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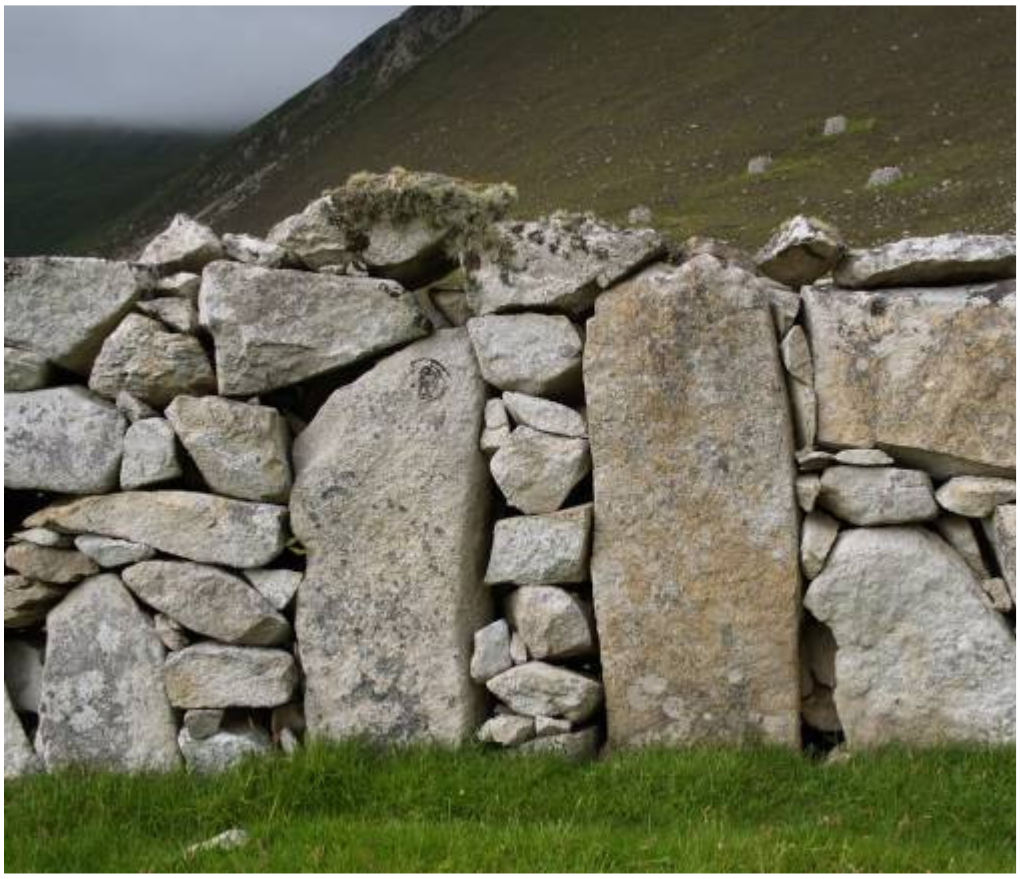
St Kilda Archaeologist's Annual Report 2007



Samantha Dennis

October 2007

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Cover plate:
Enclosure wall, An Lag

Highlands and Islands Regional Office
Balnain House, 40 Huntly Street, Inverness, IV3 5HR

1.0 Executive Summary

This report summarises the work undertaken by the St Kilda Archaeologist for the National Trust for Scotland on the island in the summer of 2007 and off island in the winter of 2006-2007. It will further outline the work scheduled for the winter of 2007-2008 and the summer of 2008.

This summer the organisation of conservation work on St Kilda did not follow the usual pattern in that we saw only two groups of conservation volunteers instead of the usual four work parties. The temporary interruption to the usual organisation of work parties was because of the scheduled refurbishment of House 1 and the Ablutions Block. The two conservation work parties completed works under archaeological supervision. These tasks included repairs to drystane wall, cleits, cleit roofs, enclosures, and drains, as well as participating in routine monitoring programmes; all approved by Historic Scotland through the Management Agreement.

The two archaeological work parties were replaced by two visits from a survey team from the Royal Commission on the Ancient & Historical Monuments of Scotland (RCAHMS). Their work, which intends to map all archaeological sites of the St Kilda archipelago, will continue over the next two years. The survey involves two NTS archaeologists working alongside RCAHMS staff recording and photographing the condition of the cleits and other archaeological sites.

Other work carried out on the island in 2007 included the annual monitoring of coastal erosion in Village Bay; monitoring cleits according to the Cleit Preservation Project; the completion of the head dyke survey in Village Bay; photographic recording of enclosures in An Lag; monitoring of structures in Gleann Mor (carried out every five years); and monitoring of turf roofs in Village Bay.

2.0 Introduction

In 2007 Samantha Dennis continued to hold the post of St Kilda Archaeologist. The post was managed by Susan Bain, Western Isles Area Manager, with archaeological advice from Jill Harden, NTS Highlands and Islands Archaeologist.

3.0 The 2006/2007 Winter Season

During the winter months the St Kilda Archaeologist worked on producing the Annual Report for 2006 and Coastal Erosion Survey report for 2007.

Time was also devoted to the continuation of updating and digitising the SMR data. Additional data gathered over the years was entered into the relevant databases for easy access (e.g. specifics for cleits, houses and blackhouses, coastal erosion, historical images, planticrues and enclosures, and head dyke). And information gathered during the summer season, such as updates on the condition of cleits, was entered into Access databases.

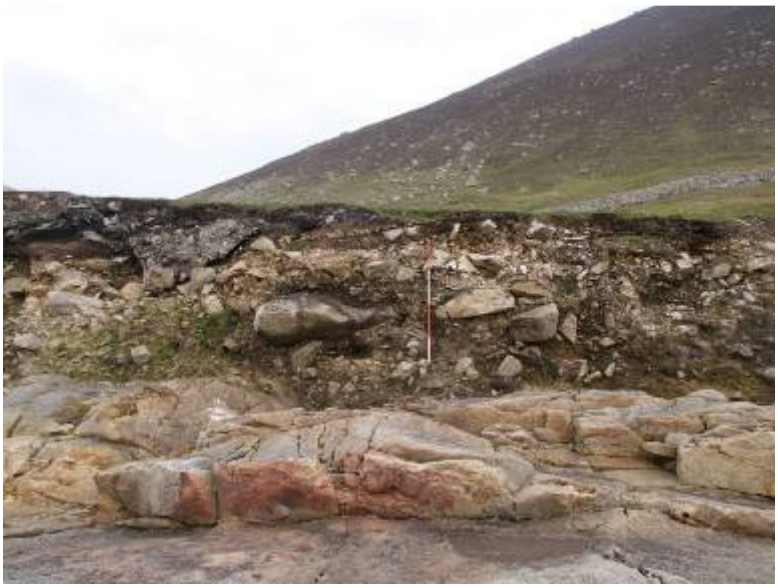
Work on the St Kilda image archive is ongoing and was partially tackled in the winter of 2006/2007. Catalogue numbers were correlated within the NTS digital archive.

4.0 The 2007 Summer Season

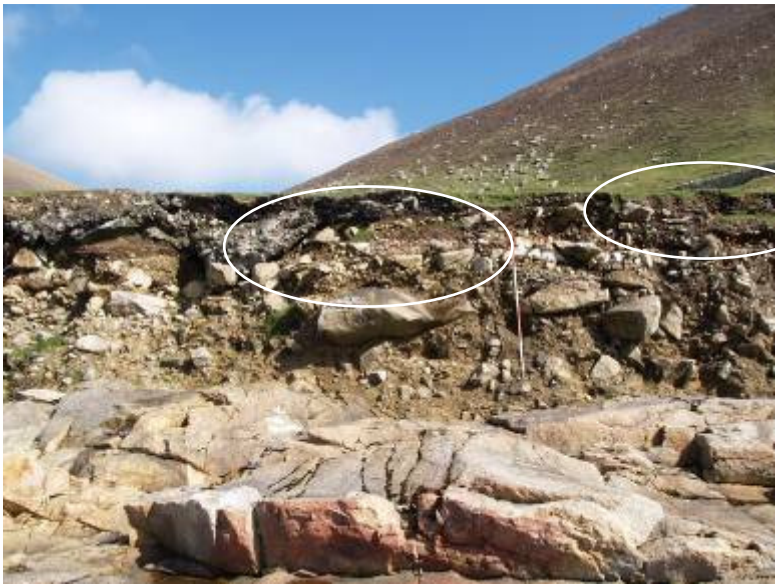
4.1 Coastal Erosion

The annual survey of the coastline in Village Bay was conducted in the first week of May. The methodology, established in 1999 (Johnstone 1999), included assessing changes to the beach and cliff in comparison to monitoring photographs taken annually since 1996.

In summary, no sections of the coastline in Village Bay have been significantly affected by erosion or accretion since last year. Fortunately, little to no changes were noted since the full survey carried out in May 2006 (Dennis



Section C in 2006



Same section in 2007 showing two areas of erosion caused by sheets of water running off the hills

2006). This is in marked contrast to the heavy erosion recorded after the severe storms in the winter of 2005/2006. The erosion recorded in Sections A, C and E resulted from land-based alluvial processes, in other words heavy rain running off the hills and cliff faces, rather than damage caused by stormy seas battering the coastline.

The temporary gabion baskets built in front of the Store in the summer of 2006 were still in good condition in the summer of 2007.

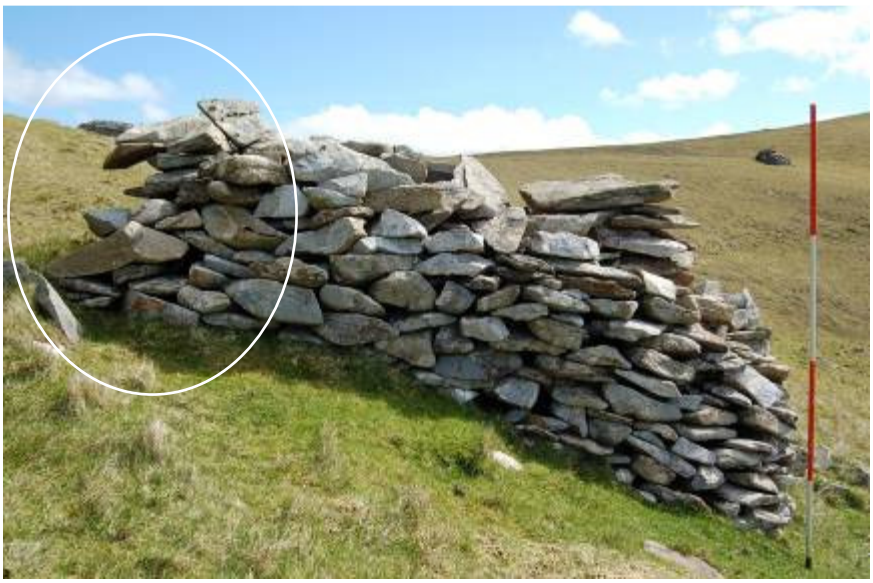
Further details of the assessment of coastal erosion in the Village Bay are presented in Appendix I.

4.2 Cleit Preservation Project

The Cleit Preservation Project (CPP) aims to monitor and record the current state of preservation of a representative selection of cleits on St Kilda (Taylor 2001). The CPP database records details of each cleit within the monitoring programme including cleit dimensions and updates of its condition. This summer 279, of the 310 cleits selected in the programme, were monitored. This total includes all 111 cleits located within the village head dyke, and the remaining 167 were located in the regions of Cambir (3), Conachair (17), Gleann Mor (19), Mullach Bi (14), Mullach Gael (26), Mullach Mor (3), Mullach Sgar (11), Oiseval (12), just beyond the head dyke (60), and Ruaival (2). See Appendix II for a list of cleits not monitored in 2007.

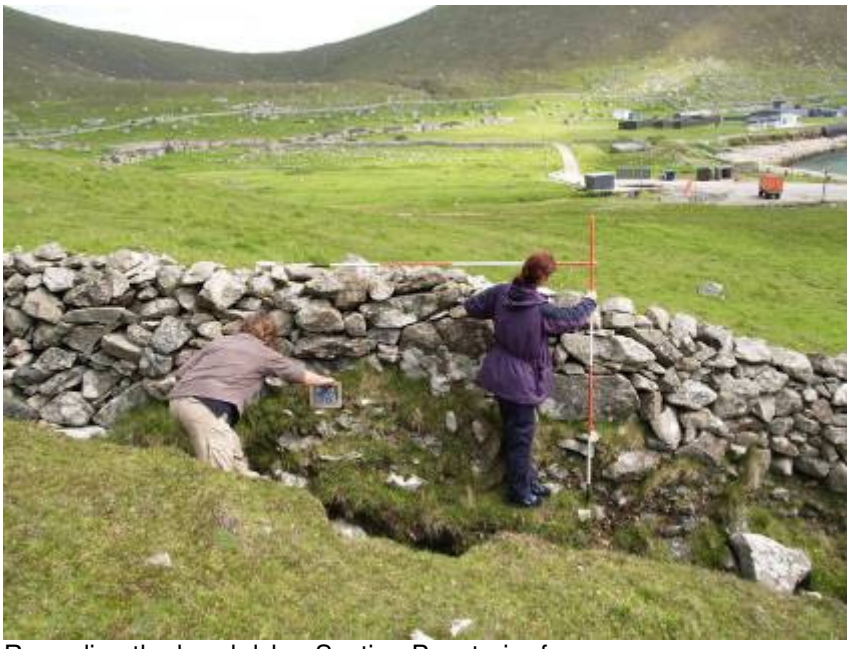
Cleits monitored:	
- within village head dyke	111
- across Hirta	168
Total	**279**
Cleits with minor changes	8 %
Cleits with major changes	2 %
Cleits with turf erosion	3 %
Cleits with no change	90 %

Of the total 279 cleits monitored, 252 showed no change, 22 showed minor change (one or two stones fallen or slipped), 6 showed major change (more than two stones collapsed, or significant damage to lintels), 9 showed further erosion to the turf roof, and none showed signs of turf regeneration on the roof. For full details of cleit numbers monitored in 2007 see Appendix II.



Major collapse to Cleit 486. Stones have fallen at the left-hand side of the photo.

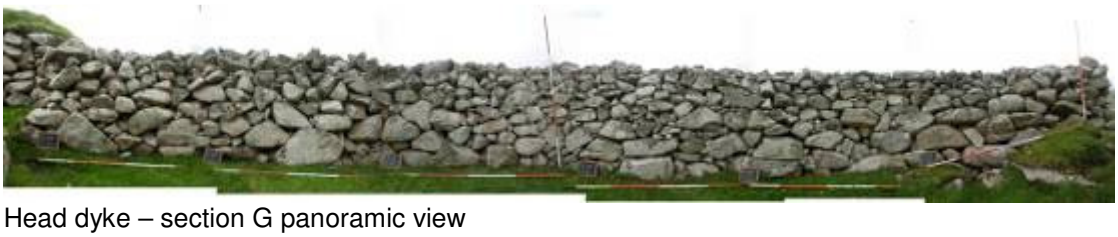
4.3 Dyke Survey



Recording the head dyke: Section P, exterior face

The focus on this year's Dyke Survey was placed on finishing the photographic record of the head dyke in Village Bay. The head dyke, originally built in the 1830s to keep livestock off the crops, stretches approximately 1610 m around the village. For ease of recording the head dyke, the walls were divided into sections (A – Q, from east to west) as defined by the natural breaks created by existing entranceways (Johnstone 1998). This summer we continued to photograph both the interior and exterior faces of the head dyke two metres at a time. All noteworthy features such as blocked entrances, stone tools, and modern rebuilds were also recorded. The gaps, or entranceways, between the sections of walls were also photographed. This year the survey was carried out with the assistance of Sophie Hay, Archaeological volunteer.

Although the entire length of the dyke has been photographed some small sections will have to be re-photographed because parts were obscured by tall vegetation or were inaccessible due to nesting fulmars.



Head dyke – section G panoramic view

The digital photographs are archived as individual images and also as panoramic views created by digitally stitching together the photographs. All the data can be accessed through a database (St Kilda Head Dyke SMR).

The data and photographs will be used as a record as well as a management tool to identify collapses, provide images for repairs, and assess rates/patterns of damage.

The enclosures in An Lag were recorded following a similar method as that used for the head dyke (ie. photographs taken every 2 m of both interior and exterior faces). Additional data gathered included: wall lengths, wall thickness, wall heights, width and height of entranceways, wall condition, evidence of wall repairs, comments on phasing, earthworks within the enclosure, style of wall construction, and any unusual features such as drains or blocked entranceways.

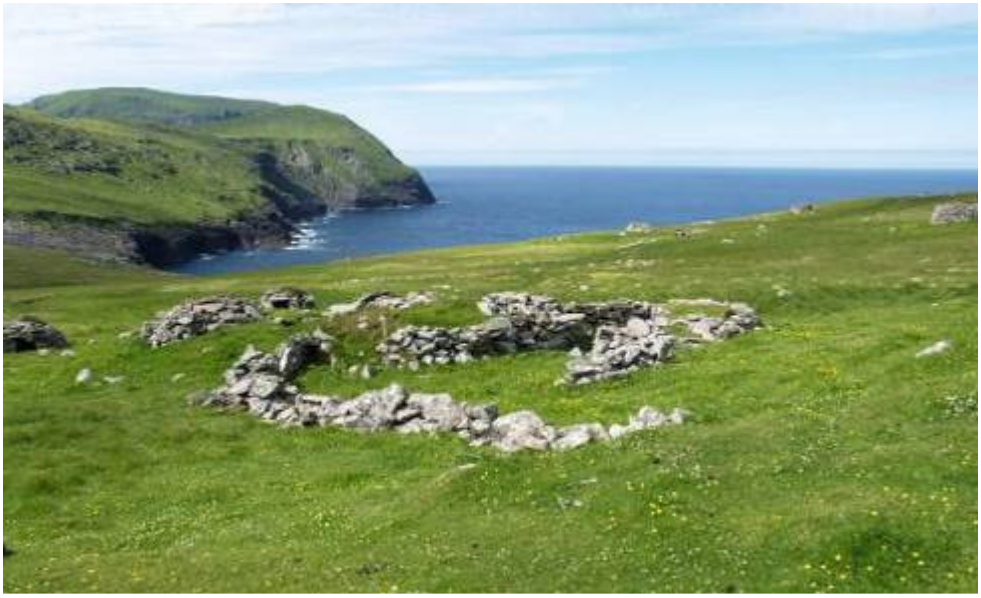
Enclosures in An Lag

The photographs are archived individually, but could also be digitally stitched together. The data collected is stored in a database (St Kilda Enclosures and Planticrues SMR).

The photographs and data gathered will provide a comprehensive record of the enclosures and assist in the monitoring and repair of these walls.

4.4 Gleann Mor Survey

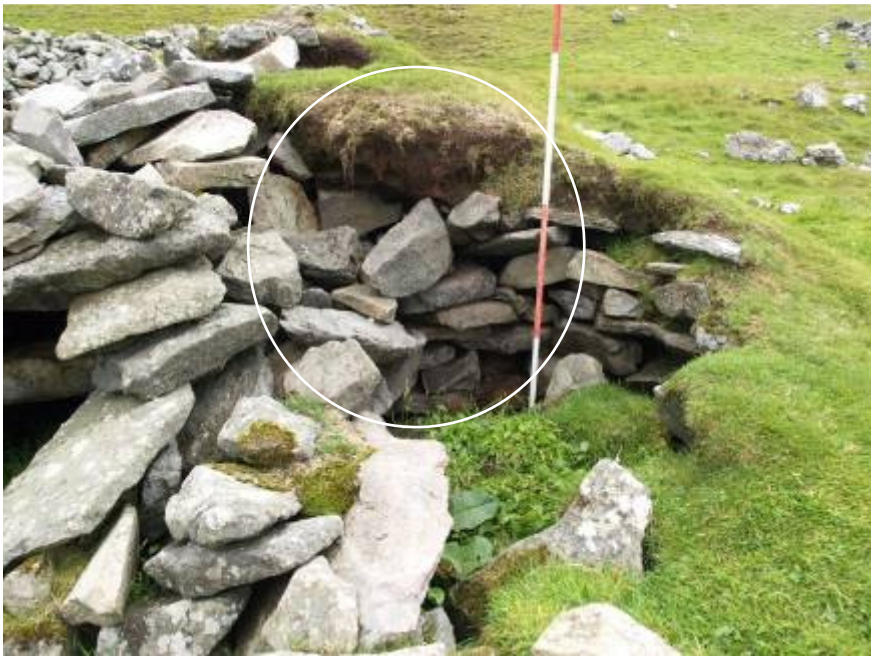
The condition of structures in Gleann Mor were surveyed in 2007 following a five-year monitoring programme (Johnstone 1996; Bain 2002).



In 2002 the archaeologist noted that there were no major collapses, although a gradual process of deterioration was observed (Bain 2002).

In 2007, the preliminary results of the survey indicate that, similar to observations in 2002, no major collapses have occurred in the past five years. Similarly, there are indications that gradual deterioration is still taking place. For example, the turf on the roof of cell B3 in Structure F (the Amazon's House, also know as Tigh na Banaghaisgeich) has continued to erode causing more stones to become exposed, which has led to more becoming destabilised and ultimately falling.

Cell B3 of Structure F seen from the west in 2002



Cell B3 of Structure F seen from the west in 2007

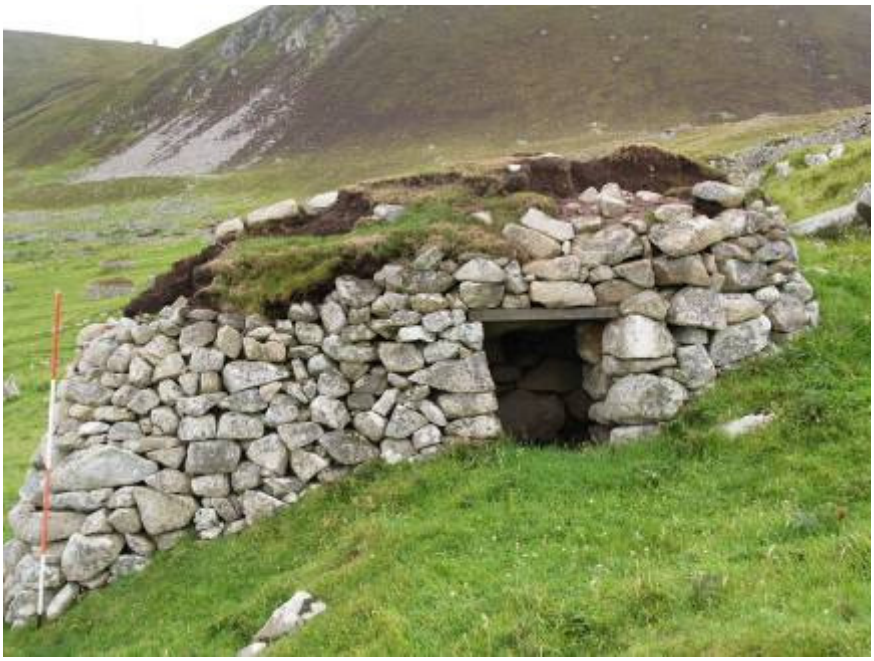
A full assessment of the condition of these structures and a discussion of their preservation will be published in the winter of 2007-2008 (Dennis, forthcoming a).

4.5 Turf Roofs

As yet there is no formal monitoring programme for cleit turf roofs on St Kilda. However, every summer more observations are made on various roofs which contributes to our broad understanding of turf growth. This summer I noted the condition of roofs repaired five years ago (2002) and ten years ago (1997).

Turf roofs repaired in 1997	3, 4, 15, 26, 44, and 59
Turf roofs repaired in 2002	3, 18, 31

The observations made this summer indicate that the majority of repairs in 1997 and 2002 were unsuccessful. The turf was typically heavily eroded with no signs of regeneration which led to the exposure and loss of underlying layers of soil. My observations echo those made in 2001 (Johnstone 2001) suggesting that repairs failed for two reasons: a) excessive geojute suffocated the vegetation, and b) excessive sheep manure in the soil mix encouraged rapid, but short-lived, growth.



Heavy erosion of turf on cleit 15

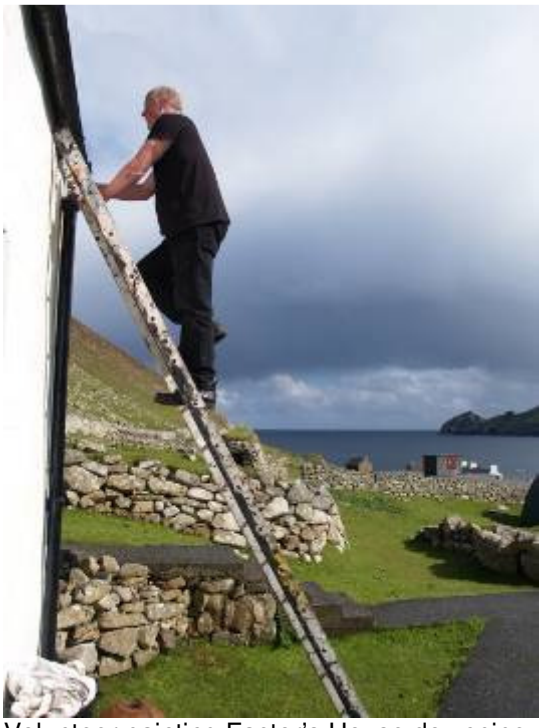
For full details of the observations of turf roofs in the summer of 2007, along with comments since 1996, see Appendix III.

4.6 Work Parties

In addition to regular maintenance work in Village Bay the Work Parties accomplished the following in the summer of 2007:

i) Wall repairs were carried out to a) enclosure wall near cleit 152, b) enclosure wall end behind House 3, c) the consumption dyke near cleit 87, d) east wall of enclosure behind House 15 and adjoining cleit 100, e) enclosure wall immediately southwest of the graveyard, and f) wall end

adjoining Blackhouse J. Repairs to the walls of cleits 906, 908, 909 and 1199. Repairs to the Dry Burn were carried out in the stretch between cleits 25 and 29.


Volunteer painting Factor's House downpipe

ii) Turf roof repairs were done on cleits 1, 2, 12, 20, 21, 24, 27, 85, 86, 87, 88 and 92.

iii) The graveyard gate, constructed in the summer of 2005, was re-hung.

iv) The drains were cleared along the gable ends of houses 4, 5, 13, and 14. The rear soakaway was cleared at the back of house 1, whilst the drains around both House 3 and the Factor's House were cleaned to ease water flow. Most open water courses were cleared east of Abhainn Mor. The St Kilda Archaeologist investigated the flooding along the path to the Munition Store.

v) Other work included painting the rainwater clips on the church rhones, replacing roof slates on the church and schoolroom, painting the Factor's House downpipe, and pitching part of the roof of House 1 and the Ablutions Block.

Works not carried out:

- Repairs to cleit 105 were abandoned because of its unstable and dangerous nature (see Appendix V for further discussion on cleit 105).
- Unfortunately repairs could not be carried out on cleit 53 because of nesting fulmars.
- No lime pointing was carried out this summer as the Otterbien lime had not been viewed and approved by Historic Scotland.

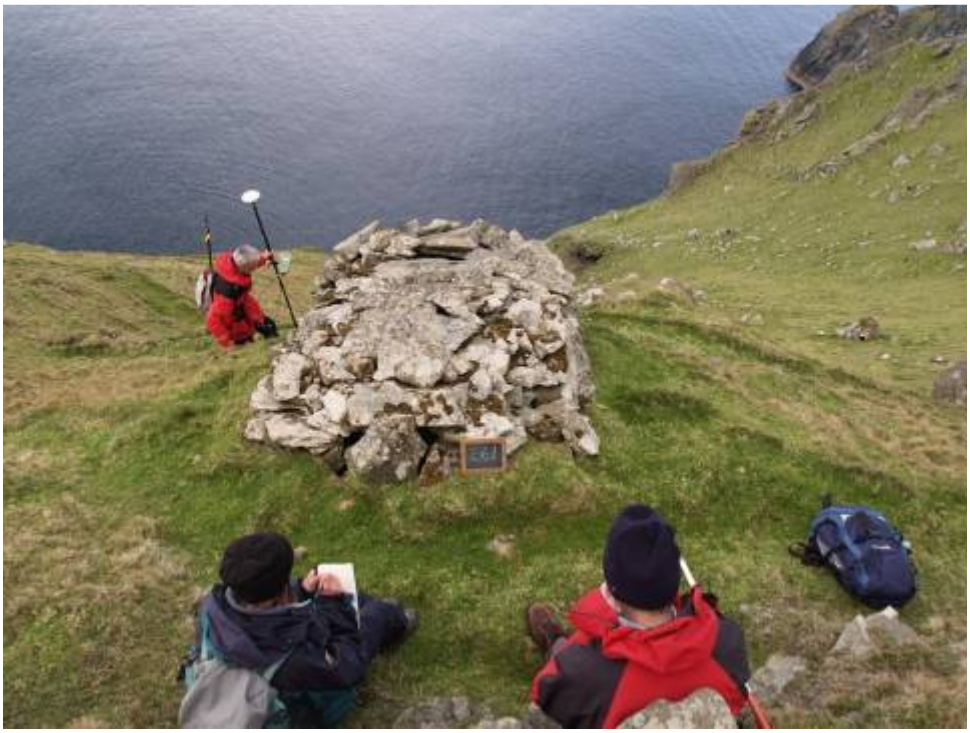
See Appendix IV for a complete list of tasks.

4.7 RCAHMS Survey

An extensive survey of archaeological sites on St Kilda began this summer. The Royal Commission on the Ancient & Historical Monuments of Scotland (RCAHMS) conducted a survey from May 8th to May 17th and again from September 3rd to September 12th. The survey used millimetre-accurate Ground Positioning Systems to build up a map of the archaeological features on Hirta. A significant number of cleits outwith the CPP were also monitored during this process.

As part of the filming on St Kilda in 2007, IWC media commissioned the University of Birmingham to laser scan Calum Mor's House and the Amazon's

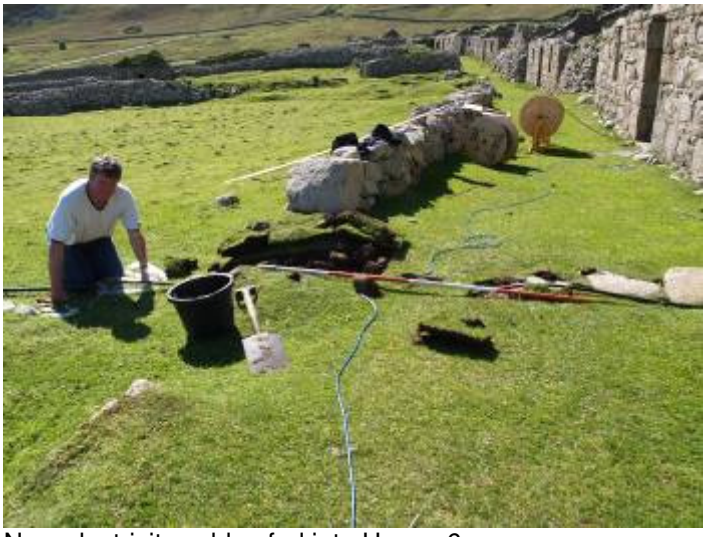
House. These results will be available as point cloud and will be deposited with the RCAHMS.


The RCAHMS team surveying a cleit

4.8 Other Works

4.8.1 House 6 drain

Following the small-scale excavations carried out in 2005 relating to the drainage system around House 6 (Dennis 2005), a new drain was cut along the east gable of the house in 2006. This building did not suffer from major flooding in the winter of 2006-2007, and so it appears that the new drain has helped alleviate the flooding problem.


New electricity cables fed into House 6

Further work continued around House 6 in the summer of 2007 when contractors, Jackie Morrison & Co, fed electricity into the building, and installed lights and heaters.

Details of the drainage works carried out on House 6 over the past years, including the excavations in 2006, will be compiled into a forthcoming report (Dennis forthcoming b).

4.8.2 Soay Sheep Project

Members of the St Kilda Soay Sheep Project were on Hirta for part of August for the annual catch. As in past years, this involved setting up nets and runs across Village Bay. 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.

4.8.3 Visits

John Raven (Historic Scotland) made his first visit to St Kilda in February and returned in September with Jamie MacPherson (Historic Scotland) for the annual Historic Scotland visit to assess the works completed in accordance with the Management Agreement.

4.8.4 QinetiQ Works

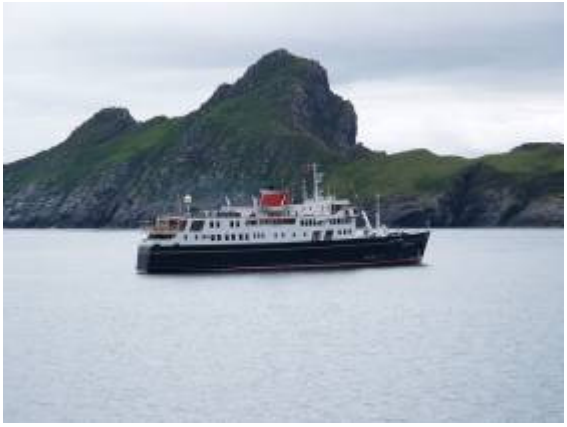
According to the works schedule consent had been given for improvements to the drainage of the road and buildings occupied by QinetiQ, and the removal of high and low voltage cables. At the time of the Archaeologist's departure from the island in September the work remained outstanding.

4.9 Island Relations

As always, QinetiQ staff provided vital support to the St Kilda Archaeologist throughout the year. This included providing 'on the ground' updates during the winter months, and also safe storage of archives on the island.

4.10 Staff Relations

In 2007 Sarah Money held the post of Seabird and Marine Ranger for the third consecutive year. The NTS Ranger post was held by Annelie Mattison. There was liaison between NTS island staff on issues that concerned all: construction work specifications, visitor relations and guided walks.



The Hebridean Princess in Village Bay

4.11 Education

Guided walks were offered to a variety of visitors to the island, including cruise ship passengers, contractors, researchers and staff. Four guided walks were given to passengers from the Hebridean Princess, Polar Star, Girigoriy Mikheev, and National Geographic Endeavour.

Considerable time and energy was dedicated to interviews for film crews. Amongst these were IWC Media filming 'Wilderness St Kilda' and *Proiseact Nan Ealan*, a Gaelic multi-media team associated with the live performance of *St Kilda: A European Opera*. Both required research and background reading looking at an array of points of interest in the history and

archaeology of St Kilda, including soil toxicity, evidence of prehistoric occupation and burials, and World War II aircraft crashes.

5 The 2007/8 Winter Season

It is anticipated that the winter season off island will be spent –

- Producing a report detailing the results from the long-term monitoring programme carried out on structures in Gleann Mor.
- Producing a conservation plan and heritage impact assessment for:
  The Manse
  The Factor's House
  The Jetty
- Producing a report describing the investigations carried out around House 6.
- Completing and updating data input into the various Access databases
- Develop a formal monitoring programme for turf roof repairs in Village Bay.
- Given time, interpret information collected during the various Historic Comparative Photo exercises carried out during the summer months and then compiling the results into a database for easy access in the field.

6 The 2008 Summer Season

6.1 RCAHMS Survey

Working in conjunction with the RCAHMS we will continue to build up a map of all archaeological features on St Kilda.

6.2 Cleit Preservation Project

A work plan outlines regular monitoring of the cleits that, according to the Cleit Preservation Project (CPP), are to be actively maintained. Work in 2008 will continue to include visits to cleits, assessing damage, repair work, photography, and updating the database.

6.3 Work Parties

The St Kilda Archaeologist will continue to provide guidance and encouragement to the work party leaders.

6.4 House drains and drainage

Work will continue on the drainage in Village Bay in an attempt to alleviate the flooding issues in and around the roofed structures, Munition Store, and along the street. A selection of drains are cleared on an annual basis and this will continue to be the case in 2008.

6.5 Coastal Erosion
The survey of the coastline in Village Bay will continue on an annual basis.

6.6 Dyke Survey
Work will continue on the photographing and recording of planticrues and enclosures in Village Bay as well as the small sections of the head dyke identified as needing re-photographed. The survey would ideally be carried out in late April or early May before the vegetation grows to high.

In 2008 more enclosures in Village Bay will be recorded and added to the Enclosures and Planticrues SMR database. A total of 93 enclosures and planticrues have been identified in the area, however only 27 have been fully recorded.

6.7 Turf Roofs
As yet there is no formal methodology or monitoring programme for assessing the successes and failures of turf roof repairs in Village Bay. A thorough survey of turf roofs in the village will be carried out in the summer of 2008. This survey, along with observations from the past ten years (Johnstone 1996, 2001) and insights from recent research in the North Atlantic (Bain 2007), could significantly advance our understanding of turf roofs on St Kilda.

6.8 Roofed Structures Survey
The database holding all the architectural specifics of the roofed structures in Village Bay (ie. Houses 1 to 6, Factor's House, Church/Schoolroom, and Store) needs to be further updated.

6.9 Historic Photos
More work will be done on the comparative analysis of historic photos from the NTS archive. This includes identifying structures and landscape features from archive photographs, noting changes, and re-taking 'same view' photographs.

7 Acknowledgements

Many thanks to everyone who made the position of St Kilda Archaeologist both possible and enjoyable for me over the past year. I would like to thank Sarah for her wonderful company on the island throughout the summer; to Susan and Jill for their support and encouragement; to Sophie for her patience and endurance when faced with so much dyke to photograph; to all the volunteers, both on and off island, for their dedication and hard work; and to QinetiQ and ESS staff for logistical support and advice.

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Appendix I: **Coastal Erosion Survey 2007**

The table below, listed by coastal section (sections A to H, east to west respectively), describes the photographic data from the Coastal Erosion in 2007. The table details photographic reference numbers for photographs taken in 2007 and their comparative views from previous surveys (including 1996, 1999, 2002, and 2005), followed by a summary of the erosion noted.

STK #	Date	Section	same as STK06	same as archive photo	Description of change
Photographs taken only of sections showing change since 2006					
	24.04.07				
STK07 005		A	STK06 233	STK02 CP 10/12	same as / stabilised since 2006
STK07 006			STK06 235	STK02 CP 10/14	same as / stabilised since 2006
STK07 007			STK06 236	STK02 CP 10/15	same as / stabilised since 2006
STK07 008			STK06 237	STK02 CP 10/16	same as / stabilised since 2006
STK07 009			STK06 238	STK02 CP 10/17	up-date showing gabion repairs
STK07 010			STK06 241	STK02 CP 11/25	burnt deposits further washed away
Summary of Section A: This section has stabilised since the erosion caused in the storms of 2005-2006; however more of the burnt deposits have washed away, possibly from water running off the fields above, and not through coastal erosion processes					
STK07 011		B	STK06 237	STK05 1/8A	same as / stabilised since 2006
STK07 012			STK06 238	STK05 1/9A	same as / stabilised since 2006
STK07 013			STK06 248	STK05 1/10A	large boulders in foreground appear static; gabion baskets have been repaired
STK07 014			STK06 247	STK02 CP 9/19	same as / stabilised since 2006
STK07 015			STK06 251	STK02 CP 9/15	same as / stabilised since 2006
STK07 016			STK06 250	STK02 CP 9/14	same as / stabilised since 2006
Summary of Section B: This section has stabilised since the erosion caused in the storms of 2005-2006					
STK07 017		C	STK06 252	STK02 CP 9/22	same as / stabilised since 2006
STK07 018			STK06 254	STK02 CP 9/24	same as / stabilised since 2006
STK07 019			STK06 255	STK02 CP 9/26	same as / stabilised since 2006
STK07 020			STK06 257	STK02 CP 9/29	occ stone and soil missing

				from section, centre of photo
STK07 021		STK06 258	STK02 CP 9/30	occ stone and soil missing from section, and boulders moved in foreground
STK07 022		STK06 262	STK02 CP 9/34	stone collapse, centre of photo
STK07 023		STK06 267	STK02 CP 9/36	substantial collapse of large vertical strip of soil and stones immediately east of gabions

Summary of Section C: More stones have fallen from the near-vertical section of the turf bank, especially immediately next to the gabions at the western end of Section C

STK07 024	D	STK06 275	STK02 CP 11/6	same as / stabilised since 2006

Summary of Section D: No visible change in this section of the coast

STK07 025	E	STK06 278	STK02 CP 11/8	occ stone and soil missing from section, centre of photo
STK07 026		STK06 281	STK02 CP 11/11	same as / stabilised since 2006
STK07 027		STK06 282	STK02 CP 11/13	same as / stabilised since 2006
STK07 028		STK06 284	STK02 CP 11/15	small soil collapse in foreground
STK07 029		STK06 289	STK02 CP 11/22	more rubble washed away
STK07 030			STK96 CP 17/21A	substantial erosion since '96, widening the outflow of the burn

Summary of Section E: The erosion noted in this section centres around the outflow of the Dry Burn, and may not be due to coastal erosion processes.

STK07 031	F	STK06 293	STK02 CP 12/17	same as / stabilised since 2006
STK07 032		STK06 295	STK02 CP 12/19	same as / stabilised since 2006
STK07 033		STK06 300	STK02 CP 12/27	large soil and stone slip in upper turf bank, centre of photo

Summary of Section F: There is one significant soil and stone collapse in the turf bank of this section.

Summary of Section G: No visible change in this section of the coast

STK07 034	H		STK97 CP 31/8	same as / stabilised since 2006
STK07 035		STK06 324	STK97 CP 31/15	same as / stabilised since 2006
STK07 036		STK06 328	STK97 CP 31/18	same as / stabilised since 2006
STK07 037		STK06 329	STK02 CP 13/23	same as / stabilised since 2006

Summary of Section H: This section has continued to stabilise with more vegetation growth on the turf terrace and bank

Appendix II: **Cleit Preservation Project**

A total of 279 cleits were monitored in 2007. Thirty-six of these showed signs of either minor or major collapse, or turf erosion.

Cleits monitored: 279 Minor changes: 22 Turf erosion: 9
Major changes: 6 Turf regeneration: 0

The table below indicates which cleits showed signs of collapse and the specifics of the change as recorded in the field in 2007.

Region	Cleit number	No change	Description of change
Within Head Dyke	1 -111	x	
Beyond Head Dyke	120 - 153	x	
	154		Minor - stones slipped
	155 - 156	x	
	157		Minor - 1 stone fallen on Side A
	158	x	
	159	x	Turf erosion
	160		Minor - 1 stone slipped
	161	x	Turf erosion
	162	x	Turf erosion
	163		Minor - 1 stone fallen
	164	x	Turf erosion
	165		Minor - 1 stone missing
	166 – 167	x	
	169 – 170	x	
	900		Minor - 1 stone moved
	901	x	
	905 - 907	x	
	910 – 911	x	
	913	x	
	916	x	
	1008	x	
	1075		Minor - small stones moved
Cambir	171 – 173	x	
Conachair	686	x	
	695	x	
	933		Minor – more stones slipped
	964	x	Turf eroding
	985	x	
	986	x	
	1000	x	
	1023	x	
	1024	x	
	1040	x	
	1042 - 1044	x	C1044 - turf erosion

	1046 - 1049	x	C1048 – turf erosion
Gleann Mor	401	x	
	402	x	
	405	x	
	409	x	
	421	x	
	422	x	
	429	x	
	432	x	
	437	x	
	476	x	
	479	x	
	480	x	
	482		Minor- 1 stone moved in rubble
	483		Major- tumble, incl. lintel, at A/D
	484	x	
	485	x	
	486		Major – tumble at A/D, and C
	487	x	
	493		Minor – stone moved at D
Mullach Bi	253	x	
	258	x	
	261	x	
	280 – 283	x	C282 – turf erosion
	285	x	
	288		Major – repairs suspended
	301	x	
	307	x	
	314	x	
	315	x	
	318	x	
Mullach Gael	554		Major – front lintel and A/B fallen
	555		Minor – 1 stone slipped
	565		Minor – 1 stone fallen
	568	x	
	606		Minor – stones fallen on side A
	613	x	
	624	x	
	735	x	
	736	x	
	743	x	
	757	x	
	800 - 814	x	
Mullach Mhor	634	x	
	638	x	
	639	x	
Mullach Sgar	513		Major – Corner A/B collapsed again

	531		Major–stones fallen on side C & D
	536		Minor – stone fallen on side C
	543	x	
	790	x	
	791	x	
	823	x	Turf erosion
	826	x	
	827	x	
	832		Minor – stone moved on side A
	844	x	
Oiseval	1053	x	
	1066	x	
	1084	x	
	1111	x	
	1120		Minor – 1 stone fallen from side D
	1146		Minor – 1 stone moved on roof, side A/B
	1157		Minor – 3 stones fallen/moved on side D
	1167		Minor – 3 to 4 stones fallen from side D
	1192	x	
	1197	x	
	1199	x	
	1215		Minor – stones fallen from side C and D
	1231		Minor – stones fallen from side B and D
Ruaival	500		Minor – stone fallen from A/B
	815	x	
	Cleits	**No change**	**Description of change**
Total	279	252	Turf erosion - 9 Minor - 22 Major - 6

Thirty-one cleits were not monitored in 2007:

In Gleann Mor (16): 340, 344, 346, 348, 354, 355, 393, 442, 443, 444, 445, 446, 456, 477, 488, 492
In Mullach Gael (8): 574, 582, 774, 776, 795, 797, 798, 799,
In Conachair (3): 708, 917, 942,
In Mullach Sgar (1): 866
In Oiseval (3): 1192, 1259, 1261

Appendix III: **Turf Roof Survey**

In 2007 notes were taken on the condition of turf roofs repaired in 1997 and 2002. These have been compiled with earlier notes and an assessment made of the long-term success of the repair.

Cleit 3

History of repairs:	1996, 1997 and 2002
	Pins used
Condition:	
2005	Very bumpy and uneven with clumps of turf splitting off the main capping. The vegetation does not look like grasses.
2006	Severely eroded at corners A/D and C/D. A large thistle growing at side C.
2007	Further erosion with increasing exposure of soil and underlying stones (photo reference: STK07 3 164-165)
Assessment:	Unsuccessful, possibly wrong type of soil used in repair

Cleit 4

History of repairs:	1997
	Geojute used
Condition:	
2006	In good condition
2007	The area of repair is characterised by shorter and darker grass (side C). Also a slight step in the capping, however there is limited erosion at this step (photo reference: STK07 3 166)
Assessment:	Successful

Cleit 15

History of repairs:	1997
	Geojute and pins used
Condition:	
2001	Repair has failed (side B) – heavy erosion with pins stick out.
2006	Little turf surviving
2007	Severely eroded (photo reference: STK07 3 169-170)
Assessment:	Unsuccessful, possibly too much geojute and sheep manure

Cleit 18

History of repairs:	2002
	Pins used
Condition:	
1996	Good condition
2005	Mostly dead, bad shrinkage and wind erosion (side C)
2006	Heavily eroded at A/B and C, and dead turf along side B
2007	Heavily eroded (side C) with little soil surviving, and A/B is lumpy with isolated patches of vegetation (photo reference: STK07 3 167)
Assessment:	Unsuccessful

Cleit 26

History of repairs:	1997
	Pins used
Condition:	
1996	Good, but wooden lintels need attention
2001	Repair had limited success. Okay on side B, but entirely dead at side D along with masses of geojute. Wooden lintels still need repair.
2006	Severe erosion at centre top, with a hole through to interior
2007	Wooden lintel still needs repairing and so remaining turf roof has collapsed in (photo reference: STK07 3 175)
Assessment:	Unsuccessful, possibly because the infrastructure of the roof was not repaired

Cleit 31

History of repairs:	2002
	Pins used
Condition:	
1996	Good
2006	Moderate erosion; some dead turf around tops of wall (side C and corner A/D)
2007	Still moderate erosion; thin turf 'tiles' are lifting (photo reference: STK07 3 174)
Assessment:	Unsuccessful, possibly because turf cut too thinly and did not gel with underlying soil layers

Cleit 44

History of repairs:	1997
	Pegs used
Condition:	
1996	Eroded with metal pins sticking out (side D)
2006	Heavily eroded (side D) with dead turf at corner A/D
2007	Turf completely missing, and therefore exposing stones below (photo reference: STK07 3 177)
Assessment:	Unsuccessful

Cleit 59

History of repairs:	1997
	Pins and geojute used
Condition:	
1996	Some erosion (side B)
1999	Minimal growth and integration of new turf
2000	Poor overall condition; side A remains entirely exposed and Side B is in a poor state
2006	Heavily eroded (side B), areas of dead turf and deep scars
2007	Heavily eroded with no regeneration
Assessment:	Unsuccessful, possibly because of excessive use of geojute

Appendix IV: **Work Party 2007**

List of works carried out in 2007:

Munition Store
- Started to clean the drain along the path

Store (Featherstore)
- Eased ground floor door and fitted new latch of exact match
- Repaired latch on first floor door

Church
- Painted the rainwater clips on the gutters (east side of building)
- Eased door (sanded, primed and painted) and fitted with new lock

Schoolroom
- Mended slates dislodged during the winter
- Eased door (sanded, primed and painted) and fitted with new lock

Factor's House
- Painted certain gutters and rhones on front facade
- Eased top hopper of casement window in the downstairs bathroom and fitted new galvanised cranked hinges
- Fitted new door knob and escutcheon on main exterior ground floor door using exact match
- Started to investigate the drainage at the rear and side of house to facilitate flow of water around the house

Ablutions Block
- Tarred the roof with bitumen-based paint
- Touched up interior paintwork (walls and floor)
- Placed a new grate over exterior drain

House 1
- Fixed a new timber strake on the east end of the roof and coated east half of the roof with bitumen-based paint
- Cleaned out rear soakaway

House 3
- Eased door (adjusted door frame, sanded, primed and painted)
- Adjusted underground drain piping at the NW corner to ease flow of water along the west end of the house

House 4
- Cleaned out blocked drain along west gable

House 5
- Cleaned out blocked drain along east gable

House 6
- Eased door (sanded, primed and painted) and fitted new latch

Graveyard gate

Repaired and/or replaced storm damaged timbers and re-hung gate the right-way round

Drystane wall repairs

Exterior eastern face of enclosures near cleit 152 (E-15)
Wall end at west end of enclosure behind House 3 (EH3)
West face of middle consumption dyke opposite Cleit 87
Interior east wall of enclosure behind House 15 (EH15)
Interior north face of rectangular enclosure SW of graveyard (EBQ)
Wall end of enclosure wall adjoining Blackhouse J (EBJ)
Revetment of Dry Burn between cleits 25 and 29

Cleit wall collapses

Stones were put back in place on Cleits 906, 908, 909, 1021, and 1199

Drains

In addition to drains around the houses, most open courses east of Abhainn Mor were cleared.
Note that a short segment of the channel between Tobar Childe (approximately 40 m) and the Village street was cleared in 2007. This channel is thick with flag irises and provides a valuable cover for ground nesting birds. Clearance in this drain should involve a carefully phased approach outside nesting times.

Turf cleit roof repairs

Minor repairs were carried out on cleits 1, 2, 12, 20, 24, 25, 27, 85, 86 and 88. More extensive repairs were carried out on 21, 87 and 92.

Work not carried out

Cleits 288 and 397 were not repaired because of the disturbance repairs would cause to nesting petrels
Cleit 933 (“Cleit at the end of the world”) was not repaired because its precarious location and had been added to the repair list in error

Appendix V: **Cleit 105 Conservation Issues**

Cleit 105 partially collapsed in the winter of 2005-2006, and was therefore placed on the list of works to be tackled by Work Parties in the summer of 2006. Unfortunately the cleit was incredibly unstable and collapsed further whilst volunteers were in the early stages of repairing it. For the safety of the volunteers the repairs were abandoned and temporary shoring was installed to prevent even further collapse.

The recurring collapses and frequent repairs of cleit 105 has raised conservation issues and questioned aspects of the Trust's management and preservation of various archaeological features on St Kilda.

As with all cleits within the head dyke, cleit 105 is one of the 310 cleits in the Cleit Preservation Project (CPP). As such, it is regularly monitored, and in the case of cleit 105, it is repaired as and when necessary.

However, the cleit's inherent instability and the high frequency of repairs needed places a question on the authenticity and value of the repairs. According to the guidelines set out in the CPP, the cleits are repaired using archive photographs to ensure size, shape and character of the cleit is accurately restored. Unfortunately, the photographs of cleit 105 post-dates repairs carried out on the cleit in the 1970s, 1980s and early 1990s. Essentially, this cleit highlights the paucity of the image archive in the Trust's early conservation years on St Kilda. Restoration of this cleit would, at best, replicate a cleit rebuilt less than 40 years ago.

Archive photo (SKA 0496) showing cleit 105 in 1966

Archive photographs from the 1930s and 1960s rule out the possibility that the cleit is a modern construction (there are at least two known cases within the last 30 yeas of cleits being built by volunteers either from scratch or on earlier foundations). The authenticity of the cleit was first placed in doubt simply because of its irregular size, shape and character in comparison to neighbouring cleits. Compared to cleits 104 and 110, cleit 105 is more than 1 m shorter in length; a little under half a metre short in height; has a doorway measuring 0.53 m which is nearly half the width of cleit 104 which measured 0.91 m wide. Cleit 105 resembles cleits outside the head dyke and its location within the head dyke in this form is still a mystery.

The Trust recognises that it must continue to preserve the cleits set in their unique cultural landscape on Hirta. To do this we are faced with options:

1. Leave cleit 105 in a state is disrepair until we have an accurate visual of the cleit before modern repairs were carried out. Photographs, often in the form of volunteers' holiday snapshots, do occasionally resurface and are donated to the Trust. A request for photos of cleit 105 should be made to all St Kilda Club members.
2. Rebuild the cleit as best as we can and acknowledge that it is not authentic.
3. Rebuild the cleit using the monitoring photographs. In other words, restore the cleit to its most recently recorded state.
4. Use the cleit as an experimental platform for testing theories on construction techniques and set it aside for testing conservation techniques and physical interventions not permitted on other cleits within the Management Plan.
5. Leave the cleit in a collapsed state.

Following discussions, I believe that 0ption 1 is the preferred course of action, as any unnecessary modifications and alterations to the cleits should always be avoided. Unnecessary intervention includes carrying out repair work without the knowledge of its original form, size and condition.