THE UNIVERSITY OF SHEFFIELD

CREMATION PRACTICE IN BRONZE AGE ORKNEY

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Volume II

Submitted for the degree of Doctor of Philosophy
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JUNE 2005

CHAPTER 6 – BURIAL ARCHITECTURE

INTRODUCTION

In the previous chapter we considered what constitutes a 'burial' in the archaeological interpretation of the deposition of cremated remains. In this chapter, the methods employed in the construction of burial deposits, and by extension the burial mounds, will be examined, for as we shall see (in this chapter and the following) the construction of the burial and the burial mound is part of one seamless whole; an unbroken ritual sequence. We have seen cremation as a technology which fragments people, animals and fuel and produces new artefacts and materials. Here we will investigate how burial architecture is a defragmentation and reconfiguration of the cremated remains and other materials. The specifics of materials and their order will be examined, and through materiality we will see order as the creation of architecture. Taking cremation as the end of the period of separation in funerary rites, we will trace the reintegration of the dead and living through this chapter. The chapter is structured in the order the burial and mound were constructed, from the burial of the 'person' to the top of the barrow, and from the inside of the mound to the outer edges.

DEFRAGMENTING AND RECONFIGURING THE CREMATED

When discussing methods of sorting pyre debris (Chapter 4) it was noted that in some instances human bone is completely separated from the pyre debris and is interred in a cleaned state. In other instances the burial deposit is an undifferentiated mixture of human bone and pyre debris. There are also many conditions of deposition in between (Chapter 5) where various types of pyre remains have undergone varying degrees of being sorted and ordered within a deposit. In this section we will consider how the burials are structured by examining in more detail the nature of the contents, and the order in which they are deposited.

It is assumed that cleaned human bone will comprise the lower part of a cremation burial deposit, and any pyre debris buried will be placed over the top (cf Chapter 5;

McKinley 1997). A very clear example of this ordering of burial can be seen at Linga Fiold Mound 5, primary burial 379 (Figures 5.3 & 5.4) wherein the cremated bone together with cramp that has bone attached is laid along a grave shaped pit. Cramp that did not have bone attached, as well as large amounts of charcoal and some 'burnt clay' (lower part of the pyre, see Chapter 5) were piled over the top of the slab covering the pit. In undertaking the OBP fieldwork and researching cremation burials elsewhere I had considered that perhaps cremations were not only categorised into different materials but were interred in the reverse order of the way in which the debris occurred at the pyre site.

It is not possible to fully pursue this research far at many sites for, if the burial feature contents were not excavated by context or spits, and the contents were not wet sieved and analysed, such information is lost. Also, as has been noted above (Chapter 5), because of the focus on the presence and quantity of cremated human bone there is often little or no mention of what the contents of the feature were other than cremated bone, and so it is very often not possible to ascertain what the contents of the burial feature comprised, or how the cremated bone was located stratigraphically within its matrix.

If we look at the evidence from Linga Fiold however, it is possible to identify ordering of deposits in a number of features, and it is apparent that there is some variation in this ordering. I have presented the rapid analysis undertaken on the ordering of the contents of the cists and pits (number = 33) in the following charts. This analysis is based on the information presented in Appendix 2, Table 1. Features with only one fill, or with contents that are mixed or undifferentiated through the fill/s are not included (number = 55) in the analysis. I have not included charcoal as part of the contents because it tends to be mixed throughout the fills in most cases.

The chart showing the order of the fills of all burial features (Figure 6.1) does not display a marked difference in the ordering of fills; cremated bone, burnt turf and cramp all occur at all levels within the feature, which might suggest that there was not a particular effort to categorise or order the contents. There is a slight tendency displayed for a lesser cramp content in the upper than the lower fills, and less cremated bone in the upper than lower fills. However, it should be recalled that there are indications that the

remains of one pyre can be distributed between a 'suite' of two or more features (see Chapter 5); remains of the pyre being distributed in this manner would produce a mixed, horizontal ordering when features across the site are viewed together.

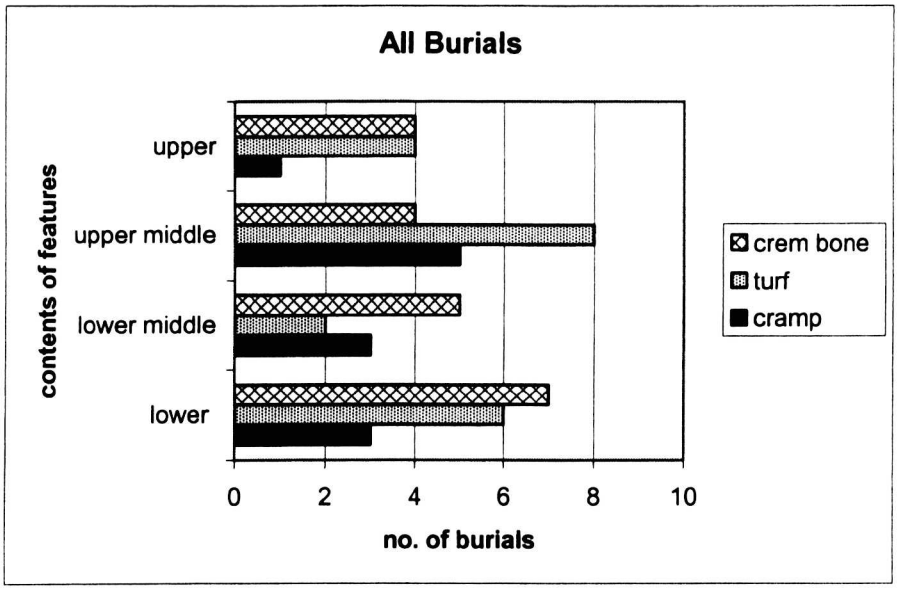

Figure 6.1 *Distribution of pyre remains through features, Linga Fiold: primary and secondary burials.*

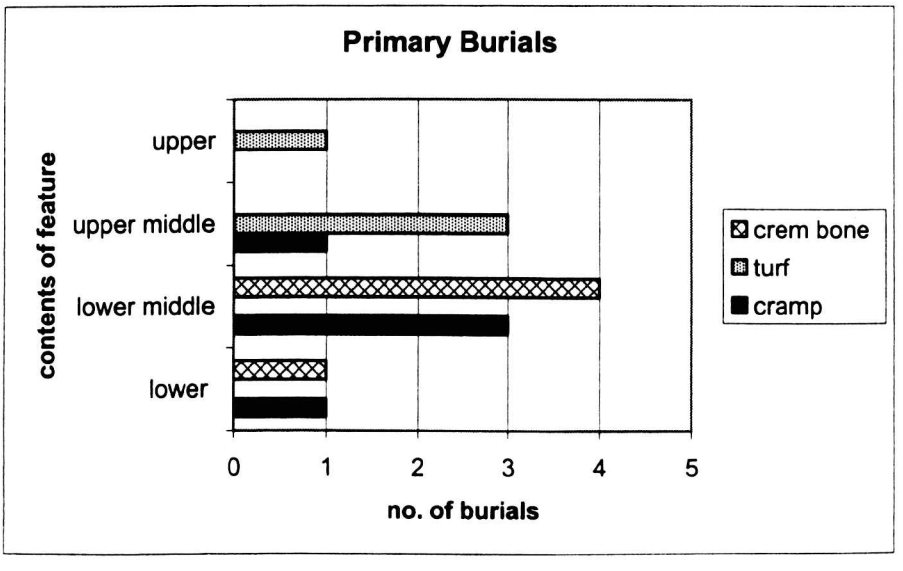

Figure 6.2 *Distribution of pyre remains through features, Linga Fiold: primary burials.*

When the data from the primary and secondary burial features fills are separated out however, differences in the ordering of fills become more apparent. In the primary burials (Figure 6.2) there is a clear distinction between cremated bone, which only

occurs in the lower fills, and burnt turf, which only occurs in the upper fills; cramp occurs mainly in the lower middle and not the upper fill. Also in the primary burials at Linga Fiold the bulk of the cremated bone lies in the lower middle of the feature, rather than on the basal surface as is commonly reported at other sites. The ordering of the fills of the secondary burials (Figure 6.3) is not so clear cut.

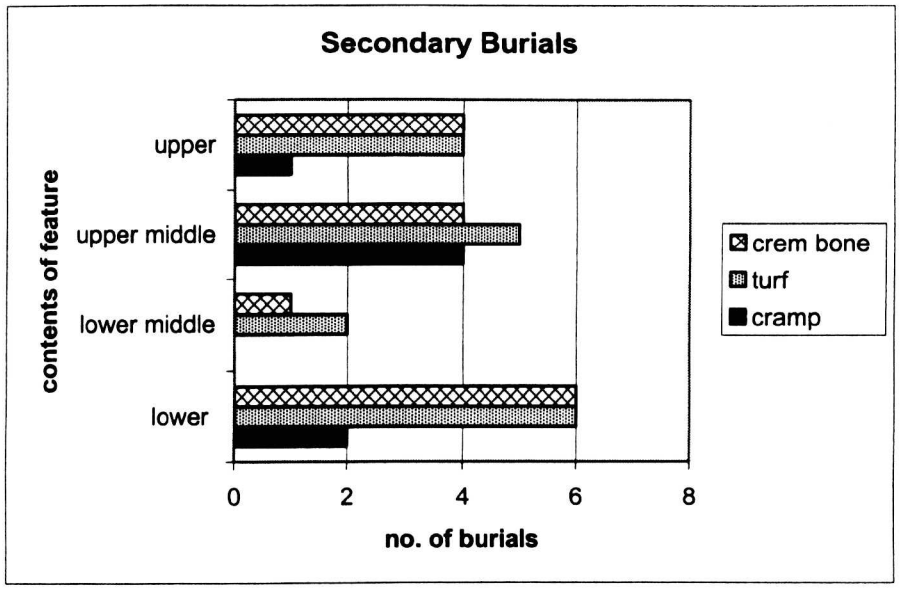

Figure 6.3 *Distribution of pyre remains through features, Linga Fiold: secondary burials*

To look in detail at some of the Linga Fiold primary burials (see Appendix 2, Table 1), at Mound 4 cist 254 the largest quantities of all types of pyre debris – cremated bone, cramp and burnt turf – are in the lower part of the cist and all of these decrease in quantity towards the upper part of the cist. At Mound 9 cist 50 the largest quantity of burnt bone is in the lowest layer, the largest quantity of cramp above this, with the largest quantity of turf uppermost. At Mound 6 the burial in a steatite urn (387) contains very little cramp and burnt turf, and what there is of these materials is spread throughout the fill. The larger quantities of cremated bone are in the lower part of the fill, as well as a large quantity of charcoal (this was the burial with the most amount of charcoal). At Mound 8 cist 66 the largest amounts of both cremated bone and cramp are in the lower part with a large quantity of burnt turf above. At Mound 5, because the deposits of pyre debris are separated by being deposited below and above the grave slab (Figures 5.3 & 5.4), distinctions between types of debris and their location are clearest. As can be seen in Table 1 (Appendix 2), the grave pit itself contained only large quantities of both

cremated human and animal bone, and cramp. The deposit of pyre debris across the top contained a larger amount of cramp, some charcoal, and small amount of cremated bone. The separation of the cramp between the cremated bone and the other pyre debris is the best example of the phenomenon Carter (1997a) observed as preferential (or, I would prefer, differential) selection of cramp according to its proximity to the cremated body.

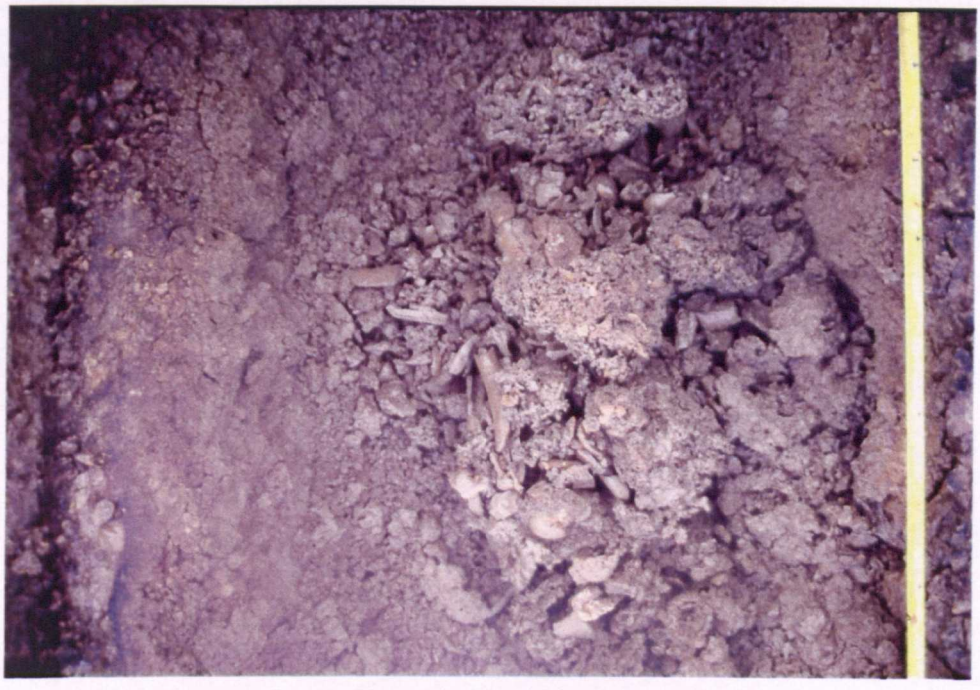

Figure 6.4 *Mound 5 primary burial 379, detail of in situ cremated bone and cramp 378*

The cramp included with the cremated bone in this burial (Figure 6.4) in some cases was fused to the bone and in all cases was the type that formed closest to the corpse, (Type 5, see above Chapter 4); whereas in contrast, none of the cramp above the grave slab had bone attached to it. That very careful and exact sorting of the pyre debris had occurred is indicated by a total absence of charcoal in the grave, and an abundance of charcoal over the slab. The complete absence of burnt turf is perhaps significant; either it was selected out and deposited elsewhere, or the pyre was not fuelled with turf (which, given the large amount of cramp present, is unlikely (see Chapter 4)).

It does appear from the Linga Fiold primary burial evidence that there is categorisation of pyre remains, and that the ordering of the remains follows a fairly consistent order. This order is the bulk of cremated bone in the lower part of the receptacle, cramp either

at the same level or slightly above, and burnt turf in the upper parts of the deposit. In the selectivity of cremated remains, further distinctions can be observed between different types of cramp according to its proximity to the cremated body, and this could explain why cramp is sometimes lower and sometimes slightly higher in the deposit. Where charcoal is present in sufficiently large quantities to be able to locate it stratigraphically, such as the primary burial at Mound 6 where wood appears to have been the fuel utilised, it is located in the lower part of the deposit with the cremated bone, in the position cramp occupies in other primary burial deposits.

On occasion in the secondary burials at Linga Fiold all elements of pyre debris are present and have been again meticulously sorted and deposited, but the fills only occasionally conform to the reverse ordering (of the *in situ* pyre) found in the primary burials (Figure 6.3). Cremated bone may occur in the lower part of the fill of a cist or pit, and mixed pyre debris with little cremated bone in the upper, but as often the reverse occurs (Appendix 2, Table1). For example, in Mound 7 cist 77, a large quantity of burnt turf was placed in the bottom of the feature, over which was placed the cremated bone and cramp (probably in a bag), over which in turn more cremated bone (from a different person) was deposited (Table 5.2; Appendix 2).

Previous excavations of cremation burials in Orkney are typical of many excavations across Britain in that there is an absence of detail as to the nature of the rest of the fill apart from burnt bone, as has been noted above. It is usually stated whether there was any other material (pyre debris, or 'ashes') or whether the cremated bone was deposited alone. Often a cist will have been disturbed or emptied of its contents by earlier investigators so that when a modern excavation takes place information has been lost (for example Quoyscottie (M E Hedges 1979), Rapness (Barber el al 1996), Holland (Neil 1981); Chapter 2). A corollary of this lack of detail in the records is that there is scant record of the order in which deposits from the pyre were placed in a feature. Recovery of the majority of cremated bone in the lower part of a feature has however become the expected norm due to the prevalence of cremated bone occurring in this position.

At sites where such detail is recorded, the categorisation of fills of burial features, and the differences in deposition between primary and secondary features is similar to that

observed at Linga Fiold. In the primary (and sole) cist at Mousland (Downes 1994; Figure 2.6) the majority of the cremated bone was located at bottom of cist, with pyre debris with small amount of burnt bone through the rest of the cist.

At Varme Dale, Mound 1, the central cist (2007) contained a much greater quantity of bone in lower fill, and charcoal and some cremated bone in the upper fill. The secondary cist within the mound (2008) contained cremated bone in lower fill, burnt turf in the upper fill, and charcoal throughout (Appendix 3).

At Gitterpitten Mound 2 primary cist (Figure 2.20, 1011) contained burnt bone and very little other pyre debris apart from a small amount of charcoal. In the primary cist of Mound 4 (Figure 2.20, 1040) the lower fill comprised the greater quantity of burnt bone, together with burnt turf, and charcoal, and the upper fill contained a slightly lesser quantity of cremated bone. The contents of the pits around the mounds (Figure 2.20) were variable - pit 1033 contained bone at the top of the feature, pit 1036 bone and charcoal throughout, pit 1037 cremated bone in the upper part, in pit 1028 cremated bone increased to top and burnt turf was deposited at the top, in pit 1039 a smallish amount of bone was found throughout and a quantity of burnt turf in the upper fill.

Both of the primary burials in Knowes 3 and 4 of Quoyscottie (M E Hedges 1979) comprised only cremated bone, as was the case in the primary burials (Mound 4) at the similar site of Gitterpitten. Any stratification of the fills of the numerous pits of the flat cemetery at Quoyscottie (Figure 2.5) is not mentioned; it may perhaps be assumed the fills of these secondary features were quite mixed. At Rapness (Chapter 2; Barber et al 1996) the contents of the primary cist in Cairn 2 are described as loose dark soil with burnt bone inclusions, which would suggest an undifferentiated fill but it is not possible to be certain.

The tightly clustered group of cists and pits found in Trench F (Figure 2.24) at the Knowes of Trotty are all secondary burials, and the deposits within them exhibit the same characteristics and variations as the secondary burials at Linga Fiold and Gitterpitten. Cists 56 and 59 were adjoining and may have contained the remains of the same pyre. Cist 59 (remains of three individuals) contained the largest amount of cremated bone in the lower and middle part of the fill, the greatest quantity of cramp in

the middle and upper parts, and the burnt turf spread throughout. Cist 56 (also three individuals) contained much lesser quantities of cremated bone and cramp which were located more to the upper part of the cist, and a greater quantity of burnt turf than cist 59, found in the upper part of the fill. Cist 89 contained the cremated remains of a single female person, and the greatest quantities by far of pyre remains of all the excavated features. Cremated bone was spread more or less throughout the fill, with slightly less in the lower and middle area of the feature. Cramp was found mainly in the middle and upper parts of the fill, and burnt turf in the upper part. The other cists and the pit excavated at the Knowes of Trotty contained less of all types of pyre remains, and in all these features the larger quantities of all types were in the upper parts of the features[1].

Cremated bone is sometimes reported as being found underneath the base slab of a cist, for example at Queenafjold, Twatt (Chapter 2; Ritchie and Ritchie 1974), a small amount of cremated bone had been deposited underneath the base slab of the cist, and a fragment of bone from within the cist conjoined with a piece from underneath the cist. At Rapness, Westray (Barber et al 1996) cremated bone was recovered from underneath and within the primary cists in two cairns (as was pyre debris and unburnt animal bone).

From the analysis of the formation of cramp undertaken at Linga Fiold (Carter 1997a; Chapter 4) and its contexts of deposition (Appendix 2), it seems reasonable to suggest that cramp that was fused to the bone was categorised as bone for the purposes of ordering the deposit. Cramp that had formed in close proximity to the body on the pyre, but was not actually attached to the bone was deposited in close proximity to the bone in the burial feature or receptacle.

Cramp is also sometimes deposited outside inconspicuous cists, as in the examples of Sand Fiold (Dalland 1999) and Upper Bigging, Corrigall, Harray (Appendix 3) (Chapter 2). At Sand Fiold a large amount of cramp (58kg) had been deposited between the west side of the cist and the face of the pit. From its stony inclusions and appearance McKinley (in Dalland 1999) considered this cramp to have formed on the ground surface at the base of the pyre. The deposition of cramp above and outside unobtrusive cists containing inhumations is curious and would be worthy of further consideration. I mention the phenomenon here just to emphasise the singular nature of cramp as

[1] lower parts of these features contained ashy matrix with no distinctive pyre debris.

indicated by the particular contexts in which it is found, and the likelihood that it was imbued with symbolic associations and metaphoric qualities.

In conclusion, although records are scant, pyre remains in the primary burials of barrows are clearly categorised. In secondary burials pyre remains are less clearly and less commonly categorised, but the distribution of types of debris across a suite of features blurs the picture.

Significantly, primary burials exhibit a consistency in the order in which the various parts of the pyre are deposited, that is in reverse to the order left after the pyre has burnt down. Cremated bone is either separated out from all pyre debris and placed on the base of the cist or pit alone, or, if interred with other types of pyre debris the largest quantity of burnt bone is almost invariably placed in the lower part of the cist or pit. On occasion cramp accompanies cremated bone in a cist, pit or vessel that is otherwise empty. When interred with a range of pyre debris, cramp is usually deposited in the lower part of the feature. Burnt turf is almost always deposited in the upper part of the burial feature.

The order of the contents of the primary burials could therefore be interpreted as being configured in the reverse of the order in which the cremation pyre was formed, which was essentially the same order the remains lay in after the pyre had burnt down. The turfs and wood making up the pyre would have been surmounted by the body, and as we have seen when the pyre burns down the burnt bones remain on the top of the debris. The cremated bones which were at the top of the pyre, and which were the remains of the person who dwelt on the surface of the land that forms the bulk of the pyre, comprise the lowest, primary deposit in the whole of the construction of the burial (and burial mound see below). The burnt turf is placed above, in reverse position to its place in the structure of the pyre. Cramp is sub-categorised and redeposited according to where in the pyre it formed, and displays an inversion of its own. The position of cramp in relation to the rest of a deposit lends weight to this interpretation of the inversion of the pyre, for when cramp has bone attached, or was formed on close proximity to the body it is categorised and deposited low down in a feature in a similar manner to cremated bone, but when it has been formed at the base of the pyre it can be placed at the top of the deposit, or outside the cist as at Sand Fiold.

This inversion of the pyre cannot be said to be functional and explained as a consequence of picking out the different elements and depositing them straight into a burial receptacle in the way they present themselves on the burnt-out pyre. The meticulous way in which different parts of the pyre are identified, picked out, cleaned and sorted necessitates a double handling of the pyre debris. The 'pyre debris dump' features have been identified as the places where pyre debris was removed to during the sorting processes (see Chapter 4 & 5).

The consistency of this order within the primary burials, and many of secondary burials, indicates both a concern with categorisation and with order. Chapman emphasises the significance of categorisation to the study of material and social relations (2000a) in his discussion of the dialectical relationship between humans and objects. Chapman paraphrases Miller in his description of categorisation as 'the order imposed on the world by the creation of cultural order' (ibid, 31). Through the cremation process, including the categorisation and ordering of the cremation remains, we can discern an imposition of a cultural order which must in part be a concern to restore or maintain ontological order.

The technological process of cremation creates a composite artefact, the agglomeration of different parts of the world inhabited by the living. The finished, fragmented and fragmentable artefact offers a range of choices to the actors in the funerary rites in terms of further fragmentation (such as dispersal in different locations), defragmentation (the re-assembling of the parts that made up the body and/or pyre) or reconfigurement (of the body and/ or pyre in different ways). Fowler, talking about Neolithic dismemberment of bodies and breaking of artefacts, but I think equally applicable to the fragmentation of materials through cremation, describes the opening up of substances to differential access and distribution (Fowler 2004). The materials created through cremation are different parts and aspects of the world, which can be consciously and strategically worked into a different ordering of the world, in this case an inversion.

The human remains positioned in the lowest part of the deposit, or underneath the cist, occupy an axial position, and I would say also an axial role, between the earth (perhaps the underworld) and the living (see below). Analogy could also be drawn between the planting of the seed at the bottom of a hole and the 'planting' of cremated bone at the

bottom of the pit or cist. The conception of a burial monument as a metaphor for growth (see Brittain 2004) will be now be explored and developed through an examination of the materials and materiality of the mound.

BUILDING MATERIALS

The composition of a primary burial can not be looked at in isolation from the burial mound, for they are parts of one whole. Of all the things that distinguish a primary burial that have been discussed above, it is of course the mound built around the burial that distinguishes the primary burial monumentally. The materials that were used to create the burial mounds will be described and discussed here.

First of all the methods and techniques employed to examine the make up of the burial mounds need some introduction before the materials are discussed. Part of the aim of the excavations of barrows as part of the OBP was to excavate, record and sample barrows in such a way that detailed analysis could be undertaken of the nature and sequence of building events (see Chapter 7), and the source and composition of the materials used in the building of the mounds, which is what will be considered here. Barrows at Linga Fiold, Gitterpitten, Varme Dale were excavated in such a way that at least a quarter of a mound was excavated to enable excavation of the body of the mound by context, and the interpretation and recording of the section. Kupiena samples were taken routinely through mound profiles in order to analyse mound make-up and sequence of development through soil micromorphology. In some instances the samples spanned the total height of a barrow, but more often only the lower part of the profile.

Features of the burial mounds investigated at Linga Fiold, Varme Dale and Gitterpitten as part of the Orkney Barrows Project, are characteristic of Orcadian Bronze Age barrows; an earthen mound over a cist or pit, formed from soils scraped up from the surface (rather than excavated from a (surrounding) ditch) – for the most part being the so-called ditchless, or scrape, barrows (Ashbee 1960). In Orkney the barrow mound is often underlain by, defined by, or retained by, a stone kerb and so are quite commonly 'composite barrows' (Ashbee 1960, 49; Chapter 2) .

Once again it is the evidence from Linga Fiold that yielded the most informative results and this evidence will be outlined and discussed here. Thin sections from six mounds (Mounds 5, 6, 7, 8, 9 and 27) at Linga Fiold were analysed (Carter 1997b). It was established that four different types of sediment had been used to build the barrows, of which Types 1-3 derive from the soil A horizon (turf and topsoil) and Type 4 from the B horizon (subsoil) (ibid).

Sediment Type 1 is identified as intact turfs, cut and stacked to form part of the mound. Type 2 is similar to type 1 but does not have the same, banded structure and so was interpreted as loose topsoil. Type 3 is also a loose topsoil which contained pyre debris (cramp and heated soil) which was not additional to the soil but part of its groundmass, and was interpreted as heat-reddened soil from beneath the pyre (rather than topsoil from the general area of the cemetery, containing a general 'background noise' of pyre debris which was common in the buried soils from the site). Type 4 is local subsoil Carter 1997b).

The location of each of these types of sediment is shown in relation to the mounds in Table 6.1. I have inserted Mound 4 into this table, for although thin section analysis was not undertaken through this mound, its composition has been interpreted from its stratigraphy and by extrapolation from the thin section analysis of other mounds.

Carter observed (1997b) a distinction between Mounds 5, 6 and 7 which comprise topsoil (Types 1-2) overlain by subsoil (Type 4) and Mounds 8, 9 and 27 (and I have added Mound 4) which are constructed principally of subsoil (Type 4) (he also suggested (ibid) that the variation between mounds has relevance in terms of the chronology and development of the cemetery and this will be returned to below in Chapter 7). An example of a barrow section of one of each of these groups of mounds is presented in Figure 6.5.

Table 6.1 *Linga Fiold mound building materials, by phase. T = sediment Type (after Carter 1997b)*

Mound No.	Phase	Type of sediment (bottom through top)
4	Phase 1	Subsoil (T4) Heat affected topsoil (T3)
5	Phase 2/3 ..... Phase 1	Subsoil (T4) Heat affected topsoil (T3) ..... Subsoil (T4) Loose topsoil (T2) Stacked turfs (T1) Pyre debris
6	Phase 2 ..... Phase 1	Subsoil (T4) Pyre and paving ..... Subsoil (T4) Turf (T1)
7	Phase 1	Subsoil (T4) Loose topsoil (T2)
8	Phase 2 ..... Phase 1	Subsoil (T4) Heat affected topsoil (T3) ..... Subsoil (T4) Heat affected topsoil
9	Phase 2 ..... Phase 1	Subsoil (T4) ..... Subsoil (T4)
27	Phase 1	Subsoil (T4)

In the section of Mound 5 (Figure 6.5), the pyre debris context 375 is covered by thick layer of stacked turfs and loose topsoil, context 372, in turn covered in subsoil, context 371. Phase 2/3 is represented by the thin layer context 169 which is heat affected topsoil, and subsoil layers 168 and 044 (Figure 6.5; Carter 1997b).

From the section through Mound 8 (Figure 6.5), the heat affected topsoil is clearly visible as context 089 packed around cist 066 covered by a thick layer of subsoil, layer 090. A thin layer of heat affected topsoil (116) lies at the interface between phases 1 and 2, and is overlain by subsoil layer 057, upon which another thin layer of heat affected topsoil, context 115, was found (Figure 6.5).

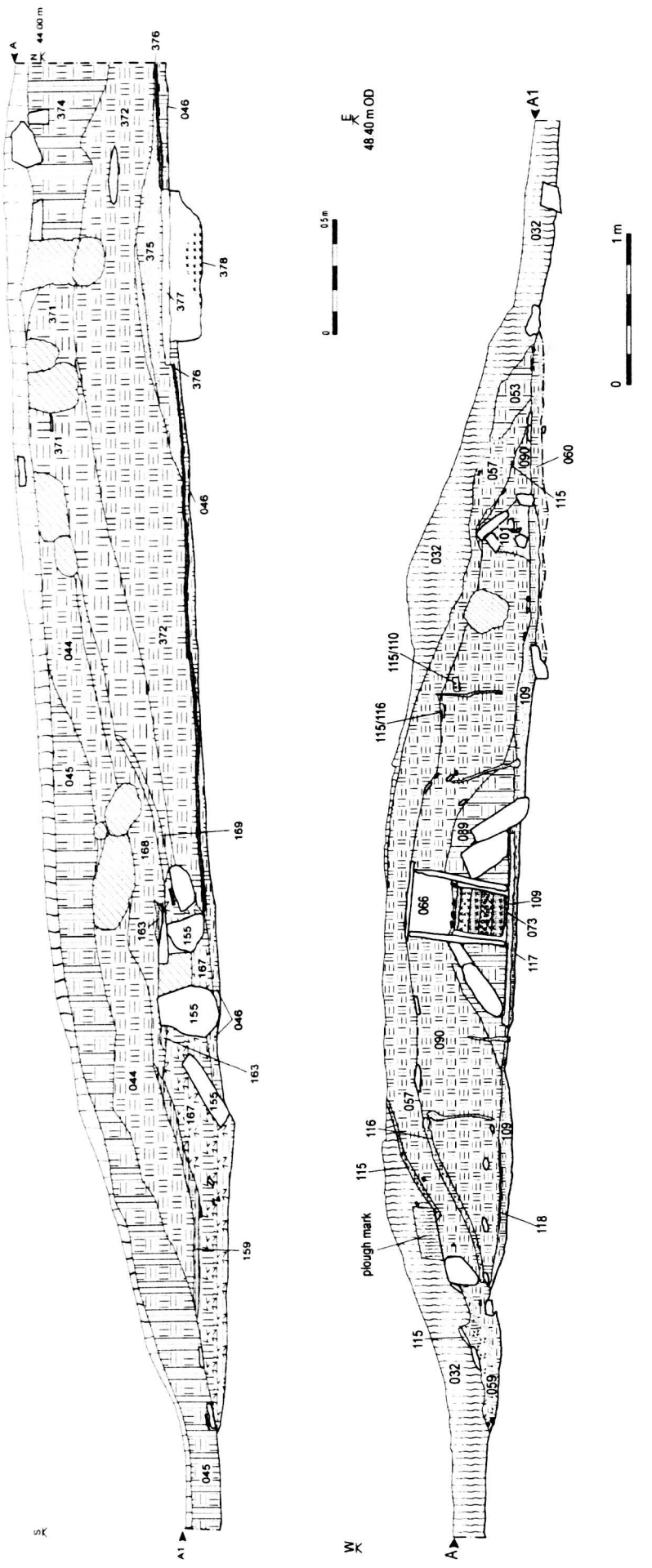

Figure 6.5 *Linga Fiold: section through Mound 5 SW quadrant, E facing (top) and section through Mound 8, S facing (bottom)*

The particular use of heat affected topsoil (Type 3 sediment) in the composition of the mounds indicates the careful collection of this material (Table 6.1). As the bottom or lowest layer of a pyre site this material takes its place in the inversion of the pyre debris sequence (described above) as the topmost layer in the reconfiguration of the pyre. This relationship can be seen at Mounds 4 and 8 (Figure 6.5) where the heat affected topsoil surrounds the central cist. The placing of the heat-affected topsoil in this position is reminiscent of the deposition outside the cists of cramp formed at the bottom of the pyre (above). The use of heat-affected topsoil at Mound 5 is repeated as the mound is enhanced – it is placed over the top of the Phase 1 mound to form the lowest layer of the Phase 2 enhancement of Mound 5, again covered with a thick layer of subsoil (Figure 6.5).

What is striking in these sequences and the materials selected is the utilisation of the components of the soil beneath the pyre and of the natural stratigraphy, demonstrating the same meticulous method as was evidenced in the selection and deposition of the pyre debris for deposition as 'burials'. The materials making up the mounds do not appear randomly selected for building and nor are they mixed together in any of the mounds; indeed they appear to have been carefully selected and each mound was put together in a very particular order.

The work Carter undertook on the analysis of the profiles of the Linga Fiold barrows led him to the following conclusion:

> the use of topsoil overlain by subsoil can be interpreted as an inversion of the natural stratigraphy. Turf is first cut and stacked to form the base of the mound. Any remaining loose topsoil is mounded up over it followed by a capping of the deeper subsoil (Carter 1997b, 5).

Thus the inversion of the pyre described continued into the mound structure and was surmounted by an inversion of the natural stratigraphy. If we turn again to Mound 5 as an example of this complete sequence: the clean burnt bone, and cramp where attached to bone, were put in the grave cut (379), covered by a stone slab, which was in turn covered in pyre remains; the inverted sequence of the natural soils continues on top of the pyre debris with first turfs, followed by loose topsoil and finally subsoil.

To what extent is this phenomenon of building the burial mound with the lower parts of the pyre and the inverted natural stratigraphy peculiar to Linga Fiold? Or to what extent is it discernible at Linga Fiold because of close observation and good preservation?

In Orkney sections through barrows have been recorded at several sites - Quoyscottie, Queenafiold, Holland, Mousland, Gitterpitten and Varme Dale - and at the latter three sites thin sections of the mound soil have been analysed. At Mousland, the site where the burial mound was sited had been stripped of turf and soil prior to the building of the cist. The cist was filled with burnt bone and pyre debris and the latter also surrounded the cist. Turfs which had been removed prior to cist construction were stacked around the cist (French in Downes 1994). The upper layer of turf had more of an admixture of subsoil, and redeposited clay subsoil made up the remainder of the mound (interspersed with a thin layer of black leaf litter which caused a striking contrast of a banded effect on the surface of the mound, Figure 2. 6). The mound at Mousland exhibits features in the use of turfs and mixed topsoil, capped with subsoil, similar to Mounds 5, 6 and 7 at Linga Fiold.

At other sites it can be seen that mounds were built of the pyre and capped with either clay subsoil or stones, although the use of turf, topsoil or heat affected topsoil (Carter's soil Types 1-3) has not been detected. Mounds 2, 4 and 5 at Gitterpitten were made from soil/clay subsoil and capped with slabs of stone. Mound 4 building material was admixed with pyre debris. At Holland, the primary cist was surrounded by 'burnt mound material with ash' (Neil 1981) and this material was in turn capped by clay subsoil. The mound at Queenafiold was said to have been made from dark brown soil with patches of clay (Ritchie & Ritchie 1974) – this could be the remains of turfs and topsoil – surmounted by clay subsoil. Quoyscottie Knowe 1 is reported to have contained much cremated bone, ash, charcoal and burnt stone within its clay subsoil make up (M E Hedges 1979). Knowes 2 and 3 are said to have been of similar construction but no detail is given as to whether they too contained pyre debris. Knowe 4, a 'cenotaph' mound, was formed from redeposited clay subsoil (ibid). At Varme Dale Mound 1 was too disturbed to gain an understanding of the materials used in mound construction. Mound 2 (Figure 2.22) was constructed from an apparently homogenous mound of clay subsoil (built upon a pyre site that had turf grown over it, see below), but

as investigations did not include the primary cist the section stopped short of revealing the building material around the cist.

The inclusion of pyre debris within mounds at Quoyscottie, Gitterpitten and Holland is something not observed at Linga Fiold, where mound material was clean of pyre or 'domestic' debris. At Quoyscottie Knowe 1 a pyre site comprising cremated bone and burnt stone situated on heat reddened clay was found next to the primary cist. The pyre material within the mound probably derived from this pyre site, the redeposited subsoil and pyre debris being admixed. This is a plausible scenario for the other instances of when pyre material is included within mound make up.

At Linga Fiold efforts were made to select order and utilise the pyre for constructing the burial (and) mound without the pyre debris becoming mixed with the mound material. At the other sites where the subsoil and pyre debris are mixed, people are still building with the pyre, still enclosing the cist/burial with the pyre remnants, but in a different manner and configuration where the elements of the pyre are more often undifferentiated. At Linga Fiold greater particularity is evident in the meticulous selection and deposition in inverted form of every part of the pyre and natural topography. At the other sites the general principles of reconfiguration of the pyre and landscape as an inversion is adhered to but in a less particular, or different, way.

The use of subsoil or stone as the uppermost, outermost layer is a consistent feature of all the Orcadian barrows described above. Ashbee (1960) characterises the construction of barrows as a core of soil, turf, or even occupation soil (which can be brought from elsewhere), or pyre debris (as discussed above) which was then covered by subsoil. He is describing the construction of ditched barrows which to him 'reflect fairly faithfully their sequence of construction' – after setting out the burial the turf and topsoil was taken from the top of the ditch and put over the grave, and subsoil from the excavation of the ditch would be used to cover this core (Ashbee 1960, 44). To Ashbee ditchless barrows are constructed either by turf stack, or by heaping up soil (ibid) and do not have the two part matrix (turf covered by subsoil) of the ditched barrows, but from what we have just seen of the Orcadian barrows which are ditchless, the materials used in construction are the same as those Ashbee describes for the ditched barrows.

It can be argued that the inversion of the natural stratigraphy seen in the construction of the Linga Fiold barrows is *not* a logical consequence of where and how the materials for construction were derived. To turn again to the soil micromorphology (Carter 1997b), all the barrows were sited on intact turf horizons so we know the turf and topsoil was not stripped from the sites of the barrows prior to their construction. The soil horizons buried beneath the barrows contained small fragments of pyre debris indicative of a general cremation-related background scatter in the vicinity of the barrows. These fragments were not present in the turf and topsoil used in the mound construction, which led Carter to conclude that the soil was not obtained from the immediate vicinity of the mounds. To Carter this indicated 'some degree of organisation in the cemetery', which we will return to below (Chapter 7), and he thought 'may be contrasted with traditions of quarry ditches surrounding burial mounds' (Carter 1997b, 6). However, it is perhaps more likely that the ditch of a ditched barrow was not the sole source of mound material (and that a ditch was not merely a quarry for mound material), particularly not all the turf and topsoil, and that the creation of both ditched and ditchless barrows entailed obtaining materials from land that may not be in the immediate vicinity of the barrow. Therefore in neither the ditched or the ditchless barrows can the form and the materials employed be said to be the functional consequence of the method of construction.

The use of turf as a core to barrows, capped by subsoil or stone, is a feature of construction that is reported across the British Isles (cf Barrett et al 1991; Barrett 1994; Owoc 2001). Woodward (2000) raises some interesting points about construction of barrows using turf at King Barrow Ridge, Stonehenge, where the sheer quantity of turf incorporated within one of the six New King Barrows was estimated to have been the result of stripping at least 1.2ha of land. Woodward wonders whether the denuding of land on this scale is indicative of a change in land use, or whether the stripping represents the appropriation of an earlier sacred land surface and its sealing in the mound/s against future use (Woodward 2000, 52). The stripping of turf, if the topsoil was taken as well or if the soil was thin, would have put land out of use for some time, and was therefore another part of the element of conspicuous consumption and sacrifice that funerary rites entailed. The landscape of the Orkney barrows is mixed agrarian with a pastoral bias (Jones in M E Hedges 1979). The stripping of turf used for grazing is the denudation of a resource which was already showing signs of overuse (French, and

Scaife in Downes 1994), and which also had other important roles in the north for fuel, cladding and roofing houses etc. The use of turf and topsoil in the construction of a barrow may have been conceived of both as another aspect of conspicuous consumption, and as the appropriation of a material with a potential for growth and reproduction and therefore with a future significance in the reproduction of society.

THE HARD EDGES

The final architectural feature of the individual mound that we will consider is the stone kerb. Ashbee (1960) describes a number of different types of stone kerbs that present themselves throughout Britain. The range includes stone walls or blocks of varying sizes either around cairns or earthen mounds, which acted in some instances to retain. The use of very large, or 'sub-megalithic', blocks in some instances is noted. Kerbs of composite barrows also vary in size and type, and many composite barrows undergo modification and enlargement after their initially construction (ibid 49). Ashbee uses the term 'stone ring' to describe another stone feature that appear to him to fall into two types: well built annular rings; rings of cobbles or blocks, often penannular, also called cairn-rings, and sometimes with no barrow over them which may have been unfinished barrows (Ashbee 1960, 50-51).

Stone kerbs are common in all parts of Britain apart from the south and south-east of England, where stake holes and small postholes are found, often in the form of two or three concentric rings. Stake holes occur at the same barrow sites as stone kerbs as the two are not exclusive. Stake holes can be indicative of an organic form of revetting such as hurdles. Ditches are the other common form of 'boundary' to a barrow; sometimes a small ditch will have traces of stake holes or a palisade within. Quite commonly a barrow site will have two or three concentric ditches or kerbs, indicative of a multiphase construction. There has been speculation as to what each of these types of 'boundary' or constructional element of the barrows are, and we have discussed above the function of a ditch as a quarry for barrow material. Interpretations for the stake hole circles vary from them having formed revetting for the mound, to having been mortuary houses (cf Fox 1959; Ashbee 1960), to a setting which may bound space for ritual activities and direct movement within a ritual space (cf Garwood 1991; Barrett 1994). Stone kerbs are

thought to have served in some cases as revetment (Ashbee 1960). Barnatt and Collis (1996) interpret kerb rings as defining ritual space prior to the building of a barrow. It is supposed that the stone rings may have seen long term use before the raising of the barrow, whereas stake rings may have fulfilled the same role but over a shorter time immediately surrounding the funeral (ibid, 49).

The aim of the detailed investigation of the kerbs during the OBP research was in part to evaluate these interpretations. In particular, the possible role of the kerb bounding the arena for the funerary rituals was seen as significant in terms of the journey taken through cremation rites and the locations of the stages of that journey.

All the Orkney barrows under discussion are 'composite barrows' - that is, earthen mounds with stone kerbs. The barrows at Linga Fiold exhibit the full range of stone kerb types described by Ashbee (1960). Mounds 4, 5, 6, 8, and 9 all had stone kerbs as part of the primary construction phase. These kerbs were low walls, no more than two or three courses of stone high, fairly roughly constructed and faced only to the outside if at all (Figure 6.6). At Mound 9 a similar, secondary, kerb was built outside the edge of the original mound at the time the mound was refurbished. At Mound 8 the secondary kerb was instead piled on top of the edge of the secondary mound material. Neither Mound 5 or 6 had secondary kerbs although both were enlarged with secondary mound material. Mound 7 was atypical, as it was in most respects, in that the primary 'kerb' was a setting of at least four sub-megalithic stones set on end which formed an arc around the south east edge of the mound (Figure 2.16). Patches of small loose kerb stones were found on the edge of the single phase mound material particularly on the north east and south west sides of the Mound 7. Two, or three, small cairn rings are present at Mound 7, 211 and 273 (Figures 2.16 & 7.2), and possibly Mound 27 (Appendix 2).

Figure 6.6 *Linga Fiold Mound 6; partially excavated SE quadrant showing kerb*

Yet another facet of the distributed deposition of the pyre remains is the association between some of the kerbs (Mounds 4, 5, 6 (phase 1), 7 (secondary kerb), 8 (phase 2 and 9 (phases 1 and 2)) and a matrix described as 'ashy clay' (Table 6.1; Appendix 2). This matrix had the appearance of white ashes that would occur around the outside of a fire or pyre. A sample of this material from Mound 9 (34) was found to contain cremated bone and a sample from Mound 8 (59) contained a small quantity of cremated bone and cramp. It was therefore concluded that this material derived from the edges of the pyre site and had been either banked up around the kerb, or the kerb set into it. It is significant that this component of the pyre, the cooler ashes from the edges of the pyre, which would have ringed the burnt-out pyre, is used to encircle the mound.

In order to serve as a boundary to an area and to enclose it prior to the erection of the barrow, a kerb would have had to have been freestanding. However only the phase 1 kerb of Mound 8 was proven to have been freestanding and constructed before the mound. This kerb was neatly constructed, stood up to two courses high, and was faced to the outside only. The remains of kerbs at Mounds 4, 5, 6 (phase 1) and 9 (phase 1) were either too disturbed, or the stratigraphy was too unclear, to determine whether they had been constructed prior to, or at the same time as, the mound. None of these kerbs was coursed or faced as a freestanding wall. The remainder of the kerbs were either

built together with the mound as one act of construction (Mound 9 phase 2) or heaped against the edge of the mound (Mounds 7 and 8 phase 2). The kerbs at Quoyscottie and Queenafjold were constructed in the former manner.

Few of the kerbs from the other Orkney barrows were built as freestanding walls prior to the erection of a mound, with the exception of Varme Dale Mound 2 (Figure 2.22) which was the most substantial kerb of all, built very meticulously of large blocks, levelled in places with eke stones (small stones employed as levelling), and faced to inside and out. The barrow at Mousland (Downes 1994; Figure 2.6) had a kerb constructed primary to the mound, faced to the outside only and with some stone paving on the outside at the south.

Mound 2 at Gitterpitten also had a carefully built freestanding kerb on a much smaller scale, faced to inside and out and standing to five courses high (Figure 6.7). Neither of the other two excavated mounds at Gitterpitten had stone kerbs; Mound 4 had a stone platform beneath the mound, and Mound 5 was covered in stone slabs.

Figure 6.7 *Gitterpitten Mound 2: detail of outer edge of kerb*

Excavation of a small area on the berm of Mound 1 at the Knowes of Trotty (Trench C, Figure 2.23) revealed a substantial stone kerb of large stones cut into the outer edge of the berm and faced to the outside, the inner part between the kerb and berm being

infilled with redeposited natural and loose stones. This kerb did not stand proud of the berm but acted as edging to it.

On the basis of this evidence I would say that the forms of construction of the kerbs reveal a concern with outward appearance rather than inner space. The majority of the kerbs that are faced, are faced to the outside only. Those built synchronously with the mound and those which were placed against the edge of the mound may have in some instances served as revetting, but in others were purely for show. As we shall see in the next chapter there is no evidence that the area covered by the mound stood open for any length of time after the building of the cist and kerb. Paving and trampled areas outside the kerb indicate activities undertaken at the edge of the mound rather than within the area of the burial. The sub-megalithic stone kerb around one part of Linga Fiold Mound 7 forms a notional boundary. Like the stone circles within henge monuments they define a space but allow people to pass through. The stones are limited to the SE part of the mound; the mound itself is small and the large stones would have enhanced its visibility on approach from the southern, downslope direction. Another example of how kerbs can be used as display and can be employed to accentuate a part or aspect of barrow was seen at Mousland (Downes 1994; Figure 2.6). Here the kerb was built only of stone in the southern half as it was only on this side that the mound stood proud of the land as the other half merged with the land as it sloped northwards and upwards.

The kerbs could be seen as a notional or symbolic boundary, enclosing the site of the burial and the mound itself. The necessity for this boundary is once again indicative of the potent and perhaps still dangerous nature of the transformed materials that comprised the burial in its entirety, including the earth comprising the mound. That the mound has also to be enclosed indicates that the materials it is constructed of are not inert and the enclosure emphasises the integrity of the whole barrow. The use of stone as a bounding, containing element and substance underlines the cool, neutralising properties of stone.

I had at one time been working on the hypothesis that the stone kerb may be analogous to a house wall, and the cist in the centre a focus of activity as a hearth in a house is. I now think this analogy oversimplifies things and can be discounted for a few reasons. First, the cist or pit is not the site of fire, or the pyre, but is a receptacle and was

possibly conceptualised as a container such as the stone tanks and vessels in house floors (see Chapters 2 & 4). Second, the examination of the method of construction of the kerbs demonstrates that the majority were constructed simultaneously with the mound, or were added later. Therefore they did not serve to prescribe activities.

However, the construction of the kerbs does articulate the living and the dead. The construction of Bronze Age Northern Isles house walls was either as freestanding walls faced inside and out (e.g. Spurdagrove, Øvrevik 1985; Skaill, Buteux 1997) or a stone and earthen wall, stone faced to the inside and built as one with each material supporting the other (e.g. Shetland houses such as Benie Hoose, Yoxie and Sumburgh; Chapter 2; Figure 2.2). Both of these types of walls present a stone interior to the inhabitants of the house, while the exterior of the house 'grows' through the addition of masses of midden. Thus the composite barrow is built inside out; through the construction of kerbs the living present themselves with a surface reminiscent of the interior of their dwellings, and the dead and associated materials are kept 'outside', within the kerb. At the risk of over-egging what could become a structuralist pudding, in both cases stone forms a barrier between the living and substances which are transformed, transformative, and potent – the midden in the domestic context and the burial/mound in the funerary.

TOOLS OF CULTIVATION

There are particular types of coarse stone tools that are consistently associated with the kerb in Orcadian funerary architecture. These are ards and mattocks. 'Ard' is short-hand for stone ploughshares held in a wooden socket as part of a bow-ard construction (Rees in Hedges M E 1979). Ards would have been used for tilling, the bow-ard being pulled by a pair of animals, presumably cattle. As part of the National Museum of Scotland radiocarbon dating programme a swingletree from White Moss, Shapinsay was dated. This wooden artefact is one half of a pivoted crossbar which guides the traces of a pair of animals harnessed for drawing a plough. The swingletree had been thought to be fairly recent as it is identical to those used up into the last century. Radiocarbon dating proved it to be middle Bronze Age, the oldest swingletree in the world (Alison Sheridan, lecture to Orkney Heritage Society March 30th 2005), and demonstrates a

sophistication in methods of tilling using traction. Study of wear on ard points shows asymmetric wear as a consequence of the use of the ard to prepare a seed bed and cover the seed, and a more random wear pattern which could be due to a general purpose use of the tool to level a field or break up clods (Rees in Downes & Lamb 2000, 93).

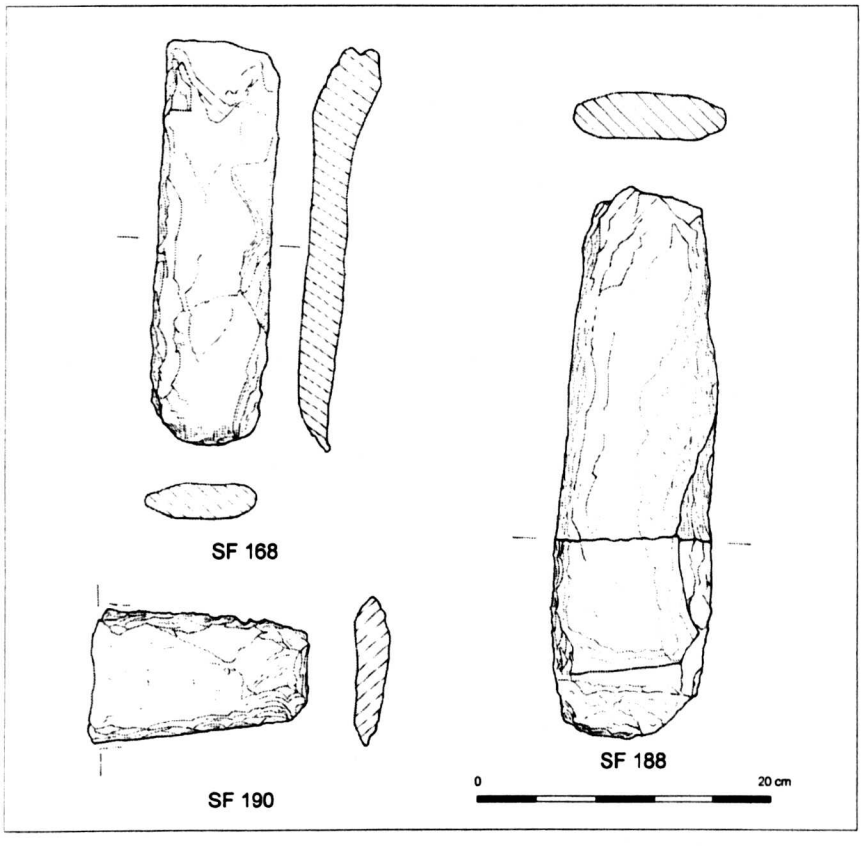

Figure 6.8 *Flaked stone bars from Linga Fiold: ard points and mattocks*

Mattocks, or flaked stone bars, are wide stone tools with blunted broad working ends (Rees in M E Hedges 1979, 145) for ground or soil breaking (Figure 6.8). Evidence of hafting and use pattern on these tools show they could have been hafted in two different ways, either for use as a hoe or mattock, or as a pick axe (Clarke 1995). These types of coarse stone tools have been considered peculiar (even unique, Rees in M E Hedges 1979) to the Northern Isles where they have been found in great abundance. The study of coarse stone tools is hampered by the lack of recognition of them in the field and the fact that in earlier excavations they were not kept, even if they were recognised. More recent excavations of sites such as Tofts Ness, Sanday and Scourd of Brouster, Shetland have established that the range of coarse stone tools in domestic contexts is dominated by cobble tools such as pounder/grinders, while funerary sites have a much greater proportion of flaked stone bars (Clarke 1995). Flaked stone bars appear to have been first used in Shetland in the later Neolithic, and in Orkney in the earlier Bronze Age (c. 1900 BC) (Clarke 1995; Downes in prep). Their use is continued throughout the Bronze Age, and into the early Iron Age.

It was through excavations at Quoyscottie (M E Hedges 1979; Chapter 2) that the association between the coarse stone tools, particularly ard points, and the kerb was recognised as many of these tools were found lying on the kerbs of the mounds. As earlier excavations had focussed on the central burial rather than exploring the mound there is not much evidence of the deposition of these tools before this. At several sites (Quandale, Rousay, Whitehall, St Andrews and Gyron Hill) ard points were reported to have come from the mound (Clarke 1995), and at Backakeldy, Holm an ard point was found lying on the top of a large cist (Orkney Museums catalogue).

Excavations at Linga Fiold confirmed that there is consistency of association between coarse stone tools and the kerbs of barrows. The assemblage at Linga Fiold was dominated by mattocks, with only two ards among the fifty flaked stone tools. This contrasts with the Quoyscottie assemblage where ard points dominate (Rees in M E Hedges 1979); however, this is probably an under-representation of mattocks because they were not recognised in the field[2].

[2] Coarse stone tools on the whole present problems to the field archaeologist who has difficulty in recognising them. Ard points are more instantly recognisable as an 'artefact' by their often distinctive pecked points. Even at Linga Fiold, vigilance was needed at all times and on occasion mattocks were recovered from the bucket, wheel barrow and even spoil heap. The dominance of mattocks to ards from the excavations at Gitterpitten (Clarke 2000), and the recovery of 15 coarse stone tools from one quadrant

Looking at the coarse stone tools and their contexts at Linga Fiold, the majority of the flaked stone tools are from kerbs or other contexts which define the edge of the mound, and all mounds have flaked stone tools from these contexts (Clarke 1995). Only Mound 5 has a single flaked stone bar in its mound material. The remainder of other flaked stone bars are from Mound 7, on the platform to the north west of the mound, in the tumble of the mortuary building 212, and along the east-west orientated stone path on the west of the mound (Figure 2.16). In some cases the cists in the cemetery in this area have a flaked stone bar integral to their construction in that the stone tool forms one edge of the cist (e.g. cists 96 and 208, Appendix 2).

Eight mattocks and one ard point were recovered from Gitterpitten, again from the kerbs or edges of the mounds. The ards and mattocks from the barrow at Mine Howe (Clarke 2005) were similarly located on the edges or exterior of the mound and not in the mound make up.

Many of the ards and mattocks from these sites show signs of wear proving they were used before deposition. A number of the mattocks from Linga Fiold exhibited traces of wear on the blade edge, and others showed rubbing through friction where they had been hafted (Clarke 1995). The majority of the ards from Quoyscottie had also been worn through use (Rees in M E Hedges 1979).

There is therefore mounting evidence to show that ards and mattocks were consistently deposited at Bronze Age barrow sites in Orkney, and that the context of deposition is the outside, or more specifically the edge of the mound upon or amongst the kerb. It does not appear that flaked stone bars occur within burial deposits anywhere in Orkney, although other types of coarse stone artefacts are on occasion included (e.g. stone potlids in cists at Linga Fiold and Queenfjold, pair of flat stone 'cleavers' at Quoyscottie). The ards and mattocks would have been visible to those at the cemetery, and re-emphasise the focus on the outward appearance, identified as a feature of the kerbs.

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of a small barrow at Mine Howe (Clarke 2005) demonstrates that many flaked stone bars were going unrecognised even in more recent excavations.

Flaked stone bars have also been found used as an edging to some of the secondary cist burials at Linga Fiold which lends weight to the interpretation (above, Chapter 5) of the secondary burials as fractals or homologues of the primary burials (especially as these secondary features are often sealed by a small cap of clay subsoil). Conversely, the proximity of the flaked stone bar to the cremated remains of the secondary burials lends weight to the argument developed above that the whole of the mound is the 'burial' and the earth of the mound is laden with significance and potency, seen by the juxtaposition of the flaked stone tools and the outer part of the mound.

The ard points and mattocks could have been utilised in the production of materials for the funerary rites. They could exhibit wear from having been used to break the ground, loosen and cut the soil and turfs needed in the pyre and mound construction. They could have been deposited at the burial site because, as is the case in Bali, items utilised in funerary rites are polluted through contact with the dead and must not be removed from the site. More than this though, they are the dominant symbol of fertility, growth and regeneration. In order to substantiate this statement, the full range of contexts in which these items are encountered must first be explored.

Although the agricultural artefacts are not buried with human remains, they have been found on occasion to have been buried in caches with other stone tools. An example of this activity was found at Skaill (Buteux 1997). A stone path, with a drain underneath, ran south westwards to a large clay lined pit which contained at least four flaked stone tools, two pounders/grinders, and a perforated stone. A cache of coarse stone tools comprising two mattocks, an ard point, two handled clubs and nine cobble hammerstones was found at Isbister chambered tomb (J W Hedges 1984; Clarke 1995), inserted behind the north hornwork, close to a cist burial dated to 1595 BC (Davidson & Henshall 1989,97).

At the Knowes of Trotty a pit to south of Mound 1 was found to have had two mattocks deposited in its base. Small quantities of cereal grain and weeds of cultivation were also found within this pit which led Alldritt to suggest the seeds represented debris from domestic activities such as grain drying, or consumption on site of a cereal product grown and partly processed elsewhere (Alldritt 2003). There was a total absence of cremation-related debris from this feature.

Ards and mattocks are found in some quantity in domestic sites, but are recovered from particular contexts, all of which are the edges of structures or features. Research into the context of these tools is hampered by a failure to recover them (noted above, and another example being Gelling's excavations at Skaill (Buteux 1997) where coarse stone tools were only retained in the final season of excavation) and by a lack of contextual detail from earlier excavations. The agricultural tools also appear frequently to have been built into the walls of Bronze Age houses, both in Shetland and Orkney. At Sumburgh the bulk of the flaked stone tools were associated with the walls, either as tumble where they had once been a part of the walls, or in external contexts, in part due (but not entirely) to them being manufactured on external work surfaces close against the wall (Clarke in Downes & Lamb 2000). At Skaill flaked stone bars were also built into the walls of the early Iron Age house (Porter in Buteux 1997).

Clarke (in Downes & Lamb 2000) states that at all occupation sites in the Northern Isles the greatest abundance of agricultural tools is at the top of the collapsed building layers. She argues thinks this can in part be attributed to the quantity of tools within the walls which then collapse in on the buildings. However, due to the quantities of tools retrieved others have suggested that the ruin of a house would act like a clearance cairn in subsequent generations, when tools broken in the fields would be thrown upon it. An alternative explanation is that implements were kept in lofts or rafters of the buildings and fell in when the building collapsed (Whittle 1986).

Certain factors militate against these explanations and suggest that the ards points and mattocks were deliberately spread over the abandoned house. First is the sheer quantity of the tools, and the second that not all of them are worn or broken. Research into the context of the ards and mattocks at Sumburgh and Jarlshof revealed that these tools were not only deposited over a house that had gone out of use, but also were laid on the surface of floors just prior to the remodelling or rebuilding of the house (Downes in Downes and Lamb 2000). In the context of the exterior of the burial mound, and the abandoned house, the use of the agricultural tools could be seen as closing deposits. However the role that these artefacts play in growth and reproduction, and their use as deposits not just at the end or death of house but during its life cycles, strongly suggests their incorporation was to regenerate the house and to ensure fertility and prosperity for

the future. Their consistently liminal position on the edge/outside is symbolic of the mediatory role of these artefacts in the physical interaction between the human body and the land.

PEOPLE AND LAND

We have come on an exhaustive journey from the body to the ard, examining in detail each material that makes the burial, and the juxtaposition of these materials one to another. We have seen the defragmention and reconfigurement of the remains of human and animal persons and the pyre. We have seen the materials of the world turned upside down and inside out. We have seen the tools of cultivation employed as symbols of fertility. We have been talking about burial mounds as a bringing together of materials as a metaphor for growth, fertility, reproduction and regeneration. What do we mean by that, and how do we speak of the individual, the community which is reproducing itself through these creations, and the materials and substances employed and deployed?

To establish the link between death and fertility we return to Bloch and Parry who describe several 'systems' in which 'death is harnessed to the cycle of regeneration and converted into birth' (Bloch and Parry 1982, 26). In many traditional societies, biological death is a threat to order and is associated with decay and pollution. The irreversibility of an individual's death can be negated by eradication of individuality through funerary rituals, which serves to 'reassert continuity by equating death with birth into the depersonalised collectivity of ancestors which is the source of continued fertility for the living' (ibid, 11) (and ancestors will be discussed in the next chapter).

Funerary rites are often a struggle against biological death which can be seen as the onset of negative aspects such as decay and associated pollution (Bloch and Parry 1982). Through the analysis of cremation we have identified contingencies for death, and in the staging of the rites and the manipulation of the body and other materials, have glimpsed a control over death. Cremation emerges as a triumph over decay, which will be explored further in the following chapters. Bloch and Parry suggest that the symbolism of regeneration is the antithesis of the symbolism of decay, and that the former 'derives its force' from its juxtaposition to the latter (Bloch & Parry 1982, 26).

Brück (2001) sees a close link between the deposition of fragmented artefacts and fragmented human remains in midden as indicative that both, although dead, offer a source of fertility and life. The deployment of the fragmented human and pyre remains in close association with the land, together with the use of agricultural implements, is expressive of a similar conceptual link between both the dead and the living, and dead matter and its transformability into new life.

In the preceding chapters cremation was portrayed as a technology which transforms one thing into another, and thereby creates new things. With reference to the movement of old bones in Neolithic tombs, Fowler suggests that the reconfiguration of parts to make "new potent wholes" provides spiritual regeneration (Fowler 2004, 99); I would suggest that the reconfiguration of the cremation/person provides not only spiritual regeneration, but indicates a strategy for continued fertility and the generation of all 'persons'.

The arrangement of the materials in the make up of the burial mounds has been found to be an inversion of the way the land is made up. This in itself is not a new observation. Owoc observes (2001) that the construction of the mounds in southwestern Britain is an inversion of the natural stratigraphy. Like others, she sees the inversion as serving to enhance and dramatise the appearance of the mound as the alien subsoil creates a striking contrast in the landscape. But, in addition, to Owoc the combination of the particular use of enclosure, alignment, stratigraphy and time all speak of ceremony that expresses 'the order of things and the place of the living and the dead within it' (Owoc 2001, 196). The choice of the materials for the mounds and the way in which they are stratified establishes 'clear metaphorical links between the living, the deceased and the landscape, the progress of the funerary ritual itself and the perceived form and activity of the cosmos' (ibid, 196).

The inversion we have observed at Linga Fiold is, however, clearly not just of the natural stratigraphy but of the pyre as well. The link between the deceased, the landscape, and the living through the technologies and ritual practice, is therefore *actual* as well as conceptual. The reconfiguration of parts of the body, the pyre and the materials that make up the land can be seen as a reversal of the way the living inhabit the world. In his study of Bronze Age Scandinavian rock art, Bradley (2000) makes some interesting

observations regarding the footprint or footsole carvings. He argues that these carved tracks, which run in both directions between the domains of the living and the dead, are the footprints of the dead. His argument is based on an interpretation of landscape and cosmologies in relation to rock carvings (considered below, Chapter 7), and on mythology of northern Scandinavia within which 'the dead occupy an underworld that is the mirror image of the world occupied by the living [wherein] 'the lower layer [of the cosmos] is the inverted world of the dead, whose feet, since they walk upside-down are sometimes thought to touch the soles of the living who walk upright' (Bradley 2000, 142, quoting Ingold). It is possible that the inversion of the pyre and the natural stratigraphy is an expression of a similar conception of an inverted world occupied by the dead.

From ethnographic examples, funerary rituals can be undertaken as a reversal of the manner actions are undertaken in life, and objects inverted, in a belief that the afterlife is a an inversion of life, and/or commonly to separate the dead from the world of the living (Parker Pearson 1999, 26). Certainly in Bali there are many reversals and inversions of behaviour commensurate with other types of ceremonies during the rites surrounding cremation, for instance people dress down, wearing their everyday work clothes rather than dress in their best clothes, the funeral procession moves in a rowdy, hasty, disorderly manner rather than in a stately procession, and the orchestra plays deliberately discordant rather than melodic music. This behaviour demonstrates a healthy disrespect for the dead. The corpse is turned three times at each crossroads to disorientate the spirit of the dead and discourage it from finding its way back to the living. These acts are calculated to counter the dangerous and polluting aspects of the corpse associated with its decay, and are part of a strategy to challenge and confound biological death.

That is not to say simply that death is an inversion of life (Fowler 2004), but that the inversion of materials observable in the Bronze Age barrows indicates the nature of substances and materials, how they are categorised and ordered, and the relationship of people with the land. In the assemblage of the burial and burial mound, substances that have varying degrees of danger and potency are carefully juxtaposed with materials that can counter and contain those materials in order that the whole construction is in balance and can act as force *for* regeneration and *against* death/decay/destruction. The

cremated remains are products of transformation through fire; the cremation has ended the prospect and danger of decay but the cremated remains are powerful artefacts with generative properties. The cremated remains are contained in either stone, subsoil, or ceramic receptacles. The inversion of all parts of the pyre to the topsoil underneath the pyre uppermost is a series of materials each one cooler and maybe less dangerous than the other. The part of the mound made from turf and/or topsoil is, I would argue, not neutral, and is always capped by subsoil or stone, and edged with stone; both stone and subsoil may have been considered unambiguous, stable, protective materials which sealed the whole construction and protected the living from the potency of the whole. Brittain's description of a monument not just as container (for example of human remains) but as a 'locale for a fusion of substances that can bring forth a process of transformation and change' (Brittain 2004) expresses well the continuing 'life force' of the barrow.

According to Bloch and Parry 'if death is often associated with a renewal of fertility, that which is renewed may be either the fecundity of people, or of animals, or of crops, or of all three. In most cases what would seem to be revitalised in funerary practices is 'that resource which is culturally conceived to be the most essential to the reproduction of the social order' (Bloch & Parry 1982, 7). I suggest that cremation and the building of barrows indicates that to the people of early-middle Bronze Age Orkney the important resource was land. Barrett (1991) has written of a middle Bronze Age of southern Britain (in Barrett et al 1991), in which the crisis of death seems controlled within the routine procedures of biological reproduction. Perceived changes in technology of agriculture and a more intensive use of land with short fallow replacing long fallow (Barrett 1994) may have resulted in changes to tenure and inheritance which 'would have turned the products of agricultural labour and the cycles of reproduction into resources for an explicit, dominant ideology' (Barrett et al 1991, 225).

The evidence that we have been examining in this chapter shows cremation as part of the cycle of reproduction, and the particular configuration and use of the land in the barrow ties this into the resource of the land. The parallel use of the tools of cultivation as dominant symbols in life cycle rituals in the domestic and funerary spheres shows agricultural labour as a dominant ideology. The use of these tools in the domestic sphere indicates the house too has a life cycle (cf Brück 2001; Fowler 2004) and is part of the

cycle of reproduction. The working of, and inhabitation of, the land, and the interplay between the living, the dead and the land will be explored further in the following chapter.

The indissoluble relationship between humans, animals, plants and the land is highlighted by the increasingly detailed evidence being gained for soil amendment in the Bronze Age. Many have written about the significance of midden, and its potency and generative powers (cf Parker Pearson 1996, Brück 2001, Fowler 2004), and the practice of building midden around the house in the Northern Isles has been noted (above). Soil science in the Northern Isles is providing the earliest evidence of soil amendment in the British Isles, and is showing local differences and changes through time that are very interesting not least in terms of animal husbandry and agriculture. During the Bronze Age at Tofts Ness, Sanday it appears that soil was being amended with *human manure*, and with turf (Simpson et al 1998). This is in contrast to Bronze Age Scatness, Shetland, where domestic waste is used, and also in contrast to the late Bronze Age at Scatness when peat ash is used, a fuel not available in abundance earlier on in the Bronze Age (ibid).

These findings are significant in the context of this discussion for the following reasons; first that by the Bronze Age the fertility of the earth is not a given, it is a technology and something that has to be worked at. Soil is fully acculturated, not part of the 'natural' world. Second, the different substances used to amend it may vary the properties of soil. It is possible infields were amended with human dung and this soil was not used for burial mound construction; however the occurrence at some barrows of domestic debris under or within the barrow shows that other types of waste or midden were singled out for this particular use.

Moreover, the use of human faeces as amendment signals both the role of the person as an inseparable part of the continuous cycle of reproduction, and the inalienability of people and land. The person is part of the land as part of their essence goes into its fertility, and the land produces animals and plants that become part of the person.

Detailed analysis of the burial architecture from bottom to top shows materiality is important to an understanding of the meaning with which each layer is redolent. The

evidence we have been looking at is wider than burial, and describes or involves the widest sphere of both social interaction and interaction with, and relations with, nature and the environment. Both social relations between humans, and between humans and other persons, the environment and the cosmos, can be looked at through the lens of personhood, broadening an understanding of practice and social reproduction in the Orcadian Bronze Age.

I will conclude with the relationship between people and the land, and this necessitates a return to the subject of personhood. We have seen that the technology of cremation created an inalienable artefact through a process by which the living and the dead established an affinity, and tension between individual death and the social collective was alleviated (Bloch and Parry 1982). This process speaks of the partible person who was introduced above (Chapters 4 & 5). In a society where the person is partible, or dividual, inalienable relationships can exist between people, non-human people, artefacts, and land. It is time to introduce the 'paradigm of communalism' which has an emphasis on 'practice, reciprocity, and engagement' (Pálsson 1996, 78). This paradigm 'rejects the separation of nature and society' (ibid, 72) and instead 'emphasises the *generalised* reciprocity of human-environmental relations' which are frequently 'modelled on close, personal relationships' (ibid 77, original emphasis). One of the classic examples of the paradigm of communalism cited is the ancient Scandinavians who were 'so indissolubly linked with the land they cultivated that they saw within the land an extension of their own nature' (Pálsson 1996, 74). These relationships are perhaps indicative of the totemic ontology that Ingold (2000) describes, within which land is essential to the life of people, animals and plants. In the totemic world, persons and non-human persons share the same essence, and on death and through burial are both returned to the land from which they grew (Ingold 2000, 115).

The recurrence and apparent symbolic dominance of the stone tools of cultivation in both funerary and domestic contexts affirm this interpretation because of the pivotal role these tools play in the interaction between humans and non-humans and the land. The paradigm of communalism and the totemic ontology resonate strongly with the picture being developed through the Orcadian evidence of the relationships between humans, non-humans, and the land.

CHAPTER 7 – CEMETERY ARCHITECTURE

INTRODUCTION

Through the study of what constitutes a 'burial' we have been widening our focus from the cremated bones, through the burial of the cremation, to the building of the mound with the cremation. We have treated the creation of the burial deposit and burial mound as one, and the whole as very much the consequence of the burial rites (cf Barrett 1994). These findings are significant in many respects and have relevance to several research questions that have been, and are being, pursued in relation to Bronze Age mortuary practices.

Detailed analysis of the structure of the mounds was not undertaken in the hope function could be ascribed to the mounds, for, as Pauketat and Alt ask 'was it the *mound* that was the goal of the builders, or the *act of construction* itself? (Pauketat and Alt 2003, 152, original italics). In the investigation of the materiality of the barrow, we have seen that the monument is not functionally related to the burial underneath, it is the outcome of strategically deployed actions which is inseparable from the burial. In this chapter an examination the 'temporal and spatial cycles of social reproduction' within the sphere of barrow cemetery architecture will be undertaken, which will build upon the investigation of the 'material conditions' undertaken in the previous chapters (Barrett et al 1991, 225). Through the examination of cemetery construction, and the interactions between the creators of that developing architecture and the land, the themes of genealogy, descent and ancestry, memory and time, landscape and cosmology can be explored.

BUILDING CHRONOLOGY

The sequence of the development of a barrow cemeteries is poorly understood in Britain (cf Garwood 1999), and we must address this problem if we are to develop the themes which we have introduced and which are fundamental to how society understands and reproduces

itself. Once again, the evidence from Linga Fiold, and from Gitterpitten, Varme Dale, the Knowes of Trotty and Quoyscottie will be interrogated this time in terms of spatial relationships as much as sequential construction.

First, the lengthy timescales during which these cemeteries were probably constructed must be emphasised. At none of the cemeteries under discussion can the radiocarbon dates be said to be comprehensive as charred wood was only recovered in sufficient quantities from a limited number of contexts[1]. The recent developments in the dating of cremated bone is of enormous benefit to research such as this (cf Sheridan 2003), and further samples of cremated bone are to be submitted from Linga Fiold to supplement the existing data. Radiocarbon dates for Linga Fiold so far have come only from features under and over Mounds 5, 6 and 7. Linga Fiold has a long chronology and appears to have been constructed over a considerable amount of time, perhaps several hundred years. The earliest date from the site is from Mound 5 (pyre debris 375 over primary burial) and is c. 1800 BC and the latest is from Mound 7 cist 95 (cut into edge of mound) which is c. 1260 BC (see Appendix 1 for full list of radiocarbon dates and codes).

Ten radiocarbon dates were obtained from Gitterpitten (see Appendix 1) the earliest of which is c. 1750 BC (from pit 1027 outside/under the kerb of Mound 2), the latest c. 670 BC (from pit 1023 between Mounds 4 and 5, GU-10624). Most of the dates range between 1750 and 1210 BC, the single later date of c. 700 BC came from a pit at a small distance from the barrows and other pits. Four dates were obtained from charcoal within pits at Quoyscottie (Ashmore 2003), and one from pottery within Knowe 2 (Sheridan 2003; Appendix 1). One of the dates from a pit (103) calibrates to 1900-900 BC; the others 1390-921 BC, 1190-900 BC and 1010-520 BC (Ashmore 2003). The sherd of pottery is 1750-1510 BC (Appendix 1). Radiocarbon dates were obtained from Varme Dale Mound 2 primary cist (2007) and secondary cist (2008) which were 1690-1440 cal BC and 1500-1290 cal BC respectively (Appendix 1). These are the only 'funerary' related dates from this widely dispersed large cemetery.[2]

[1] Of the c. 350 bulk samples of charcoal/ash-rich matrices from Linga Fiold, only 12 samples suitable for dating were obtained

[2] The dates from burnt layers under Mound 1 (Appendix 1) are the earliest radiocarbon dates yet from human activity in Orkney, but the range of species of cereal grains (barley, and wheat represented by einkorn (*T.*

As with Linga Fiold, these sites have very long histories. The longevity of use or development is mirrored in the settlement evidence (Chapter 2). Based on both the dates and differences in barrow structures described in the preceding chapter, we might very broadly speaking say that Linga Fiold spans earlier-middle Bronze Age, Gitterpitten middle – later Bronze Age and Quoyscottie later Bronze, with much overlap between.

Garwood cautions against the uncritical use of radiocarbon dates given the 'probabilistic nature of calibrated dates' (1999, 293), and in Orkney our problems with chronology are compounded by the oft-bemoaned problem of a lack of diagnostic artefacts at Bronze Age burial sites (see Chapter 2). Despite the limited nature of the dates however, I will use them 'broad framework' within which to consider more detailed interpretation based on stratigraphic and spatial evidence at a site specific, and local, level (ibid) because it has not been attempted before and will provide future researchers with something to work within or against.

An overall sequence of construction and development of barrow sites has been suggested for Wessex barrow cemeteries, and it is this core of interpretation that new evidence and interpretations are tested against and developed from. Although regional variations are identified, there are certain basic tenets that most accept.

Earlier burial barrow sites in other parts of Britain are thought to have remained 'open' (not covered by a barrow) for some time, with a primary burial covered in a small mound, and/or surrounded sometimes by a small ditch or rings of stakes (cf Garwood 1991; Barrett 1994; Woodward 2000). Barnatt seems to see this 'open phase' as the norm, suggesting the space could have been used for rituals such as exposure and excarnation prior to barrow raising (Barnatt and Collis 1996, 48-9). Others (Garwood 1991) see this differing funerary architecture as chronological, an early Bronze Age development contemporary with or

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monococcum)) was unusual both for the Bronze Age, for the area, and certainly not typical of the period indicated by the radiocarbon dates (Wagner 2003). It is therefore concluded that the fuel used for the burning/cremation activities included peat which contained ancient wood.

succeeded by 'revetted' mounds and multi-phase mounds, and followed in the middle Bronze Age (c. 1500BC) by single-phase 'unrevetted' mounds. Barrett (1994) accords with this broad sequence; to him the (southern English) barrows which were enlarged during the early-middle second millennium with turf and chalk capping were the barrows to which other cremation burials were added as they became cemetery barrows. It is undeniable that there are regional variations in Bronze Age funerary rites and architecture, and these authors would not have expected a sequence developed on the basis of southern English material to be applicable or relevant to the whole of the British Isles. However the Orcadian evidence can be profitably evaluated in the context of the theoretical dialogues which have been based on this body of evidence.

BUILDING SEQUENCE

PRE-BARROW AND BARROW ARCHITECTURE

We cannot be certain that barrows in Orkney were always raised immediately after the burial was interred, and some time may have elapsed between primary burials and rituals and the construction of the mound, as indeed happens in other parts of Britain (cf Garwood 1991; Barrett 1994; Barnatt and Collis1996; Woodward 2000). In Orkney as elsewhere earlier records are variable in quality, and quite often a plan will show a number of burials that appear to be at primary level, although a section can show that only one burial is primary and the others are situated higher up in the mound (e.g. Skae Frue, Sandwick, RCAMS 1946).

At Linga Fiold, Mound 2 is recorded as having six cist burials at primary level (RCAMS 1946). It is possible that these all relate to one or two cremation events which took place closely in time and space and were subsequently covered by the burial mound; it could equally be evidence of a more prolonged sequence of activities before the mound was raised. The evidence from the recent Linga Fiold will be investigated to clarify this.

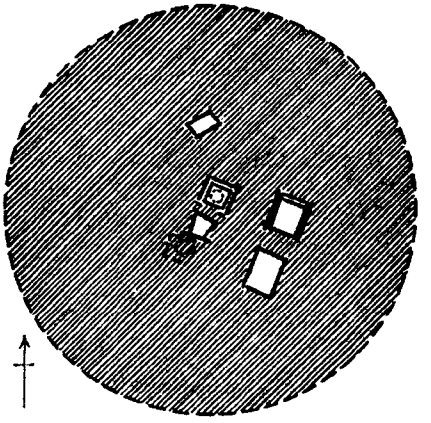

Figure 7.1 *Plan of Linga Fiold Mound 2 (from RCAMS 1946)*

It has been demonstrated above (Chapter 5) that at Linga Fiold the burial mounds are being built in part from the pyre; this suggests that the mound was constructed as one event, immediately after the cremation and in one sequence as part of the reconfigurement of the cremation event. Confirmation that the construction of the burial and the primary burial mound is in most instances executed as one continuous sequence comes from one piece of evidence already noted (Chapter 4), that is that in Mound 7 the mound material had been placed over the pyre (347/455, Figure 4.1) when it was still burning and had smothered it. The heat from this pyre (374/455) scorched the side of the primary cist (346, Figure 4.1).

Further evidence to this effect comes from the soils analysis, and stratigraphic information. Carter argues that the utilisation of all parts of the natural soil profile in the mound construction (Chapter 5) indicates that 'materials for the mound were dug from one area of soil as a single operation' (Carter 1997b, 5). He deduces that this material was heaped over the burial without delay, and that each layer was put in place immediately after the other, from the lack of evidence within the soil thin sections for the formation of temporary surfaces between deposits of soil. This leads him to the conclusion that each mound was built as a single act of construction. However, this is difficult to reconcile with the multi-phased stratigraphic interpretation of some of the Linga Fiold mounds, summarised in the following table.

Table 7.1 *Linga Fiold summary of mound phasing*

Mound	No. of phases	Phases in mound build	Primary mound material	Secondary mound material	Primary kerb	Secondary kerb
1	unknown	unknown			unknown	unknown
2	2+ - disturbance of A horizon, pyre debris deposit, mound material	unknown			unknown	None seen
3	?2 – mound sequence unknown, features focused on mound	unknown			unknown	unknown
4	2 – cist+mound, further features around	1	Heat affected topsoil around cist covered by clay subsoil		Probably freestanding; assoc with grey (ashy) clay	
5	3 – 2 central burials plus mound refurbishment, interim activity	2-3	Pyre debris over grave covered by turfs and topsoil, covered by subsoil	Subsoil (covering very thin layer of heat affected topsoil associated with pyre activity)	Freestanding; assoc with grey ashy clay	None
6	3 – 2 central burials plus mound refurbishment; boat shaped setting	2-3	Central steatite urn burial covered by turf mound	Subsoil (covering thin layer subsoil and paving associated with pyre activity)	Freestanding; assoc with orange clay	None. Cairn over boat-shaped setting on east side
7	5	1	Thin clay covered by loose topsoil, covered by subsoil	Patchy kerb over edge of mound, assoc with grey clay	Large, widely spaced sub-megalithic stone uprights, on south side mound only.	
8	2	2	Heat affected topsoil around cist covered by clay subsoil	Clay subsoil	Freestanding	Laid on secondary mound material, assoc with ashy clay
9	2	2	Clay subsoil	Clay subsoil	Freestanding; assoc with grey clay	Freestanding; assoc with ashy clay
27	1	1?	Clay subsoil			

In both field observation and subsequent analysis of the stratigraphic record, the evidence for some of the mounds being constructed in two phases appears clear:- a distinct difference in the colour and or make up of the clay subsoil coincides with the incorporation of a cist

which was sometimes set into the top of primary mound material (Mound 9), or on top of primary mound material (Mounds 5 and 6) (Appendix 2). Furthermore these distinctions in mound make-up coincide in some cases with the addition of another kerb (Mounds 8 and 9). The mound material of both Mounds 4 and 7 appeared put in place as a single event and these mounds were not subsequently enlarged, although both mounds did become the focus of activities evidenced by pits and cists and in the case of Mound 7, the mortuary structure, kerb cairns and dense clusters of cists and pits (Appendix 2; see below).

At Mounds 5 and 6, the first and second phases of mound construction (phases 1 & 3) were interspersed by the remnants of activities that had taken place on the surface of the first phase of mound materials, using the mound as a platform. To take the case of Mound 5, the activities represented by features of phase 2 all took place between the raising of the first mound and its refurbishment, including a thin spread of heat affected soil from beneath a pyre across the original mound (Figure 6.5, 169), a cist (174) and pyre site (152), a spread of subsoil consolidating the side of the mound over which lay a series of pyres (156/158, 159, 160, 171; Figure 4.2)). The thin layer of redeposited subsoil underlying these features (168, Figure 6.5) is interpreted as a temporary surface laid to consolidate the side of the mound while activities were being undertaken.

At Mound 6 evidence of activities on the surface of the primary mound are clearly attested by the areas of stone paving (130), again perhaps an attempt to consolidate the side of the mound, and a pyre site (144/7). The burnt bone from this pyre site was probably that found within the cist (121) incorporated in the refurbishment of the mound (see above, Chapter 5). The sequence in these secondary phase activities appears as swift and single-act as those in the first phase activities.

Thus there is evidence for several of the mounds being of more than one phase but the thin section analysis could not have picked up these contexts because they fell outside the areas sampled. However, if turf horizons, indicative of long-lived hiatus, had been present within the make up of the parts of mounds that were thin sectioned, they would have been identified through micromorphology, so it can be concluded that space of time that elapsed

between primary mound and refurbishment was not sufficient for turf to develop.[3] Therefore the period of time over which each mound, whether one or two phase, was constructed was relatively short.

Secondary burials around the mounds seem to have been added over a longer period of time (also see below). These bursts of intense, episodic activity at the site are detected by Carter in the soil thin section analysis (1997b), and are seen particularly well preserved under the edge of Mound 2. Here fragments of heated and fused pyre debris became incorporated into the soil through by considerable trampling or mixing of a broken soil surface, over which another turf horizon developed over time, upon which a pyre debris dump (471) was deposited (ibid, 4; Appendix 2).

The construction technique involved in the enlargement of the Linga Fiold barrows specifically recreates and mimics the sequence found in the primary mound; heat-affected soil is spread across the surface of the original mound, covered by a thick layer of earth (subsoil); the new mound is defined by a kerb, and the kerb again associated with the (cool) ashes from the pyre (see Chapter 6). This activity *does not* intrude into the primary mound; the cist is constructed on the surface of the primary mound, and does not cut into it. These refurbishments replicate and quite literally 'enhance' the primary mound; they should not be seen as an attempt to re-enter the primary mound, let alone the primary burial. These 'secondary' burials have far more in common architecturally with 'primary' burials than they do with the mass of other 'secondary' burials at the edges of the barrows. The terminology is inadequate and I am going to refer to them as 'second primaries' to distinguish them from the secondary burials around the edges of the mounds.

The intense and episodic activity recorded at Linga Fiold chimes with Garwood's observation that 'evidence for recurrent, cyclical, repetition of ritual practices at round barrow sites is scarce: they seem to represent a series of occasional and singular ritual or constructional events' (1991, 25). For Garwood this exposes the contradiction in our

[3] The alternative possibility is that primary mound surfaces were stripped prior to refurbishment. This possibility is discounted on the basis that stripping a mound of turf would destabilise it to the extent that the mound would be trampled, disturbed, and even flattened by people walking over it to erect pyres, enact rituals etc. Such disturbance would have been detected through excavation and soil micromorphology.

thinking between ritual as a supposed overarching rigid system, and the actuality of ritual events that were infrequent and perhaps unseen. That they may be 'remembered imprecisely from one decade to the next' expands the scope for the introduction of novelty and / or the manipulation of customs (ibid), and change through time. It is apposite to emphasise the radical differences between, and singularity of, the primary burials at Linga Fiold. The primary interments vary greatly from the several small cists under Mound 2 (Figure 7.1), to the long, grave shaped pit under Mound 5 (Figure 5.3), to the deep funnel shaped pit underneath Mound 6 into which the huge, two-part steatite vessel was placed, to the variety in the size, shape and construction method employed in the other primary burials which are cists built upon the ground surface. Variety in the secondary interments is as great, but perhaps not as dramatic (see above, Chapters 5 and 6).

From the evidence of the recent excavations at Linga Fiold there seldom seems to be any significant delay between the construction of the primary burial and the construction of the primary mound. The same rapid sequence of events can be seen at Mousland where the mound material follows on the burial immediately. It can be assumed that at all sites where the cist is freestanding structure built above ground (Gitterpitten, Varme Dale, Quoysottie, Queenafiold), the mound was built around the cist straight away as the cists are not robust enough to be self-supporting for any length of time. The bursts of activity at the cemeteries contrasted with the lengthy histories of the sites suggests that the sites were only utilised during funerary rites and were not otherwise visited or used on regular basis for post-depositional activities (see below).

The construction of the burial and barrow as a single act is illustrative of the emphasis placed on the immediacy of contact between the pyre remains and the land, the integrity of the burial mound expressing, as I have described (in Chapters 4 and 5) as the inalienability of people and their environment. However this contiguity is far from a universal for only some burials of cremated remains ever have a barrow raised over them, and barrows do not always cover burials. We will continue our investigation of burials, barrows and 'meaning' through cemetery architecture.

CEMETERY ARCHITECTURE

There are two types of aggregation that structure the development of barrow cemeteries – the partnering of the barrows one to another, and the juxtaposition of the secondary burials within and external to the barrows. The arrangement of the barrows produces the either the 'linear' formations such as Linga Fiold and Knowes of Trotty, or the 'clusters' that can make up larger dispersed cemeteries such as Quoyscottie, Gitterpitten, and Varme Dale. Dispersed cemeteries can be seen to have smaller linear arrangements within them (Figure 2.10). There is great complexity and variation in the siting, and type of barrows, both within and between cemeteries (described briefly above, Chapter 2, and below). The evidence from Linga Fiold provides an opportunity to gain a better understanding of cemetery development and architecture.

Although not linked by stratigraphy, we have some idea of the development of the cemetery from the radiocarbon dates, and the soils analysis. In his report on the dates from Linga Fiold Ashmore (1998) concluded that Mound 5 primary activity was definitely earlier than Mound 7 primary activity and very probably earlier than Mound 6 primary activity. Although only three of the mounds have been dated we can propose that the Linga Fiold barrow cemetery developed chronologically from south to north, that is up hill, and in which sequence the mounds diminish in size as they are built up the slope (Figure 7.4).

It may be recalled that Carter (Chapter 6) observed a difference in the mound material making up Mounds 8 and 9 (and 4) in that they were made of subsoil with no turf component (apart from heat-affected topsoil mounded around the cists). Carter suggests that turf stripping in the vicinity of the cemetery for the construction of mounds through time led to lack of availability of turf and a consequent reliance on subsoil (Carter 1997b), and that therefore the difference between the make up of the mounds was chronological. This suggestion that Mounds 5, 6, and 7 are earlier than Mounds 8 and 9 (and 4) complements the cemetery development proposed from the radiocarbon dates.

This may indeed be the case; Mounds 8, 9 and 4 are smaller than Mounds 1, 2, 5, 6 and have greater similarities with the form of barrows at Gitterpitten, which may be slightly

later cemetery (see above). It is apparent that a heavy reliance on turf for a whole range of purposes including building was having a degrading effect on land in general, and possibly increasing pressure on land even in the earlier Bronze Age (Scaife and French in Downes 1994). However, as we have seen with the profligate use of wood in cremation, the lack of a ready availability of a resource is really no object, and the choice of materials for construction had perhaps as much to do with changing traditions of materiality (see Chapter 6).

Throughout the lengthy time periods during which the dead were transformed at barrow cemeteries, the sites become increasingly elaborate and complex topographically (cf Barrett et al 1991). We will now scrutinise the sequential layout of secondary burials and other features in relation to barrows, and *vice versa by* taking Linga Fiold Mound 7 in detail. The location of secondary burials to the NW of both the mound and the mortuary structure (Figure 7.2) is important.

The structures to the north and east of Mound 7 (Figure 7.2, foreground) were of some antiquity when Mound 7 was constructed. The small kerb ring, 274 (off Figure 7.2 to left, see Figure 2.26), was the earliest feature at the Mound 7 site, and was probably no more than a truncated slight rise in the turf when the barrow was constructed. The mortuary structure had collapsed by this time, and the kerb ring 211 had perhaps already been built over its NE wall (Figures 7.2 & 2.16). The mortuary structure was probably part of the earliest activities at the cemetery, relating to the earlier Mounds 1, 2, and possibly 5 and 6[4]. By the time Linga Fiold Mound 7 was built, the mortuary structure would have appeared as low mound itself, its wall perhaps appearing as a kerb. It is possible that Mound 7 itself was positioned with respect and reference to this 'barrow', which may account for the way in which Mound 7 is located in the overall cemetery layout (see below). The secondary pits and cists are certainly positioned with respect to the remains of the mortuary structure, and the kerb rings that pre- and ante-dated it. Thus the secondary cremation activities were located in part with respect to Mound 7, and partly with respect to the earlier constructions.

[4] It is worth noting that the early Bronze Age building/putative mortuary house at the Knowes of Trotty was placed a distance away (c. 100m, Figure 2.23) from the presumed earliest barrow, Mound 1. This may relate to a desire to keep the pollution of the corpse at arms length from the site of cremation rites.

Figure 7.2 *Linga Fiold Mound 7 photographed from N*

There are further examples from the sites we have been examining of burials being 'focussed on' features or monuments that were not themselves 'burial monuments'. Of the three barrows partially excavated at Gitterpitten, Mounds 2 and 4 contained primary burials whereas Mound 5 was a 'cenotaph'. However, secondary burials clustered around Mound 2 and Mound 5, the cenotaph, but were absent around Mound 4.

At Varme Dale Mound 2 (Figure 2.22) was constructed over the site of repeated burnings. It is unlikely that this represents a pyre site as there was no cremated bone present at all

(not even microscopically, Carter 2000). However, there are large quantities of charred grain, and we might speculate that the site was a place of fertility rituals[5]. By the time the barrow was raised, turf had re-established itself on the site, and the site would have appeared as a low, stony, platform-like area. But a significance was attached to the site and utilised. The very substantial kerb of the barrow (Figure 2.22) was built over the overgrown remains of the grain pyres, almost enclosing the earlier site but not quite as parts of the edges of the earlier activity lay outside the kerb.

Thus on occasion barrows are constructed upon sites that have been the location of significant transformative events such as the grain pyre at Varme Dale, and perhaps cremation pyres elsewhere.

Taking the ideas already developed above concerning the deposition of cremated bone and the materiality of the mound it is possible to see a barrow not as a funerary monument to commemorate a particular individual but as a marker. The barrow construction completes the transformative event, controls, or modifies access to, and accentuates, an event and a place of transformation that have powerful regenerative properties. The secondary burials that are placed around structures and places that are not barrows are thus positioned because the structures they surround are perceived to have these properties, not because they are erroneously presumed to contain the remains of a named ancestor. The interpretation of a barrow that I am proposing is at odds with the idea that the materiality of a barrow, like the composition of a burial, is, as Brück considers (2004), constitutive of personal identity. Instead, cremation burial is not about the burial of an individual but a broader strategy to do with regeneration to which human remains are a key, but not the only, part.

The evidence of the chronological relationship between barrows and secondary burials serves to strengthen this argument. Along with the idea that a barrow commemorates an

[5] The occurrence of a quantity of charred grain in a pit also containing two stone mattocks at the Knowes of Trotty has already been noted (Chapter 6). Quantities of charred grain have also been 'sacrificed' by being burnt and deposited as foundation deposits – underneath the wall of the Ness of Gruting house, Shetland (2000 BC, Downes and Lamb 2000), and in a pit also containing burnt bone and an amber bead in the earliest phase of the Bronze Age house at Skaill, Deerness (Buteux 1997)

individual, it is thought that barrows have their own 'biographies', and that the 'life' of the a barrow starts with its founding with the deposition of a primary burial, followed by the raising of a barrow, which then becomes the focus of secondary burials until another barrow is founded.

At Linga Fiold the development of the cemetery appears more complex. The two later dates from Mound 5 (both from pits, 432 and 154, Appendix 2) under the edge of the second phase of mound material could be contemporary with the earliest dates under Mound 7 (Ashmore 1998). It is thus probable that activities continued to be undertaken at Mound 5, evidenced by the addition of secondary burials, when Mound 7 was being founded.

Further evidence that secondary burials around the edge of barrows were not typically or necessarily later than barrows but were an integral part of the cemetery from the beginning comes from other sites in the study sample. The stratigraphic evidence from Gitterpitten and Quoyscottie shows that at these sites the pits that cluster around the barrows are as early as the earliest barrows, and continue to be added both throughout and after the construction of the barrows. At Gitterpitten, a complex of soil layers both underlying and surrounding the barrows has been interpreted as firstly *in situ* topsoil which was then covered by a colluvium (formed either by rapid erosion from the mounds after they were constructed, or activity such as ploughing upslope of the mounds (Carter 2000)). The pits clustering around, and situated in between, the barrows were in some instances covered by the *in situ* topsoil, and in others were cut into it. This stratigraphic relationship suggests that secondary cremation pits were inserted over a long period of time, and also that some of the pits predate some of the barrows. At Quoyscottie four or more of the pits containing cremated remains that cluster at the north east of Knowe 1 pre-date the barrow, and six had been inserted into the mound, while another lay under the kerb and in mound material, and appears to have been made simultaneous with the construction of the mound (M E Hedges 1979, 134-5).

The evidence runs counter to the generally accepted idea that secondary cremation burials as a whole are usually later additions to barrow cemeteries. The aggregation of barrows and secondary burials is of a level of complexity that defies terms like 'development' and

'sequence' and 'ordered adjacency' (Garwood 1991) that have been employed to describe it.

BUILDING DESCENT

The view of barrow (cemeteries) as developed by or utilised by particular families is pervasive, and is tied into the idea that cemetery architecture is expressive of a concern with lineage, descent, and genealogy, and moreover is actually itself a genealogical map. Both Barrett (1990; 1994; Barrett at al 1991), and Garwood (1991) write in detail of the importance placed on genealogical reckoning. Garwood defines genealogies as historical calculations concerned with the relative ordering of descent lines, to which are attributed a time of lineage creation in the mythical past (1991, 15). He describes a society to whom history was important, and lines of descent assured social continuity. To Garwood, every feature of early Bronze Age burial (including elaboration of existing barrows and the siting of barrows on earlier monuments) is indicative of this concern with the ordering of descent lines, but none more so than the construction of the linear barrow cemetery, in which the creation of each new barrow is an establishment of a relationship with the past (ibid). To Barrett the positioning of the dead constructs 'lines of specific genealogical identity' (1994, 127-8). The large earlier Bronze Age barrows were associated with mythical 'heroic' individuals and he suggests that placing of the later cremation at the margins of the barrow was an act both of homage to the individual in the centre of the barrow, and of deference to the origins of that particular lineage (ibid).

The importance placed on genealogy and lineage becomes problematic when considered in the context of the interpretations being developed through this thesis, many of which appear aspects of a 'totemic' society. To Ingold, in a totemic society the relationship between the living and the ancestors is *not* genealogical; there is no line of descent and people are continually coming into being (2000, 142). He develops what he calls a relational approach, as opposed to the genealogical model of relatedness. To highlight some points from his critique of the genealogical model, to him the model splits the generations of persons from

their life in the world; by implying that the essential components of a person are handed down 'fully formed' from predecessors and from 'this it follows that the practical activities of people in the course of their lives....are not themselves generative of personhood but are rather ways of bringing already established personal identities into play' (Ingold 2000, 135). In the genealogical model, humans are also separated from their involvement with the land for 'if each and every individual is constituted by the sum total of bodily substance and cultural knowledge received down the line from ancestors, then the land itself can be no more than a kind of stage on which is enacted a historical pageant consisting of the succession of generations.' (ibid, 139). In the relational model Ingold forwards, 'Every being, in the course of its life history, works in the first place to keep the progenerative process going rather than to procure its own procreative replacement' (Ingold 2000, 150), and so 'both cultural knowledge and bodily substance ..undergo continuous generation in the context of an ongoing engagement with the land and the beings....that dwell therein' (ibid,133). Genealogical thinking is embedded in, rather than the context for, 'life-historical narratives of the deeds...movements... and emplacements of predecessors,...and of their interventions...in the lives of successors' (Ingold 2000, 133-4).

The barrow is a monument of an event undertaken as part of the progenerative process. We have described the cremation and creation of the barrow as a technological process in which the technologists reconstitute the dead and themselves, rather than create or recreate the identity of the dead person. We have looked at the way the technology of cremation creates a fragmented, fragmentable artefact, in which the social is embodied and objectified, and objectifiable (Chapman 2000a, 37). The cremation burials have been described as fractals – *'pars pro toto'* (ibid) - part of the fragmented cremation remains standing both for the whole cremation event and the people who created the artefact through the cremation rites.

Therefore the mound is not associated with an individual, and by extension the aggregation of secondary burials cannot be about claiming descent or paying homage to a predecessor or named ancestor. Funerary rites are only one part of the process, and the barrow functions as a continuing place and agent of regenerative power. Cremated remains buried at the barrow are part of the ongoing cycle of life, death transformation and regeneration; by the

association of these events with the barrow they both draw upon and contribute to the potency and success of the whole.

The interment of human remains within or around barrows is only one type of deployment of human remains in Bronze Age Orkney (see Chapter 2), and is a particular strategy where the cycle of life and death is given substance and harnessed for continued fertility and regeneration. The secondary burials are fractals; they could be further stages or events in a long sequence of rites centred on death and transformation, of which the barrow is the whole. Fowler describes very prolonged mortuary rites as a 'process of separation and reconfiguration [which is] ongoing, renewing social relations and [which] ensure[s] the flow of substance through the world' (2004, 90); this describes well the ongoing nature of rites and activities at the barrow cemeteries. The siting of secondary burials is made with reference to the monuments which are created of the events and people. The location of secondary burials around the ruined mortuary building is not a case of mistaken identity; the burials focus on the effectiveness of an event rather than the memory of an individual.

BUILDING ON THE PAST?

The architecture of barrows cemeteries have been thought to be concerned with the past, and kin or ancestors (cf Garwood 1991 and 1999, Mizoguchi 1992, Last 1998). To Garwood (1999) the addition of new barrows to a linear development serves to 'affirm socio or mytho-historical relationships between the present and the past', and to Last (1998) the spatial structure of burials within one barrow is built with reference and deference to the primary burial, such views are commonly held. The tenet is built on the premise that the either the primary burial, or the barrow, which ever is being discussed at the time, was created to build, or built to create, an identity of an individual, and that the particular form of the burial or barrow would ensure the memory of that individual was retained, and could be 'referenced' by further burials. It is as though the aggregation of human remains that comprises a barrow or barrow cemetery is in itself a 'historical pageant'. To Mizoguchi (1993), the linearity of a barrow cemetery developed because of a growing association between ancestors and barrows, replacing the focus on the individual ancestors in their

graves, giving rise to possibilities of manipulation of ancestors through this architecture and a stress on the importance of each new barrow being positioned in relation to previous ones. This idea of a cemetery developing out of a series of references to people from the past, or ancestors, is perhaps what develops into the 'explicit rules', and a 'customary understanding' that Garwood (1999) suggests enabled linear cemeteries to have developed according to a long-term, planned, strategy.

At the site of Linga Fiold, Carter (1997b) has suggested that the cemetery may have developed in a planned way. His evidence for this is the fact that all the barrows are built on 'stable, vegetated' sites, with fully developed turf, which contrasts with the previous cremation-related activities that disturbed the soil underneath Mounds 2, 8 and 9, after which they had time to re-vegetate before being covered by the barrow. Both soil micromorphology and pollen analysis (Bunting & Tipping 1997) concur on an important feature of the cemetery – that burial mounds were built on stable,vegetated,turf horizons ('green field' sites); disturbance recorded in the soils and pollen was indicative of periods of (episodic) intense activity related to funerary/cremation rites rather than stripping of soils prior to mound building. That the area/s exploited for the soils and sediments used in the mound building were near to the cemetery but not in the specific area covered by the cemetery implies a plan for how the cemetery would develop over time.

Mizoguchi examines how in this context the 'the unintended consequences of action are monitored by the actors' knowledgeability, consisting of discursive knowledge and routinised practical knowledge, and the mode of the next action is decided upon the outcome of this monitoring' (1993, 41, see also Barrett 1990, 1994). Mizoguchi concludes that the change from a memory of the individual through Beakers to an abstract representation of the ancestors through the building of barrows signalled an increasing authority through manipulation of ancestors and their architecture over mortuary rites through an architecture that increasingly confined and prescribed movement. Therefore, as Chapman comments of this work (2000b, 177), burials are made in the sequence that the linear order implies and,furthermore, that no burials are inserted at the 'wrong' time.

Several of the secondary burials at Linga Fiold are accompanied by a marker post denoting the location of the flat burial. Some burials at Linga Fiold have small upright stones of cobbles, and settings of small stones around the tops of some of the burials were noted at Quoyscottie (M E Hedges 1979) and Loth Road (Sharman forthcoming). I would not interpret these posts and stones as memorials or 'headstones', and do not think they should all be given one interpretation. The stone settings barely protrude above ground and would not have remained visible for long; they probably define the burial much as a cist does. The posts could act as navigation points around the cemetery marking burials as a guide for where others are to go – it is notable that at Linga Fiold of the excavated features only one secondary burial intercuts another (Mound 7, south west side, pit 276 cuts cist 275, Appendix 2), whereas at Quoyscottie many pits intercut. The markers show a way of knowing the cemetery, and are a guide in knowledgeable action rather than signposts to genealogies.

If, as I am proposing, we replace the 'ancestors' or individuals with whom the ancestors are associated in both Garwood's and Mizoguchi's scenarios with the strategic deployment of cremated human remains and other materials as rituals associated with generation, the monitoring of success of the outcome can be undertaken by the whole community as the success or failure will be clear to see (failure of crops, sickness of herd etc). There is always risk attached to any endeavour or strategy (cf Barrett 1994; 2000), and some of the decisions as to the particular rituals enacted, materials used, or juxtaposition of the burial, could have been wrong. The tracking back and forth between barrows inserting new burials into old barrows after further cremation events, the founding of new barrows, the enhancement of particular barrows, the 'filling in' of the linear development all could be part of the events and mitigation, the constant tending of the land and the world through these rituals to keep this part or aspect of the world in balance. If human sacrifice was practised other than metaphorically, it may have been at times of crisis, such as rupture in the 'reciprocal exchange' (Parker Pearson 1999, 17) between people and the land. Thus we can see the cemetery developing along an axis that was understood from the beginning (see below), but the details of which were dependent on success and failure of ventures, not on the identity of the person/ancestor buried in and monumentalised by, or indeed remembered through the previous burial.

Rather than constantly looking to the past for approval in a passive manner, the communities creating the cemeteries were actively involved in shaping their future, the pre-planned, linearity of the cemetery expressive of a forward looking rather than backward looking society. The linear arrangement could be seen as a directional flow both of movement and of time and, as Barrett (1994) suggests, different images of temporality would have almost certainly co-existed (see below). Ingold in his analysis of the temporality of social life describes temporality as not just one rhythmic cycle 'but a complex interweaving of very many recurrent cycles' (2000, 197). In the account of funerary architecture that focus upon genealogy that I have described above, historicity is given prominence and stands opposed to temporality. Ingold, in his discussion of temporality and 'taskscapes' (ibid, 194) describes historical time as isolated events 'strung out in time like beads on a thread' and proposes that by merging temporality and historicity, events comprise both past experience future intentions. To Weiner, a futurial, anticipatory, orientation is 'the primordial human temporal orientation' (1999, 250) which goes beyond simple need or demand, and expresses itself as desire. A capacity for revising and reconstructing events after the fact as meaningful is a constituent of this temporality (ibid). These perceptions of temporality, and the recursive relationship between activities and events, seem much more appropriate to the construction of the cemeteries under study here than the history based interpretations that focus solely on past people and events.

Many archaeologists see ancestry as important to claims of descent. Thus burials and barrows become an assertion of, a monument to, and a way of preserving the memory of, the dead and or the ancestors. The ancestors in these narratives are always dead predecessors; the place is a cemetery therefore it must be where these ancestors are located. Ingold explores the types of ancestors who might inhabit his relational world through four examples, ranging through now-dead ordinary humans, to spirits in the landscape, to 'original creator beings' (2000, 140). We may recall that in Bali, the 'cemetery' where the dead are interred to await cremation is a place of the restless dangerous spirits of these dead. The dead can only become deified as ancestors through cremation, and ancestors can be called down to visit the living on various occasions, but their shrines are located in the house compound and are never associated with the 'cemetery'. In the house compound

there are also shrines to various gods and patrons as appropriate to the occupation and status of the owner, and sometimes to the 'interpreter' and secretary' to the deities' (Tan 1967, 449), and spirits of various kinds who guard the compound. And that is just some aspects of the house compound, there are also a myriad of different temples etc., and I am not going to attempt 'an inventory of supernatural entities and the beliefs and observances connected with them' (Barth 1993, 205). What I do wish to point out is an aspect of the nature of Balinese personhood, and how that is seen in relation to ancestry. The Balinese act as a body, or various kinds of bodies depending on whether they are functioning in the temple group or irrigation group for example, and individualism is to be avoided, and is avoided by the institution of teknonymy which suppresses personal names and substitutes impersonal status terms (ibid). This systematised individual anonymity is continued after death and into the ancestor cult, for once cremated and deified it is forbidden to mention the name of the ancestor. Although the ancestor cult is so important to the Balinese, this 'genealogical amnesia' (Geertz and Geertz 1975) means that they do not make heroic stories of any one ancestor. However Boon (1977) describes how some Balinese, who had become successful by royal favour, sought to maintain their success by naming particular ancestors and effectively manipulating their own history by doing this, thus challenging the supposed effect of tecknonymy, which he saw as an illustration of how powerful the ancestor cult was felt to be.

We may be hopelessly over-simplifying the 'other life' of the Bronze Age, which could well have comprised a panoply of supernatural and other beings. Surely there's no such thing as 'too many ancestors' (Whitley 2002); in the Bronze Age the few we have introduced have apparently fairly limited and specific powers, and could do with some company (see below, Chapter 8). If there were any ancestors created out of the funerary activities at barrow sites, I would propose they are were of the more generalised, anonymous type of the Balinese given the kind of person we have seen described through the particular cremation practices, rather than named ancestors from whom one could claim descent, which is part of the genealogical model.

BUILDING MEMORY?

I wish to turn now to the way in which archaeologists think about memory with respect to Bronze Age barrows and burials, seeing barrows as aide memoirs, mnemonics, commemorative monuments, which I believe to be problematic. Burial mounds have been interpreted as monuments to the dead, lasting and visible reminders of the dead or ancestor/s. More recently archaeologists have become increasingly fixated with the subject of memory (cf Mizoguchi 1993; Last 1998; Mullin 2001; Jones 2003; Williams 2001; 2003) as memory and remembering are thought to be an integral part of funerary rites and funerary architecture. Jones typifies this train of thought in saying 'the recognition of monument reuse as an act of remembrance, is critical to our understanding of the role of material culture in the generation of memory...' (2003, 65).

Paul Connerton's book *How societies remember* (1989) is a seminal work that most of these writers refer to and which examines both memory and social memory taking as its tenet 'that our experiences of the present largely depend upon our knowledge of the past' (ibid, 4), and stressing the importance of ritual in sustaining and conveying images of, and knowledge of, the past. He focuses on commemorative ceremonies and on bodily practices; in the case of the latter he examines 'how memory is sedimented, or amassed, in the body' (ibid, 72) through two contrasting types of social practice which he calls *incorporating practice* and *inscribing practice.* Incorporating practice is identified as actions imparted through bodily activity, and only when an agent's body is present to perform a particular activity. Inscribing practice is carried out by devices and mechanisms which store and retrieve information. Incorporating practice can be either intentional or unintentional (eg posture and posturial behaviour), whereas inscribing practice will be for the most part intentional (e.g. writing systems).

In their recent edited volume *Archaeologies of Memory* Van Dyke and Alcock focus on 'the awareness and construction of the past within the past' (2003, 3). To these editors, of the two categories of social memory identified by Connerton, inscribed memory leaves more traces to the archaeologist than incorporated memory (ibid, 4). This certainly seems to be the approach of many discussing memory in the Bronze Age burial context wherein the

disposition of the body, the location and design of grave goods, and the construction of the barrow are all seen as devices by which people could store and retrieve the memory of the deceased.

The interpretation of, and application of memory to a Bronze Age context appears to me to be the outcome of an uncritical wholesale application of an ethnocentric concept of a cemetery to the Bronze Age. In a paper about the modern English, historic and modern cemeteries are described as landscapes which 'encode, reproduce, and initiate constructions of memory at individual, familial, and collective levels' cemetery, as sites for grieving and ongoing contact with the dead, and a place where self, family and group memories and identities are reconstituted and reworked (Francis et al 2002, 95). Archaeology has tended to ascribe *all* these properties to the Bronze Age cemetery and indeed most Bronze Age funerary research into has been based upon this idea of a cemetery.

The assumption that the Bronze Age barrow cemetery is a place for grieving, visited by mourners holds sway (cf Barrett 1994, Last 1998) but should be challenged, for what Bloch and Parry term the 'social construction of emotion' (1982, 5) can affect the amount of grieving and the time and place for it, and is common in extended funerary rites. In the case of Balinese cremation rites, grieving and displays of sorrow are not supposed to be displayed at the cremation ceremony for it is a time to rejoice; a time of busy cheerfulness or ritual labour, or 'work for the dead' (Connor 1995). Instead, as Connor describes (1995) in her detailed study of Hindu-Balinese death and bereavement, the corpse washing following death is the occasion for visible displays of emotional distress.

In Bronze Age Orkney, the protracted nature of rites surrounding cremation, and the exercise of control over death seen through the cremation technology lead me to suggest that it is more likely that the graveside was *not* the place for grieving. Furthermore, as we have seen above, the architecture at the barrow cemeteries is related to acts of *construction* performed during the funerary rites rather than acts of *commemoration* subsequent to the funeral event.

The function of a barrow as a commemorative monument is an idea that is not easy to sustain in the face of the argument presented above (Chapters 4, 5 and 6) that a barrow is both of the living and the dead. That a barrow is not a monument associated with a particular individual makes the barrows sites even less like the cemeteries we know today.

We must not forget also that our experiences of upstanding barrow cemeteries are usually of green or wooded mounds in quiet rural locations – an oasis of peace to us, and it perhaps only natural that we should liken our own grassy secluded cemeteries to these prehistoric places, and then imagine close family members visiting the barrow cemeteries to mourn and remember their dead. Instead, at Linga Fiold we are presented with a building site, a place of labour where fuel and building materials are stock piled, the land to either side is scarred and denuded from turf stripping and quarrying, some remnants of pyres lie around, and some burials are part grown over. Evidence from Linga Fiold suggests that the cemetery was only visited when work for the dead was being done around a cremation ceremony. Working with the dead is an ongoing, open ended task undertaken by the community; a barrow is seldom 'finished' because the end of a barrow is when it ceases to be effective.

Many have seen aspects of Bronze Age burial practices and architecture as mnemonics: Mizoguchi (1992) considers that Beakers may have helped in the 'remembering' of the specifics of previous funerals; Last (1998) sees the position of the corpse as a mnemonic, Thomas (1991) regards the corpse and grave goods as mnemonics, and Jones identifies the 'mnemonic role of material technologies in the construction of narratives of identity' (2003, 70). There are many to whom the barrow itself is a mnemonic. These mnemonics are almost exclusively physical objects or entities, although there is a whole range of other mnemonics such as 'language, song, ceremonies, bodies, bodily practices, places' (Climo and Cattell 2002, 17) which should be given fuller consideration. Moreover it is not made clear *how* the physical objects function as mnemonics. For instance, if as Climo and Cattell write 'in literate and preliterate societies vicarious memories such as myths, legends, songs, proverbs, genealogies, rituals and other forms of knowledge extend memories across generations and beyond individual lifespans' (2002, 12-13), why or how is it helpful to memorise the patterns on a Beaker vessel before the grave is closed? Surely this is an

example of an *object* of memory being said to pre-exist an *act* of memory, which is an impossibility (Ingold 2000, 148).

If instead we focus instead on ritual as incorporating practices of memory (cf Barrett 1991, 1994), and shift the focus from inscribing practices, we may widen our perspective of how the past was generated 'in the contexts of present activity' (Ingold 2000, 138). As Ingold, argues, memories are formed through the activity of remembering, and the activity of remembering is the same as 'the movement of the person through the world' (ibid 148).

LANDSCAPE, ARCHITECTURE AND COSMOLOGY

Landscape brings together notions of memory and place (cf Stewart and Strathern 2003). It is time now to consider encounters with and experiences of the barrow cemetery in its landscape setting. In the landscape study (summarised in Chapter 2) the larger barrow cemeteries (of which all the cemeteries under discussion are a part) were found to be sited in such a way to be prominent to those inhabiting the immediate vicinity, or undertaking tasks in the land around the home. The cemeteries have greatest prominence to the viewer from 0.5-2km distance away, and usually lessening visibility 2-5km distance away. From the very specific nature of the siting of the mounds to be visible from these positions, it is not thought that inter-visibility of sites was a concern, but rather that the sites were to be seen by those living in the landscape on a daily basis. The landscape study I undertook was thus fundamentally different to that undertaken by Wooodward, whose objects of study were 'how barrows relate to natural features, the quality of the views from them, and the lines of visibility between them' (2000, 130). Woodward studied the siting of barrows from the barrows looking outwards, as somewhere to see and be seen from; I see the siting of the barrows cemeteries as places slightly separate physically but very much part of the everyday landscape perceptibly, a constant reminder of the cycle of life and death and ones place in the world – although whether this was a threatening or comforting presence we cannot know. The elevation of the barrow cemetery is an aspect I will consider below, but the use of the barrows as 'platforms' in Orkney appears a fairly transitory use associated

with the work of the moment, and a desire to work on the monument, rather than a routinely used elevated place from which one would view the surroundings[6]. From landscape survey of the barrows (Downes 1997; in prep) it is from the houses and 'taskscapes' that the barrows would have been most visible.

A more in depth landscape study of Linga Fiold was undertaken by John Raven and Duncan Garrow to investigate this proposition in more detail (Raven 1998), in which they recorded views to Linga Fiold from 360° around the site at different distances from the site. Views of the site up to 1.5km distance away were clear especially from SSE. However, when the site was viewed from the 'middle ground' that is a distance of 1.5-3km away, Linga Fiold was not visible, but it was noted that when Linga Fiold 'disappeared' from view, another barrow cemetery came into view almost immediately (Raven 1998, 21). This suggests that this part of west Mainland was extensively and intensively inhabited and that the dead of communities were worked into the land in such a way that they were visible to everyone everywhere. As such they could be described as 'community dead' (Parker Pearson 1993; below).

Figure 7.3 *Linga Fiold Mound 1 from SE*

[6] The use of barrows such as those at Linga Fiold as platforms would only serve to elevate the practitioners 0.5-1.0m at most.

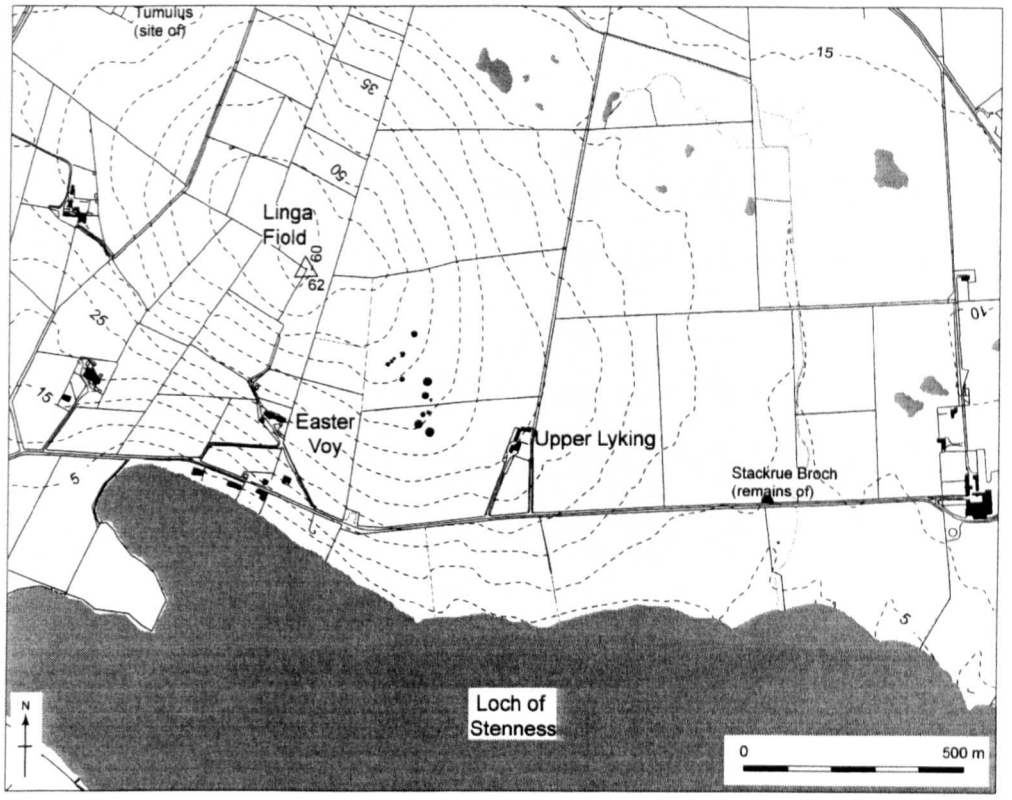

Figure 7.4 *Map showing Linga Fiold cemetery and topography*

The Linga Fiold linear cemetery is orientated NS, and as we have seen, develops in a northwards, upslope direction (Figure 7.3 & 7.4). The barrows of the cemetery are precisely, and subtly yet prominently, positioned up the slope of the hill: the larger, presumed earliest barrows Mounds 1 and 2 are the most prominent, and are the only barrows visible from the bottom of the hill at the loch edge due S (Figure 7.3), whereas almost the whole cemetery is visible from a distance to the west. Surprisingly Mound 7 is the least prominent barrow of the whole group, and one has to be upon the cemetery before it is visible as it is situated on a flat area between the slopes (Figure 7.4).

Figure 7.4 *Linga Fiold cemetery: Mounds 1 and 2 centre, Mounds 5 and 6 to* left

Many of the other linear barrow cemeteries in Orkney are also aligned roughly NS up and down a slope, sometimes along the side of hill, but invariably with a difference in height between one end and the other. The Knowes of Trotty is another example of a cemetery aligned roughly NS, but if we consider the probable development and sequence of the Knowes of Trotty, and a phenomenological experience of it, the largest barrow, Mound 1 which was probably the 'origin' mound, is at the north end of the cemetery, and the cemetery develops along the foot of the hill towards the south. The barrows are however laid out in a similar way to those at Linga Fiold, only in the opposite direction (Figure 7.6).

The Knowes of Trotty cemetery advances onto higher ground through its development so although it develops in the opposite compass direction to Linga Fiold it does also develop upslope.

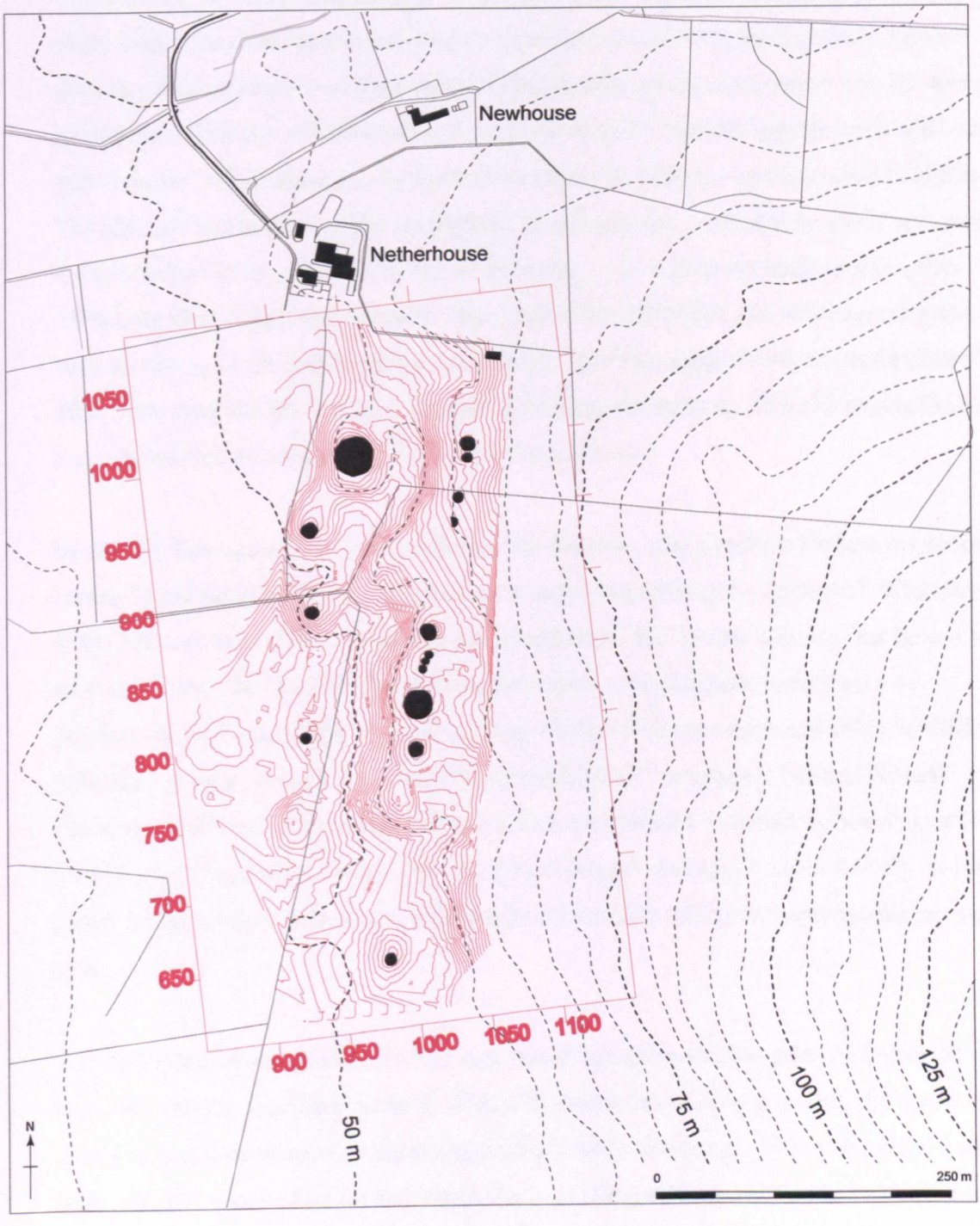

Figure 7.6 *Map showing Knowes of Trotty and topography*

The attention to detail in the setting of the barrows in relation to the topography is typical of the large Orcadian barrow cemeteries (described above, Chapter 2), where there is always a play on slope involving subtle manipulations of the topography with the barrow architecture. The use of kerbs and upright kerbs to make barrows appear more noticeable and 'massive' when approaching from downslope has already been described (Chapter 6). The most awesome play on the topography to promote the vertical axis is that undertaken at the Knowes of Trotty, where the line of drumlins have barrows built on them, thus enhancing their height dramatically. The notable feature of this use of topography and the vertical axis is its eloquence rather than drama - the barrows are built on gentle slopes of hills, false summits and terraces; instead of utilising the summits of hills steep hills or cliff tops, these barrows are situated for a more local viewer.

Secondary features cluster in areas around the barrows, and a preference locating secondary burials to the SE and NW of barrows, and pyres to the SE may be discerned. When we look at the features themselves, those that are orientatable, that is cists and pits that have a long axis rather than the circular pits, demonstrate quite a considerable consistency of orientation, particularly the features at Linga Fiold which are orientated either NW-SE (Mound 7 primary burial, also around fourteen Mound 7 secondary burials) NE-SW (Mound 2 and Mound 5 primary burials, also c. five Mound 7 secondary burials), or N-S (c. five Mound 7 secondary burials, Mound 6 boat shaped setting) (Figures 2.14-6). At Linga Fiold, burial features with a long axis are thus orientated on the upslope/downslope, vertical axis.

The layout and orientation of Bronze Age round houses in various parts of Britain have been observed to 'conform' to an E-W axis in their orientation and layout, the layout of the doorway and various activity areas suggesting a daily or diurnal cycle of movement from E to W which is a metaphor for the longer cycle of life and death (cf Parker Pearson et al 2004). Bronze Age inhumations are said to often 'face' E or W (cf Lucas 1996), and to some the location of secondary burials on the SE of barrows is the facing of the dead to the rising sun and which links death with life and the cyclical rebirth of the day (Brück 2001,155).

Most of the known Orcadian Bronze Age houses have their long axis orientated N-S, or NW-SE, with the long axis running up and down slope. The houses are located on lower lying, often S facing, gently sloping land. The N-S, up and down slope, axis may therefore distinguish the Northern Isles from elsewhere, and shows an articulation in cosmological referents between the domestic and funerary sphere. Double houses such as Sumburgh, Shetland and Skaill (and probably Wasbister, Chapter 2; Robertson 2005) have entranceways from the east and west at the join of the two houses (Figures 2.2 & 2.3). At Linga Fiold a path leads into or out of the cist cemetery at Mound 7 on an E-W orientation. The E-W horizontal axis may have prescribed the paths of the living and may have been contrasted with the N-S vertical axis. It is possible that the vertical axis was sacred, relating to the order of the world.

A FLOW OF SUBSTANCES

I would like now to pursue the proposed dominance of the vertical axis in Orcadian Bronze Age funerary architecture introduced above. If we recall the Balinese cosmological scheme, the vertical axis is a tripartite scheme representing the cosmogony (represented in cremation rites by the *wadah* tower that the corpse is placed in, Chapter 3, Figure 3.1). The parts are the heavens above, the place of people in the middle, and the underworld, the highest mountains in the central region being the abode of the gods and ancestors associated with life source and the past, the middle part being the present world of the living, and the sea being the netherworld where the future waits after death. As the majority of Balinese live in the south of Bali, the opposition north and south are paired with high and low respectively. In topographic and *lived* terms the vertical axis is the main axis, and it is the one associated with temporality. According to Tan (1967, 444) this is a very ancient Balinese cosmology, upon which the east and west directions were later added, and later still the nine cardinal points (see Chapter 3). It is the axis within which people dwell, orientate themselves, move and act, and are acted upon. The horizontal axis on the other hand is a series of oppositions associated with gods, elements, colours, sounds, body parts etc; it is not this axis that people make explicit reference to in everyday life and is so complex that ritual specialists often interpret and impart it (for example in the making of

offerings). The vertical axis is not an opposition but a never ending natural flow, of water related to ritual purity, and the cycle of the sun which bisects this axis. However, although N and S are high and low respectively to the majority of Balinese, the north Balinese completely re-orientate themselves, through the architecture of their houses temples etc, as to them 'pure' is the south, and 'impure' the north. Furthermore, the great mountain *Gunung Agung* is actually to the NE for the southern Balinese, so the 'actual' axis orientation is NE-SW, and not N-S. As Tan observes (1967), there are local differences in the scheme. Moreover, because of the differences in orientation, the holiest direction is the same direction to everyone, and so orientation is not abstractly cosmological but thought of in terms of the experiential Balinese island-world (ibid, 446).

Although we are not drawing parallels between historic Bali and prehistoric Orkney, there are issues with relevance to the archaeological interpretations of cosmology. Notably, the cardinal points need not be compass points, and if they are it is an abstract 'ideal' that people map to their topography and their world. I think this is what is observable with the Orcadian linear barrow cemeteries. There is a N-S opposition which may well be a four point scheme in which E-W can in some contexts play the dominant but which is weakly displayed in the funerary architecture because the vertical axis was more prominent in the context of death and fertility rites. However, the vertical is not drawn between highest and lowest, but in the slope between, in the difference in height which causes a *flow between substances*, the flow of water, the flow of substances through people onto the land, the flow of the fertility of the land through the barrow back to the person. The linearity of the cemetery creates and recreates the temporality, providing a past, present and future.

Perhaps this interest in the flow of substances can also be seen in house architecture, for in Orcadian later Neolithic houses the arterial drain systems are over-elaborate (and at Barnhouse the two discrete groups of houses were defined both through differences in material culture and through separate drainage networks (Richards 2005, 29)). In the Shetlandic early Bronze Age houses of Sumburgh and Kebister there were curious 'drain' systems associated with, in the case of Sumburgh (Downes & Lamb 2000) a stone tank which was filled in with clay and floored over, and at Kebister (Owen & Lowe 1999) many drains were associated with two pits. At Kebister, two stone ards and two stone mattocks

had been used to support the capstones of the drain flowing out of one of the pits, and two quernstones had been used to cap one of the drains flowing into the same pit, again emphasising the particular use of these symbols of fertility. At Skaill, the path leading to a pit containing a cache of cultivation tools (above, Chapter 6) covered a gully ; in walking the path south-westwards to the pit, humans were actually walking in the same direction of the flow with the flow underneath their feet. The flow of substances could be viewed ideally and ritually as part of an endless cycle of the natural order, but in the domestic context is seen to be manipulated and tightly controlled.

A vertically ordered cosmology could be proposed in very general terms as a scheme observable in Scandinavia over a long period of time. Bradley (2000) discusses the Bronze Age rock art of Scandinavia in the wider context of landscape and cosmology, and finds that at first sight the interpretations postulating a tripartite vertically ranked cosmology (based on ethnography of northern hunter gatherers) of the sky as heavens, the land as the place of the living and the sea as the place of the dead, are hard to sustain. However, by detailed and localised study of the positioning of the rock art and the use of symbols in relation to topography, he concludes that a combination of this evidence and the ethnographic evidence does support a distinction between sky, land, and sea. He further identifies a particular area of liminality between the worlds of the living and the dead marked by carvings of ships symbolising the sea and traversed by the carved footprints of the dead as they travel from one world to another (ibid).

In his study of Iron Age Denmark, Parker Pearson interpreted the juxtaposition of the cemeteries and settlements as expressive of a 'symbolic geography' of the dead, the world being divided into three; the higher world of the cremated, purified dead, the middle world of the living, and the lower, wet world of the untransformed dead (Parker Pearson 1993; 1999). Although here are obviously many differences between Bronze Age Orkney and Iron Age Denmark, this is another of the archaeological examples based on Scandinavian evidence of a consideration of a dominance of the vertical dimension in an ordering of the world.

As Bradley observes, boats play a symbolic role in Scandinavian archaeology from Mesolithic times through to the Middle Ages (2000, 138), a feature seen by Bradley and others as a 'northern' association between the sea and death (ibid, 134). In Orkney two boat-shaped settings have been discovered, one at Linga Fiold (Appendix 2) and the other, the Geord of Nears, Rousay (RCAMS 1946, 210). Both of these boat shaped settings are orientated N-S and are positioned on inclines which points one end upwards to the sky and the other downwards towards water. The boat-shaped settings and their contexts are worthy of further research, but are mentioned briefly here because their presence could perhaps be taken as further evidence of the ordering of the Orcadian Bronze Age world vertically, and furthermore that the upper and lower worlds are polarised, the living and the 'community dead' occupying the liminal area between. It is in this middle area that transformations around life and death occur and that the flow of substances occurs, being neither the origin or end point but the (sloping) area between. It is in this realm that humans can effect transformations and where they attempt to control natural processes such as life, death and the flow of substances.

Such cosmological schemes are not timeless, and it is perhaps as little as a few generations or as much as a few hundred years later that the features that we have proposed epitomise and emphasise the spatial and temporal aspects of this scheme change: linear cemeteries are no longer constructed and instead barrows cluster; the pyre and natural topography are no longer inverted as a complete sequence, as burials are more often solely cremated bone (with or without cramp) covered only by subsoil or a more mixed matrix. The role of cosmologies in the legitimisation of belief should not be underestimated, and make aspects such as orientation and symbolism a target for subversion and manipulation as a challenge to order. As Hobart writes of the Balinese vertical cosmological axis, the linking of natural phenomena (cycle of the sun, and the flow of water) with social values (life and death, and ritual purity by which the castes are graded, respectively) allows 'dubious principles' such as political or economic inequality to be presented as part of an unchanging order (1978, 22). We will be considering the politics and the economics of death in the final chapter.

CHAPTER 8 - CHOREOGRAPHY OF CREMATION

INTRODUCTION

In this final chapter I do not intend to summarise all that has gone before, for each chapter has been summarised in itself. Neither does this chapter contain a conclusion to the thesis, for other interpretations are possible, and the research has opened up more avenues than have been fully pursued. Instead I intend to return to the funerary rituals themselves, and consider them in the context of the rite of passage that both serves to move to the dead from one state to another, and 'to ensure that life goes on, that society continues more or less unaltered after a death' (Eriksen 1995). An aim this research was to investigate the social context of cremation burial, to ascertain if it is possible to describe the wider temporal and spatial aspects of funerary rites and so to gain a better understanding of society through the way it reproduces itself in funerary rites. This chapter seeks to appraise that subject in the context of the findings of this research. The thesis is then brought to a close with a reprise of the ritual activities that surrounded cremation at a barrow cemetery.

Choreography will be considered both as the practice of designing the performance of the rite of passage, and the steps and movements in that performance. Choreography in the figurative sense of the word as the planning and controlling of an event is the backdrop against and context within which the performance is set, and is reflected upon as a cyclical exchange of substances for which a contingency for the labour and resources necessary must be made. As Weiner reminds us 'religious, political and economic functions are inseparable in small-scale social worlds' (Weiner 1994, 591).

THE STAGING OF RITUALS

What has been described in this thesis is the practice of cremation undertaken in a specific context, as part of a particular strategy to which people's relationship with the land and fertility were central. However, also running through the Bronze Age was the practice of

inhumation, with unburnt bodies being interred in barrows and in unobtrusive cists, while cremated remains were also being put into the unobtrusive cists. In Chapter 1 the problems inherent in a study of Bronze Age burial rites that focussed on inhumation were introduced. Our attribution of individuality and a personal identity based on the manner in which a corpse is treated and arranged is at odds with the divisibility that appears a major facet of Bronze Age personhood (see also Fowler 2004). It is unlikely that the inhumation of a corpse signifies a radically different type of person from the cremated corpse. The manner in which archaeologists polarise the twin rites of inhumation and cremation may be a completely artificial separation on our part between a rite of passage that could ultimately be similar but employ different technologies.

Let us consider cremation and inhumation both as forms of transformation (Fowler 2004). The process of cremation at barrow cemeteries has been described above as the transformation of the corpse/s and the fuel of the pyre into a range of inalienable artefacts or materials which can then be reconfigured. The use of fire to effect this transformation makes the process both rapid and controllable. The transformation of a corpse into bones through inhumation involves containment within the earth and although a slower process, is again a controlled process involving technology. This process also results in a collection of artefacts which can be manipulated and reconfigured. Both cremated and inhumed remains can be strategically deployed in different ways and different contexts, indicating that different properties or levels of potencies could be attributed to either. As noted in Chapter 2, in Orkney the most clear-cut differentiation perceptible archaeologically is that between the context, or deployment, of remains rather than the treatment of the body.

In terms of the staging of rituals, whether cremation and/or inhumation were primary or secondary burial rites is an issue. As has been described (Chapter 3), in Bali cremation is most commonly a secondary burial rite, in which the corpse is accorded a burial as a primary rite (perhaps for some tens of years), and is then exhumed for cremation.

In a study of the variety of death rites performed by Berawan of Borneo, Metcalf describes two different kinds of rites that can be accorded the dead; a primary rite as an initial funeral and burial that occurs soon after death, and a secondary rite undertaken some years after the

first, during which the bones are removed to a final resting place and a lavish funeral takes place. The primary burial rite is the more common rite and the associated funeral is both lavish and expensive. The secondary burial rite is extended to only few within the population. It again is an expensive ceremony which concludes a year of ongoing rituals and events. Both primary and secondary rites can vary greatly within themselves and Metcalf seeks to understand the variety of rites; why some people are accorded one rite and not the other. Significantly, to the Berawan, the primary burial rite if not followed by the secondary is perceived as an abridged version of the whole sequence of events, and they 'insist that the two sequences are alternatives, that they are ritually "the same thing"' (Metcalf 1981, 567).

The decision as to which rite will be performed is taken within an hour or so of death, and appeared to Metcalf to be contingent on a number of variables, of which ritual economy, or the economies of ritual seemed to be the most prominent, for as with the Balinese, funerals are extremely expensive. The decision is based on a range of factors of intertwined factors including ritual efficacy, social status, scheduling, and availability of resources within which contingency of death plays a prominent role. An example of contingency and the economics of death is if someone dies at an inconvenient time for example during harvest, the extended rites of the double funeral will occur, as only a small funeral can be arranged at the time of death because all labour force is diverted elsewhere, whereas the extended rites can be scheduled to suit availability of resources and to fit in the period of greatest ritual activity (ibid).

In prehistoric Britain, secondary burial rites are thought to characterise Neolithic burials in tombs. Some of the unobtrusive cists in Orkney attest secondary burial rites and bear witness to a time when re-enterable, complex cists were utilised or perceived in a manner similar to chambered tombs, and during the third millennium BC both chambered tombs and unobtrusive cists were being utilised concurrently (see Chapter 2). The occurrence of cramp with inhumations in unobtrusive cists may indicate secondary burial of the products of cremation in the late third millennium BC in these contexts (Chapter 2; Appendix 3).

Through the analysis and interpretation of cremated bone and cremation technology, we have seen (Chapters 4 and 5) that cremation as practiced in the creation of a barrow cemetery is almost always a primary burial rite, but that the rituals surrounding the cremation ceremony are of a protracted nature. Although the evidence from both barrow cemeteries and more particularly unobtrusive cists needs further research, I suggest that at c. 2000 BC a change in practice (cross-cutting cremation and inhumation) from secondary burial rites involving the movement of human remains was replaced by protracted primary burial rites within which human remains were deposited and not moved subsequently (cf Barrett 1994). This change in *mortuary practices* is as significant as the change in *funerary rituals* apparent in the increased dominance of cremation as a rite, but has been overshadowed in the archaeological literature by a preoccupation with burial deposits, and with collective versus individual burial.

PREPARING FOR DEATH

At the same time, around 2000 BC, when mortuary rites changed and barrows started to be constructed, the whole of the Orcadian world was changing. House architecture and the nature of settlement changed (Chapter 2), as did agricultural practices (Chapter 6). Over a comparatively short space of time the way in which the landscape was inhabited altered dramatically, coupled with probably radical adjustments in the relationships between people and their environment. Inhabitation that had involved treading lightly across the landscape became a far more heavy-handed, invasive occupation in which the land was furrowed and flayed, and intensively and extensively grazed.

This activity almost undoubtedly represents the start of the short fallow system of agriculture that Barrett identifies as occurring in southern England during the middle Bronze Age onwards and describes thus:

> Short fallow systems are where the land was used more intensively, crops being removed with a greater frequency even to the extent of multi-cropping. Such systems required a different organization of labour, a greater investment in

> agricultural technology along with the interventions necessary to maintain the land and its fertility. These investments were long-term..... (Barrett 1994, 144).

This development is characterised in Orkney by the control through technology of substances, land, animals, and people (Chapters 4-7), of which the control of death is one aspect. The interpretation of the death, the burial and burial architecture as part of the cycle of reproduction sits well within this model, for this strategy was intended for a long term return of regeneration and fertility.

The activities that took place on the day of the cremation were supported by longer term investment and a strategy involving the collection and preparation of fuels, as well as a range of other materials such as stones for the cists and kerbs, and soils for the mounds. These tasks could have involved many people, and it could be envisaged that tasks would be allotted to various degrees of kin, age groups, gender. The task of fuel gathering and preparation was one that must have been seasonal, and undertaken as a longer term programme of contingency for death. This activity may have been undertaken by the community as a whole along with agricultural tasks. The longer-term preparation may have been obligatory labour expected of the community as a whole because the correct treatment of the dead was essential, and was important to the prosperity and well being of the whole community.

The unpredictable nature of death is commonly a threat to social order and ontological security. Barrett describes routine actions as providers of ontological security; through routine actions the world is 'experienced as working in the way it is expected to work' (Barrett 1994, 75). The failure of those expectations can threaten ontological security (ibid). If, as I have argued above, the preparations for cremation are in themselves routine actions (Chapter 4), then a community is always ready for death and it therefore cannot be such a threat to order. The bringing of death firmly into the sphere of the living through the routine practices of preparation lessens risk and is an effective strategy in the control of death. That working for the dead is part of everyday labour indicates the centrality of the dead in the world of the living (and shows that routine activities are not separable into 'mundane' and 'ritual'). Thus, despite the potentially disruptive nature of death, society could perceive of

itself as actively reproducing in a regular and cyclical manner, rather than passively in an episodic and chaotic way.

Cremation is a rite with particular properties that make it effective and desirable as part of this way of life. First, it affords a greater control over death, both physically because it allows decay to be avoided or arrested through technology, and conceptually because greater possibilities are afforded to alter through stages in ritual, and scheduling of the transformation/s. Second, it provides great scope for the merging, fusing, and separating of persons and materials which can be configured and ordered in a multitude of ways. Third, it is a rite which is conspicuously very expensive.

The expense of an Orkney Bronze Age cremation has already been touched on above (Chapter 4) in a discussion of the labour involved, and the costly material resources of wood, turfs, peat, and earth. I will turn again to contemporary traditional societies for an exploration of what other costs might be involved. In Bali the highest costs involve feeding all those involved in the preparations for the many stages of the rites, paying the priests, buying materials for the things that have to be made and transport. It is also interesting to note the consequences of the extremely high costs of cremation on the division of land, and land ownership across the whole community. Barth points out that the permanent division of a dead person's estate must precede cremation, and as cremation often does not take place until thirty or forty years after the death of the person (at which time children and other members of the descent group who have died during the delay will also be cremated at the same time), the heirs can make use of the landed estate in the meantime (Barth 1993, 41). The cost of cremation is proportionate to an individual's wealth, and usually demands selling half the estate, the cost of the cremation being worked out as a fraction of the estate, rather than a sum of money (ibid). Thus in Bali the performance of the cremation rites results in an accelerated turnover of land.

Metcalf describes the economy of death for the Berawan in detail, where again the rites are very expensive, and as in Bali, the most costly element is the cost of food and drink for the guests and all those involved in the labour of the funeral (Metcalf 1981). The cost of the funeral is spread between close relatives, who farm together and pool their labour and

products. The cost is also spread more widely with every family making some contribution at the risk of being cut off from the community if failing to do so. The price of the funeral can also be raised from the deceased's savings or by selling of the deceased's property and in this way the dead also contributes. The selling of personal items such as jewellery and clothes is prohibited as these cannot be sold or given away.

In both the case of the Hindu Balinese and Berawan of Borneo the powerful integrative function of the funeral is stressed (Geertz 1964; Metcalf 1981). It is necessary for communities to work co-operatively to ensure the dead are treated properly, no matter what the cost.

To Barrett, the introduction of the short fallow system in the Bronze Age and a consequent devolvement into smaller more scattered communities signals 'a more tightly defined community' with a lessening of 'access to both land and co-operative labour' (Barrett 1994, 145). The way cremation has been shown to have been practiced in Orkney, however, shows a community strategy in operation which may have been key to, if not the pivot of, the continuance of co-operation between these apparently more fragmented communities. The expense of the cremation would have played its part in the creation and maintenance of obligations and alliances.

I have suggested that a Bronze Age Orcadian person was indissoluble from the land, and have seen funerary architecture as evidence for and an expression of that relationship. The centrality of death and mortuary rites to life cannot be overstated. Life was spent preparing for death because death meant renewal of life. Death was built into life in such a way that the risk of a rupture in society was lessened if not negated. Through the practice of cremation the people and the world they cultivated were reproduced.

REPRISE – A CHOREOGRAPHY OF CREMATION

DYING, DEATH AND PREPARATION FOR CREMATION

Biological death need not mean that a person is culturally dead and, as we have seen of the Balinese funerary rites, the process of dying can be stretched well beyond biological death (conversely a person can 'die' before biological death occurs). The alteration of the time of death can be a powerful means of controlling death. In terms of death as a rite of passage, however, biological death may well have marked the separation both of the dead from the living, and of the living that were closely associated with the newly deceased from other members of the community. The point of biological death could thus have marked a change in status of the dead and close relatives, and initiated a liminal period comprising the second phase of the rite of passage. The liminal period could have been a dangerous period for all, a time when the dead was a corrupting and polluting force and a time which could have lasted until the deceased was culturally or properly dead.

Home may have been the place for a good death, and the corpse may have been prepared in the house before being taken to the barrow cemetery for cremation. However, buildings found at both Linga Fiold (Chapter 2; Appendix 5) and the Knowes of Trotty (Chapter 2) indicate that mortuary buildings were present at some barrow cemeteries, serving as a place to prepare corpses and store them before further rites were performed[1]. The discovery of these buildings lends weight to the proposal that the corpse was a pollutant to be kept at a distance from the living. The kind of preparation of the corpse envisaged is washing, perhaps shaving and dressing in a shroud. If the kind of extreme modification of the body indicated by the cut marks on the bones (Chapter 4) took place post-mortem they would have been undertaken during this period. Steps to preserve the body for longer might have been taken if the cremation was to be delayed. It is suggested that mourning was reserved for this period.

[1] The evidence for the Linga Fiold building having been a mortuary structure is more compelling than that for the Knowes of Trotty which I have suggested may have housed those engaged in funerary practices (Card and Downes 2002).

During the period following biological death, the preparation of the corpse would have run in parallel with the preparation of the site for the funeral activities. The wider community may well have been mobilised for these activities.

Decisions would have been taken as to whether a new barrow would be founded, or the cremated remains interred at the edge of an existing barrow. The decisions as to the procedure to follow in each circumstance – whether to cremate or inhume, whether to bury at a barrow cemetery, within or outside a barrow, or indeed whether to bury in an unobtrusive cist or elsewhere, could have been contingent upon a number of variables, maybe in part upon how and when a person died (a good or bad death, an auspicious day or season), but maybe more significantly depend on how the remains could best be strategically deployed, given the specific circumstances, to maintain or recreate order in the world.

A receptacle for the cremated remains would have been prepared, be that a cist or pit and perhaps entailing a vessel. If a new barrow were to be created, ground would have been flayed for turfs and quarried for subsoil which would then have been brought to the site and piled in heaps according to material in readiness. Stones for the cist and kerb would have been quarried or gathered from the shore. Stone tools would have been piled in readiness to complete the building of the barrow and then to strew around it. Fuel would have been gathered and prepared. The pyre site would have been prepared, and the pyre built.

Cremation as immolation has been discussed above (Chapters 4 and 5), and it has been suggested that the ceremony was perceived as a sacrifice of humans, animals, plants and land – all things that make up the world. Feasting may have been a part of events leading up to the cremation ceremony, both at the settlement and possibly at the cemetery. The ritual slaughter of animals for cremation (particularly sheep/goats and deer) may have been the source of meat for feasting, or these animals could have been reserved in their entirety for the cremation sacrifice.

CREMATION

Although there would have been labourers coming and going from the barrow site during the run up to the event, the participants may have come together and processed to the site on the day of the cremation. The procession would have set out early in the morning for the long day of tasks ahead. The journey to the site of the cremation would have involved walking uphill, often in a northwards direction (see Chapter 7). Some may have carried the bier, some carrying or leading animals, others carrying vessels containing substances for lustration and offerings, or baskets for sifting and carrying pyre debris. Existing barrows would have loomed above as the procession drew near the cemetery.

The corpse would have been removed from the bier or mortuary building, depending on whether it had been brought to the cemetery or was already present. The corpse, or various corpses, would have been placed on top of the pyre and the pyre lit. Those attending the ceremony would have stood by shielding themselves from the fierce heat of the blaze. Smoke from the pyre would have visible to much further flung communities – a signal of the power to sacrifice and consume resources. Some of the participants would have gone close to tend the pyre, poking the corpse with sticks to break it up. Oil or fat may have been thrown on the pyre to increase the temperature. Others may have prepared plants, such as meadowsweet, and other additions to the grave.

The dead were transformed in front of the eyes of the participants, from a fleshed and corrupt state to a fusion of new materials with a fresh potency. The drama of the event was perhaps in keeping with it being the time when death was seen to occur.

Once the corpse was thoroughly cremated the pyre was swiftly quenched and cremated bone and fuel picked out for burial. On some occasions the remains of the pyre appear to have been raked together and shovelled up to spread out for the sorting and selection process. The liminal time of pollution was at an end, and the third and final stage of the rite of passage began.

REINTEGRATION

The stage of reintegration stage is the creation of the burial and barrow, when the deceased is reformed and becomes part of the land (Chapters 5 and 6). This is another piece of work necessitating co-operative labour and probably ritual expertise. In some instances the reconfiguration of the cremation event including the raising of a barrow all took place on the same day.

Wider-scale movement of materials from the pyre has been evidenced, with heat affected soil from underneath the pyre being redeposited in discrete dumps, large spreads and pits. Cramp and cremated bone may have been taken some distance from the pyre to be selectively deposited away from the barrow cemetery. These activities were probably undertaken in the days immediately following the cremation rather than as routine maintenance of the cemetery and materials, for evidence shows episodic rather than continuous activity at cemetery sites (see Chapter 6).

The participants returned to their homes, freed of their immediate obligations to the dead and certain in having done their best to restore order to the world. Whether the rites would 'work' to ensure future fertility only time would tell.

APPENDIX 1

ORKNEY BARROWS AND UNOBTRUSIVE CISTS: RADIOCARBON DATES

BARROWS AND CAIRNS							
Site Name	**Subdivision**	**Cont No**	**Context Desc**	**Material**	**Lab Code**	**Date BP**	**Calibratd date**
Linga Fiold♠	Mound 5	375	pyre debris over central burial (Phase 1)	Charcoal (*alnus*)	GU-4884	**3460+-60**	**1940-1640**
Linga Fiold	Mound 5	175	pyre site under kerb (Phase 1-2)	Charcoal (*corylus*)	GU-4886	**3390+-60**	**1880-1520**
Linga Fiold	Mound 5	432	pit under edge of mound material (SW) (Phase 2)	Charcoal (*alnus*)	AA-23264	**3095+-45**	**1449-1264**
Linga Fiold	Mound 5	154	pit under edge mound material (SE) (Phase 2)	Charcoal (*quercus*)	AA-23266	**3035+-45**	**1419-1139**
Linga Fiold	Mound 6	386	top fill of central burial steatite urn fill (Phase 1)	Charcoal (*alnus*)	GU-4880	**3380+-90**	**1910-1462**
Linga Fiold	Mound 6	388	fill of central burial steatite urn fill) (Phase 1)	Charcoal (*alnus*)	GU-4881	**3290+-60**	**1738-1440**
Linga Fiold	Mound 7	454	fill of central cist 346 (Phase 1)	Charcoal (*corylus*)	AA-23265	**3135+-45**	**1516-1314**
Linga Fiold	Mound 7	455	central pyre (Phase 1)	Charcoal (*alnus*)	GU-4878	**3210+-50**	**1620-1410**
Linga Fiold	Mound 7	328	fill of 224: cist under edge of mound (Phase 2)	Charcoal (*salix*)	GU-4877	**3190+-60**	**1620-1324**
Linga Fiold	Mound 7	250	fill of cist 95, cut into edge of mound (Phase 5)	Charcoal (*corylus*)	GU-4887	**3030+-100**	**1520-1000**
Linga Fiold	Mound 7	335	fill of cist 204, NW of mortuary structure (Phase 5)	Charcoal (*corylus*)	GU-4879	**3210+-80**	**1680-1317**
Linga Fiold	Mound 7	296	fill of pit 244, N of mound (Phase 4?)	Charcoal (*corylus*)	GU-4876	**3190-90**	**1620-1270**
Mousland ♣	Central cist		Primary cist	Charcoal (*Betula sp*)	GU-3186	**3400+/-100**	**1950-1450**
Gitterpitten, Rendall♠	Outside Mound 2	1024	Fill of pit 1036	cremated bone	GU-11387	**3210+/-45**	**1610-1390**
Gitterpitten	Outside Mound 2	1027	Fill of pit 1033, under 1021 collapsed kerb	cremated bone	GU-11388	**3440+/-45**	**1890-1620**
Gitterpitten	Outside Mound 5	1018	Fill of pit 1039, cut 1010 which overlay 1014 matrix of kerb	cremated bone	GU-11389	**3400+/-50**	**1780-1520**

Site Name	Subdivision	Cont No	Context Desc	Material	Lab Code	Date BP	Calibratd date
Gitterpitten	Outside Mound 5	1018	Fill of pit 1039, cut 1010 which overlay 1014 matrix of kerb	Charcoal (*salix sp.*)	AA-53153 (GU-10623)	2985+/-35	1320-1110
Gitterpitten	Mound 4 centre	1031	Fill of cist 1040 within mound matrix 1015.	Cremated bone (note min 3 individs in cist)	GU-11390	3430+/-45	1880-1610
Gitterpitten	Mound 4 centre	1031	Fill of cist 1040 within mound matrix 1015.	Charcoal (*salix sp*)	AA-53155 (GU-10625)	3315+/-40	1690-1510
Gitterpitten	Outside Mound 5	1022	Fill of pit 1029, under kerb 1013	cremated bone	GU-11392	3235+/-45	1620-1410
Gitterpitten	Mound 2 central	1055	Lower fill of central cist 1011 within mound 1046	cremated bone	SUERC-1179 (GU-11391)	3390+/-50	1780-1520
Gitterpitten	Mound 2 central	1055	Lower fill of central cist 1011 within mound 1046	Charcoal (*salix sp*)	AA-53156 (GU-10626)	2995+/-40	1390-1110
Gitterpitten	Between Mounds 4 & 5	1023	Fill of pit 1023	Charcoal (*salix sp*)	AA-53154 (GU-10624)	2550+/-35	720-540
Varme Dale, Gorn, Rendall♠	Mound 1	2016	Fill of cist 2007, central to mound	cremated bone (note min 2 individs in cist)	GU-11385	3280+/-45	1690-1440
Varme Dale	Mound 1	2026	Lowest fill of cist 2008, secondary cist in refurbished mound material	cremated bone	GU-11384	3125+/-45	1500-1290
Varme Dale	Mound 2	2027	Ashy layer over 2041, under mound material	Charcoal (*salix sp*)	AA-53157 (GU-10628)	4890+/-40	3770-3630
Varme Dale	Mound 2	2041	Clay layer under 2027, & mound material	Charcoal (*Salix sp*)	AA-53158 (GU-10629)	4875+/-45	3770-3620
Quoyscottie, Twatt ◊		103	pit	Charcoal (*corylus*)	UB-2161	3145+/-120	1900-900
Quoyscottie ◊	Knowe 1	64	Cut thru Knowe 1	Charcoal (*corylus*)	UB-2162	2940+/-85	1390-920
Quoyscottie ◊		15	pit	Charcoal (*betula*)	UB-5128	2850+/-40	1190-900
Quoyscottie ◊		1	pit	Charcoal (*betula*)	UB-2163	2660+/-85	1010-520
Quoyscottie ♪	Knowe 2			Sherd of pottery	Gr-21698	3350+/-60	1750-1500
Loth Road, Sanday ♥		16	Stone box	Charcoal (*Larix/Picea*)	GU-12290	3500+/-45	1940-1730
Loth Road		42	pit	Charcoal (*Betula*)	GU-12293	3210+/-40	1530—1400
Loth Road		42	pit	Charcoal (*corylus*)	GU-12294	3265+/-35	1630-1430

Site Name	Subdivision	Cont No	Context Desc	Material	Lab Code	Date BP	Calibratd date
Loth Road		50	pit	Charcoal (*betula*)	GU-12291	**3135+/-40**	**1520-1310**
Loth Road		54	pit	Charcoal (*corylus*)	GU12292	**3160+/-35**	**1520-1380**
Rapness, Westray ♦	Cairn 2		outside cist	Charcoal (*picea*)	AA-11767	**3205+/-55**	**1620-1320**
Rapness, Westray	Cairn 1		Central cist	Charcoal (*Larix/Picea*)	AA-11766	**2955+/-85**	**1400-920**
Holland, Holm			Secondary inhum. male	Unburnt bone	GU-1373	**2945+/-60**	**1310-1190**
Holland			Secondary inhum. male	Unburnt bone	GU-1374	**2880+/-60**	**1200-1080**
Quandale, Rousay♪	Mound 3	Steatite urn	Primary burial	Cremated bone	GrA-19989	**3660+/-50**	**2150-1880**
Quandale	Mound 8	Ceramic urn	Primary burial	Cremated bone	GrA-19988	**3600+/-50**	**2050-1860**
Blomuir, Holm♠	2	Food vessel	?cist, or primary under barrow	cremated bone	GrA-21738	**3540+/-60**	**2040-1730**
UNOBTRUSIVE CISTS							
Quarrel Geo, Banks, S. Rons ♠	Adult 3	000	Cist fill	Unburnt human bone	SUERC-1198 (GU-11496)	**3465+/-45**	**1890-1680**
Quarrel Geo, Banks	Infant (SW corner)	000	Cist fill	Unburnt human bone	SUERC-1199 (GU-11497)	**3305+/-35**	**1690-1510**
Quarrel Geo, Banks	Infant (Mid S side)	000	Cist fill	Unburnt human bone	SUERC-1200 (GU-11498)	**3215+/-40**	**1540-1400**
Sandfiold, Sandwick ♫			Outside cist	cramp	UT-1483	**4090+/-80**	**2860-2500**
Sandfiold			Adult (young)	Unburnt bone	UT-1484	**3530+/-40**	**1930-1780**
Sandfiold			foetus	Unburnt bone	UT-1485	**4100+/-50**	**2880-2500**
Sandfiold			Cist construction		UT-1486	**3660+/-60**	**2180-1900**
Sandfiold				Urn fibres	UT-1487	**3620+/-50**	**2170-1880**
Sandfiold				Fibres over inhumation	UT-1559	**3600+/-60**	**2130-1780**
Sandfiold				fibres	UT-1560	**2730+/60**	**1000-800**
Werne♪			Cist – adult crem	Cremated bone	GrA-21627	**3750+/-60**	**2350-1960**
Howe, Harray♠		000	Cist fill	Unburnt human bone	AA-53167 (GU-10638)	**4255+/-70**	**3030-2620**
Riff, Rendall ♠		001	Cist fill	cremated bone	GU-11386	**3570+/-45**	**2040-1740**
Moan, Firth ♠			Adult female inhum in cist	Unburnt human bone	****	**3460+/-40**	**1890-1680**
Lopness, Sanday *			Adult female inhum in cist	Unburnt human bone	AA-43651 (GU-9481)	**3520+/-40**	**1950-1730**

Site Name	Subdivision	ContNo	Context Desc	Material	Lab Code	Date BP	Calibratd date
Lopness			With inhumation	Neonate unburnt lamb (1 of 2)	AA-51418 (GU-10382)	**3320 ± 50**	**1740 - 1490**
Kewing, Rendall °			cremation	Cremated bone	SUERC-817	**3520+/-45**	c.2000-1700
Crantit, St Ola °	Cist in top of tomb		cremation	Cremated bone	SUERC-815	**3460+/-45**	c.1900-1700
Crantit	Cist in top of tomb		cremation	Cremated bone	SUERC-816	**3420+/-60**	c.1900-1600
Taversoe Tuick °	One of 3 cists on top of tomb		cremation	Cremated bone	Gra-21734	**3580+/-60**	**2130-1740**

Key

♠ = Downes in prep.; ♠ = Downes 1994; ◊ = Ashmore 2003; ♦ = Barber et al 1996; ♪ = Sheridan 2003; ♫ = Dalland 1999; ♥ = Sharman forthcoming; * = Johnstone forthcoming; ° = Discovery and Excavation Scotland 2003

APPENDIX 2

LINGA FIOLD, SANDWICK, ORKNEY: EXCAVATION REPORT

Jane Downes

INTRODUCTION

Linga Fiold is a large linear barrow cemetery on a gently sloping hill overlooking Stenness Loch and the Brodgar and Stenness henges. Nine of the barrows were investigated, to a greater or lesser extent, and all exhibited complexity in structure and/or agglomeration of features 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. Radiocarbon dates from the site range from c. 1700-1200BC (Appendix 1).

It should be noted that funding for the investigations at Linga Fiold was obtained on the basis of the management issues at this site which were pertinent to barrow sites across Orkney, and earthen sites throughout Scotland. The types of damage that Linga Fiold had incurred and which were ongoing were ploughing, rabbit damage and cattle poaching, and previous excavation. Although this aspect of the research project will not be discussed at all, it should be borne in mind that some barrows were extensively damaged, and these types of damage affected the survival and condition of features to varying extents.

BACKGROUND

The group of barrows at Linga Fiold was mapped in 1901 by the Ordnance Survey as 11 mounds in heathland, of which Mounds 1 and 2 were the most substantial. The group was bisected immediately to the north of Mounds 1 and 2 by a track running east west from Easter Voy to Upper Lyking. At this time Mounds 1, 2 4, 5, 6, 7, 26, 27, 28, 8 and 9 were visible as upstanding monuments.

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). Detailed description is given of the excavation of two of the mounds, 1 and 2 (summarised below). During the excavations of 1994 described here, it was found that the upper parts of Mounds 5 and 6 had also been excavated, which probably occurred at the same time; Clouston reports that eight mounds on the common of Sandwick were opened, and J. Fraser reports (POAS II 1923-4, notes in Historic Scotland mss) that many of the mounds at Linga Fiold were explored by the Society. Records of the findings from these other excavations do not appear to survive.

Visiting in 1928, the Royal Commission reported that the group had comprised 15 or 16 mounds, of which several had been largely destroyed (1946, 265). They mention that the remains of cists could be observed at the centre of two of the mounds - these are probably

Mounds 5 and 6, in which parts of very large cists that had been disturbed were still visible in 1994.

In 1992, the then Historic Scotland monument warden, Julie Gibson excavated the contents of a cist eroding out of the east side of Mound 9 (Moore and Wilson 1995).

The land was taken into cultivation sometime around the Second World War. At this time the existing fence line was established. This runs east west a little to the north of the original track. Ploughing over the decades has levelled the remains of several of the smaller mounds. The current land use is improved pasture for stock grazing.

At the time of excavation, Mounds 1, 2, 5, 6, 7, 8 and 9 were clearly visible, with Mound 4 showing as a slight rise. Excavation was undertaken over the course of seven weeks in July/August 1994. Excavation and post excavation was funded by Historic Scotland.

GEOPHYSICAL SURVEY

Extensive geophysical survey was undertaken over a large area of the two fields occupied by the mound group. The aim of the survey was, in keeping with the overall aims of the Orkney Barrows Project, to shift emphasis from the upstanding remains of the barrows and to prospect over a much wider area for features associated with the burials mounds which were not visible from the surface. The types of features envisaged were funeral pyres, burials and other features associated with the mortuary rites which were envisaged to have taken place over a wider area than that covered by the barrows, and which may not have all focussed on the barrows. The premise behind this work was the recognition that such features probably do exist, but have seldom been recorded. The survey was undertaken prior to excavation in June 1994 by Adrian Challands (Challands in Downes in prep).

Methods

An area of forty 20m x 20m survey grids in the northern most of the two fields, and sixteen survey grids in the southern field was covered using a Fluxgate Gradiometer Magnetometer at 1m increments. Survey by resistivity meter was also carried out over a small number of survey grids within the area at .50m increments. This was to compare the results of the two survey methods and check whether resistivity could provide further, or different kinds of, information. In the event resistivity survey served to reiterate the information derived form the gradiometer magnetometer results.

A magnetic susceptibility meter was used throughout excavation 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.

Geophysical Results

Anomalies indicative of activities relating to activities in the open areas between the mounds were few. The survey results indicated features grouped consistently close to the mounds. The few small anomalies that were detected further from the mounds were sampled and found to relate to modern disturbance or pieces of metal relating to modern agriculture.

Through the survey it was also possible to relocate mounds that had been completely levelled through ploughing. None of the barrows that are now flattened and that were located through the survey were unknown, i.e. they had been recorded in past surveys (see above) and since ploughed out.

The geophysical survey proved very successful in detecting the remains of activities associated with cremation rites such as pyre sites, pyre debris deposits and burials, and also revealed related structures such as the mortuary building at Mound 7 (below). One striking result of the geophysical survey was that each mound demonstrated a different character through its magnetic values; in the course of excavation this was borne out as the mounds differed markedly from one another in method of construction, sequence of events and in the differing locations of post-barrow features. It is certain that without the geophysical survey it would not have been possible to discover the location of the complex remains associated with the mounds (especially Mound 7) as the time and cost involved in the pursuit of such an aim through excavation would have been prohibitive.

EXCAVATION METHODS

The excavation strategy was, like the geophysical survey, formulated around the premise that we were investigating ritual process rather than digging burials. The location of excavation trenches was guided by the results of the geophysical survey. Although no mound was excavated in its entirety (as much to avoid causing excessive amounts to the fabric of the mounds and to preserve as much of the integrity of the site as possible) in the case of each mound the attempt was to excavate all the features on and around the mound revealed through geophysical survey, and to section each mound in at least one place to record the structure of the mound. Mounds were deturfed and excavated by hand by the quadrant method. Parts of eight mounds (Mounds 2, 3, 4, 5, 6, 7, 8 and 9) were investigated (Chapter 2, Figure 2.12).

Recording and sampling

Recording was based on the standard system, but for some features an explicit recording system was employed; for example the contents of cists and pits were planned at the removal of each context or spit to enable a detailed study of how the fills were deposited, and pyre sites were gridded and excavated by spit, and in one case each fragment of bone was numbered and planned, to enable detailed study of pyre technology and how/if the body was tended on the pyre.

An explicit sampling strategy was devised with specialists prior to excavation. Cists, pits, postholes, pyre sites and pyre debris dumps were sampled 100% and removed from site to be sieved and sorted in the laboratory. Bulk samples were taken systematically through mound contexts, and from other contexts where appropriate for plant macro fossil remains. The aim of this analysis was to identify 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.

Column samples were taken through mounds and some pyre sites for analysis through soil micromorphology of composition of the mounds. 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.

LINGA FIOLD EXCAVATION RESULTS

In the following description I have ordered the mounds numerically, in the case of each mound (where data is available) describing its form and the excavation method briefly, and outlining the phasing I have developed for each mound. The phasing is fairly summary and is provided as a means to the end of looking at the history of each mound. The character and stratigraphy of each phase is described, followed by a brief description of each feature (pit, cist pyre site) within the particular phase. The particularities of the contents of each of these features are tabulated and are presented in Table 1. Therefore the feature description in the text here notes only dimensions and any aspects of particular note.

MOUND 1

At the time of excavation by Clouston (above) Mound 1 was reported as measuring 45.72m circumference and 2.29m high (RCAMS 1946) and to be constructed from wet adhesive clay. On reaching the centre of the mound, a large flag stone was found to cover a grave. At the end lying NE by E was an inverted urn shaped like a flower pot. At the other end of the grave 'about a hat-full' (RCAMS 1946 quoting Clouston) of burnt bones which had been cleaned of any ashes. These burnt bones were covered by a stone c. 0.30m across, upon which lay a peculiar brown mossy substance, and white ashes.

This mound was not further investigated in the 1994 excavations.

MOUND 2

Mound 2 was found by Clouston (RCAMS 1946) to cover six burials of cremated bone, five of these were in cists, the other in a pit (Chapter 7, Figure 7.1). The two cists nearest the centre of the area covered by the mound had a large flagstone resting against their east sides, which rested on the two horizontal covers of the cists. The first was built of a double row of upright flags on all sides but the south, where small pieces of stone were placed at the corners. This cist had been placed upon the old ground surface and supported by means of a thick layer of clay which filled 0.23m of the cist interior. A small stone covered a cavity within this clay, which contained burnt bone and charcoal. The second cist consisted of four flag stones set upon a flagstone base, upon which was a pile of burnt bone. The third burial deposit was a pit cut into the ground and covered by a stone, which contained larger fragments of burnt bone and fuel ash slag. The other three cists are not described in much detail - it is not known whether they were set into or upon the ground. They are said to have contained ashes of a reddish colour (burnt turfs/peat) and small pieces of burnt bone. The fourth cists also comprised a double row of flags on each side but the south. All the graves were orientated NNE-SSW except the sixth which was orientated NE-SW.

A section was excavated through the outer edge of the mound in the north part in 1994. Although the section did not extend far enough into the body of the mound to allow investigation of mound construction sequence, the soil micromorphology analysis of a block sample taken from the SW corner of the trench through the buried soils and part of the mound that was revealed proved interesting. The A horizon (total depth 5cm) had pyre debris mixed into it. These fragments of heated and fused debris are thought to have become incorporated by considerable trampling or mixing of a broken soil surface (Carter 1997a). This disturbance is thought to relate to the trampling-in of pyre debris during funerary activities, rather than disturbance relating to the stripping of soils for mound construction (Chapter 7). Some flat stones were present upon the top surface of the A horizon; these were most likely laid as scattered paving in order to consolidate the ground.

After this disturbance a turf reformed over the soil, upon which a layer of pyre debris 471 was deposited, which was in turn covered by mound material. The sequence of events revealed at Mound 2 demonstrates that a significant amount of time elapsed (enough for a turf to form over the disturbed soil) the pyre debris was deposited and the mound erected over the whole. This is the only mound where this time depth between events, represented by the growth of turf, can be seen.

Although nothing is known of the structure of the mound, or precise relationship of the cists Clouston discovered to the mound, the sequence discovered in the 1994 excavations at the edge of the mound would lead one to infer that there had been at least two phases of activity at this mound.

MOUNDS 4 AND 3

Mounds 4 and 3 appeared from the surface to be very badly truncated. 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 (Chapter 2, Figure 2.13).

Phasing

Mound 4

Phase 1 *Primary cist burial and mound*

Phase 2 *Features cut into edge of, and surrounding, mound*

Mound 3

Phasing *Presumed similar but mound unexcavated*

MOUND 4

Phase 1

The primary element of Mound 4 was a cist built on the ground surface containing burnt bone and pyre debris. The stone cist (254) was box-shaped, 0.45m wide, 0.57m long and 0.48m deep aligned NS. The upright slabs of were cut through the buried soil 353 and just into the natural subsoil 268. The subsoil 268 formed the base of the cist. The cist slabs had

been supported with a small amount of mottled clay (368) packed around the base of the upright stones, underneath substantial angled slabs (357) which leant support to the cist and held it in position.

A deposit of reddish soil (267) had been packed around the outside of the primary cist 264, over 368 and the angled slabs (357). The soil (267) extended about 0.6m from the cist. This material contained at least 9.5g of burnt bone (adult), as well as flecks of charcoal and fuel ash slag. This reddish soil surrounding the cist was heat affected topsoil (see below). Upon excavation it was noted that this deposit was similar in composition to the upper surface of the buried soil (353), which was also reddened and contained flecks of charred material. It is possible that the cremation had taken place in the place subsequently covered by the mound, and that after the cremation had taken place and the pyre was cleared of debris, the cist was constructed, and the burnt soil scraped up and packed around the cist. The section through this mound was not subjected to thin section analysis so this remains a theory.

Subsoil (251) had been scraped up to form a mound over cist (264) and the material around the cist (267). A silvery grey silty clay 252 ran around the edge mound on top of mound material 251 - similar silvery grey silty clay at other mounds was associated with the kerb. A cobble of sandstone (SF 280) was found in (252) in a very abraded and possibly burnt condition. Few stones were found to indicate the presence of a kerb, but the kerb could have been ploughed out. Several sherds of pottery from two different vessels derived from this layer. 253 was a crumbly skirt of brown soil around edge of mound, over 252, also seen on other mounds. It is uncertain whether it was naturally formed or deliberate deposit (see M E Hedges 1979 for similar at Quoyscottie). A thick layer of iron pan formed between 251 and 252.

Phase 2

The group of features to the north east of Mound 4 (256, 262, 263, 266, 356) probably all post-date the mound - certainly 266 and 256 cut the grey material defining the mound (252). 256, 262 and 263 lay under 253 but this context could have been slippage, or later than the mound. Although the features have been truncated, they were probably never very substantial and contained very little bone.

The features comprised a cist and four pits; 256, 262, 263, 266, 356 respectively:

A very small and shallow pit (266) cut into edge of mound (252). This scoop measured 0.20m in diameter, and surviving only to a depth of 0.04m, underlying topsoil.

Small pit 356, 0.30m in diameter, 0.08 m deep. Cut into 252, filled with 265.

Pit 263, fill 259 had a diameter of 0.27m, and depth of 0.05m. The pit lay under the crumbly material around the edge of the mound (253). The pottery sherd from this pit was identified as being from the same vessel as the sherd from pit (262). This is evidence for debris/artefacts from the same event being incorporated into two features – also note absence of burnt bone.

Pit (262) contained fill (258), measured 0.25m in diameter, 0.05m deep and lay under 253. The fill contained pottery from same vessel as that in 263.

Three upright slabs defined cist 256, the fourth presumed absent through plough damage. The cist cut into 252, and was filled with 257, lying under 253. The feature was 0.14m deep, 0.38m x 0.20/0.28m in extent.

MOUND 3

Phase 2 (presumed)
The trench extension onto Mound 3 revealed a similar group of features cut into the SW part of the mound as were located at Mound 4. The relationship with Mound 3 and the group of features (two cists (351) and (359) and five pits (359, 360, 362, 364, 365)) cut into the SW part of the mound is assumed (that they were later), as the mound was not excavated. An ard point was found on the surface at the edge of Mound 3 (SF 360). Features 362 and 364 are interpreted as postholes – both are small with 'sterile' fills (absence of pyre debris); 364 had almost vertical sides whereas 362 was truncated with just the base surviving. None of these features contained bone, and only a few contained pyre debris:

Cist (351), fill (354), consisted of a small sub-rectangular structure of upright slabs.

Feature 359 measured 0.50m x 0.50m x 0.20 m deep. This was the remains of a small cist that had been plough damaged causing side stones to be removed, and the sole remaining side stone to be displaced.

Pit 360 was a shallow scoop with gently sloping sides, 0.4m in diameter, 0.09m deep.

Feature (362), was a small pit 0.2m in diameter, 0.09 m deep. It is possible that this feature was the base of a posthole.

Pit 364 measured 0.20m in diameter, 0.15m deep; its sides were almost vertical and that, combined with its small size, suggest that it was a posthole.

Pit (365) was a very shallow squared scoop, 0.60m x 0.40m wide and 0.05m deep.

MOUND 5

One of the larger of the mounds to be investigated in 1994, this mound measured 12m east-west, 11m north-south, and stood 0.70m high. It was apparent that the mound had also been disturbed through previous excavation, seen from the surface by a depression in the top centre, and in section by disturbance in the upper layers of the mound. 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 apparent SE and SW quadrants), and the SE quadrant of the mound was excavated in its entirety (Chapter 2 Figure 2.14).

Phasing

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*

Phase 1

The central primary burial within this mound was a cremation burial placed within a grave cut underneath a large stone slab. The sub rectangular grave (379) was cut into the natural subsoil, and measured 1.40m x 0.50m x 0.20m. It was orientated NW to SE. A deposit of substantial pieces of burnt bone and cramp (378) had been placed within this grave cut, off-centre toward the west side of the cut. The cremation burial had not been covered by soil or other material, and very little silt had entered the grave. The slab (377) which had tightly sealed the grave measured 1.60m x 0.60m x 0.04m. The bone from (378) weighed 1497.3g total, and as such was the largest weight of bone from any burial context at Linga Fiold, and was also the burial deposit with the largest fragments of bone, measuring up to 100mm.

A dump of pyre debris (375) was heaped on top of the grave slab after closure. There are many significant aspects to this deposit - it is the only instance at this site where association between grave fill and pyre debris can be asserted, for bone from the two contexts conjoined. Cramp from within the grave had bone fused to it, cramp from the deposit over the grave did not have bone attached, an example of categorisation of the parts of the pyre debris (see Chapter 5). The radiocarbon date for this deposit (375) was 1940-1640 cal BC (Appendix 1).

The evidence from Mound 5 pyre and burial was also notable in terms of the slag analysis (see Chapter 4). The slag from this particular deposit was produced by the melting of the surface that underlay the pyre. This created a sheet 10-15cm thick of slag with the remains of the pyre and the cremated body fused to its upper surface. The creation of such a mass of slag indicates a considerably greater supply of heat than was achieved in other pyres.

The grave had been cut through the old ground surface, and into the natural subsoil. The top of the buried soils was observed upon excavation to have been reddened through burning, and charcoal flecks were present. The limits of this reddened area were marked by the edge of the primary mound material, 372, and a stone kerb, 155. The kerb (155) was built of two courses of large sandstone blocks to delimit an area 7.0m diameter and its width extended to a maximum of 1.6m on the south side of the mound. The kerb, 155, was built upon, and surrounded by, 167, soft ashy clay with a pink tinge. Two stone mattocks were found in amongst the kerb stones (SF 126 and 276).

The structure of Mound 5 had been severely disrupted by rabbits. Their burrows had dislodged parts of the kerb, and penetrated through the mound material making stratigraphy difficult to read. It was not clear whether the mound material was put in place before the kerb or vice versa - some stones of the inner face of the kerb overlay the mound material but may have been displaced by rabbits.

The mound material placed over the central grave comprised a thick layer of topsoil (stacked turfs covered in loose topsoil, identified through soil thin section) 372, capped by a thick layer of grey clay subsoil, 371. This mound material was 0.5m high over the grave. In

common with all the other mound sites, the mound material was placed on 'A' horizon turf and topsoil. The soil thin section analysis (see below) detected fused pyre fragments on the top surface of the buried soils, the horizons below were in an undisturbed condition immediately prior to burial. A stone mattock was found in the mound material (SF 278).

A number of additions were made to Mound 5, and features inserted into the edge of the mound or around the outside, all of which were later (where stratigraphic relationships exist) than the original mound except for a pyre/debris dump, (175).

Pyre site or pyre debris dump, (175), lay under the kerb (155) and its associated ashy matrix, and was a sub rectangular cut orientated NNE-SSW measuring 0.90m x 0.50m, 0.05-0.15m deep. The feature may be a pyre site (see Chapter 4). There is a radiocarbon date for this feature of 1880-1520 cal BC (Appendix 1).

Phase 2

At Mound 5 a thin layer of heat-affected topsoil (169) overlay the upper layer of the Phase 1 mound (371), and was identified both in the thin section profile and at the time of excavation. This reddened soil (169) contained small amounts of burnt bone, and was interpreted through soil thin section as soil which has been affected by heat (from a pyre), and subsequently redeposited on the mound surface (rather than an *in situ* pyre site). It was not possible to determine whether the thin layer of soil was the final cap to the Phase 1 mound, or was a remnant from the pyre related activities that were focussed on the south east part of the mound and have been grouped together as Phase 2. However, this was not the only context to be sandwiched between Phases 1 and 3 (the primary mound and mound refurbishment) for there were also several features attributable to Phase 2 all of which were located on the outer edge of Phase 1 mound material, in the south west part of the mound. Features that are attributable to Phase 2 are a cist (174, at the outer edge of the mound on the east side); a square cut pit (165), a pyre site (152, east side of mound), and a complex of pyres and burnt spreads (156/158, 159, 171).

Cist 174 and pyre site 152 lay c. 1.0m to the south. Some additional mound material was added after these events - 168 - a layer of yellow subsoil with lens of grey subsoil within (163). This layer was not found to extend over the top of the mound but could have been removed by later funerary activity and modern disturbance. On the other hand it may have been a discrete area where subsoil had been spread to consolidate the surface for further activities.

Overlying 168 were features representing a further series of events. These were a complex group of pyres and burnt spreads at the south east south part of Mound 5 which was numbered 156/158, 159, 160, 171, and feature 165.

Pyre site 156/8 and cut 165 were overlain by pyre site 159. All the features listed above lay over 168 the mound material/spread to consolidate side of mound. The features above and below 168 represent a complex history of cremations, which may have been undertaken over a relatively short space of time. The presence of these features is a clear indication that there was an interval of time between the building of the primary mound and the enhancement of the mound however short this may have been.

Cist 174 was a squared cut with an upright stone side on south side only, measuring 0.53m x 0.53m. It underlay 163, and cut the kerb and ashy kerb matrix.

Pyre site 152, with underlying associated parts 172, ran along SE edge of Mound 5 and comprised two discernible layers; 172 was an ashy grey layer, 3-10cm thick, and 152 was bright red soft soil containing many bones, 5-7cm thick. The upper part of the pyre site was irregularly shaped, measuring 1.25m x c.0.50m, the lower part was more squared and measured 1.0m x 1.0m. These two layers represent the oxidised and unoxidised layers of the pyre (see Mound 7 central pyre). The burnt bones from this pyre site were excavated in spits, and recorded individually.

Cist 174 lay at the outer edge of the mound on the east side, and pyre site 152 lay c. 1.0m to the south. Some additional mound material was added after these events - 168 - a layer of yellow subsoil with lens of grey subsoil within (163). Overlying 168 were features representing a further series of events:

A complex group of pyres and burnt spreads at the south east south part of Mound 5 was numbered 156/158, 159, 160, 171, and feature 165.

156/158 consisted of a black burnt organic spread of irregular shape 1.60m NS by 0.90m EW. The area designated 156 to the NE end of the feature had the most bone. The context was described as crisp and bubbly, 0.03cm thick.

171 was a compact grey greasy clay 3-5cm thick. This deposit was the lower part of pyre site 156/158.

160 was a black spread of burnt material, 1.90m NE-SW by 0.70m NW-SE and 0.08m thick maximum. This feature was either a part of pyre site 156/158/170, or, more likely, another pyre site immediately adjoining it.

Feature 165 was within a square cut 0.35m x0.37m, 0.28m deep orientated NE-SW. The cut was stone lined, but with small stones, not like a cist. The feature was possibly the remains of a pyre site, or was a cut for a burial of pyre debris.

159 was a bright orange spread of burnt soil, 1.50 x 0.70m in extent, with bone fragments and charcoal flecks. The spread overlay mound material 168, and cist 165. This feature is best interpreted as the oxidised upper part of a pyre site - see also 152, and 347 Mound 7.

Phase 3

The whole of the mound was enhanced by the addition of thick layers of redeposited subsoil 044, 153 and 045. 044 was orange subsoil much disturbed through animal activity. 153 was a dump of soft grey ashy clay which may have been restricted to area of kerb and lower slopes of mound. 045 overlay 053 and was a thick layer of clayey loam – probably subsoil mound material mixed through disturbance with more loamy topsoil and turf. The addition of this material probably did not increase the width of the mound, but would have increased its height by at least 0.40m and made the sides steeper.

In addition to the disturbance caused by rabbits, cattle and ploughing, it quickly became apparent that Mound 5 had also been disturbed by previous excavation. It would appear that earlier investigations of the burial mound had exposed a cremation burial with pyre debris in the top of the mound - possibly within a cist indicated by the broken stone pieces. This later burial was probably put in place at the same time the mound was enhanced with further layers of mound make-up, as appears to have been the case at other mounds within the cemetery, such as Mound 9 (see below).

Phase 2 or 3

A number of cists and pits were excavated from around the southern part of the mound – 162 and 164 (NW quadrant) and 436, 437 and 438 (SW quadrant). Pits 162 and 164 and cist 436, pits 437 and 438 were mostly cut into natural subsoil, and covered by the final layer of mound material (045), except 438, which was cut into natural subsoil and covered by topsoil, and 437, which cut 153 and was covered by 145. There being no stratigraphic relationship between most of them and the mound, apart from the uppermost mound layer (045) which could have slipped down from the mound over time and sealed the features. It is possible, but not provable, that these features, except 437 which is demonstrably Phase 3, could be attributable to Phase 2.

Pit 162, was square in shape with rounded corners and shallow sloping sides, measuring 0.78m NS x 0.89m EW x 0.15m deep.

Pit 164 measured 0.41m NS x 0.45m EW x 0.08m deep. It was flat bottomed and lined with medium stones. From its comparatively large size to other pits, and its shape (wide and shallow), and it being lined with stones it is tempting to interpret this feature as a pyre site.

Cist 436 was a rectangular shaped cut measuring 0.70m x 0.50m x 0.25m deep with cist stones 435 which were thought to have originally lined the sides of the cut but the stones were degraded and disturbed, surviving best on the west and south sides.

Pit 437 cut 153, and was covered by 045. It was sub-square in shape with rounded corners, 0.45m x0.45m x 0.08m deep.

Pit 438 lay outwith the mound material/mound slippage, cutting natural and underlying topsoil. The round-bottomed oval pit measured 0.40m x 0.30m, and was 0.07m deep.

MOUND 6

The NW and SE opposing quadrants of Mound 6 were stripped of turf, and the south east quadrant excavated in its entirety (Chapter 2, 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

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

Phase 1

The primary burial had been a cremation placed in a large bi-part steatite urn which in turn was placed into in a pit SE of centre to the mound (see above). The pit (384) was *c.*0.75m deep, and its sides sloped from a width of 1.1m at the top to a narrow bottom *c.*0.40m wide. The urn had been lowered into the pit, and held in place by backfilling (with clay probably excavated from the pit) around it.

The soils buried under the mound were well preserved in places, and analysis of samples through them was undertaken for pollen and soils (see below). The layer of yellow clay that was encountered across the buried soil and across the top of the pit (383) containing the primary burial in the steatite urn may have been subsoil which had been excavated from the pit, and spread over the ground to act as a surface to consolidate the ground. This spread was flecked with charcoal. Scattered paving (381) was found within and upon this clay, and both the clay and paving had been trampled. The surface across the cut containing the urn was levelled by the addition of a deposit of grey clay (385), which contained flecks of pyre debris. There are no indications that a pyre had been situated where Mound 6 was positioned, or in close proximity to the steatite urn burial. The charcoal flecks present in the clay matrices (383) and (385) could have been introduced during the deposition of the cremation burial.

The steatite urn burial and activity area were surrounded by a kerb and covered with mound material which overlay (382) buried soils. The mound material (143) comprised turfs (see Chapter 6), and appeared to have been laid as a single deposit at least 0.50m thick. This Phase 1 mound would have been 8.0m diameter. The kerbing (132) was up to three courses high in places, but formed from irregular shaped and sized stones, and not faced to either outside or inside. The stones of the kerb were bonded with compact orange clay subsoil, mounded around the stones so the stones themselves would not have been particularly visible. Again (see above) it was difficult to distinguish which element had been put in place first - the kerb did overlie the edge of the primary mound material in places, but seemed to have slumped inwards, so may have been put in place before the mound material, or the whole kerb and mound may have built as one event.

Phase 2

The thin sections for soil micromorphology did not span the upper sediments of Mound 6. There is, however, incontrovertible evidence from the excavation that there was a hiatus between the primary mound (Phase 1) and the mound enhancement (Phase 3). As with Mound 5, a later burial, or burials, were added to the upper part of the mound, and a combination of animal disturbance and antiquarian investigations had damaged the upper layers of the mound hampering interpretation of the stratigraphy. It is certain that the building of the mound happened in two major episodes: (143) and (083), separated by activities represented by stone paving or revetment (130) around the surface of Phase 1 mound material (143), and a pyre site (147), also on the surface of mound material 143.

A substantial stone cist, 129, was set upon the surface of the primary, Phase 1, mound material almost directly above but slightly to the north of the Phase 1 steatite urn burial. This cist had been excavated previously, and the large stone found in the top of the mound

was probably the capstone which had been removed and discarded. A pyre site (147/144) on the surface of the primary mound was positioned slightly northeast of centre of the mound and running into the south facing section. This comprised a spread of charred material (147) overlain by burnt clay (144) 1.0m x 0.7m containing many fragments of burnt bone. From the coincidence of the burnt bone of an adult and an infant from a pyre site on the primary mound and the cist in the secondary mound it seems highly likely that the two features relate to one cremation event. This cremation certainly took place after the primary mound had been built, although it is not possible to establish the interval between the primary and secondary mound building. The large central secondary cist, pyre site and stone platforms were covered by a layer of mound material 083 (much disturbed).

A layer of subsoil mixed with turfy soil and small stones (131) was the interface between the mound builds, and could have resulted from trampling and disturbance on the surface of the Phase 1 mound, or could just possibly have been the remains of a soil forming on the surface of the Phase 1 mound. Layer (131) was best preserved between the stone surface 130. The stones (130) occurred in a discrete patch, 1.2m x 2.2m, in places up to four stones high, made from medium and large sandstone slabs and angular pieces set on the break of slope of mound material 143, located on the SE side of the mound. The limits of the stone spread appeared to be real, i.e. not just a product of survival. Another, similar, area of laid stone was encountered on the break of slope disappearing into the east facing section.

Phase 3

At some time, probably after the mound was in its completed form, a stone boat-shaped setting was built along the east side of the mound and covered in a low cairn (124). First in the sequence of events at this location a long shallow cut was made arcing around the east side of the mound (148), measuring a maximum of 0.40m deep, and 1.0m wide tapering at either end. There was a layer of grey clay (149) within this cut which acted as bedding for the large stone blocks arranged in the shape of a boat (150), 1.50m long and 0.70m wide, aligned along the side of the mound. Pit 137, central to the boat shaped structure, cut through the bedding clay. Cairn material was placed over the whole of the boat shaped setting. This cairn material contained a stone mattock (SF 231).

A pit (137) containing cremated bone and pyre debris was located central to this boat shaped structure. A cut feature (135) was found at the southernmost end of the boat shaped setting. This feature was most likely a posthole, as it was stone packed at the top with large stone blocks, and the fill contained no burnt material.

All the other features found at the outer edge of Mound 6 lay in a group to the east of the boat shaped setting (150). These comprise four pits: 133, 139, 141 and 145. Of the four pits 133, 139 and 141 were cut into natural subsoil and covered by the cairn material (124) that covered the boat shaped setting whereas 145 was covered by topsoil.

Pit 133 was a shallow scoop 0.25m wide and 0.09m deep.

Pit 139 was sub-circular shaped, 0.50m in diameter and 0.16m deep.

Pit 141 was circular in shape, 0.41m in diameter, and 0.13m deep. The fill (142) contained only blocky stones, medium sized, and no burnt material. This feature was possibly another posthole.

Pit 145 was oval shaped scoop, asymmetric in section, measuring 0.36m long by 0.23m wide and 0.11m deep. There was pottery throughout the fill, representing parts of four vessels.

An additional feature was located to the south east of mound. This was a small area of stone slabs (122) which may have been an irregular patch of paving. The stones were associated with 123, a thin brown spread 0.20m by 0.30m containing several sherds of pottery (SF 116, 200-3). Both (122) and (123) lay upon natural subsoil and were covered by topsoil.

MOUND 7

This mound was not the largest in the group, being 8.8m by 9.5m in size. However, the geophysical survey results indicated that Mound 7 had the most activity around it of all the mounds. This was visible as a crescent of anomalies to the north, on the upslope side of the mound. The mound was excavated in quadrants, with slit trenches excavated to the north, north east and west to test for the extent of associated features (Chapter 2, Figure 2.16).

Phasing

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*

Phase 1.1

Primary activity underneath Mound 7 was represented by a large but low-sided cist beside which was a pyre. The cist (346) was oriented NW-SE, and was large but shallow, measuring 1.10m north-south by 0.75m east-west, and rising 0.30m above the ground surface. The base was clay (458), and the cist was constructed on the old ground surface (225), with individual cuts into the surface for the upright slabs (461). After the cist slabs were set in position, a pyre was lit to the south of the structure, close enough that the heat from the pyre scorched the end slab. The pyre comprised a pile of dense black charred material (455) within which a charred alder log survived, covered by a thin orange/red layer of burnt clay (347) upon which burnt bone fragments were found. The cremated bones from the cist were those of an infant, whereas those on the pyre were the remains of an adult, possibly female (McKinley 1996).

The primary cist and pyre were covered by a thick layer of brown clay (326), distinct from the orange clay material of the mound (040).

Phase 1.2

The layer of brown clay (326) found over the cist and pyre was overlain by (460), a clayey soil (actually loose topsoil, see soils analysis); both these deposits formed the basal part of the Mound 7 but both were restricted only to covering the central cist and pyre. The larger bulk of the mound material (040) was constructed over the clay layer (326), probably all in one event. The old land surface underlying the mound indicates that the site was a stable vegetated area with a well-developed turf.

Soil sediment analysis indicated that the lowest part of the mound (460) had been constructed from topsoil and turf, with the bulk of the mound (040) consisting of topsoil. This indicates an inversion of the natural stratigraphy, with the mound being constructed by laying down turf as the base, covered by topsoil, and then the underlying subsoil piled over it to form the main part of the mound.

A sub-circular setting of large slabs (036) was placed on top of the mound, directly overlying the burial, so possibly contemporary with the construction of the mound. The stone setting was three courses thick in places and was faced on the interior. This setting was 2.4m external diameter. Four large sandstone cobbles (SF 113) were found in topsoil (032) above the stone setting. None of these showed any sign of wear. This setting is presumed contemporary with the mound rather than a much later feature and as such is a very unusual feature.

A kerb (338) lay upon the outskirts of the mound, within a soil matrix (114), and apparently post-dating the mound. It was set against mottled grey clay layer (339), which skirted the mound and directly overlay (040). Many pottery sherds were found in the edge of mound material (114). The sherds are too abraded to be certain they are all from one vessel.

Several substantial individual upright stones (small standing stones) were set around the edge of the mound in the south-east quadrant. These stones (350) were at the limit of the mound material (040), and sitting on the old land surface.

The old land surface (225/332) mainly survived only under the mound and the clay platform (196). The mound predates the clay platform (196/456), which was spread around the outskirts and up towards the north (see below).

Phase 2

Kerb cairn 273

The remains of a kerb cairn were discovered in a slit trench extending from the northeast of the trench. The kerb cairn measured 3.20m in diameter and was 0.20m high and comprised a low mound of purple silt loam (273), surrounded by the remains of a kerb, which had been robbed in antiquity. A band of organic material (274) surrounded the mound. The mound overlay the old ground surface (225). A pit (452) with a rounded base lay within and central to the kerb. The contents of the pit 452 overlay in places orange-brown clay (453) (which may have been the up-cast from the digging of the pit) and the old ground surface.

The kerb cairn had been truncated and overlain by the clay platform (196/456), indicating that it would not have been visible from early on in the barrow sequence. Although it is certain the kerb cairn predates the clay platform, it was not possible to ascertain a stratigraphic relationship between this small mound and Mound 7. However it seems more likely that the kerb cairn postdates Mound 7 due to its proximity to Mound 7 and the

association with other features which postdate Mound 7, notably kerb cairn (211) (see below).

The fill of the pit 452 (451) contained pyre debris which was also spread across the top of the pit and surrounding area to a diameter of c. 0.80m. There were some indications (enhanced magnetic susceptibility readings, and some reddened soil) that this pit and spread may have been the site of a pyre and represented *in situ* pyre debris rather than a pyre debris burial.

Cist (224) and pyre (195)

A pyre (195) and cist (224) lay in close proximity to Mound 7 on the west side of the mound. Both features were covered by the clay platform (196). Pyre 195 was a surface spread of grey clay (322) covered by black ashy material (321) bounded intermittently by stone slabs, the whole pyre site being a rounded rectangular shape c. 0.90m NS x 0.50m EW. Cist (224), 0.70 by 0.40m, defined by four low upright slabs and oriented NNE-SSW. The tops of the upright slabs had signs of burning, possibly related to the pyre site (195), suggesting the cist was in place prior to the pyre (similar to Mound 7 central primary cist and pyre). The pyre contained burnt bone, cramp and burnt turf, whereas the cist contained negligible burnt bone, but charcoal and burnt turf in some quantity.

Other features predating platform 196

A pyre site 245 was located in the NW quadrant, lying in close proximity to cists 185, 186 and 187 (Chapter 2, Figure 2.16), although apparently predating them as the pyre was sealed by the clay platform 196. Pyre site 245 consisted of a spread of burnt stones (315) overlain by a patch of burnt soil (245).

In the NW quadrant of this trench there was another feature which underlay the clay platform (196). This circular pit (243) was 0.53m in diameter, cut the old land surface (225) and natural, and was situated to the east of the kerb cairn (211).

Also predating the clay platform was feature (244), a circular pit which contained a blackish-brown fill. The radiocarbon date for this context was1680-1270 cal BC (Appendix 1).

Phase 3

Clay platform 196/456

Phase 3 comprises a clay spread or platform 196/456 located around Mound 7 in a crescent form from the west, through the north to the east of the mound. This spread of redeposited yellow clay subsoil which was introduced presumably to consolidate the surface, but maybe also to seal or close off remnants of preceding events (see Chapter 7). The clay layer provides a stratigraphic relationship for Mound 7 and many of its related features.

The platform was built in at least two episodes, with (456) as the earlier layer, 0.08m thick, and (196) the upper layer 0.03m thick. It is not likely that there was a long time gap between the clay deposits, as the surface of the lower layer was clean and did not appear trampled.

Several coarse stone tools derived from clay platform (196). These were three cobble tools (SF 320, 322, 323), one possible cobble tool (SF 324), one stone mattock (SF 321), one possible mini stone mattock (SF 317) and one possible disc fragment (SF 325). Another stone mattock came from the topsoil above (196) (SF 154). The cobble tools SF 322, 232 and 324 were found stood on end bedded in the clay platform, in a very tight cluster (see Loth Road, Sanday for similar arrangement of cobble tools (Sharman in prep.). This group of cobble tools was situated immediately to the north of building (212) (see below) and probably relate to the building and activities that took place subsequent to the platform (196) being laid.

The clay layer provides a stratigraphic relationship for Mound 7 and related features as it overlay the kerb cairn (273), and was cut by later structures, the buildings (202) and (212), and a second kerb cairn (211). Many cists and pits also cut this platform (see below).

Phase 4

Building 212 and kerb cairn 211

A sub-circular structure 212 was located to the southwest of the kerb cairn 211. The building is interpreted as a place where corpses were laid out prior to interment, a mortuary building.

The mortuary structure 212 comprised stone walls (212) and (202) and was interpreted as a building which had undergone modification at least once, represented by a change of alignment of the wall (202). The building was constructed with double-skin walls, which were faced with stone slabs and filled with rubble and clay. A paved area (213) extended around the outside of the entrance and within the building on the left-hand side as the building was entered. The rest of the interior was covered by a rammed clay surface. An entrance was located at the northwest side of the building, indicated by small upright stones placed 0.40m apart. This entrance was associated with wall (212), and was subsequently overlain by wall (202) at which time the entrance must have been relocated but no trace of this remained.

A grey-brown consolidated clay layer (233) surrounds the structure, with some of the stones set into it. This appears to be the top of the natural subsoil. The internal area of the building was 2.80m NW-SE by 2.60m northeast-southeast. There was no hearth within the building, and no domestic debris such as pottery sherds. Thin stone slabs, placed upright in the right hand side of the building indicated the existence of a long piece of furniture. A small triangular or rectangular grouping of angular stones (215) underlying the building (212) to the east may be the remains of another earlier structure destroyed prior to the building's (212) construction. This grouping of stones was within a brown loamy matrix (295). A possible stone mattock (SF 407) came from amongst these stones.

A spread of burnt material (459), 0.80 by 0.75m in extent, underlay the paved floor surface of the building and part of wall 202, with fragments of cremated bone, and scorched soil indicative of a pyre site. The pyre site underneath the floor (459) was sealed in a relatively undisturbed condition, but it could not be discerned whether the pyre site predated all phases of the building, was contemporary with a phase earlier than that represented by wall 212 which it underlay, or had been part of a cremation event that took place during a hiatus between rebuilds of the structure.

The building is most likely to be contemporary with the cist cemetery that surrounds Mound 7 to the NW and SE.

Kerb cairn 211

A second kerb cairn (211) was discovered to the north of Mound 7, overlying both the clay platform (196), and the NE portion of the wall of the mortuary structure (212). Kerb cairn 211 was of a similar size to kerb cairn 273, Phase 2, with a diameter of 2.80m. The surface within the kerb cairn was a consolidated clay layer (235), 7cm thick, which underlay (196) and the kerb structure (211), and appeared to be the old land surface, the same as (332/225). The kerb (211) survived to one or two courses of stone, faced on the exterior, with a large part of the kerb cairn removed through plough damage. A pit (348) was cut into natural in the centre of the area defined by the kerb cairn.

Although this part of the site was truncated having suffered disturbance through subsequent activity since antiquity, the relationship between the mortuary building (212/202) and the kerb cairn (211) is clear as the kerb of the kerb cairn overlies the mortuary building. Both the building and the kerb cairn cut the clay surface (196), making them later in date than Mound 7.

Phase 5

The mound, and the mortuary structure and kerb cairn, were the focus of subsequent activities for the most part represented by cists and pits, many of which contained cremated bone and pyre debris, as well as some pyre sites. The cists and pits were concentrated on the northwest side of the site, upslope of the Mound 7 and around the mortuary structure, (212) and kerb cairn (211).

In terms of layout, the cists and pits do conform to three relatively discrete groups and so will be described accordingly, although this spatial grouping is for ordering the text and does not indicate necessarily precise chronological grouping. Those pits and cists that are definitively earlier than the clay platform are described above. The majority of cists and pits to the NW of Mound 7 cut the clay platform 196 and so are later than that, and either contemporary with or later than the buildings designated Phase 4 (above). The cists and pits to the north of the mortuary building 212 and kerb cairn 211 lay outwith the spread of the clay 196, but are assumed later at least than the mortuary structure and kerb cairn as they respect these buildings, and are also assumed, to represent the latest phases of activity at Mound 7. Some of the group of cists and pits to the SE of Mound 7 are cut into the edge of the mound and so post date it. The groups of features are referred to as: NW of Mound 7; N of /surrounding building 212 and kerb cairn 211; SE of Mound 7.

NW of Mound 7

This was the most numerous concentration of cists and pits with the features forming an arc around the mound from west to northeast, but clustering most densely in the northwest. A pathway (238) of small and medium stones, within a brown loamy matrix (294), led into the cist cemetery from the west, and was apparently contemporary with the cemetery. The path was 4.0m long, and varied in width.

Pathway 238 overlay the clay layer (196), and was partially below a later clay deposit (197). Sherds of pottery and a possible stone mattock (SF 316) were found along the path.

A thin layer of orange-brown clay (239) overlay part of the pathway and also contained pottery.

The clay platform deposit (196) overlay a mixed clay layer (248), which appeared to be the interface, or buried soil between the natural subsoil and the (196) clay platform above. Numerous sherds of pottery from at least two vessels were found in layer (248). Two stone mattocks (SF 303 and 304) were found in this context.

At the point where the stone path (238) appeared to originate and/or terminate (at the western most extent of the excavation trench) there was a small group of features comprising two pits, (176) and (457), and a cist (177):

Feature (176), 0.40 by 0.44m, was an irregular shaped pit on the exterior of the mound. It underlay (042) mound slippage.

Feature (457) was 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. It cut (225), and underlay the turf layer (032).

Cist (177), 0.50m long by 0.30m wide, was a cist on the edge of the pathway (238) on the western edge of the trench. The cist was NS oriented, and underlay (042) mound slippage.

The dense cluster of cists, pits and postholes to the NW of Mound 7 and to the south of the structures:- 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, across to the north191, 314, 190, 223, 244, 193, 194, and NE 077 078. All the features listed cut the clay platform 196, and many of them (178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 190 and 223) were covered by 197, a layer of orange-grey clay with charcoal flecks and iron panning which was similar to clay platform (196) with a darker, more mixed appearance, possibly attributable to an admixture of pyre debris from cremations and disturbance associated with the insertion of burials. 197 was not as extensive as (196), being concentrated only within the area to the immediate NW of the mound; however, because plough damage had affected part of this area it was not possible to ascertain the original extent of 197 and so its presence or absence over pits and cists cannot be taken as a record of sub-phasing within the cemetery area.

Cist (178), 0.50m long by 0.15m wide, was defined by four upright slabs, NE-SW oriented, only two of which extended down to the depth of the cut. The fill (318) was a 0.16m deep deposit of orange-grey clay. The feature underlay the clay layer (197), and cut natural, and possibly (294) paving.

Feature (179), 0.20 by 0.16m, was a very small cist or posthole formed by upright slabs at the north and south ends, containing a 0.12m deep grey clay fill (284), which was sterile. This was overlain by a thin stony layer (280). The feature was in close proximity to a larger cist (180), and may have been a posthole for a marker for the cist.

Feature (180) was a cist-like stone setting 0.52 by 0.40m, consisting of four upright slabs, N-S oriented, rotted *in situ*. The cist stones were covered with a sealing layer of re-deposited clay (285), which was most likely the subsoil which had been excavated to make the pit. This overlay a 0.12m deep charcoal-rich fill which ran under the slabs of the cist, suggesting that the cist stones had been placed in position after a deposit of pyre debris had been placed in the underlying pit.

Cist (181), 0.30 by 0.42m, was a cist defined by three substantial slabs, NW-SE oriented, cutting into the edge of mound material (040), and natural. Some of the fill (293) lay under

the cist stones, indicating the cist had been inserted after the cremation deposit. The cist was sealed by a hard-packed grey clay layer (292), probably spoil from excavating the hole for the cist.

Cist (182), 0.28 by 0.40m, was defined by four upright slabs, NE-SW oriented, and was cut into the edge of the mound (040). The cist was filled by a 0.16m deep layer of stones and compacted clay (241), possibly packing for the cist stones.

Feature (183), 0.24 by 0.16m, was a small cist formed by four upright slabs, NW-SE oriented, overlying a pit (290) cut into natural. The pit contained a 0.14m deep fill (283) which lay under the slabs of the cist. This was overlain by a 0.07m deep orange-grey clay fill (279). The upper fill (272) of the cist was a 0.07m deep layer of orange-grey silty clay, possibly a sealing layer. A thin layer of stones (287) formed a cist cover, underlying (042) mound slippage.

Cist (184), 0.24 by 0.21m, was formed by four uprights, NW-SE oriented. The upper fill (297) was a layer of compact orange-grey clay. It sealed (299), a compacted fine black fill. The basal layer was a thin, grey clay layer (300) covering the bottom of the cist, which appeared to be mixed with the natural.

Cist (185), 0.22 by 0.26m, adjoined cist (186), which used the north-east slab of (185) as its fourth upright. The cist was NW-SE oriented, and set in a cut (308) with rounded corners, which cut (248) and natural.

Feature (186), 0.34 by 0.24m, consisted of three slabs, with the north-east upright of cist (185) as its fourth upright. The cist was NW-SE oriented. The cist box was set into a pit cutting (248) and natural, and the main fill (303) lay partially under the cist slabs.

Cist (187), 0.25 by 0.23m, was a small cist, NNW-SSE oriented, overlying a lining of stones (313). This layer overlay the natural, and the cist was cut through (248).

Cist (188) was 0.28m wide, and consisted of three shattered uprights, NNW-SSE oriented, cut into the old land surface (225).

Cist (190), 0.68 by 0.37cm, was oriented NW-SE, and cut the main burial mound (040) and natural. It contained a series of fills. Two individuals appear to be represented in the cremation deposits; an adult and a possible immature individual.

Feature (191) was a small circular pit, 0.20m in diameter, cutting (248), 0.12m deep.

Cist (193), 0.45 x 0.37m, was NNW-SSE oriented, and cut into (248). Most of the stones had been shattered or removed by ploughing, but the cut remained. The fill was (221), 0.05m thick and contained the basal part of a complete pot (SF 158, 162) which held 8.1g burnt bone. The pot may have been inserted as a complete vessel, but as it had suffered plough damage it is not possible to be certain. The pottery vessel had been subjected to a very high temperature.

Structure (194) was a sub-rectangular area 0.55 by 0.25m, defined by two small upright slabs. The appearance of this feature and the very high magnetic susceptibility reading from it (570) indicating that burning probably occurred *in situ* and that the feature was the remains of a pyre site. The stones and fill were set into a cut (232), through the clay platform (196), with the upright stones not reaching the base of the cut.

Feature (223) was a sub-oval pit, 0.40 by 0.47m, cut through (248) and into the natural. It contained a 0.13m deep fill (298). The bone appears to represent at least two individuals, an older infant and a subadult/adult.

Pit (314), 0.55 by 0.65m, was an irregular shaped cut, NW-SE oriented, capped with a stone slab (192). The pit cut (248) (225) and natural, and contained a 0.09m deep ashy fill (316).

Cist (077), 0.60 by 0.40m in extent, formed by upright stone slabs, contained several fills. The cist was set into a cut (107) 0.03m from the sides of the uprights, filled by grey-brown silty clay (108). The basal fill (102) was highly compact, and contained much burnt turf (173g) and a small amount of cramp (1.3g). A large amount of burnt bone (359.8g) and cramp (500g) was recovered from discrete part of the central fill (097) which was possibly interred in a bag, given its clear distinction from an adjacent deposit (098), which was a grey clay free of inclusions containing only 1g of burnt bone and 10.2g of cramp. The burnt bone represented the remains of an adult individual, possibly female. Two mixed clay layers, (091) and (079), interspersed by a layer of flat, irregular stones (086) overlay the cremation, with (079) being the topmost layer. The bone from (097) was that of an adult, possibly female, and from (098) a subadult/adult. The bone from (091) was that of an infant. This is a clear indication of the burial of parts of at least two individuals within the same cist, but rather than the bodies being burnt together on the same pyre (as happens in some other instances at Linga Fiold, Chapter 5) it would appear the bones came from separate cremation events. Two small upright slabs (104) forming a corner lay on the exterior of the cist, at the south end. These were set into a cut (105), filled by pale yellow-grey silty clay (106). These features may have been part of the cist (077), possibly the remains of a post hole for a marker placed at the southern corner.

Feature (078) was a small sub-oval pit, 0.50 by 0.54m. The pit contained an upright stone at its southeast end, and a large blocky stone on its northeast side; it is possible the feature had been a cist from which other stones had been removed by ploughing, as the feature lay directly below the turf.

North of/surrounding building 212 and kerb ring 211

Seven pits and cists were located to the northwest of mortuary structure 212:- 203, 204, 205, 206, 207, 208, 340, and a further two to the east of kerb ring 211, - 209 and 210. All these features were cut into natural subsoil, and some into clay platform (196), and were covered by topsoil. Plough/general erosion appears to have played in partially removing the clay platform 196 from this area; however, due to the positioning of the features in respect to 212 and 211 (Phase 4) it is assumed that the features postdate the structures 212 and 211, and therefore the clay platform 196 (Phases 3). The pit and pyre site in this area that are assigned Phase 2 are described above.

Cist (203), 0.40 by 0.30m, was formed by three upright slabs, NNW-SSE oriented.

The cist stones of (204) enclosed an area of 0.53 by 0.30m. Two stone finds came from bottom of the cist fill; SF 314, a small egg-shaped pebble which lay next to SF 315, a narrow finger-like pebble. Charcoal from 204 has a C^{14} date of 1680-1317 cal BC.

Feature (205), 0.42 by 0.32m, was formed by three upright cist slabs, over a pit cutting natural. The pit fill (336) underlying the cist uprights was c.0.01m deep.

Feature (206) was an almost circular pit, 0.40m in diameter, cutting the clay platform (196) and natural.

Feature (207) was a sub-circular pit, 0.46 by 0.40m in extent, cutting (196) and natural.

Feature (208), 0.37 by 0.20m, was badly eroded or plough damaged, but appeared to be upright cist slabs, set into the top of a pit. The cist structure was NNW-SSE oriented. A possible stone mattock (SF 313) came from within the cist slabs around the pit. The pit cut the clay platform (196) and natural subsoil.

Cist (209) was formed by two upright slabs, NE-SW oriented, enclosing an area of 0.44 by 0.24m.

Feature (210) was a nearly circular pit, 0.45m in diameter.

Feature (340) consisted of circular pit, 0.55m diameter, 0.17m deep.

SE of Mound 7

There was a small and dense concentration of pits and cists to ENE of Mound 7 - 037, 093, 094, 095, 198, 200, 229, 240, 276, 278, 281, 330, 331. All of these features (except 331) postdate Mound 7, either proven stratigraphically by being cut into the edge of the mound, or by inference through their position in relation to the mound edge and as part of the group.

Cist (037) consisted of a triangular setting of stones partially visible from the surface; the cist stones had probably originally formed a rectangle but had been pulled out of shape by ploughing. The cist stones were set into cut (216), with a clay lining (219) which was probably laid prior to the cist slabs.

Feature (093), 0.25 by 0.70m, was rectangular cist defined by three slabs, mainly shallow, overlying a mixed fill (096). A coarse stone tool (SF 197) was found at the edge of this feature. This tool was possibly an ard point – with a squared butt and pointed end, and pecking down the sides to shape it. The feature lay immediately below the turf.

Cist (095) comprised shallow side stones, 0.60 by 0.26m in extent, placed over a pit containing a cremation deposit . The pit (289) was roughly circular and cut the old land surface (225). Cist (095) was supported by silty clay (237), which contained a stone mattock (SF 198) which had pecking over both faces and a notch for hafting.

The cist (095) (radiocarbon date of 1520-1000BC, Appendix 1) was adjacent to a smaller, square box-shaped cist (094), 0.15 by 0.15m, which contained a mixed clay-loam fill (242) with little burnt material and may have been a post-setting to mark the cist 095.

Feature (198) was an approximately circular pit, 0.40m in diameter, 0.01m deep.

Feature (200) was a sub-rectangular pit, 0.35 by 0.30m in extent, 0.09m deep. The pit underlay (042) mound material/mound slip.

Feature (229) was a pit, approximately square in plan, 0.40 by 0.35m in extent, straight sided, and cut into grey natural clay.

Feature (240) was a sub-circular pit, 0.30 by 0.26m in extent, immediately adjacent to the northwest corner of cist (093).

Feature (276) was a circular pit, 0.28m in diameter, with steep sides and bowl-shaped base. This pit overlies the east side of pit (331) (below).

Feature (278) was a roughly circular pit, 0.37m in diameter, 0.01m deep with straight sides and bowl-shaped base, cutting natural.

Feature (281) was a sub-rectangular pit, 0.58 by 0.45m, 0.01m deep with squared corners. A stone mattock (SF 301) was also in the fill. This tool had pecking over one face and use-wear. The feature had a high magnetic susceptibility, suggesting the burning may have been *in situ*. The feature is interpreted as a probable pyre site.

Feature (330) was a shallow rectangular pit cut with straight corners, 0.40m wide, but not fully excavated as part of the pit ran under the baulk section. The pit cut the old land surface (332/225).The pit had vertical sides and a flat base and contained a compact deposit of burnt material (329), covered by a roughly laid spread of angular stones (325) two courses deep. A stone mattock (SF 309) with signs of hafting and use wear was found at the top of this feature. The fill (329) had a high magnetic susceptibility. The feature was possibly a pyre site.

Feature (331) was a rectangular pit, possibly a pyre site, 0.70 by 0.60m, with rounded corners, vertical sides and a flat base. It was oriented NS, and cut the old land surface (332/225).

MOUND 8

Mound 8 was compact mound with comparatively steep sides, measuring 7.0m diameter and 0.4m high above modern ground surface. The southern half of this mound was excavated in its entirety (Chapter 2, Figure 2.17).

Phasing

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

The primary cremation burial under Mound 8 was placed in a tall cist (066) built as a free standing structure upon a large but thin basal slab measuring 0.8 by 1.2m, placed upon A horizon (109). The cist was rectangular in plan, measuring 0.35m wide by 0.41m long by 0.50m high, and was orientated EW. The sides of the cist, comprising four upright tall thin slabs, were placed upon the stone base and sealed by clay lining across the base (073) and luting of fine clay inside the corner joins (076). The clay base lining of the cist (073), was 0.02m thick This deposit was sampled on a grid for pollen analysis.

The bulk of the content of the cist was a black ashy matrix (069) filling up to 0.3m of the depth of the cist. The fill (069) was excavated in 7 spits. The burnt bone and pyre debris was not spread evenly through the fill. Burnt bone was concentrated in bottom three spits. There were indications of how the bone had been tipped in: burnt bone at the top started in the north west corner, then moved to the lower middle south west part of the cist. The largest amount of cramp was also from the bottom of the fill whereas the burnt turf was spread more evenly.

The cist had been covered by a large flat capstone, which had been broken through in one small place by cattle trampling. On the outside of the cist, large blocks of stone (099) leant at angles against and supported the sides; these stones were contained within heat-affected topsoil (089) which had been packed around the cist and formed a small mound extending to 0.8m around the cist and 0.35m depth. The heat-affected topsoil (089) packed around the cist contained no bone, but flecks of pyre debris. It was probably the heat-affected surface from under the pyre from which the cist contents derived, but this was apparently not situated underneath the mound, for the A horizon was undisturbed (Carter 1997); the pyre therefore must have been located elsewhere.

The primary kerb (101) was built from one, in places two, courses of large flat stones faced neatly to the outer edge. The kerb formed a circle of 5.5m diameter. It overlay the buried soil (109), and was covered in places by the primary mound (090). The kerb was therefore in place before the mound was built although it is not possible to say whether the kerb was in place before the cist and defined the area within which the cist was placed, or that the kerb was set around the cist.

A thick layer of compact orange clay subsoil (090) formed the bulk of the primary mound, covering the area within the kerb 5.0m, up to and just over the top of the cist at a thickness of 0.6m. The orange mound material was in turn covered by a very thin capping of grey white ashy clay (116) containing small amounts of burnt bone. This deposit could have been ashy pyre remnants.

Buried soils were sealed underneath the mound; a B horizon subsoil of grey clay 117, covered in places by 109, a layer of sandy clay up to 0.08m thick, which was flecked with pyre debris, and contained patches of green clay. There was a patchy thin layer, 118, overlying 109 in places; this was red brown and very fine, and could either have been patches of burning on the A horizon, or remnants of the organic upper part of the buried soils reddened with iron through water action. Soil micromorphology analysis reports that the buried soils were complete, and fragments of pyre debris through the A horizon are evidence of disturbance some time before the mound was built, not immediately before (ibid).

Phase 1/ Phase 2

Feature 110 was a cist situated 0.25m from the edge of the Phase 1 mound, to the south east of the Phase 1 mound and sealed by the Phase 2 kerb. It is not possible to assert that is was exactly contemporary with Phase 1 cist (066) because it could equally likely be part of the suite of activities associated with Phase 2 mound enhancement.

Cist 110, was a shallow stone box with side slabs set into natural subsoil. Two longer side slabs retained two shorter end slabs creating an internal dimension 0.5m long by 0.4m wide and 0.21 deep, orientated north south. The cut within the cist stones was bowl shaped and filled with black ashy material (111) containing a very small quantity of burnt bone and pyre debris.

Phase 2
The whole of Mound 8 had been enhanced by the addition of another layer of mound material, making the mound 6.0m diameter, and a secondary kerb. The layer of mound material (057) was orange subsoil measuring 0.17m thick. In places a thin layer of grey ashy clay (115) survived over (057); it would appear that this layer was similar to that covering the Phase 1 deposit of subsoil mound material.

(058) was the secondary kerb, set into (059) silvery ashy clay, a bulk sample from which contained 0.1g burnt bone and cramp (possible dump of ashy parts of pyre around edge of mound). This kerb was made up of many medium and small irregular stones, not coursed but was in places three or four stones deep. It was not a freestanding feature but had been banked against the bottom edge of Phase 2 mound material. The kerb was for the most part 0.4m wide, but across the cist 110 was at its widest (1.0m) – the kerb had been expanded outwards to cover this feature. Two stone mattocks were recovered unstratified from topsoil.

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 from the surface to be in very bad condition, marked by holes caused by cattle poaching caving in rabbit burrows, and denuded patches. The lid of a cist was visible in the top centre of the mound prior to deturfing. A small cist (051) to the east of this central cist had been exposed through erosion and its contents excavated previously by Julie Gibson (Moore and Wilson 1995)

Phasing

Phase 1	*Central cremation burial and mound*
Phase 2	*Mound refurbishment and cist*

Phase 1
The central cist (113) was built as freestanding structure, the upright slabs of which were held in place by support stones (050). The cist was rectangular in shape, measuring 0.5m x 0.3m, standing 0.35m high orientated NW-SE. The cist was set in a shallow scoop cut into the old ground surface (071). The stonework surrounding the cist (050) was composed of two elements; large stone blocks leaning against the sides of the cist, and corbelling of smaller stones which extended across the top of the cist over the two capstones which sealed the cist, one on top of the other. The cist contained the cremated remains of two individuals, and older/mature adult and a subadult/younger adult. A large stone pot lid (SF 51) had been placed on the west side of the cist at the bottom of context 067. This disc had been bifacially flaked around the edge to from a neat circular shape. Burnt human bone (31.1g, young adult) was also recovered from context 112, sediment from among the stone supports outside the cist. This has been interpreted as bone which is probably from the same cremation as was represented in the cist.

The primary kerb (087) consisted of a single stone width of large freestanding stones, up to three courses deep, surrounding the cist and resting on the old ground surface. It survived in

a very fragmentary state, and had been removed by ploughing in the NW and SW quadrants. The kerb had a diameter of 6.40m, and was overlain by a grey clay deposit (088), which is likely to have been laid down as part of the kerb construction to bond the stones. The kerb appears to have delineated the extent of construction of the primary mound (052), a deposit of compact orange-brown clayey silt which had been mounded around and presumably over the central cist, and extended over the kerb. Many pottery sherds representing four different vessels were found in mound material (052), clustered in one particular area to the southern edge of the mound.

Phase 2

The Phase 1 mound was refurbished by the addition of more mound material, a cist and another kerb. The cist (051, excavated previously), contemporary with the refurbishment of the mound (033), was cut into the primary mound in the NW quadrant, relatively close to the primary central cist. This cist had contained burnt human bone (adult) and fuel ash slag (Moore and Wilson 1995). There was no visible cut through the secondary mound for this cist, indicating the cist was constructed first, with the secondary mound then placed around and over it.

A secondary kerb was added at the same time the mound was refurbished (033). This secondary kerb (047) was a circular setting of large subangular stones 0.7m diameter, more than one or two courses deep and around 0.80m wide, within a grey ashy soil matrix (049). A stone mattock (SF 90) was recovered from kerb (047). The remains of two pottery vessels derived from this context. Other parts of the same vessels derived from context 052, Phase 1 mound material.

The kerb was overlain by the secondary mound material (033), which extended across the primary mound and the secondary kerb, to a diameter of 8.0m. A crumbly brown soil (034), overlay (033) and was restricted to the edge of the mound. The remains of up to five pottery vessels were found within context (034).

MOUND 27

Anomalies 26, 27 and 28 were detected during the geophysical survey and represent the remains of three heavily plough truncated small mounds set in a linear arrangement running NE-SW. The central feature of the three, Mound 27, could still be seen as a very slight rise in the ground. A trench 6.0m x 2.0m running NW-SE was situated over the mound to half section it and establish what level of information remained in this almost completely destroyed barrow.

Upon excavation it could be seen that Mound 27 had comprised a low small mound. The mound survived as a homogenous raised layer of orange and brown clay loam up to 0.2m deep and 3.2m diameter. This material was the remains of a small mound made of subsoil, mixed with topsoil within which rabbit burrows could be seen clearly. The mound material partially sealed the remnants of what was probably buried soil (064).

There was no sign of any cists or pits associated with this mound; although it is possible there were such features in the unexcavated part, there had not been an indication of this

from the results of the geophysical survey. The diameter and height of the 'mound' component of Mound 27 is similar to that of the kerb cairns located at Mound 7, and Mound 27 (and 25 and 26) could represent the ploughed remains of similar monuments.

Table 1 *Contents of all Linga Fiold Features. Order of fills / samples appears as occur stratigraphically from top to bottom of feature.*

Mnd	Feature	Fill/Layer	Type	Cramp/FAS	Charcoal	Burnt Turf	Bone	Burnt clay & Pottery
2	471/ 472		PYRE DEBRIS DUMP	yes - check	None – ash 30%	1.1g +	66.8g	
3	351	354 [293]	CIST		negligible			
3	356	265 [175]	PIT				0.4g	11.6g burnt clay Pottery SF 364: 4 sherds
3	359	270 [181] [185] [188] [189]	CIST	 observed	0.75g 1.1g *Betula* 0.8g 0.9g 0.1g	observed observed		
3	360	269 [291]	PIT		0.3g *Alnus* 0.1g indet.			4.8g burnt clay Pottery SF 371 – many sherds, Vessel 3.1
3	362	361 [295]	PIT –POSS POSTHOLE	0.4g				
3	364	363 [294]	PIT - POSTHOLE					
3	365	352 [184] [187]	PIT (SCOOP)	0.1g	0.1g 0.1g			3.3g burnt clay
4	254	255 [134] 255 [135] 260 [139] [142] [146] [150] [151] 264 [160] 261 [147]	CIST	3.3g 1.9g 12.3g 19.5g 71.7g 50.5g 26g 5.5g 0.5g	 trace observed observed observed trace 0.6g	0.8g 1.5g 8.1g 19.2g 5.5g 38g 38.3g 3.8g	26.6g 2.7g 31.5g 55.8g 81.8g 217.4 80.4g 7.7g	
4	256	257 [149]	CIST	0.8g	observed	0.8g	0.1g	
4	262	258 [144]	PIT (SCOOP)					Pottery: SF 281-2, 298-9: 21 sherds

4	263	259 [143]	PIT (SCOOP) -	0.1g	1.6g 19 *Corylus avellana* nut shells			Pottery SF 284: 1 sherd.
4	266	266 [171]	PIT (SCOOP)	5.5g	0.1g			
4	267	267 [302]	PYRE DEBRIS (AROUND CIST 254)		0.1g		9.5g	
5	153	153 [82]	PYRE DEBRIS DUMP	0.6g	observed		0.1g	
5	162	151 [81]	PIT	<0.1g	1.5g SF 265: 4.3g *Corylus*		1.8g	
5	164	154 [84] [89]	PIT	39.2g 4.4g	4.8g *Quercus*, 0.25g indet. 5.2g *Quercus*, 12.1g indet.	observed	15.1g 1.3g	Pottery SF129, 133, 138: 5 sherds
5	165	157 [130]	PIT (STONE LINED) poss PYRE SITE	0.2g >4mm	negligible	36.5g >4mm	4.4g	
5	174	173 [176]	CIST	15g	0.6g		45.4g	
5	175	175 [172]	PYRE SITE /PYRE DEBRIS DUMP	23.7g	[172] *(2.6g)* 5.9g *Corylus*, 0.3g *Betula*, 1.5g indet. 2.8g *Corylus* 2.8g *Corylus*	28.4g	37.4g	
5	373	374 [170]	CIST - POSS (19th C EXC.)		observed	1.7g	156.9g	

5	375	375 [271] [272] x 4	PYRE DEBRIS DUMP (over 379)	272.1 = 44.7g 272.2 = 111.6g 272.3 = 110.1g 272.4 = 125g	[272] 0.1g *Corylus*, 15.85g *Alnus*, 0.55g cf. *Alnus*, 3.3g *Betula*, 11.02g indeterminate 2.2g *Corylus*, 0.9g *Alnus*, 0.4g cf. *Alnus*, 0.4g *Betula*, 4.3g indet. 14.4g *Corylus*, 19.8g *Alnus*		[272.1] 10.1g [272.2] 13.3g [272.3] 6.6g [272.4] 13g	[272] Burnt clay 25g.
5	379	378 [277] [278] [279] [280] [281]	PIT (GRAVE)	155g 18.7g 0.4g			[277] 49g [278] 946.4g [279] 501.7g [280] 0.4g	
5	436	433 [273]	CIST	0.6g	negligible	3.3g		
5	437	432 [274]	PIT (SCOOP)		0.05g cf. *Corylus*, 3.15g *Alnus*, 0.4g cf. *Alnus*, 1.35g *Betula*	8.7g	1.8g	
5	438	431 [276]	PIT		0.2g			
6	127	127 [75] [76] [77]	PIT	negligible	0.3g 0.1g	0.2g 0.1g	1.9g 1.9g 3.8g	
6	129	121	CIST (– 19thC EXC)				32.5g	
6	133	134 [91]	PIT					3.1g burnt clay

6	135	136 [133]	PIT --POSTHOLE		observed			
6	137	138 [100] [130] [132a] [132b] [132d]	PIT	1.7g 0.3g 0.1g 0.5g >4mm 0.8g	0.3g negligible 0.1g observed 2.7g	23.7g >4mm 9.2g	2.9g 15.1g 1.2g 5.7g 19.8g	
	139	140 [125] [131]	PIT	4.1g 5.4g	observed 0.2g	12.7g >4mm 38.2g	8.9g 6.6g	
6	141	142 [126]	PIT – POSS POSTHOLE		observed			
6	145	146 [161]	PIT		0.8g		26.6g	8.1g burnt clay. 34.4g pottery: SF224-230, 232, 236-40, 242-44, 329, 223: 38 sherds
6	384	386 [381] [382] [384] [385] 389 [383]	PIT –386 layer over urn 389 layer around urn within cut (384)	negligible	0.3g 0.5g 1.2g 2.8g [383] 0.1g	 2.5g>4mm 17.1g >4mm	16.8g 23.7g 12.2g 23.8g 0.1g	
6	387	388 [400] [401] [402] [404] [405] [406] [407] [408] [409-411]	PIT (contents of steatite urn in)	1.1g 1.2g 1.8g 1.7g 2.2g 1.4g 0.5g 0.2g	*alnus* 5g *(0.3g)* *(0.8g)* cf *alnus* 7.3g *alnus* 8.8g *alnus* 62.3g 0.1g	0.7g 0.6g 0.7g 1.7g 0.4g	24g 34.9g 74.6g 132.6g 323.9g 322.1g 254.7g 37.4g 18.5g	Pottery SF 328: 1 sherd. [404] burnt clay 4.7g [406] burnt clay 2.8g
7	37	217 [83] 218 [85] [86] [94] [103]	CIST	 [85] Trace [86] 0.4g [103] 0.1g	[83]<0.1g 0.9g cf *alnus* 0.9g *alnus, betula*	 [85] 21.4g [86] 44g	 [86] 1.4g [103] 0.6g	

7	77	79 [35] [39] 91 [38] 97 98 [44] 102 [43]	CIST	[35] 0.8g [39] 478g c.500g 10.2g 1.3g	observed observed observed	 32.3g 173g	[39] 307g 22.4g (97) 359.8g 1g	
7	78	85 [36]	PIT	1.3g	negligible	negligible		
7	93	96 [101] [102] [104] [105]	CIST	 0.1g	1.1g *alnus* 8.65g 2.1g 0.2g	 1.2g	2.7g	 [105] 3.6g burnt clay
7	94	242 [106] [107]	CIST – POST HOLE	 5.3g	observed observed			
7	95	250 [109] [110] [110]	CIST- STONES INSERTED INTO TOP OF PIT	10.6g 17.7g >2mm	2g 0.7g 2.5g	3.3g 22.8g	7.6g	
7	176	176 [253] [285]	PIT		1.1g observed	observed observed		7.2g pottery, SF 350: 3 sherds. 9.3g burnt clay
7	177	343 [251] [252]	CIST	32g 189g	observed		30.4g 128.3g	
7	178	318	CIST					Pottery SF 308: 1 sherd
7	179	280 284	CIST – POSS POST HOLE					
7	180	286 [123] [124]	CIST – STONES INSERTED INTO TOP OF PIT	2.2g >4mm 0.3g	observed observed	 40g	2.4g *(2.5g)* 0.3g	 [124] 4.7g burnt clay
7	181	293 [190] [191]	CIST	22.9g 17.5g	1.5g 1g	9.5g 9.7g	[190] 22.9g [191] 9g	
7	182	241	CIST					STERILE
7	183	272 279 [115]	CIST – CIST STONES IN TOP OF PIT		observed			(272) Pottery SF 300: 2 sherds.

7	184	297 299 [193] 300	CIST	0.3g				
7	185	305 306 [204]	CIST		observed	observed		STERILE
7	186	301 303 [202]	CIST – STONES INSERTED INTO TOP OF PIT		observed		64.7g	
7	187	311 312 [208] 313 [209] [210]	CIST	 0.1g 0.1g	0.6g <0.1g 0.2g			
7	188	249 [108] [112]	CIST	0.1g	observed	3.6g 7.1g	17.8g 16.2g (total 33.2g)	
7	190	288 [199]	CIST		observed		10.1g	
		291 [200]		500g	observed	8.5g	47g	Burnt clay 3.9g (291)
		307 [205]		observed	observed	80.6g	6g	
		309 [206] 310 [207]		 22.9g	 0.3g		 3.1g	
7	191	304 [201]	PIT	0.2g	0.1g			
7	193	221 [93] [438]	CIST (+ URN)	8.6g 1.2g		207.5g 24.9g	8.1g *(3.6g)* 56.1g *(0.9g)*	Pottery SF 158: 1 sherd.
7	198	199 [79]	PIT		observed	18g		
7	200	201 [78]	PIT			17.3g		
7	203	323 [235] 327 [236]	CIST	7.5g 52.1g	 0.5g un-ID	 19.6g	2.6g 224.9g	
7	204	335 [234] [241] [242] [243]	CIST	 <0.1g	10.5g cf *corylus*	 116.4g 90.8g	1.4g	
7	205	336 [237] [238] [239]	CIST - STONES SET IN TOP OF PIT		0.6g 0.9g 2.9g	0.6g	[237] 6.9g [238] 5.2g [239] 0.7g	

7	206	334 [233]	PIT		2.4g	observed		
7	207	337 [240] [244]	PIT	Yes	0.05g un-ID	5.9g	15.4g 1.3g	
7	208	341 [247]	CIST – STONES SET IN TOP OF PIT					
7	209	317 319 320 [220]	CIST	 2.2g	 observed	 73.6g		
7	210	342 [248]	PIT		observed	35g	55.4g	9.2g burnt clay
7	223	298 [194] [196]	PIT	57.8g 55g	observed 1.1g *corylus*	2.7g 0.7g	282g 235g	
7	224	328 [229] [230] [231]	CIST		10g *salix*	33.5g	0.1g 0.1g	
7	229	228 [96]	PIT	0.2g	0.1g			
7	240	271 [111]	PIT	1.4g	0.1g	11.8g	0.3g	burnt clay 1.6g.
7	243	344 [249] [250] [254] [255]	PIT	42.4g 12.1g 41.7g 32g	0.2g 0.3g	180.9g observed observed	83.1g 26.2g 48.1g 13.1g	[249] 4.7g pottery
7	244	296 [192] [195]	PIT		7.95g 1.1g		39.9g 171g	[195] 5.8g pottery
7	276	275 [113] [120]	PIT	Trace 1.5g			4.7g 9.1g	[120] 10.6g burnt clay
7	278	277 [116] [121]	PIT	1.1g 0.2g	observed observed	24.9g 44.6g	Trace 0.01g	
7	314	316	PIT					
7	330	329 [232]	PIT	19.2g	observed	1g	2.4g	Bone very worn.
7	331	324 [227] [228]	PYRE SITE	1.1g	observed	3.6g 3.0g	37.2g	[228] 3.0g burnt clay
7	340	340 [245]	PIT		observed	observed		
7	346	454 [308] [309]	CIST		0.4g cf *corylus*	7.7g	140.4g 168.8g	[309] 20.9g burnt clay
7	348	349 [256]	PIT		Trace	Trace		

7	452	451 [257]	PYRE DEBRIS DUMP/PYRE SITE	27.7g	observed		2.5g	
7	457	457	PIT					
8	59	59 [67]	PYRE DEBRIS DUMP – POSS	2.0g	<0.1g		0.01g	
8	66	69 [11] [13][14] [15][16] [17] [18] [19] [20] [21] [22] 76 [30][31][32][33] 73 [23][24][25][26] [34] 89 [41] [42]	CIST (73) clay lining of cist (89) layer supporting slabs	2.8g 14.9g 39.7g 46.1g 106.4g 12.7g	observed observed observed observed observed observed observed negligible	 c.109g trace c.10-60g 13.5g trace trace 19.3g trace negligible	 67.4g 85g 97.6g 91.4g 259.4g 217.6g 260.9g	[17] burnt clay 9.6g.
8	110	111 [47] [50] [51]	CIST	2.7g 1.7g 1.1g	 observed observed	 19.9g	0.4g	
8	115	115 [403]	PYRE DEBRIS DUMP	0.1g	0.1g	0.1g		
9	34	34 [52]	PYRE DEBRIS DUMP – POSS		<0.1g		2.4g *(0.8g)*	Layer around base of mound. Pottery SF 04-05, 20-23, 28-35: 52+ sherds.
9	49	49 [10]	PYRE DEBRIS DUMP – POSS. Ashy layer		observed		0.4g	Pottery SF 77, 84-5, 88: 9 sherds

9	50	61 [3] [4] [5] [6] 67 [7] [8] 68 [9]	CIST	58g 33g 75.3g 120.2g 100.2g 53.6g 16.0g	 observed observed observed observed 0.2g observed	 22.8g 10.9g 9.4g ? 	67.4g 33.5g 186.4g 249.1g 332.7g 486.3g 100.3g	 [8] burnt clay 10.8g
9	100	92	PIT				28.2g	

Key: [181] = sample number
(260) = context number
observed = noted during excavation or wet sieving but not quantifiable

APPENDIX 3

ORKNEY BARROWS PROJECT: EXCAVATION REPORTS

Jane Downes and Rowan May

GITTERPITTEN, RENDALL

The Seven Knowes, Gitterpitten are a group of small mounds situated on a fairly level part of the lower slope of the south west facing part of Hackland Hill, Rendall. Two larger mounds are located c.200m to the north east of the Seven Knowes, Gittepitten. The mounds are arranged in a compact group and are all fairly small and low, the largest mound being 7m in diameter.

Geophysical survey was carried out prior to excavation. Magnetometry identified all the mounds, with Mound 4 having the strongest magnetic values, reflecting the burnt material found within the body of the mound on excavation, and the pits around the mound containing cremated bone and pyre debris.

Trench 1 was L-shaped (Chapter 2, Figure 2.19) and located to investigate quadrants of Mounds 2, 4 and 5 (Figure 2.20), as well as the area in between these mounds. Not all of the area between the mounds was fully excavated, but test areas were excavated where features showed through, or geophysics had revealed anomalies. Random test areas were also investigated. Trench 2 was excavated to investigate geophysical anomalies. The trench was excavated down to natural, but no features were located.

Once the turf and topsoil had been stripped, a layer of soil, 1002, covering the entire trench apart from the tops of the mounds was revealed. Soil micromorphology (Carter 2000) suggested that this was a layer of topsoil, formed after the mounds had stabilised. A series of thin layers below this, identified through soil micromorphology, appeared to have been colluvium from the mounds, which probably occurred fairly rapidly after the mounds were constructed, until they reached a stable angle and the layer of topsoil was formed. The thin colluvium layers overlay an earlier layer 1049, which soil analysis indicated was the pre-mound topsoil, and which was very similar in appearance to 1002.

Mound 2

This mound was the most northerly of the excavated mounds. The southern quadrant was excavated. The central cist 1011 was constructed on a thick basal slab, which overlay material similar to the mound, contained within the walls of the kerb. The cist was 1.20m x 0.65m in extent, and had comprised the basal slab, side slabs and a lid. The structure 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 stone slab forming the lid had collapsed onto the

upper fill of the cist, 1054, which was 0.10m deep and contained cremated bone. The cremation deposit in this layer was mixed with mound material. The lower fill, 1055, was 0.08m deep, and consisted of the main cremation deposit. The two fills contained 2680.8g of burnt bone, the largest amount from any feature on site, which represented the remains of an adult male individual. No charcoal or other burnt material is recorded from this cist.

The central cist was built on a large stone slab which had been placed on a layer of mound material, giving clear indication that the cist was put in place after the kerb was built. However, the kerb and the part of the mound running underneath the kerb were built in a single event, contained the layer of mound material which underlay the basal slab of the cist. The kerb was constructed in dry stone fashion, and survived to five courses high (0.35m) in places. Extrapolation from the visible remains of the kerb suggests that it would have been 6m in diameter. The main part of the mound was constructed after the kerb and the cist structure were in place. A single layer of large slabs underlay the kerb around its interior. The upper layer of the kerb contained 3 fragments of flaked stone bars.

Two pits lay under 1021. Pit 1033, 0.46m x 0.43m, not fully revealed due to the baulk, was a rectangular cut with rounded corners, cutting the old land surface. It contained a grey-brown clay silt fill (1027) which contained 1053.4g burnt bone from an adult individual, 0.2g charcoal, and 1 sherd of pottery (SF 15). This has been interpreted as a cremation deposit. The second pit, 1060, was circular, 0.40m in diameter, 0.15m deep, with vertical sides and a flat base. It was filled with black silty clay (1059), containing burnt material including 200g burnt turf and 2.1g charcoal, but no bone.

A series of pits surrounded the base of the mound, all cutting 1049 and natural, and overlain by the later subsoil 1002. Many of these contained burnt material, including bone and burnt turf, and all appeared to have been truncated prior to the formation of 1002.

Pit 1036 (fill 1024) was oval in shape, 0.70m x 0.50m, with steep sides and rounded base. The fill was 0.20m deep, and contained 1179.9g burnt bone from an older juvenile individual, 1.4g charcoal, 3g burnt turf and 0.6g cramp. A large beach pebble was set upright 0.25m west of the cut, supported by a sandstone slab, and possibly representing a marker for the cremation deposit in the pit.

Pit 1042 (fill 1026) was almost circular, 0.72m x 0.69m, with steep sides and slightly rounded base. The fill was 0.12m deep, black silty clay, containing 1.9g bone, 0.7g charcoal.

Pit 1051 (fill 1052) was circular, 0.40m in diameter, with almost vertical sides and a slightly curving base. The fill, 0.10m deep, contained pyre debris, including 127g burnt turf and 4.6g charcoal.

Pit 1061 (fill 1056) was circular, 0.30m in diameter, with vertical sides and a slightly rounded base. Its small size suggests that it may have been a post hole. The fill was 0.09m deep, and consisted of a grey-black silty clay containing 29g burnt bone, 3.54g charcoal, 342g burnt turf and 0.2g cramp.

Pit 1062 (fill 1057) was a shallow oval scoop, 0.30m x 0.25m. The fill was a grey-black silty clay with some burnt material noticed during excavation, including 86.02g burnt bone.

Pit 1063 (fill 1058) was a circular scoop, 0.30m in diameter, with steep sides and a flat base. The fill, 0.05m deep, was brown-black silty clay, with charcoal and pyre material noticed during excavation, but no record in the sample. One pot sherd (SF 102) was also

within the fill. The soil under the cut was slightly reddened, suggesting that the material was still hot when placed in the pit, or that burning took place *in situ*.

Mound 4

The north eastern quadrant of mound 4 was excavated. The central cist (1040) was, as with the cist in mound 2, constructed on a thick basal slab. This cist had also been heavily plough damaged, with only three of the side slabs remaining. The original dimensions of the cist are difficult to ascertain, but at excavation it measured 0.80m x 0.42m, and stood 0.20m high, although the side slabs had partially collapsed. The cist was surrounded by a 0.05m deep layer of ashy clay (1041), in an arc c.1.0m wide. This was probably debris from the pyre. The cist overlay a dark brown silty clay layer, 1043, which also lay under the mound. This possibly represents a buried soil surface. The layer 1049 did not appear to underlie mound 4.

The cist fills had been partially displaced by the damage to the slabs. The upper fill, 1032, consisted of cremation remains mixed with mound material, and contained 927.7g bone, and 0.02g charcoal (*Salix*). The lower fill, 1031, was also displaced, but less contaminated with mound material, and contained a greater quantity of bone (1096.5g), as well as 0.88g charcoal, 500g burnt turf, 0.8g cramp, and 3 sherds of pottery (SF 66). The bone represented a minimum of three human cremations, an adult male, one older juvenile and a young child. Burnt bone from an adult sheep or goat was also found in the cist fill. The fill overlay the cist and the underlying 1043.

A stone platform (1017) within a soil matrix (1044) surrounded the mound, probably representing the remains of a kerb or paving. It appeared to be earlier than the mound. The material of the mound (1015) consisted of compact orange-brown silty clay, containing several pot sherds (SF 09) and a burnt human long bone fragment (SF 10). The mound survived to a height of 0.30m, and had probably originally covered an area of between 5-6m diameter, but had since slumped to a wider area.

A pit (1037) cut the mound material, underlying the turf layer 1001. The pit was circular, 0.30m in diameter, with steep sides and a flat base. The pit fill (1030) was 0.14m deep, and consisted of dark grey silty clay containing 467.9g burnt bone representing a minimum number of two individuals: an adult female and an infant. Charcoal (0.09g) was also found in the pit. This appears to be a cremation deposit cut into the mound.

A layer of thin sandstone slabs (1007) within a soil matrix (1008) covered the sides of the mound, overlying the stone platform (1017). This probably represented material removed from the mound by cultivation and other forms of erosion. The relationship between this layer and the subsoil (1002) and old land surface (1049) was unclear. Unlike the similar layers covering mounds 2 and 5, 1007 did not cover the top of the mound.

Mound 5

No central cist was discovered within the excavated area. The mound material (1016) consisted of compact mottled yellow and brown clay, surviving to a height of 0.40m. The mound overlay the buried land surface 1049, and appeared to be earlier than the kerb or platform 1013, within a sticky clay matrix (1014). The kerb was formed by small to large irregular sandstone slabs, in a fairly dense layer around the edge of the mound, and appeared to have been laid against the mound. A pit, 1029, underlay the kerb. This had steep sides and a flat base. The fill consisted of black silty clay containing 88.1g burnt bone from an adult individual, 0.11g charcoal, 107g burnt turf and 10.4g cramp.

The north west quadrant of this mound was excavated. No central cist was discovered within the excavated area. The mound material (1016) consisted of compact mottled yellow and brown clay, surviving to a height of 0.40m. The mound overlay the buried land surface 1049, and appeared to be earlier than the kerb or platform 1013, within a sticky clay matrix (1014). The kerb was formed by small to large irregular sandstone slabs, in a fairly dense layer around the edge of the mound, and appeared to have been laid against the mound. A pit, 1029, underlay the kerb. This oval pit, 0.47m x 0.32m, had steep sides and a flat base. The fill, 1022, was 0.10m deep and consisted of black silty clay containing 88.1g burnt bone from an adult individual, 0.11g charcoal, 107g burnt turf and 10.4g cramp.

A thin layer of stone slabs (1005) overlay the whole mound, within a silty clay matrix (1006). These stones, similar to those overlying mound 2 (1003), could be the remains of cairn material which covered the mound. Some stones from 1005 appeared to have slipped over the kerb 1013, but the relationship between the two was not clear. It is possible that erosion and agriculture caused the displacement of mound material, of which 1005/1006 is a part. To the north west of the mound a discrete patch of orange-brown sandy clay 0.05m thick, separated from 1005 by the subsoil 1002, could represent another colluvial deposit. This overlay a bright orange sandy clay (1010), which appeared to overlay the grey clay matrix (1014) beneath and between the kerb stones.

A pit, 1039, oval in shape, 0.55m x 0.42m, cut 1010, and was overlain by 1002. The pit had steep, almost vertical sides and a flat base, and was slightly truncated. It had a black silty-clay fill (1018), containing 231.7g burnt bone, representing at least one adult individual, and some cramp.

Pit 1045 (fill 1019), was an almost circular cut, 0.60m x 0.57m, with vertical sides and a flat base, cutting 1049 at the base of mound 5, and covered by 1002. The fill was a black silty clay, containing no obvious bone or cramp. It was possibly a dump of pyre debris.

Exterior of mounds

Three features were located in the area between the mounds 4 and 5 (Figure 2.20). These features all cut 1049, and were covered by 1002. They appeared to have been truncated prior to the formation of 1002.

Pit 1028 (fill 1023) was a relatively square pit with rounded corners, 0.60m x 0.60m, steep sides and a shallow bowl-shaped base. The fill, 0.05m deep, was a black sandy silt, containing 36.9g bone, 0.43g charcoal (*Salix* sp, *Larix* sp, cf. *Larix* sp, cf. *Pinus* sp), 43.0g burnt turf and 3.4g cramp. It was interpreted as a cremation deposit.

Pit 1038 (fill 1034) was a circular cut, 0.32m in diameter, with steep sides and flat base, and was very truncated. The fill was a black silty clay 0.05m deep, containing charcoal (*Corylus avellana*?) and pyre debris.

Feature 1064 (fill 1035) was a small stakehole, 0.10m in diameter, severely truncated. The fill was 0.03m deep, containing 1.38g charcoal. The stakehole was located to the south east of pit 1038.

A test trench was excavated to the east of mound 4, but no features were discovered within the trench.

VARME DALE, EAST OF GORN, RENDALL

The site comprises seven mounds, of which six are scheduled ancient monuments. The unscheduled mound lies to the east in an adjoining field. The mounds are fairly dispersed extending over a large area in smaller groups of two or three, and are of different forms and types of siting, suggesting that they may not all be part of one group or cemetery. The two most northerly mounds (1 and 2) were chosen for excavation as they were in the worst condition, due to disturbance from rabbits and stock. 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.

Prior to excavation, geophysical survey was carried out using a magnetometer, which identified very high readings from mound 2, with clusters of high readings running from the south west quadrant for 10 metres. Mound 1 had a very weak magnetic signal. A magnetic susceptibility survey was carried out during the excavation, and this correlated with the results of the magnetometry, giving particularly high readings close to mound 2. Excavation revealed that this was related to deposits of burnt material underlying the mound.

Mound 1

Mound 1 was 10m in diameter and 0.4m high. The north west quadrant of the mound was deturfed. An area 5m x 2m within this quadrant was then excavated stratigraphically down to the natural subsoil. The east edge of this trench allowed the two cists to be recorded in section.

The central cist (2007) had been constructed on the old land surface 2013/2002. It consisted of upright slabs forming a rectangular box 0.75m x 0.50m. Erosion had caused the structure

to be displaced, and it had partially collapsed, but still stood to 0.50m high. The cist contained two fills, the main cremation deposit (2016), and the upper fill (2014), which contained cremated remains mixed with mound material. The upper, mixed fill contained 66.7g burnt bone and 0.5g charcoal. The lower fill contained 497.4g burnt bone, and 0.04g *Corylus avellana* charcoal. Burnt bone from within the cist consisted of 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, which may have been remnants of decorative artefacts worn by one of the cremated individuals.

A second cist, 2008, had also been constructed on the old ground surface, 2.5m to the north of 2007. Four upright slabs had been placed to form a rectangular box, 0.79m x 0.51m. The east and west slabs were larger and thicker than the north and south slabs, which were slightly inset. The cist stood 0.38m high, and was capped by a stone slab lid. The upper fill, 2020, consisted of brown-black burnt material, which was spilling out from under the lid over the north side slab. This fill contained 10g burnt turf, but no bone. Below this lay 2025, a brown clay loam containing many stones and burnt material, including 0.22g charcoal, and again no bone. All the bone was concentrated in the lowest fill, 2026, which contained the cremation deposit, 496.7g burnt bone from a middle-aged adult, possibly male. There was also 0.06g *Corylus avellana* charcoal in this lowest fill. The lack of bone and presence of burnt material in the upper fills possibly represents deliberate deposition of different types of pyre material within the cist.

The mound (2005) had been constructed in two phase each containing a cist. 2005 survived to around 0.42m high, and was overlain by what appeared to be the remains of an enlargement phase. This secondary construction episode consisted of a dark brown layer of clay silt 2012, surrounding the mound and overlying the natural subsoil. This was overlain by 2037, a 0.06-0.16m thick layer of grey-beige silty clay placed over 2005, and capped by a lens of light brown clay silt (2015) 0.03-0.15m thick. The mound was surrounded by a dark peaty layer (2011), up to 0.20m thick, which directly underlay the topsoil, and may be the remnant of a turf layer covering the mound. There was no evidence of a kerb associated with the mound. The cists and the mound all overlay the old land surface 2013, a grey-black silty soil with white patches, around 0.13m thick. This overlay the natural subsoil.

Mound 2

The kerb was constructed prior to the mound (Figure 2.22). It was built in drystone fashion, meticulously laid, with eke stones used to compensate for the slope of the ground surface. The wall survived to four courses high in places (0.25m). A layer of large slabs (2031) on the exterior of the kerb to the western side appeared to have been placed against the kerb, possibly as a revetment where the ground sloped more steeply. Two layers of stones, 2003 on the north western side of the mound, and 2021 to the west, were probably collapsed kerb material, or possibly a platform on the western side. One or two of the stones comprising 2021 showed signs of burning. 2003 overlay the silty clay cap (2040), which covered the burnt stone deposit 2018

The mound had been constructed over a series of burnt deposits, which overlay a buried soil layer. Soil micromorphological analysis indicated that the burnt sediments were deposited on a bare soil surface, from which the topsoil had been stripped, indicating either

deliberate removal of the topsoil, or considerable erosion. There was no indication that the deposits had been burnt *in situ*. The first layer laid down was a thin sooty soil (2042), 0.03m deep, which was overlain by a 10cm thick deposit of baked clay (2041), and a layer of ashy soil (2027), 0.13m thick, which was interspersed with stone blocks and slabs (2028), most of which showed clear signs of burning. Overlying this was a 0.12m layer of grey clay (2024), containing some charcoal and iron stains, which appeared to be redeposited soil used to cap the burnt deposits, prior to the construction of the mound.

The soil analysis also suggests that the burnt sediments, not burnt in situ, were from several separate pyres or burning episodes. No bone was discovered in the sediments, but there were fragments of charcoal (*Corylus avellana* and *Salix* sp. from 2041 and 2027), and a small amount of cramp. The micromorphology indicates that the sediments from below pyres or fires were cleared and deposited in a low pile on a stripped soil surface over a relatively short period of time.

On the exterior of the mound, to the west, another patch of burnt soils underlay part of the kerb 2004. The lowest layers, 2022 and 2034 comprise a fine black sooty soil and dark burnt material respectively. These layers may be compatible with or part of 2042 and 2041, and underlay 2017, a deposit of burnt soil or turfs, and 2018, a spread of burnt stones. 2017 contained 9g burnt turf. These soils are probably part of the same deposition episode as the burnt sediments underlying the mound, and are covered by a grey silty clay (2040) which may be analogous to 2024.

The central cist within the mound was not excavated, but an upright slab was found in the section at the south west end of the trench. This was not investigated further due to time constraints, and the fact that it was not in danger from erosion. The slab (2038) stood at least 0.38m high, and a grey-brown silty soil was contained behind it (2039) which may have been the cist fill. The cist was covered by the mound 2009.

The kerb was overlain by the mound, which was constructed of orange-brown subsoil (2009) at the core, 0.55-0.70m thick, intermingled with a darker grey-black compact clay silt material (2010) (Figure 2.22), which was 0.10m thick and restricted to the sides of the mound and may have been due to contamination of the mound through rabbit burrowing.

UNOBTRUSIVE CIST SITES EXCAVATED PREVIOUSLY AS 'RESCUE'

Jane Downes and Rowan May

BLOMUIR 1, HOLM:

(HY 4712 0319, OR 707)

The cist was discovered in May 1981 by Mr J Gaudie when a tractor broke through the top, which was barely below the surface of the farmyard in front of the old farm buildings at Blomuir. The site was 4m east of the northeast corner of the house, which occupies the summit of a low hillock, one of many such hillocks in the area. The site was excavated and recorded by Raymond Lamb. Finds from the cist were deposited in Tankerness House Museum.

Other sites in the vicinity consist of the find of cremation remains at Blomuir 2 (OR 926), although no cist was found, and a possible earth-house to the east of the site at HY 4783 0314. The earth house was found by Orkney Council workmen in the late 1950s-early 1960s, and consisted of a stone-built passage blocked at both ends (OR 675). The opening was covered up and left. In 1927, Mr Isbister found several cists further to the west, near the coast (OR 84). One held a flexed inhumation and cremated remains, with stone implements overlying the cover slab. A smaller cist held the remains of a teenage child. There are now no traces of the cists.

The site of Blomuir 1 consisted of a short cist with a corbelled roof. It was covered by a thin layer of soil below the metalled farmyard surface. Only a small area around the cist itself was excavated. The remains of the mound consisted of a packing layer of horizontally laid flat slabs. The stones appeared to have been carried over the cist in corbel-fashion to form the roof.

The cist consisted of four slabs, uniformly c.0.03m thick. The side slabs were longer than the cist itself and were not fully revealed by the excavation. The internal dimensions were 0.73m long on the eastern side, and 0.76m long on the western side. The end slabs were braced by the side slabs, and were 0.48m long at the northern end, and 0.52m at the southern end. The cist was oriented NNW-SSE along its longer axis. The base consisted of a number of small paving stones set in clay. The lower half of the cist cavity had been dug into natural clay. The end and side slabs were set into 12cm deep slots in the clay below the base of the cist. The depth of the cist from the top of the side slabs to the floor level was 0.54m.

Recent debris had fallen into the cist, covering an 8cm deep deposit of ashes and very small burnt bone fragments and cramp on the cist floor. The chamber was otherwise empty. The total weight of bone was 671.2g, including bone fused with cramp, which comprised 188.2g. Analysis of the bone revealed that two individuals were probably represented, a young child, less than four years old, and an older child.

BLOMUIR 2, HOLM:

(HY 4718 0311, OR 926)

In 1983, Mr Gaudie turned up a fragment of a large urn whilst ploughing in the big field south of the house at Blomuir. The sherd was recovered by Raymond Lamb, who also searched for other evidence relating to a burial. The site was to the south east of the Blomuir 1 cist mentioned above.

This site consisted of an isolated find of a sherd of a large urn containing burnt bone fragments and cramp. The find was made whilst ploughing a very stony hillock within the field. The cist itself and the rest of the vessel were not located despite probing in the vicinity of the find. It is possible that the urn had been buried upright in a hole dug into the shale bedrock, which was 0.10m below the surface at the point. The pot itself appears to have been at a very shallow level below the turf.

The vessel appears to have been heavy, bucket-shaped and of plain design. A mould of the contents indicates a diameter of 270mm. The burnt bone weighed 135.1g, and 73% of the bone could be identified as belonging to a specific region of the body. The remains appeared to be those of a single adult individual, possibly male, and probably aged between 17 and 25 years at death.

REDLAND, STROMNESS:

(HY 2647 1319, OR 2314)

In February 1987 Mr G Marwick, Redland Farm reported that a large slab had been struck whilst deep-ploughing in one of the outlying fields, previously in pasture. A hole with visible stonework in it underlay the slab. The site consisted of a short cist, on the east side of Redlandhill, with a southeasterly aspect across the Loch of Stenness. The site is on the southeastern edge of the shoulder of the hillside, which falls away steeply to the south and east, providing a prominent platform above the loch, at a height of 30m OD. The site was investigated, excavated and recorded by Raymond Lamb. Finds from the cist were deposited at Tankerness House Museum.

The cist at Redlandhill overlooks a series of mounds to the south, along the shore of Loch Stenness and further inland. These consist of burnt mounds and tumuli (OR 1491-93), and possible Bronze Age houses (OR 1494). Finds of flints and stone axes were also made in this area (OR 2519-20). To the north of the site, a broch at the Knowe of Redland lies on the shore of the loch, close to the remains of 7 alleged burial mounds, several of which may have actually been burnt mounds (OR 1489-90).

A patch of reddish clay soil visible in the ploughsoil around the cist may be the remains of the mound. A similar patch was visible some 0.15m to the north of the site. The cover slab of the cist was at a depth just within the reach of the deep plough. The southern end of the large slab broke off and fell into the cist.

The cist was formed of four slabs, 1.09m long on the eastern side and 1.07m long on the west. The end slabs were braced by the side slabs, and were 0.73m at the north end and 0.72m at the south. A small 'eke' stone had been added at the southeast corner, where the

end slab did not fit perfectly against the eastern side slab. Further eke stones had been added to the tops of the end walls to bring them up to an equal height with the side slabs. The cist was oriented approximately SSE-NNW along its longer axis. The cover slab exceeded the size of the cist, being 0.95m wide and 0.99m long after the southern end was broken by the plough.

The base slab had been fitted within the space defined by the side and end slabs. It did not extend the full length, and rested directly on the natural rock surface, which formed the base to either side of the slab. The depth of the cist from the top of the side slabs to the base was 0.58m. There was no fill within the cist, beyond the ploughsoil that had fallen in when the cist was disturbed.

A pot stood at the south end of the cist, and the base slab was marked by a circular dark stain 0.28m in diameter, which may have represented the remains of a cremation. Some sherds had broken off the pot when the slab was displaced, but the main broken edge appears to be an old one, as if the pot had been incomplete when deposited. As with the pot from Corrigall, there are suggestions of both beaker and food vessel influences in the vessel from Redland. Its shape is similar in many respects to the Corrigall vessel. Food residue analysis of the pot indicated that the main ingredient of the residue was honey, possibly from a honey-based drink, left unrefined and allowed to ferment.

UPPER BIGGING, CORRIGALL, HARRAY:

(HY 3284 1918, OR 2315)

A short cist was discovered during ploughing the uppermost field of the farm of Upper Bigging, when the plough struck and displaced a massive covering slab revealing the cist with a pot, which was partially removed by the tractor driver. The cist was excavated and recorded by Raymond Lamb, under difficult weather conditions including snow storms, in April 1989. The site is on the summit of a rocky knoll, within an old quarry pit on the margin of the field. It was located approximately 215m south of the southeast corner of east wing of the dwelling house at Upper Bigging. The knoll, at an elevation of 55m OD, falls steeply away to the south and east into a boggy area. To the west and north the ground falls away more gradually.

Within the vicinity of the site are several barrow sites, including groups of barrows at the Knowes of Trinnawin (OR 1640) to the south east, above the site. Four of these mounds were excavated in 1903, revealing one short cist, a steatite urn placed in a cavity, and a 'handful of ashes' below one mound. Only two of the mounds had much stone used in their construction. Further down the slope to the northwest are two barrow groups, including the Knowes of Wheatlaws (OR 1643), which have been completely obliterated by cultivation. The second group consists of 3-4 mounds (OR 1631), one of which was excavated around 1890, producing a steatite urn. To the southwest are the cists at Hindrafold (OR 2569), excavated by Bryce Wilson in 1977, published by John Hedges in PSAS 110.

The cist at Upper Bigging was surmounted by a heavy slab, which was directly below the turf. This slab overlay a thin cover slab, 2cm thick, which directly overlay the cist. The large slab above this may have been part of a cairn covering the cist. A kerb of stone slabs

on edge had been laid around the cist pit to the north and west, with the outcropping bedrock forming a natural kerb on the east and south.

The cist had been constructed within an oval pit cut into the bedrock, measuring 1.4m north-south by 1m east-west at the natural rock surface. The cist was formed by 4 slabs, very neatly trimmed. The side slabs were 1.01m long on the western side and 0.88m on the east. These braced the end slabs, which were both 45cm long. The base slab had been laid first, onto two flat stones placed on the natural clay within the pit. The side and end slabs had been braced with packing stones wedged between the slabs and the side of the pit. These stones were set within a clay matrix. The stones and clay filled the oval pit to the edge of the kerb. From the sides of the cist the stones were carried up for one to three courses, on which the cover slab or a series of several flags were laid.

The cist contained a fairly deep reddish fill, with modern ploughsoil that had fallen in covering the surface. The older material had been partially disturbed by the ploughsoil and the removal of part of the pot within the fill. The fill was removed and bagged, and taken to the museum for examination due to the poor weather conditions. Cramp was found in a cranny in the bedrock just outside the cist, but no cremation remains or bone were found at the site. The base of the pot had broken off when the main part of the vessel was removed from the cist. When excavated, the base was sitting on top of the fill, but was entirely surrounded by ploughsoil. It is not clear if the pot had been originally placed in this position, or if the base fell onto the heap when the upper half of the pot was removed.

The pot was small, measuring only 9.4cm in height, with an external rim diameter of 12cm. It had a slight shoulder, and a flat base, and was decorated with twisted cord impressed motifs comprising opposing triangles infilled with diagonal lines. The form and decorated internal bevel are typical of the food vessel class of pottery, although it is smaller than most. However, the layout of the decoration on the exterior is more similar to that found on beaker vessels.

The cramp weighed 631.4g, and contained no obvious inclusions of charcoal, bone or rock in the fragments studied. The material had been deposited just outside the cist in a cranny in the bedrock, its close proximity to the cist indicating that it is likely to have been linked to the cist contents. The material is fairly typical of cremation residues, in its location, quantity, colour and glassy nature. The high temperature at which it re-fused may indicate that temperatures reached in prehistoric fires were much higher than had previously assumed, possibly around 1200°C.

HOWE, HARRAY:

(HY 3282 1740, OR 2317)

Mr Ivan Scott reported the cist after the cover-slab was displaced during ploughing at Howe Farm. The cist was located approximately 550m north north west of Howe steading, at 36m OD. It was situated below and to the northwest of a rounded knoll formed by an outcropping of the bedrock. The heavy cover slab had been displaced by ploughing.

Other known sites of a similar period in the vicinity included a group of three cists at Werne, to the west of the site, and at a lower altitude. These cists (OR 2568) were

excavated by Andrew Appleby in June 1978, and published by John Hedges in PSAS 110. The cists were stone built, and two appeared to have been excavated previously. Another mound is located to the north east of the Howe cist, further up the hill. This mound (OR 1639) is probably a barrow, but has not been excavated.

The cist ends were formed by a natural rift in the bedrock, which had been filled by natural glacial till into which the cist was inserted. The sides of the cist were stone slabs which had been placed against the till. The west side slab was at an angle, due to a large natural boulder within the till. The slab was 1.16m long. The eastern slab was laid at a similar angle, more acute than a right angle. This slab was 0.94m long, with a return of the rock face adding a further 0.15m to this side. The rock faces forming the ends of the cist were 0.42m long to the north and 0.85m on the south. The base of the cist was the natural till. The cist depth from the base to the underside of the cover slab was 0.51m. To the east and west sides the level at the top of the cist had been made up with glacial till to match the height of the bedrock, probably to a height slightly above the cover slab.

The cist contained a loose yellow clay infill, partially overlying a crouched human skeleton. The position of the body was contorted, possibly due to the grave's inconvenient shape. The feet and parts of the lower legs of the skeleton were missing. At the north end of the grave a flat stone was set on the natural clay at a sloping angle below the skull like a pillow. Analysis of the bone indicated that the skeleton was that of male, probably about 40-50 years old at the time of death, and between 6 feet 1 inch and six feet 4 inches high. He was probably suffering from osteo-arthritis.

RIFF, RENDALL:

(HY 424 189, OR 2369)

The cist was located in a field near to South Moa house, close to the coast. It lay at around 15m OD on gently sloping ground. It was excavated in May 1998 by Julie Gibson. Other sites in the area of a similar period included a short cist containing cremated bone at South Ettit (OR 1777) to the south west of the site, excavated in 1968. A series of other mounds were located to the south west, the Knowes of Euro (OR 661), 2 mounds at West Puldrite (OR 1771) one of which was excavated, revealing 3 inhumations within a stone slab cist. Two other mounds (OR 1772) were located nearby, one with a small square cist protruding through the turf. A flint arrowhead was found in the vicinity of these sites, and a flint scatter to the north, including mesolithic implements.

The cist was overlain by ploughsoil. Flat grey flagstones formed the cover of the cist. The cist interior was formed of four slabs, the end slabs being 0.65m wide, and the sides being 1.19m on the south and 1.30m long on the north. The eastern slab was set at a slight diagonal angle to the rest of the cist. The long axis of the cist was aligned approximately NNE-SSW.

The slabs were set in front of dry-stone walling with many air gaps, apparently constructed to make a square box in which to set the cist, which was cut into the bedrock. The base was formed by several slabs laid flat. A small cremation deposit lay under the bottom slab at the southeast end of the cist. The cist appeared to be surrounded by natural glacial clay, and

had been cut into the clay. Voids surrounded the upright stones of the cist, and there was backfill surrounding the cist box containing potsherds and large and smaller stones.

The cist fill varied between 3-5cm in depth, and was overlain by recent ploughsoil that had fallen in when the cist cover was broken. The fill did not appear to be unduly disturbed by the ploughsoil. Cremated bone protruded from the fill at one end. The fill contained both cremated and unburnt remains, the latter consisting almost entirely of unburnt teeth. The total weight of created bone was 663.8g. Of unburnt bone, a minimum number of 77 teeth were present. The cremated bone indicated a minimum of one male individual, probably between 18-20 years old at death. Virtually no pathological conditions were identified. A little fuel ash slag and other pyre debris was found loose and mixed in with the remains, suggesting that the cremated bone was carefully picked from the pyre rather than scooped up when the cremation was complete. There was also no deliberate deposition of pyre material within or on top of the burial, as observed at barrow sites. The unburnt remains represented a minimum number of four individuals. One of the individuals was a child aged 3-7 years, the others probably consisted of two adults and a juvenile aged 12-15 years. It is possible that this site represents the type of deliberate mixing of remains as is seen in many Bronze Age multiple cremation burials.

BANKS/QUARREL GEO, SOUTH RONALDSAY:

(ND 4633 8323, OR 1883)

The cairn is located on the south coast, and is sited at the southwest end of a promontory which has been cut off by a later ruinous wall. The cairn is around 8m in diameter, and 0.6m high, and is approximately 20m OD. It was excavated by Mr R Simison. Other significant sites in the vicinity include the nearby Banks Head cairn group (OR 2656), and another cairn, probably prehistoric (OR 2657), all along the same stretch of coastline. Further to the north are two burnt mounds at Liddle, also excavated by Simison, and Isbister Neolithic chamber tomb.

There were two kerbs around the southern arc of the mound; the outer kerb composed of large rectangular blocks laid horizontally, the inner similar but constructed with smaller blocks, suggestive of a dry-stone wall. Two or three possible additional kerbs were visible in places between the inner kerb and the interior facing of the cist.

The mound consisted of coursed stone slabs, stone blocks, and chips of stone in an earth and clay matrix. This was overlain by a turf layer. The cist was constructed by coursed blocks of stone, similar to the construction of the mound. Three courses of stone were visible within the excavated area. Part of the fill, yellow-brown clay soil containing stones, remains in the base of the cist. The excavated depth of the cist was c.20cm. Disarticulated human bones, consisting of an adult male individual and two neonates were found within the cist, some within the cist box, others at the top of the cist. A cremation appears to have been inserted later along with a third neonatal skeleton. The cremation was possibly an adult female.

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