



The National Trust
for Scotland

St Kilda Archaeologist's Annual Report 2003



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1.0 Executive Summary

This report summarises the work undertaken on the island by The National Trust for Scotland St Kilda Archaeologist in 2003. During the summer there were six work parties, four undertaking conservation work and two involved in archaeological excavation. The conservation work parties carried out a number of tasks under archaeological supervision that included repairing cleit roofs and drystone dykes, investigating and re-cutting the drains and carrying out lime-pointing work, all as approved with Historic Scotland through the Management Agreement. The archaeological work parties, under the supervision of GUARD continued to excavate the site on Mullach Sgar. A number of cruise ships and smaller vessels visited with a total of approximately 1500 visitors, around 600 of which came on guided walks. Other work included carrying out a brief coastal erosion survey in Village Bay, a photographic survey of some of the cleits and an excavation of the drain to the west of House 6. In addition a watching brief on the de-silting of the fire pond and the excavation of a water-pipe trench was also undertaken. Fuller reports on some of these topics will be produced before 2004.

2.0 Introduction

The post of St Kilda Archaeologist in 2003 was held by Susan Bain, the post was managed from the NTS Highlands and Islands Office in Inverness, with archaeological advice from Jill Harden, NTS Highlands and Islands Archaeologist.

3.0 The 2003 Season

3.1 Coastal Erosion

A rapid survey of the coastline in Village Bay was carried out in April. The coastline was monitored using photographs from the last coastal erosion survey in 2002 as a reference. Sections were only re-photographed if changes were noted. Slight erosion was noted in section A and more noticeably in section E. The gabion baskets around the septic tank (section C) have been repaired since 2002 (see Appendix 2).

Gary Tompset from GUARD also undertook a survey of the coastline with a total station and compared this to a survey undertaken by Glasgow University in 1996. The results will form an accurate baseline measurement of the cliff edge.

3.2 Cleit Preservation Project

Thirty cleits were visited and some were photographed as part of the cleit preservation project. Only two showed change since the last visit.

Cleits visited: 49, 57, 76, 125, 137, 260, 283, 285, 288, 301, 307, 313, 314, 318, 500, 536, 543, 554, 555, 574, 582, 606, 613, 624, 634, 638, 639, 823, 826, 827

Cleits showing change: 307 – side A collapse
 289 – side D collapse

Work was also undertaken to determine the accuracy of the location maps of cleits, as locating and determining the number of some cleits has proved difficult. Three areas were looked at in detail - the slopes below the Lover's Stone, Mullach Gael and the lower slopes of Mullach Sgar. This showed that in a few instances cleits have been marked on maps where none exist and sometimes cleits exist where none are marked. For example no cleit exists at the marked position of cleit 260 below the Lover's Stone, although a cleit does exist to the

southwest and another to the northeast. This has resulted in both being photographed and identified as cleit 260. This year the decision was made to identify the cleit to the northeast of the location as cleit 260 which corresponds to photographs taken in 1998. It is therefore clear that further work needs to be done to accurately locate all of the cleits on St Kilda.

3.3 Dyke Survey

A photographic survey of the drystone walls of Village Bay area was begun, as proposed in 1998 (Johnstone). It is hoped that the images may be used to effect better repairs in the future. The images are taken and stored digitally. Because of problems of storage and image size only a small section was completed this year. However, a methodology now exists and it is hoped that more rapid progress will be made next season.



A section of the head dyke, recorded as part of the Village dyke survey

3.4 Work Parties

During the 12 weeks of the summer when there are work parties on the island a great deal of the Archaeologist's time is spent working with them. This year, as always, they were an enthusiastic and hard working bunch with a range of skills that could be adapted and used on St Kilda. The following repairs were carried out under archaeological supervision:

- i) Sections of walling were repaired including: the retaining wall to the immediate east of house 1, the enclosure behind house 10, the wall in front of house 15, cleits 34, 78 and 111, blackhouse L, a section of head dyke behind Calum Mor's House and a section of glebe wall east of cleit 2.
- ii) Repairs to the turf roofs were carried out on cleits 2, 11, 30, 47 and 111. Repairs to cleit 104 were cancelled because the structure looked unstable and repairs to cleit 101 were also postponed because of nesting fulmars.
- iii) The south wall of blackhouse F was repaired, which involved replacing the rammed earth core with a clay-rich material and rebuilding the drystone work.
- iv) Rubble was removed from houses 7, 9 & 16 in-line with the guidelines laid out in the *Removal of Rubble from Roofless Buildings* (Bain & Harden 2002). The rubble from house 7 was used to make the drain around house 1.
- v) The front elevations of house 5 and house 3 were re-pointed with a traditional lime mortar. The lime was a Jura Kaulk NHL 5 and the sand was of a coarse grain sourced from Cloddach Quarry, Elgin. The work was supervised by Iain Lyon, an apprentice stonemason from Culzean. Although the new works were kept covered the hessian dried out frequently because of the high temperatures and warm breeze.
- vi) Open field drains and box drains around the village were also cleared of silt and vegetation. Work was done on the open field drains from cleit 14 to blackhouse Z, south of the street below cleit 11, between cleit 11 & blackhouse Z (including the street), cleit 74 to the street, south of the street in front of house 14, the burn from the east side of the water tanks to the stretch cleared in 2002 and the open drain along the

east and west wall of house 14. The drains across the street in front of blackhouse R and to the west of house 13 were also cleared.

- vii) Work was also carried out to re-establish and clear the drains around houses 1, 2, 5 and 6. Members of the archaeological work parties assisted the St Kilda Archaeologist in the excavation around House 6.

Small exploratory test pits had been excavated around House 6 in 2002 (Bain 2002). These had revealed the top surface of a midden located against the west gable wall. This year a trench was excavated along the entire length of the west gable wall and across the street, while a smaller trench was excavated along the north (back) wall. These trenches revealed a stone-built box drain running the length of the west gable wall. No evidence for a drain was found along the back wall.

The box drain was completely silted-up and substantial midden deposits had accumulated over it. At the southern end of the drain both the cap and side stones were missing and the area was filled with midden material. The midden material all appears to be contemporary with the occupation of the house. The small trench excavated against the back wall also contained material and deposits that may be contemporary with the occupation of the house.

A fuller report on these excavations will be produced as part of the drains report.



The capstones of the box drain for house 6

- viii) Work party member assisted the St Kilda Archaeologist in carrying out a survey of the spread and extent of bracken. A vegetation survey that plotted the extent of bracken within Village Bay had been carried out in 1997, and a similar survey using the same methodology was carried out in August. Not all the areas covered in 1997 were walked. This survey will be completed in 2004, although initial results suggest little increase in bracken coverage.

3.5 GUARD Excavations

Excavation by Glasgow University Archaeological Research Division continued on the eastern slopes of Mullach Sgar. A large area was opened up to expose the 'horned structure', structure 3 and the area in-between, in order to determine any relationship between the two. Handmade pottery was again recovered from the area of the horned structure. The remaining small, unexcavated part of the interior of structure 3 was fully excavated and several stone tools recovered from the floor levels. Walls of another structure were exposed in the area between structure 3 and the horned structure although their full extent remains unclear. The St Kilda Archaeologist liaised with the project directors, Bob Will and Olivia Lelong during this work.

3.6 Other works

Watching Brief – Water-pipe trench

A watching brief was carried out on the re-excavation of a water-pipe trench excavated from the firepond to the ex-military base. The majority of the trench was cut through previously disturbed ground, but it did prove necessary to excavate some new lengths. These fortunately went through previously undisturbed ground revealing a homogenous soil indicative of cultivation. A number of finds dating from both the pre-1930 occupation and the post-1957 occupation were noted. A fuller report on the watching brief will be produced before 2004.

Soil Sampling – University of Aberdeen

As part of a programme of ongoing research into the soils of remote Scottish Islands, Claire Deacon, a research assistant from the University of Aberdeen's Department of Plant and Soil Science, spent 7 days on Hirta taking a series of peat cores.

Manuport Survey – University of Lampeter

Professor Andrew Fleming spent two weeks on Hirta plotting the occurrence of stone manuports and artefacts within the built structures of Village Bay

St Kilda Soay Sheep Project

Throughout the summer members of the St Kilda Soay Sheep Project were on Hirta as usual. As the annual catch involves setting up nets and runs across Village Bay it is important that there was liaison between the Archaeologist and project members. The project leaders ensured that all their staff were aware of the issues and conditions of the Scheduled Monument Consent and ensured that the catch was carried out with no disturbance to the monuments.

3.7 Island Relations

As in previous years the base staff continued to provide essential support to the St Kilda Archaeologist, not only providing accommodation and food but also the occasional lift up to the top of the hill and trip in the boat. They also provided storage for various boxes and materials and the essential safety back-up for lone working.

QinetiQ staff ensured that the St Kilda Archaeologist was consulted over issues which might have been of concern, including the construction of a new parking area on Mullach Mor, the replacement of a section of the concrete slipway and works within Red Square, as well as the de-silting of the pond and the replacement of the water-pipe.

After nearly 20 years on St Kilda Tony Horne, St Kilda Supervisor for QinetiQ, left to take up another position. In recognition of his support throughout his term Tony was asked to open the new museum display.

3.8 Staff Relations

The post of Ranger/ Warden on St Kilda changed from SNH to NTS management this year, with Neil Mitchell the new NTS Ranger arriving at the end of April. Some time was spent with Neil as an on-island 'buddy'. There was close liaison on certain issues of concern to both: work party schedules, water-pipe trench excavation, firepond clearance and guided walks. Neil also assisted with repairs to drystone dykes, moving spoil and other works where an extra pair of hands was useful. On occasion the Archaeologist and Ranger teamed up to work in areas that were particularly remote or with difficult access, such as visiting the drystone dyke at the far end of Dun and counting sheep on Soay.

In addition Colin MacConnachie, Jill Harden and Andy Milne from the NTS visited the island in June to install the new museum display with assistance from work party members and the Archaeologist and Ranger.

3.9 Education

As part of the preparatory work for developing a kids section for www.kilda.org.uk, the St Kilda Archaeologist and the Highlands & Islands Education Officer, Sue MacKenzie, visited Balivanich Primary School on Benbecula and met with all P5-7. Ideas and suggestions for web-pages aimed at a younger audience were discussed.

Guided walks were offered to cruise ships, contractors, researchers and staff. Eleven guided walks were given for cruise ships and all work parties were given an extended guided walk through the village. The Northern Lighthouse Board with Princess Anne and Tim Lawrence were also given a short guided tour of the village area

4.0 2004 Season

4.1 Cleit Preservation Programme

A photographic record will be taken of the very few remaining cleits in the Cleit Preservation Programme which so far are inadequately photographed. A work plan will be drawn up for the regular monitoring of the cleits that are to be actively maintained. The plan will then be progressed by the St Kilda Archaeologist and work party members every year.

4.2 Work Parties

The St Kilda Archaeologist will provide advice and guidance to the work party leaders as required. There will also be an increase in the secondment of work party members to work with the St Kilda Archaeologist this year, as necessary and appropriate. The Archaeologist will also provide advice and support to the professional staff that organise the archaeology work parties for the NTS.

4.3 House Drains and Drainage

The drains around houses 3 and 5 will be investigated and cleaned out as necessary. The area along the back wall of house 6 will be excavated by the St Kilda Archaeologist to allow drainage works to proceed. The open field drains will continue to be cleared out as appropriate.

4.4 Rubble Removal

Work started in 2003 will be completed in 2004

4.5 Cliff Erosion

A walkover survey of the coastline in Village Bay will be undertaken in order to assess any erosion and its impact on archaeological deposits and structures.

4.6 Bracken Control Assessment

The field survey of bracken distribution will be completed.

4.7 Dyke Survey

Work will continue on the photography and recording of the head dyke around Village Bay

4.8 Historic Photos

A project to re-take 'same view' photographs and identify structures and changes will be undertaken.

5.0 Acknowledgements

I should like to give thanks to everyone who generously offered advice and support this year: Neil Mitchell, St Kilda Ranger; Jill Harden and Glyn Young, NTS Highlands and Islands Office; the staff of QinetiQ, Euresst and Movecon; all the work party leaders, cooks and members of the 2003 season; Sally Foster, Historic Scotland; Lorna Innes, GUARD (former St Kilda Archaeologist); Robin Turner, NTS Senior Archaeologist; Bob Will & Olivia Lelong from GUARD; Alex Urquhart and Barry MacPhail from RJ MacLeod and Neil-John and Alex from D McDonalds Building Contractors, Benbecula.

6.0 References

Bain S 2002 *Drains & Drainage on St Kilda 2002* NTS

Bain S & Harden J 2002 *Proposals for the removal of the remaining rubble from the roofless houses – a discussion document* NTS

Johnstone L 1998 *Village Bay Area – Walls Condition Survey* GUARD

Appendix 1 Trial trenching Blackhouse X

Introduction

Although the collapse of the gable-end of Blackhouse F was not the first time a gable-end of a blackhouse had collapsed onto the street, the Trust had no detailed information as to how these buildings had been constructed. It was therefore suggested by Historic Scotland that a small trial trench should be excavated across the north wall of an appropriate blackhouse, in order to determine the method of build and therefore effect an appropriate repair to Blackhouse F.

Background

Blackhouse X lies just to the north of the street between the Factor's House and the Abhainn Illishgill. Blackhouse X was chosen for this study because it was occupied until 1912 - the last blackhouse to be occupied on the island and is likely to have been kept in a good state of repair until then. Study by Historic Scotland on the blackhouse at 42 Arnol, Lewis suggested that the exterior walls were capped by a thick layer of blue clay. This clay shed rainwater from the wallhead and prevented the loss of the earth core through erosion. It was not known whether St Kildans ever used this method of construction in their blackhouses, although clay is still available on Hirta and there are demonstrable building links between St Kilda and other islands in the Outer Hebrides.



However, clay was definitely used either as a bond and/or draught proofing material in the interior elevations of Blackhouse X and in several other 1830s houses in the village, and is still clearly visible in patches.

Methodology

A small trench (0.35m wide) was excavated by hand across the wallhead of Blackhouse X at its north-east corner. This area was chosen for a number of reasons:

- ease of access - Blackhouse X is cut into the slope and the north wall is therefore only 0.3m above ground level, which means that any work could be done here without standing on the wallhead and compromising the structure;
- The interior wall height at this point is 1.6m which is high enough to be original;
- The wallhead appears convex at this point, which again suggests a good possibility of deposits surviving.



Location of slot trench

Results

A maximum of 250mm of material was removed from the wall-head, composed of a humic topsoil overlying a dark-brown friable peaty layer. This overlay a more compact dark-orange/brown gritty soil with visible patches of ash and burnt clay confined to the centre of the trench and interpreted as the wall core. Several stones were embedded within this layer although some of the smaller stones were quite loose with voids around them.

Conclusion

No evidence for a clay cap was noted at this point in the wall head but it cannot be inferred with certainty, from such a small excavation, that no clay cap existed.

Outcome

During the repair of Blackhouse F it was noted that the composition of the earth core became increasingly silty with a higher clay content as one went further down the wall core. The lack of clay in the soil composition at a higher level was interpreted as an effect of weathering, with small particle sizes being washed through the wall core by rain over time.

Further research into the construction of Hebridean blackhouses and the dynamics of decay are obviously needed.

In addition, for Hirta, it would be useful to discover the subsequent uses of all the blackhouses after their abandonment as habitations.

Appendix 2 Coastal Erosion Assessment

Methodology

A full coastal erosion survey of Village Bay was carried out in 2002 (Bain 2002) so only a brief walkover survey was undertaken in 2003. Photographs were taken only where change was noted.

Results

Section A

Section A suffered very little noticeable erosion since last year. Only one stone was noted as having disappeared. The distance from the cliff edge to the timber pegs was unchanged since 2002 viz:

Peg 1 0.66m

Peg 2 0.61m

Peg 3 0.47m

Section A changes



Coastal erosion Section A -2002 (STK02 10/4)

Section C

The gabion baskets around the septic tank had been damaged by storms in the winter of 2001-2002 and had been repaired by the summer of 2003.



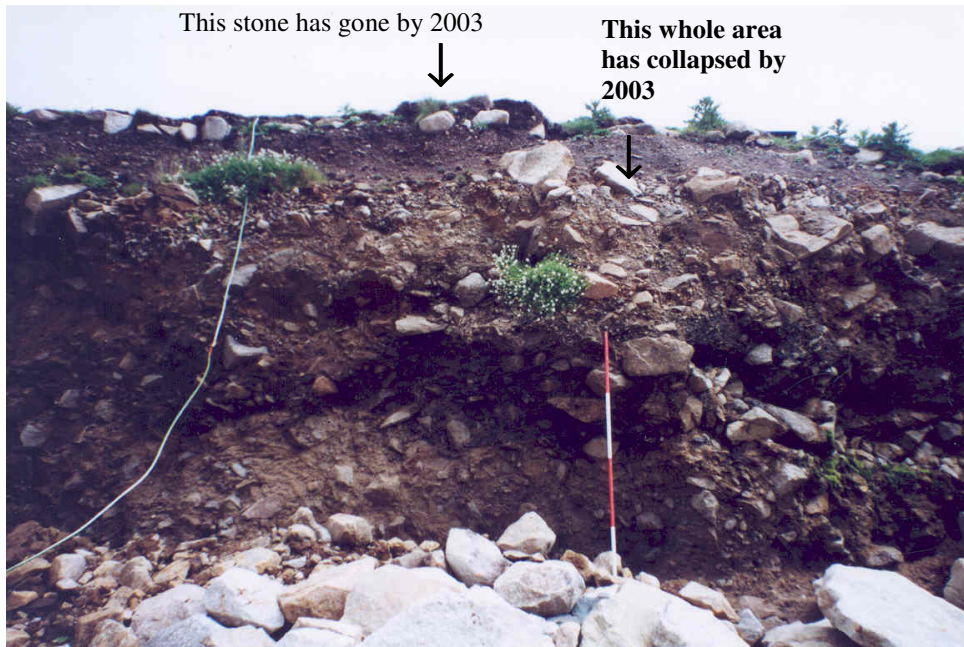
Coastal erosion Section C – 2002 (STK02 9/22)



Coastal erosion Section C – 2003 (STK03 3/9) The repaired gabion baskets

Section E

Changes were noted in section E. Section E is directly to the west of the main gabion baskets and stretches as far as the Abhainn Illishgill. The loss of soils and undercutting had been noted in 2002 but changes noted this year included the loss of one stone from the seaward dyke, collapse of overhangs and loss of vegetation at two locations.



Coastal erosion in section E 2002 (STK02 11/7)



The same section in 2003(STK 03 3/10) The overhang has collapsed and a stone has fallen from the top

Section E changes



In 1996 there is good vegetation cover



In 2002 the vegetation has decreased dramatically



In 2003 the overhang has collapsed with further loss of vegetation

Conclusion

The coastal erosion survey of Village Bay this year showed only minor changes since last year. The main areas of change were in section E where overhangs noted last year had collapsed and stone from the seaward dyke had fallen. The winter of 2002-2003 was mild with few storms driving into the bay.

Bibliography

Bain S 2002 *Village Bay, St Kilda Coastal Erosion Survey* NTS