A CONTRIBUTION TO A NEW UNDERSTANDING OF BROCHS

by

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ERRATUM

Please note that page numbers 309, 316, and 317 (Chapter 15) have been omitted as a result of an error in pagination. There is no missing text nor missing illustrations.

PART FOUR

CHAPTER 15 INTRODUCTION

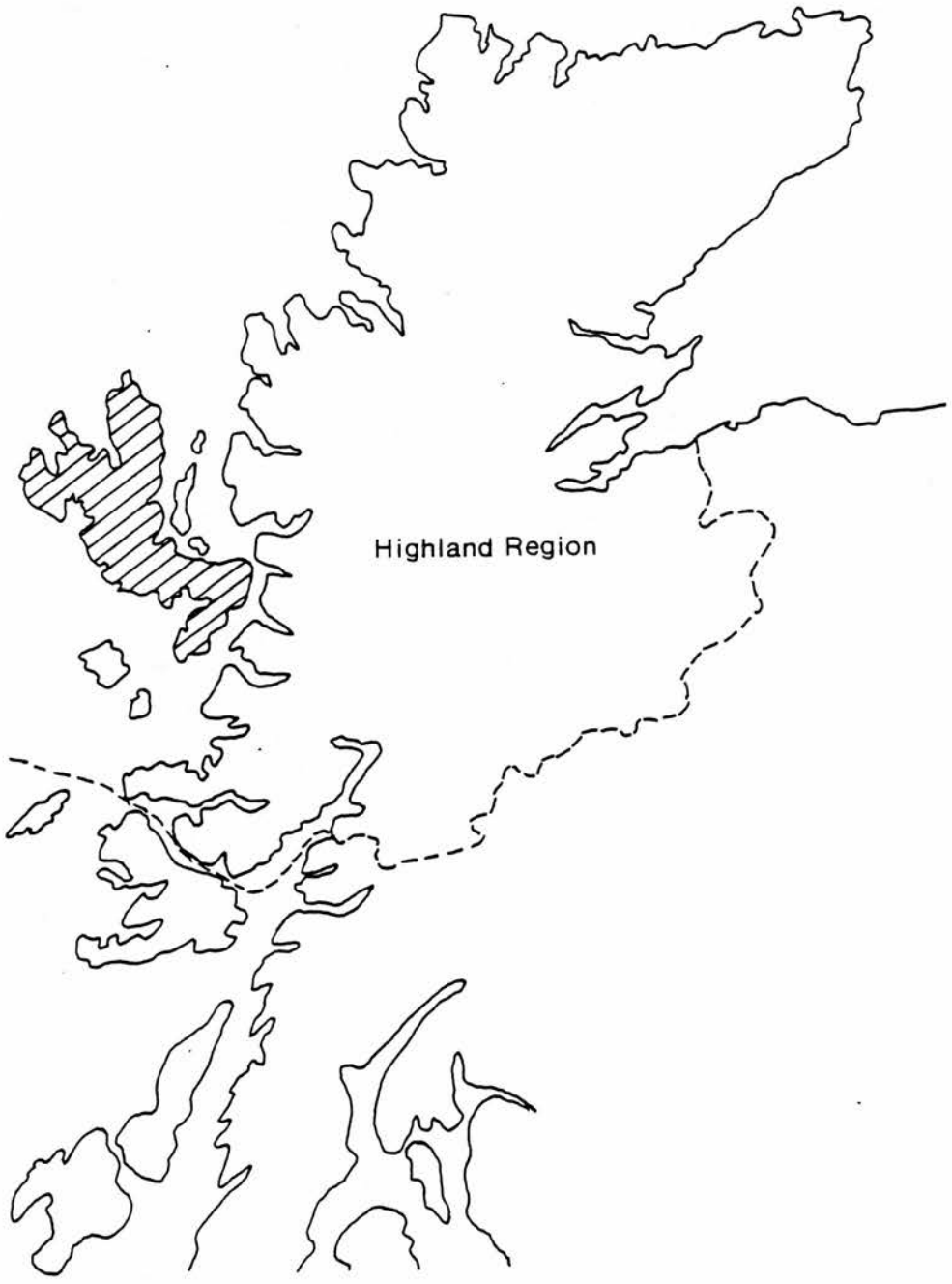
Part Four of this thesis is concerned with an examination of brochs in Skye. Skye is one of the islands of the Inner Hebrides, which lie off the north-west coast of Scotland (Figure 89). The southern part of the island approaches close to the mainland, the distance across the Sound of Sleat being less than 0.5km at its narrowest point. The island measures about 77km by 43km, and is very mountainous in places. The topography of the island, and its implications for settlement pattern, is considered more fully in Chapter 16.

Brochs on the west coast have had a high profile in the history of broch studies, particularly in the modern period as a result of the work of MacKie. The brochs in Skye, along with the structures in the island which MacKie identified as semibrochs, occupy a central place in the theories of broch origins and development which have been widely propagated and accepted over the last 20 years. In view of the significance which has been attached to west coast brochs in the development of theories purporting to refer to brochs in general, it is appropriate to begin this examination of brochs in Skye by outlining briefly in section 15.1 below the history of broch studies on the west coast, highlighting the role played by evidence from Skye.

Because much recent archaeological thought on brochs has been concentrated on the west coast, there is a pool of modern excavation evidence available for the area, both for structures called brochs and structures known as semibrochs. There are however a number of problems with the survey and excavation information for Skye. These problems are identified and discussed in section 15.2 below.

In terms of the overall distribution of brochs in Atlantic Scotland, Skye has a relatively small number of sites. However the island has the largest concentration of brochs on the west coast, far exceeding the occurrence of brochs in both the Outer Hebrides, and neighbouring islands of the Inner Hebrides to the south. The population of brochs in Skye is considered in section 15.3 below, where it is compared first with the population of other types of possibly contemporaneous sites occurring on the island, such as, duns and forts; and second with the population of brochs and other galleried structures estimated

Figure 89



LOCATION OF ISLE OF SKYE

to occur in other west coast locations.

15.1 Historical Perspective

The study of brochs on the west coast began several decades after brochs in the north had been analysed in detail, and interest in them had waned. The first excavations took place during the First World War on two well preserved brochs in Skye, Dun Fiadhairt (Iardhard) (IS 17) and Dun Beag (IS 24), and on the Glenelg brochs of Dun Telve and Dun Troddan (Macleod 1914-5; Callander 1920-1; Curle 1915-6 and 1920-1). At about the same time the RCAHMS began work on the inventory of the Outer Hebrides, Skye, and the Small Isles, which was not published until 1928. This inventory, and a paper by Curle of the RCAHMS (1927), began a search for the origins of the broch structure on the west coast, a search that still continues in the work of MacKie.

The impetus for the search came from the variety of structures which the RCAHMS encountered on the west coast. There were structures which the RCAHMS labelled brochs, as they sufficiently matched the ground rules of broch design laid down many years previously through excavation of brochs in the north. There were however also a number of other structures which, although they had broch-like features, such as galleried walls, the RCAHMS found impossible to classify as brochs according to the ground rules. The descriptive term "galleried dun" emerged in the inventory in an effort to give these structures a label (RCAHMS 1928, xxxv-xxxvi). From there it was a small step to begin comparing the brochs in the west with the broch-like structures in the west, and deriving the former from the latter (RCAHMS 1928, xxxvii). There was no evidence for a chronological succession, the sequence being derived solely from an apparent increase in structural sophistication, culminating in the full broch structure (see Figure 3, p13).

It was almost forty years after Curle's paper and the 1928 inventory that MacKie began his programme of research work. He adopted the basic idea of structural sequence in the west, elaborated it by the addition of evidence from the material culture associated with brochs, and concluded that brochs had developed in the west under very specific

conditions. He recently summarised again the main points of his findings.

"The architectural and geographic evidence was first fully discussed 18 years ago and seemed to show clearly then that the earliest brochs appeared in the Western Isles, probably on Skye, in the area of maximum concentration of the structurally most primitive form; this also coincides with the zone of concentration of the most plausible prototype structures - the semibrochs (MacKie 1965a, Fig 1 & 124-7)...

The second aspect of the hypothesis derives from the apparent fact that the transition between the few, structurally primitive Hebridean semibrochs and the much more efficient ground galleried brochs does not seem to have been a purely indigenous phenomenon but was evidently accompanied by the appearance in the Western Isles of a variety of new pottery and artefacts. One interpretation of this is that a small number of influential P-Celtic speaking people from southern England (presumably Britons retreating from the Belgic expansion) and Brittany (Veneti or other tribesmen dispersed by Julius Caesar in 56 BC) arrived and had a considerable impact on the local culture, notably in the galvanising of indigenous fort building traditions to produce the first broch towers out of the semibroch design." (MacKie 1983, 120).

To support his theories MacKie has excavated at three locations on the west coast - Dun Mor Vaul on Tiree, classified as a broch by the RCAHMS but on the very fringes of broch distribution (MacKie 1974a; RCAHMS 1980, no 166); Dun an Ruigh Ruaidh on Loch Broom classified as a semibroch by MacKie, but also suggested to have been originally a whole broch which has partly fallen away (MacKie 1980; Harding in Miket and Burgess 1984, 211); and Dun Ardtreck in Skye (IS 27), built on the edge of an eroding cliff (local information), also classified as a semibroch by MacKie (MacKie 1965b). Radiocarbon dates were obtained for all three sites, and MacKie has maintained that the primacy of the semibrochs has been demonstrated with "high probability" at Dun Ardtreck and "with certainty" at Dun an Ruigh Ruaidh (1983, 120). But there were no comparable radiocarbon dates from the north at the time of his excavations to allow determination of whether the semibrochs preceded brochs there, as they would appear to have preceded Dun Mor Vaul on the fringes of broch distribution in the west. Recent radiocarbon dates obtained from excavations of brochs in the north have been much earlier than those obtained for both Dun Mor Vaul and the so called semibrochs of Dun Ardtreck and Dun an Ruigh Ruaidh (Hedges and Bell 1980, 90; Hedges 1987, Part I, 117; Fairhurst 1984, 160-3).

It can be seen that Skye plays a central role in the theories of broch origins developed by MacKie, both through the excavation of Dun Ardtreck, and through the selection of the island as the likeliest

location for the emergence of the broch form proper. In the light of this fact, and the large number of sites on the island, it is perhaps surprising that brochs in Skye have not received more attention in excavation and survey work, even from MacKie himself. The availability and quality of the information sources for brochs in Skye are examined in section 15.2 below.

15.2 Information Sources

Chapter 2 pointed out that the inventory of the Outer Hebrides, Skye, and the Small Isles, although published nearly twenty years after the inventories of Caithness and Sutherland, is little dissimilar from them, with the same brief descriptions supplemented by rather more plans. Since the publication of the inventory the only source of new survey information has been the OS, and a recent corpus of information on all Iron Age structures on the island (MacSween 1984-5). The latter brought together, listed, and briefly described all of the structures on the island previously classified as brochs, duns, semibrochs, and forts. Many of these sites had not been planned for the 1928 inventory and the corpus includes plans of every site at a common scale, although there does not appear to have been any original detailed survey at large scale for the corpus, the plans it contains being a compilation of the 1928 RCAHMS inventory plans; later small-scale plans by the OS, contained in the NMRS cards; and outline sketch plans. Nonetheless MacSween's corpus of information provides useful background, both for the structures labelled brochs in Skye, and importantly, for the range of possibly contemporary structures which do not bear that label.

Since there was a basic lack of good survey information on brochs in Skye, it was decided for this thesis to produce large scale detailed plans and detailed descriptions of every site which had been classified by other authorities as a broch. Altogether 32 locations are covered in the site catalogue, 29 identified as brochs by previous authorities. The remaining 3 locations are broch-like, but have been classified as galleried duns by the RCAHMS (1928) and as certain semibrochs by MacKie (1965a, 139). There are 29 new survey plans, the recent plans available from the excavations of Dun Ardtreck and Dun

Flodigarry (MacKie 1965b; Martlew 1985), having been accepted for the purposes of the site catalogue. The new survey plans set the structures in their immediate locational context, and reveal a number of newly identified details. No detailed survey was done of sites identified as other than brochs or semibrochs by previous authorities, largely because of the large number of sites involved (Table 20, pp328-332), use being made instead of the corpus produced by MacSween supplemented by field visits.

The excavation record for brochs in Skye is not particularly good. The number of excavations which have taken place is perhaps not out of keeping with Skye's proportion of the total broch population in Atlantic Scotland, but it does not match well with the central place accorded to Skye in theories of broch development in the modern period. Tables 5 and 6 (p39) list the excavations which have taken place on the island. The two early excavations of Dun Fiadhairt (Iardhard) (IS 17) and Dun Beag (IS 24) have already been mentioned above. There is then a substantial gap of many years before the excavation of Dun Ardtreck (IS 27) in 1964-5, and Dun Flodigarry (IS 1) in 1979-82. The two early excavations, in common with many early excavations in the north, were very badly recorded, and little information on these two important sites has passed into the public record. The excavation of Dun Ardtreck is still unpublished, more than twenty years after the event, although an interim report is available (MacKie 1965b). The excavation of Dun Flodigarry was a disappointment, because there was so little depth of stratigraphy, but it did produce a single radiocarbon date and it is now fully published (Martlew 1985).

Because the excavation record for Skye is so poor, reliance has to be placed more heavily on field survey information than is the case in Caithness, where the excavation record is also poor, but is at least extensive. The excavation evidence for Skye is however much better than that available for Sutherland and may be extended by evidence from other locations on the west coast, such as, Dun an Ruigh Ruaidh on Loch Broom and Dun Mor Vaul on Tiree. Reference to these sites is made as appropriate in the following chapters.

15.3 Broch Numbers

Iron Age Sites in Skye

MacSween (1984-5) recorded 89 structures in Skye which may be attributable to the Iron Age, of which she included 77 in her corpus of information. The actual total of Iron Age sites in Skye is in fact likely to be rather larger. For instance, the remains of a possible broch is recorded at Claigan (IS 15) (Davies and Calder, Disc Exc Scot 1979, 17), and a dun was discovered in the course of fieldwork for this thesis (Dun Chlo) (Swanson, Disc Exc Scot 1982, 15; Figure 90). There are also a number of possible sites of duns, recorded by the NMRS, which MacSween excluded from her corpus (Table 20, pp328-332).

Opinion on the number of brochs in Skye has varied considerably over the years. The RCAHMS identified 20 certain and 2 probable brochs in Skye in the 1928 inventory. Graham recorded 19 certain and 7 uncertain brochs (1946-7, 97), whilst Hamilton listed 24 certain and 3 uncertain (1968, 179). MacSween identified 21 brochs on the island on the basis that to qualify as such there had to be some evidence of broch architecture, such as, galleries (1984-5, 9). Round structures not showing traces of broch architecture were not listed as brochs, but were placed in the dun category.

Table 20 (pp328-332) lists the structures in Skye attributed to the Iron Age, with an indication of the classes to which they have been assigned over the years. The location of each site is shown in Figure 91. The most apparent feature of Table 20 is the confusion which abounds in the classification of the sites. Many sites have changed classes over the years, including some which have been identified as brochs. The latest classification by MacSween has not helped matters by the introduction of the new terms of "enclosure" and "promontory enclosure", which cover structures with a range of more traditional labels given by other authorities. It is doubtful whether MacSween's new labels clarify the nature of the sites which bear them in any meaningful way. The term "promontory enclosure" in particular seems to cover a multiplicity of sites of differing sizes and characteristics. It is against this background of confusion in classification that the number of brochs in Skye has to be assessed.

Figure 90

Dun Chlo
NG 618015

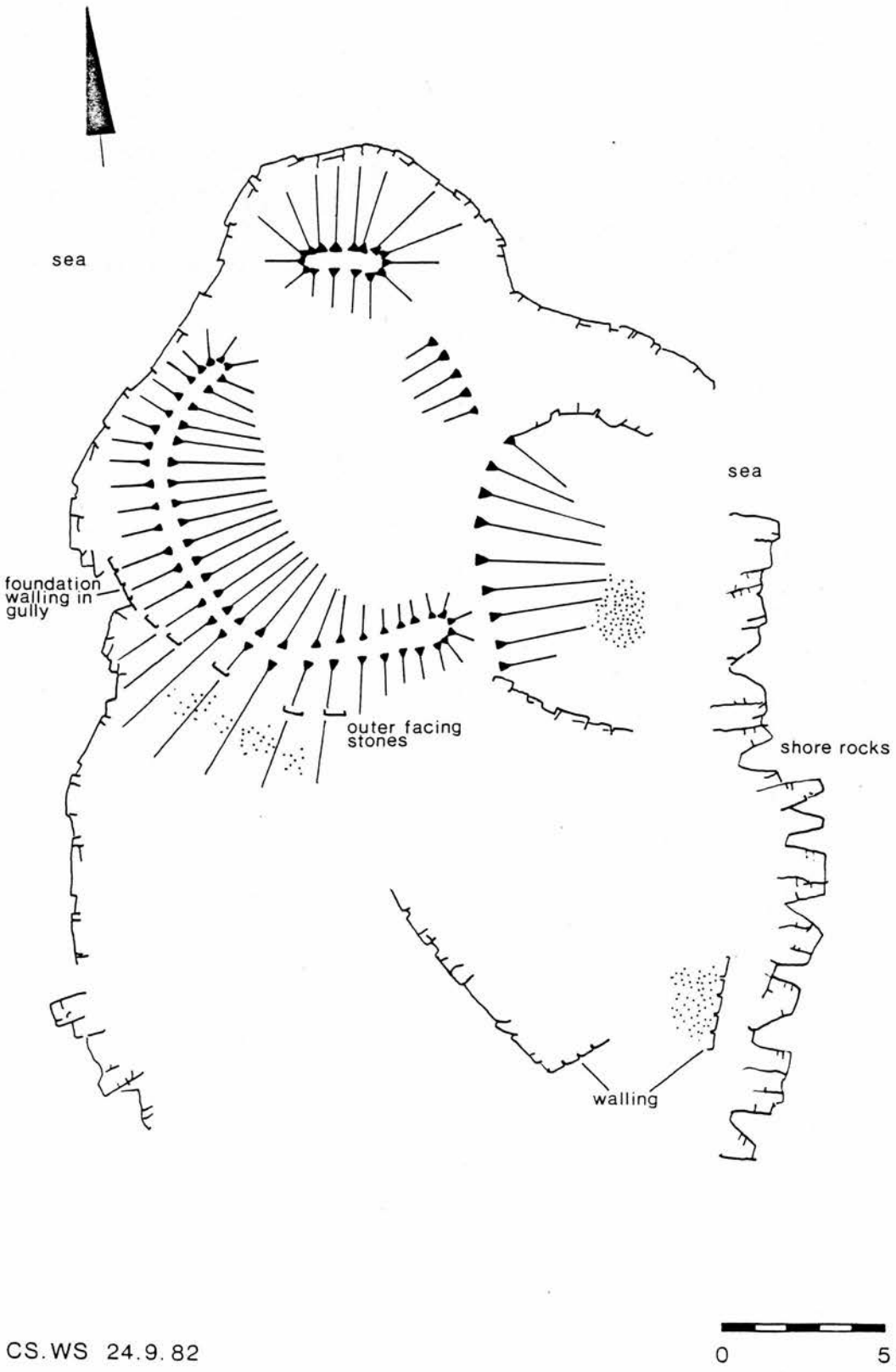


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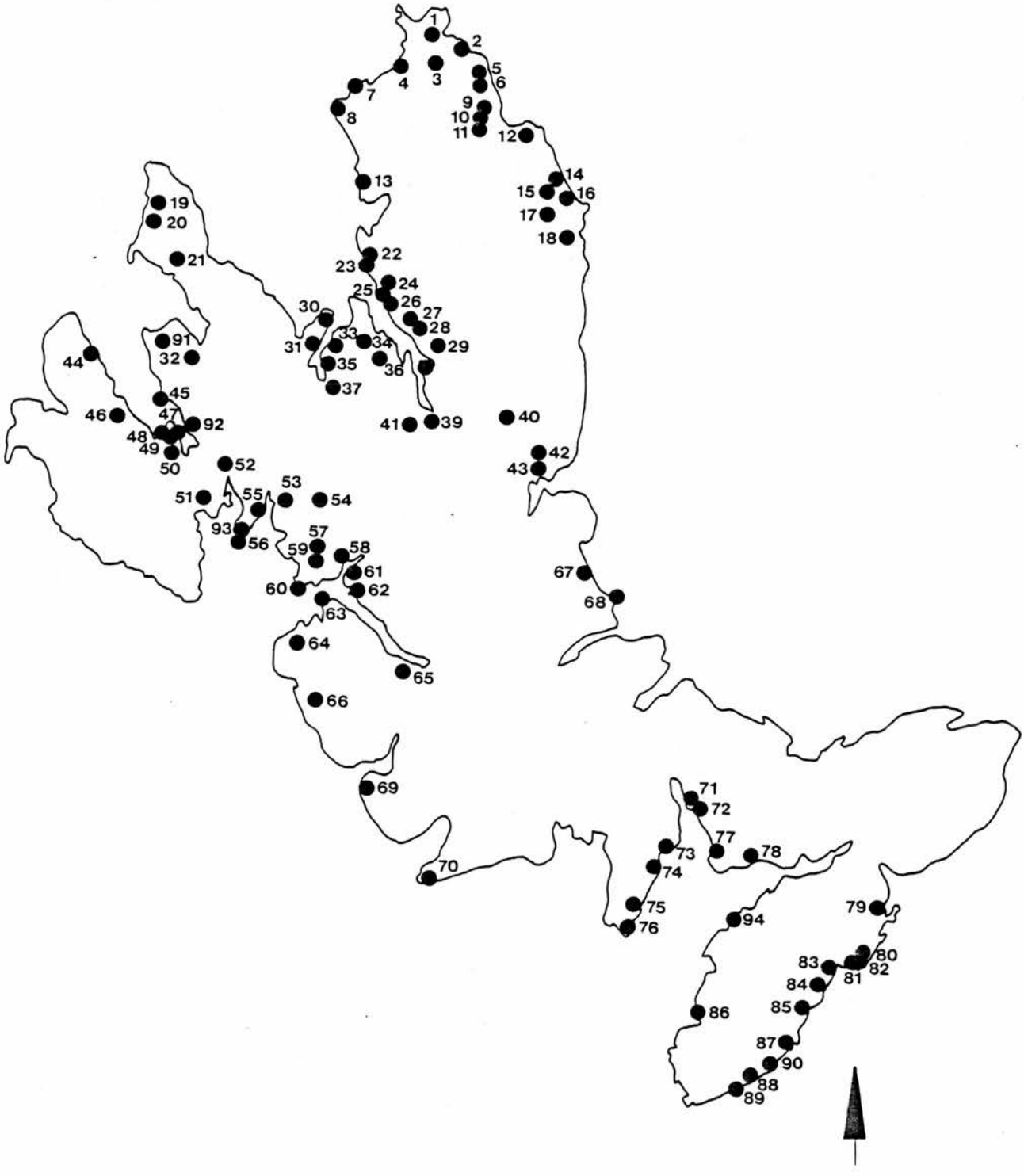
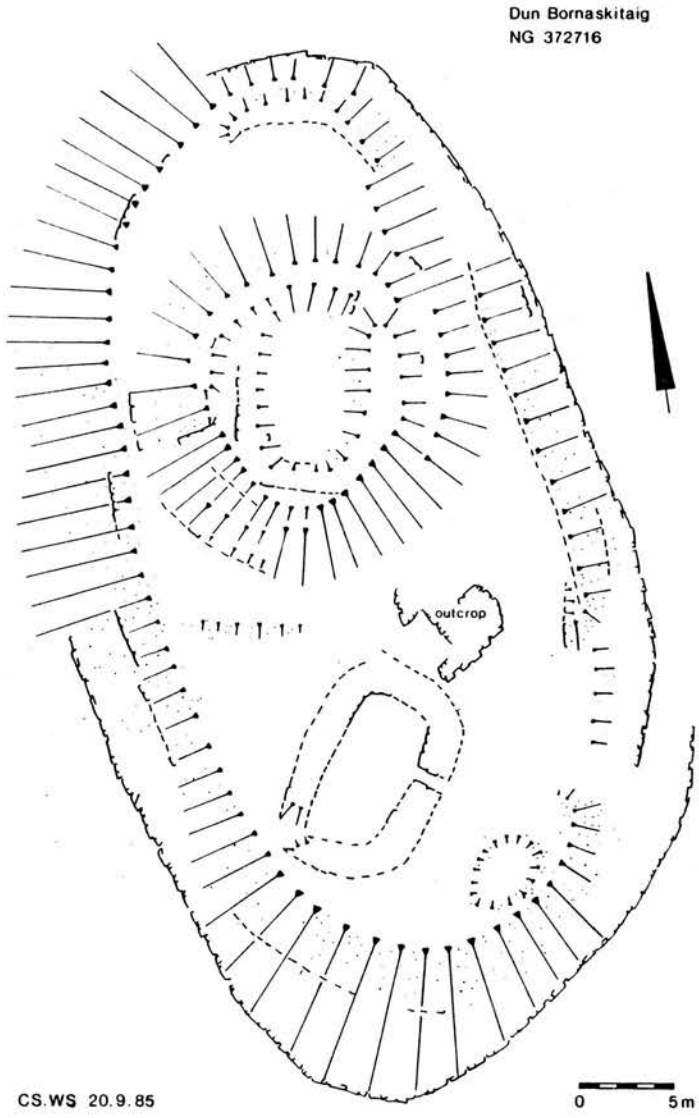
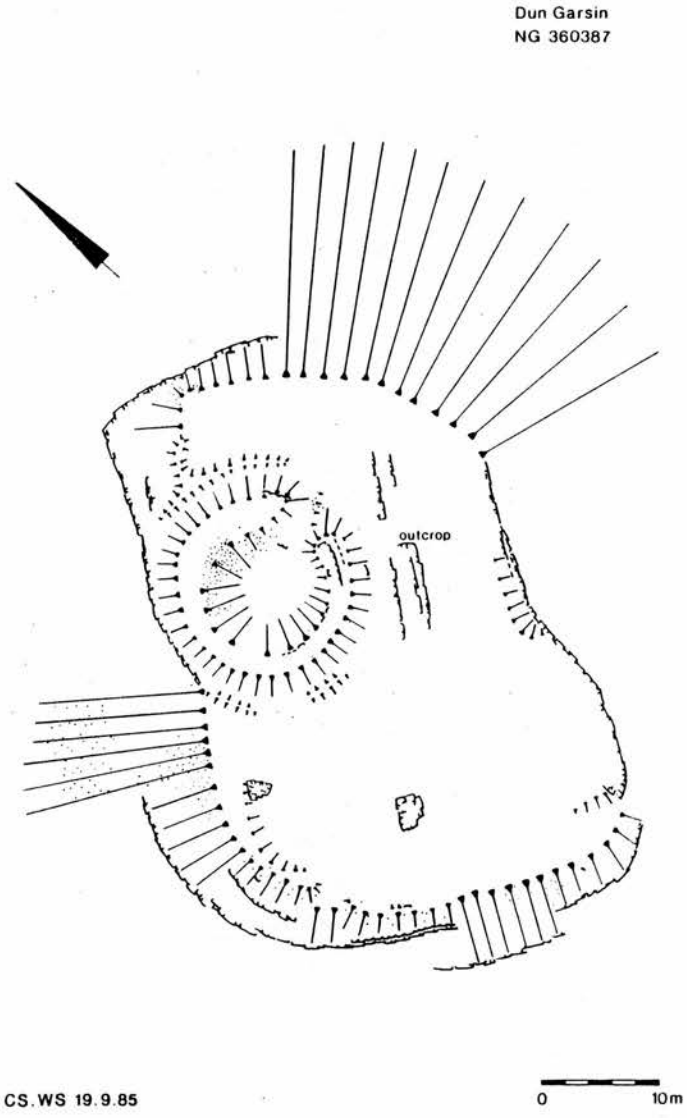
Figure 91



LOCATION OF POTENTIAL IRON AGE SITES


Dun Bornaskitaig
NG 372716
outcrop
CS.WS 20.9.85
0
5m

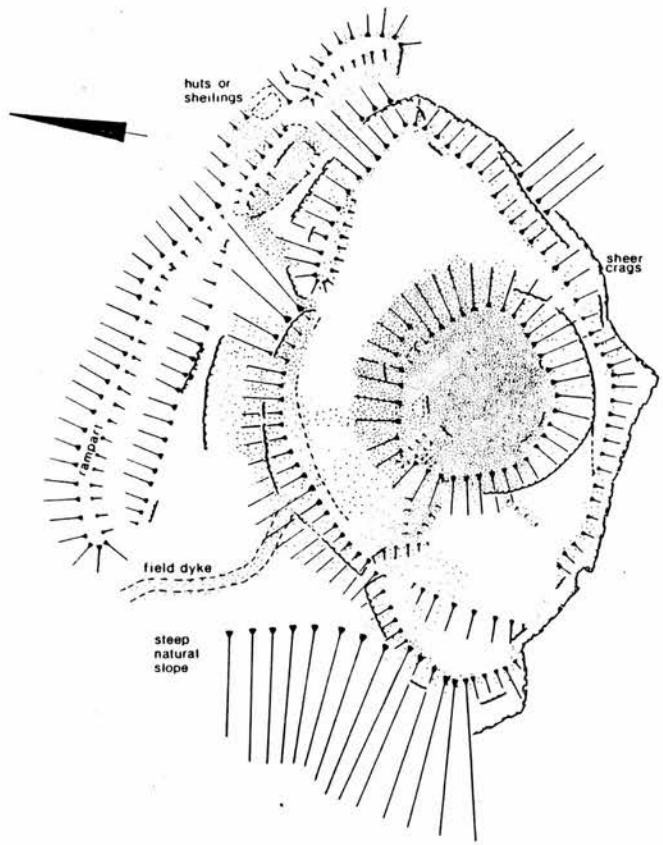
(a)


Dun Garsin
NG 360387
outcrop
CS.WS 19.9.85
0
10m

(b)

Figure 92

Dun Borve, Borve
NG 459477



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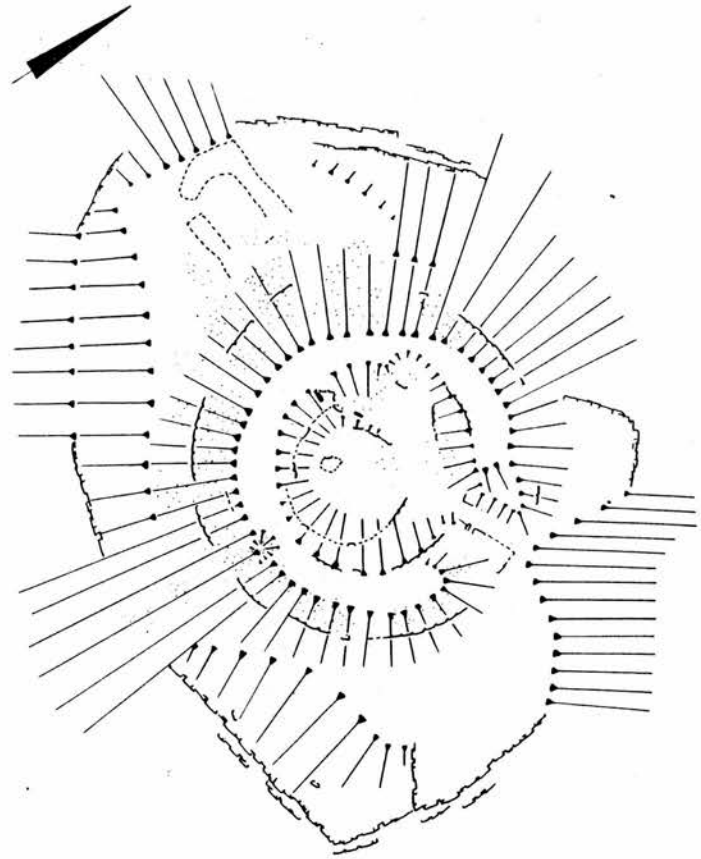
0 10m

(a)

Dunalighlinn
NG 309426



CS.WS 18.7.85

0 5m

(b)

Figure 93

Table 20 (pp328-332) indicates that 18 structures have consistently been identified as brochs by every authority to express an opinion on them. These are:

IS 3 Dun Grianan
IS 4 Dun Raisaburgh
IS 5 Kingsburgh
IS 8 Dun Flashader
IS 10 Dun Suladale
IS 11 Dun Edinbane
IS 12 Dun Gearymore
IS 13 Dun Borrafiach
IS 14 Dun Hallin
IS 16 Dun Boreraig
IS 17 Dun Fiadhairt
IS 18 Dun Colbost
IS 19 Dun Osdale
IS 20 Glen Heysdal
IS 23 Dun Arkaig
IS 24 Dun Beag
IS 28 Dun Ard an t'Sabhail
IS 29 Dun Sleadale

An additional 11 structures have been identified as brochs by various authorities, but there has been more dubiety about their classification. These are:

IS 1 Dun Flodigarry
IS 2 Dun Bornaskitaig
IS 6 Dun Borve, Borve
IS 7 Dun a'Cheitichin
IS 9 Dun Borve, Edinbane
IS 15 Claigan
IS 21 Dun Feorlig
IS 22 Abhuinn Bhaile Mheadonaich
IS 25 Dun Garsin
IS 26 Dun Diarmaid
IS 31 Dun Liath, Elgol

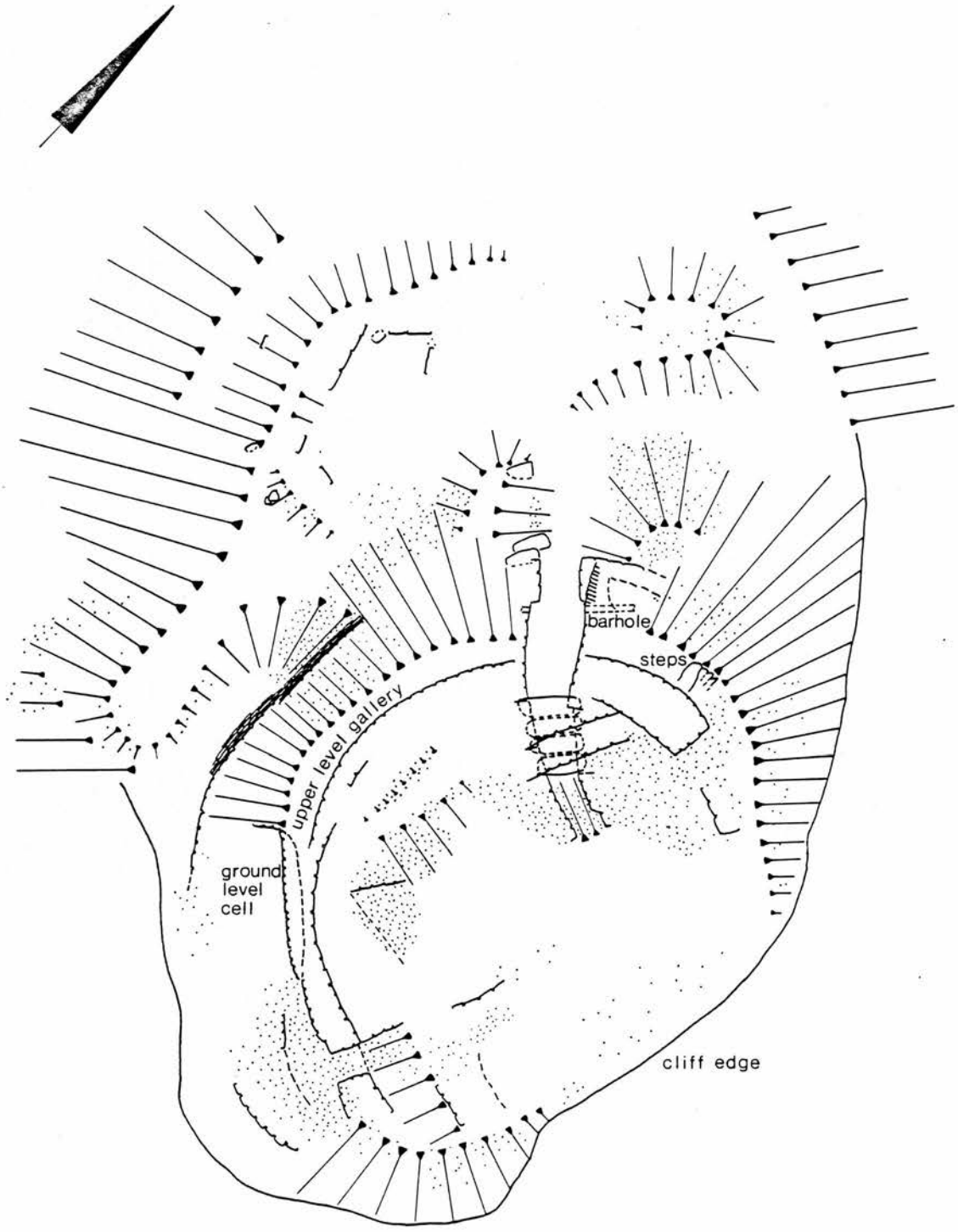
The inclusion of structures in the first group above seems to be based on two criteria: circularity of form, and evidence of a gallery within the wall of the structure. Even the very badly wrecked Glen Heysdal (IS 20) displays these two characteristics. On this basis and following survey of the sites (see site catalogue), two structures from the second group should be added to the first group, Dun Bornaskitaig (IS 2) and Dun Garsin (IS 25), both of which display circularity of form with some evidence of a ground level gallery (Figure 92). Dun Flodigarry (IS 1), a site which was only identified in 1977, has a ground level gallery but is not a complete structure, being C-shaped in plan. It has nonetheless been classified by its excavator as a definite broch, but an unfinished one, hence its C-shape (Martlew 1985, 46). Of the remaining sites in the second group, Dun Borve, Borve (IS 6) and Abhuinn Bhaile Mheadonaich (or

Dunalighlinn) (IS 22) should also be added to the first group as certain brochs. Both structures are circular and, although neither shows definite evidence of a ground level gallery, there is a suggestion of one at both sites (Figure 93). It is possible that Dun a'Cheitichin (IS 7) and Dun Borve, Edinbane (IS 9) may also be brochs, judging from the overall shape of the turf covered structures, and the name in the latter case, although there must remain some doubt about their classification. The four remaining sites in the second group, Claigan (IS 15), Dun Feorlig (IS 21), Dun Diarmaid (IS 26), and Dun Liath, Elgol (IS 31), are difficult to classify with certainty from field survey evidence alone, and their classification as brochs must remain doubtful. Altogether therefore there would appear to be 23 structures in Skye which match the traditional image of a broch, that is, circular in plan with a galleried wall, and there are a further 6 doubtful candidates.

There are a number of other galleried structures in Skye, although it is difficult to be certain of the exact number because of the present poor quality of the survey evidence. Table 21 (pp333-4) lists all those galleried structures known to exist on the island at present - 23 classified as brochs by the NMRS, and 9 classified otherwise. The 9 other galleried structures vary substantially in ground plan and size, and their relationship to the circular galleried structures, traditionally called brochs, is less than clear. MacKie identified 5 of these other galleried structures as certain or probable semibrochs, Dun Ardtreck (IS 27), Dun Ringill (IS 30), Dun Grugaig (IS 32), Rudh an Dunain, and Dun an Aisilidh (1965a, 139). To qualify as semibrochs the galleried structures had to be built against the edge of a cliff or precipice, and be only lightly walled or not walled at all on that side (MacKie 1965a, 104). The remaining galleried structures in Skye, and indeed in the rest of the west coast, which did not meet these criteria, were ignored by MacKie, and no explanation of their possible relationship with brochs and/or semibrochs was offered. Three of the other galleried structures in Skye have been included in the site catalogue for this thesis - Dun Ardtreck (IS 27), Dun Ringill (IS 30) and Dun Grugaig (IS 32), all identified by MacKie as semibrochs. They provide an interesting sample of the variety to be encountered in the irregular galleried structures of Skye.

Figure 94

Dun Ringill
NG 561170



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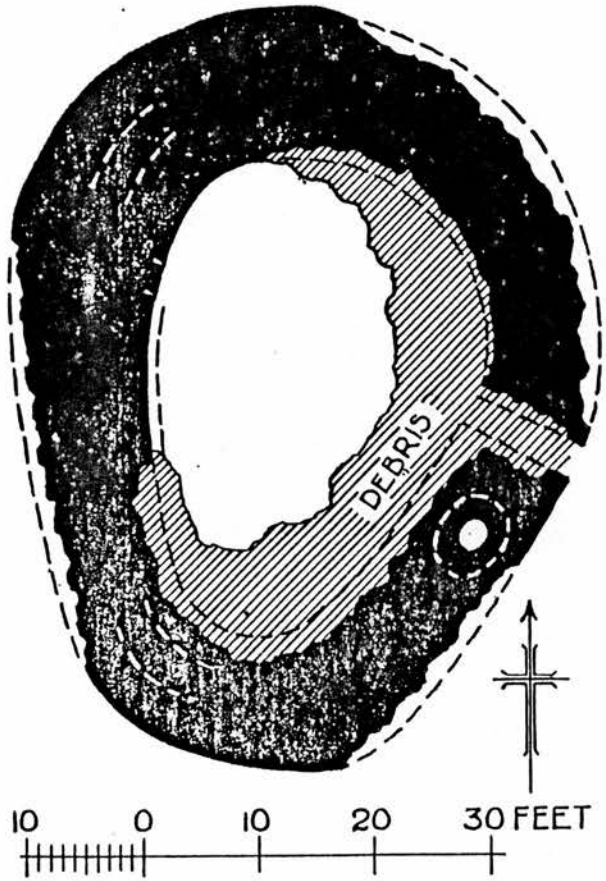
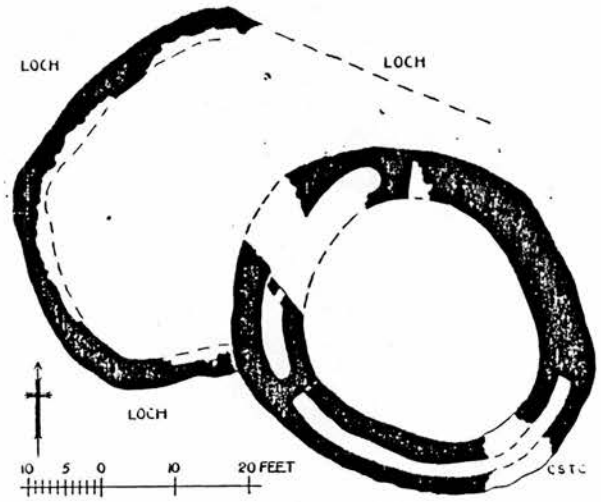
0 5m

Source: RCAHMS 1928, 181
Dun Borodale, Raasay



(a)

Source: RCAHMS 1928, 11
Dun Cromore, Lewis



(b)

Figure 95

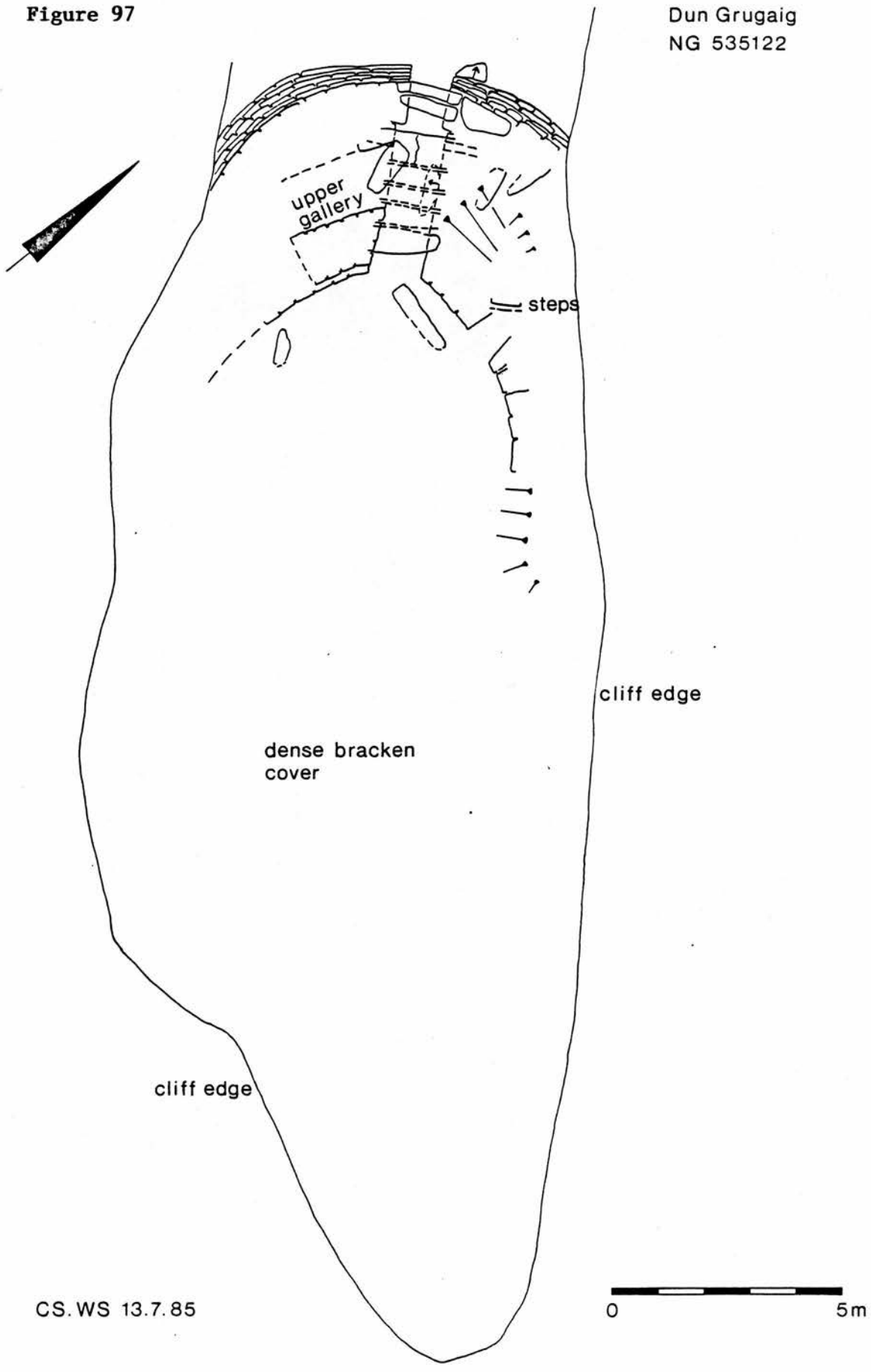
Dun Ardtreck, Skye

Figure 96

Source: MacKie 1965b, fig 2

Figure 97

Dun Grugaig
NG 535122



The resurvey of Dun Ringill (Figure 94) confirmed its slightly irregular plan, when compared with circular structures such as Dun Suladale (IS 10) and Dun Boreraig (IS 16), identified as certain brochs by all authorities. There is no visible evidence of an insubstantial wall along the cliff edge, and the structure gives the strong impression of having been cut on the east by cliff falls. It is highly possible that Dun Ringill was originally a complete structure, but it would have had an egg- or pear-shaped plan, rather than a circular one. In this respect it would perhaps have been similar to Dun Borrodale in Raasay, and Dun Cromore in Lewis, both of which have been identified as brochs by many authorities (Figure 95). The reason for the deviation of the ground plan away from a circle at Dun Ringill should perhaps be sought in the constructional difficulties presented by the site. It is clear that the ground inside the structure slopes up sharply from the west towards the east, although detail is obscured by later constructions in the interior. There do not seem to be reasonable grounds for separating Dun Ringill from the 23 structures fairly firmly identified as brochs in Skye, and it is suggested that it should be added to that category despite its irregular plan.

Dun Ardtreck was not resurveyed for this thesis, as there was a plan available from its recent excavation, and the structure is rather dangerously sited. MacKie's plan of the site (Figure 96) shows the wall recurving at the cliff edge in both the north-west and the south-east, but it should be noted that the excavation, not surprisingly, did not approach the cliff edge. Furthermore the wall is reduced to foundation level at this point:

"The dun itself was built on sharply sloping rock, so that, while the wall near the cliff edge was reduced to one course of masonry, the present wallhead was horizontal and the outer face on the landward side rose to 8ft and more." (MacKie 1965b, 5).

It is unfortunately very difficult to check the line of the wall at the cliff edge, because of the danger involved, and it is not at all clear that the it does in fact recurve as shown on MacKie's plan. There is some slight evidence of an insubstantial wall along the cliff edge in the southern half of the structure, which may have given an impression of a recurve in the wall on this side. The insubstantial wall, if such it is, may be a much later addition to the site. It must

also be taken into consideration that there is local information about recent cliff falls in the area (Dr Roberts, owner of Orbost Gallery, pers. comm.). The structure also has an outer enclosing wall, unlike Dun Ringill, but like many of the circular galleried structures on the island which are firmly identified as brochs. Until Dun Ardtreck is carefully resurveyed, it has to be maintained as a possibility that it may originally have been a complete structure with a circular plan, in which case there would be no difficulty about accepting it as a certain broch. According to MacKie's plan, the diameter of the internal area of a complete Dun Ardtreck would be about 13m, similar to that of Dun Suladale (IS 10), the largest broch in Skye.

The third irregular galleried structure included in the site catalogue, Dun Grugaig (IS 32), is totally different from the other two (Figure 97). It has a substantial galleried wall on the landward side of the promontory on which it sits, but the remainder of the structure would appear to consist of an insubstantial wall along the cliff edge, defining a narrow oblong area. Whereas it can be argued that both Dun Ringill and Dun Ardtreck may originally have had a complete enclosing galleried wall which has fallen over the cliff, the same is not true for Dun Grugaig. Dun Grugaig clearly has to be included with a number of other irregular galleried structures both in Skye and elsewhere on the west coast, the exact relationship of which to the circular galleried structures called brochs is a mystery. MacKie sought to explain the relationship of some of these structures to brochs by the semibroch hypothesis, but unfortunately he chose to excavate Dun Ardtreck and Dun an Ruigh Ruaidh in Wester Ross to prove his thesis, both of which may originally have been fully circular galleried structures or brochs (Harding in Miket and Burgess, 211). It would have been more interesting and perhaps more fruitful, if he had chosen instead to excavate Dun Grugaig or one of the other irregular galleried structures in Skye, such as, Rudh an Dunain.

In terms of estimating the exact number of brochs in Skye, and subsequently assessing their distribution pattern, the general problem of classifying Iron Age structures on the island presents some obvious difficulties. Whereas in Caithness it was simply a matter of identifying all possible broch sites to ensure a reasonably meaningful

assessment of distribution pattern, in Skye it is impossible to be certain which structures are contemporary, and which should be included with brochs in an assessment of distribution pattern. Chapter 16 which considers the relationship between brochs and the land in Skye, attempts to tackle this difficult problem.

Brochs and Galleried Structures on the West Coast

In Skye there would appear to be 23 structures which can be identified as brochs with reasonable certainty; 2 structures, Dun Ringill and Dun Ardtreck, which must be entertained as potential candidates for the broch category; 6 doubtful structures which may or may not be brochs; and 7 other galleried structures. Table 22 (pp335-339) compares these figures against the reputed numbers of brochs and galleried structures in other west coast locations. Table 22 is necessarily incomplete because of inadequate survey information for many areas. Structures displaying an internal revetment or median face within the wall width have been included in Table 22. These structures mostly occur in Argyll, and the internal revetment has been identified as a stabilising device, in much the same way as an intramural gallery is thought to have operated (RCAHMS 1971, 16). It is not clear that the internal revetment has been correctly identified in every case as a stabilising median face. In some cases it may be that the revetment is part of a collapsed gallery, or it may indicate the later addition of a skin or buttress to the wall.

From Table 22 (pp335-339) it can be seen that Skye has the largest number of circular galleried structures or brochs, with a handful of irregular galleried structures, variously identified as galleried duns and forts. To the west of the island there are a large number of certain and potential brochs in the Outer Hebrides, and to the east along the neighbouring mainland coast, there are possibly 10 examples of brochs, including the well preserved Dun Telve and Dun Troddan. To the south of Skye, circular galleried structures which can be identified as brochs, begin to peter out, with only a few on the other islands of the Inner Hebrides. By contrast irregular galleried structures increase substantially in numbers towards the south, with a large number thought to exist in mainland Argyll, if structures with a median or stabilising revetment are included.

Figure 98

Dun Grugaig
NG 851159

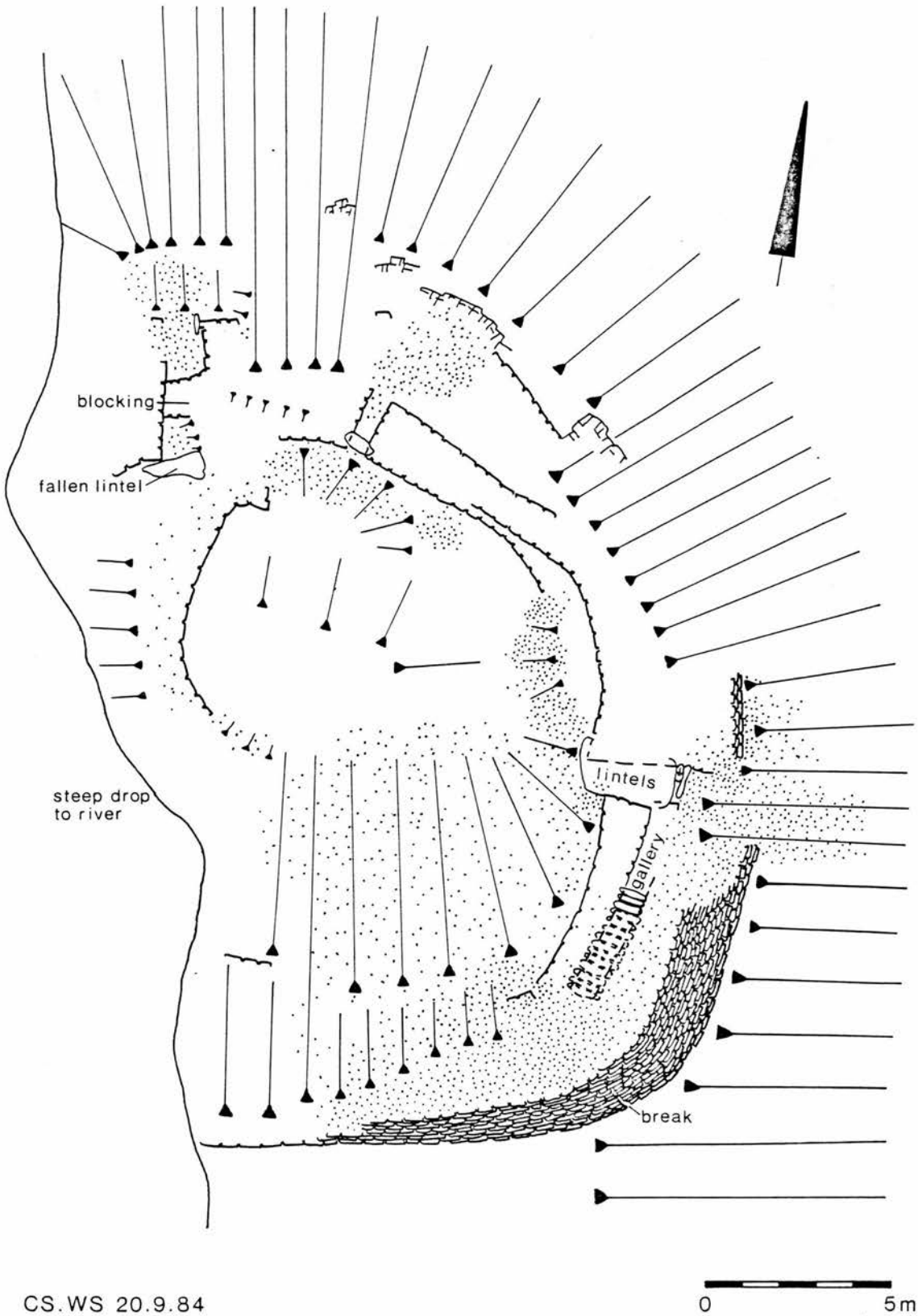


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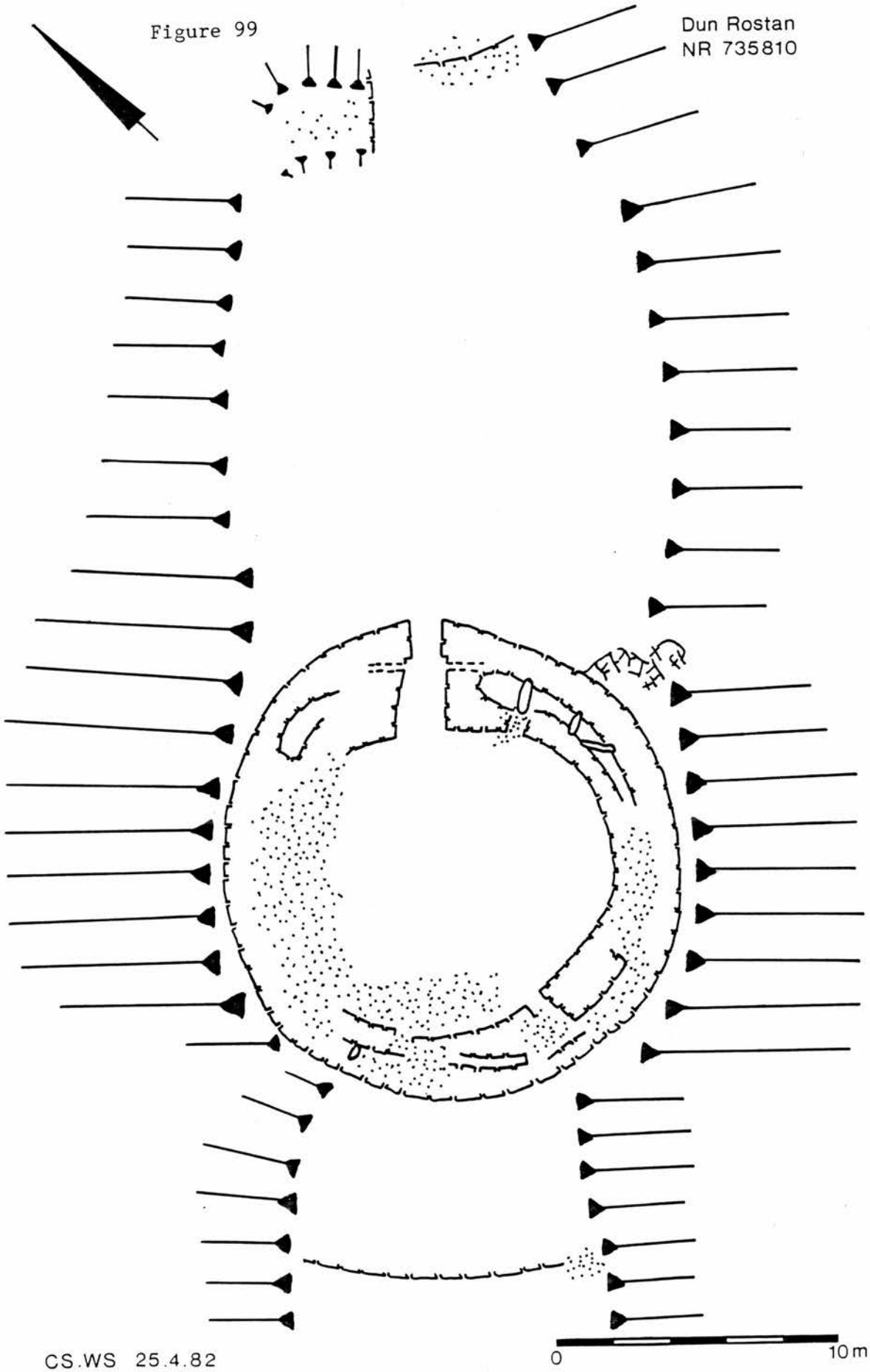
Figure 99



In terms of the distribution of circular galleried structures or brochs on the west coast, Skye clearly is a prime location, hence its interest for those seeking to find the origins of the broch structure in the west. It is important however not to lose sight of the fact that the circular galleried structures constitute only 56% of identified structures on the west coast utilising a gallery or intramural revetment as a stabilising device. It has been argued by MacKie that the circular galleried structure or broch is more sophisticated, and is hence a later development (1983, 120). No-one who has seen Dun Grugaig in Glenelg (Figure 98), could disagree that a considerable degree of sophistication and technical expertise went into its construction on a difficult site, yet it cannot be identified as a broch. The same is true of Dun Grugaig in Skye (IS 32) (Figure 97) and Dun Rostan in Mid Argyll (Figure 99).

Too myopic a concentration on circular galleried structures in the west, to the exclusion of all other types of possibly contemporaneous sites, seems less than constructive, if not positively biased given the current poor state of knowledge of the Iron Age throughout the west coast. This factor is borne in mind in the following chapters, which examine the nature of the circular galleried structures called brochs in Skye.

Table 20 Skye: Classification of Iron Age Structures

No	Name & Site Cat No	NGR	MacSween 1984-5 No & Class	RCAHMS 1928 No & Class	Graham 1946-7	Hamilton 1968	Current NMRS No & Class
1	Dun Vannerain	NG 428 755	H Unclassifiable	566 Site	--	--	NG 47 NW 2 Cairn
2	Dun Tom na h'Uraich	NG 450 739	69 Prom. Enclosure	543 Dun	--	--	NG 47 SE 1 Dun
3	Dun Hollan	NG 433 732	I Unclassifiable	549 Dun	--	--	NG 47 SW 4 Site of Dun
4	Dun David, on site of Duntulm Castle	NG 409 743	G Unclassifiable	568 Site	--	--	NG 47 SW 1 Poss. Site of Dun
5	Dun near Flodigarry	NG 463 721	J Unclassifiable	--	--	--	NG 47 SE 7 Dun
6	Dun Flodigarry (IS 1)	NG 463 719	18 Broch	--	--	--	NG 47 SE 6 Broch
7	Dun Bornaskitaig (IS 2)	NG 372 716	30 Dun	564 Site	Uncertain Broch	Broch	NG 37 SE 4 Broch
8	Dun Liath, Kilvaxter	NG 359 700	77 Prom. Enclosure	541 Galler. Dun	Comparable Structure	Comparable Structure	NG 37 SE 2 Galleried Fort on Earlier Fort
9	Dun Vallerain	NG 464 694	70 Prom. Enclosure	544 Dun	Comparable Structure	Comparable Structure	NG 46 NE 1 Fort
10	Dun Mor, Staffin	NG 447 679	71 Prom. Enclosure	--	--	--	NG 46 NW 11 Dun
11	Dun Beag, Staffin	NG 460 682	47 Enclosure	545 Dun	--	--	NG 46 NE 1 Fort
12	Dun Smail	NG 489 667	K Unclassifiable	565 Site	--	--	NG 46 NE 5 Site of Dun
13	Dun Skudiburgh	NG 374 647	52 Enclosure	542 Dun	Comparable Structure	Comparable Structure	NG 36 SE 1 Dun on top of Earlier Fort
14	Dun Grianan, Loch Mealt (IS 3)	NG 505 652	19 Broch	539 Broch	Broch	Broch	NG 56 NW 1 Broch
15	Dun Raisaburgh (IS 4)	NG 503 642	20 Broch	540 Broch	Broch	Broch	NG 56 SW 1 Broch
16	Dun Dearg	NG 513 643	72 Prom. Enclosure	546 Dun	--	--	NG 56 SW 2 Fort
17	Dun Connavern	NG 508 628	48 Enclosure	547 Dun	--	--	NG 56 SW 3 Dun
18	Dun Greanan, Inver Tote	NG 522 598	L Unclassifiable	--	--	--	NG 55 NW 1 Fort
19	Dun Gearymore (IS 12)	NG 236 649	13 Broch	511 Broch	Broch	Broch	NG 26 SW 1 Broch
20	Dun Borrafiach (IS 13)	NG 235 637	12 Broch	510 Broch	Broch	Broch	NG 26 SW 2 Broch

Table 20 (continued)

No	Name & Site Cat No	NGR	MacSween 1984-5 No & Class	RCAHMS 1928 No & Class	Graham 1946-7	Hamilton 1968	CurrentNMRS No & Class
21	Dun Hallin (IS 14)	NG 256 592	11 Broch	509 Broch	Broch	Broch	NG 25 NE 1 Broch
22	Dun Borve, Cuidrach	NG 380 597	46 Enclosure	628 Dun	--	--	NG 35 NE 6 Dun
23	Dun Maraig	NG 376 591	45 Enclosure	627 Dun	--	--	NG 35 NE 5 Fort
24	Dun Penduin	NG 388 577	68 Prom. Enclosure	630 Dun	Comparable Structure	Comparable Structure	NG 35 NE 2 Fort
25	Dun Santavaig	NG 382 572	67 Prom. Enclosure	625 Dun	--	--	NG 35 NE 11 Fort
26	Kingsburgh (IS 5)	NG 389 568	17 Broch	619 Broch	Broch	Broch	NG 35 NE 10 Broch
27	Dun Creag nam Meann	NG 402 555	44 Enclosure	624 Dun	--	--	NG 45 NW 1 Fort
28	Dun Adhamh	NG 409 546	43 Enclosure	623 Dun	--	--	NG 45 SW 15 Fort
29	Dun Eyre	NG 421 535	66 Prom. Enclosure	622 Dun	--	--	NG 45 SW 5 Fort
30	Dun na h'Airde	NG 350 557	64 Prom. Enclosure	520 Dun	--	--	NG 35 NE 3 Fort
31	Dun Meall an Duna	NG 336 540	65 Prom. Enclosure	521 Dun	--	--	NG 35 SW 1 Fort
32	Annait	NG 272 527	E Early Christian poss. earlier	499 Eccles. Struct.	--	--	NG 25 SE 1 Fort & Later Monastic Sett.
33	Dun Flashader (IS 8)	NG 351 534	15 Broch	513 Broch	Broch	Broch	NG 35 SE 3 Broch
34	Dun Tayinloan	NG 373 537	28 Dun	--	--	--	NG 35 SE 8 Dun
35	Dun Borve, Edinbane (IS 9)	NG 342 525	27 Dun	515 Prob. Broch	Uncertain Broch	Uncertain Broch	NG 35 SW 3 Broch
36	Dun Suladale (IS 10)	NG 374 525	16 Broch	618 Broch	Broch	Broch	NG 35 SE 2 Broch
37	Dun Edinbane (IS 11)	NG 353 509	14 Broch	512 Broch	Broch	Broch	NG 35 SE 4 Broch
38	Dun Cruinn	NG 410 518	51 Enclosure	621 Dun	--	--	NG 45 SW 3 Fort & Dun
39	Dun a'Cheitechin (IS 7)	NG 417 478	29 Dun	--	--	Broch	NG 44 NW 8 Prob. Broch
40	Dun Borve, Borve (IS 6)	NG 459 477	21 Broch	620 Broch	Uncertain Broch	Broch	NG 44 NE 2 Broch
41	Dun na'h-Uamha	NG 413 482	F Unclassifiable	--	--	--	NG 44 NW 10 Dun
42	Dun Gerashader	NG 489 452	73 Prom. Enclosure	577 Dun	--	--	NG 44 NE 3 Fort
43	Dun Torvaig	NG 493 442	74 Prom. Enclosure	578 Dun	--	--	NG 44 SE 2 Dun
44	Dun Boreraig, Dunvegan (IS 16)	NG 194 531	7 Broch	505 Broch	Broch	Broch	NG 15 SE 1 Broch
45	Dun Fiadhairt (IS 17)	NG 231 504	10 Broch	508 Broch	Broch	Broch	NG 25 SW 1 Broch

Table 20 (continued)

No	Name & Site Cat No	NGR	Macsween 1984-5 No & Class	RCAHMS 1928 No & Class	Graham 1946-7	Hamilton 1968	Current NMRS No & Class
46	Dun Colbost (IS 18)	NG 205 494	8 Broch	506 Broch	Broch	Broch	NG 24 NW 5 Broch
47	Dun Chaich	NG 243 477	63 Prom. Enclosure	518 Dun	--	--	NG 24 NW 8 Dun
48	Dun Totaig	NG 237 479	39 Dun	519 Dun	Comparable Structure	Comparable Structure	NG 24 NW 6 Dun
49	Dun Uiginish	NG 244 478	26 Dun	--	--	--	NG 24 NW 12 U Enclosure
50	Dun Osdale (IS 19)	NG 241 464	9 Broch	507 Broch	Broch	Broch	NG 24 NW 4 Broch
51	Dun Cnoc a'Sga	NG 256 447	42 Enclosure	517 Dun	--	--	NG 24 SE 1 Dun
52	Glen Heysdal (IS 20)	NG 298 453	6 Broch	514 Broch	Broch	Broch	NG 24 NE 5 Broch
53	Abhuinn Bhaile Mheadonaich (IS 22)	NG 309 426	24 Dun	481 Broch	Broch	Broch	NG 34 SW 2 Broch
54	Dun Arkaig (IS 23)	NG 349 426	5 Broch	480 Broch	Broch	Broch	NG 34 SW 1 Broch
55	Dun Feorlig (IS 21)	NG 299 423	25 Dun	516 Prob Broch	Uncertain Broch	Uncertain Broch	NG 24 SE 8 Broch
56	Dun Neill	NG 281 407	37 Dun	522 Dun	--	--	NG 24 SE 5 Fort & Dun
57	Dun Mor, Struan	NG 339 390	41 Enclosure	489 Dun	--	--	NG 33 NW 4 Fort
58	Dun Garsin (IS 25)	NG 360 387	3 Broch	482 Prob. Broch	Uncertain Broch	Broch	NG 33 NE 1 Broch
59	Dun Beag, Struanmore (IS 24)	NG 339 386	4 Broch	479 Broch	Broch	Broch	NG 33 NW 3 Broch
60	Dun Ullinish	NG 317 374	62 Prom. Enclosure	490 Prom. Fort	--	--	NG 33 NW 6 Prom. Fort
61	Dun Diarmaid (IS 26)	NG 354 381	23 Dun	485 Dun	--	--	NG 33 NE 2 Prob. Broch
62	Dun Taimh	NG 363 367	61 Prom. Enclosure	488 Dun	--	--	NG 33 NE 3 Fort
63	Dun Ardtreck (IS 27)	NG 335 358	76 Prom. Enclosure	484 Galler. Dun	Comparable Structure	Comparable Structure	NG 33 NW 5 Galleried Dun; Semibroch (Mackie)
64	Dun Ard an t'Sabhail (IS 28)	NG 318 333	2 Broch	478 Broch	Broch	Broch	NG 33 SW 1 Broch
65	Dun Merkadale	NG 389 306	36 Dun	487 Dun	--	--	NG 33 SE 1 Dun
66	Dun Sleadale (IS 29)	NG 323 292	1 Broch	477 Broch	Broch	Broch	NG 32 NW 1 Broch
67	Dun Vlarvaig	NG 517 369	75 Prom. Enclosure	584 Site	--	--	NG 53 NW 9 Fort
68	Dunan an Aisilidh	NG 532 357	50 Enclosure	576 Galler. Dun	Comparable Structure	Comparable Structure	NG 53 NW 5 Galleried Dun; Semibroch (Mackie)

Table 20 (continued)

No	Name & Site Cat No	NGR	MacSween 1984-5 No & Class	RCAHMS 1928 No & Class	Graham 1946-7	Hamilton 1968	Current NMRS No & Class
69	Dun Kraiknish	NG 354 234	35 Dun	486 Dun	--	--	NG 32 SE 2 Dun
70	Dun Rudh an Dunain	NG 395 159	60 Prom. Enclosure	483 Galler. Dun	Comparable Structure	Comparable Structure	NG 31 NE 1 Galleried Dun; Semibroch (Mackie)
71	Dun Mor, Torran	NG 574 201	40 Enclosure	653 Dun	--	--	NG 52 SE 4 Dun
72	Dun Beag, Torran	NG 575 198	57 Prom. Enclosure	652 Dun	--	--	NG 51 NE 1
73	Dun Ringill (IS 30)	NG 561 170	38 Dun	650 Galler. Dun	Comparable Structure	Comparable Structure	NG 51 NE 4 Galleried Dun; Semibroch (Mackie)
74	Dun Drinan	NG 553 162	58 Prom. Enclosure	654 Dun	--	--	NG 51 NE 6 Dun
75	Dun Liath, Elgol (IS 31)	NG 543 142	22 Dun	655 Dun	Uncertain Broch	Broch	NG 51 SW 2 Broch
76	Dun Grugaig (IS 32)	NG 535 122	59 Prom. Enclosure	651 Galler. Dun	Comparable Structure	Comparable Structure	NG 51 SW 1 Galleried Dun; Semibroch (Mackie)
77	Dun Kearstach	NG 596 174	49 Enclosure	649 Galler. Dun	Comparable Structure	Comparable Structure	NG 51 NE 3 Galleried Dun
78	Dun Boreraig, Strath	NG 615 161	34 Dun	656 Dun	--	--	NG 61 NW 2 Dun
79	Dun Ban, Camascross	NG 701 106	A Unclassifiable	607 Dun	--	--	NG 71 SW 2 Dun
80	Dun Loch Baravaig	NG 680 098	31 Dun	606 Dun	--	--	NG 60 NE 5 Dun
81	Dunan Choinnich	NG 682 083	32 Dun	605 Dun	--	--	NG 60 NE 6 Dun
82	Site of Dun	NG 689 089	B Unclassifiable	615 Site	--	--	NG 60 NE 3 Site of Dun
83	Dun Horovaig on site of Knock Castle	NG 671 087	C Unclassifiable	614 Site	--	--	NG 60 NE 4 Site of Dun
84	Dun Pharuig	NG 660 069	53 Prom. Enclosure	604 Dun	--	--	NG 60 NE 1 Dun
85	Dun Ila	NG 646 056	54 Prom. Enclosure	603 Dun	--	--	NG 60 NW 1 Dun
86	Dun Geilbt	NG 568 048	D Unclassifiable	602 Dun	Comparable Structure	Comparable Structure	NG 50 SE 1 Dun
87	Dun Carn Breac	NG 632 030	55 Prom. Enclosure	608 Dun	--	--	NG 60 SW 1 Dun
88	Dun a'Chleirich	NG 605 009	33 Dun	609 Dun	--	--	NG 60 SW 2 Dun
89	Dun Ban, Aird of Sleat	NG 600 004	56 Prom. Enclosure	601 Dun	--	--	NG 60 SW 3 Dun
90	Dun Chlo, Tormore	NG 618 015	--	--	--	--	NG 60 SW 7 Dun
91	Claigan (IS 15)	NG 238 541	--	--	--	--	-- Poss. Broch

Table 20 (continued)

No	Name & Site Cat No	NGR	MacSween 1984-5 No & Class	RCAHMS 1928 No & Class	Graham 1946-7	Hamilton 1968	Current NMRS No & Class
92	Dunvegan Castle	NG 247 481	--		--	--	NG 24 NW 7 Prob. Site of Dun
93	Dunelireach	NG 288 418	--		--	--	NG 24 SE 3 Site of Dun
94	Dun Sgaith Castle	NG 595 120	--		--	--	NG 51 SE 1 Prob. Site of Dun
95	Dun Tavison	--	--		--	--	NG 56 NW 2 Poss. Site of Dun (historic ref.)

Sources: RCAHMS 1928
Graham 1946-7
MacKie 1965a
Hamilton 1968
Disc Exc Scot 1979, 17
Disc Exc Scot 1982, 15
MacSween 1984-5
NMRS

Table 21 Skye: Galleried Structures

No	Name & Site Cat No	NMRS Class	Comments
6	Dun Flodigarry (IS 1)	Broch	C-shaped structure with a ground gallery, excavated (Martlew 1985), supposed unfinished broch
7	Dun Bornaskitaig (IS 2)	Broch	Badly ruined circular structure, evidence of an intramural gallery
8	Dun Liath, Kilvaxter	Galleried Fort on Earlier Fort	Drop or pear shaped structure, approx. 50m by 30m, wall reduced on W side towards cliff, very partially excavated (MacKie 1965b)
14	Dun Grianan (IS 3)	Broch	Circular galleried structure partially submerged by Loch Mealt
15	Dun Raisaburgh (IS 4)	Broch	Circular galleried structure with an entrance and possible guard cell visible, reduced largely to foundation level
19	Dun Gearymore (IS 12)	Broch	Circular galleried structure, two superimposed galleries in W arc of wall
20	Dun Borrafiach (IS 13)	Broch	Circular galleried structure, wall standing 3m high, upper level gallery exposed
21	Dun Hallin (IS 14)	Broch	Circular galleried structure, wall standing up to 3m high, gallery, cells, and stair visible
26	Kingsburgh (IS 5)	Broch	Circular galleried structure reduced to foundation level, remnants of a ground level gallery
33	Dun Flashader (IS 8)	Broch	Circular galleried structure, badly ruined, apparent gallery in outer wall to NE
36	Dun Suladale (IS 10)	Broch	Circular galleried structure, well preserved, gallery, cells and stair visible in wall width
37	Dun Edinbane (IS 11)	Broch	Circular galleried structure, badly ruined, ground level gallery visible
40	Dun Borve, Borve (IS 6)	Broch	Circular structure, suggestion of gallery in NNE
43	Dun Torvaig	Dun	Roughly oval structure with an outer wall to NW, apparent gallery leading off entrance to either side, OS identified feature as a stabilising face
44	Dun Boreraig, Dunvegan (IS 16)	Broch	Circular galleried structure, well preserved, two superimposed galleries in wall
45	Dun Fiadhairt (IS 17)	Broch	Circular galleried structure, well preserved, two entrances, ground level gallery, evidence of upper level gallery
46	Dun Colbost (IS 18)	Broch	Circular galleried structure, evidence of two superimposed galleries in wall

Table 21 (continued)

No	Name & Site Cat No	NMRS Class	Comments
50	Dun Osdale (IS 19)	Broch	Circular galleried structure, evidence of two superimposed galleries in wall
52	Glen Heysdal (IS 20)	Broch	Circular structure, badly ruined, slight evidence of ground level gallery
53	Abhuinn Bhaile Mheadonaich (IS 22)	Broch	Circular structure, suggestion of gallery in SW arc
54	Dun Arkaig (IS 23)	Broch	Circular galleried structure, ruined
58	Dun Garsin (IS 25)	Broch	Circular structure, turf covered, evidence of ground level gallery in SE arc
59	Dun Beag, Struanmore (IS 24)	Broch	Circular galleried structure, well preserved, gallery, cells, and stair visible in wall
63	Dun Ardtreck (IS 27)	Galleried dun	C-shaped structure against cliff edge, ground level gallery in wall, may originally have been a complete circular galleried structure
64	Dun Ard an t'Sabhail (IS 28)	Broch	Circular galleried structure, badly ruined
66	Dun Sleadale (IS 29)	Broch	Circular galleried structure, possibly two tiers of galleries in wall
67	Dun Vlarvaig	Fort	Substantial wall cutting off a promontory, reputed gallery in wall to SE of entrance
68	Dunan an Aisildh	Galleried dun	Irregularly shaped galleried structure, gallery in S arc of wall, most of wall missing on E
70	Dun Rudh an Dunain	Galleried prom. dun	Substantial wall cutting off a promontory, gallery in wall to the E of entrance
73	Dun Ringill (IS 30)	Galleried dun	Irregularly shaped galleried structure, apparently cut by cliff falls, may originally have been a pear-shaped galleried structure, cell, upper level gallery, and stair visible in wall
76	Dun Grugaig (IS 32)	Galleried dun	Substantial wall cutting off a promontory, upper level gallery and stair in wall, remainder of structure apparently an insubstantial wall on cliff edge
77	Dun Kearstach	Galleried dun	Drop or pear-shaped structure, gallery in wall on N, E and S

Sources: RCAHMS 1928; MacKie 1965b; MacSween 1984-5; Martlew 1985; NMRS

Table 22 West Coast: Brochs and Galleried Structures

Area	Certain Brochs	Uncertain Brochs	Other Galleried Structures etc
Lewis	1 Dun Borve 2 Dun Carloway 3 Dun Cromore 4 Dun Loch an Duna 5 Dun Traigh na Berie	1 Dun Arnistean 2 Dun Baravat, Gt Bernera 3 Dun Borranish 4 Dun Sleibhe 5 Dun Smirvig 6 Dun Stuigh, Gt Bernera	1 Dun Bilascleiter 2 Dun Loch an Duin 3 Loch Baravat
Harris		1 Dun Borve	1 Dun Loch an Duin, Taransay
N and S Uist	1 Dun an Sticer, N Uist 2 Dun Torcuill, N Uist	1 Dun Aligarry, S Uist 2 Dun Buidhe, Ardnamonie, S Uist 3 Dun na Buaile-uachdraich, S Uist 4 Dun na Mairbhe, N Uist 5 Dun Vulan, S Uist	1 Dun Buidhe, S Uist 2 Dun Torcusay, S Uist 3 Dun Loch Hunder, N Uist 4 Dun Ban, Grimsay, N Uist
Barra	1 Dun a'Chaolais	1 Dun an t'Sleibh 2 Dun Ban 3 Dun Chlif 4 Dun Cuier 5 Dun Loch an Duin 6 Dun na Cille 7 Dunan Ruadh, Fuday 8 Dunan Ruadh, Pabbay 9 Dun Sandray	1 Dun Scurrival
Berneray		1 Dun Borve	1 Dun Sron an Duin, Barra Head
Skye	1 Dun Flodigarry 2 Dun Bornaskitaig 3 Dun Grianan 4 Dun Raisaburgh	1 Dun Borve, Edinbane 2 Dun a'Chetichin 3 Dun Feorlig 4 Dun Diarmaid	1 Dun Liath, Kilvaxter 2 Dun Torvaig 3 Dun Vlarvaig 4 Dunan an Aisilidh

Table 22 (continued)

Area	Certain Brochs	Uncertain Brochs	Other Galleried Structures etc
Skye (continued)	5 Dun Gearymore 6 Dun Borrafiach 7 Dun Hallin 8 Kingsburgh 9 Dun Flashader 10 Dun Suladale 11 Dun Edinbane 12 Dun Borve, Borve 13 Dun Boreraig, Dunvegan 14 Dun Fiadhairt 15 Dun Colbost 16 Dun Osdale 17 Glen Heysdal 18 Abhuinn Bhaile Mheadonaich 19 Dun Arkaig 20 Dun Garsin 21 Dun Beag, Struanmore 22 Dun Ard an t'Sabhail 23 Dun Sleadale	5 Dun Ardtreck 6 Dun Ringill 7 Dun Liath, Elgol 8 Claigan	5 Dun Rudh an Dunain 6 Dun Grugaig 7 Dun Kearstach
Raasay		1 Dun Borrodale	
Mull	1 Ardnacross 2 Dun nan Gall		1 Allt Cill Chriosd (stabilising revetments in wall) 2 An Caisteal (stabilising revetment in wall) 3 An Sean Dun (stabilising revetment in wall) 4 Dun a'Geard 5 Dun Aisgain 6 Dun Bhuirg (cell in wall)

Table 22 (continued)

Area	Certain Brochs	Uncertain Brochs	Other Galleried Structures etc
Mull (continued)			7 Dun Choinichean 8 Dun Mhadaidh 9 Dun Urgadul (stabilising revetment in wall) 10 Eilean na h-Ordaig (trace of cell and stabilising revetment in wall)
Tiree	1 Dun Mor a'Chaolais 2 Dun Mor Vaul		1 An Dun, Balephetrish (stabilising revetment in wall) 2 Dun Beag Vaul (stabilising revetment in wall) 3 Dun Boraige Moire (stabilising revetment in wall) 4 Dun Hiader 5 Dun Ibrig
Islay	1 Dun Bhoraraic		1 Beinn a'Chasteil (stabilising revetment in wall of fort) 2 Dun Chroisprig 3 Lon Broach 1 (stabilising revetment in wall) 4 Lon Broach 2 (stabilising revetment in wall)
Colonsay			1 Dun Cholla (stabilising revetment in wall)
Lismore	1 Tirefour Castle	1 An Dun, Loch Fiart	
Luing			1 Leccamore (cells in wall)
Seil			1 Dun Aorain (cells in wall)

Table 22 (continued)

Area	Certain Brochs	Uncertain Brochs	Other Galleried Structures etc
Mainland N	1 An Dun, Loch Ardbhair, Sutherland 2 Clachtoll, Sutherland 3 Kylesku, Sutherland 4 Leckmelm, W Ross 5 Mains of Applecross, W Ross 6 Caisteal Grugaig, W Ross 7 Dun Telve, Glenelg 8 Dun Troddan, Glenelg	1 Dun an Ruigh Ruadh, W Ross 2 Dun Lagaidh, W Ross	1 Dun Grugaig, Glen Elg
Mainland S		1 Doon Castle, Ardwell Wigtownshire 2 Teroy, Wigtownshire 3 Stairhaven, Wigtownshire 4 Crummag Head, Wigtownshire	1 Gallanach, Lorn (stabilising revetment in wall) 2 Dun Mor, Dunchraigaig, Mid Argyll (stabilising revetment in wall) 3 Dun a'Choin Duibh, Mid Argyll (stabilising revetment in wall) 4 Dun Rostan, Mid Argyll 5 Dunans, Mid Argyll (poss. gallery) 6 Dun Mhulig, Mid Argyll 7 Mullach Dubh, Mid Argyll 8 Allt nan Tri-Crioch, Mid Argyll (poss. stabilising revetment in wall) 9 Barr na Cour, Mid Argyll 10 Dun Cragach, Mid Argyll 11 Castle Dounie, Mid Argyll 12 Druim an Duin, Mid Argyll (guard cell in wall) 13 Ballymeanoch Mid Argyll (stabilising revetment in wall)

Table 22 (continued)

Area	Certain Brochs	Uncertain Brochs	Other Galleried Structures etc
Mainland S (continued)			14 Loch Glashan, Mid Argyll (stabilising revetment in wall) 15 Ardifuar, Mid Argyll (guard cell and stair in wall) 16 Dun na Maraig, Mid Argyll (poss. guard cell in wall) 17 Dun Mor, West Loch Tarbert, Mid Argyll (poss. stabilising revetment in wall) 18 Dun Chonnallaich, Mid Argyll (stabilising revetment in wall) 19 Ranachan Hill, Kintyre (stabilising revetment in wall) 20 Kildalloig, Kintyre (cells and stabilising revetment in wall) 21 Kildonan Bay, Kintyre (cell, gallery and stabilising revetment in wall) 22 Barr Iola, Cowal 23 Inverglen, Cowal (poss. cells) 24 Dunburgidale, Bute 25 Castle Haven, Kirkcudbright 26 Eldrig, Wigtownshire (poss. gallery in wall) 27 Garheugh, Wigtownshire (cells in wall)

Sources: RCAHMS 1911a, 1912, 1928, 1971, 1975, 1980, 1984, forthcoming
Hamilton 1968, Appendix 6
NMRS

CHAPTER 16 BROCHS AND THE LAND

The aim of this chapter is to assess the contemporary relationship between brochs and the land in the Isle of Skye. This requires a reconstruction of past environments for which there are in fact few sources generally throughout the west coast of Scotland. Skye however is better served in this respect than any other island of the Inner Hebrides (Birks 1973; Birks and Williams 1983). It was pointed out in Chapter 15 that the considerable variety and number of potential Iron Age sites in Skye is a problem for the assessment of site distribution in relation to contemporary landscape. The paucity of archaeological research into the range of potential Iron Age sites in Skye means that it is impossible to know if any, some, or all of the other types of sites were in fact in contemporary use with brochs. An assessment of the range of sites, including brochs, in relation to landscape may perhaps help to shed some light on this difficult problem.

Section 16.1 below describes the modern landscape of the Isle of Skye, drawing attention to the considerable variety across this large island. Section 16.2 attempts a tentative reconstruction of the landscape of Skye during the period when brochs are likely to have been occupied, again highlighting the variation which is thought to have existed. Section 16.3 assesses the distribution pattern of brochs on the island in relation to available information on their contemporary environment, and in relation to the wider pattern of potential Iron Age sites. Finally, section 16.4 considers whether there is landscape evidence for understanding broch function in Skye, and whether any relationships between brochs and other types of Iron Age sites on the island are identified by a consideration of contemporary landscape.

16.1 The Modern Landscape

Birks (1973, 170) has pointed out that Skye is an island with a variety of landscapes created by its solid geology and topography. He divided the island into six basic landform areas which in conjunction with climatic factors and land use, have had an influence on the present day vegetation cover. The different landform areas would have

operated similarly in the past, giving rise to a variety of environments across the island. The six landform areas are as follows (Birks 1973, 11-7; Figure 100).

(1) The Sleat Peninsula is underlain by Palaeozoic rocks. There are no areas above 1000ft (305m), but the topography is rugged with steep, bare rock outcrops, peat filled hollows, small lochans, and deeply cut ravines with waterfalls.

(2) In lowlying Suardal there are Cambrian, and possibly Early Ordovician, rocks giving rise to limestone outcrops in part altered to marble by Tertiary intrusions.

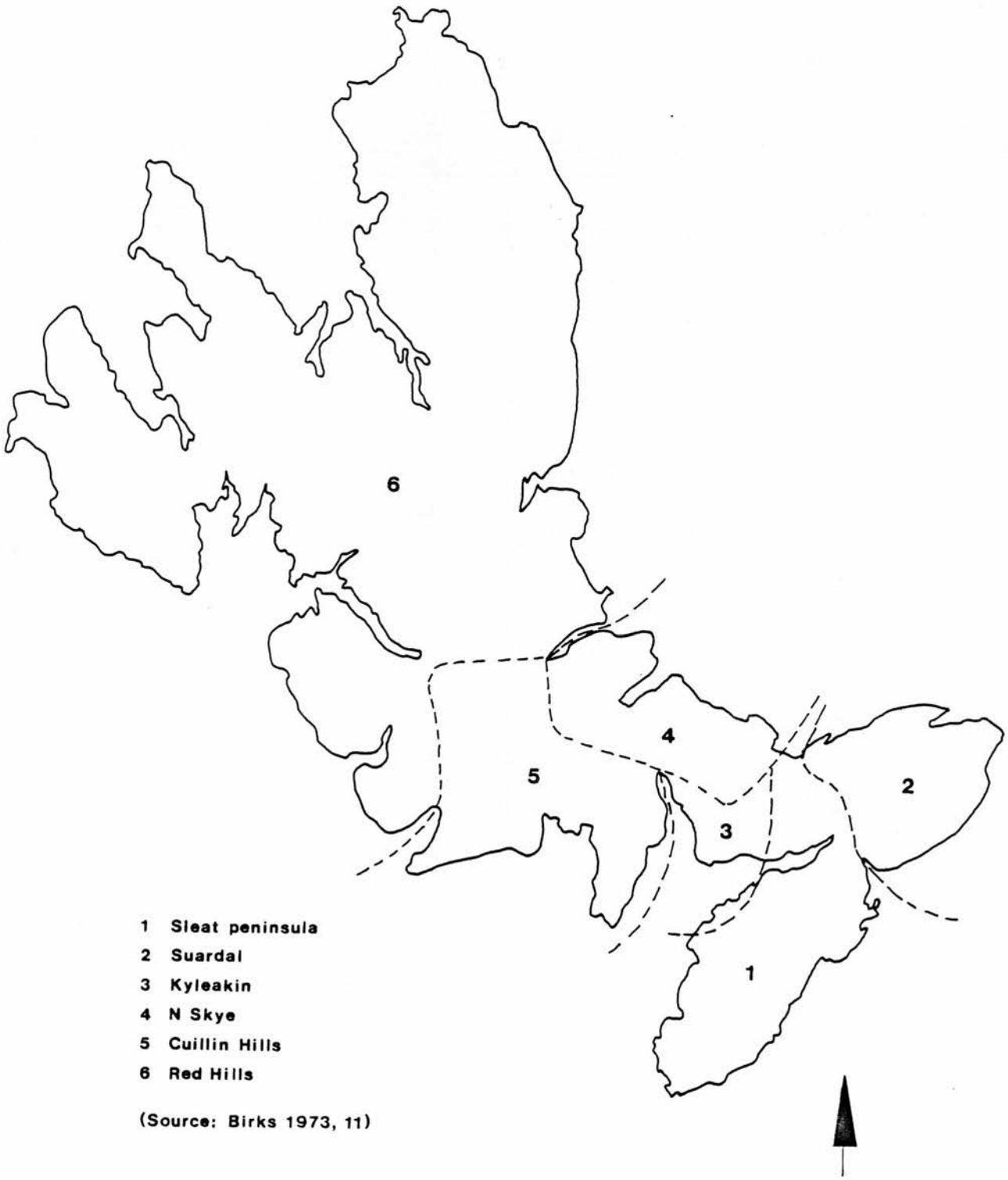
(3) The Kyleakin area consists primarily of Torridonian sandstones, rising to form two peaks above 2000ft (610m). The topography in the area is subdued with few extensive cliffs or rock outcrops, although there are many deep ravines with waterfalls.

(4) Northern Skye has three peninsulas, Trotternish, Vaternish, and Duirinish, joining to an area in the centre of the island around Portree. The land to the west of Portree is mainly lower than 1000ft (305m). It has an extensive drift cover, with complex drainage systems and numerous small lochans and peat filled hollows. It is separated from the three peninsulas by straths and sea lochs. The topography of the Trotternish peninsula is rugged and spectacular, displaying much evidence of Tertiary volcanic activity, particularly an east facing basaltic escarpment along its east coast. In the lowlands of the peninsula there are large areas of hummocky, peat covered ground. The Vaternish and Duirinish peninsulas lie mainly below 1000ft (305m), but have precipitous and spectacular sea cliffs, cut by deep ravines and waterfalls.

(5) The Cuillin Hills contain the highest peak on Skye, Sgurr Alisdair at 3309ft (1014m). The hills have a characteristic form with serrated peaks, narrow summit ridges, deeply cut corries, extensive scree slopes, and moraine bounded lochans.

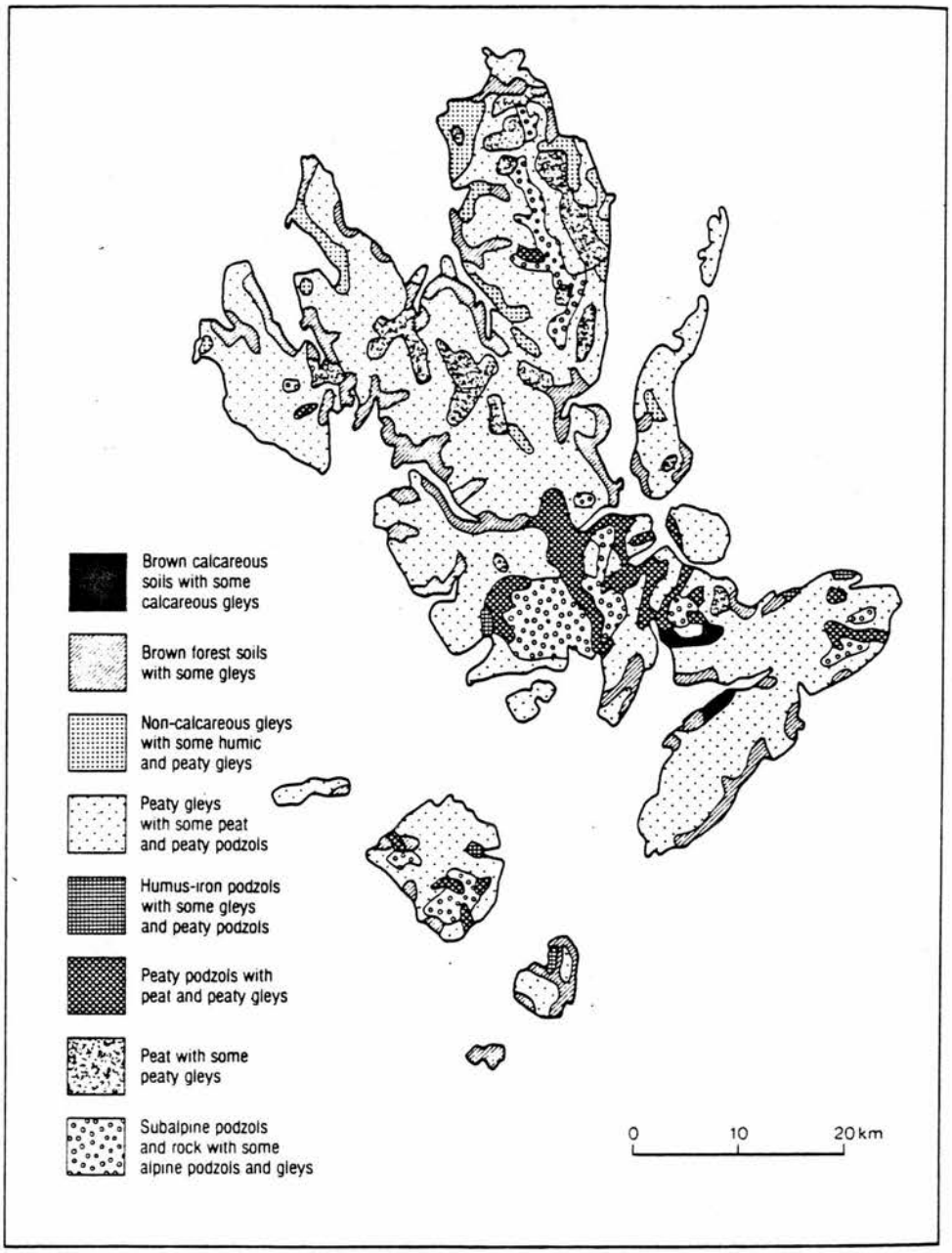
(6) The Red Hills, to the north and east of the Cuillins, are more subdued, with gently contoured slopes, broad watersheds, and fewer corries and cliffs. The summit plateau attains 2537ft (780m) on Sgurr

Figure 100



LANDFORM AREAS

Generalised Soil Map of Skye and the Small Isles Figure 101



Source: Hudson and Henderson 1983, 112

Figure 102

1929 LAND UTILISATION SURVEY

Mhair.

The present climate of the island is extremely oceanic, characterised by a narrow temperature range, high winds, and an excess of precipitation over transpiration. The average annual temperature is rather low because of the island's relatively northerly position, resulting in an overall cool, moist climate. Soils are readily leached due to the precipitation excess, and peat development is widespread where topographical conditions prevent adequate drainage (Birks 1973, 170). The predominant soil types are peaty gleys with some peat and peaty podzols (Hudson and Henderson 1983, fig 1; Figure 101).

The nature of the underlying rocks, the distribution and extent of leached or waterlogged soils, and the rugged topography throughout much of the island mean that man's use of the land is, and has been, confined to small areas of low ground near the coast which have relatively fertile soils, mainly brown forest soils with some gleys and non-calcareous gleys (Figure 101). The extent of such better quality land in 1929 is shown in Figure 102 which illustrates the distribution of permanent grassland and arable land in Skye at that time (MacSween 1984-5, Map 11, based on Sir Dudley Stamp's Land Utilisation Survey 1929). The areas indicated as being permanently worked or improved land in 1929 are likely to be more extensive than the current amount of improved land, but probably far less extensive than the amount of land under crop before the clearances. Land utilisation both now and in the past is very much dependent on the contemporary perception of ecomonic return. For example, wind exposure and low average temperatures have probably always restricted the range of crops that can be grown on the island, but today's Common Market agricultural subsidies have an even greater impact on the modern perception of economic return.

"The best land use to adopt for any area at any given time is a matter of balancing the physical properties and potentials of the land against the economic and social requirements of the populations" (Bibby, Hudson and Henderson 1982, 145-6).

The 1929 Land Utilisation Survey is a good indicator of the <u>general</u> distribution of cultivable land in Skye. It is not necessarily a reflection of the distribution of that land at any time other than 1929. The distribution of better quality soils, such as brown forest

soils and non-calcareous gleys, is probably a much clearer index of land which is both capable of cultivation and probably has been under cultivation in the past (Figure 101). It is very noticeable that the distribution of these soils coincides with both present and past settlement on the island, as shown on any Ordnance Survey map.

"The soils have played an important part in determining the distribution of population and pattern of land use" (Hudson and Henderson 1983, 119).

Modern farming in the island is mainly in the form of crofting, with sheep grazing on the extensive hill pastures of the uplands being the predominant "crop".

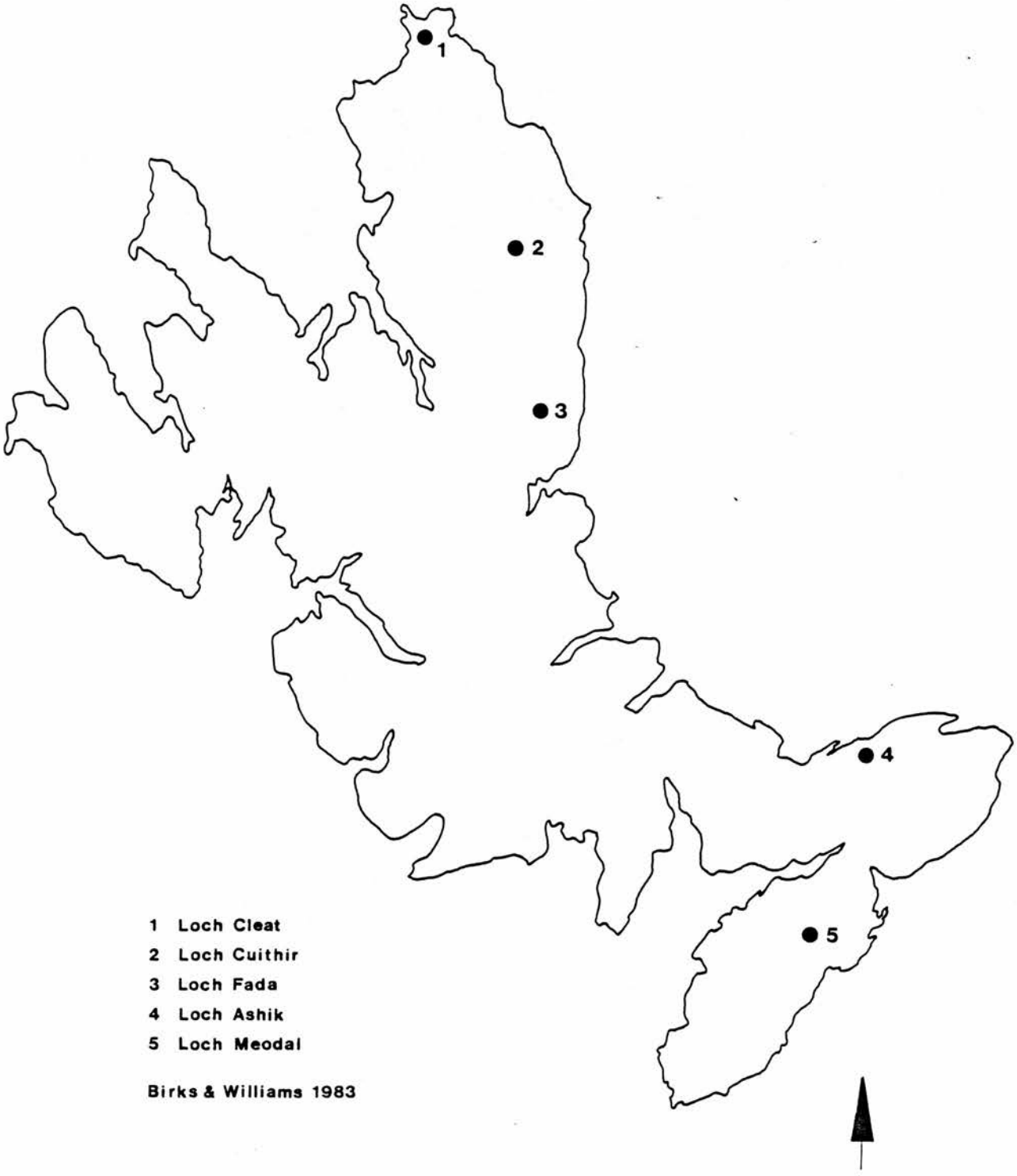
16.2 Reconstruction of the Contemporary Landscape of Brochs

There are a number of sources of information to aid in the general reconstruction of the contemporary environment of brochs in Skye. The Inner Hebrides have received attention in the recent past from palaeo-botanists, and vegetational histories of the post glacial period (10,000BP to the present) based on pollen analysis are available for Skye (Vasari and Vasari 1968; Birks 1970, 1973, 1977; Williams 1977), Soay (Heslop-Harrison 1948), Canna (Flenley and Pearson 1967), Tiree (Pilcher in MacKie 1974a) and Jura (Mercer 1967-8). Most work has taken place in Skye, which has been seen by palaeo-botanists as uniquely placed to answer many questions about the post glacial vegetational history of the west coast of Scotland. The current state of knowledge of the varied vegetational history of Skye is summarised in Birks and Williams 1983. The main elements of that history as given by Birks and Williams are as follows. The information is drawn from five pollen sampling sites in northern, eastern, and southern Skye (Figure 103), and by no means covers the whole of this diverse island.

Northern Skye (Landform Area 6)

There is no evidence of any scrub or woodland in northern Skye before 10,000BP. There is also no evidence that closed woodland ever developed in the area during the whole of the post glacial period, although early post glacial juniper, willow, and birch scrub

Figure 103



POLLEN SAMPLING SITES

communities with abundant tall herbs and ferns were replaced at about 8,700 BP by birch, hazel and willow scrub. Low pollen values for pine, oak and elm suggest that these trees were never important components of the local vegetation. Alder arrived in the area about 6,300BP, but was never abundant in contrast to eastern and southern Skye. At 5,000BP there is the first appearance of pollen associated with cereals, and other indications of scrub clearance and the local development of arable and pastoral agriculture. The pollen spectra suggest that between 5,000BP and 700BP the landscape of Trotternish was mainly treeless, with small patches of scrub probably restricted to rocky areas. Between 700BP and today there was widespread destruction of birch and hazel scrub to produce the present entirely treeless landscape of northern Trotternish, with cereal pollen present throughout.

Kyleakin (Landform Area 3)

The pollen stratigraphy in eastern Skye indicates that after an early post glacial phase of juniper scrub and grassland, birch and hazel expanded at about 9,600BP to form woods rich in ferns and tall herbs. After about 9,000BP oak and elm were probably present in small amounts as in southern Skye. Some heath and bog appear to have been present near Loch Ashik (the pollen sampling site) from 9,000BP. At 6,300BP alder expanded at the expense of willow and hazel. In contrast to southern and northern Skye there is no evidence of human interference at 5,000BP. Between 4,600BP and 3,900BP pine expanded, possibly reflecting the local growth of pine on dried peat surfaces. Eastern Skye is the only part of the island where fossil pine stumps have been found. At about 4,000BP pine pollen declined and there was widespread development and expansion of blanket bog, acid grasslands, and heaths. A combination of climatic change and human activity including burning may have initiated the replacement of pine by treeless blanket bog. By 2,700BP bog and heath were widespread near Loch Ashik, and woods, mainly of birch, were rare, restricted to rocky slopes too steep for bog development. This situation has continued to the present day, suggesting that the modern bog dominated landscape of eastern Skye is of considerable antiquity.

Sleat (Landform Area 1)

Birch and hazel woods with willow developed about 9,700BP. These woods were rich in ferns and tall herbs. From about 9,700BP oak and elm were present in small amounts within the predominantly forested landscape. Alder expanded about 6,500BP, apparently at the expense of willow, to form birch-hazel-alder woods with some oak, elm and ash. The oak pollen values are significantly lower than at comparable times on the adjacent mainland, suggesting that the northern limit of predominant oak lay close to southern Skye. Pine was unimportant or even absent, contrasting with its abundance in eastern Skye and Wester Ross. At about 5,200BP forest clearance began with the first spread of grassland and heath. The landscape was still mainly wooded, but there were frequent acid grasslands, heaths and bogs. There was little further vegetational change between 2,700BP and 300BP except for the spread of Calluna vulgaris at about 1,600BP. In the last three hundred years there was widespread forest clearance, a large decrease in the extent of Calluna moor, and a massive spread of grassland resulting in the almost treeless landscape around Loch Meodal (the pollen sampling site) today. The widespread woodland destruction and spread of grassland may have resulted from the onset of cattle breeding as an important industry after about 1650. The maximum extent of cultivation in Sleat may have taken place in the 1830s when the population of Skye was at its highest.

Birks and Williams (1983, 290) concluded that the pollen analysis demonstrates that a large part of Skye was forested during the post glacial period, with the pattern of woodland reflecting climatic differences. Southern Skye, the mildest and most sheltered part of the island had the most woodland in the past, as it has today. They also concluded that the present landscape of the island is largely anthropogenic.

Pollen evidence from Skye suggests that at the period when brochs were occupied there was a treeless landscape in the northern part of the island with small patches of birch and hazel scrub in rocky areas. This is supported by palaeo-botanical evidence from the excavation of Dun Flodigarry, which indicated an open grassland environment around the broch with some agricultural activity, although no cereal pollen was noted (Martlew 1985, 37 and Appendix 1.5 in microfiche). Against

this palaeo-botanical evidence, there must be set the archaeological evidence of the presence of a number of hut circles in northern Skye (MacSween 1984-5, Map 12), which would indicate the presence of sufficient timber to construct the roofs of houses, unless driftwood or trade is envisaged as supplying timber requirements. In discussion of site morphology in Chapter 17, it will also be seen that scarcements are a common feature of Skye brochs, again pointing to the presence of sufficient wood in the north of the island or at least a ready supply of constructional timber from elsewhere, such as the southern part of the island, to supply the needs of internal broch furnishings.

In the eastern part of the island the pollen evidence points to blanket bog being established by the time of broch occupation, and it is likely to have been established elsewhere on the island also. The only area still extensively wooded, according to the pollen evidence, was the Sleat peninsula with birch-hazel-alder woods containing some oak, elm and ash. There were however numerous clearings in these woods appearing as acid grasslands, heaths and bogs. Forest clearing and cultivation seems to have begun at about the same time, around 3,000BC, in both northern and southern Skye, but started rather later in eastern Skye, at about 2,000BC. The areas capable of cultivation were probably well established by the time of broch occupation, and there seems to have been little landscape change until fairly recent historical times, when the present landscape of the island emerged.

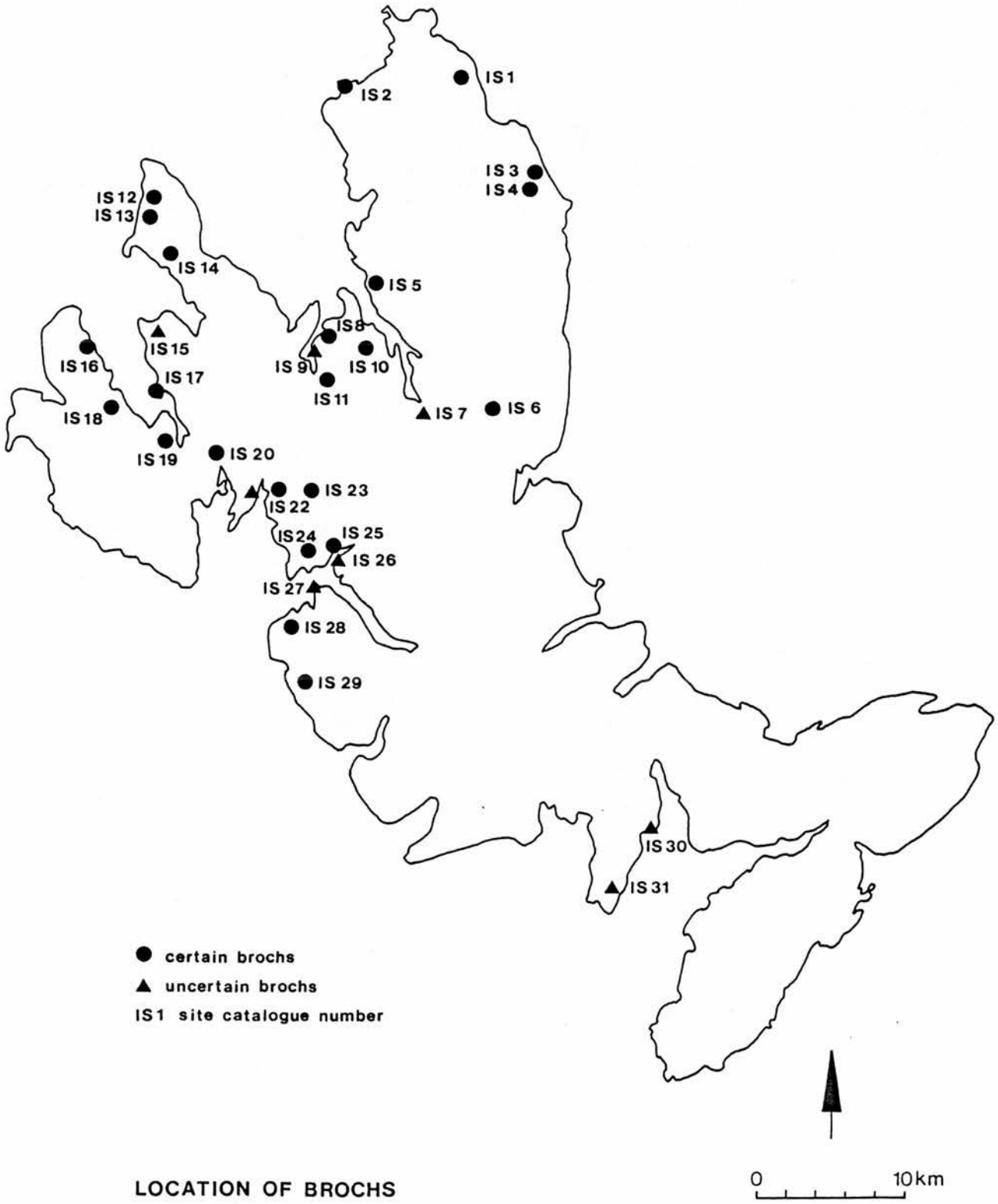
16.3 Distribution Pattern of Brochs

Overall Distribution Pattern

In considering the overall distribution pattern of brochs in Skye, it is necessary to make some decisions about the sites to be included in the analysis. In Chapter 15 it was pointed out that there were 23 structures which could be positively identified as brochs, with a further 8 which are of a more doubtful nature. There is therefore a potential maximum of 31 brochs on the island according to present field survey evidence. The location of these 31 sites is shown in Figure 104.

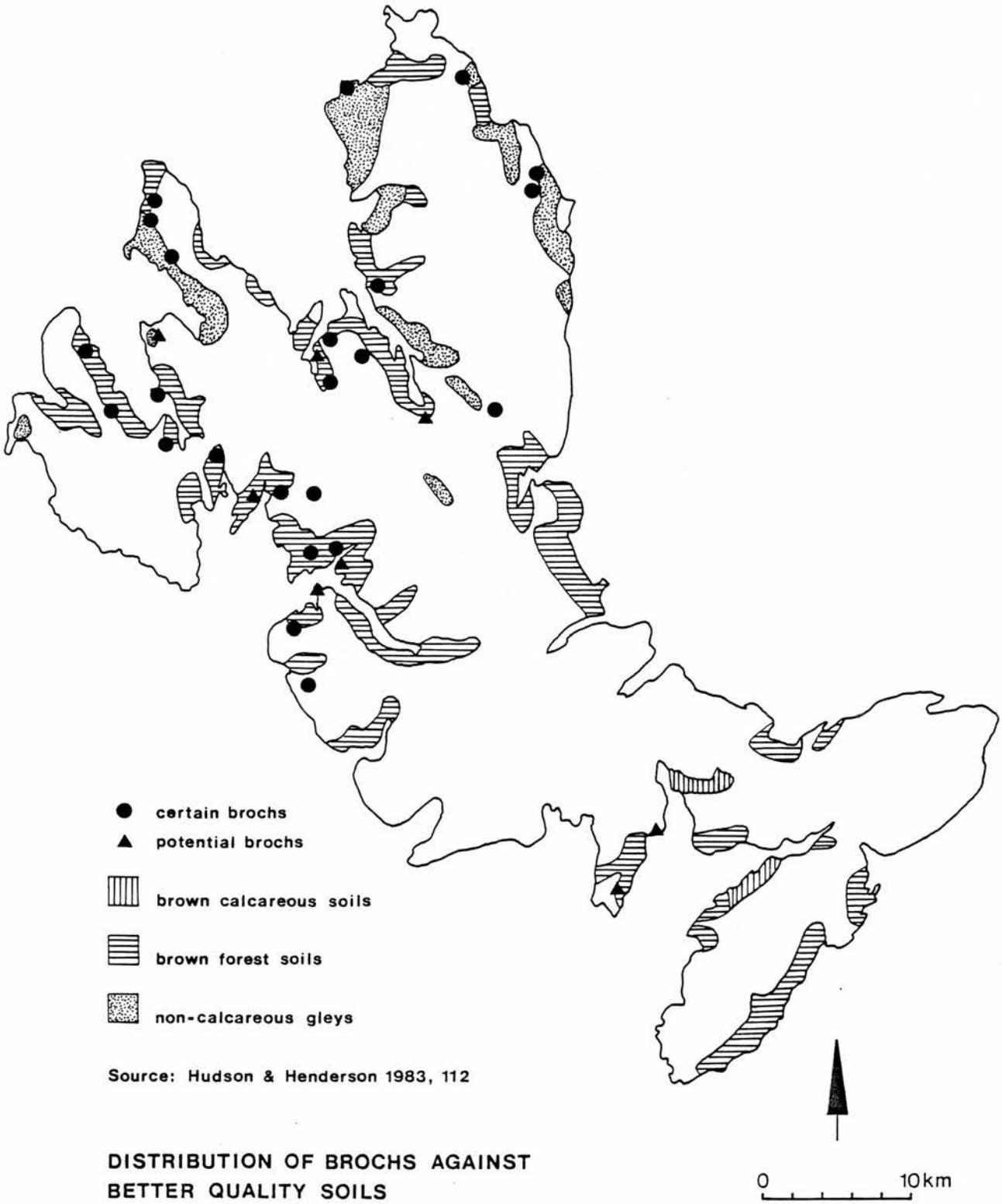
The most obvious conclusion to be drawn about the overall distribution

Figure 104



LOCATION OF BROCHS

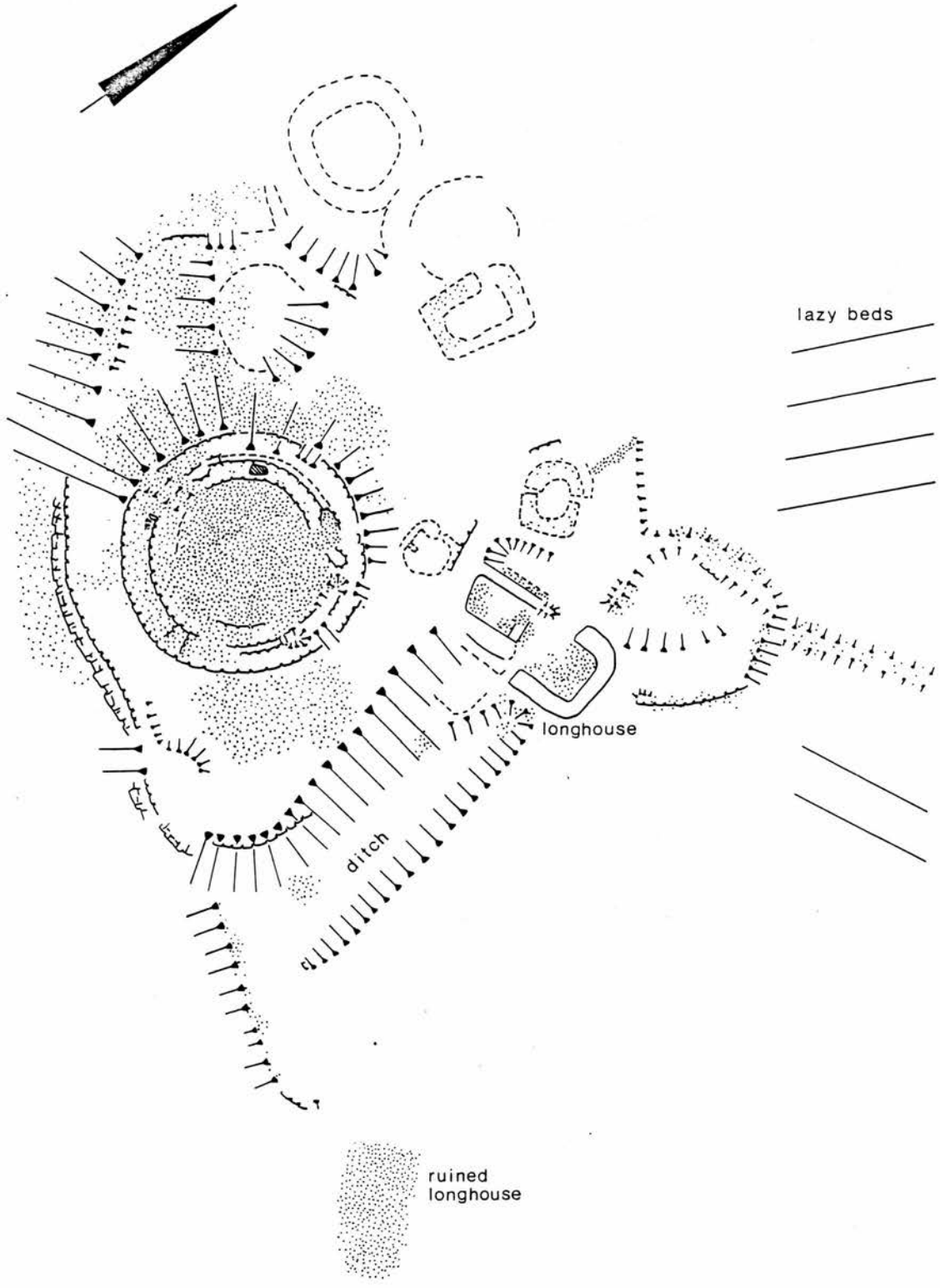
Figure 105



DISTRIBUTION OF BROCHS AGAINST BETTER QUALITY SOILS

Figure 106

Dun Gearymore
NG 236649



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pattern is the concentration of sites in the northern part of the island, mainly to the north of the centre of the island and in the peninsulas of Trotternish, Vaternish and Duirinish. Only two sites lie outside this general distribution pattern, Dun Ringill (IS 30) and Dun Liath (IS 31) in the Strathaird peninsula. There is unfortunately some doubt whether either of these two structures can be certainly identified as brochs (see Chapter 15), and it may therefore be better to leave them to one side when considering the general distribution pattern of brochs in Skye. That pattern is distinctly biased, with brochs occurring in less than half of the island. A number of possible explanations for this distinct pattern are considered in turn below.

(1) Only the northern part of the island fulfilled the detailed requirements of broch location.

The brochs in the northern part of the island are predominantly located on rocky knolls close to the coast. There are exceptions to this, such as Dun Borve, Borve (IS 6), Dun Sleadale (IS 29) and Dun Arkaig (IS 23), all of which are located in well defined valleys inland. The predominant location of the brochs close to the coast is probably related less to the actual proximity of the coastline, and more to the location of fertile land, which it was pointed out above, has a predominantly coastal distribution (see distribution of soils in Figure 101). The existence of sites such as Dun Borve, Borve (IS 6), Glen Heysdal (IS 20), and Dun Arkaig (IS 23) in river valleys, which cut deeply into the rugged uplands of the interior of Skye, may perhaps be taken as proving this rule. The river valleys encapsulate elongated strips of fertile soils, penetrating far inland. Figure 105 illustrates the distribution of brochs in Skye in relation to the distribution of more fertile soils.

All of the brochs in Skye, with two exceptions, are located within, or very close to, areas of more recent settlement and cultivation, as evidenced by abundant remains of pre-clearance land use in the vicinity, for example, at Dun Gearymore (IS 12; Figure 106) and Dun Hallin (IS 14). The two exceptions are Dun Suladale (IS 10) and Dun Sleadale (IS 29). Dun Suladale is located on a raised rocky knoll at 106m OD in peaty moorland, with a spectacular outlook all around. There is some evidence of sheilings in the vicinity, but more recent settlement seems to have been located almost a kilometre to the

north-east, and there is no evidence of permanent settlement of other periods near the broch. Dun Sleadale sits on a rocky knoll at 160m OD on the west side of the Sleadale Burn. The broch is located well above land capable of cultivation, lying within the area of summer pasture and sheilings. If there was cultivation around Dun Suladale and Dun Sleadale when they were in use, there was no continuity of this land use into later times.

Most of the brochs in the northern part of the island seem to be located close to land capable of cultivation. Such land is however also available in the southern part of Skye in the Sleat peninsula, again in coastal locations (see Figures 101 and 105). In central and eastern Skye land capable of cultivation is in much shorter supply, because of the presence of rugged mountains and bogs. Settlement even of later periods is not particularly evident in central Skye, but the Sleat peninsula does have evidence of settlement and cultivation at later periods.

"For Sleat...is the garden of Skye...a garden enclosed, full of fertility and easy to cultivate; and in summer, when you see the luxuriant vegetation, flowers of every colour and kind growing in such profusion as you had never dreamed of, green hedgerows, lush meadows, bosky trees, you know that the name is well deserved, that it is as if a slice of rural England had been transported to this land of shaggy moors and solitary hillsides" (MacCulloch 1936, 116).

This romantic description of Sleat indicates that it is not lack of cultivable land which explains the apparent absence of brochs in southern Skye. In addition pollen analysis of loch deposits from Sleat indicates that cultivation was taking place in clearings within a general wooded environment as early as 3,000BC, well before the period when brochs were occupied, and that this general land use continued without much change until very recent times.

MacSween has suggested that a possible reason for the northerly concentration of brochs in Skye is a correlation with large areas of cultivable land, noting that areas of good land in the south occur only in small strips along the coast or in small valleys, whereas the north has larger, more fertile valleys (1984-5, 31). She pointed to the Kilmuir/Snizort area of Trotternish as an example of a large fertile area in the north, noting that it has long been known as "the granary of Skye".

"Lying between the sea and the Trotternish ridges, and stretching for

six miles southward towards Uig, lies the plain of Kilmuir. It is the most fertile part of the island, and was once known as the granary of Skye or of the Macdonalds of the Isles. No wonder that many of the Macdonald and MacLeod feuds were waged for possession of this fertile country" (MacCulloch 1936, 45-6)

The actual distribution of brochs in the northern part of the island however would not seem particularly to support MacSween's hypothesis, in that there is only one broch site in the very north of the fertile Kilmuir Plain, that is Dun Bornaskitaig (IS 2). In addition there seem to be large fertile valleys in the north, such as Glen Hinnisdal in Trotternish, which do not have any broch sites in their inner reaches, whilst there are clusters of broch sites in seemingly less fertile areas, such as between Loch Greshornish and Loch Snizort Beag. A much denser distribution of broch sites on the best quality land in the northern part of the island might surely have been expected, if correlation with large fertile areas was in fact an overriding factor in determining the pattern of brochs.

In terms of particular siting, the brochs in northern Skye are obviously located to take advantage of the existence of strong natural defence. They mainly sit on rectangular, steep sided, rocky knolls formed from the basaltic rock of northern Skye. Knolls of this kind do not exist in southern Skye where there are no Tertiary igneous rocks, but rather Pre-Cambrian rocks such as Moine schists and gneisses, and Torridonian sandstones (Birks 1973, 11-7). The two potential brochs in the Strathaird peninsula of southern Skye illustrate the locational variation brought about by geology. Dun Ringill (IS 30) is located on a slight rocky knoll on the edge of a precipitous cliff, whereas Dun Liath (IS 31) is sited on an open terrace with little natural defence except on its eastern arc. It is marginally possible that the lack of suitable knolls with strong natural defence could have been a factor in the apparent absence of brochs in southern Skye. The existence of Dun Ringill and Dun Liath however demonstrates that the presence of a steep-sided natural knoll was not an overriding locational factor, and that the needs of defence could be met in other ways. This is also demonstrated in the north of the island by Dun Grianan (IS 3) in Trotternish which is located on a promontory jutting into Loch Mealt, taking advantage of the natural defence provided by the waters of the loch.

(2) There are missing or unidentified broch sites in southern Skye.

It has already been pointed out that Dun Ringill (IS 30) and Dun Liath (IS 31) in the Strathaird peninsula cannot be definitely identified as brochs, but neither can they be dismissed as relevant sites. The former has some very broch-like characteristics, and the latter appears to be a badly ruined circular structure. In Sleat by contrast there do not appear to be any brochs, but this may be a reflection of the poor survey record rather than a true absence of sites. For example, the fairly inaccessible and badly ruined Dun Geilbt (RCAHMS 1928, 189, no 602; no 86 on Figure 91, p311), which was not visited in the course of fieldwork for this thesis, could perhaps be the remains of a broch. It was included as a comparable structure in Graham's list of brochs (1946-7, 98). The badly ruined Dun Chlo (Figure 90, p310; no 90 on Figure 91, p311) which was discovered in the course of fieldwork for this thesis and identified as a dun, could equally well be a broch. In its ruined state it is not dissimilar to Dun Borve, Edinbane (IS 9) which is firmly identified as a broch in the MMRS, although its identification is in fact more doubtful. It is possible that intensive cultivation and settlement in Sleat in later periods, combined with the poor survey record, have masked the existence of broch sites in southern Skye. In this connection it is interesting that two of the best preserved brochs in Atlantic Scotland, Dun Telve and Dun Troddan in Glen Beag, lie just across the narrow Sound of Sleat which separates southern Skye from the mainland. It is perhaps not reasonable for brochs to be located in this position on the mainland, and not also have been present in southern Skye.

(3) There were other types of structures in contemporary use with brochs which had similar location requirements.

Figure 91 (p311) shows the distribution of all potential Iron Age sites in Skye. A number are located in southern Skye, reflecting fairly closely the distribution of better quality soils (Figure 107). The potential Iron Age sites in southern Skye are frequently located on coastal promontories, are irregular in shape, and are generally identified in the NMRS as duns (see Table 20, pp328-32). Such sites do not just occur in southern Skye however. They are also to be found in the northern part of the island, many in close proximity to brochs (see Figure 91, p311). The general distribution of all potential Iron

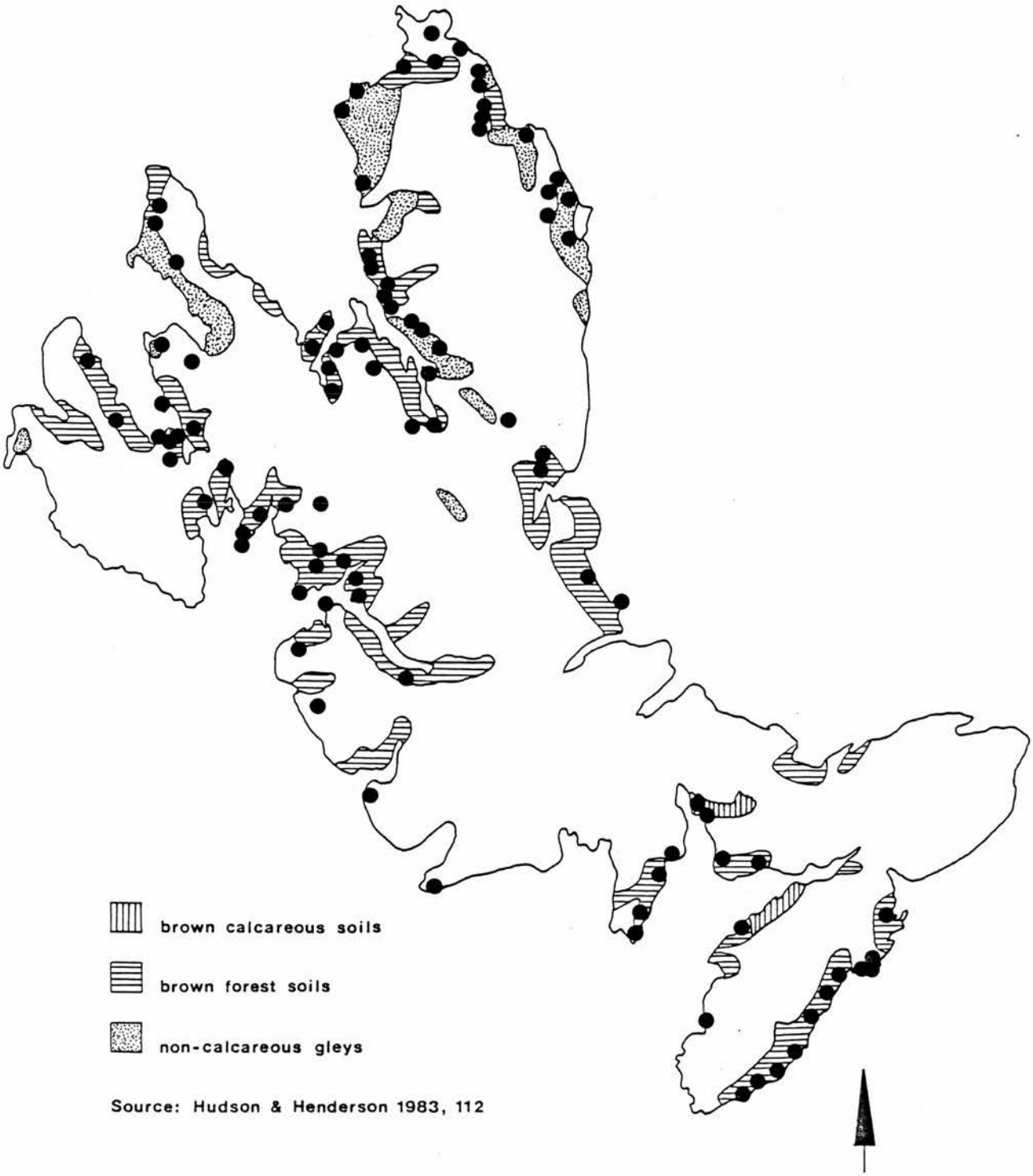
Age sites in Skye, like that of brochs alone, follows the pattern of better quality soils (Figure 107). Unfortunately no modern investigation of any site classed as a dun or fort in Skye has taken place, and nothing is known about their general period of occupation, although excavation evidence from elsewhere on the west coast would suggest a date for duns generally contemporary with the traditionally acknowledged period of broch occupation (Fairhurst 1938-9; Ritchie 1970-1; RCAHMS 1971, 19; Ritchie and Lane 1978-80). It must be taken as a possibility that a number of duns and forts may have been in contemporary use with brochs, and that Iron Age sites of other types, rather than brochs, may have been occupying suitable locations in relation to cultivable land in southern Skye.

Distribution of Brochs in the North of the Island

Brochs in the northern part of the island are not evenly scattered throughout the better quality land. The sites on either side of Loch Dunvegan, Dun Boreraig (IS 16), Dun Colbost (IS 18), Dun Osdale (IS 19), Dun Fiadhairt (IS 17), and Claigan (IS 15), show an exceptional regularity of distribution throughout the fertile soils bordering this sea loch (Figure 108). Elsewhere there are noticeable gaps in distribution. For example, in the Vaternish peninsula, Dun Gearymore (IS 12) and Dun Borrafiach (IS 13) are located on the same contour (130m OD) 1.2km apart in the north of the peninsula. Dun Hallin (IS 14) is located at virtually the same height, but lies 5km SE of Dun Borrafiach (Figure 108). It is clear that all three brochs fulfil similar location requirements, on naturally defensive sites on the same contour line above land which has been in cultivation for a very long time. There is abundant field evidence of pre-clearance settlement and land use in the vicinity of all three sites, and documentary evidence of joint-tenancy townships at all three locations before the nineteenth century (MacSween 1958-9, 77; Figure 109). MacSween also noted pre-clearance settlement between the brochs of Dun Borrafiach and Dun Hallin, but there is no recorded broch site in this area, nor is there any other potential Iron Age site. It seems an odd gap in distribution, and perhaps may indicate the existence of a broch site which has yet to be found by field survey (Figure 108).

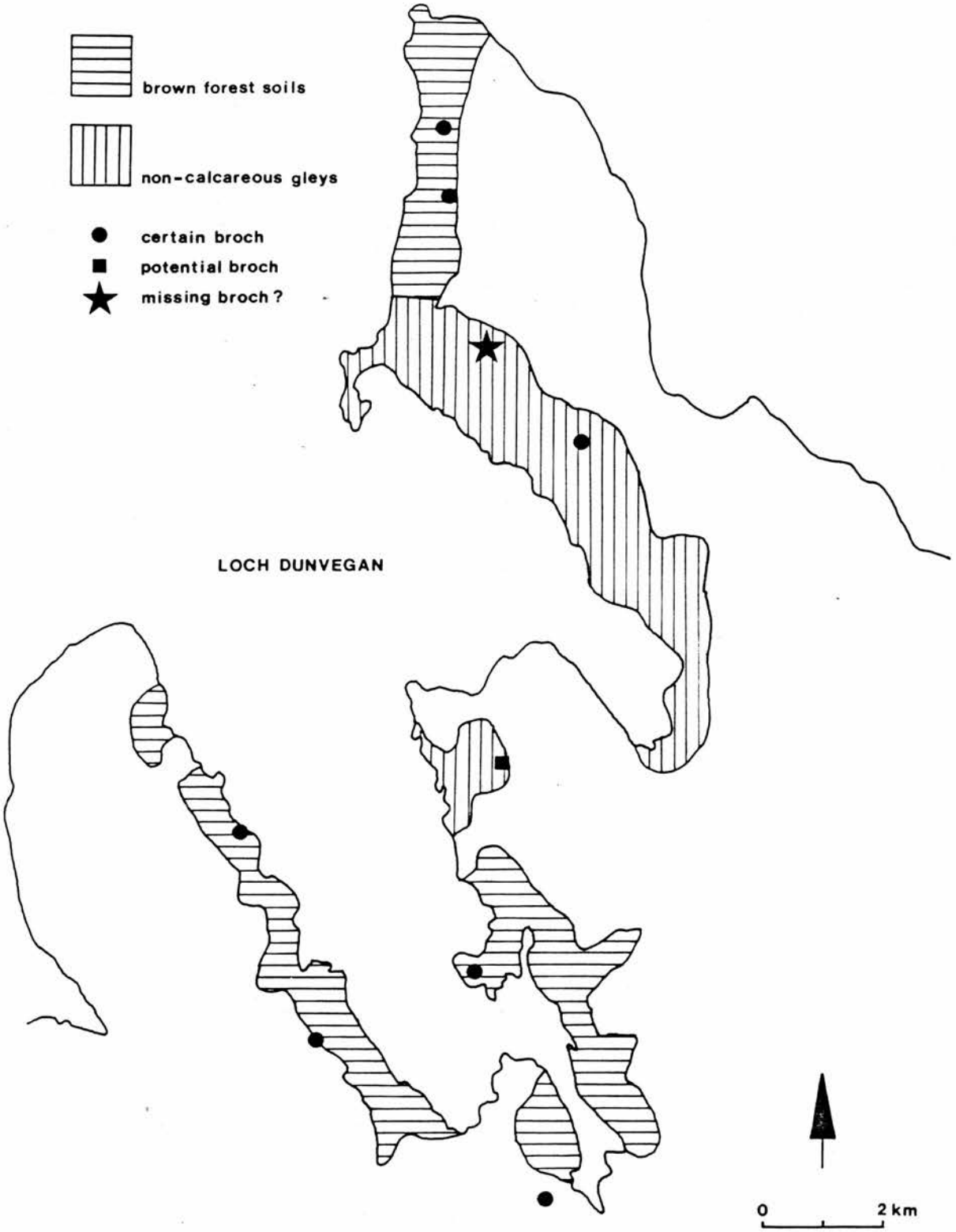
Another apparent gap in distribution occurs in north-west Trotternish

Figure 107



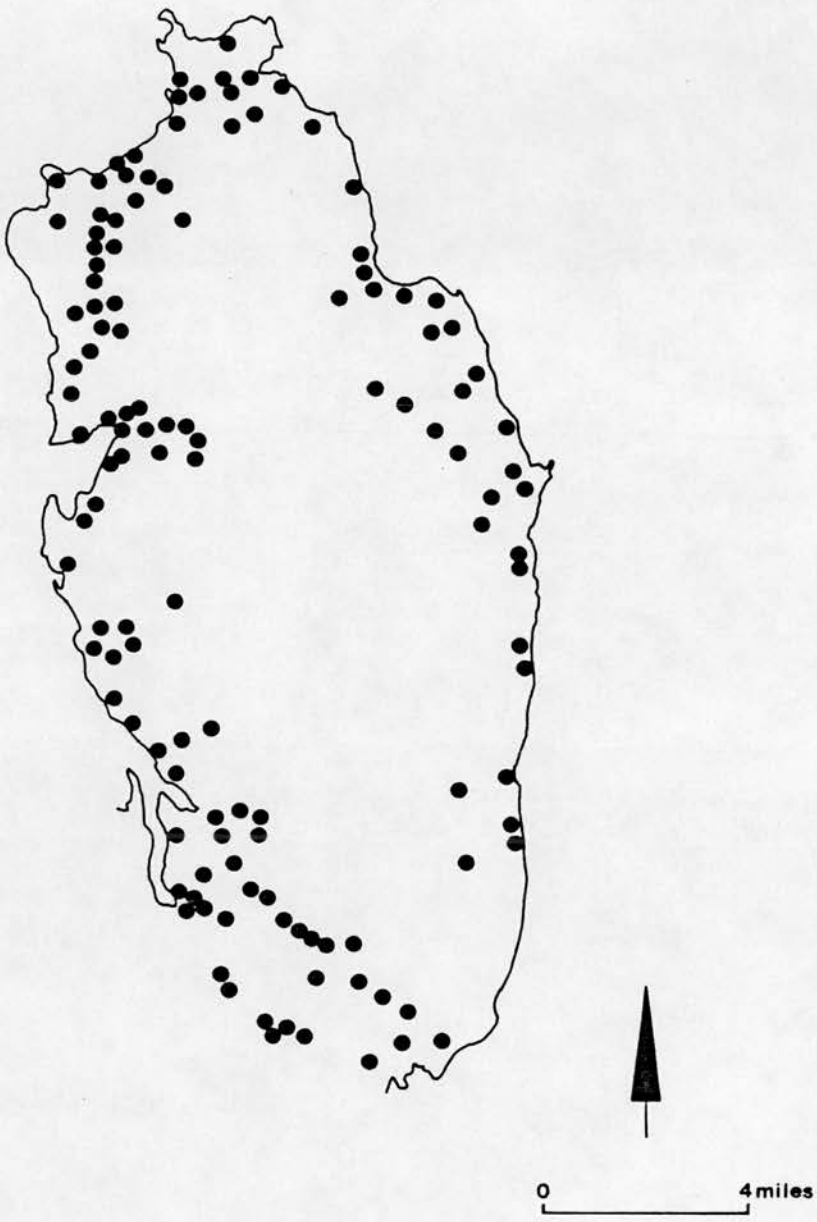
DISTRIBUTION OF ALL POTENTIAL IRON AGE SITES AGAINST BETTER QUALITY SOILS

Figure 108



DISTRIBUTION OF BROCHS IN THE LOCH DUNVEGAN AREA

Figure 109



JOINT FARMS (TOWNSHIPS) & OTHER TENANCIES IN EIGHTEENTH CENTURY TROTTERNISH

after MacSween 1958-9, fig 1

Figure 110


DISTRIBUTION OF POTENTIAL IRON AGE SITES
IN NORTH WEST TROTTERNISH
KILMUIR PLAIN
peat
brown forest soils
non-calcareous gleys
broch
other potential Iron Age site
0
1km

Source: RCAHMS 1928, 170
Dun Liath

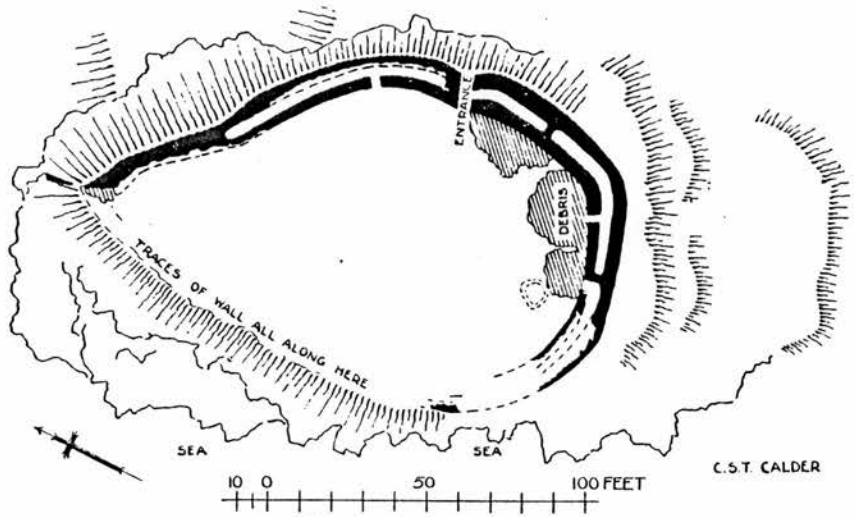


FIG. 242.—Dun Liath (No. 541).

Source: RCAHMS 1928, 171
Dun Skudiburgh

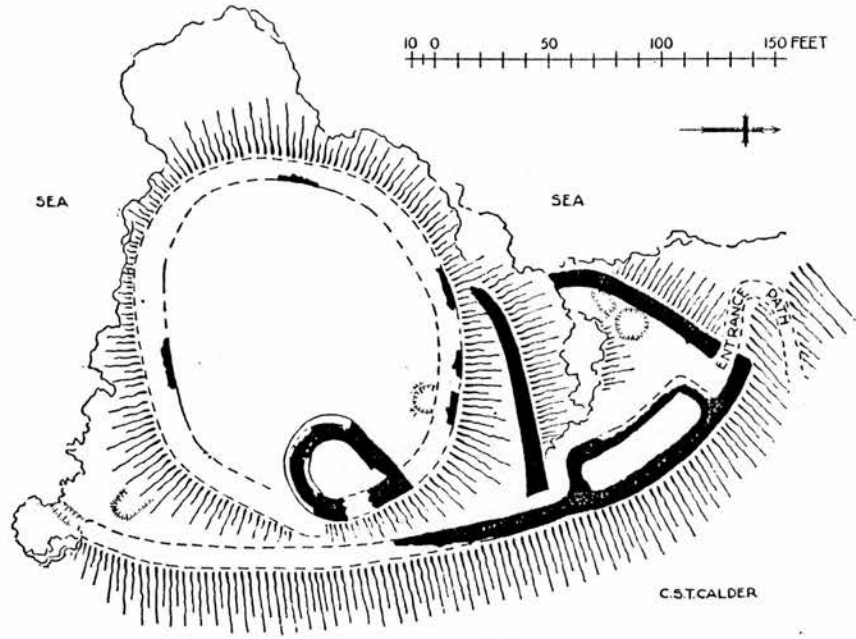


FIG. 243.—Dun Skudiburgh (No. 542).

Figure 111

(a)

(b)

to the south of Dun Bornaskitaig (IS 2), in the Kilmuir Plain, known in past times as "the granary of Skye". MacSween (1958-9, 77; Figure 109) records a dense pattern of townships in this area in the eighteenth century, reflecting the presence of better quality soils, but Dun Bornaskitaig is the only broch recorded in this part of Skye. There are however two other potential Iron Age sites in the area, Dun Liath, Kilvaxter (no 8 on Figure 91, p311) and Dun Skudiburgh (no 13 on Figure 91, p311) (Figure 110). Dun Liath is one of the seven irregular galleried structures on Skye, and Dun Skudiburgh is classed in the NMRS as a dun on top of an earlier fort (Figure 111). Dun Skudiburgh, as described by the RCAHMS (1928, 171-2, no 542), is obviously a very complex structure, both in terms of site morphology and chronology, and careful planning of the site may reveal more detail of the nature of the structure(s) on the site, particularly the dun.

Dun Liath, Kilvaxter was very partially excavated by MacKie in 1964, although liittle useful information seems to have been recovered (1965b, 3-4). Some pottery and artefacts were found which MacKie suggested belonged to a second phase of occupation, noting that the pottery bore similarities to pottery mentioned by Hamilton as being characteristic of the pre-broch fort levels at Clickhimin, Shetland (Hamilton in Wainwright 1962, 53-90). Otherwise nothing is known about these two interesting sites, and their possible relationships with the broch of Dun Bornaskitaig (IS 2), both in terms of chronology and contemporary land use. The presence of more than one contemporary Iron Age site in the Kilmuir Plain should perhaps be expected on the basis of the apparent quality of this cultivable land at least in later times.

In addition to gaps in distribution, there are oddly contrasting clusters of broch sites. One of these occurs between Loch Greshornish and Loch Snizort Beag, where there appear to be four brochs within about 3 sq km, Dun Flashader (IS 8), Dun Borve, Edinbane (IS 9), Dun Suladale (IS 10), and Dun Edinbane (IS 11). There is no doubt of the positive identification of three of the sites as brochs, although Dun Borve is rather more tenuous. The occurrence of so many brochs so close together highlights the apparent gaps in distribution to be

found elsewhere in good quality land in the northern part of the island. It is noticeable that there are no other potential Iron Age sites within the 3 sq km containing the brochs, although Dun Tayinloan (no 34 on Figure 91, p311) is in the vicinity. Dun Tayinloan, classed as a dun in the NMRS, is a denuded, roughly circular, thin walled structure, with some internal features which may be contemporary or may be later. It could belong to any period.

The gaps and clustering in the distribution pattern of brochs in the northern part of Skye would seem to require some particular explanation, as does the apparent absence of sites in the southern part of the island. The reasons may be complex, and may be related more to the presence of other Iron Age sites which cannot be classed as brochs, than to any particular factors in the contemporary landscape. Without more information on the relative dating of the different types of potential Iron Age sites in Skye, it is difficult to say more about the distribution pattern either of brochs or of the total potential population of Iron Age sites in Skye.

16.4 Landscape and Broch Function

The available evidence for the contemporary landscape of brochs in Skye suggests that they existed within a largely treeless environment in northern Skye, with scrub birch growing only in small rocky areas, although there would appear to have been some supply of constructional timber either locally; through trade from further afield; or as driftwood. There is no evidence of brochs occurring within the contemporary wooded area of Sleat in southern Skye.

Cultivation had been established in northern Skye from about 3,000 BC onwards, and was clearly taking place during the period of broch occupation. The general distribution pattern of brochs, and indeed all potential Iron Age sites in Skye, suggests a strong link with the better quality soils of this rugged island, and therefore with land capable of cultivation. The majority of sites lie within, or close to, land which still shows evidence of very intensive cultivation at later periods. In this respect brochs in Skye would appear to be no different from brochs in Caithness and in Sutherland, in that they are

linked to the process of cultivation.

There are only two brochs which do not follow the rule, being located in land which shows no evidence of ever having been cultivated at any period. These oddly located sites of Dun Suladale (IS 10) and Dun Sleadale (IS 29) must cast some doubt on the hypothesis that the location of brochs in Skye does in fact correlate with land capable of cultivation. The sites of Dun Suladale and Dun Sleadale could still however be linked with gaining a living from the land, in that cultivation may have taken place around the sites and left no trace, or the principal form of agricultural land use around the sites was pasturage, of which there is plenty on this rugged island. It is likely that pasturing of livestock would have been an important activity in the Iron Age, as it was at later periods, and there have been finds of domestic animal bones in those excavations of brochs which have taken place on the island, although the information in this respect is very poor (MacLeod 1914-5, 70; Callander 1920-1, 117; Martlew 1985, 42-4).

The typical location for a broch on the island is on a steep sided, rocky knoll with a good outlook over the better quality land, as exemplified by the sites of Dun Boreraig (IS 16), Dun Colbost (IS 18) and Dun Osdale (IS 19) to the west of Loch Dunvegan, and the sites of Dun Gearymore (IS 12), Dun Borrafiach (IS 13), and Dun Hallin (IS 14) in Vaternish. Only a few sites contradict this general rule (see Chapter 17), such as, the site of Dun Grianan (IS 3), which is in a defensive location on a promontory jutting into a loch in Trotternish, and the possible broch sites of Dun Ringill (IS 30) and Dun Liath (IS 31) in the different geology of the Strathaird peninsula.

Beyond the basic statements that brochs in Skye seem to have been involved in agricultural activities and seem to have been located to take advantage of natural defence, it is difficult to be more definitive. Perception of the brochs in their contemporary landscape is obscured by the presence of so many other types of potential Iron Age sites on the island. These sites replicate the distribution of brochs, in being also apparently linked to cultivable land, but they outnumber brochs and are far more widely spread. It is noticeable that some of these other types of potential Iron Age sites show evidence of

being multi-period. For example, a dun apparently overlies a fort in the case of Dun Skudiburgh (Figure 111b), but there is no example of a broch overlying a dun or vice versa. (The question of whether brochs may overlie forts in Skye is considered in Chapter 17). The fact that brochs and duns in Skye seem to have basically similar location requirements, but occupy discrete locations, must give rise to the serious possibility that the two types of site were in contemporary use on the island. The existence of structures which have broch-like features without being brochs, such as Dun Liath, Kilvaxter and Dun an Aisilidh, may also point to such a possibility. The reasons for the differences in structural design are not explained at all by the evidence for the contemporary landscape of brochs, and need to be sought elsewhere.

The evidence for the relationships between brochs and the land in Skye is poor, when compared with that available for Caithness and even Sutherland. As with brochs in Sutherland, to comprehend further the relationship of brochs and the land in Skye, further archaeological evidence is urgently required. There is a need for information from the excavation of broch sites, and more importantly, from the excavation of other types of potential Iron Age sites on the island, so that an outline of the basic chronological and other relationships of the various site types can be obtained. Without such basic information, the interactive analysis between palaeo-environmental information and archaeological information which can take place in Caithness, and to some extent in the straths of Sutherland, cannot take place in Skye. The present appallingly poor excavation record for the island just does not allow it. As MacSween has noted:

"The lack of excavation of Skye brochs and duns means that discussion of their economy relies heavily on the implications to be drawn from their siting and distribution and the evidence from other areas" (MacSween 1984-5, 28).

This seems rather an unsatisfactory archaeological position, when it is considered that the Isle of Skye has featured so strongly in theories of broch development in the Modern Period of broch studies.

CHAPTER 17 SITE MORPHOLOGY 1: BROCHS

It is a somewhat artificial division to discuss the morphology of broch sites in Skye, as it has already been acknowledged that the circular galleried structures which are called brochs, are only part of the wider occurrence of potential Iron Age structures both within Skye and the west coast (see Chapter 15). Some of these other potential Iron Age structures are also galleried, but are irregular in shape. There may be important comparisons and contrasts to be drawn by assessing the morphology of broch sites against that of other, potentially contemporary sites. Accordingly this chapter considers the morphology of broch sites, whilst the following chapter gives some consideration to the morphology of other potential Iron Age sites in Skye, and their possible relationships with the broch structures on the island.

It was stated in Chapter 15 that there are 31 potential brochs in Skye, of which 23 can be fairly certainly identified in accordance with the traditional criteria of broch classification. For the purposes of this chapter all 31 potential broch sites are examined, including those which have been termed semi-brochs rather than brochs (MacKie 1965a). Some consideration is given to whether a detailed examination of site morphology helps to confirm that the 8 doubtful broch sites may in fact reasonably be identified as brochs.

Section 17.1 below examines the total broch site, including the occurrence of outworks and their potential chronological relationships with the broch structures they surround. Section 17.2 explores in detail the nature of the broch structures in Skye. Section 17.3 considers the evidence for arrangements in broch interiors on the island, drawing comparisons with evidence from broch excavations elsewhere on the west coast. Section 17.4 brings together the evidence for the chronological period of the Skye brochs.

17.1 The Total Site

Discussion in this section refers to the total broch site, that is, the combination of natural and artificial elements which constitutes a broch in Skye. Skye more than any other area examined, with the

exception of the brochs in Strath Naver and some brochs in the Strath of Kildonan, Sutherland, exhibits in its broch sites a supreme interlinking of the two elements. It has already been pointed out (Chapter 16) that the most common location for a broch in Skye is on the summit of a flat-topped, steep-sided, basaltic knoll in the north part of the island. Sites which best exemplify this rule are Dun Raisaburgh (IS 4), Dun Borve, Borve (IS 9), Dun Suladale (IS 10), Dun Hallin (IS 14), Dun Garsin (IS 25) and Dun Ard an t'Sabhail (IS 28), all of which are on high, precipitous-sided knolls with a wide outlook.

Not all of the brochs in Skye seem so strongly sited, when contrasted with these formidable sites, such as:

Dun Flodigarry (IS 1) - on a rock outcrop, but overlooked
Dun Bornaskitaig (IS 2) - on a low eminence
Dun Borve, Edinbane (IS 9) - on a low eminence
Dun Borrafiach (IS 13) - on a low eminence
Glen Heysdal (IS 20) - on a flat terrace
Dun Ringill (IS 30) - on a cliff edge, but a flat approach
Dun Liath (IS 31) - on a flat terrace

All of the above sites however have one element in common, despite being not so strongly sited. They are all raised sufficiently to have a clear outlook in most, if not all, directions. Dun Flodigarry is unusual in being overlooked from the north. Only one other broch site, the doubtful Dun Liath in the Strathaird peninsula, is similarly overlooked. There would appear to be different degrees of natural strength in the sites selected for broch location, but none of the sites could be described as being particularly weak.

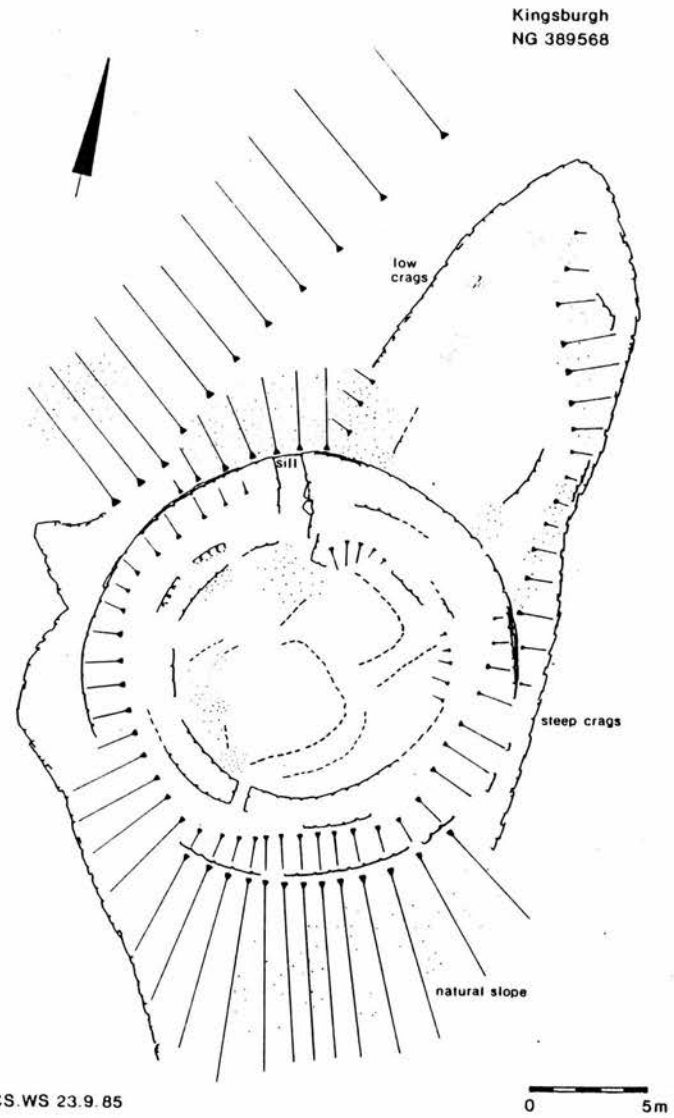
Altogether 20 of the 31 potential brochs have outworks (see Table 23, p392). There seems to be no apparent correlation between the natural strength of the selected site and the occurrence of such outworks. Some of the naturally strongest sites, such as, Dun Borve, Borve (IS 6), Dun Suladale (IS 10) and Dun Ard an t'Sabhail (IS 28), have artificial outworks, whereas some of the more weakly located brochs, such as, Dun Borrafiach (IS 13), Glen Heysdal (IS 20), and Dun Liath (IS 31), do not. The reverse is equally true, with naturally strong sites such as Dun Beag (IS 24) having no trace of outworks, whereas

the weaker sited Dun Bornaskitaig (IS 2) has a full surrounding wall.

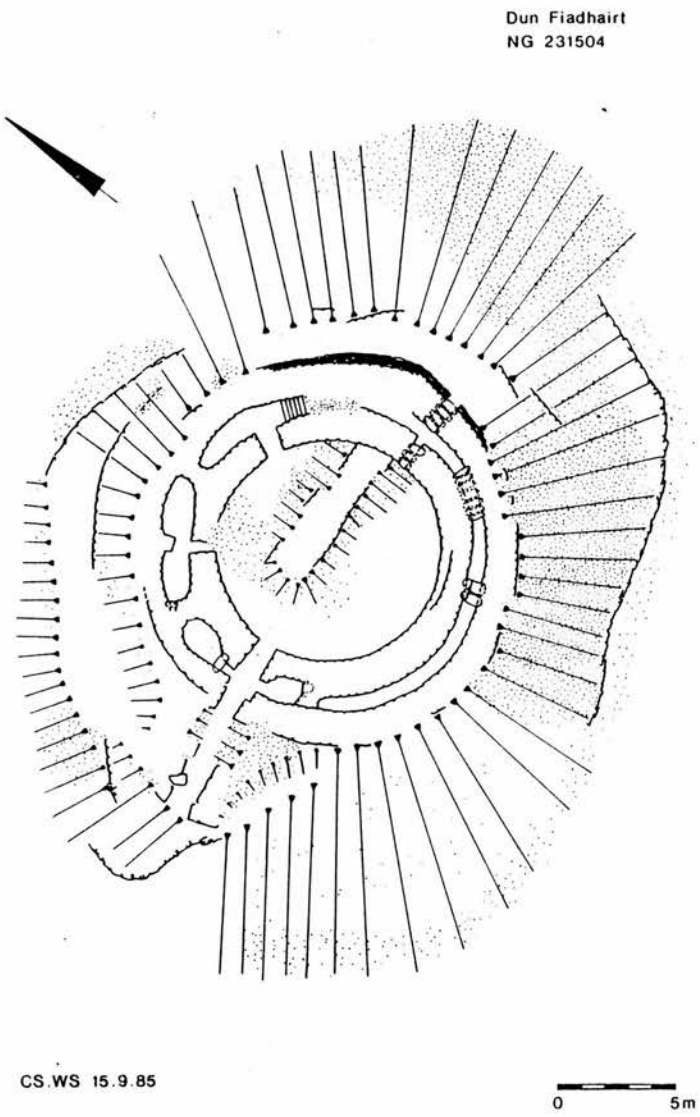
Those sites which have artificial outworks almost invariably have an outer wall, which with a few exceptions totally encloses the summit of the knoll on which the broch sits. Some exceptions, such as Kingsburgh (IS 5) and Dun Fiadhairt (IS 17), are located on restricted knoll tops, but even then remaining parts of the summit appear to have been enclosed (Figure 112). Dun Gearymore (IS 12; Figure 106, p353) is unusual in having an enclosing wall, supplemented by a partial ditch, which does not seem to extend around the full arc of the broch, leaving it exposed on its most vulnerable northern flank. It is possible that an outer wall on this flank has been destroyed by the later pre-clearance township which slights the broch site.

Four sites have traces of a ditch, cut to strengthen the natural defences of the selected location. The ditch at Dun Gearymore (IS 12; Figure 106, p353) cuts through the level appproach to the broch from the east, but strangely like the outer wall does not appear to continue around the flat northern arc of the site, unless it has been filled by the rubble of the later settlement. The ditch at Dun Feorlig (IS 21) was identified by the OS as a defensive measure, but it is so shallow that it may simply have been dug as a source of building stone. Only at Dun Borve, Borve (IS 6; Figure 93a, p313) and Dun Sleadale (IS 29; Figure 113) does much thought seem to have gone into the design and construction of the ditches. In both cases the ditch isolates the knoll top on which the broch sits, providing steep defensive crags all around. The ditch at Dun Borve, Borve is particularly impressive as it has a large rampart on its outer lip. Neither the ditch nor the rampart have been identified in the past by previous authorities. The OS considered the rampart to be a field bank (recorded on NMRS card), but it is far too large at nearly 5m wide; it has a complementary position relative to the broch's vulnerable northern flank; and it is a dump bank, whereas all of the field walls in the vicinity are stone built. Dun Borve, Borve is the most heavily defended broch site in Skye, with two outer walls, a ditch, and a rampart on its northern flank, complementing the sheer natural defence provided by crags on all of its other arcs.

It is by no means clear at sites other than Dun Borve, Borve, that



(a)

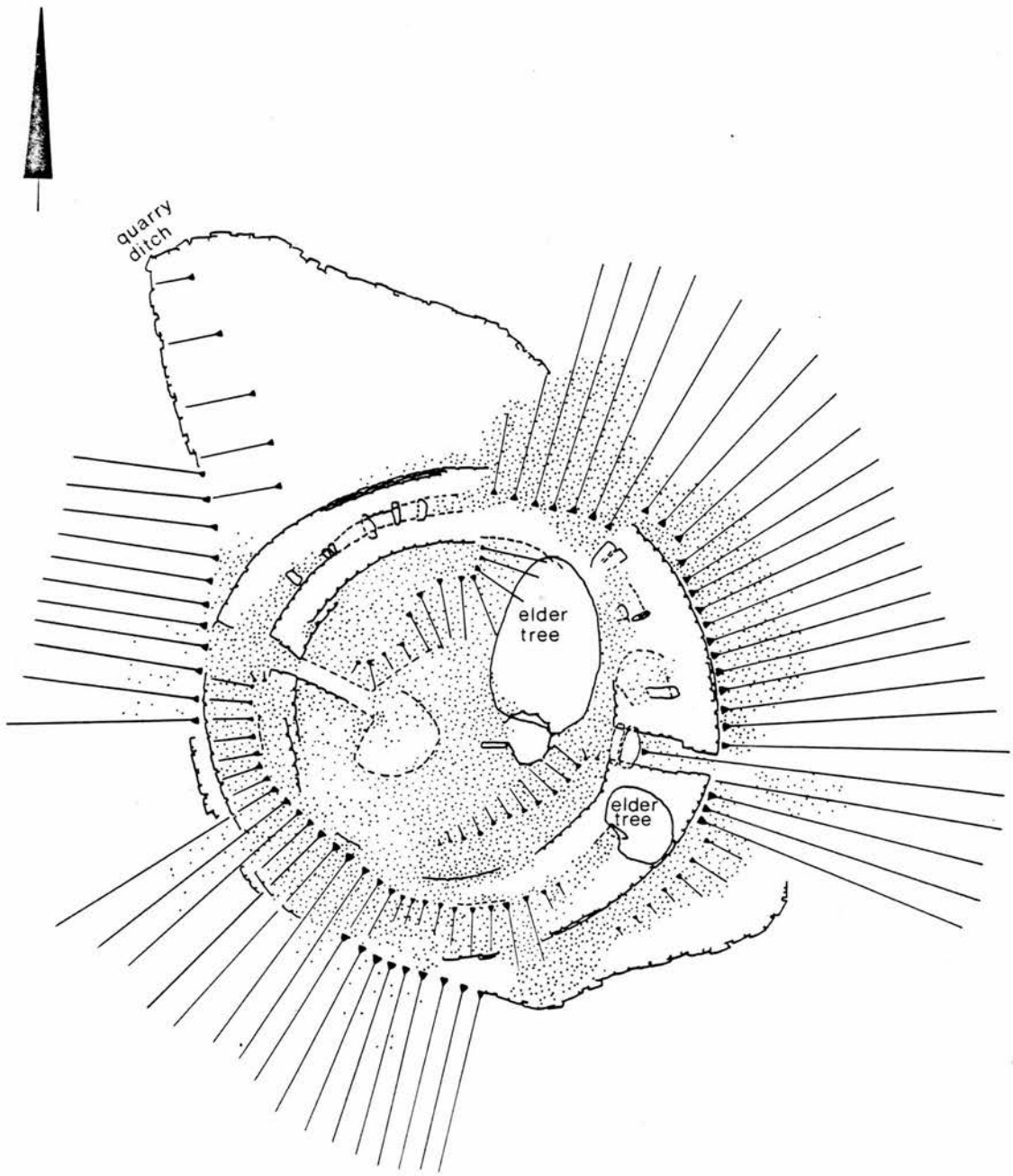


(b)

Figure 112

Figure 113

Dun Sleadale
NG 323292



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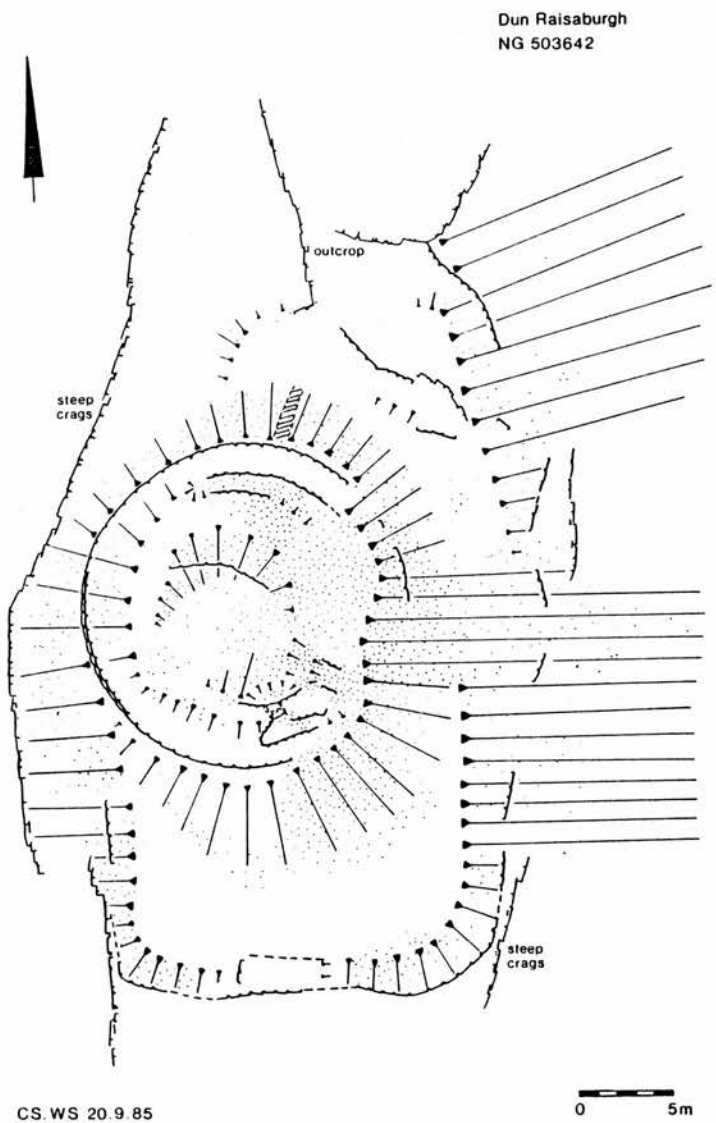

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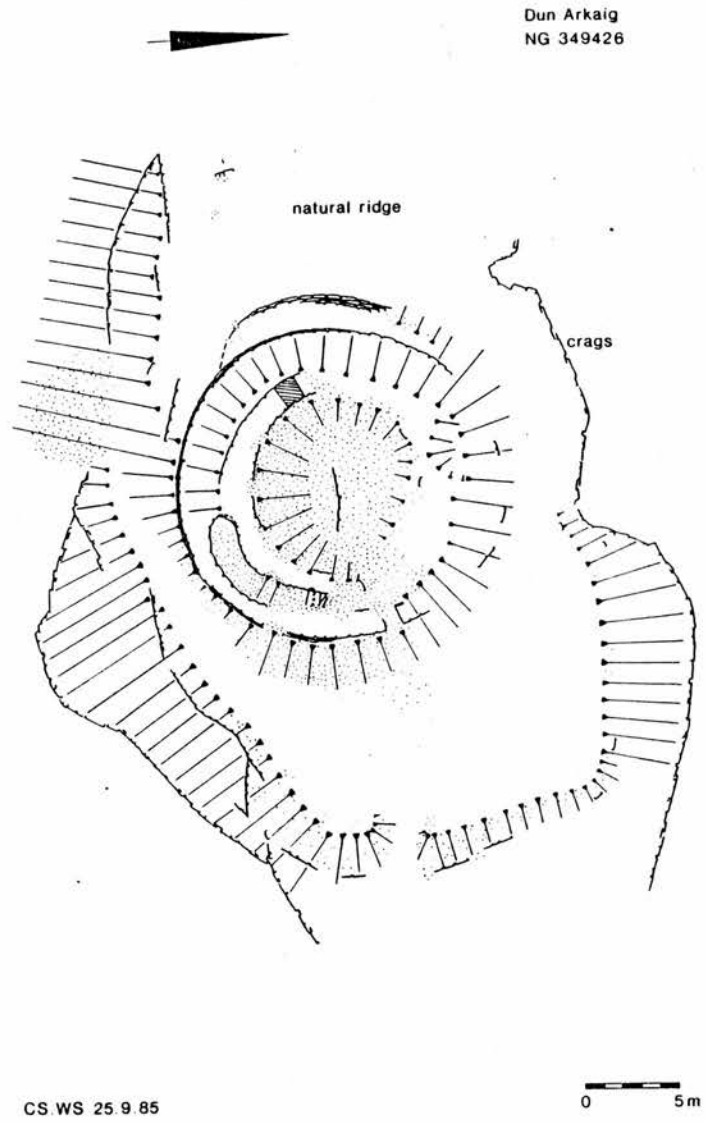


(b)

Figure 114

outworks were necessarily intended to be defensive. At a site such as Dun Beag (IS 24) the existence of precipitous crags would seem to have been enough for defensive purposes, and there is no outer wall. An outer wall was obviously also not thought necessary as an enclosing or safety device, to prevent stock or children from falling over the edge of the crags. In this connection it should be noted that the broch wall at Dun Beag is placed very close to the edge of the crags which occur only on the northern flank of the broch, allowing no access around the side. There are flat approaches to the structure from all other directions. Accordingly there was probably no particular danger of any person or animal falling over the crag edge. The complete lack of an outer wall at Dun Beag would suggest that the presence of such a wall at other sites was perhaps intended to be less of a defensive measure, and more of a safety device on naturally dangerous sites.

The evidence from other broch sites in this respect is slightly contradictory. At Dun Raisaburgh (IS 4) and Dun Arkaig (IS 23), the outer wall appears not to enclose the broch totally, but seems to be missing above the most precipitous and dangerous parts of the knoll sides (Figure 114). The broch structure at Dun Raisaburgh is placed close to the most dangerous western crag edge, where the outer wall is most obviously missing. It seems likely that the outer wall may originally have joined onto the broch wall in the west, so that livestock and children were fully enclosed and thus prevented from straying towards the edge of the terrifyingly sheer drop on this side. At Dun Arkaig the lack of an outer wall on the precipitous northern side of the elongated ridge on which the broch sits, could be explained by its having fallen out over the crags, so that no trace remains. Its absence on this, the most dangerous flank of the broch to which there is ready access, is otherwise inexplicable, if an outer wall at Dun Arkaig was intended to be an enclosing safety device. If the wall was intended primarily to be a defensive measure, it would have been superfluous to have built it above the extreme natural defence afforded by the northern flank of the ridge, and its absence may perhaps be explained rather in this way.

The complete absence of outer walls at some broch sites in Skye gives rise to questions about the exact chronological relationship between

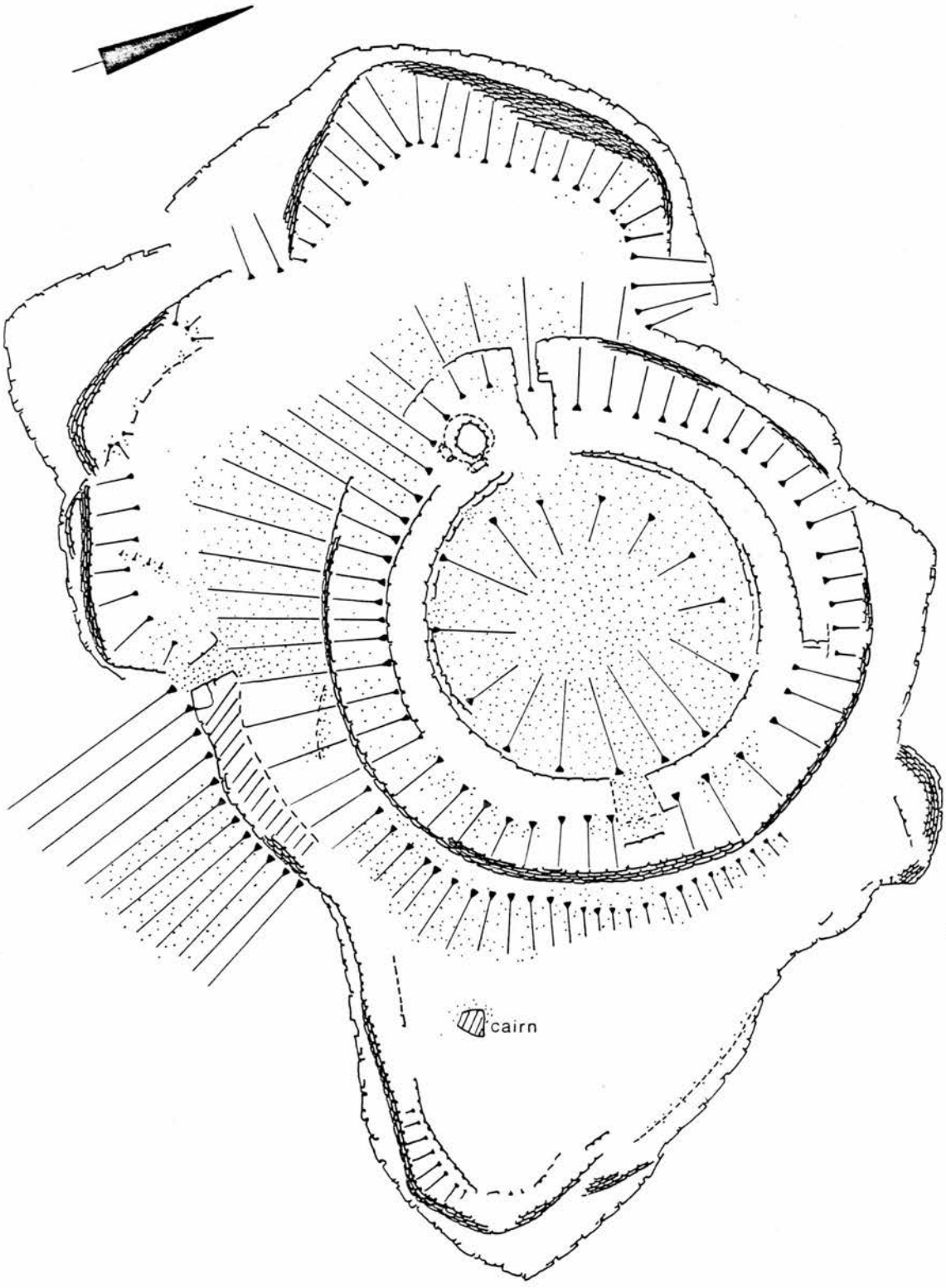
these walls and the broch structures they appear to enclose. It is possible that knoll tops in Skye may have been edged with marginal walls prior to the building of the broch structures, and hence that some of the sites may be multi-period. Evidence from field survey of broch sites in Skye however does not support this hypothesis. It supports rather the opposite, that the outer walls are fully contemporary with the brochs which they enclose.

At most of the sites where outer walls occur, there is a sense of the broch structure, outer wall, and knoll top being integrated into a complementary design. This is exemplified best by Dun Boreraig (IS 16; Figure 115). The broch structure is positioned towards the north side of the rugged knoll on which it sits. It lies so close to the edge of the crags, that there is neither room nor a requirement for the outer wall to edge the summit on this side. The outer wall skirts the margins of the knoll top, founded well down slope and battered back up to the summit. It probably abutted the broch wall on both sides, although no direct evidence of this remains. Its masonry is very similar to that in the broch wall, and there seems little doubt that the two structures were built at the same time as part of one design. The only feature which might suggest that the broch and its outer wall were not contemporary, is the placing of the entrance through the outer wall at ninety degrees to the broch entrance, rather than directly opposite it. The latter might perhaps have been reasonably expected. A similar positioning of entrances however occurs at the nearby broch of Dun Colbost (IS 18), which seems equally to demonstrate a unity of design across the three elements of broch structure, outer wall, and knoll top. Other examples of this seeming unity of design are Dun Hallin (IS 14), Dun Suladale (IS 10) and Dun Garsin (IS 25).

There is no broch site in Skye where it can clearly be demonstrated by field survey, or for that matter even suggested, that the outer wall is not contemporary with the broch structure it surrounds. Some of the outer walls seem heavily denuded, such as at Dun Bornaskitaig (IS 2), Dun Hallin (IS 14), and Dun Garsin (IS 25), but no more so than the broch structures they surround. The most telling piece of field evidence is perhaps that the broch structure and the outer wall seem

Figure 115

Dun Boreraig
NG 194531



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to be generally positioned on the knoll top to take best advantage of available natural defence, whilst at the same time leaving a sizable and usable enclosed area around the broch. The possible range of functions of this enclosed space has not been determined by excavation, but it is interesting that in the outer court at Dun Ardtreck (IS 27) MacKie found during Phase 3 in the sequence at the site sporadic signs of occupation in the form of ash spreads, but almost no artefacts. Traces of the foundation of one possible hut were also located (MacKie 1965b, 8). Evidence from the excavation of the broch of Dun Mor Vaul in Tiree suggested that the enclosed outer court there was intensively occupied in the later phases of the use of the site, but not during the primary phase (MacKie 1974a, 88).

Some final proof of the general contemporaneity of broch and outer wall is perhaps provided by Dun Ardtreck (IS 27; Figure 96, p320), the exact classification of which is disputed. MacKie noted that:

"The dun and its outer wall were built on the thin old turf line which covered the rock surface of the knoll. Though direct proof of their contemporaneity is lacking there is no reason to doubt that the dun and the outer wall were built at the same time." (MacKie 1965b, 5).

Dun Ardtreck occupies a similar knoll top to many of the brochs in Skye, with an outer wall skirting much of the summit edge. It is very noticeable that the entrance through the outer wall and the entrance to the main structure are disposed at ninety degrees to one another, as at the brochs of Dun Boreraig (IS 16; Figure 115) and Dun Colbost (IS 18). It must be taken as a serious possibility that Dun Ardtreck has been cut by cliff falls, and is in fact a broch site, offering proof through excavation of the likely contemporaneity of broch structures and outer walls at most, if not all, Skye broch sites.

In summary it may be said of the total site morphology of Skye brochs that:

(1) natural and artficial elements generally complement each other in an overall site design;
(2) natural defence was probably more significant than artificial defence provided by outworks, except at a very few sites;
(3) outer walls may have been intended largely to be enclosing safety devices on naturally dangerous sites, rather than additional defences;

(4) outer walls and broch structures appear to have been contemporary;
(5) the entrance through the outer wall and the broch entrance seems to have been staggered at some sites, possibly as an additional security measure;
(6) a sizable enclosed space was created around the majority of broch structures in Skye by the outer wall, although some sites would appear not to have had a requirement for such outer courts, or been unable to provide it on restricted knoll tops.

17.2 The Broch Structure

Table 24 (p393) lists the range of features which are distinguishable by field survey at the 31 potential brochs in Skye. Many of the sites are badly ruined, reduced to only a few courses of walling, thereby limiting the number of visible features. There is a remarkable similarity across the structures, with the majority being ground galleried and circular, ranging in internal diameter from 9m (IS 23 Dun Arkaig; Figure 114b) to 13m (IS 10 Dun Suladale), with an average diameter of 10.6m. This similarity highlights the oddity of one structure (IS 26 Dun Diarmaid), making it likely that it is not in fact a broch, despite the presence of a scarcement, and it should consequently be removed from the list of potential brochs in Skye. The conformity of Dun Ardtreck (IS 27; Figure 96, p320) and Dun Ringill (IS 30; Figure 94, p318) on the other hand are also highlighted, the external and internal diameters of the former being within the range for Skye brochs, and the latter exhibiting a similar range of features. In adition the fact that the C-shaped Dun Flodigarry (IS 1) was accepted by Martlew (1985) as an unquestionable broch, albeit a suggested unfinished one, would seem to leave no reason for the exclusion of either Dun Ardtreck or Dun Ringill from the category of certain brochs, and they should accordingly be so viewed. There are still some uncertain broch structures however, Dun a'Cheitichin (IS 7), Dun Borve, Edinbane (IS 9), Claigan (IS 15), Dun Feorlig (IS 21), and Dun Liath (IS 31). No further light on the exact nature of these structures is cast by an examination of the features of all potential brochs. Their identification must remain uncertain in the absence of excavation.

A ground gallery is evident from field survey at 18 of the broch structures, and is possibly present at a further site. A tier of two superimposed galleries is distinctly visible at six of the sites, and is suggested by the remains at a further four. Altogether then ten brochs in Skye seem to meet the criterion outlined by MacKie as defining a true broch, that is, possessing the characteristic high, hollow wall containing superimposed galleries (1983, 118). Most of the other sites in Skye are too badly reduced to retain any evidence of their former nature, except interestingly the well preserved Dun Beag (IS 24), which shows no evidence of a ground level gallery in its wall width, but only a stair gallery leading to a higher level.

The presence of a stair is identifiable at only five sites, Dun Suladale (IS 10), Dun Hallin (IS 14), Dun Fiadhairt (IS 17), Dun Beag (IS 24), and Dun Ringill (IS 30). A stair in the northern arc of the wall at the last site does not in fact seem to have been previously recognised. The existence of a stair at so few broch sites in Skye may perhaps be explained in two ways. First, the ruined state of many sites may have obscured this feature. For example the RCAHMS (1928, 156, no 506) suggested that there was a stair at Dun Colbost (IS 18), which is no longer visible. Second, the stair may not have begun at ground level in some broch structures, although at four of the sites where a stair is visible, it does begin at ground level. At Dun Ringill the stair is traceable only at a high level in the wall, but in the current debris-clad state of the site it is impossible to know whether it actually begins at a high level, or is in fact founded at ground level as at the other four sites. It is interesting that at the excavated sites of Dun Flodigarry (IS 1) and Dun Ardtreck (IS 27), both badly reduced structures, the excavators specifically mentioned that there was no evidence of a stairway (MacKie 1965b, 6; Martlew 1985, 46). The absence of stairs at Dun Flodigarry and Dun Ardtreck is not however necessarily evidence that stairs may have started to rise at a higher level in some broch walls in Skye. Both of these structures are C-shaped, and it is possible that part of the wall has fallen away, although Martlew could find no evidence of this at Dun Flodigarry, suggesting rather that the broch was unfinished (1985, 46). A stair may well have risen from ground level in the missing part of the wall at both sites.

A scarcement is identifiable at seven certain broch structures, including Dun Beag (IS 24) and Dun Ringill (IS 30), where scarcements do not seem to have been previously recognised. It is more than possible that scarcements may be hidden under the rubble at Dun Suladale (IS 10) and Dun Borrafiach (IS 13), where the inner face of the broch wall is preserved to a reasonable height. Elsewhere it may be suggested that the walls of broch structures are generally reduced below the level at which scarcements might be expected to occur, except that scarcements are traceable at both Dun Osdale (IS 19) and Dun Ard an t'Sabhail (IS 28), where the inner face of the wall is not preserved to any particularly great height. It is impossible to estimate the average height of the visible scarcements above the floor level in the interior of the broch structures as they are so full of rubble. It is clear however that the scarcements are generally placed at the level of the top of the lintels over the ground gallery and the bottom of any entries into a second tier gallery. At the excavated Dun Beag (IS 24) this level would appear to be only about 0.7m above the floor in the broch interior. It seems likely that a scarcement at this low level supported a wooden floor, with a restricted, dark basement beneath it, rather than a roof. A similar conclusion was drawn in connection with brochs in the Sutherland straths on the basis of similar field evidence of low scarcements (see Chapter 13).

The presence of scarcements in a number of Skye brochs, and also at the irregular Dun Diarmaid (IS 26), indicates that, despite the palaeo-environmental evidence presented in Chapter 16, there must have been a sufficient supply of constructional timber from some source to supply the needs of internal furnishings. Considerable quantities of such timber would seem to have been required, when it is noted that the internal diameter of some of the Skye broch structures is large, up to 13m at Dun Suladale (IS 10). Raised wooden floors may have been necessary to provide a level area above the uneven rocky surface of broch interiors in Skye, as evident at the excavated broch of Dun Beag where the rock outcrop in the interior rises almost 0.7m in places, up to about the level of the scarcement.

17.3 The Broch Interior

Very little information is available on the internal arrangements in Skye brochs, because the quality of the exavation evidence is so poor. Only four potential broch sites have been excavated, two during the First World War, and two more recently. Unfortunately the sites selected for the two more recent excavations do not seem to have been particularly productive of information, Dun Ardtreck (IS 27) being better in this respect than Dun Flodigarry (IS 1). However Dun Ardtreck suffers from the disadvantage of not being fully published more than twenty years after its excavation, with only a brief interim report being available.

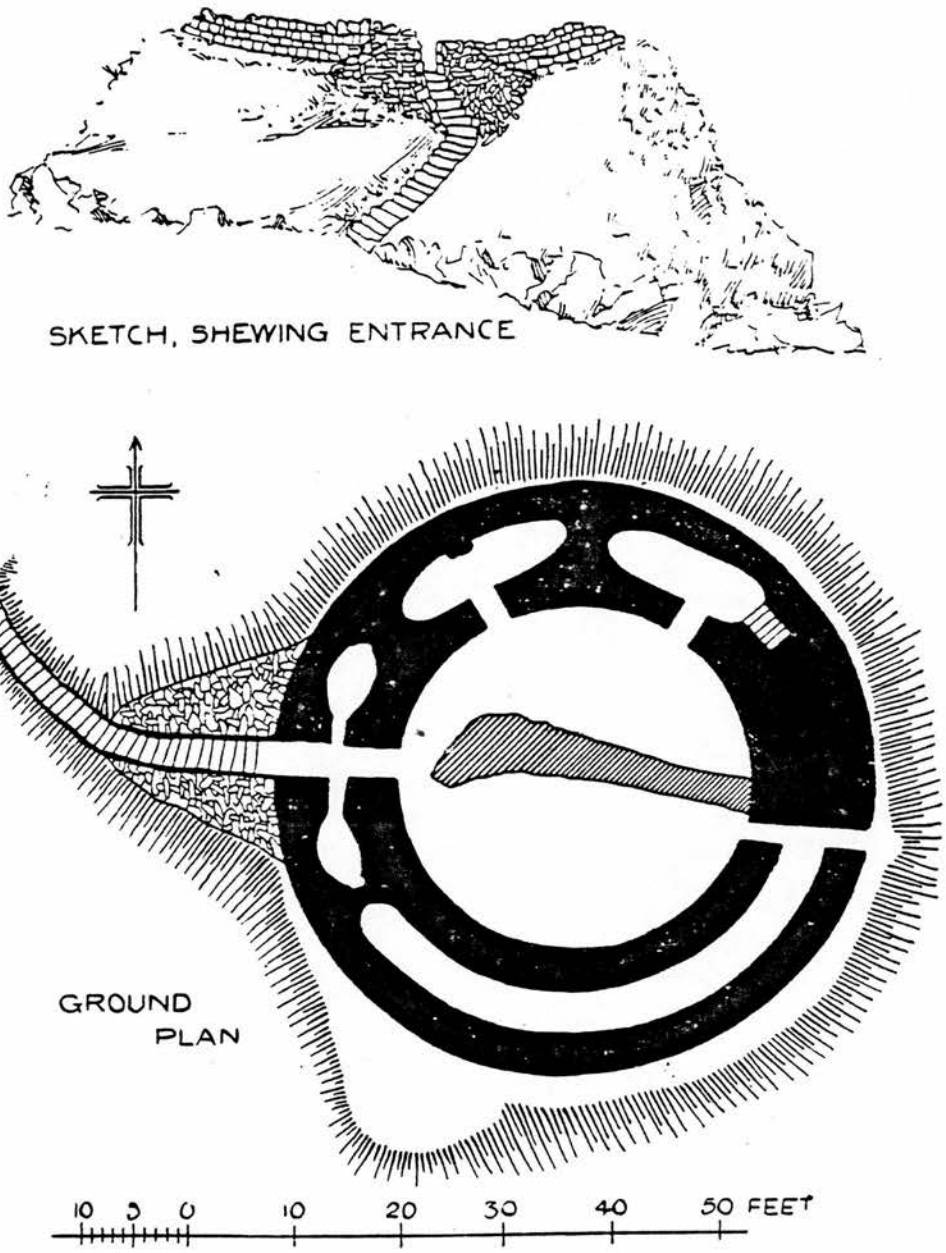
There is no record from Dun Fiadhairt (IS 17) of any arrangements in the broch interior, or indeed of the stratigraphy encountered during excavation. That there was some stratigraphy is evidenced by a reference to the recovery of two spheroid beads of green translucent glass, one from the floor level within the court, the other from a high level in the main entrance passage (MacLeod 1914-5, 66). The plan made at the time of the excavation shows an apparent secondary wall crossing the broch interior, which is still visible at the site (Figure 116). This wall is of rough construction and is definitely secondary. Its function in the broch interior is obscure.

A slightly better record was provided of the interior of Dun Beag (IS 24).

"In the course of clearing out the interior of the broch many stones were met with amongst the debris; but with the exception of a rudely built wall, some 3 feet 6 inches in height, with only one face and that towards the south-west, which was found crossing the north-eastern sector for a distance of 16 feet, no other structure which could be planned was met with. Many layers of red peat ash were found throughout the interior at various levels, with many fragments of rude, hand made pottery, broken rotatory querns, and food refuse in the shape of occasional animal bones and shells. A regular network of drains occurred at various levels, and the hollow parts of the floor were brought up to the level of the outcrop of rock by a slab pavement on the southern half of the court. The space between the rock and the wall on the other side, which lay behind the divisional wall just mentioned, however, did not show any signs of having been paved, although it may have been so originally. The divisional wall and the drains seem to be of very late date, as the greater bulk of the pottery and nearly all the relics were found at the lowest level, some being found under the paving. The gallery within the wall was chokeful of soil, throughout which many animal bones were found." (Callander 1920-1, 116-7).

No built hearths were found and no postholes were noted. Callander

Dun Fiadhairt (plan made at time of excavation) Figure 116



Source: MacLeod 1914-5, 58

noted also that no distinct layers of occupation were encountered and that there seemed to have been a great mixing of levels. He thought that each reconstruction in the interior may have swept away previous secondary buildings (1920-1, 128).

In the scant stratigraphy present in the interior of the broch of Dun Flodigarry (IS 1) Martlew recorded that:

"There was no evidence of hearths, drains, paving or any of the 'stone' furniture which might be expected in the interior of a broch or similar site, nor was any evidence found to suggest that attempts had been made to provide a level surface in the extremely uneven interior" (1985, 37).

Martlew accounted for the absence of internal furnishings by his hypothesis of the structure being unfinished. Whether this hypothesis is correct or not, the excavation of Dun Flodigarry obviously provided no useful information on arrangements in broch interiors in Skye.

This leaves only the unpublished excavation of Dun Ardtreck (IS 27) as a possible source of information on broch interiors on the island. MacKie noted in the interim report of the excavation that the site showed a clear sequence of deposits (1965b, 5). The report however does not give much detail of this sequence, except that three phases were distinguishable:

Phase 1: construction

Phase 2: primary occupation

Phase 3: conversion to a dwelling.

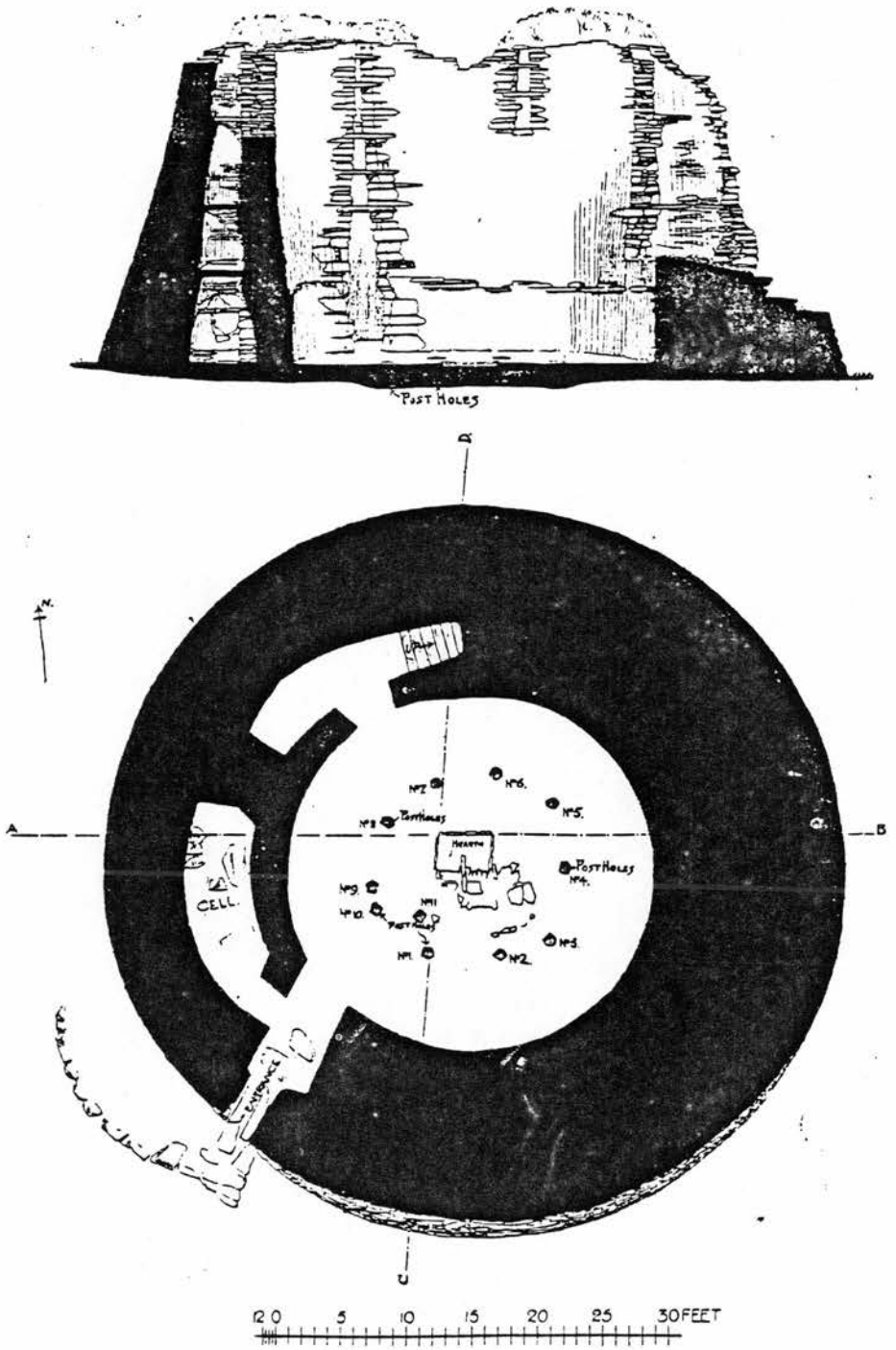
MacKie noted that there was very little accumulation of deposits in Phase 2, which he interpreted as indicating that the structure had been only sporadically occupied as a fort. The only reference to any internal furnishings during this phase is to primary paving which extended into the interior from the entrance to merge with the rising rock surface (1965b, 6). Evidence for Phase 3 seems to have consisted of a thick deposit of fine earth containing ash spreads and many sherds and artefacts. MacKie interpreted this deposit as indicating a domestic phase of occupation, but he did not record any furnishings to accompany the phase. In particular there is no reference to a built hearth. It is evident from the excavation plan of the site however that not all of the interior was in fact uncovered (Figure 96, p320). A built hearth could be located in an unexcavated part of the site,

especially if the site is thought to be only partially intact, the rest having fallen over the cliff.

The evidence for arrangements in broch interiors in Skye can be said to be so poor as to be almost non-existent. This could mean that in general there were little or no furnishings in Skye brochs such as drains, built hearths, paving, wooden posts, and stone and wooden partitions. Alternatively it could simply mean that the wrong sites were selected for excavation, or that excavation techniques were so poor in the antiquarian period that relevant information was missed or not recorded. The only means of ascertaining which of these hypotheses may be true is perhaps to examine excavations of brochs which have taken place elsewhere on the west coast. There are four of these for which there is published information: Dun Telve (Curle 1915-6); Dun Troddan (Curle 1920-1); Dun Mor Vaul (MacKie 1974a); and Dun an Ruigh Ruaidh (MacKie 1980). The latter is considered by its excavator to be another semi-broch like Dun Ardtreck (IS 27), but it has been argued that the structure is in fact a broch from which part of the wall has fallen away (Harding in Miket and Burgess 1984, 211).

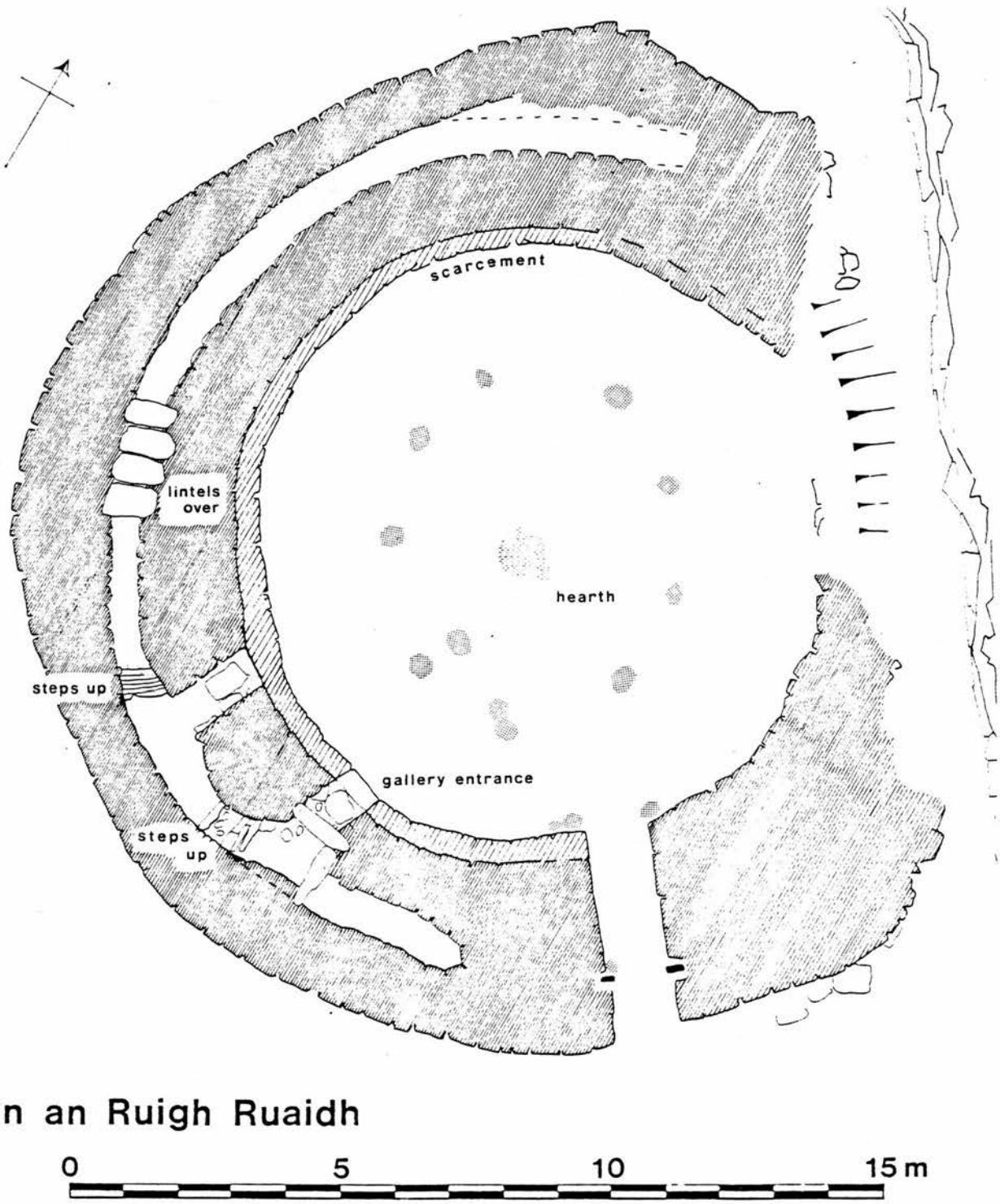
The earliest excavation was at Dun Telve in Glen Beag on the mainland, and like Dun Fiadhairt in Skye, there is no record in the published report of any furnishings or of any stratigraphy, although a number of artefacts are recorded from the interior. Dun Troddan faired a little better in the record of its excavation. When Curle took over the supervision of the final stage of the excavation of the site, most of the interior had been cleared without any apparent record having been made (1920-1, 87-8). There was however one heap of undisturbed deposit. Curle reported that immediately to the north of this deposit, close to the centre of the broch interior and apparently at a primary level, there was a well-formed, oblong hearth, neatly surrounded by kerb stones (Figure 117). In the unexcavated deposit there were the remains of two other hearths lying about 2 feet (0.6m) above the original and crossing it at an angle. Around the hearth at a distance of about 6 feet 6 inches (2m) from the inner face of the broch wall there were eleven stone lined post holes, containing brown spongy matter, and in one case, remains of decayed wood (Figure 117). Curle thought that the purpose of these holes was to hold the posts

Dun Troddan (plan made at time of excavation) Figure 117



Source: Curle 1920-1, 86

Dun an Ruigh Ruaidh with Primary Hearth and Postholes Figure 118



Source: MacKie 1980, fig 3

supporting the front of a roof, the back of which rested on the scarcement which ran around the inner face at about 6 feet (1.8m) above the ground (1920-1, 91). The post holes seemed to have been cut into the gravel subsoil of the broch interior, and therefore may be presumed to have been part of the primary furnishings of the broch (Curle 1920-1, 90).

The broch of Dun Mor Vaul in Tiree in its primary phase of use (MacKie 1974a, 82-7) had rough paving or cobbles around the periphery of the interior, which had an average width of 1.8m. Approximately 1.3m to the south-east of the centre of the interior there was a rectangular tank, lined with dry masonry and covered with slabs. An overflow drain of similar construction ran south-eastwards from the tank and out through the entrance. There was no built hearth during this period of the broch's use, although there were patches of ash and great quantities of domestic refuse. No ring of post holes to support a wooden floor was found, although there was one suitable hole and the broch has a scarcement at an average height of 1.4m above the floor (RCAHMS 1980, 92-4, no 167). The nature of the internal furnishings at Dun Mor Vaul in its primary phase of use suggested to the excavator that the broch had served as a temporary refuge, rather than being permanently occupied. This view was reinforced by the discovery of a paved and kerbed rectangular hearth which appeared to have been inserted into the centre of the broch interior immediately to the north-west of the tank during a second phase of broch use, with the tank being used as a refuse pit. Beside the hearth there was evidence of four whale vertebra post sockets which may have supported a roasting spit. A skin of secondary walling was also added to the inner face of the broch wall during the second phase. MacKie considered that the furnishings from the second phase of the broch's use indicated that it had been converted to a dwelling house from a temporary refuge.

At Dun an Ruigh Ruaidh on the side of Loch Broom in Wester Ross (MacKie 1980, 39-44; Figure 118) there was a large hearth in the centre of the interior of the structure in the primary phase of its use. There were also a number of massive post holes sunk into the subsoil, forming an oval ring about 2.2m from the inner face of the

wall of the structure. A rectangular box or tank made of sandstone slabs lay in the south-west quadrant of the court about 1.6m from the hearth. It appeared to have been set into the subsoil, but to have projected above it by about 0.2m.

It is clear from the foregoing descriptions that there is some variation in the internal furnishings found during excavation of broch interiors on the west coast. Stone built hearths were found in the primary phases at Dun Troddan and Dun an Ruigh Ruaidh, but not at Dun Mor Vaul. Equally there is evidence from Dun Troddan and Dun an Ruigh Ruaidh of a ring of post holes which could have supported a raised wooden floor, a roof, or perhaps simply partitioning, but conclusive proof of such post holes was not found at Dun Mor Vaul. The presence of the box-like tanks in the floor at Dun Mor Vaul and Dun an Ruigh Ruaidh is reminiscent of the kinds of furnishings commonly to be found in broch interiors in Caithness and Orkney.

The evidence of the internal furnishings at Dun Troddan and Dun an Ruigh Ruaidh suggests structures which were in more or less permanent use as habitations from the beginning. By contrast the evidence of the interior arrangements at Dun Mor Vaul and at the excavated Skye brochs does not support this view, except that there were large quantities of occupation debris present in the primary levels at Dun Mor Vaul (MacKie 1974a, 85), and there were domestic artefacts among the finds from Dun Beag (IS 24), the great bulk of which were recorded as coming from the lowest levels in the interior (Callander 1920-1, 128). Despite the notable absence of recorded internal furnishings at Skye brochs, particularly built hearths, it may be reasonable to assume that the structures were intended primarily to be habitation units, and to predict that direct evidence of this would be obtained if further sites were to be excavated.

17.4 Evidence for Chronology

The excavation evidence for Skye may be poor, but the two recent excavations which have taken place on the island have each produced radiocarbon dates, which provide some chronological framework for Skye brochs. Dun Ardtreck (IS 27) is founded on a site which slopes down

from west to east. Consequently the eastern arc of the wall had to be built on a semicircular rubble platform which levelled off the site (MacKie 1965b, 5-6). Charcoal scraps were recovered from this rubble foundation from which a radiocarbon date was obtained as follows (MacKie 1969, 17):

GX-1120 2005±105 bc 55±105 bc

MacKie suggested that this gave a calendrical date for the construction of Dun Ardtreck of about 115 BC.

The otherwise unproductive excavation of Dun Flodigarry (IS 1) also produced a single radiocarbon date from charcoal deposited immediately after the construction of the wall, giving a date as follows:

GU 1662 45±65 bc

This was calibrated by the excavator to AD 55 in calendar years (Martlew 1985, 44).

These dates should be compared with the radiocarbon dates obtained from the west coast excavations of Dun Mor Vaul (MacKie 1974a, 228-31) and Dun an Ruigh Ruaidh (MacKie 1980, 77) as follows:

Dun Mor Vaul primary clay floor in broch wall gallery:
GaK-1097 1890+90 60±90 ad

Dun an Ruigh Ruaidh
postholes:
GU 1366 275±80 bc
primary floor:
GU 1365 135±80 bc
ash layer in primary hearth:
GU 1367 30±60 bc

MacKie suggested the following calendar dates from these radiocarbon dates:

Dun Mor Vaul (1974a, 92)	GaK-1097	AD 80
Dun an Ruigh Ruaidh (1980, 77)	GU 1366	c370-340 BC
	GU 1365	c 10-100 BC
	GU 1367	cAD 60.

From the range of dates given above it can be seen that the two structures which MacKie identified as semibrochs (1965a) do in fact have earlier dates. The construction of Dun Ardtreck was dated by MacKie to about 115 BC. For the construction of Dun an Ruigh Ruaidh he favoured the dates of 275±80 bc (GU 1366) and 135±80 bc (GU 1365), suggesting that Dun an Ruigh Ruaidh may have been built as early as the third or fourth centuries BC, although he also had other older and younger dates from which to choose (1980, 55-7). Harding has questioned MacKie's interpretation of the radiocarbon dates for Dun an Ruigh Ruaidh as follows:

"In fact, the radiocarbon dates from the Rhiroy excavation afford anything but a consistent sequence and certainly do not demand a third-century dating of its initial phase; indeed, if we regard the sixth-century date obtained from one of the posthole samples as probably suspect, then it would be hard to sustain a primary occupation, on the basis of the remaining dates, earlier than the first century BC." (Harding in Miket and Burgess 1984, 211).

It has already been suggested that both Dun Ardtreck (IS 27) and Dun an Ruigh Ruaidh should be regarded as full broch structures which have been partially eroded, rather than a different type of site as suggested by MacKie. On this assumption radiocarbon dates may be said to exist for four broch structures on the west coast, including two in Skye. A general date range for the primary occupation of these broch structures would seem to be the first century BC/first century AD, the traditionally accepted date range for the construction of brochs, and much later than the dates now emerging for brochs in Orkney and Caithness (Hedges 1987, Part I, 117; Harkness in Fairhurst 1984, 160-3).

Some further dating evidence for Skye brochs is provided by finds of Roman material, unfortunately, except for Dun Ardtreck, not in securely dated contexts. Second century AD samian pottery and a bead were found at Dun Ardtreck (IS 27) in a Phase 3 context (MacKie 1965b, 8; Robertson 1970, 205). This late phase in the use of the structure must therefore have begun after about AD 142. A sherd of samian pottery was also found at Dun Flodigarry (IS 1), but in a disturbed context (Martlew 1985, 40). A curious terra cotta bail was found at Dun Fiadhairt (IS 17) which the excavator, Countess de Latour, stated came from the very lowest excavation level (Curle 1931-2, 289). Curle noted that terra cotta was only being produced in Italy or in the

provincial world in the early centuries AD, and that the object was most likely to be Roman. There is no record of any Roman finds from Dun Beag (IS 24). These few Roman finds from broch sites in Skye seem to confirm the general date range provided for the structures by radiocarbon dates from the west coast.

Table 23 Skye: Brochs with Outworks

Site	Enclosing Wall	Ditch	Rampart
Dun Bornaskitaig	x		
Dun Raisaburgh	x		
Kingsburgh	?		
Dun Borve, Borve	x	x	x
Dun a'Cheitichin	x		
Dun Flashader	x		
Dun Suladale	x		
Dun Edinbane	x		
Dun Gearymore	x	x	
Dun Hallin	x		
Dun Boreraig	x		
Dun Fiadhairt	x		
Dun Colbost	x		
Dun Feorlig		?	
Dunalighlinn	?		
Dun Arkaig	x		
Dun Garsin	x		
Dun Ardtreck	x		
Dun Ard an t'Sabhail	x		
Dun Sleadale		x	

Source: Site catalogue

Table 24 Skye: Features of All Potential Broch Structures (drawn from site catalogue)

Site Name	Ext Dia	Int Dia	Shape	Ground Gallery	Tiers of Galleries	Stair	Guard Cell(s)	Other Cell(s)	Scarcement	Two Entrances
Dun Flodigarry	18.1m	10.0m	C	x			x			
Dun Bornaskitaig	18.4m		Circ	x						
Dun Grianan	16.5m	10.6m	Circ	x						
Dun Raisaburgh	17.0m		Circ	x			?			
Kingsburgh	18.4m	10.8m	Circ	x						
Dun Borve, Borve	17.3m		Circ	x						
Dun a'Cheitichin			Circ							
Dun Flashader	18.0m	10.6m	Circ	x			x			
Dun Borve, Edinbane			Circ							
Dun Suladale	19.6m	13.0m	Circ			x	x	x		
Dun Edinbane	17.5m	9.8m	Circ	x						
Dun Gearymore	18.0m	10.8m	Circ	x	x		x	x		
Dun Borrafiach	17.2m	9.9m	Circ		?					
Dun Hallin	16.8m	10.8m	Circ	x		x	x			
Claigan		9.0m	Circ							
Dun Boreraig	17.0m	10.0m	Circ	x	x			x	x	
Dun Fiadhairt	18.4m	9.4m	Circ	x	x	x	x	x	x	x
Dun Colbost	16.5m	9.6m	Circ	x	x			x		
Dun Osdale	18.4m	10.2m	Circ	x	x			x	x	
Glen Heysdal	18.0m	10.4m	Circ	x						
Dun Feorlig	16.0m		Circ							
Dunalighlinn	18.3m		Circ	?						
Dun Arkaig	17.8m	9.0m	Circ		?			x		
Dun Beag	19.4m	10.8m	Circ			x		x	x	
Dun Garsin	18.8m		Circ	x						
Dun Diarmaid	14.7m	8.0m	Oval						x	
Dun Ardtreck	18.3m	12.8m	C	x			x			
Dun Ard an t'Sabhail	17.5m	11.0m	Circ	x	x		x		x	
Dun Sleadale	17.8m	12.2m	Circ	x	?				x	
Dun Ringill		c12.0m	C		?	x		x	x	
Dun Liath	19.3m		Roughly Circ							

CHAPTER 18 SITE MORPHOLOGY 2: OTHER POTENTIAL IRON AGE SITES

It was pointed out in Chapter 15 that there are about 95 potential Iron Age sites in Skye of which structures identified as brochs constitute only about one third. The other structures have been variously identified as duns, galleried duns, semibrochs, and forts (Table 20, pp328-32). No other area of the west coast, with the possible exception of the Outer Hebrides, has this remarkable mix of site types. To the south of the island for example, brochs are a rare occurrence and the majority of potential Iron Age sites in Argyll and the southern islands are classed as duns or forts, although a number of these have evidence of galleries or stabilising revetments within their walls (Table 22, pp335-9). Skye would seem to be a very good area in which to study the overlap of site types, because of the large number of brochs present on the island, and the even larger number of sites of other types. There is the additional benefit that some consideration of the wider range of potential Iron Age sites in Skye may contribute to a better understanding of the brochs on the island.

Study of the overlap of site types in Skye is seriously hampered by a lack of knowledge in two crucial areas. The field survey evidence for sites is poor, and there has been no modern excavation of an Iron Age site in Skye other than brochs (if Dun Ardtreck (IS 27) is accepted as being originally a full broch structure). Most of the potential Iron Age sites on the island were recorded in the inventory for the Outer Hebrides, Skye and the Small Isles (RCAHMS 1928), but few site plans of the structures were provided. Since then, more information has been gathered on each site by the OS, including site plans at small scale (recorded on individual NMRS cards). MacSween has brought all of the basic information together in a single corpus (1984-5). In the absence of a more comprehensive survey of the sites, reliance must be placed on MacSween's corpus, and the following chapter draws upon it. In terms of excavation evidence, reference can only be made to the few excavations of other types of Iron Age sites which have taken place elsewhere on the west coast (Christison 1904-5 (Ardifuar, Mid Argyll); Childe and Thorneycroft 1937-8 (Rahoy, Morvern); Fairhurst 1938-9 (Kildonan, Kintyre); Young 1955-6 (Dun Cuier, Barra); Ritchie 1970-1 (Dun an Fheurain, Gallanach, Lorn); RCAHMS 1971, 19, 83-4, no 203 (Dun Fhinn,

Kintyre), and 87-8, no 219 (Kildalloig, Kintyre); MacKie in Harding 1976 (Dun Lagaidh, Wester Ross); Ritchie and Lane 1978-80 (Dun Cul Bhuirg, Iona)).

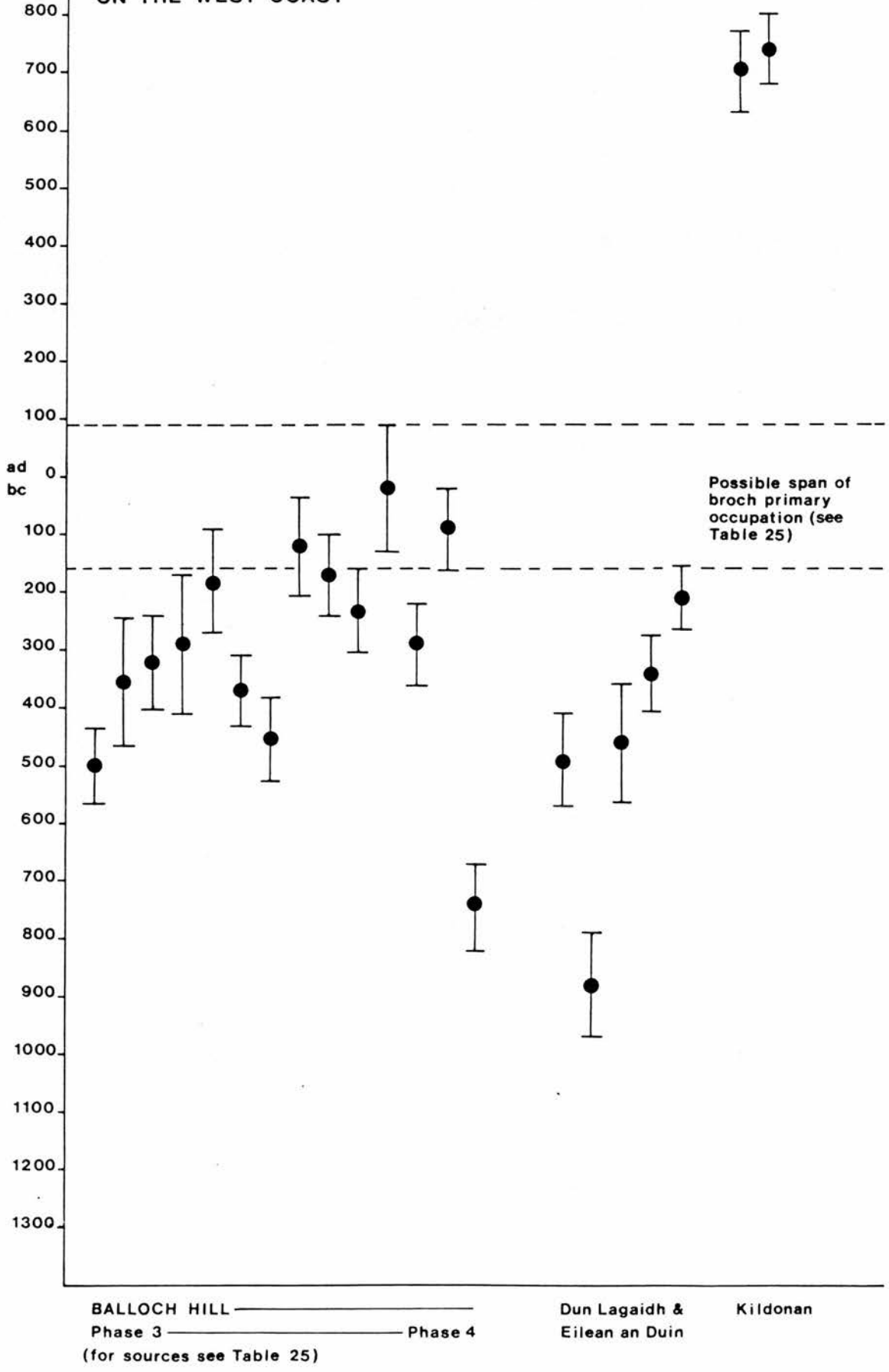
Section 18.1 below assesses the available evidence for determining the chronological relationships between the various types of potential Iron Age sites in Skye. In reading this section reference should be made to Table 25 (pp415-6) which summarises the radiocarbon dates for west coast Iron Age sites and to Figure 119. Section 18.2 examines the morphology of the sites in Skye which may be contemporary with brochs, drawing any comparisons and contrasts. Section 18.3 summarises the implications arising from the presence of other potential Iron Age sites on the island for approaches to understanding brochs in Skye in particular, and west coast brochs in general.

18.1 Chronological Relationships

A discussion of the likely chronological period of the brochs in Skye took place in Chapter 17, where it was suggested that brochs were probably being built and occupied there in the first century BC/first century AD, with some continuation of use into the second century AD. Evidence for continued use beyond this period is sketchy. At Dun Mor Vaul, Tiree, MacKie suggested that the final period of occupation may have taken place in the third century AD (1974a, 95). At Dun an Ruigh Ruaidh, Wester Ross he suggested that Iron Age occupation of the site may have ended in the fourth to fifth centuries AD, although there was some evidence of medieval use of the intramural gallery (MacKie 1980, 67). Only at Traigh na Berie in Lewis, presently being excavated (Dennis Harding, pers.comm.), and at Dun Cuier, Barra (Young 1955-6) does there seem to be evidence for later occupation of a broch structure. Dun Cuier was in fact identified by its excavator as a dun, but its appearance (Figure 120) strongly suggests that it is a broch, and it was so identified by the RCAHMS (1928, 129, no 441). The excavator of Dun Cuier determined that the site was later than the seventh century AD on the basis of an analysis of its artefactual remains (Young 1955-6, 304). It seems unlikely that anyone would now agree with this very late dating of Dun Cuier, and it is probable that many of the finds are in fact attributable to an earlier date, although

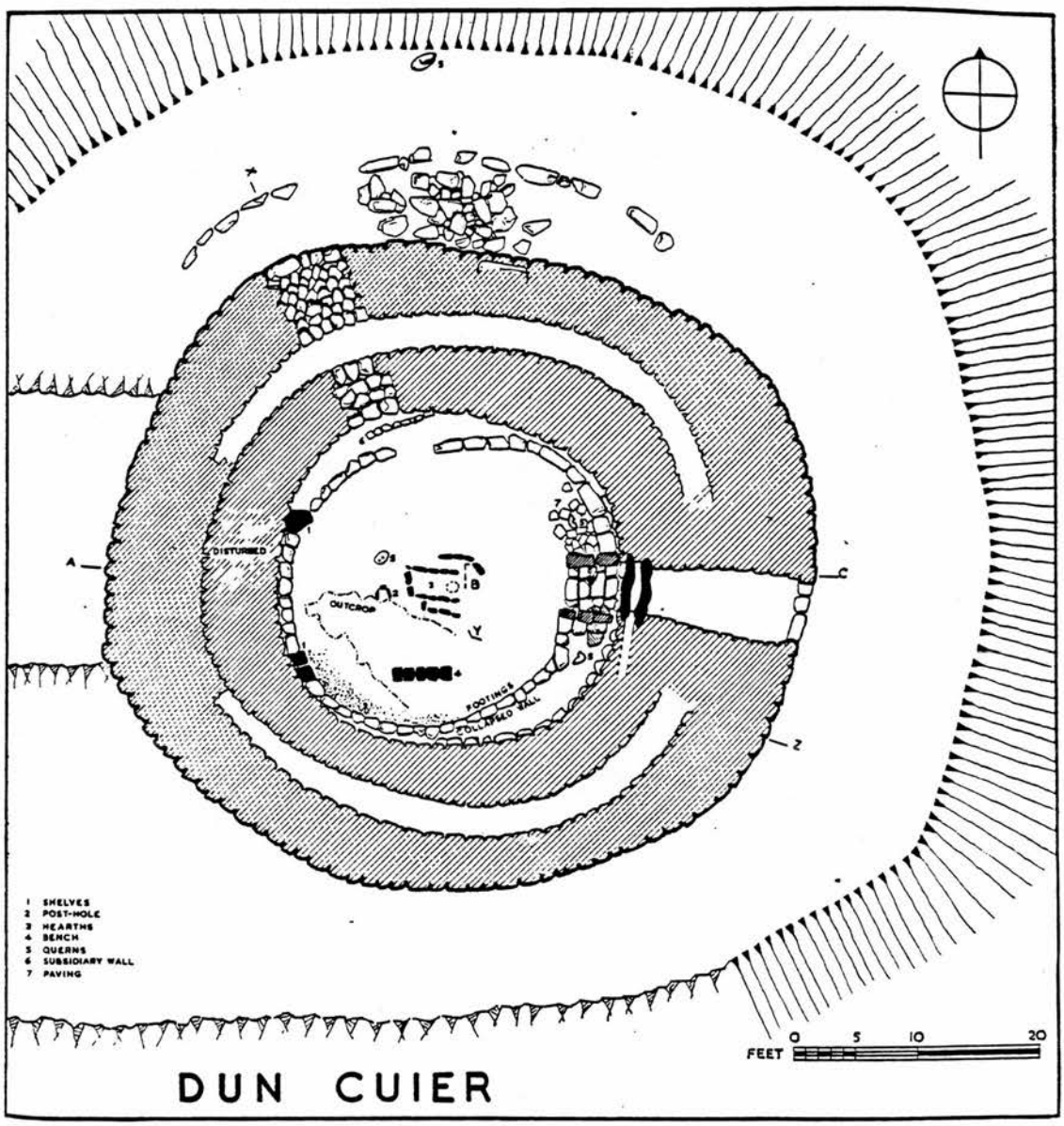
RADIOCARBON DATES FROM SOME IRON AGE SITES ON THE WEST COAST

Figure 119



Dun Cuier, Barra

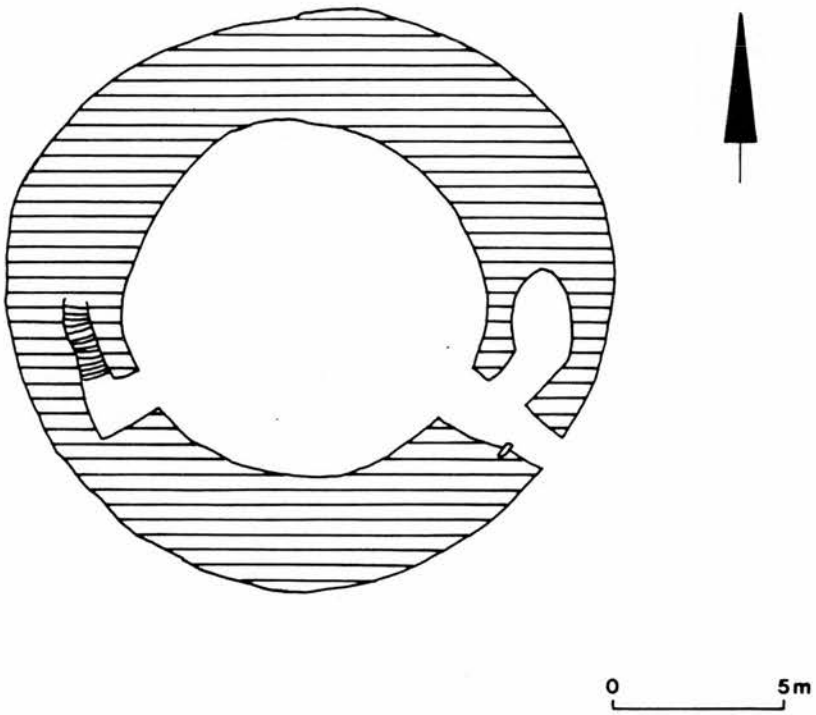
Figure 120



Source: Young, 1955-6, fig 6A

Figure 121

DUN LAGAIDH, WESTER ROSS



after Current Archaeology 1969, 11

occupation of the site may have continued to a very late date. A re-scrutiny of the artefacts from Dun Cuier may well establish that the site did indeed have a long history (review currently being done by Ian Armit, University of Edinburgh, Department of Archaeology).

Evidence for the date range of duns on the west coast comes from a number of excavations which have taken place, mainly in mainland Argyll, on both galleried duns and plain walled duns. These excavations seem to demonstrate that in general duns should be attributed to an Iron Age date, at least for the beginning of their occupation. This conclusion has been drawn from assessment of artefacts found within the duns, no radiocarbon dates being available to support the general dating. (Recent attempts to secure radiocarbon dates for Kildonan dun, Kintyre produced the following (Peltenburg 1982, 207):

GU-1457	Below hearth II 2	705±70ad	640-825 AD (calibrated)
GU-1458	Below hearth II 2	740±60ad	670-875 AD (calibrated)

(Calibrations by Peltenburg)

Peltenburg noted that there were earlier deposits beneath this radiocarbon context, and further excavation took place in 1984 (Peltenburg in Disc Exc Scot 1984, 23), but so far no further radiocarbon dates for the site have been published.)

It has been suggested that the artefactual evidence from duns in mainland Argyll points to continuous occupation of the sites from about the first/second centuries AD until after the middle of the first millennium AD (Ritchie 1970-1, 106; RCAHMS 1971, 83-4, no 203; and 87-8, no 219). (The exception is the vitrified dun of Rahoy where artefacts suggest a date as early as the third century BC (RCAHMS 1980, 115).) The latter end of the date range is in keeping with the radiometric evidence from the re-investigation of Kildonan dun outlined above. At Dun Cul Bhuirg, Iona, by contrast, it was argued on the basis of parallels elsewhere on the west coast, that the pottery from the site spanned a range of 100 BC to 300 AD, with no evidence of later occupation of the site. Topping has drawn attention however to the dangers of constructing a chronology based on pottery parallels (1985, 206-8), and no more definitive dating for Dun Cul Bhuirg seems possible in the absence of definitive artefacts and radiocarbon dates.

The nearest dun excavation to Skye took place at Dun Lagaidh, Wester

Ross, close to the site of Dun an Ruigh Ruaidh which has been radiocarbon dated to the Iron Age. The excavation of Dun Lagaidh was carried out in 1967 and 1968 and is not fully published, although a brief report is available (MacKie in Harding 1976, 214-9). Dun Lagaidh proved to be a multi-period site, with a vitrified fort overlain by a circular structure first identified as a broch (Calder and Steer 1948-9, 69), then a dun (MacKie in Harding 1976, 214), which is in turn overlain by a medieval fort. Radiocarbon dates were obtained from the site as follows (MacKie 1969, 17; MacKie in Harding 1976, 216, 218):

Construction of vitrified fort	GaK-1121	490±80bc
	GaK-1948	880±90bc
Destruction of vitrified fort	GaK-2492	460±100bc
Occupation layer in dun	GaK-1947	ad 840±90
Medieval layer in dun guard cell	GaK-1449	ad1155±80

MacKie was happy to accept the dates for the vitrified fort period of the site and for the medieval fortification, especially as the latter was supported by the find of a hoard of coins dating to the period AD 1180-1242. He was not however happy to accept the dating from the occupation layer in the dun.

"This type of round, solid-walled dun is known in Argyllshire, at Ardifuar for example. Several duns in that region have produced fragments of Roman Samian ware and are quite likely to have been built at a late stage in the pre-Roman Iron Age. In spite of the C-14 date (see below) Dun Lagaidh ought to belong to the first century AD and the finds do not contradict this assumption...

The radiocarbon date of ad 840±90, for charcoal on the old dun floor, is not easy to understand. Presumably the wood concerned must belong to the Medieval castle and could be old, reused material. It seems doubtful whether a mortared keep could have been constructed as early as the ninth century but, on the other hand, had it not been for this date, there would have been no reason to dissociate the charcoal from the other Iron Age artefacts on the same level. The conditions are puzzling" (MacKie in Harding 1976, 218 and 219).

There are a number of problems with the evidence provided by Dun Lagaidh. First, it may not be reasonable to accept MacKie's insistence that the circular structure is a dun, and not a broch as it was previously identified by Calder and Steer. MacKie (in Harding 1976, 217) describes the structure as circular with a 12ft (3.6m) thick drystone wall which contains one or more median faces at certain

points, enclosing an area 35ft (10.7m) in diameter (Figure 121). The entrance had two sets of door checks and an elongated guard cell to the right of the passage. There is an entry leading off the court to a stair in the wall width, but there is no evidence of an intramural gallery. The structure could easily be identified as a broch for the following reasons:

(1) the wall width and internal diameter are within the range for brochs on the west coast;
(2) there is considerable variation in the intramural features present within broch wall bases throughout north and west Scotland;
(3) the nearby Dun an Ruigh Ruaidh seems originally to have been a full broch structure of possibly similar date; and
(4) the two sites of Dun Lagaidh and Dun an Ruigh Ruaidh seem to divide the available cultivable land on the south-west side of Loch Broom comfortably between them, as if they had been in contemporary use.

The second problem raised by Dun Lagaidh is that the artefacts seem to demonstrate a date for the circular structure in the first century AD, but the single radiocarbon date for the occupation layer inside the structure does not. Either the material selected for radiometric dating was contaminated, or MacKie's interpretation of the stratigraphy within the structure is in error. His own willingness to ascribe the late date to the Medieval fortification, despite its apparently belonging to the dun floor, may suggest that the latter is the case. The radiocarbon date may attach to an unrecognised late phase in the occupation of the interior of the dun or broch. The material for the date seems in fact to have come from the top of the occupation layer ascribed to the Iron Age period (MacKie in Harding 1976, 218), but without a full report on the excavation it is impossible to be certain.

Dun Lagaidh does not particularly elucidate the potential chronological relationships between brochs and other types of structures in the northern part of the west coast and in Skye. However it does indicate that there was some continuity of site use, in particular re-use of an Iron Age site in the Dark Age and medieval periods. In this context it should be remembered that the neighbouring Dun an Ruigh Ruaidh does not seem to have been permanently occupied

much beyond the fourth to fifth centuries AD. Dun Lagaidh also demonstrates that the classification of sites on the west coast can be an important source of confusion in trying to understand chronological and other relationships between site types. If Dun Lagaidh is in fact a broch structure, it may have been occupied into later periods as at Traigh na Berie in Lewis and Dun Cuier in Barra, but in striking contrast to the neighbouring Dun an Ruigh Ruaidh and to the excavated brochs in Skye.

The excavation evidence for forts on the west coast suggests that they may be rather earlier in date than both duns and brochs. This type of site has not received the same attention as other Iron Age sites, but one excavation at Balloch Hill, Argyll has been recently published. It produced a number of radiocarbon determinations which the excavator thought suggested a date range from the sixth to the first centuries BC for the fort (Peltenburg 1982, 204). He also noted the following:

"Save in size, there is little in the structural sequence or detail that obviously suggests an evolution to simple or complex duns. Thus there is no observable tendency to contraction of size or to the elaboration of protective devices such as wider walls, doorchecks and barholes at the entrance. Quite the reverse in fact ensues and an unenclosed homestead shortly follows Phase 3. Yet Knock Scalbert, visible from Balloch across the Laggan and identical in many respects, possesses a narrow rebated entrance in the manner of many duns (RCAMS 1971, 73). As a consequence it may be seen that there was no uniform evolution from one type of monument to another and Balloch rather suggests that each small drystone fort had an individual history only loosely tied to prevailing traditions. Unless we adopt a model of rapid and rather isolated innovation amongst the forts, which led to the creation of significantly new types of enclosures and settlement patterns, it would seem that the advent of elaborate duns in Kintyre owed more to developments initiated elsewhere than to the building traditions of local forts" (Peltenburg 1982, 208).

The clear implication of the excavation at Balloch Hill is that not only are forts apparently much earlier than both brochs and duns on the west coast, but they may be unrelated in other aspects, with indications that later structural elaboration may have originated outside mainland Argyll.

In summary, the available chronology for the range of Iron Age sites on the west coast suggests that:

(1) duns were roughly contemporary with brochs, with their occupation possibly beginning slightly later;
(2) duns may generally have continued in occupation into the Dark Age period, at least in mainland Argyll;

(3) some brochs may also have continued in occupation into the Dark Age period, as exemplified by Dun Cuier, Barra; Dun Traigh na Berie, Lewis; and possibly Dun Lagaidh, Wester Ross;
(4) some brochs did not continue in occupation into the Dark Age period, as exemplified by Dun Mor Vaul, Tiree; Dun an Ruigh Ruaidh, Wester Ross; Dun Ardtreck, Skye; Dun Flodigarry, Skye; and possibly Dun Beag and Dun Iardhard, Skye (a re-scrutiny of the finds from these two early excavations may be more informative); and
(5) forts in general seem to be earlier than both brochs and duns, and there is no particular evidence that the smaller compact sites derived from them.

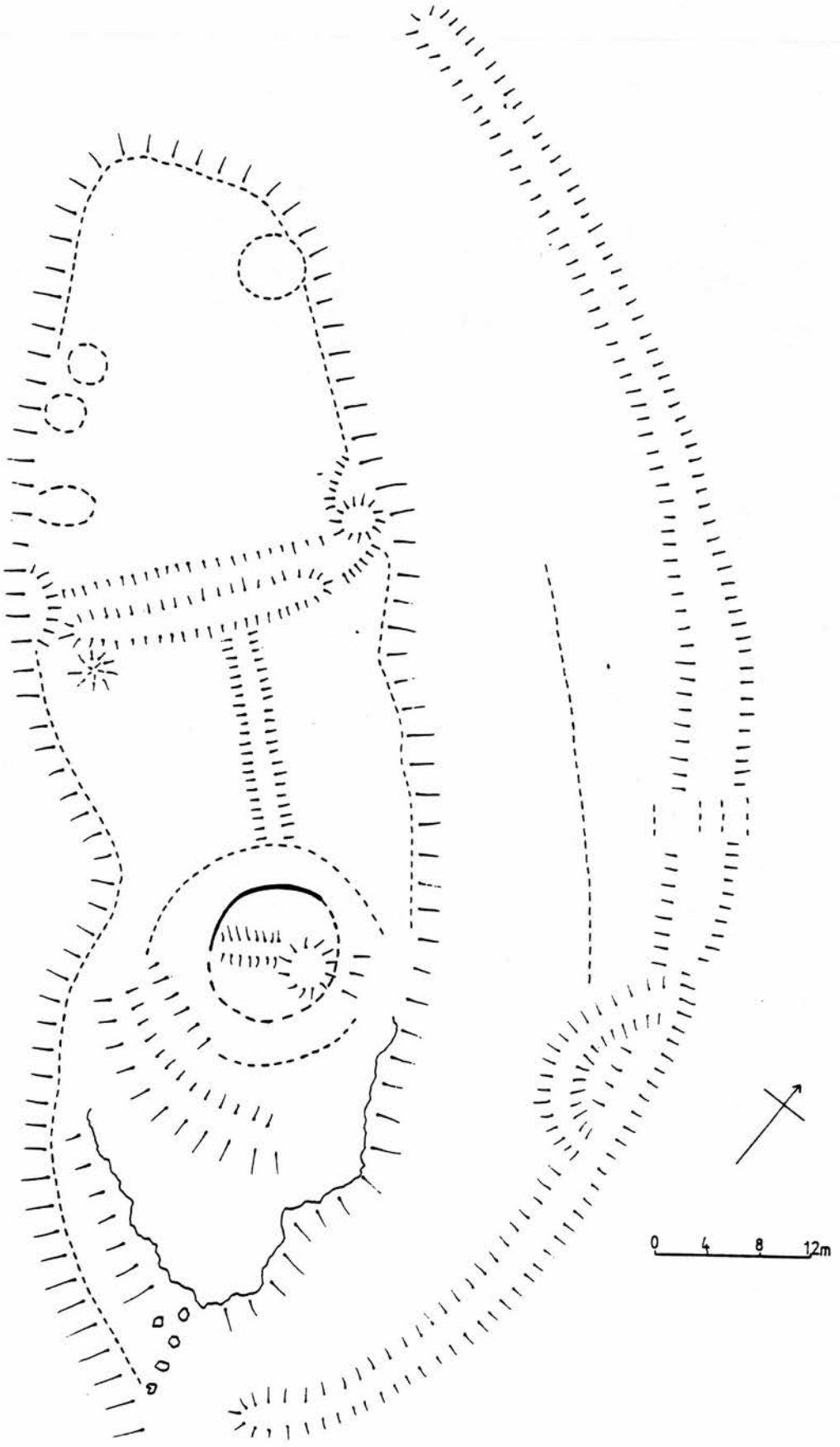
18.2 Site Morphology

The foregoing discussion indicates that compact sites in Skye known as duns may be roughly contemporary with brochs, but forts are likely to be earlier. Table 20 (pp328-32) lists 21 forts on the island currently identified in the NMRS. It has been suggested by the OS (recorded on individual NMRS cards) that five of these sites are potentially multi-period, with a galleried fort (Dun Liath, Kilvaxter) and a monastic settlement (Annait) overlying two of the forts, and duns overlying the other three (Dun Skudiburgh (Figure 111b, p363), Dun Cruinn (Figure 122), and Dun Neill. Preliminary examination of some of these sites suggests that the OS's interpretation is likely to be correct, thus providing some minimal supporting evidence for the hypothesis that forts on the island are earlier than the smaller compact sites called duns and brochs.

The present field evidence for Skye suggests that no brochs overlie forts, and only a handful of duns appear to do so (see Chapter 17 and above). There is also no field evidence, that any broch or dun overlies an earlier compact stone structure. The different site types of forts, brochs, and duns seem generally to occur in mutually exclusive locations. This may seem rather unusual if a chronological succession is being suggested, with forts being followed by smaller compact structures. It might perhaps reasonably be expected that more individual locations would exhibit some direct evidence of a chronological succession. The absence of such direct evidence is not

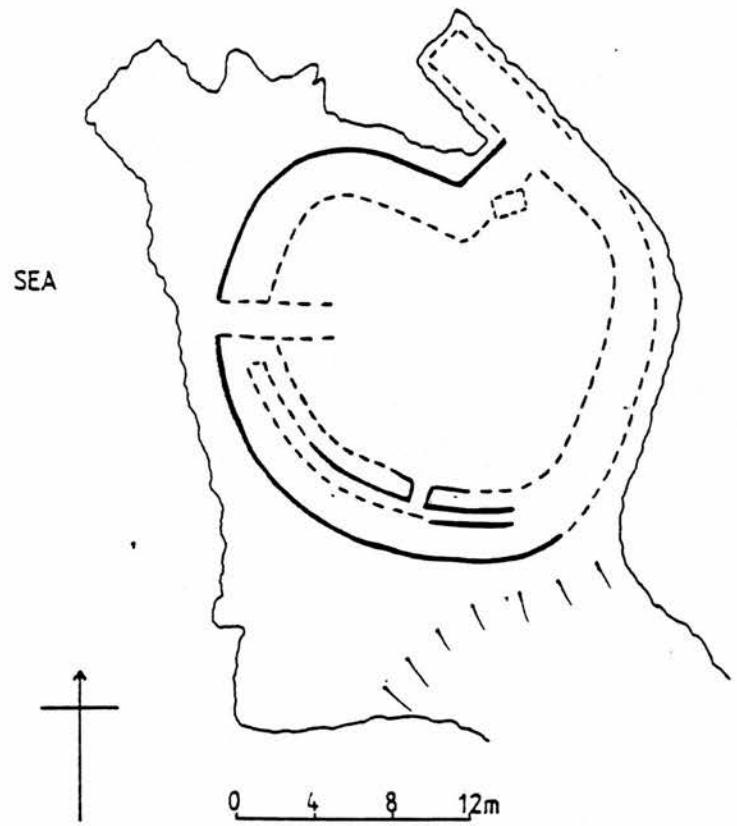
Dun Cruinn, Skye

Figure 122

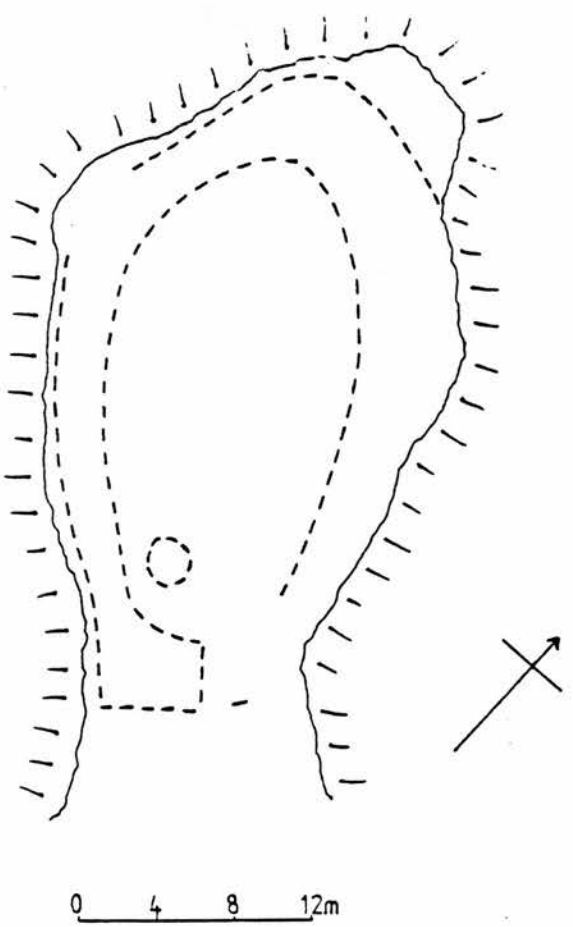


Source: MacSween 1984-5, fig 51

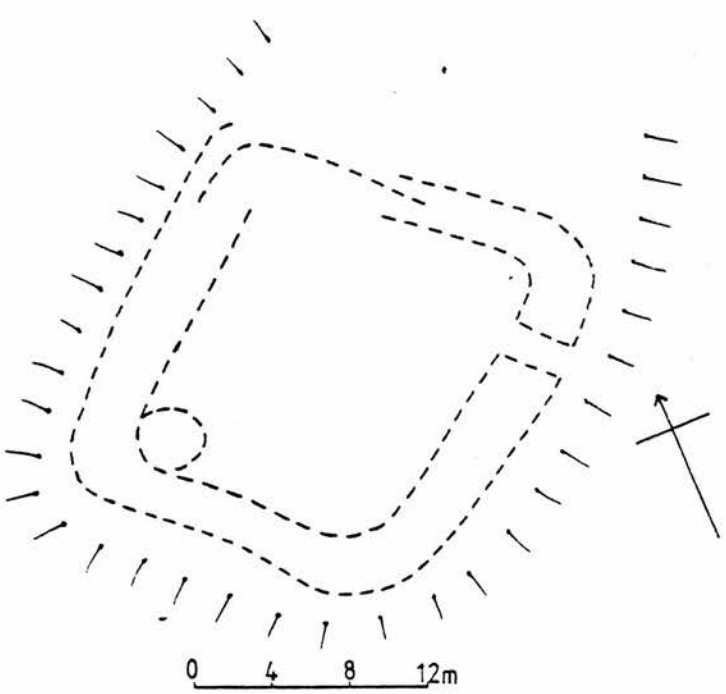
Examples of Duns in Skye (drawn from Macsween 1984-5) Figure 123



Dunan an Aisilidh

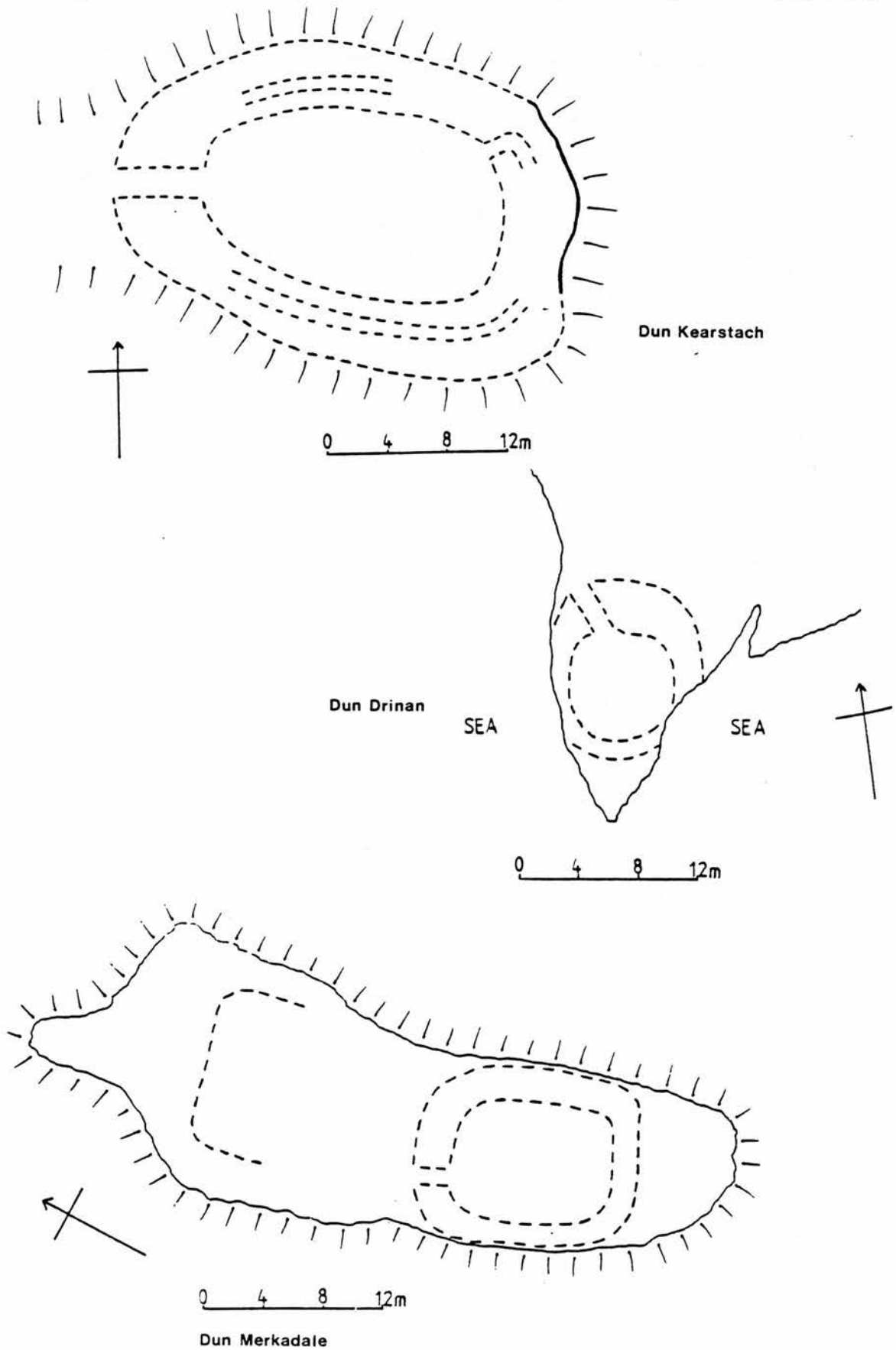


Dun Chaich



Dun Cnoc a'Sga

Examples of Duns in Skye (drawn from Macsween 1984-5) Figure 124



however an unusual west coast occurrence. For example, evidence of more than one structural period can be observed or inferred at only a few sites in mainland Argyll (RCAHMS 1971, 17), such as, Dun Skeig in Kintyre (RCAHMS 1971, 70-1, no 165) and Dun MacSniachan in Lorn (RCAHMS 1975, 68-70, no 136). Peltenburg also found that the fort on Balloch Hill was not succeeded by a compact stone built dun, but by an unenclosed homestead (1982, 208). The reasons for the general absence of a succession of stone built structures on individual sites are not clear. They may lie in different location criteria being in force at different periods, or they may indicate a substantial break in the continuity of the settlement pattern. The absence of a succession of stone built structures does not of course necessarily rule out the possibility of individual sites still being multi-period. Later or earlier settlements forms may have been built of flimsier materials which have left few or no surface traces, as was the case at Balloch Hill.

The term dun in Skye covers a variety of structures as MacSween recognised, splitting them into a further classification of duns, enclosures and promontory enclosures (1984-5, 9-10). Some of the last two categories are perhaps better identified as forts, as they are in the NMRS (see Table 20, pp328-32). The Argyll inventories over the last twenty years have more or less established the expected form of a dun (RCAHMS 1971, 1975, 1980, 1984 and forthcoming). A dun is generally thought of as a small, compact, complete but irregular structure, with a massive wall enclosing an area similar to that enclosed within brochs. There is great variety in the details of the structures included within the class of dun throughout mainland Argyll.

In Skye there are about 31 small, compact, complete structures which are not capable of identification as brochs, but which are roughly comparable to the range of structures identified as duns in the Argyll inventories. (Figures 123 and 124 illustrate a representative sample of these sites drawn from the MacSween (1984-5) corpus). They include sites with intramural galleries in their walls, such as Dunan an Aisilidh (RCAHMS 1928, 181-2, no 576; MacSween 1984-5, 49, no 50 and

fig 50), which was identified by MacKie as a semibroch (1965a, 139); and Dun Kearstach (RCAHMS 1928, 208, no 649; MacSween 1984-5, 49, no 49 and fig 49). They also include simpler, thinner walled structures shaped to fit the natural outcrops on which they are placed, such as Dun Cnoc a'Sga (RCAHMS 1928, 161, no 517; MacSween 1984-5, 47, no 42 and fig 42) and Dun Merkadale (RCAHMS 1928, 145, no 487; MacSween 1984-5, 46, no 36 and fig 36).

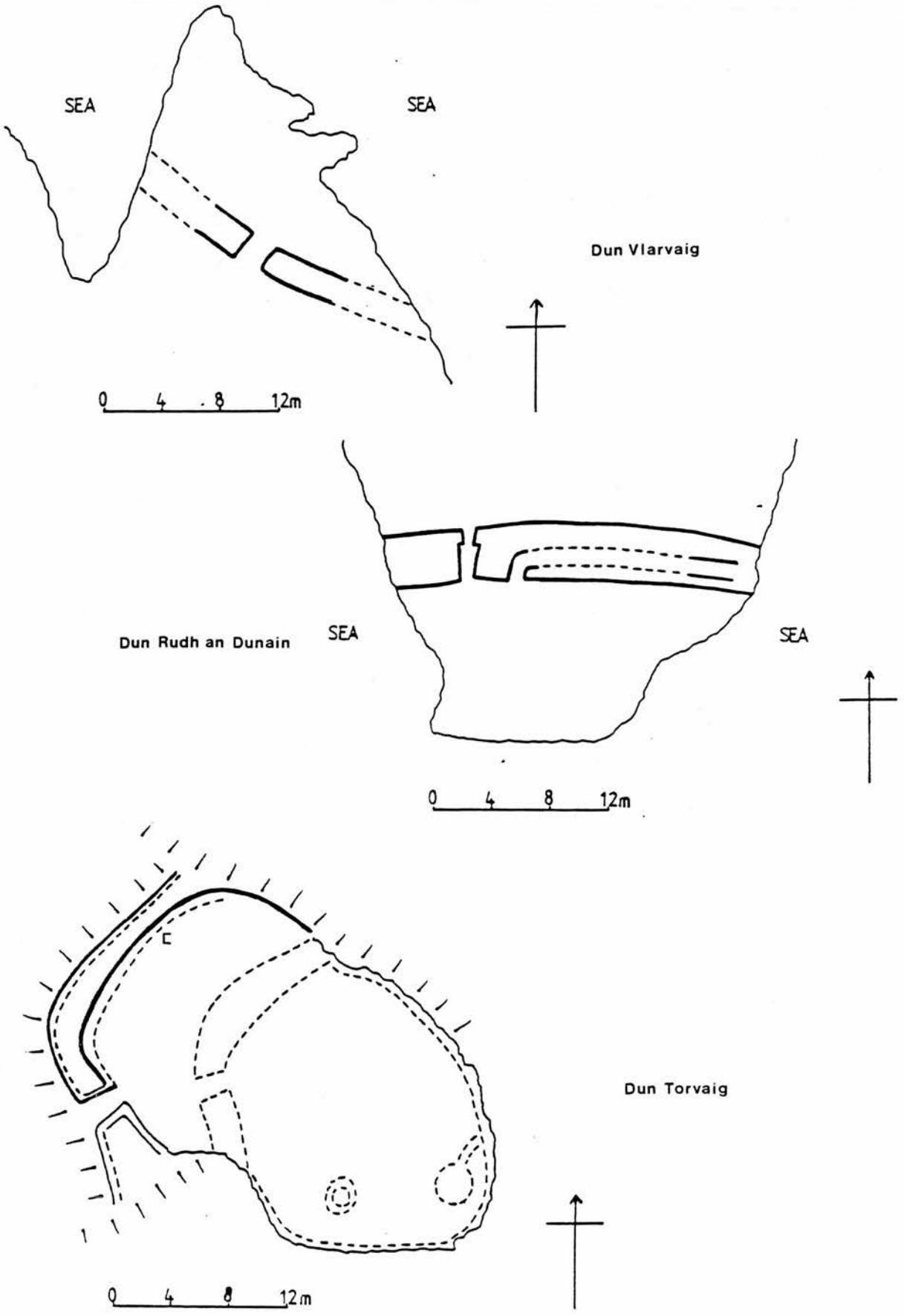
The structures identified as duns are invariably in locations which have strong natural defence, such as knolls, ridges, and coastal promontories. They rarely have any enclosing walls or outworks, which is probably simply explained by the very restricted sites on which the structures are built, making it impossible for an enclosing wall to be provided, as for example at Dun Drinan (RCAHMS 1928, 211, no 654; MacSween 1984-5, 50, no 58 and fig 58) and Dun Chaich (RCAHMS 1928, 161, no 518; MacSween 1984-5, 51, no 63 and fig 63). An enclosed space around sites identified as duns in Skye would appear not to have been a criterion in location selection, whereas an enclosed space around sites identified as brochs is a common feature on the island (see Chapter 17 and Table 23, p392).

Some of the sites identified as duns in Skye do not seem to have been complete structures, in that a massive wall does not form a complete enclosure. There are at least six such sites, Dun Grugaig (IS 32), Dun Rudh an Dunain, Dun Eyre, Dun Vallerain, Dun Torvaig, and Dun Vlarvaig (Figure 125). According to present field survey evidence (that is, OS site inspections recorded on individual NMRS cards), four of these sites have an intramural gallery or an internal revetment within their massive cross-promontory walls, that is, Dun Grugaig, Dun Rudh an Dunain, Dun Torvaig, and Dun Vlarvaig (see Table 21, pp333-4). (The presence of such an intramural feature is not noted at Dun Torvaig and Dun Vlarvaig in MacSween's corpus (MacSween 1984-5, 53, nos 74 and 75 and figs 74 and 75). Two of the sites, Rudh an Dunain and Dun Vlarvaig, are very similar in being nothing more than cross-promontory walls, whereas the other four sites seem to have less substantial walling on the seaward sides of the promontories on which they are built. There are few, if any, parallels for this type of site in the duns described in the Argyll inventories, although a similar site does

Some Cross-Promontory Duns in Skye

Figure 125

(drawn from MacSween 1984-5)



occur elsewhere in the northern part of the west coast at Sron an Duin, Barra Head, Berneray (RCAHMS 1928, 132-3, no 450), another of MacKie's identified semibrochs (MacKie 1965a, 139).

18.3 Implications

The first major implication arising from the brief examination of chronological relationships and site morphology above, is that brochs in Skye cannot be studied in isolation, if it is hoped to achieve a better understanding of their nature. There is a wide variety of potential Iron Age structures throughout the area of the west coast, and particularly in Skye. None of the other types of potential Iron Age sites present in Skye can be shown by direct evidence to be contemporary with brochs, as no excavations of such structures have taken place, but extrapolation from elsewhere on the west coast strongly suggests that structures on the island identified as duns, particularly those with intramural galleries, may have been in contemporary use with brochs. Any attempt to understand the distribution of brochs, individual location decisions, land divisions, and population density in Skye during the broch period, needs to take into serious account the possibility of other contemporary sites.

The second major implication arising is that the classification of sites on the west coast, which is based on structural criteria and has been largely evolved by the RCAHMS since 1928, is not necessarily helping to achieve an understanding of the Iron Age in Skye, or the west coast for that matter. It may in fact be actively hindering approaches to a better understanding. There is clearly considerable confusion in the classification, as evinced by Table 20 (pp328-32). Further attempts to classify the sites according to structural criteria by MacKie (1965a) and MacSween (1984-5) have only added to the confusion. It is clear for instance that MacKie's class of semibroch is largely untenable. The twelve sites which were included within the class (MacKie 1965a, 139) show considerable variety amongst themselves, and three of them, Dun Ardtreck (IS 27), Dun Ringill (IS 30), and Dun an Ruigh Ruaidh can be claimed to have been originally full broch structures. The chronological priority of structures within the semibroch class has also not been as sufficiently demonstrated, as

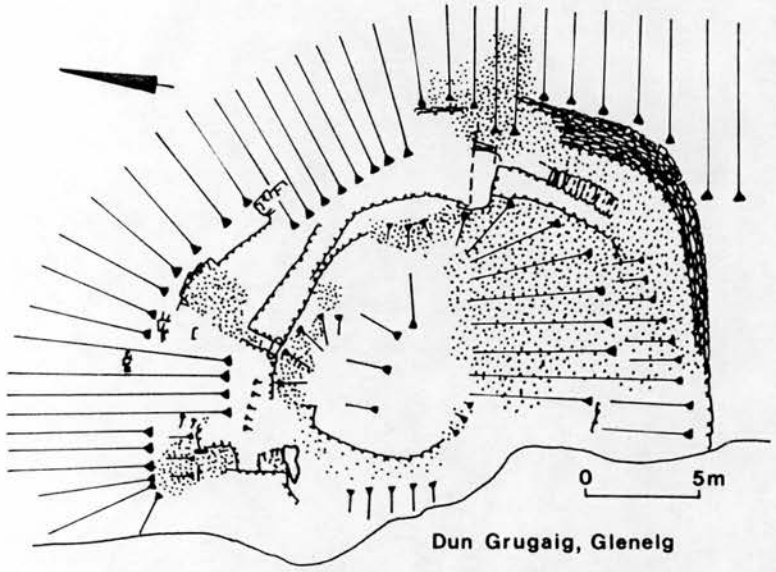
MacKie has maintained (MacKie 1983, 120).

The wide variety of galleried structures occurring throughout the west coast seems to require some particular explanation, as the reasons for the differences in individual site design are not obvious. Past approaches to broch studies have sought to establish that the differences represent a chronological succession, although there has been no agreement about the priority of any particular type of site (Curle 1927; RCAHMS 1928, xxxvii; Young 1961-2; MacKie 1965a). The observed differences in design do not however seem to be particularly explicable in terms of chronology. The little dating evidence which is available from the west coast, suggests that there is in fact no clear chronological succession in galleried structures, and that there may be good reason to expect that on excavation any galleried structure on the west coast would produce dates from the first century BC/first century AD for the first occupation of the site. Reasons for the differences in structural design must therefore be sought elsewhere.

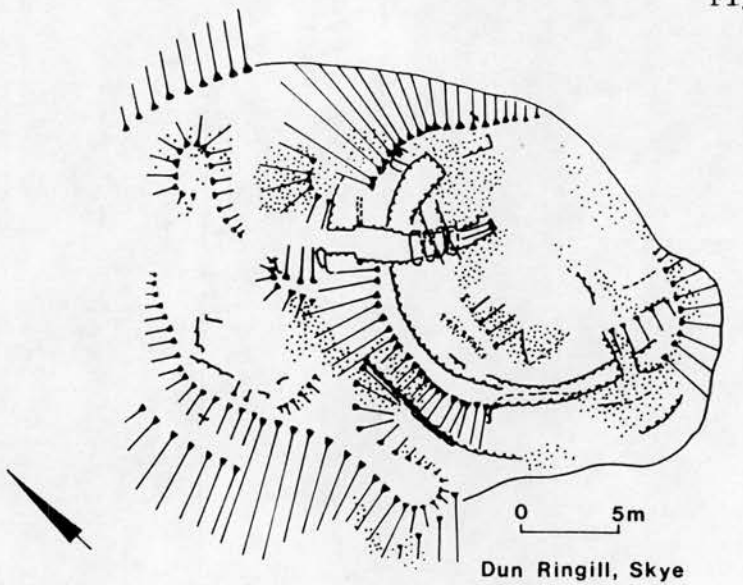
The reasons may perhaps lie in the conditions prevailing on the west coast during the Iron Age, which allowed a building tradition to spread, but which resulted in different applications of the idea in different areas, perhaps in response to extreme landscape variety. The basic tradition seems to have been that stability in a massive stone structure can be achieved by means of galleries and internal revetments in the wall width. It is obvious that galleried structures as different and as far apart as Dun Rostan in Mid Argyll, Dun Grugaig in Glen Beag, Dun Grugaig in Skye (IS 32) and Dun Ringill in Skye (IS 30), have one element in common. They are moulded to fit and to take best advantage of superb naturally defensive locations (Figure 126). Their varying shapes may perhaps best be explained by the particular exigencies of their individual locations.

It seems a reasonable hypothesis to suggest that the galleried structures of the west coast are all roughly contemporary, and all part of the same building tradition. Where there was a good building site, such as the flat summit of a knoll top, a circular galleried structure could easily be built. These structures have subsequently been identified by archaeologists as brochs. Where there was a location offering an excellent natural defensive capacity, but a

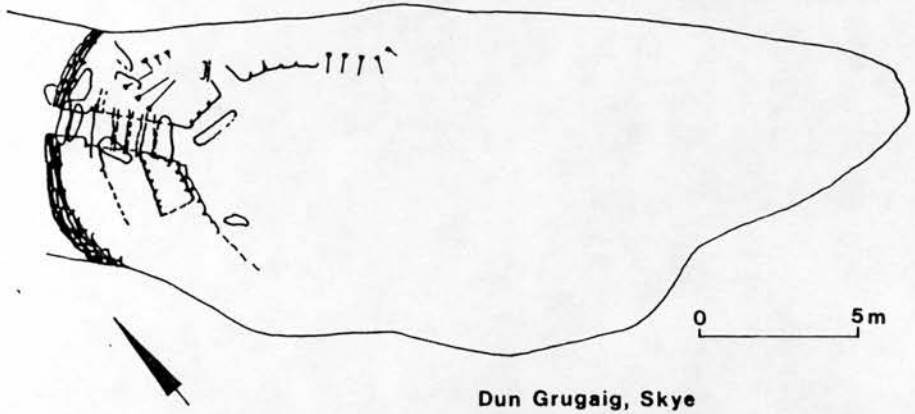
Figure 126



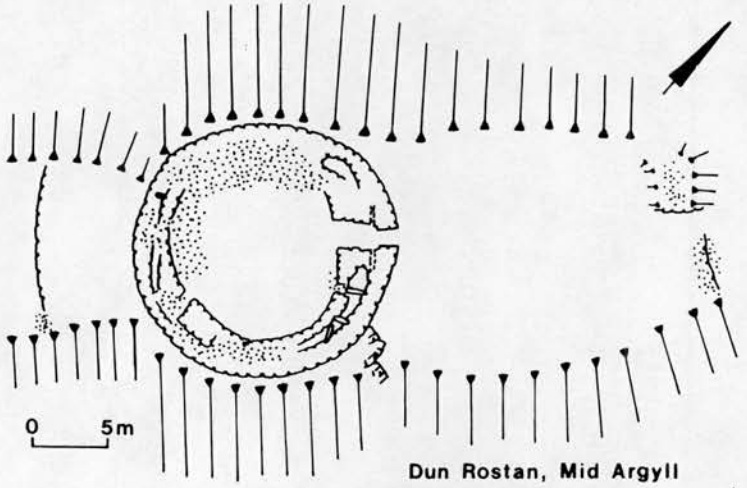
Dun Grugaig, Glenelg



Dun Ringill, Skye



Dun Grugaig, Skye



Dun Rostan, Mid Argyll

EXAMPLES OF GALLERIED STRUCTURES MOULDED TO SITES

difficult building site, the structure was modified to fit, whilst still achieving structural stability. Dun Grugaig in Glen Beag seems a perfect example of this, in that its massive galleried eastern wall still stands to a great height, with only a few cracks showing in its fabric after probably two thousand years. There can surely be little doubt that Dun Grugaig belongs to the same period and building tradition as the brochs of Dun Telve and Dun Troddan also in Glen Beag, which exhibit a similar state of preservation and a similar basic structural stability.

There is some basis then for suggesting that the classification of sites on the west coast according to structural criteria, may have artificially divided some sites which would be better considered together, in seeking to reach a further understanding of the Iron Age on the west coast. On the other hand there is sufficient evidence of substantial differences between sites classed as brochs and sites classed as duns to suggest that there is legitimacy in some of the divisions effected by the classification. These may be summarised as follows.

(1) There are some differences in site morphology between brochs and duns in Skye. Both types of sites are located to take advantage of the good natural defence provided by steep sided knolls, ridges, or coastal locations, but brochs seem to have required more space around them, which in the majority of cases was enclosed by an outer wall. Duns by contrast, including galleried duns, seem to have had no requirement for outworks or an enclosed external area. This however also applies to some brochs on the island.

(2) There is no evidence that brochs supersede any earlier type of site on the island, but there is evidence of three duns overlying apparent fort sites. In another case a large structure identified as a galleried fort seems to overlie an earlier fort. In general however both brochs and duns seem to have been developed on virgin sites, unless earlier settlement forms were of a kind to leave no surface traces.

(3) There is evidence from several sites in mainland Argyll of apparent continuity of occupation of duns from the Iron Age into the

Dark Ages, although there is no direct means of knowing whether duns in Skye may exhibit a similar continuity. There is however some direct evidence that brochs in the island may not have continued in use after the Iron Age, as was also the case at Dun Mor Vaul in Tiree, and Dun an Ruigh Ruaidh in Wester Ross. By contrast there is apparent evidence of continuity of occupation into the Dark Ages from brochs in Barra (Dun Cuier), Lewis (Traigh na Berie), and Wester Ross, if Dun Lagaidh is accepted as being a broch structure. Some sub-regional variation in continuity of use between brochs may be indicated, as well as possible variation between brochs and duns in this respect.

Table 25 West Coast: Radiocarbon Dates from Iron Age Sites

Site & Context		Lab No	C-14 Date
Forts			
Balloch Hill			
Phase 2	: cremation burial	HAR-1902	1410±70 bc
Phase 3	: initial clearance?	GU-1031	500±65 bc
	: entrance barrier	GU-1033	355±110bc
	: possible rampart 1	HAR-1903	320±80 bc
	: rampart 1 superstructure	HAR-1904	290±120bc
	: check on HAR-1904	HAR-2043	180±90 bc
	: structure 5(?) hearth	GU-1104	370±60 bc
	: structure 4 hearth	GU-1105	455±70 bc
	: gully	GU-1106	120±85 bc
	: gully	HAR-1907	170±70 bc
	: level 3 general occupation	GU-1028	230±70 bc
	: level 3 general occupation	GU-1030	20±110bc
Phase 3/4	: upper level 3	HAR-1950	290±70 bc
	: level 2	GU-1029	90±70 bc
Phase 4	: structure 2 bin	GU-1032	740±70 bc
Vitrified Forts			
Dun Lagaidh			
Pre-dun or broch	: under fort wall	GaK-1121	490±80 bc
	: top of subsoil	GaK-1948	880±90 bc
	: fort destruction layer	GaK-2494	460±100bc
Eilean an Duin			
Fort construction	: beneath wall	GU-1814	340±65 bc
	: beneath wall	GU-1815	210±55 bc
Certain Brochs			
Dun Mor Vaul			
Pre-Broch levels	: old ground surface	Gak-1092	400±110bc
	: charred grain	GaK-1098	445±90 bc
	: midden under outer wall	GaK-1225	280±100bc
Broch construction	: primary floor in gallery	GaK-1096	1195±90 bc
	: primary floor in chamber	GaK-1097	ad 60±90
Late phases	: topsoil in outer court	GaK-1521	290±80 bc
	: rubble in wall gallery	GaK-1099	ad 160±90
Post-Broch	: late layer in gallery	GaK-1520	ad 490±200
	: post Phase 4 burial	GX 3426	ad 805±155
Dun Flodigarry			
Broch construction	: primary layer in interior	GU 1662	45±65 bc

Table 25 (continued)

Site & Context		Lab No	C-14 Date
Likely Brochs			
Dun Ardtreck			
Construction	: rubble foundation	GX-1120	55±105bc
Dun an Ruigh Ruaidh			
Construction	: pre-fort turf layer	GU 1365	135±80 bc
	: posthole 4	GU 1366	275±80 bc
	: posthole 1	GU 1368	1±65 bc
	: posthole 8b	GaK 2493	580±80 bc
	: top of subsoil	GaK 2497	970±110bc
Primary use	: ash layer on hearth	GU 1367	30±60 bc
	: on primary cobbled floor	Gak 2496	10±100bc
Dun an Ruigh Ruaidh (continued)			
Late phases	: on secondary paving	GaK 2495	1020±90 bc
	: late occupation in gallery	GaK 2494	ad 790±80
Dun Lagaidh			
Dun/Broch Use	: top of occupation layer	GaK-1947	ad 840±90
Medieval Re-Use	: late floor in guard cell	GaK-1449	ad1155±80
Galleried Duns			
Kildonan			
Later phase	: below hearth II 2	GU-1457	ad 705±70
	: below hearth II 2	GU-1458	ad 740±60

Sources: MacKie 1969, 17
MacKie 1974a, 229-30
MacKie in Harding 1976, 214-9
MacKie 1980, 77
Peltenburg 1982, 203
Martlew 1985, 44
RCAHMS forthcoming

CHAPTER 19 CONCLUDING CONSIDERATIONS

The aim of Part Four of this thesis has been to assess as far as possible the true nature of the archaeological sites called brochs in Skye. A number of conclusions about that nature have been drawn in the preceding four chapters. This final chapter of Part Four brings together and summarises the various conclusions (section 19.1 below); assesses the major implications raised by the conclusions for approaches to the study and further understanding of brochs (section 19.2); and proposes a strategy for further research (section 19.3).

19.1 Summary Conclusions

(1) Brochs on the west coast have had a high profile in the history of brochs studies. Brochs in Skye particularly, along with structures in the island identified as semibrochs, have occupied a central place in modern theories of broch origins and development. The island has been seen as the likeliest location for the emergence of the broch form.

(2) In terms of overall broch distribution the island has a relatively small number of sites, but it has the largest concentration of brochs on the west coast. Opinion on the exact number of brochs in Skye has varied over the years. There in fact appear to be 31 potential broch sites, of which 23 are certain brochs, and 8 are less certain. The so-called semibrochs of Dun Ardtreck and Dun Ringill are almost certainly full broch structures which have been cut by the sea, and they should probably be added to the total of certain brochs bringing it to 25, leaving 6 doubtful sites which cannot be identified with any certainty.

(3) Brochs constitute only a small part of the total population of potential Iron Age sites in Skye. Altogether there are about 95 potential sites including brochs. The other sites have been variously identified by previous authorities as duns, galleried duns, and forts.

(4) There are seven irregular galleried structures in Skye according to the present field survey record. To the south of Skye circular galleried structures which are identifiable as brochs begin to peter out. By contrast the number of irregular galleried structures,

including duns exhibiting a median or stabilising internal revetment, begin to increase.

(5) The modern landscape of Skye is a product of its underlying geology shaping the island's topography. The island may be divided into six diverse landform areas, giving rise to a variety of environments. The present climate of the island is extremely oceanic. Soils are readily leached due to a precipitation excess and there is widespread peat. The rugged tpography, the climate, and the distribution of soils has confined settlement and cultivation to small areas of more fertile ground around the coast. Large parts of the island have seen no settlement because of the presence of mountains and peat. The distribution of better quality soils, such as brown forest soils and non-calcareous gleys, is an index of land which is capable of cultivation, and which probably has been under cultivation in the past.

(6) Palaeo-botanical research in the island has determined that the present landscape is largely anthropogenic. At the period when brochs are likely to have been occupied, the north of the island may have been largely treeless, as it is today. In the eastern part of the island blanket bog seems to have been well established. Only the southern part of the island, particularly the Sleat peninsula, seems to have been well wooded, and remained so until relatively recent times. Remains of hut circles in the north of the island, plus evidence of scarcements in brochs, indicates that there was sufficient timber available either within the island, or imported, for use in construction. Cultivation seems to have been established by 3,000 BC in the north and in the south of the island, but came later to the east. The areas capable of cultivation were probably established by the period of broch occupation.

(7) The overall distribution of brochs is biased towards the northern part of the island, with only two possible broch sites located in the south, in the Strathaird peninsula rather than the fertile Sleat peninsula. All of the brochs, with two exceptions, are located within, or very close to, land capable of cultivation. There are frequently remains of later pre-clearance settlements in the vicinity of the sites. In terms of particular siting the brochs are generally located

to take advantage of the strong natural defence provided by the basaltic knolls which occur in the north of the island.

(8) The overall distribution of broch sites may point to missing brochs in the south of the island which have yet to be located by field survey. Alternatively the distribution may reflect the presence of contemporary sites of other types. The general distribution of all potential Iron Age sites follows the pattern of better quality soils. The distribution of brochs in the north of the island is not even, and not all of the available cultivable land has a broch site attached to it, even in areas where no other type of potential Iron Age site seems to occur. There may be missing broch sites which have yet to be identified by field survey. Other gaps in distribution may more clearly be attributable to the presence of other types of Iron Age sites.

(9) There is a supreme interlinking of natural and artificial elements in the Skye broch sites. There are different degrees of natural strength in the sites selected for broch location, but none of them could be described as weak. Two thirds of the potential brochs on the island have outworks, usually in the form of an outer wall, although some sites also have ditches. There is no correlation between the degree of natural strength possessed by a site and the presence or absence of outworks. It is suggested that the outer wall, which frequently edges the summit of the basaltic knoll, was primarily intended to be an enclosing wall, rather than an additional defence, providing safety on naturally dangerous sites. There is a strong sense of unity of design at some sites, with the broch structure, outer wall, and knoll top integrated to take maximum advantage of natural defence, whilst providing a large enclosed space around the broch. The outer wall seems to be contemporary with the broch structure in all cases. There is no evidence of the function of the external enclosure during the primary phases of broch occupation.

(10) There is a remarkable similarity in the structural form of the brochs on the island, with the majority being ground galleried and fully circular. Ten of the structures exhibit superimposed galleries, and it is likely that more of the structures would have done so originally. Only a few structures have a visible stair, but many of

the brochs are badly ruined, probably obscuring the stair wells. A scarcement is visible at seven structures and may have been more common, demonstrating that there was a supply of constructional timber. The scarcements are generally low, and may have been intended to support a raised wooden floor above the uneven, rocky surface on the knoll tops.

(11) There is very little information on the internal arrangements in Skye brochs, although four sites have been excavated. Evidence from elsewhere on the west coast, and the presence of domestic artefacts amongst the finds from Skye brochs, would suggest that the structures were probably permanent habitations, although direct evidence of this is singularly lacking.

(12) Modern radiocarbon dates from sites in Skye and elsewhere on the west coast suggest that brochs in the west were generally being built and first occupied in the first century BC/first century AD, the traditional date range ascribed to brochs. This dating is supported by finds of Roman material at Skye broch sites. There is no clear evidence that brochs in Skye continued in use much beyond the second century AD, and particularly not into the period known as the Dark Ages.

(13) Evidence from excavations elsewhere on the west coast suggests that duns were roughly contemporary with west coast brochs, with their occupation possibly beginning slightly later. There is substantial evidence that duns in mainland Argyll may have continued in use beyond the Iron Age into the period known as the Dark Ages. Forts on the west coast by contrast would appear to be earlier than both brochs and duns. This is partially supported in Skye by some evidence of forts underlying duns. There is no particular evidence that the smaller compact sites on the west coast variously called brochs and duns derived from an earlier fort building tradition.

(14) There is evidence of considerable confusion in the classification of potential Iron Age sites in Skye, and in the west coast in general. The present classification is based mainly on structural criteria and may be artificially dividing sites which would be better considered together. There is a possibility that all of the galleried structures

on the west coast may be roughly contemporary, the differences in site design being perhaps attributable to local building requirements rather than to chronological differentiation. The differences between brochs and galleried duns may not be as real as the current classification implies. The class of semibroch seems particularly untenable.

(15) There are sufficient differences however between sites classed as brochs and sites classed as duns in Skye to suggest that there is some legitimacy in their separate classification. In particular there are some differences in site morphology between the two classes of structure. Both site types are located to take advantage of the good natural defence provided by knolls, ridges, or coastal locations, but brochs seem generally to have required more space around them, which in the majority of cases was enclosed by an outer wall. There is little evidence of surrounding walls or outworks at dun locations, which in general are more constricted. There is also no evidence of any broch overlying an earlier fort, although there is evidence that three duns and a galleried fort do so.

19.2 Implications

There are a number of implications in the above summary conclusions for approaches to the study and further understanding of brochs in general. First, brochs on the west coast seem to date to the traditionally recognised period of broch occupation, that is, the first century BC/first century AD. Altogether as many as ten brochs may have been excavated on the west coast this century, although the nature of the site has not always been recognised by the excavator (Dun Telve, Dun Troddan, Dun Beag, Dun Iardhard, Dun Flodigarry, Dun Mor Vaul, Dun Ardtreck, Dun an Ruigh Ruaidh, Dun Lagaidh, and Dun Cuier). An eleventh site is currently being excavated in Lewis (Traigh na Berie). With the possible exception of Dun an Ruigh Ruaidh in Wester Ross, no excavated site has produced any particular evidence, either in terms of artefacts or radiocarbon dates, for a date for its first occupation earlier than the traditional bracket. It seems reasonable to hypothesise that any further brochs to be excavated on the west coast will produce a similar date.

A similar range of dating evidence is not available for northern brochs as there have been so few modern excavations, but the available radiocarbon dates; the presence of artefacts such as saddle querns; and the lengthy and complex continuity of occupation on Caithness sites (described in Part Two), all point to the priority of northern brochs. This has serious implications for the theory that the broch form developed in the west and subsequently spread to the north. According to the dating evidence from both areas it very much appears that the direction of movement of the broch building idea must have been the reverse. The alternative is to accept that the homogeneous class called brochs, which encompasses all of the massive, circular structures occurring throughout the north and west whatever their constructional and chronological variations, is no longer tenable. Some shades of this latter approach to the problems of dealing with the apparent disparity in the broch class have already appeared in recent debates on the origins of the broch, with suggestions that some northern brochs should be called roundhouses or proto-brochs, but not true brochs (Hedges and Bell 1980, 90; MacKie 1983, 125). The final conclusion of such a debate, should it continue, could be to confine true brochs to the west coast, which seems a very odd approach to dealing with a class of site so heavily concentrated in the north and not the west. It could as easily be suggested that the structures in the north should be called true brochs, and those in the west should be labelled otherwise, perhaps galleried duns. The study of brochs in Skye, and the west coast in general, more than any other area, raises some serious questions about the current classification of Iron Age sites in Atlantic Scotland, and the manner in which both the classification and recent attempts to vary it may be confusing and misdirecting analysis.

Second, approaches to the study of brochs on the west coast have to recognise that the broch form is a minority occurrence in an area with a high density of small stone structures of every size and shape. There is no reliable evidence that brochs can safely be abstracted from the mass of sites and studied in isolation. On the contrary there is some evidence that structures which bear other labels may have been in contemporary use, and may have had a similar relationship to available cultivable land. This was much less of a problem in either

Caithness or Sutherland. In Caithness there is at present no evidence of any contemporary sites of other types. In the Sutherland study areas there is some evidence of contemporary timber built settlements, but little evidence of other types of massive stone structures akin to brochs. Study of brochs on the west coast, more than in any other area, needs to take full cognizance of the possibility of there being many other contemporary Iron Age sites.

Third, the distribution of brochs throughout the west coast is markedly northerly, even within the island of Skye. After Skye brochs very noticeably begin to disappear towards the south, with only two brochs in Mull, two in Tiree, possibly two in Lismore, and one in Islay. No brochs have been identified in mainland Argyll which has now been fully surveyed by the RCAHMS. The distribution of brochs is also noticeably concentrated on the islands of the Outer and the northern Inner Hebrides. There are only occasional brochs present on the adjacent mainland. It could be argued that there are few suitable patches of cultivable land on the adjacent mainland to satisfy broch locational criteria, but there are in fact more cultivable areas than there are brochs. The bias in the distribution of sites on the west coast, strongly suggests that the broch building idea may not have been an indigenous development, but may owe its origins to an external, northern, source. This argument is strengthened by two particular factors:
(1) the later dating of west coast brochs compared to northern brochs; and
(2) the architectural sophistication of the broch structures in Skye, which compare best with the furthest inland brochs in the Sutherland straths, arguably the latest brochs in the straths.

The possibility has to be faced that on the west coast, as in the Sutherland straths, the broch may be an intrusive structural form, which was adapted to give the other galleried structures occurring exclusively on the rugged topography of the west coast. Some dating evidence for brochs in the Sutherland straths is obviously crucial to the pursuit of such a hypothesis, and is sadly lacking. Without a programme of research work designed to gain more excavation evidence from intermediate areas, the possibility of the spread of the broch

form from north to west cannot be seriously tested. It is a slightly intimidating prospect to suggest the spread of a building form in any direction, raising old spectres of invasion theories and population migrations, albeit in the reverse direction to those which have been most advanced in the modern period of broch studies. It is perhaps preferable in the spirit of today's approaches to archaeological thought, to do no more than recognise the possibility that the broch structure could be an intrusive element in both the Sutherland straths and the west coast, but to postpone consideration of the wider implications of such a recognition, until far more evidence is available both from the west coast and the north to allow a sensible analysis to take place.

19.3 Further Research

There has been far more archaeological research throughout the west coast during the modern period than has been the case in both Caithness and Sutherland this century. The research has however tended to be concentrated on the broch form, so that there is now good evidence for the dating of these structures generally in the west, although there is less evidence for the function of the sites, particularly in Skye. This latter situation may be improved with the publication of current excavations in the Outer Hebrides by Dennis Harding. There are some clear avenues of research which could be pursued to enhance a further understanding of brochs in Skye in particular, and the west coast in general. These research measures are concerned less with the broch structures, and more with the plethora of other site types on the west coast. A substantial key to the further understanding of western brochs may lie through other types of potential Iron Age sites, rather than the broch structures themselves.

Field Survey

(1) Detailed field analysis of all potential Iron Age sites in Skye, to the standard already carried out for broch sites in the island (see site catalogue), particularly with regard to identifying the full number of galleried structures, the existence of any outworks at dun sites, and the details of multi-period sites demonstrating a

chronological succession of stone built structures.

(2) Extension of the detailed field survey to neighbouring areas, particularly the mainland, to include both brochs and other types of Iron Age sites. (Such work is already underway in the Outer Hebrides under the auspices of the University of Edinburgh, Department of Archaeology.)

Palaeo-Environmental Analysis

(3) Further detailed palaeo-environmental work in Skye in conjunction with an archaeological research programme, to establish a more detailed vegetational history for the island, particularly in relation to timber supplies in the prehistoric period.

Excavation

(4) Excavation of a number of other types of potential Iron Age sites in Skye with a view to establishing their functions and chronological relationships with the brochs on the island, including irregular galleried structures, plain duns, and multi-period sites involving forts and duns.

(5) Excavation of one or more selected broch sites with a view to establishing the internal arrangements within the broch, the likely function of the structure, the chronological relationship between the broch structure and the outer wall, the function(s) of the external enclosure, and the chronological span of site occupation.

PART FIVE

CHAPTER 20 BROCHS IN ORKNEY

There has been new research on brochs in Orkney and Shetland in the very recent past, some of it carried out in parallel with the research for this thesis. The new perspectives on Orkney and Shetland brochs, in conjunction with the original research for this thesis, constitute a fairly comprehensive review of brochs in their main areas of occurrence. Synthesis of the research results from the various areas allows some very major and significant conclusions to be drawn about the whole subject of brochs, and the past, present and future archaeological thought processes connected with it.

The object of Part Five of this thesis is to review briefly the current state of knowledge of brochs in Orkney and Shetland, and thereafter to compare and contrast the evidence from the various sub-regions of broch distribution in Atlantic Scotland. This chapter reviews current knowledge of Orkney brochs, whilst Chapter 21 considers brochs in Shetland. Chapter 22 synthesises the evidence from the various sub-regions, and examines the implications of the research for understanding the general nature of brochs and for future approaches to their study.

New research into Orkney brochs has taken place in the last ten years, largely arising from the work of the North of Scotland Archaeological Services, now no longer in existence as an organisation. It began with a hurried research excavation at Bu, Stromness in 1978, and went on to excavations at Howe, Stromness between 1978 and 1982. Some of the research results have been published, including the excavation at Bu and the inter-war excavation at Gurness (Hedges and Bell 1980; Hedges 1987, Parts I and II). The excavation at Howe is as yet only published in interim form (Carter et al 1984), but full publication is reasonably imminent (Smith forthcoming). In addition a corpus of information on proven Orkney brochs and their excavated artefacts has been produced (Hedges 1987, Part III), and some minor excavation work has yet to be published (small-scale excavation at Cemetery Broch, Stromness, Bell forthcoming). Some earlier published work is also relevant, that is, the catalogue of finds and site assessment for the broch of Burrian, North Ronaldsay (Macgregor 1972-4) and excavations

at Quanterness (Renfrew 1979). Taken together the recent research represents a major reappraisal of brochs in Orkney. This chapter summarises the main points of the current state of knowledge on Orkney brochs, drawing both on the published information and the unpublished material for Howe (Beverley Smith, pers. comm.).

Section 20.1 below considers briefly the contemporary environment of Orkney brochs as revealed by palaeo-environmental analysis in connection with recent excavations. Section 20.2 examines the morphology of Orkney brochs, in particular their location, the total site design, and some details of the broch structures. Section 20.3 discusses chronological matters, reviewing the available information for the period of broch use in the islands. Finally section 20.4 explores the question of possible contemporary sites of other types in Orkney.

20.1 The Contemporary Environment

Discussion of past environments in Orkney first arose from palaeo-botanical work in connection with archaeological research into the Neolithic period (Davidson, Jones and Renfrew 1976; Renfrew 1979, 21-8). It was concluded then that geomorphic, edaphic and climatic conditions have changed relatively little in Orkney from the Neolithic to the present day, that is, from at least 4000 BP onwards, and the following reconstruction of the landscape was suggested. After the retreat of the ice cover the landscape was barren of vegetation, and at best birch-hazel shrubland dominated around the time of the Flandrian climatic optimum, that is, about 5000 BC. Thereafter, presumably reflecting Mesolithic and Neolithic land use, the landscape became virtually devoid of tree and shrub cover and was dominated by a number of open, undiversified plant communities. From this reconstruction it can be inferred that the landscape of Orkney at the time of broch occupation was little dissimilar in appearance to that of today.

Some confirmation of the above reconstruction has been provided by the excavations at Bu and Howe but with some notable new information. There was evidence from Bu (Hedges 1987, Part I, 89-92) that elder,

birch, willow and rowan may have grown in a stunted form nearby, whereas the presence of spruce pointed to the use of driftwood. Surpisingly perhaps in an area supposedly devoid of trees, almost all of the wood charcoal within the broch came from the hearth service area and the three compartments which opened into it, suggesting that wood was used as fuel. By contrast the charcoal from the later occupation in the earth house outside the broch was mainly of heath plants, pointing to the use of turves for fuel or roofing. A number of post holes were found within the broch (Hedges 1987, Part I, 18-22), which because of the hurried excavation, could not be properly interpreted. Most seem to have been sealed during the use of the broch, and there was a distinct lack of evidence for roofing and upper storeys supported by socketed timbers. Wooden posts may rather have been employed as scaffolding during construction, but the evidence remains inconclusive. Either way the presence of the post holes points to a sufficient supply of timber of a suitable girth for constructional use. This may have been provided by driftwood. In addition there was sufficient wood for use as fuel.

A series of post holes was also found at Howe. Some of these have been suggested as supports for a roof, and possibly a timber gallery, in the second massive circular structure on the site (Phase 6) (Carter et al 1984, 66). Others may indicate the use of scaffolding during wall construction (Beverley Smith, pers. comm.). More definitive information on the exact nature and use of the post holes should be available in the full publication of the excavation (Smith forthcoming).

The full publication will also contain a very detailed and comprehensive environmental report (Camilla Dickson in Smith forthcoming), from which the following summary is drawn (phase numbers inserted for ease of reference).

"Pollen analyses show that the local scrub woodland was largely cleared and pastoral farming established before the chambered tomb (Phase 1) was built. Barley was recorded from the earliest settlement; certain evidence for naked 6-row barley dates from the roundhouse occupation (Phase 5) and continues through to the end of the Pictish settlement (Phase 8). The ears of naked barley were probably plucked, dried and hand rubbed. Whole ears were recovered from the early Phase 7 fire in the broch tower, where grain was dried, parched and ground into flour and meal; some grain was cooked whole in broth or as a gruel. From late Phase 7 hulled barley partly replaced naked barley and was probably used as a flour or meal. Wild oats were found in

Phase 7 contexts and oats may have been cultivated by later Phase 8. Plants having ancient medicinal uses were found. Main roofing timbers were probably of conifer driftwood. It is suggested that turf was used for gable ends and straw thatch was probably used wholly or in part. Willow was used for smaller roofing wood and as a furnace fuel. Birch, ash and alder may have been used in building and part of an alder container was recovered. The striking decrease in wood after Phase 7 is linked with its exploitation for industrial use. A heather basket was found and heather was commonly used. Brackish water and sea-shore plants were collected, perhaps for animal bedding and fodder. Water supplies from Phase 7 onwards were probably from a loch or pond. Burnt dung indicates that milk-fed animals were housed in the SW and S buildings during part of early Phase 7, the SE building was domestic. More tentatively it is suggested that the early Phase 7 broch tower and early Phase 8 stalled buildings were used by both man and animals." (Dickson in Smith forthcoming).

The above summary is an indication of the wide range of information contained in the environmental report for Howe and its considerable value in understanding the Iron Age and Pictish periods in the north. The discussion of wood in the report is of particular interest. Dickson has identified the presence of the following woods in various levels at Howe:

certain native	: birch, hazel, willow, juniper
almost certain native	: rowan
not established	: alder, pine (may have become extinct)
not native	: ash, gean (bird cherry)
not British	: larch, spruce

Whilst agreeing with earlier reconstructions of a largely treeless landscape in Orkney from at least the Neolithic onwards, Dickson has pointed out that valleys sheltered from the salt laden winds could have sustained woodland, provided there was no grazing pressure. Both willow and birch, native to Orkney even today on the island of Hoy, seem to have been used for roofing supports, although Dickson noted that the size of present day willows on Hoy suggests that long timbers may have been hard to find. The use of native woods in structural contexts may point to a degree of woodland management in suitable areas to maintain a local timber supply. Apart from birch, hazel, willow and rowan, all of the other types of wood are not native to the islands and must have arrived from outside, either as driftwood (larch and spruce) or imported. Dickson points out that ash in particular is a hard, heavy wood which must have come from the mainland, but is unlikely to have arrived as driftwood. It may have been used as a structural timber in the second massive circular structure (Phase 6),

and a fragment was also found in the Pictish levels (Phase 8). Perhaps already by Phase 6 at Howe, which may date as early as the middle of the first millennium BC (see section 20.3 below and Table 30, pp455-6), a trade in structural timber had been established to supplement some very obvious deficiencies in this commodity in Orkney.

20.2 Site Morphology

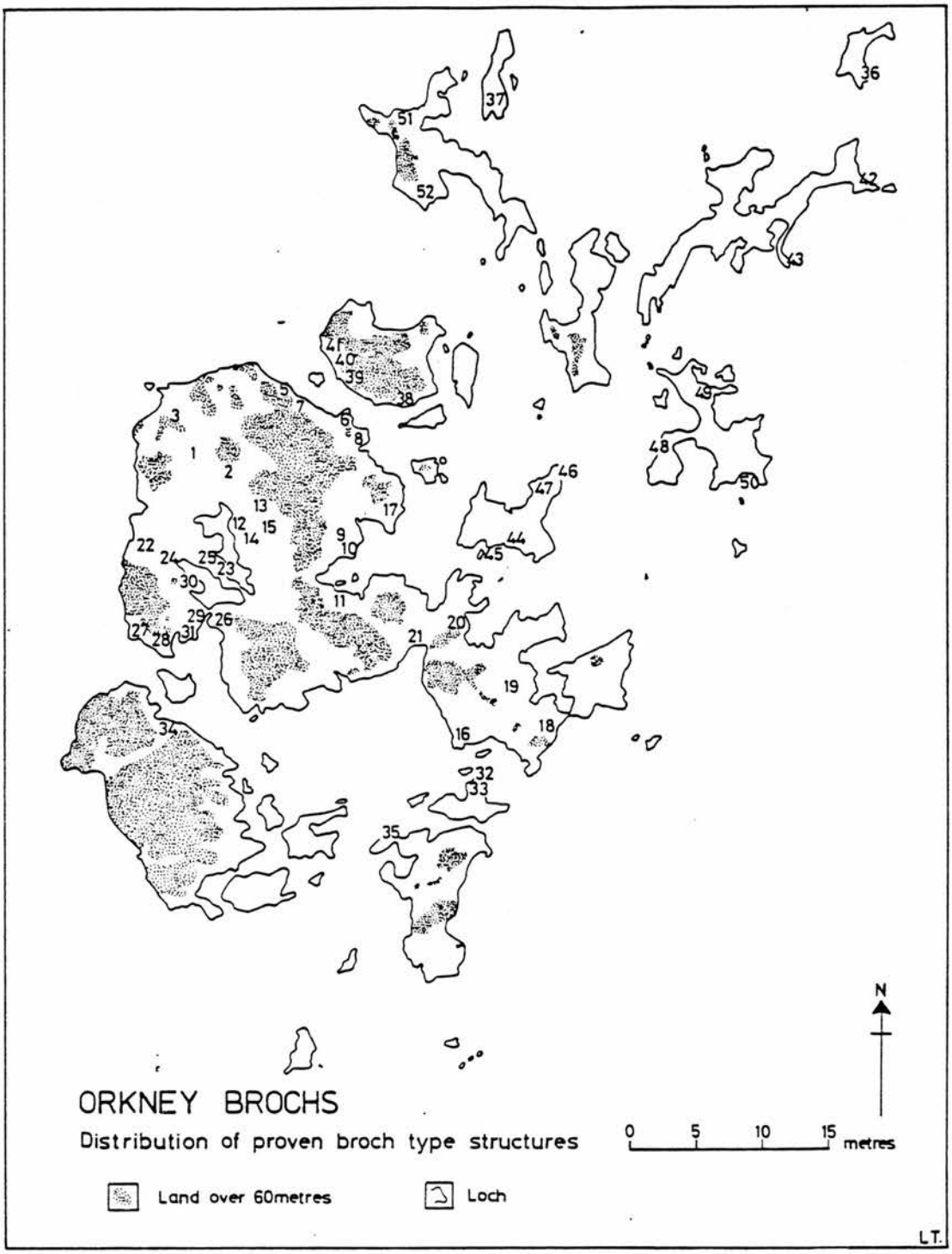
Hedges listed a total of 132 potential brochs in Orkney, of which he identified 52 as proven brochs on the basis of evidence of a wall of an appropriate curvature and build, whether still visible or not (1987, Part III, 50-2; Tables 26 and 27, pp450-3). The remaining 80 sites were noted as possible brochs only, and no detailed field investigation of them was undertaken for the purposes of the corpus. Hedges based his conclusions on Orkney brochs entirely on the sample provided by the 52 proven sites, a rather partial approach. (Strangely the partly excavated Riggan of Kami, St Andrew's (excavated by the late Peter Gelling) seems to have been missed from the corpus. The total potential brochs should therefore be 133, and the certain brochs 53. To ascertain whether other sites are missing from the corpus, would require some intensive study of Orkney brochs.)

Location

The distribution of the 52 proven broch structures identified by Hedges is shown in Figure 127, whilst the distribution of the total population of 102 brochs identified by the RCAHMS in Orkney is shown in Figure 128. The RCAHMS noted 41 certain, 41 probable, and 17 recorded sites (1946, Volume I, 31). The locations of the brochs on both maps are predominantly coastal, except in the Orkney mainland, where there are a number of sites located inland in the extent of the modern arable land. The predominantly coastal distribution of Orkney brochs is further evinced by the number which have been cut by, or are actively falling into the sea, such as Breckness, Stromness, the Cemetery Broch, Stromness, and Berstane, St Ola.

No assessment of broch distribution of the kind undertaken for Caithness (see Chapter 5) has taken place in Orkney, but given the geological similarities of the two areas, it seems reasonable to

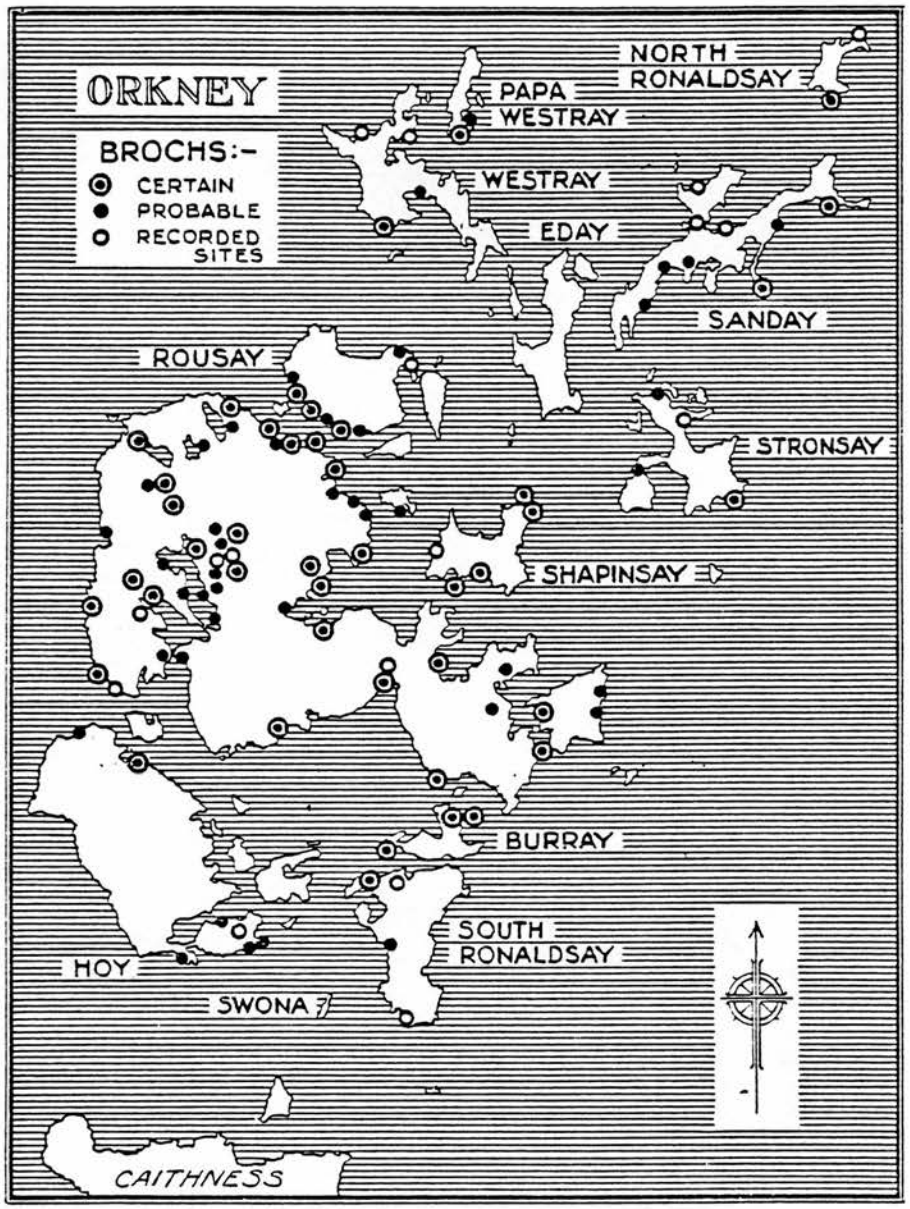
Distribution of Proven Brochs in Orkney (by Hedges) Figure 127



Source: Hedges 1987, Part III, 2

Distribution Map of Orkney Brochs

Figure 128



Source: RCAHMS 1946, 29

predict that Orkney brochs will exhibit similar locational criteria to Caithness brochs, and will be strongly linked to arable land. The distribution of sites in Orkney may reflect the distribution of such land in the Iron Age, but this would need to be tested by detailed study. One major difference between the two areas is the bias towards coastal locations in Orkney, which is not the case in Caithness. This is probably no more than a reflection of the predominantly coastal location of arable land throughout the island group, as for instance in Rousay (O'Dell 1939, 231), where the brochs are very noticeably coastal in distribution. In Caithness arable land is much more extensive and spreads well inland from the coasts.

Total Site Design

Hedges noted that outer defences have been the least examined features of Orkney brochs, identifying their presence at only 14 sites (1987, Part III, 166; Table 28, p453). This is likely to be a minimal figure given that he undertook no new field survey for his corpus, and possible brochs were not included. Experience in Caithness also suggests that outer defences at broch sites have been peculiarly vulnerable to the depredations of later agricultural practices, which have slighted ramparts and filled ditches (see Chapter 6). In this respect it should be noted that each of the three superimposed massive circular structures at Howe had an outwork, uncovered as excavation proceeded. A massive clay cored rampart and rock cut ditch was developed around the first massive circular structure, and was subsequently maintained and modified several times around the two succeeding structures (Carter et al 1984). At Gurness there seems to have been little or no surface trace of the massive outworks around the broch and its surrounding buildings prior to the inter-war excavation, these being discovered incrementally as the land was bought and the excavation proceeded. Eventually a massive rock-cut ditch with two ramparts and an outer ditch lying beyond it was uncovered. No outworks were found at Bu, but Hedges noted that it was doubtful that the length of the excavation trenches could be said to have completely tested the possibility of encircling ditches and ramparts (Hedges 1987, Part I, 22). With respect to outworks he noted that:

"It is very probable that a large number of the sites we call brochs had outer defences but these have not been obvious and have not been uncovered because they have not been looked for." (Hedges 1987, Part III, 167).

Hedges divided the visible defences at Orkney brochs into two types, those which completely encircle a broch in an exposed position, and those which complement the natural defence of coastal locations by crossing promontories in front of brochs (1987, Part III, 166). The presence of these two types, in addition to the massive nature of the outworks at Gurness and Howe, suggests a very strong need for defence at Orkney brochs, whether wholly artificial or a combination of natural and artificial.

Surrounding Buildings

Hedges noted that the 14 proven brochs exhibiting outworks had in almost all cases surrounding buildings between the broch and the outer defences (1987, Part III, 166). Table 29 (p454) lists those brochs in Orkney which can be identified from published sources as having surrounding buildings. They include 12 sites where Hedges considered that the presence of surrounding buildings had been proved by excavation; a further 16 where Hedges suspected the presence of such buildings on the grounds of masonry, other visible features, or the stony, irregular elevation of the land; an additional 8 gleaned from the RCAHMS inventory descriptions; Howe, Stromness where the presence of contemporary surrounding buildings was proved by recent excavation; and Bu, Stromness where the fragmentary remains of some buildings were found (Hedges 1987, Part I, 22-3 and Part III, 163-6; RCAHMS 1946; Carter et al 1984). Altogether 38 of the potential population of Orkney brochs have been identified as having surrounding buildings. It is likely that detailed field analysis of the kind undertaken in Caithness (see site catalogue) would substantially increase this total.

Hedges advanced a strong argument for the contemporaneity of surrounding buildings at Orkney brochs, based entirely on the layout of buildings at Gurness (1987, Part II, 37-46). MacKie has recently taken particular exception to this argument, maintaining that the whole external complex at Gurness looks later than a secondary guardhouse added to the front end of the broch entrance passage (1987,

494). It is in fact very difficult to argue conclusively about the surrounding buildings at Gurness, as the aims of the inter-war excavation were so limited and the surviving records are so few and so inadequate (Hedges 1987, Part II, 1-14). The chronological relationships of the various structural features on the site have to remain in many cases a matter of interpretation. However the contemporary nature of surrounding buildings at Howe has been directly proved. The three superimposed massive circular structures seem each to have had surrounding buildings lying between the structure and the outwork (Carter et al 1984; Beverley Smith, pers. comm.). Only the latest surrounding buildings (Phase 7) were well preserved, but several traces of earlier buildings were found. Repeated levelling and reconstruction of the surrounding buildings seems to have been a major feature of the site (Carter et al 1984, 72). The buildings around the third massive circular structure, identified by the excavators as a broch tower, were houses. It is possible that the earlier surrounding buildings may have had a similar function.

Hedges drew attention to potential variety in Orkney brochs, suggesting that some may have had contemporary surrounding dwellings, whilst others did not, and that the variation may be related to chronology and social organisation (Hedges and Bell 1980, 93). In particular he noted that no external settlement existed around the broch of Bu which he had hurriedly excavated in 1978 (Hedges 1987, Part III, 13). Examination of the Bu excavation report however casts some doubt on this conclusion. Bu was a rescue excavation carried out over five weeks when the broch interior was extensively excavated, but only slit trenches were dug across the rest of the site (Figure 129). With reference to surrounding buildings Hedges concluded that:

"Although scraps of walling and some flagging were discovered the impression gained is that the 'broch' at Bu was not the centre of a cluster of associated dwellings but stood alone - although there may have been a few outbuildings." (Hedges 1987, Part I, 22).

Later he noted that:

"The non existence of external settlement is something that can be proved only by careful excavation." (Hedges 1987, Part III, 13).

It cannot be said that the excavation of the area surrounding Bu broch was particularly careful. It was in fact partial, both in area and

Excavation Trenches at Bu Source: Hedges 1987, Part I, 3

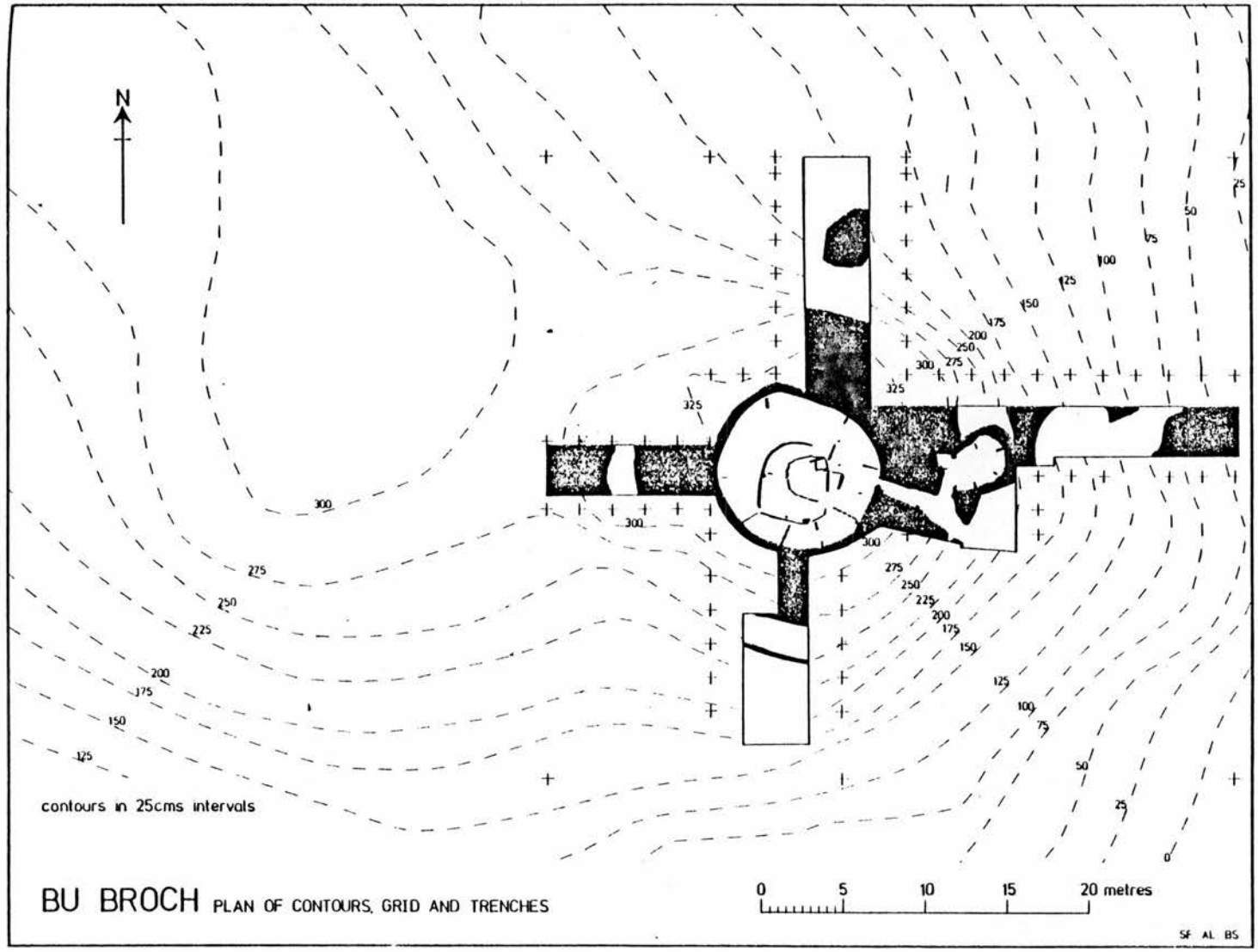


Figure 129

depth, the features and layers outside the broch not being fully examined because of time constraints. Nonetheless both walling and midden were found, and are depicted in the plans and sections of the trenches, particularly the east trench outside the entrance (Hedges 1987, Part I, figs 1.3, 1.4, and 1.5), although no floors or hearths were discovered. As Hedges suggested (see above), there clearly were some buildings around Bu broch, in addition to the later earth house inserted outside the entrance. The excavation produced few details of the surrounding buildings, but in view of their apparent existence, the hurried and partial nature of the excavation, and later robbing of the site, it seems impossible to be so fully certain that they were not houses, and that there was no external settlement at Bu.

Broch Structures

The visible features of Orkney broch structures were analysed by Hedges and the following conclusion reached.

"Various parameters have been taken here - the overall diameter of brochs and that of their internal 'courtyard'; the thickness of their walls and their preserved height; whether they were solid-based or had a basal gallery; whether or not there were intramural cells; the possible presence and location of stairs; the complexity of their entrances; and the indicated number of floors. It has been demonstrated that on all these counts there is marked diversity. Not only is any idea of a blueprint nonsense but the seeming lack of correlation between any of the factors mentioned means that there are not even any clearly definable sub-groups or sub-types." (Hedges 1987, Part III, 10).

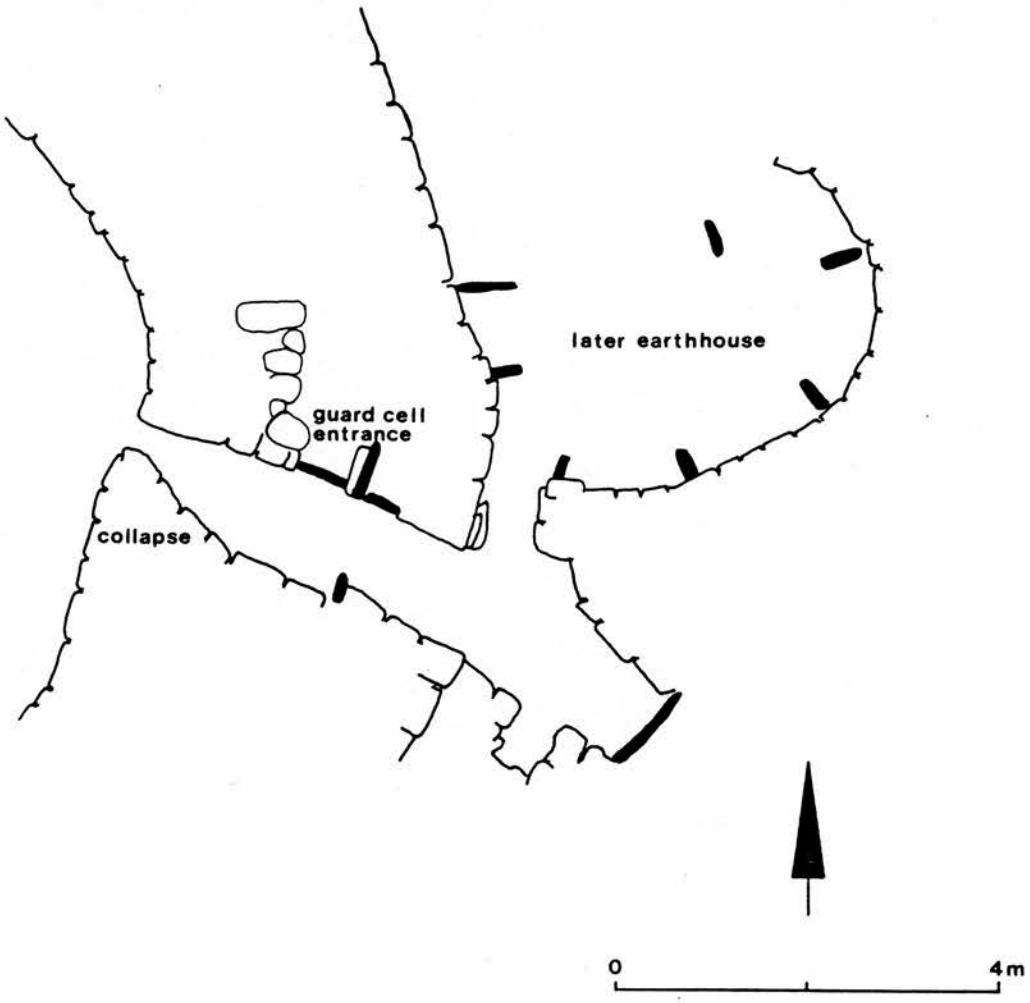
Variety in broch design has been noted before, but usually in terms of supposed differences between sub-regional areas, rather than variety within sub-regional areas. Hedges did not advance any explanation for the variety in Orkney, but thought that the range of variability was well illustrated by Bu and Gurness.

"They both had a similarly sized courtyard but the former was probably less than 2m high while the latter may have been over 5.4m. Bu had a solid-based wall, built in three stages and, ironically, thicker than its ground-galleried counterpart; neither had intramural cells. The entrance in the one case is the simplest known; that in the other the most complex. Finally, there is the contrast between a single storey building and Gurness, where there were at least two other floors, access being partly by means of an intramural stair." (Hedges 1987, Part III, 11).

In section 20.3 below it is shown that there is a substantial chronological difference between the structure at Bu and that at Gurness. It may be therefore that explanations of structural variety

could be sought in chronological differentiation, with broch structures becoming more sophisticated over time. It is not likely however that the variation can be so simply explained. Bu, for instance, is not quite the simple structure described by Hedges above. He referred to its simple entrance, but there were in fact two slab door jambs and an apparent guard cell opening off the north side of the passage (Hedges 1987, Part I, 11; Figure 130). The entry to the cell was blocked, but was defined by the door jamb, a vertical face opposite it, and a sill stone 0.8m long. There seems also to have been a bar hole associated with the cell. Attempts to investigate the entry and the cell during excavation failed to find the wall line or wall face and were abandoned, presumably because of lack of time. In addition, the wall at Bu was only preserved to a height of about 1.5m, with no trace of a stair at ground level. Hedges has pointed out that the stair at Gurness and at several other Orkney brochs does not begin at ground level, but starts at about 1.83m above ground (1987, Part III, 10). It cannot be said therefore that there was never a stair at Bu, since it too could have started above the preserved level of the wall. The wall at Bu may also have been reduced by robbing much more than Hedges allowed. Bu does not seem to be so different from many other structures identified as brochs in both Orkney and Caithness, and it seems unreasonable to suggest on structural grounds alone that it is at the opposite end of a spectrum from Gurness.

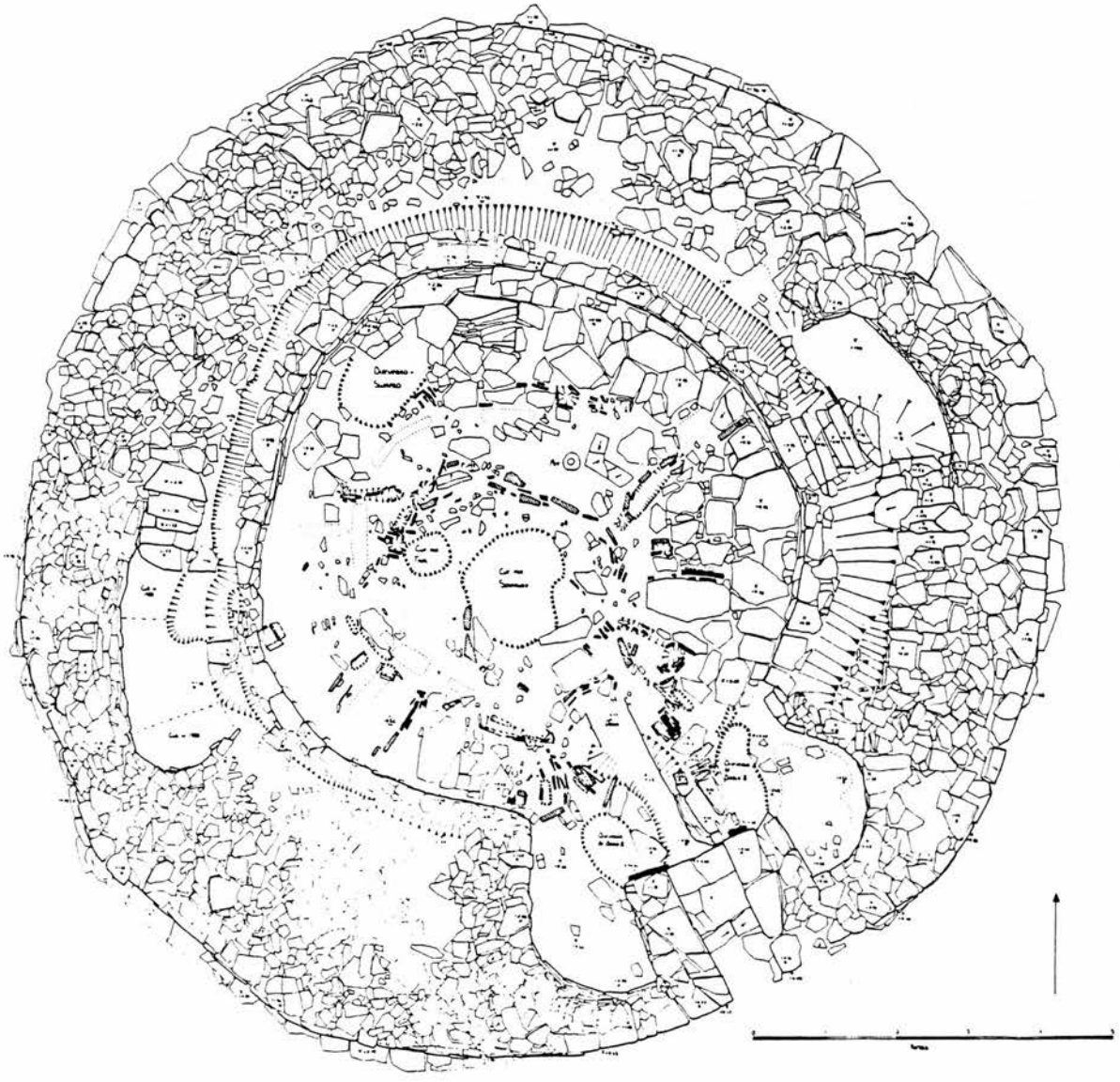
Increasing structural sophistication with time is also not supported by the evidence from Howe, where there were three superimposed massive circular structures, enclosing a similar internal area about 8m in diameter, within wall widths of 4m, 3.5m and 5.5m respectively (Carter et al 1984). On the basis of these dimensions alone it is possible to argue that each one of the structures was a broch. The first structure was too fragmentary to allow any further analysis of its nature. The second structure showed most broch features, including two intramural stairs and two cells (Figure 131), whereas the third structure was basically a rebuilding of the second, with only one stair and no cells within the wall. The most complex structure was therefore the second building and not the last. Structural instability seems to have been a major problem at Howe, because of the underlying debris (Carter et al 1984; Beverley Smith, pers. comm.), with the final broch structure



DETAIL OF ENTRANCE AT BU BROCH

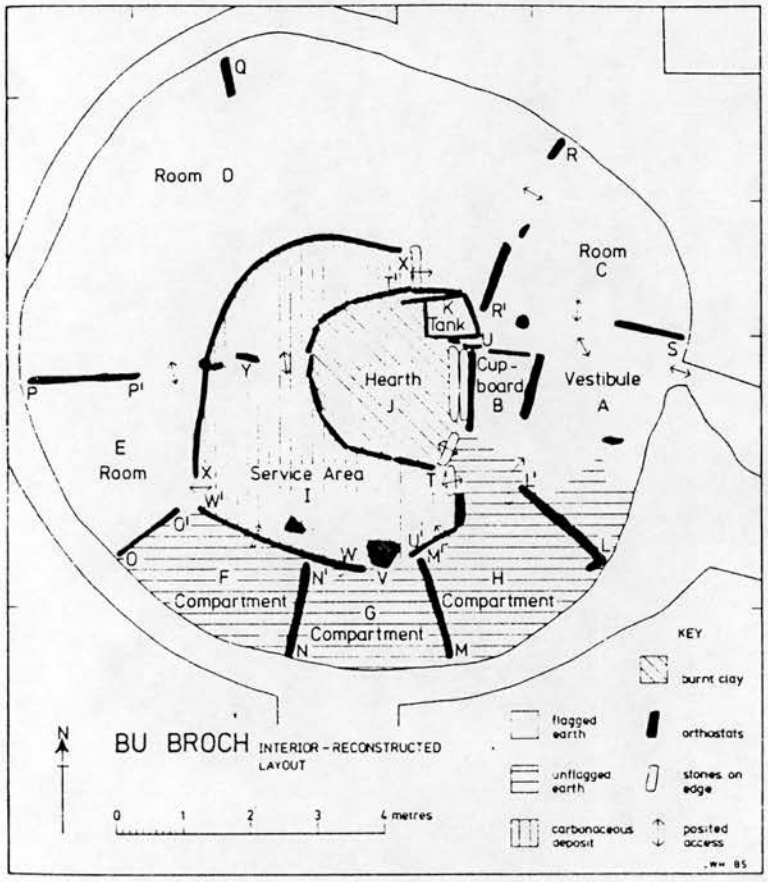
after Hedges 1987, Part I, fig 1.5

Second Circular Structure at Howe (Phase 6) Figure 131



Source: Smith forthcoming

Interior Layouts at Bu and at Phase 7, Howe, Orkney
Sources: Hedges 1987, Part I, fig 1.10; Carter et al 1984, fig 4



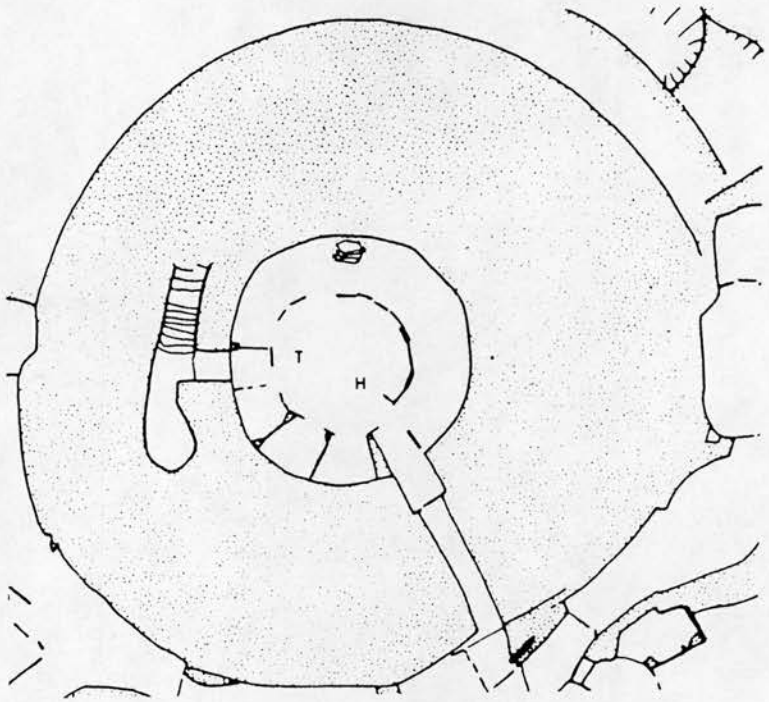


Figure 132 (a) (b)

perhaps having such thick, solid walls to counteract this. Variety in broch structures in Orkney is not readily explained, and may relate as much to individual site requirements as to any other factor.

Broch Interiors

The evidence for broch interiors in Orkney was thoroughly examined by Hedges. His major conclusion was that the internal furnishings present in 50% of the 52 proven brochs and formerly dismissed as secondary, were in fact original, although there had been many alterations and refittings (Hedges 1987, Part III, 11). He also noted that a number of brochs show wall features, such as scarcements or stair entries, at consistent heights of 1.8m, 3.6m and possibly 5.4m, suggesting that this may indicate potential multiple floor levels, the flooring and supports being provided by flagstones rather than wood (Hedges 1987, Part III, 10). He further suggested that the ground level floor plans divide into two types, single apartment with a central hearth, and two apartment with two hearths. Bu exemplifies the first, and Gurness the second, although the floor plan at the latter had originally been of single apartment design (Hedges 1987, Part III, 11-2).

Hedges would appear to accept that broch structures in Orkney were places of habitation, arguing that several show evidence for internal partitioning in accordance with his two suggested floor plans. He did not however discuss in detail the occurrence of hearths in broch interiors, although he noted that wells were found in the interior of 12 of the 18 brochs sufficiently cleared (Hedges 1987, Part III, 13). The excavation at Howe supports the view that broch structures in Orkney had a domestic function. The second massive circular structure (Phase 6) had a set of paved radial rooms or bays and a central hearth, whilst the third structure had a central area with an off centre hearth, some radial bays to the south and west, and a single curving room to the north and east (Carter et al 1984, 66). In both cases the layout conformed to Hedges' single apartment design, that in the third structure being very similar to that found at Bu (Figure 132), despite the apparent chronological difference of several centuries between the structures (see section 20.3 below).

20.3 Chronological Matters

There have been considerable advances in understanding the chronology of Orkney brochs in the last decade, largely as a result of radiocarbon dates from the recent excavations at Bu and Howe (Hedges 1987, Part I, 117; Carter et al 1984, 72; Table 30 (pp455-6); Figure 133). When the early dates for Bu were first published, there was argument about the exact nature of the structure, and whether it could reasonably be called a broch (Hedges and Bell 1980; MacKie 1983; Swanson 1984). Bu, with its guarded entrance and its internal floor plan, is in fact not dissimilar from many structures identified as brochs in Orkney and Caithness. Given the sheer variety of design in broch structures occurring in these two areas, it does not seem reasonable at this juncture to set Bu to one side as a potentially different site type, which has been variously labelled a "defended roundhouse", a "proto-broch" (Hedges and Bell 1980, 90), a "low walled dun", or a "fortified roundhouse" (MacKie 1983, 125). This view is reinforced by the results of the excavation at Howe.

It has already been pointed out that three superimposed massive circular structures were found at Howe. The excavators of the site in their interim report described these buildings respectively as "a roundhouse", "a later roundhouse or early broch", and "a broch tower" (Carter et al 1984). Yet it was noted in section 20.2 above that the internal diameters of the structures were the same, the wall widths were all within the range for brochs, and the second structure had the most broch-like structural features. There seems then to be no particular justification for introducing new labels such as "roundhouse" or "tower". Each of the three structures seems equally capable of being described as a broch. Beverley Smith has in fact said (pers. comm.) that the labelling of the three structures is unsatisfactory, and will need to be reviewed before the final report of the excavation is published. At the moment by differential labelling artificial and unreal differences have possibly been introduced into the perception of the nature and function of the three structures at Howe, which are not particularly borne out by the excavation results.

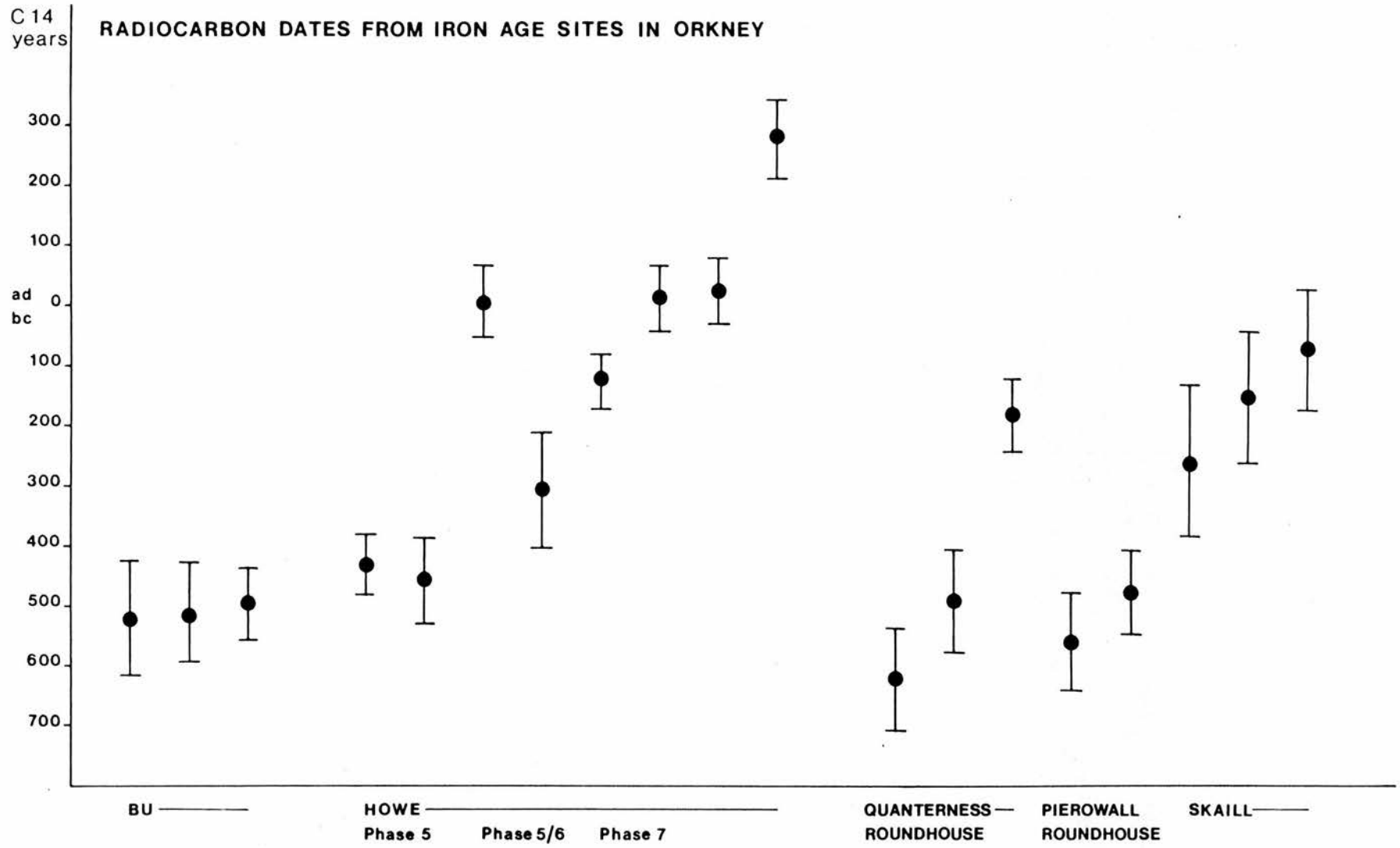
If it is accepted that the three succeeding structures at Howe were basically the same in nature and function, the radiocarbon dates for the site are then of considerable interest. A sequence of dates has been published in interim form covering the period of the three structures (Phases 5-7) as follows (Carter et al 1984, 72):

Phase 5	construction of outer rampart	GU-1789	455±70bc
Phase 5	skeleton in drain	GU-1799	430±50bc
Phase 5/6	rampart on east	GU-1758	305±95bc
Phase 7	end of main broch village	GU-1750	120±50bc
Phase 7	early burning in broch	GU-1788	ad 15±55
Phase 7	late burning in broch	GU-1786	25±55bc

The first massive circular structure or broch (Phase 5) at Howe can be seen to be fairly close in date to Bu in radiocarbon years (see Table 30, pp455-6), whereas the third structure was three to four centuries later in radiocarbon years, and may have been built and occupied much closer to the traditional date bracket of brochs. (The calibrated dates given by Carter et al are not included above but may be found in Table 30 (pp455-6). Different calibration curves were used by the excavators of Bu and Howe, making comparison of calibrated dates rather difficult.)

Howe seems to offer confirmation of the early dating of Orkney brochs first advanced after the excavation of Bu. Furthermore it demonstrates that broch building took place over a lengthy period in the islands, possibly most of the first millennium BC, with brochs still being built and used during the traditional date bracket of the first century BC/first century AD. This latter dating is confirmed by the publication of the inter-war excavation at Gurness. Dating of Gurness had to be by finds, and on this basis the broch period was placed in the early centuries AD, with establishment in the first/second centuries and continuation into the third/fourth centuries (Hedges 1987, Part II, 183; Part III, 31).

The dating evidence now available from Orkney has greatly extended the date bracket of brochs from the traditional two to three centuries to as many as a thousand years from about 7-600 BC up to 3-400 AD, and this for the broch period alone. There is further dating evidence of



Sources: Hedges 1987, Part I, 117; Part III, 35; Carter et al 1984, 35

Figure 133

Contemporary Iron Age Sites in Orkney Source: Hedges 1987, Part III, 37

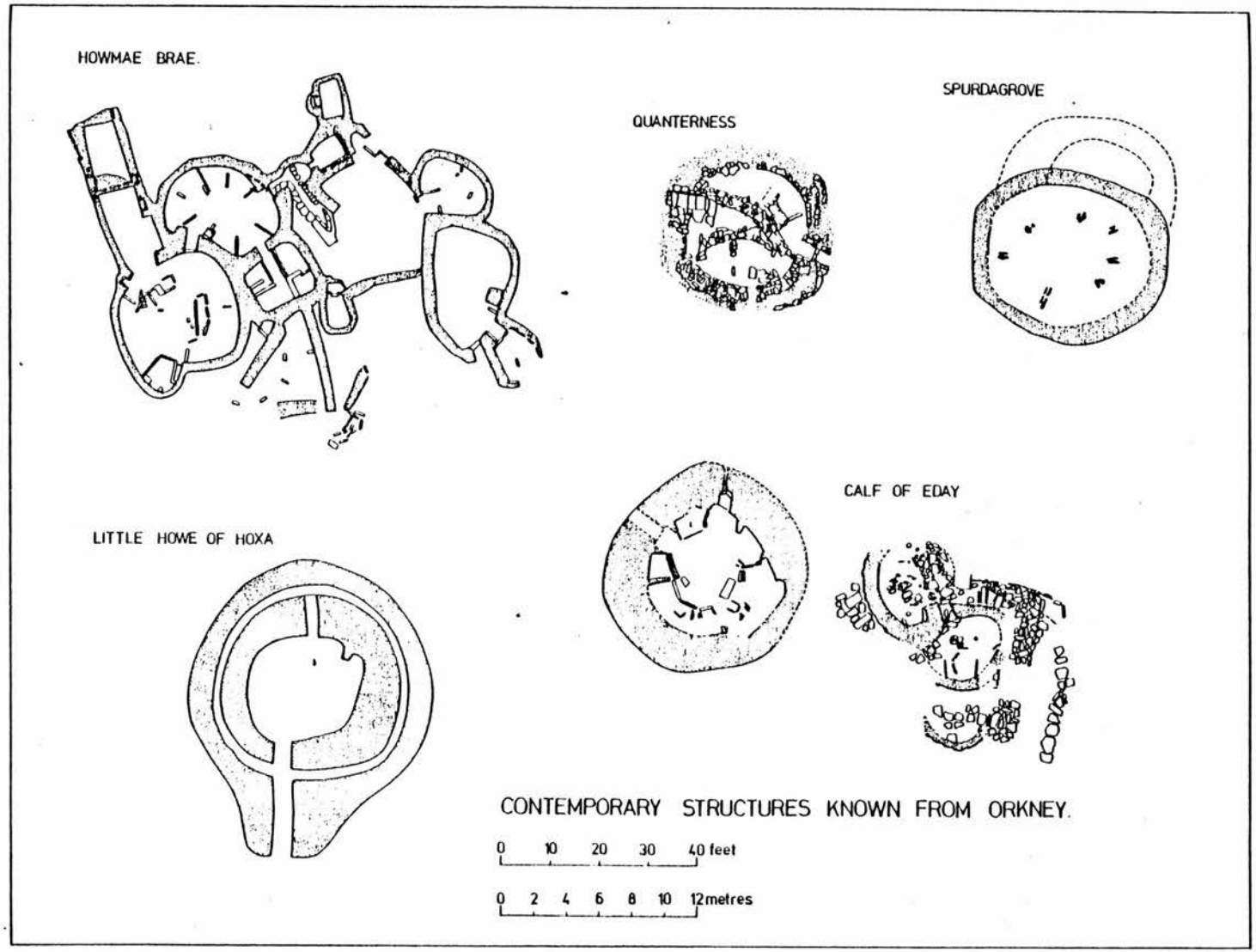


Figure 134

much longer continuity at individual sites, with Pictish levels overlying the Iron Age levels at Howe, extending the full period of continuous settlement at that site by at least another two centuries (see Table 30, pp455-6). Interestingly there was no evidence of continuity of settlement into the Norse period. At Gurness there was also Pictish settlement overlying the broch levels, with some of the later remains arguably Norse, although the only Norse finds from the site seem to have been unstratified or from graves (Hedges, Part II, 65-71; 184-5). The site of Bu, in contrast to both Howe and Gurness, seems to have gone out of use early in the first millennium BC, with no continuity of settlement through to the first millennium AD.

Bu, Gurness and Howe seem to represent a fair sample of Orkney brochs, and suggest that considerable chronological variety should perhaps be expected at any individual broch site in the islands. Bu started and finished early as a settlement site. Howe had over a thousand years of continuous settlement, succeeding earlier funerary use of the location. Gurness seems to have started late, and consequently was in continuous occupation for a much shorter period than Howe. Howe obviously overlapped with both Bu and Gurness, but at totally different periods, whereas Bu and Gurness were not contemporary at all and were in fact separated in time by several centuries. Such knowledge makes analysis of broch distribution in the islands very complex, as it is no longer possible to state simply that the brochs in Orkney were all roughly contemporary. The actual distribution pattern of brochs at any point in the thousand year span of their use may have varied considerably.

20.4 Contemporary Sites of Other Types

In view of the early dating of some brochs in Orkney and the length of time over which this form of structure appears to have been built, it seems reasonable to ask whether there were types of settlement other than brochs in contemporary use. Hedges gave some consideration to this problem, listing the following sites in Orkney which are not identified as brochs, but which are certainly or probably first millennium BC in date: Quanterness roundhouse; Pierowall Quarry roundhouse; Skaill, Deerness; Spurdagrove hut circles; Calf of Eday;

Howmae; Grainbank; and Little Howe of Hoxa (Hedges 1987, Part III, 36; Figure 134). Radiocarbon dates for the first three sites may be found in Table 30 (pp455-6), where it can be seen that the sites overlap with the period now ascribed to brochs in Orkney.

These other types of contemporary site vary considerably in form, having only one element in common, that is, their stone walls and furnishings. The Calf of Eday house shows some similarities to the broch form in its thick wall, and its divided floor plan. The buildings at Howmae, in their curvilinear form, their niches, and the upright flagstones in their interiors, have similarities with the structures occurring around brochs both in Orkney and Caithness.

Despite these similarities, Hedges considered that brochs with their thick walls, their structure, and their freestanding nature, are quite at variance with contemporary sites of other types, and furthermore are at variance with buildings of the Neolithic, Bronze Age and Pictish periods, which he thought had been constructed with far more awareness of the problems of heating and the limited supply of timber for roofing (Hedges 1987, Part III, 34). He suggested that the circular construction of the broch is even more foreign to the islands than the later Viking longhouses (Hedges 1987, Part III, 34), and went on to hypothesise that the roundhouse building idea must have arrived in Orkney from the south along with ideas of improved land use and husbandry as early as the beginning of the first millennium BC (Hedges 1987, Part III, 34).

"It is suggested here that the only influx of people to Orkney that needs to be evoked is one occurring in the early centuries of the first millennium BC when the islands were at a low ebb and the round-house makes its first appearance. Such an immigration need neither have been large nor of the upper echelons of a highly stratified social system but it is felt to have occurred because the simple adoption of the round-house (and affiliated concepts) by a purely aboriginal population would not have resulted in the type of heterogeneous society which can be observed. As it is it seems that a social system was established which was stable and of long duration, the descendants of the incoming population inhabiting isolated round-houses and presumably having dominance over the occupants of more clustered native settlements. It must be stressed, however, that there are no indications of a wealthy aristocracy; the lifestyles of the two elements of the population were rooted in agriculture, albeit unequally, and were not divergent to any marked degree." (Hedges 1987, Part III, 38).

This is a surprisingly reactionary conclusion when viewed against the radical nature of the reappraisal of Orkney brochs contained in the

rest of the Hedges corpus. It is surprising because it is little dissimilar from previous views on broch origins advanced by both Hamilton (1968) and MacKie (1965a etc), which also referred to incomers and natives, with the former dominating the latter, albeit at a rather later chronological period. The re-emergence of this particular theory time and again is perhaps understandable as broch structures are without doubt rather different, both from contemporary settlement types and from the contemporary buildings around them. It is not clear however that the difference necessarily has to be explained by incoming people, especially when there seems to be no evidence for social and/or political change other than the structures themselves.

There would appear then to be Iron Age settlement in Orkney which is not connected with brochs, highlighting the singularity of the broch form. The existence of these other settlement types in Orkney raises questions about the neighbouring mainland. There are no certain Iron Age sites in Caithness other than brochs, but then the area has not received the same archaeological attention as Orkney. It may be that some of the so called "wag" settlements in south-east Caithness are contemporary with brochs, or it may be that Caithness does not demonstrate the same variety of settlement types as Orkney, which would in itself be of interest in seeking to understand brochs. It is clearly misleading to discuss broch origins by reference to one sub-regional area only. If the circular building form was indeed an exotic import to Orkney, it should have arrived via the mainland, and some comparison between Orkney and Caithness in the first millennium BC would seem essential to the pursuit of such a hypothesis.

Table 26 Orkney: Proven Brochs

	Site Name	NGR
	Mainland	
1	Knowe of Skogar, Birsay	HY 2639 2340
2	Knowe of Taft, Birsay	HY 2836 2226
3	Oxtro Broch, Birsay	HY 2537 2678
4	Eves Howe (Braebuster), Deerness	HY 5490 0611
5	Broch of Burgar, Evie	HY 3519 2771
6	Gurness, Aikerness, Evie	HY 3818 2685
7	Knowe of Stenso, Evie	HY 3638 2675
8	Ness of Woodwick, Evie	HY 4007 2486
9	Broch of Redland, Steeringlo, Firth	HY 3780 1715
10	Chapel Knowe, Burness, Firth	HY 3881 1556
11	Ingshowe, Firth	HY 3903 1277
12	Burrian Broch, Harray (Russland)	HY 2961 1834
13	Burrian Broch, Harray (Corrigal)	HY 3235 1937
14	Knowe of Burrian, Harray (Garth)	HY 3082 1680
15	Netlater, Manse of Harray, Harray	HY 3232 1741
16	Loch of Ayre, St Mary's, Holm	HY 4702 0136
17	Knowe of Dishero, Rendall	HY 4256 1998
18	Dingy's Howe, St Andrew's	HY 5476 0330
19	Round Howe (Howe of Langskaill), St Andrew's	HY 5078 0593
20	Berstane, St Ola	HY 4752 1002
21	Broch of Lingro, St Ola	HY 4345 0878
22	Broch of Borthwick, Sandwick	HY 2241 1678
23	Burrian Broch, Sandwick	HY 2888 1538
24	Loch of Clumly, Sandwick	HY 2517 1649
25	Stackrue Broch, Lyking, Sandwick	HY 2705 1512
26	Cummi-Howe, Stenness	HY 2824 1039
27	Broch of Breckness, Stromness	HY 2247 0928
28	Cemetery, Stromness	HY 2378 0818
29	Hillock of Howe, Stromness	HY 2759 1092
30	Knowe of Redland, Stromness	HY 2659 1385
31	Navershough, Bu, Stromness	HY 2697 0933
	South Isles	
32	Ayresdale, West Broch of Burray, Burray	HY 4847 9871
33	East Broch of Burray, Burray	HY 4897 9881
34	The Green Hill, Hoy	HY 2500 0284
35	Howe of Hoxa, South Ronaldsay	HY 4252 9396
	North Isles	
36	Broch of Burrian, North Ronaldsay	HY 7627 5138
37	Castle of Bothikan, Papa Westray	HY 4926 4927
38	Knowe of Hunclett, Rousay	HY 4144 2722
39	Mid Howe, Rousay	HY 3716 3061
40	North Howe, Rousay	HY 3704 3074
41	Westside, Rousay	HY 3727 3036
42	Point of Buryan, Sanday	HY 7724 4340
43	Wasso, Sanday	HY 7902 3794

Table 26 (continued)

Site Name	NGR
North Isles (continued)	
44 Broch of Steiro, Shapinsay	HY 5019 1635
45 Helliar Holm, Shapinsay	HY 4859 1579
46 The Hillock, Shapinsay	HY 5356 2238
47 Hillock of Burroughston, Shapinsay	HY 5404 2100
48 Hillock of Baywest, Stronsay	HY 6190 2425
49 Hunton, Stronsay	HY 6534 2754
50 Lamb Head, Stronsay	HY 6904 2146
51 Howarness, Westray	HY 417 496
52 Knowe of Burristae, Westray	HY 4317 4293

Source: Hedges 1987, Part III, 50-1

Table 27 Orkney: Possible Brochs

Site Name	NGR
Mainland	
1 Loch of Hundland	HY 2977 2634
2 Loch of Isbister, Birsay	HY 2572 2334
3 Saever Howe, Birsay	HY 2460 2700
4 Howan, Deerness	HY 5889 0633
5 Knowe of Grugar (Ryo), Evie	HY 3563 2730
6 Verron, Evie	HY 3185 2990
7 Vinquin, Evie	HY 3268 2830
8 The Hillock, Firth	HY 3611 1415
9 Broch of Burrian, Harray	HY 309 184
10 Howen Broch, Corston, Harray	HY 3180 1914
11 Kirk of Cleaton, Harray	HY 3019 1565
12 Knowe of Bosquoy, Harray	HY 3093 1864
13 Mithouse, Mirbister, Harray	HY 3080 2000
14 North of Harray Church, Harray	HY 314 179
15 Overbrough, Churchyard, Harray	HY 3136 1790
16 Brough of Warbuster, Kirkwall	HY 4364 0937
17 Hillock of Breakna, Orphir	HY 3533 0508
18 The Castle, Rendall	HY 386 212
19 Ha', Rendall	HY 4250 2097
20 North Ettit, Rendall	HY 4205 1996
21 Thing-voll, Rendall	HY 4011 2286
22 Wass Wick, Rendall	HY 4120 2198
23 The Brough, St Andrew's	HY 5450 1005
24 Campston, St Andrew's	HY 5288 0411
25 Howie of the Manse, St Andrew's	HY 5142 0899
26 Tankerness, St Andrew's	HY 5321 0914
27 Work, St Ola	HY 474 135

Table 27 (continued)

Site Name	NGR
Mainland	
28 Brough of Bigging, Sandwick	HY 219 157
29 The Castle, Sandwick	HY 2749 2024
30 Howans, Sandwick	HY 2524 1755
31 Knowe of Geoso, Sandwick	HY 2282 1792
32 Knowe of Verron, Sandwick	HY 2305 1975
33 Lower Lee Knowe, Sandwick	HY 2836 1612
34 Scarrataing, Sandwick	HY 2761 1764
35 Upper Lee Knowe, Sandwick	HY 2833 1627
36 Big Howe, Stenness	HY 3081 1247
37 The Cairns, Stenness	HY 2905 0987
South Isles	
38 Kyelittle Broch, Burray	HY 4851 9531
39 Braebister, Hoy	HY 2130 0522
40 Bu', Hoy	HY 2375 0523
41 Burrowston, Hoy	HY 3331 8983
42 Green Hill, Near Church, Hoy	HY 3148 9095
43 Green Hill of Hestigeo, Hoy	HY 3375 8903
44 Outer Green Hill, Near Cantick, Hoy	HY 3425 8958
45 The Skeo, Hoy	HY 2857 8796
46 Brough, South Ronaldsay	HY 4428 8333
47 E Scott's, Hoxa, Ronaldsay	HY 4243 9403
48 Weems Castle, South Ronaldsay	HY 4337 8885
North Isles	
49 Ness of Boray, Gairsay	HY 4426 2100
50 Dennis Ness, North Ronaldsay	HY 7840 5599
51 St Tredwell's Chapel, Papa Westray	HY 4964 5088
52 Burrian, Rousay	HY 3949 3338
53 Kirk House, Knarston, Rousay	HY 4464 2927
54 Knowe of Burrian, Frotoft, Rousay	HY 4006 2745
55 Scockness, Rousay	HY 4498 3308
56 Viera Lodge, Rousay	HY 3915 2808
57 Backaskaill, Sanday	HY 6417 3919
58 Barber's Tower, Sanday	HY 6346 3896
59 Brace Garth, Sanday	HY 7490 4653
60 Broch of Lamaness, Sanday	HY 61 37
61 Broch of Toftness, Sanday	HY 760 470
62 Colli Ness, Sanday	HY 6850 4212
63 Els Ness, Sanday	HY 672 390
64 How Farm, Sanday	HY 6606 3927
65 Icegarth Brough, Sanday	HY 6706 4156
66 Ivar's Knowe, Sanday	HY 7158 4335
67 The Manse, Sanday	HY 6539 4118
68 Nebister, Sanday	HY 6316 3701
69 Newark, Sanday	HY 723 424
70 Peterskirk, Sanday	HY 7134 4363

Table 27 (continued)

Site Name	NGR
North Isles	
71 Runna Clett, Scar, Sanday	HY 6659 4540
72 Westbrough, Sanday	HY 6633 4235
73 Howe Hill, Shapinsay	HY 5117 1599
74 Loch of Westhill, Shapinsay	HY 4795 1833
75 Holm of Huip, Stronsay	HY 6282 3116
76 Huip Ness, Stronsay	HY 6470 3001
77 Malme, Stronsay	HY 6862 2436
78 Brough, Westray	HY 4482 4791
79 Hodgalee, Westray	HY 4644 4473
80 Knowe of Skulzie, Westray	HY 4472 4904

Source: Hedges 1987, Part III, 51-2

Table 28 **Orkney: Brochs with Outer Defences**

Gurness, Aikerness, Evie
Burrian (Russland), Harray
Dishero, Rendall
Lingro. St Ola
Howe, Stromness
Burrian, North Ronaldsay
Burroughston, Shapinsay
Redland, Firth
Burrian (Corrigal), Harray
Round Howe, St Andrews
Borthwick, Sandwick
East Broch of Burray, Burray
Mid Howe, Rousay
Lamb Head, Stronsay

Source: Hedges 1987, Part III, 166-7

Table 29 Orkney: Brochs with Surrounding Buildings

Certain (Hedges 1987)

Gurness, Aikerness, Evie
Burrian (Russland), Harray
Loch of Ayre, St Mary's, Holm
Lingro, St Ola
Burrian, North Ronaldsay
Mid Howe, Rousay
Ingshowe, Firth
Netlater, Manse of Harray
Round Howe, St Andrew's
Borthwick, Sandwick
Bothikan, Papa Westray
Burroughston, Shapinsay

Probable (Hedges 1987)

Stenso, Evie
Berstane, St Ola
Loch of Clumly, Sandwick
Cummi-Howe, Sandwick
Cemetery, Stromness
Knowe of Hunclett, Rousay
Westside, Rousay
The Hillock, Shapinsay
Burrian (Corrigal), Harray
Burrian Broch, Sandwick
Stackrue, Sandwick
Breckness, Stromness
East Broch of Burray, Burray
North Howe, Rousay
Wasso, Sanday
Lamb Head, Stronsay

Additional

Howe, Stromness
Thing-voll, Rendall
Howie of the Manse, St Andrew's
Green Hill, Hoy
Scarrataing, Sandwick
Ha',Rendall
Riggan of Kami, St Andrew's
Bu, Stromness
Hestigeo, Hoy
St Tredwell's, Papa Westray

Sources: Hedges 1987, Part I, 22-3
Hedges 1987, Part III, 163-6
Carter et al 1984
RCAHMS 1946

Table 30 Orkney: Radiocarbon Dates from Iron Age Sites

Site & Context		Lab No	C-14 Date bp	C-14 Date bc	Calibrated Date
Brochs					
Bu, Stromness					
Phase IIa	: floor deposit in broch	GU-1228	2470±95 bp	520±95 bc	
Phase IIa	: floor deposit in broch	GU-1154	2460±80 bp	510±80 bc	803-463 BC
Phase IIb	: bottom of rubble fill in broch	GU-1152	2440±65 bp	490±65 bc	775-456 BC
Phase IIIa	: floor deposit in earth house	GU-1153	2545±65 bp	595±65 bc	862-621 BC
Howe, Stromness					
Phase 4	: first settlement floor	GU-1805	2305±60 bp	355±60 bc	760-170 BC
Phase 5	: skeleton in roundhouse drain	GU-1799	2380±50 bp	430±50 bc	760-390 BC
Phase 5	: construction of rampart	GU-1789	2405±70 bp	455±70 bc	790-260 BC
Phase 5/6	: ditch filled, rebuilding of west terminal of rampart	GU-1759	1940±60 bp	ad 10±60	170 BC-AD 235
Phase 5/6	: rampart on east	GU-1758	2255±95 bp	305±95 bc	585-45 BC
Phase 7	: end of main broch village	GU-1750	2070±50 bp	120±50 bc	370 BC-AD 35
Phase 7	: early burning in broch tower	GU-1788	1935±55 bp	ad 15±55	170 BC-AD 235
Phase 7	: late burning in broch tower	GU-1786	1975±55 bp	25±55 bc	185 BC-AD 225
Phase 7	: workshop floor in NE building	GU-1787	1670±65 bp	ad 280±65	AD 65-585
Phase 8	: stalled building	GU-1749	1565±45 bp	ad 385±45	AD 270-600
Phase 8	: re-use of Phase 7 East building	GU-1756	2200±70 bp	250±70 bc	420-5 BC
Phase 8	: final re-use of Phase 7 East building	GU-1757	1450±50 bp	ad 500±50	AD 445-635

Table 30 (continued)

Site & Context	Lab No	C-14 Date bp	C-14 Date bc	Calibrated Date
Other Sites				
Quanterness Roundhouse				
Primary occupation of roundhouse	Q 1465		620±85 bc	915-715 BC
Primary occupation of roundhouse	Q 1464		490±85 bc	680-480 BC
Secondary occupation	Q 1463		180±60 bc	265-105 BC
Pierowall Quarry Roundhouse				
Occupation immediately preceding house construction	GU-1580		560±80 bc	860-670 BC
Occupation contemporary with use of roundhouse	GU-1581		475±60 bc	625-465 BC
Skaill, Deerness				
Occupation of Iron Age site	Birm 413		260±120bc	505-245 BC
Occupation of Iron Age site	Birm 397		150±110bc	270- 50 BC
Primary context in Iron Age/Dark Age site	Birm 764		70±100bc	150BC-AD70

Sources: Hedges 1987, Part I, 117
Carter et al 1984, 72
Hedges 1987, Part III, 35

(Calibrations by authors using different tables)

CHAPTER 21 BROCHS IN SHETLAND

The subject of brochs is Shetland was reviewed in the late 1970s by Noel Fojut, based entirely on fieldwork and a reappraisal of old excavations, as no new excavation of brochs has taken place in Shetland since Jarlshof and Clickhimin (Hamilton 1956 and 1968). The research was concerned to elucidate the archaeology and geography of Shetland brochs, and is available in unpublished form and in various published articles (Fojut 1980, 1981, 1982, and 1985). It provides a reservoir of information on brochs in the last major area of their occurrence to be considered in this thesis.

Section 21.1 below considers the information available for assessing the contemporary environment of Shetland brochs. Section 21.2 summarises the morphology of Shetland brochs which was examined in detail by Fojut. Section 21.3 explores chronological matters, recognising that there is a lack of definitive information in this respect, as the two excavations at Jarlshof and Clickhimin took place too early for radiocarbon dates to establish an absolute chronology for either site. Assessment of broch chronology in Shetland is therefore like Sutherland, at a considerable disadvantage compared to neighbouring areas. The lack of a secure chronology for Shetland brochs gives further problems in seeking to establish whether there are contemporary sites in the islands of types other than brochs. Section 21.3 goes on to explore the possibility of contemporary sites in the context of the general dating problems of the Shetland Iron Age.

21.1 The Contemporary Environment and Broch Distribution

A major part of Fojut's research was to construct a geography of the Shetland brochs to determine at least in part the forces behind the observed patterns of broch-period settlement in the islands. To achieve this end he did not seek in particular to reconstruct past environments in the islands, noting that:

"The amount of environmental work carried out in Iron Age Shetland is minimal, but inference from earlier periods (Whittle 1979) and later times (Bigelow 1979) argue for a crop to fallow ratio much higher than the present." (Fojut 1980, 29).

In view of conclusions reached in both Caithness (see Chapter 5) and Orkney (see Chapter 20) that the past landscapes of these areas have changed little since prehistoric times, it is probably reasonable to assume that conditions in Shetland have been similar. However as Fojut noted (see above) there may have been more land under crop in the past than is the case in modern Shetland. This is not a surprising conclusion, in view of observations made elsewhere in the Highlands and Islands that today's perception of economic return from the land relates more to agricultural subsidies, than to land capabilities (Bibby, Hudson and Henderson 1982, 145-6). Fojut compiled a map for Shetland by field observation and air photograph comparison of all land which is now, or was once, under arable crops. He considered that this map represented an over-estimate of the arable land which would have been in use in the Iron Age (Fojut 1982, 42), the same conclusion as that reached in both Caithness (see Chapter 5) and the Isle of Skye (see Chapter 16) in considering past arable extent.

Fojut did not consider in detail the availability of timber in Shetland, apparently assuming that the islands were as treeless as they are today. He did note however, in examining the artefactual remains from Shetland brochs, that fragments of wood had been recorded from three sites, Clickhimin, Jarlshof, and Levenwick (Fojut 1980, 137-9). From Clickhimin there were chippings of pine, including a five needled variety, spruce, elder and willow in a level attributed to a pre-broch phase. From Jarlshof there were fragments of unburnt spruce and willow amongst charcoal in a hearth in the outer courtyard, possibly belonging to the broch period. From Levenwick there were chippings of spruce and alder. It is likely that elder, willow, and possibly alder, grew locally in a stunted form, the former two apparently present in Orkney in prehistory (see Chapter 20). The spruce and the unusual pine variety are normally attributed to a driftwood source. Fojut was concerned however that a driftwood source would not have supplied the full need for structural timber during the broch period in Shetland, noting that seven brochs exhibit scarcements, and that there was a ring of post holes inside the broch at Clickhimin (1980, 139 and 168). He speculated on the possibility of deliberate importation of spruce from Scandinavia, recording however that there is no archaeological support for such a view until the

Norse period (1980, 139). It is interesting in this context, that there may be some slight evidence from Orkney of prehistoric movement of timber, but from the mainland rather than from Scandinavia (see Chapter 20). Further evidence would be required before the presence of spruce in Shetland could be attributed to anything other than a driftwood source.

Fojut chose to carry out a comprehensive assessment of the distribution of the brochs in Shetland using statistical methods of spatial analysis. Such methods have not been used in this thesis because there are thought to be too many drawbacks in using analytical methods, which require precise data, on the imprecise and selective raw data produced by archaeological research. Difficulties in the analysis are introduced by the following, some of which were recognised by Fojut (1980, 6-7; 1982, 38):

(1) the known population of sites is a remnant of a formerly larger number of sites;
(2) the total population of sites has to be involved in the analysis, rather than a sample;
(3) the sites under study must have been contemporary and all contemporary sites need to be included in the analysis;
(4) consideration of sites to be included in, or rejected from, the analysis depends on subjective archaeological criteria;
(5) there is variation in recording standards in relation to archaeological sites, so that selection or rejection is difficult in the absence of original fieldwork;
(6) the study area has to have well defined boundaries; and
(7) there are problems in the use of the statistical methods themselves, for example, in accepting or rejecting results, and in setting up the hypotheses to be disproved.

Despite these drawbacks Fojut produced some interesting results, many of which could possibly have been obtained by direct observation and comparison without the need to undertake lengthy statistical calculations. The relationship of broch distribution to general environmental factors in Shetland was summarised as follows:

"It is sufficient to remark that the most influential factors seem to be those which determine the capacity of the local land for

agriculture, and that these factors are very closely related. Thus brochs are found to be associated with good land, good building stone and mild climate, but in fact these three resources tend to occur together in any case. The second main influence is clearly the sea, which has always played a vital although variable role in Shetland's economy, and which dominates the landscape. On the other hand there seems to be little evidence that brochs were located with reference to the position of other brochs, suggesting that the broch communities were either not the only units in Shetland, or else did not exploit all of the land to its full potential." (Fojut 1982, 46).

Despite the conclusion above that brochs are associated with good land, it should be pointed out that only 47 of the 75 brochs under study were in fact located on or beside land with arable potential, according to Fojut's estimate of cultivable land (Fojut 1982, 42). In terms of the experience in the three sub-regional areas which were studied for this thesis, there are a surprising number of brochs in Shetland (28) apparently not associated with arable land. Either Fojut's estimate of land capable of cultivation in the Iron Age is in error, or the growing of crops was not a primary function for over a third of the brochs in Shetland.

21.2 Site Morphology

Fojut listed 121 potential broch sites in Shetland (Table 31, pp469-471), of which he rejected 16 as not being brochs at all, 30 were doubtful, 19 were possible, 5 were acceptable former sites of brochs, and 51 were definite (1980, Volume 3 (Data)). For the purposes of his analysis he combined the definite, acceptable and possible categories, a total of 75 brochs in all. The location of these sites is shown in Figure 135. The remaining sites do not seem to have figured in the analysis, once they had been found to be doubtful or had been rejected.

Location

Brochs in Shetland seem generally to have been located to take advantage of good natural defence. Fojut established three categories of naturally defensive site as follows (1982, 54):

(1) brochs on the best defensive site in the territory
(2) brochs on a site which is as good as any other in the territory
(3) brochs not on good defensive sites.

Iron Age Sites in Shetland

Figure 135

Source: Fojut 1982, 39

Source: Fojut 1985, 65
Burraland

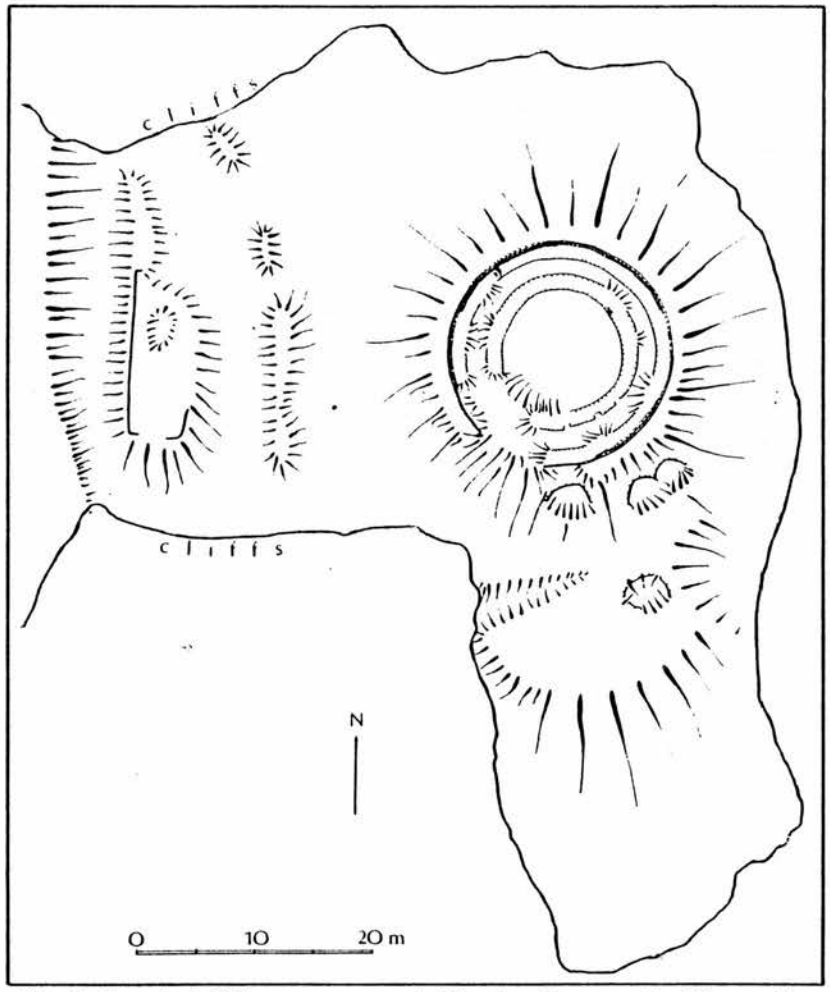


Fig. 10: Burraland (10), a promontory-sited broch with external buildings and a possible blockhouse in the promontory defences. From field sketch.

(a)

Source: Fojut 1985, 66
Levenwick

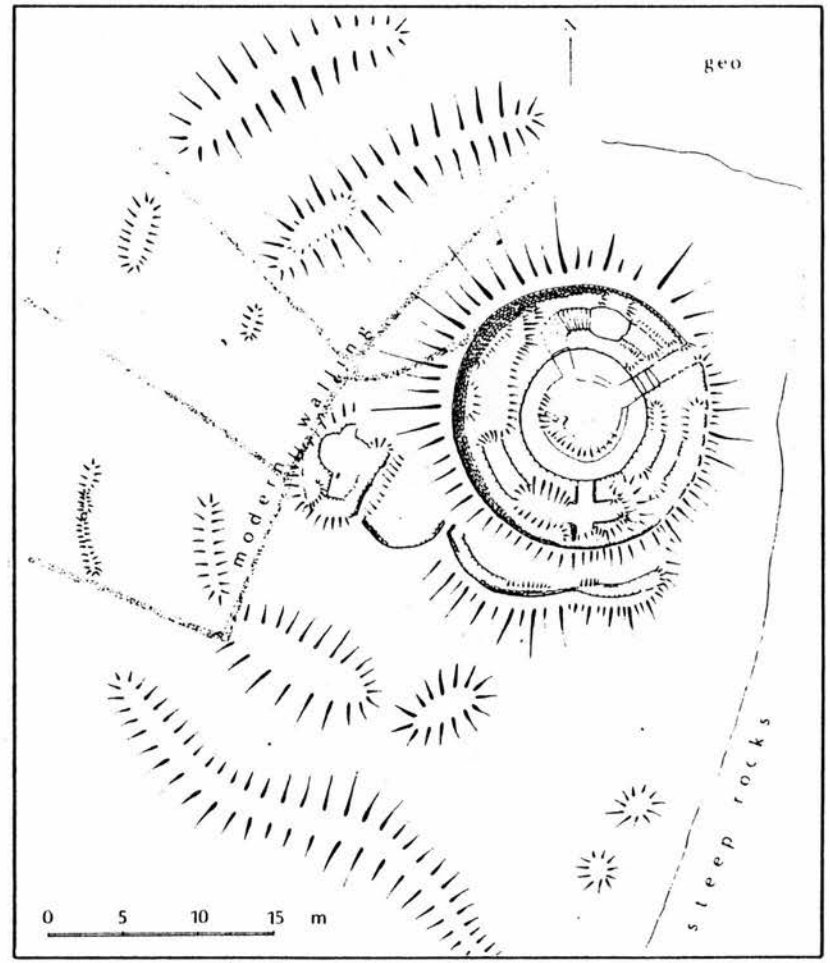


Fig. 11: Levenwick (35), a broch with part-circuit ramparts apparently respecting a small oval house foundation. From theodolite survey.

(b)

Figure 136

He found that there were 47 brochs in Class (1), 24 in Class (2), and only 4 in Class (3).

Total Site Design

Ramparts and ditches occur at 39 Shetland brochs (Fojut 1985, 52-60; Table 32, p472; Figure 136). It is possible that this is a minimal figure, and that outworks at some brochs have been concealed by subsequent events, as was the case at the excavated Jarlshof broch and as can be observed at the eroding Eastshore broch. Fojut (1985, 52) identified three types of plan in the outworks:
circuit: fully surrounding the broch, broken only by one or more entrances: 16 sites
part-circuit: surrounding the broch on those sides not already defended by natural features such as cliffs or gullies: 15 sites
promontory: cutting off a promontory, and including the broch and a substantial area of space: 8 sites.

He further noted (1985, 52-60) that building styles range from stone faced masonry walls, to stone faced earthen banks, to unfaced earthen banks. Occasionally there are ditches without intervening ramparts. Sizes of enclosures within the ramparts tend to be small, with nothing to compare with the large enclosed area at Gurness in Orkney. The outworks seem to be intended for defence, but there is absolutely no relationship between the presence or absence of natural defensive features and the presence or absence of artificial defences, as was also noted in relation to enclosing walls in the Isle of Skye (see Chapter 17). Finally, the scant excavation evidence from Shetland does not help with the problem of establishing the contemporaneity of brochs and outworks, although Fojut suggested that the orientation of entrances through ramparts consistent with the position of broch entrances, would support the view that outworks were designed to function with the broch, and should therefore be of similar, or subsequent, date (1985, 77).

Surrounding Buildings

Fojut identified 24 broch sites in Shetland where there are traces of surrounding buildings, noting that the buildings fall into three ill-defined classes of circular and sub-circular, oval to oblong, and

rectilinear (1985, 60; Table 33, p472). Surrounding buildings have been excavated only at Jarlshof and Clickhimin where they were found both to pre-date and to post-date the brochs at both sites (Hamilton 1956 and 1968). According to Fojut the only clear result of the excavations was that rectilinear structures seem to be Norse, but he noted that such structures seem to be rare at broch sites in Shetland (1985, 62). With respect to the general chronology of surrounding buildings in Shetland, Fojut noted that fieldwork will always tend to identify only the latest elements of the history of any site (1985, 63), a conclusion that is supported by the detailed field analysis of surrounding buildings at both excavated and unexcavated broch sites in Caithness (see Chapter 7). He further noted that the only clear cut conclusion from field survey is that buildings around brochs seem to be more common in areas well endowed with respect to arable land (1985, 63).

In Shetland then there is some evidence that about one third of Fojut's accepted brochs may have surrounding buildings, but this may be a minimum total with more sites with surrounding buildings to be identified. Alternatively it may be that in Shetland, as in Sutherland, there were both brochs with, and brochs without, surrounding buildings. Fojut's observation about the relationship between the existence of surrounding buildings and extent of arable land could be of interest in this respect, but further specific fieldwork to determine the total of brochs with surrounding buildings in Shetland seems required before any further inferences can be drawn.

Broch Structures

Ground plan details, such as internal diameter, external diameter, and wall thickness, are measurable at 27 brochs in Shetland. An examination of these details allowed Fojut to conclude that:

"Mousa excepted, the Shetland brochs form a more homogeneous group than those of any other region. Mousa is not the type, but the exception among Shetland brochs." (1980, 162).

There are two principal implications arising from this conclusion. First, Mousa, often suggested as the typical broch (see Figure 2, p9 in Volume 1), is shown not to be typical even of its sub-regional area, let alone other areas of Atlantic Scotland. Second, the relative

homogeneity of the Shetland brochs could suggest a fairly close, or even a contemporaneous, building date (Fojut 1980, 162).

Other structural details noted in the Shetland brochs are as follows (Fojut 1980, 167-9):

(1) traces of intramural galleries in seven brochs, six at Mousa, two at Clickhimin, and one at the other sites;
(2) stairs visible with certainty at only three brochs, with a further two dubious examples; and
(3) scarcements at seven brochs, with two at Mousa.

The most interesting feature above is the apparent absence of stairs, which may generally have begun at a point above ground level, as at Mousa and Clickhimin, and have consequently not survived. This assumes that broch walls in Shetland did in general originally rise to a reasonable height, and did contain a stair, both of which are difficult to prove. Levenwick is the only broch in Shetland where the stair can be clearly seen to begin at ground level. It may be an exceptional site, or it may be that if more broch structures were cleared of debris, that other stairs at ground level would become visible. The second interesting feature is the presence of scarcements in seven brochs, pointing to the use of structural timbers for floors and/or roofs, and hence to a ready supply of such a commodity from some source.

Broch Interiors

There is little evidence available from Shetland for arrangements in broch interiors, as few brochs have been cleared, let alone properly excavated. Ten brochs exhibit internal fittings consisting of heavy or light casing walls with or without radially projecting piers. Evidence from Clickhimin, Jarlshof and Mousa suggests that these casing walls are generally later insertions, after the broch had been in use for some time (Fojut 1985, 63). There are no multiple slab divisions of the kind found in both Caithness and Orkney brochs, despite the presence of favourable geological formations in the Dunrossness area (Fojut 1980, 176). Only Clickhimin has produced evidence of possible wooden fittings in the broch interior, based on a ring of postholes within the broch (Hamilton 1968, 111). This latter evidence again

points to a ready supply of structural timber in Shetland from some source.

All the stone fittings in Shetland brochs then would appear to be later insertions, unlike neighbouring areas of Orkney and Caithness where internal fittings may have been an original part of broch design. There is little evidence for the original arrangments in broch interiors in Shetland, beyond the presence of paving in four brochs, and wells in three. The internal arrangements at Mousa, including a hearth and tank, were ascribed to a later occupation of the broch, rather than to the original use (RCAHMS 1946, Volume III, 48-55, no 1206). There is no evidence that any brochs in Shetland had hearths in their interiors during their original occupation. Hamilton suggested that a central stone hearth had been removed from the broch at Clickhimin when the internal wheelhouse was constructed (1968, 128), but this would appear to have been conjecture based on the supposition that there should have been a central hearth, rather than direct observation of evidence that one had existed. The excavation evidence from broch interiors in Shetland is so poor, and is so at variance with the neighbouring area of Orkney, that it seems impossible to draw from it any direct conclusions about the primary function of brochs in a Shetland context without further excavation evidence. Fojut however was convinced that brochs were dwelling places in addition to being fortifications (1985, 76).

21.3 Chronology and Contemporary Sites

The absence of conclusive dating evidence is a major problem in discussing the chronology of Shetland brochs, forcing Fojut to conclude that:

"The second century AD, suggested by sound artefactual evidence, still remains an acceptable date for the end of broch-building in Shetland, but the beginning of this era is no longer capable of being determined with any degree of certainty." (1981, 227).

This causes obvious problems for understanding brochs both in the islands and within the wider area of their occurrence, but it also makes assessment of the occurrence of possible contemporary sites of other types more difficult. Fojut (1985, 67) suggested that there is

in fact a much wider variety of Iron Age monuments in Shetland than was appreciated in the past. He suggested that promontory forts, duns, undefended house sites, middens, and burnt mounds could have been contemporary with brochs (1985, 67). He noted however that there are substantial problems in ascribing these sites to an Iron Age period, particularly where the only source of information on the sites is field survey (Fojut 1985, 68). Dating of such sites has only been achieved by reference to broch type features where sites are of a type to display these, such as, promontory forts, or by parallels in the artefactual materials from broch excavations, particularly the pottery assemblages. Neither of these methods seems particularly satisfactory.

Indeed at the recently excavated house site of Mavis Grind in Shetland, the excavators found that the radiocarbon date for the occupation of the site was at considerable variance with the dating suggested by pottery parallels, the former suggesting a date well into the Iron Age, the latter a date at the Bronze Age/Iron Age transition (Cracknell and Smith 1983, 33). Either the radiocarbon date had to be rejected, or the chronology of northern Scottish pottery revised. The excavators preferred to adopt the former course, as the radiocarbon dates for the site were both widely separated and stratigraphically inconsistent. The case does however raise some questions about the chronological security of the pottery assemblages in Shetland, which are based largely on the results from Jarlshof and Clickhimin, both fairly early excavations in the modern period of broch studies, and both open to some reinterpretation. The discovery of pottery similar to that found at Jarlshof and Clickhimin may suggest a similar date range, but it does not prove it, as very little is known about the longevity of Shetland pottery styles (Fojut 1985, 76).

Proof of the actual existence in Shetland of contemporary sites of other types than brochs would appear to require excavation evidence of two types: a secure date range for brochs in the island group, and more definitive excavation evidence from non-broch sites. Fojut recognised this, and pressed for thorough field survey in Shetland to direct more efficiently the scarce financial resources for excavation (1985, 80). This end may eventually be achieved by the recent appointment of an archaeologist for the islands.

Fojut, in considering chronological matters in respect of brochs, additionally commented on evidence for internal continuity in Shetland as against the imposition of external ideas arising from immigration, a subject which had been discussed at length in relation to the Jarlshof and Clickhimin excavations (Hamilton 1956 and 1968). He concluded that:

"Shetland is quite remarkable for the degree of continuity and homogeneity shown by architectural and artefactual material. The gradual development of styles, particularly in pottery, can be observed with little evidence of outside ideas between the Neolithic and the wheelhouse period of the later Middle Iron Age." (Fojut 1985, 78-9).

In particular Fojut thought there was no good evidence for any dichotomy in the population either at Jarlshof, Clickhimin, or indeed anywhere else in Shetland during the Iron Age (1985, 78). The implication is clear - no movement of people was necessarily involved in the origin and development of brochs in Shetland, a conclusion very much at variance with that recently reached by Hedges in considering Orkney brochs (see Chapter 20).

Table 31 Shetland: Potential Brochs

	Site Name	District/Parish
Definite		
1	Aith	Bressay
2	Aithsetter	Cunningsburgh
3	Balta	Unst (North)
4	Belmont (=Hoga Ness)	Unst (South)
5	Brough	West Burra
6	Brough Holm	Unst (West)
7	Burgan	Northmavine
8	Burgar Stack (=Burrafirth)	Unst (North)
9	Burland (1)	Lerwick
10	Burraland (1)	Sandwick
11	Burraland (2)	Walls
12	Burra Ness	Yell (Mid)
13	Burravoe (1)	Brae
14	Burravoe (2)	Yell (South)
15	Clevigarth	Dunrossness
16	Clickhimin	Lerwick
17	Clumlie	Dunrossness
18	Cullingsburgh	Bressay
19	Culswick	Skeld
20	Dalsetter	Dunrossness
21	East Burrafirth	Aithsting
22	Eastshore (or Virkie)	Dunrossness
23	Feal	Fetlar
24	Footabrough	Walls
25	Fugla Ness	Toft
26	Gossabrough	Yell (South)
27	Greenbank	Yell (North)
28	Hawks Ness	North of Lerwick
29	Head of Brough	Yell (South)
30	Holm of Copister	Yell (South)
31	Houbie	Fetlar
32	Housabister	Nesting (North)
33	Huxter	Sandness
34	Jarlshof	Dunrossness
35	Levenwick	Dunrossness
36	Loch of Houlland	Esha Ness
37	Lunabister	Dunrossness
38	Mousa	Sandwick
39	Noonsbrough	Sandness
40	Noss Sound	Bressay
41	Sae Breck	Esha Ness
42	Snabrough	Unst (South)
43	Stoura (=Brough o'Setter)	Walls
44	Tumlin (=Houlland)	Walls
45	Underhoull	Unst (West)
46	Virkie (=Pool of Virkie)	Dunrossness
47	Wadbister	Nesting (South)
48	Watsness	Walls
49	West Burrafirth	Sandness

Table 31 (continued)

Site Name	District/Parish
Definite (continued)	
50 West Houlland	Walls
51 Windhouse	Yell (Mid)
Acceptable	
52 Brough Lodge	Fetlar
53 Infield (=Mossbank)	Toft
54 Loch of Burraland	Northmavine
55 Musselbrough	Unst (South)
56 Southvoe (of Boddam)	Dunrossness
Possible	
57 Barra Holm	Whiteness
58 Bousta	Sandness
59 Brough (1)	Bressay
60 Burland (2)	Trondra
61 Burrian	Nesting (South)
62 Burwick	Scalloway
63 Gord	Cunningsburgh
64 Hamnavoe	Esha Ness
65 Heglibster	Weisdale
66 Holm of Benston	Nesting (South)
67 Islesburgh	Brae
68 Loch of Brow	Dunrossness
69 Loch of Kettlester	Yell (South)
70 Mail	Cunningsburgh
71 Scousburgh	Dunrossness
72 Skelberry	Dunrossness
73 Symbister	Whalsay
74 Vidlin	Lunnasting
75 West Sandwick	Yell (South)
Doubtful	
76 Baliasta	Unst (North)
77 Benston	Nesting (South)
78 Bixter Voe	Walls
79 Breiwick	Yell (North)
80 Brindister Voe	Sandness
81 Brough (3)	Whalsay
82 Burgastoo	Brae
83 Burgo Taing (=Burra Voe)	North Roe
84 Burrastow	Walls
85 Colvadale (=Brough Taing)	Unst (South)
86 Cunnisbrough	Sandness
87 Easter Skeld (=Houllands)	Skeld
88 Friarsbrough (=Freyersbrough)	Foula
89 Gloup	Yell (North)

Table 31 (continued)

Site Name	District/Parish
Doubtful (continued)	
90 Graveland	Yell (North)
91 Grunasound	West Burra
92 Heogan	Bressay
93 Hevdas	Lerwick
94 Hillswick	Esha Ness
95 Hogaland	Whiteness
96 Knowe of Houlland	Sandwick
97 Leira Ness	Bressay
98 Mailand	Unst (South)
99 Marki	Northmavine
100 Olnesfirth	Northmavine
101 Orbister	Northmavine
102 Pinhoulland	Walls
103 Skeo Hill	East Burra
104 Stava Ness	Nesting (North)
105 Wester Skeld	Skeld
Rejected	
106 Burga Water (1)	Lunnasting
107 Burga Water (2)	Sandness
108 Corn Holm	Nesting (South)
109 Gletness	Nesting (South)
110 Isbister, Kame	North Roe
111 Isbister (2)	North Roe
112 Isle of Fethaland	North Roe
113 Loch of Brindister	Lerwick
114 Railsbrough	Nesting (South)
115 Ruir Taing	Fetlar
116 Sandwick	Unst (South)
117 Snabrough	Fetlar
118 Stoal	Yell (South)
119 Strandibrough	Fetlar
120 Sumburgh Head	Dunrossness
121 Woodwick (=Flubersgerdie)	Unst (North)

Source: Fojut 1980, Volume 3

Table 32 Shetland: Brochs with Outworks

1 Aith, Bressay
2 Aithsetter, Cunningsburgh
4 Belmont, Unst (South)
6 Brough Holm, Unst (West)
8 Burgar Stack, Unst (North)
9 Burland (1), Lerwick
10 Burraland (1), Sandwick
11 Burraland (2), Walls
12 Burra Ness, Yell (Mid)
14 Burravoe (2), Yell (South)
16 Clickhimin, Lerwick
18 Cullingsburgh, Bressay
19 Culswick, Skeld
20 Dalsetter, Dunrossness
22 Eastshore, Dunrossness
25 Fugla Ness, Toft
27 Greenbank, Yell (North)
29 Head of Brough, Yell (South)
30 Holm of Copister, Yell (South)
31 Houbie, Fetlar
32 Housabister, Nesting (North)
34 Jarlshof, Dunrossness
35 Levenwick, Dunrossness
36 Loch of Houlland, Esha Ness
38 Mousa, Sandwick
40 Noss Sound, Bressay
41 Sae Breck, Esha Ness
42 Snabrough, Unst (South)
43 Stoura, Walls
44 Tumlin, Walls
45 Underhoull, Unst (West)
47 Wadbister, Nesting (South)
48 Watsness, Walls
52 Brough Lodge, Fetlar
59 Brough (1), Bressay
61 Burrian, Nesting (South)
64 Hamnavoe, Esha Ness
73 Symbister, Whalsay
75 West Sandwick, Yell (South)

Source: Fojut 1985, 81-2

Table 33 Shetland: Brochs with Surrounding Buildings

1 Aith, Bressay
4 Belmont, Unst (South)
10 Burraland (1), Sandwick
12 Burra Ness, Yell (Mid)
15 Clevigarth, Dunrossness
16 Clickhimin, Lerwick
18 Cullingsburgh, Bressay
19 Culswick, Skeld
20 Dalsetter, Dunrossness
22 Eastshore, Dunrossness
23 Feal, Fetlar
25 Fugla Ness, Toft
26 Gossabrough, Yell (South)
27 Greenbank, Yell (North)
30 Holm of Copister, Yell (South)
34 Jarlshof, Dunrossness
35 Levenwick, Dunrossness
36 Loch of Houlland, Esha Ness
38 Mousa, Sandwick
42 Snabrough, Unst (South)
48 Watsness, Walls
56 Southvoe, Dunrossness
58 Bousta, Sandness
75 West Sandwick, Yell (South)

Source: Fojut 1985, 81-2

CHAPTER 22 SUB-REGIONAL COMPARISONS AND SYNTHESIS

The research in this thesis, combined with the recent research on brochs in Orkney and Shetland, constitutes a fairly extensive reappraisal of the subject of brochs throughout the main areas of their occurrence in Atlantic Scotland. Only some outlying areas, such as the Outer Hebrides and the so-called Lowland brochs, have yet to be reviewed and integrated, although some excavation and research is currently taking place in the former area (Professor Harding, Department of Archaeology, University of Edinburgh). There seems therefore a sufficient basis of new information to offer some significant comments on the topic of brochs, and on past, present, and future archaeological thought in relation to it. It is the object of this final chapter of Part Five to synthesise the major research findings from the various areas, and to draw out the implications arising for understanding the general nature of brochs. Chapter 23 in the final part of the thesis considers archaeological thought on brochs and future approaches to their study.

Section 22.1 below summarises, compares, and contrasts the main conclusions about the nature of brochs which have emerged from research in the various areas, with particular reference to site morphology and chronology. Section 22.2 goes on to identify sub-divisions of the population of brochs on a sub-regional basis. These sub-regional areas do not necessarily match the geographical and modern administrative boundaries which have been followed both in this thesis and in the research of others.

22.1 Synthesis

Some of the main conclusions arising from recent research on brochs in Caithness, Sutherland, the Isle of Skye, Orkney, and Shetland are presented in matrix form in Table 34 (pp483-4). Synthesis of the research findings is not a simple task, as there is much variety in the range of conclusions drawn, some of it arising from variation in the nature of the brochs under study, some from variation in the quality of the available archaeological evidence, and some from variation in the emphasis of the disparate researches. One of the

first major points that has to be made is that enormous gaps in knowledge on brochs still remain despite a century of past research, and despite recent attempts to reach a new understanding. For example, it cannot be said that a full survey record exists for all broch sites. As a consequence the number of brochs in Caithness, Orkney and Shetland identified as having outer defences and/or surrounding buildings (see Table 34, pp483-4) must remain a minimum figure until detailed field analysis of the kind undertaken in this thesis has been completed across Atlantic Scotland. It is disappointing that recent research on brochs in both Orkney and Shetland did not include full detailed field survey of all potential sites. Equally, the survey undertaken for this thesis covered only a sample of brochs (apart from the Isle of Skye study area). Full survey of the brochs in Caithness and Sutherland should obviously be completed at an early date. Until survey is completed throughout the main areas of broch occurrence in the north, there can be little certainty even about the likely surviving population of brochs.

Broch Numbers

Traditional estimates of the population of brochs have always calculated the total as about 510 (Graham 1946-7; MacKie 1965a; Hamilton 1968; see Appendix 2). It seems highly likely that this is an underestimate. It has been demonstrated that the potential total of brochs in Caithness could be at least 200. In Orkney there is a large number of sites which have yet to be properly assessed, and no attempt has been made to locate possible destroyed sites. In Sutherland there may still be sites to be found. In Skye there are odd gaps in distribution, which may point to missing sites. In Shetland there are a number of doubtful sites. Given this kind of information, it seems possible that the surviving population of brochs throughout Scotland may be considerably in excess of 510.

Contemporary Landscapes

The past landscapes of some of the main areas of broch occurrence show remarkable similarities, in that geomorphic, climatic, and edaphic factors are thought to have changed little since at least Neolithic times. This is the opposite of many past views of palaeo-environments,

which envisage a steady deterioration throughout prehistory across Scotland. There have nonetheless been some substantial changes in landscape. In Sutherland where settlement and land use has always been marginal except in very favoured areas, there is evidence of downslope migration throughout the first millennium BC, presumably in response to deteriorating climate, so that by the broch period arable cultivation may have been restricted to the valley floors and lower slopes. There is also evidence that the Sutherland straths may have supported a reasonable tree growth until very recent times, so that there should have been an adequate supply of structural timber during the broch period. In Skye the north of the island may have changed little since prehistory, but there is some evidence that the modern treeless appearance of the south of the island is of recent origin, as in Sutherland. Again timber may have been locally available for use in construction.

By contrast Caithness, Orkney, and Shetland have changed relatively little in terms of their climax vegetation. Major agricultural improvements in Caithness, and almost certainly in Orkney, have however taken place, and have severed the brochs totally from their contemporary landscape and land use context. None of these three areas appears to have had any substantial tree growth in prehistory, except in very favoured locations, and there must consequently have been a chronic shortage of structural timber. Shortages in Orkney and Shetland may have been relieved by driftwood, perhaps exclusively, but this source seems out of the question for Caithness, as the sea currents are unfavourable, and many brochs are located miles from the coast. The Caithness Plain of all the areas in Atlantic Scotland must have had the greatest problem with supplies of timber for roofing and other structural uses. Even if woodland management or importation of timber is envisaged, it seems likely that many structural requirements in the Caithness Plain must have been met by the use of flagstone, and not wood. This raises some interesting questions about whether and by what means brochs in Caithness were roofed. It should be noted that there is little evidence of integral scarcements in Caithness brochs. By contrast scarcements are present in every other area of broch occurrence which has been examined, including Orkney, and they were probably a common feature of broch structures in Sutherland and Skye.

It seems likely that the surrounding buildings at Caithness brochs were built almost entirely without the use of wood, the cellular nature of the buildings, and the plethora of upright flagstones seeming to support this view. The surrounding buildings in many ways could be said to fit sensibly into the landscape context within which they were developed, whereas the broch structure does not. For Caithness therefore there are still no answers to the following questions:

Why is the broch structure so different from its surrounding buildings?
Was it roofed?
How was it roofed?
For what was it used?

Function

Caithness is not unusual in terms of the last question above in that there is very little evidence from the whole of Atlantic Scotland for the primary function and purpose of broch structures. It has been asserted for Orkney that the broch structure was simply a house, but no attempt has been made to explain why it differs so markedly both from its surrounding buildings and from other contemporary sites. If it is accepted that broch structures in Orkney, Caithness, East Sutherland and probably Shetland, had contemporary buildings around them from the beginning of broch use and that these buildings were houses, it does not seem reasonable to suggest that the broch structure was just another house. Either there are some very particular functional or socio-political reasons for the structural differences, or the function of the surrounding buildings has been misinterpreted. The former explanation seems the most likely.

The precise nature and function of the broch structure in a Caithness or Orkney context may be difficult to establish, but there seems little doubt that the most basic function of a broch site in either the north or the west was related to the occurrence of cultivable land. This is particularly noticeable in more marginal areas such as the Sutherland straths and Skye. All of the brochs in the Sutherland straths are located close to cultivable land, as are all of the sites

in Skye with two exceptions. Shetland by contrast is an anomaly in the general pattern with about one third of brochs apparently not related to land capable of cultivation. This conclusion would seem to require some checking as it is so at variance with the general pattern, but it may indicate a significant variation in contemporary agricultural practice in Shetland.

Site Morphology

There seems little doubt that broch sites in Caithness, Orkney, Shetland, and Eastern Sutherland consist of more than single broch structures. Table 34 (pp483-4) indicates that a large number of sites in the first three areas show evidence of surrounding buildings, usually contained within a defensive system enclosing the whole complex. Given the number of sites identified as having surrounding buildings, it seems reasonable to suggest that such buildings were an integral part of broch site design, and should therefore be fully considered in attempting to reach a further understanding of brochs. There are also grounds for recognising that there is a considerable depth of stratigraphy within both the broch structure and the surrounding buildings, and that many broch sites in the north had a long history, with continuous rebuilding of the surrounding buildings being a feature of the sites.

There is evidence that isolated broch structures are very rare within the Caithness Plain, and that the sub-regional type site is a broch structure with surrounding buildings, or a broch complex. This may also be the case in Orkney, but fieldwork has yet to confirm it. By contrast broch complexes may exist only partially in Shetland, and are known to exist in Sutherland only in the eastern lowlands. Towards the west in the Sutherland straths, and on the west coast, the broch structure stands entirely alone with or without enclosing defences, although the possibility of timber surrounding buildings cannot be dismissed. This is a remarkable contrast within the general population of brochs which does not seem to have been particularly commented on before, the full extent of the occurrence of surrounding buildings being perhaps not realised.

There is substantial evidence from all areas of broch occurrence that

defence was a primary requirement of site design. In areas offering natural defensive opportunities, such as Shetland, the Sutherland straths, and Skye, brochs are generally located to take advantage of such opportunities. In addition artificial defences were deployed to reinforce or to replace natural defensive capabilities. In the Caithness Plain and in Orkney, where there are few natural defensive opportunities, brochs may generally have had substantial artificial outworks which have been particularly vulnerable to processes of erosion. The very strong need for defence evident in all areas must point to particular pressures, which have yet to be identified. These need not have been external pressures, but may have been internal to the communities.

There is considerable variety in broch structures throughout the area of their occurrence. Variation in brochs has been noted before, in particular the occurrence of northern and western strains of brochs. There are undoubted structural differences between northern and western brochs, and the solid based and ground-galleried division can be confirmed. Variety in brochs is however much more complex. There is evidence that brochs in the west and in Shetland form fairly homogeneous groups of structures which could have been built over a relatively short period of time. By contrast brochs in the Caithness Plain and in Orkney do not form homogeneous groups, but display instead great variety of structural details. In addition features occur in these two areas which are not to be found elsewhere, such as, two stairs and two entrances. Two contemporary ground level entrances to the broch structure are more common than previously recognised, but seem to be confined entirely to the Caithness Plain, possibly to the east of the Plain. Two entrances to a broch structure do not occur at all in Orkney. The variety of structural detail in Caithness and in Orkney may perhaps be the result of the lengthy period over which brochs in these two areas appear to have been built and used. The design of the broch structure can reasonably be expected to have changed over the centuries during which it was built, particularly in reponse to the problems of structural instability manifest at several sites in Caithness and Orkney.

In the Sutherland straths, the interlinking area between north and

west, it is interesting that broch structures seem generally to become more complex in design the further inland in the straths they are located. Those furthest inland seem much more comparable to the brochs of the west coast than they are to brochs in the Caithness Plain and Orkney. Increasing structural complexity in brochs could possibly be a reflection of a chronological gradient.

Chronology

In chronological terms there is now a clear variation in broch structures between north and west. Broch structures in the west have been demonstrated by a series of radiocarbon dates not only to be much later foundations, but also to have much shorter individual site histories. Some broch structures in the north have now been placed much earlier in the Iron Age than previously recognised, and continuous use of some sites for centuries is indicated, a conclusion perfectly in keeping with the depth of archaeological stratigraphy so obvious at many broch sites in Caithness and Orkney. It is possible that broch foundation in the north may date back as far as the Bronze Age/Iron Age transition, with broch structures continuing to be built in the north over several centuries up to, and beyond, the period when they began to be built in the west. The implication of this conclusion is that it is no longer possible to view all brochs in Caithness and Orkney as contemporary sites. The actual distribution pattern over several centuries may have varied considerably, with some sites going out of use and other sites being developed. It may be possible to establish in the field a means of distinguishing those broch sites with a long history of constant use from those which are late foundations or early abandonments. There is unfortunately no dating evidence from the interesting interlinking area of the Sutherland straths, a very obvious gap in attempting to understand the details of broch chronology.

22.2 Divisions of the Population of Brochs

The approach to exploring the nature of brochs adopted both in this research and by Hedges and Fojut has been to work within geographical or modern administrative boundaries, such as, the Orkney Islands or

Caithness District. This has been purely a matter of convenience, except in the work of Fojut where the geographically defined area of the Shetland Islands was deliberately chosen to facilitate the use of methods of spatial analysis. There can be many types of sub-regions, defined by geography, social interaction, or politics. Any or all of these influences may have operated in the past, and today's perception of sub-regional areas need not necessarily have operated in prehistory.

It has become clear in this thesis that the area of broch occurrence in Atlantic Scotland is not homogeneous, and that there is in fact substantial variation in brochs which cannot be simply explained as northern and western broch types. The variation is much more complex, and there are in fact a number of sub-regional divisions of the population of brochs, which may be capable of further sub-division in future as research proceeds. The sub-regional areas which may be identified at present are as follows:

(1) The Caithness Plain/Orkney/Eastern Lowlands of Sutherland
(2) Shetland
(3) The Sutherland Straths
(4) The West Coast

The Caithness Plain/Orkney/Eastern Lowlands of Sutherland

There is a constant tendency in archaeological thought to separate Caithness and Orkney, because of the geographical division of the Pentland Firth. Hence Hedges studied brochs in Orkney, and brochs in Caithness were examined in this thesis. Apart from the presence of the Firth, there are few good reasons for the separation. The Firth is narrow, and Orkney is constantly in sight from the mainland. The underlying geology is the same, the climate is basically the same, and the capabilities of the land for agriculture are similar. There is good historical evidence for strong links between the two areas from Norse times onwards, and these links may have roots much further back in prehistory. It can also be demonstrated that there are very substantial similarities between sites called brochs in the Caithness Plain and sites called brochs in Orkney. It seems a distortion of the perception of brochs in either area, to examine one in isolation from

the other. It is therefore suggested that the Caithness Plain and Orkney with the Eastern Lowlands of Sutherland form one sub-regional area within the general distribution of brochs, and that a broch site which may be described as a broch complex is a normal feature of the sub-region. Definition of this sub-regional area does not imply that there are no significant differences within it, which may become clearer as research proceeds. Indeed in this, the most chronologically complex of the sub-regional areas, substantial variation should be expected to occur.

Shetland

Shetland is not included in the Caithness/Orkney/Eastern Lowlands of Sutherland sub-region for a variety of reasons. Sea distances are greater, and the geology and agricultural capabilities of the islands are not comparable with the areas to the south. There are certain similarities in the broch sites, but there are also some important differences, for instance, in the correlation of brochs with cultivable land. Until further research is carried out, it seems reasonable to envisage the Shetland Islands as a separate sub-region of the area of broch occurrence, but one not totally dissociated from the area to the south.

The Sutherland Straths

The modern administrative area of Sutherland includes a variety of geographical areas within it. The fertile lowlands of the east have been included in the Caithness/Orkney/Eastern Lowlands of Sutherland sub-region above. The underlying geology is the same, and the coastal strip offers similar agricultural opportunities to the Caithness Plain. The brochs lying within the Eastern Lowlands also have much more in common with the brochs in the Caithness Plain than they do with the brochs in the Sutherland straths. The straths offer substantially different environments to that of the Eastern Lowlands. The straths differ from each other in size, orientation, and fertility, but they form a reasonably homogeneous sub-region within the general distribution of brochs. There are however two types of broch occurring within the sub-region, heavily defended broch structures, and open, undefended broch structures. The

interrelationships between the two types have yet to be established.

The West Coast

The north-west coast of Atlantic Scotland may be viewed as another sub-region within the general distribution of brochs. It is separated from areas of broch occurrence to the north and to the east both by geographical factors and by an intervening absence of broch sites. It is possible that the west coast does not form a homogeneous zone, but there is as yet insufficient information to allow further sub-division of the area. The brochs within the sub-region, particularly the Isle of Skye, seem to form a relatively homogeneous group in terms of site morphology and chronology. It may be reasonable to suggest that brochs in this sub-region had more substantial linkages with contemporary stone built structures of other types in the area, such as galleried duns, than they perhaps had with brochs in the north.

Table 34 Synthesis of Main Conclusions

	CAITHNESS	ORKNEY	SHETLAND	SUTHERLAND	SKYE
BROCH NUMBERS	at least 200	130?	75+?	80+?	about 30?
PAST LANDSCAPE	treeless arable and peat	treeless arable and peat	treeless some arable	trees in straths, arable in valley floors, restricted arable on slopes	treeless in N trees in S, some arable
OUTER DEFENCES	49 sites minimum figure	14 sites minimum figure	39 sites minimum figure? natural defence common	35 sites about maximum figure, natural defence common	20 sites, but enclosing walls rather than defensive natural defence common
SURROUNDING BUILDINGS	86 sites minimum figure common feature	38 sites minimum figure common feature	24 sites minimum figure?	rare in E lowlands only	absent
BROCH STRUCTURE	i variety of plan ii sometimes two two entrances iii sometimes two stairs iv no scarcements v complex wall? vi flagstone interiors	i variety of plan ii one entrance iii sometimes two stairs iv scarcements v complex wall? vi flagstone interiors, some wood	i homogeneous group ii one entrance iii stairs rare? iv scarcements vi no evidence for interiors	i variety of plan ii one entrance iv scarcements common? vi no evidence for interiors	i homogeneous group ii one entrance iv scarcements common? v ground galleries common vi no evidence for interiors

Table 34 (continued)

	CAITHNESS	ORKNEY	SHETLAND	SUTHERLAND	SKYE
FUNCTION	full complex a settlement no evidence for broch structure	probably as per Caithness for full complex broch structure a house	connection with arable land sometimes no evidence for broch structure	connection with arable land no evidence for broch structure	connection with arable land no evidence for broch structure
GENERAL CHRONOLOGY	at least 400 BC to 200 AD probably same range and complexity as Orkney brochs	6-700 BC to 3-400 AD complex, sites not necessarily contemporary	? to 200 AD?	no evidence	100 BC to 100 AD

PART SIX

CHAPTER 23 THE WAY FORWARD

In the final chapter it remains to assess the contribution which has been made by this thesis to a new understanding of brochs, and to examine the implications arising for future approaches to their study. The contribution is considered to consist of a number of elements:

(1) detailed field analysis of a representative sample of the primary source material, that is, the brochs sites themselves (see site catalogue);

(2) an analysis of discrete groups of brochs in terms of potential relationships with their contemporary environment in order to assess site distribution, locational criteria, and potential site function (see Chapters 5, 11, and 16);

(3) a critical review of the major elements of broch site morphology by sub-regional area, with synthesis of the information across most of the area of broch occurrence in Atlantic Scotland (see Chapters 6, 7, 8, 12, 13, 17, 18, 20, 21, and 22); and

(4) a reappraisal of archaeological perceptions in respect of the study of brochs.

The detailed contribution of the first three elements above have already been summarised in the relevant chapters, and also in Chapters 9, 14 and 19 in relation to original work in Caithness, Sutherland and Skye. The conclusions which have been reached about the true natures of brochs throughout Atlantic Scotland are extensive, and have considerable implications for the methodology of archaeological thought on brochs, the fourth element above. This element of the contribution to a new understanding is considered to be the most significant of the four. Amendments to archaeological perceptions now seem crucial to achieving further understanding. Conclusions in this respect have not been brought together elsewhere in the thesis, and it seems most appropriate that they should be presented in this final chapter.

Section 23.1 below examines past approaches to the study of brochs in the light of the new information presented in this thesis,

highlighting problems in previous thought processes. Section 23.2 goes on to consider terminology and classification, which are becoming increasingly confused as the label of "broch" is seen to encompass sites divergent in both structure and chronology. Finally section 23.3 suggests a general methodology for further research on brochs based on the range of perceived variations in the overall population, rather than the conventional approach which deals exclusively in structural evolution.

23.1 The Conventional Wisdom

In the introduction to this thesis it was pointed out that everyone thinks he knows what a broch is, or rather was. The description of the typical broch has appeared in countless textbooks and articles, and its features are extremely well known. The very strong image of a broch as a towering architectural achievement has persisted over a century of broch studies, and it is still proving to be extremely durable and resilient. The truth of this statement is obvious in the recent interim report on the excavation at Howe, Stromness, where three superimposed massive circular structures were each given a different label (Carter et al 1984) - (1) roundhouse, (2) later roundhouse or early broch, and (3) broch tower, despite the fact that they were very similar structures; that the second one was the most broch-like; and that there was little evidence that the third was a tower. The appellation of "broch tower" seems only to have been attached to the third structure, because the radiocarbon dates for this phase (Phase 7) fall within the traditional date range for brochs (Carter et al 1984, 72). This seems a classic example of the strong popular image of the typical broch distorting interpretation of evidence, so that the third massive structure at Howe is made to appear a different entity from the two preceding structures, when in reality it is little dissimilar. It is hoped that this distortion will have been amended by the time of the publication of the final report of the Howe excavation. Otherwise the traditional image of a broch will have been further perpetuated against the trend of the evidence.

It is hoped that this thesis has demonstrated that brochs are generally dissimilar to the textbook image of the typical broch which

is based on Mousa in Shetland. Fojut (1981) has already disputed that Mousa is typical of all brochs, either in Shetland or further afield, to the extent that it can reasonably be questioned whether Mousa should even bear the label of broch. It is not possible to put another image in Mousa's place, and say that it is instead typical of brochs, for typicality is not a word that has any relevance to the general population of brochs. There is substantial variation across the population and typicality can only be said to occur within the sub-regional areas defined in Chapter 22, and even within these, there is variety which may point to chronological or other differences. It is only really on the west coast that brochs come close to resembling the textbook image of the typical broch, with their galleried walls, their scarcements, their other well known structural features, and their traditional chronological period. Elsewhere there are occasional structures which match the image, such as the brochs far inland in the Sutherland straths. In Caithness and Orkney however brochs are very unlike the textbook image as follows:

(1) there is no evidence that they were towers;
(2) they may have been very unstable structures;
(3) some in Caithness appear to have had two entrances;
(4) there is little or no evidence of wooden internal furnishings, and no real evidence of scarcements in Caithness;
(5) they did not stand alone but were only part of a large complex of buildings and defences; and
(6) they appear to have been built over a very lengthy period, and may date back to the Bronze Age/Iron Age transition.

The resilience of the textbook image of the broch in the face of evidence to the contrary is perhaps the most remarkable element in the whole history of broch studies. The non-typicality of the popular image of the broch has in fact been obvious for a very long time. For instance, it has been known since the antiquarian period that there are buildings and defences around brochs in the north, although the extent of these may not have been fully appreciated. It has also been known for a while that some brochs in Caithness have two entrances and two stairs, and that all of those excavated in Caithness and Orkney had some kind of internal stone partitioning, with a considerable

depth of stratigraphy both inside and outside the broch structure. In addition it should have been realised that there has always been a chronic shortage of structural timber in Caithness and Orkney, and that construction methods in prehistory would have reflected this, with raised wooden floors inside brochs being a most unlikely occurrence as a general rule.

There have been occasional attempts to question the typicality of the popular image of a broch, that by Sir Lindsay Scott (1947) being the earliest. His view was severely criticised at the time, and is still not given much credibility, although it seems that he may have been more than a little right. A more recent attempt to criticise the popular image (Hedges 1987) has met with an even more vituperative response (MacKie 1987). Why has the stereotype persisted so long, when it clearly does not match the available evidence?

There seem to be two possible reasons for the reluctance to set aside the popular image of the broch as being basically untrue. The first is the lack of detailed study of brochs after the period of Victorian enthusiasm. Further work was done throughout the twentieth century, but it was very selective. Surveys of brochs did not provide sufficiently detailed descriptions or adequate plans of broch sites, generally noting only the visible features of the broch structure (RCAHMS 1911a, 1911b, 1928, 1946). In particular the inventory of Caithness (RCAHMS 1911b) gives no real idea of the true nature of brochs in that area. Those syntheses of brochs which took place after the second world war seem to have relied heavily on the secondary sources of the RCAHMS inventories, rather than returning to the primary source of the broch sites. Only Mackie seems to have re-examined some primary source material, but he selected only those sites where features of the broch structure are visible (MacKie 1973), and totally ignored the occurrence of any other features at the sites.

The second reason seems to lie in the very attractiveness of the popular image of a broch. The Victorians had created the view that a broch was a magnificent architectural achievement, proud, bold, and mysterious. In the twentieth century brochs came to be associated almost with the golden age of a warrior aristocracy, with each chieftain having his broch built for him. There seems to have been a

marked reluctance to recognise that brochs are not magnificent architectural achievements, and were in fact far more mundane, sometimes prone to structural collapse in Caithness and Orkney. There was also reluctance to recognise that there are far too many brochs in Caithness and Orkney for them all to have been the seats of chieftains, or even refuges set up by chieftains for their subjects.

The magnificence of the popular image of the broch seems to have been a particularly insidious influence in past broch studies, instilling a general disbelief that such a structure could have been an indigenous product of Atlantic Scotland. As a consequence brochs were related to the migration of Celtic speaking peoples to Atlantic Scotland, who came to dominate the "native" population. The presence of exotic artefacts and a perceived evolution in structural design were advanced in support of such a view (MacKie 1965a etc; Hamilton 1956 etc). This has perhaps been the worst distortion in the whole of the history of broch studies, blocking for many years the capability to see brochs in any other way. As long as brochs were thought to have been constructed during the traditional date range of the first century BC/first century AD, it was possible to argue for the validity of the above view. The early dates for brochs in the north have now strongly contradicted it, although it is noticeable that it is still being argued that brochs have to have been the result of an exogenous influence (Hedges 1987, 38). It seems incredible that no-one is willing even to consider that brochs could simply have been invented locally within Atlantic Scotland by an indigenous population in response to certain conditions. Instead of pursuing fleeting glimpses of migrating people, it might be far more interesting and instructive to seek possible economic, social, and political reasons for the invention and spread of the broch structure wholly within Atlantic Scotland.

The modern view of brochs has possibly been the most myopic of any period, restricting consideration entirely to the broch structure and to a few exotic artefacts, ignoring the contemporary landscape, location selection, outer defences, surrounding buildings, site function, other contemporary sites, and the vast range of artefacts which cannot be linked to outside sources. The broch structure was

thereby totally abstracted from any context within which it must have existed, making it extremely unlikely that a true understanding could reasonably be reached. It is time for broch studies to escape from this restrictive thought process, and for the broch structure to be put firmly back into its areal and chronological contexts. It is also time for the stereotype broch to be dispelled for good. It has managed to get thoroughly in the way of trying to understand Atlantic Scotland in the Iron Age.

23.2 Terminology and Classification

The realisation that there is considerable variety and chronological diversity in the class of brochs is causing problems of terminology and classification, which are being allowed to obstruct the way forward to a new understanding. The main proponent of the theory that the broch developed under the influence of Celtic migrants from southern England, made clear the existence of a terminological problem when he asserted that no true broch can be earlier than about 50 BC (MacKie 1983, 125). The existence of the problem is also clear in the interim report on Howe as described above, but it really began with the seminal paper by Hedges and Bell, when they noted that it was possible to redefine Bu in Orkney as a "defended roundhouse" or "proto-broch" (1980, 90). There seems to have been no good reason for this statement other than the early dates for Bu, and Hedges and Bell did note that Bu was similar to many of the "brochs" in Orkney (1980, 90). MacKie prefers however to see Bu, and Crosskirk in Caithness, as massive and relatively low-walled duns or fortified roundhouses (1983, 125). His argument is that a structure may only be called a broch if it has a high hollow wall with superimposed intramural galleries, and that all of these particular structures will be found to be no older than 50 BC.

MacKie's true broch is a minority group within the general class of brochs. This was pointed out in 1984, when it was noted that MacKie's true broch formed only about 12% of the class (Swanson 1984, 20; see Appendix 1). Fieldwork since that date has increased slightly the number of brochs known to have superimposed galleries within their

walls (see site catalogue), but they still form a very small minority of the structures labelled as brochs. The majority of the broch class exists in Caithness and Orkney, and individual members of the class in these areas exhibit a variety of intramural features, but there are few examples of superimposed intramural galleries. Hedges noted that four brochs in Orkney seem to have high level galleries, those at Mid Howe and Gurness being superimposed above a ground level gallery, those at the East Broch of Burray and Hillock of Burroughston being superimposed above a solid base (1987, Part III, 154-5). In Caithness there is no evidence either of ground level galleries, or of upper level galleries superimposed above a solid base, although the brochs of Bail a'Charn and Yarrows do have very long stairfoot chambers at ground level which could possibly be interpreted as partial galleries. There is also little evidence of integral scarcements in Caithness, suggesting that the walls of broch structures may not have risen very high.

It is possible that MacKie's supposition about the late date of broch structures with high walls consisting of superimposed galleries may be correct. Many of these structures exist on the west coast, where they are probably not much earlier than the first century BC (see Chapter 17). Brochs with superimposed galleries also exist far inland in the Sutherland straths, and there is a possibility that these structures may also be fairly late in date (see Chapter 13). In addition Fojut has concluded that Mousa, with its high wall of superimposed galleries, is a late structure (1981, 227). It is therefore perfectly reasonable for MacKie to hold that a structure with a high hollow wall of superimposed galleries will date from about 50 BC onwards. It is not reasonable however for him to imply that this particular structure is the only <u>true</u> broch, unless he can show some significant functional and socio-political differences between it and the majority of the structures presently in the broch class. At present the only difference which can be demonstrated by reference to the broch structure alone is a potential chronological variation, with broch structures possibly becoming architecturally more complex over time. No exogenous influences seem particularly necessary to explain the occurrence of variety in architectural design over a long period of time.

Comparison of the morphology of the broch structure across Atlantic Scotland does not seem to provide a reasonable basis for defining sub-types of the broch class beyond two simple statements:

(1) complex broch structures exhibiting a wide range and variety of intramural features, including superimposed galleries, may generally be later in date; and

(2) complex broch structures seem to be more common towards the west, possibly suggesting a late start to broch building outside the core area of construction in the north where building had already been taking place for several centuries.

In the present state of knowledge of brochs it seems misleading and unwise to define sub-types of the broch class solely on the basis of the architectural details of the broch structure. There are nonetheless some very distinct variations in the sites included in the broch class, as pointed out in Chapter 22. These variations arise from a much wider consideration of the nature of broch sites, than solely the design of the broch structure. For example it is clear that brochs in Caithness, Orkney, East Sutherland, and sometimes in Shetland differ from brochs elsewhere in having a number of buildings around the broch structure. These brochs have been named "broch complexes" throughout the thesis to emphasise this very material difference.

It was suggested in Chapter 22 that the population of brochs in Atlantic Scotland could be sub-divided by reference to a number of sub-regional areas, the brochs falling within each area having more in common with each other than with those in other sub-regional areas. It is more than likely however that substantial variety should be expected to occur even within a single sub-regional area, as is clearly the case in the Sutherland straths, where both enclosed and unenclosed brochs occur. It may be therefore that definition of sub-types in the broch class are beginning to emerge, but it seems premature in the present state of knowledge to hasten to replace the current terminology with a different and larger set of labels. The general label of "broch" is clearly insufficient, or there would have been no requirement to invent the label of "broch complex" to describe the brochs of the Caithness Plain.

References above to true brochs demonstrate the considerable dangers which lie in too early an attempt to differentiate amongst the broch class. The popular image of the typical broch is still too prevalent, and early distinctions within the broch class could lead to a wholesale rejection of interest in the majority of the structures in the class, in favour of the pursuit of a few which are wrongly perceived as being more intriguing. It seems sensible to reiterate the statement made by Hedges and Bell when noting the substantial differences between Bu and Gurness in Orkney:

"It is too tempting to replace one type of monument with two; things are never that clear cut.... The contrast is great but it is seriously hoped that the types will not harden for it would be premature. There is a long way to go before we will reach a better understanding of this period of prehistory in the area in question." (Hedges and Bell 1980, 93-4).

23.3 The Way Forward

Perhaps the most significant contribution of this thesis to archaeological thought on brochs is the recognition that brochs cannot be studied in general terms as a single class of structure across the whole of Atlantic Scotland. There is substantial variation, some of it perhaps arising from the very different environments occurring over such a wide geographical area. The Caithness Plain and Orkney are fertile, capable of producing agricultural surpluses, whereas Shetland, Sutherland and the west coast are far more marginal. It should be expected that conditions prevailing in prehistory in these disparate areas would have been different, and that responses would have consequently varied.

It is suggested that the only reasonable way forward to achieving a better understanding of brochs is by detailed study of the individual histories of settlement and land use in the disparate sub-regional areas of Atlantic Scotland. It seems clear that brochs cannot be divorced from their contemporary environments if they are to be understood. It also seems clear that they must be set in a chronological context, and linked to preceding and succeeding periods. Knowledge of the Bronze Age and the Pictish/Norse periods may be of as much value in understanding brochs, as knowledge of the brochs

themselves.

It is further suggested that the greatest advance in understanding brochs will be achieved by studying them in the area of their densest occurrence in Caithness and Orkney. The two areas should not be divided, but should be seen as a single sub-regional area which probably had substantial linkages in prehistory. There seems very little doubt that Caithness/Orkney is the area where the broch form developed, as first suggested by Fairhurst (1984, 181). It may be suggested that the almost total neglect and interest in Caithness brochs throughout the twentieth century has been one of the principal reasons that the broch is so little understood despite over a hundred years of study, and it is perhaps little wonder that past views of brochs have been so out of focus.

The work on Caithness brochs in this thesis and by Hedges on Orkney brochs has begun the process of redresssing the balance of broch studies, but there is still a long way to go before the broch will be understood wherever it occurs. One lesson which has been learned is that the Iron Age in Atlantic Scotland is far too complex to be explained by simple typologies and sweeping generalisations. Past explanations of brochs have been both too simple and too sweeping. There is a need now to study in considerable detail the complexities within the various sub-regional areas of Atlantic Scotland, before any more general statements about brochs are made. This thesis is offered as a contribution to that long term process of achieving a new understanding of brochs.

APPENDICES

APPENDIX 1 PUBLISHED RESPONSE TO MACKIE 1983 (SWANSON 1984)

Scottish Archaeological Review 3, 19-21

THE PROBLEM OF THE PROBLEM OF THE BROCHS

*C.B. Swanson**

It is interesting that in Mackie's latest affirmation of his theories on the brochs (S.A.R.,2, ii), he refers to 'the problem of the brochs', the title of Sir Lindsay Scott's paper to the Prehistoric Society nearly forty years ago. The brochs then appear to be as much of a problem as ever. In view of the imminence of new evidence which may enlighten broch studies (Hedges in litt.; Fairhurst in litt.), it seems pertinent to ask what exactly is the problem of the brochs?

In the 1940s the problem was seen as one of explaining intelligibly the function, reasons for existence, and original height of the structures known as brochs (Scott 1947, Graham 1947). To Mackie the problem now is one of a disagreement between archaeologists about how the appearance and spread of Iron Age brochs is to be explained, as if many of the aspects of the former problem had been solved. The opposing viewpoints in this disagreement have been well aired. In Mackie's view brochs were developed in the west and spread quickly north where a large number were built in a relatively short time. In views opposed to Mackie there is an indication that the timespan of brochs may be longer than Mackie proposes, and that northern brochs may be older than western brochs (Caulfield 1980, Hedges and Bell 1980).

But there would appear to be yet another problem beginning to emerge from the debate over western versus northern origins, a problem both fundamental and serious posing a central difficulty in any discussions regarding the relationships of brochs over time and area. That problem may be expressed by a very simple question — **what is a broch?** Without some basic agreement over the answer to this question, there can be no confidence over the legitimacy of any analysis involving the many structures traditionally included in the broch class.

The problem of which structures may legitimately be labelled 'broch' has always hovered on the fringes of broch studies, particularly with regard to structures in the west which have appeared to be less readily classifiable than structures in the north. Northern structures by contrast have carried the label broch seemingly comfortably for a long time and no need has been perceived for justification of their classification. But recent contributions to the broch debate (Hedges and Bell 1980, Fojut 1982, Mackie 1983) seem to demonstrate a certain growing difficulty in the use of the label broch particularly with regard to those northern structures which previously seemed unassailable in their classification.

Fojut has enquired whether Mousa is a broch and has concluded that it is, but that no other broch is a Mousa. Yet Mousa since the time of the antiquaries has represented 'the broch', its outline familiar from repeated presentation in textbooks concerned with giving a general description of brochs. Hedges and Bell when faced with an early radiocarbon date for Bu and the apparent inflexibility of the definition of a broch both architecturally and chronologically, have stated that Bu could be redefined as a 'defended round house' or a 'proto-broch'. But at the same time they have maintained that many Orkney brochs are similar to Bu and it is not reasonable to omit Bu from a distribution map of brochs.

Mackie on the other hand has been absolutely clear about what he means by a broch for the past eighteen years. He is anxious that it must be defined exactly. It is a circular, drystone, towerlike building with a specialised series of architectural features including a high, hollow wall. There are two crucial diagnostic features of the class, an upper mural gallery, or a void in the inner wall face, the only reliable indicators of the former existence of a high, hollow wall. Chronologically his broch development theory requires that no true broch, that is having evidence of a high, hollow wall, can be earlier than 50 BC.

No one has yet disproved Mackie's theory on broch evolution in terms of Mackie's own exact definition of a broch. Neither Bu nor apparently Crosskirk (Fairhurst 1966) exhibited either of the two crucial diagnostic features of a true broch. Therefore Mackie is able to insist that they must have been low walled duns or fortified round houses, but they could not have been brochs. On this basis no one will disprove Mackie's theories to his satisfaction until the early radiocarbon dates at Bu and Crosskirk are repeated in a northern structure with undoubted evidence for the former existence of a high, hollow wall.

In the 1980s the problem of the brochs would appear to be at risk of becoming an intractable

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problem of semantics. The dismissal of Bu and Crosskirk from the class of broch by Mackie in order to defend his chronology must immediately place question marks against many structures included in that class, providing endless scope for argument about what is or is not a broch. But two questions should surely be asked before the argument is allowed to develop any further:

1 Does Mackie have reasonable justification for his insistence on his particular structural definition of a broch?
2 Is there a case for a serious re-assessment of the classification of the structures of the Atlantic Iron Age?

The structural aspects of Mackie's theory of broch evolution were derived from analysis of the structural characteristics of a sample of brochs drawn from a potential population estimated as 513 (Mackie 1974). Circularity of plan and an appropriate diameter were the minimum criteria for accepting a structure as a probable broch. The existence of features such as cells, scarcements and thick walls were taken to be indicators that structures were more likely to have been brochs, but an upper mural gallery or void in the inner wall face was necessary to identify a structure as a definite broch.

To be in a position to dismiss Bu and Crosskirk as legitimate tests of his theory of broch development, Mackie must be able to demonstrate that in his own analysis to arrive at his theory he rigorously observed the strict definition by which he wishes to disqualify these structures. Mackie's sample consisted of 120 brochs, selected because in every case it was possible to measure external and internal diameters to allow a calculation of wall proportion, an important element in Mackie's proposed progression from ground galleried to solid based design as the brochs spread to the north. No attempt was made to select only those structures which could definitely be classed as brochs because they possess either or both of the two crucial diagnostic features. Only 42 brochs in fact of the 120 selected exhibit such features.

If Mackie insists on dismissing Bu and Crosskirk, logic dictates that he thereby jeopardises the very basis on which he formulated his theory of the structural evolution of the brochs, because 65% of the brochs which he included in his analysis, by his own argument, may not have been brochs at all. Crosskirk was in fact one of the sample of 120, included because of its circularity of plan, thick wall, intramural stair and guard cell. In 1974 Mackie was in no doubt that it was a solid based broch. How many others of the 120 should he therefore now be doubting?

In terms of the total broch population which Mackie estimated as 513, less than 60, that is c.12%, qualify as brochs according to Mackie's definition. This percentage may be improved as structures are revealed by excavation but the majority are so badly ruined that it seems unlikely that many more will be capable of identification in Mackie's terms as true brochs. Mackie suggests that the dating of a site is also an identifier, as no true broch should be earlier than 50 BC. But as such dating is not available for the vast majority of Iron Age structures, there would seem to be no suitable mechanism to identify those sites which Mackie wishes to see as true brochs. Accordingly the problem of the brochs cannot be as Mackie supposes. There is no means of explaining the appearance and spread of the brochs if it is no longer clear how many structures must be considered or even where they are.

The real problem of the brochs has in fact existed since Anderson gave the Rhind lectures in 1881. Recent arguments over classification represent only an intensification of a very persistent problem. That problem is that broch studies have been constrained by the existence of a particular image of the broch, encapsulated in the structural description of the typical broch, which is little dissimilar from Mackie's true broch. The evidence must fit this image or be rejected as not relevant. The probelem has been recognised before. Scott in 1947 thought that brochs were too often discussed 'under the shadow of the gaunt tower of Mousa'. More recently Hedges and Bell have noted that the broch class of monument was defined early in physical terms and that the concept of it has changed little over time.

The problem of the brochs is that new evidence is beginning to demonstrate that the traditional structural definition of the broch first detailed by Anderson may be inflexible and unproductive of a better understanding of what may have been happening in the Iron Age in Atlantic Scotland. Such an occurrence should not be particularly surprising or unexpected as very few relics of antiquarian endeavour are now relevant to modern archaeological research. There is little value in clinging to a particular structural definition handed down from Victorian times, if evidence is beginning to point in other directions. The class of broch is beginning to appear to be a whole series of structures differing perhaps in age, perhaps in function. The forthcoming reports on Crosskirk, Gurness and Howe should provide a considerable reservoir of material for investigation of these aspects.

A considerable case may be made for a radical re-assessment of the brochs outside the limitations imposed by a narrow structural definition and the author is currently engaged on research in this respect. The problem of the brochs should not be allowed to develop into a problem of defining exactly the meaning of the label 'broch'. There are already sufficient problems in extracting intelligible meaning from the majority of sites generally held to be of Iron Age construction and occupation in the Atlantic Province.

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APPENDIX 2 ENUMERATIONS OF THE POPULATION OF BROCHS

Enumeration of the Population of Brochs by Joseph Anderson 1874

Shetland	75
Orkney	70
Caithness	79
Sutherland	60
Ross (Mainland)	10
Ross (Isle of Lewis)	28
Inverness (Mainland)	6
Inverness (Isle of Harris)	10
Inverness (Isle of Skye)	30
Inverness (Isle of Raasay)	1
Perthshire	1
Forfarshire	2
Stirlingshire	1
Berwickshire	1
Total enumerated	374

Source: Anderson 1890 (first published 1874), 198
(Details of sites, 179-197)

Enumeration of the Population of Brochs by Angus Graham

Region	Brochs	Broch Sites	Uncertain Examples	Total	Comparable Structures
Shetland	51	30	14	95	2
Orkney	42	20	43	105	--
Northern Mainland	169	17	41	227	2
West Coast & Inner Islands	28	--	21	49	28
Outer Islands	8	--	20	28	6
Central & Eastern Mainland	6	--	2	8	--
Totals	304	67	141	512	38

Source: Graham 1946-7, 51 (for details of sites see over)

Enumeration of the Population of Brochs by JRC Hamilton

Brochs	327
Broch Sites	67
Uncertain Examples	117
Total	511

Source: Hamilton 1968, 172 (for details of sites see 172-181)

Details of Sites From Graham 1946-7, 91-9
(Numbers in Brackets Refer to Relevant RCAHMS Inventory)

SHETLAND

Brochs

Aithsetter (1141)
Brough Holm (1548)
Burgar Stack (1544)
Burra Ness (1716)
Burraland (1607)
Clevigarth (1147)
Clumlie (1145)
Dalsetter (1146)
Eastshore (1148)
Footabrough (1608)
Gossabrough (1718)
Hamnavoe (1353)
Head of Brough (1721)
Holm of Copister (1720)
Houlland (1396)
Infield (1116)
Jarlshof (1149)
Loch of Houlland (1352)
Loch of Kettlester (1719)
Mousa (1206)
Nounsburgh (1394)
Sna Broch, Unst (1546)
Stoal (1717)
Wadbister Ness (1499)
West Houlland (1398)
Windhouse (1723)

Balta (1596)
Burga Water (1606)
Burland (1247)
Burraland (1143)
Burravoe (1114)
Clickhimin (1246)
Culswick (1397)
East Burra Firth (1395)
Feal (1211)
Fugla Ness (1115)
Greenbank (1715)
Hawk's Ness (1500)
Hoga Ness (1545)
Houbie (1212)
Housabister (1282)
Islesburgh (1354)
Levenwick (1144)
Loch of Huxter (1605)
Loch of Watsness (1609)
Noss Sound (1085)
Sna Broch, Fetlar (1210)
Southvoe (1142)
Underhoull (1547)
West Burra Firth (1393)
West Sandwick (1722)

Broch Sites

Aith (1106)
Barra Holm (1529)
Brough (1107)
Brough (1343)
Brough Taing (1580)

Baliasta (1579)
Brei Wick (1744)
Brough (1277)
Brough Lodge (1238)
Burgan (1386)

SHETLAND (continued)

Broch Sites (continued)

Burland (1535)
Burrastow (1673)
Burrian (1308)
Heogan (1105)
Knowe of Houlland (1188)
Loch of Stavaness (1307)
Musselburgh (1582)
Sand Wick (1581)
Stoura Brough (1674)
Symbister (1342)
Burra Voe (1384)
Burravoe (1745)
Burwick (1528)
Houllands (1468)
Loch of Burraland (1387)
Mail (1187)
Orbister (1385)
Scousburgh (1190)
Sumburgh Head (1189)
Vidlin (1306)

Uncertain Examples

Bousta (1610)
Burga Water (1284)
Fethaland (1355)
Heglibister (1501)
Loch of Brindister (1248)
Lunabister (1152)
Skelberry (1151)
Brindister (1399)
Cullingsburgh (1086)
Gord (1150)
Loch of Benston (1283)
Loch of Brow (1153)
Pinhoulland (1611)
Wester Skeld (1400)

ORKNEY

Brochs

Berstane (405)
Braebuster (624)
Burgar (261)
Burray (East) (862)
Burrian, Corrigal (12)
Burrian, Russland (14)
Burwick (817)
Dingieshowe (625)
Gurness (263)
Hillock of Breckna (486)
Hunda (863)
Knowe of Burrian (551)
Knowe of Dishero (265)
Lamb Head (947)
Loch of Ayre (360)
Mid Howe (553)
Ness of Woodwick (264)
Oxtro (11)
Skogar (16)
Taft (15)
Westside (552)
Borwick (679)
Breckness (920)
Burness (321)
Burray (West) (861)
Burrian, N Ronaldsay (193)
Burroughston (778)
Castle of Bothican (522)
Green Hill (379)
Helliar Holm (806)
Howe of Hoxa (815)
Ingshowe (322)
Knowe of Burristae (1034)
Knowe of Stenso (262)
Lingro (406)
Loch of Clumly (678)
Ness of Ork (777)
Netlater (13)
Point of Buryan (437)
Steiro (779)
Verron (260)
Wasso (438)

Broch Sites

Arion (939)
Burrowstone (1023)
Brough (851)
Colli Ness (473)

ORKNEY (continued)

Broch Sites (continued)

Dennis Ness (205)
Harray Church (138)
Hunton (980)
Loch of Westhill (801)
Redland (320)
Scockness (606)
Stackrue (677)
Tofts (430)
Harra (852)
Hoor Ness (1071)
Knoll of Skulzie (1072)
Overbrough (139)
Scar (182)
Smiddybanks (850)
Stromness (940)
Westbrough (183)

Uuncertain Examples

Backaskaill (159)
Burrian, Garth (21)
Cantick (1006)
Deerness Church (629)
Green Hill of Hesti Geo (1008)
Green Hill, Walls (1007)
Hillock of Baywest (949)
How Farm (158)
Howe of Langskaill (627)
Knowe of Gullow (22)
Knowe of Ryo (267)
Loch of Isbister (17)
Mithouse (19)
Ness of Boray (313)
North Howe (557)
St Mary's Kirk (24)
Scarrataing (681)
Tankerness (626)
The Skeo (1009)
Verron (682)
Vinquin (266)
Weems Castle (816)
Braebister (380)
Burrian, Harray (680)
Cummi Howe (872)
Finstown (323)
Green Hill, Stronsay (948)
Hall of Rendall (270)
Hodgalee (1035)
Howan (20)
Kirk of Cleaton (23)
Knowe of Hunclett (555)
Loch of Hundland (18)
Mamie Howe
Nebister (160)
Newark (439)
Riggan of Kami (628)
St Tredwell's Chapel (523)
Scockness (554)
The Howe (921)
Tingwall (268)
Viera Lodge (556)
Wass Wick (269)

CAITHNESS

Brochs

Achanarras (99)
Achavar (199)
Achies (98)
Achlochlan Moss (102)
Achow (208)
Achvarasdal Lodge (353)
Appnag Tulloch (218)
Ballachly (192)
Berriedale (203)
Borrowston (510)
Brimside Tulloch (434)
Bruan (193)
Burg Ruadh(207)
Camster (189)
Acharole (466)
Achbuiligan Tulloch (350)
Achingale (473)
Achorn (214)
Achunabust (351)
Achvarn (112)
Balantrath (213)
Bell Mount (431)
Berriedale (205)
Brabstermire (37)
Brounaban (511)
Burg Langwell (201)
Burn of Latherwheel (212)

CAITHNESS (continued)

Brochs (continued)

Camster (522)
Castlehill (320)
Coghill (469)
Dale (104)
Elsay (521)
Framside (111)
Gansclet (501)
Golsary (220)
Greysteil Castle (222)
Gunn's Hillock (194)
Hempriggs (504)
Hillhead (520)
Keiss (515)
Knockglass (117)
Knockinnon (216)
Leosag (109)
Mid Clyth (195)
Murkle (319)
Mybster (96)
North Calder (110)
Nybster (518)
Old Stirkoke (499)
Road Broch, Keiss (517)
Rumster (219)
Scottag (470)
Sibmister (321)
Skirza Head (35)
Spittal (100)
Spittal (474)
Thing's Va (432)
Thrumster Little (503)
Tiantulloch (196)
Tulach Bad a'Choilich (202)
Tulach Mor (108)
Tulloch of Shalmstry (437)
Upper Borgue (206)
Upper Sour (114)
Warehouse (190)
Watten (468)
Wester Watten (464)
Whitegate, Keiss (516)

Carn na Mairg (105)
Cnoc Donn (103)
Crosskirk (347)
Dunbeath (215)
Everley (36)
Freswick Links (34)
Gills (53)
Green Tullochs (348)
Gunn's Hillock (2)
Ha' of Durran (436)
Hill o' Works (3)
Hoy (435)
Knock Urray (349)
Knockglass (475)
Latheronwheel (211)
Lynegar (471)
Minera (197)
Murza (63)
Ness (33)
Norwall (508)
Occumster (198)
Ousedale Burn (204)
Roster (191)
Scotscalder (113)
Scrabster (429)
Skinnet (116)
Smerral (209)
Spittal (101)
Tannach (500)
Thrumster (502)
Thurdistoft (318)
Toftgun (525)
Tulach Beag (107)
Tulloch of Lybster (346)
Tulloch of Stemster (344)
Upper Latheron (217)
Usshilly Tulloch (221)
Watenan (524)
Wester Broch (513)
Westerdale (106)
Yarrows (509)

Broch Sites

Achies (180)
Ha' of Bowermadden (22)
Kettleburn (588)
Rattar Burn (84)

Auckingill (52)
Hoy Station (179)
Kilmster (507)
Stemster (54)

Uncertain Examples

Achies (97)

Banks of Watten (465)

CAITHNESS (continued)

Uncertain Examples (continued)

Bilbster (514)
Bowertower (19)
Cairn of Dunn (462)
Cairn of Humster (506)
Camster (18)
Carn a'Chladda (467)
Creag Leathan (352)
Gearsay (472)
Geise (430)
Ha' of Greenland (64)
Halcro (1)
Hill of Stemster (505)
Hollandmay (39)
Housel Cairn (115)
Knockglass (171)
Loch Watenan (526)
Old Hall of Dunn (461)
Old Hall of Dunn (463)
Olrig Glebe (322)
Olrig House (323)
Oust (455)
Rattar (83)
Scarfskerry (62)
Scoolary (38)
Scrabster (433)
Smerral (210)
Stemster (345)
Thuster (519)
Tulloch Turnal (200)
Ulbster (523)

SUTHERLAND

Achaneas (50)
Achaneas (51)
Achcoillenaborgie (183)
Allt a'Choire Mhoire (312)
Allt an Duin (182)
Allt an Duin (313)
Allt Breac (395)
A'Mheirle (478)
Armadale Burn (190)
Backies (272)
Brae (107)
Camas an Duin (157)
Carn Barn (468)
Carn Liath (187)
Carn Liath (270)
Carn Mor (53)
Carrol (27)
Castle Cole (25)
Clachtoll (7)
Coich Burn (23)
Coill' Ach a'Chuil (176)
Dail Langwell (49)
Dalchork (394)
Doir a'Chatha (52)
Duchary (28)
Dun Carnachaidh (180)
Dun Chealamy (179)
Dun Creagach (175)
Dun Dornaigil (Dornadilla) (155)
Dun na Maigh (527)
Dun Riaskidh (529)
Dun Viden (181)
Dunrobin Wood (271)
East Kinnauld (477)
Eldrable (309)
Feranach (314)
Forsinain (186)
Grummore (174)
Gylable Burn (311)
Inshlampie (178)
Killin (26)
Kilournan (310)
Kilphedir (307)
Kintradwell (467)
Kyle of Tongue (530)
Kylesku (168)
Langdale Burn (177)
Loch Ardbhair (4)
Loch Mor (189)
Loch Shin (391)
Sallachadh (392)
Sandy Dun (184)
Shiness (393)
Skelbo Wood (106)
Suisgill (308)

Broch Sites

Clerkhill (265)
Cnoc Chaisteal (386)
Dun Buidhe (544)
Dun Phail (387)
Kilbrare (24)

SUTHERLAND (continued)

Broch Sites (continued)

Midgarty (476)
Wilkhouse (476)

Uncertain Examples

Borgie Bridge (185)
Learable (315)
East Kinnauld (479)
Torrisdail (528)

ROSS

Brochs

Caisteal Grugaig, W Ross
Dun an Ruigh Ruadh, W Ross
Gledfield, E Ross
Croick, E Ross
Dun Lagaidh, W Ross

Broch Sites

Dun Alascaig, E Ross
Leckmelm, W Ross

Uncertain Examples

Carn Mor Baileuachdrach, E Ross
Dun Mor Doune, E Ross
Carn Mor Birchfield, E Ross
Upper Lechanich, E Ross

WEST COAST AND INNER ISLANDS

Brochs

Abhuinn Bhaile Mheadonaich, Skye (481)
Dun Ard an t'Sabhail, Skye (478)
Dun Arkaig, Skye (480)
Dun Beag, Skye (479)
Dun Bhoreraic, Islay
Dun Boreraig, Skye (505)
Dun Borodale, Raasay (575)
Dun Borrafiach, Skye (510)
Dun Colbost, Skye (506)
Dun Edinbain, Skye (512)
Dun Fiadhairt, Skye (508)
Dun Flashader, Skye (513)
Dun Gearymore, Skye (511)
Dun Greanan, Skye (539)
Dun Hallin, Skye (509)
Dun nan Gall, Mull
Dun Osdale, Skye (507)
Dun Raisaburgh, Skye (540)
Dun Sleadale, Skye (477)
Dun Suladale, Skye (618)
Dun Telve, Glenelg
Dun Troddan, Glenelg
Glen Heysdal, Skye (514)
Kingsburgh (619)
Sean Dun, Mull
Teroy, Wigtown (28)
Tirefuar, Lismore

Uncertain Examples

An Dun, Lismore
Ardwell, Wigtown (433)
Dun Boraige Moire, Tiree
Dun Bornaskitaig, Skye (564)
Dun Borve, Skye (515)
Dun Borve, Skye (620)
Dun Choinnich, Skye (605)
Dun Feorlig, Skye (516)

WEST COAST AND INNER ISLANDS (continued)

Uncertain Examples (continued)

Dun Garsin, Skye (482)
Dun Hiader, Tiree
Dun Liath, Skye (655)
Dun Mor a'Chaolais, Tiree
Dun Urgadel, Mull
Sean Chasteal, Mull
Stairhaven, Wigtown
Dun Heanish, Tiree
Dun Ibrig, Tiree
Dun Mhadaidh, Mull
Dun Mor Vaul, Tiree
Mullach Dubh, Mid Argyll
Sean Dun, Lismore

OUTER ISLANDS

Brochs

Dun a'Chaolais, Vatersay (442)
Dun Borve, Lewis (11)
Dun Cromore, Lewis (38)
Dun Torcuill, N Uist (172)
Dun an Sticir, N Uist (171)
Dun Carloway, Lewis (68)
Dun Cuier, Barra (441)
Loch an Duna, Lewis (10)

Uncertain Examples

Dun Airnistean, Lewis (33)
Dun Ban, Barra (446)
Dun Borranish, Lewis (74)
Dun Borve, Harris (125)
Dun Chlif, Barra (448)
Dun na Buaile Uachdraich, S Uist (374)
Dun Sleibhe, Lewis (30)
Dun Stuigh, Gt Bernera (70)
(69)
Dun Vulan, S Uist (375)
Dunan Ruadh, Pabbay (447)
Dun Aligarry, S Uist (427)
Dun Baravat, Gt Bernera (71)
Dun Borve, Berneray
Dun Buidhe, S Uist (373)
Dun Loch an Duin, Barra (445)
Dun Sandray, Sandray (444)
Dun Smirvig, Lewis
Dun Traigh na Berie, Lewis

Dunan Ruadh, Fuday (443)
Loch Baravat, Lewis (36)

CENTRAL AND EASTERN MAINLAND

Brochs

Bow Castle, Midlothian (233)
Edinshall, Berwickshire (115)
Tor Wood, Stirlingshire
Coldoch, Perthshire
Struy, Inverness-shire
Torwoodlee, Selkirkshire

Uncertain Examples

Hurley Hawkin, Angus
The Laws, Angus

(Since this list was drawn up by Angus Graham further RCAHMS inventories have been published, and some excavations have taken place. As a result some sites can now be transferred from the category of uncertain examples to the category of definite broch, such as Dun

Traigh na Berie, Lewis and Dun Mor Vaul, Tiree. Several sites on the west coast have been identified as structures other than brochs and should be taken out of the list, such as Dun Hiader, Tiree and Dun Mhadaidh, Mull, identified as galleried duns by the RCAHMS. Hamilton (1968) published an amended version of Graham's list, and a new gazetteer of brochs is to appear shortly (MacKie forthcoming). Considerable doubt still attaches to the exact identity of many structures tentatively assigned to the broch class, and the lists as presently published can by no means be described as exhaustive.)

APPENDIX 3 REVIEW OF "EXCAVATIONS AT CROSSKIRK BROCH, CAITHNESS" BY HORACE FAIRHURST (1984)

Society of Antiquaries of Scotland Monograph Series 3

Introduction

The excavations at Crosskirk broch in Caithness took place between 1966 and 1972 in five short summer seasons. The broch is located close to the cliff edge on the northern coast of Caithness (ND 0248 7012), and marine erosion was the reason for excavation. It was known that the site was a broch, and the intention was to recover details of the structure. It is clear from the report (Fairhurst 1984, 14) that no remains other than a broch structure were expected, which is perhaps surprising as it had been known since the previous century that there are normally substantial buildings around Caithness brochs (Tress Barry excavations etc). Such buildings are clearly visible at the excavated sites of Nybster and the Road broch, Keiss on the east coast of Caithness. Even the hurried excavation of Killimster (Skitten) broch during the war had noted the occurrence of remains around the broch structure, which there had not been time to explore (Calder 1947-8). It is possible that if the complexity of the remains at Crosskirk had been realised in advance, the decision might not have been taken to excavate the site, or at least not in such short seasons. As it was, the emerging complexity ensured that both the excavation and the interpretation of the site were fraught with difficulties.

The published report (Fairhurst 1984) is the only reasonably comprehensive record of the excavation. The report contains an editorial note (Fairhurst 1984, 9) that the primary site archive can be consulted on application to the Hunterian Museum, University of Glasgow. This would appear to be inaccurate, as the Hunterian Museum seems to hold only material and correspondence relating to the publication of the monograph (Dr EW MacKie pers. comm.). This material contains no additional information to that contained in the monograph, apart from the full faunal report (Fairhurst 1984, 133) (not seen). The NMRS in Edinburgh holds a certain amount of information donated by Mrs Fairhurst following Dr Fairhurst's death. This consists of a few

black and white prints; a large number of black and white negatives; correspondence; some originals for the monograph publication; and an incomplete series of daybooks. The daybooks are an informal diary of events, containing information on the weather, personnel, and a certain amount about the excavation of particular features, with occasional rough sketches. There is a marked absence, both in the published report and the archival material, of plans and sections drawn during the excavation. It is probably reasonable to conclude that the published report is the only real source of information on the Crosskirk excavation, unless further primary material is yet to be found in the Hunterian Museum. The black and white negatives may prove to be another useful source, once they have been printed by the NMRS. The daybooks are less useful.

Contents of the Monograph

The monograph describes the general setting of the Crosskirk broch, placing it in its sub-regional context (Chapter 1), before going on to describe the sequence of excavations between 1966 and 1972, and the perceived archaeological sequence on the site (Chapter 2) (described below). The monograph then considers major archaeological elements of the site chapter by chapter, that is, the outer fortifications (Chapter 3), the broch wall (Chapter 4), the broch interior (Chapter 5), and the external settlement (Chapter 6). Chronological matters are dealt with as they arise within this chapter framework. Later occupation of the site is then considered in chronological order as follows: the later settlement (Chapter 7), and the post-broch period and medieval times (Chapter 8). The final chapters of the monograph deal with the finds from the broch, both artefactual and non-artefactual (Chapters 9 and 10), with a general review of the excavations and the wider significance of Crosskirk bringing the monograph to a conclusion (Chapters 11 and 12).

The chapter framework has the unfortunate effect of fracturing an overall view of the Crosskirk site at any one period in its history. In particular the separate discussion of the external settlement, coupled with no serious attempt to interlink the chronologies inside and outside the broch, make it difficult to tie together the two elements of broch structure and surrounding buildings. Dr Fairhurst

did note that there were particular problems in connecting the stratification inside the broch with that outside, compounded by problems caused by disturbances and levelling (1984, 30). It was only at the broch entrance that opportunities would have been presented to interlink the two chronologies, but there is no specific consideration in the monograph of the sequence in the entrance passage. It is also a pity that, as Barrett remarked (1984, 135), opportunity was not taken to investigate the base levels of the broch structure and their stratigraphic relationship with the surrounding buildings, when the broch was demolished into a cairn at the end of the excavation.

The Crosskirk Sequence

The sequence at Crosskirk was identified and dated by radiocarbon measurements as follows (Fairhurst 1984, 30, 160-3 and 166-8):

Period One Construction of a promontory fort about 400 BC.

Period Two Construction of the broch about 200 BC.

Period Three Domestic occupation of the broch for about two centuries.
Contemporaneous growth of the external settlement.

Period Four Reconditioning of the broch in the second century AD.

Period Five Burials in the settlement area around 600 AD.
Pictish symbol stone.
Construction of St Mary's Chapel in the 13th century.

The Promontory Fort

Dr Fairhurst concluded that the outer defences at Crosskirk predated the broch (1984, 31). A substantial rampart wall was identified at the outer gateway. It was revetted with stone, one slab in thickness, with a core consisting mainly of clay with some small admixture of slabs. The rampart became more of a terrace-like feature towards the west, finally deteriorating into a line of upright slabs. In the vicinity of the outer gateway there was a broad hollow or ditch in front of the rampart, with a possible further hollow or ditch lying outside it (Fairhurst 1984, 36). Dr Fairhurst noted that the rampart noticeably resembled the broch wall in its construction (1984, 32), yet he still concluded that it predated the broch. The evidence for this is

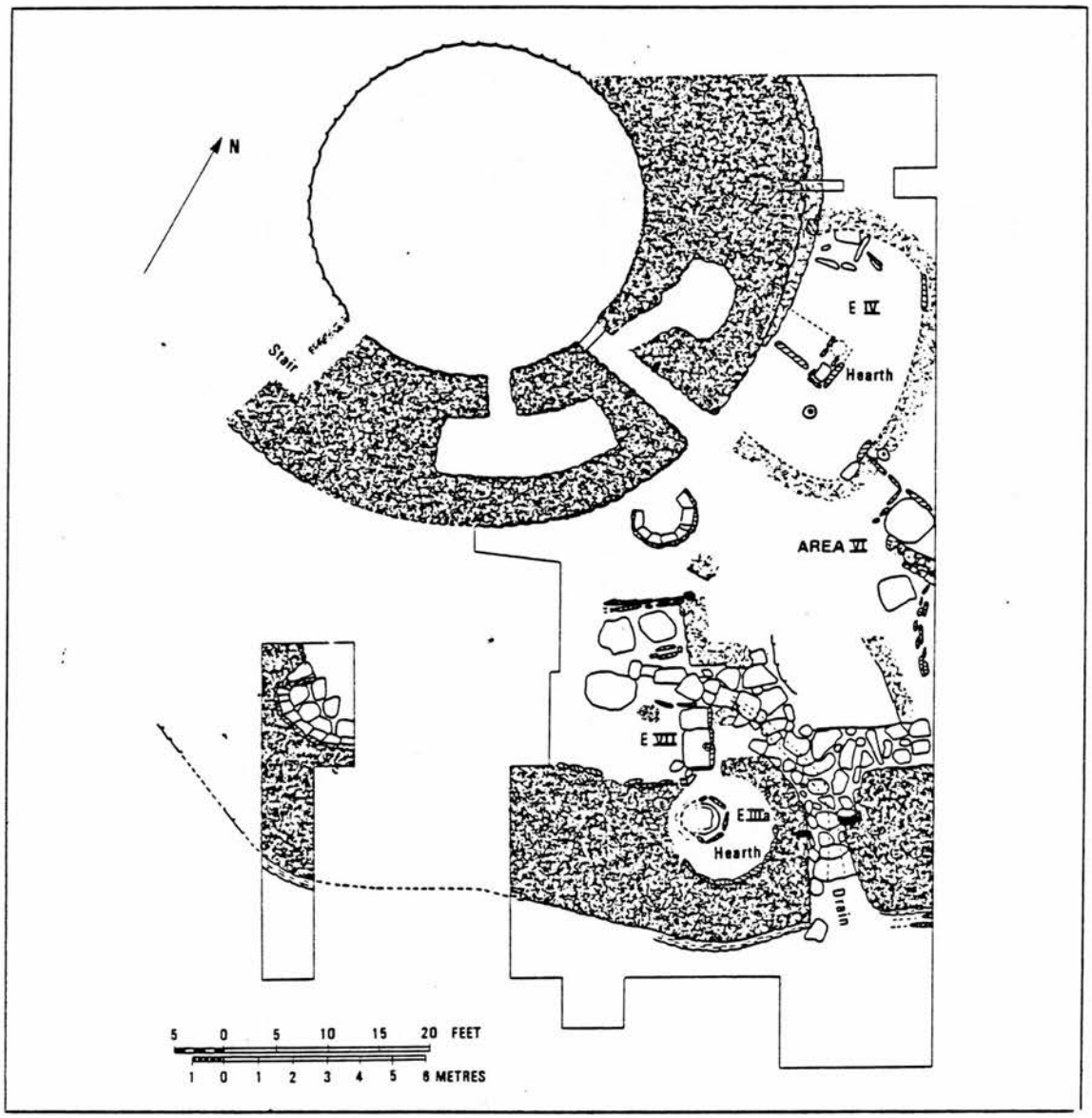
difficult to find in the monograph, but is obviously crucial to the acceptance of a large part of the interpretation of the Crosskirk sequence.

There is no section through the rampart in the monograph. It has to be assumed that it was sitting on bedrock or till (boulder clay) as this is not stated anywhere. Dating of the rampart seems to have been made solely by the presence of sherds of pottery, perceived as being distinct from the pottery found elsewhere on the site. The sherds were found in a clay deposit described as being "built up" to a height of 0.3m within a cell in the rampart wall (Enclosure IIIa on ill. 34, see p511). Similar sherds were found in midden material on the flagged floor of another recess in the rampart towards the west. Fairhurst noted that the pottery "differed markedly from the usual wares of the broch and settlement" (1984, 108) and "must pre-date the construction of the broch" (1984, 33), but at no point in the monograph are the particular arguments for this latter conclusion advanced, either in describing the outer fortifications, in considering the overall chronology of the site, or in the pottery report. It is also noticeable that the sherds in Enclosure IIIa were found in a layer of deposited clay forming the floor of the enclosure. They were presumably introduced with the clay, and therefore probably have very little to say about the particular chronology of Enclosure IIIa. Dubiety about the claimed primacy of the pottery found in the rampart was also noted by Barrett (1984, 135).

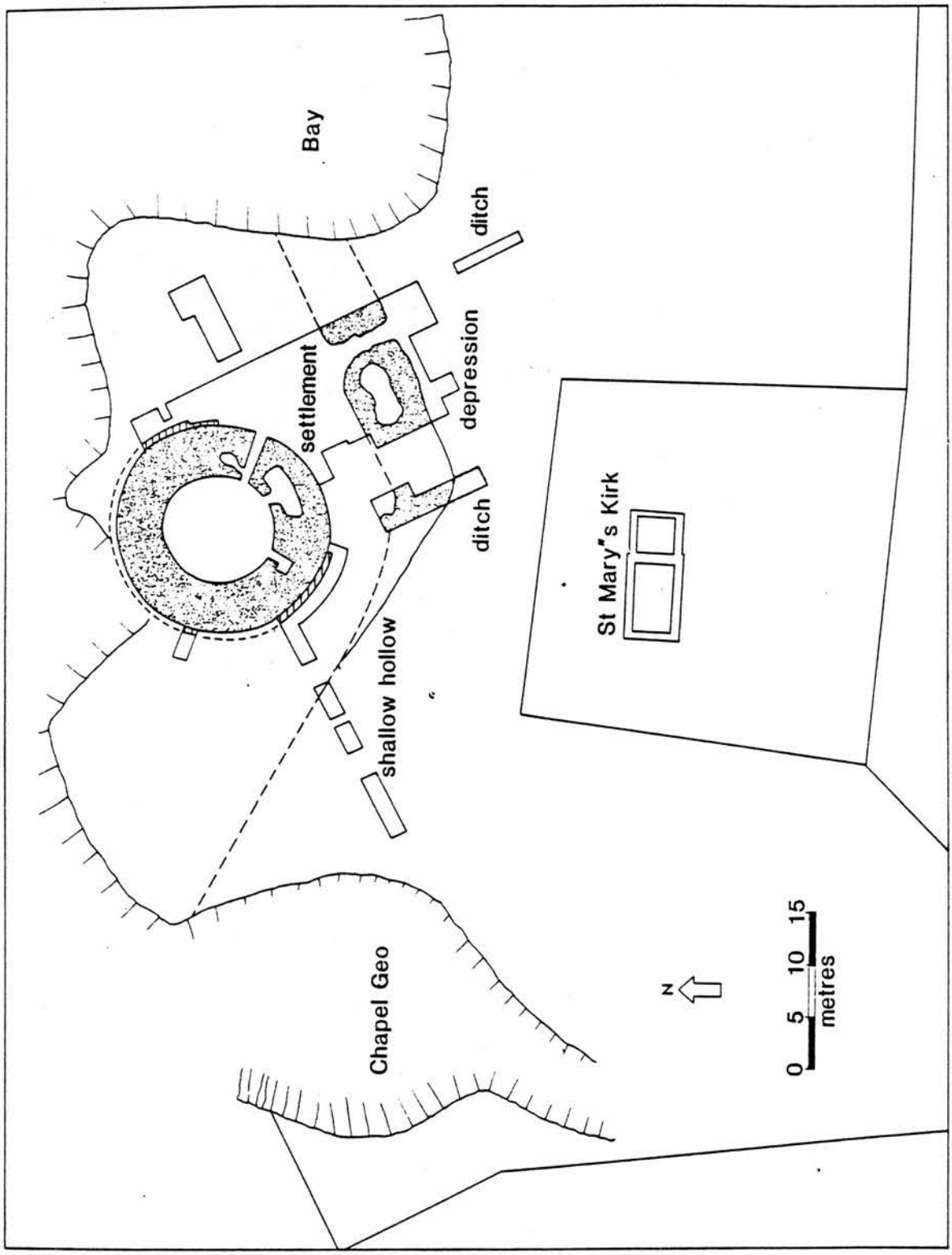
The only other means of dating the rampart is by a radiocarbon date obtained from fragments of charcoal collected close to a hearth located on top of the clay floor with the atypical pottery sherds in Enclosure IIIa:

SRR-268 2120±50 bp 170±50 bc 370 BC - AD 5 (with 95% confidence) (Harkness in Fairhurst 1984, 162).

Fairhurst accepted this date as belonging to the period of broch occupation, and noted that on the surface of the floor around the hearth the occupation material was typical of the broch period (1984, 34). The rampart was clearly in use during the broch period, but its prior dating is not demonstrated in the monograph.



ILL 34 : Plan of the initial structures: Period One to early Period Three. The external fortification is shown in its Period One configuration: the broch as it was constructed in Phase One (Period Two). The settlement area includes all structures pre-dating the late Period Three reconstruction



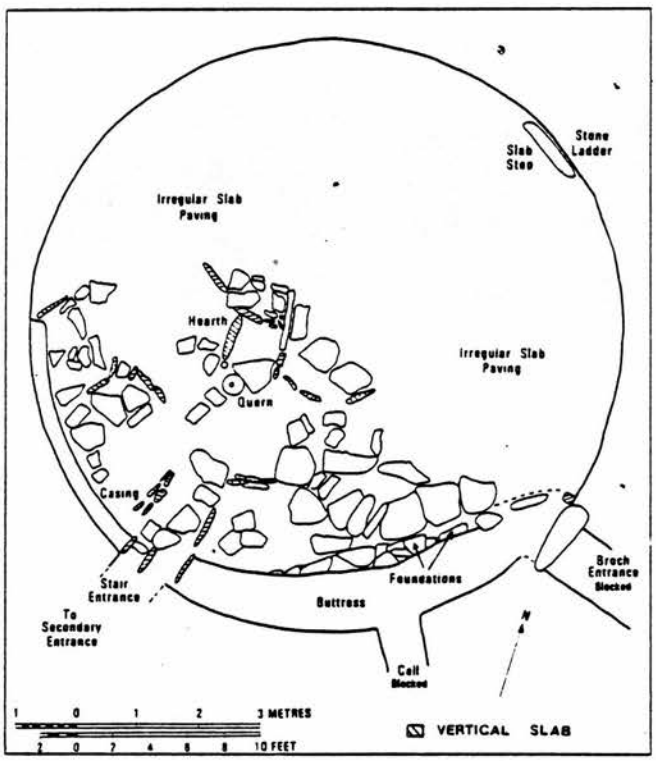
ILL 6 : Site plan showing excavated area

The Broch Structure

The broch wall at Crosskirk was discovered to consist of two stone faces filled with boulder clay, rubble, slabs, domestic refuse, and rounded boulders (Fairhurst 1984, 41). Dr Fairhurst thought it was little wonder that the wall had been cased and buttressed, and that it was very unlikely that it had ever risen higher than about 6m (1984, 46). The nature of the broch wall at Crosskirk questions the basic assumption that brochs were magnificent architectural achievements, an important element of the traditional understanding of a broch. There are other excavated brochs in Caithness which demonstrate a similar propensity to complex walls, such as Road broch, Keiss, where there is a clear external casing, and Killimster, where there were buttresses (see Chapter 8 in the thesis). In discovering the nature of the broch wall at Crosskirk Dr Fairhurst may have found a partial answer to the apparent occurrence of so much earth in broch mounds in Caithness, giving them their distinctive grass covered appearance. Some of this earth may have spilled out from the broch wall core (Fairhurst 1984, 42). The discovery of the nature of the broch wall at Crosskirk demonstrates that some very basic assumptions about brochs may be badly in error.

The design of the broch wall was shown to be fairly simple (ill. 6, see p512), with an intramural stair; two cells, one opening off the passage; and a stone ladder inset into the broch wall and beginning about 1.3m above foundation level. At the time of excavation the wall survived to a maximum height of 4m. Dr Fairhurst identified some slight evidence of a potential upper level gallery and a scarcement (1984, 43), but was very sceptical about its quality. It is reasonable to conclude that there was in fact neither an upper level gallery nor a scarcement at Crosskirk, a view which Dr Fairhurst undoubtedly held, although he did not choose to state it explicitly in the monograph. This conclusion is not out of keeping with the evidence from brochs elsewhere in Caithness (see Chapter 8 in the thesis).

There are brief references in the monograph to a second entrance to the broch structure in the vicinity of the intramural stair (Fairhurst 1984, 47), for which the evidence is not explained. The only evidence would appear to be possible blocking of the broch entrance during



ILL 33 : Crosskirk Period Four: plan of the broch interior in Phase Three

Phase Three (Period Four of site), shown dotted in ill. 33 (see p514). This would have necessitated the construction of a second and secondary entrance. Dr Fairhurst noted confusingly however that the blocking or buttress did not seem to be carried across the main entrance (1984, 54). The possibility of a second entrance at Crosskirk is of particular interest because a number of brochs in the east of Caithness appear to have two primary entrances (see Chapter 8 in the thesis). It would obviously be important if a broch in the north of the District also had two such entrances. It seems clear however that, if there was a second entrance at the foot of the intramural stair at Crosskirk, it could only have been reached by means of a threshold slab, 0.55m above the floor level of the broch, possibly suggesting non-contemporaneity. The slab is mentioned in the monograph (Fairhurst 1984, 47), and is illustrated clearly in a photograph in the NMRS (Photograph CK 1971 9 in envelope marked broch wall). As the wall in the area of the stair seems to have been reduced to foundation level by stone robbing (Fairhurst 1984, 47), the excavation would appear to have been incapable of producing direct evidence for the existence or the nature of a putative second entrance to the broch structure. The record of the excavation of the interior deposits also provides no real clues.

The Broch Interior

There seem to have been considerable difficulties in distinguishing the stratigraphy within the interior of the broch structure. Dr Fairhurst referred to "frustration" in this matter (1984, 55), and communicated informally that there was a distinct lack of layers (Dr EW MacKie pers. comm.). Nonetheless he did distinguish three phases in the interior:

Phase One The original construction and early occupation.
Phase Two Subsequent minor alterations over a period of time.
Phase Three A late, radical reorganisation.

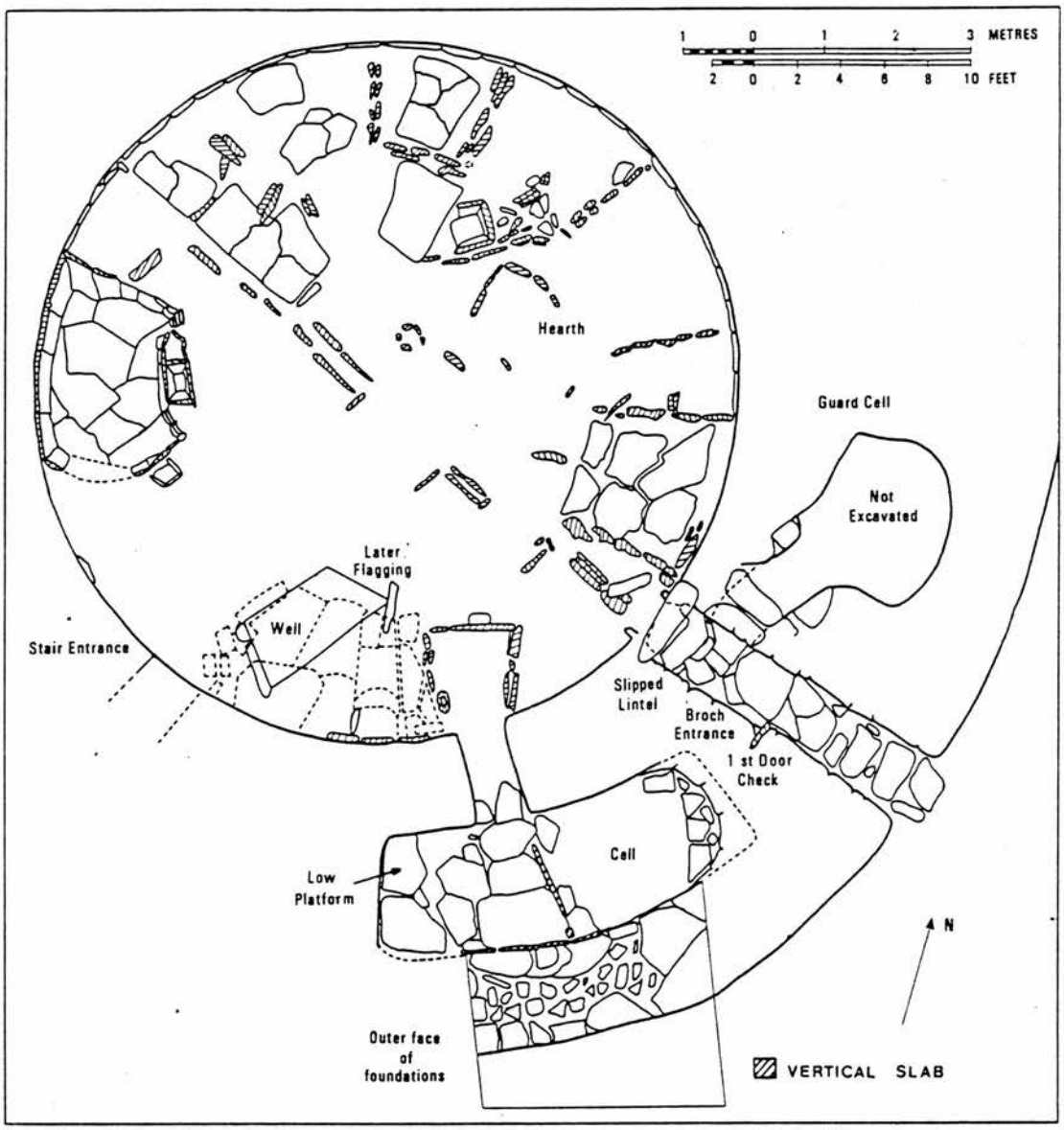
The wall of the broch is recorded as sitting on boulder clay, taken as being the natural surface (Fairhurst 1984, 41). Inside the broch there were a number of features apparently cut into the natural, and therefore identifiable as primary features. These were hollows which

had contained slab sided tanks, and a rock cut cavity or well. Dr Fairhurst was careful to stress that there were no post-holes (1984, 57). Immediately beneath a large flagstone in the centre of the broch some litter-like material gave a radiocarbon date as follows:

SRR-266 2380±45 bp 430±45 bc 760 BC - 380 BC (with 95% confidence) (Harkness in Fairhurst 1984, 162).

Dr Fairhurst chose to interpret this date as being contemporaneous with his putative earlier promontory fort and not with the broch (1984, 57). There would seem to be no justification for this conclusion. The evidence for the priority of the outer rampart has been shown above to be doubtful, and Dr Fairhurst made no attempt to assign any features in the broch interior to an earlier occupation of the site. He may perhaps have been nervous about attributing such an early date to the construction of the broch, as it falls so far outside the traditional date range of brochs. It is perfectly possible that the early radiocarbon date does in fact give a terminus post quem for the construction of the broch, bringing Crosskirk within the date range for the construction of Bu and the first massive circular structure at Howe in Orkney (see Chapter 20 in the thesis), further affirmation of the very early dates of northern brochs.

Dr Fairhurst attempted to work out the original arrangements of the broch floor, but noted that this was difficult as it had clearly been reorganised from time to time (1984, 60). The Phase One arrangements in the interior are depicted in ill. 28 (see p517), showing the chocking stones of a bisecting partition, radial partitions, and an off-centre hearth. This plan of the primary arrangements is slightly worrying, as Dr Fairhurst noted (1984, 60). The bisecting partition approaches the inner end of the entrance passage so closely, that it must have impeded movement. It does not seem sensible that such an arrangement would have existed in the primary phase of broch use, unless there was another entrance which was not impeded. It is possible that Dr Fairhurst did not identify correctly the full elements of the primary floor plan. For example, he noted that during the excavation of the last small area of "primary" pavement, the flagstones collapsed to reveal the well, the mouth of which had been flagged over and sealed down with clay (Fairhurst 1984, 57). This



ILL 28 : Crosskirk Period Two: plan of the Phase One arrangements within the broch

would imply that the pavement was not after all primary. The lack of detailed sections across the broch interior is particularly frustrating in trying to understand the layout and use of the internal space of the broch structure in both the primary and later phases.

There was no evidence of any break in occupation of the broch interior, Phase Two being marked only by the superimposition of a new floor and hearth. In this phase there was a need for substantial buttressing of the inner face of the broch wall, blocking the intramural cell. Dr Fairhurst noted that some of the most characteristic artefacts of the broch period came from the occupation debris of Phase Two, including a spiral finger ring and a ring headed bronze pin (1984, 66). There was no noticeable change in the pottery styles. A radiocarbon date was obtained for Phase Two as follows, noted as being from a level "distinctly above that of the primary floor". There is no indication in the monograph of the exact measurement above the primary floor.

SRR-272 2050±50 bp 100±50 bc 340 BC - AD 60 (with 95% confidence) (Harkness in Fairhurst 1984, 162).

The broch had clearly been in use for a long time by this date.

Only an incomplete floor plan of Phase Three was recovered, and it was noted that there was in fact no obvious break in continuity between Phases Two and Three. There was however an identifiable change in pottery style, which was confirmed by excavation of the external settlement. In addition certain diagnostic artefacts were found, including two sherds of samian, a fragment of Roman glass, and a nail-headed bronze pin. It is clear from the monograph however that some doubt attaches to the exact contexts of these finds. They were initially thought to belong to Phase Two, but were associated with Phase Three because of their typological late dates (Fairhurst 1984, 67). The best that can be said is that they came from late contexts at the site, and clearly indicate that a large part of the site's history had predated them, further confirmation of an early, and long, history at broch sites in the north.

Dr Fairhurst considered carefully the question of a roof for the broch structure, without reaching any real conclusions. He noted that timber

was in very short supply in Caithness, a conclusion supported by the monograph's environmental report (Dickson and Dickson in Fairhurst 1984, 147-55). He also noted that there was no inner ring of posts and no scarcement to support a wooden verandah structure (Fairhurst 1984, 68). He suggested that a variety of roofing materials may have been in use in the broch - thatch, turves, flat slabs and even hides - perhaps supported on the upright flagstones of the internal partitions (Fairhurst 1984, 69). The roofing of Caithness brochs has to be acknowledged as one of the most difficult problems of brochs. It does not seem credible that a structure as large and as complex as a broch would have been evolved, without due regard being given to the difficulty of roofing it in an area which had always been devoid of structural timber. The haphazard method of roofing proposed by Dr Fairhurst seems out of keeping with the careful nature of other design elements of broch structures in the north, such as corbelled cells and neat stairs. The smaller buildings around the broch structures are much more capable of being roofed, and may well have had roofs of the kind suggested by Dr Fairhurst. It is possible that the broch structure was not roofed at all, as Dr Fairhurst himself noted (1984, 68). Consequently, consideration needs to be given to the broch structure perhaps having had a function somewhat different from its surrounding buildings. The very different appearance of the broch structure, when compared with the surrounding buildings, might suggest this anyway.

The External Settlement

Excavation of the external settlement at Crosskirk was possibly one of the most disappointing aspects of the whole investigation. The presence and extent of the external settlement was not realised when the work was planned (Fairhurst 1984, 14), and its excavation was limited by available time. Only a part of the external settlement was revealed. Fairhurst noted that there was so little precise data on the nature of external settlements at brochs in the north, that much of the work at Crosskirk had to be exploratory. The complexity encountered in the external buildings was also such that interpretation was obscured by a welter of detail (Fairhurst 1984, 70). No clear layouts of the external settlement were obtained,

because of the limited areal extent of the excavation, and no stratigraphical relationship was established between the broch structure and the surrounding buildings.

Some useful information did however arise from excavation of the external settlement. First, it demonstrated the sheer complexity of the archaeology of external settlements, so that Dr Fairhurst remarked that his sympathies with the efforts of his forerunners grew as the complexities were uncovered (1984, 70). The excavation produced evidence for continuous levelling and reconstruction of the surrounding buildings, making recovery of the detail of individual buildings extremely difficult. This phenomenon was also noted at Howe in Orkney (Carter et al, 1984, 72), where the problem of complexity was dealt with by total excavation. Both Crosskirk and Howe serve as a warning that partial excavation of external settlements are liable to cause more problems than they solve, and that considerable time and money is required to excavate a northern broch, if the full range of information offered by the sites is to be recovered. There surely can be little doubt now that surrounding buildings were an integral and important part of a broch site, with constant modifications and rebuilding taking place as and when required.

Second, the excavation demonstrated a long history in external settlements, a fact which is also made clear even by a cursory examination of the sites excavated by Sir Francis Tress Barry in the east of Caithness (see Chapter 7 in the thesis). Radiocarbon dates for the external settlement at Crosskirk cover most of the first millennium BC (Harkness in Fairhurst 1984, 160-3). Even if one very early date is rejected, the remaining three dates give a remarkably consistent range from about 400 BC to 100 AD (with 95% confidence), from contexts well into the occupation of the external settlement, suggesting that its foundation was even earlier. Therefore, although the stratigraphy inside and outside the broch structure was not linked by Dr Fairhurst, potential contemporaneity in the construction of broch and surrounding buildings may be indicated, if the early date from beneath the primary floor of the broch is accepted as dating the broch and not an earlier promontory fort (see above). Dr Fairhurst did not fully explore the implications of the Crosskirk radiocarbon dates

in the monograph. They tell a much more interesting story than he allowed.

Third, the excavation demonstrated some elements of the nature of the surrounding buildings. The buildings would seem to have been houses. Dr Fairhurst accepted them as such throughout the monograph, referring always to an external settlement. A domestic function also seems to be attested by the occurrence of hearths, and by finds such as pottery. Adequate floor plans of several buildings were not recovered because of the partial nature of the excavation, but Dr Fairhurst noted that the walls generally had only an internal stone face, suggesting that the rest may have been built in sods (Fairhurst 1984, 71). This could be another explanation of the earth which appears to be a common feature of broch mounds in Caithness. The walling of the buildings was a combination of upright flagstones and panels of drystone walling, a construction technique also visible in the surrounding buildings at the Road broch, Keiss and at Ness broch on the east coast of Caithness (see site catalogue). Neither postholes nor sockets for wooden posts were found, and Dr Fairhurst suggested that upright flagstones may have served instead of wood as supports for roofs (1984, 71). This seems a very reasonable suggestion, possibly accounting for the plethora of upright flagstones which are a common feature of both excavated and unexcavated Caithness broch sites.

The Specialist Reports

The Crosskirk monograph contains a number of specialist reports: discussion and catalogue of small finds (Chapter 9); analysis of faunal remains, botany of the Crosskirk site, identification of human skeletal material, and evaluation of the radiocarbon dates (Chapter 10). Barrett briefly criticised the pottery report, noting that it is unclear what proportion of the site's pottery is commented upon in detail (1984, 135). He however praised the reports on the faunal and floral remains, noting the quality of such data when it is collected and adequately treated (Barrett 1984, 136). The catalogue of small finds, including the pottery (Chapter 9), seems very comprehensive. It is the only catalogued assemblage of finds for any broch site in Caithness, apart from the short finds list for Killimster (Skitten) excavated during the second world war (Calder 1947-8, 138-42). The

finds from the Tress Barry excavations in Caithness remain uncatalogued, and are scattered throughout several museums. It is doubtful now that the finds from the Tress Barry excavations can even be matched to specific sites. The information on the small finds in the Crosskirk monograph therefore assumes a very particular significance as the only detailed broch assemblage for Caithness. There may be some interesting comparisons to be made with the assemblage from Howe in Orkney when it is published (Smith forthcoming).

Barrett rightly praised the reports on the faunal and floral remains, as they too are very important as the first of their kind for Caithness brochs. Similar, but even more detailed, environmental and animal bone reports will be published for Howe (Smith forthcoming). Crosskirk and Howe between them have immeasurably advanced understanding of the contemporary environment of brochs in both Caithness and Orkney. In particular the environmental reports for both sites emphasise a lack of timber, raising considerable questions about the availability of wood for construction. The reports also demonstrate that brochs in Caithness and Orkney were involved in a contemporary agricultural process with both cereal growing and animal husbandry taking place.

Overall Assessment of the Monograph

The Crosskirk monograph has been criticised both privately and publicly (Barrett 1984) for its undoubted confusion. In many ways this was a product of the complexity of the task undertaken by Dr Fairhurst, a complexity not anticipated at the beginning of the excavation. It could be said that the Crosskirk excavation raises far more questions than it answers, but in the current state of knowledge on brochs this seems perfectly reasonable. At least it raises the questions, in a subject long thought to be fully known. In this respect it is a pity that the Crosskirk monograph was not published earlier, so that the credit for first questioning the nature of brochs in the north could be seen to lie with Dr Fairhurst, rather than with those working at a later period in Orkney. Dr Fairhurst had obviously anticipated much of the new understanding of brochs about a decade earlier.

The Crosskirk monograph, seen in isolation, can be severely criticised. There are many gaps and unexplained elements in the report, particularly the lack of detailed sections across the site. There would seem to be no way of filling these gaps without an adequate primary site archive in the public domain. Crosskirk, seen in the context of recent work in Orkney (Hedges 1987 and Smith forthcoming), is however a different matter. The Crosskirk monograph does contain valuable data, particularly the small finds catalogue and the radiocarbon dates, which can be compared with similar information now available for brochs in Orkney. The publication of the four sites of Bu, Gurness, Howe, and Crosskirk make together a very valuable contribution to a new understanding of brochs.

In the context of Caithness alone the Crosskirk excavation could have been in different circumstamces much more informative. For instance, if such an excavation were to be conducted now, a different strategy would be brought into operation. Much more emphasis would be placed on the surrounding buildings, and on the necessity of linking the chronologies inside and outside the broch. It is possible that Crosskirk would not now be selected as an excavation site. It was originally selected because of marine erosion, and it is clear from the monograph that many details of the site were totally obscured prior to excavation, including the external settlement. An excavation strategy, based on detailed field analysis of the full population of brochs in Caithness, would select sites demonstrating the existence of stratigraphy both preceding and succeeding the broch structure. The consequences of such a choice would be a site even more complex than Crosskirk, equivalent to Howe in Orkney.

The Crosskirk monograph represents a considerable milestone in broch studies in Caithness. Prior to its publication there had been no new information on Caithness brochs since the RCAHMS inventory in 1911, except for the short rescue excavation at Killimster (Skitten) in 1940 (Calder 1947-8) and recent field survey work (Mercer 1980, 1981, and 1985; and site catalogue). It is hoped that Crosskirk marks the beginning of a new era of broch studies in Caithness. Caithness has been overlooked as possibly the most significant area of broch occurrence, with the most to offer in respect of achieving a new

understanding of brochs. The publication of the Crosskirk monograph was a timely reminder of this fact.

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