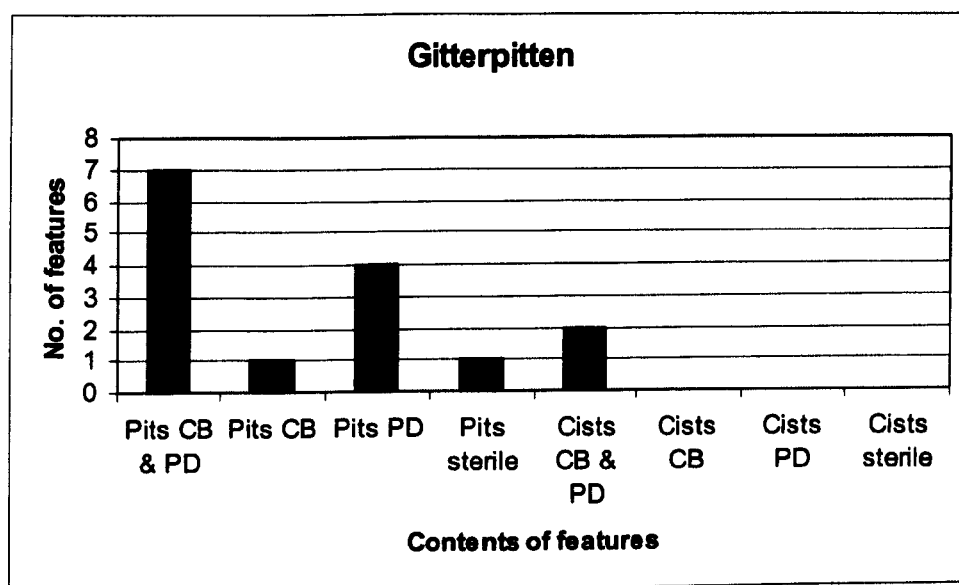
Cist 190:	66.2g bone, 520g cramp, 88g burnt turf, small amount charcoal;
Pit 223	499.8g burnt bone, 112g cramp, 3.14g burnt turf, small amount charcoal.

The pit contained the larger amount of cremated bone, and the cist the larger amounts of cramp and burnt turf. It is possible that in these two features we are seeing a similar careful separation of material from one pyre into these two features that was seen in Mound 5 burial 378/5. This will be discussed further in Chapter 6 in the context of structuring the burials.

There are other examples of pairs of features around Mound 7 where the close proximity of the features to each other, and the nature of the contents would suggest a similar separation of debris into different features, for instance cist 203 and pit 340, and cist 177 and pit 176 (see Appendix 2, Table 1).

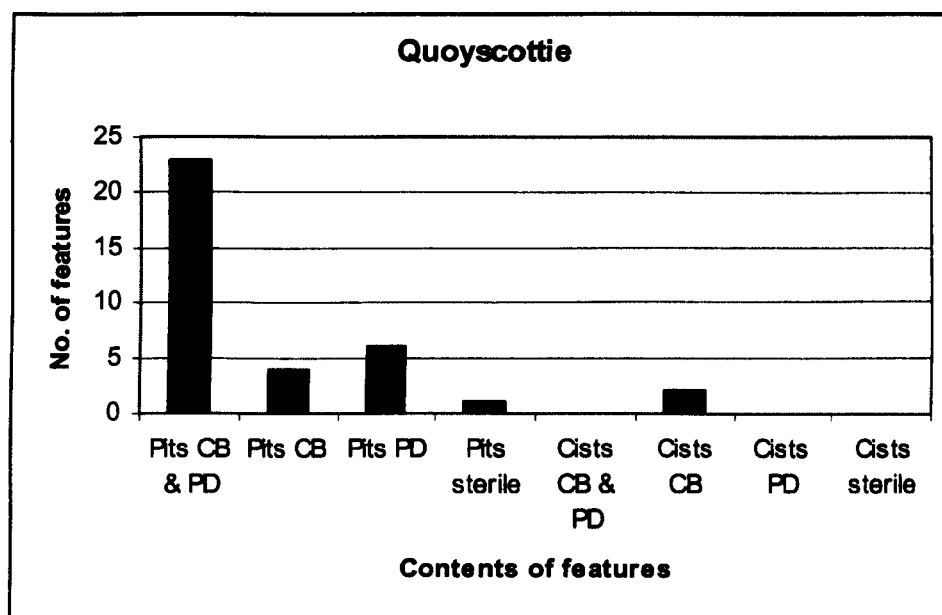
GITTERPITTEN AND QUOYSCOTTIE

Although Linga Fiold is rare in the variation in content of features, and the extent to which we can observe the process of the sorting and selecting of parts of the pyre for differential burial, it is worth examining two other Orcadian sites as part of this line of enquiry; Gitterpitten (Chapter 2; Appendix 3), and Quoyscottie (Chapter 2). These two sites are very similar to one another in several respects: they both comprise several small, closely grouped mounds; both have cists only as primary burials and a mass of secondary pits containing cremations in a fairly discrete area; they both have one mound with no primary burial within or underneath it ('cenotaph' barrows, see Chapter 7).



Key: CB = cremated bone; PD = pyre debris

Figure 5.5 *Gitterpitten pit and cist contents, comparing amounts of cremated bone, other types of pyre debris, and 'sterile' features*



Key: CB = cremated bone; PD = pyre debris

Figure 5.6 *Quoyscottie pit and cist contents, comparing amounts of cremated bone, other types of pyre debris, and 'sterile' features*

The patterns for Gitterpitten and Quoyscottie can be seen from the charts to be quite similar to one another (Figures 5.5 and 5.6). Pits containing both cremated bone and pyre debris dominate, and at both sites there are several pits containing pyre debris with no cremated bone. The cist contents for Quoyscottie are listed as containing cremated bone only; this is an assumption in the absence of any pyre debris being mentioned in the published report.

The pattern for Linga Fiold (Figure 5.2), Gitterpitten (Figure 5.5) and Quoyscottie (Figure 5.6) of pit fills is remarkably similar, apart from 'sterile' pits which are much fewer in number at Gitterpitten and Quoyscottie. The pattern between the three sites for the cists is different, principally because there are fewer cists at Gitterpitten and Quoyscottie, and the cists at both these sites are primary burials, which invariably contain cremated bone, whether with or without other types of pyre remains.

It can be said that, as is the case at Linga Fiold, at Gitterpitten and Quoyscottie, 'burials' can be deposits containing a mix of cremated bone and pyre debris (i.e. all parts of the

pyre). Burials can also comprise only pyre debris, or can be dominated by cremated bone.

A similar pattern can be traced at other Orkney sites. At Loth Road, Sanday, a Bronze Age cremation burial site comprised a small area of eight pits and two cists later covered by a cairn ring (Sharman forthcoming). The pits and cists contained pyre debris (cramp, burnt turf and charcoal) and one of the cists contained a complete steatite urn. The site is interpreted as an agglomeration of features containing the distributed remains of probably only one pyre (ibid). It is an easier task to identify the distribution of parts of the pyre between a number of features at Loth Road than Linga Fiold as it is a much smaller, more discrete site. Burnt turf was recovered from three of the pits (c. 10-20g). A mass of charcoal was recovered from a different pit (c. 35g). A large quantity of cramp was recovered from one of the cists (356g). These finds were made almost totally to the exclusion of one another, for instance there was no charcoal at all in either cist. The total weight of the cremated bone was only 13g, distributed amongst the pits and cists in very small quantities.

The practice of burying pyre debris is not peculiar to Orkney, and a browse through many an account of the excavation of a barrow or ring ditch cemetery indicates the presence of pits and other features containing pyre debris, large variation in amounts of cremated bone, and apparently sterile though obviously associated features. Features in this latter category usually receive scant attention, as do features with small amounts of pyre debris and no cremated bone. Smaller quantities of burnt bone within features is often attributed to poor preservation. The focus of detailed description and interpretation is almost without exception those features that contain greater quantities of burnt bone and/or funerary urns or other 'grave goods'.

In many excavation reports it is hard to ascertain the nature of a fill of a feature if it was not found to contain burnt bone; it is simply not mentioned, let alone described (cf Bewley et al 1992). To undertake a regional study of the nature of 'burial', and whether the burial of the pyre is a widespread phenomenon would entail visiting original site archives. Such is the level of pre-determination of what is important about what we deem a 'burial'.

An example from further afield relevant here is Knighton Heath, Dorset (Peterson 1981) which was a well excavated barrow covering and surrounded by many pits containing Deverel Rimbury urns, cremated bone pyre debris, stake holes, upright slabs. At Knighton Heath, Peterson notes that 55% of the 'burials' at the site have less than 25g of bone (ibid), which is fairly comparable with the 46% of 'burials' at Linga Fiold containing less than 25g of cremated bone. There is also considerable variation at Knighton Heath in the types of features and their contents. Of the c. 60 cinerary urns discovered 17 were primary to the barrow, 45 secondary, and 2 in an area of flat ground to the S of the barrow. Of these, 94% of the primary urns contained cremated human bone, 59% of the secondary urns contained cremated human bone and 0% of the other urns contained cremated human bone (Peterson 1981, 184). I suggest that at this site, as in the Orcadian examples, the quantities of pyre debris were being buried in urns (recorded as charcoal, dark sand, burnt flint, burnt stone), accounting for the absence, or greatly variable quantities, of cremated bone in many contexts. Interestingly Peterson (ibid) observes that some of the (primary) urns appear 'paired' in that, of two urns in close proximity, one may contain a larger quantity of cremated bone, and the other little or none. There are also many pits at Knighton Heath containing pyre debris and no cremated bone.

I take it that this is evidence that the practice we are identifying in Orkney of the sorting of the debris of one pyre and its burial in a number of features and locations can be identified as very widespread. There is a resistance to the idea that pyre debris could be accorded the same type of burial as cremated human bone which is evidenced at Knighton Heath: where urns do not contain cremated bone Peterson finds it difficult to believe they were buried 'empty', and attributes the lack of cremated bone to poor preservation (ibid, 181). As has already been discussed above McKinley (1996) also cites poor preservation as a reason why features at Linga Fiold contain only small amounts of cremated bone although they are otherwise similar to features identified as 'burials'.

MULTIPLE BURIALS

For some time now the theory that Neolithic burial was a communal affair whereas Bronze Age burial rites celebrated the individual, a corollary of this being that the

juxtaposition of the individual burials reveal status and the structure of society, has been challenged. The increasing frequency with which barrows excavated under modern conditions have revealed multiple inhumations and cremations is just one aspect that is causing some to rethink. But it still appears to be widely accepted that 'cremation burials' are generally all about the burial of a cremated individual.

It is apparent that the time to problematize not just the 'burial', but the 'individual' in the context of Bronze Age cremation is overdue. We will be continuing this line of enquiry by closely examining burial practice through funerary architecture below (Chapter 6). Before that, we will move from discussion of the burial of the 'individual' to the investigation of the burial of more than one cremated person, and of cremated animals.

Continuing the quest to examine what it is that is being buried, I will turn now burials of more than one cremated person. Six or seven contexts at Linga Fiold contain the remains of more than one individual (Table 5.2), and this practice is not unique to Linga Fiold. Both these factors – the fragmented, partial burial of an individual and the burial of more than one individual challenges the concept of burial rites being accorded an individual.

The multiple cremations burials at Linga Fiold are:

Mound 9 cist 050, an older mature adult (possibly male) with a subadult/young adult.
 Mound 7 cist 077 contained an adult (possibly female), a subadult/adult and an infant,
 Mound 7 cist 190 contained a subadult/adult with an immature/older infant.
 Mound 7 pit 223 contained a subadult/adult and an older infant.
 Mound 7 pit 276 contained an older subadult/adult and a young infant.
 Mound 6 pyre site 144 on top of mound with an adult and an older infant. Probably related to 129 disturbed cist set into top of mound, were remains of an adult (possibly female), a young adult (unburnt), and a young infant.

Excavations at Gitterpitten and Varne Dale revealed multiple burials of cremated remains: at Gitterpitten the primary cist (1040) of Mound 4 contained the remains of three individuals (an adult male, an adult and a younger child), and a pit (1037) cut into Mound 4 close to the primary cist contained the remains of an adult female and an infant; at Varne Dale the primary cist (2007) within Mound 1 contained the remains of an adult male and older juvenile (Roberts 2000; Appendix 3).

At the Knowes of Trotty (Card and Downes 2002) four cists and a pit were excavated within a tightly packed group of cists and pits between mounds 8 and 9 (Trench F, Fig 2.23). The cremated remains of a minimum of 10 individuals were identified (Roberts 2004). Two of the cists (056 and 059) contained the remains of three individuals, while the other features contained the remains of one individual. Cist 056 contained the remains of one adult, one child/adolescent and one infant. Cist 059 contained the remains of one young adult, one child and one young infant.

A recently excavated cist within a mound at Ferndale, Rendall contained the cremated remains of an adult female and two immature individuals (Roberts 2004). The primary cist excavated within the barrow at Queenafjold contained the cremated remains of two adults, possibly a female and a male (Chapter 2; Ritchie and Ritchie 1974).

Of the twelve barrows investigated at Quandale, Rousay (Grant 1937) Mound 12, Tafts, was an outlier to all the groupings of barrows. The primary cist of this barrow contained the cremated remains of at least three individuals, identified as two adults and a child (Low in Grant 1937).

McKinley comments (1996) that dual cremation burials most commonly include an adult or subadult, of either sex, with an immature individual, though two adults together do sometimes occur. All the Linga Fiold all examples of multiple burial include an adult and a younger person or infant, as do all the occurrences of the practice from Gitterpitten, Varne Dale, the Knowes of Trotty, Ferndale and Quandale, the only example of two adults together, and an absence of child or infant, being Queenafjold.

Multiple inhumation burials are common in the British and Irish Bronze Age, and in Orkney as well as elsewhere multiple burials containing both inhumations and cremated bone occur frequently (cf Peterson et al 1974; Waddell 1990). In Orkney the multiple burials of cremated and inhumed persons are usually separate deposits made over a protracted length of time into unobtrusive cists (see Chapter 2). What is at issue in the context of this chapter, and for others studying cremated bone and cremation burial (cf Peterson et al 1974; McKinley 1996; Roberts 2000) is whether the occurrence of multiple cremated individuals constitutes burials of multiple cremations or the placing

together in one deposit of bones which have been cremated on separate occasions. Multiple cremation burials have been interpreted variously as cremations where more than one individual have been on the same pyre together (McKinley 1996; Roberts 2000), or as individuals cremated on separate pyres and then stored until interred together (Roberts 2004), or as the storage of the corpses until multiple cremation is undertaken (Peterson et al 1974).

In all instances of multiple deposits of cremated remains at Gitterpitten and Varne Dale (Roberts 2000) and the Knowes of Trotty (Roberts 2004) the individuals were all thoroughly mixed, as though they had been on the same pyre together. At Queenafjold a pile of cleaned cremated bone was separated from pyre material and covered by a stone potlid. It is not known how mixed the cremated bone itself was, and data from Ferndale was not available.

At Linga Fiold the two individuals in Mound 9 cist 50 were thoroughly mixed, and it appeared that the other multiple burials were also mixed, as are the majority of dual/multiples cremated bone deposits (McKinley 1996). There is however one clear instance, Mound 7 cist 77 (see Appendix 2) where the individuals buried in the same cist were not mixed at all and probably were burnt on separate pyres: one of the lower fills (97) contained the remains of a subadult/adult, and the fill above, which was quite distinct (91), contained the bones of an infant. Again at Mound 7, cist 190 contained the remains of two individuals, a possible immature individual and a subadult/adult of which the younger individual was within the lower fills (307/291) and the elder in the upper fills (291/288) – although in this case the partial mixing of the upper and lower fills leaves the instance open to question (Appendix 2, Table 1). Peterson et al (1974) cite examples from across Britain both of the mixing of cremated remains, and of the separation of the cremated remains of more than one individual within the same feature.

What is important to note here is that at Linga Fiold, even when the individuals were definitely or probably cremated separately but deposited in the same cist together, *the partnering of an adult or young adult with an infant or child still occurs*. A further example of this coincidence is the primary deposits under Mound 7, where the cremated remains of an older infant are interred in a cist (346) immediately adjacent to the pyre site (347/455) upon which the bones of an adult female lie (Figure 4.1).

13% of all pits and cists at Linga Fiold containing cremated human bone (all weights) are multiple burials, but 21% of pits and cists with bone weights over 10g are multiple – it could be said this is a quantity of bone over which identifications of multiple burials are easier to make. 22% of flat pyre sites at Linga Fiold (two of nine) contain the cremated remains of more than one person. These are very similar percentages and I would argue that, given the information from the Linga Fiold pyre sites, and the fact that the majority of pits and cists containing multiple cremations at Linga Fiold and elsewhere the fills are thoroughly mixed, in the majority of instances the individuals interred together were also on the pyre together. Furthermore there appears to have been a fairly high incidence of multiple cremations, perhaps as much as 20%.

McKinley is of the opinion (1996, 1997a) that in the majority of instances of multiple burial, in Orkney and wider afield, the individuals were cremated together on the same pyre. Although McKinley does cite some examples (1997a) of instances where, as at Linga Fiold, the context information made it clear the individuals were interred separately in the same feature this does appear a rarer type of multiple cremation burial (see also Peterson et al 1974). Roberts (2004) found evidence at the Knowes of Trotty of the mixing together of the bones of different individuals within the features with multiple burials and does consider that this mixing indicated that all individuals within a single feature may have been cremated together or at the same time. However, she finds this less plausible as an explanation than if the individuals were cremated as they died, the remains stored until the death (perhaps of the family member with whom they were to be buried), and mixing of the bone took place at interment. Roberts' reluctance to accept the prevalence of multiple cremation burial is because the consistency of the pattern of the burial of older and younger individuals being buried together is at odds with the likelihood of frequency of these individuals dying at the same time suggested by the burial evidence (ibid).

Neither Roberts or McKinley consider the scenario of unburnt bodies being stored until multiple cremation is undertaken (cf Peterson et al 1974) because the appearance of the cremated bone indicates to them that the bodies were burnt with the flesh on, i.e. in a condition that can be maintained for only a limited time after death. Although this is the interpretation I am following, it is an area of analysis that clearly needs further work, as

it is key to the staging of cremation rites (see Chapter 8). McSweeney (in Neighbour forthcoming) casts doubt on the applicability of the experimental work to archaeological contexts, upon which the premise that green rather than dry bones are cremated, and tellingly is the only specialist to interpret an Orkney find (Bu Farm, Rapness) of cremated bone as having been burnt when dry and fleshless (McSweeney in Barber et al 1996).

There are other alternative interpretations of the phenomenon of multiple cremation burial I will suggest, which are not as far fetched as they may appear given the alternative and unexpected ways of manipulating and storing the dead found on South Uist (Parker Pearson et al 2004).

First, there was a method by which bodies could be stored in a fleshed state for some time until another individual died with whom it was appropriate for them to be cremated. It is possible that there was storage of human bodies prior to cremation; for instance the mortuary structure at Linga Fiold could have been a place where corpses were prepared, and perhaps stored. It is not, however, likely that corpses could have been stored for long before the flesh rotted and fell away, or alternatively became desiccated, unless the kind of 'wet' mummification where the corpse is placed in a bog as suggested by Parker Pearson took place in South Uist (Parker Pearson et al 2004). This type of mummification preserves skin and tissue, and the cremation of such a corpse may produce cremated bone that appears to have been burnt 'green' or still fleshed.

Second, there was movement and possible exchange of the deceased between communities providing a more extensive range of deceased and enabling the appropriate grouping of individuals for burial. It is accepted that there is movement or 'circulation' of human remains in the Neolithic as evidenced by the partial nature and variable condition of the bones found in chambered tombs (cf Woodward 2000). This phenomenon is interpreted as mortuary rites which took place over a long time, involving perhaps the excarnation of a corpse and the movement of parts of the remains, even from one tomb to another. It is possible that, in the Bronze Age the 'objectification' of the dead discussed above (Chapter 4) was initiated prior to cremation and that a corpse could be laid claim to by, or proffered to, another community. Such movement could be associated with kinship or descent. With regard to

this proposal, a detailed programme of DNA and isotope analysis would have to be undertaken on a broad scale before that line of interpretation could be pursued.

Third, on occasion an individual/s may have been sacrificed in order to fulfil the requirements of ritual. The third proposal may sound far fetched, but is a possibility. Indeed it is a scenario that has already been raised by Ashbee (1960) concerning double adult burials of male and female. He suggests (*ibid*, 174) that this coincidence might be the outcome of suttee, and that satellite burials could be the deposition of sacrificed spouses, dependents or slaves. Fox pronounced confidently (1959) that human sacrifice, particularly child sacrifice, was being practiced in Glamorgan in the Bronze Age. Waddell (1990) suggests that deposits of cremated bones on top of inhumed burials in some of the Irish Bronze Age examples may have been sacrificial. Cremation as sacrifice has been introduced above (Chapter 4), where it is stated both that cremation as sacrifice can be symbolic, and that historically both people and animals (as well as goods) were sacrificed to accompany a deceased individual on the pyre (cf Parker Pearson 1999). Given the strands of evidence that we have been following, the possibility cannot be ruled out that animals and people were sacrificed in the Bronze Age (and here 'sacrifice' may be actual or metaphoric), and that sacrifice is related to the multiple cremations, the demographics of which contradict expectations either of the evidence for the staging in time of events which suggests cremations were almost always undertaken when the bodies were fleshed (therefore soon after death), or of the expected mortality profile. To explore this possibility, we may find the occurrence of cremated animal bone in cremation deposits of help.

CREMATION OF ANIMALS

Cremated animal bone is not uncommon in Bronze Age cremation burials occurring on average in 15% of burials across Britain (McKinley 1996). In the case of the Orkney sites under discussion cremated animal bone has been found at:

Linga Fiold	Mound 4 primary cist 254, Mound 5 primary pit 379, Mound 9 primary cist 50 (dual cremation burial) – all species unknown
Gitterpitten	Mound 4 primary cist 1040 (dual cremation burial) – adult sheep/goat
Varme Dale	Mound 2 primary cist 2007 (dual cremation burial) – immature sheep/goat
Queenafjold	primary cist (dual cremation burial) - deer
Quoyscottie	Knowe 3 primary cist – species unknown, possibly small carnivore
Holland	Primary cremation – ‘quadruped the size of a sheep or large dog’ (Luke in Neil 1981)

It is noteworthy that in several of these instances, animal bone occurs with the multiple human cremations, and when a cremation containing animal bone is not a multiple burial it is invariably a primary burial. Within the sites under consideration here animal bone is only found in primary burials, and of these primary burials, four out of seven are multiple burials. Of the sites at Gitterpitten and Varme Dale Roberts comments that it may be significant that animal bone was included only in the burial with more than one individual, but says that the sample size (of these two sites) is far too small to draw any conclusions (Roberts 2000, 22). However, the frequency of association of animal bones with multiple cremation burials has been noted in the past in a Scottish context (Peterson et al 1974; Shepherd and Cowie 1979). The recently excavated contents of an urn within a rock shelter at Glennan, Kilmartin, Argyll and Bute were found to contain the cremated remains of an adult male human and cremated sheep/goat (MacGregor 2003). MacGregor cites other Scottish examples of the occurrence of cremated human and sheep/goat bone, and views this as the selection of domestic animals as appropriate for cremation burial rites, the finding being paralleled by the occurrence of pig remains with inhumations (2003, 14).³

It would appear to be the case that sheep/goat are the only domesticates identified as associated with cremation burials, but there are also wild species represented, such as the deer identified at Queenafjold and Sand Fiold (McKinley in Dalland 1999). A notable and unexpected feature of the animal bone assemblage at Skaill, Deerness, was the ‘apparent importance’ of deer, the frequency of bone from the site almost matching sheep as the most prevalent (Buteux 1997, 30). The significance of deer to the subsistence economy at Skaill led to a reassertion of the idea that Bronze Age deer were not ‘wholly wild’ but were managed (ibid). A very recently discovered example of non-human remains of wild species with multiple cremation comes from Skilmafilly,

Aberdeenshire, where 29 pits contained cremated remains of 35 individuals, one urn containing the cremated remains of two adults, a child, and two golden eagle talons (Reynolds 2004).

Where the data is available, like the majority of the human remains, the animal remains appear mixed thoroughly through the burial, suggesting that the animals were cremated together with the humans (cf Roberts 2000; 2003). The one exception to this is possibly the cremated bone deposit in the cist primary to Knowe 3 at Quoyscottie, where the human bone and the animal bone appeared separated into two 'heaps' (M E Hedges 1979, 136). Such intimacy of human and animal remains reminds that in non-Western society personhood often extends to non-humans (cf Ingold 2000; Fowler 2004; Brück 2004), which why animals can be referred to as 'non-human persons' (cf Ingold 2000).

Animals may have been sacrificed as part of cremation rites, whether slaughtered and burnt whole on the pyre, or butchered and consumed as food by the mourners after which the remainder was put on the pyre. Roberts (2003) identifies butchery marks, perhaps from skinning, on the cremated remains of the sheep/goat from Glennan, Kilmartin which indicates that some of the animals were butchered or at least skinned before being put on the pyre. In discussion of Iron Age Scandinavian funerary rites, Oestigaard (2000b) describes how corpses could be 'butchered' or dismembered to be 'served' raw, or 'cooked' through cremation. Oestigaard (ibid) suggests that these ways of treating the dead relate perhaps to sacrifice. In the Bronze Age context we have already observed cut marks on both cremated and unburnt human bone (Chapter 4); the parallel preparation of animals, who are routinely treated and prepared in this manner for food, and humans in the funerary context does I think lend weight to the idea of the cremation as sacrifice.

CREMATION BURIAL AND PERSONHOOD

It is clear that an overly narrow emphasis has been placed on cremated, human, bone in examinations of cremation burial. Shepherd (1999) identifies the problems inherent in this approach to cremation burial in her research into Finnish Iron Age cemeteries. She observes that, because archaeologists focus on a search for 'individual' burials and

³ Although in Orkney a single adult female inhumed in an unobtrusive cist at Lopness, Sanday was

analyse these separately, other types of features and contexts are disregarded and thought of 'uninterpretable' (ibid, 14). Shepherd attributes this approach to the inability of archaeologists to escape their own, Western-centric, concepts of the individualism (what Battaglia refers to as the 'auratization' of the individual (1999, 136)), and their consequent propensity in seeing mortuary rites as a means to create and preserve the identity and memory of an individual.

Shepherd is right to identify this as a problem, for as we have discussed (Chapter 1) this ethnocentric view has hampered the investigation and interpretation of Bronze Age cremation rites, and indeed continues to do so. What the evidence from the Orcadian sites emphasises is that the search for what constitutes a 'burial' is fruitless if one only looks at human remains, for what we are seeing is the burial of the *cremation* rather than the burial of the *individual*.

Through cremation, bodies and fuel fuse and fragment, they become one and yet remain separable in many configurations. The person appears depersonalised and unrecognisable through the process, and the fuels become personalised as they attach to the body and change substance. The degree of control of the bodies and the resources, and the extent to which they are manipulated is excessive. The treatment of the body prior to cremation, the agitation of the body in the tending of the pyre, and process of the meticulous sorting of the pyre debris are activities which serve to fragment the body/ies, and the fuels. The burial of the parts is the defragmentation; the architecture of the burial is key to interpretation of this reconfiguration and will be examined on the next chapter.

The treatment of the dead as we have examined it so far through cremation and aspects of the burial of the remains is providing clues as to the nature of personhood in the Orcadian Bronze Age. In his treatise on personhood, Fowler describes three types (or modes since there is dispute as to how clear cut or exclusive these are) of personhood, and associates each with differing 'ways of death' (Fowler 2004, 96): a Euro-American type where clearly-bounded individuality is supported by the memory of the intact person and possessions intimate to them may be passed on; a type based on Melanesian personhood which draws on partibility, in which the person is completely fragmented

accompanied by two inhumed lambs placed on her feet (Johnstone, forthcoming; Appendix 1).

after death, dispersed into the social and material world; and a type based on the Hindu permeable person where treatment after death draws the elements that create the universe – fire and water – through the person, and where parts of people are not kept but permeate the universe.

Although the Hindu Balinese cremation is used as a case study of cremation in this thesis, that is not to say that a parallel is being drawn between the permeable Balinese person created from the cosmos and released back to the cosmos, and the Orcadian Bronze Age person, the treatment of whose remains through the processes we have detailed appears more akin to the ‘the decomposition and recombination of the person [which] are constant features of social life in partible relations..’ (Fowler 2004, 100). For Fowler, partibility encompasses the reconfiguration of the person ‘so that one part or more parts can be extracted...’; a state in which ‘[p]arts of oneself originate in and belong to others’ (op cit 9), and in which partibility exists in tandem with (or as one example, paired with permeability, of) dividuality wherein a person is ‘recognized as composite and multiply-authored’ (ibid, 8).

The physical remains of the cremated Balinese person are corrupt and put out to sea, which is also a place of corruption. Much purer representations of the soul are used in subsequent rituals. To the Balinese, ancestry is of paramount importance, the physical remains of a person are not. In the Bronze Age cremations under study here, the remains of (part of) the person/cremation appear to be more significant than they are in Balinese cremation rites. The merging with the fuels of the pyre, and the categorisation of the substances that the dead become through the manipulation and fragmentation undertaken in cremation rites is indicative of personhood that can be reconfigured in many different ways. The remains are recomposed at the site of the cremation, and it is entirely possible that the burial itself was the start of a further stage of the transformation. Remains could have been dangerous if transformation was incomplete, and indeed their dangerous nature could have imbued them with potency equivocal with their power of regeneration, more of which below (Chapter 6). The physical act, or practice, of the fragmentation and reconstruction of the person/substances could have been an expression of dividuality in material form, symbolic of the negotiable nature of personhood.

Moreover, just as single burials cannot be said to be the burial of an individual, in the sense of the creation of an identity, or the commemoration of a single life, neither can multiple burials be assumed to be the burial of more than one individual. The intimacy of the context of the multiple burials causes most to ponder a close family, or married bond between the persons. Commonly suggested relationships are a woman buried with neonatal or very young baby most likely died in childbirth or as a result of childbirth; a woman or man with a child is a parent and son or daughter combination who died together as a result of illness, or two adults are a husband and wife buried together (cf Peterson et al 1974; Peterson 1981; French quoted in Woodward 2000). However we have seen that this interpretation is problematic and there are other possibilities and complexities in the multiple burial rituals. Also noteworthy about the way these multiple burial are treated by archaeologists is that animals, or non-human persons, can be as intimately associated with the human person or persons, and yet no one has tried to describe or familiarise the relationship between these different types of 'persons'.

In a society where persons are partible, animals, and other things, can be persons too (cf Ingold 2000; Fowler 2004; also see Chapter 7). The treatment accorded the remains of the pyre other than the human person has been shown in this chapter to be similar to that accorded the human person in terms of type of burial. Even though we have noted the apparent privileging of the human person within primary burials, the so-called 'cenotaph' barrows where no human remains are detected could be the burial place of remains other than human, such as pyre debris which would not commonly be looked for or retrieved in excavation (see below, Chapter 7). Ashbee (1960, 58) mentions an example from Dorset of separate barrows being constructed, one to cover an urn and cremation, the other to cover the remains of a pyre.

The pyre debris is made up of the residues of the things that were sacrificed in order the cremation could take place – trees, and turf which is part of the land, even the earth that was scorched by the cremation, and both humans and animals, all of which could have had, or could have acquired, personhood, and at the very least the burial of them is indicative of a negotiable and changeable relationship between humans, non-humans and the land.

Our horizons broaden if we consider ‘a wider world of personhood in which individuals and individuality are a small and sometimes insignificant part’ (Fowler 2004, 19). The particular treatment of all elements of the pyre suggests that a human person only has significance in the context of burial in relation to the other materials, non-human persons and to the persons who performed and were part of the rites. Cremation served to produce remains that were fit-for-purpose; the burial of the cremated remains was the end of the funerary rituals, but the funerary rituals were only part of the wider community strategy, elaborated in the following chapter through a discussion of the mechanisms of defragmentation, reconfiguration, and reintegration.