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Baile Sear Community Archaeology Project

Sloc Sàbhaidh, Baile Sear, North Uist

Season 3 (2008) Data Structure Report

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Non technical summary

This report presents the results of a third season of archaeological excavation at Sloc Sàbhaidh on the west coast of Baile Sear, North Uist, Western Isles. The three-week excavation targeted an area of severely eroding archaeological remains, and was carried out by a local community group, Access Archaeology, and The SCAPE Trust between 13th September and the 5th October 2008, as part of the Shorewatch Project. The investigation was designed to salvage data from an actively eroding site, whilst providing local people with an opportunity to learn excavation and recording techniques through participation in an archaeological field project.

The two trenches from 2007 were re-opened to expose structures and deposits revealed during the previous season. Further excavations were carried out in order to investigate and record archaeological information at grave risk of erosion, and to further our understanding of the stratigraphic sequence and character of the site.

In Trench 1, the earliest activity recorded was an undated prehistoric horizon containing worked flint, which was covered in a layer of blown sand. After an unknown length of time, a wheelhouse, typical of the middle Iron Age period was constructed. The remains of the western half of the wheelhouse were revealed in Trench 1 comprising part of the external circular wall and at least five radial piers that separated the internal space into a series of bays. The entire wheelhouse would have spanned at least 13m in diameter, and the eastern half probably survives beneath the dunes on the eastern side of the site. Evidence was recorded of at least one episode of extensive rebuilding of the wheelhouse and reorganisation of the interior space to make a smaller building, and a possible loss of the piers so that the structure may have ceased to be a wheelhouse in the conventional sense of the term. A series of structured deposits comprising a deliberately placed rotary guern stone, cremated animal bone, articulated animal bone (probably sheep or goat) and a human lower jaw bone may have been related to a symbolic 'closing' of the original wheelhouse, as this appeared to take place just prior to the major remodelling of the structure. A complex sequence of kerbs that divided the internal space and at least three hearths were recorded within the remodelled structure, indicating that occupation of the building was long-lived. The base of one of the hearths was decorated with a cross, made by an individual drawing three fingers through the wet clay before the hearth was used.

In Trench 2, the remnants of the eastern edge of a circular stone-built structure were revealed. An external wall incorporating a possible 'guard cell' and internal walling resembling piers indicate that this too may be the remains of a wheelhouse. The 2008 investigations revealed evidence that the original building may have been a free standing structure with stone paving around the outside. A flue-like structure inside the building may be evidence of an industrial use as yet unknown. This structure too underwent substantial rebuilding and remodelling, following collapse of one of the piers, part of the external wall and possibly the turf roof. The remodelled structure was poorly built and poorly preserved. Much of the structure in

Trench 2 is now located on the beach and is actively eroding. Most of the building has been lost and it is likely that only the eastern edge of it survives.

The 2008 investigations revealed evidence for structural modification and revealed several phases of activity relating to both buildings, which suggest the settlement was in use for an extended period. It was not possible to establish a stratigraphic relationship between the remains in the two trenches, and it is not clear whether the buildings were occupied at the same time.

1 Introduction

1.1 Site location and topography

Sloc Sàbhaidh is situated on the west coast of Baile Sear, a tidal island that lies half a kilometre off the south-west of North Uist, to which it is connected by causeway (Figure 1). The terrain of the Uists is generally low-lying; with land over 150 metres being mostly confined to the rocky east side of the islands. The basal rocks of almost the entire Hebridean archipelago are Lewisian Gneiss, which has produced thin, acidic soils. Thick peat deposits also cover large areas (Grattan et al. 1996: 27-9). However, the geomorphology of the west coast of the Uists is particularly complex, resulting from the continual re-working of large amounts of sediment stored on the gently sloping continental shelf that extends into the Atlantic, in tandem with a gradual rise in sea-level since deglaciation (Hall 1996, Gilbertson et al. 1996: 59-61). These factors have produced the distinctive machair grassland that lies along the western fringe of the Uists. The machair consists of a plain of fertile calcareous soils, a kilometre or so wide, which is protected from the erosive forces of the Atlantic by a cordon of high coastal dunes (Gilbertson et al. 1996: 72-3). Nevertheless, this is a highly dynamic environment that is subject to both erosion and deposition, and significant movements of sand are known to have occurred throughout the islands in prehistory, as well as in the more recent past. Lawson (2004: 71-3) cites several accounts of the devastating loss of land that affected North Uist, and Baile Sear in particular, during the eighteenth and nineteenth centuries. The scale of the destruction during this period is indicated by the name 'Baile Sear', which translates into English as 'East Township', even though Baile Sear lies on the present western coast of the Uists.

The site at Sloc Sàbhaidh is an undulating mound which currently straddles the western edge of the machair and the beach, the protective dune system having previously been lost along this stretch of coast. The eastern side of the mound has been rapidly eroding in recent years, and now consists of a foreshore of cobbles, banked at an angle of approximately thirty degrees (Plate 1). Previous work by the Access Archaeology group, in partnership with The SCAPE Trust, revealed that the edge of the mound had receded by three metres between August and December 2005 (Stentoft *et al.* 2007: 3). During the winter of 2007, a further 3 metres was lost in places from the mound, resulting in the loss of archaeological deposits.

1.2 Archaeological Context

A range of archaeological remains have previously been recorded on Baile Sear. The earliest known evidence for human activity is Carnan nan Long, a denuded chambered cairn that lies on the north-east tip of the island (Henshall 1972: 506). Numerous duns, presumably dating to the Iron Age, have also been noted by Beveridge (2001 [1911]: 181-5). These are

concentrated to the east of the machair, in the area of rockier ground with freshwater lochs, and on a series of islets in the tidal area that now separates Baile Sear from North Uist. However, it was the fertile machair grasslands of the Uists that have formed the principal focus for human occupation since the mid third millennium BC, and many long-lived prehistoric settlement mounds have now been identified (Parker Pearson *et al.* 2004: 43). Whilst a significant portion of the machair on the west of Baile Sear has been lost to the sea, several important sites have survived, including the vestiges of a medieval chapel and graveyard known as Teampull Chriosd (Beveridge 2001 [1911]: 290).

The only remaining evidence for prehistoric settlement on the Baile Sear machair has been found at Sloc Sàbhaidh and Ceardach Ruadh. The latter site lies approximately a kilometre to the north of Sloc Sàbhaidh, and has also been progressively revealed by the ongoing coastal erosion in the area. Ceardach Ruadh has been the subject of a series of archaeological excavations. Small-scale investigations by Fairhurst and Ritchie (1963) discovered the remains of masonry that suggested the presence of a wheelhouse. In 1983 the eroding section of the site was partially excavated (Barber 2003), revealing a cultivation horizon that produced a radiocarbon date in the Late Bronze Age. This was overlain by extensive midden deposits and domestic structures dating to the Middle to Late Iron Age. The excavation did not clarify the nature of the settlement, although the structural remains may represent one or more wheelhouses. An extended inhumation was also discovered, placed within a grave cut into the upper layers of the midden.

Beveridge (2001 [1911]: 228-9) was the first to record both Ceardach Ruadh and Sloc Sabhaidh, noting the presence of midden deposits and a range of artefacts at both sites, although he makes no mention of structures. At Sloc Sabhaidh, he identified charred bones as the remains of a cremation (ibid. 266). However, the evidence upon which he based his interpretation is ambiguous. No further work was undertaken at Sloc Sabhaidh until 2005, when severe storms uncovered structural remains, prompting the local community to seek the assistance of The SCAPE Trust in investigating the site through the Shorewatch Project. Volunteers from Access Archaeology carried out a series of surveys between January 2005 and May 2006, in order to record the archaeology as it was being progressively revealed and destroyed by the ongoing erosion. This work was followed by a small-scale excavation designed to establish the character and extent of the site (Stentoft et al. 2007). Four trenches were opened, covering approximately fifty square metres. Two of the trenches contained walling, although it was not possible to determine the nature of the buildings. However, the pottery recovered during the excavation suggested an Iron Age date.

In August – September 2007 a three-week training excavation was carried out by Access Archaeology and The SCAPE Trust as part of the Shorewatch Project. The investigation was designed to salvage data from the actively eroding mound, whilst providing local people with an opportunity to learn excavation and recording techniques through participation in an archaeological field project.

Two trenches were excavated. Trench 1, located towards the northern end of the eroding mound revealed the remains of the eastern half of a wheelhouse; the remainder of which is still probably preserved within the mound on the eastern side. Trench 2; located towards the southern end of the mound revealed the eastern edge of another probable wheelhouse, although this structure has suffered such severe erosion that this cannot vet be confirmed. Much of the structure in Trench 2 is now located on the beach and is actively eroding. It is likely that only the western edge of the building survives. The 2007 investigations revealed evidence of structural modification of and several phases of activity relating to both buildings, which suggest the settlement was in use for an extended period. It was not possible to establish a stratigraphic relationship between the remains in the two trenches, and it is not clear whether the buildings were occupied at the same time. A number of sites in the Western Isles consist of complexes of wheelhouses although Armit (2006: 228) notes that in the majority of cases these represent the 'periodic replacement' of one structure by another, rather than contemporary occupation. Nevertheless, the architectural sophistication and scale of the buildings at Sloc Sabhaidh indicates that the settlement was of some significance. Ceardach Ruadh, just a kilometre to the north, also contains the remains of substantial Iron Age structures. The proximity of these two extensive sites demonstrates that this area of North Uist supported a thriving community at the end of the first millennium BC.

2 Aims and objectives

The excavations at Sloc Sabhaidh are part of the Shorewatch Project, which was established by The SCAPE Trust to further its aims of researching, conserving and promoting appreciation of archaeological remains that are threatened by coastal erosion in Scotland. This is achieved by providing local community groups with the training and professional support necessary to investigate and record eroding sites, thereby equipping them with the skills necessary to undertake continuing programmes of fieldwork.

The broad aims of the 2008 season of excavation were:

- to rescue archaeological information from an area of severely eroding archaeological remains at Sloc Sabhaidh before its destruction, in order to expand our understanding of later prehistoric settlement in North Uist
- to involve local volunteers in a practical project, thus providing training opportunities and raising awareness of coastal archaeology and the problem of erosion;
- to ensure that information about the results of the excavation are disseminated to the public;
- to assess the rate and impact of erosion affecting the site.

The specific purpose of the 2008 season of investigation was:

- to build on previous work at the site to further our understanding of the stratigraphic sequence and phasing of the structural remains;
- to retrieve artefactual and ecofactual material to allow characterisation
 of the site and to enable the nature and date of activity to be
 determined through post-excavation analysis;
- to ensure that the archaeological work will not exacerbate the rate of erosion of the site and surrounding land in the future;
- to develop a strategy for the ongoing investigation and management of Sloc Sabhaidh;
- to record as much information from the site as possible, given the likelihood of it being destroyed before the next available opportunity to investigate.

These aims were met through the following objectives:

- to stratigraphically excavate a sufficient area of the site to recover evidence of the structural sequence and occupation at the site;
- to train volunteers in techniques of excavation and recording, involving them as much as possible in all aspects of excavation and recording;

- to provide site tours for the public, and specifically tailored talks, tours and activity sessions for visiting school groups, including providing the opportunity for children to excavate archaeological deposits;
- to minimize the impact of future erosion through careful siting of the excavation areas, careful reinstatement of the site and the provision of temporary protection of exposed areas of archaeological remains at the end of the fieldwork campaign;
- to publicise the findings of the excavation through the local media;

3. Methodology

3.1 General considerations

Several non-archaeological factors constrained the development of the most appropriate excavation methodology and the choice of location for the trenches at Sloc Sabhaidh. Avoidance of the loss of croft land in the vicinity of the site was a prime consideration, and excavation was therefore limited to the actively eroding foreshore, avoiding any vegetated areas. Furthermore, areas beneath potentially unstable eroded sections of the mound were not excavated for health and safety reasons. Trenches had to be positioned above the high tide line for obvious practical reasons, even though it was clear that archaeological deposits continued under this.

Survey and excavation in 2005 and 2006 had identified several areas of upstanding structures and stratified deposits and in 2007 two trenches were placed to maximize the quantity and quality of data recovered from the site. Trench 1 was placed towards the northern end of the mound to include an arc of curving wall found in 2006. Trench 2 was located at the southern extremity of the site where the remains of a small semi-circular cell and part of a building with an apparent right-angled corner had previously been found. Trenches were extended over the entire length of exposed structures to ensure that as much as possible was recorded. In 2008 these trenches were re-opened with the aim of completing excavation of all eroding deposits. Trench 1 was re-opened and extended approximately 1.85m further east to include an area of dune that had eroded since the 2007 excavation on the landward side. The resulting total area of excavation was circa 15m x 7m. A slightly reduced area of Trench 2 measuring circa 20m x 7m was re-opened, focusing on the northern part of the 2007 excavation (Figure 2).

Erosion had removed the seaward half of the mound, although deposits remained under the beach material, truncated to the 20-30 degree angle of the beach. This meant that deposits found immediately beneath the unstratified beach deposits were not of the same period. Those nearer the high tide line (west) tended to be truncated and therefore earlier than deposits higher up the beach (east), even though they were both covered by the same beach deposits. The area to be excavated was overlain by

beach cobbles that reached a depth of approximately 1.5 metres in places. Masonry, derived from recently eroded structures, had been re-deposited by tidal action and was incorporated within the layer of cobbles.

3.2 Excavation

A mechanical excavator with a toothless bucket was used, under close archaeological supervision, to re-open Trenches 1 and 2. In order to avoid truncating *in situ* underlying deposits with the corner of the bucket, cobbles and sand were pulled down the slope of the beach instead of across. Trenches were extended down to the recent high tide line, visible as a line of seaweed and flotsam, and as in previous years, a large spoil heap of this material was created at the foot of the trenches to provide some protection against wave action during high tides and storm surges. This also created a good place for visitors to view the trench and congregate during tours. The machined sides of the trenches were battered to angle of between thirty and forty five degrees to prevent collapse.

Once the majority of the overburden had been removed from the vicinity of the structures, the remainder of the unstratified beach deposits were cleared by hand. Finds from the cleaning of this loose beach material were recovered but bagged as unstratified.

The opening Trenches 1 and 2 was carried out under the direction of Tom Dawson. The excavation of Trench 1 was supervised by Rebecca Rennell. Ian McHardy supervised the excavation of Trench 2.

3.3 Recording

A baseline was set up, running north south along the middle of each trench, and a site grid established using tapes, plumb bobs and 3:4:5 triangles. The 2007 grid and site bench mark was re-established using a LEICA TC407 total station theodolite, allowing results of this seasons work to be tied into the previous season.

Multi-context pre-excavation plans were drawn. These depicted contexts which were not necessarily in the same phase, due to the truncation of deposits caused by the advancing beach, however they provided necessary pre-excavation baseline information. Thereafter a single context recording system was generally used. A pro-forma record sheet was completed for every context, and a single context plan was drawn for every excavated unit as far as was practical in the field.

All contexts identified during excavation were described, drawn on a measured plan at a scale of 1:20, and photographed as appropriate. The stratigraphic sequence was recorded on measured section drawings, at a scale of 1:10. Elevations of upstanding coursed masonry were also drawn at a scale of 1:10. In the following discussion of the stratigraphic sequence, the context numbers assigned to each feature are given in round brackets to represent deposits and in square brackets to represent cuts.

Cut features were half-sectioned. Environmental samples were taken from all appropriate contexts. Bulk finds were bagged and labelled by context and small finds were three-dimensionally recorded and assigned a separate number. Digital colour and black and white film photographs were taken of every context as well as regular general site and excavation photographs. Registers were maintained for all finds, samples, drawings and photographs.

3.4 Volunteers

Volunteers were involved in all phases of the fieldwork. Training was intended to accommodate the varying levels of previous experience and availability of the volunteers, enabling people to build on their skills.

All volunteers were provided with a Health and Safety induction, followed by a tour of the site, which included information about the archaeological context of the investigations and the fundamental principles of stratigraphic excavation. They were then assigned to work alongside professional archaeologists, learning the basic techniques of trowelling, the identification of archaeological features, and the recovery of finds. Those who were able to participate in the excavation on a regular basis were also provided with instruction on the recording of features and the identification of artefacts.

Children were assigned to areas of midden away from standing masonry due to Health and Safety considerations, and worked under continual adult supervision.

In Trench 2, for training purposes inexperienced volunteers excavated within 0.5m^2 grid squares marked out with string and nails, except for features with well defined edges such as pits or structures. Excavation was carried out stratigraphically by context, with the grid square providing a level of control for inexperienced excavators. One or two volunteers were assigned to each grid square and all grid squares within a context were completed before starting the underlying context. Grid squares were labelled with both the context number and a letter, in alphabetical order, commencing from the northeast corner of the grid.

Wherever possible, recording was carried out by volunteers, under supervision, except for the photographic record, which was maintained by a professional archaeologist, and in the case of complex stratigraphy or structures.

3.5 Reinstatement

In order to ensure that the site was re-instated in such a way that the risk of erosion of the mound and surrounding area was not increased, the advice of the Integrated Coastal Zone Management Co-ordinator for the Comhairle nan Eilean Siar, David Muir, had been sought in 2007, and was adhered to in this season. Geotextile membrane was laid over unexcavated archaeological deposits within the trenches. A layer of sandy backfill was

then laid over the membranes by hand. Finally, the cobbles were replaced by mechanical excavator. The original profile of the cobble foreshore was restored as far as possible.

4 Report format

The 2007 and 2008 excavations were carried out in two separate trenches separated by *c.* 40m. Post-excavation analysis of finds and samples and the processing of samples taken for dating has not yet been undertaken and so it is not yet possible to establish the relationship between the remains in the two trenches. The written description and interpretation of the results of the 2008 excavation are, therefore, organised by trench.

5 Results: Trench 1 (R. Rennell)

5.1 Introduction

Upon initial clearing of the site, the overall structure of the wheelhouse recorded in 2007 was immediately identifiable. This comprised the western portion of a dry-stone built roundhouse building with a number of radial piers (Figure 3). Some of the upper courses of the exterior wheelhouse wall and the radial piers had collapsed since 2007 and the western area of the site had suffered significant erosion. Extension of the trench eastward confirmed that the wheelhouse and associated archaeological deposits continued beneath the coastal dunes. Thus far, three phases representing evidence of activities associated with construction, occupation and modification of the wheelhouse structure have been provisionally identified. The 2008 excavations also enabled refinement of the stratigraphy of Trench 1 at Sloc Sabhaidh and contributed significant new information about the method of wheelhouse construction and the nature of subsequent activity.

5.2 Sequence of deposits

5.21 Phase 1: pre-wheelhouse deposits

The earliest deposit excavated in the southern part of the site lay outside the wheelhouse structure (Figure 4). This consisted of a moderately compact mid red-brown, silty clay (548), below a layer of wind-blown sand (542). A number of flint pieces were recovered from (548). Deposit (548) was not excavated, but like (542), clearly continued beyond the limit of excavation to the south and west. Above the wind blown sand (542) was a small area of red-brown, sandy clay (516), containing burnt bone fragments, charcoal, shell and a few sherds of pottery. This was cut by a linear feature [515], visible for 1.01m between the outer southern wall of the wheelhouse (513) and extending beyond the limit of excavation to the south. This linear cut was 0.73m wide and 0.36m deep, steep sided with a concave break giving way to a flat base. The fill was loose, light brown sand containing occasional animal bone and shell. It is possible that this cut is associated with the primary construction or preparation for the wheelhouse, but until this relationship is proven, has been assigned to Phase 1.

5.22 Phase 2: the construction and occupation of the primary wheelhouse

The southern arc of the exterior wheelhouse wall (513), assigned context numbers (037) and (022) in 2007, survived to at least five courses. As was observed in 2007, the outer skin of masonry included irregular and roughly shaped stones, to a maximum size of $0.32 \, \text{m} \times 0.24 \, \text{m} \times 0.34 \, \text{m}$, while the inner face was constructed from larger blocks of faced stone of approximately $0.83 \, \text{m} \times 0.43 \, \text{m} \times 0.27 \, \text{m}$. At the base, or foundation level, wall (513) was found to have a maximum width of 1.00m. No clay bonding

was evident within the wall; however, the presence of dark, silty sand between stones might suggest turf packing. Overall, the evidence supports an interpretation that the original wheelhouse wall was built against the side of a construction trench, or pit, resulting in a possible semi-subterranean building. However, a construction trench was not positively identified in the 2008 season.

In the main north-south section, a large pit [541], approximately 1.2m wide and 0.8m deep, was visible. This pit had steep sides, between 70° and 80° from the horizontal, giving way to a gently concaved base. This pit was recorded in 2007 as [069], a possible construction cut for wall (513), however further investigation enabled some revision of the previous year's interpretations. The 2008 excavations showed that the foundations for wall (513) continued to a greater depth than pit [541] (Figure 4) and that the pit truncated occupation layer (663), (described below) which had accumulated against the exterior wheelhouse wall. The cut must, therefore, post date the wall and associated occupation layer and was not, as previously suggested, a construction pit for the wheelhouse building. The function of this pit, however, was not ascertained. It was filled by nine sequential deposits (Figure 4). A basal deposit (540=073), of loose, light grey sand, with darker brown laminations, was recorded to a maximum thickness of 40mm. The laminations within this layer, and the absence of any anthropogenic material, suggests that (540) was a natural accumulation of material that may have washed into pit after it was opened. Above this (539=072) was a lens of compact, dark red-brown, silty clay up to 15mm in thickness. A loose to moderately compact, dark, grey-brown, silty sand (538=071), containing occasional charcoal pieces, was recorded above (539) with a maximum thickness of 120mm. Above (538) was a 100mm thick, mixed deposit of red, brown and black clayey sand (537=068). This deposit contained frequent fragments of burnt clay, charcoal and occasional ash, and likely represented material dumped from a nearby hearth or area of burning. Above (537) was (536=041), a dark brown, silty sand, up to 160mm in thickness. This was followed by a large and fairly homogenous deposit (535=032) of mid to dark brown, silty sand, containing occasional stones, shell and charcoal, with a thickness of 280mm. above this, a layer of loose, light yellow, sterile sand (534=078) was visible in section with a thickness of 230mm. This layer appeared to represent an accumulation of wind blown sand. The two uppermost fills, (533) and (532) were not identified in 2007. (533) was a loose, light to mid-brown, silty sand, up to 120mm thick. The final fill was loose, mid-brown silty sand, (532), containing small irregular shaped stones and occasional shell, with a maximum thickness of 260mm.

Excavation in the southern part of the site confirmed that a linear arrangement of stones recorded in 2007 as context (031), were the remains of a radial pier (661), aligned east-west and measuring approximately 2.25m in length and 0.4m wide. It is assumed that this pier was integral to the original wheelhouse structure. This pier was preserved to a height of 0.3m and comprised two rough courses of stone, the largest being 0.39m \times 0.36m \times 0.18m. The exterior wheelhouse wall did not survive in this area; however, comparison with pre-excavation plans from 2007 indicates that there would have been a gap of at least 0.52m between pier (661) and the

exterior wheelhouse wall, indicating the pier was not bonded to the main wall at this level.

In the northern area of the site (incorporating Bays 1 and 3) only the inner skin of the original wheelhouse walling (656) survived, assigned context (022) in 2007. This wall was preserved to its greatest height towards the main north-south section, standing 1.15m high. Here four courses of stone could be identified, made up of large blocks approximately 0.81m x 0.26m x 0.21m. A radial pier, the very corner of which had been identified during the 2007 excavation, was more fully exposed immediately to the west of the main section and 0.68m from the exterior wheelhouse wall. This pier, comprising at least five courses of stone blocks to 0.62m x 0.10m x 0.15m, and measured only 1.04m in length with a width of 0.42m and stood to a height of 0.52m. Again, the lower courses of this pier were not bonded to the main wall, with a gap maintained between the exterior wheelhouse wall and the pier.

In Bay 2, the western section of wheelhouse wall (656) was significantly eroded and in places only survived to a few courses of stonework. Deposits within Bay 2 were also heavily eroded to the south-west and this limited the ability to identify the extent of layers within this area. A sondage was excavated within Bay 2 in order to assess the depth of deposits within this area and to expose the base of the pier and wheelhouse wall. In addition, it was clear that this part of the wheelhouse would be most vulnerable to ongoing erosion and therefore that the archaeology in this area was a priority for investigation.

The sondage in Bay 2 (Figure 5) was excavated down to a horizon of clean sand, explored to a depth of 150mm. This sand contained no cultural or anthropogenic material and was interpreted as a natural sand deposit below the wheelhouse. However, this would benefit from further investigation, as this layer may still represent a wind-blown deposit, potentially concealing earlier activity at the site. The sondage in Bay 2 also revealed the lower courses of masonry associated with Pier (642), separating Bay 2 and Bay 1, and the exterior wheelhouse wall (656). The lowest course of masonry for Pier (642) rested on the natural sand. No foundation cut was identified but clay bonding was found between the stones. A matrix of rubble and clay also appeared to have been built up against the side of the pier, presumably to strengthen it. Pier (642) was approximately 1.39m in length and 0.5m wide. This pier was recorded in 2007 and assigned context (055). The upper-most courses of this pier had collapsed since the previous season of excavation. For heath and safety reasons it was also necessary to remove some unstable stones. Pier (642) was recorded as standing to a total height of 0.69m within the sondage excavated within Bay 2. In 2007, a cist-like feature (056) was recorded between the exterior wall and the pier. This feature survived only to the last course of stones, below which compact, dark brown silty sand filled the gap between the end of the pier and the exterior wheelhouse wall.

The exterior roundhouse wall visible within Bay 2, (656), also lay upon the clean sand, but at a level 0.2m higher than the lowest course of masonry

associated with pier (642). The implications of this evidence for the method of wheelhouse construction will be discussed in Section 5.3. The 2007 excavation revealed that the exterior wheelhouse wall (656) was constructed with an inner facing of dressed blocks of gneiss, and an outer skin comprising rougher, angular and sub-angular stones. However, in 2008 only the inner skin of masonry associated with this wall survived intact as the upper courses and the outer skin of (656) had collapsed to the north, represented by a pile of tumbled stone (509), found outside the wheelhouse along the north-west arc of this wall. Clay bonding was visible between some of the stones in the lower coursing of this wall. A layer of loose, light grey-orange-brown sand (512), with a depth of 150mm had built up against both the pier and the exterior roundhouse wall. Below (512) was a small spread of dark brown, fine sand (669), containing burnt peat ash, with a maximum thickness of 30mm. This deposit may have been the fill of a sub-circular cut [668]; however, this cut was not visible in section.

Above layer (512) was layer (507). This layer had been exposed in 2007, assigned context (088), but had been left unexcavated. The sondage in Bay 2 revealed that layer (507) was up to 150mm in depth. The extent of this layer was obscured in plan, but may have extended across the entire area of Bay 2. Excavation also revealed that (507), like (512), had accumulated against Pier (642) and the exterior wheelhouse wall (656). A large proportion of animal bone and pottery fragments were recovered from layer (507), which was interpreted as an occupation surface.

Extending over much of the south and central area of the wheelhouse, a moderately compact layer (663), of dark brown, silty sand appeared to have accumulated against wall (513). This layer wasn't fully excavated, but. (663) was likely to be the same as layer (507) identified within Bay 2, described above, and was interpreted as an occupation surface associated with the original wheelhouse structure. Above (663) was a layer of dark clayey sand (614), extending out of the north-south section with visible dimensions of approximately 1.29m x 0.30m and a thickness of 50mm. Approximately 0.2m north west of here, a small deposit of firm, black, sandy clay (664) containing charcoal flecks, also lay above (663). A heavily corroded metal object (SF: 1037) and some metal slag (SF: 1028) were recovered from this context. Adjacent and to the south of pier (661), layer (663) was cut by a small oval pit [564], 0.40m x 0.35m. This pit was 0.30m in depth with near vertical sides, giving way to a concave base and was filled by (563), a loose, mid brown-grey, silty sand, and (560) a compact, dark brown silty sand. The lower deposit (563) contained a significant amount of animal bone, as well as some pottery sherds. Above this, (560) also contained a large amount of animal bone and a broken but almost complete pot. This pit and its contents perhaps represented deliberate deposits of animal remains, the remnants of a feast or food refuse, placed within the wheelhouse floor. Sealing pit (564) and occupation layer (663), was a midden-like deposit of red-brown, silty sand (556) that had accumulated against wall (513). Deposit (556) had a maximum thickness of 50mm and contained significant quantities of fragmented animal bone and some pottery. Three bone points were retrieved from this context (SF: 1027; 1029; 1034).

In the western area of the site, south of Bay 2, occupation layer (663), associated with the primary wheelhouse structure, was truncated by a linear cut, aligned east-west and approximately 1.4m x 0.5m and 0.2m deep. This cut had rounded corners, a sharp break of slope giving way to vertical sides, and a similarly sharp break of slope to a flat base. At the base of this cut were found four flat stones, approximately 0.40m x 0.40m x 0.15m (673). These stones represented the lower courses, of which at least two were still present, of a previously unidentified radial pier. Evidence for clay bonding and rubble was found between and at the edges of the lower course of stone, as was found to be the case for pier (642). Cut [672] appeared to be a robber trench, excavated in order to remove the upper courses of this pier (Plate 2). This cut was filled by (671), a loose mid grey sand, containing frequent lumps of clay and fragmented stone, presumably material backfilled after the upper course of this pier were removed. Immediately to the south of the robber trench, above layer (663) were four irregular shaped stones, the largest being 0.36m x 0.28m, with evidence of clay bonding intact. This spread of stones is likely related to the robbing of pier (673).

Further towards the wheelhouse interior, a complex sequence of structured deposits was recorded above occupation surface (663). The upper stone of a rotary quern (600), measuring 0.38m x 0.38m x 50mm was placed on surface (663) (Plates 3-6). Stained grey-brown sand (653) filled the central hole of the guern, which was then blocked by a stone (590). The whole was then covered by a layer of burnt sand (589), within which were fragments of burnt bone and charcoal, as well as nine iron objects. A thin layer of clay (588), with a maximum thickness of 5mm, sealed burnt deposit (589). Intriguingly, the blocking stone (590) was not covered by this clay and the hole within the guern stone would therefore have been accessible from this layer. The possibility that substances may have been poured through the quern hole prompted a soil sample to be taken from deposit (653). Above clay (588), a low kerb (587), formed from irregular shaped stones and large beach cobbles, defined an area containing further deliberately deposited material. Firstly, (570) represented the remains of a cremation, possibly of several animals, within a black sand containing burnt bone and occasional stones up to 100mm in size. This deposit was largely contained within the area of kerb (587), but also spilled over some of the kerb stones. The whole of context (570) was sampled for further analysis. Above this cremation was a spread of semi-articulated animal bone (586), almost certainly representing more than one animal. The majority of the semi-articulated bone was likely sheep/goat and included two mandibles, articulated vertebrae and several long bones with articulated carpals/tarsals. The underside of much of the animal bone appeared to be burnt, although further analysis of this material is needed to confirm this. If this partial burning is confirmed, however, this would suggest that butchered animal remains were deposited immediately above the cremation while it was still smouldering. The final deposition was the placing of a lower human mandible amongst this material (Plate 6). In comparison with the animal bone the mandible showed no signs of burning or heat damage.

One of the earliest excavated features in the central wheelhouse area was a large, sub-circular pit [633], approximately 1.39m by 1.0m across and at least 0.46m in depth. Pit [633] was partially lined with large burnt stones and a contained a series of burnt deposits, suggesting that it had been used at some point as a cooking or fire pit. This pit was not fully excavated, due to time constraints, and as a consequence its stratigraphic relationships were not fully established. However, it is sealed by layer (561) (described below), which is interpreted as defining the end of the primary occupation of the wheelhouse. The earliest excavated fill of this pit was (616), a firm, red-brown silty clay, that appeared to seal the base and eastern edge of this cut. Above (616) was a loose, mid grey, silty sand (623) containing occasional animal bone and pottery with a thickness of 40mm. There was no indication that this deposit had been burnt and therefore this deposit may have related to an earlier use of this pit, or indeed a deliberate backfill. Above (623), was a thin deposit of dark grey/black black ash and charcoal (622), containing significant quantities of burnt animal bone and pottery to 60mm. Above this burnt material, a deposit of mid orange-brown clay (621) was found covering the western sides of this pit. This thin layer, like (616), may have been the remnants of a clay lining. Following this was a second deposit of ash and charcoal (620), containing burnt bone and pottery to a depth of 10mm. Above burnt deposit (620), the pit was found to be lined with large stone slabs, to 0.40m x 0.40m x 0.14, sloping down towards the centre of the pit (Plate 7). All the stones in this lining were burnt to some degree. Ash, charcoal and fragments of burnt bone lay in between and around these stones, perhaps remnants of cooking material or fuel. The final fill of pit [633] was a loose, mid grey-brown, silty sand (609) with a thickness of 220mm. This deposit spilled over the edge of the pit, and to the south covered a thin layer of compacted clay (613). This clay layer incorporated a large amount of broken pottery and may have been laid down to form a surface in the vicinity of the cooking pit.

To the north of pit [633] two, possibly contemporary layers were exposed but were left unexcavated. (665) was a medium to firm, grey sand containing charcoal flecks, and (666) was a loose, orange-brown, sand with flecks of peat ash. These deposits probably relate to the primary wheelhouse occupation but remain to be investigated in the future.

The occupation layers, structured deposits, fire pit, pits and midden-like spreads described above are associated with the primary occupation of the wheelhouse, and were all sealed by a thick layer of loose, mid grey sand (561), which equated with context (658) recorded along the southern wheelhouse wall; (569) recorded in the southern wheelhouse area; (652) recorded across the central wheelhouse area (context number (561) is used as the identifier for this layer in the remainder of this report). This extensive layer of grey sand was between 50mm and 60mm thick and was largely devoid of cultural material, other than occasional fragments of animal bone. This sand deposit, interpreted as a levelling layer, was identified as an important event horizon in the overall stratigraphic sequence, linking sequences across the northern, central and southern wheelhouse interior and separating 'primary' wheelhouse occupation from subsequent modification and uses of the structure.

5.23 Phase 3: modification and re-use (I)

The southern wheelhouse wall (513) stood at an angle of approximately 20° from the vertical, possibly a result of partial collapse. On the inside of wall (513), across an area of 3.9m by 1.9m, a spread of stones (555) appeared to represent collapsed masonry from the upper courses of this wall. The wall had either collapsed or been deliberately dismantled onto levelling layer (561), the rubble then sealed by a layer of loose, light grey, silty sand, containing occasional bone and pottery (505). The largest of the stones within the collapse measured 0.75m x 0.45m x 0.19m, comparable with the stones making up the outer skin of the surviving section of the original wheelhouse wall. The amount of collapsed masonry within (555), however, was not enough to have represented the full height of wall (513), suggesting either that some of the wall collapse was removed or that part of the wall was deliberately dismantled prior to the accumulation of (505).

Above (505), an arc of walling (547) was built on the inside of (513) following a similar alignment (Figure 6 and Plate 8). This wall was preserved to a maximum height of 1.49m at the edge of the north-south section and comprised roughly coursed blocks of gneiss to a maximum size of 0.80m x 0.56m x 0.22m. Like the original wheelhouse wall, larger, flat surfaced blocks were used in the inner facing, while smaller, more rounded stones were used in the outer skin. In fact, wall (547) was strikingly similar to the outer wheelhouse wall preserved in the northern part of the site, suggesting either deliberate emulation or continuity in building practices. Wall (547) could not have been a freestanding wall; the smaller, rounded stones must have been packed up against deposit (505) and the remaining rubble from the earlier collapsed section of wall (513).

Incorporated into the foundations of wall (547) were the remains of a previously unidentified radial pier (662). The pier was not fully exposed, but was 0.46m wide and at least 1.29m in length. This pier, like those recorded in 2007, was un-bonded and a gap of approximately 0.74m separated the visible lower courses of this pier from the exterior wheelhouse wall (513). In order for (662) to have been incorporated into the later wall (547), the upper courses of this pier must have collapsed or been deliberately dismantled prior to the accumulation of deposit (505); this deposit lay above the few stones of pier (662) which projected beyond wall (547). The stratigraphic relationship between the southern arc of walling (513) and pier (662) was not established, although it is presumed that they relate to the same phase of construction. Similarly, it is argued that the collapse or dismantling of both the pier and wall (513) were broadly contemporary events. This, however, has not been proven.

Apparently cut against wall (547) and truncating layer (505) was an irregular shaped cut [528]. This feature was only visible in section and the southern extent was concealed by shingle so that the overall shape and dimensions were not known. In section this cut had a maximum depth of 0.49m and was at least 1.8m wide (Figure 4). The primary fill (527) was a deep and fairly homogenous deposit with a maximum thickness of 0.46m and consisted of light to mid brown, sandy silt, containing occasional pottery

and animal bone. Above this primary fill, (523) was a mixed deposit of grey and red silty sand, containing occasional lumps of clay. Another deposit, (522) a loose, light grey-brown sand, lay above (523). Feature [528] is best explained as a construction pit or trench for masonry structure (530). This structure comprised a small alcove, 0.60m high and 0.66m wide, formed from six courses of stone blocks. A small rectangular niche 0.15m x 0.20m x 0.27m, accessed from the wheelhouse interior, was also contained within the walling of this alcove. Part of the masonry for (530) sat directly on top of wall (547); however, as the stone coursing continued upwards it extended south, overhanging the line of wall (547), with stone slabs supported by the primary fill of cut [541]. In order to construct this alcove feature it would have been necessary to excavate trench [528], on the southern side of the existing wall (547) and for material to be backfilled as each new level of stone coursing was built. This interpretation would account for the deep and fairly homogenous primary fill of this cut (527). Fill (523), notably containing lumps of clay, was also found between some of the stones of (530) and therefore possibly represented the remnants of a bonding agent used between and along the stone coursing. Deposit (522) contained an antler pick (SF: 1004), some pottery and animal bone and might be interpreted as midden material used as final packing against (530) and to seal the top of cut [528]. While the purpose of the alcove structure (530) remains unclear, it is tentatively suggested that a series of steps down to the height of the interior wall might have served as an entrance into the remodelled wheelhouse. Further investigation of this feature and cut [528], both of which continued beyond the main north-south section to the east, would undoubtedly aid understanding.

In the southern wheelhouse area, extending at least 1.2m by 1.2m and continuing beyond the main north-south section, the layer of levelling sand (561) was overlain by a series of loose, light grey sands. The majority of these layers were only identified in section and therefore some of the overall dimensions are absent. These layers appeared to represent material that had built up or had been dumped within the interior of the later wheelhouse building (Figure 4). The earliest of these was (581), a loose, light to medium grey brown silty sand with a thickness of 110mm. This deposit contained high quantities of fragmented pottery, all of similar fabric and therefore possibly the remains of one broken vessel. Above this, (580) was an almost identical deposit, with a thickness of 200mm, although notably devoid of high quantities of pottery. A darker layer of silty sand (579), up to 140mm in thickness, lay above (580). A loose mid to light brown, silty sand (578), lay above (579), up to 220mm in thickness and containing frequent stones, to a maximum size of 0.36m x 0.32m x 0.10m. Animal bone, pottery and a bone point (SF: 1016) were recovered from this deposit. The final deposit was a layer of wind blown sand (529). This layer also visibly sealed the alcove structure (530) and was the latest deposit excavated in the southern wheelhouse area.

Lying upon levelling layer (651) in the central wheelhouse area were a number of irregular shaped gneiss blocks (645), the largest of which measured approximately $0.48m \times 0.30m \times 0.24m$, the smallest $0.08m \times 0.06m$. These stones possibly represented collapse from pier (642), the

stones being of comparable sizes. This would make them broadly contemporary with the collapse (555) of wall (513), which occurs in a similar stratigraphic position above levelling layer (561). Towards the main northsouth section across the site, (651) was also overlain by a mid grey, sandy deposit (657). During excavation, this deposit was difficult to distinguish from the levelling sand below, both deposits being of similar composition, and as such the extent of this layer was not fully established. However, (657) differed from (561) in terms of cultural material; (657) contained moderate quantities of pottery and animal bone, as well as four grinding stones (SF: ; 1030, 1031, 1032, 1034) and a bone comb (SF: 1033). Layer (657) and the stones (645) were sealed by a deposit of medium firm, mixed black, orange and brown, sandy silt (632), across an area approximately 1.8m x 1.10m in size, and containing frequent charcoal pieces and peat ash. This almost certainly represented a spread of hearth material. Deposit (632) was cut by a small, shallow, sub-circular pit, [646], 0.6m x 0.5m with a depth of 100mm, filled with a compact, dark grey-brown, medium grained sand (647) containing a high proportion of charcoal, peat ash and cremated bone. The whole was covered with a layer of medium, yellow-grey sand, (625) extending approximately 1.2m x 2m. This layer varied in depth between 40mm and 120mm. Other than a small amount of pottery and bone, this layer was mostly devoid of cultural material. It is possible that it represents another levelling layer, deliberately deposited across the northcentral area of the site to facilitate re-use of this part of the building.

5.24 Phase 4: modification and re-use (II)

Directly above layer (625), a series of successive hearth deposits and structures were revealed immediately outside of Bay 1 and within the central wheelhouse area. The earliest of these, Hearth 1 (Plate 9), was a stone based hearth surrounded by kerb stones. Two shallow, straight-sided cuts [630], at right-angles to each other, cut deposit (625). These cuts contained three upright, rectangular stones (643), between 0.62 and 0.25m in length that lay upon a thin lens of dark sand containing charcoal flecks (631). These three stones were interpreted as kerb stones associated with hearth base (644). Three further stones, lying flat rather than upright, were also interpreted as part of this stone kerb (643). While a cut for this section of the kerb was not visible, this almost certainly reflected the minimal depth of these features and the difficulty of identifying small cuts within the fine grained sand (625) as opposed to a real absence. Together the six stones (631) formed three sides of a rectangle surrounding the hearth area aligned north-east south-west. The hearth-base (644) comprised a large, subrectangular, flat stone with dimensions 0.45m x 0.65m x 40mm. This stone was burnt and cracked, presumably as a consequence of contact with intense heat. Immediately above the stone hearth-base was a thin layer of compact, orange and black sand, containing high proportions of charcoal (591).

Above the burnt sand (591), was a layer of loosely packed, small to medium pebbles (573), with a maximum size of 140 mm x 100 mm x 35 mm, within a loose, grey gravel. These pebbles were contained within an area of kerb stones (551) and were situated immediately below a clay hearth base (558).

The pebbles were interpreted as a preparation layer for the subsequent clay hearth base, Hearth 2, perhaps with the purpose of retaining heat. Context (551) comprised 16 individual stones, nine sub-rectangular the remaining rounded (Figure 10). These stones were arranged to define a rectangular area approximately 0.92 m x 0.64 m, aligned north-east south-west, curved at the north-east end. These were interpreted as kerbing for the later hearth, Hearth 2. The clay base of this hearth (558), measuring 0.80 m x 0.56 m was contained within kerb stones (631). The clay had been incised with a cross, apparently using three finger marks, and then fired (Plates 10-13). A fired clay hearth base with similar markings was found within post-Atlantic roundhouse phases at Berigh, Lewis (Harding and Gilmour, 2000). By contrast, the latter was decorated with a checked pattern. Nevertheless the comparison between the two is striking. Three irregular shaped fire-cracked stones (559) found upon the clay base (558), possibly represent *in situ* cooking stones.

Deposit (550), a medium to loose compaction, burnt, medium grained sand, covered the possible cooking stones (559), part of the clay hearth base (558) and the kerb stones (551). This deposit had an extent of c. 0.5m x 0.5m, and a depth of c. 30mm. Immediately above (550), and covering a similar extent, was deposit (525), comprised mainly of burnt peat ash, up to 50mm in thickness. (543), was a slightly darker deposit of peat ash and burnt material, contemporary with and likely the same as (525). Above these lay context (524), composed of multiple micro-lenses of black and orange, silty sands. It is likely that each of these lenses represent episodes of burning or the dumping of burnt material in this location. During the accumulation of this material, the structure of Hearth 2 would have been concealed by deposits (550) and (525). Although represented by a less formal hearth, no kerbs or other structural features being apparent, the continuity of burning in this area over time is interesting. It is also noteworthy that the thickness of deposit (524), to a maximum of 190mm, indicates that burnt deposits were not routinely cleared from this area but allowed to build up and/or used over a long period of time. In the main north-south section, (544) a mottled, grey-brown, medium to loose sand layer, was found to be stratigraphically later than (525) and earlier than (524). In plan, (544) was seen to extend at least 2m north-south into the northern wheelhouse interior, with a maximum depth of 140mm. Eastwest, this layer extended at least 2.3m, seeming to continue beyond the main north-south section. (544) contained a large amount of finds including substantial quantities of animal bone and pottery. Three worked bone objects were also recovered from this layer (SF: 1009; SF: 1010; SF: 1013). (544) was interpreted as an occupation layer.

Truncating re-deposited hearth material (524) was a straight-sided, irregular shaped cut [518], with a flat base. The full extent of this feature was not visible to the east as it extended beyond the limit of excavation. The cut measured 0.82m north-south and had a maximum depth of 110mm. Cut [518] contained a loose, orange-brown sand (519), packed around two flat, heat damaged stones (520) each measuring approximately 0.4m x 0.3m, 80mm and 110mm in depth respectively. Layer (521), covered these stones. This layer, approximately 10mm in thickness and comprising a soft,

orange-brown, silty sand, contained significant evidence of burning; peat ash, frequent charcoal pieces and charcoal flecks. The two stones (520) and the burnt layer (521) almost certainly represented the base of another hearth structure, referred to here as Hearth 3 (Plate 14).

In the northern area of the site, within the exterior wheelhouse walls, a number of deposits, interpreted as occupation surfaces, were identified. Excavation in this area also revealed a sequence of stone kerbs within the areas defined as Bay 1. These different phases of kerb stones served to alter the way in which these spaces were delineated over time. A number of the deposits within the northern area of the site also extended into the central wheelhouse area and the physical relationship between these layers, the successive hearth deposits and structures described above, and the series of kerbs within Bay 1, enabled a stratigraphic sequence to be linked across the northern and central area of the site. This made it clear that these deposits were associated with a secondary phase of wheelhouse occupation, post-dating the layer of levelling sand (561) and broadly contemporary with the series of hearth structures within the central wheelhouse area.

Three stones (599), separating Bay 1 from the central wheelhouse zone and forming what is labelled as Kerb 1, were one of the earliest features excavated in this area. This feature comprised three upright, rectangular stone slabs, the largest 0.71m x 0.11m x 0.20m, the smallest 0.31m x 0.12m x 0.22m. On the north side, a straight-sided cut for this kerb [626], with a maximum depth of 100mm, was identified as truncating layer (625) This cut was almost entirely contained by the kerb stones (599), and packed with (627), an ephemeral deposit of dark grey-brown sand containing small charcoal pieces. On the south side of stones (599) another cut was visible truncating layer (651). This cut, [635], was wider and deeper than [626] and was filled with a different packing material (636), a firm, medium brown, sand containing irregular stone pieces to 50mm, substantial quantities of mammal bone and a large piece of cetacean bone. This feature may have been a re-cut for Kerb 1, allowing more substantial packing material to increase the stability of the kerb (599). However, the high proportion of animal bone within this deposit is difficult to explain and the function of this cut is not entirely clear.

Layer (568) overlay part of kerb stones (599) and an irregular deposit of firm, orange, sandy clay (577), extending 1.01m by 0.92m and abutting the edge of pier (642) to the west. This layer comprised a very compacted orange, sandy silt deposit, containing large amounts of peat ash and some cremated bone. An environmental sample was taken from this deposit. Layer (567), was a mottled, mid grey-brown, silty sand, contained within an area defined by Kerb 1, the exterior wheelhouse wall to the south and pier (642) to the west. The physical relationship between layers (567) and (568) was not established. (567) varied in depth between 50mm and 150mm, rising towards the pier, the exterior wall and the southern and eastern edge so that it appeared dish-shaped in section. A large amount of material was recovered from this layer including pottery, animal bone and a bone comb (SF: 1021), almost identical to the bone comb (SF: 1033) recovered from

layer (657). The remains of an articulated sheep/goat (SF: 1020) were also found within (567). It is likely that this burial was placed within a cut, although this was not identified during excavation. (567) was interpreted as a trampled occupation layer contained within an area defined by Kerb 1 within Bay 1.

Later than Kerb 1, another line of stones (566), delineated Bay 1 and comprised two flat stones, $c.\,0.3m \times 0.2m$ and a single irregular shaped stone 0.4m x 0.15m. These stones filled a cut, [607] that truncated layer (567), packed with a mid grey-brown, silty sand (608). Layer (567) was also cut by a small sub-circular pit, [611], with concave sides and a rounded base. Some pottery and animal bone was recovered from the fill of this pit (612). Two irregular shaped blocks of gneiss (610), $c.\,0.31 \times 0.29$ and $0.22 \times 0.24m$, were also found on the surface of layer (567). It was difficult to explain the presence of these stones sitting above this occupation layer. It is possible that they represent some tumbled masonry, perhaps relating to the collapse of Pier (642), although no other evidence could be found to support this interpretation.

Presumed to be broadly contemporary with kerb stones (566), was a further line of large upright stones (594), labelled Kerb 3, curving south to southwest and forming at their intersection a right angle with the stones of kerb 2. (594) comprised two sub-circular boulders, c. 0.32m x 0.41m, and a larger rectangular stone, c. 1m x 0.14m. A cut for Kerb 3 [595], truncated layers (568) and (577) and was filled with (596), a dark grey-brown, sandy silt, containing several irregular shaped stones of a maximum size of 300mm, wedged against the largest stone of the kerb.

Within Bay 1, layer (504) concealed tumbled stone (610). (504) consisted of a firm, mid grey-brown sand with darker horizons. Two small finds were recovered from it; a piece of mica and a small copper object (SF: 1014 and SF: 1018). (504) extended across a similar area as layer (567) and like (567) was markedly dish-shaped. It was defined by pier (642) and the exterior roundhouse wall, but abutted Kerb 2 rather than Kerb 1, and was interpreted as a later occupation layer within Bay 1. A narrow and ephemeral cut [597], approximately 1.01m x 0.11m with a depth of 90mm, cut layers (544) and (504). This cut was filled with a medium, grey-brown, sandy silt (598), packed around two upright stones (593), one 0.64 x 0.08m and the other 0.24 x 0.07m. These stones formed a kerb, labelled Kerb 4, separating Bay 1 from the central wheelhouse area, aligned north-east south-west. The latest deposit to be excavated in Bay 1 was layer (510), a medium compact, light grey-brown, sand, containing occasional fragments of stone to a maximum size of 30mm. This layer covered a similar area to (504) and was slightly dish-shaped and likely represented another occupation surface within Bay 1. Pottery, animal bone, a fish-bone needle (SF: 1005) and a small, corroded iron object (SF: 1000) were recovered from this context.

As in Bay 1, excavation within Bay 2 revealed a kerb of upright stones separating the area within the bay from the central wheelhouse zone. The cut for this kerb, [638], a straight sided cut with a flat base, truncated layer

(507), a mid grey-brown, sand containing peat ash and charcoal flecks. Layer (507) was not excavated in plan. [628] was filled by deposit (639), a medium, grey-brown, silty sand with no inclusions. The kerb itself comprised two upright stones (554), approximately 0.32m x 0.18m, forming a right angle with pier (642). In line with these two stones, was an oval shaped cut [640], with straight sides and an angular shaped base. This pit cut levelling layer (561) and was filled by (641), a loose, mid grey-brown, medium grained sand. This feature was interpreted as the cut for a now missing stone, part of the kerb in Bay 2. Two layers within Bay 2 had seemingly built up against the line of kerb stones; (552) and (553). The stratigraphic relationship between these two deposits was not ascertained during excavation and finds may have been mixed. A layer of irregular shaped and sized stones (546) above layers (552) and (553) were reminiscent of the 'tumbled masonry' (610) found within Bay 1. However, the irregular shape and size of these stones is largely inconsistent with the stone used in this pier and again a suitable explanation for this spread of stones is difficult to attain. Above these stones, (531) was a medium to firm, mid grey-brown, sand, containing small amounts of burnt peat ash, pottery, much of which was heavily degraded and in very small fragments, as well as animal bone. This deposit had been partially excavated in the previous season as context (017). During the previous season of excavation, this layer was recorded to a depth of 130mm. In 2008, this layer was preserved to 50mm. (531) was possibly the same as layer (503) which extended across the central wheelhouse area into Bay 1. Layer (531) was the latest deposit excavated in Bay 2, exposed immediately below backfilled sand.

In the main north-south section a number of deposits could be shown to extend between the northern and central wheelhouse (Figure 7). This enabled the stratigraphic sequence to be linked across this part of the site. Layer (576), a firm, orange-brown, fine-grained sand, extended across the central and northern area of the wheelhouse and sealed Hearth 1. This was, in turn, covered by a loose to medium, mottled grey, brown, white sand (526), which extended across Bay 1 and Bay 3 in the northern wheelhouse area, and seemingly abutted, and so could be contemporary with, possible occupation layers (562) and (544) recorded in the central wheelhouse area. Layer (526) was sealed by layer (503), comprised of multiple micro lenses of black, brown and orange sand, containing a substantial amount of archaeological material including pottery, animal bone, a worked animal tooth (SF: 1007) and a piece of worked scallop shell, with fifteen, regular holes either cut or carved into it (SF: 1006). It is likely that (503) represented a series of trampled occupation deposits. This layer had accumulated against Kerb 4, within Bay 1 and extended from the northern end of the wheelhouse interior, into the central wheelhouse area, although its full extent was not identified in plan. In section, it was apparently sealed by the latest hearth deposit (521) of Hearth 3, although elsewhere it formed the final deposit excavated below the backfilled sand.

5.3 Interpretation and Synthesis

The earliest deposit identified within Trench 1 was a layer of mid red-brown silty clay exposed towards the south of the site. This layer contained a number of flint pieces, noteworthy due to the scarcity of this material elsewhere at Sloc Sabhaidh and perhaps indicative of earlier prehistoric activity. A series of other deposits overlay the silty clay, including a layer of wind blown sand, perhaps representing an end to this early phase of activity at the site. After an unknown period of time, the wheelhouse was built above these deposits. The wheelhouse was likely to be of a revetted construction, built within a construction pit, identified to the south of the site in 2007. The exterior wall of the wheelhouse was built using rough stones, packed up against the side of the pit, with well coursed, dressed blocks forming an inner facing. The wheelhouse comprised at least five, unbonded radial piers that tapered towards their base. Unlike the exterior wheelhouse wall, the radial piers were free-standing and this explains why the lowest courses of stone in pier (642), were built at a lower level than the exterior wheelhouse wall. Rubble material was found packed up against the base of pier (652) and between some of the individual stones, perhaps representing the fill of an unidentified foundation cut. Within the lower courses at least, clay bonding was also used in the construction of these piers and the exterior wheelhouse wall. Given the relatively narrow base of the piers, the use of shallow foundations and clay bonding may have been important for stability.

After the wheelhouse was constructed, occupation surfaces accumulated within the building. These surfaces were only partially exposed and remain to be explored in greater detail within any future excavation. One of the few features associated with the original occupation of the wheelhouse was a large stone-lined pit, used as fire or cooking pit within the centre of the building. In the south of the wheelhouse a series of deliberate deposits were placed above what must have been one of the latest floor surfaces associated with the original wheelhouse building. Firstly, a rotary quern stone was placed on the floor, with a single stone blocking the central hole. Burnt material, containing a large amount of animal bone, was then dumped around and above this guern stone. A low kerb was then constructed, within which a cremation of animal bone was deposited. A layer of semiarticulated animal remains were then placed above this deposit. These remains were likely sheep/goat, some of which appeared to be partially burnt on the underside suggesting that the cremation below was still smouldering when the animal remains, perhaps butchered carcasses, were deposited here. Finally, a lower human mandible was placed on top of this deposit. The mandible showed no evidence of burning, so was presumably deposited after the fire or burning had subsided. It is not uncommon to find human remains deposited within Iron Age buildings, especially across the Western Isles. Part of a human skull was deliberately deposited, along with some fragments of pottery, beneath structure 3 at the Cnip wheelhouse, Lewis (Armit, 2006: 244). Deposits of human remains were also recovered from later Iron Age structures at Dun Vulan, South Uist, including a human mandible (Parker Pearson and Sharples, 1999: 353). Perhaps the most

striking example of human remains within an Iron Age context comes from the site of Hornish Point, South Uist, where the butchered remains of young man were found within four pits beneath the floor of roundhouse (Barber, et al, 1989). These types of deliberate deposit are frequently interpreted as foundation rituals. At Sloc Sabhaidh, the human mandible and associated ritual deposits were placed above an occupation layer and sealed by a layer of dirty sand, seemingly marking the end of a particular phase of occupation at the wheelhouse. This layer of sand also extended across the wheelhouse interior, sealing other occupation surfaces and seemingly separated primary wheelhouse occupation from later use of this building in a partially modified form. These 'special' deposits were therefore more likely to have signified the closing, as opposed to the opening, of this house.

After the layer of sand was laid down within the wheelhouse interior, a section of the southern wheelhouse wall and one of the radial piers either collapsed or were deliberately dismantled. A new section of wall was then built on the inside of the now defunct exterior wheelhouse wall, incorporating the earlier pier and collapsed masonry from the earlier wall into the foundation courses. The new wall was built in a similar manner to the original wheelhouse wall, constructed with large blocks of gneiss to a maximum size of 0.80m x 0.56m x 0.22m, with flatter blocks used for the inner facing and rougher stones for the outer face. The builders of this new wall may have deliberately emulated the construction method of the earlier wall, or conversely, these similarities might instead indicate continuity in building practices throughout the use of this site. The upper courses of this wall were built into an alcove, set back from the alignment of the main wall. The function of this structure is unclear, but might have provided access into the modified building. A small niche, accessible from the building's interior, was also incorporated into this wall. Importantly, the later wall was built without reconstructing the collapsed piers, and there is evidence for removal of a pier in the west of the site and therefore, during later occupation, the structure ceased to be a wheelhouse in the conventional sense of this term.

In the northern and central areas of the site, occupation continued after the levelling layer of sand was deposited. This later occupation is presumed to have taken place within the now modified wheelhouse, although this relationship was not conclusively demonstrated. Occupation in this part of the building included the construction and use of a series of hearths immediately outside of Bay 1, off-set from the centre of the building, and a sequence of kerb structures within Bays 1 and 2, altering the way in which this space was delineated over time. The earliest hearth, Hearth 1, was a stone-based hearth surrounded by a low kerb. Around this time, two stone kerbs were also put in place, separating Bays 1 and 2 from this hearth area. A series of occupation surfaces then accumulated within these bays and around the hearth. The stone base of Hearth 1 cracked at some point, and this perhaps prompted the construction of a new hearth, Hearth 2, in its place. Hearth 2 was constructed above a layer of pebbles, and comprised a decorated fired clay base, contained within a new kerb of stones. Around this time changes were also being made to Bay 1, in the form of a new

alignment of stone kerbing. This kerbing still served to distinguish Bay 1 from the hearth area, but comprised two sides of kerb stones, defining a smaller and more restricted space within the bay. Further occupation surfaces then built up across this area. At some point Hearth 2 went out of use. However, fires continued to be lit in this area and a series of burnt deposit accumulated within this locale, eventually concealing the decorated hearth and surrounding kerb stones. Some time later, two flat stones were laid down directly above Hearth 2, and were used as the base for what was again a more formal hearth area, labelled Hearth 3. This final hearth structure coincided with further changes to the use of space within Bay 1, whereby one of the existing alignments of stone was replaced by a new kerb, this time increasing the space within this bay. These features represented the latest activity identified at the site, after which deep accumulations of wind blown sand sealed the uppermost floors.

6 Results: Trench 2 (I. McHardy)

6.1 Introduction

What had been described as "a series of adjoining sections of dry stone walling, which did not readily conform to any known typological form" in 2007, resolved itself this year into what was very probably the truncated remains of one wheelhouse, or more specifically an "aisled roundhouse" (Barber *et al*, 2003:29). Evidence was recovered that indicated that parts of the original building had collapsed, and had subsequently been rebuilt concentrically, closer to the centre of the building. Some interpretations of the previous year have been revised in the light of the findings from the 2008 season.

A total of 81 contexts were recorded in 2008, of which 65 were bulk sampled for environmental analysis. Even though only approximately a third of the original structure remained, a full sequence of events from prewheelhouse through to re-build and abandonment was uncovered.

Only 9 finds were three dimensionally recorded, but a further 124 were recorded by 0.5m grid or context if from a well defined pit. These included around 100 sherds of Iron Age pottery, much of it decorated, and 7 bone tools/ parts of tools including needles and awls. A beautiful oval polished bone pendant or brooch found within a layer interpreted as the floor of the wheelhouse was most notable amongst the three dimensionally recorded finds. Hammer/coarse stone tools were found, as was other worked and butchered bone, a piece of soapstone, and a small quantity of slag.

6.2 Sequence of Deposits

This section is an account of the 2008 results only. Occasionally, contexts in the range 200-299 are mentioned in the text. These are from the year 2007 and were only retained in the 2008 season where we were totally confident of their identity. All contexts from 2008 are numbered from 300-399. In the text, fill or deposit numbers are enclosed in round brackets () and cut numbers in square brackets []. The results of the 2007 and 2008 excavations are provisionally integrated in Section 6.3 below.

After cleaning all the loose sand and cobble beach material (200) we were left with a series of horizontal archaeological deposits truncated by the 30° - 45° angle of the profile of the beach, with the main dry stone structures discovered in 2007 clearly representing the latest phase of activity, at the top of the beach. It could be seen that the height of the mound was determined by the archaeological structures and deposits within it. The following description describes deposits and structures as they were encountered in the excavation, from latest (generally at the top) to the earliest (generally lower down).

The uppermost deposit was the beach material (200), which sealed a wind blown sand (297) that had completely filled the voids created by the extant walls and covered the rest of the mound in a thinner layer. The latest structures at the top of the sequence to be encountered and excavated were walls (220) and (222). Wall (222) was a poorly-built, north-south, curvilinear, dry-stone section of wall, clearly built into the pre-existing and well-built east-west wall (221). Its height was achieved by large unbalanced orthostatic slabs (two of which may have been rejected proto-rotary guerns, being octagonal slabs of stone of 0.6m diameter and irregular courses. It was revetted into what looked like collapsed wall (325) and a grey brown coarse sand (330) and would not have stood freely. The northern end of the wall was truncated by the beach. Although (325) and (330) were mixed, the latter was in the most part over the former. Contexts (325) and (330) were stripped away, and underneath, to the northern end was found (307), a dark reddish-brown silty sand with yellow and grey sandy lenses, and frequent winkle and limpet shell, a typical midden type deposit. Within it were the collapsed remains of a much earlier east-west wall (333), the original context of which comes much further down the sequence. Further south, the removal of (325, 330) revealed deposit (209), recorded in 2007. This extensive layer was found over much of the trench in 2007, and nearly all of the area opened in 2008. It was a moderately compacted mid brownish black silty clayey sand with some peat ash, charcoal, pottery, worked and butchered bone. We noted this year that the dark colour and soapy feel were most probably due to a high organic content rather than the relatively small amount of charcoal. Stratigraphically, (209) underlies all later structures including walls (222) and (220) and a possible paved area (334), and post-dates all structures identified with the original construction of the structure in 2008, including walls (302), (333), (332), (221) and (212).

Context (209) was un-compacted and, therefore, unlikely to have been a floor, yet it was darker and more organic rich than a typical midden deposit, and had relatively little peat ash within it. Its ubiquitous and uniform nature in every part of the building seen so far, especially when underlying deposits vary greatly in each area, seems significant.

Beneath (334) and (209) the sequence of deposits seemed to be different within each separate area defined by walls (212), (221), (332), (333) and (302). These areas (A to E) are illustrated on Figure 7, and the following description considers each one separately, from south to north. Principle structures deposits mentioned in the text are illustrated in plan on Figure 8 and principle deposits illustrated in section on Figure 9. A general view of main structures and deposits are shown on Plate 15.

6.21 Area A (Figures 8 and 9)

South of walls (221) and (212) in 2007 an egg-shaped (in plan) subterranean structure (244, 246, 286) and [247], was recorded cut into midden material (202), and tentatively interpreted as a corn drying kiln. This "Structure 4" was further excavated this year and discovered to have been substantially modified at some point in its use to create the approximate plan of a corn dryer. Context (246) consisted of stonework which could be clearly seen to

be secondary to the main structure. It had the effect of creating a circular bowl at the wide end of the 'egg' and a narrow stone lined channel leading into it. An east west linear arrangement of slabs laid on their side, (277) identified as a 'kerb' in 2007, appeared to block off the northern extreme of the channel, and terminated with a small area of paving (294). When this secondary stonework was removed we discovered a c. 300 x 500mm suboval deposit (338), roughly central to the whole. There was no cut for this, although the material appeared to have been dumped in a distinct and defined way, possibly commencing with a rough circle of angular stones no bigger than 300mm, on top of which was c. 250mm depth of a dark brown medium grained sand containing beach cobbles, many white quartz pebbles, cow bone and one cow horn. Context (366) may have at one point covered the whole of the base of the feature, but now only remained as a thin strip on its east side, under the re-build (246), and was unconnected to (338). It was dark brown, grey and black in colour but otherwise a medium grained sand, quite compact. It covered an area of around 300mm x 100mm abutting the main wall of the structure and was a consistent 50mm deep. Both (338) and (366) directly overlay (367), a moderately compact mix of dark brown sand, light grey sand, yellow sand, red sands and patches of orange peat ash with charcoal, winkles and cockles throughout. It spread throughout the whole structure and was around 100mm deep. The mixed nature would imply that it had been deposited by trampling feet, perhaps whilst building the structure. Toward the wide end of the Structure 4, immediately underneath (367) was a 300mm diameter sub circular pit [381], 350mm deep with a rounded base, and filled by a dark brown uniform medium grained sand with limpet, charcoal and pottery sherds. Notably a large round stone entirely filled the plan dimensions of the cut, such that it would seem there was no cut if it hadn't been for the fill with pottery underneath. Next in sequence was the wall of the structure, (244), fill (286) within foundation cut [247].

The base of Structure 4 comprised a thin, 10mm – 20mm, compact layer of orange peat ash and charcoal (371). A very similar layer was recorded in 2007 in a sondage c. 3m from Structure 4. If these are proved to be the same layer, it must pre-date Structure 4.

A small area of peat (201) was found overlying a clean sand (284) which in turn overlay (202) west of the above structure. Clearly, the peat had not grown there naturally with the free draining sand immediately under it, leading to the intriguing suggestion that it may have been a peat stack. There is plenty of evidence that peat was being burnt at the site, which would necessitate storage.

Back up to the top of the sequence, the removal of windblown sand (297) between walls (221) and (212) revealed context (206). In 2008, excavation in this area then uncovered context (319), a fine grained clean sand with thin lenses of darker fine sand such as is typical of windblown deposits and interpreted as such. Immediately under this was (335), a small concentration of charcoal and burnt bone measuring $300 \times 500 \, \text{mm} \times 20 \, \text{mm}$ thick. This was possibly a lens within underlying context (329) but its clear definition implied that it was the outcome of a distinct event or deposition.

Layer (329) was a moderate to compact reddish brown medium grained sand with bone, shell, pot and charcoal, including a beautiful bone pendant (SF: 1001), and hammer (SF: 1004). It was found to be thicker, c. 250mm toward the edges, or walls, and thinner in the middle, such as would be consistent with being deposited/compacted through trampling underfoot. Underneath (329) was (350) (potsherd SF: 1007), a moderate-to-compact brownish-yellow coarse, clean sand, c200mm thick. There were no cultural inclusions, and the wall (212), which incorporated a 'Guard Cell', was built immediately on top of this context, (Plate 16) with no discernable cut.

When (350) was removed it could be seen that the wall (221) (Plate 16) was next in the sequence, as it was cut into underlying context, (317). Cut [377] was a shallow linear feature, only 100-150mm deep where excavated, 0.2-0.3m wide and the full length of the pier (221). It was also filled by (378), a reddish brown silty sand midden type deposit, containing charcoal and shell but lacking any large inclusions.

Context (317) was a moderately compact, yellow, medium to coarse grained clean sand. It could not be described as 'Natural' due to the many cultural deposits found underneath it in 2007, but was clearly naturally deposited itself due to its lack of artefacts and the marbling lenses of slightly darker sand typical of Machair type sands. It ran under (202) to the south.

6.22 Area B (Figures 8 and 9)

Between walls (221) and (332), context (209) was removed to reveal (346), a 100mm thick, bright orange, loose material of unknown origin, similar in feel to a coarse sand with a silky smooth component when rubbed between fingers. A piece of slag (SF:1006), was the only find recovered from layer (346). The context had accumulated against wall (332), and it was noticed that the south side of the wall was reddened and heat cracked. Beneath (346), but overlying wall (332) were a number of patches of slightly different colour (351), (352), (353) which may not have been distinct contexts. Context (351) (potsherd SF: 1008), (burnishing stone SF: 1009), a dark brown to black coarse sand with what was thought to be high concentrations of charcoal and organic material lay immediately south of the wall (332), whereas further south, context (352), identical apart from being lighter in colour, i.e. brown to dark brown, occupied the middle of the area. Context (353) was slightly darker again, and spread south to the wall/pier (221). The darker deposits appeared to generally overlay the lighter although this was unclear in places. This gave the impression that it may have been the result of the raking of the less combusted material to the sides of the area. All of these deposits were excavated using the grid system described above, and every second grid square sampled in case of variation over the area. Contexts (357) and (359) were recorded underneath these, but were subsequently realised to be substantially the same as (352) and (353) respectively. Together these deposits were c. 200mm thick. The lower course of wall (332) was constructed of slabs laid flat, apparently upon layer (341) a moderately compact, light grey, clean coarse sand. Above the flat slabs the wall was constructed of orthostatic slabs such that it is hard to

imagine the wall gaining much height over the extant 0.4m. It could possibly be the continuation of an orthostatic wall found in 2007, (223).

Context (341) overlay a linear feature [370] cut into the clean sands of (317). This had been noticed in 2007, and interpreted as a drain. The structure extended over 3 metres in length, possibly longer as it may have been truncated by the beach, and was 0.8m wide and 0.3m deep. A trench like cut had first been made, and then lined with two parallel arrangements of long rectangular stones forming a linear slot 0.2m wide over the length of the feature. A clean yellow sand (368), possibly the re-deposited (317), had been used to position these stones within the cut. A mixture of orange peat ash and charcoal rich sands had then built up within the feature, presumably due to whatever it was used for during its lifetime (mixed with and difficult to distinguish from (368)). It terminated directly under the centre of the burnt orange material (346) and charcoal rich deposits (351) and (352). To the east of the termination of this feature was a small stakehole with a V- shaped profile, [361], measuring 110mm diameter and 90mm deep and also cut into (317). It was, filled with (360), a dark brown coarse sand and contained a small piece of spongy organic material, Just south of this, towards wall (221), the removal of (359=353) revealed a pit, [376], likewise cut into (317), but also partially underlying the wall. The part which was out with the wall was excavated and indicated that the pit was 0.5m in diameter, sub-circular in plan and with sharp break of slope at the top and a rounded bottom. It was filled by typical midden type material, a moderate to compact reddish brown medium grained sand with marine shell and charcoal. There was nothing within it to indicate a specific use.

6.23 Area C (Figures 8 and 9)

Returning to the top of the sequence between walls (332) and (333), the removal of layer (209)=(207) revealed (343), a light greyish yellow clean sand interpreted as wind blown, possibly the same as or representing the same hiatus as (319) recorded to the south of wall (221). Under (343) was (342), a moderately compact, mid-brown silty or organic rich sand, with small rolled pieces of pottery and some marine shell. This was interpreted as a floor layer, thought to be stratigraphically related to (329) to the south of 'pier' (221). Beneath (342) was (341), the clean grey sand which ran under the orthostatic wall (332) to the south, but was found to peter out before wall (333) to the north. Layer (341) sealed the construction cut [354] for wall (333). This cut was 0.7m long, 0.6m wide and 0.2m deep. As well as the stones of (333), it was filled by (340), an extremely compact, greyish brown fine grained sand with occasional charcoal flecks. The only inclusions it contained were two small flat stones which had been placed under the corners of the lowest stone of (333), as if to level it up. The construction trench for wall (333) cut a small pre-existing sub-circular pit, [321]. This was around 350mm in diameter and 350mm deep, with undercut sides and rounded bottom, (giving the impression in profile of a bag-shaped pot). It contained two fills, (356) and (349). The upper fill, (349) was a compact reddish-yellow, medium grained, clean sand with no charcoal or other inclusions. The lower fill (356) was a mixture of jet black charcoal with areas of dark brown and grey sand, clinging to the shape of the cut, including the

undercut 'rim' of the pit. It was solid, or compact, as if fused together, and c. 20-30mm mm thick towards the base of the pit. It contained small fragments of burnt bone. Pit [321] cut an earlier pit, [344] filled with homogenous reddish yellow medium grained sand (345) and containing a lens of bright pink sand. Cut [344] was almost a metre wide and 350mm deep, with vertical sides and a flat bottom. We could not make any of its length out in plan, indicating that it was truncated by the beach and only the eastern extreme of it remained to be seen in profile. Finally, all of these were cut into (317), the clean yellow sand seen throughout at this lower level. However, in this area, superimposed onto (317) were 10-20mm thick lenses of an olive green silty sand (362) not seen elsewhere, a 10mm thick patch of fine grey sand (365). This material seemed to fill what would have been small depressions on the surface of (317). There was also a patch which was reddened as if from heating (363).

6.24 Area D (Figures 8 and 9)

Between walls (333) and (302) a different sequence was encountered. As noted above, when (330) and (325) were removed we discovered a midden type deposit (307) in this area, within which were the collapsed remains of wall (333). A very similar, except lighter in colour, midden type deposit was found under this, (313). It is likely that both (307) and (313) originated as the collapse of walls (333) and possibly (302) into a midden area. The middenlike deposits sealed a moderately compact mid grey-brown fine sand layer (339) with unusual inclusions of small stones, which extended northwards, petering out c. 3-400mm short of wall (302). Under it was context (314), a 50mm deep, moderately compact mid-brown medium grained sand, with no inclusions. Wall (302) seems to have been built at the same time as this was deposited, as its foundations are within it but it has also built up around it (similar to but slightly contrasting with context (350) and wall (212) in the south). Wall (302) is made from substantial gneiss blocks laid upon a foundation course of flag stones, surviving to a height of 300mm height, and of similar width. As noted with wall (333), the foundation course had small flat stones under both corners as if for levelling up. Only a 1.5m length of the wall was uncovered from the section, but what was uncovered had an arc which when analysed from plans could well have met up with the arc of (212) somewhere within the mound, thus, forming the outer wall of the structure. An animal jaw (SF: 1005) lay directly under the wall, which was within a 50mm thick, moderately compact, light grey, very fine sand, with no inclusions (315)... Underneath (315) was (316) and (317). These are mentioned together because (316) was an extremely thin lens of material which was exactly the same as (317) save for being reddened, and appeared to be the product of heating upon the context (317), as (363) was above. No charcoal remained however, as if there had been a strong source of heat in this area, which had subsequently been swept clean before (315) had been deposited. Alternatively the colour may have come from some form of staining.

6.25 Area E (Figures 8 and 9)

North of wall (302), the sequence had a different character again. The uppermost contexts were not as simple as further south where deep homogenous deposits of material were removed to reveal concentrated occupation deposits. Here the upper deposits were thinner and sloped away from the wall, and presumably would have taken more time to build up. Most of the following deposits were only seen in section and remain unexcavated in plan; the sequence is therefore unproven and tentative. Immediately below the sandy top soil (297) of the mound in this area was (330), and then midden-like deposit (307), described above. (307) achieved a maximum depth of 0.9m and covered a series of deposits that had accumulated against the northern side of wall (302). Context (311) was a moderately loose yellow-brown fine sand with no inclusions visible in section. It was probably the same as context (308), which was very similar and continued north at the same level but was interrupted by a large stone. In the area between this stone and (302) a 10-20mm thin layer of concentrated orange peat ash (312) had been dumped. Under this was (309), an orangey brown gritty sand containing many winkle and limpet shells and animal bone, typical midden material. Context (310) was under this, which was essentially the same but with a slightly lighter colour and fewer inclusions. Under this we have an c. 1.5m² area of paving (303), consisting of gneiss flagstones of around 300mm x 300mm, all laid flat on top of the light grey fine sand (315), described above, which spread under wall (302). Paving (303) is therefore broadly contemporary with the wall (302). Under all these was the ubiquitous (317).

There were other pits cut into (317) lying out with these areas, making it uncertain as to what depth they had been cut from as truncation seems likely. These were: [375], a sub-circular, 300mm diameter 200mm deep pit filled with (373), a dark brown fine grained sand, with charcoal, winkle and limpet shell; [380], a 500mm diameter, 170mm deep pit filled by (374), a dark brown medium grained sand with similar inclusions but also some bone; [305], a 150mm diameter, 40mm deep pit filled by (320), a mid brown coarse sand with charcoal flecks; and finally (301), which was not excavated.

6.3 Synthesis of the 2007 and 2008 results

6.31 Interpretive Issues

Some of our interpretations from 2007 were found to be incorrect upon further excavation in 2008 and the sequence was found to be less complicated than initially thought.

The main misinterpretation was that of the sequence of walls, briefly mentioned in section 4.2 above. In 2007, we had ascertained through excavation that wall (220) was later than (212), with context (207=209) intervening. It was thought that context (207=209) also ran under the other extant walls, (221) and (222), which were assumed to be contemporary, due to a single stone being bonded through both. We therefore assumed that both these were built in the same phase as (220). We also knew that wall (212) was a substantial, well built wall which contained a 'guard' cell and was probably the eastern side of the entrance passage to a wheelhouse, the other side having been taken by the sea, and so was likely to be the earliest phase of building. We therefore concluded that (220), (221) and (222) were all from a later phase of re-modelling/re-occupation.

In 2008, with a little more erosion having taken place, it was clear from the outset that (207=209) did not run under both (221) and (222) as we had thought, but only (222). This meant that only (222) was contemporary with (220), whilst (221) was earlier, and was eventually realized to be contemporary with (212), i.e. (212) and (221) were both part of the primary construction of the wheelhouse. During the second phase, the builders of (222) had de-constructed part of (221) in order to bond the walls together.

The second misinterpretation came at the very end of the excavation in 2007, when we thought that various stones were protruding through the context (230), a clean, naturally deposited sand. We reasoned that these must have been from an earlier phase of building. However we didn't excavate (230) and consequently none of these stones were investigated. In 2008, under the c. 1.5m of midden material and collapsed wall (325) we found a sequence of deposits which matched perfectly the sequence of light and dark sands recorded in the previous year; starting with (207=209) which we had seen and confirmed was under wall (222) and descending through (235=343), (236=342) and then (230=317). We are therefore confident that context (317) from 2008 was the same as (230) from 2007. Excavation of (317) clearly showed that the stones which remained from 2007 at this level (295), (296), (299) were cut into (230=317) and not protruding through it. Unfortunately, a further feature thought also to protrude through (230=317), consisting of a part circle of orthostats, one of which was a broken saddle guern (249) and a concreted peat ash deposit within (248), had been completely swept away by 2008. Given its position close to what would have been the centre of the wheelhouse it seems likely that it too was cut into (230=317) and was similarly part of the original wheelhouse, possibly the remains of the central hearth.

Thus we now have evidence of two clear phases of occupation of the wheelhouse, and although the multitude of pits from pre-wheelhouse levels and poorly built walls post wheelhouse may complicate this picture slightly the evidence points to a far more straightforward sequence than the 6 or 7 phases suggested in 2007.

This realization has consequences for the group of pits cut through (317/230), excavated in 2007. In that year we could not confidently assign these to that level as they were thought likely to have been truncated and could therefore have been cut from higher up. However given that we are now dealing with only two phases of wheelhouse occupation, and had no pits cut through (207=209) i.e. from the secondary re-occupation, together with the pits' distribution within what would have been the wheelhouse plan, it now seems likely that these pits were made by the wheelhouse inhabitants during the life of the building.

6.32 Combined interpretation of results from 2007 and 2008

The earliest excavated activity on the site was the extensive layer of pure peat ash, (217), which extended beyond the trench, although truncated in its south west corner. It was virtually at sea level and one occasion was inundated in a storm surge. A large flat bottomed pit, [216], cut through (217), and had a sandy fill with no finds or inclusions (229). A sterile sandy layer (218) overlay these, which had another large, flat bottomed pit, (288); cut through it, filled with (290), a light brown sand. There was also a small oval 400mm diameter, 300mm deep pit filled with a mottled grey-brown sand [227]/(228) as well as a (possibly truncated) stake-hole, 300mm diameter, 400mm deep, [289]/(291). Over the pit [288]/(290) we find (215), a bright orange peat ash with fire cracked stone, and this is overlain by light coloured fine sand (292). Over the stake-hole and oval pit north of this was a darker, brownish-black sand (283), which although not physically related to (292), was overlain by (230=317).

The area which the wheelhouse would eventually be built upon consisted mostly of (317), a uniform yellow, medium to coarse grained sand with no finds or inclusions which covered two thirds of the plan area of the trench to a depth of around 300mm. This deposit seems to represent the end of one phase of activity and the start of another. The possibility that it could have been purposefully laid down in preparation for the construction of the wheelhouse is not supported by the fact that it became thinner and overlain by a thick peat ash, bone and shell rich midden deposit (202) in the southern part of the trench. However, the upper surfaces of (230=317) and (202) together are so level that it is possible this is a horizontally truncated horizon in preparation for the new building. The midden deposit clearly indicates that there was habitation in the near vicinity even before the wheelhouse.

To the south, a concentration of marine shells within a sandy matrix (203) was contained within the angle of a right angled section of rough walling (204) only two courses high. Midden material (202) eventually built up over this feature.

To the north, another flat bottomed, vertical sided trench-like feature, [343], filled with a clean reddish-yellow sand (344), cut layer (317). An olive green deposit (362) slightly overlay this feature, and together with a fine grey sand (364/5) may have accumulated in shallow depressions on the surface of (317) at this time. Two patches on the surface of (317) seem to have been heated and become reddened, (316) and (363). Pit [321], which showed evidence for *in situ* burning within it, cut [345](344). The position of the pit, partly beneath the construction cut [354] for wall (333) does not positively indicate whether it was an intentional part of that phase of building or from some previous, unrelated event. As mentioned above, there was clearly habitation nearby. Wall (221) also cut through part of an underlying pit [376]/(380). Although this one was filled with a midden type material, the similarity of location may indicate that both these were relevant to, or part of, the preparation for, constructing the wheelhouse.

The foundation trenches for walls (333) and (22) cut sand layer (317). The foundation cuts were partially filled with midden type silty sands but unusually lacked any large inclusions such as bone or pot. Next, what has been interpreted as foundation courses, usually flat slabs, were laid on top. Small stones were placed at the corners of these, presumably to level them up. Thereafter followed substantial walls made of large heavy blocks.

It now seems likely that in this area we are dealing with the northern end of a wheelhouse, first evidenced by (212) with guard cell, in the south. Wall (302) arcs into the unexcavated section in such a way as to strongly suggest it is the same wall as (212), thus making the walls (333) (332) and (221) align perpendicularly to it like spokes of a wheel. However, as we have seen, wall (332) is of slight construction and built later in the sequence than (333) and (221), which are contemporary. It would therefore seem sensible to interpret these last two as piers for the wheelhouse, and (332) as another kind of internal feature..

This has interesting implications. Firstly, this would mean that both piers had pits dug and filled immediately before them where they were about to be constructed, lending weight to the idea that these were in fact connected to the building of the wheelhouse, perhaps as some kind of votive deposit as was suggested by Armit regarding Cnip and Sollas (Armit, I 1996:139). Secondly, this means that the piers were both, stratigraphically, the first parts of the wheelhouse to be constructed. In the southern case, it was only after having built the pier up to an unknown height that sands were laid down outside of it (i.e. as in (350) accumulated against (221)) and the outer wall commenced. The piers seem to have been built first. This is the opposite order of events to that suggested by Armit (ibid, 139).

At this time a c. 3m long, 0.5m wide, 0.3m deep trench [370] was cut into (317), running from what would be around the centre of the wheelhouse out into one of the 'bays' formed between piers (221) and (332), and lined with stones (369) set in a matrix (368). Directly over its termination in the 'bay' we found charcoal rich deposits and an unknown orange deposit thought to be the products of fire, as well as fire cracked and heat reddened surface of wall (332) adjacent to this. There was also peat ash

present within its linear cavity. This evidence could lead to its interpretation as a flue for some kind of industrial process in that area. Given that this feature was cut from this primary level, as far as we could tell, this process would seem to have been an integral part of the design of the wheelhouse.

In 2008 we recorded four other pits apparently dug into (317) in this vicinity. No relationships survived that could link them with the same phase as the wheelhouse, but as discussed in section 4.4, it seems likely they were contemporary with the occupation of the primary structure. The pits included:: [375]/(373), [380]/(374), (301), (unexcavated) and [305]/(320). All were steep sided with rounded bases. In 2007 we recorded a further five pits and four post-holes which were in the same stratigraphic position, i.e. cut into (317=230) but with no other relationships. No recognizable pattern could be discerned. The pits were as follows: [259]/(260), contained a hammer stone (SF: no.144 20'07), an animal burial, thought to be dog, and other semi-articulated remains; [252]/(253), contained disarticulated animal bone of more than one species (thought to be sheep/goat and pig); [261]/(262) was a slot like trench, and contained disarticulated animal bone, stones and sandy fill, then [250], which was a 300mm x 400mm pit, 250mm deep with articulated dog burial (251). All of the above had steeply sloping sides and rounded bottoms. Towards the centre of the trench, another larger pit [238] was cut from the same level, measuring 1.2m deep and 1.2 metres diameter, steep sided and flat bottomed, and filled with (239), a complex rainbow of reds, browns, greys, dark browns and blacks. There were also post-holes, or smaller features with almost vertical sides and rounded or flat bottoms: [269]/(270), a 200mm almost perfectly circular in plan, vertical sided feature; [267]/(268) slightly larger, sub-circular; [265]/(266), the same but with two packing stones in the fill. Finally there was a sub-rectangular feature with a flat bottom, c. 200mm by 400mm, which looked the shape of a half cut timber: [263]/(264).

Returning to the central area, a series of possibly contemporary sand layers: (341); (350); (315); (314) were spread between the upstanding structures. Walls (212) to the south and (302) to the north, possibly the two ends of the main wheelhouse wall, were then constructed directly upon (350) and (314) respectively. A large posthole (274) and kerb (278) were placed in a cut [287] at what would be the threshold between the entrance passage and main wheelhouse at the same time as or even slightly earlier than wall (212) was built. Contexts (310), (309), (312) and (311) built up outside of and against (302). In between pier (333) and outer wall (302), compact layer (339) was deposited which, together with (314) could have been the floor of the original wheelhouse in this area. An area of flagstones (303) was laid upon (315), just to the north (outside) of wall (302), apparently as part of the overall design, contradicting the order of events suggested by Armit.

To the extreme south of the site, a large egg shaped (in plan) cut was made around this time and a structure of orthostatic stones made within it, Structure 4. This is very similar to Structure 5 recorded at the Cnip wheelhouse, Lewis by Armit .(2006, p68) and is similarly situated in an area close to the entrance. Within it a layer of trample (367) was possibly deposited during its construction, and then a small pit [382] was cut in the

large end, and filled (372) with a piece of pot, midden material and a large stone. It seems that the next deposit would have been (366) a charcoal rich layer of 20mm thickness. This is unclear because (366) was only found in a thin strip at the edge of the structure under an area of later re-modelling (246) and may have originally covered the bottom of the entire feature before this. If so it would be a remnant of this first phase of use, whereas [382]/(372) would seem to be part of its construction.

Directly over trample (367) was a dump of material (338), containing many quartz pebbles, stone and animal bone. The purpose of (338) is unclear, and it is possible that is was just the remains of a meal being disposed of, but it would also seem possible that it was some kind of votive offering. However, even though it has been deposited on top of (367), if (366) had originally covered the whole base of the feature and been removed during remodelling then (338) may have been part of the re-modelling rather than the initial phase.

Returning to the main area, a further wall was built in the middle of the site directly upon grey sand (341). This wall (332), was constructed in a different manner to walls/piers (333) and (221). Following a foundation course of flagstones, similarly levelled with small packing stones under the corners, the wall was raised using large orthostatic slabs. It seems unlikely that this could have supported more than one course, or the 0.4m height which was extant, and so it was clearly not a pier. As mentioned it was fire cracked and stained on its south face, suggesting that it was part of some internal feature which used heat, such as an oven or furnace. Large amounts of slag have been found on the beach and this may add weight to the latter interpretation.

Thereafter we see different sequences between each wall. To the north, between outer wall (302) and Pier (333), directly over the floor (314, 339) we find a midden deposit (313) and (307), which contain the collapsed remains of pier (333), the first or earliest collapse, directly over the original floor. Between (333) and (332), we see a probable floor, (342), then a lighter grey sandy layer (343), which may be a floor preparation as seen at other wheelhouses, or could represent a wind blown sand resulting from a hiatus in occupation. (In 2007, (343) was called (235) and (342) called (236).) Two orthostatic stones (241), (256) were placed into cuts [240], [255] respectively, made through (342/236), and then a wall (223) constructed upon floor (342). Wall (223) abutted the orthostats and together they formed a small quarter circle arc within the corner formed by pier (221) and (222), running over the flue type feature ([370]/(369) described below. Wall (223) and the two orthostats were termed structure 5 in 2007. It is thought that (223) would have abutted the orthostatic wall (332) investigated in 2008 such that they may have been part of the same construction, although (332) was earlier, and (223) and the orthostats would represent a later addition to it. Over these was the un-compacted organic, charcoal and finds rich occupation deposit (209), found over most of the site at this level. We shall return to it below. Between (332) and (221), above the termination of the flue type feature [370]/(368), we find layers of charcoal rich sands (357) (359) (351) (352) (353), all very similar, and then an unknown bright orange

material, (346), containing some sand but feeling quite unlike anything known to the excavators, and containing SF: 1006, the only piece of stratified slag. Over that we again find the organic rich (209). Between pier (221) and outer wall (212), we find that (317) was overlain by (350), which would have been interpreted as natural sands if it weren't for the fact that pier (221) protruded through it and was hence earlier. Over these was (329), a reddish brown well sorted medium grained sand that had accumulated against the walls so that it was deeper around the edge than it was in the middle, was relatively compact and contained finds such as a bone pendant/brooch, leading to its interpretation as a floor, contemporary with (342) and (339) (314) to the north. Over it was a thin layer of light sand (319), possibly the same as (343) to the north, and then again (209) over this.

It may have been at this time that the peat (201) was deposited in a defined area outside to the south west of the building, with a layer of fine sand (284) separating it from the midden (202). There is the interesting possibility that (201) had been specifically stored here for fuel, as the general abundance of peat ash shows that the inhabitants of the wheelhouse burnt peat for fuel. It could not have grown in this position, having free draining windblown sand immediately underneath it.

Thus in all the bays between the piers and wall (332), except for the furthest north, we find sequences of construction, then occupation deposits followed by a fine light coloured sand (except in the area above the flue) and then the organic rich (209). This context is therefore of some importance to the overall interpretation. In 2007 we had interpreted it as occupation, but noted its lack of compaction, quite unlike a floor. Given our enhanced understanding of the stratigraphy this year we now know this context to be sandwiched between floor or occupation layers and the collapse of the building. It therefore seems sensible to suggest that (209) may have related to this collapse, and taking its organic nature into account may represent the turf or thatch of the roof. The light sand under it would then seem more likely to have been naturally deposited in the period between the first collapse and the roof falling.

The only problem with this interpretation would be that context (334), two flagstones, were found immediately over (209), and may suggest that all of this area had been covered in flagstones at some point. However it seems unlikely that we would have missed these if they were present over the whole of (209). Perhaps they were never over the whole area, or were robbed, before the collapse, (325), which fell directly on (209)/(334), and was then incorporated into the revetted wall (222). However, it seems more sensible to suggest that (334) was part of the wall (222), laid to prop up what little remained of (332) to act as a foundation for this secondary phase of building.

Returning to the sequence, directly over (209) and (334) we found poorly built wall (222) revetted into a layer of collapse (325) and (330). The collapse possibly represents the tumbled remains of the original wheelhouse outer

wall, as it would be in the correct position for this if our suggestion that (302) to its north and (212) to the south are both part of this outer wall.

However (325)/(330) were not the first phase of collapse. They overlay midden-like deposits (313) and (307) to the north, which contained remnants of the collapsed pier (333), suggesting that it was this pier that collapsed first. Further, this northernmost bay between pier (333) and outer wall (302), was the only area not to have either the light sands or (209) between the floor layers and the collapse, indicating that the collapse happened here before these could be deposited. Thus the stratigraphy suggests that pier (333) collapsed first creating (307), possibly with some of (302), which lead to a period in which a layer of windblown sand developed in the rest of the structure, then (209) is deposited (possibly the turf/thatch roof), and finally a second phase of collapse of the outer wall (325) sometime later. If we bear in mind that the deposits at the base of pier (333) were extremely compacted, much more so than that under (221), which was still standing, we could then suggest that (333) had a surplus of weight resting upon it and, after the wheelhouse had been constructed and lived in for some time, had collapsed catastrophically toward the north. This may then have lead directly to the abandonment of the structure and the second phase of collapse (325)(330).

Wall (222) was then built into this collapsed structure, using its remains to prop up a poorly built wall of large orthostatic slabs. The interpretation that wall (222) represented a period of re-occupation is further supported by the other secondary wall (220) from 2007, which was also directly over (209). Context (206) may, therefore, represent occupation from this period, accumulating between (220), (221) and (212) over (209). (206) is missing from the area further north, but this could be due to it being unprotected from the sea ((210) would have protected the area to the south) and hence it has eroded faster

At some point, possibly when this re-occupation occurred, Structure 4 was substantially modified by the construction of (264) and (277) into what may have been a corn drying kiln, with a bowl like structure at the wide end and a linear flue like structure leading in to it. A fragment of rotary quern was deposited at the bottom of the bowl, followed by a series of sandy layers.

Next, there was another hiatus represented by sterile windblown sands (233) and (226), not physically related but at the same point in the sequence, followed by a possible re-occupation with a layer of mid-brown coloured sands (232)=(225) over the extreme south of the trench. Over these was another fine wind blown sand (292), before a collection of large flat stones (213) were laid in the area directly over Structure 4. This seems suspicious, as if these could be part of the same construction, but their rough arrangement quite unlike the previous well built structures, and the layers of intervening windblown sand makes this very unlikely. It seems more probable that they were placed here in a period of re-occupation, perhaps the same one represented by (222), possibly serving no greater function than filling the hollow near the entrance created by the underlying structure 4.

Next we had another intervening windblown sand (210) before finally a badly made wall (211) is made, built up against the much earlier Structure 3, which presumably must still have been extant at this time. This wall consisted of two rough piles of slabs with a large recumbent stone in between them, revetted into the sand. It would seem reasonable to suggest that (213) and (211) were both part of an ongoing use of the dilapidated wheelhouse which may have continued for a long period. A deep layer of windblown sand (297) then filled all voids and covered the site.

6.4 Summary of results

In this section we will attempt a synopsis of all of the above information and interpretation. Initially, we would start with an area of habitation within a machair type environment where habitation is not far away and various activities have been taking place involving large flat bottomed vertical sided pits. An area is chosen and perhaps levelled, and pits dug into its surface, one of which seems to have had a fire lit in it, and filled in again. Trenches were cut overlying these pits and pier walls started within them. Further sands were deposited out with these, and the outer wall of the wheelhouse constructed. This seems not to have happened in a large cut, as suggested by Armit (1996), but rather on an open flat area, with an area of paving outside of the outer wall, all of which became encased in midden afterwards, whether deliberately as the walls went up or gradually through the life of the wheelhouse. What we know about the wheelhouse from the available evidence is that it would have been around 12m in diameter, and had a separate entrance passageway with 'guard' cell, a kerb across the threshold between entrance passage and main room and a substantial post on the thresholds right hand side (east). A small section of wall connected to (212) immediately inside the main room blocked access to the right or anti-clockwise direction. This has been discussed extensively by Parker Pearson, (1994) and elsewhere. We may have just caught part of the central hearth ([249]/(248) before it was washed away. It was constructed of orthostatic stones arranged in a circular pattern, one of which was a reused saddle quern. The bay immediately right of the door (behind the blocking wall) had a sandy floor in which pottery and a bone pendant or brooch was found, and the next one moving in an anti-clockwise fashion had some kind of internal structure concerning a process involving fire and/or heat, possibly even smelting considering that a piece of slag was found within (346), and slag has long been noted within the beach material here. This structure was begun very early in the life of the house and had a further wall added at some point for an unknown reason. The next two areas or bays have floors but little else to suggest what activity may have taken place within them. An egg shaped structure was cut into the ground very near the outside entrance of the entrance passageway, possibly even underneath it. It is presently not understood. It was re-modelled at some point in its life into what may have been a corn drying kiln. This possibility would certainly fit with the large amount of quern stones and grinder stones on site, and the fragment of rotary guern found at the bottom of the structure. Finally, there may have been a peat stack outside to the south west of the building.

After the house had been in use for some time, one of the piers has collapsed, perhaps catastrophically, directly over the floor to the north of the building. We have evidence that this pier may have been unequally loaded, as the sands immediately under it were extremely compact, much more so than those under the pier (221), which stands to this day. A light sand was deposited in the rest of the building, followed by a 30mm thick organic rich deposit which may have been the thatch from the roof. After this a second collapse happened, this time of what we think is the outer wall. This was followed by the construction of at least two new walls, one of which was revetted into the tumble and collapse. A reddish brown midden type deposit then accumulated toward the south, but is missing to the north. This may be due to the southern area having a bit more protection from the sea. With some intervening layers of wind blown sand, the egg shaped structure near the entrance was covered over with flagstones and a poorly built wall added to the outside of the entrance area, indicating that the remains of the building carried on being used for guite some time.

6.41 Interpretive issues

The sequence outlined above necessitated a certain amount of interpretation of deposits, some of which might not necessarily be correct. The nature of the site, in an environment subject to constant and powerful environmental forces, certainly does not make excavation easy. However, as the 2008 results have lead to a much better understanding of the 2007 excavations, so further work could help confirm or refine the results presented here. Also, post-excavation analysis such as environmental reports from the samples, as well as specialist reports on the bone, pottery and the other finds will yield further evidence which may add to our interpretation, provide clues to remaining questions such as the purpose of Structure 4 and the purpose of the internal structure with the flue, and help with phasing and dating of the site.

However, we can be reasonably confident about many details. Trench 2 has provided evidence of the weaknesses inherent in the wheelhouse design, for example in the consequences of loading the piers unequally. Also, it has possibly provided an alternative to the prevailing opinion of the methods employed when constructing a wheelhouse, and the order these were carried out. The evidence from trench 2 also seems to suggest that the wheelhouse was partly free standing with a paved area immediately outside of the structure. However, this is not proven as these layers were not all fully excavated in plan, something else which can be remedied in future years excavations.

7 Community participation and training

The excavation at Sloc Sabhaidh generated a great deal of public interest, raising awareness of the value of the archaeological heritage of North Uist. The accessibility of the site, which is on a beach that is popular with both locals and tourists, also enhanced the profile of the fieldwork. Site tours were provided for visitors, some of whom returned to follow the progress of the excavation, or to participate in the work alongside the regular volunteers from the Access Archaeology group.

Over the course of three weeks, numerous volunteers contributed their time to the excavation. A number of these had participated in the 2006 and 2007 seasons of excavation at Sloc Sabhaidh and were able to build on their existing skills and experience, demonstrating both enthusiasm for the work and increasing proficiency in various aspects of archaeological practice. These skills will enable the Access Archaeology group to contribute to future programmes of archaeological investigation and recording of eroding sites.

Children were actively encouraged to take part in the excavations, and a number of families welcomed the opportunity to work together. Site visits were arranged for children from Carinish and Paible Schools. The classes were given a tour of the site, which included the opportunity to examine finds and discuss how artefacts can be used to understand life in Iron Age Uist. Some of the children were inspired to continue their involvement with the site and participated in the excavation, receiving instruction in excavation and recording techniques.

8 Recommendations

Assess condition of site following winter 2008/9.

Prepare project design for post excavation analysis of finds, environmental samples, dating programme.

Implement programme of local monitoring, recording and reporting over next season to maintain active local involvement and interest.

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Appendices

Appendix 1: Register of contexts, Trench 1.

Context	Description				
(503)	Firm, mottled, black-brown-orange, medium grained sand. Dimensions: <i>c.</i> 5m x 4m. Thickness: max 150mm. Trampled occupation deposits				
(504)	Firm, mid grey-brown sand with darker horizons. Occupation surface				
(505)	Loose, light grey, silty sand, containing occasional bone and pottery. Deposit sealing tumbled stone (555)				
(506)	Same as (513). Same as (513)				
(507)	Mid grey-brown, sand containing peat ash and charcoal flecks. Layer within Bay 2				
(510)	Medium compact, light grey-brown, sand, including occasional fragments of stone to 30mm. Layer within Bay 1				
(512)	Loose, light grey-orange-brown sand with a depth of 150mm. Layer within Bay 2				
(513)	Southern wheelhouse wall				
(514)	Loose, light brown, sand. Containing occasional bone and shell. Fill of cut [515]. Thickness 0.36m.				
[515]	Linear cut, 0.73m wide, 0.36m deep. Sharpe break of slope steep sides, concave break of slope to flattish base.				
(516)	Moderately compact, red-brown, clayey, silt-sand. Containing charcoal, she and burnt bone. Truncated by [515]. Up to 60mm thick.				
(517)	Moderately compact, grey-brown, sandy silt. Containing occasional pebble and occasional bone.				
[518]	Straight-sided cut with flat base. Contains (519) and (520). Cut for stone hearth (hearth 3).				
(519)	Loose, mottled, mainly light orange-brown, sand. Containing frequent charcoal flecks. 110mm depth at western extent, becoming thinner to the east. A packing fill for stones 520.				
(520)	Two flat stones. Dimensions: $0.4 \text{m} \times 0.3 \text{m}$, depth 110mm and 80mm. Base of Hearth 3				

Context	Description				
(521)	Soft, light, orange-brown, silty sand, with frequent red and black flecks. Dimensions: 0.4m x 0.5m. Thickness: 10mm. Deposit truncated to west. Burnt material within Hearth 3				
(522)	a loose, light grey-brown sand				
(523)	Moderately compact, mixed grey with red patches, silty sand, with occasional lumps of clay. Containing occasional pot and bone. Maximum thickness 90mm.				
(524)	Black and orange, micro-lenses, of medium grained, sandy silt. Accumulation of burnt material, likely representing successive hearths				
(525)	Firm, orange, sandy clay. Layer comprised mainly of peat ash. Same as (543)				
(526)	Loose to medium, mottled, grey-brown-white sand. Dimensions: $\it c.$ 1.21m x 0.75m +. Possibly the same as (544)				
(527)	Loose, light to mid brown, sandy silt. Containing occasional pot and bone.				
[528]	Uncertain cut (probably sub-circular), with gradual break of slope, with moderate sides, giving way to a steeper slope. Possible construction cut for structure (530)				
(529)	Loose, light brown, sand with occasional bands of silt.				
(530)	Alcove structure 0.60m high and 0.66m wide, formed from six courses of stone blocks.				
(531)	Medium to firm compaction, mid grey-brown, sand. Containing small amount of burnt peat ash and fragments of pottery.				
(532)	Loose, mid-brown, silty sand. Containing occasional stone and shell. Up to 50mm thickness.				
(533)	Loose, light to mid-brown, silty sand. Up to 0.12m thick.				
(534)	Loose, light yellow-brown, silty sand. Up to 0.23m thick.				
(535)	Moderately compact, mid to dark brown, silty sand. Occasional stone charcoal and shell.				
(536)	Moderately compact, dark brown, silty sand. Occasional charcoal.				

Context	Description				
(537)	Moderately compact mixed red, brown to dark grey, clayey sand. Frequent burnt clay, occasional ash and charcoal. Up to 100mm in depth.				
(538)	Loose to moderately compact, dark grey-brown, silty sand. Occasional charcoal. Up to 120mm in depth.				
(539)	Compact, dark red brown, silty sand. Up to 15mm in thickness.				
(540)	Loose, light grey-brown with darker brown laminations, silty sand. Up to 40mm in thickness.				
[541]	Oval cut, with rounded corners, sharp break of slope to steep sides and a sharp break of slope to a slight rounded base. 1.20m wide and 0.80m deep. Possible fire or cooking pit				
(542)	Loose, light brown, sand. Occasional bone, shell and pebbles.				
(543)	Firm, orange-brown, sandy clay. Layer comprised mainly of peat ash. Same as (525)				
(544)	Loose to medium, mottled, grey-brown sand. Containing irregular shaped, friable, stone pieces to 10cm (2%) and charcoal flecks to 2%. Occupation surface.				
(545)	Soft, loose, light grey, sand. Occasional large stones, to 0.4m x 0.4m, occasional medium stones. 0.50m deep. Deposit abuts wall (547).				
(546)	Spread of stones below (531) and above (544), within Bay 2.				
(547)	Southern arc of later wheelhouse wall. Maximum height of 1.49m. Roughl coursed blocks of gneiss to a maximum of 0.80m x 0.56m x 0.22m with larger, flat surfaced blocks for inner facing, smaller, more rounded stones used in the outer skin.				
(548)	Moderately compact, mid to red brown, silty clay. Occasional flint.				
(549)	Medium loose, black, medium grained sand. 0.5m x 0.5m and 30mm deep.				
(550)	Medium to loose, black, medium grained sand.				

Context	Description				
(551)	16 irregular sized sub-rectangular and sub-circular stones, between 0.05m and 0.4m in length. Stone kerb of hearth 2				
(554)	Linear arrangement of stones forming a kerb within Bay 2.				
(555)	Spread of wall collapse from (513) sealed beneath layer (505)				
(556)	Loose to moderate firm, mid red-brown to dark red brown, silty sand. Frequent bone fragments, pot, shell. Maximum thickness 50mm.				
(557)	Two stones, one resting above the other, covered by sand (545). Possibly collapse from wall (513).				
(558)	Fired clay c.0.80m x 0.56m. Fired clay hearth base				
(559)	Three, fire-cracked stones. Possible cooking stones				
(560)	Moderately compact, dark brown, silty sand. Frequent pot and moderate bone. Occasional stone. Up to 40mm thickness.				
(561)	Loose, dark brown-grey sand.				
(562)	Medium, orange-brown, fine to medium grained sand. Charcoal < 3mm to 2%. Dimensions: 0.6m x 0.35m. Possibly the same as (544)				
(563)	Loose, mid brown-grey, silty sand. Frequent bone and occasional pot.				
(564)	Small oval pit, with rounded corners, a sharp break of slope to near vertical sides, tapering a base to a concave base. 0.4m x 0.35m and 0.30m deep.				
(565)	Same as (663)				
(566)	Three stones forming a kerb within Bay 1.				
(567)	Medium firm, mottled, mid grey-brown, medium grained silty sand. Occasional charcoal. 2.4m x 1.8m and maximum 150mm thickness.				
(568)	Very compact, orange, sandy silt. contained cremated bone (1%), peat ash (10%). Dimensions: c.1.01m by 0.92m. Depth:				
(569)	Loose, mid-brown, silty sand, occasional bone and shell. Up to 60mm in thickness.				

Context	Description					
(570)	Firm, black, organic sand and burnt bone. Occasional small stones up to 100mm. 1.20m x 1.40m. Cremated bone deposit.					
(573)	Loose, grey gravel containing small to medium pebbles to a maximum of 140mm x 100m x 35mm. Layer of hearth material					
(576)	Firm, orange-brown, fine-grained sand, containing charcoal flecks to 2%.					
(577)	Firm, bright orange, sandy clay, mixed with horizons of dark black sand. Containing bone and shell.					
(578)	Loose, mid brown to light brown, silty sand. Occasional pot, bone and shell. Up to 22cm thickness in section. Same as (545)					
(579)	Loose, mid brown, silty sand, up to 140mm thickness.					
(580)	Loose, light grey-brown, sand. Up to 0.20m thickness.					
(581)	Loose, light to mid grey-brown, silty sand. Moderate pot fragments. Up to 110mm thickness.					
(582)	Same as (625)					
(583)	Same as (625)					
(586)	Partially articulated animal bone and one human mandible					
(587)	Beach stones and cobbles up to 0.2m forming a kerb.					
(588)	Moderately firm, creamy grey, clay. Maximum 5mm thick, extends over layer of burning (589)					
(589)	Moderately firm, black, organic sand and burnt material. Frequent burnt bone, frequent charcoal. Maximum 30mm thick.					
(590)	Single stone placed to deliberately block the central hole of quern stone (600)					

Context	Description					
(591)	Compact, orange and black, fine-grained sand, containing charcoal to 5%. Burnt deposit accumulated above stone hearth-base (644)					
(592)	Group of stones; water rounded pebbles and coarse sand stone fragments. Possible kerbing.					
(593)	Southern kerb Bay 1					
(594)	Eastern kerb Bay 1					
(595)	Cut for kerb (594)					
(596)	Medium compact, dark grey-brown, medium grained sandy silt. Fill of cut [595]					
(597)	Possible cut for kern (593)					
(598)	Loose, medium grey-brown, fine grained sandy silty. Fill of cut [597].					
(599)	Three upright, rectangular stones. Dimensions of largest stone: 0.71m x 0.11m x 0.22m. Dimensions of smallest stone 0.31m x 0.11m x 0.20m. Stones forming kerb 1					
(601)	Void context number					
(603)	Moderately firm, black, organic sand and charcoal. Frequent shell fragments. Maximum thickness 50mm.					
(607)	Cut for kerb (566)					
(608)	Medium compaction, mid grey-brown, silty sand Fill of cut (566).					
(609)	Loose, mid grey brown, silty sand. Containing bone, pot, shell, and stone. 0.22m thickness.					
(610)	Two irregular stones sitting above layer (567). Possible collapse from pier.					
[611]	Shallow, sub-circular cut, with concave sides and a rounded base.					

Context	Description				
(612)	Medium, dark grey-brown, medium grained sandy-silt. Containing charcoal. Fill of [611].				
(613)	Firm to compact, light grey clay with patches of yellow sand. Contains large amount of broken pot. The pot seemed to be a deliberate part of this deposit.				
(614)	Soft, dark grey, clayey sand, moderate charcoal flecks. Maximum 50mm thick.				
(615)	Firm, dark grey black, sandy silt clay. Occasional burnt bone and bone. Up to 30mm thickness.				
(616)	Firm, red brown, silty clay.				
(619)	Lining of burnt stones within pit [633]				
(620)	Firm, dark grey black, silty ash with charcoal. Containing burnt bone, partially burnt bone and pot.				
(621)	Firm, mid orange-brown, silty clay. Up to 3mm thick. Possible lining to pit [633]				
(622)	Firm, dark grey-black, silty ash and charcoal. Containing bone, burnt bone and pot.				
(623)	Loose, mid grey, silty sand. Occasional bone and pot.				
(625)	Grey, medium grained sand. Abandonment deposit				
[626]	Linear, straight-sided cut, with concave base. Filled by (627). Cut for Kerb stones (599)				
(627)	Medium-firm, dark grey-brown, fine to medium grained sand, containing small charcoal pieces to 1%				
(630)	Straight-sided cut with concave base. Cut for Kerb stones (643)				

Context	Description					
(631)	Medium-firm, dark grey-brown, fine to medium grained sand, containing charcoal flecks to 2%. Fill of cut [630]					
(632)	Medium firm, fine to medium grained sandy silt. With charcoal pieces to 5mm and peat ash.					
[633]	Pit cut, not fully excavated so dimensions not known. Oval, with rounded corners. 1.39m x 1.0m x 0.40m.					
[635]	Linear cut, straight-sided. Proximal to kerb stones (599). Dimensions: 150mm x 1.58m. Depth: 80mm. Filled by (636).Possible recut for kerb 1.					
(636)	Firm, medium brown, medium sand. Contains irregular stone pieces to 50mm, mammal bone and cetacean bone. Fill of cut [635]					
[638]	Linear, NE-SW, straight sided cut. Filled by (639). Cut for kerb (554).					
(639)	Medium, grey-brown, silty sand. Fill of [636].					
[640]	Oval shaped cut, with angular base. Dimensions: 0.28m x 0.24m. Depth: 150mm. Cut for possible kerb stone.					
(641)	Loose, mid grey-brown, medium grained sand. Maximum 150mm thickness.					
(642)	Pier separating Bays 1 and 2. Containing clay bonding between lower stones.					
(643)	Nine, rectangular, gneiss blocks between 0.62m and 0.25m in length. Stone kerb of hearth 1					
(644)	Flat, rectangular stone, 0.45 x 0.65 x 0.04 m. Stone hearth-base					
(645)	Layer of 7 irregular sized stones within north-central wheelhouse area. Possibly tumble from pier (642) sitting above leveling layer of sand.					
[646]	Shallow, sub-circular 0.60m x 0.50m cut, with gentle slope giving way to a concave base.					

Context	Description					
(647)	Fill of [646]. Compact, dark grey-brown, medium grained sand. Containing charcoal up to 10mm, cremated bone and peat ash flecks.					
(651)	Loose, yellow, medium grained sand.					
(652)	Loose to medium, mottled mid-brown grey, medium grained sand. Containing charcoal flecks. Leveling layer of sand.					
(653)	Loose, grey-brown sand. At least 0.3m thickness. Area of staining below central hole in quern stone. Sampled.					
(656)	North section of main wheelhouse wall					
(657)	Firm, mid grey-yellow, medium grained sand. Containing four grinding stones and a bone bomb.					
(658)	Loose, light brown-grey, clayey sand, occasional pebbles and small stones. Maximum 50mm thickness.					
(661)	Radial pier, aligned east-west and measuring approximately 2.25m in length and 0.4m wide. This pier was preserved to a height of 0.3m and comprised two rough courses of stone, the largest being 0.39m x 0.36m x 0.18m.					
(662)	Remains of wheelhouse pier, incorporated into the foundations of later wall (547).					
(663)	Layer of compact, brown, sand. Containing frequent charcoal flecks. Possibly same as (507), representing original wheelhouse occupation surface.					
(664)	Firm, black, sandy clay. Containing charcoal flecks. Maximum thickness 10mm.					
(665)	Medium to firm, grey, medium grained sand. Containing occasional cremated bone and charcoal.					
(666)	Medium to loose compaction, mid orange-brown, medium grained sand. Containing peat ash flecks.					
(667)	Discrete group of stones containing fragments of clay bonding.					
[668]	Sub-circular cut, with rounded corners and gently sloping sides giving way to a rounded base. 30 mm deep.					
(669)	Medium compaction, dark-brown, fine sand. Containing burnt peat ash.					

Context	Description			
(671)	Loose, dirty grey, sand. Containing frequent lumps of clay and fragmented stone. Maximum thickness of 0.20m. Linear cut, with rounded corners, sharp break of slope giving way to near vertical sides, sharp break to flat base. Robber cut for pier (673).			
[672]				
(673)	Remains of robbed out pier. Survives to at least 2 courses of stone.			

Appendix 2: Register of small finds, Trench 1.

Small finds No.	Grid Reference	Level (m 0D)	Context	Description
1000	103.40E 211.70N	5.65	(510)	FE object
1001	106.65E 206.40N	6.14	(500)	Worked bone
1002	101.00E 207.80N		(508)	Worked bone
1004	106.25E 201.30N	7.37	(522)	Antler pick (in two pieces)
1005	102.60E 211.00N	5.7	(510)	Fish bone needle
1006	103.40E 201.36N	5.83	(503)	Worked scallop shell
1007	104.60E 210.30N	5.74	(503)	Worked tooth
1008	102.50E 209.95N	5.7	(546)	Shaped stone
1009	104.90E 210.20N	5.73	(544)	Bone point/spatula
1010	103.20E 209.30N	5.68	(544)	Worked bone (whistle or handle?)
1011	101.80E 205.30E	5.4	(560)	Worked bone
1012	101.80E 205.40N	5.35	(560)	Rub stone
1013	105.20E 209.20N	5.69	(544)	Bone point
1014	103.45E 211.80N	5.59	(504)	Copper piece
1015	104.62E 210.15N	5.68	(576)	Metal object
1016	105.10E 204.70N	5.95	(578)	Bone point (in two pieces)
1017	103.80N 210.30N	5.77	(598)	Worked antler
1018	103.00E 211.40N	5.62	(504)	Mica piece
1019	104.10E 207.18N	5.23	(609)	Possible human bone
1020	102.20E 211.20N	5.54	(567)	Articulated sheep/goat
1021	103.20E	5.57	(567)	Bone comb

Small finds No.	Grid Reference	Level (m 0D)	Context	Description
	210.20N			
1022	103.90E 207.70N	5.61	(578)	Bone plaque
1023	104.40E 207.60N	5.5	(578)	Worked antler
1024	104.44E 207.22N	5.3	(609)	Whale bone
1025	103.48N 207.10E	5.31	(609)	Worked antler
1026	104.18E 207.30N	5.22	(609)	Stone polisher
1027	102.95E 205.55N	5.4	(556)	Bone point
1028	104.31 206.16N	5.3	(664)	Metal object or slag
1029	103.95E 205.10N	5.46	(556)	Bone point
1030	104.00E 209.40N	5.4	(657)	Grinding stone
1031	104.25E 209.10N	5.4	(657)	Grinding stone
1032	104.20E 208.90N	5.4	(657)	Grinding stone
1033	103.80E 209.10N	5.4	(657)	Bone comb
1034	104.50E 203.60N	5.3	(556)	Bone point
1035	101.60E 207.60N	5.3	(657)	Grinding stone
1036	103.20E 206.30N	5.22	(663)	Hammer stone
1037	104.35E 206.80N	5.3	(664)	Metal object

Appendix 3: Register of drawings, Trench 1.

Drawing Number	Drawing Type	Scale	Description	
1000	PLAN	01:20	Pre-ex plan. Area E	
1001	PLAN	01:20	Pre-ex plan. Area C	
1002	PLAN	01:20	Pre-ex plan area D	
1003	PLAN	01:20	Pre-ex plan area A	
1004	PLAN	01:20	Pre-ex plan area B	
1005	PLAN	01:20	Layer (510)	
1006	PLAN	01:20	Layer (504)	
1007	SECTION	01:20	Southern extent of main north-south section. West-facing section.	
1008	PLAN	01:20	Layer (503)	
1009	PLAN	01:20	Hearth (520)	
1010	PLAN	01:20	Layer (521) above hearth (520)	
1011	PLAN	01:20	Cut [518]	
1012	PLAN	01:20	Layer (524)	
1013	PLAN	01:20	Hearth base (525)	
1014	PLAN	01:20	Cut [515]	
1015	PLAN	01:20	Layer (516)	
1016	PLAN	01:20	Layer (517)	
1017	PLAN	01:20	Layer (542)	
1018	PLAN	01:20	Layer (545)	
1019	PLAN	01:20	Layer (551)	
1020	PLAN	01:20	Layer (546)	
1021	PLAN	01:20	Layer (505)	
1022	PLAN	01:20	Layer (550)	
1023	PLAN	01:20	Hearth kerb stones (551)	
1024	PLAN	01:20	Layer (552)	
1025	PLAN	01:20	Wall collapse (555)	
1027	PLAN	01:20	Stones (557)	
1028	PLAN	01:20	Hearth base (558) and (559)	
1029	PLAN	01:20	Layer (544)	
1030	PLAN	01:20	Continuation of plan 1029 - Layer (544)	
1031	PLAN	01:20	Pot and bone cluster (560)	

Drawing Number	Drawing Type	Scale	Description
1032	PLAN 01:20		Layer (561)
1034	PLAN	01:20	Layer (565)
1035	PLAN	01:20	Kerb stones (566)
1036	PLAN	01:20	Layer (568)
1037	PLAN	01:20	Layer (569)
1038	PLAN	01:20	Layer of pebbles (573)
1039	PLAN	01:20	Pit cut ?
1040	PLAN	01:20	Layer (577)
1042	PLAN	01:20	Kerb stones (587)
1043	PLAN	01:20	Layer (588)
1045	PLAN	01:20	Stone blocking quern stone ?
1046	PLAN	01:20	Layer (576)
1047	PLAN	01:20	Layer (591)
1048	PLAN	01:20	Layer (592)
1049	PLAN	01:20	Kerb stones (593)
1050	PLAN	01:20	Kerb stones (594)
1051	PLAN	01:20	Cut [595] for kerb stones
1052	PLAN	01:20	Cut [597] for kerb stones
1053	PLAN	01:20	Quern stone (600)
1055	PLAN	01:20	Layer (603)
1057	PLAN	01:20	Layer (607)
1058	PLAN	01:20	Layer (609)
1059	PLAN	01:20	Layer (610)
1060	PLAN	01:20	Cut [611]
1061	PLAN	01:20	Articulated sheep/goat SF: 1020
1062	PLAN	01:20	Cut [617]
1063	PLAN	01:20	Hearth ??
1064	ELEVATION	1:10	Wall (547)
1065	PLAN	01:20	Stones (619) in 'cooking pit'
1066	PLAN	01:20	Layer (613)
1067	PLAN	01:20	Layer (625)
1068	PLAN	01:20	Pit cut [628]
1069	PLAN	01:20	Pit cut [635]

Drawing Number	Drawing Type	Scale	Description	
1070	PLAN	01:20	Layer (632)	
1071	PLAN	01:20	Layer (634)	
1072	PLAN	01:20	Layer (640)	
1073	PLAN	01:20	Layer (645)	
1074	PLAN	01:20	Layer (554)	
1075	PLAN	01:20	Layer (624)	
1076	PLAN	01:20	Layer (567)	
1077	PLAN	01:20	Layer (630)	
1078	PLAN	01:20	Wall (513)	
1079	PLAN	01:20	Wall (547) and (530)	
1080	PLAN	01:20	Kerb stones (599)	
1081	PLAN	01:20	Layer (626)	
1082	PLAN	01:20	Cut [638]	
1083	PLAN	01:20	Wall (555) and (547)	
1084	PLAN	01:20	Layer (651)	
1085	PLAN	01:20	Continuation of plan 1084 - Layer (651)	
1086	PLAN	01:20	Pit cut [648]	
1087	PLAN	01:20	Layer (614)	
1088	PLAN	01:20	Layer ?	
1089	PLAN	01:20	Stones (645) and (654)	
1090	PLAN	01:20	Layer (658)	
1091	PLAN	01:20	Deposit (620)	
1092	PLAN	01:20	Clay lining (621) of pit	
1093	PLAN	01:20	Deposit (622)	
1094	PLAN	01:20	Deposit (623)	
1095	PLAN	01:20	Clay lining (616) of pit	
1096	PLAN	01:20	Pit cut ?	
1097	PLAN	01:20	Midden deposit (556)	
1098	PLAN	01:20	Pier (661)	
1099	PLAN	01:20	Stones/orthostats (670)	
1100	PLAN	01:20	Cut [672]	
1101	PLAN	01:20	Pier (673)	
1102	PLAN	01:20	Layer (664)	

Drawing Number	Drawing Type	Scale	Description
1103	SECTION	1:10	South-facing section, Bay 2
1104	SECTION	1:10	North/central part of main north-south section. West-facing.
1105	ELEVATION	1:10	Pier Bay 2 ??
1106	ELEVATION	1:10	Wheelhouse wall north ??
1107	PLAN	1:20	Multi-context plan: North/central wheelhouse area
1108	PLAN	1:20	Layer (652)

Appendix 4: Register of contexts, Trench 2.

Context No.	Туре	Description	Recorder	Sample No.
200	Deposit	Beach cobbles and unstratified sand		
209	Deposit	Occupation deposit		2,3,4,5,6, 7,8,9,11, 12, 26, 55, 56
300	Deposit	Windblown sand, stratified, uppermost		
301	Fill	Dark patch with animal bone (unexcavated)	IM	
302	Wall	Wall protruding from section to north of trench	IM	
303	Paving	Paving north of 302	GL	
304	Deposit	=315	GL	
305	Cut	Dark circular feature north of 303, filled by (320)	IM	
306	Deposit	Reddy-brown sand around 305	IM	
307	Deposit	Reddy-brown midden material over 302	GL	
308	Deposit	Yellow sand under 307, probably same as (311)	IM	
309	Deposit	Orangey-brown gritty sand	GL	
310	Deposit	Reddy-brown silty sand- midden type	GL	
311	Deposit	Yellowy-brown fine sand	IM	
312	Deposit	Orange peat ash layer	IM	
313	Deposit	Reddish brown coarse sand	IM	
314	Deposit	Mid brown coarse sand	IM	
315	Deposit	Light grey fine sand	GL	27
316	Deposit	Red-Orange coarse sand	IM	
317	Deposit	Yellow medium-coarse sand pre-wheelhouse	GL	
318	Deposit	Stone concentration	GL	
319	Deposit	Yellow fine-medium sand	GL	
320	Deposit	Mid-brown medium-coarse sand	IM	
321	Cut	Undercut edges, rounded bottom, circular in plan	IM	
322	Deposit	Yellow-grey fine sand, prob. same as 328	GL	
323	Deposit	Grey-brown coarse sand	GL	
324	Deposit	Light brown- grey medium sand	GL	
325	Tumble	Stone, middle bay	GL	
326	Paving	Flagstones- pre-wheelhouse	GL	
327	Deposit	Light grey coarse sand	GL	
328	Deposit	Light grey medium fine sand	GL	
329	Deposit	Reddish-brown medium sand	IM	
330	Deposit	Grey-brown coarse sand	GL	
331	Fill	Gneiss post hole packing slabs	IM	
332	Wall	Dividing wall within bays	IM	
333	Wall	Tumbled Pier, north of house	IM	
334	Paving	Three flagstones abutting 332	GL	
335	Deposit	Dark brown- black slimy material, c/coal, bone and sand	IM	1,58
337	Wall	Large gneiss blocks, re-build of 244 ?Corn Drying Kiln	GL	10
338	Deposit	Dark brown coarse sand within 244	IM.	13, 59
339	Deposit	Grey-brown fine sand	GL	28

Context No.	Туре	Description	Recorder	Sample No.
340	Fill	Greyish brown with lighter patches, v. compact fine sand	IM	
341	Deposit	Light grey coarse sand	GL	45,46, 47
342	Deposit	Mid-Brown medium sand	GL	31,32, 33,34, 35,36.
343	Deposit	Light Grey fine sand	GL	20,21, 22,23, 24
344	Cut	Oval/Rectilinear in plan, flat bottomed	GL	
345	Fill	Reddish-yellow clean sand, fill of 344	IM	51
346	Deposit	Bright Orange grainy material	IM	14,15, 16,17, 18,19.
347	Deposit	Reddy brown silty sand	IM	
348	N/A			
349	Fill	Compact reddy- yellow medium sand	IM	29,37
350	Deposit	Browny-yellow clean sand	IM	
351 352	Deposit Deposit	Dark-brown to black sand Same as 351	IM GL	30 38,39, 40,41, 42,43
353	Deposit	Mid-brown sand	GL	,
354	Cut	Sub linear trench, foundation of Pier 332	IM	
355	N/A	=340	IM	44
356	Fill	Black, Brown Pink and Grey Sand	IM	49
357	Deposit	Dark brown sand, possibly same as 352	GL	48
358	Deposit	SAME AS 317 (and 341??)	GL	
359	Deposit	Dark brown sand, possibly same as 353	GL	
360	Fill	Dark-brown coarse sand, fill of 361	GL	50
361	Cut	Circular in plan, v-shaped profile	GL	
362	Deposit	Olive green silty sand	GL	52, 62
363	Deposit	Orange coarse sand	GL	·
364	n/a	Not used		
365	Deposit	Rusty grey fine sand	GL	
366	Deposit	Dark brown/ grey/ black medium grained sand	IM	53
367	Deposit	Primary fill of feature 244	IM	57
368	Fill	Mixed fill of Flue	IM	54
369	Fill	Stonework within cut for Flue	IM	
370	Cut	Cut for Flue feature nr 332.	IM	
371	Deposit	Peat ash layer within midden to south of trench	IM	
372	Fill	Dark brown medium sand and big stone	IM	60
373	Fill	Fill of Pit [375]		61
374	Fill	Fill of pit [381]		63
375	Cut	Pit		
376	Cut	Pit under pier (221)		64
377	Cut	Cut for pier (221)		
378	Fill	Fill of [377] along with (221)		
379	Deposit	Scatter of fire cracked stone and charcoal		65
380	Fill	Fill of pit [376]		
381	Cut	Cut for pit filled by (374)	IM	
382	Cut	Cut for (372)	IM	

Appendix 5: Register of small finds, Trench 2.

Finds No.	Context No.	Easting	Northing	Reduced Level	Description	Initial
1001	329	103.66	213.30	6.12	Oval bone pendant/brooch wheelhouse floor.	RM
1002	330	102.84	218.66	6.41	Dog skull, part of.	GL
1003	315	1032	221.05	6.21	Dog jaw bone? Under outer wall	IM
1004	329	103.24	213.29	6.09	Quartz hammer, wheelhouse floor	RM
1005	315	103.2	219.8	6.25	Pot sherd, construction phase	RM
1006	346	103.54	216.3	6.30	Vitrified material, slag?	GL
1007	350	103.2	213.9	6.01	Pot sherd, construction phase	RM
1008	351	103.6	214.6	6.12	Pot sherd, only one from this context	IM
1009	351	103.63	214.84	6.14	Highly polished stone- burnisher?	RM

Appendix 6: Register of samples, Trench 2.

Sample No.	Context	Description/reason for taking
1	335	Charcoal and bone deposit over floor 329
2	209:15	Occupation deposit
3	209:17	Ditto
4	209:19	Ditto
5	209:21	Ditto
6	209:3	Ditto
7	209:5	Ditto
8	209:7	Ditto
9	209:9	Ditto
10	337	=246 in 07, secondary remodeling of structure 4
11	209:11	Occupation layer
12	209:13	Ditto
13	338	Possible votive deposit in structure 4
14	346:7	Burnt orange material above flue
15	346:3	Ditto
16	346:5	Ditto
17	346:11	Ditto

Sample No.	Context	Description/reason for taking
18	346:1	Ditto
19	346:9	Ditto
20	343:13	Possible floor deposit/ possibly hiatus between occupations
21	343:15	Ditto
22	343:17	Ditto
23	343:19	Ditto
24	343:21	Ditto
25	343:22	ditto
26	209	Taken from Aisle behind (333)
27	315	Construction deposit
28	339	Sandy floor deposit
29	349	Upper fill of pit with insitu burning
30	351	Charcoal rich deposit
31	342:13	Occupation deposit?
32	342:15	Ditto
33	342:17	Ditto
34	343:19	Ditto
35	342:21	Ditto
36	342:23	Ditto
37	356	Lower fill of pit with insitu burning
38	352:5	Dark sands
39	352:7	Ditto
40	352:8	Ditto
41	352:9	Ditto
42	352:10	Ditto
43	352:11	Ditto
44	355=340	Fill of cut for pier (333)
41	352:9	Dark sands
42	352:10	Ditto
43	352:11	Ditto
44	355=340	Fill of cut for pier (333)
45	341:13	Hiatus deposit
46	341:17	Hiatus deposit

Sample No.	Context	Description/reason for taking
47	341:19	Hiatus deposit
48	357	Pit
49	356	in situ burning in pit
50	360	Stakehole
51	345	Pit
52	362	Olive green patches pre-wheelhouse
53	366	Charcoal rich deposit in structure 4
54	368	Fill of flue feature
55	209:22	Occupation deposit
56	209:24	Occupation deposit
57	367	Trample in structure 4
58	335	Charcoal and bone deposit
59	338	Votive deposit?
60	372	Fill of [382]
61	373	Pit
62	362	Occupation layer
63	374	Pit
64	376	Pit
65	379	Scatter of charcoal, burnt and fire cracked stones

Appendix 7: Register of drawings, Trench 2.

Drawing No.	Plan/ Section	Scale	Context	Description
1	Plan	1:20	Multi	Pre-Ex, North End, East
2	Plan	1:20	Multi	Pre-Ex, Mid-North trench, East
3	Plan	1:20	Multi	Pre-Ex, Mid-North trench, West
4	Plan	1:20	Multi	Pre-Ex, Mid-South trench, East
5	Plan	1:20	Multi	Pre-ex, South
6	Plan	1:20	Multi	Overlay of Drg. 5
7-	Section	1:10	Multi	North and mid trench, West facing
a,b,c,d,e,f				
8	Elevatio n	1:10	212, 221	Aisle between outer wall 212 and Pier 221
9	Plan	1:20	325	Overlay of Drg. 2
10	Plan	1:20	209	Overlay of Drg. 9
11	Plan	1:20	209	Overlay of Drg. 1
12	Plan	1:20	343/346	Overlay of Drg. 10
12.5	Plan	1:20	351/352	Overlay of 12
13	Plan	1:20	343	Overlay of Drg. 11
14	Plan	1:20	329	Overlay of Drg. 4
14.5	Plan	1:20	350	Overlay of Drg.14
15	Plan	1:20	342	Overlay of Drg. 13
16	Plan	1:20	342	Overlay of Drg. 12.5
17	Plan	1:20	314	Overlay of Drg. 15
17.5	Plan	1:20	315	Overlay of Drg.17
18	Plan	1:20	316	Overlay of Drg. 17.5
19	Plan	1:20	341	Overlay of Drg. 16
19.5	Plan	1:20	357/359	Overlay of Drg.19
20	Plan	1:20	341	Overlay of Drg. 17
21	n/a			
22	Plan	1:20	363/365	Overlay of Drg. 19.5
23	Plan	1:20	354	Overlay of Drg. 20
24	Section	1:10	344/345	West facing section of inter cutting pits and trench
25	Plan	1:20	370/376	Overlay of Drg. 22
26	Section	1:10	Multi	North west facing Section of Flue feature
27	Plan	1:20	338	Overlay of Drg.5
28	Plan	1:20	367, 371, 372	Overlay of Drg.27

Appendix 8: Register of photographs, Trenches 1 and 2.

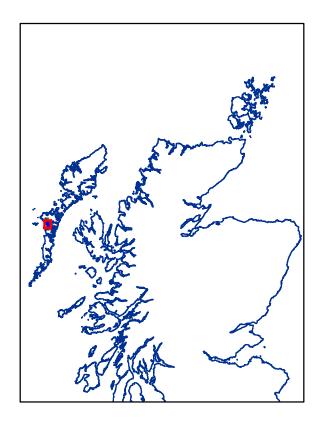
Shot Number	Trench	Context	Description	Facing
1-2	1	(504)	Layer (504) within Bay 1	East
3	1	(504)	Layer (504) within Bay 1	South
4	1	(504)	Layer (504) within Bay 1	North
5	1	(504)	Layer (504) within Bay 1	West
6 -8	1	(503)	Layer (503) within central wheelhouse	
9	1	(502)	Layer (502) within central wheelhouse	South
10	1	(502)	Layer (502) within central wheelhouse	North
11-14	1	(501),	Layer (501) and context (500) within central	
		(500)	wheelhouse	
15	1	(506)	Tumbled wall (506)	South-east
16	1	(506)	Tumbled wall (506)	North-east
17-18	1	(507)	Layer (507) within Bay 2	West
19	1	-	General shot of western area of wheelhouse interior	East
20	1	(508)	Layer (508) within western wheelhouse	East
21	1	(509)	Wall collapse (509)	South-east
22	2	-	North end of Trench 2 section	East
23	2	-	North end of Trench 2 section	South-east
24	2	-	North end of Trench 2 plan of north end paving	
25	2	-	North end Trench 2 pre-ex	North-east
26	2	-	North end Trench 2 pre-ex	South-east
27	2	-	North end Trench 2 pre-ex showing layer boundaries	North-east
28	2	-	North end Trench 2 pre-ex showing layer boundaries	South-east
29	2	-	Middle trench pre-ex	
30	2	-	Middle trench pre-ex showing layer boundaries	
31	2	-	South end Trench 2	East
32	2	-	South end Trench 2 showing layer boundaries	East
33-40	1	(513)	South end of Trench 1 pre-ex showing Collapsed wall (513)	
41-42	1	-	Sondage within Bay 2	East
43	1	-	Sondage within Bay 2	North
44-45	1	-	Clay in west wall of wheelhouse	West
46-48	1	-	Sondage within Bay 2	North
49	2	(222)	Section through wall (222) and midden	ESE
50	2	(222)	Section through wall (222) and midden	ESE
51-52	2	(222)	Section through wall (222), wall (302) and midden	ESE
53	2	(210)	Section above corn drier, context (210)	East
54	2	-	General	-
55	2	(303)	Paving (303), North end of Trench 2	West
56	2	(303)	Paving (303) and wall (302), North end of Trench 2	North-east
57-58	1	(302)	Main north-south section at south end of	East

Shot Number	Trench	Context	Description	Facing
Itallibei			Trench 1	
59	1	[518]	Pre-ex cut [518]	East
60-61	1	[518]	Cut [518] partially excavated	East
62	1	SF:	SF: 1003 in situ	East
		1003		
63	2	(318)	Square setting of stones (318)	South
64-66	1	[518]	Cut [518]	East
67	2	[305]	Post hole [305]	East
68-71	2	(302) (314)	Possible human jaw under wall (302)	East
70	0	(317)	D	0 1
72	2	[305]	Post hole [305] half sectioned	South
73	1	(530)	Alcove feature (530)	South
74	1	(530)	Close-up of niche within alcove (530)	South
75	1	(530)	Alcove feature (530)	South
76-77	1	(530) [528]	Alcove feature (530) and cut [528]	East
78	1	(525)	Hearth base (525)	North
79	2	(321)	Pier with surrounding tumble and cut	West
30	2	(321)	Cut for possible pier	North
31-82	1	(531)	Tumbled stone (531) within Bay 2	East
33	2	(325)	Tumbled stone behind wall (222)	East
34	2	(325)	Tumbled stone behind wall (222)	South -east
35	2	(325)	Tumbled stone behind wall (222)	North-east
36	1	(525) (543)	Hearth base (525)	North
87-89	1	(545)	Layer (545) abutting south wall (513)	South
90-92	1	-	General site shots	
93	1	(548)	Burnt red layer (548)	East
94	1	(550)	Burnt sand layer within [551]	North-west
95-96	1	(550)	Hearth base (550)	West
97	1	(552)	Burnt clay layer (552) within Bay 1	North
98-99	1	(513)	Collapsed wall (513)	North
100-101	1	(513)	Collapsed wall (513)	South
102-105	1	(547)	Two stones (547)	South
106-107	1	(551) (558)	Hearth base	East
108-110	1	(560)	Pot and bone deposit (560)	East
110	2	(329)	Context under (207)	East
111	2	(331)	Big stone lined post hole	South
112	2	(330)	Dog skull	West
113-114	1	(561)	Layer (561) against later wall (547)	South
115-124	2		Main north-south section Trench 2	west
125			General site shot	
126-129	1	(558)	Hearth base (558)	
130	2	(335)	Charcoal lens under (329)	North-east
131-145	1	(561)	Cremated and semi-articulated animal bone, human jaw bone	Plan
145	2	(335)	Bones within (335)	East

Shot Number	Trench	Context	Description	Facing
147-158	1	(587) (588) (589)	Cremated bone, clay and kerb stones	Various
159	1	[564]	Pit [564]	East
160-162	1	(513)	Wall (513)	Various
163	1		Possible pier	North
164-170	1	(590)	Layers below cremation and above quern stone	Various
171	1	(590)	Volunteer excavating cremation deposits	N/A
172-175	1	(573)	Pebbles of hearth	Plan
176-178	1	(558)	Kerb stones surrounding hearth (558)	Plan
179-188	1	(590)	Layers below burning including possible cut for quern stone	Above
189	1	(577) (568)	Layers (577) and (568) within Bay 1	Above
190	2	(209)	Working shot of occupation (209) mid-ex	East
191	2		Collapse within Kiln	North
192	1	(644)	Hearth base (644)	Above
193-198	1	(567) (583)	Half-section through occupation surfaces (567) and (583) within Bay 1	Various
199	1	(592)	Stones (592)	South
200-203	1	[595] (594)	Cut [595] for kerb stones (594)	Various
204-205	2		Bays of wheelhouse – floor level	South-east
206	2		Southern bay of wheelhouse	East
207	2		Middle bay of wheelhouse	North-east
208	2		North bay of wheelhouse	North-east
209	2		Middle bay of wheelhouse	Above
210-215	1	(600)	Layers around quern stone (600) pre-ex	South
216	2	(350)	Brown sand horizons under (329)	North
217	2		Working shot	
218-222	1	(600)	Removing quern stone (600)	
223-224	2		Removal of orange material	
225	2		Kerb within cell 1	
226-227	2	(334)	Removal of sand (334)	
228-234	1	(653)	Layers, including (653), beneath quern stone (600)	Various
235	1	(653)	Demonstrating lack of evidence for a cut for wall (547)	Above
236	1		Possible wall collapse within Bay 1	West
237	1	SF: 1020	Articulated sheep/goat	West
238	1	(599)	Kerb stones (599) Bay 1	East
239	1	(599)	Bay 1 general shot, including kerb stones (599)	West
240	1	(619)	Stones of possible fire pit	North
241	1	(619)	Stones of possible fire pit	West
242	1	(644)	Hearth base (644)	South
243	2	(302) (315)	Wall (302) sitting upon sand layer (315)	East

Shot Number	Trench	Context	Description	Facing
244	2	(352)	Dark sand in southern bay under (351)	East
245	2		Trench 2 after removal of (342)	South
246	2		General view of section of cut features	East
247	2	(321)	Close-up of section	East
248-249			General site shot with volunteers	
250-251	1		Surfaces within north-central wheelhouse	NW
252	1	(616) [633]	Clay lining (616) to fire pit [633]	West
253-254	1	[321]	Removal of (349)	East
255-261	1	(547) (530)	Walls (547) and (530), including pier	Various
262-263	1	[640]	Kerb cut [640]	South
264	1		Pier beneath wall (513)	Above
265	1	(356)	Kubiena-style sample no. 49	East
266	1	(547)	Wall (547) southern wheelhouse	East
267	1		Mid-ex shot of Bay 1	West
268	2	(317)	(317)	
269-273	1		Wall (547) showing collapse and pier at base	East
274	2		Corn drying kiln	NW
275	2		Corn drying kiln	SW
276	2	(344) (345)	Trench like feature pre-wheelhouse	Е
277	1		Mid-excavation shot north-central wheelhouse area	Е
278	1		Layer below South wall (547)	S
279	1		Layer below South wall (547)	N
280	2		Southern Pier showing	Е
281	2		Southern Pier showing	SE
282	2		Southern Pier showing	S
283	2		Elevation of pier (332)	N
284	2		Elevation of pier (332)	NE
285	2		Elevation of pier (332)	Е
286	2		Elevation of pier (332)	S
287-288	2	(338)	Context (338) – corn drier mid-ex	
289	2	(341) (332)	Removal of wall (332) revealing (341)	
290	2	(338)	Pounder stone in middle of (338)	
291	-		Volunteer on site	
292	1	(645) (650)	Stone tumble within north-central area	SE
293	1	(650)	Stone tumble (650)	E
294	1	[638]	Kerb cut [638]	W
295-299	-		Tent after storm	
300-301	2		Corn drier with (338) removed	N
302	1		Main wheelhouse wall - north-south section	N
303	2		Corn drier post-ex photograph	W
304	2		Corn drier post-ex photograph	N
305	2		Corn drier post-ex photograph	S

Shot Number	Trench	Context	Description	Facing
306-309	2		Flu and cut for flu	S
310-315			Working shot – Pole camera	
316-320	1	(663)	Layer (663) extending under South wall rebuild (547)	S
321			Working shot – Pole camera	Е
322	1		Sondage Bay 2	E
323	1	(642)	Pier (642) Bay 2	N
324	1		North-central wheelhouse area	
325	1	(665)	(665) N-central wheelhouse area	
326	1	(667)	Stones (667) central wheelhouse area	
327	1		Working shot	
328	1	(667) (663)	Central wheelhouse area	
329-331	1		Working shot pier central area	
332-334	1		North-central area section	
335-339	1		Pier (673)	
340-342			Working shot	
343	2	(374)	Stone-filled feature pre-ex	
344	2	(373)	Stone-filled feature post-ex	
345	2	(316)	After removal of (362) occupation	
346	2	(376)	Pre-ex (376)	
347	1		Possible pier cut	
348	2	(378)	Cut for pier (221)	
349	2	(377)	Scatter of fire-cracked stone	
350-351	2		Post-ex Trench 2	
352-379	1		Backfilling the trenches	







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Figure 1: Site location map

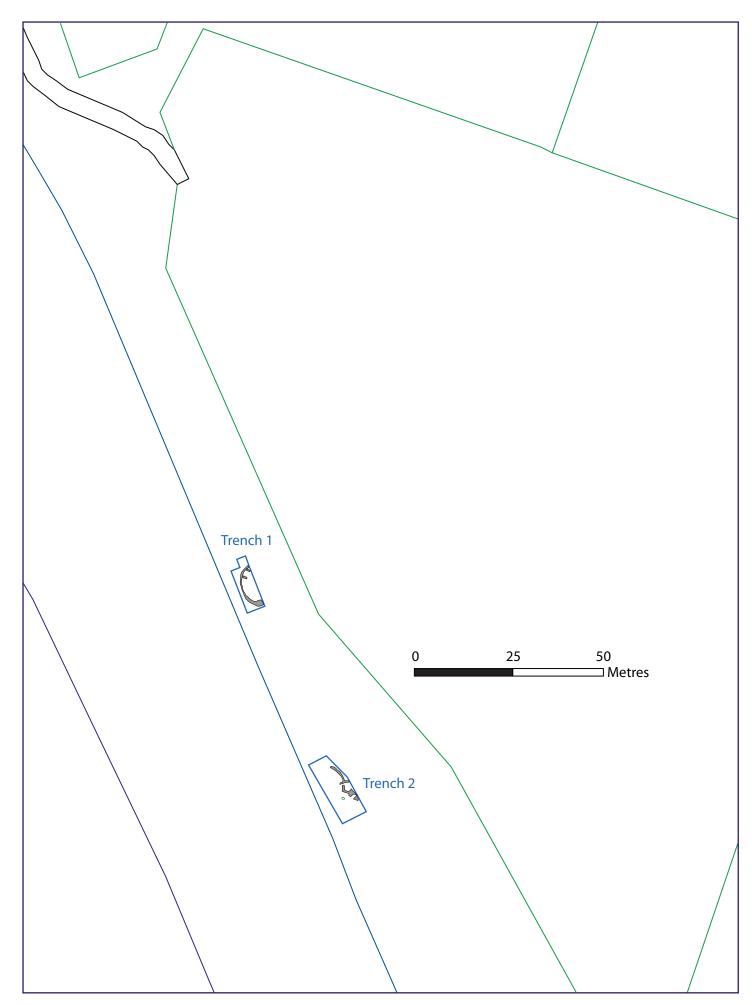


Figure 2: Trench location plans, with principle structures in grey.

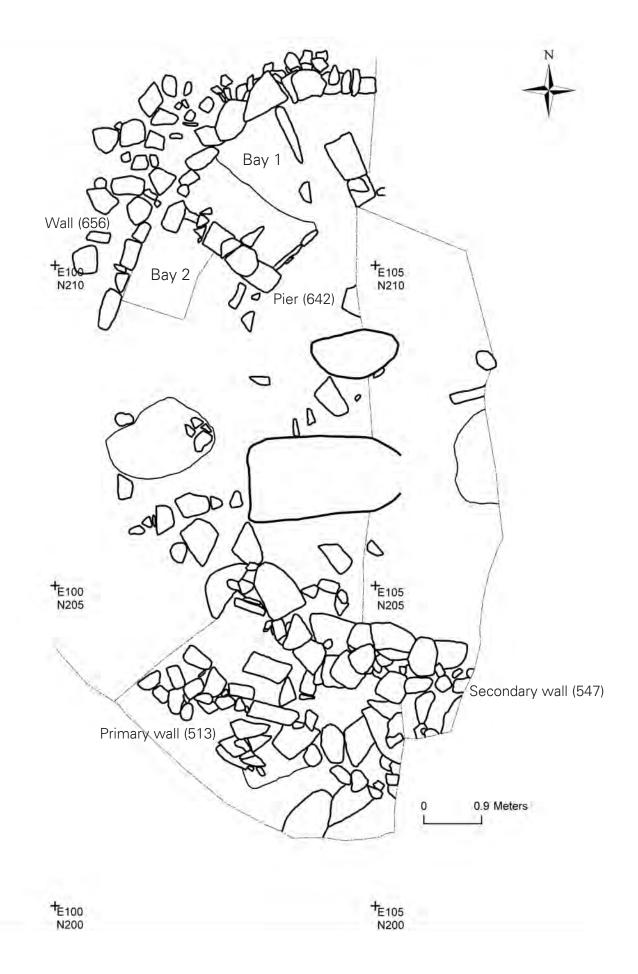


Figure 3, Trench 1: Pre-excavation plan of structural remains exposed upon initial opening of Trench 1.

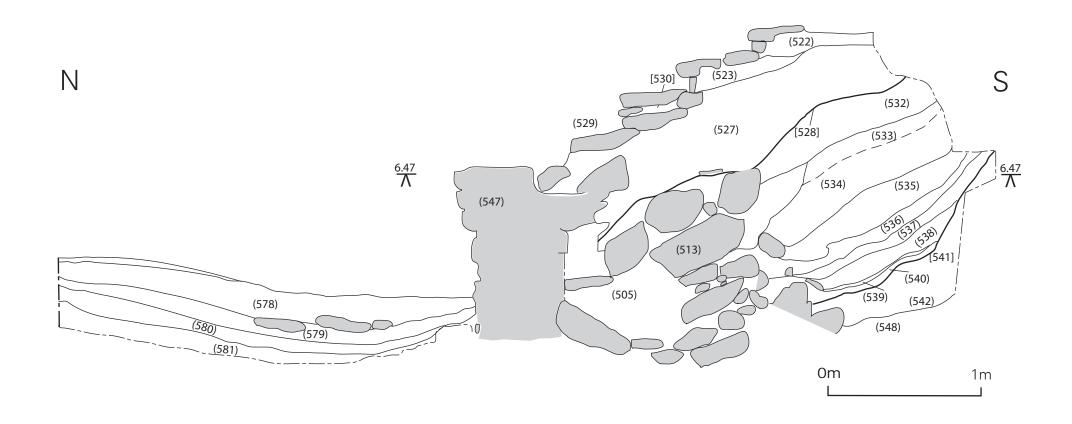


Figure 4, Trench 1: Section across southern wheelhouse area to show general sequence of deposits.

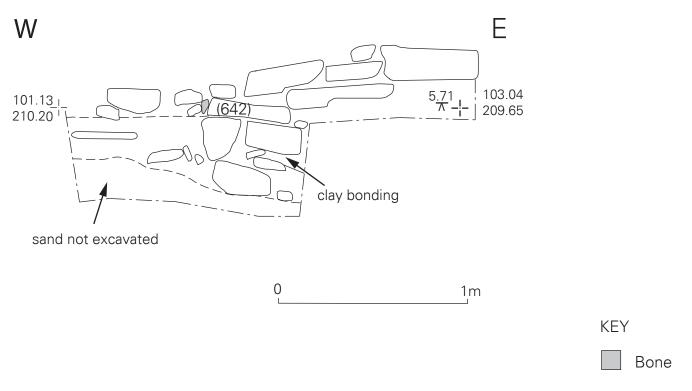


Figure 5, Trench 1: Section across pier (642) in Bay 2

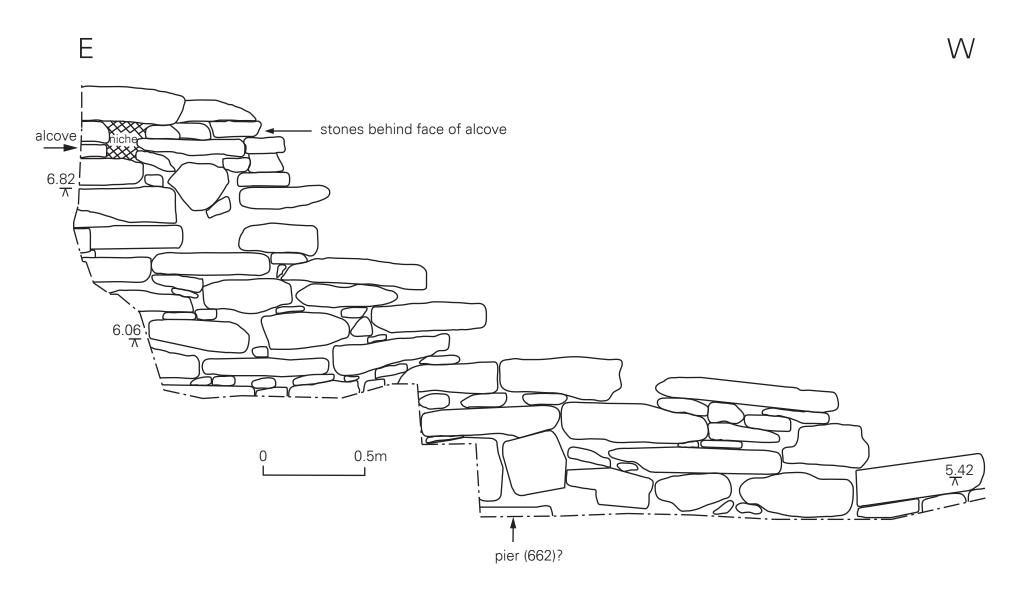


Figure 6, Trench 1: Elevation of inner face of wall (547)

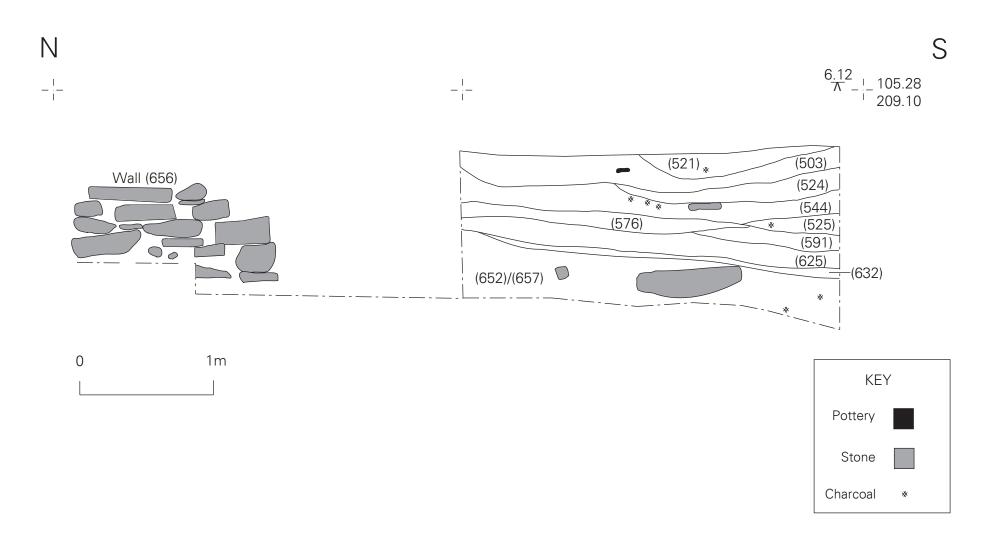
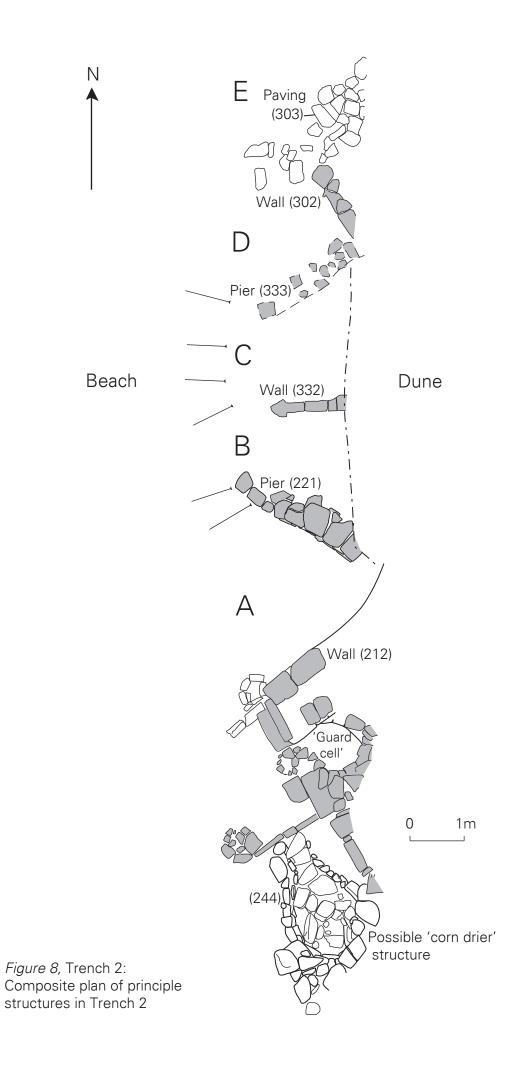


Figure 7, Trench 1: Section across central and northern wheelhouse area to show general sequence of deposits.



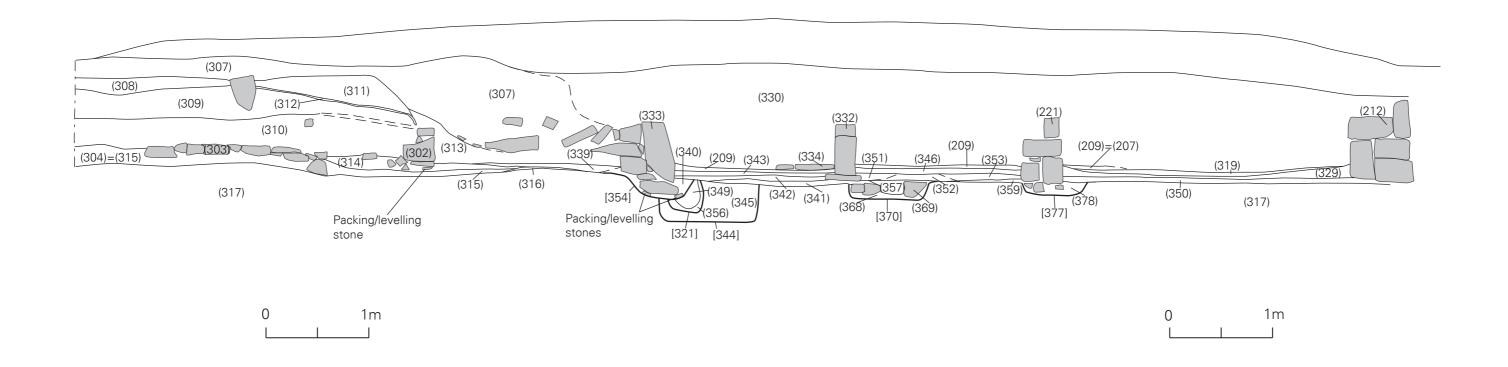


Figure 9, Trench 2: Main North South section across Trench 2 to show general sequence of deposits.



Plate 1: General view of beach profile and structures eroding out of mound in the area of Trench 2, prior to the start of excavation, looking north.



Plate 2: Robbed pier (673), Trench 1.



Plate 3: Blocking stone (590).



Plate 4: Central hole of rotary quern (600).



Plate 5: Rotary quern (600) exposed.

Plates 3-5: Lower part of sequence of structured deposits revealed in Trench 1



Plate 6: Human lower jaw bone and articulated sheep/goat (586).
Part of structured deposits above quernstone (600), Trench 1.



Plate 7: Central fire or cooking pit (633) of primary wheelhouse in Trench 1.



Plate 8: Inner face of wall (547), Trench 1, looking south.



Plate 9: Stone base (644) of Hearth 1, Trench 1.



Plate 10: Partially exposed cross inscribed clay base (558) of Hearth 2, Trench 1



Plate 11: General view of excavation in Trench 1. Hearth 2 is in the centre of the picture. Looking west.



Plate 12: Detail of fully exposed Hearth 2, Trench 1. Note the kerbing of underlying Hearth 1 showing through to the left of the picture.



Plate 13: Wind-blown sand highlighting incised decoration of clay base (558) of Hearth 2, Trench 1



Plate 14: Hearth 3, (520), the latest in the sequence, Trench 1.



Plate 15: General view of structures and deposits in Trench 2, looking southeast



Plate 16: General view to show relationship between southern external wall (212) of structure in Trench 2 and adjacent pier (221), looking southeast.



Plate 17: Heat reddened face of wall (332) and associated series of burnt deposits in Area C of Trench 2, looking east.