Society of Antiquaries of Scotland

Anatomy of an Iron Age Roundhouse

The Cnip Wheelhouse Excavations, Lewis

Ian Armit

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Chapter 1

Introduction

It is rare for an archaeological excavation, at least in northern Europe, to discover a previously unknown prehistoric building with elements of its roof still intact. Yet that is what happened at Cnip, on the west side of Lewis over Easter 1988 (Ill 1.1). Six weeks of increasingly frenetic digging gradually revealed the remains of a small Iron Age settlement from its construction in the final centuries BC, through its modification, decline and eventual abandonment around the third century AD. This report tells the story of that excavation and explores the ways in which the results help us to understand the nature of Iron Age life in the Western Isles and beyond.

1.1 BACKGROUND TO THE EXCAVATION

The excavations at Cnip formed part of a wider programme of survey and excavation carried out in Lewis by Edinburgh University's Calanais Archaeological Research Project (cf Harding & Topping 1986; Harding & Armit 1990; Harding & Gilmour 2000; Harding & Dixon 2000). Unlike other elements of the project, however, the work at Cnip was organized in response to a sudden and direct threat to the survival of the site, and was largely funded by Historic Scotland and its predecessor organizations as part of their Rescue Archaeology programme.

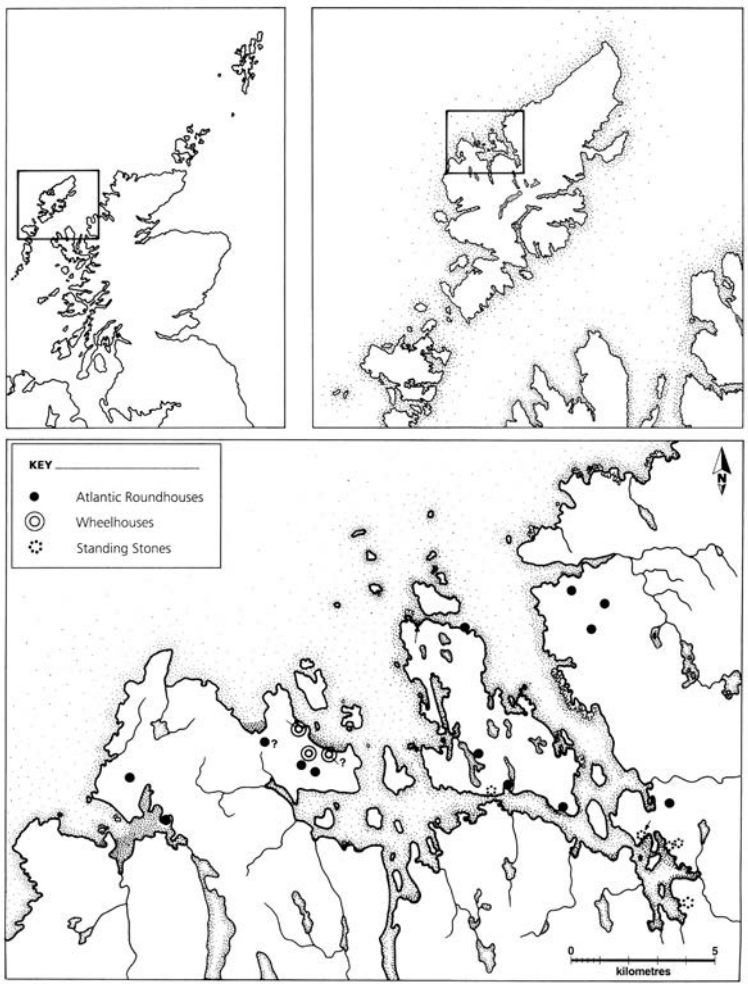

ILLUSTRATION 1.1
Location map.

ILLUSTRATION 1.2
The beach section, seen from the east during initial recording, Easter 1986.

The site first came to archaeological attention during Easter 1986. During the holiday period a steady stream of visitors passed through the excavations at the Loch na Beirgh broch tower on the Bhaltos peninsula, then being conducted by the Calanais Archaeological Research Project (CARP). Among the visitors were Mr and Mrs Leviseur from the neighbouring township of Cnip, who happened to mention that the severe winter gales had caused substantial erosion of the sand dunes fringing the beach in front of their house. This erosion had apparently revealed a mass of collapsed masonry and dark sand. As the site in question lay just 1.5km north of the Loch na Beirgh site, and well within the CARP study area, a site visit was clearly in order.

An inspection quickly confirmed the initial suspicion, that the stonework and dark soil represented a potential prehistoric structure and accompanying midden, eroding onto the beach. A small collection of largely unstratified material, including characteristic Middle Iron Age pottery, gave a broad indication as to the likely date of the structure. At the end of the season's work at Loch na Beirgh, therefore, it was decided to clean, straighten and record the section in order to assess the nature of this new and intriguing site.

A couple of days spent recording the section revealed an apparent concentration of activity within a band at least 26m long and 1m deep (Ill 1.2). The south-eastern part of the section seemed to represent the collapsed dry-stone wall of a building, while the north-western part was largely free of stones and seemed more likely to represent former midden and cultivated soil (Armit 1986). The initial hypothesis, that this section represented the wall of a wheelhouse which had only just begun to be exposed, was to prove more or less accurate, and subsequent work on the site was carried out in the light of this interpretation.

From its initial discovery it was clear that this was a site under severe threat. Reliable local reports suggested that at least 2.5m of the sand dunes along this part of the beach-front had been lost to tidal erosion in the previous two years. There was considerable worry locally about the effects that this movement of the coastal dunes would have on the houses closest to the sea, one of them less than 15m from the exposed erosion face. Initially, however, it appeared that there was no way in which this site could be manageably

excavated, as the overburden of sterile windblown sand would have been hugely cumbersome to excavate, while its removal would potentially have de-stabilized the area still further.

Matters were brought to a head during 1987, when Comhairle nan Eilean announced plans to address the precarious situation on the Cnip beach-front by building a protective sea-wall along the worst affected area, at the south-east end of the beach. While this was clearly the best answer for the preservation of the modern houses, however, the cutting-back required to build the sea-wall would involve the loss of a large part of the archaeological site. Worse still, from the archaeological point of view, the plan also involved the emplacement of a sewerage trench behind the sea-wall, adding further to the loss of archaeological deposits.

In order to assess the likely impact of these works a trial excavation was arranged in September 1987 to examine an area behind the dune-front (Ill 1.3). Examination of a single trench, some 10m by 6m, established that the area due for destruction did indeed contain archaeological deposits. This exercise not only appeared to confirm the earlier interpretation of the site as a wheelhouse but also produced evidence of a later, linear structure provisionally interpreted as a souterrain (Harding & Armit 1987). Further finds reinforced the earlier view that the structures were of Iron Age date.

These results clearly indicated that this was a site of some complexity and importance, particularly in view of its potential relationship with the nearby excavated sites of Loch na Beirgh and Dun Bharabhat (Harding & Gilmour 2000; Harding & Dixon 2000). The scale of work required, as well as the timescale of the proposed construction operations, meant that the excavation, if it was to happen at all, could not be accommodated within the normal workings of the CARP. An application for funds was therefore made to the Historic Buildings and Monuments Division of the Scottish Development Department (henceforth referred to by the name of its successor body, Historic Scotland).

Once funding had been secured, an initial season of excavations, with a team of 11 excavators, was arranged from 21 March to 14 April 1988. The extraordinary quality of preservation of the dry-stone structures on the site was such that a follow-up excavation season was required. Consequently a new team of 11 was despatched for a further three weeks, from 3 to 21 May 1988.

Excavations in 1988 were concentrated on the area behind the proposed sea-wall and in the path of the proposed sewerage trench (Ill 1.3). The nature of the threat, together with the limited time and resources available, dictated the excavation strategy. A single trench, approximately 16m by 15m in its final form, was opened over the threatened area, with the initial aim of complete excavation. The deep overburden of sterile sand was removed by a Hymac supplied by the site contractor, with the blessing of Comhairle nan Eilean, and the debris was dumped forward onto the beach (Ill 1.4). The exposed archaeological layers were then excavated entirely by hand.

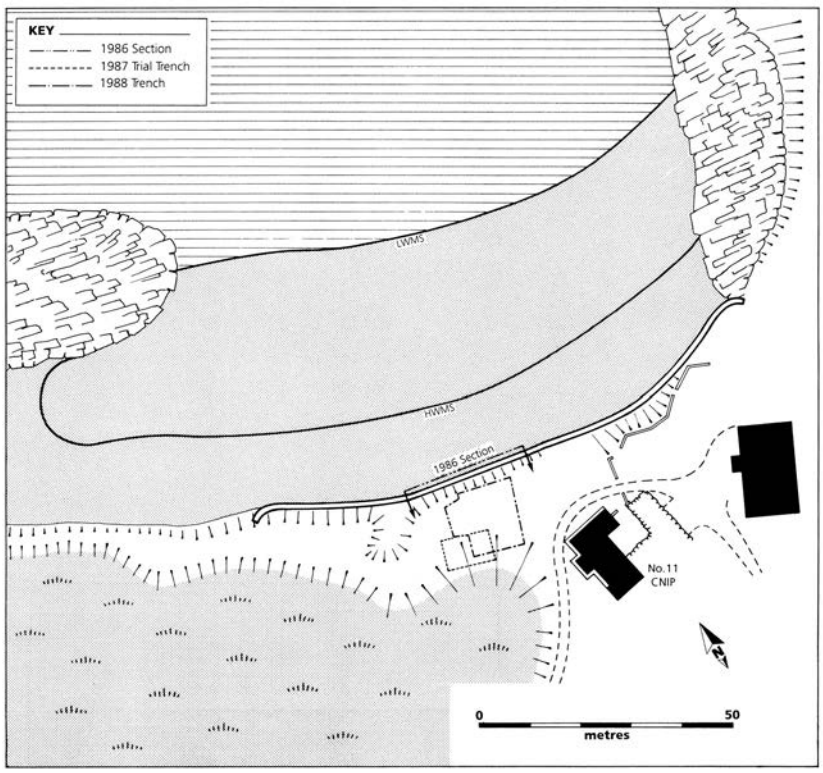

ILLUSTRATION 1.3
Location of the excavations (showing 1986, 1987 and 1988 work).

ILLUSTRATION 1.4
Traigh Bhaltos, during the excavation: the site lies behind the mounds of dumped sand which project onto the beach.

There was little scope for active decision-making in the placing of the trench. Its south-eastern extent was restricted by a sharp rise in ground level, approaching the drive-way of No 11 Cnip, a croft-house situated worryingly close to the area of excavation (Ill 1.5). Further buried structures may well lie under this and other modern houses to the east and south-east of the excavated areas, but they are entirely inaccessible.

The north-east edge was limited by the coastal erosion face and a baulk had to be left, around 2m wide, to prevent the dumped sand overburden from being blown or washed back into the trench. This had the unfortunate effect of dissociating the observations made in the 1986 section from the main excavated sequence (the 1986 section has been deposited in the site archive, but is not discussed further in this report). Local reports of 'black soils' on the beach-front hint that much had been lost to the north-east over previous decades, but whether this included buildings as well as midden material is unclear.

The north-western and south-western edges were the areas where further extensions could have been made had resources permitted. However, the trench as opened scored a more or less direct hit on a coherent and richly preserved group of structures, while evidence of structures and deposits seemed to fade away both to the north-west and south-west (as indeed the 1986 section recording had suggested: Armit 1986). Although we could not discount the possibility of further remains in these directions, the excavation had quickly found its focus and further extension would have been unmanageable in the time available. A further concentration of structures of probable prehistoric date certainly does lie a short distance along the beach to the north-west (Armit & Dunwell 1992), but there does not appear to be

any surviving physical link between the two sites. Furthermore, any structures and deposits which do exist to the immediate north-west and south-west of the excavated area will probably have survived the subsequent construction operations on the site and will be available for future work.

Within the single excavated trench we had more than enough to keep us busy (Ill 1.5). The site eventually produced two wheelhouses, one with parts of its roof intact (first identified in the 1987 trench), the other apparently unfinished (first identified in the 1986 section). It also produced a secondary settlement of cellular plan, and a final occupation represented by a rectilinear structure (the 'souterrain' of the 1987 excavations). At any one time all of the buildings on the site were accessible from each other and appear to have formed a single settlement unit.

During the course of the excavations, as the exceptional condition of the site became apparent, consideration was given by Comhairle nan Eilean and others to its consolidation and preservation. The excavations generated considerable local and national publicity and a continuous stream of visitors meant that, for the second season at least, at least one team member had to be on duty at all times to give site tours and to stop over-curious visitors from disappearing into gaping voids in the Iron Age masonry. In the end, however, the impracticality of preserving unstable dry-stone masonry backed into dry, unconsolidated sand meant that the original plans were followed through to completion. Following excavation, therefore, the site duly received its sewerage pipe and the northern part of the trench was quarried away to hold the new sea-wall. Nothing is visible of the site today and the masonry buildings have been largely destroyed. An important exception is the section of preserved wheelhouse roof, comprising two corbelled bays, which has hopefully been preserved by a slight diversion of the sewerage pipe. It is also possible that the lowest levels of the principal wheelhouse remain substantially intact, together with their unexcavated primary floor deposits.

1.2 AIMS AND LIMITATIONS

The aims of the excavations at Cnip were largely dictated by circumstances. This was a rescue excavation in the truest sense, with anxious contractors peering over the excavators' shoulders throughout. Despite the preliminary works in 1986 and 1987, the organization of the main excavations had to be carried out at short notice and before we had real any idea of the quality of structural preservation likely to be encountered.

The initial intention was simply to unravel what was already recognized as a potentially complex stratigraphic sequence, and to characterize the various buildings present, as from the 1987 work it had been apparent that more than one structural type was represented. The dating of the various structures, both relative and absolute, was a priority from the beginning, not least because of my then ongoing research into the later prehistoric structures of the islands (subsequently published as Armit 1992). The recording and analysis of constructional techniques was another primary objective which assumed even greater significance

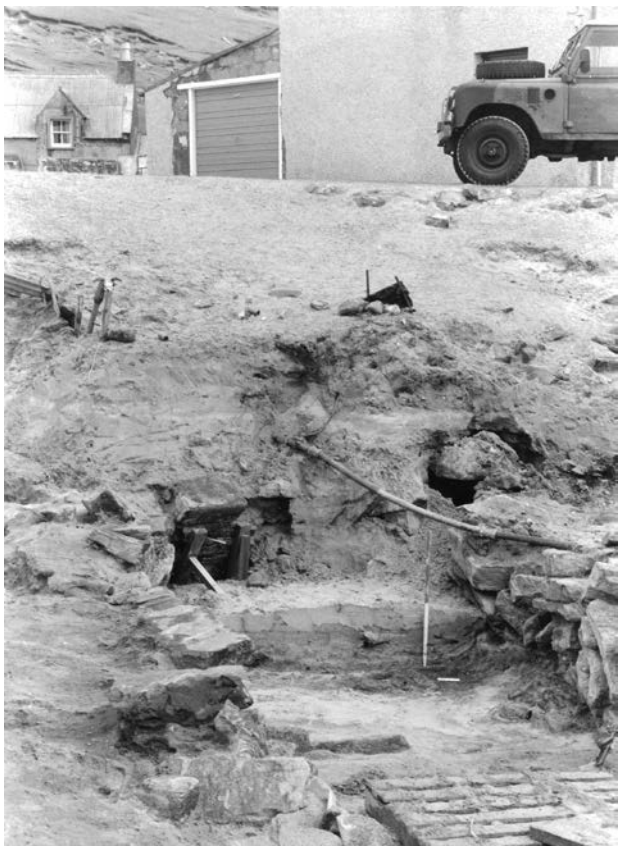

ILLUSTRATION 1.5
The initial discovery of the corbelled cells after the machine removal of the upper blown sands. The voids of the empty cells can be seen towards the centre of the photograph, and the upper front of one bay is propped up with wooden stobs. Compare this photograph with Ill 6.5 which shows the upper parts of the bays partially excavated. Note also the proximity of the house and drive-way. The water-pipe which spans the cleared area had clipped the tops of the bay roofs.

once the extent of the preservation of the buildings was realized. The priority given to this element of the work lay in the intention, at that time, to embark on a programme of experimental building reconstruction as part of the CARP.

Other primary aims included the recovery of artefactual and ecofactual material which might expand our understanding not only of the Cnip wheelhouse site, but also of the wider cultural, social and economic changes which occurred within the Bhaltos peninsula during the Iron Age, complementing the accumulating evidence from Loch an Beirgh and Dun Bharabhat.

In these aims the project has been largely successful, particularly in terms of the evidence recovered for construction methods (especially for the wheelhouses) and for the detail in which it became possible to trace the development of the settlement. The dating evidence for all but the primary phases has proved immensely useful and has enabled the characterization of an artefactual assemblage which can be unusually closely dated. Evidence for the economic basis of the site has been both profuse and surprising (particularly with regard to the importance of red deer) and is especially informative when combined with the results from other sites in the Bhaltos peninsula. There are, however, limitations in the range of data resulting from two inter-related factors: firstly, and rather ironically, the high degree of structural preservation; and secondly, the pressure on time and resources during fieldwork.

It became apparent after only a few days excavation that the survival of the buildings at Cnip was far greater than could reasonably have been expected.

ILLUSTRATION 1.6
This photograph shows the cramped and rather precarious working conditions inside Wheelhouse 1 and gives some idea of the scale of the surviving stone elements.

ILLUSTRATION 1.7
This photograph, taken shortly after the machine clearance of the sand overburden, shows the process of cleaning back to reveal the tops of the stone structures.

The site boasted not one but two wheelhouses, one of which had parts of its roof intact. Furthermore, the 1987 'souterrain' was found to be a presently unique rectilinear structure intact to its wall-head. Various elements of the cellular complex also had intact roofs, and the preservation of masonry was complemented by deep and clearly stratified accumulations of sediment, rich in both bone and pottery. A total excavation period of around six weeks with a maximum of 11 people was by no means enough to do full justice to a site preserved on this scale, and prioritization was inevitable.

The time of year was a further hindrance, although the weather was, sometimes, kinder than we had any right to expect. At other times the excavation team was sand-blasted and soaked, either sequentially or simultaneously, and walls and sections periodically abandoned themselves to gravity before they could be fully recorded. Such losses of information were not devastatingly serious, but they did occur, and will be mentioned as appropriate throughout the report.

It was realized early on that the total excavation of the principal wheelhouse (Wheelhouse 1) was an impossibility given safety problems associated with the towering pillars of unstable masonry, aside from any question of the resources required (Ill 1.6). For example, deposits within the two wheelhouse bays which retained their original corbelled roofs could not be excavated for obvious safety reasons. Excavation concentrated, therefore, on those elements due for complete destruction, essentially the upper masonry and upper floor levels. The earliest deposits were sampled in specific parts of the main wheelhouse, but much of this material remained out of reach. As a result, the project does not present any significant new evidence for the primary spatial organization of the main wheelhouse, beyond a few superficial observations (although there is important evidence for the differential use of space across the settlement in Phase 2). While this is undoubtedly a weakness the quality of the evidence for other aspects of the site's development, notably the construction methods and the development of the settlement from its primary form through several phases of use, perhaps makes up for this inevitable omission.

The survival of upstanding masonry imposed significant restrictions on working space, and caused

innumerable safety problems. In many cases structural elements had to be dismantled to prevent catastrophic collapse, occasionally before full recording by plan and section was possible. Aside from one or two of the principal site sections, which were maintained throughout, sections had generally to be established to address specific questions at specific points during the excavation. In several cases it did not prove possible to extend existing sections downwards because of the appearance of unexpected masonry, or the need to reduce working areas for safety reasons. This has resulted in several cases where composite sections have had to be constructed, with non-contiguous elements 'projected' on (see especially Ill 2.20). This is noted wherever it occurs and should generally present no problems of interpretation.

A further potential limitation has been alluded to earlier, that is, the restricted nature of the excavated area. The area of the excavation was almost wholly filled by domestic buildings, leaving little or no room for the exploration of outbuildings, activity areas and midden deposits (Ill 1.7). This restriction must be borne in mind when considering the evidence from the excavations, and in particular the taphonomy of the finds. The degree to which this limits interpretation will be discussed in the appropriate sections later in the report. Probably, however, little would have been gained from the extension of the excavation in those areas (the north-west and south-west) where extension was a possibility. As we will see, the excavated area at Cnip represents a part, and possibly the major part, of an Iron Age settlement which can best be regarded as either a single developing settlement unit, or, less likely, as a distinct and discrete element within a larger settlement. At each phase of occupation the buildings seem to have formed a self-contained unit. Neither the 1986 section, nor superficial examination of modern drains and other disturbed areas in the vicinity of the excavations, suggest that much survives in the areas immediately beyond the main trench.

1.3 THE HEBRIDEAN WHEELHOUSE

Wheelhouses are Iron Age dry-stone roundhouses, commonly dug into sand-hills or the ruins of former buildings, but occasionally free-standing. What makes them distinctive is their characteristic spatial organization: a series of internal stone piers radiate from a central area containing the hearth (Ill 5.1b). In plan this arrangement resembles a spoked wheel, hence the early adoption of the term 'wheelhouse'. In some cases the stone piers were bonded into the outer walls while at others there was an intervening gap or 'aisle', leading to the occasional use of the term 'aisled roundhouse'. The similarities between these two sub-groups far outweigh this single constructional difference and the term wheelhouse has usually been preferred.

The term wheelhouse has seldom been closely defined. At its loosest it has been used to refer to a highly disparate collection of more or less radially partitioned buildings from across Atlantic Scotland (Crawford 2002). The more conventional usage is restricted to those buildings where a regular arrangement of radial dry-stone piers both divides the floor into a series of regularly sized, peripheral rooms or bays, while at the same time forming the principal roof supports of the building. It is this intermarriage of architecture and spatial patterning which distinguishes wheelhouses, in the sense used here, from other groups of cellular buildings in Atlantic Scotland.

Although wheelhouses can be identified as a coherent architectural phenomenon, they also lie within much longer-lived traditions of vernacular architecture in Atlantic Scotland. From the Neolithic to the end of the Pictish period, domestic buildings in this region were essentially cellular in layout. Separate cells, bays or rooms were demarcated using dry-stone walling or upright slabs to create a fragmented living space. Buildings were characteristically thick-walled and low to the ground, thus conserving heat and offering the roof a limited measure of protection from the wind. The cellular layout minimized the spans of timber required for the roofing of any one section (especially important given the likely reliance on driftwood in parts of the region), while the smaller cells could in some cases be roofed entirely by corbelling. Overall the buildings were well-insulated, wind-resistant and made minimal demands on scarce supplies of timber. All of these tendencies are present to some extent in the wheelhouse tradition.

Wheelhouses are apparently confined to two island groups: the Western Isles, where numerous examples have been excavated, and Shetland, where the sequence at Jarlshof provided the original 'type-site' (Hamilton 1956). Their absence from Orkney is all the more striking considering the substantial amount of work carried out in those islands and must, presumably, reflect a real divergence of settlement development between neighbouring parts of Atlantic Scotland in the last centuries BC. Indeed the appearance of wheelhouses in the Western Isles was

more or less contemporary with the emergence of the major Orcadian broch villages, such as Gurness and Midhowe (Armit 2003), which themselves have no counterparts in the west.

In both Shetland and the Western Isles wheelhouses are broadly successive to the patterns of Early and Middle Iron Age settlement dominated by broch towers and other Atlantic roundhouses (Armit 2005). However, there is strong emerging evidence from the current excavations at Old Scatness to suggest that wheelhouses in Shetland may extend much later in date than those of the Hebrides (Dockrill pers comm), perhaps into the second half of the first millennium AD. This is clearly not the case for the Hebridean wheelhouses which, as we shall see, are essentially a Middle Iron Age phenomenon with a floruit around the last centuries BC and first centuries AD. For present purposes, therefore, discussion will be confined to the Western Isles.

Antiquarian investigation of wheelhouses had apparently begun by the middle of the nineteenth century, with the first recorded intervention being the 'opening' of a probable example on South Uist by the local landowner's son in 1855 (Dryden 1857). More significant was the work of the naval officer and pioneering antiquarian, Captain FWL Thomas (Thomas 1870), whose survey of the well-preserved upland site at Usinish, also in South Uist, provided the first detailed record of a Hebridean wheelhouse. Things began to move more rapidly in the early twentieth century with the arrival in North Uist of Erskine Beveridge, a wealthy incomer who built his home on

TABLE 1.1
Hebridean wheelhouses: principal excavated sites (in chronological order of excavation).

Name	NGR	Location	Island	Excavator	Date of Excavation	Reference
Eilean Maleit	NF 7748 7388	Machair	North Uist	Beveridge	1900s	Beveridge 1911
Cnoc A Comhdhalach	NF 7708 7413	Machair	North Uist	Beveridge	1905–07	Beveridge 1911
Sollas (Machair Leathann)	NF 8035 7577	Machair	North Uist	Beveridge	1906	Beveridge 1911
Foshigarry	NF 7430 7636	Machair	North Uist	Beveridge	1911–14	Beveridge 1930
Garry Iochdrach	NF 7724 7427	Machair	North Uist	Beveridge	1912–13	Beveridge 1931
Bac Mhic Connain	NF 7695 7620	Machair	North Uist	Beveridge	1919	Beveridge and Callander 1932
Clettraval	NF 7489 7136	Moorland	North Uist	Scott	1946–8	Scott 1948
Calum MacLeod's wheelouse	NB 1021 3564	Machair	Lewis	MacLeod	1950s	Armit 1991, Ref W.2
A Cheardach Ruadh	NF 7763 6157	Machair	North Uist	Scott	1950s	Scott 1956
Tigh Talamhanta Allasdale	NF 6768 0220	Moorland	Barra	Young	1950–3	Young 1952
Kilpheder	NF 7327 2026	Machair	South Uist	Lethbridge	1952	Lethbridge 1952
A Cheardach Bheag	NF 7577 4037	Machair	South Uist	Fairhurst	1956	Fairhurst 1971
A Cheardach Mhor	NF 7571 4128	Machair	South Uist	Young and Richardson	1956	Young and Richardson 1959
Bruach Ban	NF 7870 5661	Machair	Benbecula	Scott	1956	Armit 1991 Ref W.12
Bruthach A Tuath	NF 7870 5661	Machair	Benbecula	Wallace	1956	Armit 1991 Ref W.13
The Udal	NF 8242 7843	Machair	North Uist	Crawford	1963–90s	Crawford 1967/78, 1975, 1985
Hornish Point	NF 758 470	Machair	South Uist	Barber	1981	Barber 2003
Balelone	NF 719 741	Machair	North Uist	Barber	1983	Barber 2003
Cnip	NB 0980 3665	Machair	Lewis	Armit	1986–8	Armit 1988, this volume
Kildonan	NF 728 285	Machair	South Uist	Zvelebil	1989–91	Zvelebil 1991
Bagh nam Feadag	NF 8666 5735	Moorland	Grimsay	Ashworth	1993–7	McKenzie 2005
Allt Chrisal	NL 6418 9776	Machair	Barra	Foster	1996–8	Foster 1998

the tidal islet of Vallay. By the time of his death in 1917 Beveridge had excavated numerous archaeological sites in and around the Vallay Strand, including several wheelhouses (Table 1.1). In fact it is due almost entirely to Beveridge's activities that this part of North Uist remains the densest area of the Hebridean wheelhouse distribution. Beveridge's legacy, however, was one of quantity rather than quality: following the antiquarian tradition of the preceding century his excavations were carried out largely by unsupervised estate staff, and recording was rudimentary at best.

From the 1930s a new wave of wheelhouse excavations began, and for the first time these structures began to be recognized as a distinct monument class in their own right. Sir Lindsay Scott, with his excavations at Clettraval (Scott 1948), was the first to place the Hebridean wheelhouses at the centre of the diffusionist debates of the time. Scott's successor, Alison Young, carried on his work, completing and publishing his excavations at Allasdale (1952), while T C Lethbridge excavated the well-preserved site of Kilpheder in South Uist (Lethbridge 1952). During the mid-1950s a proposal by the Ministry of Defence to establish a Rocket Range at the northern end of South Uist resulted in the excavation of numerous archaeological sites, including several wheelhouses (eg Young & Richardson 1960; Fairhurst 1971). These produced a wealth of new information although they did not fundamentally alter earlier interpretations, at least at the time. The most influential of the numerous 1950s wheelhouse excavations, however, was J R C Hamilton's work at Jarlshof in Shetland, where a sequence of wheelhouses was revealed, built over the ruins of a former Atlantic roundhouse (Hamilton 1956). The results from Jarlshof established the idea that wheelhouses generally post-dated Atlantic roundhouses; a view strengthened by subsequent work including the use of radiocarbon dating from the 1960s onwards (Chapter 5).

During the 1960s and 1970s there was a decline in the numbers of wheelhouses being excavated in the islands, although notable campaigns of excavation were pursued, for example by the Central Excavation Unit in the Uists (Barber 2003). Excavations of a multi-period site with a phase of wheelhouse construction at the Udal, in North Uist, have also continued over an extended period from the early 1960s (Crawford nd). It is probably fair to say, however, that both in terms of their academic study and popular recognition, wheelhouses were very much in the shadow of the more spectacular broch towers throughout this period (Armit 2003).

Despite this long tradition of excavation and study, the excavations at Cnip in 1988 represented the first archaeological excavation of a wheelhouse in Lewis. Since then there have been other excavations throughout the islands (Table 1.1), but more striking has been the discussion of wheelhouses on a more theoretical level, particularly focusing on non-utilitarian aspects of their use. Recent discussions, for example, have shown how wheelhouses represent the adoption of a form of 'inward-looking' monumentality quite distinct from the 'outward-looking' monumentality of the Atlantic roundhouses that precede them (eg Armit 1997). The apparent transfer of architectural impact from outside to inside seems to reflect wider changes in Hebridean society, possibly relating to shifting power relations and patterns of land tenure (ibid), or to a reduction in the perceived risk of violence.

There has also been considerable debate on the nature of the ritual activities conducted within wheelhouses, many of which involved the careful placing of animal and human remains in pits or wall cores (eg Campbell 1991; Armit 1996). The debate was spurred by Ewan Campbell's publication of R J C Atkinson's mid-1950s excavations at Sollas in North Uist, which had uncovered a large array of plainly non-utilitarian pit deposits within the floor levels of the wheelhouse (Campbell 1991). The cosmological principles which might have structured such activities have also been discussed (eg Parker Pearson & Sharples 1999), often within the context of wider debates on the nature of ritual and cosmology within the British Iron Age (eg Fitzpatrick 1997; Oswald 1997; Parker Pearson 1996b). It has been increasingly recognized that modern perceptions of geographical marginality should not be allowed to obscure the potential contribution of this region to wider understandings of Iron Age Britain and Europe. The work at Cnip contributes to each of these debates and interim publication of the results has already fed into several of them. It is in this wider context that the results of the excavations will be discussed in Chapter 7.

1.4 THE ARCHAEOLOGY AND ENVIRONMENTAL HISTORY OF BHALTOS

1.4.1 LANDSCAPE, LOCATION AND TOPOGRAPHY

The excavated site of Cnip lies on the Bhaltos peninsula which juts into West Loch Roag, in Uig Parish on the west coast of Lewis (Ill 1.8). The area has long been known as one of the most important archaeological

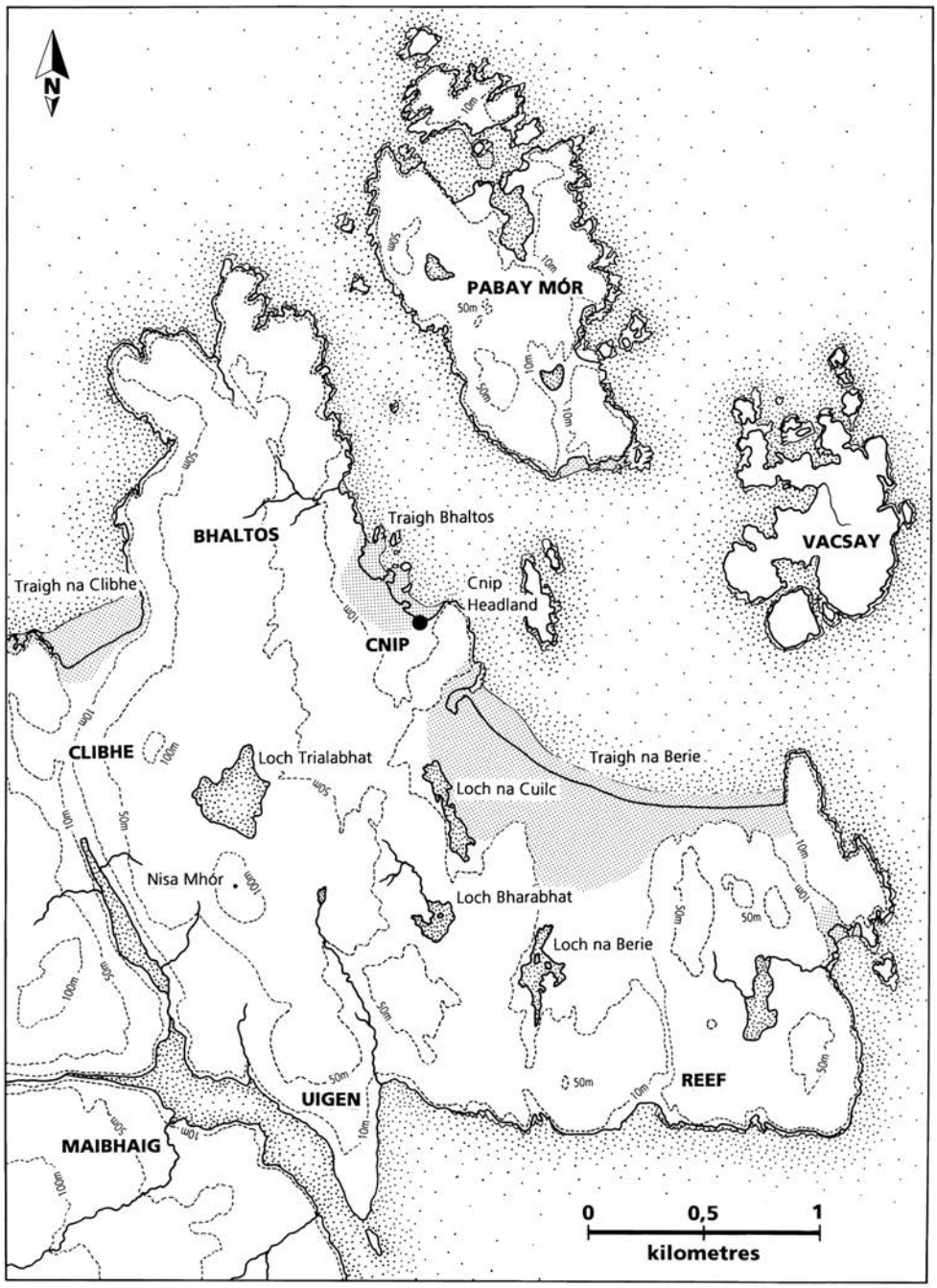

ILLUSTRATION 1.8
Bhaltos, showing places mentioned in the report.

areas in Lewis, and has a lengthy, if sporadic, history of archaeological investigation. Despite its small size, some 4km by 3.5km, Bhaltos is divided into a series of sharply delineated zones bounded by natural features. The core of the peninsula is formed by a series of low, rugged hills, rising to 136m at Nisa Mhor. The interior is generally ill-drained and unwelcoming peatland, with numerous outcrops of Lewisian gneiss and many small lochans, although signs of post-medieval activity, including occasional cultivation remains, can be seen in all but the most extreme areas. The excavated complex Atlantic roundhouse of Dun

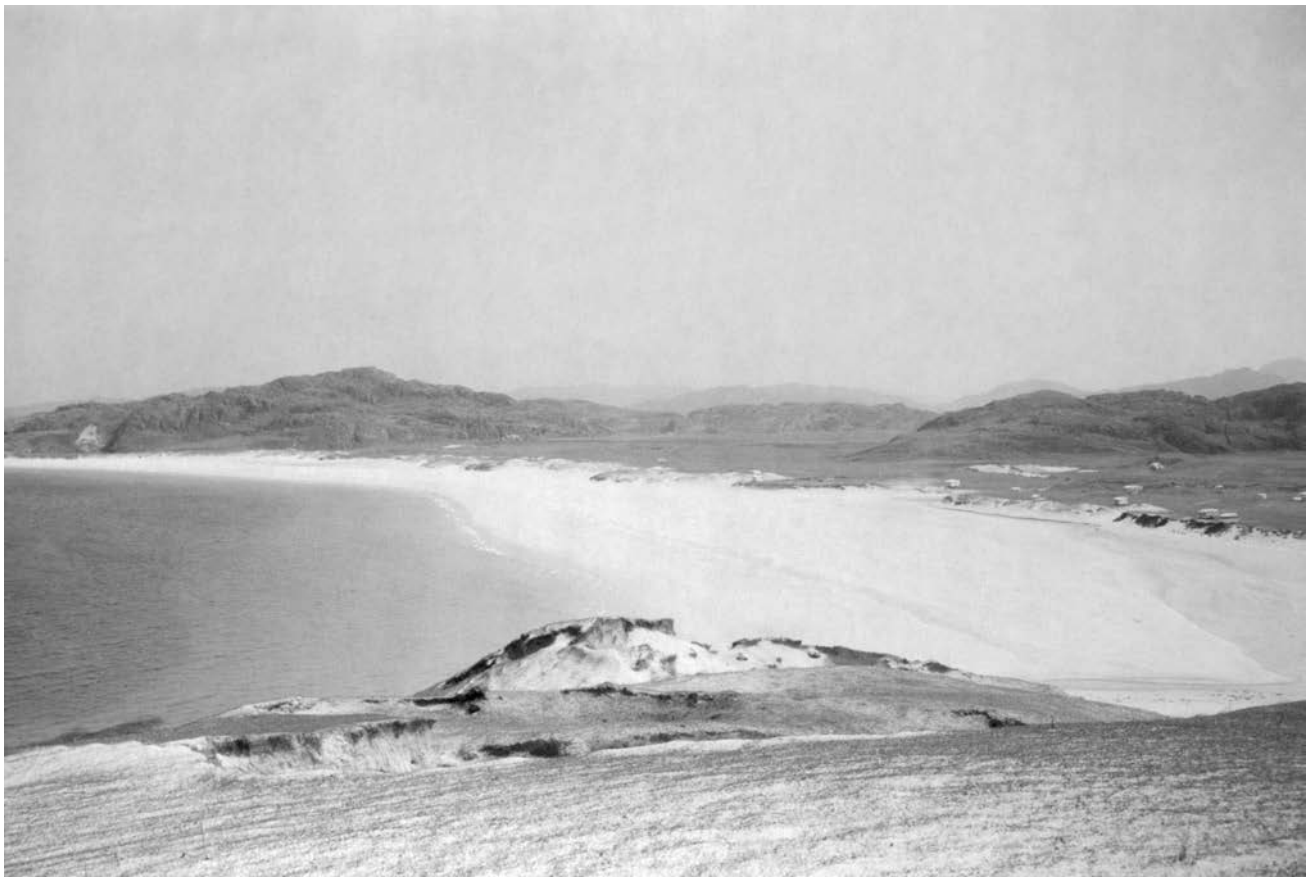

ILLUSTRATION 1.9
Traigh na Beirgh.

Bharabhat occupies one of these interior hill-circled lochans (Harding & Dixon 2000).

Most important from the archaeological perspective are the three main machair systems which back onto the hills. The largest, Traigh na Beirgh, is reminiscent of the more extensive machair plains which form the western fringes of Harris and the Uists (Ill 1.8–1.9). This broad, sheltered and exceptionally scenic beach fronts a strip of formerly cultivated machair plain, at the rear of which lies a series of clogged-up, marshy lagoons trapped against the foot of the hills. Traigh na Beirgh has produced considerable evidence for prehistoric settlement, including the long-lived and apparently high-status site of Loch na Beirgh (Harding & Gilmour 2000).

By contrast, the north-facing Traigh na Clibhe (Ill 1.8) is much smaller and more exposed. The hills behind the beach rise far more sharply than at Traigh na Beirgh, and leave considerably less land available for settlement. Traigh Bhaltos, on which the Cnip wheelhouse lies, is small like Traigh na Clibhe, but sheltered like Traigh na Beirgh. It fronts a moderately productive, though rather confined area of machair, now occupied by the adjoining crofting townships of Cnip and Bhaltos. It will be described in rather more detail below.

Despite its position on the exposed west coast of Lewis, only the north-western part of the Bhaltos peninsula has to face to the full unadulterated blast of the Atlantic gales and tides. The north-eastern part, including Traigh Bhaltos, is afforded some shelter by the small islands of Pabay Mor and Vacsay, while the south-facing part overlooks a sheltered inlet of Loch Roag (Ill 1.1).

Although the circuitous land route might suggest otherwise, Bhaltos is rather less than 10km from such major Hebridean monuments as Dun Carloway and the Calanais stones, as well as being within a few kilometres of the find-spot of the Lewis Chessmen. The purpose of such chronologically

diffuse associations is simply to reinforce the point that, among communities who routinely travelled by sea, Bhaltos was not necessarily the backwater it can seem to the modern overland traveller. Indeed its location on a major sea route, down the west coast of the Hebrides, and its scattered but significant pockets of fertile land, made Bhaltos well-placed to support communities with a stable economic base and widespread sea-borne contacts.

1.4.2 RESEARCH PRIOR TO THE 1980s

There is no record of any extensive antiquarian work in the Bhaltos peninsula, and indeed it was not until the RCAHMS survey visit in 1914 that serious archaeological attention was devoted to the area (RCAHMS 1928). The Royal Commission's work in Bhaltos seems to have been rather more intensive than elsewhere in Lewis, as a number of significant though often ephemeral sites were identified in addition to the more obvious dry-stone monuments. The series of prehistoric middens eroding along the dune-face of the Traigh na Beirgh form one notable example (ibid, nos 84 and 9).

The next archaeological episode concerned the work of Lacaille who identified what he considered to be examples of primitive stone industries from a number of locations in Bhaltos (Lacaille 1937, 1954, 299–304), including the south-east side of Cnip Headland. Lacaille's initial surveys were not, however, followed-up with more extensive excavation. Subsequent excavations have tended to be opportunistic and largely independent of wider research frameworks. A wheelhouse on the slopes behind the Traigh na Beirgh was partially excavated by Mr Calum MacLeod of Reef in the 1950s, while on Cnip Headland, a rich Viking grave (Welander et al 1987) and a multi-phase Bronze Age cairn (Close-Brooks 1995) were both excavated during the 1970s.

The latter two sites were exposed as a result of erosion episodes on the hillside overlooking the Traigh na Beirgh. Many similar exposures have been recorded more superficially, and innumerable entries in the National Monuments Record for Scotland testify to the observation and recovery of midden material, bone and artefacts of various periods from each of the machair areas.

1.4.3 RECENT WORK

The first major programme of archaeological research in Bhaltos began in 1985, with the establishment of the CARP (Harding & Armit 1990). The work of the project has included two major excavations, at the Loch na Beirgh broch tower and later structures, and at the complex roundhouse of Dun Bharabhat (ibid). The Cnip excavations grew out of this wider project, as has been discussed, although their organization and structure have since followed a rather different path.

During the 1990s wider-ranging survey and targeted excavation expanded the fieldwork interests of the CARP beyond the immediate environs of the Bhaltos peninsula. Most importantly, perhaps, for present purposes, have been excavations by Simon Gilmour and Mike Church at the site of Guinnerso (Burgess et al 1997) which appear to have identified a later prehistoric transhumance site potentially associated with core settlement in either Bhaltos or, more likely, around Uig Sands. Work associated with the CARP has also included a survey of the Bhaltos peninsula (Armit 1994), and a small excavation on Cnip beach-front (Armit & Dunwell 1992). Further work, sponsored by Historic Scotland and conducted by the Centre for Field Archaeology, has further explored the Viking and Bronze Age cemeteries on Cnip Headland (Dunwell et al 1995a, 1995b), first identified in the 1970s (Welander et al 1987; Close-Brooks 1995). Only 5km across the water, on the northern tip of Great Bernera, a further excavation by the Centre for Field Archaeology has uncovered an important Late Iron Age site at Bostadh (Neighbour & Burgess 1996). In addition, research has been carried out on the palaeo-environmental history of the area, co-ordinated by Professor Kevin Edwards of the University of Sheffield (cf Edwards & Whittington 1994).

In sum, then, research since the mid-1980s has brought about a significant increase in our understanding of the archaeology and environmental history of this part of Lewis focusing primarily on the later prehistoric period, defined broadly from 1000 BC–AD 1000.

1.4.4 ENVIRONMENTAL HISTORY AND SITE VISIBILITY

The history of sea level change, soils and vegetation in Lewis, as elsewhere in the Western Isles, are subjects of controversy and the arguments have recently been summarized elsewhere (eg Armit 1996; Lomax 1997). Nonetheless, there is little doubt over the main trends of environmental change: sea levels have risen, possibly drastically, over the period of human occupation, while woodland cover has been lost to be

replaced by blanket peat and heathland (cf Bennett et al 1990; Lomax 1997). The local climate during the Iron Age seems likely to have been much as it is now, wet and windy, but not unduly cold. The evidence of excavation shows that peat was the principal fuel source even before the Iron Age, and the blanket peats that characterize the interior of the island today would have been well-established by the Iron Age.

Studies of cores from Loch Bharabhat, in the Bhaltos peninsula (Lomax 1997, 242), have shown that a major episode of clearance, probably a 'relatively short-lived event', led to the virtual elimination of trees (an open birch-hazel woodland with some oak, elm and pine) from the catchment around 3700 BP (the Middle Bronze Age in archaeological terms). This clearance event was apparently paralleled at Calanais and can be tentatively linked to the expansion of human activity in west Lewis at that time (ibid). This event followed relatively soon after the first definite appearance of cereal cultivation in the catchment at around 4000 BP, and corresponded with an expansion of blanket peat and heathland. Lomax has linked this period of woodland decline with the suggestion that environmental problems may have contributed to a shift in settlement focus onto the coastal belt, and the machair in particular, from the Neolithic onwards (Lomax 1997, 264; Armit 1992).

A further change occurred in the Late Bronze Age or Early Iron Age, around 2500 BP, when peat erosion within the catchment increased dramatically (Lomax 1997). This episode of instability continued to around 1920 BP (ibid), and closely resembles the dating of the life-span of the Atlantic roundhouse at Dun Bharabhat (Harding & Armit 1990), which seems to have been abandoned in the last centuries BC. The end-date for the erosion episode, which signals a return to a lower level of human activity in the Loch Bharabhat catchment, falls within the radiocarbon dated life-span of Phase 2 at Cnip (Chapters 2 and 6).

Cores from Loch na Beirgh, on the machair but only some 500m from the 'upland' catchment of Loch Bharabhat, remain to be adequately dated, but show strong evidence for the cultivation of cereals on the machair during the Iron Age (Lomax 1997, 256).

The general rise in sea levels, the growth and spread of blanket peat, and the processes of machair formation and movement, have all conspired both to destroy and obscure archaeological sites throughout the Western Isles. Indeed, the known archaeological sites in the Bhaltos peninsula, around 50 in number, excluding settlements and field systems marked as occupied on nineteenth-century maps, must represent only a fraction of those originally present. The Bhaltos sites have recently been catalogued and discussed in some detail, and the processes affecting their survival and discovery have similarly been explored (Armit 1994), so only the briefest of summaries will be required here.

The Bhaltos peninsula highlights some of the ways in which the processes involved in machair development can distort the perceived prehistoric settlement pattern, adding to the usual range of hazards for archaeological survival. Coastal erosion, as at Cnip itself, is the most visible threat. The scale of past destruction is exemplified by the disappearance of sites located by the Royal Commission in the early part of this century, particularly along the beach-front on the Traigh na Beirgh (RCAHMS 1928, nos 84 and 98). Equally destructive is the deflation and re-deposition of the machair through wind erosion. This is most spectacularly demonstrated on the south-east-facing slopes of Cnip Headland, where a large part of the hillside is undergoing sand movement, periodically uncovering burials of both Viking and Bronze Age date (Dunwell et al 1995a, 1995b). The problem is further exacerbated by rabbit infestation on many of the known sites.

Elsewhere, the sand re-deposited from these erosion sites has been laid down as a thick blanket obscuring sites further inland. This seems to be particularly so behind the Traigh na Beirgh, where former lochs, including Loch na Beirgh, have been choked with windblown sand. These combined processes of wholesale destruction through wind and tidal action of sites along the retreating coasts, and burial under sand of sites further inland, make field survey in the machair more than usually problematic. The massive stone structures at Cnip itself were entirely invisible from the surface, and the machair topography gave not the slightest hint of the underlying structural forms.

Nonetheless, despite these obvious restrictions, a wide range of sites is known from Bhaltos, and these provide a necessary background for any attempt to understand the nature and development of the Iron Age settlement at Cnip.

1.4.5 MODERN AND EARLY MODERN SETTLEMENT

The three machair beaches have formed focal areas for settlement in Bhaltos since prehistory, and it is in these areas that most of the evidence for prehistoric settlement is concentrated. During the

early eighteenth century the peninsula was divided between three tacksmen (major tenants), at Bhaltos, Cnip and Reef, and presumably further sub-divided between an unknown number of sub-tenants (Moisley 1962, 8). Subsequently the townships of Clibhe and Uigen emerged as independent holdings, only to be re-absorbed with the lotting of crofts in the early nineteenth century (Ill 1.8).

The earliest documented pattern of land-holding, then, suggests a broadly tripartite division of the peninsula, although any attempt to see this as a natural, topographically determined situation, relating

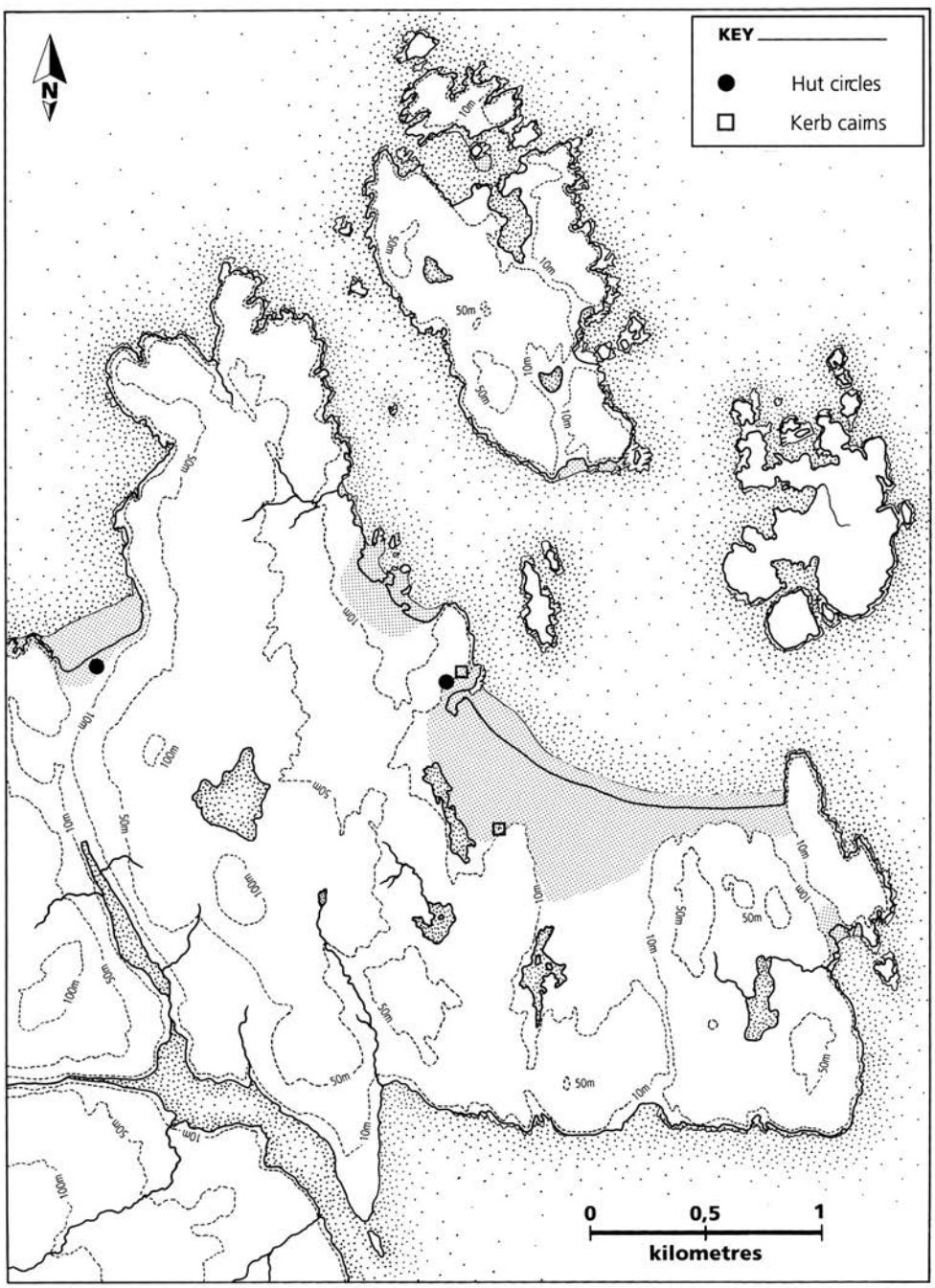

ILLUSTRATION 1.10
Bronze Age sites in Bhaltos.

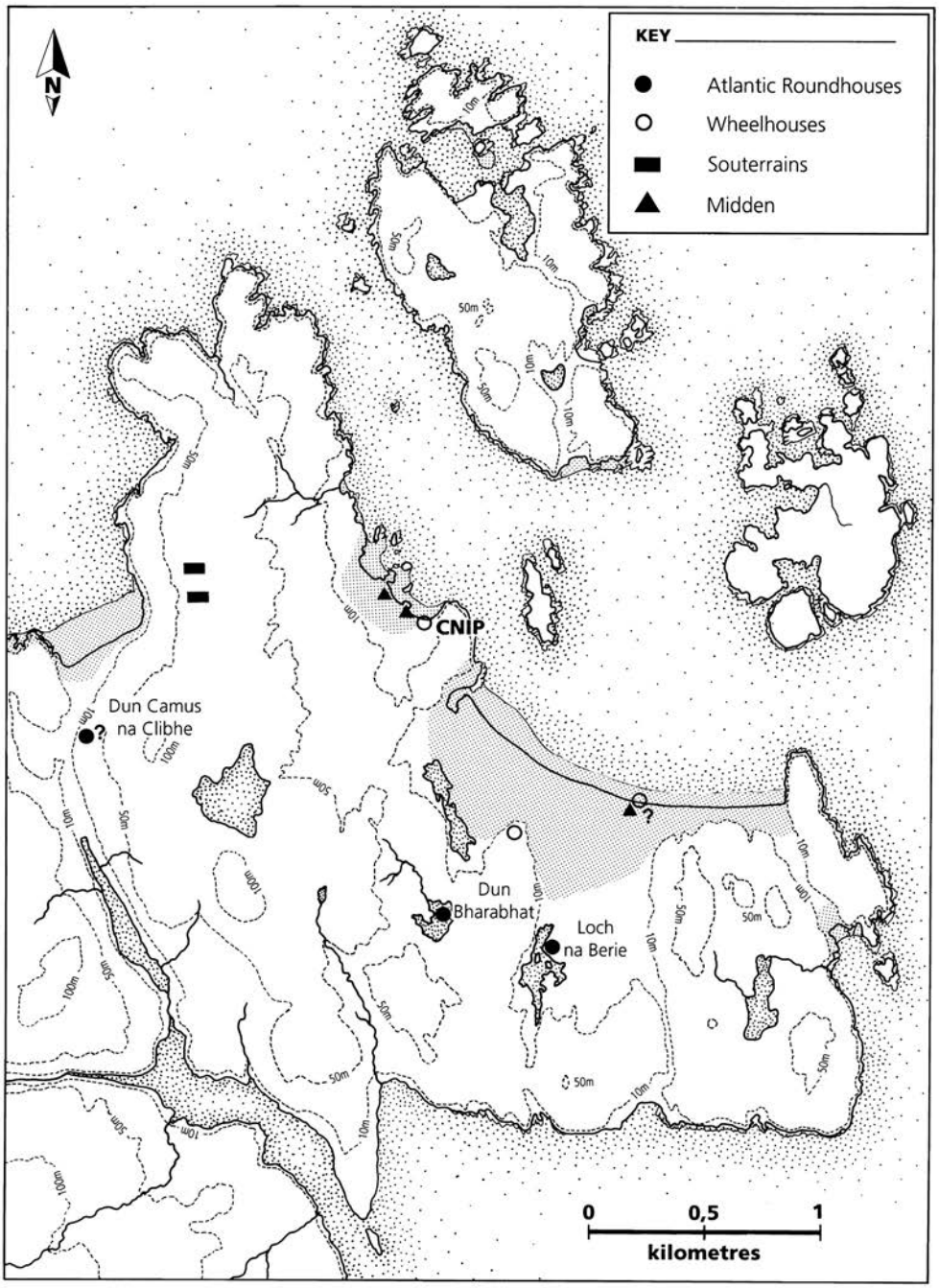

ILLUSTRATION 1.11
Iron Age sites in Bhaltos.

to the three machair foci, is hampered by the refusal of the townships to correlate with these landscape elements. Instead, the settlement cores of Cnip and Bhaltos crowd together in the small pocket of machair behind Traigh Bhaltos, while the croft-houses of Reef straggle around the southern fringe of the peninsula. Traigh na Beirgh, an important settlement centre in prehistory, is now virtually unoccupied, its lands divided between the townships of Cnip and Reef. Centuries of environmental change, social manoeuvring and wholesale clearance (see Moisley 1962 for the latter two), have clearly distorted any

original topographically determined system that might have existed.

Indeed, it seems most probable that similarly complex and irrecoverable social factors will have determined the division of land within the peninsula from the earliest times and there seems little point in looking to the patterns of historic land division for anything more than indication of possibilities. The survey of archaeological sites on Bhaltos suggests at least three periods of major settlement dislocation prior to the post-medieval period (Armit 1994, 90–1), which again argues against the assumption of any environmentally determined pattern of settlement or land organization in the peninsula.

1.4.6 PREHISTORIC SETTLEMENT

Despite Lacaille's identification of archaic traits in lithic assemblages from the Traigh na Beirgh, there is no definite evidence of a human presence in the archaeological (as opposed to palaeo-environmental) record in the Mesolithic or Neolithic periods. This absence is rather puzzling, given the relatively high potential of the area for early agriculturalists, but not especially relevant to this report: it is discussed further elsewhere (Armit 1994).

The Bronze Age is represented in Bhaltos by the multi-phase burial cairn and smaller satellite cairn on Cnip Headland (Close-Brooks 1995; Dunwell et al 1995a) and one or two less certain examples (Ill 1.10). Settlement broadly contemporary with these burials is difficult to identify; the most likely contenders being a series of circular stone-footed structures on Cnip Headland.

Evidence for Iron Age settlement is more extensive (Ill 1.11) and, as it will be discussed in some detail in subsequent sections of this report, it is mentioned here only in outline. Atlantic roundhouses are known at Dun Bharabhat (a complex roundhouse) and Loch na Beirgh (a broch tower with later occupation). A third probable site in this category is Dun Camus na Clibhe, an Atlantic roundhouse re-located during field survey in the 1980s (Armit 1994, site 8). Also of Iron Age date are two wheelhouse settlements, one on the rising ground at the rear of Traigh na Beirgh, and the other being Cnip itself. A third wheelhouse settlement is hinted at by reference to an apparently stone corbelled structure found within a string of now-vanished middens along the Traigh na Beirgh (RCAHMS 1928, no 98). These middens also produced two sherds of Samian Ware (which represents an appreciable percentage of the total Roman pottery assemblage known from the Western Isles!). A recent find of Samian Ware from the secondary cellular structures in the Loch na Beirgh broch tower further emphasizes the unusual concentration of Roman material in this locality (Harding pers comm), although the absolute number of sherds remains pitifully small. Two poorly recorded souterrains may also be of broadly Iron Age date (Armit 1994, sites 10 and 11), while the cellular structures at Loch na Beirgh carry known occupation in Bhaltos into the immediately pre-Norse period, as, potentially, do the structures identified at Cnip sites 2/3 (Armit & Dunwell 1992).

Ill 1.12 shows the scatter of Norse period sites, all burials, in Bhaltos, together with a series of undated 'settlement mounds'. The latter have tentatively been suggested as possible Norse or later prehistoric settlements (Armit 1994), although they remain untested by excavation. The issues relating to the Norse and later settlement of Lewis are beyond the scope of this report, but it is worth noting the complete absence of Norse material from all of the excavated later prehistoric settlements in Bhaltos. The evidence could be read as suggesting a major settlement dislocation during the ninth century AD, terminating the traditional patterns of land holding and settlement location built up during the later prehistoric period (ibid, 90–1).

1.5 THE EXCAVATED SITE AND ITS SETTING

The excavated site at Cnip is located on the beach-front below and behind the modern sea-wall (built after the excavation, in 1988) at the south-east end of the beach known as the Traigh Bhaltos (Ill 1.3–1.4). From earlier map sources, it appears that this name originally referred only to the northern half of the beach, while the southern part was known as Traigh Cnip. The two were divided by a rocky promontory and more or less equated to the land belonging to each of the two townships of Bhaltos and Cnip which share the area behind the beach. However, the modern Ordnance Survey map represents the whole beach as Traigh Bhaltos and that is the name used in the most detailed description available (Ritchie & Mathers 1970). The name Traigh Bhaltos will, therefore, be used here to denote the whole beach.

Traigh Bhaltos is a far smaller machair system than its neighbour, Traigh na Beirgh, being only some 400m long and containing a fairly small area of machair trapped between the beach itself and the surrounding

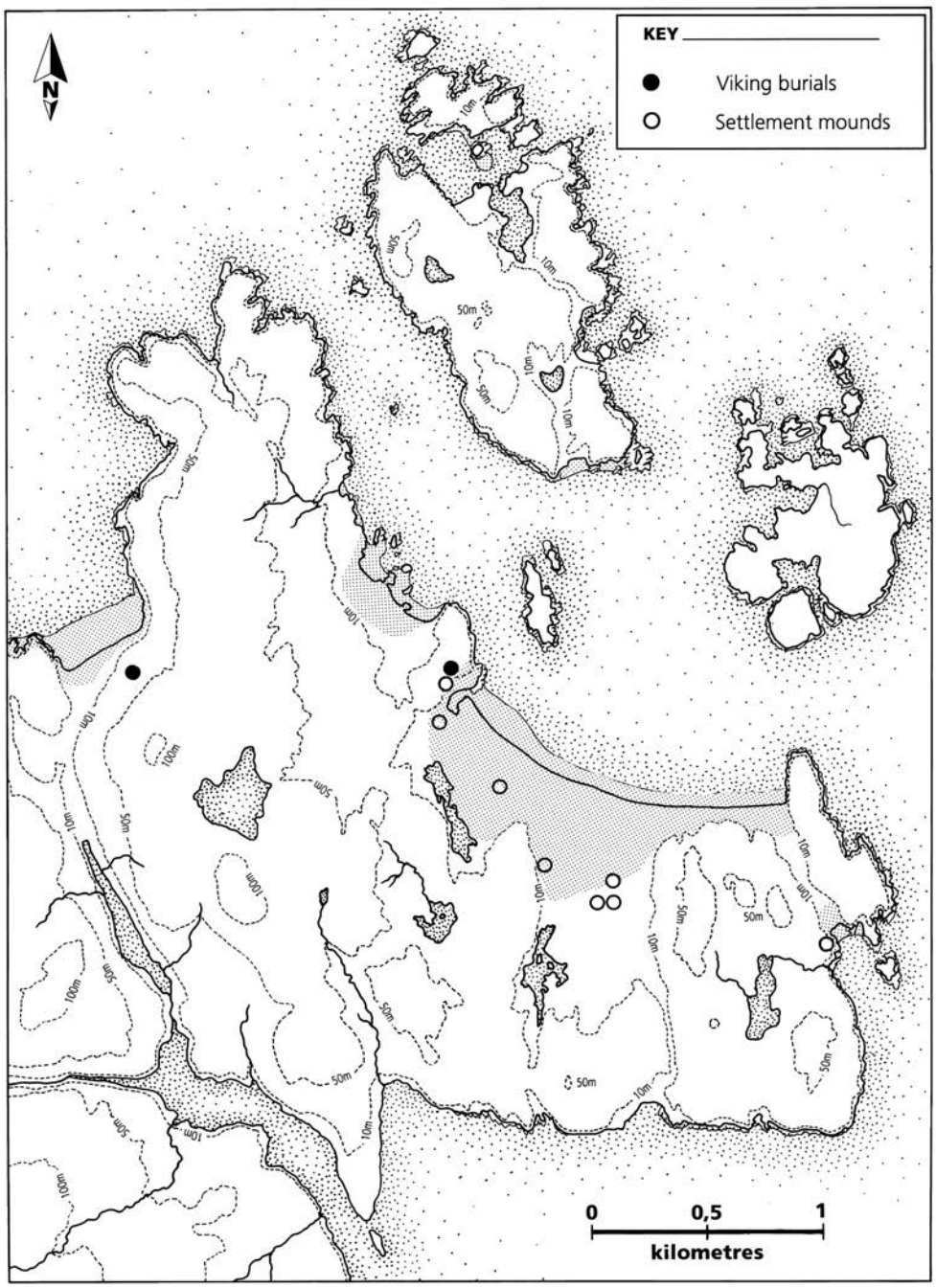

ILLUSTRATION 1.12
Viking burials and settlement mounds in Bhaltos.

hills. The beach, of fine white shell-sand, formed into low dunes, is sheltered by a group of skerries just off shore, and further out by the larger islands of Pabay Mor and Vacsay (Ill 1.8). These protect it to some extent from the tidal battering experienced at more exposed beaches, such as Traigh Clibhe.

The solid geology of the area is the ubiquitous Lewisian gneiss, capped in places by deposits of glacial till, as on Cnip Headland which forms the south-eastern boundary of the beach. Between the beach and the hill-slopes is a small pocket of machair, now scattered with modern croft-houses and the ruins

of former blackhouses, interspersed with small plots of improved land. The sandy soils here have been intensively worked through cultivation over many centuries, although much of the area has now reverted to a condition of weedy neglect. The mixture of the underlying peaty soils with windblown sand, and an unknown degree of deliberate admixture of manure and domestic midden, has created soils which were formerly considered relatively productive. Virtually all of the available land seems to have been cultivated and there are signs of former deflation episodes which have served to level out the machair, one of which seems to have previously affected the excavated site itself (Chapter 2).

Traigh Bhaltos has been eroding for many years. Ritchie and Mathers describe, in 1970, how the south-east end of the beach was under active erosion, while the north-west end was accreting, as the beach gradually seemed to be adopting 'a more northerly orientation' (ibid 63). The shore at the south-east end appeared to have lost at least 15m between 1971, when the latest visit by the Ordnance Survey was made, and 1988, with some 2.5m seemingly having been lost between 1986 and 1988 (see Section 1.1). Examination of the Ordnance Survey first edition map for the area suggests that little more than 10m had been lost between 1850 and 1971, apparently confirming the strongly held local view that erosion had accelerated significantly in the 1970s and 1980s. It is at this eroding south-east end of the beach that the excavated site lies.

The site itself nestles at the foot of the gentle slope up towards Cnip Headland at almost the extreme southern point of the beach (Ill 1.4). The main wheelhouse, once exposed, turned out to lie within 10m of the modern house known as No 11 Cnip, virtually under part of its driveway. The nature of local topography gave the site a natural north to north-westerly aspect, and indeed all of the principal domestic buildings on the site had entrances facing onto the relatively level ground to the west.

It seems highly probable from the analysis of the old maps of the area that the Cnip wheelhouse was not constructed immediately adjacent to the sea, but it was nonetheless founded on clean windblown sand, and could not, therefore, have been far from the coast. The site was clearly occupied in an active machair environment as the occasional depositions of windblown sand show. While it is impossible to reconstruct the Iron Age coast-line with any certainty, it seems most likely that the site was built on the former machair plain, behind the then active dunes, with the beach some distance further out than it is now; at least 25–30m distant, and probably not more than 150m, close to the point of Cnip Headland.

Some aspects of the Iron Age environment around the site would have been familiar. Although the sea was slightly further out, the hills would have been rocky and treeless as now, creating a small, sheltered bowl within the southern part of which the wheelhouse settlement was established. As we shall see, we can be fairly sure that the available machair was farmed, as it was until recent years, adding to a picture of a landscape not too sharply dissimilar to its appearance in recent centuries. Whether this discrete and self-contained patch of land was shared or not is unknown. Contemporary settlements may lie under the modern township, or may have been lost to the sea.

While the modern eye looks inland, seeing a patch of farmable machair and a rim of hills for upland pasture, the opposite view was probably at least as significant in prehistory. A few steps away, the sea gave access to fishing grounds and to neighbouring communities around the coasts of Lewis and beyond.

1.6 REPORT STRUCTURE

This report supersedes all previous statements concerning the excavations at Cnip, primarily the interim report (Armit 1988), and the relevant part of an earlier summary of the CARP more generally (Harding & Armit 1990). However, the phasing and basic interpretation of the site sequence are unchanged from these reports and there is divergence only on occasional points of detail. There is of course, an enormous quantity of new information present in this volume, primarily from the specialist work and the more detailed analysis of the site stratigraphy and comparanda, which enables us to expand on previous statements.

Chapter 2 details the results of the excavation using the framework of phases which is unchanged from the interim report:

> Phase 1: the construction and primary occupation of the main wheelhouse and a second unfinished wheelhouse.
>
> Phase 2: the continuing occupation of the now-modified wheelhouse and accompanying cellular structures.
>
> Phase 3: the construction and occupation of a rectilinear structure incorporating earlier structural elements.

As we shall see in Chapter 6, Phase 2 appears to be confined principally to the first century AD, with

Phase 3 extending occupation perhaps into the third century AD. The dating of Phase 1 is less secure, as will become apparent, but it probably began in the last two centuries BC.

The excavations have produced a wealth of artefactual remains, which are of more than usual importance in that they can be tied closely to the well-established stratigraphy of the site. The assemblages from Phases 2 and 3 are particularly closely dated in absolute terms and provide an important typological benchmark for the development of various artefacts, particularly the problematic Hebridean pottery sequence. The artefactual analyses form Chapter 3, below. No less important is the evidence for the environment and economic basis of the site, discussed in Chapter 4. Again the well-contexted nature of the material adds to its value, as does its potential for incorporation within the wider picture emerging for the Bhaltos peninsula. Of particular importance is the evidence for the economic importance of red deer.

In Chapter 5 the structural evidence from the two excavated wheelhouses is assembled and synthesized to discuss the processes by which wheelhouses were constructed. The mechanical processes underlying the construction of the Cnip wheelhouses seem fairly clear, but certain issues are raised concerning the social organization of the construction process which are more difficult to address.

Chapter 6 deals with the issue of absolute dating, using in particular the evidence of the radiocarbon dates. The dating evidence is strong for Phases 2 and 3, but numerous factors conspire to complicate the dating of Phase 1, not least the apparent re-use of curated midden and artefactual material apparently much older than the settlement itself. The implications of this phenomenon are discussed, as well as the interpretation of the absolute dating of the structural sequence. This discussion inevitably leads on to the question of site formation processes, and more particularly the role of human agency in the creation of the archaeological deposits. This issue has long been recognized in relation to certain obvious ritual deposits in wheelhouses, but is clearly also of importance in understanding the wider processes of site formation. This aspect of the site is discussed in Chapter 7.

Also in Chapter 7 the evidence from Cnip is used as the basis for a reassessment of wheelhouses more generally in the Western Isles and beyond, and an attempt is made to understand how the settlement was inhabited as part of a living community. This last section attempts to integrate the diffuse interpretations generated by the studies of the artefacts, ecofacts and architecture, looking particularly at issues such as resource exploitation, the nature of the household, the economic basis of society, the ritualization of daily life, contacts both within and beyond the peninsula, and patterns of movement through the landscape. This section will also examine the site's place in the longer-term social and settlement picture of the Iron Age in Lewis.

I hope that this last section can begin to give some impression of what might it have been like to inhabit a wheelhouse and to live and work in the Iron Age land and seascapes of west Lewis.