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The Lands of Ancient Lothian

Interpreting the Archaeology of the A1

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Chapter 8

Moving landscapes from sea to hill, *c.* 8500–3500 BC

GAVIN MacGREGOR

Introduction

From the ninth to the fourth millennia BC, the character of life in the Lothians changed dramatically, in terms of society's structure and strategies for subsistence. This chapter explores those changes, drawing on evidence from the sites discussed in Chapter 2 and from other sites in the region (Figure 8.1). Given such long time periods and the data's limitations, the level of resolution is at times coarse and interpretations tentative, but nonetheless the evidence allows an understanding of the changing nature of life during this time. The chapter sets these sites in a wider geographical context, considering other examples where they illuminate the nature of life at this time. This larger picture is also important because those living in the Lothians took part in geographically wider traditions during this period.

The period covered in this chapter has traditionally been seen as one in which people were hunting, gathering and fishing for their livelihoods before the fourth millennium BC. Then, communities increasingly gained access to domesticated livestock and plants which formed the basis for agricultural practices. At broadly the same time as agriculture began to develop in Britain, some began using new forms of material culture, including pottery, polished stone implements and leaf-shaped arrowheads. Around the same period, communities began to construct substantial buildings or monuments, apparently for ceremonial purposes (Kinnes 1992; Bradley 1998).

It has also long been thought that communities were becoming less mobile by the fifth millennium BC, increasingly relying on more predictable coastal resources to minimise the need for movement (see Mellars 2004; cf Armit and Finlayson 1992). Thus, one issue that runs through studies of this period is the variation in mobility or sedentism through time.

The evidence indicates that, in Lothian during the early fourth millennium BC, a society emerged that was bound by certain strict conventional practices. This propensity for convention emerges through the evidence for a particular architectural vocabulary, a strong aesthetic applied to material culture and a distinctive suite of depositional practices.

On the move: Pre-fourth millennium BC

There are a number of sites in the Lothians that date from before the fourth millennium BC. The evidence ranges from finds of single stone tools to more substantial structural remains, and it allows us to interpret the nature of activities at different sites, their landscape contexts and their spatial relationships to each other.

Traces in stone

Given the vagaries of preservation, stone tools are our main source of information for these times, and scatters of tools or the waste from making them comprise most of the sites in the region. They are also sometimes discovered as earlier components of later sites, as at Pencraig Hill, South Belton, Phantassie and Eweford East, West and Cottages (see Chapter 2). The assemblages are mostly made of chert (for example, Clarke forthcoming; Donnelly and Pollard forthcoming; Lawson and Saville forthcoming; Gooder forthcoming), and in some cases flint (Nelis 2004); most have smaller components of stone such as chalcedony, quartz and mudstone. Tool-makers may have acquired raw material through quarrying or collecting it themselves (primary procurement) or through exchanging with other groups or individuals who had procured raw materials (secondary procurement) (see Saville, text box 2.1). The most reliable sources in the vicinity of the Lothians were chert outcrops in the Southern Uplands, where extraction sites have been identified (Wickham-Jones 1986, 6; Warren 2001). It is unclear whether procurement was incidental to other activities, such as hunting cycles that took people to the uplands, or whether it involved travel for the purpose of extraction. It is likely, however, that people associated particular raw materials with particular places in the region.

Key

1 Inveravon	7 Inchtuthil	13 Cowie
2 Morton	8 Claish	14 Bannockburn
3 Carriden	9 White Kirk	15 Mutiny Stones
4 East Barns	10 Ratho	16 Harlaw Muir
5 Biggar Common	11 Doon Hill	17 Dunsyre
6 Cramond	12 Weston	18 Greensmoor

8.1 Map showing the locations of sites mentioned in the chapter.

Once they had obtained the stone, tool-makers would remove the outer skin or cortex, leaving decortical waste. This removal or knapping took place by holding the raw material in the hand or resting it on a surface or anvil and striking it with a hammer-stone (for example, Lord 1993; Edmonds 1995, 10). The core of material revealed could then be worked further, usually by removing flakes or blades. These could be used as they were for different tasks, but they may have been worked further, using bone, wooden or stone implements, to modify their shapes, sharpen their edges and produce distinctive forms of tool. The spots where tools were made would soon have become scattered with broken chips and chunks of stone, and also sometimes abandoned and unused flakes, blades and cores. These places may in time have provided another source of raw material, as people returned and collected abandoned pieces. Repeated visits may have been marked in tangible ways; for example, bipolar technology, with the repeated use of an anvil stone, could have created cup marks like those that featured in rock art in subsequent millennia (see Chapter 9).

Useful stones

During this period in Lothian and elsewhere in Britain, tool-makers were producing a distinctive form of stone tool – the microlith – using a particular method. They worked platform cores to produce long narrow blades, which were in turn worked to produce microliths (see Figure 2.2). They produced microliths in a number of distinctive forms, including crescents, scalene triangles, rods and backed blades (for example, Wickham-Jones 1990; Saville 2004b, 185–8). Although it has long been believed that these different forms were intended for different uses, analysis suggests that this may not have been the case (Finlay 2000). Stone-workers intended microliths to be combined in groups, probably hafted in wooden, bone or antler handles, to form composite tools such as arrowheads, saws or sickles.

Other tool types found among pre-fourth millennium BC assemblages include scrapers, awls and burins, which point to the working of other raw materials. It is difficult to interpret exactly how they were used, as use-wear analysis shows that the form of a tool did not necessarily relate to its function (Finlayson and Mithen 1997; 2000). Scrapers are generally thought to relate to hide working, used to scrape excess fat from the skins' inner sides, but they may also have been used for woodworking (see Saville 2002a, 94 for discussion). Awls were probably used to pierce holes in pieces of leather or bark that could be stitched together using sinews or twine. Burins were chisels for working bone, antler or wood and may have been used to make barbed points (harpoons) and mattocks.

Landscapes, coastscapes and seascapes

Although over the period *c.* 9000–4000 BC there were significant changes in sea levels and coastline (see Chapter 1), then as now the Lothian coast formed the southern side of the Forth estuary. This extensive stretch of coastline, visible from many points inland, reminds us that the sea would not only have provided a medium for travel but also many resources. People were certainly gathering shellfish, as is evident from several shell middens around the Firth of Forth (MacKie 1972a; Sloan 1982); a midden at Inveravon produced a radiocarbon date of 5500–4300 BC (Ashmore 2004). Excavated sites in the wider region show that they were also hunting fish, sea mammals and sea birds.

At Morton in Fife, about 50km north of the Lothian coast by boat, excavation revealed middens that probably date to the fifth millennium BC (see dates and comments in Ashmore 2004), in association with traces of flimsy structures. The bones flung onto the midden heaps show that the occupants fished for cod, turbot, sturgeon and salmon/sea trout. The high proportion of bone from large cod (greater than 1m in length) suggests that fishers were plumbing deeper waters, beyond the immediate infra-littoral zone (Coles 1971, 351–3; however, see Pickard and Bonsall 2004). They were also hunting on ledges and cliffs, indicated by the bones of sea birds such as guillemot, razorbill, gannet, fulmar, shags, cormorants, puffin and gull (*ibid*, 350).

At Carriden, Falkirk, a biserial barbed antler point dating to 5060–4770 BC (Saville 2001; Ashmore 2004) may have been a harpoon used to hunt sea mammals and cetaceans. However, the apparent coastal or riverine distribution of Scottish barbed points may relate more to suitable contexts of preservation rather than function (Saville 2004b, 198). Indeed, differential preservation is highlighted by evidence from Mesolithic sites in European coastal contexts with good organic preservation. Such sites have produced evidence of fish-traps and fences (Pedersen 1995), used in passive fishing, as well as objects used in active fishing such as fish spears, paddles and wooden canoes (for example, Andersen 1995). It is likely that these were used in the Lothians, too.

Making places

Until recently, evidence for settlement structures dating to the period before the fourth millennium BC was non-existent or slight. This lack of evidence has traditionally been interpreted as pointing to hunter-gatherer-fisher groups who were highly mobile, frequently moving from one place to another, who had no need for substantial structures (for example, Wickham-Jones 1994, 11–13). There is, however, increasing evidence for structural

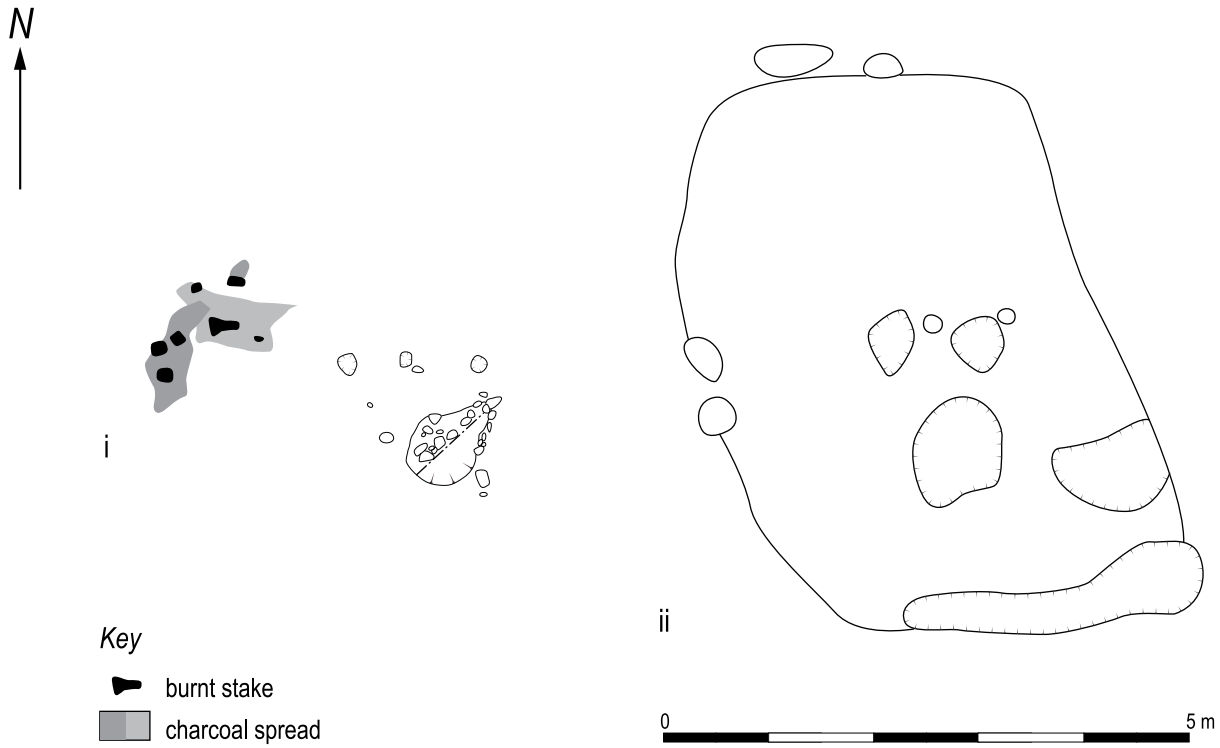
remains in Scotland during this period. Recently, Wickham-Jones (2004) has highlighted the question of whether such remains represent short-, medium- or long-term occupation and whether they were places for dwelling, working or a combination of practices (see also Wickham-Jones and Dalland 1998a; 1998b).

Recent evidence from the region shows that some communities were building substantial structures and may have been occupying them for long periods. One structure has been found at East Barns, near Dunbar, while a similar one has been found further south on the Northumberland coast at Howick. Neither site is fully published, so we must infer their character from interim statements (Gooder 2003; Gooder forthcoming; Waddington *et al* 2003; Waddington and Passmore 2004).

In each case, the builders set the structure in an oval/circular scoop, up to 6.8m across at East Barns (Gooder 2003) and up to 6m across at Howick (Waddington *et al* 2003, 3) (Figure 8.2). At East Barns, 30 post-holes had been set concentrically inside the scoop, and these are interpreted as the remains of a roofed dwelling which was eventually burnt down (Gooder 2003; Gooder forthcoming). There were other apparent occupation deposits in the structure's immediate vicinity. Initial radiocarbon dates suggest an occupation span of 8300–7650 BC (*ibid*). The struck stone assemblage indicates that people were working stone to make narrow blades, including microliths, at the site.

At Howick, the post-holes did not form such regular patterns but were still interpreted as the remains of a roofed dwelling hut that was re-built twice on the original footprint (Waddington *et al* 2003; Waddington and Passmore 2004). It may have been occupied for around 150 years (*ibid*, 29). Radiocarbon dates suggest that it was first built *c.* 7800 BC (Waddington *et al* 2003, 6–7). In the centre of the hut were several hearth pits, which contained burnt fragments of hazelnut and the bones of foxes, birds, seals, wild pigs and wolves or dogs (Waddington and Passmore 2004, 30). Red ochre found inside the hut may have been used for sun block, insect repellent, medicine or body paint (*ibid*, 30–31).

Most Mesolithic sites in Scotland that have substantial structural remains are relatively close to the coast. Using evidence for shoreline levels, Gooder (forthcoming) suggests that East Barns would have been only 350–550m away from its contemporary coast, positioned so that its occupants could best exploit a wide range of resources. Gooder (*ibid*) considers that the structure may have held a more or less permanent settlement, with perhaps seasonal



8.2 Plan of Mesolithic features at Biggar Common (i) and Howick (ii) (after Johnston 1997, 191 and Waddington *et al* 2003, respectively).

movement for some members of the household. In this context, he recognises that such sites were not merely dwellings but also visible monuments to tenure of place.

While there is now some startling evidence for substantial structures dating to before the fourth millennium BC, not all activity of this period left remains of this character; there were other types of occupation that left different traces. For example, a group of 12 stake- and post-holes at Biggar Common may have been the partial remains of a structure (Figure 8.2), sealed beneath a long mound (Johnston 1997, 191–2). Like East Barns, it had been burnt *in situ*; samples of oak charcoal from Biggar Common were dated to 5490–4908 BC (GU-2987) and 5220–4847 BC (GU-2988). No struck stone was associated with this phase of activity, suggesting that the building was used in a different way from the sunken coastal dwellings at East Barns and Howick. At Cramond, a group of stakeholes could be structural remains associated with activity dating to the mid ninth millennium BC (Lawson and Saville forthcoming). These structural remains may have been similar to those at Morton, perhaps consisting of small huts and wind screens.

Other aspects of life at this time are even less readiliy apparent, including how the dead were treated. Disarticulated human remains were scattered in Mesolithic shell middens on the west coast island of Oronsay (Mellars 1987) and some of them may have been deliberately placed (Meiklejohn *et al* 2005), but there is no evidence of formal burial of complete individuals. Instead, people may have left the bodies of the dead exposed (Pollard 1996, 204), perhaps in trees or on rock outcrops, or cast them into rivers or the sea. It is likely that people had complex beliefs and practices that mediated their relationships with animals, landscape and the spirit world, even though those beliefs and practices are not clearly visible to us today.

Deeper rhythms

As Chapter 2 describes, the archaeological work along the A1 expressway found evidence for pre-fourth millennium BC activity in the form of struck stone at seven places, and evidence for activity from the eighth to fifth millennia BC in the form of radiocarbon dates at three sites. These sites of activity clustered on the higher ground around Pencraig Hill and Eweford. The evidence from the region, discussed above, of slight and substantial buildings, midden dumps and scatters of worked stone, allows us to place the A1 findings in wider context and interpret the character of life at this time.

Substantial structures like the one at East Barns may have served as anchors for particular social groups, some members of which moved more frequently around the region (Gooder forthcoming). Less substantial buildings may have been camps for smaller groups over a few weeks or a season at most, while they were away from their base camps. Such smaller camps were built on the coast (as at Cramond) and on the uplands (as at Biggar Common), perhaps as groups exploited different resources and moved between inland and coastal camps. Some groups may have tried to minimise movement, focusing on coastal and marine exploitation, while others may have specialised in upland hunting. The evidence of base camps like East Barns suggests that communities' identities were bound to particular places; in that case, tensions may sometimes have arisen between groups when they met. Such identities and claims to place may also have been marked in other ways, for example through different tool kits or differences in the types of raw materials used or the sources from which they came.

The absence (so far) of evidence for substantial structures during the seventh to fifth millennia BC could indicate that people's relationship with their environment changed during this time; however, it is equally likely that such structures continued to be built and used and that their remains have not yet been discovered. Perhaps such buildings were no longer erected to claim particular places, as lineage had established social groups' rights to ancestral grounds. Alternatively, perhaps it was no longer possible to spend so long at one place, as a system of greater movements of smaller, more mobile social groups had emerged. Later, in the fifth millennium BC, there may have been a shift away from the coast for longer periods of the time (where a greater degree of resource concentration is apparent) and so there was less need for permanent structures in the coastal zone. In such circumstances, the exploitation of inland, upland and woodland resources may have become more important.

As one might expect with such a long time span, the remains dating to 9000–4000 BC do not represent one uniform history of emerging practices (for example, Spikins 2000, 111–12). However, the growing evidence for complexity of practices relating to dwellings, such as East Barns, may mean that there was a growing sense of land tenure.

Creating conventions, altering landscapes: New traditions during the fourth millennium BC

During the first half of the fourth millennium BC, communities living in Lothian and elsewhere across Britain began engaging in a range of radically different practices. These involved creating not only dwellings, but also other structures – communal halls, mortuary enclosures, cursus monuments and long cairns – for particular ceremonial activities that involved new things such as cultivated cereals, domesticated animals and

8.1

Festivities and feasting in prehistoric Lothian

The evidence from many of the A1 sites evokes images of what we might call prehistoric parties – some of them dramatic and others more modest. At Pencraig Hill, small fires were lit in and around a building that contained human remains; later, a cremation pyre was built and burnt, and finally the whole massive timber enclosure was burnt to the ground. At Eweford West around the same time, pyres were also built and burnt, as was the timber façade of an enclosure. At both Pencraig Hill and Eweford West, sherds of pottery were found from Carinated Bowls, which might have held food or drink that was shared among people using the monuments.

At Eweford East, long lines of big posts were built and then burnt down, probably in sections over time. At Overhailes, sherds of pottery and fine flint tools that had come from eastern England were put into the ground, along with ashes scraped up from a fire. Vast quantities of burnt cereal were scattered around the ancient mound at Eweford West. Both here and at Pencraig Wood, people came again and again to put cremated human bone into the ground, sometimes lighting fires as they did so and often placing highly decorated pots or fine stone or bronze objects with them. At both Eweford West and Eweford Cottages, stone-lined cists were set into the remains of much earlier ceremonial monuments and filled with hearth waste and human remains. At Phantassie, cremated human remains were scattered in the farmstead, and midden was spread over an abandoned house.

All of these, to varying degrees, seem to have been special events to those who did or observed them. They were spectacles. They involved doing things beyond what was required for physical survival; they might have referred to or imitated everyday acts, but they were extraordinary in the literal sense of the word. What took place at these sites may have been strictly proscribed by custom or belief.

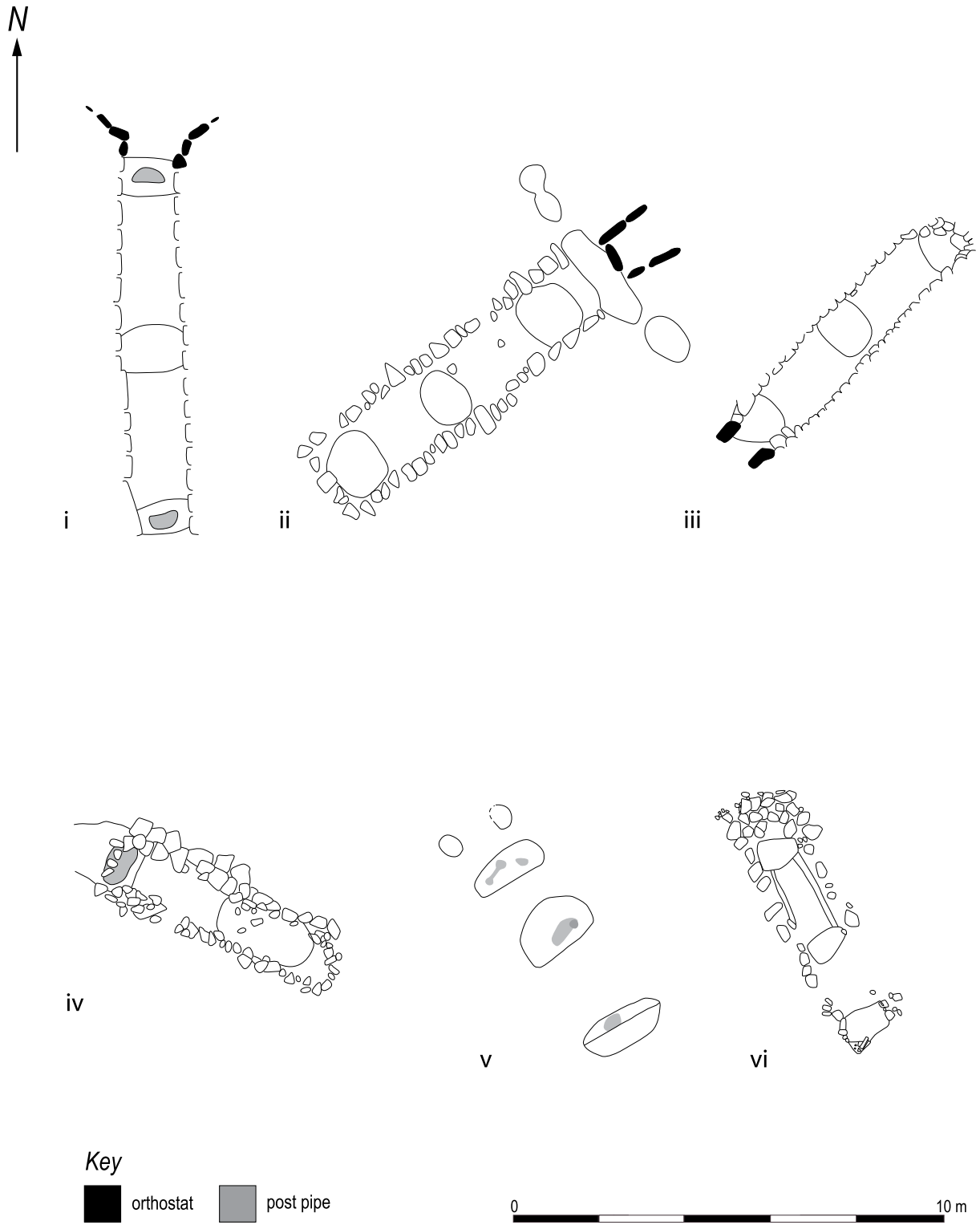
From the evidence, we might suppose that fire was an important part of most of these events (see Figure 8.6); it may well have been, but burnt material is also what survives best in the ground, so we probably have a biased picture of what truly happened. Each event would also have involved things that left no traces: food, drinks or hallucinogenic drugs, for example, and containers, costumes and other accessories made of cloth, feathers, wood, straw or bone. Likewise, they were motivated by ideas and made up of actions that are lost to us. They might have involved processions, dancing, recitals, theatre, songs, feasts or the exchange of gifts. They might have been undertaken to bless marriages or mark puberty, to mourn the dead or banish their spirits from the sphere of the living, or to worship or plead with ancestors or gods.

In recent years, archaeologists have dwelt upon the political uses of such festivals or parties. Scholars have argued that some members of prehistoric British society gave feasts, bestowed exotic gifts or sacrificed valuable objects in order to gain prestige and boost their own social rank. These ritual acts allowed the development of social elites who could control greater wealth and appeared to have more influence with the ancestors. They were, in effect, a form of showing off in order to hoodwink less powerful members of society and keep them in their place.

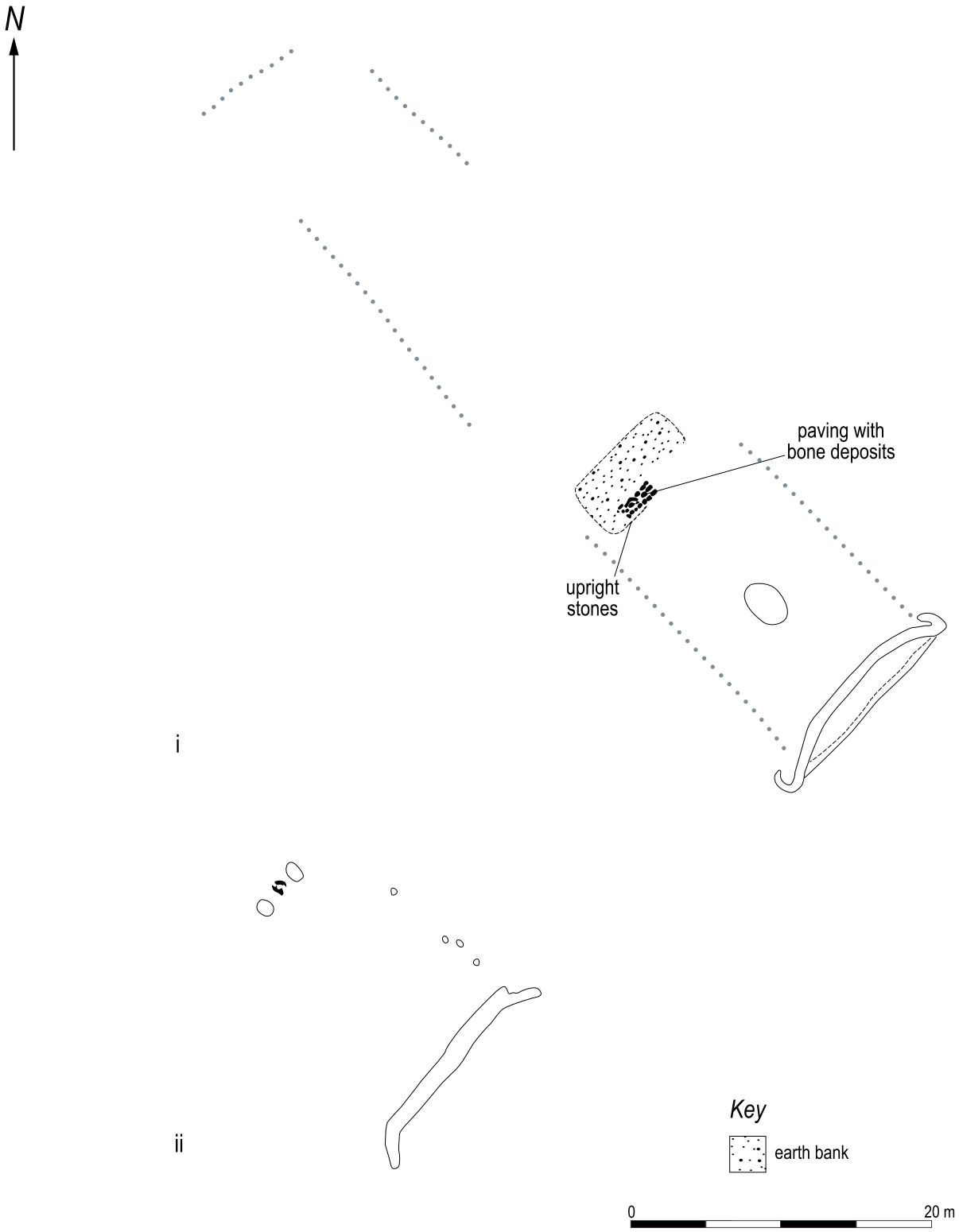
Power always enters relationships between people, and what took place at ceremonies and festivals in prehistoric Lothian would not have been exempt. It is important to remember, however, that these events mattered wholly to the people who initiated them, participated in them, watched them or heard about them. To their minds, they were probably vital to society's survival, and perhaps even to their individual physical survival.

These events would have also helped to form and maintain communities, in the broadest sense of the word. They brought together people who shared beliefs and customs, and whatever else their rituals seemed to accomplish – ensuring a good harvest, for example, or warding off disease – they would also have cemented a sense of shared identity, at least for a time.

OLIVIA LELONG



8.3 Plan of two-point and three-point mortuary structures at Slewcairn (i), Lochhill (ii), Dooey's Cairn (iii), Pitnacree (iv), Dalladies phase 1 (v) and Eweford West (i-iv) (after Scott 1992, 106; v after Piggott 1972, Fig. 8).



8.4 Plan of Giants Hill 1 and 2 (i) (after Kinnes 1992).

pottery. As most domesticates were not native, there must have been some degree of movement, either of objects or people; it has long been debated whether these new materials, and knowledge of how to produce, transform or tend them, arrived in Britain through the migration of people. Earlier views about this process characterised it as an agricultural revolution brought by boats full of immigrants (for example, Case 1969), but in recent years the model of a slow, piecemeal adoption of these practices has been favoured (for example, Thomas 1999).

Increasing evidence for similar traditions that emerged around the same time across a wide area suggests that there may in fact have been a phase of significant migration (for example, Richards 2003; Richards 2004, 88–9; Sheridan 2000; Sheridan 2004a; Sheridan in press b). This does not preclude the possibility that some indigenous groups later slowly adopted these new traditions, or that some groups rapidly emulated new practices while others remained hostile to them. This may have been a time fraught with tension between those who were abandoning the old ways of living and those who adhered to them. Others may have developed variations in their agricultural practice to accommodate local conditions. In Lothian during the fourth millennium BC, different social groups may have adopted agriculture to different degrees, or not at all, and possessed various associated belief systems. Some groups may have traced their lineage to Continental ancestors, while others may have claimed deep indigenous roots.

Structuring structures: An architectural vocabulary

During the first half of the fourth millennium BC, people began building a range of structures, including mortuary enclosures, timber halls, mortuary structures and cursus monuments. While these varied considerably in form, they did share an architectural vocabulary with a preference for rectangular or trapezoidal shaped structures of large and consistent scale and for certain formal elements. These preferences are apparent between different structures over wide geographical areas, from southern England to eastern Scotland (for example, Kinnes 1992; Bradley 1998; Barclay *et al* 2002). With such wide-ranging traditions, this section cannot be an exhaustive review. Rather, it discusses several representative examples of this shared architecture in order to explore its implications for social practice.

Ordering space and time

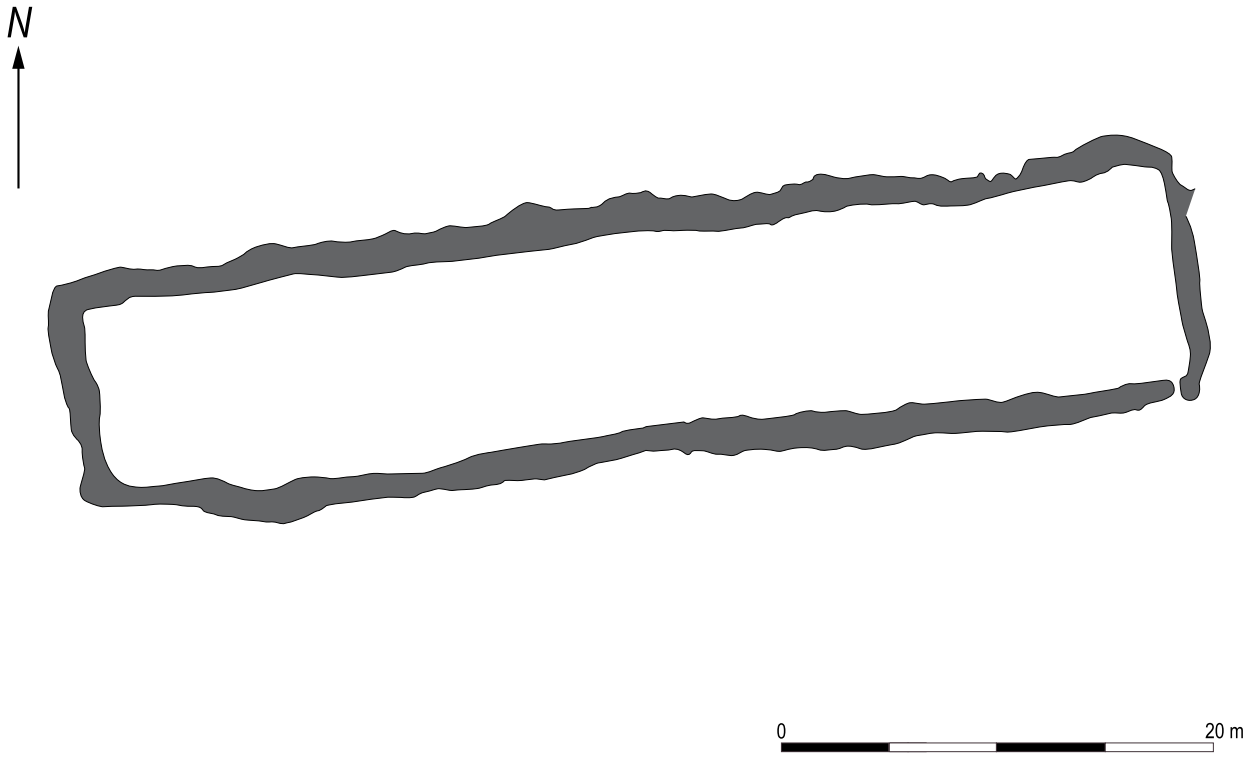
At Pencraig Hill and Eweford West, communities who probably lived in the immediate environs undertook a novel suite of practices between 3900 and 3500 BC (see Chapter 2). These practices are generally thought to have been social, ceremonial or ritual in nature, in some way distinct from the routines of daily life. At each site, there were clear episodes of archaeologically visible activity that may have been separated by months or, more probably, years, together extending beyond a single human lifetime; these sites seem to have had additional significance as inter-generational projects. They may have been communal projects, involving people from different settlements across the region.

In some respects, these projects transcended time and place. While only periodic activity was archaeologically visible, people may have visited the sites much more regularly – perhaps sometimes daily, or on a monthly (lunar) cycle. While years may have passed before it was necessary or appropriate to commence another episode of building or burning, the monuments were probably incorporated into other rhythms of life and regularly referred to in other arenas of social practice.

Their creation and use involved building mounds, erecting timber structures, bringing human remains to them and also bringing particular objects to the monuments. These practices, particularly in terms of how the structures were created and the sequence and nature of their use, are part of a tradition of monument building that extended across many parts of Britain during the fourth millennium BC (Kinnes 1992) and with marked parallels in continental Europe, particularly Denmark (Madsden 1978; Liversage 1992). Although there were variations in the sequence and manner of construction (Figure 8.3), they all achieved the same effect of framing particular practices, using certain architectural devices in broadly the same sequence. The early phases of mound building at Eweford West and Pencraig Hill initially marked out these significant places; the construction of mortuary enclosures defined or framed particular spaces; the creation of mortuary structures more clearly defined what activities took place, and finally the wooden elements were burned or sealed beneath stone or earthen mounds.

The definition of space at Eweford West was achieved initially by digging a linear trench to hold a screen; this stood for some time in front of successive mortuary structures, an arrangement with wide parallels (for example, Giants' Hills 1 (Phillips 1936) and Giants Hill 2 (Evans and Simpson 1991)). (See Figure 8.4). In contrast, the builders of Pencraig Hill followed a different sequence in defining space, erecting side screens that stood independently, forming a cursus-like arrangement. This suggests that the front and side screens were not simply ways of defining what would become a trapezoidal space, but that they performed different architectural roles.

Similar relationships between architectural elements defining sides and front can be found in other contemporary structures. For example, the form and scale of the long mortuary enclosure at Inchtuthil (Figure 8.5) could be compared to the trapezoidal enclosures pre-



8.5 Plan of the long mortuary enclosure at Incthuthill (after Barclay and Maxwell 1991).

dating the long barrows at Kilham and Skendleby (Barclay and Maxwell 1991, 39). Closer examination of the eastern end of Inchtuthil reveals an even more marked similarity. The south terminal of the east end did not join the south side trench and it expanded, perhaps to hold a major post, as did the north end; it could be argued that the east end had been dug earlier to hold a free-standing screen. There are direct parallels for these expansions to façades (for example, at Willerby Wold and Raisthorpe), and the large posts set at either end of the front screen at Pencraig Hill seem analogous to them. Similarly, parallels in the form and scale of the ends of timber structures are evident between timber halls and mortuary enclosures, which in turn find parallels with the stone façades of chambered cairns (Barclay *et al* 2002).

The detailed arrangement of structures also indicates an architectural vocabulary underpinned by shared knowledge. For example, despite differences in constructional techniques, the form and arrangement of space in timber halls at Claish, Stirlingshire and Balbridie, Aberdeenshire was exactly the same (*ibid*; Ralston 1982). Timber mortuary structures also exhibit close similarities in location and form. They were generally either set centrally to a screen, along the main axis of the defined space and forming part of a linear zone (Kinnes 1992), or were set perpendicular to that axis. Mortuary structures were generally built of either two or three posts, set in the ground to support platforms (Scott 1992). At Pencraig Hill, the two-post mortuary structure recalls the earliest structure at Pitnacree (Coles and Simpson 1965) and also perhaps the burnt structure sealed beneath the round mound at Boghead (Burl 1984). The three-post mortuary structure at Eweford West (Figure 8.11) finds striking parallels at Dalladies (Piggott 1972), Lochill (Masters 1973), Slewcairn (Masters 1981) and Dooey's Cairn (Evans 1938) (see Figure 8.3).

The details of this tradition have been well documented (see Kinnes 1992; Scott 1992), but the nature of underlying practices is worth examining further. The evidence suggests that many of these structures had two phases of use: an earlier phase relating to the storage, display or transformation of human remains, and a later phase relating to their destruction, sealing or abandonment. While the same forms of structure for treatment of the dead were constructed widely across Britain, evidence suggests that they were used differently in different regions. Those in Scotland and Northern Ireland are more frequently associated with cremated human bone, in contrast to

the south of Britain where unburnt, disarticulated or inhumed remains are more commonly found (Kinnes 1992). Mortuary structures in northern Britain and Scotland were more often burnt down, as opposed to their having rotted and collapsed. It thus appears that fire, and its transformative powers, were important elements in the belief systems operating at these sites (Figure 8.6) (also see Chapter 11).

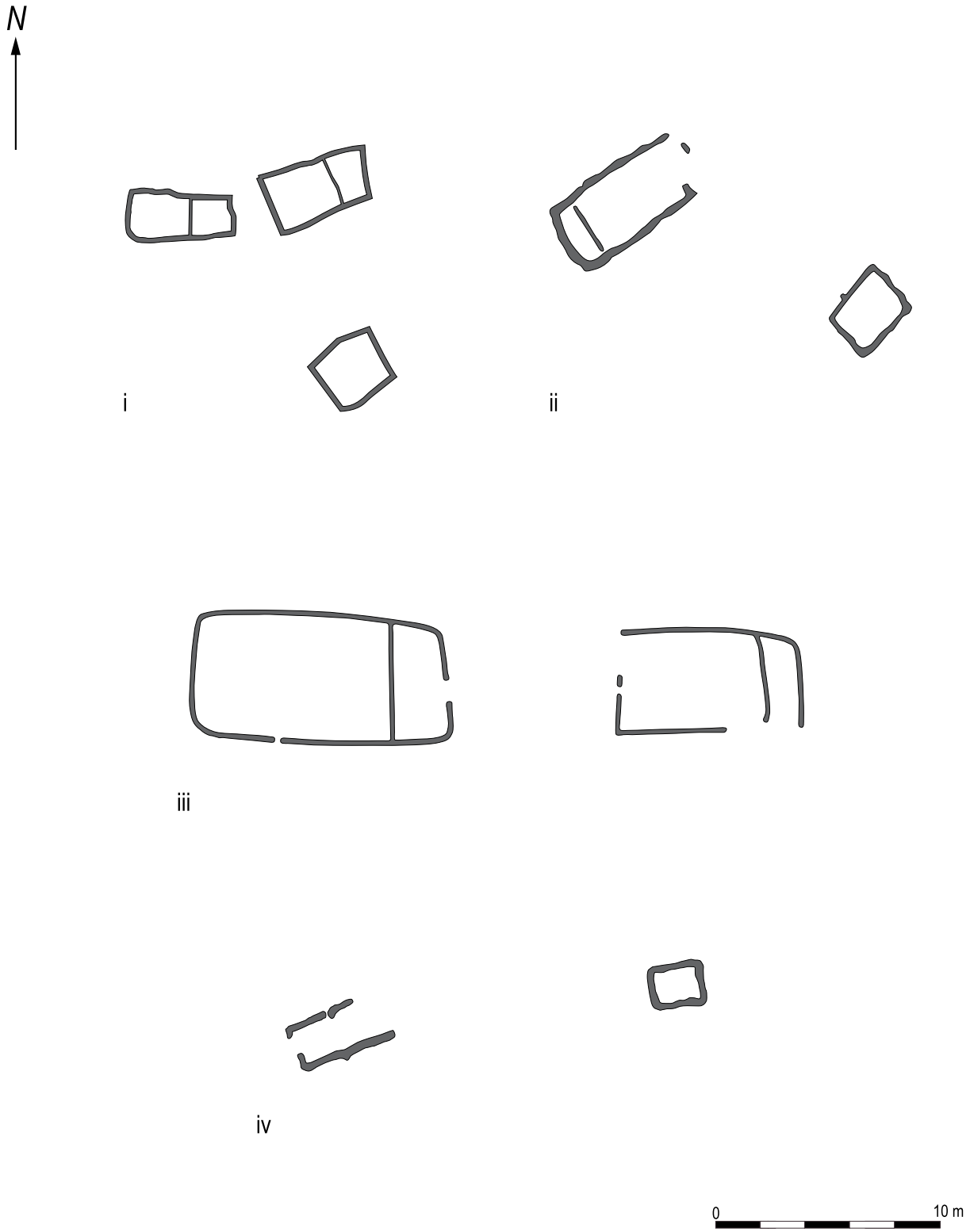
An ordered house

The monuments discussed above, with their shared architectural vocabulary, were places for acts that lay beyond the realm of daily or other regular life – the realm of food preparation, eating, sleeping and craft production. Socially, the focus of the daily cycle would have been the family or household dwelling, from which members left to hunt, tend fields or obtain raw materials and to which they returned for shelter and to gather socially. The clearest evidence for such foci for social groups are rectangular timber structures dating to the fourth millennium BC. There is evidence at three sites in the Lothians – at Whitekirk, Ratho and Doon Hill – of such structures being built at this time. These buildings were similar in form, but variations in size and complexity suggest that they may have served different purposes.

At Ratho, near Edinburgh, a community built two sub-rectangular structures in a hollow on the side of a hill, with extensive views across the Firth of Forth (Smith 1995, 69). One measured 10m by 4.5m and the other measured 5m by 4 m. Although the buildings themselves are undated, several nearby pits may have been contemporary with them; one contained earlier Neolithic Carinated Bowl pottery and a pitchstone blade and another a small assemblage of cereal, including barley (*Hordeum vulgare L.*), wheat (*Triticum cf aestivo-compactum*) and oats (*Avena* Sp) (*ibid*, 75). The cereals suggest that crops were grown and perhaps processed in the vicinity. The shape of the structures and their close proximity (20m) to the pits suggest that they were built in the fourth millennium BC.

At Whitekirk, two sub-rectangular structures, visible on aerial photographs (Brown 1983), may also have stood during the fourth millennium BC. One structure was orientated east-to-west, measuring *c.* 26m by 12m, while the second structure, a few metres to the south-east, was oriented north/south and measured *c.* 18m by 10m (Figure 8.7). Both had an internal division at their eastern and northern ends. They stood on flat ground that fell away steeply to the south and east. In the absence of

8.6 Reconstruction of Pencraig Hill mortuary enclosure being fired at night.



8.7 Plans of timber buildings at Corbhally (i), Tankardtone South (ii), Whitekirk (iii) and Ratho (iv) (i-ii after Grogan 2004; iii after Brown 1983; iv after Smith 1995).

extensive tree cover, views to the north and west were largely obscured beyond about a kilometre by local topography, but there were extensive views to Tyne Sands and Belhaven Bay, about 3km distant, and to Doon Hill to the south-west. The buildings have not been excavated so their dates are not known, but they appear similar to early Neolithic timber halls known elsewhere (see below).

Another, even larger rectangular structure was built on the eastern side of Doon Hill, 3km to the south-east of Eweford West. It was set in a basin ringed by the slopes of Doon Hill to the west and south and by the Lammermuir Hills to the north, but with extensive views to the eastern Lothian coast sweeping south-eastward to St Abb's Head. Two timber halls were built at Doon Hill; the later Doon Hill B was interpreted as Anglian in date, and it overlay an earlier structure, Doon Hill A (Hope-Taylor 1978). While there are no absolute dates for the earlier building, the discovery of sherds of earlier Neolithic Carinated Bowl pottery suggests that it could date to the early fourth millennium BC (Smith 1991, 267). Doon Hill A measured 24m by 10m and comprised several post-defined compartments. It was very similar in form to several other excavated early Neolithic timber halls, and a similarly juxtaposed Anglian hall overlying a much earlier one has recently been excavated at Lockerbie (Kirby 2006).

The structures at Ratho, Whitekirk and Doon Hill (if it did indeed have a Neolithic component) may all be part of an architectural tradition dating to the fourth millennium BC. This tradition of building sub-rectangular structures had two strands; one comprised smaller rectangular structures, most common in Ireland (Grogan 2004), and the second comprised larger rectangular structures, most common in eastern Scotland. The structures at Whitekirk and Doon Hill are similar to large timber halls like those at Balbride (Ralston 1982), Claish (Barclay *et al* 2002), Warren Fields (Murray 2005), the recent discovery at Lockerbie (Kirby 2006) and another possible example at Sprouston (Smith 1991) (Figure 8.8).

The structures at Whitekirk and Doon Hill are most similar in form and scale to the excavated hall at Claish, Stirling (Barclay *et al* 2002) (Figures 8.7 and 8.8). The Whitekirk structures do not appear to have had the same complex internal divisions as at Claish; their simple bipartite arrangement finds closer parallels in the Irish earlier Neolithic timber structures. The apparent entrance in the eastern gable end of one of the Whitekirk buildings is also similar to Irish and other Scottish examples (Grogan 2004, 107; Barclay *et al* 2002). For example, of two rectangular structures (Houses 1 and 2) at Corbally, two hearths were found in each, both in the larger chamber at the north-east end (Purcell 1999). These must have been central to what went on in the houses, with certain socially sanctioned activities such as cooking, parching grain or craftwork taking place around each one. In this respect, the Whitekirk structures probably represent dwellings of larger scale than those at Ratho (Figure 8.7).

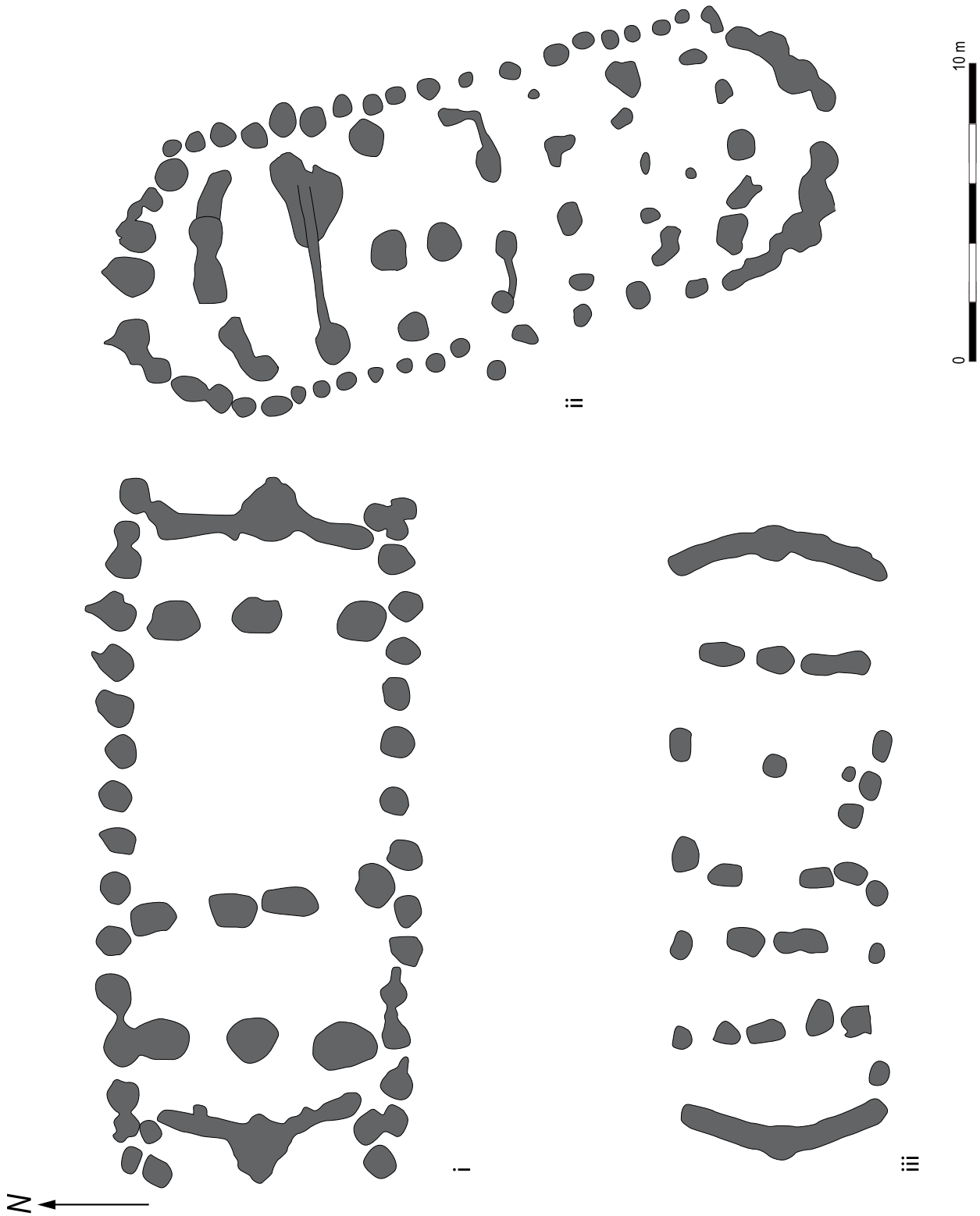
In terms of form, scale and constructional technique, parallels to the Ratho buildings can be found in earlier Neolithic Irish timber structures. The majority of these are now interpreted as houses, of which there are 46 excavated examples (Grogan 2004). Grogan notes that these tended to occur in broadly contemporary clusters rather than as isolated structures (*ibid*, 109). The paired structures at Ratho, one smaller and less rectangular, are similar to those at several Irish sites, including Tankardstone South (Gowen and Tarbett 1988) and Corbhally (Purcell 1999) (see Figure 8.7).

While the evidence for fourth millennium BC sub-rectangular structures in the Lothians is slight and circumstantial, we can suggest what they represented. Smaller, less complex buildings may have been semi-permanent dwellings, like those at Ratho, perhaps for small extended families. Larger structures with two compartments like that at Whitekirk may have been intended to accommodate larger social groups, perhaps on a more permanent basis. Even larger, more complex forms, like the possible example at Doon Hill and those at Claish and Balbridie, were timber halls used by the wider community for ceremonial or social purposes. All of these structures were sub-rectangular and consequently in keeping with the architectural vocabulary of the time. The beliefs underpinning this vocabulary were expressed in a wide range of different social arenas, including dwellings.

We must also bear in mind that less substantial, more ephemeral structures (for example, Atkinson 2002; Waddington and Davies 2002) may have formed part of an emerging settlement hierarchy during this period. We have evidence for different types of dwellings during this period, ranging from small, ephemeral structures that were occupied for relatively short periods to variously sized rectangular structures that may have been occupied for longer. This suggests that people inhabited the landscape in different ways, although it is not clear whether these related to different social groups or were complementary aspects of a unified social system.

Broken bits in pits: Deposition of Carinated Bowl pottery and pitchstone

At the same time that new kinds of social arena were being built in the fourth millennium BC, ranging from dwellings to ceremonial structures, communities were also adopting and using new kinds of material culture. The ways in which these were deposited suggests that they were not simply utilitarian objects, to be produced, used and cast away as rubbish. Instead, they were often deposited in intentional ways that suggest they were perceived as



8.8 Plans of timber halls at Doon Hill (i) (after Hope-Taylor 1980), Claish (ii) (after Barclay *et al* 2002) and Sprouston (iii) (after Smith 1991).

having potency, upon which it was possible to draw during these acts. There is also considerable evidence that many of these objects circulated over wide distances, so pieces of material culture may not have been made, used and put into the ground at the same locations.

In particular, a marked tradition emerged of burying pieces of Carinated Bowl pottery, polished stone axes and pieces of pitchstone (for example, Maynard 1995; MacGregor forthcoming; Sheridan in press b). The section of these particular objects suggests that people had preferences for particular aesthetic qualities (in terms of texture, hardness and colour). Consider the glossy black or dark green of pitchstone, often with star-like white inclusions; the speckled, polished surfaces of stone axes; the burnished, mica-flecked, black and dark brown pottery bowls. These all have similar textural and visual properties, with cool, smooth, dark surfaces and small, contrasting inclusions. They may have been associated with certain images or conditions, such as the star-speckled night sky. The shared aesthetic qualities of these objects may have underpinned how they were perceived. People may have seen the production of these artefacts as involving the controlling of vital forces; if such forces were not controlled by appropriate rites, they could become dangerous to communities.

The perceived potency of these objects may have stemmed in part from their distinctive origins: Carinated Bowls were the first form of pottery to be produced (see text box 8.2) and as such represented a new technology associated with the transformative properties of fire; in contrast, pitchstone

8.2

Early Neolithic Carinated Bowl pottery

The Early Neolithic pottery found at Eweford West and Pencraig Hill belongs to a widespread tradition known as 'Carinated Bowl' pottery, which is found over much of Britain and Ireland and which seems to have appeared around 3900 BC. The pots consist of bowls – often over 200mm in diameter, and often thin-walled and of fine fabric – where the junction between the upper, neck part and the lower, round-based belly part is marked by a low ridge, or carination. Sometimes this carination is missing and the pot profile curves in an 'S' shape; sometimes the neck is upright, sometimes splaying, and the belly can range from shallow to deep. Along with carinated and S-profiled bowls, this tradition includes (less commonly) plain, roughly hemispherical bowls and cups, and occasionally also jars with upright collars. Decoration is restricted to the very occasional use of fingertip fluting – where shallow lines were made by running a finger up a pot's neck in parallel lines (or across the rim) while the clay was still wet.

This kind of pottery has been found in and around houses, in pits and in burial monuments, and it was probably used mainly for cooking and serving food and drink.

In many areas, this was the very first pottery to have been used, and it is one of many innovations associated with the first farming communities in Britain and Ireland. The people who made this pottery were skilled: they knew how to make large but thin-walled pots. Careful attention was often given to making the surfaces smooth; some pots have been polished to a low sheen, and a few have burnished surfaces. A clear link exists with the so-called 'Chasseo-Michelsberg' pottery of north-eastern France, even though its precise area of origin has yet to be pinpointed. Debate surrounds the question as to whether the people who made this pottery (and practised early farming) in Britain were originally Continental immigrants or were descendants of the indigenous hunting-gathering-fishing population. The striking similarity in this pottery over such a large area suggests that the immigration hypothesis is more likely to be correct.

Regional variants of Carinated Bowl pottery had emerged within a century for two of its introduction; these included more extensive use of fingertip fluting and ripple burnishing, and the use of lugs and simple decoration.

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was not widely available and probably derived from a limited source on the island of Arran (Thorpe and Thorpe 1984). With appropriate skills, Carinated Bowl pottery could have been made in large quantities, but pitchstone must have had more limited availability. However, despite its usually having been deposited in small quantities, pitchstone was occasionally worked and deposited in large quantities, with sizeable assemblages from Ballygalley, County Antrim, Northern Ireland (Preston *et al* 2002) and from Weston in the Southern Uplands of Scotland (Ward 2006). It seems, therefore, that people were sometimes able to obtain large amounts of pitchstone and so its presence in smaller quantities at some sites could be for reasons other than limited supply.

Pitchstone and Carinated Bowl pottery have been found at a wide range of sites in southern and central Scotland: at Eweford West and Pencraig Hill mortuary enclosures (Chapter 2), Claish timber hall (Barclay *et al* 2002), Cowie settlement (Atkinson 2002), Bannockburn enclosures (Rideout 1997) and Ratho settlement (Smith 1995). All these sites lie on or in view of the Forth basin, apart from Claish which lies 16km up the River Teith, a tributary of the River Forth; the practices evident at all belonged to a regional tradition. Collectively, the evidence shows that these materials were taken to and utilised in a variety of social contexts. Two of these examples, Claish and Cowie, will be considered in further detail to illuminate how Carinated Bowl pottery and pitchstone were being used and what meanings may have been generated through their use. The evidence from Claish suggests that the timber hall served a specialised role, as a communal structure associated with pottery production and the exchange of pitchstone. In contrast, at Cowie there was a group of pits which, despite having the character of refuse disposal from a dwelling, contained Carinated Bowl pottery and pitchstone; they were deposited in ways that suggest these acts were socially potent.

At Claish, a community built a post-defined roofed building, measuring 24m by 8.5m, some time between 3940 and 3640 BC (Barclay *et al* 2002). Rather than being used as a simple dwelling, it probably had wider social or religious purposes (*ibid*). Fragments of up to 68 pots were recovered from two non-structural pits in the building's core and from the post-holes that supported the structure. Someone had partially filled one pit, used broken sherds of pottery to line it and then lit a fire that scorched the sherds below. The second pit had also been partially backfilled before a fire was lit in it, leaving fragments of unidentifiable burnt bone and large pieces of carbonised birch bark, perhaps the remnants of a container. Sherds from these same pots were also found in post-holes, having become incorporated in the post-pipes after the building's destruction (Sheridan 2002, 79). This suggests that when the structure was burnt down, the floor was littered with pottery that had been used or at least broken inside it, and some of the sherds had previously been put into the pits. Hence, pots were not simply used in the building, but were deliberately broken and then portions selected for deposition in a structured, non-utilitarian manner. A fragment of unfired potter's clay also suggests that pottery was made in or near the building (Barclay *et al* 2002, 78–9).

In contrast to the pottery, there was an exceptionally small struck stone assemblage that included two pitchstone blade fragments (Saville 2002b). The pitchstone fragments were in post-holes framing the core interior space and, unlike the pottery, more evocative of casual loss. In light of the evidence from Ballygalley and Weston, it could be that pitchstone had once been present in greater quantities in the core space but was taken away and circulated elsewhere, and that only a few pieces were lost or scattered inside the building.

The evidence from Claish contrasts with that from Chapelfield, Cowie, *c.* 30km to the south-east (Atkinson 2002). The contents of three pits at Cowie demonstrate that depositing broken artefacts was not simply an act of rubbish disposal; rather, the artefacts were part of meaningful practices. These acts were also extended over several episodes, and fragments of some objects were kept for later use and deposition.

In the fifth millennium BC, a pit was dug and lined with clay and stone, including pieces of pitchstone (Atkinson 2002, 152–4). Someone dumped burnt material in it, along with broken saddle and trough quern stones. Others later re-cut the pit and filled it with an organic deposit, possibly human waste, and more burnt material, as well as a pitchstone core that fitted a flake from the pit's primary fill.

Another pit, initially lined with a stony deposit, was later re-cut twice (*ibid*, 159–62). Someone then put large parts of three Carinated Bowls in it and smashed them further with a stone. They also put coarse stone tools in the pit, including a broken saucer quern, a broken saddle quern, quern rubbers, stone knives, hammerstones, pounders and an anvil. A quern fragment, associated with the pottery in the third fill, conjoined with a fragment from the first fill. The matching pitchstone pieces and the conjoining quern fragments from the two pits show that objects were being broken and their parts kept, to be used later at a more appropriate time.

The differences between these acts of intentional deposition at Cowie and Claish illuminate how they were understood. The coarse stone tools – including broken querns, pounders and hammerstones – at Cowie were entirely absent from Claish, so there may have been conventions as to what was appropriate to deposit in different social contexts. In this respect, the comparatively

large amounts of pottery at sites associated with ceremonial activities, such as Claish and Eweford West, contrasts with the relatively small quantities of pottery deposited at dwelling sites, such as Cowie and Ratho.

The evidence suggests that material culture was being made, used and disposed of in different social arenas; behind this deployment were other, largely invisible activities. For example, the pottery sherds deposited often bear the residues of previous use, such as sooting. We can picture these vessels resting on hearths, with someone tending their contents. Similarly, the presence of cereal grains at some of these places demonstrates the cultivation of grain in fields. The querns at Cowie also show that cereals were being ground for flour, and bread might have been baked on griddles at hearths like the one at Ratho.

Hearths at Claish were the focus for depositional practices that were more formal than rubbish disposal; they might also have been associated with pottery production. Pots made at this communal structure may have been taken to smaller dwellings, to other hearths, where they were used to prepare daily sustenance. Use and re-use of these vessels led them to crack; an accidental slip created large sherds of pottery. The sherds were then drawn together, sometimes to be disposed of in isolated pits, but at other times they had to be taken to ceremonial places for burial. In this way, aspects of daily life were entangled with the routines at ceremonial or communal sites.

People did not simply use objects functionally, but also in other roles relating to how they were produced, circulated, drawn together and disposed. Evidence for a marked aesthetic and the perceived importance of objects' origins suggests that certain kinds of material culture seemed to be imbued or empowered with vital forces. These may have been generated through the transformative powers of fire, and become metaphors for birth, growth, death and decay. Appropriate rites may have been required to control such forces, such as the further smashing of pot sherds at Cowie or the smashing and burning of pots at Claish, to prevent their becoming dangerous or malevolent. The breakage and dispersal of different artefacts was perhaps one way in which such forces could be controlled or channelled. Distinctive places may have been associated with different forces and their control, and these were linked in a network which related to the transformative cycles upon which communities increasingly relied to sustain life.

Monuments to movements

Rectangular routeways: cursus monuments at Drylawhill and Westfield

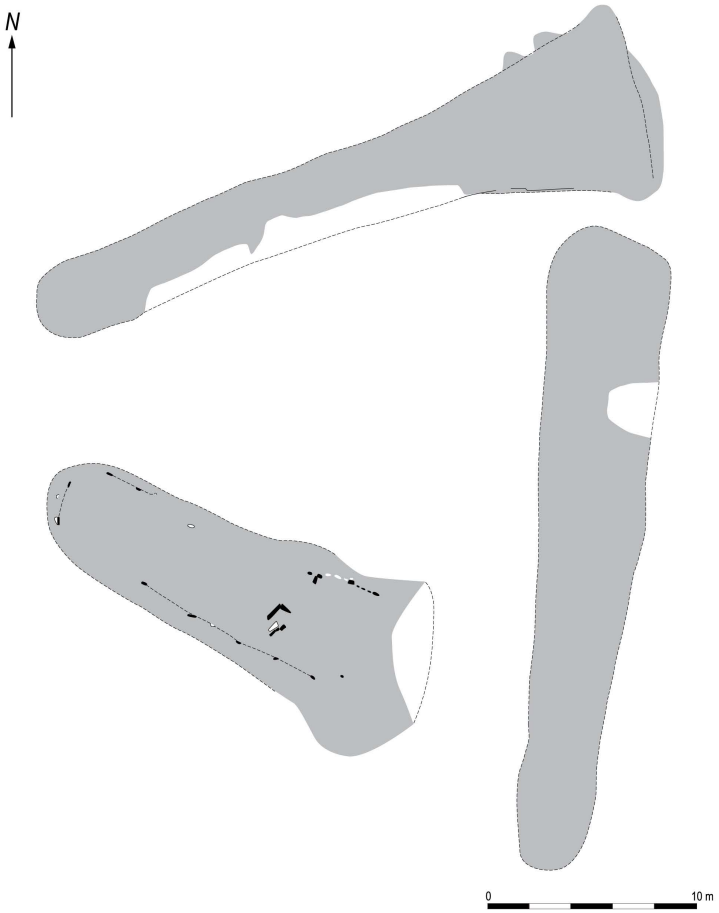
We have considered the role of sites such as Pencraig Hill and Eweford West and suggested that their continued potency in part stemmed from their incorporation into other rhythms of life (see Chapter 2). They were not ignored or forgotten between the episodes of building; instead, they were probably visited or spoken about throughout their spans of use. One way in which communities may have drawn out the meanings associated with these monuments and linked the different areas in which they lay was by formalising movement between them or marking symbolic route ways between areas associated with different communities.

Several cursus monuments in the region may have performed this role. The builders created these monuments by digging ditches or lines of pits/post-holes to form long, thin, rectangular enclosures, extending up to several kilometres long. Their creation implies that extensive tracts of woodland were cleared to accommodate them.

There are three possible cursus monuments in the Lothians, two to the east of Edinburgh, at Westfield and Westlodge, with another at Drylawhill near East Linton (see Figure 8.1). All three have been identified through aerial photographic evidence as ditch-defined cursus monuments. Of these sites, there is sufficient information to consider two, Drylawhill and Westfield, in further detail.

The cursus at Drylawhill, East Linton, is located only 6km to the east of Eweford West. Here the builders dug two broadly parallel ditches, varying between two and three metres wide, running 100 metres apart for *c.* 1100 metres (Armit 1993). They built the cursus orientated WSW/ENE between the River Tyne to the south and higher ground to the north. The cursus is orientated to run towards the north side of Pencraig Hill and the dominant view along it extends to that massif. The western end of the cursus is unknown. At its eastern end, views are obscured by local slopes to the south and east and extend to the north for a kilometre at most In the absence of extensive tree cover, the most prominent view at the eastern end would have extended across the River Tyne as it enters the sea through Tyne Sands. If people moved along the cursus to the west, Traprain Law would have been visible to the south but largely in peripheral vision.

The cursus at Westfield extends for *c.* 900m from Inveresk to Whitecraig at the south. Here the builders dug five parallel ditches in two sets of two and three respectively, up to 180 metres apart (Hanson 2002; Cook 2004, 133). They set the monument on low-lying ground at the western foot of Falside Hill, which is part of a more extensive upland ridge running eastward and separating the coastal plain to the north from the Tyne valley to the south. It was positioned so that the southern terminal was orientated on a bend in the River Esk and the northern terminal on the embayment where the River Esk enters the Firth of Forth. Movement down this monument to the



8.9 Plans of long cairns at Mutiny Stones (top), Harelawmuir (left) and Greensmuir (right) (after Henshall 1972).

south would have given a view of the Esk valley running off in the distance between the Pentland and Moorfoot Hills, while movement back to the northern end would have provided open views to the Firth of Forth. There is evidence for earlier activity in its vicinity: at the northern terminal, a pit contained charcoal dating to the end of the fifth millennium BC (Cook 2004, 137). Although the sample is oak (*Quercus*), and the taphonomy in some doubt (*ibid*, 141), this may indicate contemporary woodland clearance in the locale.

The cursus monuments in the study area are part of a wider tradition of monument building that took place during the fourth millennium BC, of ditch-, pit- and post-defined linear monuments (Brophy 1998). The closest excavated parallels can be found at Cleaven Dyke (Barclay and Maxwell 1998) and Bannockburn (Rideout 1997) (Figure 8.9). The builders of Cleaven Dyke created a bank between two ditches, over several episodes of construction, extending for 2km. Radiocarbon dates from features beneath the bank suggest it was constructed after the late fifth to mid/late fourth millennium BC (Barclay and Maxwell 1998, 47). At Bannockburn, on the raised beach above the River Forth, people dug pits that held posts to form two sub-rectangular enclosures during the first half of the fourth millennium BC (Rideout 1997). The irregular lines of the enclosures indicate that they were constructed as short lengths of pits (*ibid*, 1997, 34 and 40), perhaps over several phases.

Cursus monuments are generally interpreted as social projects that were created to define or frame ceremonial activities. The linear nature of the monuments originally prompted interpretations that their uses included procession through the landscape. However, it has increasingly been recognised, in part due to their often segmented or phased nature, that the building of these monuments was as important to how they were understood as their final forms (Barclay and Maxwell 1998, 113–15; Barclay *et al* 2002, 240–1). The cursus monuments at both Cleaven Dyke and Bannockburn may have been constructed over several phases, and the variation in ditch width at Drylawhill indicates segmented construction (Armit 1993). Such construction may have been intermittent and piecemeal, over a long period of time. Similarly, the multiple ditches at Westfield suggest a temporally extended project, perhaps the re-inscribing of the monument five times through the landscape. Cursus

monuments therefore had meanings created during their construction and other meanings generated through their use; these must have been intertwined, however, as clearly the initial builders of each monument had a vision of its final form.

All three cursus monuments in the Lothians were set on or at the edge of the coastal plain. People intermittently came to these places, creating linear monuments that marked transitions between one part of the landscape and another, between locations for the daily routines of the communities that inhabited them. Members of these communities probably came to the cursus monuments at times for other purposes that are less archaeologically visible. Perhaps, as has been suggested for causewayed enclosures (for example, Evans 1988), the monuments were used temporarily to corral cattle before exchange or feasting involving different communities. At other times, groups or individuals may have crossed these transitional zones on their way to other places such as Pencraig Hill and Eweford West.

Moving to the uplands: The long cairns of south-east Scotland

Another way in which communities marked significant places and perhaps routeways in the fourth millennium BC was by building long cairns. Possible long cairns are known in three places in the region: two on the Lothian coastal plain, an apparently isolated site to the south of the Lammermuir Hills and a small cluster to the south-west of the Lothians, in the northern part of the Southern Uplands. Whether these cairns seal earlier phases of timber and earthen construction, as at for example Lochill (Masters 1973) and Slewcairn (Masters 1981), is not clear, but it must be considered a possibility until it is disproven. Closer examination of the distribution of these sites suggests that they, like the cursus monuments, were built at transitional points in the landscape.

The apparently isolated long cairn of Mutiny Stones (Henshall 1972, 404–6; see Figure 8.10) was built in a spot that refers to a wider area beyond to the south-west, with views to a prominent peak and a river which ultimately flows to join the River Tweed. It lies on the southern fringes of the Lammermuir Hills and has limited views of the wider area, with local topography preventing wider views to the west, north and east. There are more extensive views to the south; the Dye Water is obscured in that direction, but the long cairn is orientated on a small burn that runs south to join it just over a kilometre away. The most dominant feature around is the peak of Dirrington Great Law, about 9km distant.

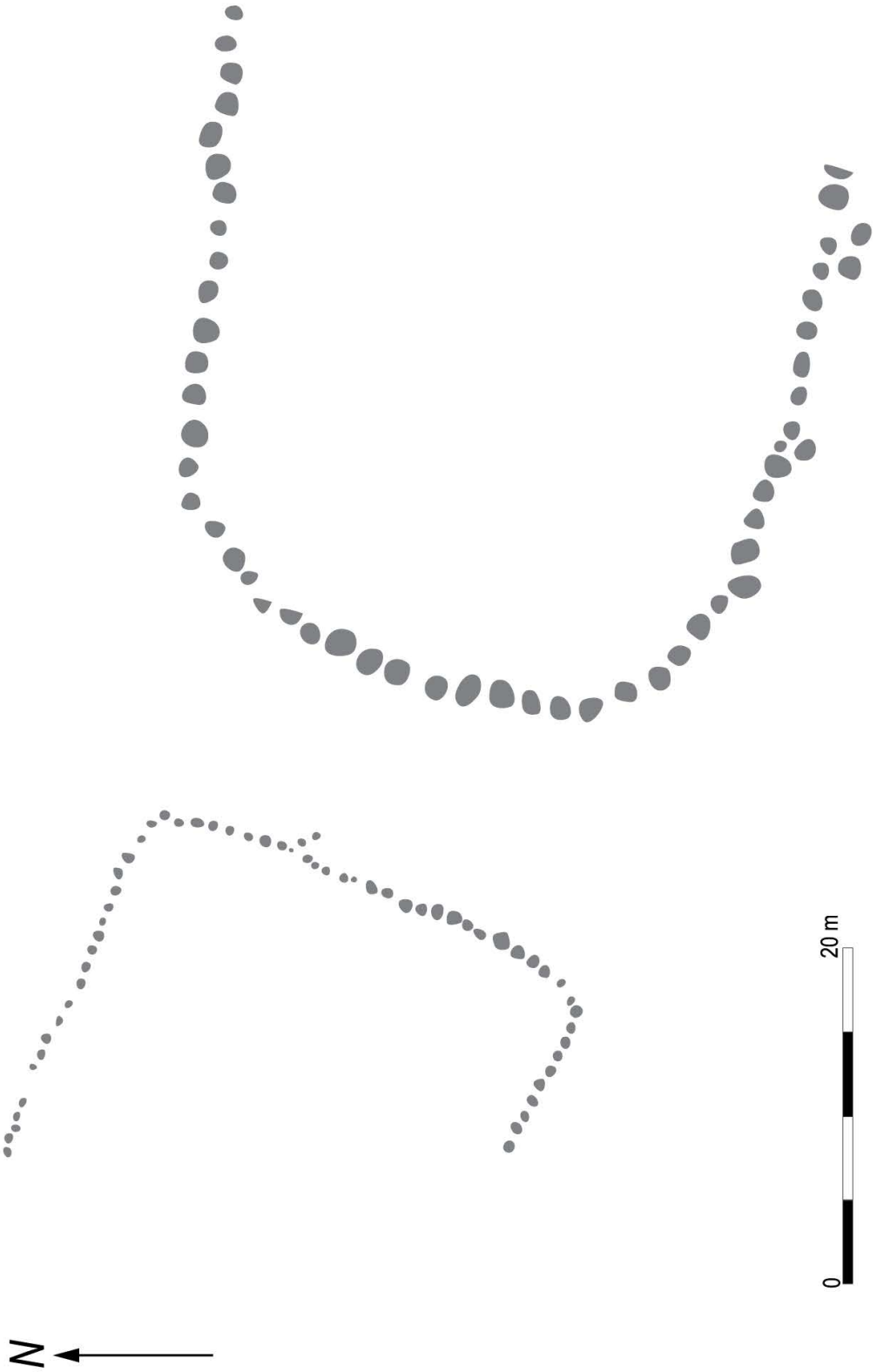
Three long cairns, at Harlaw Muir (Henshall 1972, 468), Dunsyre (NMRS no: NT04NE 19) and Greensmoor (Henshall 1972, 458–60), lie to the south-west of the region (Kinnes 1992, 17), in a place where different kinds of natural environment intersect and change (Figure 8.10). The relationships between these sites and their landscape contexts illuminate how they were understood in the past. From the Lothians, the Esk Valley leads up to the Harlawmuir Burn, headwater for the River North Esk, which runs to the north of the long cairn on Harlaw Muir. To the south, Cairn Burn runs west for 5km to join the Lyne Water, which in turn joins the River Esk about 15km to the south. The long cairn is orientated broadly south-west to north-east, reflecting the orientation of the two burns which flow about a kilometre apart in opposite directions. Forestry precludes certainty, but the slopes of Auchencorth Moss probably obscured views to the east. To the west, there were probably extensive views to Mendick Hill and Brown Hill; the route between them leads to Dunsyre.

Dunsyre long cairn lies at the southern end of the Pentland Hills, with extensive views to the Southern Uplands. It is positioned so that Dunsyre Hill forms its backdrop to the south-west, while views to the north-east extend to a network of burns meandering through the hills. The burns flow to the south-west, feeding the South Medwin, which in turn flows into the River Clyde.

The third long cairn lies about 6km to the west of Dunsyre at Greensmoor, on the south-eastern edge of the Pentland Hills. A chambered cairn lies less than a kilometre to the east. The monument at Greensmoor has a north/south orientation, unusual for long cairns, but perhaps explicable through its landscape context and proximity to the chambered cairn. Like Harlaw Muir cairn it was set between two burns, the Westruther Burn and North Medwin, which flow north to south. These converge a kilometre and a half to the south of the monument, then flow for another 4km to become the Medwin Water where it converges with the South Medwin.

These three long cairns seem to have been positioned in relation to waterways, and with an awareness of the places from which they derive and to which they flow. Inhabited places are bounded entities, discernible and limited in human terms. In contrast, rivers transcend places; they originate as obscure headwaters in upland contexts, meander as burns and flow as rivers through different places to reach the sea, where their identities are immersed.

The building of long cairns probably came late in a long sequence of activities at these sites, based on evidence from other, similar sites (Kinnes 1992). In contrast to the upland examples, the two possible long cairns in the Lothians lie close to the coastline, at the margin between land and sea, another transition point. The capping of cairns as visible statements of place may have formally marked claims to these marginal places. Here perhaps we



8.10 Plan of the excavated portions of the cursus monuments at Bannockburn (after Rideout 1997).

see how particular places not only represented distinct locales, but also boundaries, parts of larger entities or nodes on journeys.

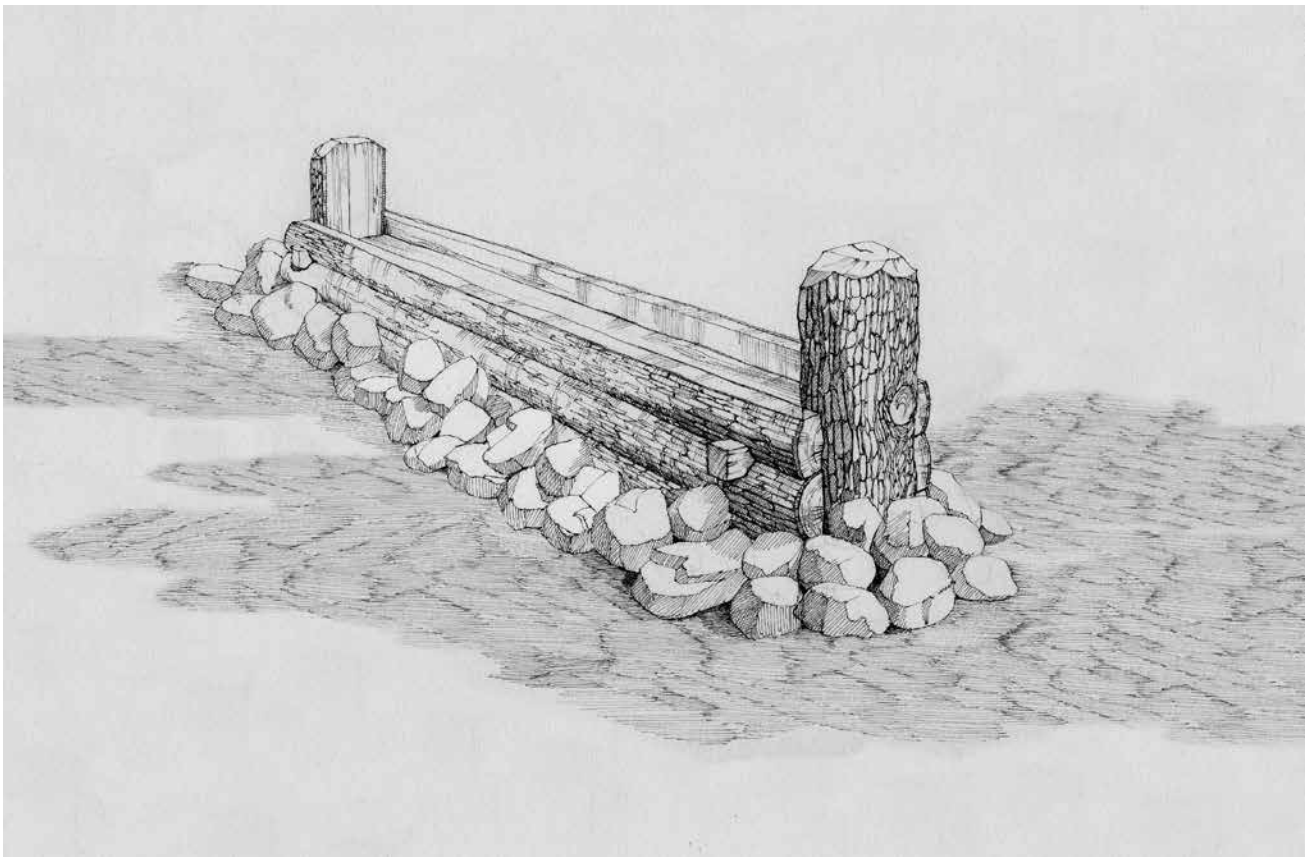
Moving from sea to hill

We have explored different arenas of social practice, dating from the ninth to the fourth millennia BC, with evidence from the Lothians and beyond. Even though the evidence is partial and sparse, it is still possible to discern the general character of life during this long period.

Before the fourth millennium BC, communities seem to have moved around the region in complex cycles and patterns, probably using different structural forms that were suited to different lengths and types of dwelling. The evidence suggests that these cycles were varied, with some groups exploiting the coast and others focusing more on inland and upland resources. Certain places probably became fixed in communal memory as spots where buildings had previously stood or where raw materials could be obtained.

There is sufficient evidence from the region to suggest that immigrants arrived from the Continent early in the fourth millennium BC and introduced new ways of engaging with the land, ways which had a greater impact upon the environment. Trees were felled to create clearings for fields and to obtain timber to construct ceremonial monuments and dwellings. Ground was broken and stones cleared to plant crops. While these effects may have been limited and piecemeal, the changes would have been tangible, and ultimately over several generations they began to transform the character of the landscape.

These changes were mirrored by changes in the social landscape. Clearings may have formed the focus for new social arenas: dwelling structures or communal halls like the possible examples at Ratho, Whitekirk or Doon Hill; mortuary structures and enclosures at Pencraig Hill and Eweford West (Figure 8.11); long cairns at Eweford and the Mutiny Stones, and cursus monuments at Drylawhill and Westfield. It is clear that these arenas did not develop in isolation, but were built by communities who possessed shared, wider knowledge of how things should be done.



8.11 Reconstruction of the mortuary structure at Eweford West.

The arenas emerged in a context of geographically wider traditions, expressed through a common architectural vocabulary, which probably spread through the travel of people or ideas across regions.

The locations of these sites are significant; they are unlikely to have been selected at random, but for the meanings already associated with them. They were chosen not only for their associations with earlier activity, but also for their relationships to other places. For example, it is striking that the three possible fourth millennium BC sites in the vicinity of Dunbar (the timber halls at Whitekirk, the cursus at Drylawhill and the mortuary structures and subsequent mound at Eweford West) were all positioned with views to the Tyne Sands and Belhaven Bay – the largest bay in the area, and perhaps the spot where people first arrived with cattle, cereals for cultivation and knowledge of pottery production.

Those living in the Lothians during the fourth millennium BC belonged to wider communities that developed around the Forth estuary and beyond. They made or renewed contacts with other settlers, who established groups elsewhere along the eastern coast. Their exploration and contacts with indigenous groups led to new understandings of the landscape. They learned to follow pathways into the Southern Uplands, to the networks of exchange by which they could obtain raw materials like pitchstone and chert. Subsequent generations made more permanent marks on the land. They marked transitional points by building long cairns in the Southern Uplands, at points where they could see different environments to the south. At times, members of individual communities may have used these places, while at others various communities from different areas may have used them jointly. These different uses may have been ordered or socially regulated, and may have created longer rhythms of practice extending over years and generations.

We have also explored how people began using artefacts in ways that did not involve mere disposal of rubbish, but disposal according to certain conventions about what was appropriate to deposit, in what manner, in different arenas. These conventions may have emerged as a means of controlling vital forces that were perceived as stemming from the processes of transformation that created the artefacts. These traditions clearly developed from a blend of old and new technologies – for example, in combinations of pottery and pitchstone. The evidence for Mesolithic activity followed by fourth millennium BC ceremonial activity at sites such as Pencraig Hill and Eweford West could be construed as indicating the deliberate imposition of a new order on an aboriginal landscape; alternatively, it suggests a sharing of knowledge of older pathways and places.

The conventional ways in which artefacts were deposited, the strong prevailing aesthetic sense and the use of an architectural vocabulary suggest that there were formalised ways of behaving which extended into all spheres of life. Why did this suite of conventional behaviours emerge at this time? Perhaps it was because people were acquiring and developing new sets of skills relating to the tending of livestock and the growing of crops. These skills required different kinds of intervention with the land and its rhythms to bring about successful results. Yet success was not guaranteed in the face of factors beyond communities' control, such as drought or disease, and in those scenarios people may have fallen back on old ways to acquire food, skins for clothing and bones for tools; if these old resources were not plentiful, communities would go hungry and the weak would die. They may have resorted to other forms of intervention, hailing the help of spirits or appeasing the anger of ancestors, by observing particular rites that involved drawing together, manipulating and depositing potent materials.