

The Iron Age in Shetland: excavations at five sites threatened by coastal erosion§

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ABSTRACT

Archaeological investigations at five Iron Age sites in Shetland threatened by coastal erosion are described. At Scatness a site consisting of a Shetland blockhouse enclosed by a bank and ditch was substantially excavated. The structural evolution of the blockhouse was determined and a small assemblage of pottery and bone recovered. Radiocarbon dates indicate late use of the site in the first millennium AD but original construction dates could not be determined. Related minor investigations of the enclosing banks at the Ness of Burgi and Broch of Burland resolved constructional details but failed to provide radiocarbon dates. The complex settlement site of East Shore was the subject of a survey and coastal section recording; the broch and adjacent deposits were recorded and sampled. Radiocarbon dates spanning the period from the second millennium BC to the first millennium AD indicate the long history of this settlement, a conclusion supported by the range of finds from the site. Recording and sampling of an eroding cliff section at Kirki Geo, Fair Isle, produced a radiocarbon-dated late Iron Age pottery assemblage. The excavation, post-excavation analysis and publication of this report was funded by Historic Scotland.

INTRODUCTION

The five sites in this report were investigated as part of a more general response to the threat posed by marine erosion of coastal archaeological sites. The early 1980s saw the survey and excavation of a range of eroding coastal sites in the Western Isles and Orkney as well as Shetland. In 1983, the then Historic Buildings and Monuments Division (SDD) funded a programme of excavation by their Central Excavation Unit at five Iron Age sites threatened by coastal erosion in Shetland (illus 1).

The most substantial work was undertaken at the recently discovered blockhouse site at Scatness which had been identified from masonry exposed in the cliff face. As an unexcavated example of this rare structure, the Scatness blockhouse was a key site for investigation. Minor excavations were undertaken at two other sites to support the work at Scatness. At the Ness of Burgi, the eroding end of the bank enclosing the excavated blockhouse (Mowbray 1936) was sectioned with the aim of recovering dating evidence. At the Broch of Burland, where the presence of a blockhouse-type structure had been proposed (Lamb 1980), the eroding ends of the triple ramparts were sectioned to examine their construction and recover dating evidence.

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The second major investigation was at the complex settlement site of East Shore, at the Pool of Virkie. The eroding coastal sections of a broch and associated deposits were recorded and sampled for recovery of datable sequences of artefacts and ecofacts. The coastal excavation was supplemented by a survey of the whole site.

The fifth site, at Kirki Geo in Fair Isle, was an eroding cliff site rich in bone and pottery that was notified whilst the other excavations were in progress. The opportunity was taken to conduct a small-scale investigation of the exposed section and to recover a stratified finds assemblage.

In this report the five sites are first described and discussed individually. This section is followed by a series of general conclusions concentrating on the major themes that link the different sites - the Shetland blockhouse, Iron Age pottery in Shetland and the chronology of the Shetland Iron Age.

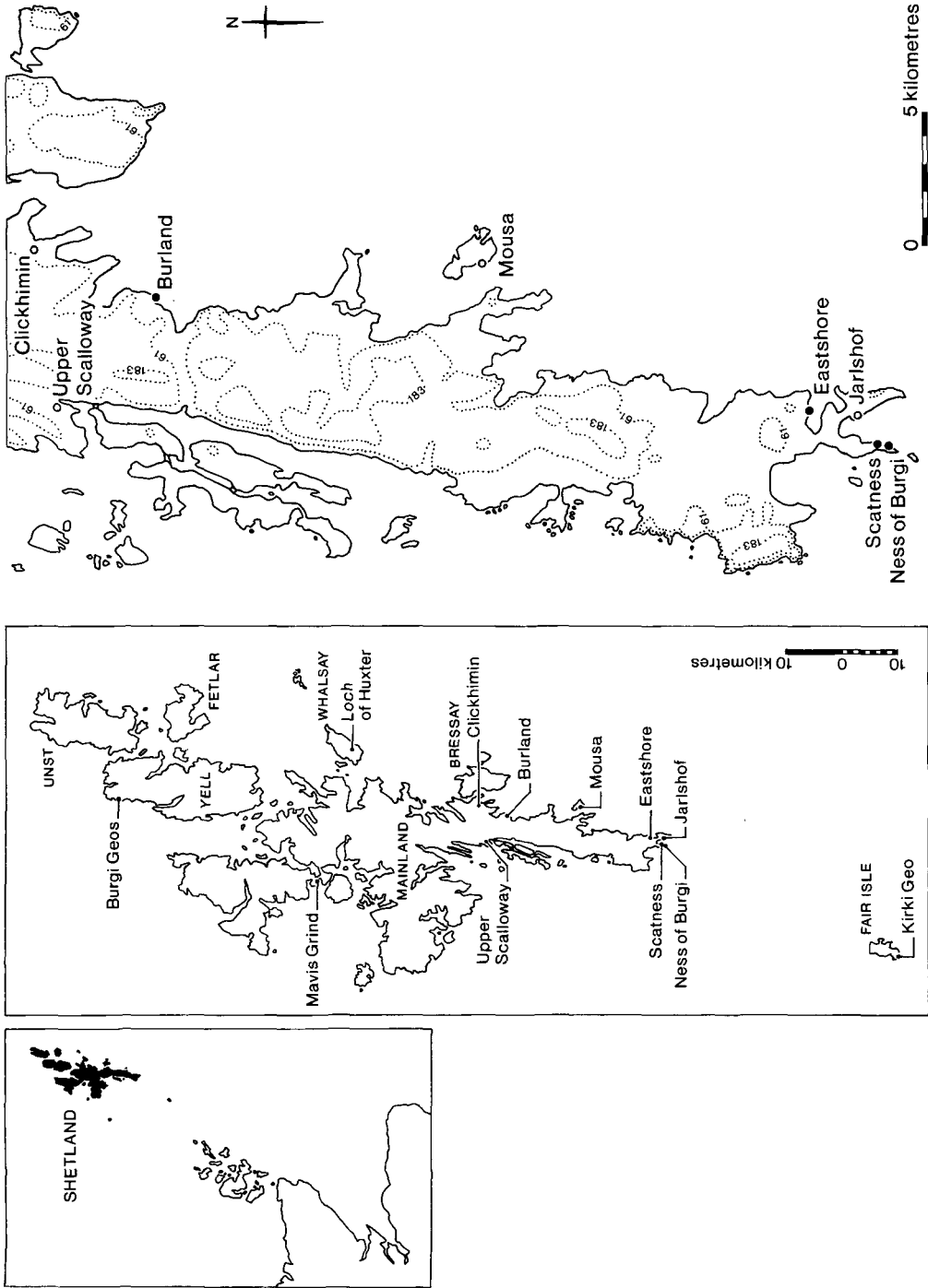
Scatness

INTRODUCTION

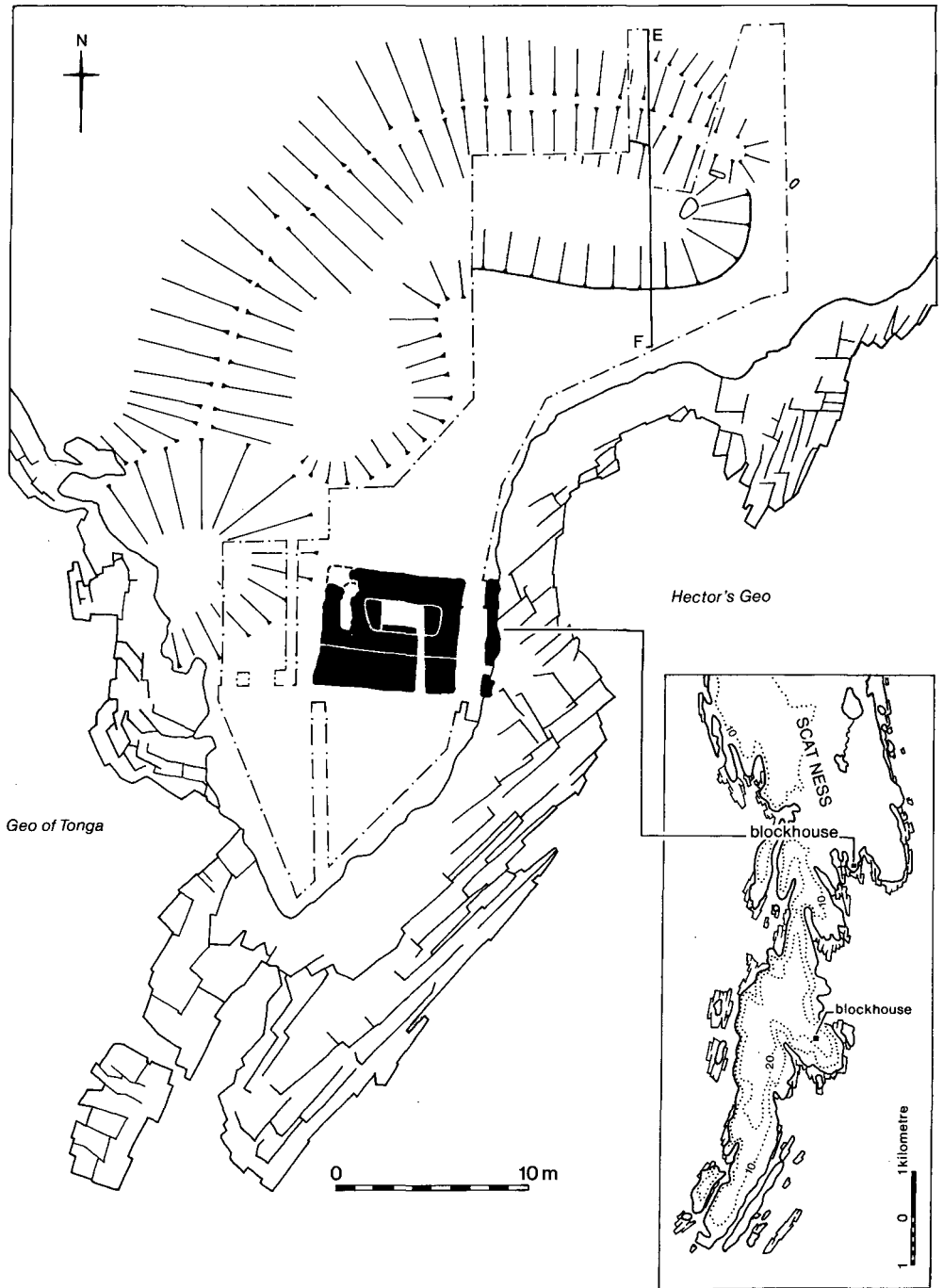
The site lies approximately 1 km from the southern end of Scatness (HU 389 088) on a small promontory overlooking the West Voe of Sumburgh (illus 2 & 3). It was first recorded in 1971 by Raymond Lamb (1980) who identified it as one of the very few recorded Shetland blockhouse forts. The other definite examples are on the Ness of Burgi, only 400 m south of this site (Mowbray 1936; and this paper), Clickhimin (Hamilton 1968) and the Loch of Huxter (Mitchell 1881). Drystone masonry exposed on the cliff face at Scatness was interpreted by Lamb as the end wall of a blockhouse. The impending collapse of this wall into the sea prompted the excavation of the site.

The site was excavated over a period of five weeks in April and May 1983 under the supervision of Peter Strong and Anne Crone. Most of the area within the enclosing ditch was excavated down to natural sediments leaving baulks along the cliff edge (illus 2). Topsoil was removed from the eastern end of the ditch and bank and a continuous section was cut across both in this area. The masonry of the blockhouse was not removed except for two added buttresses within a cell. The building was backfilled to the top of the surviving wall faces at the end of the excavation. Bone, pottery and other artefacts were collected by hand on site and soil samples were taken for the recovery of carbonised plant remains. The following specialist reports are summarized here but may be consulted in full in the site archive:

Mammal bone	<i>Eoin Halpin</i>
Bird bone	<i>Tanya O'Sullivan</i>
Fish bone	<i>Ruby Cerón-Carrasco</i>
Carbonized plant remains	<i>Sheila Boardman</i>
Coarse pottery	<i>Ann MacSween</i>
Post-medieval pottery	<i>Andrewina Ross</i>
Pottery thin section petrography	<i>Dianne Dixon</i>
Miscellaneous artefacts	<i>Andrea Smith</i>



ILLUS 1 Shetland: location of sites referred to in the report (Based on the Ordnance Survey map © Crown Copyright)



ILLUS 2 Scatness: plan of site showing limits of excavation (Inset based on the Ordnance Survey map © Crown Copyright)

EXCAVATION

STRATIGRAPHY

Phase 1: early natural sediments

The natural sediments consist of steeply dipping Devonian sedimentary rocks with a thin cover of weathered rock and till. The lower horizons of a soil, with a sandy to sandy clay loam texture, have survived beneath the archaeological stratigraphy and over most of the promontory.

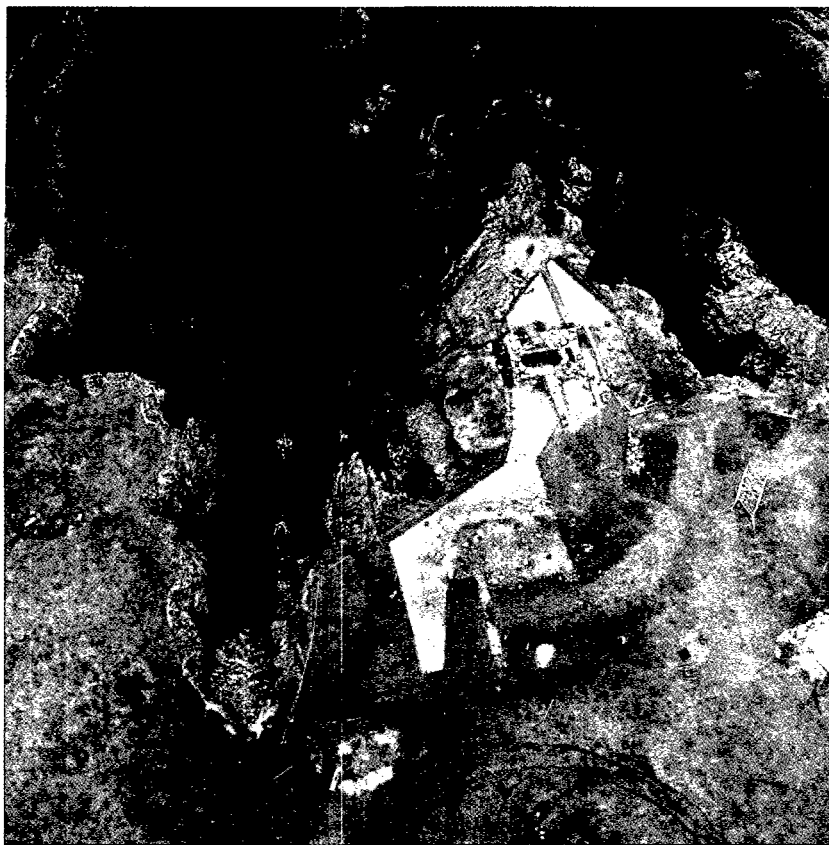
Phase 2: construction and use of the blockhouse

Construction of the blockhouse A large portion of the blockhouse has been destroyed by marine erosion but comparison with the more complete and adjacent site of Ness of Burgi suggests that little over half of it remains. This includes the complete western half of the structure, the central passage and the west end wall of the eastern half. As the building was left standing, none of these contexts has been excavated (illus 4, 5 & 6). The western half of the blockhouse was originally 7.0 m by 4.0 m in plan, and the walling survives up to 1.6 m high adjacent to the central passage. The stone used in its construction includes large boulders of mixed lithology (igneous and sedimentary) and smaller pieces of freshly quarried sandstone. On the outer face of the south wall there are three stones projecting 0.4 – 0.5 m from the wall face. Two are set close together at the western end of the wall, with their upper surfaces 0.75 m and 1.05 m off the ground. They could form the base of a flight of steps rising to the east. The third is 1.4 m to the east, 1.0 m off the ground.

Two internal cells were entered via a passage at the east end of the south wall. The passage is 0.5 m wide and roofed with two lintels at 1.05 m above the floor. The inner lintel is a 0.1 m thick flagstone and it is overlain by coursed masonry, extending the line of the passage walls upwards. These upper faces are poorly preserved but three courses standing 0.3 m high are present on the east side. This is sufficient to demonstrate the existence of a load-relieving structure over the inner lintel (illus 6). The outer lintel is a large blocky stone 0.4 m thick which forms the top of the surviving outer wall face. It is therefore not possible to confirm the continuation of the relieving structure over this lintel.

The eastern cell at the inner end of this passage is approximately rectangular (4.0 m by 1.8 m) and is separated from the much smaller western cell (0.7 m by 2.6 m) by a 0.5 m thick wall. The only direct access between the two cells is a rectangular opening, 0.4 m high and 0.2 m wide which is located 0.4 m off the floor at the north end of the dividing wall. The east end of the eastern cell has survived 1.6 m high and the top course of stones forms the base of a corbelled roof (illus 6).

In the western cell, although the walls are now only 1.0 m high, the top surviving course is also the base of a corbelled structure. Below the level of these highest surviving courses the walls of both cells are approximately vertical. The central passage through the blockhouse was originally 4.0 m long; the northern (outer) end of the passage is 1.2 m wide. Vertical slab door checks were located 1.3 m from the entrance (illus 7 & 8). Within the doorway the passage expands to 1.5 m wide. The west side wall of the passage has survived up to 1.6 m high at the door checks; no roof lintels have survived *in situ* and the passage must have been at least 1.6 m high. The east side wall is much less well preserved and is now only 0.9 m high at most; the surviving wall face leans outwards at angles of up to 12° from the vertical. There is a bar hole in the west side wall, 0.1 m



ILLUS 3 Scatness: aerial view from north during excavation

inwards from the door check and 0.9 m above the ground. It measures 0.2 m by 0.2 m and extends through the wall into the north-east corner of the eastern blockhouse cell. The east side wall of the passage has not survived high enough at the door check to preserve the opposing bar hole.

Not enough of the eastern half of the blockhouse survives to determine its design as only the facing stones of the central passage wall still exist. The absence of a cell entrance passage leading off the central passage (at least in the original design of the blockhouse) indicates that any cell within the eastern half was probably entered from the south side.

There are no floor deposits contemporary with the use of the blockhouse in its original design. All surviving sediments (Phase 3) post-date a sequence of structural modifications which are described below.

Construction of the bank and ditch There are no stratigraphic links between the blockhouse and a ditch and bank that enclose it to the north (illus 2 & 3). Contemporaneity is therefore assumed only on the grounds that there are no other surviving structures in the enclosed area. There is an entrance gap at the east end of the bank and ditch and the distance between them and the present-day cliff edge is 9.5 m, indicating the minimum width of the entrance. A large boulder has been

placed in this gap, 2 m from the end of the rampart. The bank and ditch turn southwards at their west end and stop at a steep sided, probably natural, hollow in the cliff edge.

The eastern terminals of the ditch and bank were excavated and a section was cut through the ditch and bank. The bank survives 0.7 m high and appears to have been a simple dump of soil and stone with no facings. There is no intact buried soil under the bank and it is separated from the top of the weathered bedrock by up to only 0.05 m of sand. The ditch lies immediately within the bank and, at the point where it was sectioned, is 7.3 m wide and 1.7 m deep with a 3.5 m wide level base. It was cut through weathered and solid rock. The main ditch fill is a layer of large angular rubble up to 0.7 m deep; this is overlain by up to 0.35 m of relatively stone-free sediment. There is a concentration of stone on the inner edge of the ditch forming a band 3–5 m wide and 0.15 m deep which, in contrast to the bank, overlies 0.25 m of sandy loam.

Modifications to the blockhouse The blockhouse was modified by two episodes of buttressing within the cells and by the reconstruction of the south wall (illus 4 & 5).

In the first internal modification, the narrow wall dividing the two cells in the western half of the blockhouse was buttressed by drystone masonry increasing its width to 1.3 m. This buttress blocked the access between the cells. The second internal modification involved further buttressing within the eastern cell of the blockhouse, in this case in the south and east wall faces. The space between the two buttresses was effectively an extension of the cell entrance passage. A flagstone lintel spanned the 0.5 m wide gap; the position of a single stone overlying the east end of this lintel suggests that the relieving structure over the original inner lintel was maintained and extended at this time. The east buttress covers the inner end of the bar hole for the central passage doorway.

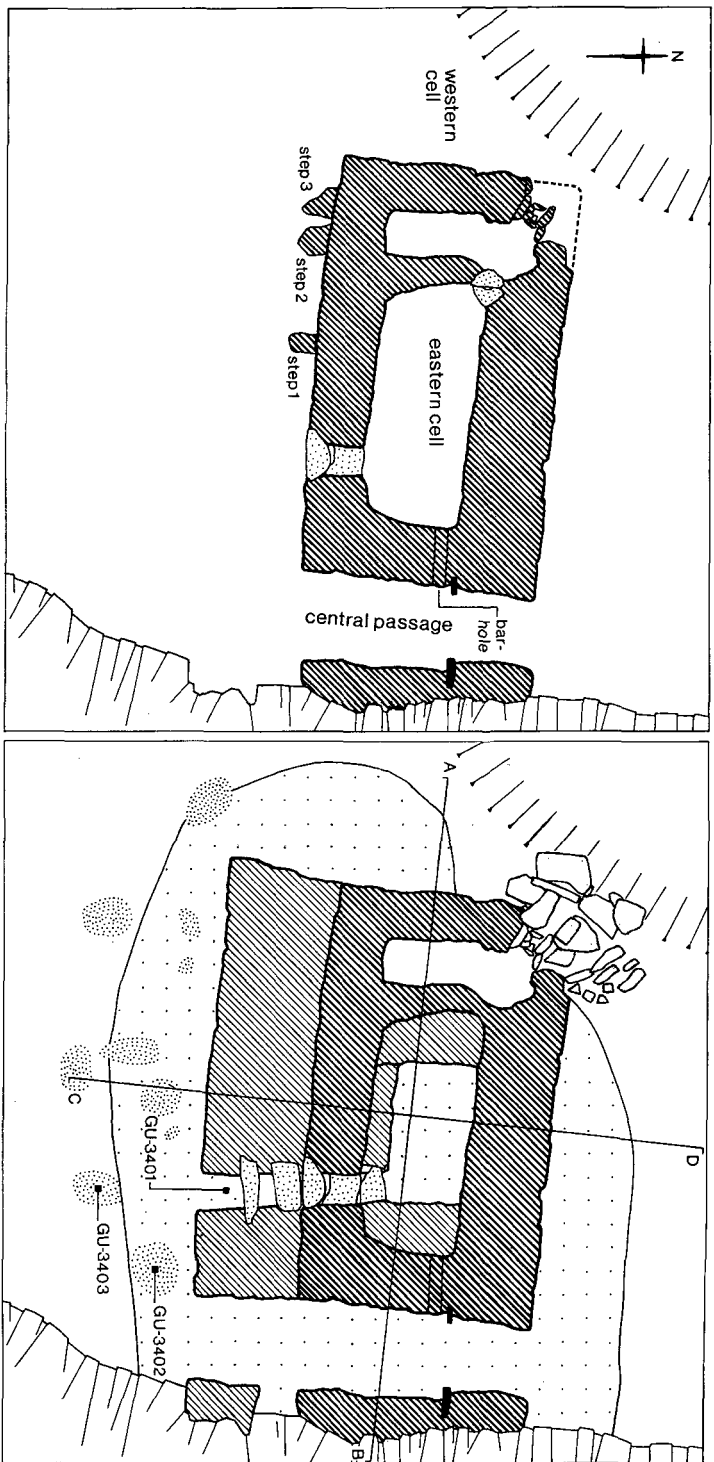
The reconstruction of the south side of the blockhouse occurred both east and west of the central passage. It is not linked stratigraphically to the modifications within the blockhouse cells but could be contemporary with one of them. In the western half of the blockhouse, a 7.0 m by 1.8 m block of masonry was added to the south side, moving the exterior wall face 1.8 m to the south of its original position. This masonry was partially keyed in by the removal of some original facing stones. It masked the possible slab steps on the south face of the blockhouse. The cell entrance passage was extended out through the new masonry and two lintels have survived *in situ* showing that it had similar dimensions to the original section of the passage: 1.1 m high and 0.5–0.6 m wide.

In the eastern half of the blockhouse the surviving modifications consist of an additional block of masonry at the south end of the central passage with its south face in line with that on the western half. This masonry does not join up with the original east side wall of the central passage and instead there is a 0.7 m wide faced gap. This is interpreted as the outer end of a passage leading to a cell within the eastern half of the blockhouse. There are no stratigraphic links between the masonry additions on either side of the central passage but they are assumed to be contemporary as this would have maintained the symmetry of the building.

Phase 3: abandonment and decay of the blockhouse

Phase 3 includes all sediments post-dating the structural modifications to the blockhouse but predating the major wall collapses (illus 4 & 5). It is therefore possible that neither the start nor finish of this phase are synchronous in all parts of the site.

The sediments surrounding the blockhouse have a sandy loam texture and the stone content is generally low; the one exception to this is a layer of rubble outside the north end of the central passage. The total depth of deposits is greatest against the blockhouse walls (up to 0.4 m) and



phase 2 original
 phase 2 addition
 phase 3 sediments
 burnt deposit
 cliff edge

lintel stone
 orthostat

central passage

bar-hole

step 1
 step 2
 step 3

western cell
 eastern cell

central passage

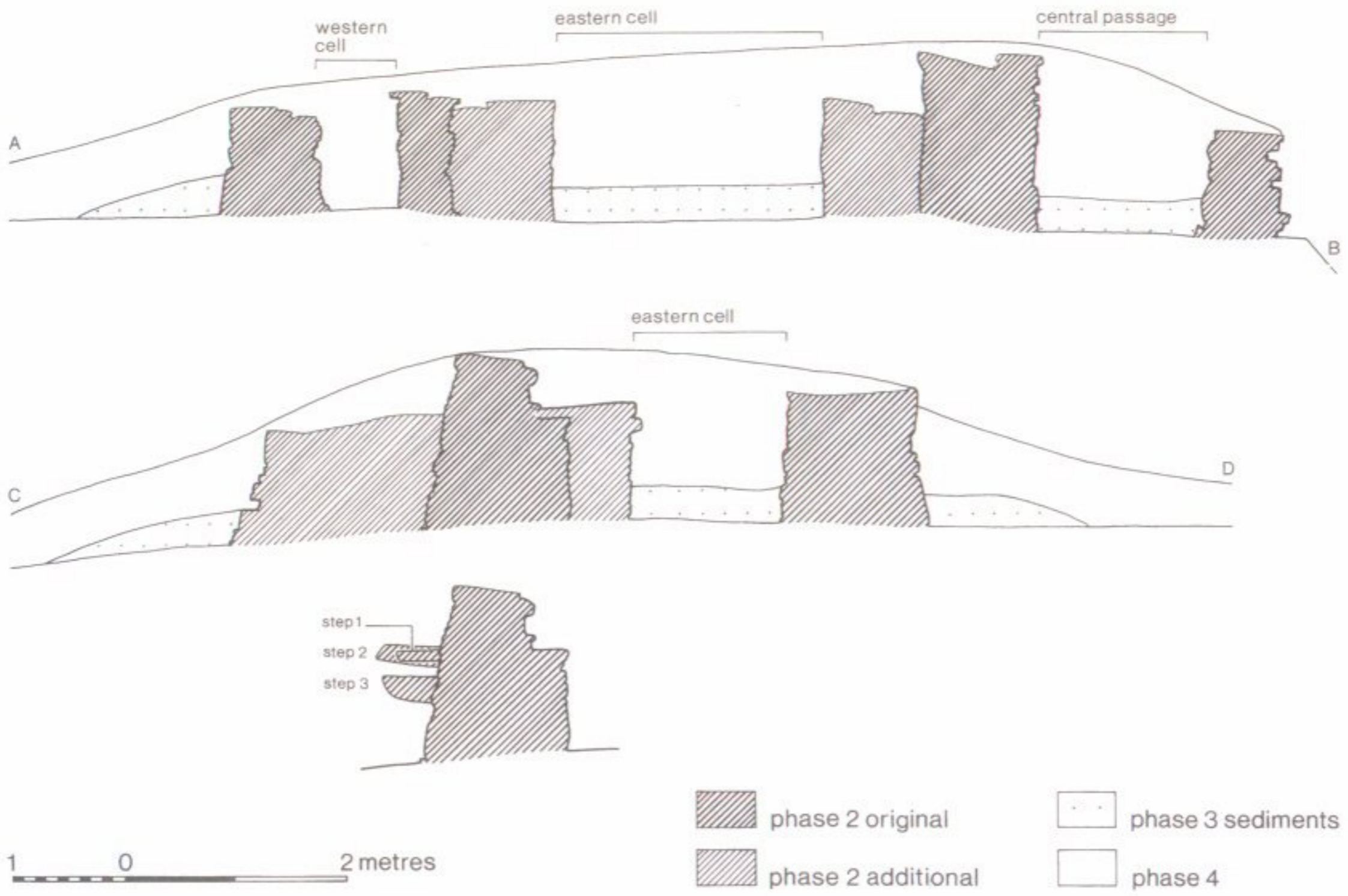
bar-hole

step 1
 step 2
 step 3

western cell
 eastern cell

central passage

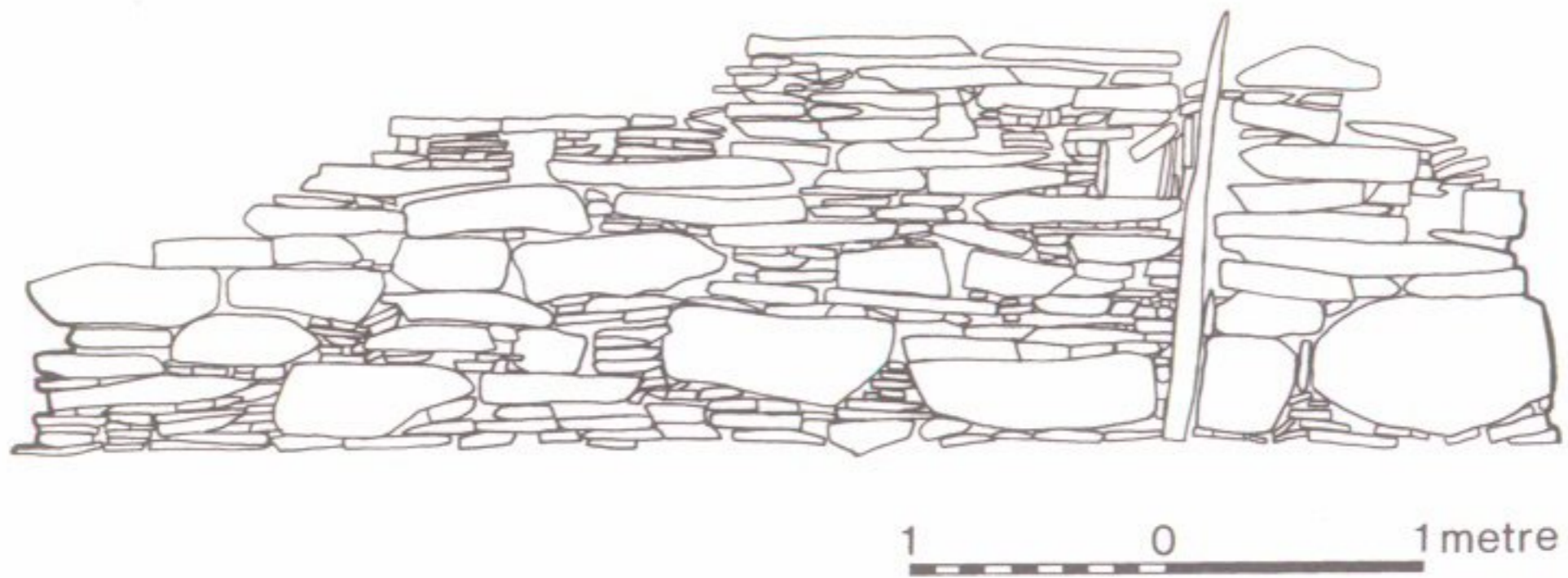
bar-hole



ILLUS 5 Scatness: sections through the blockhouse (see illus 4 for locations of section lines)



ILLUS 6 Scatness: east end of the blockhouse eastern cell showing the weight relieving structure over the entrance passage lintel



ILLUS 7 Scatness: elevation drawing of the west side of the central passage



ILLUS 8 Scatness: view through the central passage from the south

declines to a distance of roughly 2 m from the walls where they become undetectable. The sediments are absent from outside the north-west corner of the blockhouse but there is a steep slope close to the wall here and they may never have accumulated. There are 10 separate patches of burnt material (charcoal, ash and reddened soil) each roughly 0.2 – 0.8 m in diameter; these are interpreted as the remains *in situ* of fires. They are all on the south side of the blockhouse, high in the Phase 3 stratigraphic sequence. A small assemblage of pottery was also recovered from this area. Charcoal from two of the fires produced calibrated date ranges of AD 670–980 (GU-3402) and AD 567–890 (GU-3403) (see Table 1 in fiche). Phase 3 sediments within the blockhouse cells are fine textured and stone-rich deposits are restricted to the outer end of the passage. The total thickness of sediments is 0.35 m in the cell passage and 0.3 m within the eastern cell. Charcoal from the entrance passage produced a calibrated date range of AD 630–890 (GU-3401). The western cell was cut off by the construction of a buttress in Phase 2 and the clay loam sediments characteristic of the eastern cell are absent.

In the central passage there is a sequence of three types of sediment. The lowest are thin spreads of relatively stone-free sediments; these are covered by rubble which is concentrated in low piles, up to 0.3 m deep, at either end of the passage. This rubble is in turn covered by more stone-free sediments which fill the hollow between the rubble piles. There is one patch of burnt material, similar to those recorded to the south of the blockhouse, in the northern end of the passage directly beneath the rubble from the Phase 4 collapse.

Phase 4: collapse of the blockhouse

The Phase 3 sediments are overlain by a series of very stony sediments which cover the remains of the blockhouse walls. These rubble layers represent the collapse or dismantling of the blockhouse and lie immediately beneath the modern topsoil.

On the outside of the blockhouse there is a single accumulation of rubble with no evidence for prolonged periods of stabilization. The stones from the collapse of the north-west corner of the blockhouse were identified as a discrete area of large rubble (illus 4) but there is no evidence that this collapse occurred significantly before the more general disintegration of the fabric. The main accumulation of rubble extends for up to 2 m from the blockhouse walls and beyond this there is a more extensive shallow spread of flat rubble. A considerable number of mammal (primarily sheep) and bird bones were recovered from this rubble.

Within the blockhouse, the eastern cell contained one rubble layer but the fill of the western cell was more complex. It changed from almost pure sand at the base to sand mixed with stone to rubble above 0.3 m. A high concentration of large fish bone was recorded from the top of the sand fill. In the central passage the history of collapse is complex with evidence for at least three episodes of collapse separated by periods of stability during which less stony sediments accumulated. The later collapses in the central passage consist of large flagstone rubble lying almost vertically against the walls.

RADIOCARBON DATES

One of the primary aims of the excavation was to date the construction and use of the blockhouse (Phase 2). It is therefore unfortunate that materials suitable for dating were only recovered from contexts assigned to Phases 3 and 4. Three samples of wood charcoal were selected from Phase 3 and submitted for radiocarbon determinations. They provide dates for the accumulation of sediments within the eastern cell passage (GU-3401) and the use of the fireplaces on the south side of the blockhouse (GU-3402 and 3403). The results and calibrated dates are in Table 1 (fiche).

MAMMAL BONE

A total of 1087 animal bone fragments was recovered by hand collection on site (Table 2 in fiche). Almost all of the bone fragments were found in deposits in and around the blockhouse assigned to Phases 3 and 4; 87% of identified fragments were from sheep with some cow and pig bones.

The few fragments from Phase 2 were recovered from the loose rubble cores of walls and may therefore be intrusive. Phase 3, although dominated by sheep bones, contains the only notable collections of cattle and pig from the site. The pig remains are complete bones, all from the same neonatal individual, and were found in the cell entrance passage. The cattle bones from Phase 3 sediments outside the blockhouse are fragmented and display a variety of cut marks. They may be contrasted with the much larger collection of sheep bone where very few cut marks were noted.

In Phase 4, sheep constitute 94% of the identified bones and they are less fragmented than in Phase 3 with relatively fewer unidentified fragments. Almost half of these came from the rubble infill of the western blockhouse cell. The limited epiphyseal fusion data indicate that most sheep died within the first year of life.

BIRD BONE

A total of 92 bird bones was examined (Table 2 in fiche). Most came from the rubble contexts in Phases 3 and 4; the remainder were found within the Phase 2 masonry blockings. This masonry is vacuous and it cannot be assumed that the bones were introduced at the time of construction.

The majority of the bones identified came from sea birds: shag, cormorant, Manx shearwater, herring gull, kittiwake, eider duck, guillemot, little auk and puffin. Apart from the little auk, all of the species of sea bird represented at the site now have large breeding colonies on Shetland (Lloyd *et al* 1991). The remaining non-sea birds – the godwit, curlew, snipe, shoveler, starling, and crow – are not unusual species in Shetland today. Crow and starling are commonly found near human settlements or buildings.

The presence of cranial and digit bones, and the almost complete representation of both pectoral and pelvic girdles with their appendages, is a strong indication that the birds met with a natural death. The lack of any butchery marks on the bones would support this.

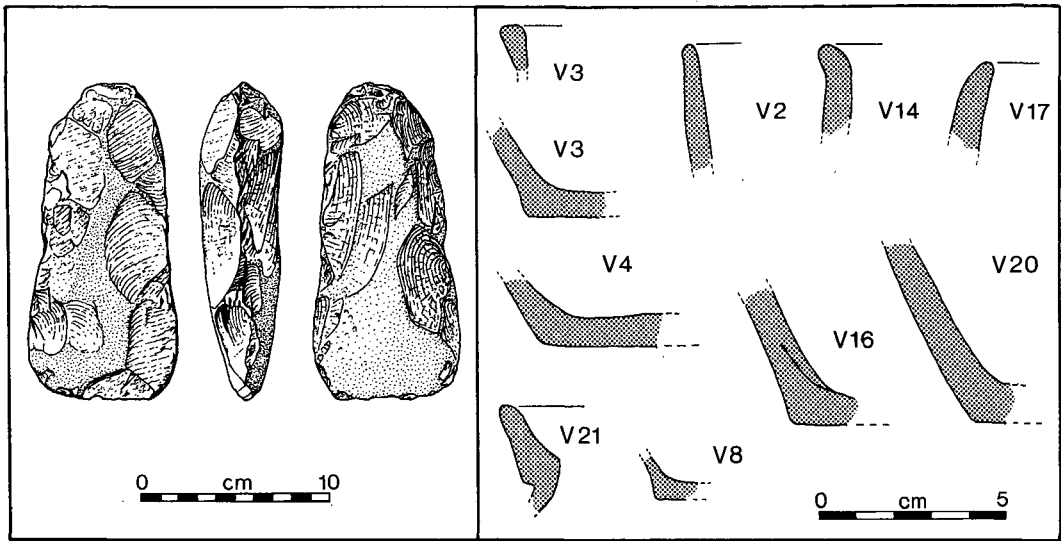
FISH BONE

A total of 265 fish bones was hand-retrieved on site; soil samples were sieved but did not produce any more bones. The identified bones belong to the Gadidae family group but the only identified species was cod (*Gadus morhua*); all except two of the bones came from Phase 4 contexts (Table 2 in fiche). All of these bones were from specimens in the size range medium to very large, indicating that these remains are a product of man's fishing activity. Their size range make them unlikely candidates for otters' or birds' food residue. The size of the remains would also indicate that the specimens were caught offshore from boats. Although the assemblage is not large, all elements of the skeleton are present, indicating that fish were being brought whole to the site.

POTTERY

A small assemblage of pottery was recovered, with the majority of sherds from contexts in Phase 3. The sherds, all undecorated, represent 21 vessels.

Many of the sherds attributable to Phase 3 derive from four vessels (V1–V4). From what can be determined, given the small size of the sherds, these vessels were flat-based and the rims were



ILLUS 9 Scatness: selected artefacts – stone axe roughout and pottery (see catalogue)

flat or plain. They were probably bucket-shaped with angled walls (eg V3, illus 9) and in only one case (V14, illus 9) does the slightly everted rim indicate a shouldered vessel. The pottery from Phase 3 is well fired; the clays are either a sandy clay, a micaceous sandy clay or a very fine clay with few visible inclusions. All apart from two vessels appear to be untempered. The few sherds from Phase 4 deposits are of similar fabric and vessel types.

The absence of decorated sherds or reconstructible vessel profiles makes the dating of this assemblage problematic. Pottery of a sandy fabric, some burnished, was noted in contexts as early as 200 BC at Kebister (Dalland & MacSween forthcoming) but it is also found at various sites including the broch at Upper Scalloway (MacSween forthcoming a), throughout the first half of the first millennium AD. Some of the finer sherds in the Scatness assemblage may date to the later end of this range.

One rim sherd with a green glazed interior (the exterior surface has abraded) was recovered from the topsoil. The rim is slightly everted with an internal 'lid seating' (V21, illus 9). From comparison with the pottery from the Kirkwall (MacAskill 1982, 409–10) and Scalloway Castle excavations (Hall & Lindsay 1983, 568), the sherd appears to be North European Earthenware. The suggested dating for this type of pottery on these sites is the 17th century.

Catalogue of pottery illustrated in illus 9:

V2 Ph 3.7. Rim and body sherds. Flat rim. Exterior surface smoothed. Grey. Fabric – sandy clay with some mica. Hard-fired. Exterior and interior sooted. Th 5–6 mm.

V3 Ph 3.7. Rim body and basal sherds from a flat-based vessel with a flat rim. Grey with red exterior margin. Fabric – sandy clay with mica. Hard-fired. Interior sooted. Th 5–7 mm; Diam 9 cm (base).

V4 Ph 3.7. Body and basal sherds from a flat-based vessel. Grey with red interior margin. Fabric – sandy clay with mica. Hard-fired. Exterior sooted. Th 7–8 mm; Diam 13 cm.

V8 Ph 3.7. Flat base with slightly angled walls. Grey with red exterior margin. Fabric – sandy clay with mica. Hard-fired. Exterior and interior sooted. Th 5 mm.

V14 Ph 3.7. Body and rim sherds. Rim slightly everted. Grey with brown exterior margin. Fabric – sandy clay with mica. Hard-fired. Th 7 mm.

V16 Ph 3.9. Body and basal sherds. Barrel-shaped base. Grey with red exterior margin. Fabric – sandy clay with mica, tempered with fragments of crushed rock. Hard-fired. Th 7 mm.

V17 Ph 3.9. Rim and body sherds. Inverted rim. Grey. Fabric – sandy clay tempered with crushed talc fragments. Hard-fired. Exterior and interior sooted. Th 7 mm.

V20 Ph 4.10. Body and basal sherds from a flat-based vessel with slightly angled walls. Grey. Fabric – sandy clay with mica. Hard-fired. Exterior and interior sooted. Th 8 mm.

V21 Ph 5.11. Rim sherd from post-medieval vessel. Slightly everted, necked vessel. Exterior abraded, but green glaze survives on interior. Red. Fabric – untempered, fine clay. Hard-fired. Th 7 mm; Diam 14 cm.

MISCELLANEOUS FINDS

Only four non-ceramic artefacts were recovered during the excavations. These are an incomplete iron knife with a pair of wooden handle plates from the modern topsoil; a small iron nail with an offset small head and a square section shank, from a Phase 3 context; and, from Phase 4, a stone axe throughout of igneous rock from the rubble fill of the east cell, and a stone disc from the rubble spread.

DISCUSSION

PHASE 2: CONSTRUCTION AND USE OF THE BLOCKHOUSE

Phase 2 includes all contexts associated with the construction and reconstruction of the blockhouse and the construction of the bank and ditch. The lack of stratigraphic links and radiocarbon dates makes it impossible to determine when they were constructed or to demonstrate that they were constructed at the same time; however there is evidence that supports contemporary construction. The ditch is a relatively broad, shallow and irregular feature and it lies within the bank. The main fill of the ditch is angular, unweathered rubble that could not have been derived from the erosion of the bank which consists of soil and weathered stone. Therefore the ditch is interpreted as a quarry for building stone and the fill as quarry spoil contemporary with the digging of the ditch. The bank is thought to consist of the soil and weathered rock dug away to expose solid rock suitable for construction. The concentration of rubble on the inside of the ditch is interpreted as more quarry spoil. If this interpretation of the bank and ditch is correct, it follows that a stone building must have been built at the same time. Unless marine erosion has totally destroyed another building, this will have been the blockhouse. Most of the surviving area within the ditch was excavated and no evidence for the existence of structures other than the blockhouse was found. The blockhouse was modified during its use (Phase 3) and this work involved additional supplies of stone; therefore more than one episode of quarrying should be expected.

From the condition of the blockhouse alone, it is clear that substantial marine erosion has occurred since the initial occupation of the site. It is assumed that almost half of the blockhouse has been destroyed by erosion so that originally it was symmetrical about the central passage; the building would have been roughly 15.5 m wide and 4 m deep. The cliff has therefore retreated at

least 7 m at the surviving east end of the blockhouse and possibly much more. The extent of erosion elsewhere remains speculative; the bank and ditch both end before the cliff edge but at least two different reconstructions can be proposed. The existing bank and ditch could have been the west half of a symmetrical layout with a central entrance, in which case there has been considerable erosion. Alternatively, the existing gap between the east end of the bank and the cliff is the original entrance and land has only been destroyed south of this point, within the enclosure. In either reconstruction the entrance gap through the bank and ditch is too wide to have been defended.

No sediments were excavated that could be shown to be contemporary with the use of the blockhouse in its original design. The rubble backfill of the ditch should be contemporary with the construction of the blockhouse but all other sediments appear to post-date at least some, and probably all of the structural modifications. The lack of sediments is not surprising as it may simply be the result of the building being kept clean and tidy whilst it was in use. However, there is also no evidence of wear on the floors of the cells and passages although this might have been expected as they consist of sandy sediments. It may therefore be argued that the building was little used.

Within the blockhouse, structural modifications are interpreted as buttressing for the roof of the cells. The earlier buttress blocks the access between the two cells; unless there was an entrance through its roof, the western cell became inaccessible. The later buttressing within the eastern cell blocks the inner end of the bar hole for the central passage doorway. The poor preservation of the east side of the central passage means that it is not known if this blocking made the bar hole inoperative. Both of these episodes of buttressing within the cell reflect a willingness to repair the building at the expense of original features and offer indirect evidence for the existence of an upper level in need of support. The purpose of the additions to the south side of the blockhouse is not so obvious. Structural support could again be the intention and this would imply major problems with the stability of the blockhouse; alternatively they could be part of a redesigning of the whole building. The apparent creation of a cell entrance passage leading into the east half from the central passage may indicate a significant change of design. Given the subsequent erosion, it is not possible to do more than speculate about the details of this change.

PHASE 3: ABANDONMENT AND DECAY OF THE BLOCKHOUSE

Some time after the modification of the blockhouse, it was abandoned and a series of sediments was allowed to accumulate within and around the building, which appears to have remained substantially intact. The sediments on the outside of the blockhouse are predominantly sandy loam in texture and were probably derived from the weathering of the wall faces. They could have started to accumulate as soon as the walls were built but probably date from the time when regular maintenance of the building ended. The sediments within the eastern cell are predominantly clay loam in texture; this could reflect either a more sheltered environment of deposition compared with the external sediments or different materials contributing to the deposits. The lack of stone in these sediments suggests that the cell and passage roofs survived intact until the relatively sudden infilling of the cell with rubble. It is possible therefore that the Phase 4 general collapse of the outer wall faces had started well before the end of Phase 3 sedimentation in the cell. This may also be the case in the central passage where low piles of rubble are present at either end of the passage early in the Phase 3 sequence. These could derive from outer face collapses and they predate the general infilling of the passage following the collapse or removal of its roof lintels.

The accumulation of the Phase 3 sediments is interpreted above as the result of a lack of activity on the site and the abandonment of a standing building. The site was put to some use because a series of small fires was lit on the south side of the blockhouse. There is also a small

assemblage of pottery with Iron Age characteristics, some animal bone and a few carbonized plant remains. Cut marks on the cattle bone and a few of the sheep bones in this phase suggest that they do, at least in part, represent human food debris. The presence of the carcass of a neonatal pig within the blockhouse cell entrance passage demonstrates that the building was not in regular use. The carbonized plant remains, which were recovered from the fireplaces, comprise a few grains of six-row barley (either naked or hulled) and occasional seeds of docks, chickweed and sedges. The sole artefact recovered from Phase 3 sediments is an iron nail.

Radiocarbon dates from charcoal in two of the fires give calibrated date ranges of AD 670–980 (GU-3402) and AD 567–890 (GU-3403). A third date from sediments in the cell entrance passage is calibrated to AD 630–890 (GU-3401).

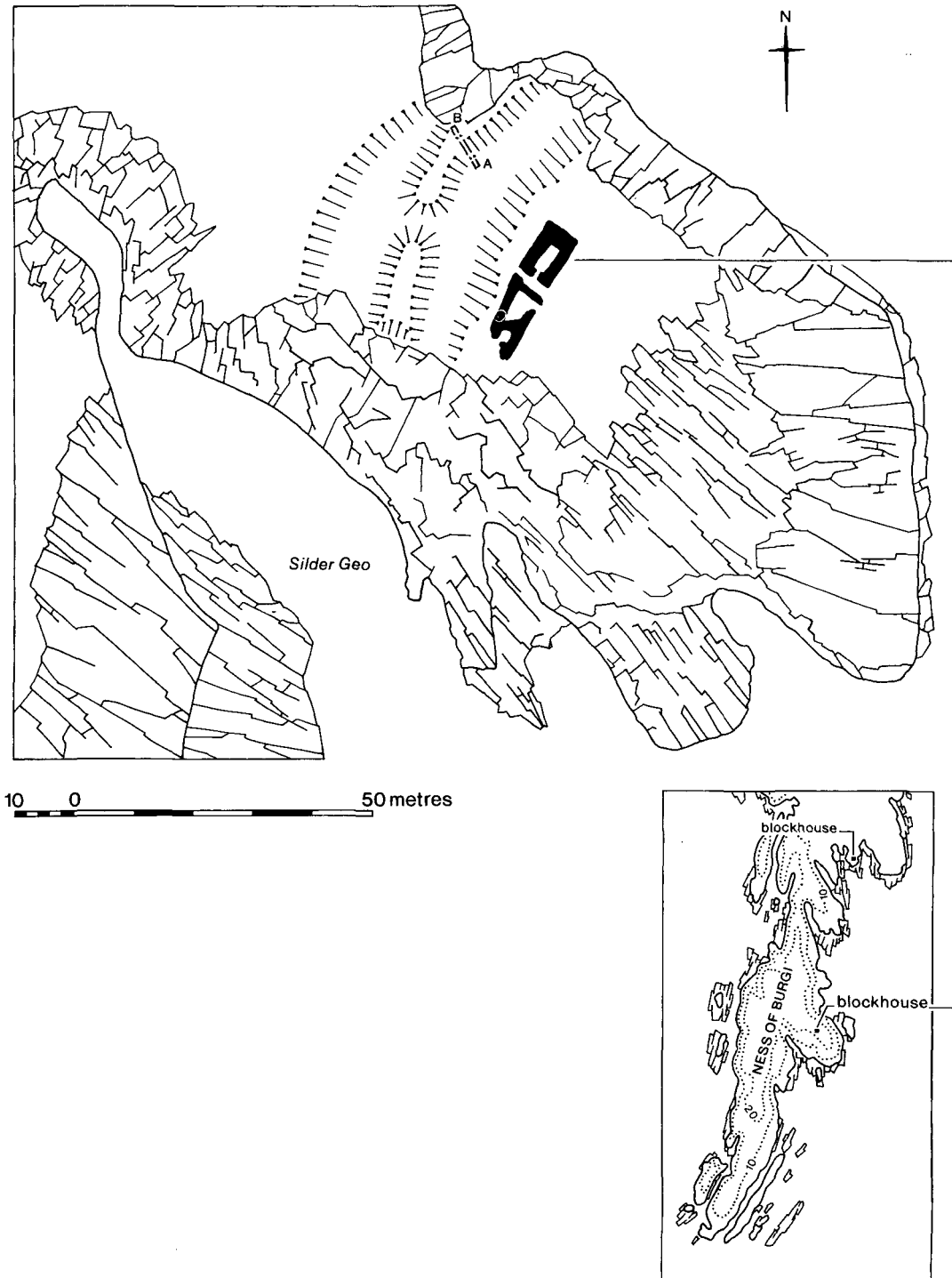
PHASE 4: COLLAPSE OF THE BLOCKHOUSE

As with the preceding phase, Phase 4 is defined by a change in sediment type. In this case it is from relatively stoneless to stone-rich sediments and represents the general collapse or dismantling of the blockhouse. The total volume of rubble now covering the remains of the blockhouse is relatively small (c 30 cu m) representing only an additional 1 m to the surviving walls. As the roof corbel in the eastern cell springs at 1.5 m above ground level, this estimate is clearly too low and a significant proportion of the stone must have been removed. Dates from Phase 3 indicate that this did not start until after the late first millennium AD. Additional evidence of stone robbing comes from one other specific point. Only one possible collapsed lintel was noted in the central passage where the 1.5 – 2.0 m long slabs should have been a distinct component of the passage fill. Such large stones would have been worth transporting for reuse, and, unless the blockhouse was incomplete, it appears that they were removed.

Only two parts of the blockhouse show clear evidence of collapse; the north-west corner, which was positioned at the top of a slope, appears to have been undermined as a result of erosion and has collapsed to ground level. The east side of the central passage now leans at angles of up to 12° from the vertical and is reduced to only 0.9 m high. Marine erosion has exposed the back of this wall face and left it unsupported; this undercutting, combined with pressure from rubble filling the central passage, has collapsed the face eastwards into the sea.

The assemblage of sheep bone from Phase 4 does not display cut marks and is not thought to be food debris. It is interpreted as the remains of predominantly young animals that died or were dumped in the ruins of the derelict and collapsing blockhouse. Such carcasses are still a common sight in ruined buildings in Shetland. The bird bone is similarly interpreted as a natural death assemblage. The fish bone is interpreted as the product of fishing by man but need not indicate any more than occasional visits to the ruin by fishermen.

The presence of a stone flat axe roughout of Neolithic date, found in the rubble fill of the eastern cell, was unexpected (illus 9). The axe had probably been incorporated into the wall of the blockhouse when it was built, but its origin beyond that must remain uncertain. There are two main possibilities; firstly that the axe came from a nearby area of Neolithic occupation which was disturbed during the course of stone quarrying for the blockhouse, or secondly that the axe was a chance find elsewhere which had been brought onto the site. The Dunrossness area is rich in archaeological remains, with over a hundred finds recorded in the catalogue of the National Museum of Scotland, and there is no doubt that people going about their daily business there in the past would also have come across these remains, and may well have regarded them as curiosities. One other artefact was found in the Phase 4 rubble, a stone disc of a type commonly found on Iron Age sites in Scotland. It may be noted that two small decorated stone discs from an unrecorded site in Scatness (Smith 1883, 296, figure 1), and previously ascribed to the Ness of Burgi blockhouse (Mowbray 1936, 386), could equally have come from this second blockhouse on the ness.



ILLUS 10 Ness of Burgi: plan of the site showing location of the section trench (based on RCAHMS 1946). Inset based on the Ordnance Survey map © Crown Copyright

Ness of Burgi

INTRODUCTION

The blockhouse at the Ness of Burgi lies 400 m south of the Scatness blockhouse and is similarly located on a promontory overlooking the West Voe of Sumburgh (HU 388084) (illus 10). The blockhouse was excavated in 1935 by Mowbray (1936) but the enclosing bank and ditches were not investigated.

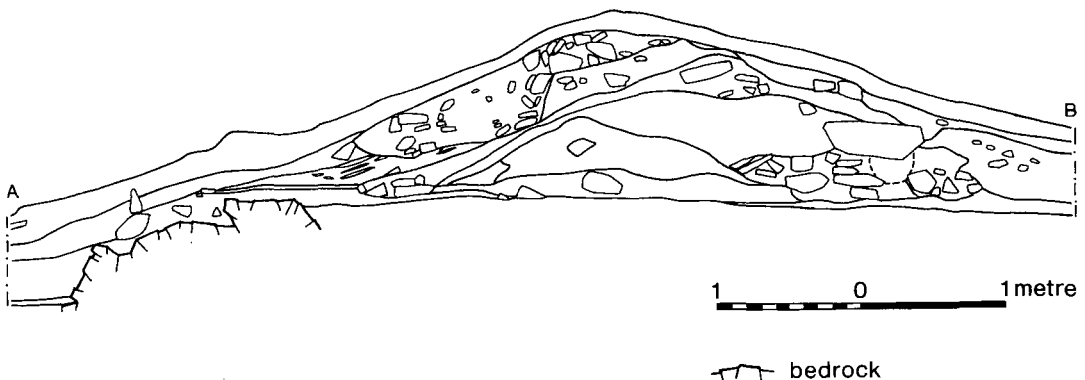
Excavation in 1983, by Peter Strong, was limited to a single cutting through the enclosure bank at a point at its north end where it was being actively eroded by the sea. The purpose of this cutting was to determine the structure of the bank and, if possible, to recover dating evidence for the bank. The section through the bank was recorded and sediment samples taken for the recovery of carbonized plant remains. No artefacts were found. During the writing up of the recent work, the opportunity was taken to re-examine the pottery from the 1935 excavations in the light of advances in the interpretation of Shetland Iron Age pottery.

EXCAVATION (ILLUS 11)

The bank covers a buried soil profile which consists of up to 0.2 m of sandy clay loam overlying till or rock. The bank consists of alternating dumps of rubble and less stony sandy clay loam which survive up to 1.0 m deep in the cutting. The dumps are revetted on both sides by drystone wall faces, roughly 3.5 m apart. The inner face has totally collapsed in the drawn section and its position is taken up by interleaved slumps from the bank core. The lip of the inner ditch was revealed in the cutting, roughly 2 m from the inner face of the bank. The whole bank is overlain by 0.1–0.2 m of amorphous peat.

POTTERY FROM THE 1935 EXCAVATIONS

The pottery from the 1935 excavations at the Ness of Burgi is now housed in Lerwick Museum, Shetland, and is referred to in this report by museum accession numbers. A full report and catalogue by Ann MacSween has been deposited with the site archive.



ILLUS 11 Ness of Burgi: section of bank (see illus 10 for location of section line)

The assemblage comprises 14 sherds representing 10 vessels. All the vessels are handmade, probably by the coil-construction method, and they are well fired. None of the vessels is decorated but two are burnished and several others have had their exterior surfaces smoothed. The fabrics are generally similar – sandy clays either untempered or tempered with mixed rock fragments. The profile of only one vessel (ARC 1993.354) could be reconstructed. It is a squat, flat-bottomed vessel with a flat rim. The vessel has a short neck below which it expands slightly to a shoulder. The only other rim sherd (ARC 1993.357A) is a flat rim, slightly inverted. The lip of the vessel is abraded, possibly through the use of a pot lid.

In the absence of any decorated sherds, a tentative date is offered by comparison with the assemblage from Kebister, where pottery similar to that from Ness of Burgi dated broadly from 200 BC to AD 200.

DISCUSSION

The excavated section was not intended to pass through the best-preserved area of the bank and it appears that the facing walls survive in a more complete state elsewhere. The bank consists of a simple dump of two types of sediment, and it is possible that these are soil and the weathered top to the underlying bedrock. They have been scraped up from either side of the bank. The width of the bank at this point (3.5 m) is substantially less than the width at the entrance passage (6.5 m), indicating that the bank is a slighter feature towards its north-east end.

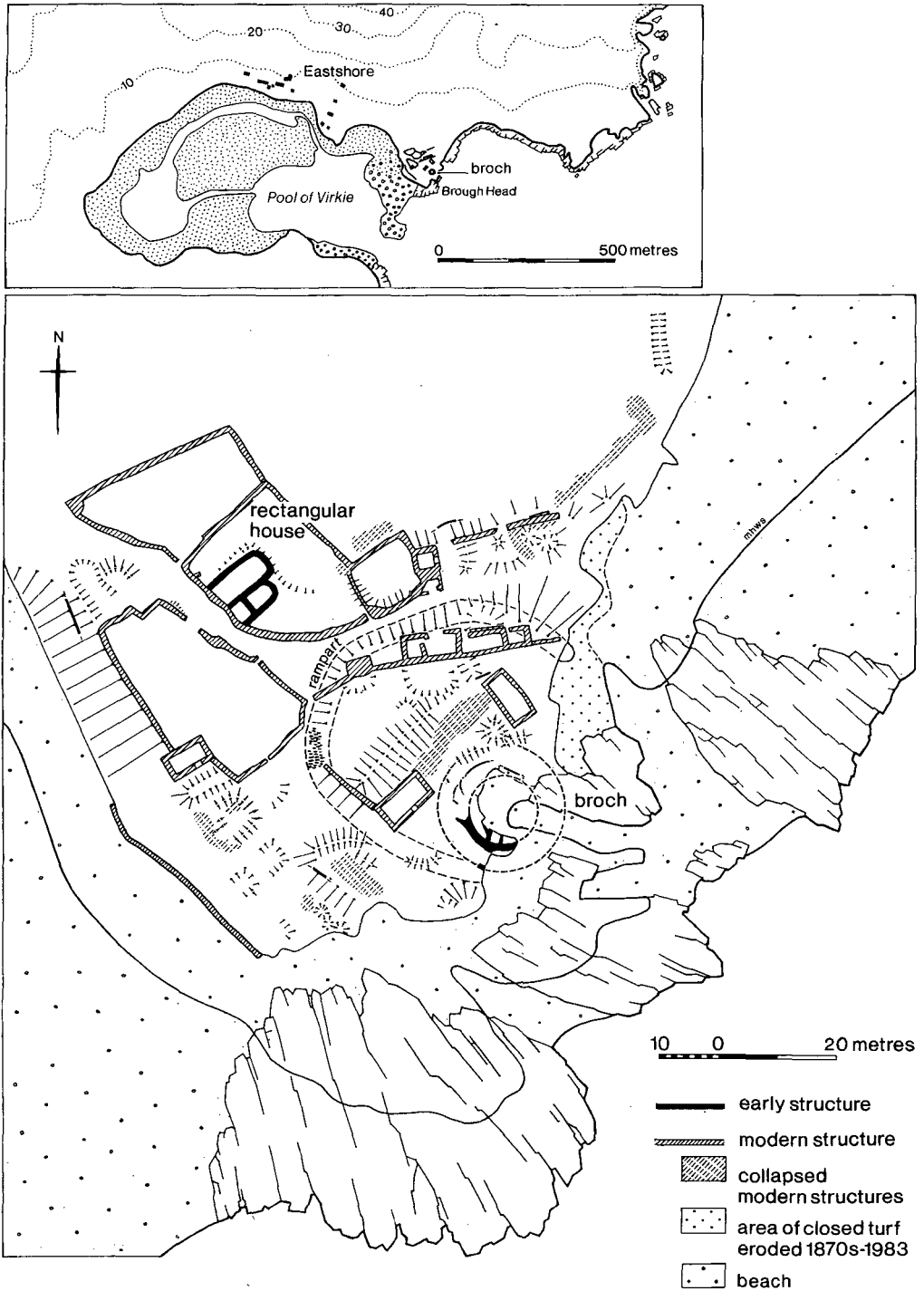
There is no evidence from the section that the bank was either altered or refurbished after construction. No dating evidence was recovered, either in the form of artefacts or carbonized plant remains suitable for radiocarbon dating. The blockhouse itself has been dated with reference to the pottery from the 1935 excavations but the age of this assemblage has been disputed (Fojut 1985, 68). The date proposed in the present report (200 BC to AD 200) offers a *terminus ante quem* of unknown proximity to the construction of the blockhouse.

East Shore

INTRODUCTION

The site is situated on a small headland on the eastern, seaward edge of the scattered township of East Shore (HU 402112) at the mouth of the Pool of Virkie (illus 12). The site most obviously consists of a 19th-century township and a broch, although other elements were revealed by survey and excavation (illus 13). The breached wall of the broch projects from the base of a low knoll (summit 7 m OD) and its vestigial southern arc mingles with the debris of the storm beach at 4 m OD. Beneath this level the near-vertical bedding planes of the bedrock are exposed, running almost east/west towards the broch. Wave action has differentially eroded these beds and, in one particular band of weaker strata, has created a small inlet or geo that now reaches into what would have been the line of the broch wall. The interior of the broch is now covered by storm beach boulders.

The site is not mentioned in the old *Statistical Account* for Dunrossness Parish (Mill 1793). The first record occurs with the OS first edition map (1878), where the settlement is recorded as Brough Head with the actual position of the site marked by a hachured symbol of a mound and with the legend: 'Brough (site of)'. No toponymic information has been located (eg in the OS



ILLUS 12 East Shore Broch: plane table survey of site. (Inset based on the Ordnance Survey map © Crown Copyright)

Name Book) but the possible origins for 'Virkie', as a derivation of the Norse word for 'fort', have been noted (Stewart 1987, 288).

The site was visited by the RCAHMS in 1930. This report, published in 1946, coupled with the earlier OS description, gives the impression of both considerable upstanding detail and also continuing storm damage. In the mid-1950s, a short report appeared (Stewart 1956) which seems to record the breaching of the main wall, though this may reiterate a local report from 1937 (Haggerty, pers comm). It is clear from the report that most of the damage had occurred prior to the investigator's visit in 1930, with the site '... in such a ruinous state that no definite measurements or details ...' were reported (RCAHMS 1946, 27).

The modern settlement of Brough Head, abandoned some time after the First World War, overlies the prehistoric settlement and covers an area of approximately 0.5 ha. The broch stands on the seaward edge of an inner embanked zone that measures 0.17 ha. It is probable that the embankment forms the boundary to an area of deep prehistoric sediment and settlement evidence.

In 1983, a plane-table survey was undertaken on behalf of the then Central Excavation Unit by Alison Haggerty. In that same season, the eroding profile of the broch was investigated. This work, supervised by Peter Strong, was restricted to the creation of two sections, transecting the broch wall and the midden respectively. The storm beach area of the broch interior was not investigated. These sections were re-examined in 1989 by a team from Archaeological Operations and Conservation (the renamed CEU), directed by John Barber.

THE PLANE TABLE SURVEY (ILLUS 12)

The area covered by the survey is delimited on three sides by the coast and on the western side by the eastern boundary to the currently ploughed land. A short programme of fieldwalking on this land was also undertaken.

Amongst the 80 mapped features in the surveyed area two broad phases of archaeological remains can be identified. First, the upstanding or ruined buildings, mapped mostly on the 1878 OS first edition survey, and, second, the underlying hitherto unmapped archaeological remains. The prehistoric remains on the nearby site of Jarlshof (Hamilton 1956) cover only a slightly larger area and perhaps offer a model for the potential scale of the archaeological remains still unexcavated at East Shore.

There are three elements to the prehistoric remains. The first, the broch, will be discussed in the excavation report below. The second is the stone-faced rampart and the third is a partial parching mark in the turf on the north-western margins of the later settlement, which seems to represent a suite of rectangular buildings.

The rampart forms a marked scarp, some 2 m high, which encloses the most elevated area of the surveyed site. In plan, it consists of a series of straight segments and two of these segments are overlain by walls and buildings of the later settlement. At the intersection of the sea cliff and the rampart some 25 m to the north of the broch, the eroding face has exposed a substantial dry-stone revetment. On the north-western corner, the rampart is faced by vertically set slabs which appear to be a protective facing rather than a revetment. The most recent entry on the OS record card refers to a '... great outer wall 30 ft (9 m) from the broch [which] still stands to a maximum height of 8 ft (2.4 m)'. This is an almost verbatim extract from Stewart's account (1956) and although neither measurement now seems applicable it is plausible that in the recent past such a feature, representing the southern return of the rampart, was exposed in the sea cliff to the south of the broch.

The final element of the putative prehistoric archaeology is located on the north-western perimeter of the recent settlement. It appears as a long rectangular structure with several attached



ILLUS 13 East Shore Broch: aerial view of site from north-west

outbuildings (illus 13). The main structure measures more than 10 m long, with an internal width of 4 m. The walls measure 1.2 m thick. The range of credible dates for these buildings is large; they need not be any earlier than the early 19th century but could be medieval. There are other, more ambiguous, features amongst the rubble of the later settlement and it remains a possibility that this conceals extensive medieval and post-medieval remains.

Prior to the 1983 survey, published accounts and anecdotal evidence suggested that the site had suffered extensive and intrusive damage from coastal erosion in the preceding 60 years. Comparison of the 1983 survey plan and the 1878 OS map offers an impression of the impact of this erosion (illus 12). The major difference between these two maps lies in the extent of closed vegetation. To the north of the broch the sea cliff has advanced some 8 m landward, presumably with considerable loss of archaeological deposits.

On the 1878 map the southern portion of the broch is depicted as a raised mound overlooking a seaward extension to the area of permanent vegetation. By 1983, this area had been transformed, the vegetation edge had receded landward and a marked depression had apparently replaced the mound. The RCAHMS inventory records that ‘... close to the beach, a

chamber or gallery is discernible within the thickness of the [broch] wall ...' (RCAHMS 1946, 27). If the mound on the 1878 map truly represents a contemporary topographic feature and was not merely a cartographic convention, then it seems probable that the transformation of the mound to a hollow can be correlated to the collapse of the chamber. It is also possible that these two records correspond to the reported, or more probably mis-reported, breaching of the broch wall in 1937.

THE BROCH EXCAVATION

INTRODUCTION

The site was first excavated in May 1983 to establish the nature of the deposits under immediate threat of erosion. A profile line (illus 14) was chosen to transect the full width of the exposed broch wall and an internal radial bay (Section 1) and midden deposits to the north (Section 2). The transect line was chosen to obtain the greatest information whilst causing least damage. The interior of the broch was not examined because it lay, either buried or destroyed, beneath a landward extension of the boulder-strewn storm beach. The beach appeared to lie at its natural angle of repose and excavation would have had every likelihood of disturbing this equilibrium to the detriment of any surviving archaeological sediments and features. In effect, the chosen excavation method created two, disjointed and slightly misaligned, 10 m long sections.

The excavation concentrated on the retrieval of stratigraphic information and contextually secure samples and artefacts from the vertical faces. Although some artefacts were retrieved in the course of dressing the section, most were retrieved during sample processing undertaken as part of the post-excavation programme. After excavation, the midden face and the section of the broch wall were covered over with loose soil and boulders and the radial bay was back-filled.

In 1989, both areas of the profile were re-opened to recover further dating samples and to resolve certain points of stratigraphy. Afterwards the site was again back-filled.

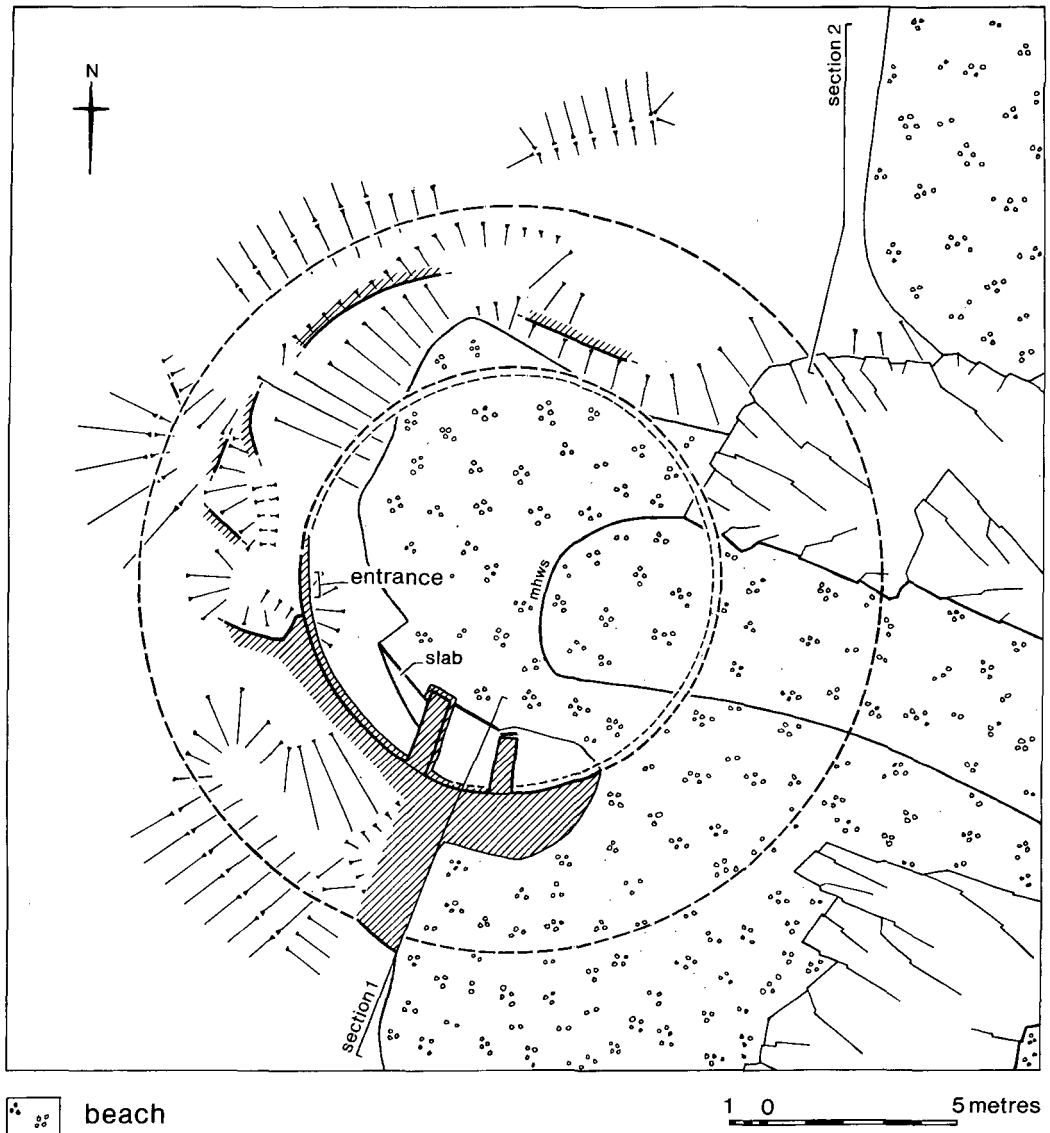
The following specialist reports have been prepared and can be consulted in the site archive:

Animal Bone	<i>Eoin Halpin</i>
Carbonized plant remains	<i>Sheila Boardman</i>
Charcoal	<i>Roderick McCullagh</i>
Fish Bone	<i>Ruby Cerón-Carrasco</i>
Miscellaneous artefacts	<i>Andrea Smith</i>
Pottery	<i>Ann MacSween</i>
Pottery thin section petrography	<i>Dianne Dixon</i>
Textiles	<i>Thea Gabra-Sanders</i>

STRATIGRAPHY (ILLUS 15)

Phase 1: natural sediments

The natural sediments consist of near vertically pitched Devonian sedimentary rocks with a thin capping of weathered till. In some pockets beneath the broch a sandy clay loam survived, but under the midden in Section 2 this soil was absent.



ILLUS 14 East Shore Broch: plan of broch showing location of the recorded section lines

Phase 2: early midden deposits

Pre-broch midden deposits were present to a limited extent within both segments of the profile. In Section 1 they survived in irregularities in the surface of the bedrock beneath the radial bay and as more extensive spreads immediately under the broch wall. In Section 2, they were present only beneath the single large block of stone that was the vestigial remains of the outer façade of the broch wall.

In Section 1, under the radial bay, waterlogged Phase 2 sediments infilled a deep notch in the

bedrock. Small slivers of degraded wood were present in this material. On the adjacent flat bedrock surface a small hearth setting was excavated. Thirty-four sherds of pottery, representing 22 vessels, were retrieved from the Phase 2 deposits in Section 1. Other artefacts include a worked piece of steatite and a sandstone disc. A radiocarbon date from a late deposit in this sub-broch sequence (3161±71 BP, AA-11692) is calibrated at the 2 σ level of probability to 1610–1268 BC.

In Section 2, the midden stratigraphy was broken by a vertical cut which effectively severed the broch masonry from almost all of the midden. The only deposits that were demonstrably early lay beneath this vestigial broch stonework. These deposits produced no artefacts or ecofacts.

Phase 3: broch construction

In Section 1, the southern circuit of the broch wall had been transected by the storm beach. This provided a rare opportunity to examine the foundations, fabric and form of construction.

The first course of broch masonry was laid directly onto the level upper surface of the Phase 2 midden deposits. The basal course of the masonry was broader than subsequent levels and projected 0.55 m from the foot of the outer façade. In vertical section, the wall was battered on both façades and thus tapered slightly with height (Table 3 in fiche). The broken nature of the wall above this level precluded further measurement. The maximum height of the exposed surviving masonry was 2.7 m.

The quality of the masonry within the outer and inner façades indicated a considerable sophistication of technique, with care being shown in the selection of the large regular, tabular blocks and in their location within the façades. It was not possible to assess the stonework within the wall core because the section had cut through collapsed masonry which had probably resulted from subsidence within an intra-mural chamber or gallery. In several places on the inner façade there were patches of a still-plastic clay, which may have been the fragmentary remains of cladding or bonding. It was not possible to ascertain whether these were vestiges of an original feature.

A scarcement was located on the inner face at 1.7 m above foundation level; in section it consisted of a single block. This overhung the underlying wall by 0.1 m, but the façade above the scarcement was set back to create a ledge 0.15 m wide. This ledge was not horizontal in either plane; within the surviving 7 m arc of its circuit it dipped to the south by some 0.13 m and, in profile, the scarcement stone was itself tipped off the horizontal and tilted slightly back into the wall fabric. The stone appears to have been deliberately selected to provide a wedge-sectioned corbel. This shape coupled with the width of masonry that overlies its heel (0.8 m) implies a load-bearing capacity of some magnitude.

By extrapolation of the arc of the inner wall in Section 1 (illus 14), it was possible to reconstruct the wall circumference. It was estimated that 40% of the wall circumference survived beneath the overburden of collapsed masonry. Within this arc, the inner wall face contained an entrance; its lintel was set at 0.95 m below the scarcement, leaving only some 0.75 m for the maximum height of this aperture. It is thus unlikely to have been the main entrance and, instead, may have given access to an intra-mural chamber or gallery. Within the width of the extrapolated wall line at the same location a deep hollow was assumed to mark the collapse of the masonry into a void. This putative collapsed chamber may once have been entered from the lintelled entrance doorway. The extrapolated wall line within the north-western sector contained several vertical faces of masonry within the wall (illus 14). There was no evidence of corbelling in these stretches of masonry and it is likely they represent a gallery rather than chambers.



ILLUS 15 East Shore Broch: section drawings of Area 1 and 2 (see illus 14 for location of section lines)

Phase 4: later broch features

In the small area of the interior that was excavated two radial walls were exposed (illus 14). These differed in size and were slightly askew to the inner broch façade (Table 3 in fiche). The larger, western, radial wall was built slightly corbelled to produce a tapering elevation. A massive slab lying half-supported by the scarcement on the west of the wall indicated the nature of the load that these walls were designed to support. Neither feature was keyed into the existing broch masonry and the lowest courses rested upon fractured bedrock and Phase 2 midden deposits. The base of each radial wall was at a level below that of the lowest course in the main wall. The innermost end face of each wall (ie that elevation of the wall most directly visible from the central area of the broch) had been faced with slabs. Across the mouth of the space between the walls further slabs had been set vertically to form a sill.

Within this space (in effect a radial bay) the floor and lower courses of the walls, including the abutment between radial walls and the sill stones, had been lined with a thick layer of yellow clay. A pavement of small slabs had then been laid on the clay. A shallow highly organic sediment had accumulated on the clay. Over this material a deeper layer of fine gravel formed a foundation course to a second paved level. This in turn was covered by a humic layer which was then overlain by the same sequence of clean gravel and paving slabs. At the same time the interstices of the wall slabs were sealed with more clay.

The majority of artefacts, including pottery (48 sherds representing 29 vessels), worked stone and some cloth fragments, were recovered from these three superimposed sequences of layers, especially the gravels.

Phase 5: external midden deposits

In Section 2 midden deposits had accumulated to a depth of 1.2 m (out of a total profile depth of 2 m). In general, these deposits consisted of sandy silts with inclusions of angular stone and high levels of charred and carbonized matter, including charcoal, ash, seeds, fish and animal bone. There was no stratigraphic relationship to the interior deposits of Phase 4, but similarities in radiocarbon date and pottery suggest that these phases are very broadly synchronous.

The initial deposits of this midden material were laid onto the flat surface of the till. These early layers accumulated in broad horizontal spreads of between 0.1 m and 0.15 m depth. The subsequent accumulation of the mound can be characterized by fine laminations interspersed by broader flatter deposits. There were several examples of truncation and it is likely that at various stages the growth of the mound was curtailed by either erosion or quarrying.

A series of radiocarbon dates was obtained which, calibrated, imply that this part of the midden began to accumulate after 50 BC–AD 230 (AA-11695) (see Radiocarbon Dates, below). A second date from midway up the stratigraphy provided a date of AD 640–890 (GU-3408) and a third date was obtained from a context close to the summit of the mound: AD 263–610 (AA-11694).

The artefacts from this phase included pottery (30 sherds representing 15 vessels), worked stone, pumice and iron slag. Part of a well-made rotary quern was recovered within the uppermost levels of this phase of midden deposits.

Phase 6: post-abandonment deposits

In Section 1, a short segment of the profile extended beyond the sill to the radial bay and cut through the infilling stratigraphy of the central floor of the broch. These deposits, which were all highly organic midden deposits, were unlikely to have accumulated within the environment of

domestic use of this internal space. It is probable therefore that they represent the infilling of the broch interior after domestic use had ceased.

The stratigraphy indicates that this infilling had proceeded for some time before the broch collapsed. The beginning of the collapse was marked throughout the site by deep humic loamy soils which contain large slabs, often steeply pitched. It is very likely that these represent the collapse of the upper parts of the structure. In the exposed profile in Section 1, the outer face of the broch wall was abutted by a mass of disordered stone. Various interpretations were proposed in the course of the investigation: these ranged from a broad buttressing abutment to the broch wall; the outcropping of the southern return of the rampart; and a separate structure that once lay to the south of the excavation area. The 1983 survey did, in fact, record the large southernmost blocks as describing, in plan, an arc of orthostatic masonry. The general lack of order in this material and the lack of a clear stratigraphic position suggest that this material is late in the site sequence.

Phase 7: possible late structure

Within Section 2, the profile cut across a substantial, though ill-formed, section of dry-stone walling and a possible slab pavement or floor. There was no direct evidence to suggest that these elements had formed part of a unitary structure but that possibility remains. Both features were buried by further accumulations of midden and rubble.

This phase contained the earliest deposits of rubble and stone in the sequence which can be postulated to derive from the collapsing broch masonry.

Phase 8: abandonment

The uppermost levels of the Section 2 midden and both the internal and external deposits in Section 1 have become incorporated into the modern soil profile. This zone has been disturbed by soil micro fauna and flora, by rabbits, dogs and indeed by local shepherds (seeking to recover lambs or prevent them from entering voids in the masonry). The depth of this disturbance varies but a minimum depth of 0.4 m is typical.

RADIOCARBON DATES

The transect through the site appeared to offer the opportunity to isolate contexts that spanned the construction, use and destruction of a broch. Accordingly, samples of material suitable for radiocarbon dating were sought from the sub-broch midden levels and from the deposits between the superimposed floors of the radial bay. Samples were also sought from a column of contexts within Section 2 that would offer a chronology from close to the beginning of deposition through to its end.

The choice of sample was limited by the availability of suitable dating material, for example carbonized heather, *Calluna vulgaris*, was excluded because of its possible derivation from burnt peat. Only the following samples could be submitted for dating. They are listed in stratigraphic order and their location is shown in illus 15:

Section 1

Phase 2: AA-11692 AMS date; sub-broch midden levels.

Phase 4: AA-11693 AMS date; humic loam overlying the lowest of the three clay-and-slab-floors in the radial bay.

Section 2

Phase 5: AA-11695 AMS date; from lowest secure context from base of the midden in Section 2.

Phase 5: GU-3408 standard date; from the middle of the sequence of midden deposits in Section 2.

Phase 5: AA-11694 AMS date; uppermost of the taphonomically secure midden layers in Section 2.

The results of the determinations and calibrated dates are presented in Table 4 in fiche. Dates from Section 1 indicate that the construction of the broch occurred at some time between the second millennium BC (AA-11692) and AD 80–410 (AA-11693). The actual date of construction probably lies closer to the latter result, but the former date stresses the potential chronological range of the settlement evidence in general. The earliest date from the Phase 5 midden in Section 2 (AA-11695) may be considered to provide a more precise *terminus ante quem* date for the broch construction and places it into the region of the first centuries BC/AD.

The difference in date between the two later results from Section 2 (AA-11694 and GU-3408) represents an inversion of the date sequence relative to the stratigraphy which must result from either contamination or mixing. As the uppermost, but earlier date, was derived from a single cereal sample there can have been no admixture of the carbon. The date inversion can be best explained as the result of some displacement of the midden material which re-deposited earlier material high up in the sequence.

The dates thus demonstrate that the site had been in use since the mid-second millennium BC at the latest and that site-use persisted at least until the late first millennium AD. Furthermore, as all dates were obtained from layers that predated any evidence for a collapsing broch, it is highly likely that the broch was also in use, or at least stood intact (as perhaps the Norse origins of 'Virkie' infer), until late in the first millennium AD.

MAMMAL BONE

In an earlier account of the site the list of bones from the 'kitchen midden' included cattle, sheep, pig and seal (Stewart 1956). The wet-sieving programme has altered this perception. Although fragments of mammal bone were present in 28% of the samples, only nine fragments could be identified. These included cattle, sheep/goats and one pig tooth, the latter coming from an early context in the midden in Section 2. It has not been possible to make any assessment of the significance of this assemblage, given its small size.

The midden deposits in both sections also contained a small assemblage of small mammal bones. The taphonomy of such remains, especially when the assemblage mostly represents burrowing animals, is contentious and no interpretation is possible.

BIRD BONE

Very few fragments of bird bone were retrieved and these were not further identified. The small size of the assemblage is unlikely to be a result of partial retrieval and must reflect the particular suite of processes that contribute to the deposits on site.

FISH BONE

Fish bone was recognized from 42% of the contexts in Section 2, while in Section 1 the figure was only 7%. The ratio of fish bone to unit volume of sieved soil is small and the retrieved assemblage is, in terms of volume or of minimum numbers of individuals, very small and can support only

general comments. The fish bone was mostly either fragmentary, burnt or crushed. It is therefore likely that the assemblage, like the midden contexts to which the fish bone contributes, was derived mostly from domestic sources. The assemblage contained only a limited range of species, with saithe and cod the most numerous. These were represented by small specimens and probably represent shore fishing activity.

MACROPLANT REMAINS

Charred seeds and plant remains were retrieved by flotation from 32 contexts within the midden and floor deposits. Although the assemblage was predominantly hulled six-row barley, other crop plants included wheat (including emmer [*Triticum cf dicoccum* Schubl.]) and possibly oats. The most notable feature of the assemblage is the absence of naked barley and the relatively high frequency of hulled barley (*Hordeum vulgare*) from Phase 2 contexts. The presence of either hulled or naked barley seems to be mutually exclusive in northern Scotland, with the naked variety being prevalent at Suisgill, Sutherland (van de Veen 1985), and at Ness of Gruting (Milles 1986, 123), but the hulled variety dominant at Scord of Brouster (Milles 1986, 119). It is as yet uncertain what degree of emphasis ought to be placed upon this apparent divergence. Clearly, more dated assemblages are necessary but factors other than date and location (cf Maclean & Rowley-Conwy 1984) may be operating to govern the use of particular types of barley.

The fruits, leaves and stems of heather were the most common items amongst uncultivated plants but the assemblage also included other common taxa from either waste or cultivated ground. Examination of samples from the midden sequence in Section 2 also identified some charred grass and uncharred sedge seeds.

Charcoal was examined as part of the process of the selection of samples for dating. The identified assemblage was predominately made up of heather charcoal. Other species present were alder (*Alnus glutinosa*), ash (*Fraxinus excelsior*), birch (*Betula* sp), hazel (*Corylus avellana*), larch (*Larix decidua*), and Scots pine (*Pinus sylvestris*). This species list is similar to other prehistoric charcoal assemblages from Shetland and is probably largely derived from driftwood.

PARASITE OVA

A preliminary examination by A K G Jones of the contents of a 0.5 m soil monolith tin from the midden layers in Area 2 identified a small number of parasite ova. Their presence reflects the waterlogged state of these sediments. Some ova of the genus *Trichuris* were of the correct size to be from worms which infest humans and one ovum of *Capillaria* represents a genus which is widespread in fishes and birds. Owing to the poor state of preservation these identifications were not pursued and no statistically valid interpretation of the deposits was possible.

POTTERY (ILLUS 16)

Modern glazed pottery was noted in the eroded section north of Area 2, beyond the line of the outcropping enclosure bank. This material was not collected and only the pottery from the excavated contexts has been examined in more detail. It is a small assemblage (estimated to represent 91 vessels) comprising only hand-made, flat-based, prehistoric pottery.

The assemblage contains three fabric types: untempered, rock tempered and talc tempered. Talc and rock tempers occur most often in Phase 2 and Phase 5 contexts but are markedly less common in sherds from Phase 4. Stylistically, the assemblages from the Phase 2 and Phase 5

contexts show a greater similarity than the assemblage from the broch interior (Phase 4). The former contexts contain straight-sided vessels, with plain rims (V15) or shouldered vessels with a short neck (V39). Most of the untempered pottery consists of shouldered vessels with plain or everted rims (V10 & V25) and there is an example of an internally bevelled rim (V20). Burnishing was noted on sherds from Phases 2, 4 and 5, but there were few decorated sherds. One vessel (V6) is decorated with oblique parallel lines below the neck of the vessel, and above the base are traces of an incised pattern, possibly formed from adjoining semicircles. The interior of the rim is decorated with thick parallel grooves and the whole of the exterior of the vessel, including the base and the interior of the rim, is polished. There is also one example of possible painted decoration, formed of a line with two adjoining dots, on the exterior of a Phase 4 body sherd (V3).

The assemblage is too small to support any detailed comparison with other assemblages, but some tentative observations can be made. The talc-tempered pottery can generally be compared with Later Bronze Age and Early Iron Age assemblages in Orkney and Shetland (Hamilton 1956, 38; MacSween forthcoming b), but because of the absence of splayed rims at East Shore, common in Early Iron Age assemblages in the Northern Isles (Cracknell & Smith 1983, 37; MacSween forthcoming b) and any of the decorative elements of earlier forms, a Later Bronze Age date is suggested. The untempered assemblage contains several examples of shouldered vessels with everted rims that compare with those from the broch and later phases at Clickhimin (Hamilton 1968, 120–2), but the absence of forms attributable to broch occupations is cause to place the Phase 4 assemblage later in the Iron Age.

Catalogue of pottery illustrated in illus 16:

V3 Find 1 FNo 11A Area 1. Body sherd painted on the exterior with two adjoining dots, and a line beneath. The vessel has fired red, and the decoration is grey. Fabric – sandy clay tempered with 10% talc inclusions. Hard-fired. T 10 mm.

V6 Find 1 FNo 1055 Area 1. Two rim sherds and a basal sherd from a flat-based vessel with an everted rim. The vessel was either shouldered or globular. The whole of the exterior of the vessel, including the base, and the interior of the rim, are burnished highly, to a polish. The exterior of the vessel, below the point of inflection of the rim and shoulder, is decorated with oblique incised lines, and there are traces of an incised pattern, possibly formed from adjoining semicircles, just above the base. The interior of the rim is decorated with thick parallel grooves. Brown. Fabric – untempered sandy clay. Hard-fired. T 80 mm; Diam – rim 200 mm, base 40 mm.

V10 Find 1 FNo 31 Area 1. Slightly everted rim. Below the neck, the vessel walls slope out, probably to a shoulder. Red. Fabric – micaceous sandy clay tempered with 10% talc fragments. Hard-fired. T 90 mm; Diam 140 mm.

V15 Find 40 FNo 27 Area 1. Plain rim, from a straight-sided, or open-mouthed vessel. Grey. Fabric – fine clay tempered with 60% talc fragments. Hard-fired. T 90 mm.

V17 Find 6 U/S. Inverted rim with a flattened lip, from an undecorated vessel. Brown. Fabric – untempered sandy clay. Hard-fired. T 60 mm; Diam 140 mm.

V20 Find 33/36 FNo 2/Rt Area 4. Three body sherds and a rim sherd from an undecorated vessel. The rim has an internal bevel. Grey. Fabric – untempered sandy clay. Hard-fired. T 10 mm.

V25 Find 1/2/3/5/6/7/8/9/10/11/13/15/17/19/22/24/26 FNo 29 Area 1. Sixteen body sherds, one rim and one

basal sherd from a flat-based vessel with a short neck, slightly everted rim and a rounded shoulder. Brown. Fabric – untempered sandy clay. Hard-fired. T 8 mm; Diam – rim 90 mm, shoulder 160 mm, base 120 mm.

V39 Find 8/26 FNo 40 Area 1. One body sherd and one rim sherd from a shouldered vessel with a short neck. Brown. Fabric – sandy clay tempered with 40% talc fragments. Hard-fired. T 10 mm; Diam 20 mm.

V41 Find 15/28/29 FNo 40 Area 1. One body and two basal sherds from a flat-based vessel with almost vertical sides. Grey with red exterior margin. Fabric – sandy clay tempered with 10% talc fragments. Hard-fired. T 14 mm; Diam 160 mm.

WORKED STONE (ILLUS 16)

Twelve pieces of worked stone were recovered, including five chipped discs, two sub-rectangular plaques, three pounders or hammer stones, half of an upper rotary quern and a fragmentary whetstone. The assemblage in general contains few items that are temporally diagnostic and while in detail they display a wide range of functions these would all appear to be directly related to domestic activities. The chipped discs and plaques probably functioned as pot-lids, though three measure only 50–80 mm in diameter. The interpretation of these discs as pot lids may be supported by the circumferential burning on one example, as if the disc had been placed over a pot of smaller diameter in the hearth, allowing the overhanging edge to become sooted.

Two items have some chronological significance: the rotary quern and the sub-rectangular plaques. The quern was retrieved from the uppermost layers of the midden which contained grain dated to AD 263–610 (AA-11964) but which was re-deposited after 640–890 (GU-3408). The sub-rectangular plaques may have been used as lids to sub-rectangular steatite vessels, although these vessels are considered to date to the Bronze Age. Only one plaque was from a secure context, the latest of the gravel floor refurbishments within the radial bay of the broch. This deposit can be dated, at best, to some time after AD 80–410 (AA-11693). Again it is not inconceivable that early cultural layers were being re-deposited within the broch.

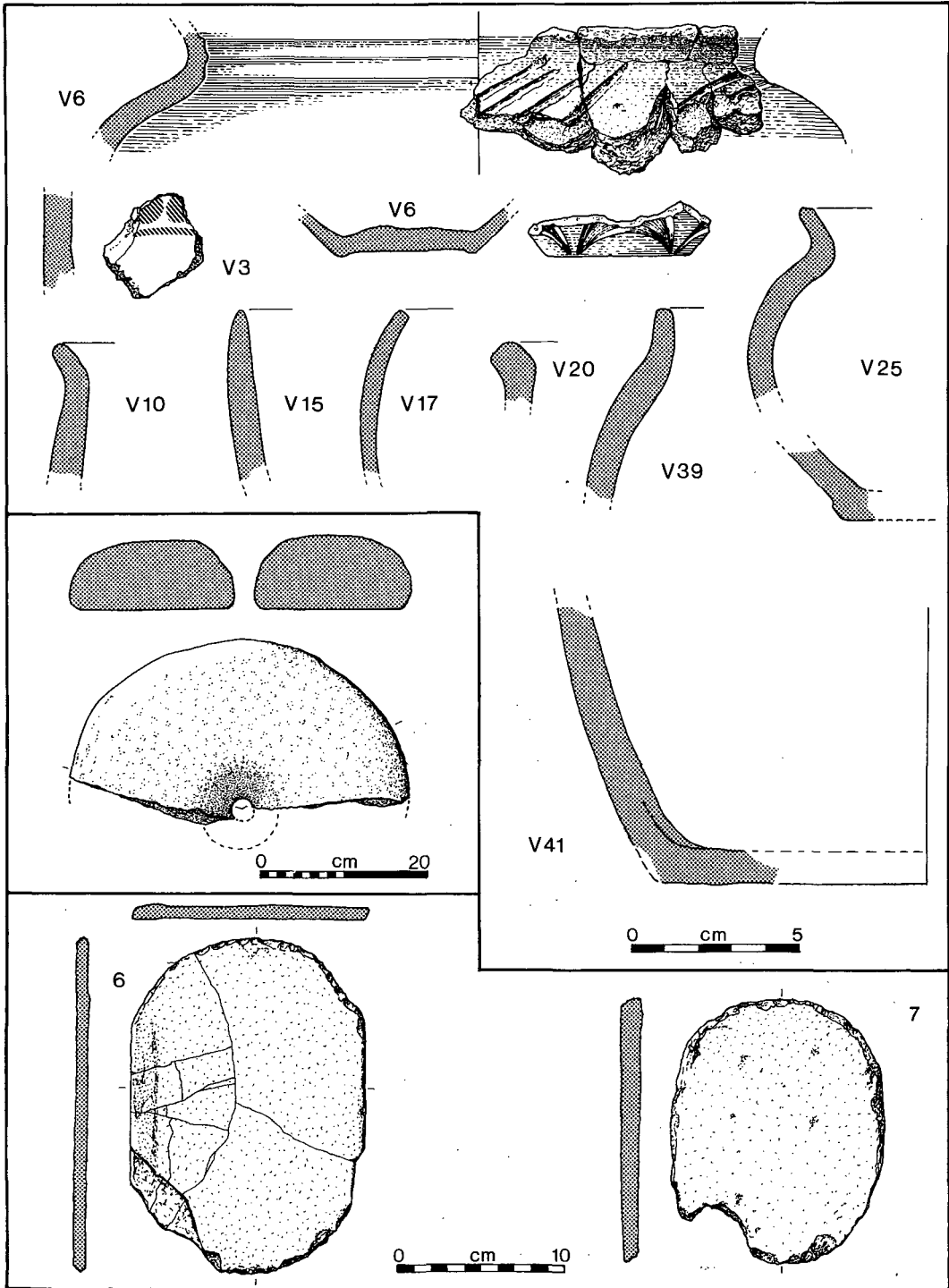
Stray finds recorded as coming from the site include a steatite axe-hammer, a stone maul (NMS GA 1149, GA 1144), a stone mace-head and plain granite ball (Shetland Museum ARC.65883, ARC.669), indicative of a Neolithic presence on or near the site.

METALWORK AND SLAG

Two fragments of a copper alloy pin were retrieved from a context associated with the post-broch structure (Phase 7) in Area 2. Further evidence of metalworking comes from the main midden sequence in Area 2, early in Phase 5. This small assemblage consists of a fragment of a smithing hearth bottom and two fragments of run or tapped slag. This material is thought to represent iron working on site, although no *in situ* evidence was located.

CLOTH

Four small fragments (the largest measured 50 mm by 130 mm) of woven wool cloth were recovered from a gravel re-flooring layer within the radial bay (Phase 4). The woollen thread is Z-spun single yarn. The straight nature of the fibres indicates that they have been prepared by combing. The textile is in tabby weave with the same thread used in both warp and weft. Some variation in thread counts was noted, in one direction 10 and 12 threads per 10 mm were recorded and in the opposite direction the count was 8 and 7 threads per 10 mm. The largest fragment had



ILLUS 16 East Shore Broch: stone artefacts – sub-rectangular plaques and rotary quern; and pottery

been knotted, by means of an overhand knot. The threads along one edge of this piece had been Splied, possibly to form a fringe. The cloth was a reddish brown, although this may in some degree be due to the post-depositional environment.

DISCUSSION

Although limited in extent, the excavation at East Shore has provided evidence for a settlement locus of long duration. The broch is the most prominent element of the settlement sequence and has naturally received the greatest attention. However it is far from certain that the broch represents anything more than a brief phase within this long sequence. The excavation and survey should be seen in the context of first assessments of the site – much of its potential is unquantified and much of its archaeology is still present and unrecorded. The comparative value of the interpretation of the stratigraphic sequence must inevitably be constrained by the nature of the evidence. It is accepted that the details of this interpretation would require significant revision if a more extensive excavation was to be carried out.

PHASES 1 & 2: EARLY MIDDEN DEPOSITS

The highly truncated stratigraphy that precedes broch construction precludes any detailed discussion of the nature or extent of these phases but two aspects are worthy of comment. First, the absence of a mature early soil profile anywhere on the site suggests that human impact on the land was already intensive (and most probably extensive) prior to the earliest deposits. Second, the fragment of a fixed hearth revealed under early midden deposits must indicate that permanent settlement occurred on this site by the second millennium BC. Taken in conjunction with the casual finds of Neolithic material, this evidence is interpreted as indicating considerable pre-Iron Age activity.

PHASE 3: BROCH CONSTRUCTION

The construction of the broch cannot be precisely dated but it was almost certainly built before or during the early centuries AD. Greater precision depends on the interpretation of the nature of the radial bay. It will be argued below that the radial bay was not built to buttress the distressed upper masonry and its construction therefore does not signify a long period of preceding broch use. More crucial is the nature of the foundations to the radial walls. These were built upon a surface that had been eroded to beneath the level of the foundations to the main broch wall (the level of the interior had been reduced by c 0.1 m). It is a moot point whether this occurred as a product of deliberate preparatory quarrying or through internal erosion. If the latter is favoured, it is impossible to determine whether the erosion occurred only in the course of the main construction or through protracted use of the interior. There is thus an impasse and it must be accepted that greater precision in dating the construction of the broch cannot be achieved with the existing data.

PHASE 4: LATER BROCH FEATURES

The chronological distance between Phases 3 and 4 is difficult to assess because, at the level of the scarcement, the broch wall and the internal walls are conjoined, even though at the basal courses in each element some temporal distance is apparent. This conundrum cannot be resolved because the

investigation did not dismantle the radial walls and it is unknown whether these were replacements in coursed stone-work for some earlier support element.

Amongst the rubble within the broch, one end of a large tilted stone slab rested upon the scarcement and upon the western radial wall. If this slab was a typical floor component of a second-floor gallery then the load borne by the radial walls and by the inner façade would have been considerable.

The clay surfacing of the walls and floors of the radial bay may give a hint of some aesthetic aspects to the structure, but it may also have been entirely prosaic in function, providing a damp course at the outer edge of the domestic accommodation. A similar prosaic consideration, that of kick plates to protect the coursed masonry, may have dictated the placement of the vertical slabs on the end-elevations of the radial walls, a feature noted during the excavation of the aisled round-house and wheelhouse II at Jarlshof (Hamilton 1956, 48 & 67).

Hamilton (1956, 58) drew parallels between the description of bed recesses in early Irish law texts and the radial bays in the wheelhouse at Jarlshof. Similarly shaped structures, interpreted as radial bed platforms, were excavated in the waterlogged Early Christian levels at Deer Park Farms, County Antrim (Lynn 1987, 13). At East Shore, such an explanation would also seem possible; the clay floor and walls may have been a damp course feature, offering a greater level of comfort within the radial recess. The superimposed pavements and organic levels within the recess offer to modern observers a barely credible tolerance of apparently noxious deposits. That this process was repeated, thereby reducing the head-room within the radial bay, perhaps demands an alternative explanation for the use of this space. No final interpretation is possible because the samples offered no enhancement of the field observations.

PHASE 5: EXTERNAL MIDDEN DEPOSITS

The series of calibrated radiocarbon dates obtained from the midden in Section 2 indicates that these sediments began to accumulate after 50 BC–AD 230 (AA-11695) and that this process persisted at least until 640–890 (GU-3408). A third date was obtained from a context close to the summit of the mound: 263–610 (AA-11694) suggests that earlier material had been incorporated into stratigraphically later contexts. This date sample represents deposits beneath the possible late construction (Phase 7) set into the midden and appears in section to post-date the cutting of a bedding trench for a drystone wall. In the preparatory stages of work for both structures it is possible that earlier material was quarried and upcast.

The scale of this re-working is perhaps demonstrated by the contradictory interpretations of the artefact assemblages. On the one hand, there was evidence of a closer, chronological association between the Phase 5 sediments and the pre-broch Phase 2 layers (based on the evidence of a shared presence of talc and rock-tempered pottery) than to the Phase 4, internal deposits, yet this is not matched by the radiocarbon dating. The presence of iron slag in the lower midden levels of Phase 5 should also discount the possibility of an early date for these levels. The absence of collapsed masonry from any of the dated levels within the midden may indicate that the broch still stood as a viable structure until relatively late. The calibrated radiocarbon result of AD 640–890 (GU-3408) thus represents a probable *terminus post quem* for the main phase of dilapidation of the broch.

If the survey has been correctly interpreted, with the main prehistoric area enclosed by a bank or rampart, then it is within this enclosure that much of the midden material accumulated. That these sediments were eventually deep enough to obscure the broch entirely should offer some insight into the intensity and extent of these later occupations.

PHASE 6: POST-ABANDONMENT DEPOSITS

It is unlikely that sediment accumulated within the central area of the broch during the course of its primary use. This area, by analogy to other similar sites, would have been the primary area of domestic activity and would have suffered from the greatest degree of erosion. Therefore the organic sediments that survived within this area must have originated after the broch interior or, at least its lower floor, had ceased to be used continuously. Unfortunately so little survived from this phase that no information on the nature or date of this cessation of use was obtained.

PHASES 7 & 8: POSSIBLE LATE STRUCTURE AND ABANDONMENT

The upper part of the profile in Section 2 was interpreted as a section through a stone flagged building with a possible free-standing end wall. It is possible that this section was aligned on the long axis through a rectangular building, but given the limitations of the excavation no further speculation is possible. There was no artefactual evidence to determine either function or date – the fragments of a copper alloy pin, found in the sub-floor deposits, were undiagnostic.

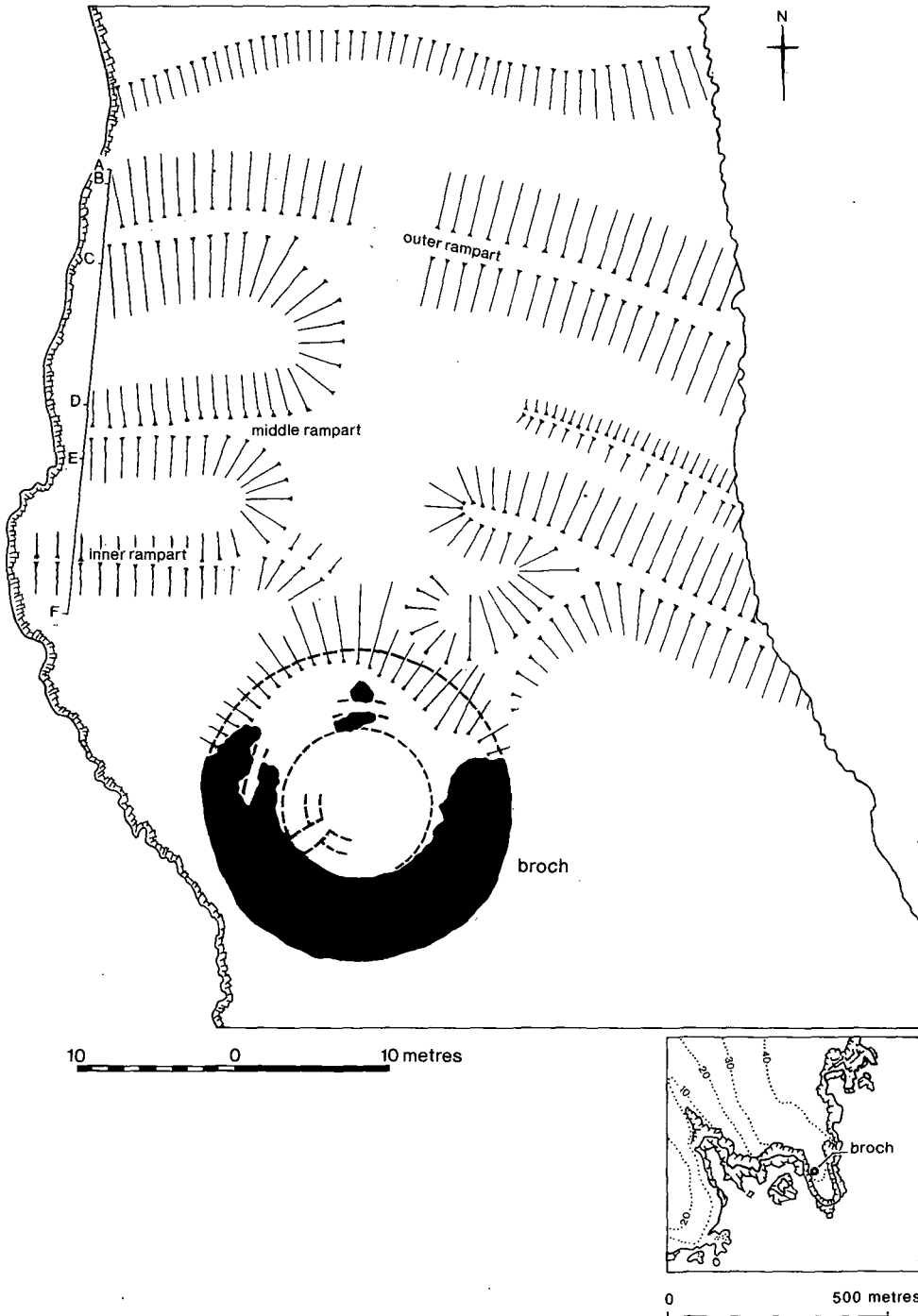
The date for the initiation of the collapse of the broch could not be determined but it is likely that in the course of the use of the Phase 7 building this collapse had begun and that it continued well into recent times. The boundary between Phases 7 and 8 is nowhere precise and merely represents the depth of penetration of various recent soil processes. The extent of tidal and storm damage to the site (the line of enquiry that prompted the excavation in the first place) has clearly been considerable and it is unlikely that much of the interior of the broch survives in an intelligible form. Since 1878, the only obvious damage appears to have been the collapse of the intra-mural chamber or gallery within the broch and the loss of a swathe of midden on the northern side. There is circumstantial evidence for the late survival of the broch until possibly the early medieval period, which leaves only some 800 years for the loss of up to 75% of the stonework. During this time, the broch was arguably less susceptible to erosion because of the depth of accumulated deposits around it. Coastal erosion may have been a factor but the role of people, as stone robbers and quarriers, may have been the more destructive agent.

Broch of Burland

INTRODUCTION

The Broch of Burland (HU 445360) is situated on a headland that projects southwards into the sea between Gulber Wick and the East Voe of Quarff (illus 17). It is surrounded by precipitous cliffs, 20–30 m high. The site consists of a ruined broch and a rampart and ditch system that cross-cuts the headland immediately north of the broch. Three ramparts and ditches form a 40 m deep barrier demarcating about 0.5 ha of land on the headland. These were examined by RCAHMS (1946, 70) and Lamb (1980, 34) who concluded that the outer rampart was stone revetted on both sides (5.5 m wide) and that the central rampart was a simple dump construction. The inner rampart was a dump rampart to the east of the entrance gap but a well-built 3 m wide wall to the west. The west end of the wall was a neat drystone face, not an erosion truncated section; Lamb described this as a ‘blockhouse-plan wall’ (1980, 34). This contrasted with the central and outer ramparts which were both truncated and actively eroding at their west ends.

In response to this erosion, a section was cut across the ramparts along the western cliffs, under the supervision of Peter Strong. The excavation did not extend to the inner rampart as it was



ILLUS 17 Broch of Burland: plan of site showing location of the section trench (based on RCAHMS 1946).
Inset based on the Ordnance Survey map © Crown Copyright

not actively eroding, nor did it penetrate to the base of the original ditch profiles. The work was intended to define the nature of the outer and central ramparts and to seek dating evidence for their construction. Sediment samples were collected for the recovery of carbonised plant remains. The only artefact type found was pottery; this was examined by Ann MacSween and a report may be consulted in the site archive.

EXCAVATION (ILLUS 18)

OUTER RAMPART AND DITCH

Prior to excavation the outer rampart appeared as a low ridge with its crest surviving to about 1.3 m above the ditch bottoms (these measurements refer to the section – no accurate survey of the whole monument was undertaken). In section the outer rampart was shown to have a stone outer revetment; behind the revetment, three distinct dumps of very stony sandy loam formed a bank of some 3 m width. The stone facing was not intact. Numerous slabs appeared displaced into the upper ditch fills but it seems probable that, at least in section, this revetment was built vertically. A buried soil survives as an irregular layer, 0.15 m thick, underneath the bank. The outer ditch was only partially investigated, but the outline of the ditch cut was seen pitching steeply down from the basal stone of the revetment. There was some slight evidence to suggest that the rampart overlay the fills of the central ditch.

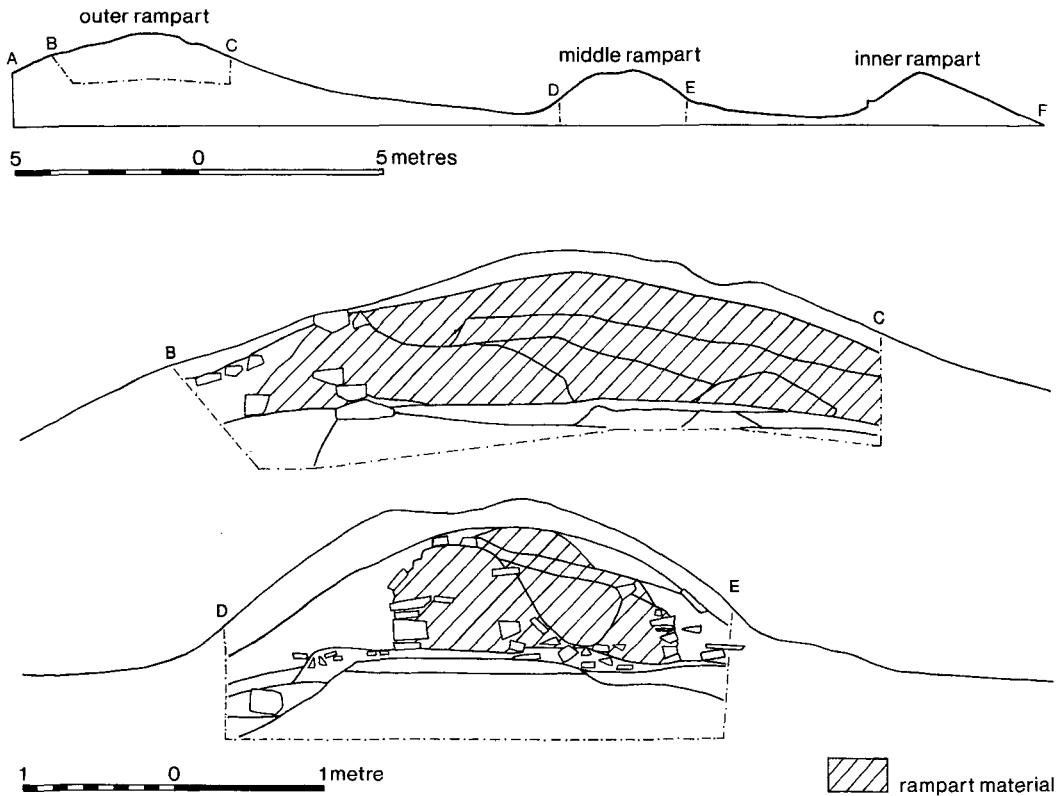
CENTRAL RAMPART AND DITCH

The shape of the profile of the central rampart indicated a better-preserved structure, as its sloping sides were steeper though the crest stood at a maximum of only 1.2 m above the ditch surface. In section it was shown to be stone revetted on both faces. The revetments were 2 m apart and survived for four to five courses of slabs to a height of 0.35 m. These retained a bank 1.8 m wide and 0.8 m high comprised of subsoil presumably quarried from the ditch. The deep deposits to either side of this rampart must be derived from eroded bank material. The rampart is built upon a layer of sandy loam which overlies fills of the central and inner ditch. Three undecorated sherds of pottery were recovered from the layer under the rampart. This layer overlies a buried soil which survives in a 1.5 m wide band between the two ditch cuts.

DISCUSSION

The limited objectives of the excavation were only partially achieved. Both the outer and central ramparts were shown to have stone faces to rubble and soil cores and this suggests that all three ramparts are of similar construction. The apparently distinctive nature of the western inner rampart reported by Lamb reflects its good state of preservation rather than special construction methods. Its faced west end could simply be the original extent of the rampart, indicating only minimal cliff erosion at this point.

The only potential dating evidence recovered was the pottery from under the central rampart. The sherds are undecorated body sherds and are chronologically undiagnostic. More important is the evidence for chronological complexity: the central rampart was constructed after the adjacent ditches had, at least partially, infilled and may have replaced an earlier bank, represented by the layer containing pottery. The outer rampart may also be a later addition, although this is less certain.



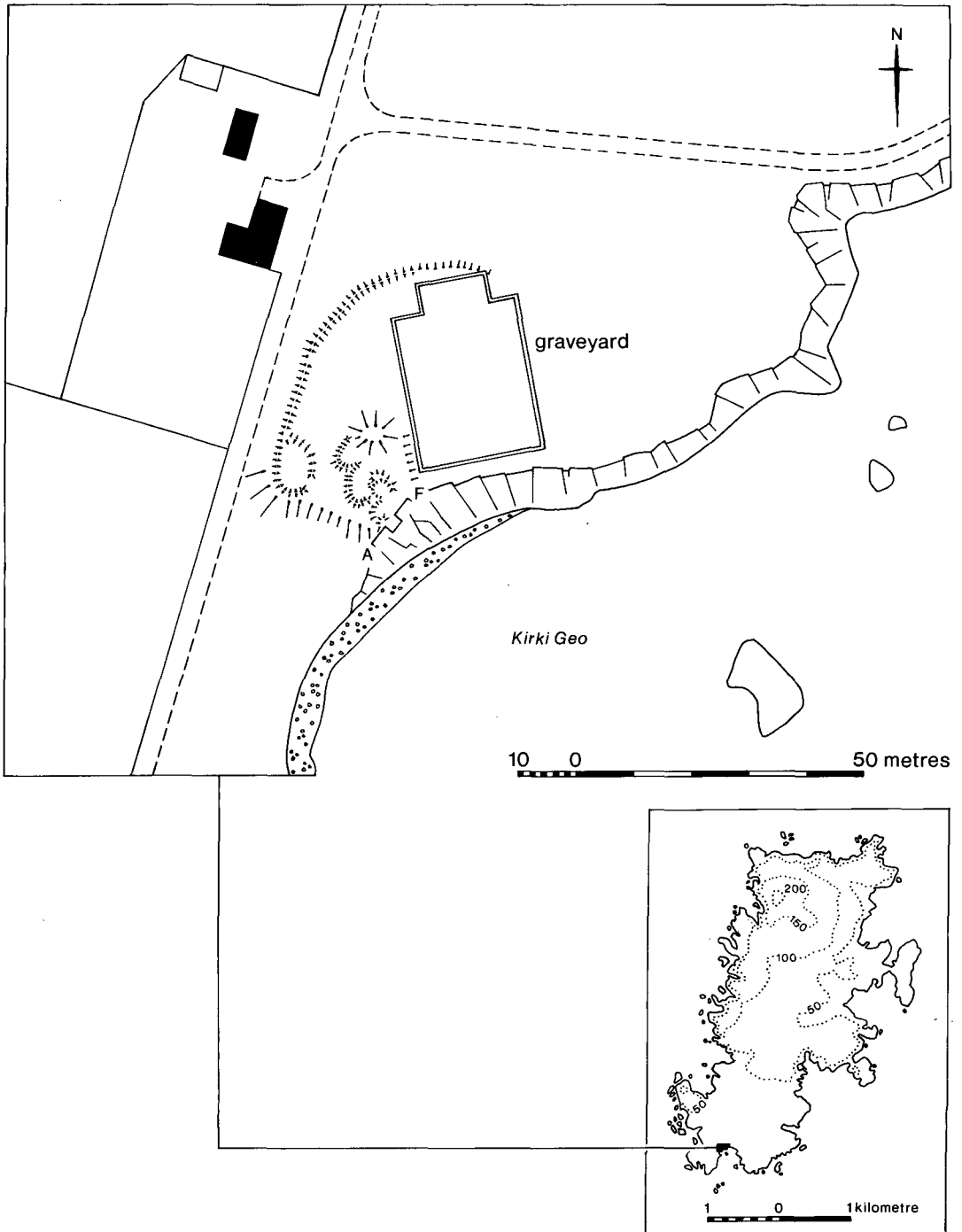
ILLUS 18 Broch of Burland: section drawings of outer and middle ramparts (see illus 17 for location of section line)

Kirki Geo, Fair Isle

INTRODUCTION

The site is situated on the western shore of Kirki Geo within the South Harbour (HU 201699), the principal landing place in the south of Fair Isle (illus 19). It is located on the top of steep cliffs, approximately 8 m south-west from the corner of the graveyard, and lies on the south-east edge of a complex area of earthworks. These features were subsequently recorded by the University of Bradford Fair Isle Survey as site 229, a possible chapel or monastic site (Hunter 1984, 25, figs 23 & 24). Pottery ('several broken urns') has previously been reported from the graveyard (Goudie 1889).

The excavation was prompted by coastal erosion; bones and pottery had been discovered on the shingle beach below the site. A 7 m long section, orientated north-east to south-west, parallel to and 2 m from the cliff edge, was excavated under the supervision of John Barber. The middle 2.5 m portion of the section projected by 1.25 m creating five sections in total. Uncontexted bones and pottery sherds were recovered during the cleaning back of these sections. A strip, 0.5 m wide, was then excavated along the face of the section, revealing cultivation marks in plan. Contexted



ILLUS 19 Kirki Geo, Fair Isle: plan of site showing location of excavation (based on Hunter 1984). *Inset based on the Ordnance Survey map © Crown Copyright*

pottery sherds and bone were recovered by hand during this operation and soil samples were taken for the recovery of carbonised plant remains. Processing of these samples failed to retrieve any carbonised material and post-excavation analysis was restricted to a study of the pottery. This report, by Ann MacSween, may be consulted in the site archive and only a summary is published here.

EXCAVATION (ILLUS 20)

STRATIGRAPHY

Phase 1: ditch and cultivated soil

The earliest feature revealed on the site was a shallow ditch. Excavated in plan, the ditch ran roughly parallel to the cliff edge. It was visible in the orthogonal section (BC in illus 20) but must have emerged from beneath the central area (section CD) at a shallow angle as its exit was not detectable.

The ditch fill was overlain by a buried topsoil which extended throughout the excavated area; ard-marks were identified at the base of this soil layer. Despite the similarity of the ditch fill to that of the ard-marks, one ard-mark was seen to cut into the uppermost surface of the ditch fill. The ard-marks of this series are long and parallel and run at 30° to a second series of ard-marks. Two broad shallow scoops appear to be later than the ard-marks, but their precise relationship to the latter remains unclear.

Phase 2: dumped sediments

The field interpretation of the deposits of this phase was that they were dump deposits, the original character of which has been retained in two sediment accumulations at points B and E on the section line. These are linked by two layers of sediment which, from their extent and relative homogeneity, were interpreted as soil horizons. Almost all of the pottery and bone was recovered from contexts in this phase. A single radiocarbon date was obtained from bone in the latest context of this phase; this gives a calibrated age range of AD 600–810 (AA-11696).

Phase 3: fire-shattered stones

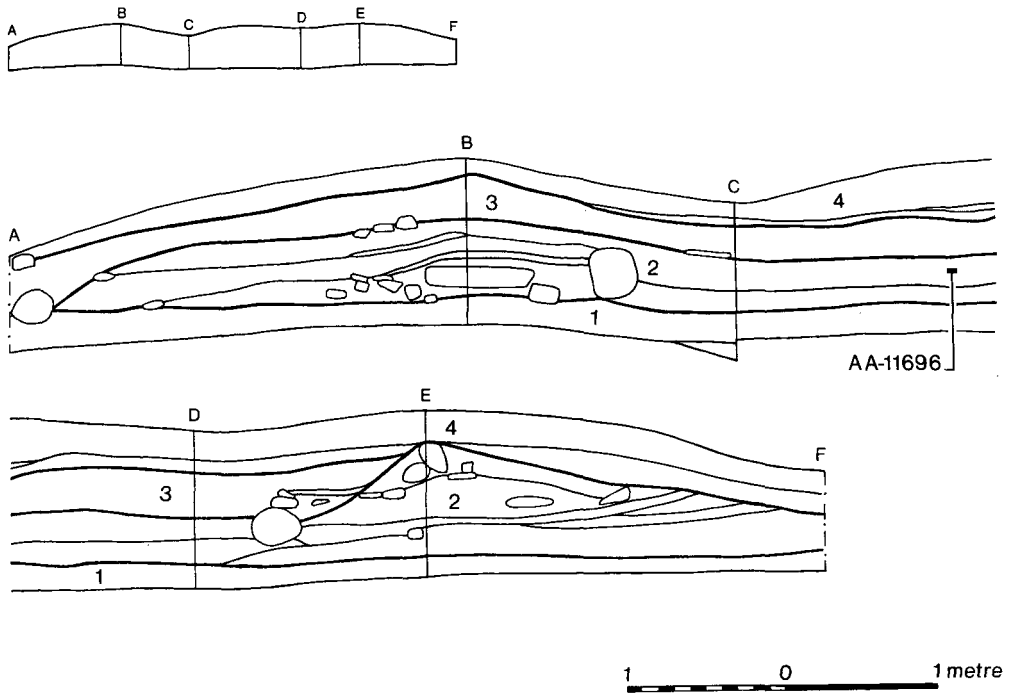
The third phase was represented by an homogeneous and well-spread sediment containing small, angular, fire-shattered stones which comprised some 60% of the deposit. The stones ensured that the deposit remained fairly uncompacted and this has encouraged a high degree of modern rooting in the soil component.

Phase 4: recent soil and sediments

The final phase of activity consists of modern overburden incorporating dumped ash deposits. The modern sward has evolved on top of this and worm sorting has cleared the dumped material from the uppermost 50–150 mm of the deposit.

RADIOCARBON DATE

No carbonized plant remains suitable for dating were recovered from sediment samples, but a single date was obtained from terrestrial mammal bone from the stratigraphically highest context in Phase 2. The result, and calibrated age ranges, are presented in Table 5 in fiche.



ILLUS 20 Kirki Geo, Fair Isle: section drawing (see illus 19 for location of section line)

POTTERY (ILLUS 21)

The assemblage of pottery comprises 309 sherds representing 115 vessels; 184 sherds were from the cleaning back of the section and are uncontexted. The remaining sherds are from Phase 2 with a few from Phase 3.

The pottery is all handmade, probably by the coil-construction method. Two types of clay were used, a sandy clay and a fine clay, the sandy clay being used in 83% of the vessels. The clay was either used untempered (33% of vessels) or was tempered with grass (63%) or rock fragments (4%). Thirteen sherds were analysed in thin section; 10 of the clays could have been derived from local sedimentary rocks, while the source of three others must have included a non-local metamorphic rock. However, if the rock came from the drift, a local source is still possible.

Despite the fact that much of the pottery is in a fairly fresh condition, too little remains of individual vessels to allow any complete reconstructions. From the variety of rim and basal forms it appears that a range of vessels was being made. There are four examples of plain rims; two each of necked rims (V114); everted rims (V96) and internally bevelled rims (V9 and V99); and one example each of inverted, slightly everted and rolled rims. The angles of the rims indicate that some of the vessels were open bowls while others were barrel-shaped or necked with a shoulder. The shape of the basal sherds indicates that some of the vessels had almost straight sides (V115) while others were more angled (V69) or barrel-shaped. The basal diameters range from 100 mm to 180 mm while the rim diameters range from 140 mm to 280 mm, and it is probable that the vessels were small to medium in size.

In the assemblage 22% of the vessels have had their surface smoothed over before firing, while a further 17% were burnished. One vessel was burnished highly to a polish while another had been grass-wiped. There are only three occurrences of decoration: a base with fingertip impressions into the flat part of the interior; V100 which has the remnants of incised decoration; and V112 which has part of a band of incised lines and impressed dots.

Grass was being used as a tempering material in the Northern Isles from the third century AD, as evidenced by the assemblage from Kebister (Dalland & MacSween, forthcoming). Its use continued through the Norse period at sites such as Jarlshof (Hamilton 1956, 188) and from the assemblages so far analysed, the vessel forms do not seem to change markedly until the medieval period when 'imported' wheel-thrown vessels were sometimes imitated. It should be noted that in the absence of radiocarbon dates, it would have been impossible to date the Fair Isle assemblage closer than post-third century AD.

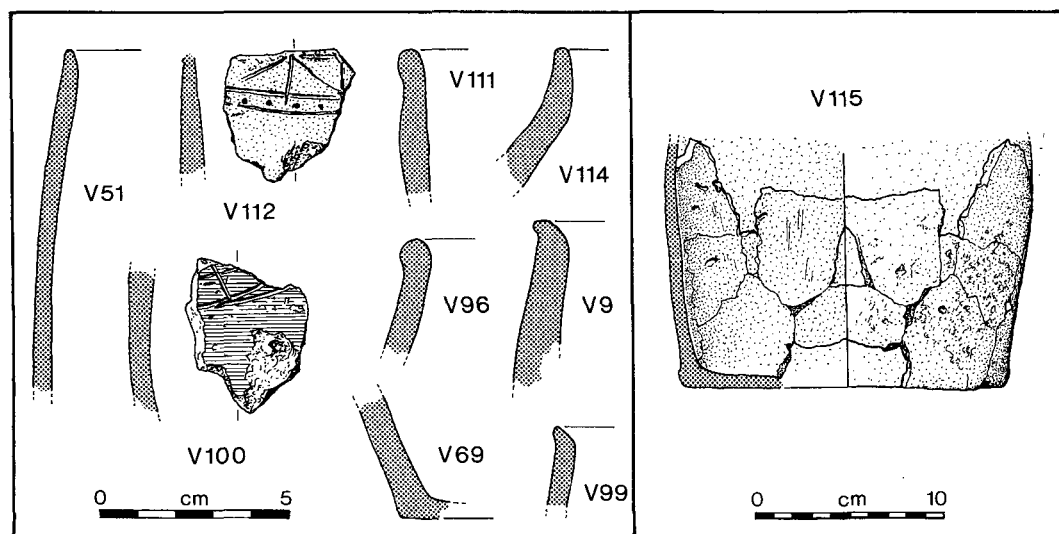
Catalogue of pottery illustrated in illus 21:

V9 Rim with an internal bevel. Grey with buff surfaces. Fabric – fine clay tempered with organics. Hard-fired. T 11 mm; Diam 220 mm.

V51 Plain rim from a barrel-shaped vessel. Grey with red exterior margin. Fabric – sandy clay tempered with organics. Hard-fired. Exterior and interior sooted. T 6 mm; Diam 260 mm.

V69 Flat base with angled walls. Grey with buff exterior surface. Fabric – sandy clay tempered with organics. Hard-fired. Exterior and interior sooted. T 7 mm.

V96 Slightly everted rim. Exterior burnished. Grey with buff surfaces. Fabric – sandy clay. Hard-fired. Exterior and interior sooted. T 5 mm.



ILLUS 21 Kirki Geo, Fair Isle: pottery

V99 Rim with an internal bevel. Exterior burnished. Grey. Fabric – sandy clay. Hard-fired. Exterior and interior sooted. T 5 mm.

V100 Body sherd with incised decoration, possibly part of a band of decoration. Exterior burnished. Grey with buff margins and a black exterior surface. Fabric – sandy clay tempered with organics. Hard-fired. Exterior sooted. T 7 mm.

V111 Plain rim, necked vessel. Exterior burnished. Grey with red exterior surface. Fabric – sandy clay. Hard-fired. Interior sooted. T 7 mm; Diam 24 mm.

V112 Body sherd with incised decoration forming a band of incised horizontal, vertical and oblique lines and impressed dots. Exterior surface smoothed. Grey with red surfaces. Fabric – sandy clay tempered with organics. Hard-fired. T 6 mm; Diam 24 mm.

V114 Plain rim, necked vessel. Grey with buff interior surface. Exterior smoothed. Fabric – sandy clay tempered with organics. Hard-fired. Exterior sooted. T 7 mm.

V115 Reconstructed basal portion of a flat-based vessel with slightly angled walls. Exterior smoothed. Grey with a red exterior surface. Fabric – sandy clay tempered with organics. Exterior and interior sooted. T 5 mm; Diam 140 mm.

DISCUSSION

Phase 1 is represented by the shallow ditch and the cultivation marks. The date of this episode is unknown and, although it is clearly earlier than the main late Iron Age set of deposits, it need not have preceded them by any great interval. The phase has some chronological depth (the ard-marks cut each other and the ditch) but again this does not necessarily represent a long period.

The Phase 1 soil is covered by a sequence of sediments containing bone and pottery (Phase 2) which, in turn, have a soil developed in their surface. The pottery is generally unabraded with relatively large sherds suggesting little or no re-working of the deposits. A calibrated age range of AD 600–810 has been obtained from bone in the latest sediment of this phase. This date is consistent with the nature of the pottery assemblage and reinforces the view that grass-tempered fabrics are a characteristic of late Iron Age pottery in the Northern Isles.

The presence of a soil in the surface of the Phase 2 sediments implies that some considerable time (at least decades) elapsed between the dumping of the deposits of this phase and those of the overlying, Phase 3 deposit. Phase 3 consists of a single layer of fire-shattered stone, a sediment type characteristic of burnt mounds. Its source is likely to have been a domestic cooking site set no great distance away and would therefore fall into Barber's Class 4, settlements with burnt mound material (Barber 1990, 98). The date of deposition of this stone depends on the time interval represented by the Phase 2 soil but it is clearly no earlier than late in the first millennium AD. Thirty burnt mounds have been recorded in Fair Isle (Ferguson 1990, 178) but none of these has, so far, been dated. However, three burnt mounds from the Scottish mainland have been dated to this period (Barber 1990, 102).

The nature and date of the Phase 2 deposits suggests dumping on the periphery of a settlement in the late Iron Age. The settlement is presumably represented by the complex of earthworks recorded by Hunter (1984) covering an area of 40 m by 25 m. These comprise an enclosure bank and an area of possible structures adjacent to the cliff. The identification of this site as a possible chapel or early monastic settlement relies on the fact that the enclosure appears to be concentric with the modern graveyard and the supposed site of a pre-17th century church dedicated to St Peter (Goudie 1912). The Phase 2 radiocarbon date, which demonstrates occupation in the seventh or eighth centuries AD, supports this tentative identification.

CONCLUSIONS

THE SHETLAND BLOCKHOUSE

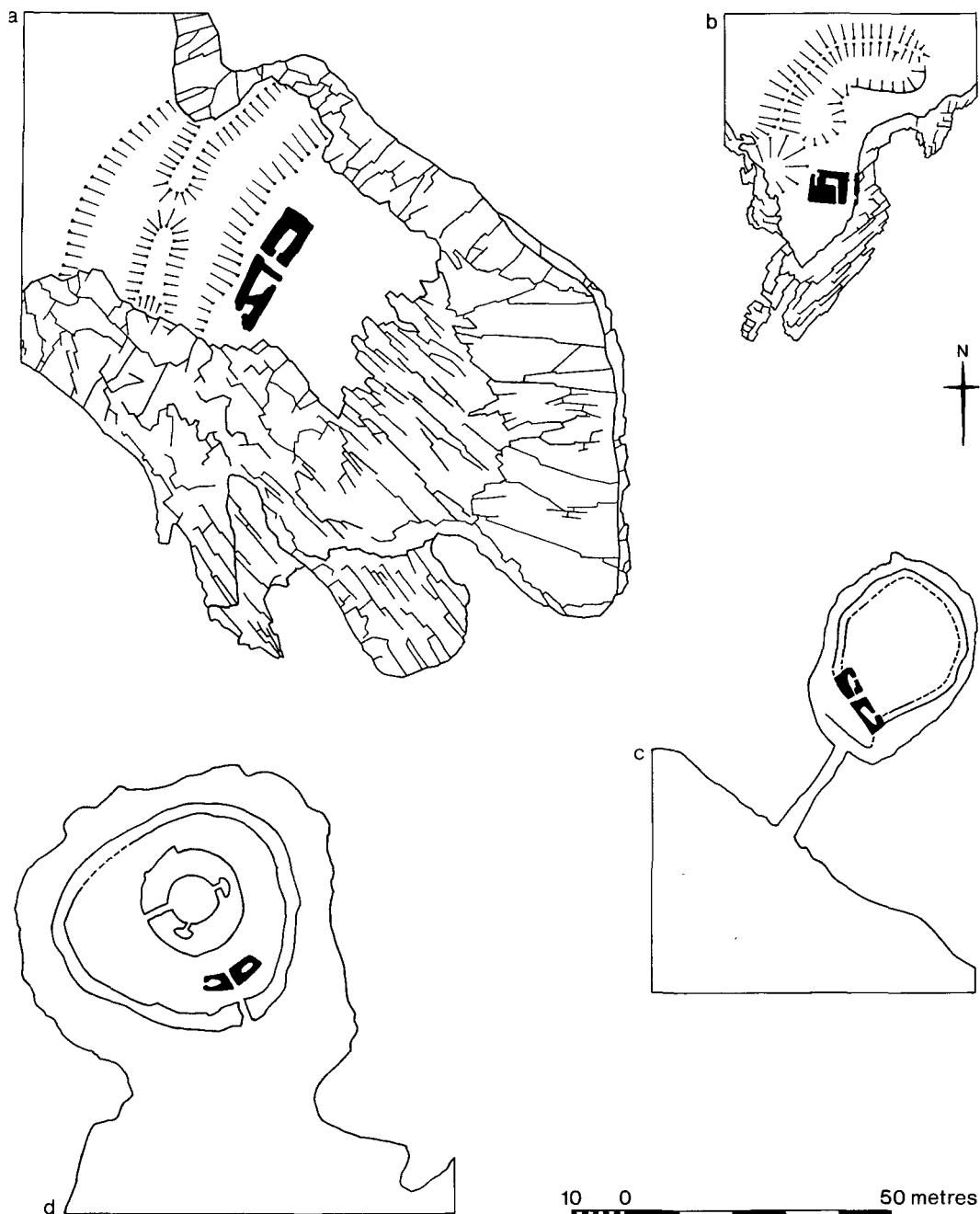
With the excavation of the Scatness blockhouse, three out of the four known Shetland blockhouses (Scatness, Clickhimin, Loch of Huxter and Ness of Burgi) have now been thoroughly investigated. It is therefore an appropriate point at which to review the accumulated information about this site type.

The Clickhimin blockhouse was largely cleared out in the mid-19th century without detailed archaeological recording and then surveyed by Dryden in 1855 and 1866 (Dryden 1873). Excavations by Hamilton between 1953 and 1957 uncovered the lowest 3 ft of the structure and revealed the existence of a cell in the western half of the building (Hamilton 1968). The Ness of Burgi blockhouse was investigated in 1935 by Mowbray; excavation was restricted to the blockhouse itself and a small collection of bone and pottery was recorded. The fourth example in the Loch of Huxter, Whalsay, was described in 1774 by Low (1879) and in 1861 by Mitchell (1881). It was accurately surveyed by Calder (RCAHMS 1946) but has not been excavated. Despite the statement by Fojut (1985, 70), that examples of blockhouses are known from Orkney, Caithness, Sutherland and the Western Isles, there are still only four certain examples of rectangular, freestanding drystone structures with central passages and intramural cells, and these are all in Shetland (illus 22). Various other, unexcavated sites have been proposed as blockhouses with more or less conviction but none has yet been confirmed. Lamb, who correctly identified the Scatness blockhouse before excavation, also suggested the sites at Burgi Geos, Yell, Shetland (illus 1), and the Riggan of Kami, Deerness, Orkney (Lamb 1980, 26). Burgi Geos remains unexcavated but the site at the Riggan of Kami was excavated by Gelling in 1982 and proved to be a ground-galleried broch.

The term 'blockhouse' was first used in this context by Hamilton in his publication of the excavations at Clickhimin (Hamilton 1968). Earlier investigations of the structures now referred to as blockhouses used functional terms such as 'guard-house' (Dryden 1873), derived from the relationship between the broch and blockhouse at Clickhimin, or descriptive terms such as 'chambered building' (Mitchell 1881). Mowbray avoided classifying the blockhouse in the published report on excavations at the Ness of Burgi (Mowbray 1936) but both the sites at the Ness of Burgi and Loch of Huxter were listed as forts in the Inventory of Shetland (RCAHMS 1946); the Ness of Burgi was a 'gatehouse fort' on the Ordnance Survey antiquity card. By the time that Lamb was writing (Lamb 1980), the Ness of Burgi, Loch of Huxter and Scatness sites were 'blockhouse forts'. The earlier descriptive term 'forework' was applied by Lamb to a much wider range of sites on promontories in the north of Scotland which he related to blockhouses (Lamb 1980, 19–42).

The development of the terminology reflects the interpretations placed on blockhouses. These culminated in Hamilton's image at Clickhimin of the fortified residence of the chieftain, commanding 'a tightly-knit band of invaders settling in alien territory' (Hamilton 1968, 74). In a discussion of the Ness of Burgi, Hamilton stated:

The siting of the fort on such a barren peninsula was governed by two major considerations. In the first place the promontory commanded excellent anchorage in the Voe of Sumburgh and as a naval base afforded control of the southern approaches to the Shetlands. Secondly as the land defences show, it must have served as a beach-head and then as a military base in the subjugation of the southern part of the mainland ... The dimensions and general arrangement of the blockhouse suggest that duties may have been divided between two related commanders, whose crews and retainers were housed in a domestic range attached to the rear of the building (Hamilton 1968, 74).



ILLUS 22 Shetland: comparative plans of the four sites with a confirmed blockhouse (based on RCAHMS 1946 and Hamilton 1968): (a) Ness of Burgi, (b) Scatness, (c) Loch of Huxter, (d) Clickhimin

Various aspects of Hamilton's interpretation have been criticized by subsequent writers (Lamb 1980; Fojut 1985), notably his use of parallels in Irish heroic literature to provide a social context for the blockhouse, and the early Iron Age construction date, based on the difficult stratigraphy at Clickhimin and comparison of undated pottery assemblages. However, these criticisms have not substantially moved the interpretation away from the view that blockhouses are a distinctive element of some fortified Iron Age sites with at least some defensive function.

The excavation of the Scatness blockhouse offers the first opportunity to test Hamilton's interpretations with new data. These data can be used to address three areas of interest: the date of construction and use of blockhouses; the structure of the blockhouse; and the context and function of the blockhouse.

Dating evidence from the excavations at Scatness is extremely limited and offers no useful information on the date of construction. The three radiocarbon dates from Phase 3 indicate that the blockhouse was intact, but apparently not in use by the eighth century AD. Despite the uncertainty raised over the precise interpretation of the Clickhimin sequence (Stevenson 1970; Lamb 1980), it is clear that the blockhouse there must be considerably earlier than the Scatness dates. Therefore, unless blockhouses were built over a considerable timespan, the Scatness dates must offer only a remote *terminus ante quem* for construction and use of these structures. The current interpretation of the age of the pottery from the Ness of Burgi reinforces the Clickhimin evidence for construction dates in the first millennium BC rather than the first millennium AD. Evidence for the duration of use of blockhouses is linked to interpretation of their functions (see below). It may be noted that at least three out of four blockhouses survived as substantially intact standing buildings for at least a thousand years. Clickhimin alone has survived to the present day, but Huxter was reduced only in the 19th century and Scatness was still standing until after the eighth century AD.

The structure of the Scatness blockhouse offers many close parallels with the other examples and serves to reinforce the impression that blockhouses are a distinct type of structure. All four are rectangular with a central passage flanked by cells. In all cases the central passage has an expansion closer to the front with a bar hole indicating the location of a door. If it is assumed that Scatness was originally symmetrical about the central passage, then it is closest in shape and dimensions to Huxter. Clickhimin, although similar in size, has a curved façade, and the Ness of Burgi is considerably larger. The arrangement of cells at Scatness is paralleled at the Ness of Burgi; both have a second much smaller cell within the right half (when viewed from the front). Access to this smaller cell at Scatness was by a small creep from the larger cell. At the Ness of Burgi where this area was poorly preserved no access at ground level to the smaller cell can be confirmed. It is possible that access was through the roof from an upper storey and this must also be considered for Scatness after the smaller cell was blocked off at ground level by the addition of buttresses.

The existence of an upper storey is confirmed at Clickhimin and is probable at Huxter, although there are ambiguities in the early descriptions of this site (Mitchell 1881, 305). Mitchell identified two upper cells, matching the ground-level plan at a time when the structure still stood 8 ft high. The blockhouse is now much reduced by robbing and no clarification is possible. The layout of the upper storey at Clickhimin is confused by alterations, including the insertion of a staircase (Hamilton 1968, 56), but it is thought to have contained a gallery which gave access both to the ground-level cells and to a supposed timber dwelling attached to the back of the blockhouse. At Scatness, evidence for the former existence of an upper storey includes the possible steps on the south wall and the buttressing that almost fills the larger cell. There is clearly insufficient collapsed stone at Scatness to have formed a tall structure but stone robbing, documented at Huxter, will explain this discrepancy. A similar observation was made at the Ness of Burgi

(Mowbray 1936, 385) and this may also reflect robbing. The absence of a staircase at this site is not, in itself, an indication of a low building as there is none at Huxter either.

Only Clickhimin has produced evidence for additional structures forming an integral part of the blockhouse. Here, a scarcement on the rear face of the blockhouse was interpreted as a support for the first floor of an attached timber building. An area of cobbling behind the blockhouse was interpreted as the floor of this building (Hamilton 1968, 57; & fig 24). At the Ness of Burgi, the published report does not specify the extent of the area excavated to the rear of the blockhouse and the post-holes of a timber addition could have been overlooked. At Scatness, this area was specifically investigated in view of the Clickhimin evidence and positively no trace of additional structures was identified.

Plans of the four Shetland sites have been reproduced at a standard scale in illus 22 to indicate the context of the blockhouse. It is immediately apparent that the four sites may be divided into two pairs: the island sites in the Lochs of Clickhimin and Huxter with stone-walled enclosures and the promontory sites of the Ness of Burgi and Scatness with banks and ditches. The two promontory sites are united by their simplicity: a simple dump bank, raised up from adjacent quarry ditches, encloses an open level area containing a blockhouse. Whilst marine erosion could account for the lack of other structures, these blockhouses appear to stand alone. The evidence for activity at these two sites is also similar and consists of a small assemblage of pottery and bone associated with fireplaces. At Scatness this activity is separated from the construction and original functioning of the blockhouse by an unknown, but long, period of time. This may also be the case at the Ness of Burgi but radiocarbon dates are lacking here. It is therefore likely that neither site has produced evidence relating to its original function. At Scatness this situation may be interpreted as a positive lack of activity; the unconsolidated sandy floor sediments in the passages and cells show no sign of wear prior to the accumulation of sediments after abandonment. Unless surfaces were protected by organic coverings (mats or boards) that have left no trace, it is hard to reconcile the condition of the floors with any sustained use.

The new evidence from Scatness reinforces the case made by previous writers that the Ness of Burgi does not make sense as a defensive site (Lamb 1980, 12; Hingley 1992, 19). Therefore it is proposed that for both of these sites their defensive function and the concept of the 'blockhouse fort' should be rejected. Hingley made the following observations on the apparent defensibility of these sites:

All of these enclosures appear to project an outward image of defensibility without being strictly defensible. It is possible that much of the warfare within these societies was ritualized, involving challenges between champions of conflicting communities, and this may suggest that any defensive function was symbolic rather than practical. The blockhouses may represent platforms for ritualized warfare or display. In other cases it is probable that in addition to the outward appearance of defensibility, these fortifications projected an image of social isolation and/or power (Hingley 1992, 19, refs omitted).

Are the blockhouses at the Ness of Burgi and Scatness therefore to be interpreted as symbolic gateways to be attacked and defended in ritualized warfare or perhaps passed through in some *rite de passage*? The lack of evidence for sustained occupation does not conflict with this line of interpretation and these possibilities require serious attention.

Any interpretation of the Ness of Burgi and Scatness sites must be viewed in the light of the very different circumstances of the blockhouse at Clickhimin. Regardless of the potential flaws in the stratigraphic sequence proposed by Hamilton, the blockhouse must be seen as a component of

a defended Iron Age settlement – with or without a broch (Fojut 1985, 68–70). The proposition that the blockhouse was conceived as the gateway to the ring fort (first suggested by Simpson 1954) might suggest that the similarities between the Clickhimin blockhouse and the other examples are somewhat fortuitous. It is unfortunately too late to establish the constructional history at Clickhimin; 19th-century excavation and undocumented wall restoration create too many uncertainties. Whatever the history of construction and use of this blockhouse, it can be placed in Hingley's class of structures 'designed for the outward appearance of defensibility' and 'projecting an image of social isolation and/or power' (Hingley 1992, 19). These ideas are not far removed from Hamilton's own interpretation of the fortified chieftain's residence and the ritualized warfare of Heroic Irish literature (Hamilton 1968, 71–5).

Any comparison of Clickhimin with Huxter is hindered by the lack of excavation at the latter site. The superficial similarities of these two island sites with ringwalls does not necessarily imply close functional links. Huxter is apparently not a complex, deeply stratified and long-lived settlement site like Clickhimin. The ringwall at Huxter is stratigraphically later than the blockhouse and could be considerably so; island sites in lochs have been occupied until recent times. If the ringwall is ignored as a later accretion then Huxter could become another isolated blockhouse like the Ness of Burgi or Scatness, with the island substituting for the enclosed promontory.

It is hoped that in this discussion some progress has been achieved in the interpretation of blockhouses using the new data from Scatness. Dating is still a major problem and until it is resolved any discussion of architectural evolution or comparisons with brochs and other hollow-walled structures will remain futile. Scatness has reinforced the image of the blockhouse as a distinctive structure and therefore one that may be associated with specific functions. Current interpretations of function (Hingley 1992) may prove difficult to test but it is concluded that the term 'blockhouse fort' with its associations of functional defence should be abandoned. The Huxter blockhouse remains unexcavated but, before this last known site is investigated further, more effort should be directed towards the discovery of additional examples.

THE SHETLAND IRON AGE POTTERY SEQUENCE

A major problem in establishing a pottery sequence for Shetland is that the key excavations in the islands (Jarlshof and Clickhimin) have been carried out on multi-period sites without the use of radiocarbon dating. As a result, it is both difficult to isolate assemblages belonging to a certain period and impossible to date closely that period. Despite these difficulties, a general pottery sequence has been constructed that may be tested with the dated pottery assemblages from recent excavations.

The East Shore Phase 2 date (1610–1268 BC) supports the theory that heavy talc and rock tempering was common in the Late Bronze Age and Early Iron Age, as has been noted at other sites such as at Clickhimin (Hamilton 1968), Jarlshof (Hamilton 1956) and Kebister (Dalland & MacSween, forthcoming). The use of untempered clay apparently became more common in the first half of the first millennium AD – the Phase 4 assemblage from East Shore (80–410) bears this out. Although grass-tempering was being used in the first half of the first millennium AD, for example at Kebister, its use may have become more common in the second half of the millennium as illustrated by the high proportion of grass-tempered sherds in the Fair Isle assemblage.

Even when radiocarbon dates have been obtained for the phases of occupation of a site, relating the dates to the pottery assemblages can be problematic. At Scatness, although the pottery is from the phase of the site dated to AD 650–980, the material which was radiocarbon-dated is

from near the top of the deposits and it is not possible to establish whether the pottery is substantially earlier than this. Some grass-tempered pottery would have been expected in an assemblage of this date, and given the history of activity on the site, it is possible that the assemblage, which is of untempered clay, derives from earlier activity. Problems of interpretation are again well illustrated at East Shore where, if the early midden deposits beneath the broch had not been excavated, the resolution of the mixed assemblage of talc-tempered, rock-tempered and untempered pottery around the broch with the untempered assemblage inside the broch, would have been difficult. Until many more assemblages from single-phase sites are dated throughout the islands, it will not be possible to establish whether the general trends in fabric use noted in assemblages from the larger sites are widespread throughout the islands, or if there is considerable local variation.

THE 1983 EXCAVATION RESULTS IN THE CONTEXT OF THE SHETLAND IRON AGE

Excavations at each of the five sites assembled quantities of information from which site-specific conclusions may be drawn. We now know that the construction of the blockhouse at Scatness followed a well-defined template. It stood until late in the first millennium AD, but, crucially, its use did not entail the kind of drastic erosion that is associated with continuous, domestic-type, regimes of use. We also believe that the structure and its 'defences' reflect a concern for exclusion rather than protection. We can also surmise that after about AD 800 any reverence for the building had evaporated and it had come to represent no more than a quarry for stones. At the Ness of Burgi, the absence of any evidence of repair to the bank – at least within the limited confines of the excavation – could be interpreted as a concordance to the Scatness evidence for function and intensity of use. It could also be interpreted as an expression of the duration of primary use (ie very short). At East Shore, the limited excavation has produced a long sequence of occupation dating at least from the mid-second millennium BC. Radiocarbon dates and the pottery evidence suggest that deposits associated with the main phase of use of the broch lie within the first half of the first millennium AD. Circumstantial evidence indicates that this building, like the blockhouse, survived until late in that millennium. The midden deposits were, by and large, contemporary with the broch as a standing building but it is likely that the location was occupied for some considerable time after the broch passed out of its habitation phase of use. The prime importance of the Broch of Burland section was the revelation that the central rampart post-dated the infilled ditches, a situation that implies an unsuspected chronological complexity. The midden at Kirki Geo, Fair Isle, may originate with the use of the locality as a monastic settlement, but it also demonstrates the cyclical use of the area with phases of tillage, quiescence and domestic activity.

Looking out from these sites there is an obligation to correlate the findings with the established archaeology and to identify points of agreement and contradiction. These excavations would seem to offer information on the chronology, the form and the function of the various structures and some could sustain broader, social and economic observations. The nature of the archaeology for this period in the north has been reviewed by Barrett (1981) and by Hingley (1992) and it is from these two authors of syntheses that some of the clearest statements of the archaeological *status quo* have originated.

In the late 1960s and 1970s, the study of the Iron Age in the north of Scotland had focused upon the origins of the broch tradition of architecture. This seemingly unique design appeared as a summation of all that was Iron Age society: solve the problem of the provenance of the design and all the rest (the artefactual record, the chronology, the nature of society) would fall into place.

Under the influence of new data from sites such as Bu and Howe, the ignored logic of earlier research, such as Lindsay Scott's analysis of the brochs (1947), and the growing groundswell of opinion for a retreat from the various *reductio ad absurdum* hypotheses then current in the treatment of the material culture, Barrett proposed a series of approaches that would be applicable.

The primary target of Barrett's thesis is the use made of the material remains of those Iron Age societies. The groundrock of the then current approach was the belief that artefacts (pottery, buildings, etc) could be analysed by comparison of their traits, because these were the expression of the producing society's need or purpose or perhaps congenital social imprint, but adapted by particular circumstance. If the common element was identified then the evolutionary route would emerge, presumably carrying with it implicit statements of relative date, social structure, cultural complexity, technological and economic status.

The route advocated by Barrett is one with which archaeologists in general should sympathise, but which for field archaeologists, in particular, could present deep problems in execution. The approach to the past has to be through what we know and recover through excavation, but '... our understanding of the past must stem from a consideration of the contexts of production and use; the processes behind the existence of that material culture ...' (Barrett 1981, 211). The challenge thrown down in 1981 was that in the Iron Age of Atlantic Scotland there existed a sufficiently well-preserved archaeological record from which approaches could be developed which would not be reliant on the logical spirals of social and cultural evolution. The goal would be a history devoid of cloying mystery, and one which was essentially credible.

Over the last decade, archaeologists have been attempting to clarify what most would intuitively recognise as the correctness of Barrett's case. It is therefore appropriate to examine the achievements of Iron Age analysts in Shetland since Barrett's challenge. The primary source for this résumé is Richard Hingley's recently published review of the Iron Age in Scotland (1992). In this paper, the author has sought to understand the process of change as evidenced by the organization of society. This ambitious project has chosen to examine the evidence for the expression of organisation at the level of the individual, household and community.

The absence of much information or discussion on the individual is not surprising, although aspects of individual expression permeate the discussion of households and community. The discussion on the household focuses on the domestic dwelling and although various attempts are made to discuss symbolic aspects of design or internal layout, ritual activities and social or religious constraints on access, the argument repeatedly returns to the identity of ancestors and inheritors of architectural traditions. The subtext is chronology and provenance. In seeking evidence for the nature and role of the community, Hingley has identified an altogether more successful field of archaeological endeavour, especially in reconstructions of social organisation during the main phase of use of large enclosed sites and in the aftermath of that use, such as at Gurness. In general, there seems to have been a need for ostentatious displays of protective or exclusive architecture, but as the reader has been discouraged (Barrett 1981) from invoking the epic imagery rehearsed by Hamilton (1968), an element of doublethink is perhaps necessary when taking this interpretation further. These are displays of powerful but small social units. Later in the Iron Age more complex, perhaps centralized, hegemonies emerged, which paradoxically resulted in most of their population inhabiting simpler dwellings.

The analysis is perhaps most exciting when it deals with the nature and organization of artefact production and use. But the discussion is one of potential knowledge not actuality. There is insufficient information on the sources of raw materials, on functional, decorative and symbolic aspects of design and on the locations of production of artefacts. Associated with this must be an attempt to understand the process of deposition, which must be assumed to be often richly imbued

with ritual or symbolic connotations. The concluding image of Iron Age society between 700 BC and AD 200 is one of hierarchical groups, each one employing a panoply of ritual and economic insignia to dominate and manipulate its subservient population to allow competition between adjacent groups.

Compared to this credible and compelling model, the results from the excavations in 1983 seem unimpressive. It is as if they have nothing to contribute and yet in the course of excavation and post-excavation analyses it has always been felt that the excavated data was so contrary to the pre-excavation assumptions that the results should surely push hard at the limits of the current knowledge. In assembling his model, Hingley has tried to maintain a loose control on the diversity in order that the variety should not be subsumed beneath the simplistic. This was one of the key accusations made by Barrett of his contemporaries, that through the ordering into simple categories the emphasis of interpretation was shifted from understanding the processes to empirically defining them in terms of the classifications (1981, 213). However it is possible that Barrett has argued his case too strongly, the original purpose of ordering the data, for instance on artefacts from the Iron Age, was to see patterns and distributions. His case stands well against those who have pushed these classifications too far and this would seem to be the crux of the situation in Shetland. Here is the paradox of there being insufficient data on almost every aspect of the Iron Age and yet, there are two sites, Jarlshof and Clickhimin, which were so stupendously wealthy that they are continuously used as the marker against which all typological information is compared. The weakness of the data base is apparent in the current list of dated Iron Age sites in Shetland. There are only three published sites: the house at Mavis Grind (Cracknell & Smith 1983) with dates that are hard to reconcile with the site stratigraphy; a burial at Sandwick, Unst (Bigelow 1985); and a kerb cairn at the Scord of Brouster (Whittle 1986). Larger series of dates, as yet unpublished, will become available from the excavations at Kebister and Upper Scalloway.

The results from 1983 cannot influence much of the debate on the processes at the start of the Iron Age, except at Scatness and East Shore where it might prove useful to examine their locational geographies. In terms of the function of sites, the two key results are the absence of evidence for wear and erosion at Scatness and the abundance of fish bone in the midden deposits at East Shore. In Shetland the relative dating supplied by the ceramic typology remains effective (and demonstrates again the paucity of real dating evidence) and in this regard the material from East Shore is significant in that it has demonstrated that there is a shift away from talc temper during the use of the broch in the early centuries AD. However the paucity of the data is again made evident when an explanation is sought. It may seem likely that, as Hingley's competing households start to express themselves more forcefully, access to resources, such as the talc quarries, becomes more restricted. However, there is not the excavated material to test this speculation.

At the tail end of the Iron Age sequence the presence of both sites (East Shore and Scatness) has perhaps its greatest influence. In demonstrating that these ancient buildings had perpetuated something of the society that had built them for many centuries after the cause of their construction had slipped from memory, we are given a view of the cultural milieu of Late Iron Age Shetland. Perhaps unlike most of Britain beyond the distribution of large Roman sites, Northern Scotland, the Outer Hebrides and the Northern Isles retained such strong and visible echoes of their ancient past that later societies were imbued with a sense of time, belonging and of conservatism.

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