Report No: 2007R015

The Samson Buildings Project 2006-7
Samson, Isles of Scilly

Lichen Assessment, Archaeological Recording and Building Consolidation

Historic Environment Service (Projects)

Cornwall County Council

A Report for English Heritage, the Heritage Lottery Fund and the Isles of Scilly AONB Sustainable Development Fund

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Lichen assessment, archaeological recording and building consolidation

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March 2007

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Supported by the Heritage Lottery Fund

ISLES of SCILLY Area of Outstanding Natural Beauty

ENGLISH HERITAGE

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The lichen survey was undertaken by Bryan Edwards of the Dorset Natural Records Centre.

The building consolidation work was undertaken by Western Maintenance, James Fletcher and Todd Stevens with Tom Christophers, under the supervision of Eric Berry.

Within the Historic Environment Service, the Project Managers was Charlie Johns; the finds were listed by Carl Thorpe. The archaeological fieldwork was co-directed by Charlie Johns and Jacqui Mulville of HISAR and supervised by Ian Dennis (HISAR), who also traced and digitised the field drawings. The EDM survey was co-ordinated by Steve Mills (HISAR) and limpets gathered by Amelia Pannett; the fieldwork was undertaken by Rory Barclay, Sally Brown, Jesse Collins, Aidan Farnan, Dave Fung, Julia Geall, Sarah Hope, Amy Hunt, Matt Jones, Jo Lewis, Maura Van Olsen, 'Champ' Pitfield, Cat Richards and Rob Smith.

The views and recommendations expressed in this report are those of the Historic Environment Service projects team and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

As Cornwall County Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

Cover illustration

Clockwise from top left: arriving for work on Samson, recording the elevation of the west wall of House P, consolidation work on House N, House H Trench B, *Gyalecta jenensis var. macrospora* - a Nationally Rare lichen, a guided tour during the Samson picnic, recording the elevation of the north wall of House I 'Armorel's Cottage', the date stone from House N. Centre: House C, north wall

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Abbreviations

AONB	Area of Natural Beauty
DoE	Department of the Environment
EDM	Electronic Distance Measurement
EH	English Heritage
HER	Cornwall and the Isles of Scilly Historic Environment Record
HES	Historic Environment Service, Cornwall County Council
HISAR	School of History and Archaeology, University of Cardiff
IOS	The Isles of Scilly
IOSWT	The Isles of Scilly Wildlife Trust
NGR	National Grid Reference
NR	Nationally rare
NS	Nationally scarce
OS	Ordnance Survey
PRN	Primary Record Number in Cornwall HER
RDB	Red Data Book
s/s	stainless steel
SSSI	Site of Special Scientific Interest
SAC	Special Area of Conservation

1 Summary

This report describes the results of a pilot programme of archaeological recording and building conservation work undertaken on the post-medieval buildings on Samson, Isles of Scilly in July and August 2006 (NGR centred at SV 87700 12500).

Samson is the largest of the uninhabited islands in Scilly; the whole the island is a Scheduled Ancient Monument because of its archaeological importance, as well as a Site of Special Scientific Interest. The last inhabitants left in 1855 and the final phase of occupation is represented by 19 ruined buildings all of which are identified as at high risk in English Heritage's *Buildings at Risk* register and recently have been the subject of a detailed archaeological report by Eric Berry giving recommendations for their conservation. The buildings have become exceptionally beautiful as ruins colonised by vegetation, all set in a spectacular landscape.

The aim of the project is to preserve the historic Samson buildings for the enjoyment and appreciation of present and future generations. The work undertaken included vegetation management, a lichen survey, limited excavation to investigate what is thought to be the oldest house (House H), archaeological survey and building recording prior to sensitive consolidation work using a mixture of traditional materials and more innovative techniques, to preserve their character and appearance. Work was undertaken on the eight buildings in most urgent need of repair addressing health and safety issues, stability of walls and visitor access points:

- House C, Richard Webber's house - leaning rear wall pinned together;
- House F - leaning gable wall stabilised;
- House G, Rachel Webber's house - collapsed rear window opening stabilised;
- House I, Edward Webber's house, 'Armorel's Cottage - access points stabilised
- Building J - stabilisation work undertaken;
- House N, William or Edward Webber's house - front wall (lintel) stabilised, vulnerable single skin rear wall stabilised. 1826 date stone identified amongst rubble by porch;
- Building O -rear wall and doorway stabilised;
- Building P, Ann Woodcock's house - access point stabilised. Collapsed timber lintel in west wall repositioned and stabilised, timber in east wall stabilised.

The Samson Buildings project is a partnership between the Isles of Scilly Wildlife Trust, Cornwall County Council's Historic Environment Service, Eric Berry (Historic Buildings Consultant), English Heritage and Cardiff University's School of History and Archaeology, made possible with funding provided by the Isles of Scilly AONB Sustainable Development Fund, the Heritage Lottery Fund and the Scheduled Monument Management Project (to which English Heritage, Cornwall Heritage Trust and Cornwall County Council contribute).

2 Introduction

2.1 Project background

The island of Samson is the largest of the uninhabited islands of the Isles of Scilly and is leased from the Duchy of Cornwall by the Isles of Scilly Wildlife Trust (IOSWT). The whole island is a Scheduled Ancient Monument (National Monument No 15526) because of its archaeological importance from prehistoric to post-medieval times, as well as a Site of Special Scientific Interest (SSSI) and a candidate Special Area of Conservation (SAC).

The final phase of occupation here is represented by 19 ruined buildings, dating from the late 17th to mid 19th centuries. These buildings have been the subject of a detailed preliminary archaeological survey and recommendations have been produced for their conservation (Berry and Ratcliffe 1994, updated by Berry 2006). They have all been identified as at high risk in English Heritage's *Buildings at Risk* register.

'The importance of these buildings cannot be overstated. They represent the best opportunity to unravel the story of a post medieval island community. What is more, because Samson has never been re-occupied, it is a rare example of a fossilised post-medieval landscape…unchanged by modern development.' (Berry 2006).

'All the Samson buildings have lost their roofs and in most cases all that remains of their original construction are their external (perimeter) granite walls. The degree of survival of these walls varies between those just visible above ground level and those standing to their full original height. All the buildings have structural problems and some walls are in imminent danger of collapse…. Apart from the ongoing possibility of such catastrophic collapse the main threats are damage caused by the root systems and the pressure caused by invasive plants growing in the earth mortar of the walls, exposure of wall tops to weather penetration and subsequent weakening of the earth mortar, the pressure of visitors' feet climbing over and within the buildings, lateral pressure on the walls caused by fallen masonry and drifted sand, and movement caused by missing stonework and falling lintels and other masonry.' (Berry 2006).

Recommendations for the consolidation and repair of the buildings were first made by Berry and Ratcliffe in 1994, but were not implemented, partly because of the large scale of the task, partly because of the challenge of organising work on an uninhabited island in the Isles of Scilly, partly because of funding problems, and partly because of the difficulty of even estimating what the costs were likely to be.

Originally, a limited amount of work was envisaged for 2006, enabled by funding from the Heritage Lottery Fund and the Scheduled Monument Management Programme and guided by the updated survey (Berry 2006). However a successful application by the IOSWT for funding from the Isles of Scilly AONB Sustainable Development Fund and the involvement of staff and students from Cardiff University's School of History and Archaeology significantly increased the scope of the project (Johns and Preston-Jones 2006).

As Samson is an SSSI and a Candidate SAC, the proposed work was discussed with English Nature at an early stage. Their main concern was that the work should not damage the rich lichen colonies encrusting the walls of the buildings. To this end, a lichen survey was commissioned and is included as a section of this report.

2.2 Aims

The over-arching aim of the project is to preserve the Samson buildings as beautiful ruins. Closely linked to this is vegetation management to facilitate and improve access for visitors, and enhance their landscape setting. Archaeological recording and survey of the

buildings would go hand in hand with this work, as a basic condition of carrying out the work and to provide further information to help with interpretation.

The project would:

- preserve and promote access to the Samson buildings;
- help ensure that the character of the Islands' historically-valuable sites and architecture are recognised, appreciated and safeguarded;
- support the sustainable use of the archaeology and heritage value of the AONB as an economic resource bringing benefit to the communities of the AONB;
- produce interpretation materials designed to improve awareness and understanding of the Island's archaeology and historical resource; and
- contribute to an ongoing management regime which will ensure the survival of the historical buildings.

The specific objectives of the pilot project were:

1. to undertake urgent repairs required for safety of public eg propping up collapsed lintels and leaning walls;
2. to undertake trial consolidation of one of the buildings;
3. to preserve the buildings prior to their eventual full consolidation;
4. to carry out vegetation clearance to, on and around the building(s) to be consolidated;
5. to carry out a survey of lichens on the building(s) to be consolidated or repaired – to prevent any damage to the lichens;
6. to complete an electronic distance measurement (EDM) survey (ground plan) of all the buildings – as a record and to help with interpretation;
7. to undertake detailed elevation drawings of the building(s) to be repaired or consolidated;
8. to carry out excavation of the floor of house H, to help in understanding its development;
9. to produce posters to advertise and explain the project, press and media coverage;
10. to organise events including volunteer days guided tours, an illustrated talk at the IOS Museum etc;
11. to prepare a webpage on the IOSWT website with links to the IOS AONB and IRIS websites;
12. to prepare an educational resource including an activity sheet and contribution to the IOSWT and AONB educational packs (online/CD ROM);
13. to prepare a leaflet which adopt a holistic approach to the natural and historic environment of Samson (through the Waves of Heath Project)
14. to upgrade of the existing interpretation panel on Samson (through the Waves of Heath project); and
15. to report on the results of the project.

2.3 Methods

2.3.1 Desk–based study

During the desk-based study historical databases and archives were consulted in order to obtain information about the archaeology and history of Samson and the structures and features that survive. The main sources consulted were as follows:

- Isles of Scilly HER
- Early maps and photographs (see Section 8.1)
- Published histories (see Section 8.2).

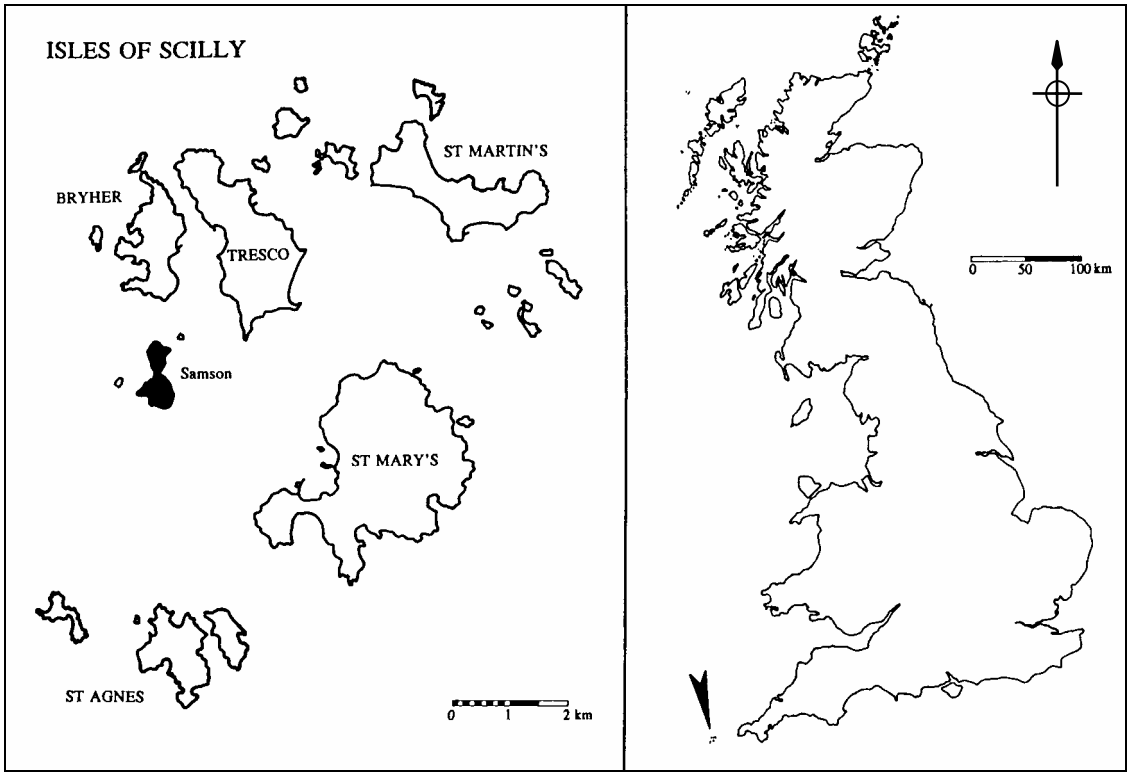

Fig 1 Location map, Isles of Scilly

2.3.2 Implications of the lichen survey

Bryan Edwards provided sketch drawings of the buildings showing the location of the important lichen species as a guide during the archaeological fieldwork and building consolidation. Fortunately, the important lichens were not in places where the conservation was taking place.

2.3.3 Archaeological Fieldwork

Archaeological recording

Eric Berry's report (2006) noted the need for a programme of detailed archaeological recording to accompany any consolidation work and agreement from English Heritage for the proposed work would not be forthcoming without such provision -'Archaeological recording will be necessary both before and during the consolidation and repair work'.

The method for the archaeological recording was as follows:

1. an electronic (EDM) survey of the buildings;

2. detailed recording of each building prior to any consolidation and repair work. This included a mixture of hand-measured drawings at 1:20 scale (a plan and both internal and external elevations) and computer-aided drawings from scaled photographs in Adobe Photoshop. The following features were shown: stonework, all openings, all blocked openings, structural relationships and repairs/rebuilds where clear, evidence for permanent fixtures, the position of (former) structural timbers, any other significant features;
3. recording of the consolidation and repair work carried out to each building;
4. a photographic record was maintained throughout, comprising scaled monochrome and digital photography;

Archaeological excavation

In the following cases it was necessary to carry out recording related to excavation:

1. where fallen rubble or wind-blown material needed to be removed or re-sited (Buildings C and F), this required a similar level of recording to that needed for below-ground excavation, with individual layers being recorded and artefacts being identified, catalogued and archived;
2. where it was considered that limited excavation was justified to determine a greater understanding of the building, as in the case of Building H. Here infill deposits within the interior of the building were excavated to the top of the latest floor surface, which was then cleaned and recorded to help understand the original floor level, plan and building function. Excavation ceased at this horizon. A small trench was also excavated on the exterior of the building to investigate the constructional relationship between the house and an apparent revetted lynchet.

- A pre-disturbance plan and photographic record was made of any deposits that need to be removed, re-sited or excavated.
- Deposits were removed, re-sited or excavated carefully, using hand tools.
- Sections were used guide removal or excavation and provide a cross–section through deposits
- Individual layers were recorded in plan and section.
- The English Heritage Advisor for Archaeological Science was consulted before the project commenced (Vanessa Straker 0117 975 0689).
- An on-site assessment was made of the potential for sampling for soil analysis.

Archiving

During this phase the results of the fieldwork were collated for archiving. This involved the following tasks:

- indexing of site drawings and photographs;
- processing and analysis of artefacts – finds were washed and placed in bags marked with the site code and context number in Scilly and catalogued at HES' premises in Truro;

2.3.4 Outreach

Outreach was an important part of the project, and public consultation day way held on St Mary's prior to the commencement of the project. Approximately 200 visitors were given guided tours of the site while the fieldwork was in progress. In addition some 170 school

children landed for the annual Samson picnic on 7 July, the older children and teachers were given a site tour (Fig 2) and the younger ones entertained by one of the students. Two of students, Sally Brown and Maura Van Olsen, visited the primary schools on St Mary's and St Martin's to talk about the project. Seven volunteers participated during the open days in National Archaeology week (Fig 3) and a talk was given at the IOS Museum. In July an 'open evening' was held at the Reading Room on St Martin's, jointly with the Knackyboy Cairn project, which attracted about 75 attendees. Posters were designed to advertise and inform about the project and displayed in the IOS Museum and Tourism Information Centre as well as on an A-board on site. The Cornishman and the Western Morning News published favourable articles on the project (29 June and17 July) and a Radio Cornwall interview with Issy Taylor was broadcast on 11 July. A planned visit by ITV's Westcountry News was cancelled due to adverse weather conditions on 10 July.

2.3.5 Commitment to sustainability

As part of our commitment to sustainability the project relied on local transport; bicycle, taxi and buses to move around St. Mary's, boats to travel between the islands. We also used local food suppliers where possible, buying meat from the butchers on St Mary's and eating vegetables and eggs produced on St. Martin's and the locally caught fish in order to reduce our food miles and support local economies. We promoted the use of the ferry, rather than air travel, as a more sustainable transport solution and reused, reduced and recycled wherever possible. As a result the project was sustainable, economical, promoted a healthy lifestyle and produced some wonderful meals!

Fig 2 Site tour during the Samson picnic (photo HISAR)

Fig 3 The Dyer family recording the interior elevation of the south wall of House I, 'Armorel's Cottage' during National Archaeology Week (photo HES)

3 Background

3.1 Location and setting

Samson is located on the western side of the archipelago, 0.5km south of Bryher and 3km north-west of St Mary's quay. The island is approximately 1.4 m long and up 0.9km wide, comprising two rounded hills, North Hill and South Hill, connected by a low sandy isthmus, variously described as the 'neck', 'saddle' or the 'waist'. The usual landing place for visitors is at Bar Point on the north-east end of North Hill. Main footpaths lead over the summit or around the eastern side of North Hill, across the neck and up to the summit of South Hill. Both hills now have dense growth of bracken.

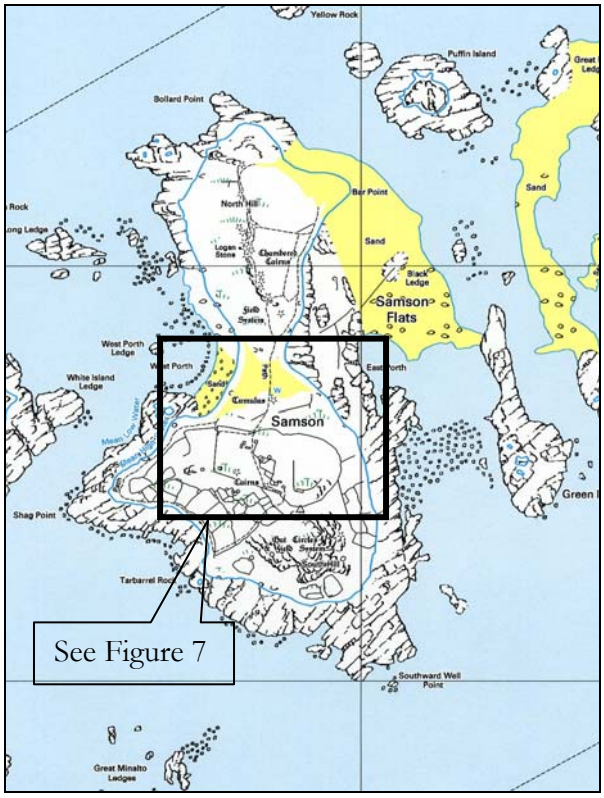

Fig 4 Samson (Based on the Ordnance Survey 1:100000 and LandLine mapping with the permission of the controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil

3.2 Archaeological and historical background

3.2.1 Earlier archaeological remains on Samson

The present Isles of Scilly are the result of progressive flooding by the sea. During the prehistoric period Scilly consisted of a single land mass, with fertile lowland plains between the hills which have since become islands. North and South Hill on Samson are part of this remnant landscape.

There is a dense concentration of archaeological remains on Samson. Most prominent is the linear arrangement of Bronze Age burial cairns, stone cists and entrance graves which occupies the highest points of both hills. Some of these are connected by prehistoric field boundaries which extend down the hill slopes and out onto the tidal sand flats on the east side of the island. Associated with these early fields are prehistoric round houses which survive in the cliff face and on the slopes of South Hill.

A complex multi-period (Neolithic to post-medieval) settlement and ecclesiastical complex has been excavated in East Porth (Neal ms). The post-medieval buildings that are the subject of this report represent the last phase of occupation on Samson.

3.2.2 Scilly during from the late 17th century to the mid-19th century

Everyday life in the late 17th century and early 18th century was never easy for the majority of Scillonians and was at times very harsh, particularly after the Napoleonic Wars (1794-1815) when distress was so widespread that a relief committee was set up on the mainland and £9000 raised. Farming formed the mainstay of the economy: pigs and cattle were raised and potatoes and grain (barley, oats and some wheat) were the main crops grown. Fishing was an important source of food, but never a major industry and though most of the relief money raised in 1819 was used to start a mackerel and pilchard fishery, this venture was unsuccessful.

During the 17th century the only viable industry in Scilly was the kelp industry, introduced in1684 by the Nance family from Falmouth. For 150 years it was one of the main forms of employment throughout the islands. Seaweed (kelp) was collected, dried and burnt in small stone-lined pits near the water's edge. This foul-smelling process produced soda ash, which was shipped to Bristol and Gloucester to be used in the manufacturer of glass, soap and bleach. After the Napoleonic Wars, increased supplies of soda ash and new chemical process for the production of alkali led to the decline of Scilly's industry, which ceased in 1835.

Smuggling was an essential part of the economy during the 18th century, but was made more difficult by the stationing of a protection vessel in the islands after 1784. An Act of Parliament in 1790 allowed the cost of court proceedings to be met out of the sale of seizures, and an added inducement was given to revenue officers by allowing them to keep a small share of the proceeds. After this Act smuggling went into decline. Shipbuilding began in Scilly during the 18th century and became an important industry during the 1830s. Companies were set up by islanders purchasing shares and by the mid 19th century there were five shipbuilding yards on St Mary's and 59 registered ships. These wooden sailing ships were crewed and captained by Scillonians, the cargoes and ships being the property of the shareholders. They traded all over the world, but mainly conveyed potatoes (and other goods) from Ireland to the Mediterranean. Eventually, unable to compete with steam-powered iron ships, Scilly's industry came to an end.

From the mid-16th century Scilly had become strategically important in the defence of England, lying as it does at the entrance to the Western Approaches. The war of the Spanish Succession prompted England to strengthen its defences against France and Spain. In Scilly this led (between 1715 and 1745) to a 30-year programme on St Mary's supervised by Master Gunner, Abraham Tovey, during which a curtain wall with gun batteries was extended around most of the headland known as Hugh, which from then became known as The Garrison. Little more was done to the defences until the Napoleonic Wars led to the re-arming of the Garrison batteries and the construction of various lookouts, warehouses and signal stations around the islands. In 1863 the Garrison defences were disbanded.

In 1652, at the end of the Civil War, the population of Scilly was 650. By 1799 it was about 1960, and during the 19th century it fluctuated between 2000 and 2500. The bulk of the population has always resided on the largest island of St Mary's, which, together with Tresco, Bryher and probably St Agnes, was continually occupied during the post-medieval period. By 1652 St Martins was largely deserted and Samson and Tean were unoccupied, but all three were resettled following a new wave of immigrants to Scilly after the Restoration of the Monarchy in 1660. For 282 years Scilly was under the almost continuous rule of the Godolphin family from West Cornwall, but in 1831 the Islands returned to the direct control of the Duchy of Cornwall. Three years later Augustus Smith, a member of an old Hertfordshire family, took over the lease of the Islands. For Smith, an

energetic Victorian *interested in improving the lot of the labouring classes*, Scilly (for years misruled by agents of absentee landlords and struggling under difficult economic conditions) represented the ideal challenge. Adopting an autocratic rule, he began by reallocating farmlands, which had become minute and scattered by subdivision, and introduced a system of inheritance by which land passed only to the eldest son, all other offspring being forced to find alternative employment. Smith encouraged this by financing existing and new local industries, building schools on all the main islands and making education compulsory (thirty years before this became law on the mainland). He broke with tradition by becoming a resident landlord and erecting his house not on the main island of St Mary's but on Tresco, next to the remains of the medieval priory, around which he created a sub-tropical garden out of bare moorland. When Augustus Smith died in 1872 Scilly was enjoying a period of prosperity and full employment, but this had come too late for Samson….

3.2.3 The later post-medieval occupation of Samson

Here, on Samson, are the ruined hearths –

Hopes flickered there like fires – scrubbed

Of their soot by gale and rain and spray,

And the wild black rabbits run

Across the longings of a yesterday.'

Geoffrey Grigson, 1963

In the 1651/2 Parliamentary Survey of Scilly, Samson is described thus: *'the Sampsons have been formerly occupied by one or two tenants & divers pieces of the same enclosed & improved as Arable ground. But the houses and enclosures are now fallen down and ruin'd since the taking of Scilley from the enemy so that the whole island of Samson doth now lay waste & is a Mountainous Rocky & Rugged peece of pasture & Arable ground now only used for some Goates and Conies'* (in Cowan 1991, 4).

The first documentary evidence for the reoccupation of Samson is provided in 1669 by Cosmo III, Grand Duke of Tuscany: *'These islands, which, by modern geographers are called the Sorlings, are, by the English, more commonly known by the name of Scilly; and under this denomination are generally comprehended the sunken ones, as well as the others; and amongst these last which are about an hundred in number, a well as the rocky and deserted ones as those which naturally produce grass and those which the population has rendered in some degree fruitful. The last mentioned are seven in all: St Mary's, which is the principal, St Martin's, St Agnes, Tresco, Bryer, Samson and St Hellena. On each of the two last, there is only a single family, which, besides an adequate number of cattle, cultivate as much land as is capable of affording them an abundant sustenance'* (Magalotti 1669 in Chope 1918).

In 1715 Christian Lilly of the Ordnance Survey reported that the one family on Samson consisted of twelve persons, three of whom were males of an age to bear arms (in Slade *c*1980, 15).

Robert Heath, writing in 1750, estimated that 'Sampson' contained 120 acres of land and noted that it housed a single family (Heath 1750, 16).

In 1752 William Borlase observed of Samson: *'On the second (south) hill we found two Rock-basons, and some Ruins of Houses…Many more Ruins appear in this Hill, shewing that this Island was formerly much better inhabited 'till the Sea and the Sands had forced people to desert it. There are at present but two families that live here: they have little Meadows round their Houses, but the Land will not produce half Corn enough to suffice them; they employ themselves therefore in Fishing and making of Kelp, and these two occupations supply what their land denies them'* (Borlase 1756, 27).

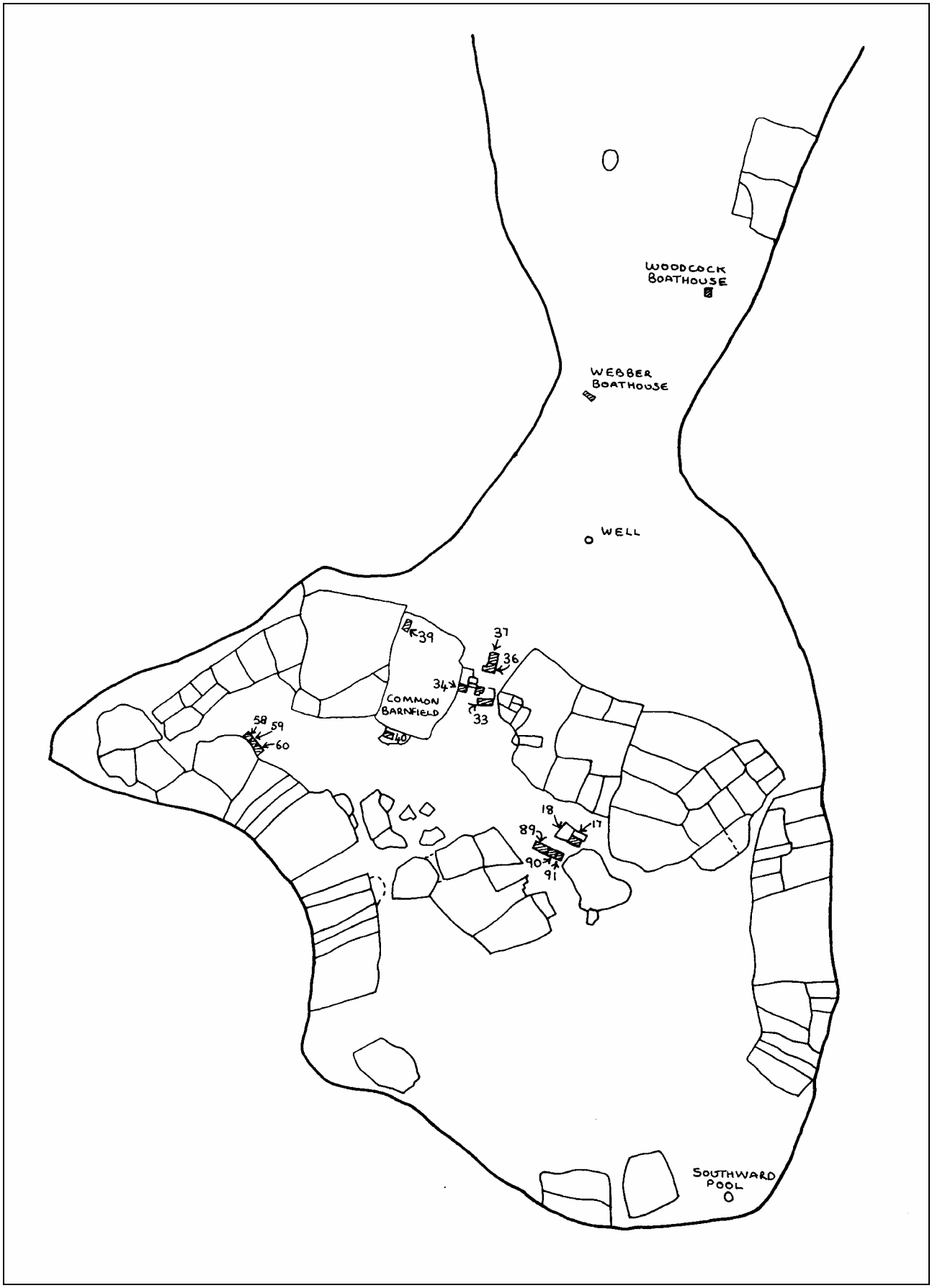

Fig 5 Copy of the Driver brothers' 1829-33 map of the southern part of Samson (after Mason 1984)

Up until the mid-18th century the population remained very low, not rising above about a dozen people, but in the rent rolls of 1777 thirty-five inhabitants are recorded. The story that at the time of the Napoleonic wars all the men of Samson were drowned in a shipwreck is not reflected in the population figures and appears to be a legend arising out of the drowning of nine Tresco men in 1788. The population of Samson fluctuated between thirty-five and twenty-five until it peaked at thirty-nine people in 1833. After this date the decline was fairly rapid and by the time of the 1851 census only ten people remained. The final evacuation of the island occurred sometime between 1855, when one family is recorded, and 1861 when no inhabitants of Samson appear in the census returns for Scilly.

Head of Household	House No.	Age Driver Brothers Est	Age EB	EB Assessment letter
-	-	-	Early C18th	H
-	-	-	Late C18th or very early C19th	F
Rachel Webber	34	Very old – before 1799	Mid-late C18th	G
John Webber & sons, John & William	36	Very old – before 1799	*c*1800	E
Honor Webber & sons Richard & George	37	Very old – before 1799	*c*1800	D
Ann Woodcock	89	Before 1804	Late C18th	P
Elizabeth Webber & sons, William & John	90	1804	*c*1820	Q
Edward Webber	33	1822	Late C18th	I
Richard Webber	39	By 1824	*c*1825	C
William Woodcock	91	1827	*c*1824	R
William Webber? Or Edward Webber?	17	1822 (NB date stone 1826)	1821 or 1824	N

Fig 6 Head of household, house number and estimate of age given on the Driver Brothers' Survey of 1829-33, and Eric Berry's estimate of age

The Rev North, who visited Samson in 1850, left the following account: 'In Woodley's time [1830s?] there were "seven houses and thirty-four inhabitants on this isle. There are now but three or four houses, and proportionately fewer persons; it having been deemed advisable to remove the inhabitants, as opportunities offered, to St Mary's, that the parents may have greater facilities for gaining their livelihood, and that the children may enjoy the benefits of education. A visit to the cottages will show you that such a change was on every count desirable, although it is gratifying to see the comfort and sufficiency which the present residents on this isolated spot enjoy' (North 1850, 19-20).

The two main families on Samson were the Woodcocks and the Webbers. The Woodcocks were amongst the wave of immigrants who came over from Cornwall and Devon after the Restoration of the Monarchy in 1660. They settled initially at St Martin's and are first mentioned as living on Samson in the parish register of 1731. In 1760 the first Webber came over from Bryher to marry one of the Woodcocks.

In 1829 Edward Driver and his brother, George, carried out a rental survey of Scilly for the Duchy of Cornwall, and in 1831-33 produced maps showing every house and field in use. On Samson they recorded nine cottages housing nine families, which were identified by their respective heads.

The inhabitants of Samson lived mainly by farming and fishing. This basic subsistence economy was supplemented only by kelp burning, piloting and possibly smuggling. However, despite such limited opportunities for alternative employment, distress on Samson seems generally to be less than elsewhere in Scilly. Nevertheless, its inhabitants were severely affected by the failure of the potato and grain harvest of 1817 after which they kept themselves alive on a meagre diet of limpets. Also, a shortage of fresh water appears to have been a continuing problem, since there is only one intermittent spring on South Hill and the two wells sunk on the neck of Samson soon became choked with blown sand. There is no physical evidence that water was collected from the thatched roofs of the buildings and it appears that water was periodically brought over from the neighbouring island of Bryher.

It was to Bryher (and prior to this Tresco) that Samson people went to worship and be buried, though some lie in graves dug near their cottages. Towards the end of the occupation on Samson the lives of the inhabitants were progressively affected by Nonconformist religion and its disapproval of such activities as smuggling and wrecking. It was taking over the lease of Scilly by Augustus Smith in 1834 that marked the beginning of the end for Samson. The occupation of this island did not fit into his plans for economic and social reform, and over a period of about twenty years he brought about its evacuation, first by persuasion and later by compulsion.

Once the last two inhabitants had left Samson in about 1855, Smith implemented the ambitious project of turning the north side of North Hill into a deer park. Its substantial granite wall incorporated some existing field boundaries, together with stone robbed from others which lay within the area it enclosed. This project proved disastrous, the deer soon escaping over the wall and across the sand flats to Tresco at low tide.

Since its abandonment Samson has known some distinguished visitors, including the 19th century poet, Alfred Lord Tennyson, and the 20th century prime minister, Harold Wilson, who held important press conferences on its shores. The story of Samson's inhabitants has inspired several books, including a romantic novel 'Armorel of Lyonesse' (Besant 1884) and 'Why the Whales Came' (Morpurgo 1985), a children's story subsequently made into a successful feature film, part of which was actually filmed on Samson.

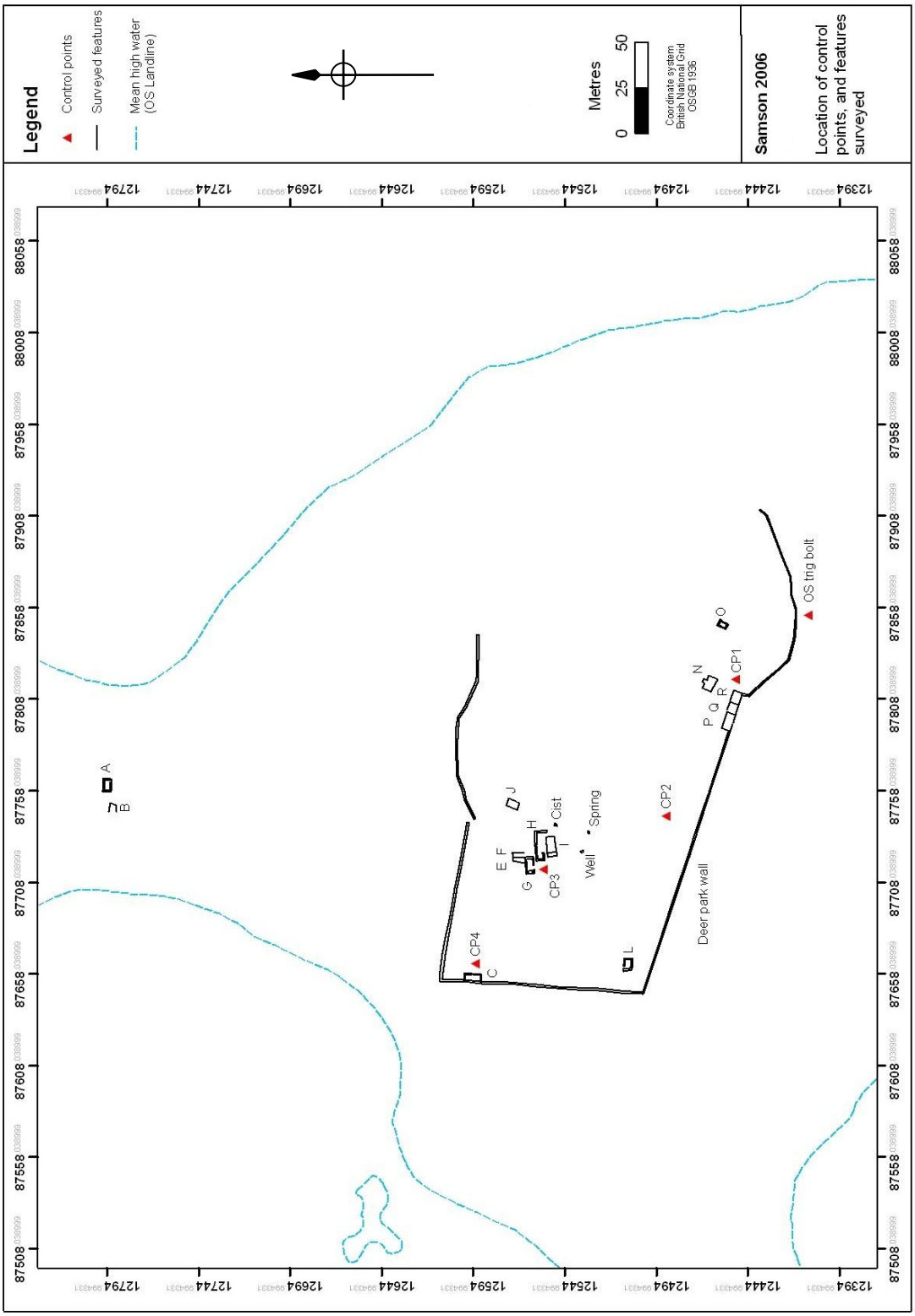

Fig 7 'EDM' survey with DoE building numbers (HISAR)

Fig 8 House I, 'Armorel's Cottage' from the south-west (© Gibson Collection)

Fig 9 House I, 'Armorel's Cottage' from the north-east (© Gibson Collection)

4 An assessment of the lichen interest of selected buildings on Samson

By Bryan Edwards

4.1 Survey methodology

The lichens were surveyed by searching the different surfaces using an x10 and x20 hand lens. Many lichens can be identified using chemical tests and 10% Potassium Hydroxide (KOH) solution was used in this survey to confirm the identity of several crustose species. For each building a species list was compiled paying particular attention to the presence of Nationally Rare or Nationally Scarce species. Priority was given to those buildings where consolidation work was planned, particularly C and P. Most species were identified in the field but small samples of several inconspicuous crustose species were collected and identified using a compound microscope.

4.1.1 Species Status

All lichen species on the British and Irish checklist (Coppins 2002) have been evaluated using the latest IUCN guidelines (Woods and Coppins, 2003). This has resulted in each species been given a status for both rarity and threat, and this distinction is very important.

Rarity is purely based on the number 10km in Britain in which the species is found. Species found in 1-15 10km squares are classed as Nationally Rare (NR**)**, and those in 16-100 10 km squares as Nationally Scarce (NS). The IUCN **threat** categories, Critically Endangered (CR), Endangered (EN) and Vulnerable (VU), are based various factors including size of population, geographic range and decline over a given period. Species not qualifying for these categories but which may be in decline or for which there is little up to date information are assigned to a Lower Risk category, either Near Threatened (NT) or Data Deficient (DD).

4.2 Results

A total of 53 lichen species were recorded of which 10 (19%) are of conservation importance, being Nationally Rare or Nationally Scarce. One species is listed as Data Deficient and four as Near Threatened in the latest Red Data List (Woods and Coppins 2003).

4.3 The Lichen flora

The general lichen flora is composed of species that are typically found in the xeric-supralittoral zone (grey zone) of acid coastal rocks, and form a community referred to as the Ramalinetum scopularis (James *et al* 1977). The green-grey shrubby lichen *Ramalina siliquosa* (Fig 18) is the dominant lichen on several buildings, with *Buellia subdisciformis*, *B. stellulata*, *Caloplaca crenularia*, *Lecanora gangaleoides*, *L. sulphurea*, *Ochrolechia parella*, *Pertusaria pseudocorallina* and *Tephromela atra* typical associates. All these species are widespread in this community throughout western Britain. Two species that occur widely in this community in the Isles of Scilly but are rare elsewhere are *Pertusaria excludens* and *P. pluripuncta*. On more sheltered north or east-facing walls there is a different, undescribed, community dominated by crustose lichens. Of particular interest here is the presence of the rare *Porina curnowii* and the scarce *Caloplaca maritima* and *Lecania hutchinsiae*. The driest niches are occupied by species that are characteristic of underhangs or surfaces of coastal rocks that do not receive direct rainfall such as *Dirina massiliensis* f. *sorediata*, *Opegrapha cesareensis* and *Rinodina becceriana*. Lower down near the base of the walls the rare *Gyalecta jenensis* var. *macrospora* is locally frequent.

Fig 10 South facing (front) wall of house P. This wall supports a typical maritime (Ramalinetum scopularis) lichen community dominated by the grey-green shrubby lichen Ramalina siliquosa, with Ochrolechia parella, Parmotrema reticulatum, Pertusaria pseudocorallina and Tephromela atra typical associates. Rare species on this wall include Pertusaria excludens [NS] and P. pluripuncta [NT; NR]

Fig 11 North-facing wall of house H. A very sheltered wall with lichens much less obvious, but the wall supports an interesting community of crust-forming lichens including Gyalecta jenensis var. macrospora [NR], Lecania hutchinsiae [NS] and Porina curnowii [NT; NR]

Fig 12 Caloplaca chrysophthalma Red Data Book – Data Deficient (small bright yellow patches) and Opegrapha areniseda Red Data Book – Near Threatened (black fruits) growing on ram between stones on the inside the south wall of building P

Fig 13 Gyalecta jenensis var. macrospora, Nationally Rare. A distinctive species with an inconspicuous thallus covered in abundant orange disc-shaped fruits up to 1mm across. This very rare variety of G. jenensis is confined to the Channel Islands and Isles of Scilly, where it is found in seepage tracks on sheltered granite. It was found on five of the buildings, typically occurring low down on the more sheltered sides

Fig 14 Leptogium cyanescens, a very local leafy jelly-lichen that overgrows mosses on tree bases and rocks in oceanic areas of Britain. It is blue-grey and papery when dry, but swells up and is blacker when wet

Fig 15 Pertusaria excludens, Nationally Scarce. Bright white thallus covered with wart-like soralia. The thallus that reacts blood red when Potassium Hydroxide (KOH) is applied. It is found on hard siliceous coastal rocks and is frequent on the Isles of Scilly

Fig 16 Pertusaria pluripuncta, Red Data Book – Near Threatened. This species has a green-grey, rather shiny and waxy thallus with a distinctly zoned margin. P. pluripuncta abundant on the Isles of Scilly, but very rare on mainland Cornwall, and unknown elsewhere in Britain. It is found on sunny coastal granite boulders

Fig 17 Porina curnowii, Red Data Book – Near Threatened, Nationally Rare. An inconspicuous crust-forming lichen with a dark mauve-grey, minutely cracked thallus covered with black pimple-like fruits. A rare species confined to south-west Britain with most recent records from Cornwall and Devon

Fig 18 Ramalina siliquosa. A common maritime lichen which dominates the walls of building P, and is present in small quantity on many of the other buildings

Fig 19 Roccella phycopsis Red Data Book – Near Threatened. A distinctive shrubby lichen with mauve-grey branches that and discrete patches of white soredia. It was found in small quantity on the more sheltered north-wall of building P

The stones of the buildings are held together mostly by the local ram, which is a type of clay widespread on the Islands. Parts of several buildings had been mortared using a lime mortar. Much of the ram had been eroded but on the more sheltered walls on the inside of buildings it is still visible. Lichens were noted growing on the ram in buildings I and P especially. The common *Lepraria lobificans* is most frequent, but building P supports more interest including *Bacidia viridifarinosa*, *Caloplaca chrysophthalma* and *Opegrapha areniseda* (see Figs 12, 20 and 21).

4.4 Summary of interest on individual buildings

Building A

This house has a good general flora with *Ramalina siliquosa* locally abundant on the western and northern walls. The partially collapsed southern wall is dominated by crust-forming lichens and supports *Acarospora smaragdula* and *Lecanora fugiens* which were not found elsewhere. *Pertusaria pluripuncta* [NT; NR] is also present here.

Building C

Lying in a sheltered position at the bottom of the hill this house supports a good flora, particularly on the end, north- and south-facing, walls. The north-facing wall is of most interest supporting good colonies of the rare *Porina curnowii* [RDB-NT; NR] at the western end (see Fig 25). *Pertusaria pluripuncta* [RDB-NT; NR] is found in small quantity on the south wall.

Building D, E and F

Three small adjoining that mostly consist of low walls, although the northern wall of F is still intact, and supports an abundance of *Caloplaca maritima* [NS] (Fig 17), with the *Lecania hutchinsiae* [NS] and *Opegrapha cesareensis* also present. The inner wall of F supports several good colonies of *Gyalecta jenensis* var. *macrospora* [NR]. The collapsed north-east corner of building E has the local oceanic jelly-lichen Leptogium cyanescens growing over mosses on the stone (Fig 24).

Building H

Most of the interest on this building is on the outside of the northern wall (Figs 18 and 19), which is very sheltered and partly shaded by a Tamarisk tree. The wall supports a specialised community of crust-forming species. *Lecania hutchinsiae* [NS], *Opegrapha cesareensis* and *Porina curnowii* [NT; NR] are locally frequent, and low down nearer the ground *Gyalecta jenensis* var. *macrospora* [NR] is abundant on one large stone.

Building I

Much of this building has collapsed, but the southern wall is intact with the top covered with Polypody fern. This building was very overgrown with Bracken and supports a poor flora with no notable species.

Building J

A small isolated building surrounded by Bracken with the eastern and northern walls partially intact. The lichen flora is very typical of the buildings and includes a number of interesting species. The more sheltered conditions on the outside of the northern wall supports *Dirina massiliensis* f. *sorediata*, *Opegrapha calcarea* '*conferta*' and *Porina curnowii* [NT; NR]. The eastern wall has *Caloplaca maritima* [NS] on the inside and *Gyalecta jenensis* var. *macrospora* [NR] and *Pertusaria pluripuncta* [NT; NR] on the outside.

Building L

An isolated building near the top of the slope in the south-west corner of the deer park. The flora is largely dominated by crust-forming lichen, and includes several interesting species. *Pertusaria excludens* [NS] and *Pertusaria pluripuncta* [NT; NR] are present on the northern wall by the entrance, with *P. excludens* on a stone by the collapsed door lintel. The more sheltered eastern wall has *Rinodina becceriana* [NS] with *Gyalecta jenensis* var. *macrospora* [NR] low down near the ground.

Building N

An exposed building near the top of the hill, the north-west corner is largely intact, but the remainder has mainly collapsed. The lichen flora includes good examples of the *Ramalinetum scopularis* community with a local abundance of *Ramalina siliquosa*, plus *Ochrolechia parella*, *Parmotrema perlatum* and *Pertusaria pseudocorallina*. *Pertusaria pluripuncta* [NT; NR] is present on the outside of the western wall.

Building P

This is one of the best preserved of the building situated in a exposed situation at the top of the hill The lichen flora is the richest of the buildings surveyed, both in terms of area covered and the number of species present. The outside of the western and northern walls are almost completely dominated by the grey-green shrubby *Ramalina siliquosa* (Fig 18), with *Flavoparmelia caperata*, *Parmotrema perlatum* and *P. reticulatum* locally frequent. At the western end of the northern wall the shrubby mauve-grey lichen *Roccella phycopsis* (Fig 19) is present as scattered patches among the *Ramalina*. On the well-lit outside of the southern wall *Pertusaria excludens* [NS] and *P. pluripuncta* [NT; NR] are found either side of the door. On the west side of the door *Gyalecta jenensis* var. *macrospora* [NR] is present in a streak running down the wall (Fig 25).

There is also some interest on the inside of the southern wall, to the west of the door (Fig 13.). On the ram between the stones are *Bacidia viridifarinosa*, the rare *Caloplaca chrysophthalma* [DD; NR] and the uncommon *Opegrapha areniseda* [NT; NS] (Figs 12 and 23).

Building R

This is the most eastern of the row of three buildings P, Q and R. The lichen flora is a rather typical Ramalinetum scopularis community with *Ramalina siliquosa* locally abundant, with the large leafy species *Flavoparmelia caperata*, *Parmelia saxatilis* and *Parmotrema reticulatum* prominent on the southern wall. The only species of note is *Caloplaca maritima* [NS], which is found on the inside of the southern wall.

4.5 Rare and Scarce species

Caloplaca chrysophthalma RDB-Data Deficient; Nationally Rare

Building P; southern wall, inside, between door and window, growing on ram.

A minute species with an inconspicuous grey thallus covered with rounded patches of bright yellow soredia. It is known from a handful of widely scattered sites in Isles of Scilly, Cornwall, north-west Wales and Scotland. It is found overgrowing plant debris and rocks on exposed coasts.

Opegrapha areniseda RDB-Near Threatened; Nationally Scarce

Building P; southern wall, inside, between door and window, growing on ram.

An easily over-looked species which grows on crumling rock, wood, plant debris and old mortar. Until recently it was found largely in coastal areas all around the Britain, but has now been found more widely on the north sides of old church walls in southern and eastern England.

Pertusaria pluripuncta RDB-Near Threatened; Nationally Rare

Buildings A, C, J, L, N, P; growing on well lit granite stones.

A southern oceanic species found from Isles of Scilly and Cornwall south along the Atlantic coast of western Europe to Sardinia and Italy in the western Mediterranea, to Algeria and Morocco and the Atlantic islands of Macaronesia. It is found on well-lit, siliceous, coastal rocks. Frequent in the Isles of Scilly it is only known from a few sites on the mainland on the coast of West Penwith.

Porina curnowii RDB-Near Threatened; Nationally Rare

Buildings C, H, J and P; growing on well lit granite stones.

An inconspicuous crust-forming lichen with a minutely cracked, dark mauve-grey thallus with scattered black fruits. *P. curnowii* was first described in 1911 from a specimen collected near Penzance. It is now known from damp sheltered rocks, particularly granite, in Devon and Cornwall with an outlying site on Skomer, Pembrokeshire. It is also known from oceanic parts of France, Spain and the Atlantic islands of Macaronesia.

Roccella phycopsis RDB-Near Threatened; Nationally Scarce

Building P; growing on sheltered granite stones among *Ramalina siliquosa*.

A distinctive shrubby lichen with numerous short mauve-grey branches bearing conspicuous white soredia (powder-like vegetative propagules). It grows on sheltered coastal rocks, or more rarely old churches on the coast, and is characteristic of sheltered aspects not directly wetted by rain, and is an important indicator of the Maritime Dry Underhang community. *R. phycopsis* is widespread in Cornwall, but rare generally in Britain.

Gyalecta jenensis var. ***macrospora*** Nationally Rare

Buildings E, H, J, L and P; growing on sheltered or damp granite stones often low down near the ground.

Gyalecta jenensis is a widespread species of damp calcareous rocks and walls, but var. *macrospora*, which has consistently larger spores, is confined to damp granite rocks in Cornwall, Isles of Scilly and the Channel Islands.

Caloplaca maritima Nationally Scarce

Buildings DEF, G, H, I, J and R; growing on sheltered vertical granite stones.

This species has only recently been recognised in the British Isles and, in the past, was confused with Caloplaca marina. It is proving to be locally frequent in the western part of the British Isles where it occurs on sheltered siliceous rocks above the *C. marina* zone. On several of the buildings on Samson it forms extensive orange-yellow colonies (eg building F, Fig 19). It is widespread in the Isles of Scilly and Cornwall, but is under-recorded.

Lecania hutchinsiae Nationally Scarce

Buildings DEF, G, H, I and R; growing on sheltered vertical granite stones.

An inconspicuous with a thin grey thallus with small convex dark red fruits. In mainly grows on the sheltered sides of coastal siliceous rocks, but may occasionally occur inland on old church walls. On Samson it is found on the more sheltered northerly and easterly aspects of the buildings, sometimes growing with *Opegrapha cesareensis* and *Porina curnowii*. *L. hutchinsiae* is widespread in the west of Britain but is probably overlooked.

Pertusaria excludens Nationally Scarce

Buildings L and P; growing on well lit granite stones.

This species grows on siliceous to mildly basic rocks in coastal and upland areas of Britain. It forms large white patches that are covered in wart-like soralia, and goes blood red when Potassium Hydroxide is applied (Fig 15). *P. excludens* is frequent on the Isles of Scilly and on the granite coast on West Penwith in Cornwall.

Rinodina beccariana Nationally Scarce

Building L; several patches growing low down on the outside of the eastern wall.

A local species most often found on the vertical sides of sheltered coastal siliceous rocks. R. beccariana has a dark grey thallus with black fruits that have a paler margin. It is most widespread in south-west England, particularly Cornwall and Devon, with scattered north to southern Scotland.

Fig 20 Building H, north wall, west end. The arrow indicates a stone supporting a good colony of Porina curnowii [RDB-NT; NR]

Fig 21 Building H, north wall, west end. The arrow indicates a large stone supporting a colony of Gyalecta jenensis var. macrospora [NR]

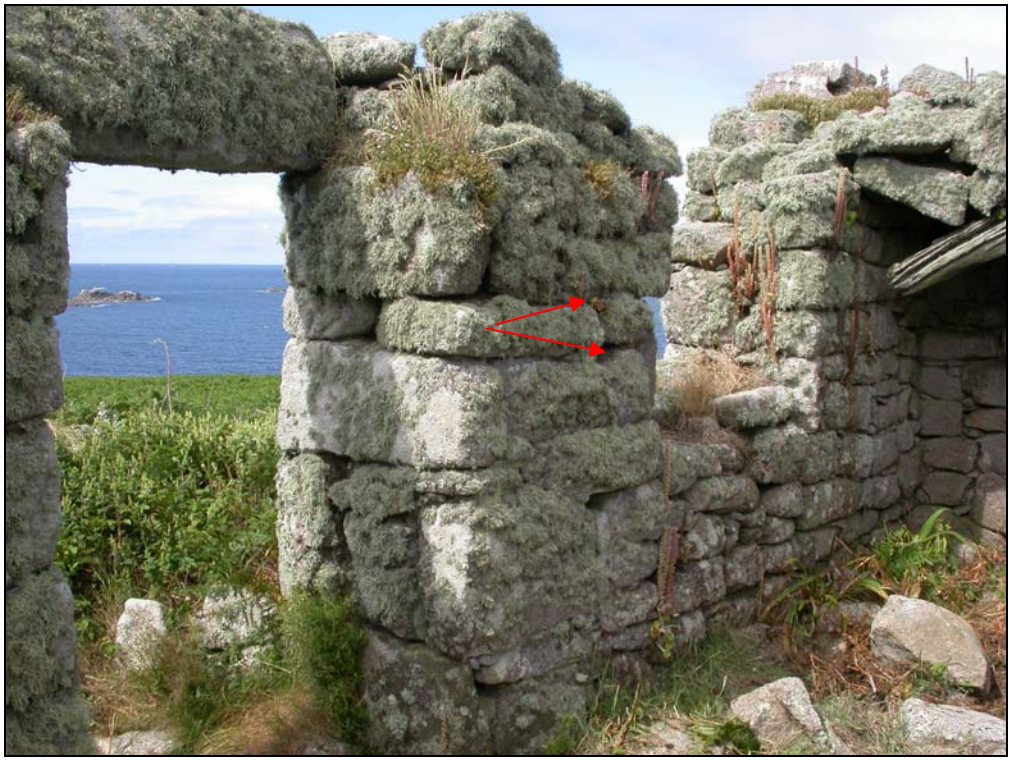

Fig 22 Inside of the south wall of building P. The arrow indicates the position of colonies of Caloplaca chrysophthalma [RDB-NT; NR] and Opegrapha areniseda [RDB-NT; NS] overgrowing ram between the stones

Fig 23 Close of the area shown in Fig 20. The blue pins show the location of the colonies of Opegrapha areniseda and the red pins Caloplaca chrysophthalma growing on the ram

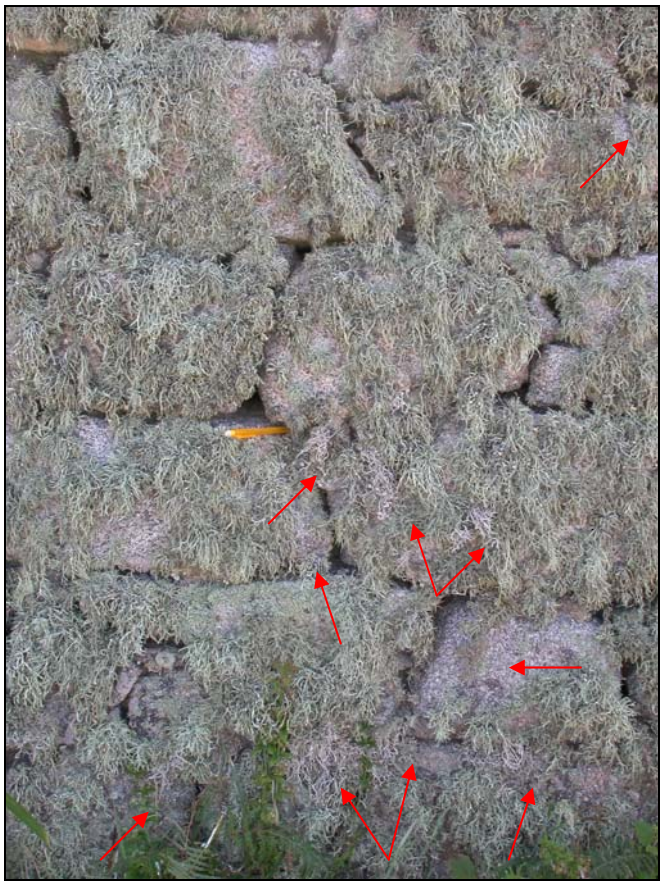

Fig 24 North-facing wall of building P. The red arrows indicate the colonies of the shrubby lichen Roccella phycopsis (RDB-NT; NS] which forms grey-mauve patches among the green-grey Ramalina siliquosa

Fig 25 South wall, west end of building P.

The area between the red lines indicate an area occupied by Gyalecta jenensis var. macrospora [NR]. The blue arrow shows a bright white thallus of Pertusaria excludens [NS]

Fig 26 North-east corner of the building F. The arrows show the locations of colonies of the jelly-lichen Leptogium cyanescens [IR] which overgrows the moss on the stone

Fig 27 North wall of building C. The arrows show stones supporting Porina curnowii [RDB-NT; NR], which appears as a dark 'stain' on the surface of the stones

Fig 28 North wall of building E. The bright yellow patches are Caloplaca maritima [NS]

Fig 29 Inside wall between buildings E and F. The arrows indicate the position of colonies of Gyalecta jenensis var. macrospora [NR]

4.5.1 Assessment

A total of 55 lichen species were recorded from the buildings of which 10 (Fig 30) are listed in the latest Red Data list or are classed as Nationally Scarce. Most of these are found elsewhere in western Britain, and all are recorded from other islands within the Isles of Scilly archipelago. However, four species, *Caloplaca chrysophthalma*, *Gyalecta jenensis* var. *macrospora*, *Pertusaria pluripuncta* and *Porina curnowii* occur more frequently in the Scillies than elsewhere in Britain, therefore any population is important.

Species	Cons Status	Rarity	Index
Caloplaca chrysophthalma	DD	NR	
Caloplaca maritima		NS	
Gyalecta jenensis var. *macrospora*		NR	
Lecania hutchinsiae		NS	
Opegrapha areniseda	NT	NS	
Pertusaria excludens		NS	MI
Pertusaria pluripuncta	NT	NR	
Porina curnowii	NT	NR	MI
Rinodina becceriana		NS	MI
Roccella phycopsis	NT	NS	MI

Fig 30 Species of conservation importance recorded from the buildings

4.5.2 Possible impacts of proposed consolidation work

Consolidation work is proposed on a number of buildings that are perceived to be unsafe or where important sections are to be preserved. The work will involved fixing the stone using a lime mortar or a mortar made from the local ram clay.

Most of the lichen interest is on the faces of the granite stones within the remaining intact sections of the walls. These species are characteristic of coastal siliceous rocks in western and south-western Britain. The use of lime mortar between the stones may lead to alkaline run-off on to the faces of the otherwise acid granite stones. This may lead to a change in the lichen community present and some species may be lost. As the important have developed on the walls where the local ram has been used with no obvious impact on the maritime lichen communities it is therefore very desirable that the local ram is used wherever possible.

More difficult to deal with is the fact that two species of conservation interest, *Caloplaca chrysophthalma* and *Opegrapha areniseda*, are founding growing on the ram on the inside wall of building P (Figs 12, 22 and 23). This wall appears to be relatively stable, and therefore this area should not be re-mortared.

If stones are to be removed and re-set it is desirable that the stones are replaced in the same position. This is especially important with lichens as they often require very specific conditions and are sensitive to aspect, shade, shelter and humidity.

If the lichen flora is to be maintained on the buildings it is important that the vegetation is cut from around the walls. Lichens are poor competitors and many species will be lost if stones are subjected to prolonged shading by Bracken or Bramble. This is very obvious on the existing walls with those well-lit supporting a rich flora, but those recently cleared of dense Bracken, such the eastern wall of building J, largely devoid of lichens.

Species	Cons Status	Rarity	Index	A	C	DEF	G	H	I	J	L	N	P	R
Acarospora smaragdula				1										
Anaptychia runcinata				1				1				1	1	1
Bacidia viridifarinosa													1	
Buellia aethalea									1					
Buellia stellulata				1									1	
Buellia subdisciformis			MI		1					1	1	1	1	
Caloplaca chrysophthalma	DD	NR											1	
Caloplaca citrina						1	1	1	1					1
Caloplaca crenularia				1		1	1			1		1		
Caloplaca flavescens													1	
Caloplaca maritima		NS				1	1	1	1	1				1
Candelariella vitellina				1	1	1	1			1	1	1	1	1
Catillaria chalybeia				1	1	1	1	1	1	1	1	1	1	1
Cladonia sp.									1					
Diploicia canescens						1		1				1	1	1
Dirina massiliensis f. *sorediata*			MI		1					1			1	1
Flavoparmelia caperata					1							1	1	1
Fuscidea cyathoides					1						1	1		
Gyalecta jenensis var. *macrospora*		NR				1		1		1	1		1	
Lecania hutchinsiae		NS				1	1	1	1					1
Lecanora campestris							1	1						
Lecanora dispersa						1						1		

Species	Cons Status	Rarity	Index	A	C	DEF	G	H	I	J	L	N	P	R
Lecanora fugiens				1										
Lecanora gangaleoides				1	1					1		1	1	
Lecanora sulphurea						1	1		1					
Lecidella scabra						1								
Lepraria lobificans					1				1		1			
Leptogium cyanescens						1								
Melanelia fuliginosa subsp. *fuliginosa*					1								1	
Ochrolechia parella				1	1	1	1	1	1	1	1	1	1	1
Opegrapha areniseda	NT	NS											1	
Opegrapha calcarea '*conferta*'					1	1				1	1			
Opegrapha cesareensis			MI			1		1						
Parmelia saxatilis					1							1	1	1
Parmotrema perlatum											1	1	1	
Parmotrema reticulatum			MI		1							1	1	1
Pertusaria excludens		NS	MI								1		1	
Pertusaria pluripuncta	NT	NR		1	1					1	1	1	1	
Pertusaria pseudocorallina										1	1	1	1	
Phaeophyscia orbicularis								1						
Polysporina simplex				1		1				1			1	1
Porina chlorotica				1	1		1	1		1		1	1	
Porina curnowii	NT	NR	MI		1			1		1			1	
Psilolechia lucida														

Species	Cons Status	Rarity	Index	A	C	DEF	G	H	I	J	L	N	P	R
Ramalina lacera			MI					1						
Ramalina siliquosa					1	1					1	1	1	1
Ramalina subfarinacea					1							1	1	1
Rhizocarpon richardii													1	
Rinodina beccariana		NS	MI								1			
Roccella phycopsis	NT	NS	MI										1	
Tephromela atra				1	1	1					1	1	1	
Usnea flammea													1	1
Verrucaria fusconigrescens						1	1							
Xanthoria ectaneoides				1										
Xanthoria parietina								1						

Fig 31 Lichen species recorded from selected buildings on Samson, July 2006

5 Results of the archaeological excavations

By Charlie Johns

5.1 House C

5.1.1 Introduction

This house was occupied by Richard Webber at the time of the 1829-33 Driver survey, which records it as having been built four years before at a cost of £20.

House C appears to be the most complete example on the island. This appearance is partly the result of repairs carried out by Royal Marines under the supervision of the Nature Conservancy Council in the 1970s. These works included: (incorrect) reinstatement of two of the lintels of the front wall; upper courses of masonry to the front wall; (incorrect) reinstatement of the north chimney; incorrect replacement of fireplace lintel with associated masonry at the south end (since fallen) and re-facing the inner side of part of the rear (west) wall with the stones set in loose sand. House C is important for many reasons including the survival of its gable ends to almost their full (excluding chimneys) original height

It is a 2-room plan house with a clear parlour with small fireplace at the north end and a clear kitchen with a large fireplace at the south end. It is uncertain whether the house had a staircase to its presumed upper floor (the attic).The front wall has a central doorway and a window for each room at left and right. There is also a window in the rear wall lighting the parlour but also providing a good view of the sea at this side of the island. An opening in the north gable probably gave access to a loft within the roof space that was possibly used for storage of masts and spars. The Deer Park wall adjoins, aligned with the west wall, but this part of the wall appears to be the remains of an older wall (hedge) position. The ground level against the rear wall is significantly higher, probably predominantly the result of wind-blown sand that had accumulated prior to the present bracken cover. Internally, there is a floor ledge in the front wall. At the south end is a large kitchen/living room fireplace projecting into the room space leaving a deep alcove on either side. In stark contrast at the north end is a small parlour fireplace opening built within the thickness of the wall.

5.1.2 Excavation

A trench 9.5m long by 1m wide by up to 1m deep was excavated along the exterior of the rear wall of House C in order to alleviate the pressure of windblown sand which was destabilising the wall (Fig 32). The only finds from the layers of sand, contexts (103) – (110) were a modern plastic bottle, shards of green bottle glass and a broken light bulb from the uppermost layer. These were kept for identification only and discarded. There were also a few tumbled stones from the wall.

At a depth of 0.7m a north-west/south-east boulder wall was revealed [111] (Figs 33 and 34) The wall was one course high and one course wide, 6m long by 0.4m wide by 0.7m high, comprising one large granite boulder and an alignment of smaller stones. Interpreted as a possible field boundary, the wall evidently pre-dated the construction of House C and may have been prehistoric, although there was no dating evidence to confirm this.

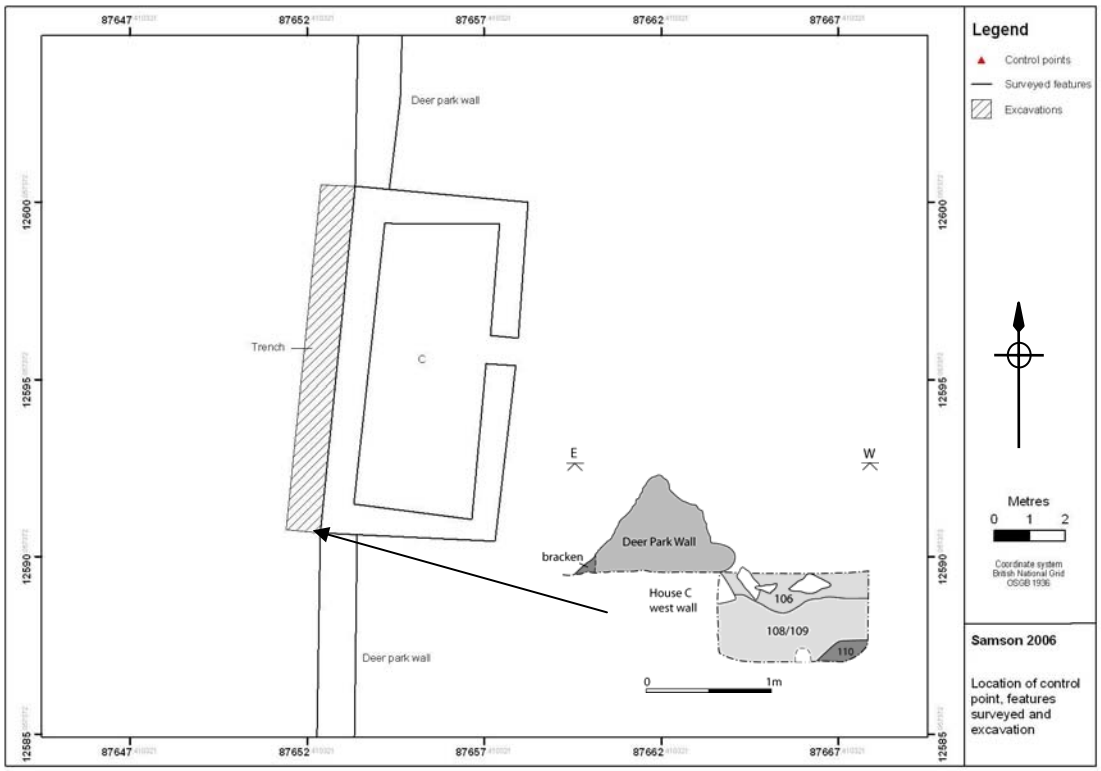

Fig 32 EDM survey of House C, showing the location of the trench along the exterior of the west wall (HISAR), inset: north-facing section of the trench and profile of the deer park wall

Fig 33 Plan of trench alongside the exterior of the west wall of House C

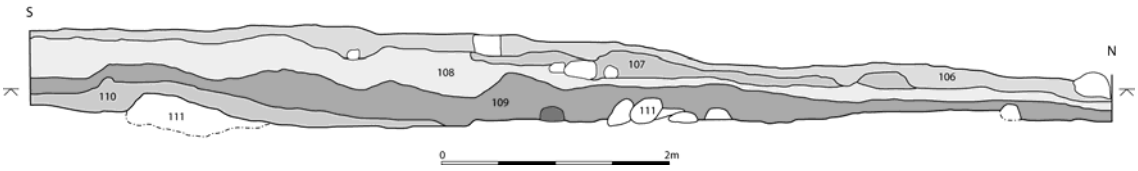

Fig 34 East facing section of trench alongside the exterior of the west wall of House C

5.2 House F

5.2.1 Introduction

This house appears to be shown on the 1829-33 Driver map. It was interpreted as a domestic outbuilding in Eric Berry's 1994 report but better vegetation clearance and better visual access to the building fabric now displays strong evidence that this was probably originally a house but was later subdivided to create probable animal houses. The present partition wall that runs north-south has been added later. A short length of wall at right angles to the north wall is probably the jamb of a fireplace, the other jamb probably removed when the partition wall was inserted as conversion to probable animal houses. The probable dating of the insertion of dry-stone walls is now considered to be a post-human occupation period.

The north wall of the house survives to a good height. This wall is the party wall with House E and the floor level of this house steps up considerably compared to House E. The position of a small window opening in this party wall indicates that it must have been above the roof level of House E and that Houses D and E are single-storey structures. Some general plan irregularities are the result of having been built out of true in the first place. The west wall in particular is out of square with the other walls. The south end of the west wall is butted against the north wall of House G proving that House G is earlier in date. The wall of House G is truncated at its east end and the south end of the original west wall is missing, presumably removed when the building was remodelled as a probable animal house. Please note that this interpretation varies from the former interpretation. This is partly due to better access to the building during the survey enabling a more confident assessment of the evidence.

5.2.2 Removal of rubble

At the north end of the interior of House F it was necessary to remove a number of loose stones in a matrix of dark greyish rooty brown sandy clay (201) and some underlying tumbled stones in a similar matrix (202) in order to clarify the interior structure of the gable wall and enable recording prior to conservation work (Fig 35).

The ground levels here are difficult to understand, ground falls away steeply to the north and the exterior of the wall is some 2m high (Fig 43) whereas the interior is infilled to within 0.5m of the wall top (Fig 36). On the west side the top of a possible fireplace protrudes from the wall but the interior has been subdivided by a longitudinal secondary wall, presumably dating to the post-abandonment phase.

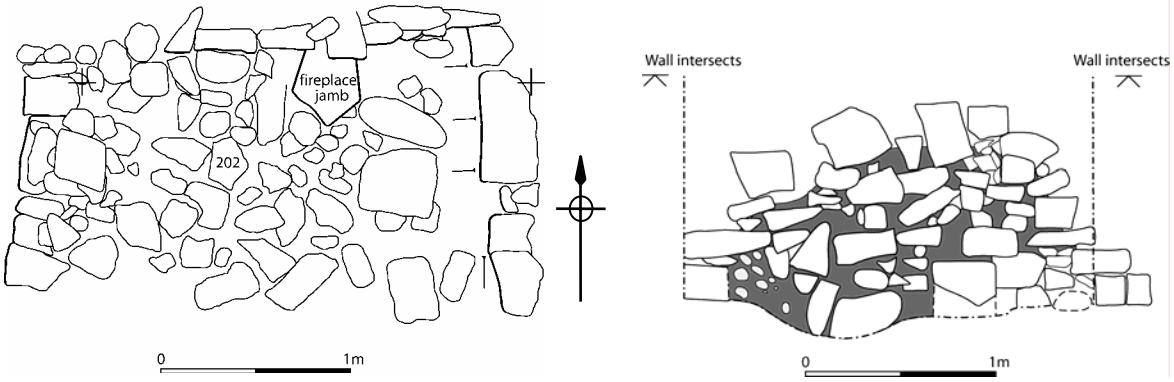

Fig 35 a) House F, plan of rubble at the north end b) House F, elevation of interior of north wall

5.3 House H

5.3.1 Introduction

A building seems to be indicated at this location on the Driver map, but this does not correspond very well with the building that survives today. It may be that the house had already gone out of use or had changed its use by the time of the 1829-33 survey.

House H is potentially the most interesting and possibly the earliest building of the survey group. Unfortunately there is no visible window or doorway opening that might help to determine the plan layout with respect to the way the building was originally lit or entered. Also, it is not possible to determine the plan length of the building. This has been complicated by the removal of the original east wall at some time and incorporating the house plan into a long enclosed courtyard, possibly for animal use or as a walled garden for House I, 'Armorel's Cottage'. The dry-stone construction of much of this wall suggests the former use.

The more complete west end of the building is of very shallow plan depth. It is possible that the plan was deeper to the south starting at 3.20m from the south-west corner. At this position there is a possible inner (forward return) corner or perhaps the jamb of a doorway. The surviving architectural features are also at the west end of the building. Eric Berry's 2006 report suggested that there was a probable splayed fireplace opening within the wall thickness corresponding to the chimney breast, which would have been a good clue to the dating of this building as the practice of splaying with masonry fireplaces generally ends during the early-mid 18th century when it became the fashion to have wooden or stone chimneypieces and firedogs or hob grates within (Berry 2006, 51). However excavation demonstrated that this feature was not a splayed fireplace opening and chimney breast as surmised, but a blocked window opening, with two phases of construction and two phases of blocking. To the left (south) of the blocked window is a small recess or keeping place, which may be an indicator of early date.

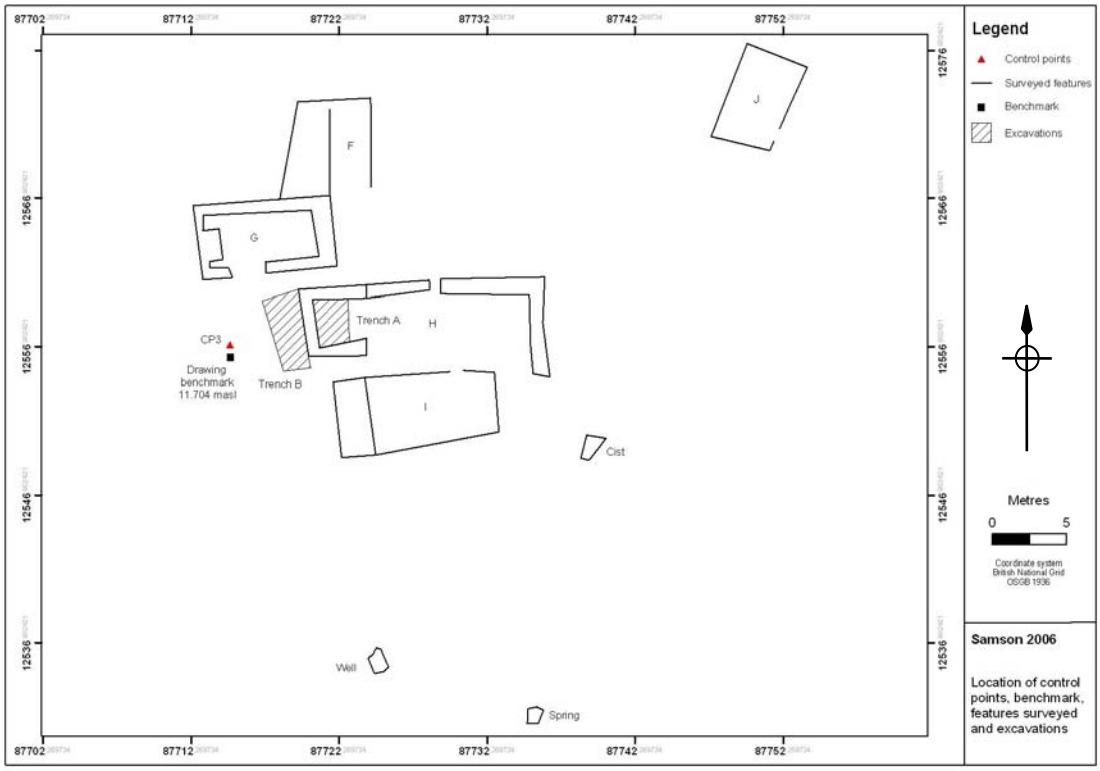

Fig 36 EDM survey showing plan of House H and the location of the trenches (HISAR)

Fig 37 The interior of House H, looking west, and prior to excavation (photo: HES)

Fig 38 The latest floor level in House H, Trench A (photo: HES)

There are three probable joist sockets surviving in the north wall and the corresponding sockets opposite to two of these, but at a slightly different level, in the south wall. These joist sockets suggest that there was once an upper floor but this is at a very low level with respect to present ground-floor level with inadequate standing headroom for any but those of very short stature. Part of the south wall is constructed of very large blocks of stone. This wall is not visible to its outer face where present ground level corresponds to surviving south wall level. It is possible that the house was built against an existing bank or that this is deposition material, or a combination of the two.

5.3.2 Interior excavation (Trench A)

The trench within House H measured 3.18m long by 2.2m wide and was positioned at the west end of the building to help understand the original floor level, plan and building function. The eastern extent was determined by the large tamarisk tree that grows inside the building and this made it impracticable to extend the trench far enough determine the eastward extent of the building and location of its original doorway as recommended in the assessment (Berry 2006, 52).

Some of the branches of the tamarisk tree were cut back to enable excavation and the large branch bearing on the east wall of House G was also cut off in order to prevent further damage to the wall and also to open up the pathway between Houses G and H and so reducing the need for visitors to clamber over buildings at this point.

Initially two layers of loose brown/dark greyish humic material with many roots and small to medium stones were excavated, contexts (1) and (2), respectively 90mm and 50mm deep and containing a large root from the tamarisk tree. Below these was a layer of tumbled stones from the west wall in a matrix of loose grey-speckled white sand (3) containing modern packaging (discarded), 18th or 19th century ceramics and some limpet shells. The tumbled stones included the large angled stone which had led Eric Berry to surmise that this might have been a fireplace.

The remainder of the house infill was excavated in a series of spits 50mm to 100mm deep and comprised loose grey and brown sand with rubble from the walls, contexts (4) – (13). Many finds were recovered (see Appendix 10.2) particularly 18th and 19th century ceramics and iron work including door fittings and tools. Notable finds included a bone-handled clasp knife, a faceted glass bead and a roll of leather, well-preserved in the damp sand, currently interpreted as an oar collar.

At a depth of 1m, due to time constraints, the area of excavation was reduced to a sondage measuring 0.86m long by 0.77mm wide in the north-west corner of the building.

At a depth of 1.25m a deposit of more compacted dark greyish brown silty sand 60mm deep was encountered (14), this was interpreted as sand floor surface. Finds included sherds of 18th – 19th century ceramics, shards of 19th century bottle glass, and a clay pipe stem fragment.

Excavation of (14) revealed a very hard, almost concreted, surface of very dark brown sandy clay (15) including a patch of yellowish brown ram and a single *in situ* flat stone, possibly a paving slab which was the latest floor level of the house. Excavation ceased at this level and the floor was recorded (Fig 38).

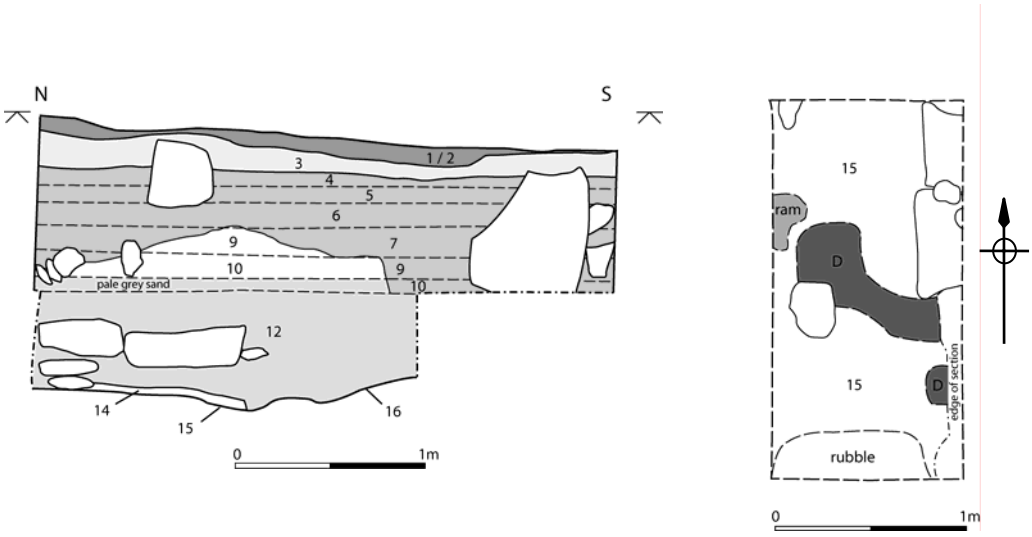

Fig 39 House H, Trench A: a) section through build up layers in the interior b) plan of revealed floor level (HISAR)

5.3.3 Exterior excavation (Trench B)

A trench, 5.5m long by 1.75m wide was also excavated on the exterior of the building to investigate the constructional relationship between the house and an apparent revetted lynchet or terrace, extending for westwards some 5m from the north-west corner of House H (Fig 40). The lynchet was 0.7m high and revetted with large and medium stones two or three courses high, although this revetting was not continuous. The question was whether the lynchet was a prehistoric or medieval midden which was cut into for the construction of House H.

The uppermost layer, below a mat of vegetation, was a deposit of dark greyish brown sandy clayey silt 100mm deep (51), which contained a considerable quantity of finds including 326 sherds of 17th to 19th century pottery, 107 animal bones, 10 fragments of window glass, 83 fragments of roofing slate, 72 iron objects including nails, candle holders 20 pieces of prehistoric worked flint and 8 fish bones and a considerable quantity of limpet shell.

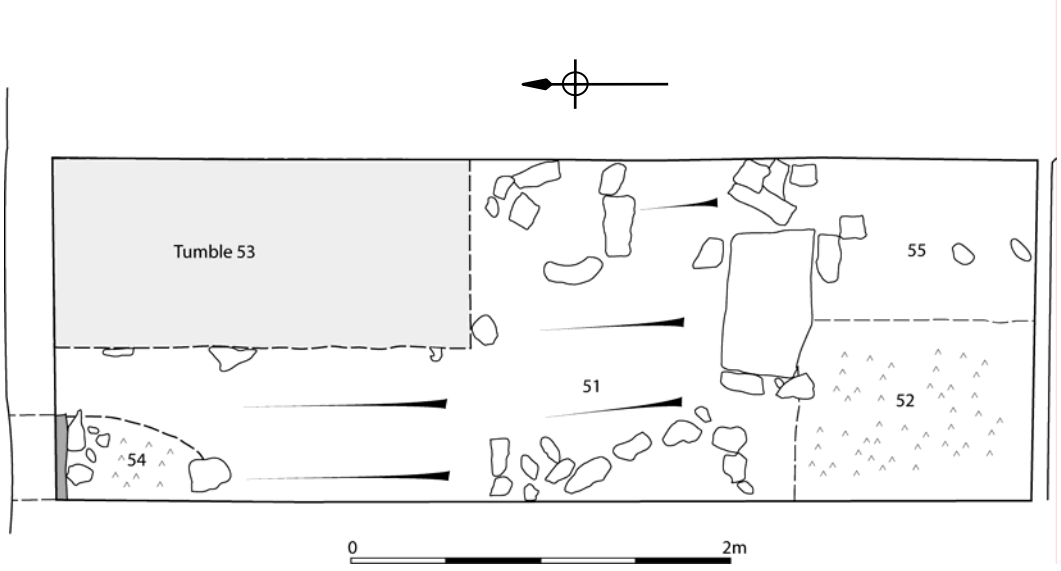

Fig 40 House H, plan of trench B (HISAR)

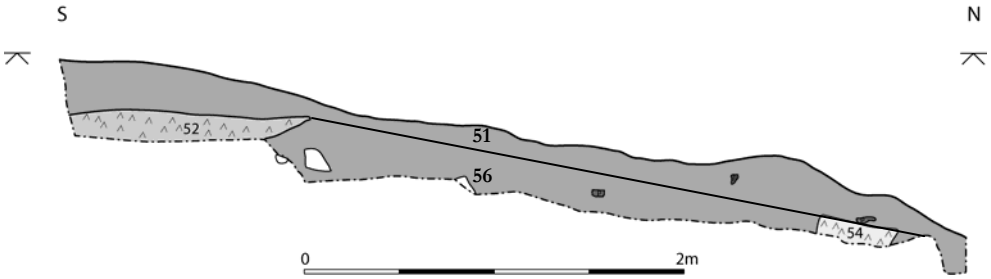

Fig 41 East facing section of trench B (HISAR)

Below (51), in the south-west corner of the trench, was a discrete deposit of dark greyish brown sandy silt packed with limpet shells, 2m long by 1m wide (52). The deposit was 230mm deep and also contained seven sherds of 17th to 19th century pottery and two fragments of roofing slate.

In the north-west corner of the trench there was another midden deposit (54) underlying (51). This contained a large number of limpet shells and fish scales and some whelk shells so a bulk sample (estimated 10% of the context) was taken for sieving and analysis. The deposit also contained one sherd of Iron Age or Romano-British pottery, 28 sherds of 18th to 19th century pottery, a 19th century glass bead, 12 prehistoric worked flints, four iron objects, 14 animal bones and teeth including cow, sheep, pig, bird, rat/rabbit, six fish bones including three wrasse jaws and two roofing slate fragments.

Context (56), the main site layer below (51) with its surface on the same horizon as (52) and (54), was very much the same as (51) (Fig 41).

Removal of (51) clarified the extent of deposit of large tumbled stones from the west wall (53), which were left *in situ* (Fig 41).

The trench was extended by sondage 1.2 m long by 0.7m wide in the south-east corner in order to ascertain whether there was construction cut through the midden deposits for the house walls. The upper layer of soil here was assigned context (55) but is the same as (51) in the main trench and produced a similar mixture of finds and overlying midden (52), which could be seen to butt up against the west and south walls of House H.

5.3.4 Discussion

The soil and midden layers outside the west wall of the building obviously post-date the construction of the house, because there had once been a window in the west wall that is now below the level of the midden accumulation. In addition there was no evidence for a construction cut for the building through the midden deposits. The window may have been blocked at the same time as the original east wall was removed. The soil and midden layers contain a range of finds from the prehistoric period to the 19th century and are the result of a combination of refuse disposal, building decay and hillwash. The worked flints and single sherd of Iron Age/Romano-British pottery are residual in these contexts but indicate a high level of prehistoric activity in the general area. The roofing slate fragments in the accumulated deposits are presumably derived from House I, which can be seen to have the remains of a slate roof in an early 20th century photograph (Fig 9), perhaps added in its third phase of construction when the walls were heightened (cf Berry 2006, 53). Fragments of window glass indicate that the windows were properly glazed. In the

excavated area the *ram* mortar between the stones had a fresh appearance because it had been kept moist by the sand infill and was not dissimilar in appearance with the finished conservation work on other buildings.

The midden deposits seem most likely to have been deposited by the inhabitants of House I or House G. The stone revetment was evidently constructed to contain the midden and prevent it spilling downhill across the path between House G and House H, and into the doorway of House G. House I stands upslope of House H and excavation indicated that the difference in level appears to be the result of midden deposition in the 19th and possibly 18th centuries.

The middens mainly consisted of limpet shells and it is interesting to note that although occasional limpet shells were recovered from the infill of the house interior there were no midden deposits within the house. It has been suggested that limpets were used as fishing bait rather than food (Ashbee 1974; Turk 1984), perhaps because it requires 400 limpets to give the requisite number of kilocalories needed by one person per day (Bailey 1978). However it seems unlikely that limpets for bait would have been transported this far from the shore - there is even an extensive midden deposit on the summit of South Hill opposite the path from House P - and probable that the inhabitants harvested them as a small but constant and reliable source of fresh protein to supplement their diets and that in times of hardship they were more heavily exploited. The large numbers of limpets present in middens on Samson and at other sites in Scilly from the prehistoric to the post-medieval period indicate that it is likely that limpets at least occasionally formed part of the diet. The value of a foodstuff such as limpets lies in the reliability of the resource and ease of exploitation when more desirable sources of protein might be in short supply (Light forthcoming).

The House H middens also contain some whelk shells; a variety of fish bones notably wrasse jaws and animal bones including cow, sheep, pig, bird and rat or rabbit. The shell, hand-picked from the midden deposits, has been taken to Cardiff University for analysis. From this we might, for instance, be able to learn more about the shellfish harvesting strategy of the Samson inhabitants, for studies have shown that limpet shell shape varies in relation to its height on the shore and the degree of wave exposure to which it is subjected (eg Fretter and Graham 1976). Generally, the lower on the shore the limpet lives the 'flatter' the shell and the higher the shore level the more conical the shell. This character of shell morphology is related to the force with which the limpet attaches itself to a rock and the amount of time it has to spend above the water. This has been used to show that the ratio of shell length to shell height is a good indicator of the shore zone from which the limpet was collected. It has been observed that the upper shore, limpets are, in the present day, considered to be less desirable on account of taste and texture than the lower shore ones (Light forthcoming).

6 Results of the building consolidation works

By Eric Berry

6.1 Summary

The abandoned historic settlement on South Hill, Samson has been the subject of a major programme of repairs and consolidation. The works were carried out during July and August by the Scilly-based Western Maintenance, a building team with considerable experience in working on historic buildings, including repairs to the Garrison Walls on the Hugh. The work was specified and supervised by a historic buildings consultant working with the Historic Environment Service (HES), sometimes with direct involvement with the repairs.

The works were initially conceived as a pilot Scheduled Monument Management Project through HES and English Heritage (EH). This project grew to become a major scheme via further funding by the Isles of Scilly AONB Sustainable Development Fund through an application from the Isles of Scilly Wildlife Trust (IOSWT) in coordination with HES and EH. An essential component of the works to the buildings was archaeological recording and analysis. This was carried out in advance of the building works during July 2006 through a carefully targeted programme by the University of Cardiff and in conjunction with HES through an educational and work experience programme involving 14 students. Access to the buildings was facilitated by extensive vegetation clearance relating to the buildings by the IOSWT. Prior to the commencement of works HES and IOSWT organised a consultation day, both to explain the project and to involve the local community. As a result of good publicity, and clearly a strong interest in the project, this was well attended and generated useful and positive dialogue.

6.2 Methodology

Prior to any building works the buildings were inspected by the IOSWT, EH, HES and by the historic building consultant working through HES. The purpose of this exercise was both to identify the scale of works that might be achieved within the approved funding and Scheduled Monument Consent, and also to identify the most urgent works to enable survival of the buildings and to maintain safe access to them by visitors to the island. Subsequently, the proposed works were discussed with Western Maintenance, both to identify the building materials that would need to be taken to Samson, and to ensure the availability of these materials at the time of the project.

Essential facilities such as a shelter tent and chemical lavatory were organised by HES and the University of Cardiff. Building materials were brought to the island usually on a daily basis. These materials included pre-mixed lime mortar, stainless steel yacht cable, stainless steel threaded rod, drilled stainless steel bar and resin cartridges and gun. Ram (subsoil) for finishing those joints that needed lime mortar was obtained from the beach where lumps of the material had fallen out of the low cliff-edge.

Leaning walls and unsafe masonry were stabilised by a number of methods according to the challenge presented by the historic fabric in question and dependent upon other objectives such as visitor access and safety. A principal objective for any of the repairs was that they should be effective but at the same time as visually unobtrusive as possible so that the essential character of the buildings, including the important plants that have colonised them, was preserved. No unnecessary work was carried out but slightly less urgent work has

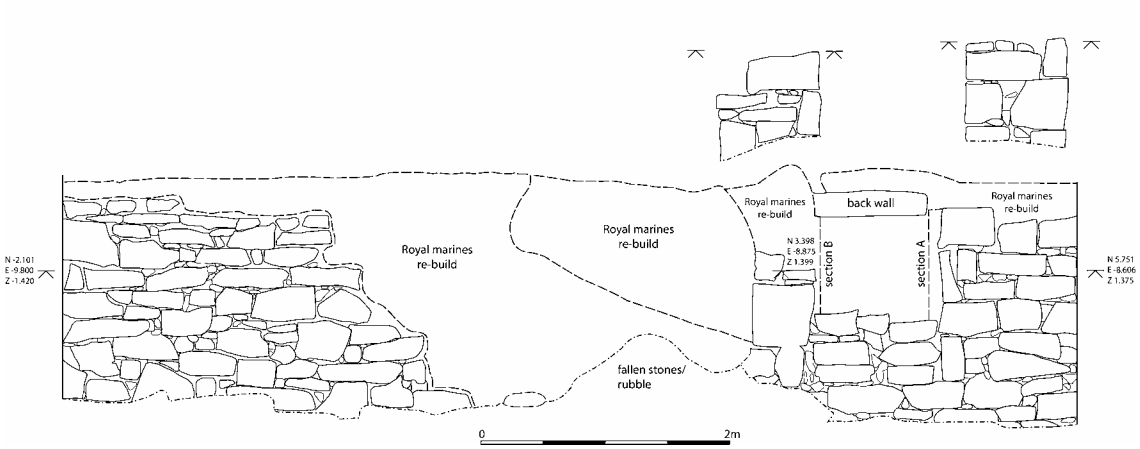

Fig 42 Elevation of interior of west wall House C, prior to consolidation work (HISAR)

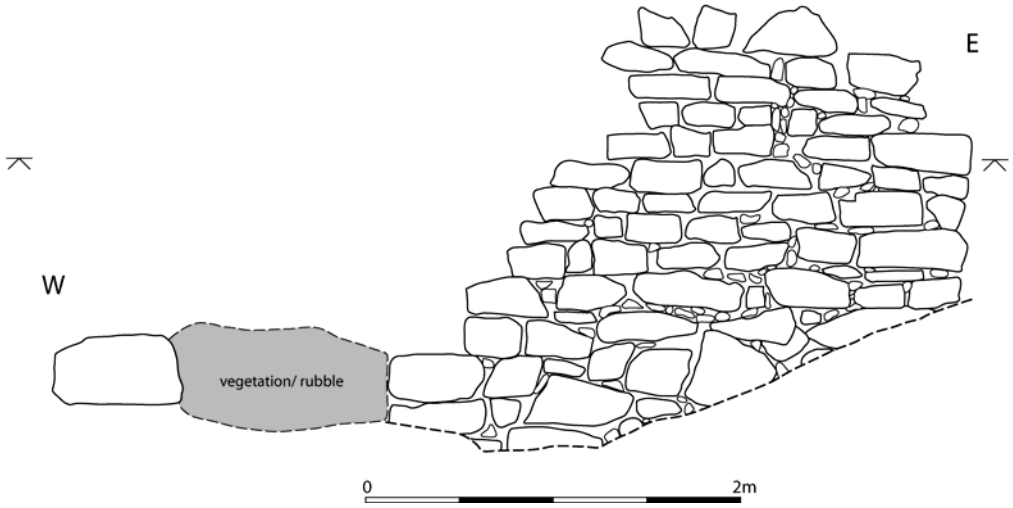

Fig 43 Exterior of north wall of House F prior to consolidation work (HISAR)

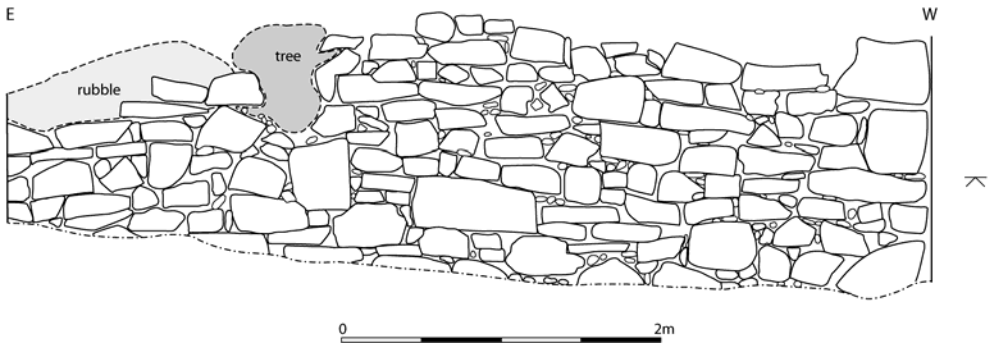

Fig 44 Exterior of north wall, House H (HISAR)

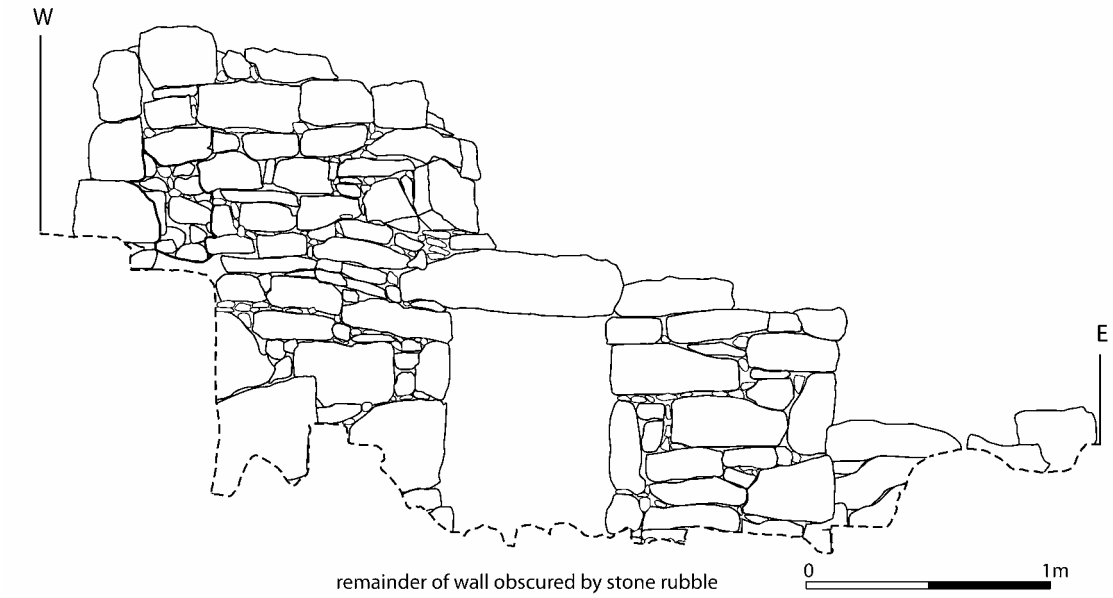

Fig 45 Interior of north wall, House N prior to consolidation (HISAR)

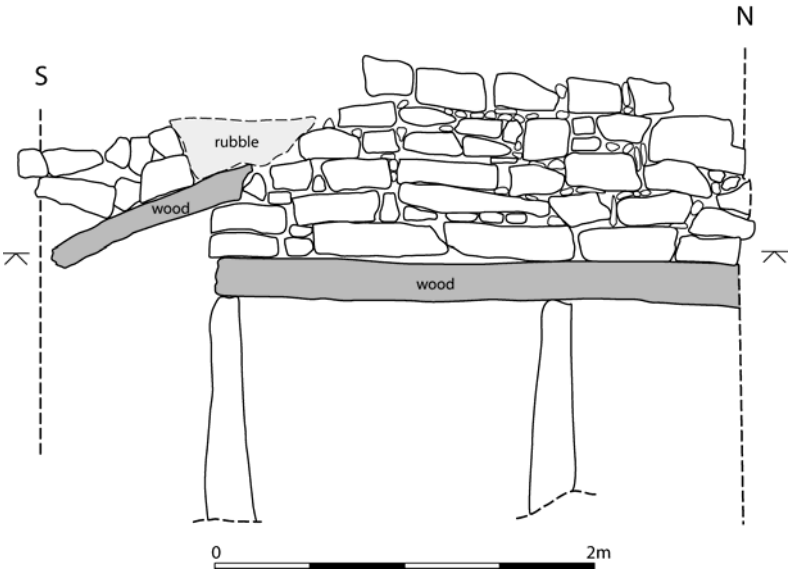

Fig 46 Interior of west wall of House P prior to consolidation (HISAR)

been deliberately left for an anticipated appropriate further round of funding leading to continued essential consolidation, also working with the University of Cardiff, during 2007.

At the simplest level of repair some loose stones were glued together using resin, resulting in an almost invisible repair, as for example with respect to a window opening in the rear wall of Building P that is regularly used by visitors to access the building. Similarly simple was Building H, where the urgent work was identified as reducing the damaging effect of a Tamarisk branch resting on the north wall of Building H and also affecting Building G. This branch was pruned back by the IOSWT.

Leaning walls at Buildings C and F required a combination of stainless-steel reinforcement (with bar passed through the walls to hold building faces together, and cable let into joints between the stones) and combined resin and mortar repairs.

Walls that had lost an outer or inner face as with Buildings L and J respectively required a more imaginative approach. To ensure durability and to survive wind pressures and to be safe for visitor access these walls needed essential but unobtrusive rubble buttresses (built to resemble core masonry).

In Building P, oak lintels (re-used ships' timbers) that support considerable weight of masonry were reinforced by the addition of stainless steel bar to the underside of the lintels together with threaded bar passed through small-bore holes drilled in the lintels to support the underside of the stones above and held in place by locked nuts clasping the bar. The timber was treated with clear preservative to try to arrest the spread of rot but further work must be carried out on the wall tops to minimise water penetration to the lintels. All stainless steel that was left visible was painted with matt black paint to minimise its visual presence.

Early reaction to the visual appearance of the repairs by recent visitors has been very positive including comment that it has been difficult to see where repairs have taken place. This is one of the best compliments that this project can receive. However, confirmation of the repair effectiveness of the project can only be properly assessed over time.

Out of a total of 19 identified surviving buildings on Samson (excluding the Deer Park Wall) 9 buildings were involved in the works carried out during 2006, namely Buildings C, F, G, H, I, J, N, O and P. Buildings C, F, N and P were the subject of the most urgent and extensive repairs.

6.3 Recording during repairs

Recording was carried out by the historic building consultant during repairs monitoring visits (including digital images and colour print film photography) and also by the builders themselves resulting in an independent builders' report by Todd Stevens (see below Appendix 10.4).

6.4 Repairs to individual buildings

Building C

Building C had been the subject of some well-meaning but not entirely appropriate repair supervised by Royal Marines in the 1970s. These repairs included the incorrect re-instatement of two of the lintels over door and window openings of the front wall and the replacement of eaves stonework above, and replacement of the lintel and associated stonework (subsequently collapsed) to the kitchen fireplace. Repairs to the rear wall included some rebuilt inner wall face using sand as bedding support.

Fig 47 House C: rear wall (left) during repair (note s/s threaded tie rods through wall) (photo: Eric Berry)

Fig 48 House C: rear wall (left) after repair (photo: Eric Berry)

Fig 49 House C: rear wall during repairs (note s/s tie rods and mortar over cabled joints) (photo: Eric Berry)

Fig 50 House C: rear wall with urgent repairs complete (photo: Eric Berry)

Works during 2006 were targeted at the rear wall that had distorted to a considerable extent and was in danger of imminent collapse that would have involved the loss of a complete window opening with its granite lintel.

A principal component of the repair methodology was to insert stainless-steel threaded bar through carefully selected locations of the wall to tie the two wall faces together. This involved careful surveying of the wall joints to relate locations between the two faces, also a considerable degree of trial-and-error due to obstruction caused by core masonry. The successful tie-rod positions are in locations that maximise the reinforcement of the wall whilst using the minimum number of bars. One of the bars restrains the most leaning window jamb, whilst others tie together both original sections of wall and positions where 1970s rebuilt inner face relate to original outer face. Excess bar was sawn off with a hack saw and the ends were then locked in position with resin and subsequently mortared over. This repair method was complemented and further strengthened by letting-in flexible stainless-steel cable to selected horizontal joints in the stonework so as to reinforce the wall faces to maximum effect with the minimum intervention. The cable was locked in place at opportunity locations with resin and subsequently hidden with lime mortar that provides further strength and support. Trowel marks were removed and the joints brushed and beaten back with a churn brush and subsequently covered by a thin surface finish of ram mortar finished in a similar way. The latter not only helps to camouflage the repair but also protects the lime mortar from drying out and curing too quickly. Due to the exceptionally good weather prevailing during much of the repair period the repaired sections of wall were further protected by the use of wet Hessian-sacking fabric.

The appearance of the resultant repair is more visible than most of the repairs elsewhere but no more visible than could be avoided for effective repair. It is anticipated that the repairs will rapidly mellow with the effects of weather and the revival of mosses and lichens and other indigenous surface rooting plants. Appropriate vegetation has been positively encouraged by the application of ram mortar to the repaired mortar joints, the mortar effectively including a cocktail of organic material.

Building F

This building is one that has previously not received the attention it deserves. It had been identified as an 'animal house', not incorrectly because this had been its last use. However, this building is now recognised as a dwelling house with the upper part of a chimney breast visible in its north gable end. The position of this feature just above present floor level suggests that the original floor level of the house lies about 2m below the present floor level. Unfortunately, the pressure of the in-fill material has caused the gable end to lean outwards to an alarming angle. Its condition was such that total collapse was a real possibility and it therefore also represented a real danger to visitors to the buildings. To stabilise this situation was therefore an absolute priority and this involved considerable invention.

Stainless steel cables were let into the horizontal joints of the stonework at two critical levels, designed to have maximum restraint effect with minimum intervention. The cables were let into the external face of the north gable end and returned at a distance of about 2m to the external faces of the east and west walls. The poor condition of the upper part of the east wall presented a particular difficulty and some of the tumble had to be recorded prior to removal in order to get at masonry joints that were at the right level for the stainless-steel reinforcement. When the target section of the east wall was revealed vegetation had disturbed much of the stonework and the earth mortar had been converted to topsoil. Consequently, to enable secure anchorage for the cable it was necessary to remove some of the stonework and re-bed in lime mortar with the stones returned to their

Fig 51 House F during repairs with Todd Stevens (rear left) and James Fletcher (photo: Eric Berry)

Fig 52 House F: north wall showing s/s cables before mortar application (photo: Eric Berry)

precise original locations. It was also necessary to reinstate some of the fallen masonry to gain sufficient length of walling over the cable. As with building C the cables and other reinforcement was concealed with mortar and finished with a sacrificial layer of *ram* mortar.

The end result is that the repaired joints are a visible repair but should mellow with time. However, the repair is sound and should be effective in preventing further movement of the gable end wall, and it has made it safe for visitor access.

Building G

Work to this building was concentrated towards the important rear window opening that was distorted by bramble roots to such an extent that the jamb masonry was close to total collapse. Unfortunately, repairs involved the removal of some stones so that the still living bramble roots could be removed prior to reinstatement of the stones to their original positions bedded in lime mortar.

Building H

Works to this building were not conventional building repairs but nevertheless urgent works that were needed to reduce stress to the north wall of the building caused by the Tamarisk tree branch that was bearing on the wall and subject to considerable movement during high winds. The branch was also affecting Building G. With agreement with the Isles of Scilly Wildlife Trust the branch was pruned to a manageable size.

Building I

Visitor access to Building I is hampered by fallen masonry blocking the former doorways through a porch in the north wall. This situation is made more difficult by a cross wall constructed to house animals during a period after the human evacuation of the island. The easiest access is now through a window opening in the south wall and another window opening in the north wall. Due to fallen rubble the jamb masonry of these openings had become particularly vulnerable to dislodgement by visitors.

The wall top stonework relating to openings has now been strengthened or re-set using a combination of resin and mortar repairs as described for Building C. At this stage no capping vegetation has been put on the wall tops but this is a matter for further works in 2007. The possible reinstatement of the fallen lintel over the south window opening in question is also something for consideration in 2007.

Building J

This outbuilding displayed a number of structural problems. The south wall and west walls had become displaced to such an extent that their surviving features were threatened with total collapse at any time. The west wall was identified as the most urgent of these and, with both a window opening and a keeping place at stake extremely important. The north wall has lost most of the masonry of its visible inner face and was in danger of imminent collapse (as has happened to much of the rear wall of House N a few years ago, a wall that had already lost much of its outer face).

Repair remedies to the north wall were in some respects similar to the repair to the rear wall of House C but involved a further innovative dimension. Small rubble buttresses tied to vertical stainless-steel bars driven into the core mortar have now been constructed to strengthen the wall along its length. This is a much less invasive alternative to the reinstatement of the inner masonry to its former face. The end result is not only discreet but avoids the risk of over-restoration.

Fig 53 House G: rear window repaired following root removal (photo: Eric Berry)

Fig 54 Building H during excavation and following pruning of Tamarisk 'tree' (photo: Eric Berry)

Fig 55 Building J from south: note rubble 'buttresses' to support outer wall face (photo: Eric Berry)

Fig 56 Building J from north: note mortared course with concealed s/s cable reinforcement (photo: Eric Berry)

Repairs to one course of masonry joints to the external face is inevitably visible but can be justified by its effectiveness in stabilising the wall and anchoring the rear wall to the east wall and restraining the joint that had been opening up between the two walls

Repairs to the east wall were more conventional involving mostly resin repair and mortar reinstatement but also involved some carefully targeted stainless-steel reinforcement to prevent further movement to the window opening and to the rare keeping place.

Building N

Building N had been the subject of the most alarming loss of wall fabric since detailed monitoring of the buildings has been in place. A few years after the 1992 survey the upper part of the rear wall (effectively the whole of the masonry of the upper floor) fell outwards as a result of probable wind pressure against a weakened wall that had already lost its outer face of masonry. The unfortunate result of this is that the only wall surface that had survived with two horizontal ledges (a floor ledge and a probable former eaves level) has now been lost forever.

The repairs to the surviving external ground-floor core masonry of the rear wall has been carried out by employing a similar method to that used to the core masonry of the inner face of the north wall of Building J. Cabling has been let into the mortar joints at key levels and both fastened with resin and mortared into place. Tied into this repair are small rubble buttresses constructed around stainless steel rods driven into the core of the wall. These repairs are visible but are in part of the building that is difficult to gain visual access to because of a change in ground level combined with extensive vegetation cover over fallen rubble. As a result of these external repairs the more visible original surviving inner face has not needed to have been altered in any way.

The north wall near the north-west corner and the north-west corner masonry has been the subject of considerable repair using a combination of stainless steel reinforcement and both resin repair and bedding mortar reinstatement. It also required the construction of a small area of support masonry to the jamb stonework of the former 1st-floor window opening. This stonework has been kept back from the jamb face leaving the top ledge that would originally have supported an internal timber lintel. One of the objectives of the repairs to this corner of the building has been to stabilise the vertical wall crack that dominates the outer wall face of the north wall. Survival of important lichen cover and original lime pointing to the outer wall faces has meant that the repairs as much as possible had to be confined to work to the inner faces of the walls in this corner of the building.

A small repair was also carried out to support the left–hand jamb of the otherwise complete window opening in the west wall.

The builders, James and Todd, made a very important discovery near the north porch of House N, a fallen granite lintel inscribed with the date 1826, the only dated feature yet found on Samson.

Building O

This outbuilding has a remarkable piece of construction in its south gable-end wall. Most of the wall comprises one large granite monolith that was once slid from its former geological position on the surface nearby. However, despite the extreme stability of this feature, the small stones used to create the final gable shape above were extremely vulnerable to loss by animal or visitor interference. These stones were stabilised by both resin repairs and re-instatement of bedding mortar finished with a sacrificial layer of *ram* mortar.

Similarly, vulnerable stonework adjacent to the door was stabilised by similar methods.

Fig 57 House N following repairs including 'buttress' support of inner face of rear wall (photo: Eric Berry)

Fig 58 House N showing original inner face of rear wall after repairs to outer face (photo: Eric Berry)

Building P

This 18th century house is one of the most complete buildings to survive on Samson. However, important fireplace and niches spanned by re-used ship's timbers were in danger of imminent collapse and presented a serious danger to visitors. Another urgent problem was the erosion of an inserted window opening in the rear wall that is often used by visitors for access to the building as an alternative to climbing over the Deer Park wall to access the original doorway in the front wall.

Repairs to the oak lintels were some of the most innovative that were used on the island. Rather than intrusive and very visible reinforcement and/or rebuilding of the stonework above the lintels it was decided to provide support to the wall using stainless-steel bars positioned under the lintels carried on the adjacent masonry but with vertical threaded rods attached to the bars and carried through the lintels to the underside of the principal stones of the masonry above. This method is well illustrated in a diagram by Todd Stevens in his report that is appended to this report.

Concern about the stability of the lintels was confirmed when the lintel over the opening left of the kitchen fireplace collapsed when one of the loose stones above the lintel was lifted. Reinstatement of this lintel involved a slightly different method. The lintel was sandwiched between stainless-steel bars (with rods providing permanent spacing) before being restored to its original position. The stonework above the lintel had already been carefully photographed by the students of the University of Cardiff and also by the builders and by the author of this report. Much of this stonework had already been re-set (not very beautifully) but this former repair was copied in the reinstatement.

Generally, the stainless steel bars were positioned so as not to obscure the wooden tree-nails (or trunnels) that proved the nautical origins of the timbers. However, an oak lintel behind the one that collapsed was particularly interesting; being a section of rib stepped for the support of former clinker. Thanks to the access provided by the collapsed lintel and masonry above it was possible to strengthen the former rib by fastening a stainless-steel bar to the face of the lintel that would subsequently be hidden in the joint between the two lintels in question thus leaving the important evidence of clinker construction fully on view from underneath.

The rear window opening was strengthened by lifting the loose stones and re-setting them with resin between, thus providing an invisible repair.

Following discussion about the desirability of reinstatement of a fallen granite lintel over a front window opening this work was carried out by the builders under their own initiative.

Fig 59 House P: recording by students (Julia Geall and Sara Hope) and early stages of lintel repair (photo: Eric Berry)

Fig 60 House P showing reinforcement bars in niche right of kitchen fireplace (photo: Eric Berry)

Fig 61 House P, rear wall opening, following resin repairs to lock loose stones in place (photo: Eric Berry)

Fig 62 House P, rear wall, resin repairs in progress (photo: Eric Berry)

Fig 63 House P, south wall, showing reinstated lintel over window opening (photo: Eric Berry)

Fig 64 Ram being pounded prior to mixing as protective mortar (photo: Eric Berry)

Fig 65 Deer Park wall gateway after some vegetation clearance by Todd Stevens (photo: Eric Berry)

Fig 66 Todd Stevens clearing vegetation at his wife's ancestral home (House E) (photo: Eric Berry)

Fig 67 House F, north end: potential for further archaeology and analysis (photo: Eric Berry)

Fig 68 Building H, west end after backfilling, potential for further excavation to the south and east sides (photo: Eric Berry)

7 Recommendations for further works during 2007

7.1 Recommendations for building conservation work during 2007

Many of the urgent major structural problems were remedied during the 2006 works. However, there is still much to do with respect to vulnerable openings and to most of the wall-tops, also vulnerable both by water penetration to the core masonry below and by damage caused by visitors climbing on the walls. All the recording and building work carried out during 2006 was achieved without the use of scaffolding. However much of the proposed recording and repairs to wall tops will only be possible and safe by the use of scaffolding. This need not be a large scale operation. Safe access to even the highest of the walls should be achievable by the erection of simple scaffolding made from basic scaffold components assembled by the builders doing the repair works. Dependent upon a successful bid for funding, an initiative of similar scale to that of 2006 could be targeted at priority work. The relevant buildings have been listed below with the urgent works set out as bullet points:

Building A

- Stabilisation of wall tops and replacement of capping vegetation
- Reinstatement of fallen jamb masonry related to the doorway

Building C

- Stabilisation of wall tops and replacement of capping vegetation
- Repairs to the kitchen fireplace

Building F

- Stabilisation of wall tops and replacement of capping vegetation

Building G

- Stabilisation of wall tops and replacement of capping vegetation

Building H

- Stabilisation of wall tops and replacement of capping vegetation

Building I

- Stabilisation of wall tops and replacement of capping vegetation
- Reinstatement of lintel over front window

Building J

- Stabilisation of wall tops and replacement of capping vegetation
- Repairs to south wall

Building N

- Stabilisation of definable wall tops and replacement of capping vegetation

Building O

- Stabilisation of wall tops and replacement of capping vegetation
- Repair to north window opening

Buildings P, Q and R

- Stabilisation of wall tops and replacement of capping vegetation

7.2 Recommendations for archaeological recording and investigation during 2007

As in 2006, the conservation work on the buildings would be preceded by archaeological recording which would include a photographic and drawn record of the parts of the buildings which will be conserved.

In addition there are strong research reasons for further targeted excavation within Houses F and H. House H proved to be a unique structure with walls consisting of huge dressed blocks of granite, unlike the other houses surveyed. It is important to establish the stratigraphic relationship between the early 18th century house and the wall of the later garden/livestock enclosure, to determine whether structural features of medieval or earlier post-medieval buildings have been incorporated and to obtain dating evidence to support the overall phasing of the building. Excavation in House F will investigate fireplace construction, the level and features of the original floor underneath and obtain dating evidence for occupation and abandonment.

The required archaeological tasks are set out as bullet points below:

Building A

- Photographic and drawn record of wall tops to be repaired
- Photographic and drawn record of jamb masonry related to the doorway

Building C

- Photographic and drawn record of wall tops to be repaired
- Photographic and drawn record of the kitchen fireplace

Building F

- Photographic and drawn record of wall tops to be repaired

- Excavation of the floor in the north-west corner of the building to investigate fireplace construction, date evidence, and if possible the level and features of the original floor underneath

Building G

- Photographic and drawn record of wall tops to be repaired
- Photographic and drawn record of the walling at the east end of the building to aid interpretation

Building H

- Photographic and drawn record of wall tops to be repaired
- Excavation trench at the south side of the building to determine its length and position of openings and a returned trench to the north to determine the relationship with the wall to the east and overall to establish and record phase and dating evidence

Building I

- Photographic and drawn record of wall tops to be repaired
- Recording related to reinstatement of lintel over front window

Building J

- Photographic and drawn record of wall tops to be repaired
- Repairs to south wall

Building N

- Photographic and drawn record of wall tops to be repaired

Building O

- Photographic and drawn record of wall tops to be repaired
- Recording related to repair to north window opening
- Excavation through possible lynchet feature next to the building

Buildings P, Q and R

- Photographic and drawn record of wall tops to be repaired.

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8.3 Websites

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9 Project archive

The HES project number is **2005048**

The project's documentary, photographic and drawn archive is temporarily housed at the offices of the Historic Environment Service, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration and copies of documentary/cartographic source material (file no 2005048).
2. Field plans and copies of historic maps stored in an A2-size plastic envelope (GRE 605).
3. Electronic drawings stored in the directory ..\CAD ARCHIVE\Samson Buildings Project 2005048
4. Black and white photographs archived under the following index numbers: GBP 1888.
5. Digital photographs stored in the directory ..\Images\Sites\Scilly\Samson Buildings Project 2005048
6. This report held in digital form as: G:\CAU\HE PROJECTS\SITES\SCILLY\SITES.Q-T\SAMSON BUILDINGS PROJECT 2005048\THE SAMSON BUILDINGS PROJECT 2006 FINAL REPORT.DOC

The Documentary archive, artefacts and environmental material retrieved during the project will be deposited at the Isles of Scilly Museum, Church Street, St Mary's, Isles of Scilly TR21 0JT. The site code is SB 06.

10 Appendices

10.1 Context index

Context no	Area	Type	Description	Interpretation	Plan / Section no
1	House H Interior	Deposit	Accumulation of humic material 90mm deep		S 34
2	"	"	Layer of medium brown silt & humic material 50mm deep, below (1)		S 34
3	"	"	Grey silt and white sand, some humic material & root from tamarisk tree, 100mm deep, below 2)	Windblown sand with hunic material	P 6 S 34
4	"	"	Loose greyish brown silt and white sand, frequent medium to large stones, 50mm deep, below (3)	Windblown sand with tumbled stones from walls	S 34
5	"	"	Loose dark grey silt with white sand frequent medium to large stones, 50mm deep (below 4)	"	S 34
6	"	"	Loose medium brown silt with white sand frequent medium to large stones, 120 mm deep, (below 5)	"	S 34
7	"	"	Loos, mottled medium grey and brown sand with silt frequent medium to large stones, 180 mm deep (below 6)	"	S 34
8	"		Amorphous deposit of loose pale yellow and dark yellowish brown soft sand frequent medium to large stones, 60mm deep, below (7)	"	-
9	"	"	Light grey, pale yellow and brown loose silty sand frequent medium to large stones, 60mm deep, below (8)	"	S 34
10	"	"	Fairly compact pale grey silty sand with yellow and brownish hues and small – medium stones, 60	Windblown sand	-

Context no	Area	Type	Description	Interpretation	Plan / Section no
			mm deep, below (9)		
11	"	"	Area of sticky light brown sandy silt in SW corner with large potsherds, below (10)		-
12	"	"	Fairly compact grey silty sand with small – large stones, 50mm deep, below (10)	Windblown sand with tumbled stones from walls	S 34
13	"	"	Fairly compact dark greyish brown silty sand in SW corner surrounded by stones, 60mm deep below (11)	Windblown sand	–
14	"	"	Compact dark greyish brown silty sand, 50mm deep, below (12) and (13)	This layer possibly represents a sanded floor over the compacted surface below	S 34
15	"	"	Hard very dark brown compacted sandy clay. Below (14)	A very hard and compacted surface which is the floor level of House H. Includes a small area of exposed yellowish brown ram and one possible paving slab.	P 33 S34
16	"	"	Same as (15)		
51	House H Exterior	Deposit	Friable dark greyish brown silt with sand and clay 300mm deep	Surface layer, hillwash	P 12 S26, 30
52	"	"	Loose dark greyish brown silt with sand, many limpet shells, 300mm deep, below (51)	Midden deposit	P 12, 27 S 26, 30
53	"	"	Large stones in as matrix of loose dark greyish brown silt, 600mm deep, below (51)	Tumbled stones from the W gable wall of House H	P 12, 27 S 30
54	"	"	Limpet shells and fish scales in a matrix of Crumbly dark greyish brown silt and sand, below (51), not bottomed	Midden deposit	P 27
55	"	"	Crumbly mid-dark greyish brown sandy silt, some limpet shells and small stones	Hillwash	P 27 S 26

Context no	Area	Type	Description	Interpretation	Plan / Section no
56	"	"	Loose dark greyish brown silt with sand, many limpet shells, below (51), >300m deep	Hillwash	P 27 S26, 30
101	House C Rear wall trench	Structure	Low linear wall formed by large granite boulders	Boundary, pre-dating construction of House C	P 4
102	"	"	Same as [101]	"	P 4
103	"	Deposit	Dark brown silty sand, 60mm deep	Windblown sand to the W of [101]	P 4
104	"	"	Medium brown loose silty sand, 800mm deep	Windblown sand to the E of [101]	
105	"	"	Medium dark brown silty sand with pockets of loose yellow/white sand, 800mm deep	Windblown sand to the W of [101]	
106	"	Deposit	Light brown sand with frequent grass roots, 360mm deep	Topsoil	S 23
107	"	"	Light grey sand with pockets of lighter grey sand, 200mm deep, below (106)	Windblown sand	S 23
108	"	"	Dark brown sandy silt with bracken roots and humic material, 200mm deep. Below (107)	Windblown sand with decomposed organic material (roots)	S 23
109	"	"	Light grey sand with occasional stones, 400mm deep, below (108)	Windblown sand	S 23
110	"	"	Compact greyish silty sand, 350mm deep , below (109)	Windblown sand with tumbled stones from House C wall	S 23
111	"	"	Compact greyish own silty sand with organic material (below 110)		S23
201	House F interior	Deposit	Loose dark greyish brown sandy clay with frequent roots & small stones, 100mm deep	Topsoil/humic material over tumbled stones (202)	
202	"	"	Medium – large stones in a matrix of dark greyish brown loose sandy clay	Tumble from the N gable wall of House F	

10.2 List of Finds

The site code is SB 06.

10.2.1 Unstratified finds

Unstratified

1 sherd of Post-Medieval Glazed Red Earthenware, 18th century

House C; Surface Clearance

4 sherds Modern White Glazed Stoneware (china), 19th century

2 glass bottle bases, 19th century

3 bottle glass fragments, 19th century

3 iron nails

1 hand-made brick, 17th to 18th centuries

House H; Unstratified

3 sherds modern White Glazed Stoneware (china), 19th century

4 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 sherd post-medieval Saltglazed Stoneware (Bristol Ware), 19th century

1 bottle glass fragment, 19th century

1 iron door hinge

2 animal bones

1 roofing slate fragment

House H; Trench B Unstratified

4 sherds, modern White Glazed Stoneware (china), 19th century

10 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

2 bottle glass fragments, 19th century

1 iron nail

4 flint flakes, prehistoric

2 flint cores, prehistoric

3 animal bones, pig

1 roofing slate fragment

House H; Trench B Vegetation Clearance

1 sherd of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 iron bolt head

1 gun flint, 18th or 19th centuries

10.2.2 House H; Trench A (interior)

Context (3)

44 sherds modern White Glazed Stoneware (china), 19th century

44 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

2 sherds modern Saltglazed Stoneware

2 bottle glass fragments, 19th century

2 iron objects

2 animal bones

4 roofing slate fragments

1 burnt clay fragment

1 flint flake, prehistoric

Limpet shells

Context (4)

46 sherds modern White Glazed Stoneware (china), 19th century

43 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

3 sherds modern Yellow Glazed Stoneware, 19th century

2 sherds post-medieval Yellow-Glazed Red Earthenware (Bristol/Staffordshire Ware), 18th century

1 sherd post-medieval Saltglazed Stoneware (Bristol Ware), 19th century

2 sherds modern Saltglazed Stoneware

3 bottle glass fragments. 19th century

1 iron nail

5 iron objects.

1 flint flake, prehistoric

1 flint pebble, prehistoric

1 animal bone

1 roofing slate fragment

1 burnt clay fragment

4 roofing slate fragments

Limpets

1 leather shoe sole, 19th century

Context (5)

10 sherds modern White Glazed Stoneware (china), 19th century.

10 sherds of post-Medieval Glazed Red Earthenware, 18th to 19th centuries.

1 bottle base, 19th century.

1 iron nail

1 iron object

1 copper alloy button, 19th century

1 flint pebble, Prehistoric

1 roofing slate fragment

Limpet shells

Context (6)

12 sherds modern White Glazed Stoneware (china) 19th century

12 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 sherd post-medieval Yellow-Glazed Red Earthenware (Bristol/Staffordshire Ware), 18th century

1 sherd post-medieval Saltglazed Stoneware (Bristol Ware), 18th century

2 clay pipe stem fragments, Ø=1.5mm 19th century

3 iron nails

1 iron boot heel

Context (9)

30 sherds modern White Glazed Stoneware (china), 19th century

63 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 sherd post-medieval Saltglazed Stoneware (Bristol Ware), 19th century

2 bottle glass fragments, 19th century

1 clay pipe stem fragment, Ø=1.5mm 19th century

1 iron ring door knocker

16 iron objects including long ship nails

1 slate whetstone

4 animal bones

4 roofing slate fragments

1 Bridgewater terracotta roofing tile fragment, 19th century

Limpet shells

Context (10)

29 sherds modern White Glazed Stoneware (china), 19th century

75 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

2 sherds modern Yellow Glazed Stoneware, 19th century

1 sherd post-medieval Saltglazed Stoneware (FrechenWare), 17th to 18th centuries

3 clay pipe stem and bowl fragments, Ø=1.5mm 19th century

4 iron objects

1 clasp knife with decorated bone handle, 19th century

5 animal bones

Context (12)

101 sherds modern White Glazed Stoneware (china), 19th century

62 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 sherd (stone ware bottle) of post-medieval Saltglazed Stoneware (Nottingham Ware), 18th to 19th centuries

5 bottle glass fragments, 19th century.

1 clay pipe stem fragment, Ø=1.5mm 19th century

1 iron hook, with copper alloy pulley wheel attached

11 iron objects including parts of a Cornish shovel?

5 animal bones including rodent

8 roofing slate fragments

Limpet shells

Context (13)

1 sherd modern White Glazed Stoneware (china), 19th century

3 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 clay pipe stem fragment, Ø=1.5mm 19th century

1 roofing slate fragment

Context (14)

9 sherds modern White Glazed Stoneware (china), 19th century

3 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

5 bottle glass fragments, 19th century

1 clay pipe stem fragment, Ø=1.5mm 19th century

2 animal bones

1 roofing slate fragment

10.2.3 House H: Trench B (exterior)

Context (51)

68 sherds modern White Glazed Stoneware (china), 19th century

240 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

5 sherds modern Yellow Glazed Stoneware, 19th century

7 sherds post-medieval Yellow-Glazed Red Earthenware (Bristol/Staffordshire Ware), 18th century

4 sherds post-medieval Saltglazed Stoneware (Bristol Ware), 19th century

1 sherd post-medieval Saltglazed Stoneware (Frechen Ware), 17th to 18th centuries

2 sherds post-medieval Saltglazed Stoneware (Westerwald Ware), 17th to 18th centuries

3 sherds modern Saltglazed Stoneware, 19th century

4 sherds of modern Porcelain, 19th century

27 bottle glass fragments, 19th century

2 fragments of a glass candlestick, 19th century

10 fragments of window glass, 19th century

2 clay pipe stem fragments, Ø=1.5mm 19th century

11 iron nails

2 L-shaped iron candle holders

1 iron door latch lifter

1 knife blade

57 iron objects

14 flint flakes, prehistoric

5 flint cores, prehistoric

1 flint burin, Neolithic?

1 flint 'strike a light'

1 granite muller stone, prehistoric

107 animal bones and teeth including cow, sheep, pig, bird, rat/rabbit

8 fish bones including 3 Wrasse jaws

83 roofing slate fragments

Limpet shells

5 whelk shells

Context (52)

1 sherds modern White Glazed Stoneware (china), 19th century

5 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 sherd post-medieval Yellow-Glazed Red Earthenware (Bristol/Staffordshire Ware), 18th century

2 roofing slate fragments

Limpet shells

1 whelk shell

Context (54)

1 undiagnostic body sherd of prehistoric pottery, granitic fabric. IA/Romano-British

5 sherds modern White Glazed Stoneware (china), 19th century

20 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 sherd modern Yellow Glazed Stoneware, 19th century

1 sherd of modern Porcelain, 19th century

5 bottle glass fragments, 19th century

1 fragment of window glass, 19th century

1 iron nail

3 iron objects

8 flint flakes, prehistoric

3 flint cores, prehistoric

1 retouched flint blade, Neolithic?

1 faceted rock crystal bead, 19th century

14 animal bones and teeth including cow, sheep, pig, bird, rat/rabbit

6 fish bones including 3 Wrasse jaws

2 roofing slate fragments

Limpet shells

22 whelk shells

Context (55)

3 sherds of post-medieval Glazed Red Earthenware, 18th to 19th centuries

1 fragment of window glass, 19th century

1 flint flake, prehistoric

1 retouched flint knife blade, Neolithic?

11 animal bones and teeth including cow, sheep, pig, bird, rat/rabbit.

Limpet shells

5 whelk shells

10.2.4 South Hill; possible entrance grave, cist or cairn

2 ceramic ridge tile fragments, 18th to 19th centuries

10.2.5 Samson: House F

Context (201)

9 undiagnostic very abraded small body sherds of prehistoric pottery, granitic fabric. prehistoric

12 small flint flake, debitage, prehistoric

Context (202)

9 water rounded flint flakes, prehistoric

10.3 Ceramic descriptions

10.3.1 Post-medieval ceramics (mid-16th to 18th centuries)

10.3.1.1 Post-medieval Glazed Red Earthenware (GRE)

This is by far the largest group in the whole assemblage, and it dominates the post-medieval pottery. Glazed Red Earthenwares (GRE) are found in such quantities and with so much variety that it is certain that there was more than one source, most likely in Devon, Somerset, and perhaps Bristol (Jennings 1981; Allan 1984). The vast bulk in this collection comes from North Devon (Barnstaple Ware).

It seems that GRE was produced from sometime in the first half of the 16th century and continuing throughout the 17th and 18th centuries with little evident change in fabrics (Allan 1984).

Wheel-thrown, often thick-walled pottery. Fine matrix with almost no sand; usually fired orange with a grey core. Sometimes gravel tempered with abundant angular quartz and quartzite filler, often with large black or white mica flakes.

The lead glaze is clear, taking most colour from the fabric; however, green (copper) or red (iron) glazes also occur. Flatwares, such as plates dishes and bowls, are always completely glazed on the interior; exteriors can vary from completely glazed to wholly unglazed, and is usually patchy. Closed wares, such as jugs, jars and cisterns, vary from careful, overall glazing to exterior glazing with random patches on the interior. Chafing dishes, mugs, drinking cups, standing costrels and cisterns are also found. Decoration on any vessel is rare (Jennings 1981; Allan 1984).

Many of the forms have a long survival with little or no change, and much of this pottery is only dateable in association with other artefacts, e.g. clay pipes.

10.3.1.2 Post-medieval Yellow-Glazed Red Earthenware (Bristol/Staffordshire Ware)

Fine buff to cream fabric, with no obvious inclusions, produced in Staffordshire around Burslam and Hanley (Stoke-on-Trent), starting in the mid-17th century and reaching a height in the mid-18th century. Pottery of similar almost indistinguishable fabric was manufactured in Bristol, but appears to be entirely of closed forms, and was most probably made by potters originating from Staffordshire working in the city (Allan 1984). The vast bulk of traded wares were flatwares, especially press moulded plates coming from Staffordshire (Jennings 1981; Allan 1984; Barker 1993).

Forms include plates, often press-moulded to give a 'pie-crust' rim, and small numbers of possets, mugs, cups, and chamberpots. Decoration is usually white trail slip over a dark brown slip background, often marbled or combed and feathered into intricate patterns. Yellow-glazed, though on flatwares restricted to the interior surfaces only (Allan 1984; Barker 1993; and Jennings 1981)

10.3.1.3 Post-medieval Saltglazed Stoneware (Bristol Ware)

Stoneware production only began in the late 17th century at Bristol, and was just a small component of the Bristol/Staffordshire Potteries, due to competition from more popular foreign imports. Fabric is fine light grey, with no inclusions, and a mid-brown saltglaze on the exterior. Forms are mostly jugs and tankards (Allan 1984). The sherds seen on Samson, Scilly match a tankard to be seen in the Ashmolean Museum dated to 1849 (http://potweb.ashmol.ox.ac.uk/PotChron7-56.html).

10.3.1.4 Post-medieval Salt-glazed Stoneware (Westerwald Ware)

Westerwald is an area to the east of the Rhine, Germany. A very distinctive, hard-fired stoneware, light grey in colour and decorated with cobalt blue. Imported in large quantities from the 17th century onwards, reaching a peak in the 18th century. Forms are mostly jugs and tankards. Three main types of decoration are present, applied stamped pads, combed stems with leaves and flowers, and heraldic medallions, with horizontal bands of cobalt blue colour, with manganese purple being introduced in the late 17th century (Jennings 1981).

10.3.1.5 Post-medieval Saltglazed Stoneware (Frechen Ware)

Frechen is an area west of Cologne, Germany. A reduced grey stoneware, the exterior covered with a saltglaze, usually brown speckled 'Tiger' Ware. The typical form is that of a Bellarmine jug often decorated with 'masks' or heraldic medallions. Height of production and importation into Britain was during the 17th century, being replaced by other stoneware in the late 18th century (Jennings 1981; Allan 1984).

10.3.2 Modern ceramics (19th and 20th centuries)

10.3.2.1 Modern Saltglazed Stoneware

Wheel-turned, hard-fired stoneware, saltglazed light brown, over a light grey to light buff fabric. Forms include tankards, mugs, and inkwells. Production in the 18th and 19th centuries, continuing into the early 20th century, was centred around Staffordshire and Nottingham (Jennings 1981; Allan 1984).

10.3.2.2 Modern White Glazed Stoneware (China)

White-glazed stonewares, saltglazed, were first made in large quantities in the late 18th century and by the 19th century came to dominate the market. Fabric is white and fine, with an overall, even, white saltglaze. Mostly domestic uses with plates, mugs, bowls, and chamber pots predominating. Being utilitarian, forms changed little so are difficult to date precisely unless a maker's mark is present. Decoration is plain or with press-moulded rims on plates during the 18th century. By the 19th century hand painted, or blue and white transfer printed decoration was common. The centre of production was around Staffordshire, especially Stoke on Trent (Jennings 1981; Allan 1984; Copeland 1992).

10.3.2.3 Modern Yellow Glazed Stoneware

Similar to *Modern White Glazed Stoneware,* but a 19th century development. Fabric is white, fine-grained with an even, overall, yellow saltglaze. Again utilitarian domestic wares, mostly plates. Usually undecorated. Production was centred around Staffordshire (Jennings 1981).

10.3.2.4 Modern Porcelain

The first successful porcelain production in Britain was in London in the mid-18th century, quickly followed by factories in Bristol, Worcester, Derby, and Liverpool. Various fine 'glassy' fabrics were made, their decoration inspired by oriental designs. Production increased in the 19th century; Derby and Worcester dominating (Jennings 1981; Allan 1984).

10.4 Consolidation work on Samson 2006

A short report by Todd Stevens

Fig 69 An unusual but extremely pleasurable task. (Building N)

During July, August of 2006 Western Maintenance undertook a contract to consolidate the ruined buildings on Samson Island. The work was carried out by Islanders James Fletcher and Todd Stevens under the instructions of Archaeologist Eric Berry. Any work, reconstruction or otherwise was made to be as original and as unobtrusive as possible, using authentic materials where possible to hide more modern materials employed in stabilizing key areas identified by Mr Berry.

Key areas identified by Mr Berry tended to be positions on the buildings deemed to be in danger of collapse or where human interaction may cause movement or the dislodgment of stone structure.

When these key areas to be stabilized were identified, the following procedures were strictly adhered to.

Where possible stone work was not moved out of its original position.

Any stone work that was found to be already obviously out of position, was replaced in its original position on either a bed of resin then pointed with lime mortar or re-bed on lime mortar only. Where stones were to be consolidated into position in situ, all joints between were scraped free of dirt and vegetation, roots and earth. The joints were then re-pointed with lime mortar and then over pointed with ram mud.

Fig 70 Eric Berry

Fig 71 Pounding the ram lumps

Material to make the ram mud was gathered from the sub soil cliff face areas of the island. No ram was taken from the cliff face itself as there was found to be enough material that had fallen naturally from the ram cliff face sub soil layer. This was found in sizable lumps among the rocks along the rocky shore line. The lumps were then simply pounded with a heavy lump hammer and mixed with water into a bucket to make the mud. The best consistency we found to be like that of melted chocolate as it did not stick as well if either drier or wetter than that. Furthermore, it also adhered better if the lime mortar was damp. A good thick coat of ram was applied so that it could be beaten back with a stiff brush when dry, a process that made it look more naturally weathered.

Fig 72 Covering the new, still damp, lime mortar with wet ram mud

Walls that were found to be in serious danger of collapse were reinforced with stainless steel cable which we forced between the stones and into the joints. The best routes chosen for this were where heavy stones could carry the small looser ones and\or where the longest continuous run of steel cable could be achieved. Occasionally a small amount of leverage with a thin bolster chisel was used to enable the stones to be lifted gently, thus creating a good bearing or purchase on the cable or to allow the cable to be forced well into the joints.

Fig 73 Feeding stainless steel cable into the joints

Resin was then injected into tight joints were the steel cable was pinched by the stones. The resin was then allowed to set hard before pointing over with lime mortar and ram mud.

Fig 74 *Injecting the resin*

In many cases stainless steel rods were forced through gaps found in the walls (vertically and horizontally) to reinforce them. The rods were also then pointed over to hide them from view.

Fig 75 James gingerly taps a rod into position on building C

To prevent cracking the new lime mortar and ram mud pointing must not be allowed to dry too quickly, to counter this damp Hessian sacking was laid over the new work.

Fig 76 Damp Hessian covering on building O.

Once the new ram mud outer coating was dry it was distressed with a stiff brush. It was then washed with sea water. This gave the new pointing a more authentic weathered looking finish. All new pointing was then painted with a Lichen growth enticing medium ie horse manure solution.

Fig 77 A consolidated wall after drying out on building C.

10.4.1 Logistics

Fig 78 Many barrels of lime mortar and gallons of water were needed for the work. These along with all tools etc had to be carried from one end of the island to the other. It proved to be a logistical nightmare considering the steep slope of South Hill or if something important was found to have been left behind. In the end the author used his own boat.

Fig 79 Barrels of lime mortar etc on board Buccaneer ready for the trip to Samson

This enabled us to anchor at West Porth on Samson, land everything by punt, effectively halving the distance materials had to be carried when using the local hire boats.

10.4.2 Steel work

Some of the work involved reinforcing existing wooden lintels with stainless steel flat bar and threaded rod. Once a lintel was replaced into its original position, the steel was placed directly beneath. Holes were drilled through wood and steel until the granite above the lintel was reached. The threaded rods were then bolted into position ensuring that the tops of the rods would carry the stones above the lintel. If the wood was to then rot away the threaded rods should in theory carry the stones. The existing lintels were then coated in preservative. The majority of lintels were still in position when work was carried out. In the case of the one below, this lintel had fallen out of position and needed to be repositioned first. To achieve this all the stones from above it were removed then repositioned with lime mortar once the lintel was back in place. Photographs were taken by James to ensure all the removed stones were placed back in their rightful positions.

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Fig 80 *The repositioned fallen lintel on building P*

Fig 81 Another lintel in the process of being reinforced (Building P)

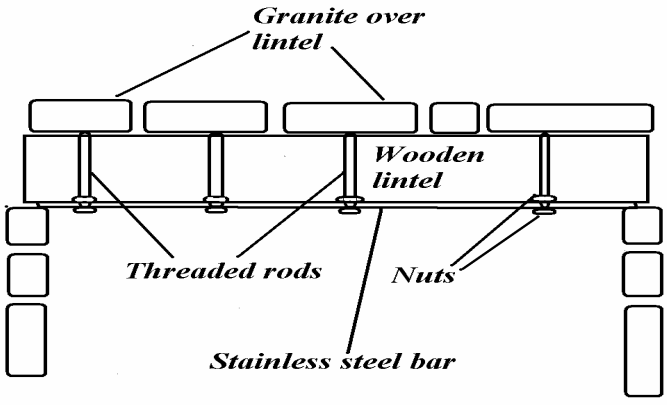

Fig 82 The diagram above shows how the wooden lintels were reinforced by the stainless steel bar

Fig 83 The painted finished article (Building P)

Double skinned walls that were in danger of collapse due to one skin having already fallen away were particularly difficult to consolidate. However, to achieve some stability steel bars were driven vertically down tight up against the standing skin. Where possible, buttresses were then built up from foundation level around the steel bars in an attempt to shore up the remaining skin.

Fig 84 A buttress-supported wall, 3 buttresses can be seen in the picture (Building N)

Where it was obvious that stone work had collapsed and the fallen stones were positively identifiable, they were repositioned. A classic example of this was with the stone lintel in the picture below.

Fig 85 It took four men to lift this heavy lintel back into position. (Building P)

Unfortunately in the case of the above lintel it was found that the abutting wall structures had moved slightly inwards. As a result the lintel could only be positioned as near as was possible into its exact original position without disturbing the surrounding stone work. Fortunately its repositioning should help to arrest any further inward collapse of this particular structure as a whole. The lintel was fixed using the same materials already previously described in this report. Again damp Hessian sacking covers the new mortar from drying too quickly in the hot summer sunshine.

10.4.3 Archaeology

During the consolidation work Cardiff university students carried out excavation and survey work of some of the features and buildings on the island.

Fig 86 The possible remains of an ancient dry stone wall structure was found in this particular trench. Consolidation work was carried out after all the archaeological recordings had been completed (Building C)

Fig 87 Another Cardiff university student dig (Building H)

In Figure 87 the chap in the brown shirt (Rory Barclay) stands with his head next to a first floor joist socket. Ground floor level is approximately 600mm below his present foot level. Many pottery fragments were found in this particular excavation. Outside the building (bottom right) a large mound of limpet shells were uncovered possible proof of some poverty stricken time. Various shards of pottery were found during the excavation work.

James and my self spent our break times exploring the whole island and scrutinising in great detail many curiously positioned stones. In many cases we cleared away the vegetation to reveal what could be hidden and in so doing came across some previously unrecorded features as set out below.

Fig 88 A date stone bearing the date 1826 (Building N at the summit of South Hill)

Until work began thick vegetation had previously hidden the stone from view. Once the growth had been cleared the stone was passed by many including ourselves until work was carried out directly next to it. Only the afternoon sun creates enough shadow to pick out the previously all but invisible numbers that can hardly be seen at any other time of day. The date 1826 may give credence that there was indeed a more prosperous time on the island between the years of 1800 to 1830 with new houses being built.

Similarly it has been suggested that the islanders had buried their dead somewhere on the island. While hunting between the two hills James and I came across the possible site and remains of a graveyard. Its location out side the small village was obvious given its position over sand and thus graves would have easily been dug.

Fig 89 A possible headstone found between the hills in the brambles

Fig 90 Another possible grave stone in the same area; archaeologist Charlie Johns kindly gives the discovery some kind of scale

Fig 91 A possible slipway just South of East Porth (Taken at a low spring tide)

The Samson Islanders would have had at least three anchorages for their Cutter and or slipways for smaller boats. The above picture shows one possible slipway at East Porth. Interestingly- when the tide starts to flood this slipway is one of the first places to fill with water giving access to a possible deep water anchorage around to the right and out of picture. The other obvious anchorages used would be between Samson and Puffin Island, and West Porth. The Cutter would have been anchored according to prevailing wind conditions.

Fig 92 The same slipway half flooded *(centre of picture).*

Below are a few (pre-recorded) features that are normally hidden from view The clearance of thick vegetation reveals the well below.

Fig 93 The well between the hills.

Fig 94 The remains of another cottage. Possible three section fireplace can be seen in the centre of the picture. A large door or window lintel lays on the right of the picture (Building E)

Fig 95 A possible grave at the summit of South Hill but this grave also has a foot stone

Fig 96 The great Arrow Stone also at the summit of South Hill could be natural but was a wonderful source of conjecture

Fig 97 The flag stone path (House C)

Usually hidden by sand, the flag stone path, garden features and vegetable patch (not in shot) dispel any previous thoughts one may have of people living a lonely and bleak existence on Samson Island.